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# APPENDIX B

## PHASE I ENVIRONMENTAL SITE ASSESSMENT

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STAFF PRELIMINARY WORKING DRAFT-FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

# Phase I Environmental Site Assessment Report

Hillview Avenue Property  
97 Hillview Avenue  
Los Altos, California

City of Los Altos

One N. San Antonio Road | Los Altos, California 94022

September 25, 2017 | Project No. 403132001



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS

**Ninyo & Moore**

Geotechnical & Environmental Sciences Consultants

# Phase I Environmental Site Assessment Report

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97 Hillview Avenue  
Los Altos, California

Zachary Dahl  
City of Los Altos  
One N. San Antonio Road | Los Altos, California 94022

September 25, 2017 | Project No. 403132001



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STAFF PRELIMINARY WORKING DRAFT-FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

## EXECUTIVE SUMMARY

Ninyo & Moore was retained by City of Los Altos to perform a Phase I Environmental Site Assessment (ESA) on the Hillview Avenue Property property located at 97 Hillview Avenue in Los Altos, California (site). At the time of the reconnaissance, the site was developed with a theater, a soccer field, and the Hillview Community Center. The site is also identified as a portion of Santa Clara County County Assessor's Parcel Number 17042029.

The objective of this ESA is to identify, to the extent feasible pursuant to the process described in ASTM E1527-13, recognized environmental conditions (RECs), which are defined by ASTM as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The results of this ESA are summarized below:

- Historical research revealed that the site was developed by at least the late 1930s with orchards on the eastern portion of the site. According to historical information, the San Antonio School adjacent to the west side of the site was constructed in 1910, and may have occupied a portion of the western side of the site. By the late 1940s, several rectangular buildings, likely associated with the San Antonio School, were noted in the northwestern corner of the site. By at least 1950, two buildings had been constructed in the southeastern portion of the site. According to historical information, these buildings were part of the Hillview Elementary School that was constructed on the site starting in 1949. By the late 1950s, the Hillview Elementary School had expanded to include several additional classroom wings as well as an administrative building and parking lot. Numerous school buses were noted parked adjacent to the rectangular buildings on the adjacent San Antonio School on a 1956 aerial photograph. In 1956 the San Antonio school was closed as an active school site and became the home of the district's administrative operations. By the 1968 aerial photograph, a building that houses the current Bus Barn Theater had been constructed. This building remains. The former San Antonio School was vacated in the early 1970s, demolished, and its land was subsequently sold and redeveloped with two commercial office buildings

(<http://www.losaltos.k12.ca.us/District/1167-History.html>). The associated buildings located in the northwestern corner of the site were subsequently demolished during this same time period. Prior to 1976, the majority of the site property was owned by the Los Altos Elementary School District (LASD). Hillview Elementary School occupied the building at 97 Hillview Avenue, where the exiting Hillview Community Center is now located. A maintenance yard, used by the school district as a bus repair facility, was reportedly located at the corner of Hillview Avenue and San Antonio Road. It is unclear where the bus repair facility was located relative to the site, but review of historical aerial photographs suggests it may have been located in the northwestern corner of the site. The Hillview Elementary School site was subsequently sold by LASD to the City of Los Altos in 1975 (<http://losaltospolitico.com/2014/04/hillview-community-center-bought-reuse-school/>) and was then redeveloped into the Hillview Community Center.

- Agency records make note of two former municipal wells located in the site vicinity; Well #10, and Well #110. Well #10 was located about 195 feet north of the site, and Well #110 was located adjacent to the southeastern corner of the site. In July 1984, water samples obtained from Well #110 by the California Water Service Company (CWSC) indicated the presence of carbon tetrachloride as high as 9.1 micrograms per liter (ug/l). In August 1984, CWSC sampled Well #10. Carbon tetrachloride was detected at 10.1 ug/l. In the same period of time that carbon tetrachloride was detected in Wells #10 and #110, eight other private and municipal wells in the area were sampled for carbon tetrachloride. None of these wells showed detectable levels of carbon tetrachloride. Well #110 was removed from service in 1989. Well #10 and Well #110 were subsequently decommissioned in October/November 1992 by filling the well casings with concrete, and digging out and capping the well casings. Numerous soil, soil gas, and groundwater investigations were conducted in the late 1980s and early 1990s in an attempt to identify a source of the carbon tetrachloride found in groundwater in these two wells. This study area was labeled as the Hillview-Eleanor Plume Site. According to agency information, Wells #10 and #110 were the only two wells in the Hillview-Eleanor study area found to be contaminated with carbon tetrachloride. There were many potential off-site sources of contamination identified for Wells #10 and #110, including existing and former gas



stations, dry cleaners, auto repair garages, and a former fire station, as well as a former on-site school district maintenance yard. Based on extensive on- and off-site investigations however, there was no evidence to link the groundwater contamination to a specific source. Refer to Section 5.1.1 for additional information regarding the Hillview-Eleanor Plume Site.

- In January 1987, Dames & Moore conducted a Preliminary Assessment and identified potential sources of the local groundwater contamination (Dames & Moore, 1987). According to Dames & Moore, available information concerning past and present land uses in the Hillview-Eleanor vicinity indicated that two main potential local sources of carbon tetrachloride were the former school maintenance yard, and a former firehouse. Dames & Moore noted that the former elementary school district maintenance yard was located about 300 feet north of Hillview Avenue and about 150 feet east of San Antonio Road. The maintenance yard was relocated in about 1977, and the yard converted to a soccer field. Dames & Moore noted that, according to a former school district employee, mechanical repair and degreasing of school district vehicles was performed on the site. Auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six gallon tank equipped with a circulating pump, and was dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. A CERCLA Preliminary Assessment (PA) of the Hillview Maintenance Yard (EPA ID number CAD982400202) was reportedly completed by ICF Technology Incorporated in October 1989 (12). According to DTSC, the PA recommended a medium priority Screening Site Inspection of the site. Ninyo & Moore was not able to obtain a copy of the PA for review during the preparation of this report, and therefore, cannot comment if soil samples were collected in the area of the purported kerosene-solvent dumping as reported by Dames & Moore. The former firehouse was located at 169 State Street (southwest and upgradient of the site) until

about 1968. According to Dames & Moore, carbon tetrachloride was used in fire extinguishers and was stored at the former fire station. No additional information was available regarding the fire station.

- The areas surrounding the site consist the Los Altos Library and the Los Altos History Museum Complex to the north, residential development to the east and south, and commercial development to the west.
- The CWSC provides potable water to the site and site vicinity.
- The City of Los Altos provides municipal sewer service to the site and surrounding areas.
- On September 13, 2017, Lucas Budny of Ninyo & Moore conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the site, and observations of adjoining properties. Zubair Trabzada with the City of Los Altos escorted Mr. Budny around the property during the site reconnaissance. At the time of the site reconnaissance, the site was developed with a theater, a soccer field, and the Hillview Community Center (former Hillview Elementary School).
- Interior construction materials in the community center building included vinyl flooring, carpeting, textured wall coverings, acoustical ceiling tiles, ceramic floor tiles, painted and textured plaster walls, and plaster ceilings. Interior finishes appeared to be in fair condition.
- Based on our site visit, there are currently no wells on the site.
- Ninyo & Moore did not observe quantities of hazardous substances or petroleum products used or stored on site during our site reconnaissance.
- Indications of aboveground storage tanks (ASTs), underground storage tanks (USTs), or hazardous material spills or leaks, were not observed during the site reconnaissance.
- Review of an environmental database report obtained for this project indicated that the site is listed on several of the regulatory databases researched by Environmental Data Resources Inc. (EDR), including the DTSC SEMS-Archive database for a former school maintenance yard, as well as the EnviroStor, Historical Cal-Sites, Cortese, and Response databases for the Hillview-Eleanor Plume Site. Refer to Section 5.1.1 for additional information regarding these listings. A general discussion of these listings was provided in the preceding paragraphs above.

- Several off-site facilities were located within the EDR search radius from the site. None of the listed facilities are considered to be a REC to the site at this time based on several factors, including distance from the site, location relative to the regional groundwater flow direction (e.g. hydraulically downgradient or crossgradient to the site), database listing type, and affected media (soil only). Refer to Section 5.1.2 for additional information regarding potential off site facilities of concern.
- Based on the completion of a Vapor Encroachment Condition (VEC) screening matrix, it is presumed unlikely that a VEC currently exists beneath the site. This is based on the presumed depth to groundwater beneath the site (between about 65 and 165 feet bgs) and the relatively low concentrations of detected contaminants in groundwater in the 1980s/1990s.
- An environmental lien or activity and use limitations (AULs) search was not requested for this ESA.
- An asbestos and lead survey was beyond the scope of this investigation.

## CONCLUSIONS

Ninyo & Moore was retained by City of Los Altos to perform a Phase I Environmental Site Assessment (ESA) on the Hillview Avenue Property property located at 97 Hillview Avenue in Los Altos, California (site). Based on the information compiled during the preparation of this report, this assessment has revealed no evidence of RECs in connection with the site with the exception of the following:

- Based on the reported mechanical repair and degreasing of school district vehicles performed on the site by Dames & Moore, auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six gallon tank equipped with a circulating pump, and was reportedly dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture

contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. The purported use, and disposal of these materials, is considered a REC.

## RECOMMENDATIONS

Based on the findings of this ESA, further investigation is recommended at this time.

- Based on the purported historical use and disposal of cleaning solvents and degreasers, Ninyo & Moore recommends the City consider conducting a shallow soil investigation in the vicinity of the reported solvent and degreasing fluid dumping area (north of the existing Bus Barn theater) if this area is impacted by the proposed community center redevelopment project.
- Based on Ninyo & Moore's review of historical aerial photographs, a possible bus maintenance building associated with the former San Antonio School may have been located in the northwestern corner of the site. Ninyo & Moore recommends the City consider conducting a shallow soil investigation in the vicinity of the former building if this area is impacted by the proposed community center redevelopment project.

## 1. INTRODUCTION

Ninyo & Moore has performed this ESA in conformance with the scope and limitations of ASTM E1527-13 of the Hillview Avenue Property property located at 97 Hillview Avenue in Los Altos, California (site). This ESA was conducted for City of Los Altos. The following sections identify the purpose, the involved parties, the scope of services, and the limitations and exceptions associated with this ESA.

### 1.1. Purpose

In accordance with ASTM E1527-13, the objective of the ESA is to identify recognized environmental conditions. The term recognized environmental conditions (RECs) means "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally do not present a threat to human 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 recognized environmental conditions."

Identification of RECs will fall into three categories: existing REC (as defined above), Historical REC (HREC), or Controlled REC (CREC).

- **HREC** - An HREC is defined as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations (AULs), institutional controls, or engineering controls)."
- **CREC** - A CREC is defined as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, AULs, institutional controls, or engineering controls)."

## 1.2. Involved Parties

Randy Wheeler, a Senior Geologist with Ninyo & Moore, was the Environmental Professional assigned to this project. Kris Larson, Principal Geologist with Ninyo & Moore, performed project oversight and quality review. Resumes of these individuals are included in Appendix A.

## 1.3. Scope of Services

Ninyo & Moore's scope of services for this ESA included the following:

- Performance of a site reconnaissance to visually and/or physically observe the interior and exterior of structures and other features on the site as well as visible exterior features of adjoining properties to identify areas of possibly contaminated surface soil or surface water, improperly stored hazardous materials, possible sources of

polychlorinated biphenyls (PCBs), and possible risks of contamination from activities at the site and adjoining properties. Photograph relevant site features (Appendix B).

- Review of reasonably ascertainable standard environmental record sources including federal, state, and tribal regulatory agency databases for the site and for properties located within a specified radius of the site (Appendix C). The purpose of this review was to evaluate possible environmental impacts to the site and site vicinity activities. These databases list locations of known hazardous waste sites, landfills, leaking underground storage tanks (LUSTs), permitted facilities that utilize LUSTs, and facilities that use, store, or dispose of hazardous materials and/or petroleum products.
- Review of reasonably ascertainable additional environmental record sources including local records and/or additional state or tribal records for the site and for properties located within a specified radius of the site. The purpose of this review was to evaluate possible environmental impacts to the site and site vicinity activities. These databases list locations of known hazardous waste sites, solid waste landfills, registered storage tanks, emergency releases, contaminated public wells, and facilities that use, store, or dispose of hazardous materials and/or petroleum products (Appendix D).
- Review of reasonably ascertainable standard physical setting sources including a current United States Geological Survey (USGS) 7.5-minute topographic map, and possibly including USGS and/or state groundwater and geologic maps, and soil maps. The purpose of this review was to note information about the geologic, hydrologic, and/or topographic characteristics of the site and site vicinity.
- Review of reasonably ascertainable historical documents may include aerial photographs, historical fire insurance rate maps, city directories, and property tax files. The purpose of this review was to review obvious uses of the site from the present, back to the site's first developed use, or back to 1940, whichever is earlier (Appendix E).
- Performance of interviews with present owners, operators, and occupants of the site as well as other knowledgeable parties as appropriate. The purpose of these interviews is to obtain information regarding potential RECs in connection with the site.
- Perform a preliminary vapor encroachment screening assessment on the site and adjoining properties (Appendix F).

- Preparation of this ESA report documenting methodology, reporting findings, significant data gaps, and conclusions, and providing opinions of the impact on the site of conditions noted in the findings section regarding RECs at the site.

#### **1.4. Limitations and Exceptions**

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control. Ninyo & Moore cannot warrant or guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

#### **1.5. Special Terms and Conditions**

Ninyo & Moore was not made aware of any special terms and conditions associated with the site.

## 1.6. User Reliance

This report may be relied upon by, and is intended exclusively for, City of Los Altos. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the client is undertaken at said parties' sole risk.

## 1.7. Physical Limitations

Physical limitations were not encountered during the site reconnaissance.

## 1.8. Data Gaps

A data gap is a "lack of or inability to obtain data required by this practice despite good faith efforts to gather such data." In completing this ESA, Ninyo & Moore encountered the following data gaps.

- According to DTSC, a Preliminary Assessment of the Hillview Maintenance Yard in 1989 recommended a medium priority Screening Site Inspection of the site. Ninyo & Moore requested a copy of this report from DTSC's Berkeley field office. As of the publication date of this ESA, DTSC has not responded to Ninyo & Moore's request. As such, Ninyo & Moore cannot determine if soil samples were collected in the area of the purported kerosene-solvent dumping as reported by Dames & Moore. This lack of information is considered a significant data gap.

## 2. SUBJECT SITE

The following sections provide a general description of the site and adjacent properties. Photographs taken during the site reconnaissance are provided in Appendix B.

### 2.1. Site Description

At the time of the site reconnaissance, the site was developed with the Los Altos Community Center, a soccer field, and a theater. The site is situated on a portion of Santa Clara County Assessor's Parcel Number 17042029. The site location is presented on Figure 1 and the site vicinity with additional information concerning the site and surrounding properties is presented on Figure 2.

### 2.2. Site Reconnaissance

On September 13, 2017, Lucas Budny, Project Hydrogeologist with Ninyo & Moore, conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the



site, and observations of adjoining properties. Mr. Zubair Trabzada with the City of Los Altos escorted Mr. Budny around the property during the site reconnaissance.

### 2.2.1. Site Improvements

At the time of the site reconnaissance, the site consisted of developed land. Site development included the Hillview Community Center (former Hillview Elementary School), vehicle parking lots, a soccer field, the historic Neutra House (community meeting room), and the Bus Barn Theater (operated by the Los Altos Stage Company). The community center building and Neutra House were located on the eastern portion of the site, the parking lots in the central portion of the site, the soccer field occupying the southwestern portion of the site, and the Bus Barn theater along the northern site boundary. Additional parking was located in the northwest corner of the site. The following summarizes key on-site observations for indications of the following potential environmental concerns:

On-Site Observations			
Conditions	Not Observed or Noted	Observed or Noted	Comments
Hazardous Substances/Petroleum Products	X		
Waste Generation/Storage/Disposal	X		
Unidentified Substance Containers	X		
Storage Tanks (ASTs and/or USTs)	X		
Potential PCB-Containing Equipment	X		
Chemical/Petroleum Odors	X		
Concrete Patches/Pads	X		
Pools of Liquid	X		
Sewage Discharge Pipes	X		
Floor Drains/Sumps	X		
Elevator	X		
Wells	X		
Drums	X		
Unidentified Substance Containers	X		
Indications of Staining	X		
Stressed Vegetation	X		
Pits, Ponds, or Lagoons	X		
Waste Water Discharges/Disposal Systems	X		
Storm Water Systems		X	Storm drain inlets were observed in the parking lots on the site.
Septic Systems/Cesspools	X		
Municipal Solid Waste Disposal Areas	X		
Other Environmental Concerns or Conditions	X		

### 2.2.2. Roads

As shown on Figure 2, the site is accessible from Hillview Avenue to the south.

### 2.2.3. Site Occupants

At the time of our site reconnaissance, the site was not occupied by permanent residents. Transient occupants associated with the Community Center and Theater, occupy the site on a periodic basis.

### 2.2.4. Source of Potable Water

The California Water Service provides potable water to the site and site vicinity.

### 2.2.5. Sewage Disposal System

The City of Los Altos provides municipal sewer service to the site and surrounding areas.

### 2.2.6. Source of Fuel for Heating and Cooling

The fuel source for the on-site heating and cooling systems was provided by PG&E.

## 2.3. Adjoining Properties

The following table lists the properties adjoining the site and associated land use. Based on the nature of the adjoining properties, information available in agency databases, and observations made during our site reconnaissance, it is not likely that these properties have impacted the environmental integrity of the site at this time.

Adjoining Properties	
Location	Description
North	Los Altos Library and History Museum Complex
South	Residential development
East	Residential development
West	Commercial office buildings

## 3. USER PROVIDED INFORMATION

The following sections summarize information provided by the user to assist the environmental professional in identifying the possibility of RECs in connection with the site and to fulfill the user's responsibilities in accordance with Section 6 of ASTM E1527-13.

### 3.1. Title Records

A Preliminary Title Report was not provided to Ninyo & Moore.

### **3.2. Environmental Liens or AULs**

Ninyo & Moore was not informed of the existence of environmental liens or AULs associated with the site.

### **3.3. Specialized Knowledge**

Mr. Trabzada provided no specialized knowledge regarding the site.

### **3.4. Commonly Known or Reasonably Ascertainable Information**

Commonly known or reasonably ascertainable information pertaining to the site that is material to RECs in connection with the site was not identified by Mr. Trabzada.

### **3.5. Valuation Reduction for Environmental Issues**

Information pertaining to valuation reduction was not communicated to Ninyo & Moore by Mr. Trabzada for the purpose of this assessment.

### **3.6. Owner, Property Manager, and Occupant Information**

The site is currently owned by the City of Los Altos.

### **3.7. Reason for Performing Phase I**

This ESA has been completed for the exclusive use of City of Los Altos in contemplation of redeveloping the property.

## **4. PHYSICAL SETTING**

The following sections include discussions of topographic, geologic, and hydrologic conditions.

### **4.1. Topographic Conditions**

Based on a review of the USGS 7.5-Minute Topographic Quadrangle Map Series of the Mountain View, 1981 Quadrangle, the site is situated at an elevation of approximately 175 feet above mean sea level. The topography of the site generally slopes towards the northeast.

### **4.2. Geology and Soil Conditions**

The site is located in the Coast Range geomorphic province of California. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are

separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands (CGS, 2002). The 1991 State of California Division of Mines and Geology, Geologic Map of the *San Francisco-San Jose Quadrangle* (Wagner et al, 1991), shows the site to be underlain by Quaternary older alluvium deposits. Based on our review of the EDR Radius Map report, the primary soil type beneath the site is mapped as Botella clay loam (EDR, 2017).

### 4.3. Site Hydrology

The following sections discuss the site hydrology in terms of surface water and groundwater.

#### 4.3.1. Surface Waters

Surface waters, including ponds, streams, creeks, lagoons and other naturally-occurring bodies of water, were not observed on the site at the time of our reconnaissance.

#### 4.3.2. Groundwater

According to agency file information, the regional groundwater flow is toward the northeast (7). Depths to groundwater in the vicinity of the site range between about 65 and 165 feet bgs (4). Groundwater depths and flow directions can vary due to seasonal variations, groundwater withdrawal or injection, tidal influences, and other factors.

## 5. RECORDS REVIEW

The following sections summarize records reviewed for the site.

### 5.1. Environmental Record Sources

Environmental Data Resources, Inc. (EDR) performed a computerized environmental information database search for the site and site vicinity. The EDR report included federal, state, and local databases. The review was conducted to evaluate whether or not the site or properties within the vicinity of the site have been listed as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse

environmental effects for the site. A summary of the environmental databases searched, their corresponding search distance, and the number of listed off-site properties of potential environmental concern to the site are presented in the following table. A copy of the EDR Radius Map Report is presented in Appendix C.

Map Findings Summary								
Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RCRA - Small Quantity Generators		0.25	0	3	NR	NR	NR	3
RCRA - Conditionally Exempt Small Quantity Generators		0.25	0	1	NR	NR	NR	1
EDR Exclusive Historic Gas Stations		0.125	2	NR	NR	NR	NR	2
Superfund Enterprise Management System Archive		0.5	1	0	0	NR	NR	1
RCRA - Non Generators / No Longer Regulated		0.25	0	2	NR	NR	NR	2
EDR Exclusive Historic Dry Cleaners		0.125	2	NR	NR	NR	NR	2
Leaking Underground Fuel Tank Report (GEOTRACKER)		0.5	1	10	8	NR	NR	19
Active UST Facilities		0.25	0	2	NR	NR	NR	2
Hazardous Substance Storage Container Database		0.25	2	7	NR	NR	NR	9
Bond Expenditure Plan		1	1	0	0	0	NR	1
"Cortese" Hazardous Waste & Substances Sites List		0.5	1	0	0	NR	NR	1
SWEEPS UST Listing		0.25	2	3	NR	NR	NR	5
EnviroStor Database		1	1	0	0	1	NR	2
HIST LUST - Fuel Leak Site Activity Report		0.5	1	4	4	NR	NR	9
State Response Sites		1	1	0	0	0	NR	1
Facility Inventory Database		0.25	1	3	NR	NR	NR	4
Hazardous Waste & Substance Site List		0.5	2	4	4	NR	NR	10

### 5.1.1. Regulatory Database Listings for the Site

The following table summarizes the database listings related to the site:

On-Site Database Listings	
Site Name	HILLVIEW - ELEANOR AREA PLUME
Site Address	Vicinity of Hillview Avenue, San Antonio Road, and Eleanor Avenue.
Database	ENVIROSTOR, HIST CAL-SITES, CORTESE, RESPONSE

## Comments

The following information was taken from a 1990 Screening Site Inspection (SSI) Reevaluation report prepared by Ecology and Environments for the Department of Toxic Substances Control (DTSC, 1990). Indicated report references (numbers in parentheses) are listed in Section 11.

The Los Altos Well Field site consists of all groundwater wells in the Los Altos area of Santa Clara County, California (1). California Water Service Company Well #110 is located near the northwestern corner of Hillview and Eleanor Avenues in Los Altos (1,2). In July 1984, water samples obtained from this municipal well by the California Water Service Company (CWSC) indicated the presence of carbon tetrachloride as high as 9.1 micrograms per liter (ug/l). In August 1984, CWSC sampled City of Los Altos irrigation Well #10, located about 400 feet northwest and off-site of Well #110. Carbon tetrachloride was detected at 10.1 ug/l (2,3,4). In the same period of time that carbon tetrachloride was detected in Wells #10 and #110, eight other private and municipal wells in the area were sampled for carbon tetrachloride. None of these wells showed detectable levels of carbon tetrachloride. Eleven other wells in the area were determined to be out of service or abandoned, and thus were not sampled (4). Well #110 was removed from service on July 31, 1984 (4).

After an aeration system was installed to treat the contaminated groundwater, Well #110 returned to service in January 1985. This aeration system removed a sufficient amount of carbon tetrachloride to meet the EPA drinking water quality criterion for a Maximum Contaminant Level (MCL) of 5 ug/l for carbon tetrachloride (2,4). In February 1989, California Title 22 adopted a new state action level of 0.5 ug/l for carbon tetrachloride (5). Well #110 was removed from service (6). Well #110 was constructed in 1952 and was used only during peak demand periods. The well was approximately 700 feet deep, with perforations beginning at 356 feet below ground surface (bgs). The total depth and screened intervals for Well #10 are not known (4). The regional groundwater flow is toward the northeast (7). Depths to groundwater in the vicinity of the site range between 64 and 165 feet bgs (4).

The California Department of Health Services (DHS) was the lead agency for the Los Altos Well Field site. Although DHS was addressing the groundwater contamination under the site name of Hillview-Eleanor, the scope of work was not limited to Well #110 but rather encompassed groundwater contamination in the entire Los Altos area. The Hillview-Eleanor site was listed on the State Bond Expenditure Plan under the category of sites undergoing characterization by DHS because responsible parties could not be identified (13).

In January 1987, Dames & Moore conducted a Preliminary Assessment and identified potential sources of the local groundwater contamination. An initial inventory of potential sources included existing and former off-site gas stations, off-site dry cleaners, off-site auto repair garages, a former school district maintenance yard, and a former off-site fire station (2,10). According to Dames & Moore (4), available information concerning past and present land uses in the Hillview-Eleanor vicinity indicated that two main potential local sources of carbon tetrachloride were the former school maintenance yard, and a former firehouse. Dames & Moore noted that the former elementary school district maintenance yard was located about 300 feet north of Hillview Avenue and about 150 feet east of San Antonio Road. The maintenance yard was relocated in about 1977, and the yard converted to a soccer field. Dames & Moore noted that, according to a former school district employee, mechanical repair and degreasing of school district vehicles was performed on the site. Auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six-gallon tank equipped with a circulating pump, and was dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the

## Comments

cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. A CERCLA Preliminary Assessment (PA) of the Hillview Maintenance Yard (EPA ID number CAD982400202) was reportedly completed by ICF Technology Incorporated in October 1989 (12). According to DTSC, the PA recommended a medium priority Screening Site Inspection of the site. Ninyo & Moore was not able to obtain a copy of the PA for review during the preparation of this report, and therefore, cannot comment if soil samples were collected in the area of the purported kerosene-solvent dumping as reported by Dames & Moore. The former fire station was located at 169 State Street (southwest and upgradient of the site) until about 1968. According to Dames & Moore, carbon tetrachloride was used in fire extinguishers and was stored at the former fire station. No additional information was available regarding the fire station.

Another consultant to DHS, Canonie Environmental, conducted a two-phase soil and soil gas survey of the site vicinity. During the first phase in September 1987, 22 soil and soil gas samples were obtained at potential contaminant sources, primarily in an upgradient (southwesterly) direction. During the second phase in November 1987, 89 soil gas samples were collected in an area encompassing a broader area than the September 1987 investigation. The two-phase survey indicated the presence of carbon tetrachloride, trichloroethene, 1,1,2-trichlorotrifluoroethane, tetrachloroethylene, and hydrocarbons in subsurface soils at a number of the areas investigated. The highest concentrations occurred in the vicinity of a dry cleaners located in the vicinity of Lyell and First Streets (more than 1,900 feet southwest of the site). DHS noted that the detected contamination was present in local subsurface soils and was not caused by vapors migrating vertically from the groundwater (2).

A subsequent DHS investigation involved the drilling and collecting of soil samples from 31 30-foot borings. In addition, four deep boreholes (approximately 700 feet bgs) were drilled to obtain general geologic information (2,11). The shallow borings were drilled near the two contaminated wells (Wells #10 and Well #110), and in areas formerly identified as potential sources (see above). Neither carbon tetrachloride nor any other volatile organic compounds were detected in any of the shallow soil boring samples. DHS thus eliminated the dry cleaners as a potential source. DHS speculated that the contamination may be a localized phenomena and possibly due to old septic tanks at the Los Altos Civic Center, or to the former school district maintenance yard (also known as the Hillview Maintenance Yard) (11). Both the Civic Center and the Hillview Maintenance Yard were located within 0.25-mile of the two contaminated wells (1).

Water-supply Wells #10 and #110 were the only two wells in the Los Altos Well Field found to be contaminated with carbon tetrachloride. DTSC identified numerous potential sources of contamination for Wells #10 and #110, however, there was no evidence to link the reported carbon tetrachloride groundwater contamination to a specific source (DTSC, 1990).

In 1991, Weiss Associates (Weiss, 1991) was hired by the City to review the field investigation reports performed by the State and its contractors. According to Weiss, soil-vapor samples, useful in identifying possible source areas, were collected over an area of about one-mile in diameter surrounding Well #10 and Well #110. To verify the soil-vapor data and further investigate suspected source areas not indicated by soil-vapor data, soil samples were collected from relatively shallow unsaturated soils and, to a limited extent, from deeper soils as well. The soil vapor survey identified one area of carbon tetrachloride soil vapor at a former dry cleaner upgradient of the site.

<b>Comments</b>	<p>However, no carbon tetrachloride was detected in soil samples at any of the sampled locations. According to Weiss, although an on-site source could not be ruled out, the data suggested that an upgradient source, such as a former dry cleaner, was more likely for the following reasons:</p> <ol style="list-style-type: none"> <li>1) No carbon tetrachloride was detected in soil vapor or in unsaturated soils on-site, as would be expected in a source area;</li> <li>2) Carbon tetrachloride concentrations were similar, low, and stable in both wells despite a horizontal separation of 800 feet and differences in the screened depth intervals, suggesting that carbon tetrachloride was widely dispersed both horizontally and vertically, a typical condition at the outer reaches of a plume, but not typical of a source area. Near a source, concentrations are generally high and vary significantly depending on location relative to the source. Concentrations near a source also tends to vary significantly over years as a result of seasonal groundwater fluctuations and source attenuation.</li> </ol> <p>Weiss also noted that in addition to an unknown source area, several other important gaps in the understanding of the site included a lack of information regarding groundwater concentrations off-site, especially upgradient, as well as uncertainty about the groundwater gradient itself. In general, little has been uncovered about how or how much carbon tetrachloride got into the groundwater or its migration patterns within the aquifer (Weiss, 1991).</p> <p>According to Weiss, DHS recognized these limitations, and sought to have the City and the Los Altos Elementary School District (District), a former property owner, collect the information necessary to characterize and define the extent of the carbon tetrachloride in the groundwater. Due to the high cost of such investigations, the City and District were working with their respective insurance companies to determine if these costs should be the responsibility of the insurers. No additional investigations appear to have been conducted.</p> <p>In an October 26, 1992 DTSC letter to City of Los Altos, DTSC authorized the decommissioning of Well #10 and Well #110. These wells were subsequently decommissioned in October/November 1992 by filling the well casings with concrete, and digging out and capping the well casings.</p> <p>In summary, the source of the carbon tetrachloride found in groundwater beneath the site has not been identified, and the DTSC has placed the Hillview-Eleanor Site on the inactive list. No further investigations have been conducted since the two wells were decommissioned in 1992.</p> <p>The existing development on the site is connected to municipal water and sewer services. Based on this information, the historical presence of carbon tetrachloride beneath the site is considered a REC.</p>
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<b>Site Name</b>	HILLVIEW MAINTENANCE YARD
<b>Site Address</b>	97 HILLVIEW AVE.
<b>Database</b>	SEMS-ARCHIVE
<b>Comments</b>	<p>The site name was listed on the Superfund Enterprise Management System (SEMS) Archive database (formerly referenced as the No Further Remedial Action Planned [NFRAP]). According to EDR, this is not a federal facility Ninyo &amp; Moore reviewed the EPA's SEMS-Archive website for additional information. According to a search for the listed EPA ID number, no additional information was available. Ninyo &amp; Moore submitted a file review request to the DTSC requesting further information about this listing; DTSC provided no additional information.</p> <p>As stated previously, In January 1987, Dames &amp; Moore conducted a Preliminary Assessment and identified potential sources of the local groundwater contamination. An initial inventory of potential sources included existing and former off-site gas stations, off-site dry cleaners, off-site auto repair garages, a former school district maintenance yard, and a former</p>



## Comments

off-site fire station (2,10). According to Dames & Moore (4), available information concerning past and present land uses in the Hillview-Eleanor vicinity indicated that two potential sources of carbon tetrachloride were the former school maintenance yard, and a former firehouse. Dames & Moore noted that the former elementary school district maintenance yard was located about 300 feet north of Hillview Avenue and about 150 feet east of San Antonio Road. The maintenance yard was relocated in about 1977, and the yard converted to a soccer field. Dames & Moore noted that mechanical repair and degreasing of school district vehicles was performed on the site. Auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was reportedly dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. A CERCLA Preliminary Assessment (PA) of the Hillview Maintenance Yard (EPA ID number CAD982400202) was reportedly completed by ICF Technology Incorporated in October 1989 (12). According to DTSC, the PA recommended a medium priority Screening Site Inspection of the site. Ninyo & Moore requested a copy of this report from DTSC's Berkeley field office. As of the publication date of this ESA, DTSC has not responded to Ninyo & Moore's request. As such, Ninyo & Moore cannot determine if soil samples were collected in the area of the purported kerosene-solvent dumping as reported by Dames & Moore. This lack of information is considered a significant data gap.

Historical information indicates that the former San Antonio School, which operated from 1910 to around 1956, and then as the school district administrative offices until the early 1970s, was located adjacent to the west of the site. Review of historical aerial photographs shows school busses were parked, and possibly maintained in a rectangular building located in the northwestern corner of the site, dating back to at least 1956. By 1968, school buses were noted parked on the north side of the school, as well as several buildings located north and east of the school (considered to be on the site). One building in particular appeared to have a concrete apron on the west side where a school bus and a small truck were parked. These buildings, along with the school district offices, were demolished in the mid-1970s. Commercial office buildings were constructed in place of the district offices. Information regarding the former San Antonio school buildings, including a possible bus maintenance facility, was not available.

The existing Bus Barn Theater building, which has been referenced as a former bus maintenance facility (Mercury News article dated June 29, 2008), was constructed sometime between 1963 and 1968 (based on reviewed historical aerial photographs). The building was reportedly redeveloped into a theater in the late 1970s, and operated as the Los Altos Conservatory Theatre for nearly 16 years. In 1994, the theater shut down for a year, but it was revived and renamed the Bus Barn Theater in 1995. No additional information was available regarding the historical uses of the Bus Barn building, nor was corroborating information that the building was in fact used as a bus maintenance building discovered. Review of historical aerial photographs suggests that bus maintenance activities could have been conducted within a separate building associated with the former San Antonio School. This building was located in the northwestern corner of the site from the late 1940s until the mid-1970s when it was demolished.

### 5.1.2. Regulatory Database Listings for Off-Site Properties

Off-site properties/facilities listed in the **Map Findings Summary** table above were evaluated as to their potential to impact soil, soil vapor, and/or groundwater at the site. The following table presents the properties/facilities that were interpreted to represent a potential environmental concern to the site, based on their proximity to the site, the nature of the database on which they are listed, and/or the assumed direction of groundwater flow in the site vicinity (northeast).

Facilities of Potential Concern	
<b>Site Name</b>	ALADDIN CARPET UPHOLSTERY
<b>Site Address</b>	175 S SAN ANTONIO #123
<b>Distance from Site</b>	255 feet
<b>Direction from Site</b>	SW and upgradient
<b>Database</b>	EDR Hist Cleaner
<b>Comments</b>	This facility listing references a "Carpet And Upholstery Cleaning" at this location in 1986, 1987, and 1988. This facility was not referenced as a "dry cleaner," nor was is listed as a facility that was, or has been, under investigation. Based on this information, this facility is not considered a REC at this time.
<b>Site Name</b>	MAIN STREET CLEANERS AND LDRY
<b>Site Address</b>	129 MAIN ST
<b>Distance from Site</b>	440 feet
<b>Direction from Site</b>	West and crossgradient
<b>Database</b>	EDR Hist Cleaner
<b>Comments</b>	This facility is located west of the site. The facility was listed as a "Garment Pressing and Cleaners" from 1982 to 1987, and as a "laundry and drycleaner" from 1989 to 1995. No additional information was available for this facility.
<b>Site Name</b>	HONEY'S SHELL SERVICE
<b>Site Address</b>	45 MAIN ST
<b>Distance from Site</b>	447 feet
<b>Direction from Site</b>	West and crossgradient
<b>Database</b>	EDR Hist Auto
<b>Comments</b>	This database listing relates to a soil-only case of an unauthorized release of gasoline. The case was opened in February 1992 and closed in August 1992. Based on the soil-only release, this facility is not considered a REC to the site.
<b>Site Name</b>	LOS ALTOS UNION SERVICE
<b>Site Address</b>	330 S SAN ANTONIO RD
<b>Distance from Site</b>	1,060 feet
<b>Direction from Site</b>	Southwest and upgradient
<b>Database</b>	LUST, HIST UST
<b>Comments</b>	A release of gasoline was reported in November 1984. In February 1985, 3 USTs were removed from the site. In December 1984, 3 vadose zone wells were installed adjacent to the newly installed USTs. A strong hydrocarbon odor was observed in soil from on boring from 70-110 feet below ground surface (ft bgs). Three groundwater monitoring wells were installed. In 2004, wells U4 through U9 and UV1 and UV2 were destroyed and replaced with 2 wells. Soil samples collected indicated petroleum hydrocarbons were present at depths of between 100-115 bgs.  Soil vapor extraction and ozone injection had been proposed to remediate

<b>Comments</b>	<p>the facility. The location of the new ozone injection and SVE wells were near a protected juniper tree. Relocation of the wells outside the footprint of the juniper tree would result in the remedial wells being located outside of the sorbed and dissolved-phase hydrocarbon plumes present onsite. Short term events of SVE with ozone injection were conducted utilizing existing site wells.</p> <p>In June 2008, a permanent SVE system was installed and operated through July 2011. The case was subsequently closed in October 2014. Based on the distance from the site as well as the regulatory status of the facility, this facility is not considered a REC to the site at this time.</p>
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## 5.2. Additional Environmental Record Sources

To enhance and supplement the standard environmental record sources identified in Section 5.1, additional local and/or federal, state, or tribal records shall be checked when, in the judgement of the EP, such additional records (1) are reasonably ascertainable, (2) and sufficiently useful, accurate, and complete in light of the objective of the records review. Examples of additional record sources include department of health/environmental division, fire department, planning/building department, or local/regional water quality agencies. In completing this ESA, Ninyo & Moore contacted the following additional record sources:

- Santa Clara County Department of Environmental Health (SCCDEH)
- Santa Clara Valley Water District (SCVWD)
- California Regional Water Quality Control Board (RWQCB)
- California Department of Toxic Substances Control (DTSC)

Descriptions of these agencies are provided in Sections 5.2.1 and 5.2.2 below.

### 5.2.1. State/County Environmental Record Sources

The DTSC, SCCDEH and SCVWD were contacted regarding hazardous materials or hazardous wastes records associated with the site address. The DTSC and SCVWD had files and/or records available for the site and/or surrounding area. Information regarding the Hillview-Eleanor Plume site as well as the Hillview Maintenance facility were discussed in Section 5.1.1.

### 5.2.2. Local Record Sources

The SCVWD was contacted regarding hazardous materials or hazardous wastes records associated with the site address. Files and/or records were available for the Hillview-Eleanor Groundwater Plume located beneath the site.

### 5.2.3. Gas & Oil Maps

According to the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Mapping System, the site does not lie within the administrative boundaries of an oil field and no oil or gas wells are located on the site.

## 5.3. Historical Use Information

Ninyo & Moore conducted a historical record search for the site. This included a review of one or more of the following resources that were found to be both reasonably ascertainable and useful for the purposes of this ESA: historical aerial photographs, historical fire insurance maps, historical topographic maps, land use records, and interviews with property representatives. Although one or more of the sources listed above provided limited information regarding the historical use of the site, the information gathered from the sources reviewed as a whole is adequate to develop a history of the previous uses of the site and the surrounding area in accordance with Section 8.3 of ASTM E1527-13. The following sections summarize information obtained from the historical sources utilized for this assessment. The following table provides a list of historical sources reviewed for this ESA. Copies of historical research documentation, such as fire insurance maps, historical aerial photographs, and topographic maps, are provided in Appendix E.

Historical Use Information		
Data Type	Year(s)	Data Limitations
EDR Sanborn Map Search/Print (Inquiry Number 5040953.3S)		Map coverage not available for site or adjoining areas.
EDR Aerial Photo Decade Package (Inquiry Number 5040953.9S)	1939, 1948, 1950, 1956, 1963, 1968, 1974, 1982, 1991, 1998, 2005, 2006, 2009, 2010, 2012	None
EDR City Directory Abstract (Inquiry Number 5040953.5S)	1970, 1975, 1980, 1986, 1992, 1995, 1999, 2008, 2013	None
EDR Historical Topo Map (Inquiry Number 5040953.4S)	1897, 1899, 1902, 1943, 1947, 1948, 1953, 1955, 1961, 1968, 1973, 1980, 1981, 1994, 1995, 1997, 1999, 2012	None

### 5.3.1. Sanborn Fire Insurance Maps

Ninyo & Moore requested historic fire insurance rate maps (Sanborn Maps) of the site through EDR. Sanborn Map coverage was not available for the site and surrounding areas. A copy of the Sanborn Map Report is included in Appendix E.

### 5.3.2. Historical Aerial Photographs

Ninyo & Moore reviewed historical aerial photographs of the site provided by EDR. A listing of the photographs reviewed is presented in the following table. Copies of the historical aerial photographs are provided in Appendix E.

Summary of Aerial Photographs			
Year(s)	Source	Site Comments	Adjoining Area Comments
1939	EDR	Site is shown to be developed with orchards on the eastern portion of the site.	Primarily orchards and single-family homes. A school had been constructed adjacent to the west of the site.
1948	EDR	Site is shown to be developed with orchards on the eastern portion of the site. Several buildings associated with the adjacent school had been constructed along the northwestern corner of the site.	No significant changes.
1950	EDR	The orchards on the eastern portion of the site have been replaced with an elementary school (Hillview Elementary School). The western portion of the site includes undeveloped land as well as several rectangular buildings associated with the adjacent school.	No significant changes.
1956	EDR	Additions to the elementary school are noted with the construction of several new classroom wings, as well as an office, parking lots, and a playground.	Numerous school buses were parked along the north side of the adjacent school (adjacent to the northwestern corner of the site). No other significant changes.
1963	EDR	Review the 1963 photograph shows school buses were parked, and possibly maintained in a rectangular building located in the northwestern corner of the site. One building in particular appeared to have a concrete apron on the west side of the building with a school bus and a small truck parked in front of the building.	No significant changes noted.
1968	EDR	By 1968, school buses were noted parked on the western side of the site (adjacent to the east side of the school building). A rectangular building was noted in the west-central portion of the site. This	A commercial building was noted north of the site (existing library building), as well as commercial development to the southwest. Continued residential infill development to the south.

Year(s)	Source	Site Comments	Adjoining Area Comments
		building is the location of the current Bus Barn Theater building.	
1974	EDR	The elementary school on the east side of the site remains. Numerous school buses are parked on the western portion of the site. The rectangular buildings in the northwestern corner of the site remain.	By 1974, the adjacent school building to the west had been demolished. By 1974, much of the former orchards to the south and east of the site had been removed and replaced with residential homes.
1982	EDR	By the 1982 photograph, the buildings in the northwestern corner of the site had been demolished. The western portion of the site appears to have been redeveloped with a soccer field.	The former school building had been replaced with two commercial office buildings.
1991	EDR	By 1991, a small building had been constructed to the east of the existing bus barn theater building. The parking lot associated with the elementary school had been expanded to the north.	No significant changes noted.
1998	EDR	No significant changes noted.	No significant changes noted.
2005-2006	EDR	An additional building was noted on the east side of the bus barn theater building. No other significant changes noted.	No significant changes noted.
2009-2010	EDR	No significant changes noted.	No significant changes noted.
2012	EDR	No significant changes noted.	No significant changes noted.

### 5.3.3. City Directories

Ninyo & Moore reviewed historical city directory listings for the site addresses to evaluate facilities of potential concern, which may have been historically located on the site. A summary of notable city directory listings is presented in the following table, and the EDR City Directory abstract is provided in Appendix E.

Summary of City Directory Listings	
Year(s)	Notable Listings in Address Range of Site
1970	Site address not listed.
1975	Hillview Elementary School
1980	City of Los Altos Senior Music for Minors
1986	Children's Corner League of Women Voters Los Altos Recreation Center Salvation Army Information Music for Minors
1992	Children's Corner League of Women Voters Los Altos Youth Center Los Altos Rec Center Music for Minors
1995	Hillview Community Center Children's Corner Inc. League of Women Voters Los Altos Youth Center Los Altos Rec Center

Year(s)	Notable Listings in Address Range of Site
	Los Altos Youth Theater Music for Minors Inc.
1999	Bus Barn Stage Company Children's Corner Incorporated Child Care City of Los Altos Rec Department League of Women Voters of Los Altos Mountain View Area Los Altos Youth Center Friends of the Los Altos Libraries Braille Inst.
2008	Bus Barn Stage Company Friends of the Los Altos Libraries League Of Women Voters Los Altos Mountain View Children's Co Los Altos Youth Center
2013	Bus Barn Stage Company City Of Los Altos Children's Corner Inc Friends of the Los Altos Libraries League of Women Voters Of Los Altos Los Altos Youth Center

#### 5.3.4. Historical Topographic Maps

Ninyo & Moore reviewed historical topographic maps of the site provided by EDR. A listing of the maps reviewed is presented in the following table. Copies of the historical topographic maps are provided in Appendix E.

Summary of Topographic Maps		
Year(s)	Quadrangle	Site Comments
1897	Palo Alto	Site is mapped as undeveloped land.
1899	Palo Alto	Site is mapped as undeveloped land.
1902	Santa Cruz	Site is mapped as undeveloped land.
1943	Palo Alto	Two small structures are mapped in the southeastern corner of the site. A school is mapped adjacent to the west of the site.
1947	Palo Alto	No significant changes noted.
1948	Palo Alto	A school is depicted on the eastern portion of the site.
1953, 1955	Palo Alto, Mountain View, Cupertino, Mindego Hill	The adjacent school to the west is mapped partially on the northwestern corner of the site. This is consistent with historical aerial photographs that show development on the northwestern corner of the site. The school on the eastern side of the site is mapped with four classroom wings.
1961	Mountain View, Cupertino, Palo Alto, Mindego Hill	No significant changes noted. The school on the eastern side of the site is labeled as Hillview School.
1968	Mountain View, Mindego Hill, Cupertino, Palo Alto	No significant changes noted.
1973	Mindego Hill Mountain View Palo Alto Cupertino	No significant changes noted.
1980/1981	Mindego Hill, Cupertino, Mountain View	No significant changes noted.
1994/1995	Palo Alto Mountain View Cupertino Mindego Hill	By the 1994 mapping, a rectangular building and an adjoining square-shaped building are mapped in the west-central portion of the site (location of existing bus barn theater building).

1997/1999	Mindego Hill Mountain View Palo Alto	No significant changes noted.
2012	Palo Alto Mountain View Cupertino Mindego Hill	Site features are not depicted on the 2012 mapping.

### 5.3.5. Title Records

A historical chain-of-title report was not requested by City of Los Altos for review by Ninyo & Moore during the completion of this ESA.

### 5.3.6. Recorded Environmental Liens and AULs

An environmental lien search report was not requested by City of Los Altos for review by Ninyo & Moore during the completion of this ESA.

### 5.3.7. Previous Investigations

Ninyo & Moore was not provided copies of prior reports completed for the site.

## 5.4. Adjoining Property Use Information

Adjoining properties were described in Section 2.3. Based on our site visit and review of agency files, none of the adjoining properties are considered a REC to the site at this time.

## 6. PRELIMINARY VAPOR ENCRoACHMENT SCREENING

Ninyo & Moore conducted a preliminary vapor encroachment screen (pVES) for potential chemicals of concern (COC). The pVES was based on the guidelines presented in the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions. The purpose of the pVES was to identify a vapor encroachment condition (VEC), which is the presence or likely presence of COC vapors in sub-surface soils at the site as a result of a release of vapors from contaminated soil or groundwater either on or near the site. The potential for VECs beneath the site was evaluated using a Vapor Encroachment Screening Matrix (VESM). The VESM included performing a Search Distance Test to identify if there are any known or suspected contaminated sites surrounding or upgradient of the site within specific search radii, a COC Test (for those known or suspect contaminated sites identified within the Search Distance Test) to evaluate whether or not COC are likely to be present, and a Critical Distance Test to evaluate whether or not COC in a contaminated plume may be within the critical distance of the site (100 feet for non-petroleum hydrocarbon contaminants, and 30 feet for petroleum hydrocarbon contaminants).



Based on the completion of the VESM, it is presumed unlikely that a VEC currently exists beneath the site. A copy of the VESM is included in Appendix F.

## 7. INTERVIEWS

Interviews were conducted by Ninyo & Moore with the objective of obtaining information regarding potential RECs in connection with the site. Interviews with present owners, operators, and/or occupants of the site, as well as other knowledgeable parties as appropriate, is mandated by ASTM E1527-13.

### 7.1. Owner or Key Site Manager

Mr. Dave Brees, Special Projects Manager for the City of Los Altos, was interviewed on September 13, 2017 during the site reconnaissance. According to Mr. Brees, the Civic Center, which includes City Hall, Police Station, Museum, Library, and Community Center, never had any dry cleaning operations to the best of his knowledge. The bus maintenance yard operated from approximately 1940 to 1975. In the immediate area of Well #10, the City maintained three storage sheds that were demolished to build Lemon Street. He stated that he heard that these sheds were used to store chemicals such as paint and maintenance supplies. No additional information was provided regarding potential contaminants associated with the former maintenance yard.

### 7.2. Past Owners

Past ownership entities were not made available to Ninyo & Moore during the preparation of this ESA. Therefore, interviews with past site owners was not conducted.

### 7.3. Environmental Regulatory Agency Inquiries

Ninyo & Moore submitted Public Records Requests for the site address to County, State and Local environmental regulatory agencies. The following sections describe the agencies contacted and whether or not representatives from the agencies were interviewed.

- DTSC: A representative from the DTSC did not respond to Ninyo & Moore's request for information regarding previous investigations conducted on the site
- SCCDEH: According to Ms. Somira Pech with the SCCDEH, files and/or records were not available for the site address.

- Los Altos School District: Ninyo & Moore contacted the Los Altos School District (LADS) in an attempt to interview persons who might be familiar with the past operations of the former school/school maintenance yard. A representative from the LADS did not reply to Ninyo & Moore's request.

### 7.3.1. State/County Environmental Agencies

Ninyo & Moore requested hazardous materials records from the SCCDEH was contacted regarding hazardous materials or hazardous wastes records associated with the site address. According to Ms. Somira Pech with the SCCDEH, files and/or records were not available for the site address.

According to Mr. André J. Alexander, Regional Central Files Coordinator with the DTSC, DTSC had no additional files or records available for the previous investigations conducted on the site, such as the previously-referenced October 1989 ICF Technology *Preliminary Assessment of Hillview Maintenance Yard* report (reference #12).

### 7.3.2. Local Environmental Agencies

Los Altos School District: Ninyo & Moore contacted the Los Altos School District (LADS) in an attempt to interview persons who might be familiar with the past operations of the former school/school maintenance yard. Mr. Randy Kenyon with the LADS responded to Ninyo & Moore's request and was not able to provide any additional information relative to the site history.

## 8. **ASTM NON-SCOPE CONSIDERATIONS**

Non-Scope considerations such as mold, radon, wetlands, asbestos, or flood zones were not addressed as part of this ESA.

## 9. FINDINGS, OPINIONS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this ESA, the following findings, opinions, conclusions and recommendations are provided.

### 9.1. Findings and Opinions

- Historical research revealed that the site was developed by at least the late 1930s with orchards on the eastern portion of the site. According to historical information, the San Antonio School adjacent to the west side of the site was constructed in 1910, and may have occupied a portion of the western side of the site. By the late 1940s, several rectangular buildings, likely associated with the San Antonio School, were noted in the northwestern corner of the site. By at least 1950, two buildings had been constructed in the southeastern portion of the site. According to historical information, these buildings were part of the Hillview Elementary School that was constructed on the site starting in 1949. By the late 1950s, the Hillview Elementary School had expanded to include several additional classroom wings as well as an administrative building and parking lot. Numerous school buses were noted parked adjacent to the rectangular buildings on the adjacent San Antonio School on a 1956 aerial photograph. In 1956 the San Antonio school was closed as an active school site and became the home of the district's administrative operations. By the 1968 aerial photograph, a building that houses the current Bus Barn Theater had been constructed. This building remains. The former San Antonio School was vacated in the early 1970s, demolished, and its land was subsequently sold and redeveloped with two commercial office buildings (<http://www.losaltos.k12.ca.us/District/1167-History.html>). The associated buildings located in the northwestern corner of the site were subsequently demolished during this same time period. Prior to 1976, the majority of the site property was owned by the Los Altos Elementary School District (LASD). Hillview Elementary School occupied the building at 97 Hillview Avenue, where the exiting Hillview Community Center is now located. A maintenance yard, used by the school district as a bus repair facility, was reportedly located at the corner of Hillview Avenue and San Antonio Road. It is unclear where the bus repair facility was located relative to the site, but review of historical aerial photographs suggests it may have been located in the northwestern corner of the site.

The Hillview Elementary School site was subsequently sold by LASD to the City of Los Altos in 1975 (<http://losaltospolitico.com/2014/04/hillview-community-center-bought-reuse-school/>) and was then redeveloped into the Hillview Community Center.

- Agency records make note of two former municipal wells located in the site vicinity; Well #10, and Well #110. Well #10 was located about 195 feet north of the site, and Well #110 was located adjacent to the southeastern corner of the site. In July 1984, water samples obtained from Well #110 by the California Water Service Company (CWSC) indicated the presence of carbon tetrachloride as high as 9.1 micrograms per liter (ug/l). In August 1984, CWSC sampled Well #10. Carbon tetrachloride was detected at 10.1 ug/l. In the same period of time that carbon tetrachloride was detected in Wells #10 and #110, eight other private and municipal wells in the area were sampled for carbon tetrachloride. None of these wells showed detectable levels of carbon tetrachloride. Well #110 was removed from service in 1989. Well #10 and Well #110 were subsequently decommissioned in October/November 1992 by filling the well casings with concrete, and digging out and capping the well casings. Numerous soil, soil gas, and groundwater investigations were conducted in the late 1980s and early 1990s in an attempt to identify a source of the carbon tetrachloride found in groundwater in these two wells. This study area was labeled as the Hillview-Eleanor Plume Site. According to agency information, Wells #10 and #110 were the only two wells in the Hillview-Eleanor study area found to be contaminated with carbon tetrachloride. There were many potential off-site sources of contamination identified for Wells #10 and #110, including existing and former gas stations, dry cleaners, auto repair garages, and a former fire station, as well as a former on-site school district maintenance yard. Based on extensive on- and off-site investigations however, there was no evidence to link the groundwater contamination to a specific source. Refer to Section 5.1.1 for additional information regarding the Hillview-Eleanor Plume Site.
- In January 1987, Dames & Moore conducted a Preliminary Assessment and identified potential sources of the local groundwater contamination (Dames & Moore, 1987). According to Dames & Moore, available information concerning past and present land uses in the Hillview-Eleanor vicinity indicated that two main potential local sources of

carbon tetrachloride were the former school maintenance yard, and a former firehouse. Dames & Moore noted that the former elementary school district maintenance yard was located about 300 feet north of Hillview Avenue and about 150 feet east of San Antonio Road. The maintenance yard was relocated in about 1977, and the yard converted to a soccer field. Dames & Moore noted that, according to a former school district employee, mechanical repair and degreasing of school district vehicles was performed on the site. Auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six gallon tank equipped with a circulating pump, and was dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. A CERCLA Preliminary Assessment (PA) of the Hillview Maintenance Yard (EPA ID number CAD982400202) was reportedly completed by ICF Technology Incorporated in October 1989 (12). According to DTSC, the PA recommended a medium priority Screening Site Inspection of the site. Ninyo & Moore was not able to obtain a copy of the PA for review during the preparation of this report, and therefore, cannot comment if soil samples were collected in the area of the purported kerosene-solvent dumping as reported by Dames & Moore. The former firehouse was located at 169 State Street (southwest and upgradient of the site) until about 1968. According to Dames & Moore, carbon tetrachloride was used in fire extinguishers and was stored at the former fire station. No additional information was available regarding the fire station.

- The areas surrounding the site consist the Los Altos Library and the Los Altos History Museum Complex to the north, residential development to the east and south, and commercial development to the west.
- The CWSC provides potable water to the site and site vicinity.
- The City of Los Altos provides municipal sewer service to the site and surrounding areas.

- On September 13, 2017, Lucas Budny of Ninyo & Moore conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the site, and observations of adjoining properties. Zubair Trabzada with the City of Los Altos escorted Mr. Budny around the property during the site reconnaissance. At the time of the site reconnaissance, the site was developed with a theater, a soccer field, and the Hillview Community Center (former Hillview Elementary School).
- Interior construction materials in the community center building included vinyl flooring, carpeting, textured wall coverings, acoustical ceiling tiles, ceramic floor tiles, painted and textured plaster walls, and plaster ceilings. Interior finishes appeared to be in fair condition.
- Based on our site visit, there are currently no wells on the site.
- Ninyo & Moore did not observe quantities of hazardous substances or petroleum products used or stored on site during our site reconnaissance.
- Indications of aboveground storage tanks (ASTs), underground storage tanks (USTs), or hazardous material spills or leaks, were not observed during the site reconnaissance.
- Review of an environmental database report obtained for this project indicated that the site is listed on several of the regulatory databases researched by Environmental Data Resources Inc. (EDR), including the DTSC SEMS-Archive database for a former school maintenance yard, as well as the EnviroStor, Historical Cal-Sites, Cortese, and Response databases for the Hillview-Eleanor Plume Site. Refer to Section 5.1.1 for additional information regarding these listings. A general discussion of these listings was provided in the preceding paragraphs above.
- Several off-site facilities were located within the EDR search radius from the site. None of the listed facilities are considered to be a REC to the site at this time based on several factors, including distance from the site, location relative to the regional groundwater flow direction (e.g. hydraulically downgradient or crossgradient to the site), database listing type, and affected media (soil only). Refer to Section 5.1.2 for additional information regarding potential off site facilities of concern.
- Based on the completion of a Vapor Encroachment Condition (VEC) screening matrix, it is presumed unlikely that a VEC currently exists beneath the site. This is based on the presumed depth to groundwater beneath the site (between about 65 and 165 feet bgs)

and the relatively low concentrations of detected contaminants in groundwater in the 1980s/1990s.

- An environmental lien or activity and use limitations (AULs) search was not requested for this ESA.
- An asbestos and lead survey was beyond the scope of this investigation.

## 9.2. Conclusions

Ninyo & Moore was retained by City of Los Altos to perform a Phase I Environmental Site Assessment (ESA) on the Hillview Avenue Property property located at 97 Hillview Avenue in Los Altos, California (site). Based on the information compiled during the preparation of this report, this assessment has revealed no evidence of RECs in connection with the site with the exception of the following:

- Based on the reported mechanical repair and degreasing of school district vehicles performed on the site by Dames & Moore, auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six gallon tank equipped with a circulating pump, and was reportedly dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. The purported use, and disposal of these materials, is considered a REC.

### 9.2.1. RECs

Based on the reported mechanical repair and degreasing of school district vehicles performed on the site by Dames & Moore, auto parts were reportedly cleaned with carburetor cleaner, and engine parts were degreased using a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a six gallon tank equipped with a circulating pump, and was reportedly dumped on the ground every six to eight months. Dames & Moore further noted that it was believed that the cleaning solution was dumped

approximately 60 yards north of two large oak trees located immediately north of the city theater workshop (what is currently the Bus Barn theater). Dames & Moore concluded that it was not certain the carburetor cleaner or kerosene-solvent solution mixture contained carbon tetrachloride; although carbon tetrachloride was used in these types of products. The purported use, and disposal of these materials, is considered a REC.

#### 9.2.2. CRECs

CRECs were not identified during the preparation of this report.

#### 9.2.3. HRECs

HRECs were not identified during the preparation of this report.

#### 9.2.4. De Minimis Conditions

De minimis conditions were not identified during the preparation of this report.

### 9.3. Recommendations

Based on the findings of this ESA, further investigation is recommended at this time.

- Based on the purported historical use and disposal of cleaning solvents and degreasers, Ninyo & Moore recommends the City consider conducting a shallow soil investigation in the vicinity of the reported solvent and degreasing fluid dumping area (north of the existing Bus Barn theater) if this area is impacted by the proposed community center redevelopment project.
- Based on Ninyo & Moore's review of historical aerial photographs, a possible bus maintenance building associated with the former San Antonio School may have been located in the northwestern corner of the site. Ninyo & Moore recommends the City consider conducting a shallow soil investigation in the vicinity of the former building if this area is impacted by the proposed community center redevelopment project.

### 9.4. Limiting Conditions/Deviations

This report was prepared in accordance with ASTM E1527-13. No deviations from the standard occurred in this ESA. Based on the information gathered by Ninyo & Moore for the purposes of this ESA, it is Ninyo & Moore's opinion the data obtained from the site reconnaissance, records reviewed, and interviews conducted, is adequate to make a



conclusion on the environmental condition of the site with respect to the existence or lack of RECs associated with the site.

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

## 10. ENVIRONMENTAL PROFESSIONAL STATEMENT

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined by 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

### Site Assessor



Randy L. Wheeler  
Senior Geologist

### Senior Reviewer



Kris Larson  
Principal Geologist

### Certification:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Randy L. Wheeler - Senior Geologist



Kris Larson - Principal Geologist

## 11. REFERENCES

ASTM International, 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13.

California Department of Conservation, California Geological Survey (CGS), 2010. California Geomorphic Provinces, Note 36.

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Environmental Data Resources, Inc., 2017, The Environmental Data Resources Historical Topographic Map Report, dated September 5.

Environmental Data Resources, Inc., 2017, The Environmental Data Resources Radius Map Report with GeoCheck, dated September 5.

Wagner, D.L., E.J. Bortugno, and R.D. McJunkin. 1991. *Geologic Map of the San Francisco-San Jose Quadrangle, California* [map]. 1:250,000, Regional Geologic Map Series, Map No. 5A. California Division of Mines and Geology, Sacramento.

Weiss Associates. 1991. Summary of DHA RAO and Previous Remedial Investigations of Civic Center Site, Los Altos, California. Dated May 30.

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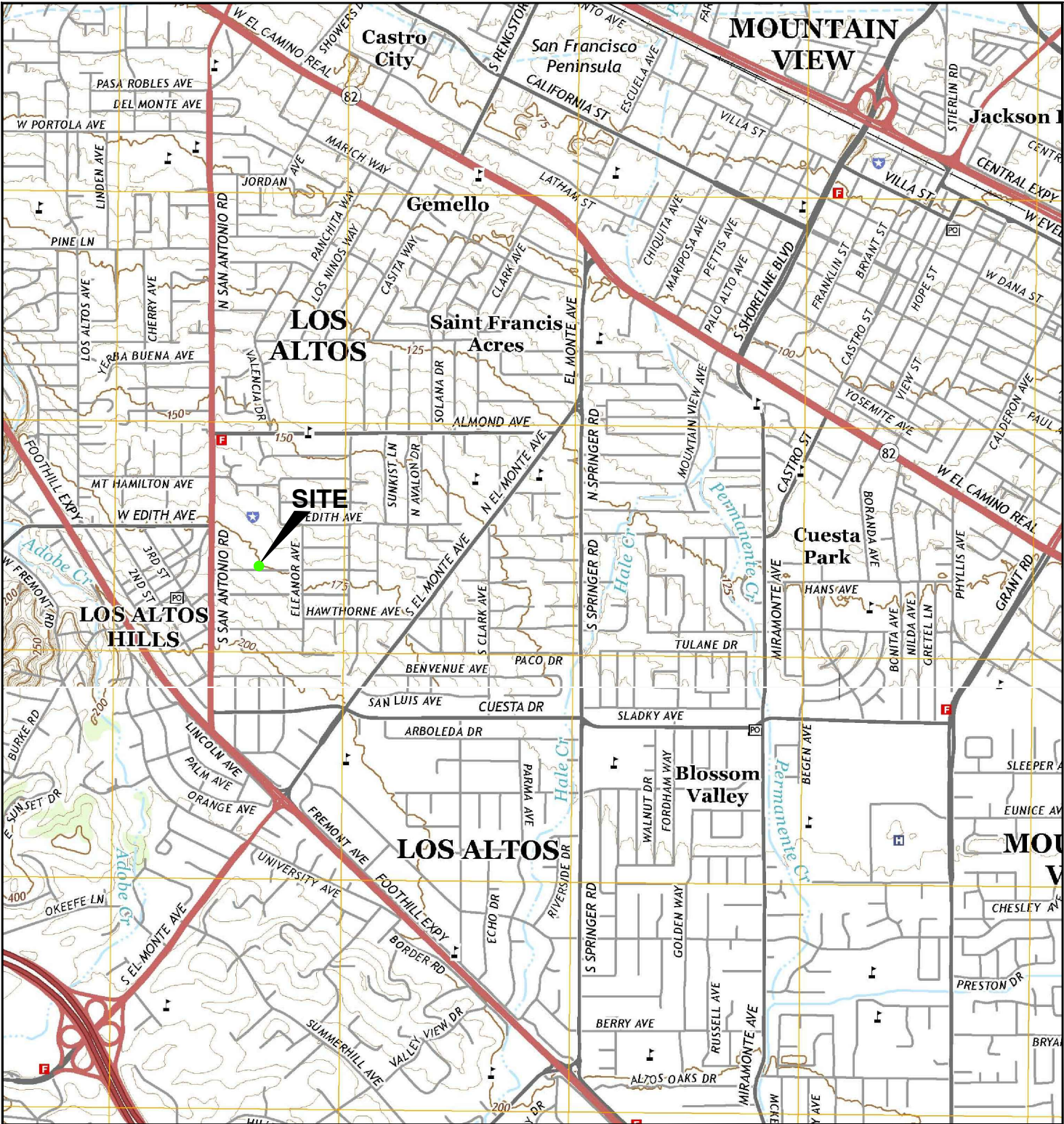
1. U.S. Geological Survey, Map of Mountain View, California, 7.5' Quadrangle map, 1961 (photorevised 1981).
2. California Department of Health Services, "Update on Los Altos Groundwater Contamination, Hillview-Eleanor Site," August 15, 1988.
3. California Department of Health Services, "Fact Sheet on Hillview-Eleanor Site," April 1988.
4. Dames & Moore, "Preliminary Site Assessment and Investigation Report, Hillview-Eleanor Area, Los Altos, California," prepared for California Department of Health Services, January 1987.
5. Sun, Stanley, California Department of Health Services, and Cathleen Cauz, Ecology and Environment, Inc. Field Investigation Team (E & E FIT), telephone conversation, March 21, 1990.
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7. Iwamura, Thomas, Santa Clara Valley Water District, to Adrian, George, California Water Service Company, letter re: Contamination of Station 110 Well at Los Altos, dated January 15, 1985.
8. ICF Technology Incorporated, "Preliminary Assessment of Hillview-Eleanor Site (CAD982400053)", prepared by Sonja Echeverria, February 1, 1989.
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10. Canonie Environmental, "Phase One Remedial Investigation, Hillview-Eleanor, Los Altos, California," prepared for California Department of Health Services, August 1989.
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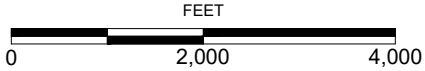
STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

# FIGURES



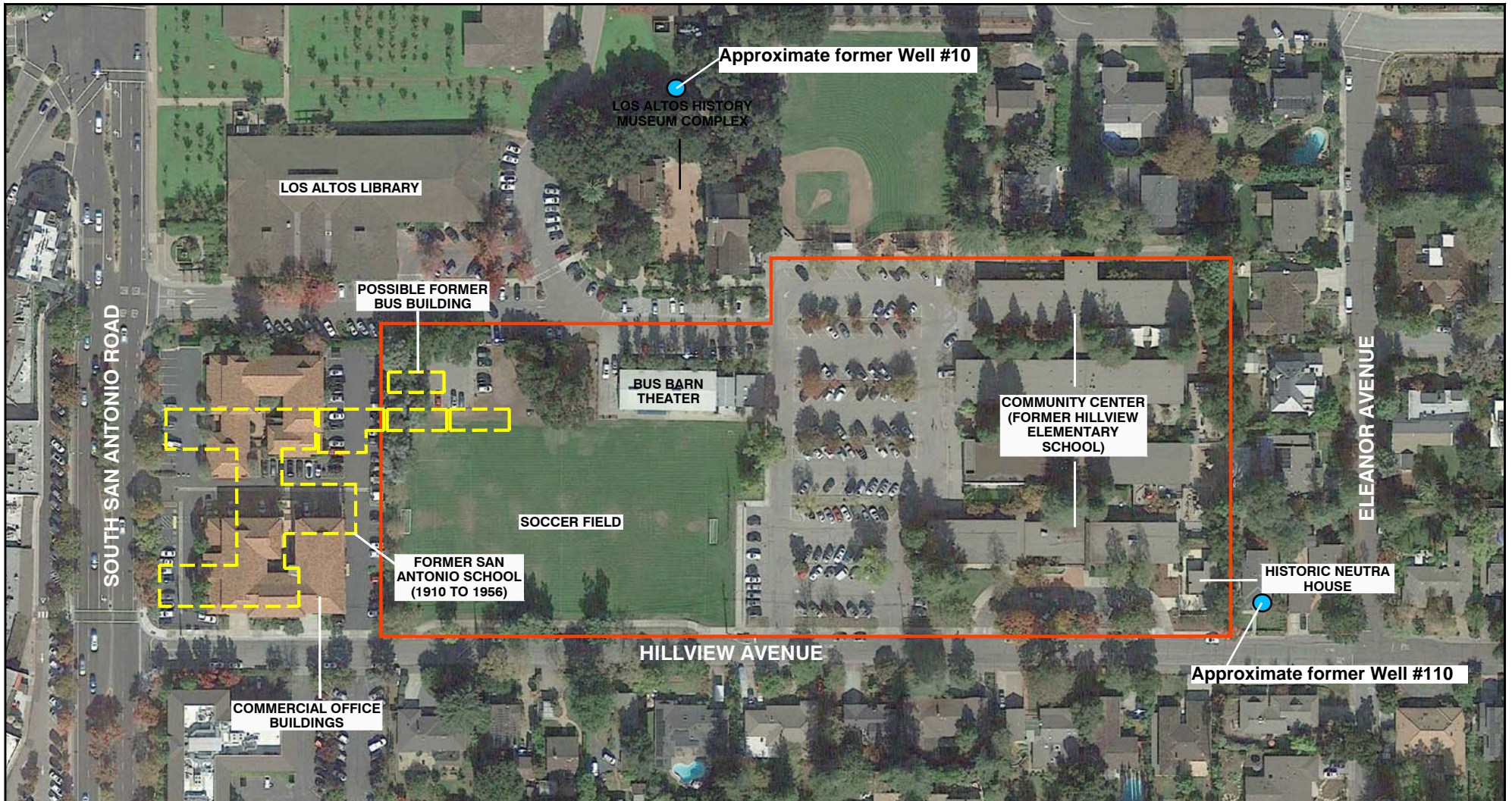
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NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: USGS, 2015.



**FIGURE 1**

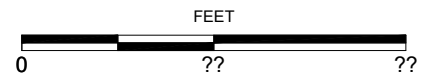
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**LEGEND**

— SITE BOUNDARY

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: GOOGLE EARTH, 2017.



**FIGURE 2**



**Appendix A:**  
**RESUMES**

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)

## EDUCATION

B.A., Geology, 1988, California State University, Sacramento

## REGISTRATIONS

Certified Environmental Manager 2127 (Nevada)

## EXPERIENCE HIGHLIGHTS

Santa Clara Valley Water District  
USEPA Brownfield Assessments  
Bridge District Infrastructure Project  
Former Sugar Processing Facility  
Former Union Pacific Redevelopment Property  
Multiple Commercial Property Transfer  
City of West Sacramento RDA

## PROFESSIONAL AFFILIATIONS

Association of Environmental Professionals - Superior California Chapter

As Senior Geologist, Mr. Wheeler conducts Phase I Environmental Site Assessments and assists with the planning and implementation of Phase II soil, soil gas, and groundwater investigations. Past project types have included single-family residential developments, large-scale commercial and industrial facilities, city redevelopment areas, and large scale agricultural lands.

## REPRESENTATIVE PROJECT EXPERIENCE

**Santa Clara Valley Water District (SCVWD), Linear Phase I Environmental Site Assessments, Santa Clara County, California:** Ninyo & Moore provided environmental services as a subconsultant to Overland, Pacific & Cutler, Inc. on behalf of the SCVWD. As Senior Project Manager, provided project coordination and implementation, field reconnaissance oversight, report preparation and oversight, project invoicing and client interactions. The project consists of conducting Phase I ESAs of approximately 140 properties along Upper Llagas Creek, which the SCVWD is proposed to purchase portions of for implementing flood protection measures.

**Former Union Pacific Redevelopment Property, West Sacramento, California:** Project Manager for a Phase I Site Assessment of an 8.8-acre Union Pacific Railroad property. The intent of the investigation was to support the redevelopment of the property into residential development known as Ironworks at the Triangle. Components of the Phase I Site Assessment included characterization of the former railroad tracks, including the removal of the railroad slag ballast, and metals contaminated soil associated with the railroad tracks.

**Port of Sacramento Collateral Property West Sacramento, California:** Managed and conducted a Phase I Site Assessment on 240 acres of partially developed/undeveloped land for the City of West Sacramento Redevelopment Agency. The developed portions of the site included the W.G. Stone navigational Locks, Government owned land, and waterfront areas. The Stone Lock District consists of over 200 acres of publicly-owned waterfront property with 4 miles of continuous, direct waterfront. The investigation was conducted as part of a due diligence study on behalf of the Redevelopment Agency.

**Former Speckles Sugar Facility, Woodland, California:** Project Manager for the completion of a Phase I Environmental Site Assessment of a former sugar processing facility. The investigation was conducted as part of a due diligence to identify environmental liabilities prior to purchasing the property. Planned redevelopment activities included reclaiming several acres of the waste lime fields and demolishing portions of the processing facility. Mr. Wheeler compiled a list of Recognized Environmental Conditions that warranted resolution or further assessment. Two of these issues related to the prior use, and questionable abandonment, of seven previous fuel underground storage tanks. A Phase II subsurface assessment of the former UST area was completed and identified residual petroleum hydrocarbon impacts to soil and groundwater. Further Phase II assessment activities of the former UST areas were completed. A No Further Action Report was submitted to the Regional Water Quality Control Board for closure.

**Stockton Waterfront Brownfield Redevelopment, Stockton, California:** Managed the Phase I Environmental Site Assessment of a former industrial property for a local developer. The assessment identified several areas of potential contamination. The resulting follow up investigations are being managed by the City of Stockton under the direction of the California Regional Water Quality Control Board. Site assessment and remediation activities are being coordinated under U.S. EPA grant funding.

## REPRESENTATIVE PROJECT EXPERIENCE (continued)

**Brownfields Assessment Grant Study, City of West Sacramento, California:** Managed and conducted assessments on over 290 parcels located in the City's central corridor, West Capitol Avenue, as part of the City's revitalization efforts of this area. The resulting Area Wide Assessment report has won the praise of both the Client and the USEPA for its format, content, and layout that documented the environmental conditions of these parcels. The City established as a priority updating the current land uses and perceived image of West Capitol Avenue from an outdated and outmoded highway commercial boulevard to a vibrant and modern central business district.

**Bridge District Grant Program, West Sacramento, California:** Managed the environmental work of this project, which was part of a \$23 million Proposition 1C Infill Incentive Grant awarded to the City of West Sacramento. Services included conducting an Environmental Conditions Assessment (ECA), Phase II soil sampling, and reviewing various soil/groundwater/dust management plans that were used by follow-on contractors during the roadway construction activities. This waterfront redevelopment area encompasses 125 net developable acres bounded by the Sacramento River on the east, former S.R. 275 on the north and U.S.50/Business 80 Capital City Freeway on the south. The purpose of the ECA was to evaluate the proposed Bridge District street alignment corridors for possible surface and/or subsurface contamination that may have impacted the proposed street alignments. Based on the results of the ECA, follow up Phase II investigations were recommended at six areas. The purpose of the Phase II sampling was to provide a screening-level assessment of potentially contaminated soil and/or groundwater sites identified during the ECA that may be encountered during construction of infrastructure improvements. Phase II soil sampling was conducted in six areas. Results of the Phase II sampling resulted in Area-specific cleanup goals for the contaminants of concern. A detailed Soil and Dust Management Plan was prepared for two of the six areas.

**Community-Wide Assessment West Capitol Avenue – West End:** Project Manager for the implementation of the Community Wide Assessment for West Capitol Avenue. Responsibilities included managing and implementing a USEPA Brownfield Assessment Grant, which included conducting a Community Wide Assessment of approximately 133 individual parcels within the study area. Services included compiling a list of street addresses provided by the City of West Sacramento, cross referencing the provided addresses with their respective Assessor's Parcel Number (APN), and the APN-listed property address for the respective parcel number, in order to identify which parcels were within the "Study Area" boundary. The parcel inventory database was the basis for conducting the Community Wide Assessment. Based on the parcel inventory, Mr. Wheeler conducted the Community Wide Assessment and performed all site reconnaissance fieldwork, historical research, agency database research, and color photography of each parcel. Site-specific data, along with historical research information was compiled into various data tables. Specific sites were ranked according to redevelopment potential, degree of suspected contamination, and environmental condition.

**422-424 C Street, West Sacramento, California:** Project Manager for the completion of a Phase I Environmental Site Assessment/All Appropriate Inquires Report (AAI) of the 422-424 C Street property for the City of West Sacramento Grants and Community Development Department. Results of the AAI report revealed the site was initially developed for use as residential property and then re-developed for use as an automobile service station sometime prior to 1950. The AAI also noted that four USTs were removed from the site in 1987. Although the site is considered "closed" by Yolo County, no soil or groundwater samples were collected at the time the USTs were removed. Given the historical use of the site as an automotive repair facility, a Phase II environmental site assessment was conducted to assess the soil and groundwater from beneath the removed USTs, investigate two existing automobile lifts to assess if the soil beneath and around the lifts has been impacted by hydraulic fluid contamination, and, collect soil samples from beneath and around an oil/water separator to evaluate the presence of waste oil contamination. The Phase II sampling was conducted in accordance with an approved Sampling and Analysis Plan (SAP). The results of the Phase II investigation indicated detectable levels of petroleum hydrocarbons, and metals below regulatory limits. Based on these findings, no further action was recommended.

**Matheson Trucking Terminal - Phase I Environmental Site Assessment - Sparks, Nevada:** Performed a Phase I Environmental Site Assessment (ESA) on a 3.3-acre commercial property located adjacent to the Sparks Solvent/Fuel Site (SSFS). The SSFS facility was used as a refueling and service area for Southern Pacific Railroad since about 1907 and has been a fuel storage and distribution facility since 1957. Current and past operations at the terminal included the storage, distribution, and loading of gasoline, heating oil, diesel fuels, military fuels, and fuel additives. The ESA was completed to evaluate the potential impacts of the SSFS on the site. Results of the ESA revealed that groundwater remediation activities associated with the SSFS are capturing groundwater prior to impacting the site. Ninyo & Moore recommended continued follow-up with the Nevada Department of Environmental Protection on a regular basis to monitor the progress of the SSFS remedial activities.

# KRISTOPHER M. LARSON, PG, QSD/QSP

## PRINCIPAL GEOLOGIST

### EDUCATION

B.S., Geology, 1996, San Francisco State University

### REGISTRATIONS AND CERTIFICATIONS

PG 8059 (California)

Qualified SWPP Developer/Practitioner Certificate No. 20715 (California)

### EXPERIENCE HIGHLIGHTS

Santa Clara Valley Water District Upper Llagas Creek

County of Santa Clara Park and Recreation Environmental Services

San Jose Community College District Environmental Services

City of San Jose Environmental Services

City of Oakland On-Call Environmental Services Contract

Alameda and Contra Costa County Public Works Department As-Needed Environmental Services Contract

City of Oakland Public Works Department As-Needed Environmental Services Contract

Oakland Unified School District As-Needed Environmental Services Contract

Rodeo Waterfront Predevelopment Assessment

Phase I and II Environmental Site Assessments

LUFT, Soil, Soil Gas and Groundwater Investigations

Remedial Action Plan Preparation and Implementation

Investigation and Remediation of Burn Dump Sites

Pot of Oakland Risk Management Plan

As Principal Geologist, Mr. Larson is the Operations Manager for environmental services in Ninyo & Moore's Oakland office. In this capacity, he has served numerous important clients on a variety of environmental projects. His areas of expertise include transactional environmental due diligence, subsurface site characterization, storm water management, investigation and remediation of burn dumps, site remediation and construction/demolition planning and supervision. Prior to joining Ninyo & Moore Mr. Larson worked as an environmental specialist at the San Francisco Bay Regional Water Quality Control Board. He has worked closely with all local, State and Federal environmental agencies, including the DTSC, EPA, RWQCBs, Army Corps of Engineers, and numerous local oversight programs:

### REPRESENTATIVE PROJECT EXPERIENCE

**San Jose Community College District, San Jose, California:** Principal Geologist for investigation and soil disposal for San Jose City College Moorepark Campus and the San Jose City College Evergreen Campus. Mr. Larson assisted in the project oversight which included soil sampling and investigation of petroleum hydrocarbon and metal impacted soil within the vicinity of a sink drain at the Evergreen Campus maintenance yard and soil stockpile sampling for disposal during utility installation on the Moorepark campus. The Evergreen campus work ins on-going, in will involve an expanded investigation to evaluate particular metals in soil.

**Santa Clara Valley Water District Upper Llagas Creek Flood Protection Project, Morgan Hill and Gilroy, California:** Mr. Larson is included as a Technical and QA/QC advisor for this project which includes the preparation of over 40 Phase I Environmental Site Assessments within areas of the Upper Llagas Creek for the Santa Clara Valley Water District (SCVWD). Mr. Larson's responsibilities include client correspondence and report review and report QA/QC. This project is on-going.

**County of Santa Clara Park and Recreation Department, Santa Clara County, California:** Project Manager for a Phase I and Phase II ESA on a 292-acre ranch located in an unincorporated area of the County of Santa Clara, which the County was purchasing and developing into a public park. The property was an active farm and ranch, containing 18 buildings with historical farm equipment. Based on our review of site historical documents and our site reconnaissance, we recommended a Phase II ESA, which included soil and groundwater sampling for pesticides, Title 22 metals, and petroleum hydrocarbon compounds. Based on the sample analytical results, low concentrations of all of the above mentioned compounds were detected in soil samples; however the concentrations were not such that remediation was recommended.

**Judicial Council of California /Administrative Office of the Courts of California On-Call Environmental Services Contract:** Principal-in-Charge for projects located in all of Northern California associated with the JCC-AOC On-Call contract. The scope of services for this contract includes preparation of Phase I and Phase II Environmental Site Assessment and Hazardous Building Material Surveys.

**Rails to Trails, San Jose, California:** Project Manager for the City of San Jose Rails to Trails Project in San Jose, California. Mr. Larson assisted in shallow soil sample collection along the Union Pacific Right-Of-Way (ROW), located between Minnesota Avenue and Lonus Street in San Jose. He also assisted in the preparation of a report summarizing the results of project activities. The report documented findings, conclusions, and recommendations regarding possible environmental impacts to the ROW.

## REPRESENTATIVE PROJECT EXPERIENCE (continued)

**Callander Associates and the City of East Palo Alto, Remedial Planning and Oversight for a Former Burn Dump, East Palo Alto, California:** Project Manager for several environmental tasks relating to investigation and remediation of a former burn dump and planned future park at Cooley Landing in East Palo Alto. Mr. Larson was responsible for preparing the Remedial Action Plan and Soil and Groundwater Management Plan, and has prepared a draft version of the Operations and Maintenance Plan to be utilized once park construction is completed. Mr. Larson also oversaw soil and sediment sampling in the contaminated cover material over most of the site as well as within the wetlands area, and managed the oversight of the Engineered Cap installation.

**Alameda County Public Works Agency On Call Environmental Services Contract, Alameda County, California:** Principal-In-Charge for the ACPWA On-Call Environmental Services contract. The contract extends for four years, and includes a wide range of Environmental and Geotechnical Services, including preparation of Phase I and Phase II Environmental Site Assessments (ESAs), Remedial Action Plans (RAPs), oversight of remediation activities, Hazardous Building Material Surveys (HBMS) and oversight of hazardous material abatement activities. His project responsibilities include meetings with ACPWA Project Managers, assigning staff to ACPWA projects, oversight of project activities, and budget and report review.

**City of Oakland Public Works Agency On Call Environmental Services Contract, Oakland, California:** Principal-In-Charge for the City of Oakland On-Call Environmental Services contract. The scope of services for the contract includes preparation of Phase I and Phase II Environmental Site Assessments (ESAs), Remedial Action Plans (RAPs), and Soil Management Plans (SMPs). His project responsibilities include meetings with City of Oakland PWA Project Managers, assigning staff to PWA projects, oversight of project activities, and budget and report review.

**Port of Oakland, Oakland Army Base Risk Management Plan (RMP), Oakland, California:** Project Manager for implementation of the RMP during on going demolition and construction activities within the project area, which included a section of the former Oakland Army base now owned by the Port of Oakland. Our responsibilities for this project included client and regulatory correspondence relating to demolition oversight of several large former Army warehouse buildings, collecting soil and/or groundwater samples in RMP and Remedial Action Plan (RAP) areas, characterization of known and unknown contaminants in RAP and RMP areas, soil and groundwater remediation in RAP and RMP areas where impacted soil and groundwater exceeded site remediation goals, preparation of technical memos relating to each phase of demolition, characterization, and remediation activities, and closure reporting for those RMP and RAP areas that were cleaned up to remediation goals and regulatory guidelines.

**Rodeo Waterfront Predevelopment Assessment, Rodeo, California:** Project Manager for field activities at two adjacent waterfront properties on San Pablo Bay. His responsibilities included soil and groundwater sampling, installation of groundwater monitoring wells, cone penetration testing, data analysis and evaluation to define the nature and extent of contamination at the site that was historically a refinery and tar pit. Also is the Principal in Charge for the UST removal, and current soil and groundwater remediation and monitoring.

**San Quentin State Correctional Treatment Center Site Characterization, Marin County, California:** Mr. Larson was the Project Manager for a Phase II Environmental Site Assessment. He oversaw and provided technical oversight for a subsurface evaluation to further define the extent of soil and groundwater on-site, impacted by releases of petroleum hydrocarbons and chlorinated solvents from underground storage tanks at the San Quentin State Correctional Treatment Center.

**Appendix B:**  
**SITE PHOTOGRAPHS**

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)



Exterior of the existing Hillview Community Center (former Hillview Elementary School).



Exterior of the existing Hillview Community Center (former Hillview Elementary School).



Parking lot associated with the community center.



Exterior of the existing Hillview Community Center.





Exterior of the existing Hillview Community Center.



General interior of the existing Hillview Community Center.



General interior of the existing Hillview Community Center.



General interior of the existing Hillview Community Center.



General interior of the existing Hillview Community Center.



General interior of the existing Hillview Community Center.



Exterior of the Bus Barn Theater building.



Exterior of the Bus Barn Theater building.



Exterior of the Bus Barn Theater building with ticket office and other outbuilding.



Unidentified pipe on the north side of the theater building.



Interior of the Bus Barn Theater building.



Interior of the Bus Barn Theater building.



Interior of the Bus Barn Theater building.



Interior of the Bus Barn Theater building.



Interior of the Bus Barn Theater building.



Exterior of the Neutra House in the southeastern corner of the site.





View of the existing soccer field with the Bus Barn Theater in the background, facing north.



General parking lot to the west of the Bus Barn Theater, facing east.



General parking lot to the west of the Bus Barn Theater, facing west.

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GUIDANCE

**Appendix C:**

**ENVIRONMENTAL DATA RESOURCES  
(EDR) RADIUS MAP REPORT**

STAFF PRELIMINARY DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)

**Hillview Avenue Property**

97 Hillview Avenue  
Los Altos, CA 94022

Inquiry Number: 5040953.2s  
September 05, 2017

INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

# EDR Summary Radius Map Report

STAFF PRELIMINARY



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

97 HILLVIEW AVENUE  
LOS ALTOS, CA 94022

#### COORDINATES

Latitude (North): 37.3802230 - 37° 22' 48.80"  
Longitude (West): 122.1116310 - 122° 6' 41.87"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 578651.0  
UTM Y (Meters): 4137219.2  
Elevation: 174 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: TP  
Source: U.S. Geological Survey

Target Property: SE  
Source: U.S. Geological Survey

Target Property: SW  
Source: U.S. Geological Survey

Target Property: NW  
Source: U.S. Geological Survey

#### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140608  
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:  
 97 HILLVIEW AVENUE  
 LOS ALTOS, CA 94022

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	HILLVIEW - ELEANOR A	BTW HILLVIEW;ELEANOR	RESPONSE, ENVIROSTOR, HIST Cal-Sites, Cortese	Higher	1 ft.
2	HILLVIEW MAINTENANCE	ADJ TO 97 HILLVIEW A	SEMS-ARCHIVE	Higher	22, 0.004, SSW
3	HILLVIEW-ELEANOR ARE	NEAR CORNER OF HILLV	CA BOND EXP. PLAN	Higher	41, 0.008, SE
4	ALADDIN CARPET UPHOL	175 S SAN ANTONIO 12	EDR Hist Cleaner	Higher	255, 0.048, WSW
A5	MAIN STREET CLEANERS	129 MAIN ST	EDR Hist Cleaner	Higher	440, 0.083, West
A6	HONEYS SHELL SERVICE	45 MAIN ST	EDR Hist Auto	Higher	447, 0.085, West
A7	BOB PEARSON	45 MAIN ST	HIST UST	Higher	447, 0.085, West
A8	BOB PEARSON	45 MAIN ST	SWEEPS UST, HIST UST, CA FID UST	Higher	447, 0.085, West
A9	SHELL (FORMER)	45 MAIN ST	LUST, HIST LUST, HIST CORTESE	Higher	447, 0.085, West
10	CORPORATION YARD	1 N SAN ANTONIO RD	SWEEPS UST	Lower	476, 0.090, NNW
A11	ROGER S AUTOMOTIVE S	148 MAIN ST	EDR Hist Auto	Higher	484, 0.092, West
12	SANTA BARBARA FIRE S	182 MAIN	HIST CORTESE	Higher	655, 0.124, WSW
B13	PG&E: LOS ALTOS SUBS	SAN ANTONIO RD	CUPA Listings	Lower	721, 0.137, NW
C14	ALTOS NURSERY	245 HAWTHORNE AVE	HIST UST	Higher	818, 0.155, SE
C15	ALTOS NURSERY	245 HAWTHORNE AVE	SWEEPS UST, CA FID UST	Higher	818, 0.155, SE
C16	LOS ALTOS NURSERY	245 HAWTHORNE	LUST, HIST LUST, HIST CORTESE	Higher	818, 0.155, SE
B17	PACIFIC BELL	61 N SAN ANTONIO AVE	LUST, CUPA Listings, EMI	Lower	874, 0.166, NW
B18	AT&T-SITE P6004 (LSA	61 N. SAN ANTONIO RD	UST	Lower	874, 0.166, NW
B19	PACIFIC BELL	61 N SAN ANTONIO RD	RCRA-SQG, LUST, HIST LUST, SWEEPS UST, HIST UST,...	Lower	874, 0.166, NW
20	MATTOS J TRUCKING	225 STATE ST	RCRA NonGen / NLR	Higher	994, 0.188, West
D21	LOS ALTOS UNION SERV	330 S SAN ANTONIO RD	LUST, HIST UST	Higher	1060, 0.201, SW
D22	UNION OIL SS 5957	330 SOUTH SAN ANTONI	HIST UST, HAZNET	Higher	1060, 0.201, SW
D23	UNOCAL #5957	330 S SAN ANTONIO RD	LUST, HIST LUST	Higher	1060, 0.201, SW
D24	UNION OIL SS# 5957	330 S SAN ANTONIO RD	HIST UST	Higher	1060, 0.201, SW
D25	LOS ALTOS 76	330 S SAN ANTONIO RD	UST	Higher	1060, 0.201, SW
D26	LOS ALTOS 76	330 S SAN ANTONIO RD	CUPA Listings	Higher	1060, 0.201, SW
D27	LOS ALTOS UNION #595	330 S SAN ANTONIO RD	LUST, SWEEPS UST, CA FID UST	Higher	1060, 0.201, SW
D28	UNION OIL SS #5957	330 S SAN ANTONIO RD	HIST UST	Higher	1060, 0.201, SW
E29	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Lower	1085, 0.205, NNW
E30	VILLA ANGELA RESIDEN	11 ANGELA	LUST, HIST LUST, HIST CORTESE	Lower	1088, 0.206, NNW
F31	WALGREENS NO 7088	303 2ND ST	RCRA-SQG, CUPA Listings, HAZNET	Higher	1108, 0.210, SW
F32	WALGREENS #7088	303 2ND ST	RCRA-CESQG	Higher	1108, 0.210, SW
33	BRUNNERS W VALLEY CH	300 MAIN	HIST CORTESE	Higher	1138, 0.216, WSW
G34	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Higher	1207, 0.229, SE
G35	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Higher	1207, 0.229, SE
F36	AT&T MOBILITY - DOWN	280 S 2ND ST	CUPA Listings	Higher	1234, 0.234, SW
F37	SAME AS ABOVE	320 2ND ST	HIST UST	Higher	1293, 0.245, SW
D38	LOS ALTOS ONE HOUR C	343 2ND ST	RCRA-SQG	Higher	1295, 0.245, SW
D39	ONE HOUR CLEANERS	343 2ND ST	RCRA NonGen / NLR, FINDS, ECHO	Higher	1295, 0.245, SW

MAPPED SITES SUMMARY

Target Property Address:  
 97 HILLVIEW AVENUE  
 LOS ALTOS, CA 94022

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">40</a>	LEGACY DENTAL CARE	158 2ND ST	CUPA Listings	Higher	1310, 0.248, WSW
<a href="#">41</a>	TIRE STORE	404 2ND	HIST CORTESE	Higher	1372, 0.260, SW
<a href="#">42</a>	VILLAGE CHEVRON #918	401 MAIN ST	LUST, HIST LUST, SWEEPS UST, HIST CORTESE	Higher	1563, 0.296, WSW
<a href="#">H43</a>	95215	470 S SAN ANTONIO	LUST, SWEEPS UST, HIST UST, CA FID UST	Higher	1946, 0.369, SSW
<a href="#">H44</a>	95215	470 S SAN ANTONIO RD	LUST, HIST LUST, HIST UST	Higher	1946, 0.369, SSW
<a href="#">45</a>	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Higher	2058, 0.390, SW
<a href="#">I46</a>	HON RESIDENCE	386 UNIVERSITY AVE	LUST, HIST LUST, SWEEPS UST	Higher	2078, 0.394, SW
<a href="#">I47</a>	HON PROPERTY	386 UNIVERSITY	LUST, HIST CORTESE	Higher	2078, 0.394, SW
<a href="#">H48</a>	MCELROY LUMBER	496 1ST ST	LUST, HIST LUST	Higher	2147, 0.407, SSW
<a href="#">H49</a>	MCELROY LUMBER CO	496 1ST ST	LUST, HIST UST, HIST CORTESE	Higher	2147, 0.407, SSW
<a href="#">50</a>	SANTA CLARA UNIVERSI	751 CAMPBELL AVE	RCRA-SQG, ENVIROSTOR, FINDS, ECHO	Higher	4406, 0.834, SE

STAFF PRELIMINARY WORKING DRAFT-FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)



# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 02/07/2017 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HILLVIEW MAINTENANCE	ADJ TO 97 HILLVIEW A	SSW 0 - 1/8 (0.004 mi.)	2	8

### ***Federal RCRA generators list***

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 12/12/2016 has revealed that there are 3 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>WALGREENS NO 7088</i></b>	<b><i>303 2ND ST</i></b>	<b><i>SW 1/8 - 1/4 (0.210 mi.)</i></b>	<b><i>F31</i></b>	<b><i>16</i></b>
LOS ALTOS ONE HOUR C	343 2ND ST	SW 1/8 - 1/4 (0.245 mi.)	D38	17
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>PACIFIC BELL</i></b>	<b><i>61 N SAN ANTONIO RD</i></b>	<b><i>NW 1/8 - 1/4 (0.166 mi.)</i></b>	<b><i>B19</i></b>	<b><i>12</i></b>

## EXECUTIVE SUMMARY

RCRA-CESQG: A review of the RCRA-CESQG list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WALGREENS #7088	303 2ND ST	SW 1/8 - 1/4 (0.210 mi.)	F32	16

### **State- and tribal - equivalent NPL**

RESPONSE: A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HILLVIEW - ELEANOR A</b> Database: RESPONSE, Date of Government Version: 07/31/2017 AWP Facility Id: 43490059 Status: Backlog Facility Id: 43490059	<b>BTW HILLVIEW;ELEANOR</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>1</b>	<b>8</b>

### **State- and tribal - equivalent CERCLIS**

ENVIROSTOR: A review of the ENVIROSTOR list, as provided by EDR, and dated 07/31/2017 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HILLVIEW - ELEANOR A</b> Facility Id: 43490059 Status: Backlog	<b>BTW HILLVIEW;ELEANOR</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>1</b>	<b>8</b>
<b>SANTA CLARA UNIVERSI</b> Facility Id: 43820002 Status: Refer: Other Agency	<b>751 CAMPBELL AVE</b>	<b>SE 1/2 - 1 (0.834 mi.)</b>	<b>50</b>	<b>21</b>

### **State and tribal leaking storage tank lists**

LUST: A review of the LUST list, as provided by EDR, has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SHELL (FORMER)</b> Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 06/12/2017 Status: Completed - Case Closed Facility Status: Case Closed	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A9</b>	<b>9</b>

## EXECUTIVE SUMMARY

Global Id: T0608500089

date9: 8/27/1992

<b>LOS ALTOS NURSERY</b>	<b>245 HAWTHORNE</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>C16</b>	<b>11</b>
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Facility Status: Case Closed				
Date Closed: 10/10/1996				
Global Id: T0608501972				
SCVWD ID: 06S2W29L01F				
date9: 10/10/1996				
<b>LOS ALTOS UNION SERV</b>	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D21</b>	<b>13</b>
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Global Id: T0608502323				
<b>UNOCAL #5957</b>	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D23</b>	<b>14</b>
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Status: Pollution Characterization				
<b>LOS ALTOS UNION #595</b>	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D27</b>	<b>14</b>
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				
SCVWD ID: 06S2W30R01F				
<b>PRIVATE RESIDENCE</b>	<b>PRIVATE RESIDENCE</b>	<b>SE 1/8 - 1/4 (0.229 mi.)</b>	<b>G34</b>	<b>16</b>
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Global Id: T0608504754				
<b>PRIVATE RESIDENCE</b>	<b>PRIVATE RESIDENCE</b>	<b>SE 1/8 - 1/4 (0.229 mi.)</b>	<b>G35</b>	<b>16</b>
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Global Id: T0608518106				
<b>VILLAGE CHEVRON #918</b>	<b>401 MAIN ST</b>	<b>WSW 1/4 - 1/2 (0.296 mi.)</b>	<b>42</b>	<b>18</b>
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Facility Status: Case Closed				
Date Closed: 10/01/1996				
Global Id: T0608502130				
SCVWD ID: 06S2W30R05F				
date9: 10/1/1996				
<b>95215</b>	<b>470 S SAN ANTONIO</b>	<b>SSW 1/4 - 1/2 (0.369 mi.)</b>	<b>H43</b>	<b>19</b>
Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014				
Database: LUST, Date of Government Version: 06/12/2017				
Status: Completed - Case Closed				
Date Closed: 06/02/2010				
Global Id: T0608502364				
SCVWD ID: 06S2W30R06F				
<b>95215</b>	<b>470 S SAN ANTONIO RD</b>	<b>SSW 1/4 - 1/2 (0.369 mi.)</b>	<b>H44</b>	<b>19</b>
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Status: Remedial action (cleanup) Underway				
<b>PRIVATE RESIDENCE</b>	<b>PRIVATE RESIDENCE</b>	<b>SW 1/4 - 1/2 (0.390 mi.)</b>	<b>45</b>	<b>19</b>
Database: LUST, Date of Government Version: 06/12/2017				



## EXECUTIVE SUMMARY

HIST LUST: A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there are 9 HIST LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SHELL (FORMER)</b> SCVWD ID: 06S2W30J01	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A9</b>	<b>9</b>
<b>LOS ALTOS NURSERY</b> SCVWD ID: 06S2W29L01	<b>245 HAWTHORNE</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>C16</b>	<b>11</b>
<b>UNOCAL #5957</b> SCVWD ID: 06S2W30R01	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D23</b>	<b>14</b>
<b>VILLAGE CHEVRON #918</b> SCVWD ID: 06S2W30R05	<b>401 MAIN ST</b>	<b>WSW 1/4 - 1/2 (0.296 mi.)</b>	<b>42</b>	<b>18</b>
<b>95215</b> SCVWD ID: 06S2W30R06	<b>470 S SAN ANTONIO RD</b>	<b>SSW 1/4 - 1/2 (0.369 mi.)</b>	<b>H44</b>	<b>19</b>
<b>HON RESIDENCE</b> SCVWD ID: 06S2W30R03	<b>386 UNIVERSITY AVE</b>	<b>SW 1/4 - 1/2 (0.394 mi.)</b>	<b>I46</b>	<b>20</b>
<b>MCELROY LUMBER</b> SCVWD ID: 06S2W30R04	<b>496 1ST ST</b>	<b>SSW 1/4 - 1/2 (0.407 mi.)</b>	<b>H48</b>	<b>20</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>PACIFIC BELL</b> SCVWD ID: 06S2W29E02	<b>61 N SAN ANTONIO RD</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B19</b>	<b>12</b>
<b>VILLA ANGELA RESIDEN</b> SCVWD ID: 06S2W29E01	<b>11 ANGELA</b>	<b>NNW 1/8 - 1/4 (0.206 mi.)</b>	<b>E30</b>	<b>15</b>

### State and tribal registered storage tank lists

UST: A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LOS ALTOS 76 Database: UST, Date of Government Version: 06/12/2017 Facility Id: 43-000-201569 Facility Id: FA0252352	330 S SAN ANTONIO RD	SW 1/8 - 1/4 (0.201 mi.)	D25	14
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AT&T-SITE P6004 (LSA) Database: UST, Date of Government Version: 06/12/2017 Facility Id: FA0201647 Facility Id: 43-000-201647	61 N. SAN ANTONIO RD	NW 1/8 - 1/4 (0.166 mi.)	B18	12

## EXECUTIVE SUMMARY

### ADDITIONAL ENVIRONMENTAL RECORDS

#### **Local Lists of Hazardous waste / Contaminated Sites**

HIST Cal-Sites: A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HILLVIEW - ELEANOR A</b>	<b>BTW HILLVIEW;ELEANOR</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>1</b>	<b>8</b>

#### **Local Lists of Registered Storage Tanks**

SWEEPS UST: A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 5 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BOB PEARSON</b> Status: A Tank Status: A Comp Number: 67162	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A8</b>	<b>9</b>
<b>ALTOS NURSERY</b> Status: A Tank Status: A Comp Number: 10602	<b>245 HAWTHORNE AVE</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>C15</b>	<b>11</b>
<b>LOS ALTOS UNION #595</b> Status: A Tank Status: A Comp Number: 30774	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D27</b>	<b>14</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CORPORATION YARD</b> Comp Number: 159	<b>1 N SAN ANTONIO RD</b>	<b>NNW 0 - 1/8 (0.090 mi.)</b>	<b>10</b>	<b>10</b>
<b>PACIFIC BELL</b> Status: A Tank Status: A Comp Number: 57529	<b>61 N SAN ANTONIO RD</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B19</b>	<b>12</b>

HIST UST: A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 9 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BOB PEARSON</b> Facility Id: 00000067162	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A7</b>	<b>9</b>
<b>BOB PEARSON</b> <b>ALTOS NURSERY</b>	<b>45 MAIN ST</b> <b>245 HAWTHORNE AVE</b>	<b>W 0 - 1/8 (0.085 mi.)</b> <b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>A8</b> <b>C14</b>	<b>9</b> <b>11</b>

## EXECUTIVE SUMMARY

Facility Id: 00000010602				
<b>LOS ALTOS UNION SERV</b>	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D21</b>	<b>13</b>
Facility Id: 00000011409				
<b>UNION OIL SS 5957</b>	<b>330 SOUTH SAN ANTONI</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D22</b>	<b>13</b>
UNION OIL SS# 5957	330 S SAN ANTONIO RD	SW 1/8 - 1/4 (0.201 mi.)	D24	14
Facility Id: 00000060730				
UNION OIL SS #5957	330 S SAN ANTONIO RD	SW 1/8 - 1/4 (0.201 mi.)	D28	15
Facility Id: 00000030774				
SAME AS ABOVE	320 2ND ST	SW 1/8 - 1/4 (0.245 mi.)	F37	17
Facility Id: 00000010582				
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>PACIFIC BELL</b>	<b>61 N SAN ANTONIO RD</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B19</b>	<b>12</b>
Facility Id: 00000057529				

CA FID UST: A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 4 CA FID UST sites within approximately 0.25 miles of the target property.

<b>Equal/Higher Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>BOB PEARSON</b>	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A8</b>	<b>9</b>
Facility Id: 43004199				
Status: A				
<b>ALTOS NURSERY</b>	<b>245 HAWTHORNE AVE</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>C15</b>	<b>11</b>
Facility Id: 43011970				
Status: A				
<b>LOS ALTOS UNION #595</b>	<b>330 S SAN ANTONIO RD</b>	<b>SW 1/8 - 1/4 (0.201 mi.)</b>	<b>D27</b>	<b>14</b>
Facility Id: 43001549				
Status: A				
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>PACIFIC BELL</b>	<b>61 N SAN ANTONIO RD</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B19</b>	<b>12</b>
Facility Id: 43010955				
Status: A				

### Other Ascertainable Records

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/12/2016 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<b>Equal/Higher Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>MATTOS J TRUCKING</b>	<b>225 STATE ST</b>	<b>W 1/8 - 1/4 (0.188 mi.)</b>	<b>20</b>	<b>13</b>
<b>ONE HOUR CLEANERS</b>	<b>343 2ND ST</b>	<b>SW 1/8 - 1/4 (0.245 mi.)</b>	<b>D39</b>	<b>17</b>

## EXECUTIVE SUMMARY

CA BOND EXP. PLAN: A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HILLVIEW-ELEANOR ARE	NEAR CORNER OF HILLV	SE 0 - 1/8 (0.008 mi.)	3	8

Cortese: A review of the Cortese list, as provided by EDR, and dated 12/28/2016 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HILLVIEW - ELEANOR A</b> Envirostor Id: 43490059 Cleanup Status: BACKLOG	<b>BTW HILLVIEW;ELEANOR</b>	<b>0 - 1/8 (0.000 mi.)</b>	<b>1</b>	<b>8</b>

CUPA Listings: A review of the CUPA Listings list, as provided by EDR, has revealed that there are 6 CUPA Listings sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LOS ALTOS 76 Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	330 S SAN ANTONIO RD	SW 1/8 - 1/4 (0.201 mi.)	D26	14
<b>WALGREENS NO 7088</b> Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	<b>303 2ND ST</b>	<b>SW 1/8 - 1/4 (0.210 mi.)</b>	<b>F31</b>	<b>16</b>
AT&T MOBILITY - DOWN Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	280 S 2ND ST	SW 1/8 - 1/4 (0.234 mi.)	F36	17
LEGACY DENTAL CARE Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	158 2ND ST	WSW 1/8 - 1/4 (0.248 mi.)	40	18
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PG&E: LOS ALTOS SUBS Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	SAN ANTONIO RD	NW 1/8 - 1/4 (0.137 mi.)	B13	10
<b>PACIFIC BELL</b> Database: CUPA SANTA CLARA, Date of Government Version: 02/22/2017	<b>61 N SAN ANTONIO AVE</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B17</b>	<b>12</b>

HIST CORTESE: A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 10 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SHELL (FORMER)</b> Reg Id: 43-0017	<b>45 MAIN ST</b>	<b>W 0 - 1/8 (0.085 mi.)</b>	<b>A9</b>	<b>9</b>
SANTA BARBARA FIRE S	182 MAIN	WSW 0 - 1/8 (0.124 mi.)	12	10



## EXECUTIVE SUMMARY

Reg Id: 3188				
<b>LOS ALTOS NURSERY</b>	<b>245 HAWTHORNE</b>	<b>SE 1/8 - 1/4 (0.155 mi.)</b>	<b>C16</b>	<b>11</b>
Reg Id: 43-2148				
BRUNNERS W VALLEY CH	300 MAIN	WSW 1/8 - 1/4 (0.216 mi.)	33	16
Reg Id: 43-0204				
TIRE STORE	404 2ND	SW 1/4 - 1/2 (0.260 mi.)	41	18
Reg Id: 43-1729				
<b>VILLAGE CHEVRON #918</b>	<b>401 MAIN ST</b>	<b>WSW 1/4 - 1/2 (0.296 mi.)</b>	<b>42</b>	<b>18</b>
Reg Id: 43-0326				
<b>HON PROPERTY</b>	<b>386 UNIVERSITY</b>	<b>SW 1/4 - 1/2 (0.394 mi.)</b>	<b>I47</b>	<b>20</b>
Reg Id: 43-1854				
<b>MCELROY LUMBER CO</b>	<b>496 1ST ST</b>	<b>SSW 1/4 - 1/2 (0.407 mi.)</b>	<b>H49</b>	<b>21</b>
Reg Id: 43-2034				
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>PACIFIC BELL</b>	<b>61 N SAN ANTONIO RD</b>	<b>NW 1/8 - 1/4 (0.166 mi.)</b>	<b>B19</b>	<b>12</b>
Reg Id: 43-2139				
<b>VILLA ANGELA RESIDEN</b>	<b>11 ANGELA</b>	<b>NNW 1/8 - 1/4 (0.206 mi.)</b>	<b>E30</b>	<b>15</b>
Reg Id: 43-1608				

### EDR HIGH RISK HISTORICAL RECORDS

#### **EDR Exclusive Records**

EDR Hist Auto: A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HONEYS SHELL SERVICE	45 MAIN ST	W 0 - 1/8 (0.085 mi.)	A6	9
ROGER S AUTOMOTIVE S	148 MAIN ST	W 0 - 1/8 (0.092 mi.)	A11	10

EDR Hist Cleaner: A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 2 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ALADDIN CARPET UPHOL	175 S SAN ANTONIO 12	WSW 0 - 1/8 (0.048 mi.)	4	8
MAIN STREET CLEANERS	129 MAIN ST	W 0 - 1/8 (0.083 mi.)	A5	9

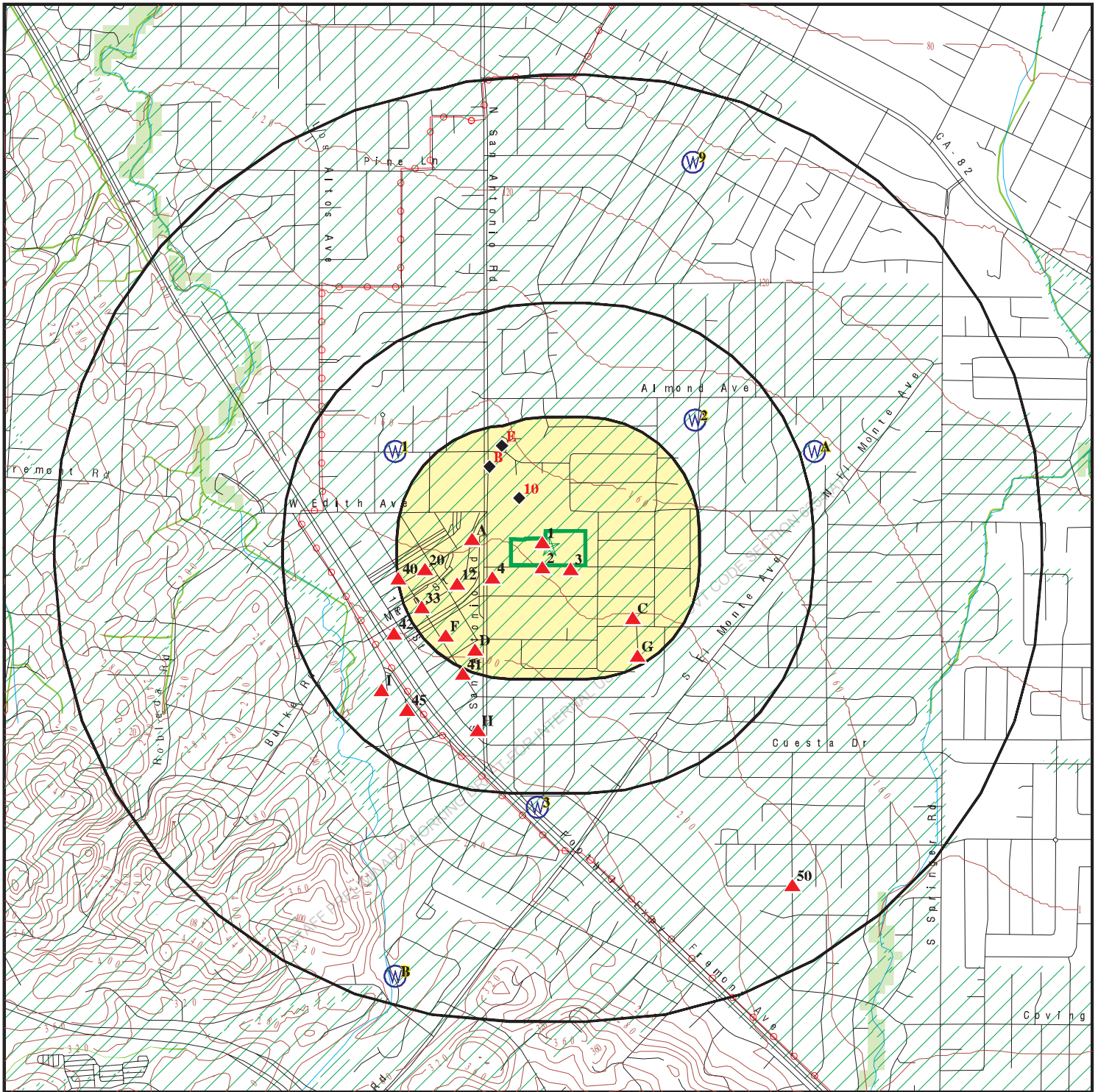
Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ALTOS	1003878724	LOS ALTOS WELL FIELD	COR OF HILL VIEW & ELEANOR	94022	SEMS-ARCHIVE
LOS ALTOS	1003879379	HILLVIEW - ELEANOR	HILLVIEW - ELEANOR	94022	SEMS-ARCHIVE

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

# OVERVIEW MAP - 5040953.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

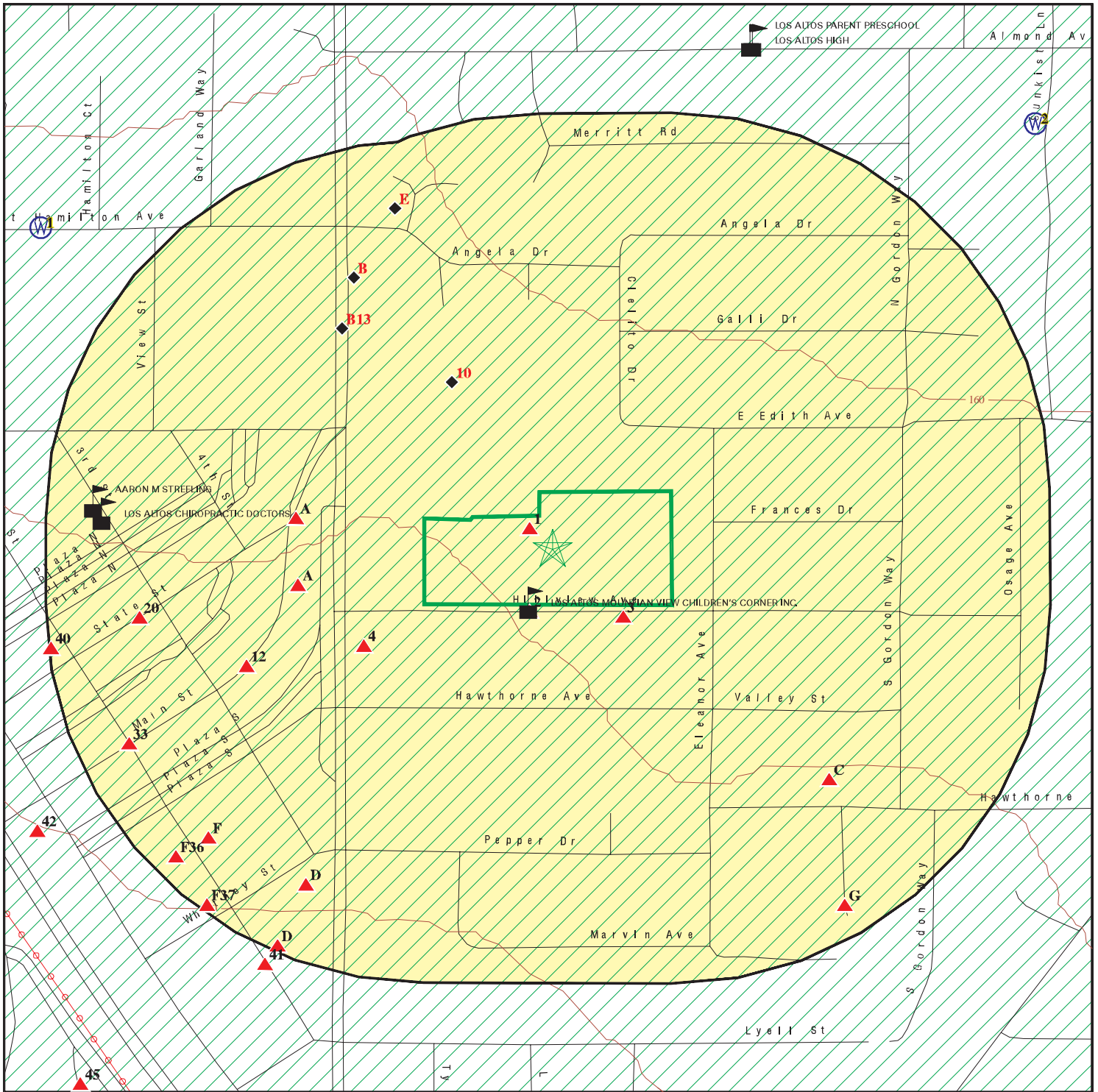
Areas of Concern








This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.






SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos CA 94022  
 LAT/LONG: 37.380223 / 122.111631

CLIENT: Ninyo & Moore  
 CONTACT: Randy Wheeler  
 INQUIRY #: 5040953.2s  
 DATE: September 05, 2017 5:16 pm

# DETAIL MAP - 5040953.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos CA 94022  
 LAT/LONG: 37.380223 / 122.111631

CLIENT: Ninyo & Moore  
 CONTACT: Randy Wheeler  
 INQUIRY #: 5040953.2s  
 DATE: September 05, 2017 5:22 pm

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		1	0	0	NR	NR	1
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	3	NR	NR	NR	3
RCRA-CESQG	0.250		0	1	NR	NR	NR	1
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	0.001		0	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent NPL RESPONSE</i></b>								
RESPONSE	1.000		1	0	0	0	NR	1
<b><i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i></b>								
ENVIROSTOR	1.000		1	0	0	1	NR	2
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		1	10	8	NR	NR	19

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
HIST LUST	0.500		1	4	4	NR	NR	9
<b>State and tribal registered storage tank lists</b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	2	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		1	0	0	0	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
<b>Local Lists of Registered Storage Tanks</b>								
SWEEPS UST	0.250		2	3	NR	NR	NR	5
HIST UST	0.250		2	7	NR	NR	NR	9
CA FID UST	0.250		1	3	NR	NR	NR	4
<b>Local Land Records</b>								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>Records of Emergency Release Reports</b>								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		0	2	NR	NR	NR	2
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		1	0	0	0	NR	1
Cortese	0.500		1	0	0	NR	NR	1
CUPA Listings	0.250		0	6	NR	NR	NR	6
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		2	4	4	NR	NR	10
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
SAN JOSE HAZMAT	0.250		0	0	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
<b><u>EDR HIGH RISK HISTORICAL RECORDS</u></b>								
<b><i>EDR Exclusive Records</i></b>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		2	NR	NR	NR	NR	2
<b><u>EDR RECOVERED GOVERNMENT ARCHIVES</u></b>								
<b><i>Exclusive Recovered Govt. Archives</i></b>								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	19	45	16	1	0	81

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database



MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance		Database(s)	
Elevation	Site		

1	<b>HILLVIEW - ELEANOR AREA PLUME</b> BTW HILLVIEW;ELEANOR AVE&SAN ANTONIO RD LOS ALTOS, CA 94022	<b>RESPONSE</b> ENVIROSTOR HIST Cal-Sites Cortese	S101482393 N/A
---	--	--	-------------------

< 1/8  
1 ft.

Relative:  
Higher

[Click here for full text details](#)

**RESPONSE**  
 Status: Backlog  
 AWP Facility Id: 43490059  
 Facility Id: 43490059

**ENVIROSTOR**  
 Facility Id: 43490059  
 Status: Backlog

**Cortese**  
 Envirostor Id: 43490059  
 Cleanup Status: BACKLOG

2	<b>HILLVIEW MAINTENANCE YARD</b> ADJ TO 97 HILLVIEW AVE, NRBY DRY CLEANER LOS ALTOS, CA 94022	<b>SEMS-ARCHIVE</b>	1000293149 CAD982400202
---	---	---------------------	----------------------------

< 1/8  
0.004 mi.  
22 ft.

Relative:  
Higher

[Click here for full text details](#)

3	<b>HILLVIEW-ELEANOR AREA PLUME</b> NEAR CORNER OF HILLVIEW AND ELEANOR AVENUES LOS ALTOS, CA 94022	<b>CA BOND EXP. PLAN</b>	S100833363 N/A
---	--	--------------------------	-------------------

< 1/8  
0.008 mi.  
41 ft.

Relative:  
Higher

[Click here for full text details](#)

4	<b>ALADDIN CARPET UPHOLSTERY</b> 175 S SAN ANTONIO 123 LOS ALTOS, CA 94022	<b>EDR Hist Cleaner</b>	1018693609 N/A
---	--	-------------------------	-------------------

< 1/8  
0.048 mi.  
255 ft.

Relative:  
Higher

[Click here for full text details](#)

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A5 West < 1/8 0.083 mi. 440 ft.	MAIN STREET CLEANERS AND LDRY 129 MAIN ST LOS ALTOS, CA 94022	EDR Hist Cleaner	1018662164 N/A
Relative: Higher	<a href="#">Click here for full text details</a>		
A6 West < 1/8 0.085 mi. 447 ft.	HONEYS SHELL SERVICE 45 MAIN ST LOS ALTOS, CA 94022	EDR Hist Auto	1020620866 N/A
Relative: Higher	<a href="#">Click here for full text details</a>		
A7 West < 1/8 0.085 mi. 447 ft.	BOB PEARSON 45 MAIN ST LOS ALTOS, CA 94022	HIST UST	U001594131 N/A
Relative: Higher	<p>HIST UST Facility Id: 00000067162</p>		
A8 West < 1/8 0.085 mi. 447 ft.	BOB PEARSON 45 MAIN ST LOS ALTOS, CA 94022	SWEEPS UST HIST UST CA FID UST	S101622950 N/A
Relative: Higher	<p><a href="#">Click here for full text details</a></p> <p>SWEEPS UST Status: A Tank Status: A Comp Number: 67162</p> <p>CA FID UST Status: A Facility Id: 43004199</p>		
A9 West < 1/8 0.085 mi. 447 ft.	SHELL (FORMER) 45 MAIN ST LOS ALTOS, CA 94022	LUST HIST LUST HIST CORTESE	S103880891 N/A
Relative: Higher	<p><a href="#">Click here for full text details</a></p> <p>LUST Facility Status: Case Closed Status: Completed - Case Closed Global Id: T0608500089</p>		

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL (FORMER) (Continued)**

**S103880891**

date9: 8/27/1992

[Click here to access the California GeoTracker records for this facility](#)

**HIST LUST**

SCVWD ID: 06S2W30J01

**HIST CORTESE**

Reg Id: 43-0017

10  
NNW  
< 1/8  
0.090 mi.  
476 ft.

**CORPORATION YARD**  
1 N SAN ANTONIO RD  
LOS ALTOS, CA 94022

**SWEEPS UST** S106924923  
N/A

[Click here for full text details](#)

Relative:  
Lower

**SWEEPS UST**  
Comp Number: 159

A11  
West  
< 1/8  
0.092 mi.  
484 ft.

**ROGER S AUTOMOTIVE SERVICE**  
148 MAIN ST  
SAN JOSE, CA

**EDR Hist Auto** 1009003210  
N/A

[Click here for full text details](#)

Relative:  
Higher

12  
WSW  
< 1/8  
0.124 mi.  
655 ft.

**SANTA BARBARA FIRE STATIO**  
182 MAIN  
MILPITAS, CA 95035

**HIST CORTESE** S105024976  
N/A

[Click here for full text details](#)

Relative:  
Higher

**HIST CORTESE**  
Reg Id: 3188

B13  
NW  
1/8-1/4  
0.137 mi.  
721 ft.

**PG&E: LOS ALTOS SUBSTATION**  
SAN ANTONIO RD  
LOS ALTOS, CA 94022

**CUPA Listings** S117892394  
N/A

[Click here for full text details](#)

Relative:  
Lower

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**C14**  
**SE**  
**1/8-1/4**  
**0.155 mi.**  
**818 ft.**

**ALTOS NURSERY**  
**245 HAWTHORNE AVE**  
**LOS ALTOS, CA 94022**

**HIST UST**

**U001594129**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Higher**

**HIST UST**  
Facility Id: 00000010602

**C15**  
**SE**  
**1/8-1/4**  
**0.155 mi.**  
**818 ft.**

**ALTOS NURSERY**  
**245 HAWTHORNE AVE**  
**LOS ALTOS, CA 94022**

**SWEEPS UST**  
**CA FID UST**

**S101622948**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Higher**

**SWEEPS UST**  
Status: A  
Tank Status: A  
Comp Number: 10602

**CA FID UST**  
Status: A  
Facility Id: 43011970

**C16**  
**SE**  
**1/8-1/4**  
**0.155 mi.**  
**818 ft.**

**LOS ALTOS NURSERY**  
**245 HAWTHORNE**  
**LOS ALTOS, CA 94022**

**LUST**  
**HIST LUST**  
**HIST CORTESE**

**S102432751**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Higher**

**LUST**  
Date Closed: 10/10/1996  
Facility Status: Case Closed  
Status: Completed - Case Closed  
Global Id: T0608501972  
SCVWD ID: 06S2W29L01F  
date9: 10/10/1996

Click here to access the California GeoTracker records for this facility

**HIST LUST**  
SCVWD ID: 06S2W29L01

**HIST CORTESE**  
Reg Id: 43-2148

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**B17**  
**NW**  
**1/8-1/4**  
**0.166 mi.**  
**874 ft.**

**PACIFIC BELL**  
**61 N SAN ANTONIO AVE**  
**LOS ALTOS, CA 94022**

**LUST**  
**CUPA Listings**  
**EMI**

**S108432761**  
**N/A**

Relative:  
Lower

[Click here for full text details](#)

**LUST**

Status: Completed - Case Closed  
Global Id: T0608501964

[Click here to access the California GeoTracker records for this facility](#)

**EMI**

Facility Id: 13486

**B18**  
**NW**  
**1/8-1/4**  
**0.166 mi.**  
**874 ft.**

**AT&T-SITE P6004 (LSATCA11)**  
**61 N. SAN ANTONIO RD.**  
**LOS ALTOS, CA 94022**

**UST**  
**U004049681**  
**N/A**

Relative:  
Lower

[Click here for full text details](#)

**UST**

Facility Id: FA0201647  
Facility Id: 43-000-201647

**B19**  
**NW**  
**1/8-1/4**  
**0.166 mi.**  
**874 ft.**

**PACIFIC BELL**  
**61 N SAN ANTONIO RD**  
**LOS ALTOS, CA 94022**

**RCRA-SQG**  
**LUST**  
**HIST LUST**  
**SWEEPS UST**  
**HIST UST**  
**CA FID UST**  
**FINDS**  
**ECHO**  
**HIST CORTESE**

**1000251159**  
**CAT080019912**

Relative:  
Lower

[Click here for full text details](#)

**RCRA-SQG**

EPA Id: CAT080019912

**LUST**

Date Closed: 07/01/1998  
Facility Status: Case Closed  
SCVWD ID: 06S2W29E02F  
date9: 7/1/1998

**HIST LUST**

SCVWD ID: 06S2W29E02

**SWEEPS UST**

Status: A  
Tank Status: A  
Comp Number: 57529

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PACIFIC BELL (Continued)**

1000251159

**HIST UST**

Facility Id: 00000057529

**CA FID UST**

Status: A

Facility Id: 43010955

**FINDS**

Registry ID:: 110055873381

Registry ID:: 110002948810

**HIST CORTESE**

Reg Id: 43-2139

20  
West  
1/8-1/4  
0.188 mi.  
994 ft.

**MATTOS J TRUCKING**  
225 STATE ST  
ALVISO, CA 95002

RCRA NonGen / NLR

1000418020  
CAD054801741

[Click here for full text details](#)

Relative:  
Higher

RCRA NonGen / NLR  
EPA Id: CAD054801741

D21  
SW  
1/8-1/4  
0.201 mi.  
1060 ft.

**LOS ALTOS UNION SERVICE**  
330 S SAN ANTONIO RD  
LOS ALTOS, CA 94022

LUST U001594148  
HIST UST N/A

[Click here for full text details](#)

Relative:  
Higher

**LUST**

Status: Completed - Case Closed

Global Id: T0608502323

[Click here to access the California GeoTracker records for this facility](#)

**HIST UST**

Facility Id: 00000011409

D22  
SW  
1/8-1/4  
0.201 mi.  
1060 ft.

**UNION OIL SS 5957**  
330 SOUTH SAN ANTONIO RD  
LOS ALTOS, CA 94022

HIST UST S113131524  
HAZNET N/A

[Click here for full text details](#)

Relative:  
Higher

**HAZNET**

GEPAID: CAL000281048

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
D23 SW 1/8-1/4 0.201 mi. 1060 ft.	UNOCAL #5957 330 S SAN ANTONIO RD LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	LUST HIST LUST	S103880893 N/A
Relative: Higher	LUST Facility Status: Pollution Characterization  HIST LUST SCVWD ID: 06S2W30R01		
D24 SW 1/8-1/4 0.201 mi. 1060 ft.	UNION OIL SS# 5957 330 S SAN ANTONIO RD LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	HIST UST	U001594162 N/A
Relative: Higher	HIST UST Facility Id: 00000060730		
D25 SW 1/8-1/4 0.201 mi. 1060 ft.	LOS ALTOS 76 330 S SAN ANTONIO RD LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	UST	U004049678 N/A
Relative: Higher	UST Facility Id: 43-000-201569 Facility Id: FA0252352		
D26 SW 1/8-1/4 0.201 mi. 1060 ft.	LOS ALTOS 76 330 S SAN ANTONIO RD LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	CUPA Listings	S108212505 N/A
Relative: Higher			
D27 SW 1/8-1/4 0.201 mi. 1060 ft.	LOS ALTOS UNION #5957 330 S SAN ANTONIO RD LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	LUST SWEEPS UST CA FID UST	S101622965 N/A
Relative: Higher	LUST SCVWD ID: 06S2W30R01F  SWEEPS UST		

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LOS ALTOS UNION #5957 (Continued)**

**S101622965**

Status: A  
Tank Status: A  
Comp Number: 30774

**CA FID UST**

Status: A  
Facility Id: 43001549

**D28  
SW  
1/8-1/4  
0.201 mi.  
1060 ft.**

**UNION OIL SS #5957  
330 S SAN ANTONIO RD  
LOS ALTOS, CA 94022**

**HIST UST 1000167332  
N/A**

Relative:  
Higher

[Click here for full text details](#)

**HIST UST**

Facility Id: 00000030774

**E29  
NNW  
1/8-1/4  
0.205 mi.  
1085 ft.**

**PRIVATE RESIDENCE  
PRIVATE RESIDENCE  
LOS ALTOS, CA 94022**

**LUST S110655369  
N/A**

Relative:  
Lower

[Click here for full text details](#)

**LUST**

Status: Completed - Case Closed  
Global Id: T0608501563

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**E30  
NNW  
1/8-1/4  
0.206 mi.  
1088 ft.**

**VILLA ANGELA RESIDENCE  
11 ANGELA  
LOS ALTOS, CA 94022**

**LUST S103472899  
HIST LUST N/A  
HIST CORTESE**

Relative:  
Lower

[Click here for full text details](#)

**LUST**

Date Closed: 09/26/1989  
Facility Status: Case Closed  
SCVWD ID: 06S2W29E01F  
date9: 9/26/1989

**HIST LUST**

SCVWD ID: 06S2W29E01

**HIST CORTESE**

Reg Id: 43-1608



MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
F31 SW 1/8-1/4 0.210 mi. 1108 ft.	WALGREENS NO 7088 303 2ND ST LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	RCRA-SQG CUPA Listings HAZNET	1010562082 CAR000186619
Relative: Higher	RCRA-SQG EPA Id: CAR000186619  HAZNET GEPaid: CAR000186619		
F32 SW 1/8-1/4 0.210 mi. 1108 ft.	WALGREENS #7088 303 2ND ST LOS ALTOS, CA 94022  <a href="#">Click here for full text details</a>	RCRA-CESQG	1016954311 CAL000323471
Relative: Higher	RCRA-CESQG EPA Id: CAL000323471		
33 WSW 1/8-1/4 0.216 mi. 1138 ft.	BRUNNERS W VALLEY CHAPEL 300 MAIN LOS GATOS, CA  <a href="#">Click here for full text details</a>	HIST CORTESE	S103472918 N/A
Relative: Higher	HIST CORTESE Reg Id: 43-0204		
G34 SE 1/8-1/4 0.229 mi. 1207 ft.	PRIVATE RESIDENCE PRIVATE RESIDENCE PALO ALTO, CA 94301  <a href="#">Click here for full text details</a>	LUST	S110655431 N/A
Relative: Higher	LUST Status: Completed - Case Closed Global Id: T0608504754  Click here to access the California GeoTracker records for this facility		
G35 SE 1/8-1/4 0.229 mi. 1207 ft.	PRIVATE RESIDENCE PRIVATE RESIDENCE PALO ALTO, CA 94301  <a href="#">Click here for full text details</a>	LUST	S110655441 N/A
Relative: Higher	LUST Status: Completed - Case Closed		

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**PRIVATE RESIDENCE (Continued)**

S110655441

Global Id: T0608518106

[Click here to access the California GeoTracker records for this facility](#)

F36  
SW  
1/8-1/4  
0.234 mi.  
1234 ft.

**AT&T MOBILITY - DOWNTOWN LOS ALTOS (USID13254)**  
280 S 2ND ST  
LOS ALTOS, CA 94022

CUPA Listings

S120049933  
N/A

[Click here for full text details](#)

Relative:  
Higher

F37  
SW  
1/8-1/4  
0.245 mi.  
1293 ft.

**SAME AS ABOVE**  
320 2ND ST  
LOS ALTOS, CA 94022

HIST UST

U001594159  
N/A

[Click here for full text details](#)

Relative:  
Higher

HIST UST  
Facility Id: 00000010582

D38  
SW  
1/8-1/4  
0.245 mi.  
1295 ft.

**LOS ALTOS ONE HOUR CLEANING**  
343 2ND ST  
LOS ALTOS, CA 94022

RCRA-SQG

1000101634  
CAD981632995

[Click here for full text details](#)

Relative:  
Higher

RCRA-SQG  
EPA Id: CAD981632995

D39  
SW  
1/8-1/4  
0.245 mi.  
1295 ft.

**ONE HOUR CLEANERS**  
343 2ND ST  
LOS ALTOS, CA 94022

RCRA NonGen / NLR

1000118186  
FINDS  
ECHO  
CAD981635717

[Click here for full text details](#)

Relative:  
Higher

RCRA NonGen / NLR  
EPA Id: CAD981635717

**FINDS**

Registry ID:: 110001163669

5- PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

40  
WSW  
1/8-1/4  
0.248 mi.  
1310 ft.

**LEGACY DENTAL CARE**  
158 2ND ST  
LOS ALTOS, CA 94022

**CUPA Listings** S112345979  
N/A

[Click here for full text details](#)

Relative:  
Higher

41  
SW  
1/4-1/2  
0.260 mi.  
1372 ft.

**TIRE STORE**  
404 2ND  
SAN JOSE, CA

**HIST CORTESE** S105026318  
N/A

[Click here for full text details](#)

Relative:  
Higher

**HIST CORTESE**  
Reg Id: 43-1729

42  
WSW  
1/4-1/2  
0.296 mi.  
1563 ft.

**VILLAGE CHEVRON #91875**  
401 MAIN ST  
LOS ALTOS, CA 94022

**LUST** S103657495  
**HIST LUST** N/A  
**SWEEPS UST**  
**HIST CORTESE**

[Click here for full text details](#)

Relative:  
Higher

**LUST**  
Date Closed: 10/01/1996  
Facility Status: Case Closed  
Status: Completed - Case Closed  
Global Id: T0608502130  
SCVWD ID: 06S2W30R05F  
date9: 10/1/1996

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**HIST LUST**  
SCVWD ID: 06S2W30R05

**SWEEPS UST**  
Status: A  
Tank Status: A  
Comp Number: 62160

**HIST CORTESE**  
Reg Id: 43-0326

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
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<b>H43</b> <b>SSW</b> 1/4-1/2 0.369 mi. 1946 ft.	<b>95215</b> <b>470 S SAN ANTONIO</b> <b>LOS ALTOS, CA 94022</b>  <a href="#">Click here for full text details</a>	<b>LUST</b> <b>SWEEPS UST</b> <b>HIST UST</b> <b>CA FID UST</b>	<b>S101622947</b> <b>N/A</b>
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Relative:  
Higher

**LUST**  
 Date Closed: 06/02/2010  
 Status: Completed - Case Closed  
 Global Id: T0608502364  
 SCVWD ID: 06S2W30R06F

Click here to access the California GeoTracker records for this facility

**SWEEPS UST**  
 Status: A  
 Tank Status: A  
 Comp Number: 62721

**CA FID UST**  
 Status: A  
 Facility Id: 43000526

<b>H44</b> <b>SSW</b> 1/4-1/2 0.369 mi. 1946 ft.	<b>95215</b> <b>470 S SAN ANTONIO RD</b> <b>LOS ALTOS, CA 94022</b>  <a href="#">Click here for full text details</a>	<b>LUST</b> <b>HIST LUST</b> <b>HIST UST</b>	<b>U001594128</b> <b>N/A</b>
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Relative:  
Higher

**LUST**  
 Facility Status: Remedial action (cleanup) Underway

**HIST LUST**  
 SCVWD ID: 06S2W30R06

**HIST UST**  
 Facility Id: 00000062721

<b>45</b> <b>SW</b> 1/4-1/2 0.390 mi. 2058 ft.	<b>PRIVATE RESIDENCE</b> <b>PRIVATE RESIDENCE</b> <b>LOS ALTOS, CA 94022</b>  <a href="#">Click here for full text details</a>	<b>LUST</b>	<b>S110655378</b> <b>N/A</b>
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Relative:  
Higher

**LUST**  
 Status: Completed - Case Closed  
 Global Id: T0608501780

Click here to access the California GeoTracker records for this facility

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

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<b>I46</b> <b>SW</b> 1/4-1/2 0.394 mi. 2078 ft.	<b>HON RESIDENCE</b> <b>386 UNIVERSITY AVE</b> <b>LOS ALTOS, CA 94022</b>	<b>LUST</b> <b>HIST LUST</b> <b>SWEEPS UST</b>	<b>S103474330</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Higher**

**LUST**  
 Facility Status: Case Closed  
 date9: 10/10/1995

**HIST LUST**  
 SCVWD ID: 06S2W30R03

**SWEEPS UST**  
 Comp Number: 9494

<b>I47</b> <b>SW</b> 1/4-1/2 0.394 mi. 2078 ft.	<b>HON PROPERTY</b> <b>386 UNIVERSITY</b> <b>LOS ALTOS, CA 94305</b>	<b>LUST</b> <b>HIST CORTESE</b>	<b>S103472903</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Higher**

**LUST**  
 Date Closed: 10/10/1995  
 SCVWD ID: 06S2W30R03F

**HIST CORTESE**  
 Reg Id: 43-1854

<b>H48</b> <b>SSW</b> 1/4-1/2 0.407 mi. 2147 ft.	<b>MCELROY LUMBER</b> <b>496 1ST ST</b> <b>LOS ALTOS, CA 94022</b>	<b>LUST</b> <b>HIST LUST</b>	<b>S105032701</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Higher**

**LUST**  
 Facility Status: Case Closed  
 date9: 4/6/1995

**HIST LUST**  
 SCVWD ID: 06S2W30R04

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

H49  
SSW  
1/4-1/2  
0.407 mi.  
2147 ft.

MCELROY LUMBER CO  
496 1ST ST  
LOS ALTOS, CA 94022

LUST  
HIST UST  
HIST CORTESE

U001594152  
N/A

[Click here for full text details](#)

Relative:  
Higher

**LUST**  
Date Closed: 04/06/1995  
Status: Completed - Case Closed  
Global Id: T0608501872  
SCVWD ID: 06S2W30R04F

[Click here to access the California GeoTracker records for this facility](#)

**HIST UST**  
Facility Id: 00000004149

**HIST CORTESE**  
Reg Id: 43-2034

50  
SE  
1/2-1  
0.834 mi.  
4406 ft.

SANTA CLARA UNIVERSITY  
751 CAMPBELL AVE  
SANTA CLARA, CA 95053

RCRA-SQG  
ENVIROSTOR  
FINDS  
ECHO

1000395015  
CAD981447477

[Click here for full text details](#)

Relative:  
Higher

**RCRA-SQG**  
EPA Id: CAD981447477

**ENVIROSTOR**  
Facility Id: 43820002  
Status: Refer: Other Agency

**FINDS**  
Registry ID: 110002710308

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY-CA GOVT CODE SECTION 6254(A)

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfields Sites Listing	State Water Resources Control Board	01/03/2017	01/04/2017	03/02/2017
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2016	03/17/2017	05/10/2017
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	12/06/2016	01/25/2017	05/10/2017
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	12/28/2016	12/28/2016	03/02/2017
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	06/05/2017	06/06/2017	08/10/2017
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	03/09/2017	04/11/2017	05/23/2017
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2015	03/21/2017	08/15/2017
CA	ENF	Enforcement Action Listing	State Water Resources Control Board	05/01/2017	05/03/2017	08/15/2017
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	07/31/2017	08/01/2017	08/15/2017
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	06/05/2017	06/09/2017	08/15/2017
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	05/16/2017	05/19/2017	08/15/2017
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	05/30/2017	05/31/2017	08/15/2017
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2015	10/12/2016	12/15/2016
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	05/22/2017	05/24/2017	08/18/2017
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	04/11/2017	04/13/2017	04/26/2017
CA	ICE	ICE	Department of Toxic Substances Control	05/22/2017	05/24/2017	08/18/2017
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Quality Control Board	06/12/2017	06/14/2017	08/18/2017
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	06/02/2017	06/06/2017	08/22/2017
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	06/12/2017	06/14/2017	08/22/2017
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Board	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Board	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Board	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Board	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Board	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Board	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Board	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Board	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Board	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Board	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	06/12/2017	06/14/2017	08/22/2017
CA	MINES	Mines Site Location Listing	Department of Conservation	09/12/2016	09/14/2016	10/14/2016
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	05/25/2017	06/06/2017	08/23/2017
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	12/16/2016	12/22/2016	03/02/2017
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	11/14/2016	11/15/2016	03/02/2017
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	06/05/2017	06/07/2017	08/25/2017
CA	PROC	Certified Processors Database	Department of Conservation	03/13/2017	03/14/2017	05/03/2017
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	07/31/2017	08/01/2017	08/15/2017
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tank	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	07/31/2017	08/01/2017	08/15/2017
CA	SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	06/12/2017	06/14/2017	08/23/2017

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	02/13/2017	02/15/2017	05/02/2017
CA	SWRCY	Recycler Database	Department of Conservation	03/13/2017	03/14/2017	05/03/2017
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	01/20/2017	03/14/2017	05/03/2017
CA	UST	Active UST Facilities	SWRCB	06/12/2017	06/14/2017	08/23/2017
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	06/02/2017	06/06/2017	08/25/2017
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	07/31/2017	08/01/2017	08/15/2017
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	04/15/2015	04/17/2015	06/23/2015
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	04/22/2013	03/03/2015	03/09/2015
US	ABANDONED MINES	Abandoned Mines	Department of Interior	03/14/2017	03/17/2017	04/07/2017
US	BRS	Biennial Reporting System	EPANTIS	12/31/2013	02/24/2015	09/30/2015
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2016	11/18/2016	02/03/2017
US	CORRACTS	Corrective Action Report	EPA	12/12/2016	12/28/2016	02/10/2017
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	06/02/2016	06/03/2016	09/02/2016
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
US	Delisted NPL	National Priority List Deletions	EPA	04/05/2017	04/21/2017	05/12/2017
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	03/19/2017	03/21/2017	05/12/2017
US	EDR Hist Auto	EDR Exclusive Historic Gas Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	09/26/2016	09/29/2016	11/11/2016
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	11/07/2016	01/05/2017	04/07/2017
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FEMA UST	Underground Storage Tank Listing	FEMA	01/01/2010	02/16/2010	04/12/2010
US	FINDS	Facility Index System/Facility Registry System	EPA	04/04/2017	04/07/2017	05/12/2017
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/22/2017	02/22/2017	05/12/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	12/23/2016	12/27/2016	02/17/2017
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/28/2016	12/28/2016	02/03/2017
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	11/14/2016	01/26/2017	05/05/2017
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/07/2016	01/26/2017	05/05/2017
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	10/14/2016	01/27/2017	05/05/2017
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	11/14/2016	01/26/2017	05/05/2017
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	10/01/2016	01/26/2017	05/05/2017
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	09/01/2016	01/26/2017	05/05/2017
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/17/2016	01/26/2017	05/05/2017
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/06/2016	01/26/2017	05/05/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	11/14/2016	01/26/2017	05/05/2017
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/07/2016	01/26/2017	05/05/2017
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	10/14/2016	01/27/2017	05/05/2017
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	01/14/2017	01/26/2017	05/05/2017
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	10/01/2016	01/26/2017	05/05/2017
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	09/01/2016	01/26/2017	05/05/2017
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/17/2016	01/26/2017	05/05/2017
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/06/2016	01/26/2017	05/05/2017
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	12/05/2016	01/05/2017	02/10/2017
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	02/18/2014	03/18/2014	04/24/2014
US	LUCIS	Land Use Control Information System	Department of the Navy	12/28/2016	01/04/2017	04/07/2017
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	NPL	National Priority List	EPA	04/05/2017	04/21/2017	05/12/2017
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	01/20/2016	04/28/2016	09/02/2016
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	02/01/2011	10/19/2011	01/10/2012
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	Proposed NPL	Proposed National Priority List Sites	EPA	04/05/2017	04/21/2017	05/12/2017
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	01/04/2017	01/06/2017	02/10/2017
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	12/12/2016	12/28/2016	02/10/2017
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	12/12/2016	12/28/2016	02/10/2017
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	12/12/2016	12/28/2016	02/10/2017
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	12/12/2016	12/28/2016	02/10/2017
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	12/12/2016	12/28/2016	02/10/2017

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	RMP	Risk Management Plans	Environmental Protection Agency	02/01/2017	02/09/2017	04/07/2017
US	ROD	Records Of Decision	EPA	11/25/2013	12/12/2013	02/24/2014
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	02/07/2017	04/19/2017	05/05/2017
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	02/07/2017	04/19/2017	05/05/2017
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2014	11/24/2015	04/05/2016
US	TSCA	Toxic Substances Control Act	EPA	12/31/2012	01/15/2015	01/29/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	09/14/2010	10/07/2011	03/01/2012
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	03/02/2017	03/02/2017	04/07/2017
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	02/09/2017	03/08/2017	06/09/2017
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	02/13/2017	02/28/2017	06/09/2017
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	02/13/2017	02/15/2017	05/12/2017
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	02/09/2017	03/08/2017	06/09/2017
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	02/13/2017	02/28/2017	06/09/2017
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	02/08/2017	02/28/2017	04/07/2017
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	10/25/2015	01/29/2016	04/05/2016
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	07/30/2013	08/19/2013	10/03/2013
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2016	04/11/2017	07/27/2017
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/30/2017	02/01/2017	02/13/2017
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2015	07/22/2016	11/22/2016
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2013	06/19/2015	07/15/2015
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	12/31/2016	04/13/2017	07/14/2017
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish & Game			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		PennWell Corporation			
US	Electric Power Transmission Line Data		PennWell Corporation			

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**St**   **Acronym**   **Full Name**   **Government Agency**   **Gov Date**   **Arvl. Date**   **Active Date**

### STREET AND ADDRESS INFORMATION

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# GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

## TARGET PROPERTY ADDRESS

HILLVIEW AVENUE PROPERTY  
97 HILLVIEW AVENUE  
LOS ALTOS, CA 94022

## TARGET PROPERTY COORDINATES

Latitude (North): 37.380223 - 37° 22' 48.80"  
Longitude (West): 122.111631 - 122° 6' 41.87"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 578651.0  
UTM Y (Meters): 4137219.2  
Elevation: 174 ft. above sea level

## USGS TOPOGRAPHIC MAP

Target Property Map: 5641106 MOUNTAIN VIEW, CA  
Version Date: 2012

Southeast Map: 5640178 CUPERTINO, CA  
Version Date: 2012

Southwest Map: 5640188 MINDEGO HILL, CA  
Version Date: 2012

Northwest Map: 5640620 PALO ALTO, CA  
Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

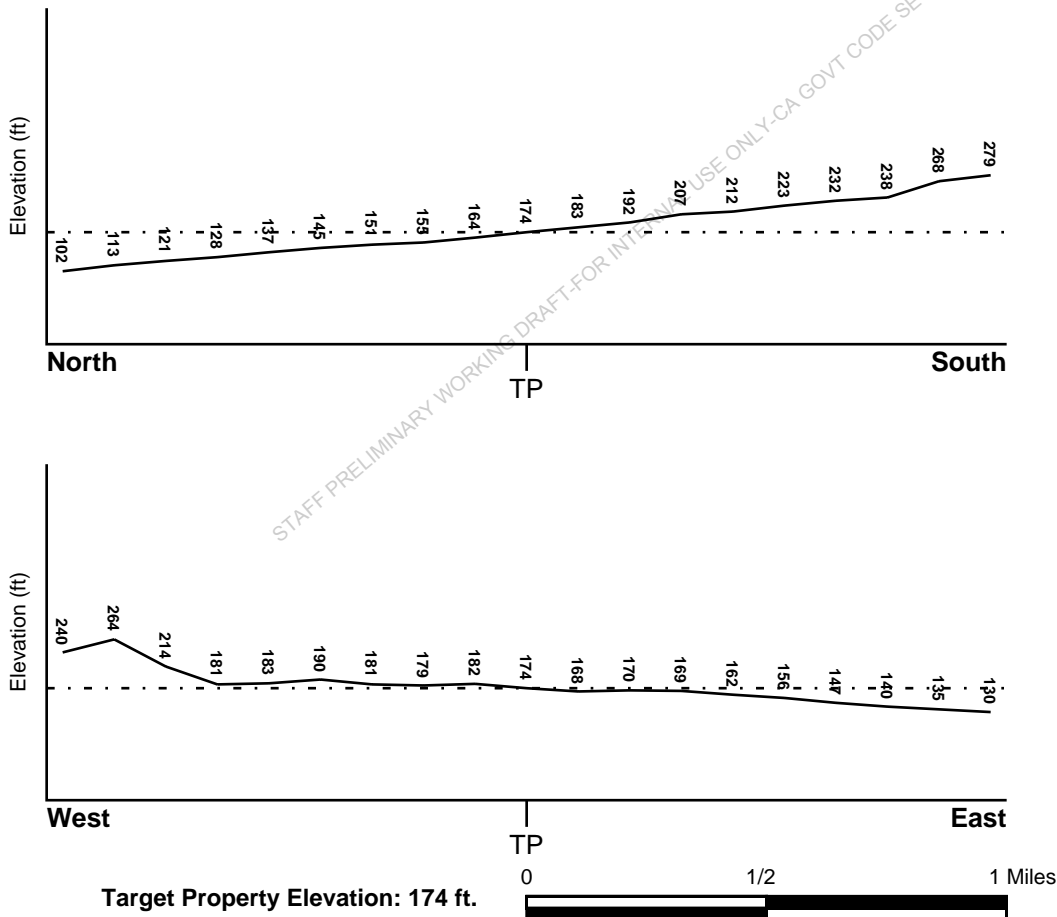
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06085C0038H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06085C0019H	FEMA FIRM Flood data
06085C0039H	FEMA FIRM Flood data
06085C0185H	FEMA FIRM Flood data
06085C0201H	FEMA FIRM Flood data

## NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
MOUNTAIN VIEW	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### **Site-Specific Hydrogeological Data\*:**

Search Radius:	1.25 miles
Location Relative to TP:	0 - 1/8 Mile SSW
Site Name:	Hillview Maintenance Yard
Site EPA ID Number:	CAD982400202
Groundwater Flow Direction:	NE ON A REGIONAL BASIS, WITH LOCAL FLOW CONDITIONS INFLUENCED BY PUMPING.
Inferred Depth to Water:	100 feet to 120 feet.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifers under the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

## AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### **ROCK STRATIGRAPHIC UNIT**

Era: Cenozoic  
System: Tertiary  
Series: Pliocene  
Code: Tpc (decoded above as Era, System & Series)

### **GEOLOGIC AGE IDENTIFICATION**

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: BOTELLA  
Soil Surface Texture: clay loam  
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.  
Soil Drainage Class: Not reported  
Hydric Status: Soil does not meet the requirements for a hydric soil.  
Corrosion Potential - Uncoated Steel: MODERATE  
Depth to Bedrock Min: > 60 inches  
Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.60 Min: 0.20	Max: 7.30 Min: 5.60
2	9 inches	41 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60
3	41 inches	76 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	USGS40000182665	1/4 - 1/2 Mile NE
3	USGS40000182578	1/2 - 1 Mile South
9	USGS40000182869	1/2 - 1 Mile NNE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	6880	1/4 - 1/2 Mile WNW
A4	6897	1/2 - 1 Mile ENE
A5	6896	1/2 - 1 Mile ENE
A6	6906	1/2 - 1 Mile ENE
A7	6899	1/2 - 1 Mile ENE
A8	6878	1/2 - 1 Mile ENE
B10	6907	1/2 - 1 Mile SSW
B11	6909	1/2 - 1 Mile SSW

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# PHYSICAL SETTING SOURCE MAP - 5040953.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

<p><b>SITE NAME:</b> Hillview Avenue Property  <b>ADDRESS:</b> 97 Hillview Avenue                  Los Altos CA 94022  <b>LAT/LONG:</b> 37.380223 / 122.111631</p>	<p><b>CLIENT:</b> Ninyo &amp; Moore  <b>CONTACT:</b> Randy Wheeler  <b>INQUIRY #:</b> 5040953.2s  <b>DATE:</b> September 05, 2017 5:23 pm</p>
--	---

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
1	WNW	1/4 - 1/2 Mile	Lower	CA WELLS	6880
<a href="#">Click here for full text details</a>					
2	NE	1/4 - 1/2 Mile	Lower	FED USGS	USGS40000182665
<a href="#">Click here for full text details</a>					
3	South	1/2 - 1 Mile	Higher	FED USGS	USGS40000182578
<a href="#">Click here for full text details</a>					
A4	ENE	1/2 - 1 Mile	Lower	CA WELLS	6897
<a href="#">Click here for full text details</a>					
A5	ENE	1/2 - 1 Mile	Lower	CA WELLS	6896
<a href="#">Click here for full text details</a>					
A6	ENE	1/2 - 1 Mile	Lower	CA WELLS	6906
<a href="#">Click here for full text details</a>					
A7	ENE	1/2 - 1 Mile	Lower	CA WELLS	6899
<a href="#">Click here for full text details</a>					
A8	ENE	1/2 - 1 Mile	Lower	CA WELLS	6878
<a href="#">Click here for full text details</a>					

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## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database

EDR ID Number

9  
NNE  
1/2 - 1 Mile  
Lower

[Click here for full text details](#)

FED USGS

USGS40000182869

B10  
SSW  
1/2 - 1 Mile  
Higher

[Click here for full text details](#)

CA WELLS

6907

B11  
SSW  
1/2 - 1 Mile  
Higher

[Click here for full text details](#)

CA WELLS

6909

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# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CA Radon

### Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94022	60	3

Federal EPA Radon Zone for SANTA CLARA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level  $\geq$  2 pCi/L and  $\leq$  4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94022

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.200 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

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# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

## HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

#### California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

## OTHER STATE DATABASE INFORMATION

#### California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

### RADON

#### State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## OTHER

Airport Landing Facilities: Private and public use landing facilities  
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

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## **Appendix D:**

# **SITE DOCUMENTATION AND REGULATORY RECORDS**

## Randy Wheeler

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**From:** Pech, Somira <Somira.Pech@cep.sccgov.org>  
**Sent:** Wednesday, September 13, 2017 8:04 AM  
**To:** Randy Wheeler  
**Subject:** RE: CPRA REQ090517D

Hi Randy,

No record for 98 or 98 Hillview Ave.

Thank you,  
Somira

---

**From:** Randy Wheeler [<mailto:rlwheeler@ninyoandmoore.com>]  
**Sent:** Tuesday, September 12, 2017 2:27 PM  
**To:** Pech, Somira <[Somira.Pech@cep.sccgov.org](mailto:Somira.Pech@cep.sccgov.org)>  
**Subject:** RE: CPRA REQ090517D

Can you check 97 Hillview Ave as well? Not sure I asked for 98, but the address is 97 Hillview Avenue.

I'm mainly interested in records from the pre-1970s related to the former elementary school and bus maintenance facility that operated at the school.

### Randy L. Wheeler, C.E.M

Senior Geologist

#### Ninyo & Moore

Geotechnical & Environmental Sciences Consultants  
1401 Halyard Drive, Suite 110  
West Sacramento, California 95691  
916-373-9858 (x15402) (office) | 916-317-3284 (cell)  
[rlwheeler@ninyoandmoore.com](mailto:rlwheeler@ninyoandmoore.com)  
[www.ninyoandmoore.com](http://www.ninyoandmoore.com)

*30 Years of Quality Service*



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**From:** Pech, Somira [<mailto:Somira.Pech@cep.sccgov.org>]  
**Sent:** Saturday, September 09, 2017 9:43 AM  
**To:** Randy Wheeler  
**Subject:** CPRA REQ090517D

Good morning Randy,

Thank you for your recent record request received on 09/05/2017 for the following address in Los Altos:

98 Hillview Ave

We have no records for this location. However, additional electronic documents may be found on the following websites:

[Local Oversight Program \(LOP\)](#)  
[GEOTracker \(GT\)](#)  
[Cal EPA Site Portal](#)

Spill Reports Website – California Office of Emergency Services (Cal OES):

[https://w3.calema.ca.gov/operational/malhaz.nsf/\\$defaultview](https://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview)

Please be advised that in some cities, other participating agencies may be responsible for maintaining the type of files you requested. This link may be of assistance in determining who will have the documents you are looking for in the future:

[UNIDOCs](#) – Who regulates what in Santa Clara County

Best regards,

***Somira Pech***

Department of Environmental Health  
1555 Berger Drive, Building 2, Suite 300  
San Jose, CA 95112

[www.ehinfo.org](http://www.ehinfo.org)

408-918-3423 Direct Line

408-280-6479 Fax

Email: [somira.pech@deh.sccgov.org](mailto:somira.pech@deh.sccgov.org)

**\*\* LAST business transaction/payment/submittal of the day will be processed at 4:45 pm. Transactions submitted after 4:45 pm will be processed the following business day.**

**“Learn from yesterday, live for today, hope for tomorrow.” By Albert Einstein**

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**Matthew Rodriguez**  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Barbara A. Lee, Director  
700 Heinz Avenue  
Berkeley, California 94710-2721



**Edmund G. Brown Jr.**  
Governor

September 21, 2017

Randy L. Wheeler  
Ninyo & Moore  
rlwheeler@ninyoandmoore.com

97 Hillview Avenue, Los Altos

**PR # 2-091317-02**

Dear Mr. Wheeler:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: <http://www.envirostor.dtsc.ca.gov/public>. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions, would like further information regarding your request or would like an appointment to visit Berkeley's Central Files, please contact me at (510) 540-3800.

Sincerely,

**André J. Alexander**

Regional Central Files Coordinator  
Tel: 510-540-3800 / Fax: 510-540-3801  
Berkeleyfileroom@DTSC.CA.GOV

**Appendix E:**  
**HISTORICAL RESEARCH  
DOCUMENTATION**

STAFF PRELIMINARY DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)

Hillview Avenue Property

97 Hillview Avenue

Los Altos, CA 94022

Inquiry Number: 5040953.3

September 05, 2017

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

09/05/17

**Site Name:**

Hillview Avenue Property  
97 Hillview Avenue  
Los Altos, CA 94022  
EDR Inquiry # 5040953.3

**Client Name:**

Ninyo & Moore  
1401 Halyard Drive, Suite 110  
West Sacramento, CA 95691  
Contact: Randy Wheeler



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Ninyo & Moore were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn).

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

## Certified Sanborn Results:

**Certification #** 5512-4A26-9542

**PO #** NA

**Project** 403132001

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 5512-4A26-9542

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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Hillview Avenue Property

97 Hillview Avenue

Los Altos, CA 94022

Inquiry Number: 5040953.4

September 05, 2017

EDR Historical Topo Map Report  
with QuadMatch™



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)



# EDR Historical Topo Map Report

09/05/17

**Site Name:**

Hillview Avenue Property  
97 Hillview Avenue  
Los Altos, CA 94022  
EDR Inquiry # 5040953.4

**Client Name:**

Ninyo & Moore  
1401 Halyard Drive, Suite 110  
West Sacramento, CA 95691  
Contact: Randy Wheeler



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Ninyo & Moore were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:**

**Coordinates:**

<b>P.O.#</b>	NA	<b>Latitude:</b>	37.380223 37° 22' 49" North
<b>Project:</b>	403132001	<b>Longitude:</b>	-122.111631 -122° 6' 42" West
		<b>UTM Zone:</b>	Zone 10 North
		<b>UTM X Meters:</b>	578649.09
		<b>UTM Y Meters:</b>	4137423.28
		<b>Elevation:</b>	174.77' above sea level

**Maps Provided:**

2012	1948
1997, 1999	1947
1994, 1995	1943
1980, 1981	1902
1973	1899
1968	1897
1961	
1953, 1955	

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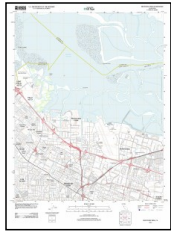
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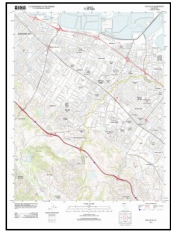
## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2012 Source Sheets



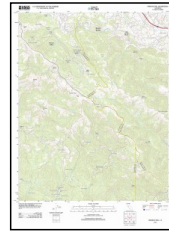
Mountain View  
2012  
7.5-minute, 24000



Palo Alto  
2012  
7.5-minute, 24000

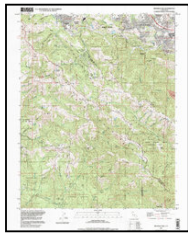


Cupertino  
2012  
7.5-minute, 24000

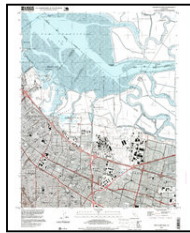


Mindego Hill  
2012  
7.5-minute, 24000

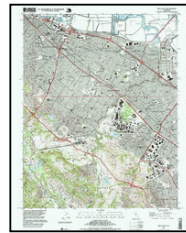
### 1997, 1999 Source Sheets



Mindego Hill  
1997  
7.5-minute, 24000  
Aerial Photo Revised 1991



Mountain View  
1997  
7.5-minute, 24000  
Aerial Photo Revised 1997

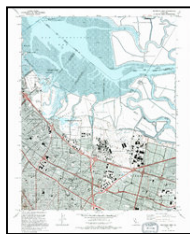


Palo Alto  
1999  
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Aerial Photo Revised 1999

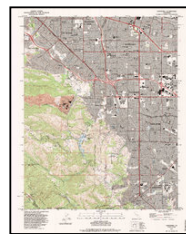
### 1994, 1995 Source Sheets



Palo Alto  
1994  
7.5-minute, 24000  
Aerial Photo Revised 1991



Mountain View  
1995  
7.5-minute, 24000  
Aerial Photo Revised 1991



Cupertino  
1995  
7.5-minute, 24000  
Aerial Photo Revised 1991

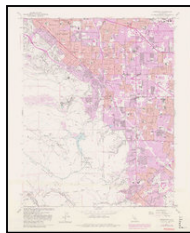


Mindego Hill  
1995  
7.5-minute, 24000  
Aerial Photo Revised 1991

### 1980, 1981 Source Sheets



Mindego Hill  
1980  
7.5-minute, 24000  
Aerial Photo Revised 1978



Cupertino  
1980  
7.5-minute, 24000  
Aerial Photo Revised 1979



Mountain View  
1981  
7.5-minute, 24000  
Aerial Photo Revised 1979

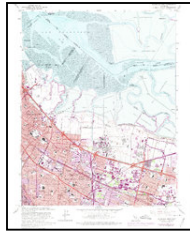
## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

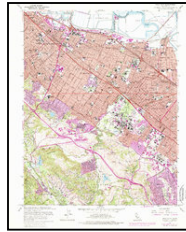
### 1973 Source Sheets



Mindego Hill  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1968



Mountain View  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

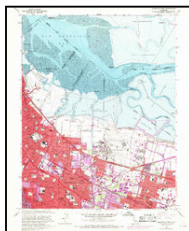


Palo Alto  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973



Cupertino  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

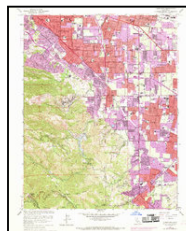
### 1968 Source Sheets



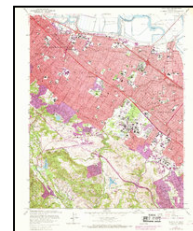
Mountain View  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1968



Mindego Hill  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1968

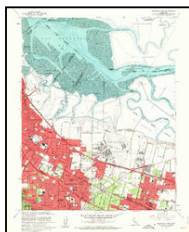


Cupertino  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1968

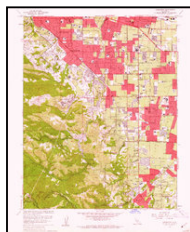


Palo Alto  
1968  
7.5-minute, 24000  
Aerial Photo Revised 1968

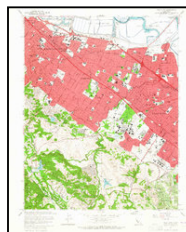
### 1961 Source Sheets



Mountain View  
1961  
7.5-minute, 24000  
Aerial Photo Revised 1960



Cupertino  
1961  
7.5-minute, 24000  
Aerial Photo Revised 1960

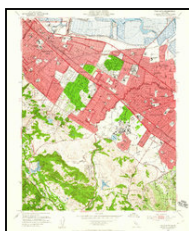


Palo Alto  
1961  
7.5-minute, 24000  
Aerial Photo Revised 1960

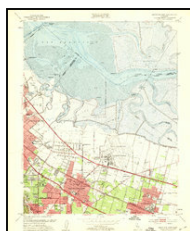


Mindego Hill  
1961  
7.5-minute, 24000  
Aerial Photo Revised 1960

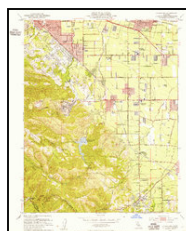
### 1953, 1955 Source Sheets



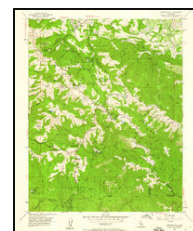
Palo Alto  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1948



Mountain View  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1948



Cupertino  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1948

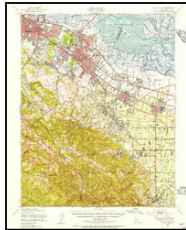


Mindego Hill  
1955  
7.5-minute, 24000  
Aerial Photo Revised 1953

## Topo Sheet Key

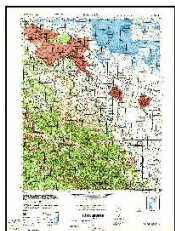
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1948 Source Sheets



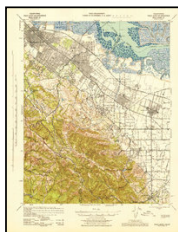
Palo Alto  
1948  
15-minute, 62500  
Aerial Photo Revised 1948

### 1947 Source Sheets



PALO ALTO  
1947  
15-minute, 50000

### 1943 Source Sheets



Palo Alto  
1943  
15-minute, 62500  
Aerial Photo Revised 1940

### 1902 Source Sheets

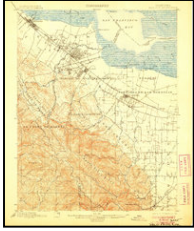


Santa Cruz  
1902  
30-minute, 125000

## **Topo Sheet Key**

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1899 Source Sheets**

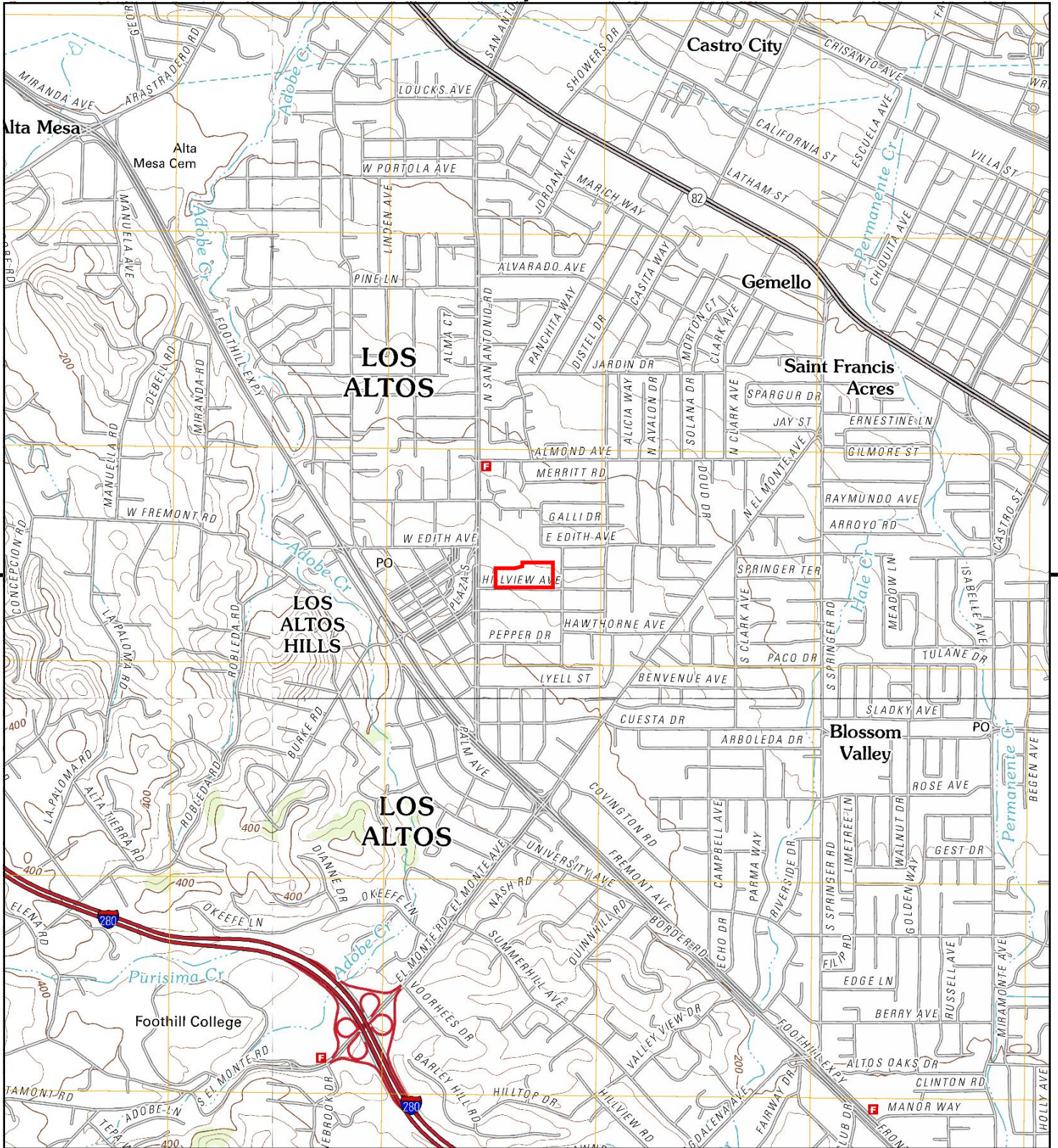


Palo Alto  
1899  
15-minute, 62500

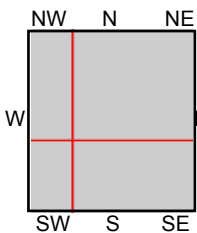
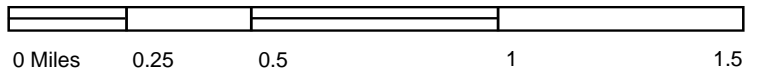
### **1897 Source Sheets**



Palo Alto  
1897  
15-minute, 62500



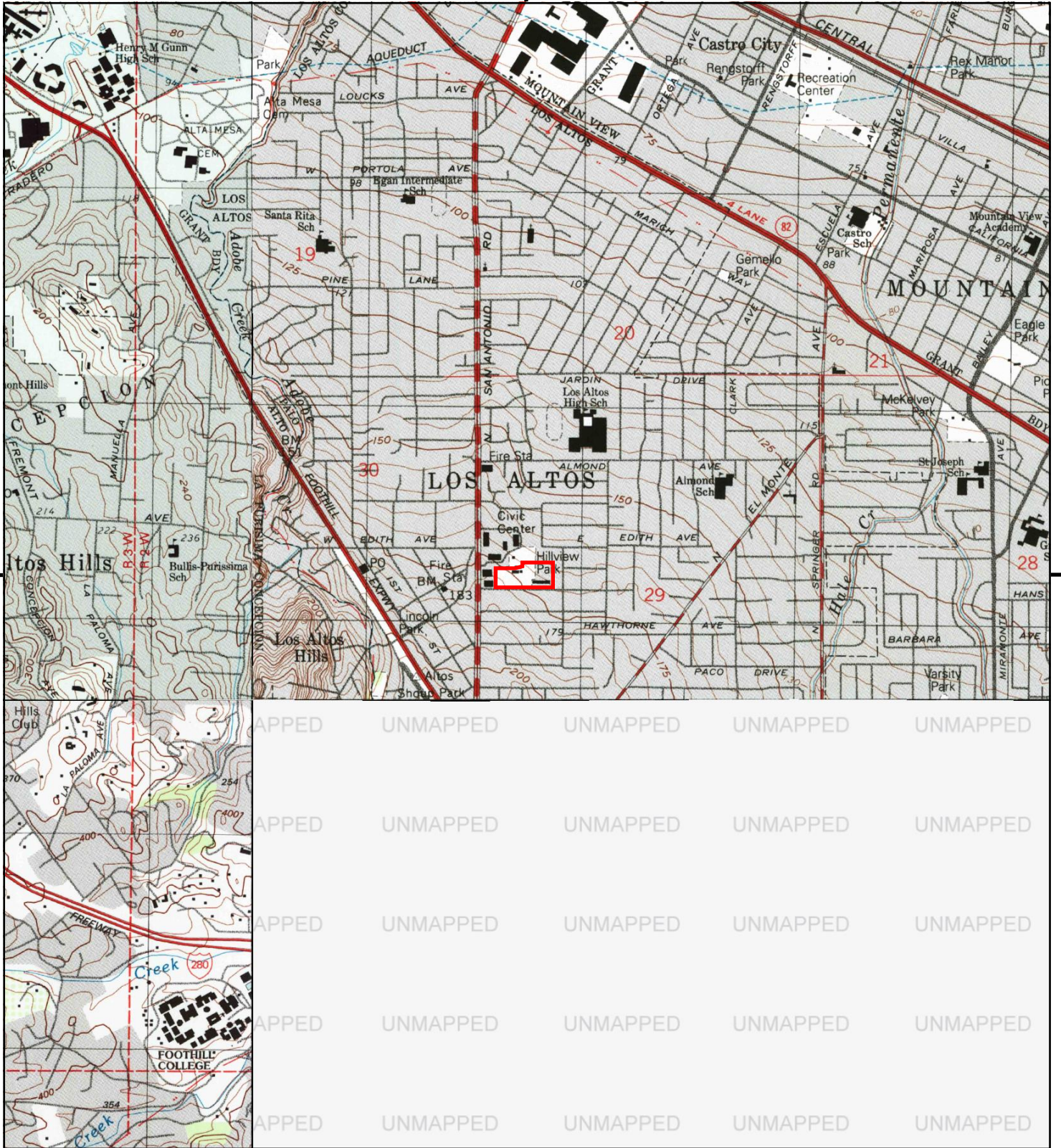
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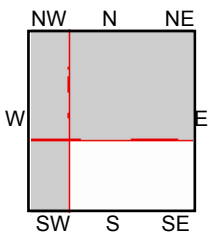
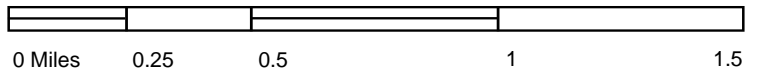
TP, Mountain View, 2012, 7.5-minute  
 SE, Cupertino, 2012, 7.5-minute  
 SW, Mindego Hill, 2012, 7.5-minute  
 NW, Palo Alto, 2012, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





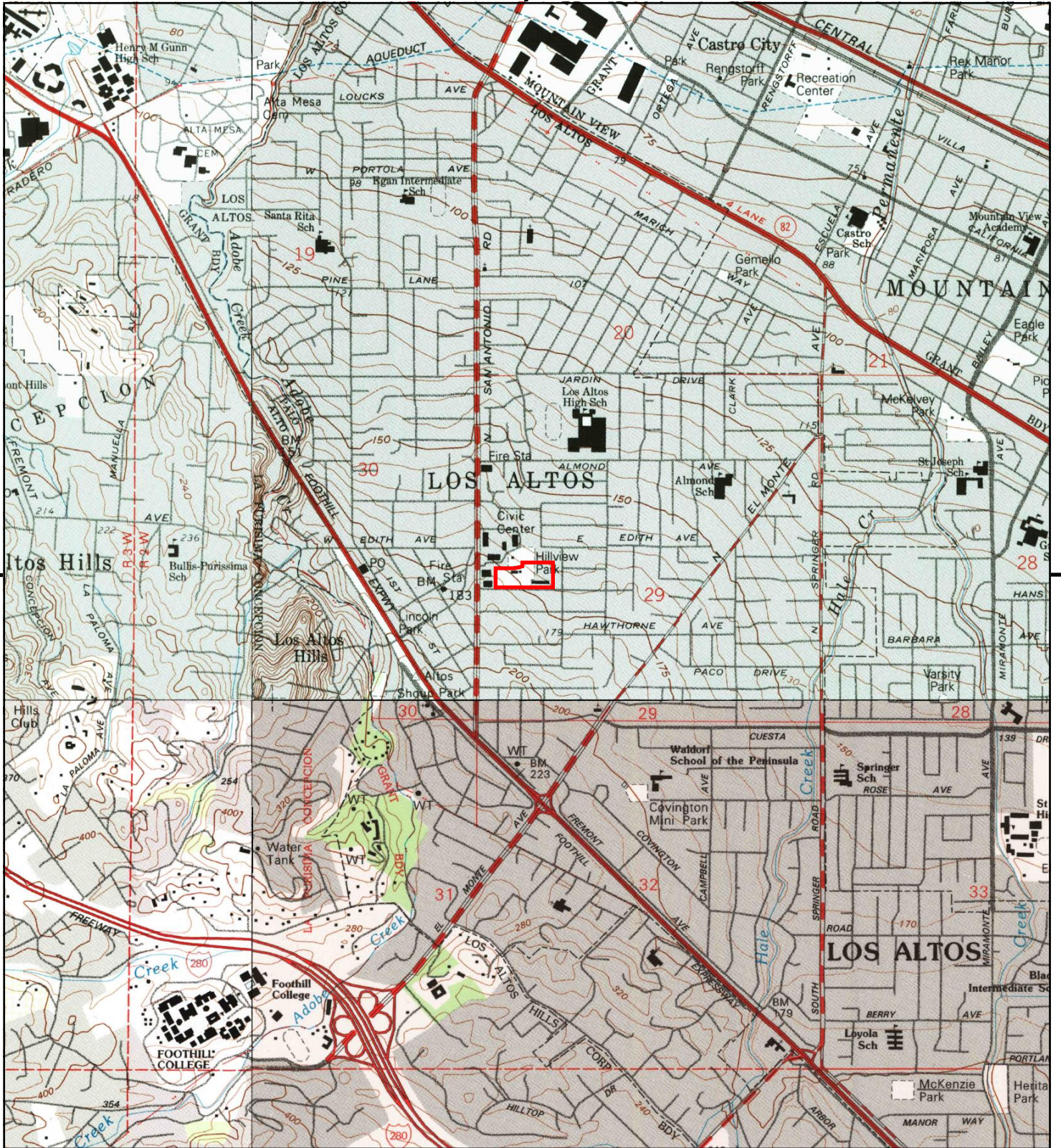
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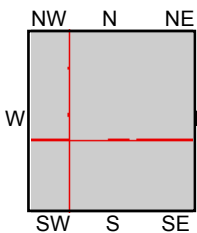
TP, Mountain View, 1997, 7.5-minute  
 SW, Mindego Hill, 1997, 7.5-minute  
 NW, Palo Alto, 1999, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





This report includes information from the following map sheet(s).

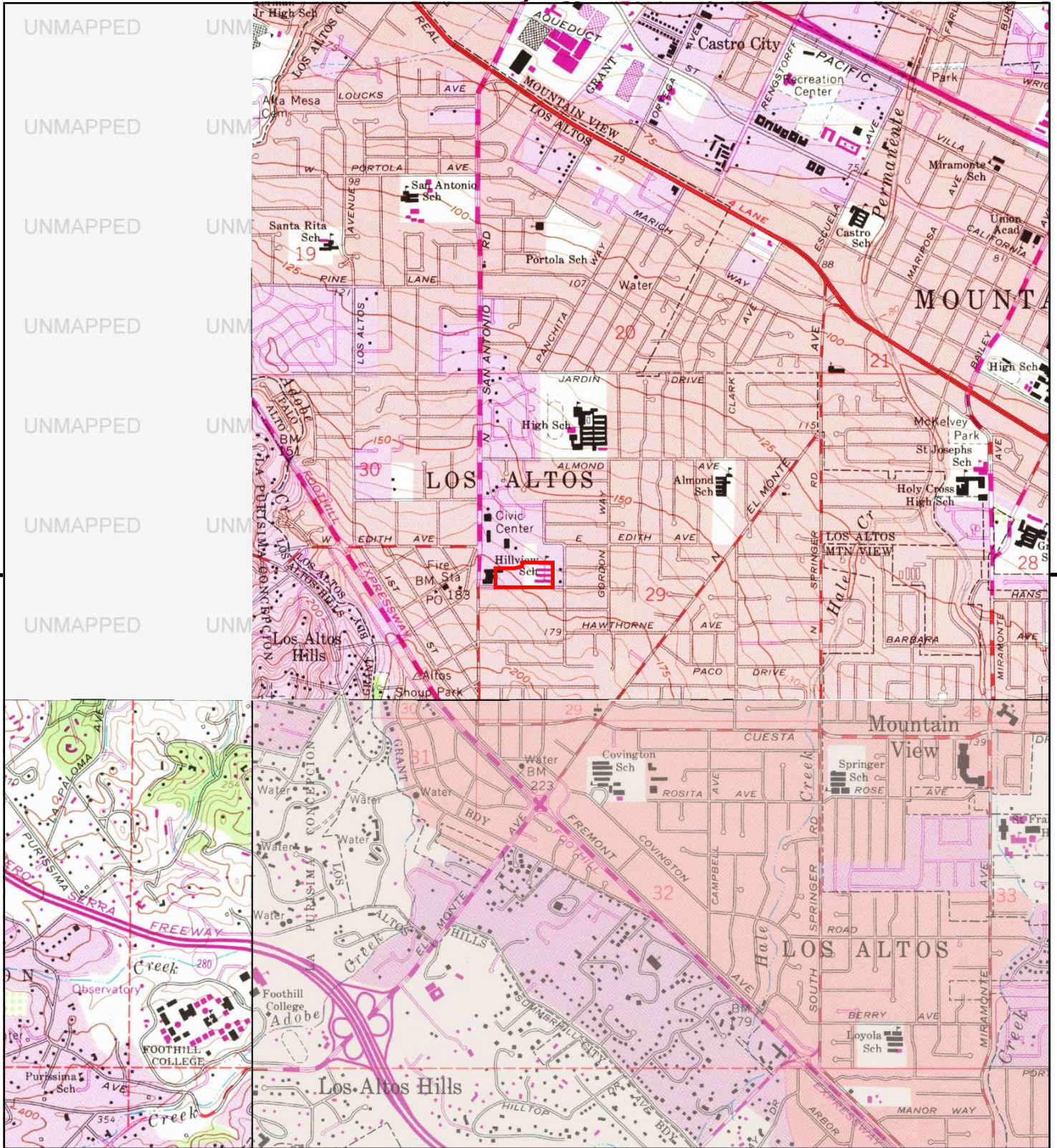


TP, Mountain View, 1995, 7.5-minute  
 SE, Cupertino, 1995, 7.5-minute  
 SW, Mindego Hill, 1995, 7.5-minute  
 NW, Palo Alto, 1994, 7.5-minute

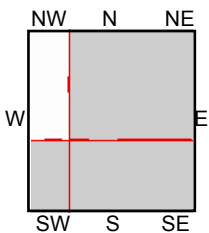
**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore







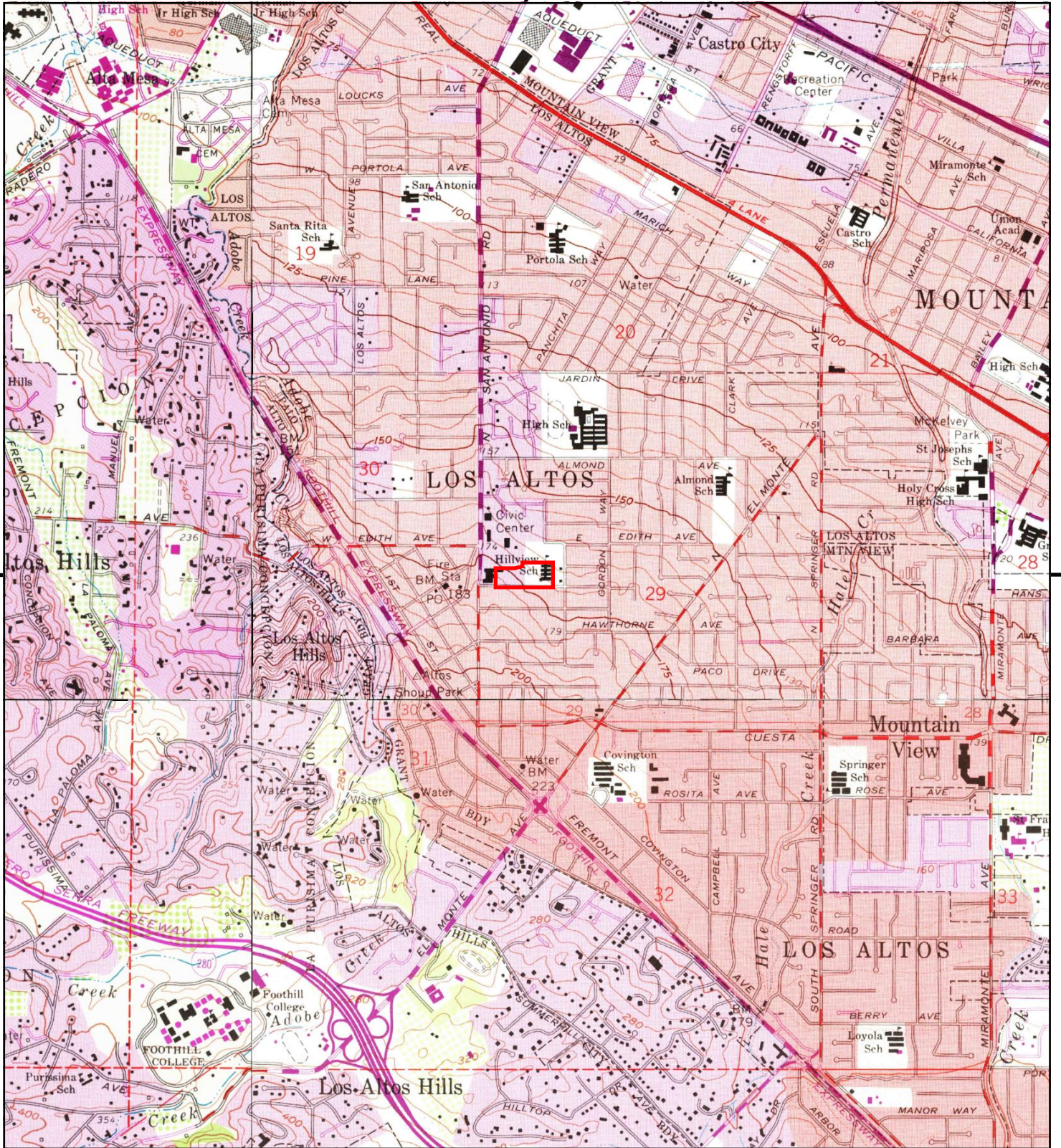
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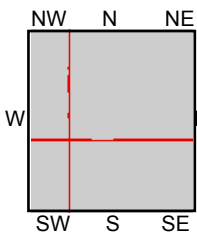
TP, Mountain View, 1981, 7.5-minute  
 SE, Cupertino, 1980, 7.5-minute  
 SW, Mindego Hill, 1980, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





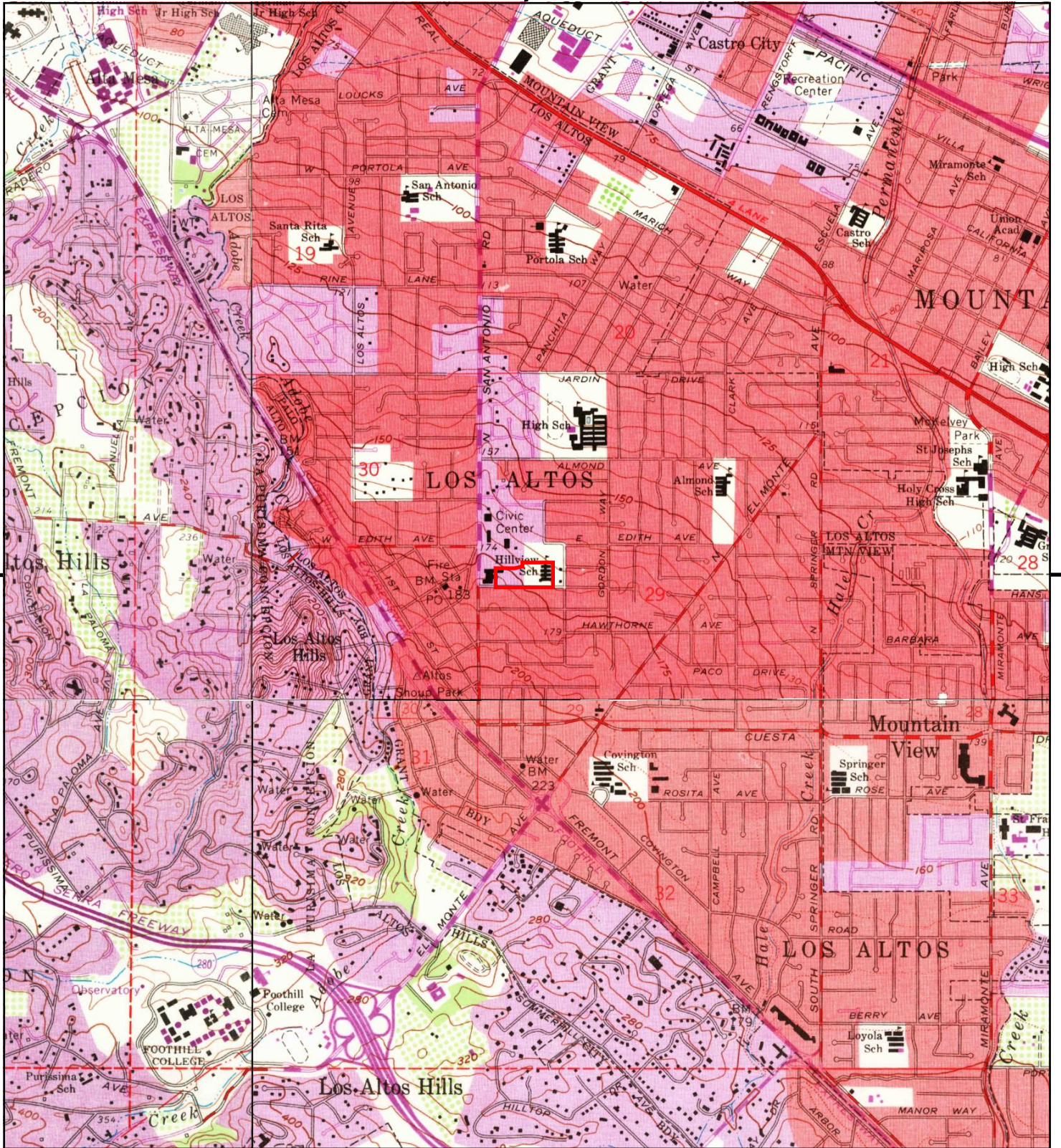
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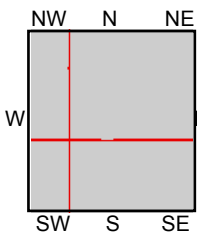
TP, Mountain View, 1973, 7.5-minute  
 SE, Cupertino, 1973, 7.5-minute  
 SW, Mindego Hill, 1973, 7.5-minute  
 NW, Palo Alto, 1973, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





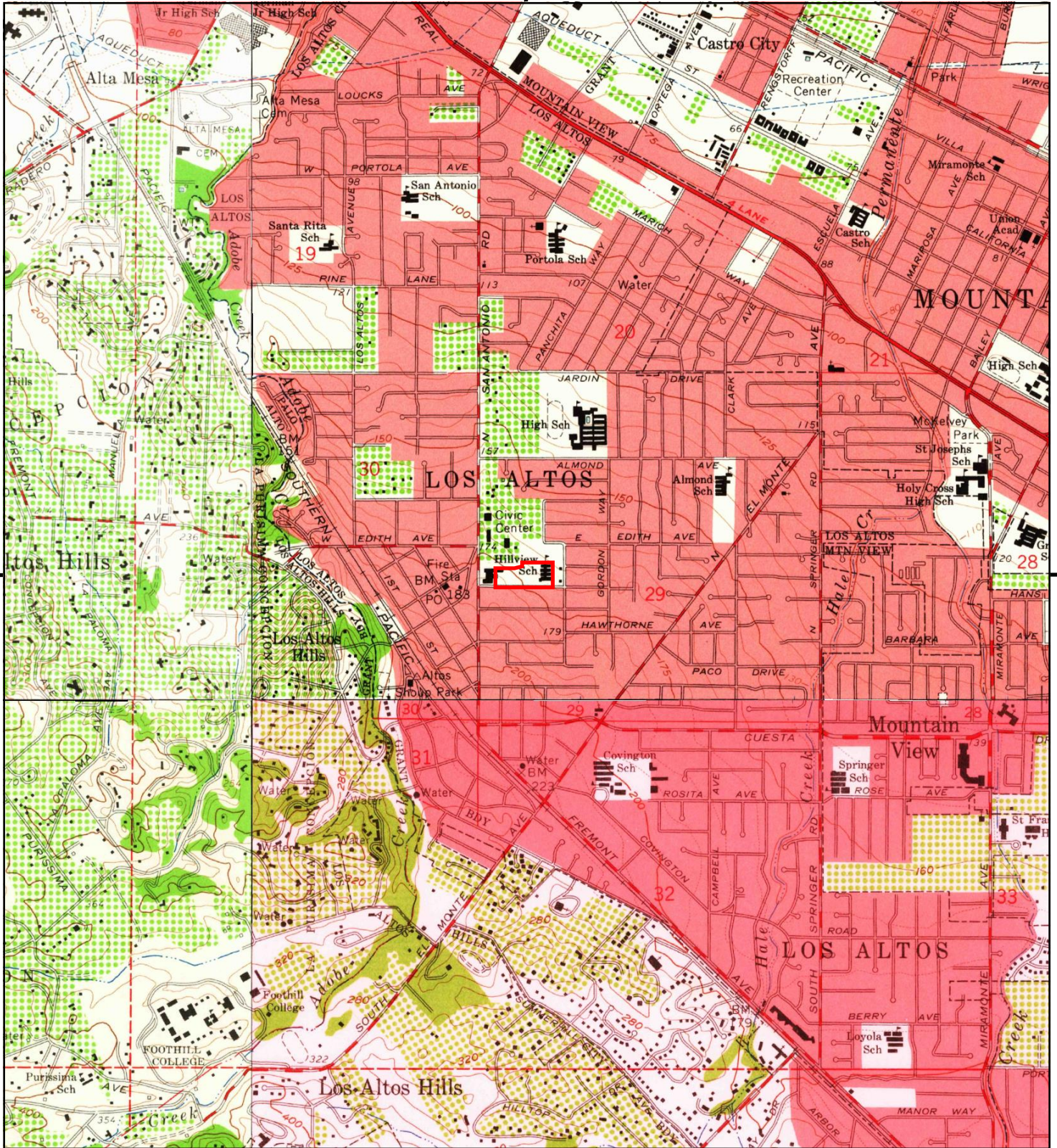
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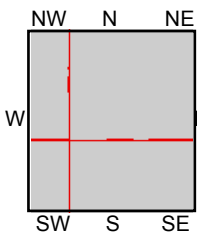
TP, Mountain View, 1968, 7.5-minute  
 SE, Cupertino, 1968, 7.5-minute  
 SW, Mindego Hill, 1968, 7.5-minute  
 NW, Palo Alto, 1968, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





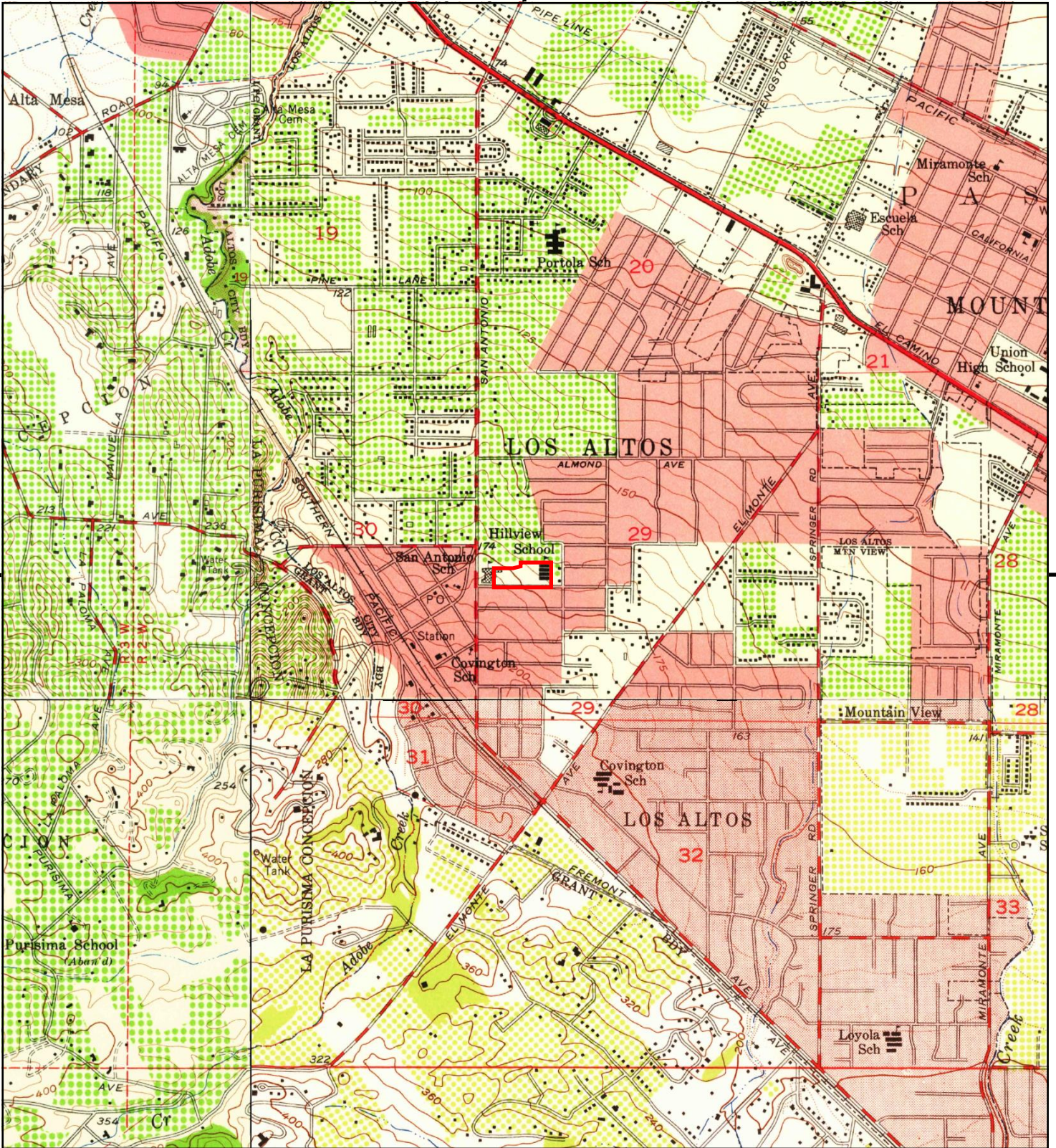
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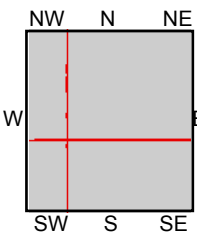
TP, Mountain View, 1961, 7.5-minute  
 SE, Cupertino, 1961, 7.5-minute  
 SW, Mindego Hill, 1961, 7.5-minute  
 NW, Palo Alto, 1961, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





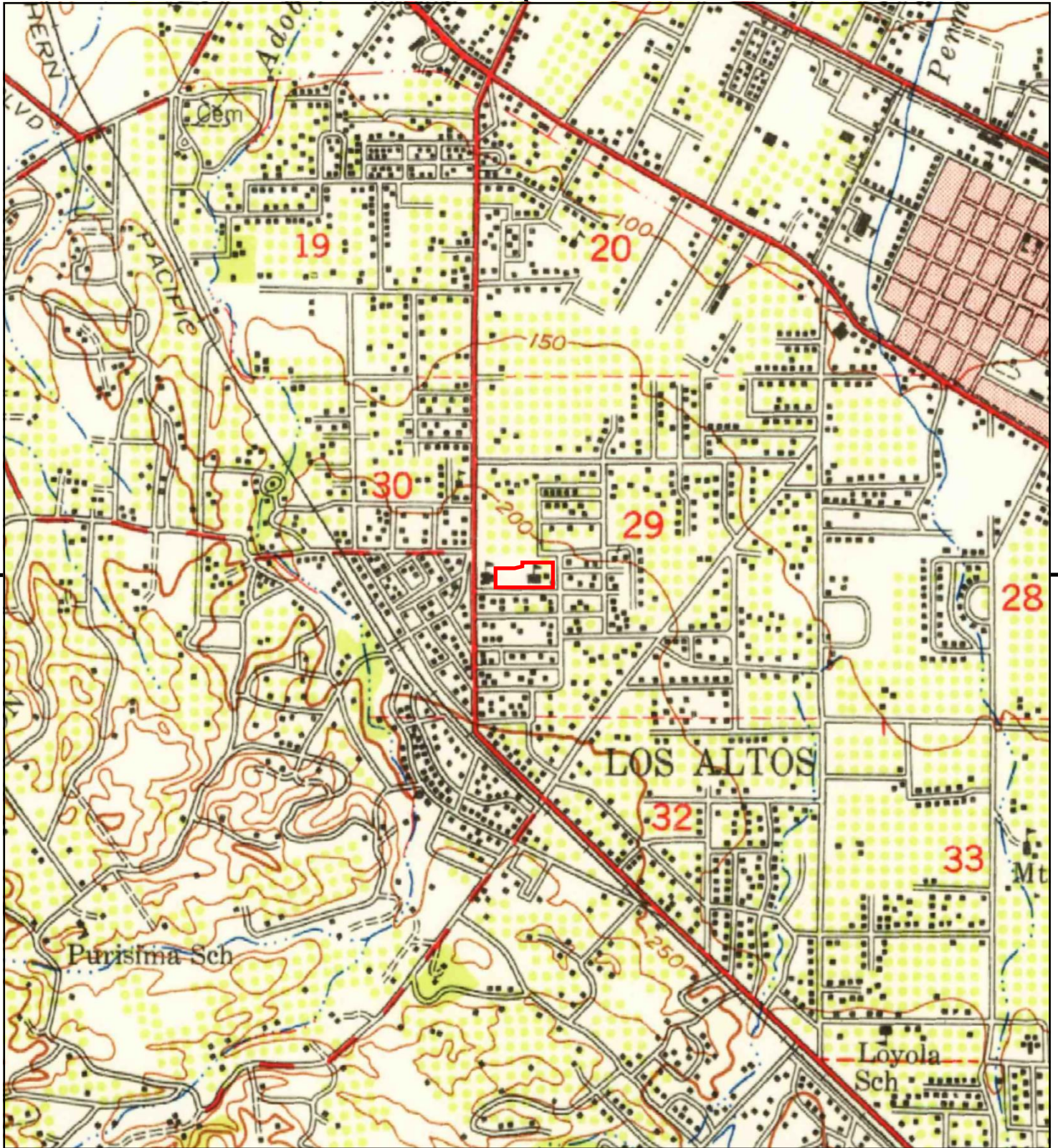
This report includes information from the following map sheet(s).



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 SE, Cupertino, 1953, 7.5-minute  
 SW, Mindego Hill, 1955, 7.5-minute  
 NW, Palo Alto, 1953, 7.5-minute

**SITE NAME:** Hillview Avenue Property  
**ADDRESS:** 97 Hillview Avenue  
 Los Altos, CA 94022  
**CLIENT:** Ninyo & Moore





This report includes information from the following map sheet(s).



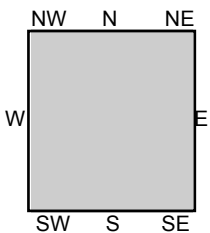
TP, Palo Alto, 1948, 15-minute

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos, CA 94022  
 CLIENT: Ninyo & Moore





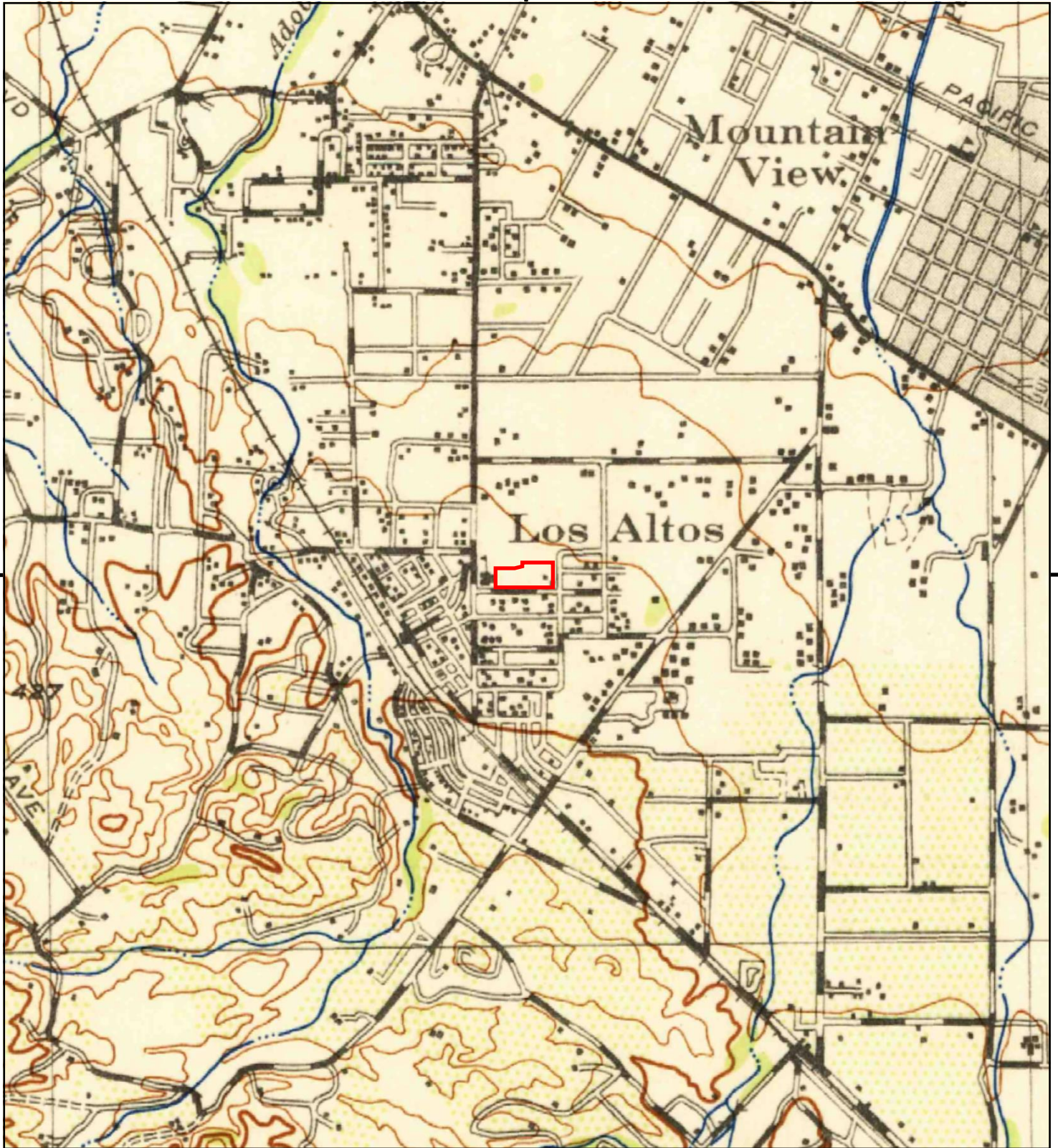
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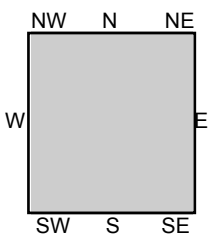
TP, PALO ALTO, 1947, 15-minute

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos, CA 94022  
 CLIENT: Ninyo & Moore





This report includes information from the following map sheet(s).

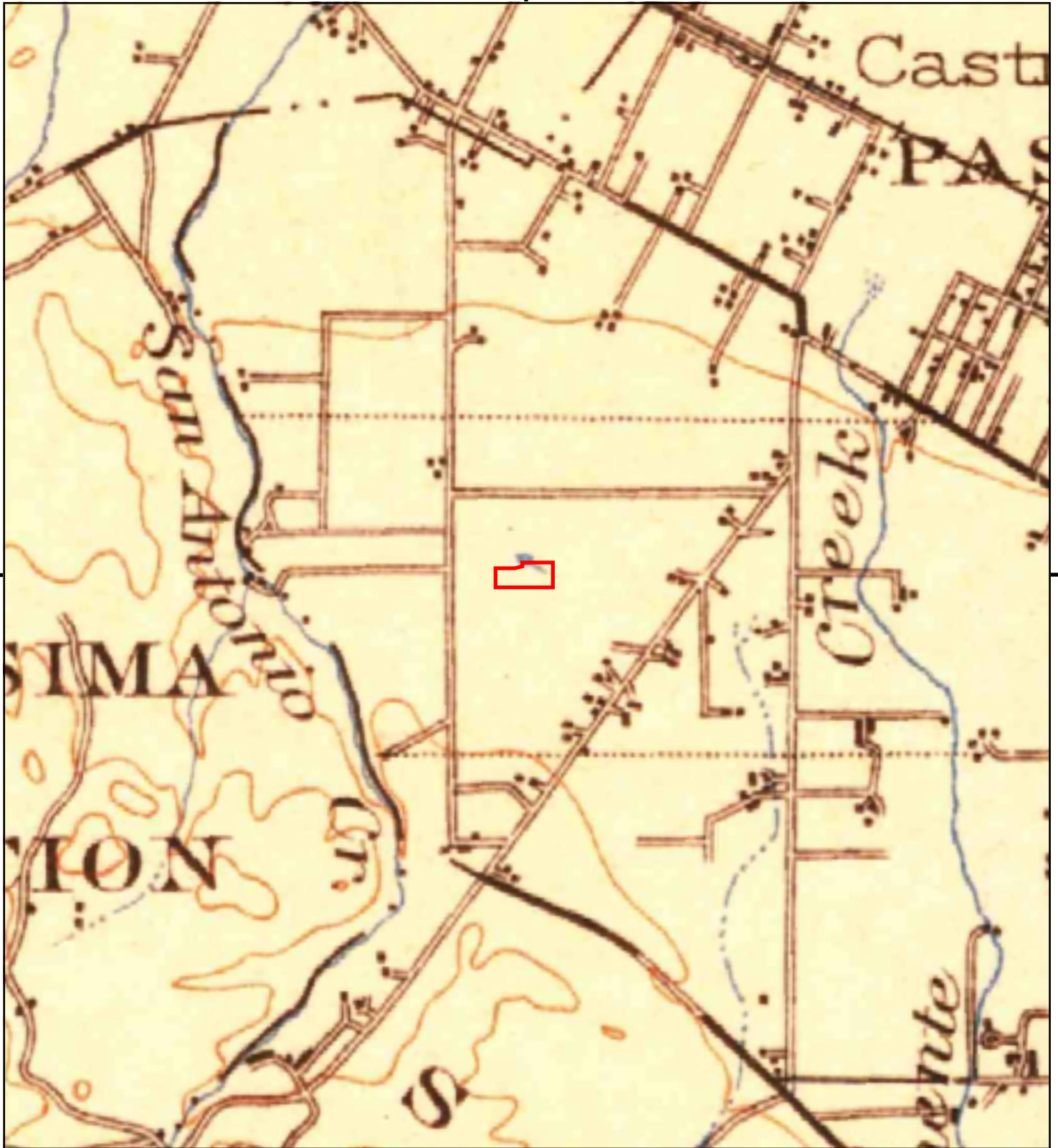


TP, Palo Alto, 1943, 15-minute

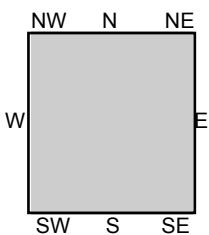
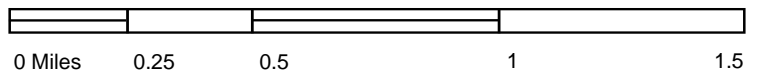
SITE NAME: Hillview Avenue Property  
ADDRESS: 97 Hillview Avenue  
Los Altos, CA 94022  
CLIENT: Ninyo & Moore







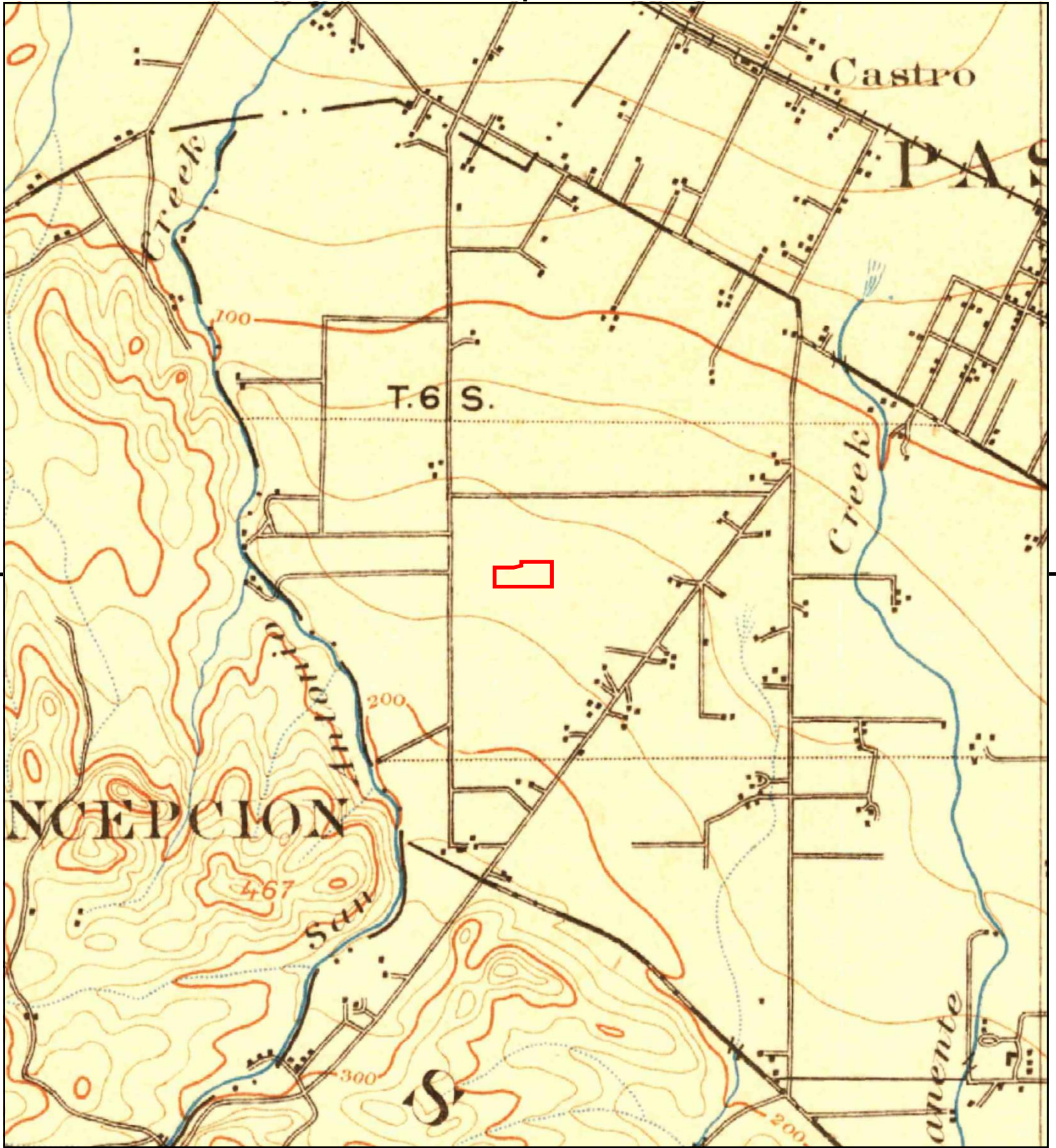
This report includes information from the following map sheet(s).



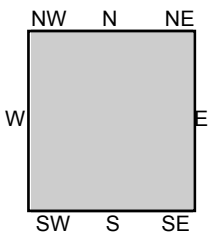
TP, Santa Cruz, 1902, 30-minute

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos, CA 94022  
 CLIENT: Ninyo & Moore





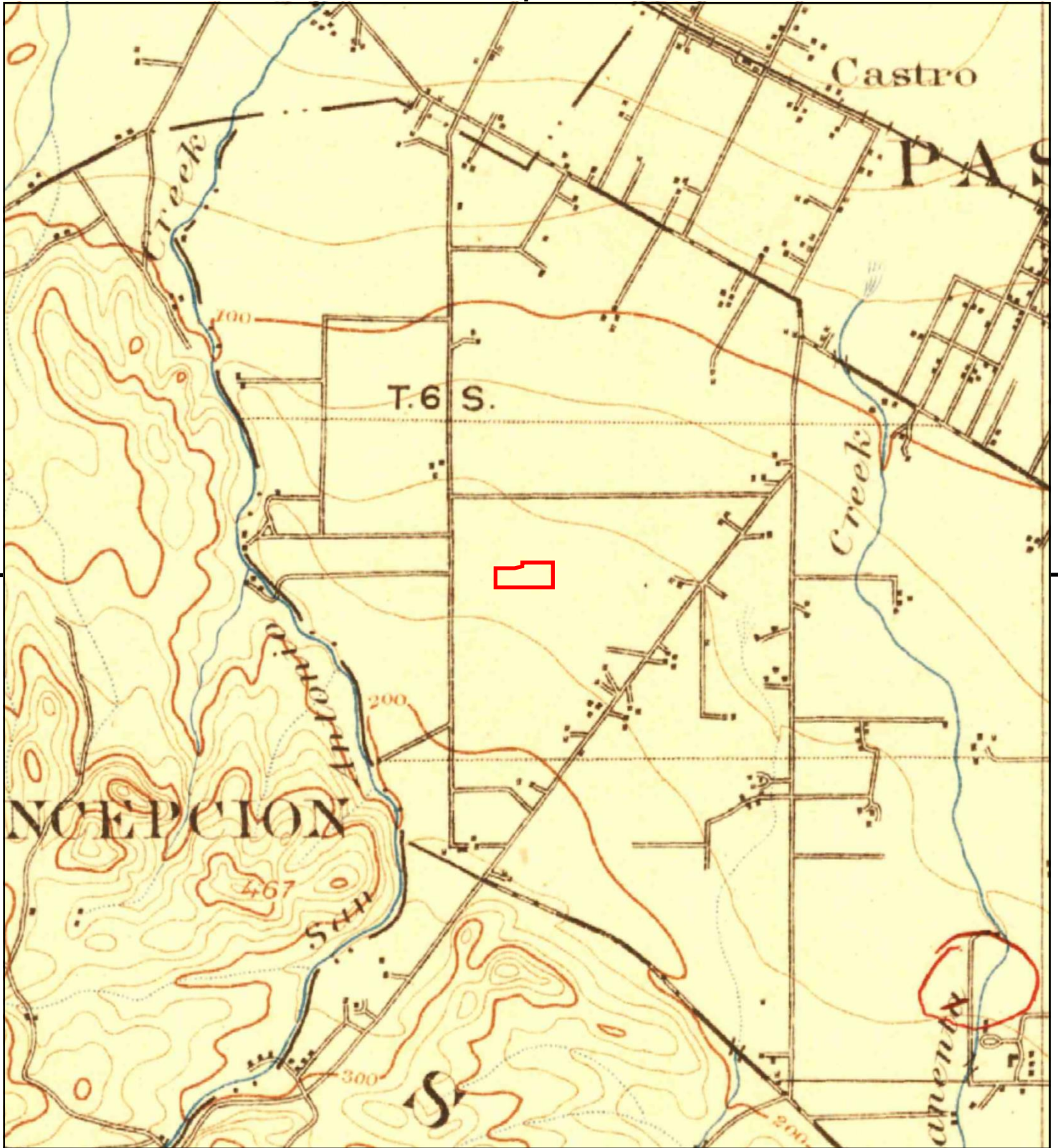
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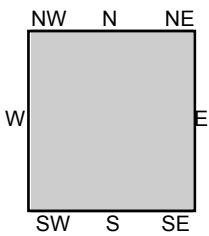
TP, Palo Alto, 1899, 15-minute

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos, CA 94022  
 CLIENT: Ninyo & Moore





This report includes information from the following map sheet(s).



TP, Palo Alto, 1897, 15-minute

SITE NAME: Hillview Avenue Property  
 ADDRESS: 97 Hillview Avenue  
 Los Altos, CA 94022  
 CLIENT: Ninyo & Moore



Hillview Avenue Property

97 Hillview Avenue

Los Altos, CA 94022

Inquiry Number: 5040953.9

September 05, 2017

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

**Site Name:**

Hillview Avenue Property  
 97 Hillview Avenue  
 Los Altos, CA 94022  
 EDR Inquiry # 5040953.9

**Client Name:**

Ninyo & Moore  
 1401 Halyard Drive, Suite 110  
 West Sacramento, CA 95691  
 Contact: Randy Wheeler



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Flight Date: August 27, 1998	USDA
1991	1"=500'	Acquisition Date: October 30, 1991	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: June 26, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 24, 1963	USGS
1956	1"=500'	Flight Date: July 02, 1956	USDA
1950	1"=500'	Flight Date: April 03, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1939	1"=500'	Flight Date: August 01, 1939	USDA

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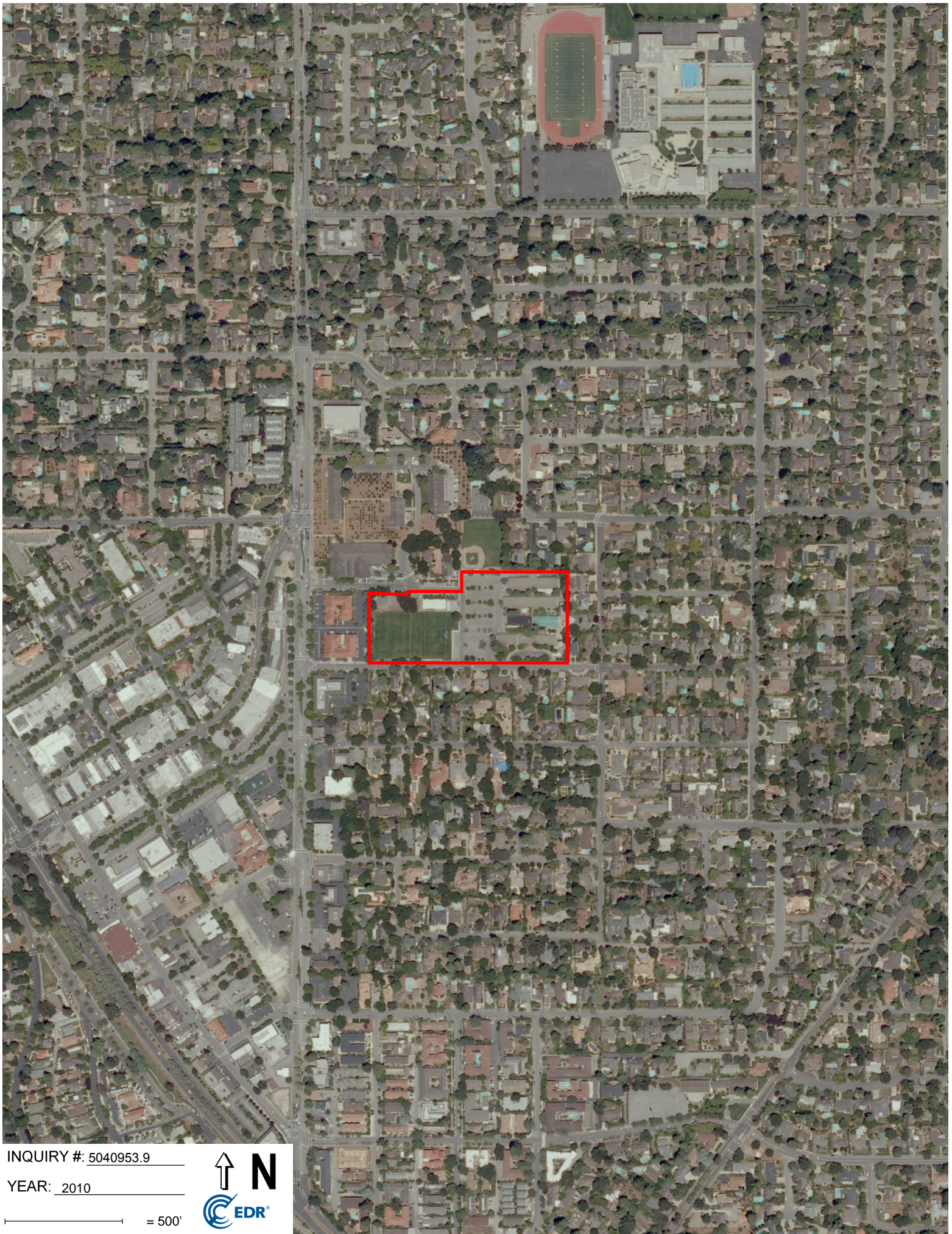


INQUIRY #: 5040953.9

YEAR: 2012

— = 500'





INQUIRY #: 5040953.9

YEAR: 2010

— = 500'





INQUIRY #: 5040953.9

YEAR: 2009

— = 500'







INQUIRY #: 5040953.9

YEAR: 2006

— = 500'





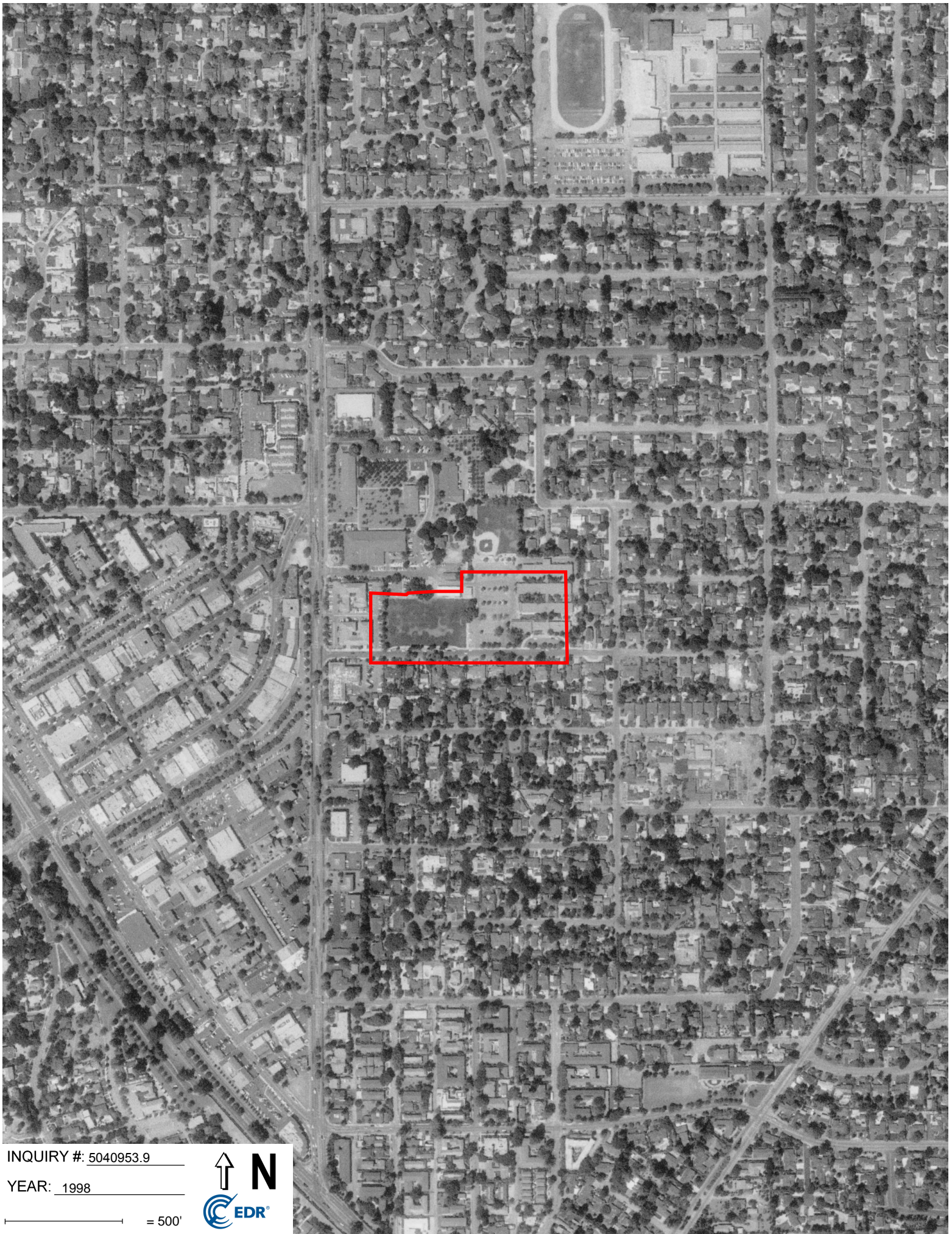
INQUIRY #: 5040953.9

YEAR: 2005

— = 500'



Property Not Mapped



INQUIRY #: 5040953.9

YEAR: 1998

— = 500'





INQUIRY #: 5040953.9

YEAR: 1991

— = 500'





INQUIRY #: 5040953.9

YEAR: 1982

— = 500'





INQUIRY #: 5040953.9

YEAR: 1974

— = 500'





INQUIRY #: 5040953.9

YEAR: 1968

— = 500'





INQUIRY #: 5040953.9

YEAR: 1963

— = 500'







INQUIRY #: 5040953.9

YEAR: 1956

— = 500'





INQUIRY #: 5040953.9

YEAR: 1950

— = 500'





INQUIRY #: 5040953.9

YEAR: 1948

— = 500'





INQUIRY #: 5040953.9

YEAR: 1939

— = 500'



**Hillview Avenue Property**

97 Hillview Avenue  
Los Altos, CA 94022

Inquiry Number: 5040953.5  
September 07, 2017

**The EDR-City Directory Image Report**

## TABLE OF CONTENTS

### SECTION

Executive Summary

Findings

City Directory Images

***Thank you for your business***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1999	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1986	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1980	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1975	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1970	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

### RECORD SOURCES

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# FINDINGS

## TARGET PROPERTY STREET

97 Hillview Avenue  
Los Altos, CA 94022

Year            CD Image            Source

## HILLVIEW AVE

2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
1999	pg A3	Cole Information Services	
1995	pg A4	Cole Information Services	
1992	pg A5	Cole Information Services	
1986	pg A6	Haines Criss-Cross Directory	
1980	pg A7	Haines Criss-Cross Directory	
1975	pg A8	Haines Criss-Cross Directory	
1970	-	Haines Criss-Cross Directory	Street not listed in Source

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## FINDINGS

### CROSS STREETS

No Cross Streets Identified

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# **City Directory Images**

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**HILLVIEW AVE 2013**

- 50 KIYOSHI SHIMIZU
- 64 MICHAEL PLASTERER
- 84 OCCUPANT UNKNOWN
- 90 ROBERT WILHELM
- 97 BUS BARN STAGE COMPANY
- CHILDRENS CORNER INC
- CITY OF LOS ALTOS
- FRIENDS OF THE LOS ALTOS LIBRARIES
- LEAGUE OF WOMEN VOTERS OF LOS ALTOS
- 100 HENRY THAI
- 108 THE BRAND RANCH
- WILLIAM HULL
- 122 AUDREY ANDERSON
- 150 LINDA JOHNSON
- 158 KENNETH SAKOI
- 170 OCCUPANT UNKNOWN
- 180 FLO PACKARD
- 183 LOS ALTOS COMMUNITY FOUNDATION
- 191 MARIAH POSPISIL
- 212 THOMAS TANG
- 215 KARIM KHADDER
- 222 ZOHARA BARDIN
- 225 BRUCE RITER
- 232 HOWARD BAIN
- 239 RODWIN HAMLIN
- 246 OCCUPANT UNKNOWN
- 253 ALEXANDER CAROBUS
- 254 RICHARD LEVITT

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## HILLVIEW AVE 2008

50	KIYOSHI SHIMIZU
64	MICHAEL PLASTERER
74	JACQUELINE KUBICKA
84	OCCUPANT UNKNOWN
88	MUSIC FOR MINORS
90	ROBERT WILHELM
97	BUS BARN
	BUS BARN STAGE CO
	FRIENDS LIBRARIES
	LEAGUE OF WOMEN VOTERS OF THE LOS AL
	LOS ALTOS CITY OF
	LOS ALTOS MOUNTAIN VIEW CHILDRENS CO
100	C A HACKING & ASSOCIATES
	HENRY THAI
	JON HACKING
	PAULINE SIAO
108	BRAND RANCH
	DEBRA MCMANAMAN
	THE BR
150	OCCUPANT UNKNOWN
158	KENNETH SAKOI
170	OCCUPANT UNKNOWN
180	JAY PACKARD
183	LOS ALTOS COMMUNITY FOUNDATION
	SILICON VALLEY ART MUSEUM
191	MARIAH POSPISIL
212	THOMAS TANG
215	KARIM KHADDER
222	MANSFORD CHASE
225	BRUCE RITER
	RITER BRUCE D.ESQ
232	OCCUPANT UNKNOWN
239	OCCUPANT UNKNOWN
246	SCOTT SIMPSON
253	ALEXANDER CAROBUS
254	RICHARD LEVITT

WORKING DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)



-

**HILLVIEW AVE 1999**

- 50 KİYOSHİ SHİMİZU
- 64 MICHAEL PLASTERER
- 74 JACQUELINE KUBICKA
- 82 OCCUPANT UNKNOWN
- 84 OCCUPANT UNKNOWN
- 90 ROBERT WILHELM
- 97 BUS BARN STAGE COMPANY
- CHILDRENS CORNER INCORPORATED CHILD CARE
- CITY OF LOS ALTOS REC DEPARTMENT
- LEAGUE OF WOMEN VOTERS OF LOS ALTOS MOUNTAIN VIEW AREA
- LOS ALTOS CITY OF CONTD OTHER INFORMATION NUMBERS
- LOS ALTOS CITY OF CONTD PLC DEPARTMENT CONTD
- LOS ALTOS CITY OF CONTD PUB WORKS ENGINEERING CITY HALL
- LOS ALTOS CITY OF PUBLIC WORKS MAINTENANCE
- LOS ALTOS CITY OF RECREATION DEPARTMENT
- LOS ALTOS CITY OF SEWER EMERGENCY CALLS 8
- 100 JON HACKING
- 108 DEBRA MCMANAMAN
- 122 AUDREY ANDERSON
- 150 OCCUPANT UNKNOWN
- 158 KENNETH SAKOI
- OCCUPANT UNKNOWN
- 170 OCCUPANT UNKNOWN
- 180 OCCUPANT UNKNOWN
- 191 MARIAH POSPISIL
- 192 OCCUPANT UNKNOWN
- 212 OCCUPANT UNKNOWN
- 215 KARIM KHADDER
- 222 MANSFORD CHASE
- 225 BRUCE RITER
- 232 HOWARD BAIN
- 239 CHRIS GILDEA
- 246 OCCUPANT UNKNOWN
- 253 ALEXANDER CAROBUS
- 254 RICHARD LEVITT

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-

**HILLVIEW AVE 1995**

- 50 SHIMIZU, KIYOSHI
- 64 PLASTERER, MICHAEL
- 74 WHITTIER, LUCY G
- 82 CHERNOFF, DAN
- 97 CHILDRENS CORNER INC
- HILLVIEW COMMUNITY CTR
- LEAGUE OF WOMEN VOTERS
- LOS ALTOS RECREATION DEPT
- LOS ALTOS SENIOR CTR
- LOS ALTOS YOUTH THEATRE
- MUSIC FOR MINORS INC
- 100 OCCUPANT UNKNOWNN
- 108 OCCUPANT UNKNOWNN
- 150 JOHNSON, ROBERT B
- 158 NIELSEN, JAKOB
- 170 OCCUPANT UNKNOWNN
- 180 WALDO, JUANITA P
- 191 KAHROBAIE, ROSHAN
- 215 DUBRULLE, AUGUSTI A
- 222 CHASE, M W
- 225 RITER, BRUCE
- 232 OCCUPANT UNKNOWNN
- 239 MCPARTLAND, WILLIAM G
- 246 OCCUPANT UNKNOWNN
- 253 FOLGARELLI, EUGENE G
- 254 FERRARI, BURKE

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**HILLVIEW AVE 1992**

- 50 SHIMIZU, KIYOSHI
- 97 CHILDRENS CORNER  
LEAGUE WOMEN VOTERS  
LOS ALTOS YTH THTR  
LOSALTS CTY REC  
MUSIC FOR MINORS
- 170 HAUSMANN, DAVID W
- 180 WALDO, GEORGE
- 191 KAHROBAIE, ROSHAN
- 215 DUBRULLE, A A
- 225 RITER, BRUCE
- 246 ARMENIO, ELMO A
- 254 FERRARI, BURKE

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## HILLVIEW AVE 1986

HILLVIEW AV 94022  
LOS ALTOS

50	SHIMIZU KIYOSHI	948-0446	
64	★ APROPOS SOFTWARE	948-7227	4
	ZELEZNY S	948-3356	4
74	XXXX	00	
82	MELLENTIN C	949-3466	4
84	XXXX	00	
90	XXXX	00	
97	★ CHILDRENS CORNER	948-8950	1
	★ LEAGUE WOMEN VOTERS	941-4846	1
	★ LOS ALTOS MT CHLD	948-8950	1
	★ LOSALTS CTY REC CTR	948-1491	2
	★ MUSIC FOR MINORS	941-9130	9
	★ SALVATN ARMY INFO	948-7066	5
100	XXXX	00	
108	OSBORNE J	941-1059	4
122	XXXX	00	
150	XXXX	00	
158	BARR PHILIP E	941-8258	9
170	PISTARINO ELDRADO	941-6711	
180	WALDO GEORGE A	948-7914	7
188	XXXX	00	
191	XXXX	00	
212	BYRUM MICHAEL	948-6008	7
215	DUBRULLE AUGUSTIN	948-0581	
222	XXXX	00	
225	RITER BRUCE	941-6273	+6
	RITER GUDI	941-6273	+6
232	XXXX	00	
239	XXXX	00	
246	XXXX	00	
253	XXXX	00	
254	FERRARI BURKE	941-6156	1
266	GIBEAU G	941-0496	
279	LOKKEN M J	941-5644	+6
280	LIMBACH N A	948-3095	
321	XXXX	00	
★	7 BUS	29 RES	3 NEW



## HILLVIEW AVE 1980

HILLVIEW AV 94022 LOS  
ALTOS

50	SHIMIZU KIYOSHI	948-0446
64	BRANSON D	949-0195 +0
82	CRAMBLETT FAITH	941-4709 +0
	LIEBERMAN BRUCE	941-4709 +0
84	XXXX	00
90	HAUCK DAVID C	948-6123 2
97	CTY LSALTS SENIOR	948-1491 +0
	MUSIC FOR MINORS	941-9130 9
100	XXXX	00
108	POTTER DAVID A	949-0311 +0
122	XXXX	00
150	JOHNSON LINDA	941-9465 9
158	BARR PHILIP E	941-8258 9
170	PISTARINO ELDRADO	941-6711 4
180	WALDO GEORGE A	948-7914 7
188	XXXX	00
191	XXXX	00
212	BYRUM MICHAEL	948-6008 7
215	DUBRULLE AUGUSTIN	948-0581 2
222	CHASE M W	948-3444
225	HOSKINS GILMAN	941-1481 3
232	BARON MURRAY J	948-3851
239	MCPARTLAND BILL	948-9068
246	ARMENIO ELMO A	948-1617
253	XXXX	00
254	FERRARI BURKE	941-6156 +0
266	GIBEAU G	941-0496 3
279	LOKKEN M J	941-5644 5
280	LIMBACH N A	948-3095 6
321	SMITH JACK S	941-9271 7
★	2 BUS	28 RES 6 NEW

## HILLVIEW AVE 1975

HILLVIEW AV 94022 LOS ALTOS

50	SHIMIZU KIYOSHI	948-0446
64	BENTLEY MORGAN W	941-5728+5
74	XXXX	00
82	BURKA REECE	941-8688+5
	EWOLDT R	941-8688+5
	FARINEAU JOHN PAUL	941-8688+5
	SANTOS LAURIE	941-8688+5
84	XXXX	00
90	HAUCK DAVID C	948-6123 2
97*	HILLVIEW ELEM SCHL	941-5566 3
100	XXXX	00
108	SIMMON CAROL L	941-2916+5
122	XXXX	00
158	THORSON THEODORE M	941-5927 4
170	PISTARINO ELDRADO	941-6711 4
188	MCLEOD BRUCE F	948-1784+5
190	DAVIS MINNIE B	941-0320 1
212	REIKES JAS N	948-0758 3
215	DUBRULLE AUGUSTIN	948-0581 2
222	CHASE M W	948-3444
225	HOSKINS GILMAN	941-1481 3
232	BARON MURRAY J	948-3851
239	MCPARTLAND BILL	948-9068
246	ARMENIO ELMO A	948-1617
253	FOLGARELLI EUGENE	948-3698
254	XXXX	00
266	GIBEAU G	941-0496 3
279	LOKKEN M J	941-5644+5
280	XXXX	00
*	1 BUS	28 RES
		8 NEW

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**Appendix F:**  
**VAPOR ENCROACHMENT SCREENING**  
**MATRIX**

## Vapor Encroachment Screening Matrix

Phase I ESA Vapor Encroachment Conditions (VEC) matrix includes a (1) Search Radius Test, (2) Chemicals of Concern Test (COC), and (3) a Critical Distance Test [1].

**(1) Search Radius Test:** Are there any known or suspect contaminated properties in the primary area of concern within the corresponding search radii (including the site)?

Yes  No      If **No**, then screening for a VEC is complete and no VEC *currently* exists, go to #4. If **Yes**, then:

**(2) Chemicals of Concern Test:** Are COC likely to be present within the area of concern for those known or suspect contaminated sites identified based on the Search Distance Test?

Yes  No      If **No**, then screening for a VEC is complete and no VEC *currently* exists, go to #4. If **Yes**, then:

**(3) Critical Distance Test\*:** A plume test to determine whether or not COC in the contaminated plume(s) may be within the critical distance.

Yes  No      (3a) Is information related to the contaminated(s) plume available (i.e. iso-concentration maps, site drawings, etc.)?

(3b) If **No**, then a VEC cannot be ruled out; check **Yes** in #4 below indicating it is likely a VEC exists. If **Yes**, then:

Yes  No      (3c) Is the site less than 100 feet to the nearest edge of a contaminated [non-petroleum hydrocarbon] plume(s)? If **Yes**, then check **Yes** in #4 below indicating it is likely a VEC exists.

Yes  No      (3d) Is the site less than 30 feet to the nearest edge of a dissolved petroleum hydrocarbon plume(s)? If **Yes**, then check **Yes** in #4 below indicating it is likely a VEC exists.

\*If the distance from the nearest edge of a contaminated plume to the nearest existing or planned structure on the site is less than 100 feet for non-petroleum hydrocarbon COC, or less than 30 feet for dissolved petroleum hydrocarbons, then it is presumed that a VEC *currently* exists beneath the site. If the distance from the nearest edge of the contaminated plume is greater than or equal to 100 feet for non-petroleum hydrocarbons, or 30 feet for dissolved petroleum hydrocarbon chemicals of concern, then it is presumed unlikely that a VEC *currently* exists beneath the site.

**(4) Is it likely that a VEC *currently* exists beneath the site?**

Yes  No      If **No**, then the VEC screening is complete and no further investigation is recommended at this time. If **Yes**, Ninyo & Moore recommends performing additional assessment, such as a Tier 2 VEC assessment according to ASTM E 2600-10.

[1] Based on guidance presented in the ASTM E 2600-10 Standard.

**Appendix G:**  
**OTHER REPORTS**

STAFF PRELIMINARY WORKING DRAFT FOR INTERNAL USE ONLY - CA GOVT CODE SECTION 6254(A)



Los Altos - PCE CCo wells  
Closure

**CITY OF LOS ALTOS**  
One North San Antonio Road  
Los Altos, California 94022-3088  
Tel: (415) 948-1491  
Fax: (415) 941-7419

12/7 only. T11  
DJC  
BG  
ZAD

December 4, 1992

Mr. Frank Gaunce, Unit Chief  
Department of Toxic Substances Control, Region 2  
State of California - Environmental Protection Agency  
700 Heinz Avenue, Suite 200  
Berkeley, CA 94710-2737

Re: Hillview-Eleanor Site

Dear Mr. Gaunce:

This letter summarizes the City's actions since receipt of a letter from your Department dated March 25, 1992, to the City's counsel. In that letter, the City of Los Altos was directed to complete groundwater sampling and closure procedures for the City well (#10) located at the subject site. This work has now been completed as described below. All sampling and closure activities were coordinated with your department and the Santa Clara Valley Water District.

Groundwater Sampling

- |                      |   |
|----------------------|---|
| March, 1992 -        | The City received bids for the required sampling of the groundwater in well #10.  |
| May 29, 1992 -       | The work plan submitted by the low bidder, Weiss Associates, was forwarded to you for review, comment and approval.   |
| July 7, 1992 -       | Dated letter from you approving the submitted work plan.  |
| September 10, 1992 - | Sampling of well #10 was completed. Samples were forwarded under manifest to the California Department of Health Services Hazardous Materials Laboratory.   |
| September 25, 1992 - | The City received a telephone call from staff in your Department and was informed that "field testing" of the bailer would be required, to assure that the bailer had not leaked during the sampling procedure. |
| October 13, 1992 -   | Telephone conversation between staff in your Department and the City confirmed that field testing requested on September 25, 1992 would not be required. The City was   |

October 26, 1992 - directed to continue with abandonment of the well.  
The City received the groundwater sampling results from your department and was directed to decommission the well.

### Well Closure

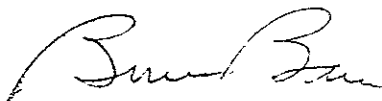
The closure of the City's well #10 was coordinated by California Water Service Company (CWS) in conjunction with closure of their well #110. CWS received bids for closure of the wells and awarded the work to C&N Pump and Well Company. As previously stated, all closure activities were coordinated with your Department and the Santa Clara Valley Water District (SCVWD), through either CWS or the City.

October 26, 1992 - Well #10 casing was perforated.  
October 27, 1992 - The well was filled with concrete. SCVWD well inspector was present during filling.  
November 5, 1992 - Dig-out and capping of the well was completed.  
November 16, 1992 - The City received copies of the Well Destruction Application, the Well Destruction Completion Notice, and the Water Well Drillers Report.

Enclosed are copies of the Well Destruction Application, the Water Well Drillers Report, and the Well Destruction Completion Notice.

I believe this fulfills all requests to the City by your Department for the subject site. If you have any questions, please call Landy Darrow at extension 230.

Sincerely,



Bruce Bane  
Director of Public Works

### Enclosures

cc: City Council  
City Manager  
City Attorney  
Project Engineer  
California Water Service Company  
Santa Clara Valley Water District ✓  
Weiss Associates

## DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY  
BERKELEY, CA 947042/1-T11w/O  
JLM  
JTC  
WLV  
YF  
BS  
DCZ  
NCL  
LAW

January 28, 1988

Thomas Iwamura  
Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118

Subject: Hillview-Eleanor Site

Dear Tom:

Enclosed are copies of the draft Remedial Investigation (RI) workplan and Soil Gas Survey report for the Hillview-Eleanor site in Los Altos. As indicated by the soil gas survey report, the soil gas samples obtained throughout the site showed the presence of other contaminants. The RI workplan was revised utilizing the information from the soil gas survey. The workplan proposes a greater amount of work because of the CCl<sub>4</sub>, TCE, PCE, F-113 and total hydrocarbons detected during the soil gas survey. However, the soil gas did not result in delineating a contaminant plume from any suspected point-sources directly towards the contaminated wells. Therefore, DHS will evaluate the need to concentrate on the CCl<sub>4</sub> contamination in Well 10 and 110, and create a responsible party site which will compose of the sites where the other contaminations were detected.

Please review the enclosed documents and we appreciate receiving your comments on the RI workplan by February 19, 1988. We are also extending our invitation to join us in a meeting with our contractor to discuss the agencies' comments on the workplan. If you have any questions, please call me at (415) 540-3401.

Sincerely,

*Remedios V. Sunga*Remedios V. Sunga  
Waste Management Engineer  
North Coast California Section  
Toxic Substances Control Division

67.21-1-88 88 67.21-1-88

RS:rs



Project 87-041  
January 1988

**Canonie**Environmental

**Progress Report**

---

**Soil Gas Survey**

---

Hillview-Eleanor  
Los Altos, California

---

Prepared for:  
State of California  
Department of Health Services  
Toxic Substances Control Division  
North Coast California Section  
Contract No. 84-84541

# Canonie Environmental

Canonie Environmental Services Corp.  
1825 South Grant Street  
Suite 260  
San Mateo, California 94402  
Phone: 415-573-8012

January 14, 1988

87-041.22

Ms. Remedios Sunga  
California Department of Health Services  
2151 Berkeley Way, Annex 7  
Berkeley, CA 94704

Transmittal  
Progress Report - Soil Gas Survey  
Hillview-Eleanor Site  
Los Altos, California

Dear Ms. Sunga:

Enclosed are ten final copies of the progress report for the soil gas survey at the Hillview-Eleanor site.

If you have any questions, please call us at (415) 573-8012.

Respectfully submitted,



Roko Andricevic  
Engineer



James W. Babcock, Ph.D.  
Project Supervisor

RA/JWB/rr

Encl.

cc: Tom Donovan  
J. Marcotte, DHS

Progress Report

# Soil Gas Survey



PROGRESS REPORT  
SOIL GAS SURVEY  
HILLVIEW/ELEANOR SITE  
LOS ALTOS, CALIFORNIA

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2	87-041-A20	Soil Gas Sampling Apparatus
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4	87-041-E18	TCE Concentration Contours
5	87-041-E16	PCE Concentration Contours
6	87-041-E19	Freon 113 Concentration Contours
7	87-041-E17	Total Hydrocarbon Concentration Contours
8	87-041-A32	Detailed Site Plan with Carbon Tetrachloride Concentration Contours
9	87-041-A31	Detailed Site Plan with TCE Concentration Contours
10	87-041-A33	Detailed Site Plan with PCE Concentration Contours
11	87-041-A34	Detailed Site Plan with Freon 113 Concentration Contours
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LIST OF APPENDICES

Appendix A	Soil Gas Analyses - Phase One
Appendix B	Soil Gas Analyses - Phase Two
Appendix C	Utility Clearance Listing

## 1.0 EXECUTIVE SUMMARY

The Hillview - Eleanor site investigation was triggered by the discovery of carbon tetrachloride ( $\text{CCl}_4$ ) in analyses from a water supply well in Los Altos, California. Carbon tetrachloride was a common solvent used in the dry cleaning process and in old fire extinguishers. A point source of contamination was suspected and results from the initial soil gas analyses indicated the soil gas technique worked in the Los Altos hydrogeologic environment. Phase two of the soil gas survey was designed to provide wide spread data coverage to map suspected point-sources of contamination in relation to the two contaminated water wells.

### 1.1 Conclusions and Recommendations

The soil gas survey is an inexpensive and useful reconnaissance technique to provide initial information on the possible extent of contamination. The phase one study concluded that soil gas analyses appear valid in the Los Altos hydrogeologic environment. Phase two delineated at least one point-source in downtown Los Altos. The results suggest multiple contributors to the Lyell and First Streets contamination area based on the identification of dry cleaning solvents ( $\text{CCl}_4$ , TCE, PCE) and hydrocarbons. The soil gas results suggest widespread elevated background values for carbon tetrachloride (figure 3).

The soil gas survey did not result in delineating a contaminant plume from any suspected point-sources directly to the contaminated water wells.

Therefore, the direct source for the carbon tetrachloride contamination in wells 110 and 10 is not known. This raises the possibility that the  $\text{CCl}_4$  in the wells might be from a nonpoint agricultural source. Carbon tetrachloride has been used as a carrier for agricultural pesticides.

Future site investigations should continue to investigate this possibility as long as  $\text{CCl}_4$  is the only ground water contaminant. The detection of the



TCE, PCE, Freon, and hydrocarbons suggests a broader threat to the ground water in the Hillview-Eleanor area than the original CCl<sub>4</sub> contamination indicated.

We recommend proceeding with the shallow and deep soil boring program, video logging, and installation of monitoring wells. Details of these activities are discussed in the Remedial Investigation work plan. The video logging activity of the existing wells could be completed rapidly, independent of other activities.

### 1.2 Contract Authorization

This program report was prepared for the Hillview - Eleanor site under Task Order No. 2-6-5.0-P21030 and California Department of Health Services (DHS) contract No. 84-84541.

## 2.0 INTRODUCTION

A two-phase soil gas survey was conducted at the Hillview-Eleanor site, during the last half of 1987. The purpose of the survey was to delineate a possible contaminant plume encroaching upon California Water Service Company (CWS) water supply well 110 and City of Los Altos irrigation well 10. The contamination is assumed to be from one or more point sources within 2000 feet from the contaminated wells.

The soil gas survey for Hillview-Eleanor area was performed in two phases:

- a) The first phase of soil gas survey collected 22 samples and two split samples from four location clusters: The old cleaners at Lyell and First Streets, the old cleaners at State Street between 2nd and 3rd Streets, the old fire station at State and 3rd Streets, and the Los Altos Community Center Area.
- b) For the second phase of the soil gas survey, 89 additional soil gas samples were collected throughout the project area. The 89 samples included 8 duplicates and 4 split samples. The enclosed maps (Figure 3-7) show the entire area included in soil gas investigation. A broad survey was required because the estimated direction of groundwater flow by Dames & Moore (1987) is based on a regional gradient with no local site specific data. Although the estimated direction of groundwater flow may be a good approximation, locally it could vary considerably.

### 3.0 PURPOSE AND TECHNIQUE

Soil gas analysis has become an increasingly popular technique for delineating the areal extent of subsurface contamination. The technique involves sampling and analyzing soil gases with a shallow (3 - 10 feet) probe for underground contamination from volatile chemicals (VOC) such as industrial solvents, cleaning fluids and petroleum products.

Groundwater contamination and/or soil contaminants acts as a source of VOC's establishing a chemical concentration gradient between the source and ambient air. The resulting diffusion of contaminants through the vadose zone is predominantly vertical because the vertical concentration gradient (groundwater to ground surface) is much steeper than the horizontal gradient. Applicability of the soils gas technique to determining groundwater contamination is dependent on the degree of volatilization of chemicals from the water table surface upward.

The presence of volatile organic chemicals (VOCs) in underground soil gas indicates the observed compounds may either be in the vadose zone or in groundwater below the probe. Soil gas survey is most effective in mapping low molecular weight halogenated solvent chemicals and low aqueous solubilities. The soil gas investigation objectives at the Hillview - Eleanor site were to determine the direction of plume migration and, define the areal extent of subsurface contamination. VOCs diffuse vertically and horizontally through the soil to the ground surface where they dissipate into the atmosphere. However, the concentration gradient in the soil gas may be locally disturbed by hydrologic and geologic conditions (i.e, perched water, clay layers...) causing difficulties in the accurate assessment of subsurface contamination. The presence of geologic anomalies in the soil gas-groundwater correlation, generally does not obscure the broader areal picture of the contaminant distribution.

Tracer Research Corporation (TRC), a DHS subcontractor supervised by Canonie, utilized a field van equipped with a specialized hydraulic mechanism capable of driving and withdrawing soil gas probes. In addition, the van has two built-in gasoline powered generators which provide the electrical power (110 volts AC) to operate all of the field equipment. Probes consists of 7-foot lengths of 3/4 inch diameter steel pipe which are fitted with detachable drive points (Figure 2).

The soil gas samples were collected by driving the hollow probe from 4 to 6 feet into the ground and evacuating 5 to 10 liters of gas with a vacuum pump.

#### 4.0 SOIL GAS INVESTIGATION - PHASE ONE

Carbon tetrachloride contamination was discovered in 1984 in two wells in Los Altos (well numbers 10 and 110). Based on the Dames & Moore (1987) report, it appears that carbon tetrachloride contamination is limited to a relatively small area in the vicinity of California Water Service (CWS) well 110 and the city irrigation well 10. The phase one-soil gas survey was conducted at four location clusters, as shown in Figures 3-8.

Canonie performed a soil gas survey as a part of an ongoing investigation of the contamination problem. Objectives of the investigation were:

- a) To locate the source(s) of a groundwater and/or soil contamination contributing to the water well contamination.
- b) Define the areal extent of contamination.
- c) Determine the direction(s) of contaminant migration.

The gas survey involved the sampling of 22 samples and two split samples from four location clusters. The probes were irregularly spaced throughout the site. Approximate locations were determined from aerial photographs. The exact locations were determined in the field based on property ownership, land use and utility clearances.

##### 4.1 Sampling Data

In addition to carbon tetrachloride ( $\text{CCl}_4$ ), the soil gas survey - phase one showed the presence of trichloroethylene (TCE), tetrachloroethylene (PCE), 1,1,2 trichlorotrifluoroethane (F-113, a Freon), benzene, and total hydrocarbons. The data from 24 sampling locations are given in Appendix A.

The boundaries of the former maintenance yard are not well defined. For that reason, the soil gas sample locations on the eastern end of the yard were chosen towards the two contaminated Wells #10 and #110 in order to intercept possible pathways between these wells and the former maintenance yard. The phase one soil gas samples SG-12 and SG-13 are in or near the maintenance yard. Soil gas sample SG-13 was the only one which detected TCE levels at or above 0.01 ug/l. Sample SG-44E from the phase two study was collected within the former maintenance yard and it showed no contamination.

The location of the old dry cleaner at Lyell and First Streets showed the presence of  $\text{CCl}_4$  in the range of 0.002 to 14 ug/l (ppb), TCE from 0.002 to 3 ug/l, PCE from 0.01 to 180 ug/l, and benzene up to 0.7 ug/l. Extremely high vapor concentration of PCE at a depth of 5 feet indicates the presence of local soil contamination, rather than vapors migrating upwards from groundwater contaminants.

The results from the old fire station and dry cleaner area on State Street showed the presence of  $\text{CCl}_4$ , PCE, and TCE. This location shows a lower level of contamination than the Lyell and First Streets dry cleaner, with values varying within the range of 0.003 - 0.007 ug/l.

The third location was Los Altos Community Center which exhibits the presence of  $\text{CCl}_4$ , PCE, and TCE. Detection levels show the range between 0.0003 - 0.01 ug/l.

The soil gas sample SG-3, located adjacent to Well #110, was sampled at depths of 6 and 12 feet. The results from Appendix A show an increase in the soil gas concentrations for  $\text{CCl}_4$  and total hydrocarbons at the 12 feet depth. At this site, it suggests that the contamination occurs in the groundwater and not the soil.

(Shallow Zone)

The presence of detectable chemicals in almost every sample at each location proved that the soil gas technique is successful in the Los Altos environment.

Based on phase one - soil gas survey,  $\text{CCl}_4$  is not the only contaminant at the Hillview-Eleanor site and all other detected chemicals may sooner or later reach the groundwater.

## 5.0 SOIL GAS INVESTIGATION - PHASE TWO

### 5.1 Field Operations

For the second phase of the soil gas survey, 89 soil gas samples were taken throughout the Hillview-Eleanor site. The soil gas samples are irregularly spaced and cover a broad area. They include 8 duplicates and 4 split samples. The enclosed maps show the location of soil gas samples for both phases (Figures 3-8). Emphasis was given to three areas which showed the highest contamination from the phase one - soil gas survey. The old cleaners at Lyell and First Streets, the old fire station at State and Third Streets and the Los Altos Community Center Area may be indicated (based on the soil gas investigation) as a potential sources for detected contamination.

### 5.2 Detected Chemical

The detected contaminants include carbon tetrachloride ( $\text{CCl}_4$ ), trichloroethylene (TCE), tetrachloroethylene (PCE), 1,1,2 trichlorotrifluoroethane (F-113, a freon), benzene, and total hydrocarbons. The results of the Phase Two - soil gas analyses are listed in Appendix B.

#### 5.2.1 Carbon Tetrachloride ( $\text{CCl}_4$ )

$\text{CCl}_4$  has been extensively used in the past as a fumigant in grain elevators and as a spot remover by the dry cleaning industry until Environmental Protection Agency (EPA) banned its use in 1970 because of its suspected carcinogenicity.

The maximum  $\text{CCl}_4$  contamination (14 ug/l) was detected in the soil gas 100 feet southeast of the intersection of Lyell and First Street (sample SG20d).  $\text{CCl}_4$  vapor concentration ranges by 5 orders of magnitude (0.00001 - 14). The soil gas concentration of the sampling point SG20d was anomalously high



probably because shallow soil around the area was contaminated with  $\text{CCl}_4$ . This indication can be accepted because other samples showed at least 4 orders of magnitude lower vapor concentration. Based on the soil gas investigation,  $\text{CCl}_4$  does not show significant migration (Figure 3).

#### 5.2.2 Trichloroethylene (TCE)

The TCE vapor concentrations are widely spread throughout the site. However, the three major locations are; Lyell and First Street, State Street and 3rd Street, and Los Altos Community Center Area. Based on available soil gas results the TCE plume does not extend beyond Eleanor Street on the east and First Street on the west. The soil gas contours (Figure 4) are elongated in a north - south direction.

#### 5.2.3 Tetrachloroethylene (PCE)

The PCE is found in the widest area at Hillview-Eleanor site (Figure 5). Almost 80% of soil gas samples show the PCE vapor contamination. TRC detected a maximum (180 ug/l) in the soil gas at the corner of Lyell and First Street. PCE concentrations vary by 6 orders of magnitude from this location to the northeast extent of contamination (0.0001 ug/l).

#### 5.2.4 Total Hydrocarbons and Freon 113

Unlike other detected chemicals, the total hydrocarbons and Freon have been found only locally at Lyell Street (between San Antonio Road and First Street), at the 200 feet northeast of the old fire station, and at Los Altos Community Center. Freon vapor concentration ranges from 0.0002 to 0.5 ug/l, while total hydrocarbons have a variation from 0.009 to 0.7 ug/l. Both contaminants are confined locally and do not indicate a major spreading direction. Contour maps (Figure 6,7) for Freon and total hydrocarbons show the areas of suspected contamination.

REFERENCES

## REFERENCES

- Dames & Moore, 1987, Preliminary Site Assessment and Investigation Report, Hillview-Eleanor area, Los Altos, California: Dames & Moore Job Number 14886-003-44, date January 1987, 18p.
- Marrin, D.L., and Thompson, G.M., 1987, Gaseous Behavior of TCE Overlying a Contaminated Aquifer: Ground Water v. 25 no. 1, p. 21-27.
- Thompson, G.M., and Marrin, D.L., 1987, Soil Gas Contaminant Investigation - A Dynamic Approach: Ground Water Monitoring Review v. 7 no. 3 p. 88-93.

FIGURES

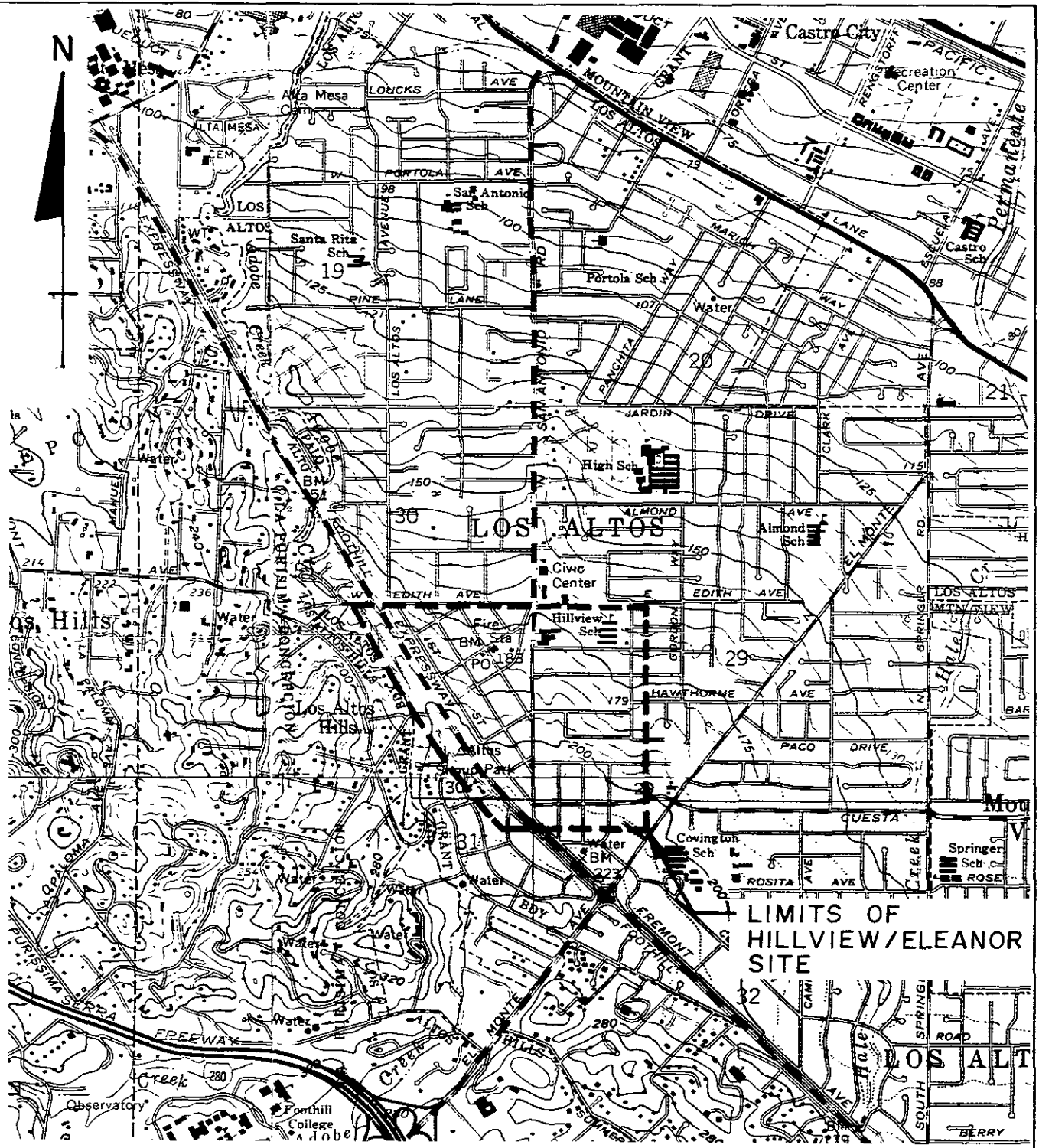
DRAWING NUMBER  
87-041-A1

CHECKED BY  
BJH

APPROVED BY  
11-3-87

DRAWN BY

NO.	DATE



2,000 0 2,000 FEET

SITE LOCATION PLAN  
 LOS ALTOS, CALIFORNIA  
 PREPARED FOR  
 CALIFORNIA DEPARTMENT  
 OF HEALTH SERVICES

**Canonie** Environmental

DATE: 11-3-87	FIGURE 1	DRAWING NUMBER
SCALE: AS SHOWN		87-041-A1

REFERENCE:  
 USGS 7.5 MIN TOPOGRAPHIC MAPS  
 TITLED CUPERTINO, CA  
 DATED 1961, (REV. 1980)  
 TITLED PALO ALTO, CA  
 DATED 1961, (REV. 1968, 1973)  
 TITLED MOUNTAIN VIEW, CA  
 DATED 1961, (REV. 1981)  
 TITLED MINDEGO HILL, CA  
 DATED 1961, (REV. 1980)

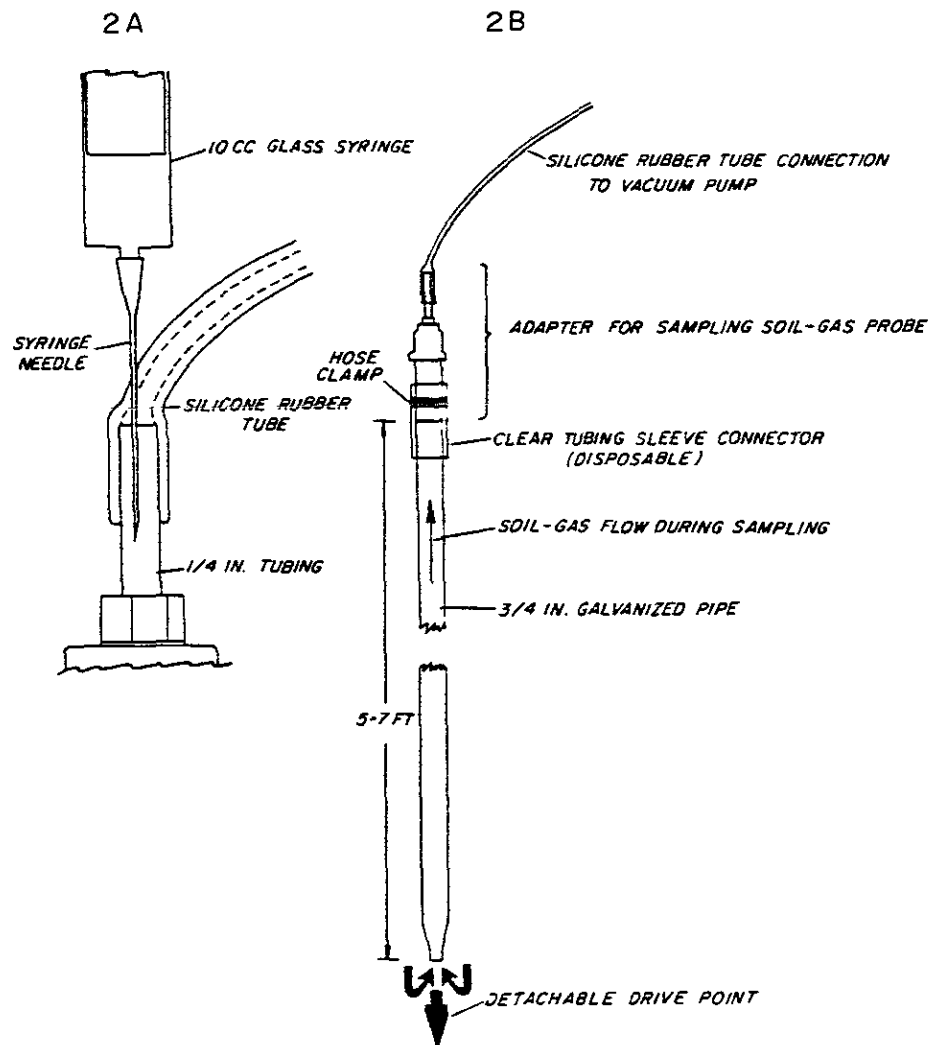


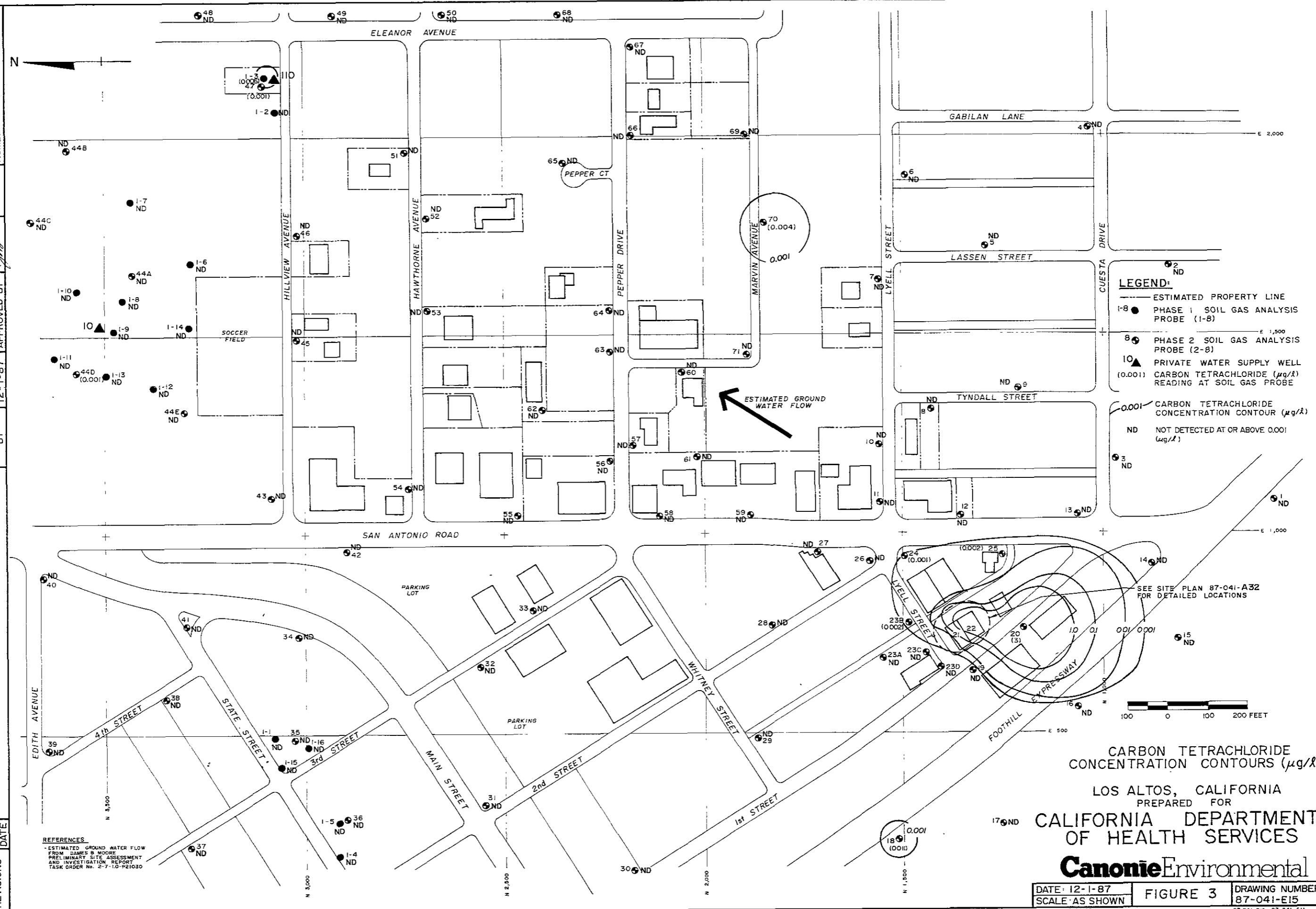
Figure 2. Soil gas sampling apparatus: (a) Close-up view of syringe sampling through the evacuation line, (b) gas flow through a soil gas probe

87-041-E15  
DRAWING NUMBER

BJH 12-1-87  
CHECKED BY  
APPROVED BY

DRAWN BY

NO. DATE  
REVISIONS



- LEGEND:**
- ESTIMATED PROPERTY LINE
  - 1-8 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-8)
  - 8 ● PHASE 2 SOIL GAS ANALYSIS PROBE (2-8)
  - 10 ▲ PRIVATE WATER SUPPLY WELL
  - (0.001) CARBON TETRACHLORIDE ( $\mu\text{g}/\text{l}$ ) READING AT SOIL GAS PROBE
  - 0.001 CARBON TETRACHLORIDE CONCENTRATION CONTOUR ( $\mu\text{g}/\text{l}$ )
  - ND NOT DETECTED AT OR ABOVE 0.001 ( $\mu\text{g}/\text{l}$ )

**REFERENCES:**  
- ESTIMATED GROUND WATER FLOW FROM DAMES & MOORE PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT TASK ORDER No. 2-7-10-P21030

SEE SITE PLAN 87-041-A32 FOR DETAILED LOCATIONS

CARBON TETRACHLORIDE CONCENTRATION CONTOURS ( $\mu\text{g}/\text{l}$ )  
LOS ALTOS, CALIFORNIA  
PREPARED FOR  
**CALIFORNIA DEPARTMENT OF HEALTH SERVICES**

**Canonie Environmental**

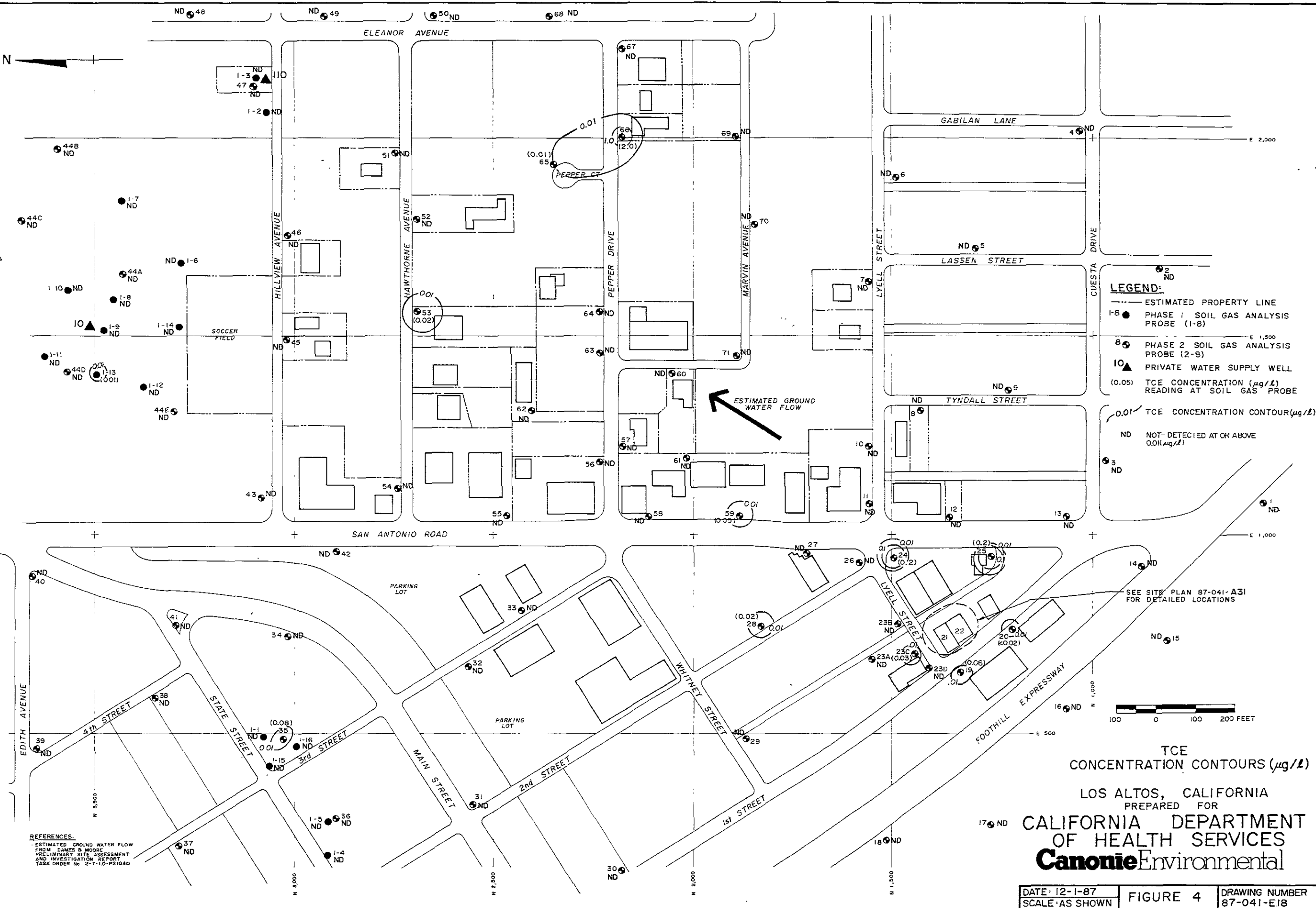
DATE: 12-1-87  
SCALE: AS SHOWN  
FIGURE 3  
DRAWING NUMBER 87-041-E15

DRAWING NUMBER 87-041-E18

CHECKED BY B.J.H. APPROVED BY [Signature]

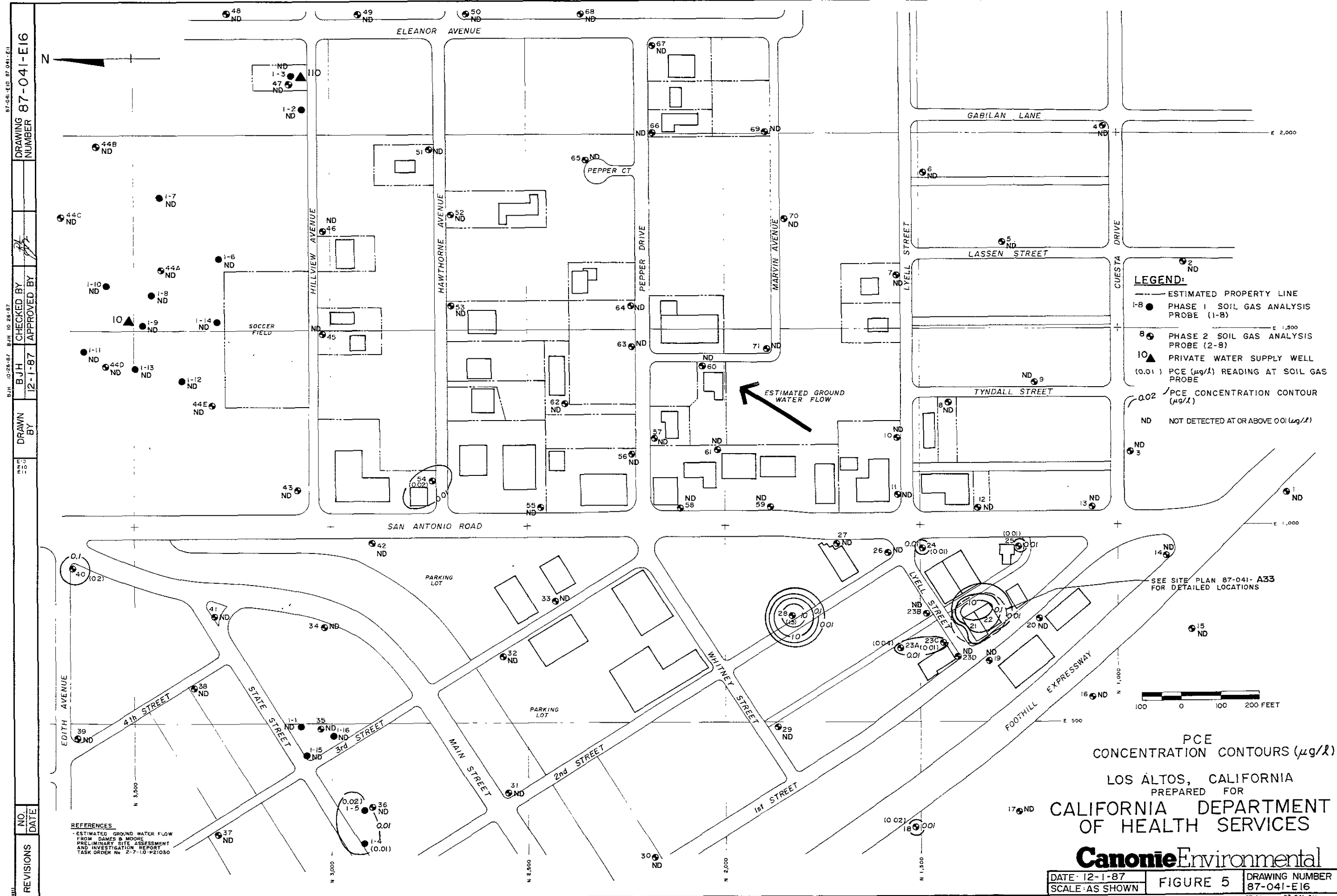
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NO. DATE REVISIONS



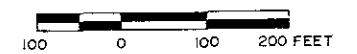
10-26-87 10-26-87





- LEGEND:**
- ESTIMATED PROPERTY LINE
  - 1-8 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-8)
  - 8 ● PHASE 2 SOIL GAS ANALYSIS PROBE (2-8)
  - 10 ▲ PRIVATE WATER SUPPLY WELL
  - (0.01) PCE (μg/l) READING AT SOIL GAS PROBE
  - 0.02 PCE CONCENTRATION CONTOUR (μg/l)
  - ND NOT DETECTED AT OR ABOVE 0.01 (μg/l)

SEE SITE PLAN 87-041-A33 FOR DETAILED LOCATIONS



PCE  
CONCENTRATION CONTOURS (μg/l)  
LOS ALTOS, CALIFORNIA  
PREPARED FOR  
CALIFORNIA DEPARTMENT  
OF HEALTH SERVICES

**Canonie** Environmental

DATE: 12-1-87      FIGURE 5      DRAWING NUMBER 87-041-E16

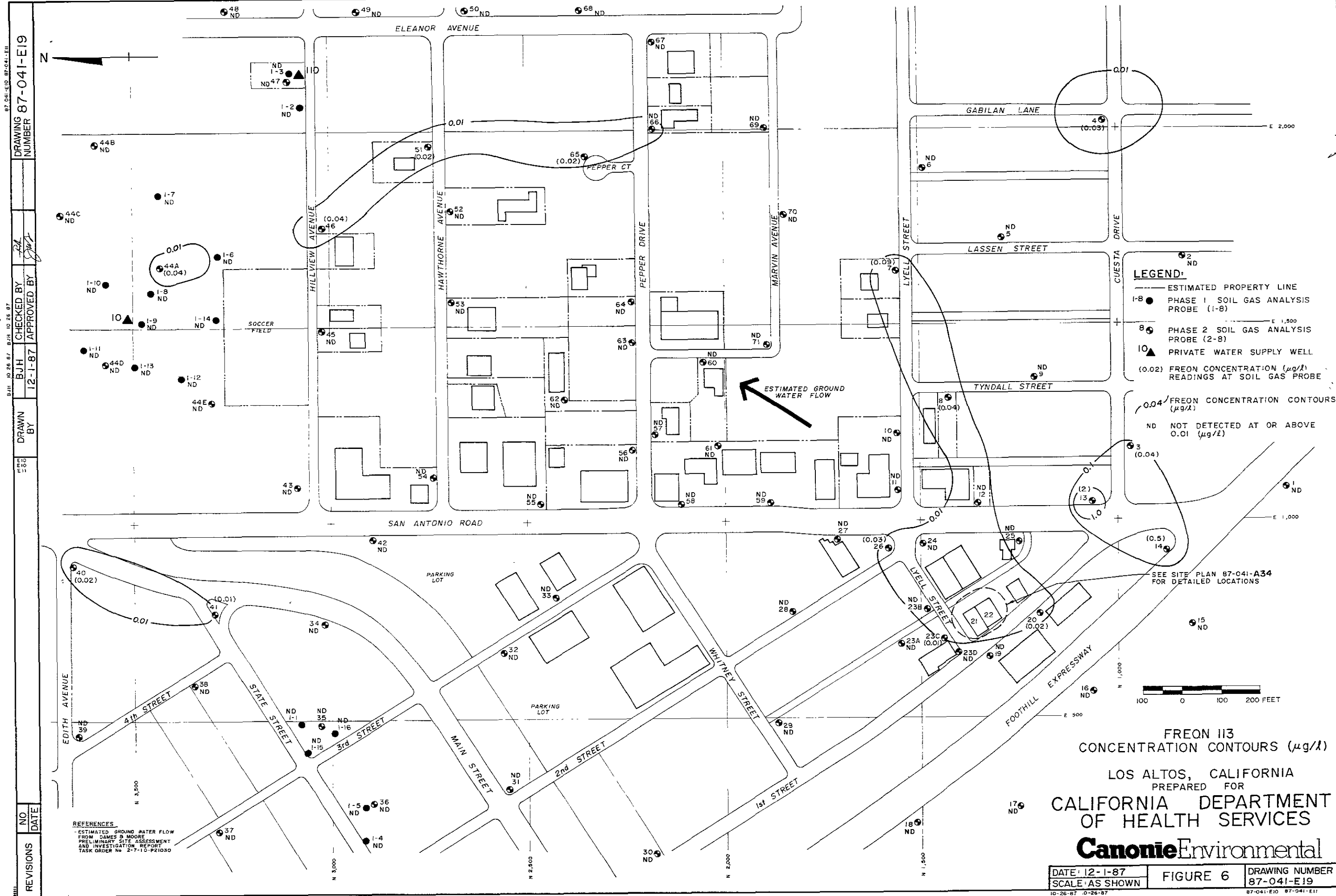
DRAWING NUMBER 87-041-E16

CHECKED BY [Signature] APPROVED BY [Signature]

DRAWN BY [Signature]

NO.	DATE	REVISIONS

**REFERENCES**  
 - ESTIMATED GROUND WATER FLOW FROM DAMES & MOORE PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT TASK ORDER No. 2-7-10-921030



DRAWING NUMBER  
**87-041-E19**

CHECKED BY  
 B.J.H.

APPROVED BY  
 [Signature]

DRAWN BY  
 B.J.H.

DATE  
 12-1-87

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

NO. OF REVISIONS  
 0

DATE

**REFERENCES**  
 - ESTIMATED GROUND WATER FLOW FROM DAMES & MOORE PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT TASK ORDER NO. 2-7-1-0-P21030

**LEGEND:**

- ESTIMATED PROPERTY LINE
- PHASE 1 SOIL GAS ANALYSIS PROBE (1-8)
- PHASE 2 SOIL GAS ANALYSIS PROBE (2-8)
- ▲ PRIVATE WATER SUPPLY WELL
- (0.02) FREON CONCENTRATION ( $\mu\text{g}/\text{l}$ ) READINGS AT SOIL GAS PROBE
- 0.04 FREON CONCENTRATION CONTOURS ( $\mu\text{g}/\text{l}$ )
- ND NOT DETECTED AT OR ABOVE 0.01 ( $\mu\text{g}/\text{l}$ )

SEE SITE PLAN 87-041-A34 FOR DETAILED LOCATIONS

100 0 100 200 FEET

**FREON 113**  
**CONCENTRATION CONTOURS ( $\mu\text{g}/\text{l}$ )**  
 LOS ALTOS, CALIFORNIA  
 PREPARED FOR  
**CALIFORNIA DEPARTMENT OF HEALTH SERVICES**  
**Canonie Environmental**

DATE: 12-1-87	FIGURE 6	DRAWING NUMBER
SCALE: AS SHOWN		87-041-E19

10-26-87 0-26-87 87-041-E10 87-041-E11

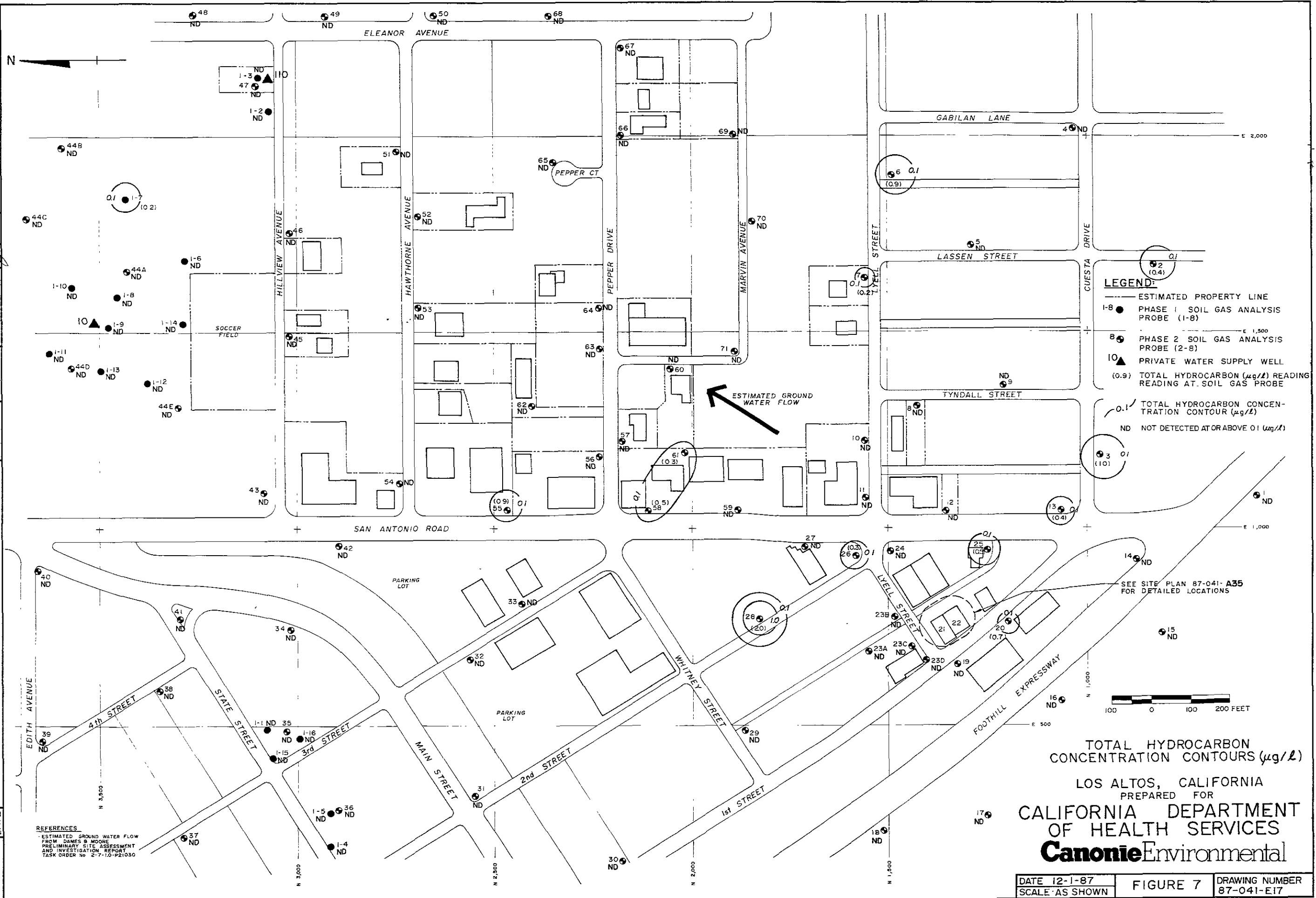
87-041-E10, 87-041-E11  
DRAWING NUMBER 87-041-E17

BJH 10-26-87 8:11 10-28-87  
CHECKED BY BJH  
APPROVED BY [Signature]  
12-1-87

DRAWN BY [Signature]

DATE 12-1-87

NO. DATE  
REVISIONS



- LEGEND:**
- ESTIMATED PROPERTY LINE
  - 1-8 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-8)
  - 8 ● PHASE 2 SOIL GAS ANALYSIS PROBE (2-8)
  - 10 ▲ PRIVATE WATER SUPPLY WELL
  - (0.9) ● TOTAL HYDROCARBON ( $\mu\text{g}/\text{L}$ ) READING AT SOIL GAS PROBE
  - 0.1 ● TOTAL HYDROCARBON CONCENTRATION CONTOUR ( $\mu\text{g}/\text{L}$ )
  - ND NOT DETECTED AT OR ABOVE 0.1 ( $\mu\text{g}/\text{L}$ )

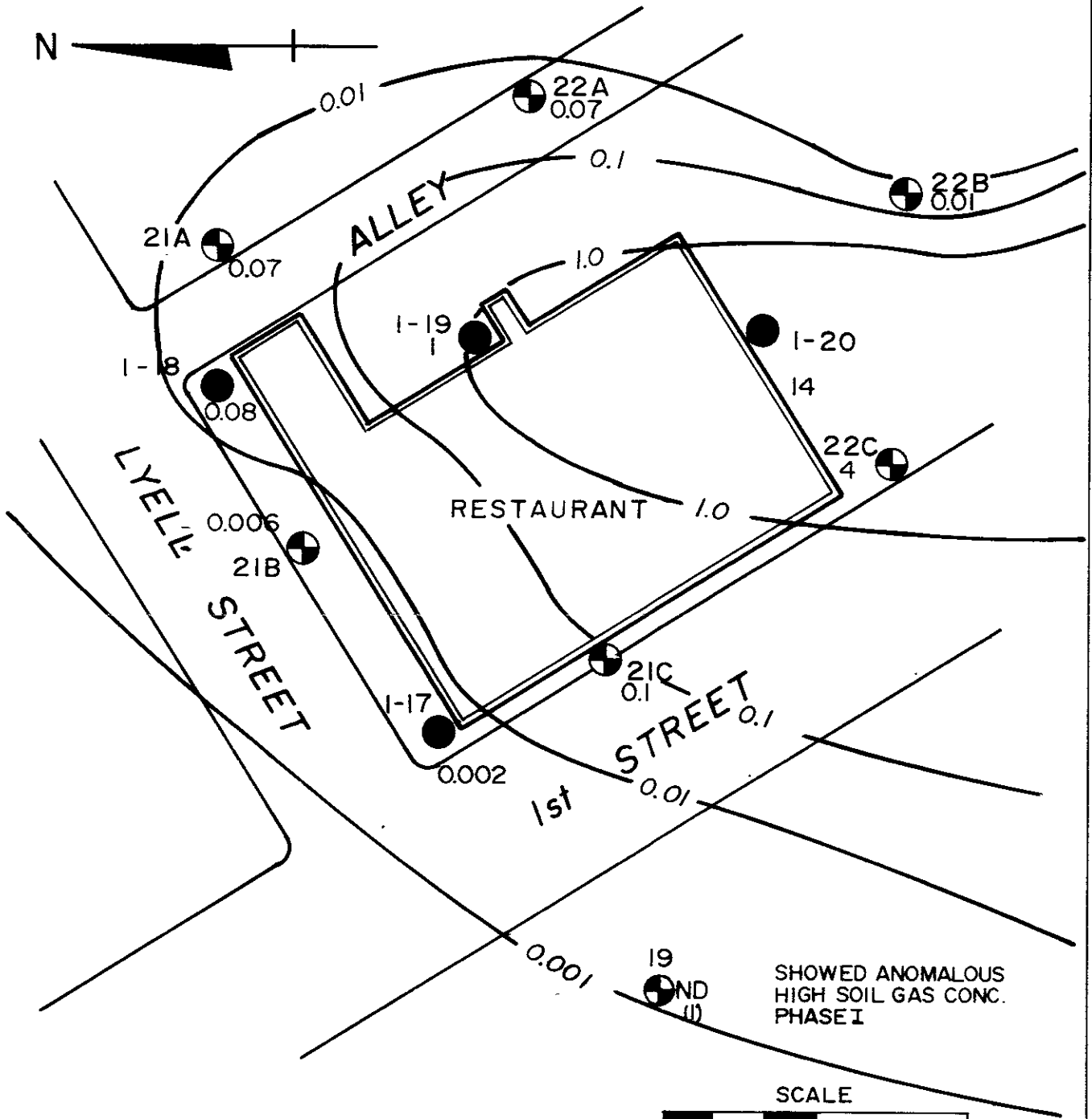
SEE SITE PLAN 87-041-A35 FOR DETAILED LOCATIONS

TOTAL HYDROCARBON CONCENTRATION CONTOURS ( $\mu\text{g}/\text{L}$ )  
LOS ALTOS, CALIFORNIA  
PREPARED FOR  
**CALIFORNIA DEPARTMENT OF HEALTH SERVICES**  
**Canonie Environmental**

REFERENCES  
- ESTIMATED GROUND WATER FLOW FROM JAMES B. MOORE PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT TASK ORDER NO. 2-7-10-P21030

DATE 12-1-87  
SCALE AS SHOWN  
FIGURE 7  
DRAWING NUMBER 87-041-E17

10-26-87 10-26-87 87-041-E10 87-041-E11



**NOTES:**

1. ALL CONCENTRATIONS GIVEN IN  $\mu\text{g}/\text{l}$

**LEGEND:**

- 1-18 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-18)
- 2-1C ⊕ PHASE 2 SOIL GAS ANALYSIS PROBE (2-21C)
- ND NOT DETECTED AT OR ABOVE 0.001 ( $\mu\text{g}/\text{l}$ )

DETAILED SITE PLAN WITH CARBON TETRACHLORIDE CONCENTRATION CONTOURS LOS ALTOS, CALIFORNIA

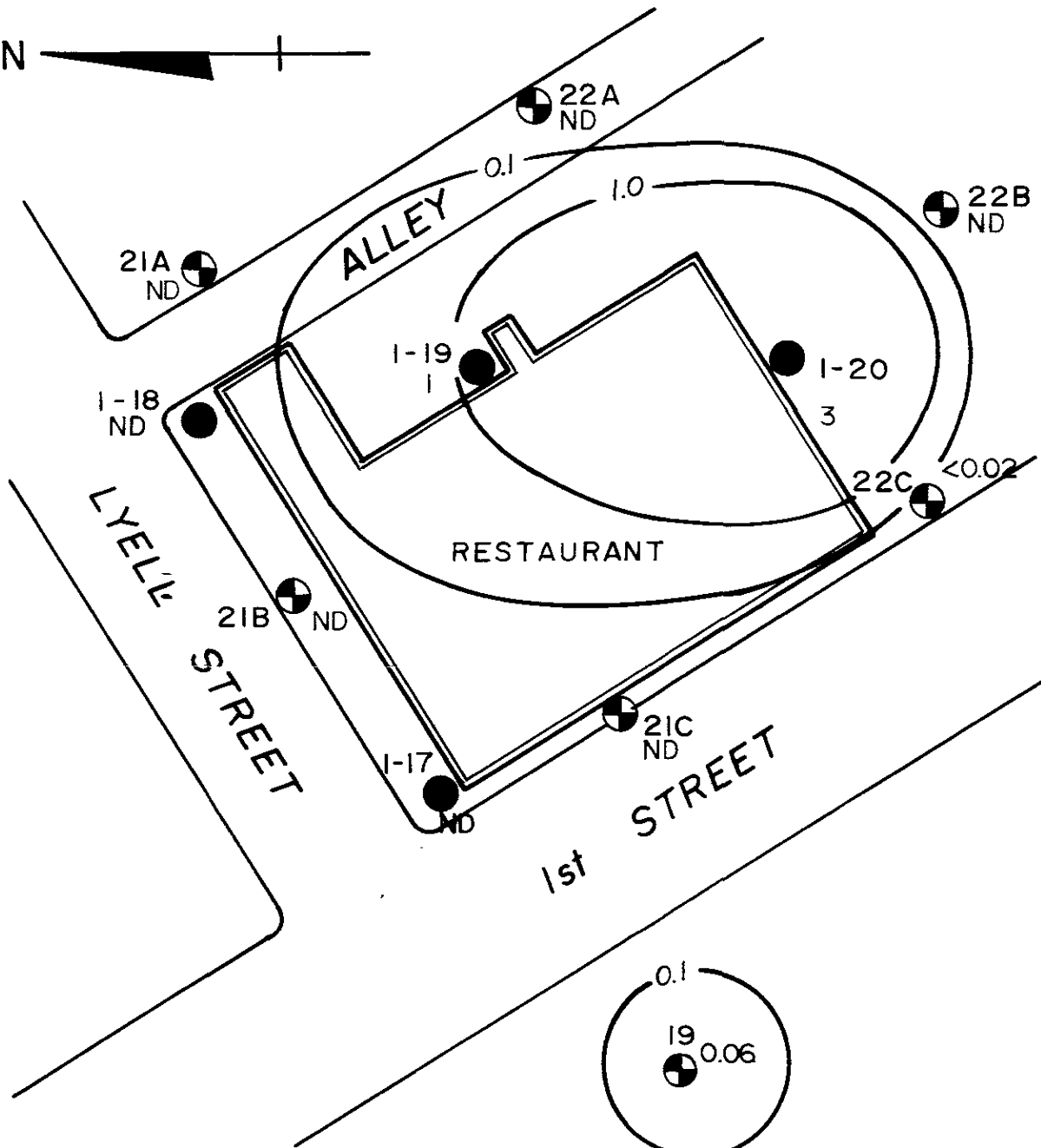
PREPARED FOR CALIFORNIA DEPARTMENT OF HEALTH SERVICES

**Canonie Environmental**

DATE: 1-14-88  
SCALE: AS SHOWN

FIGURE 8

DRAWING NUMBER 87-041-A32

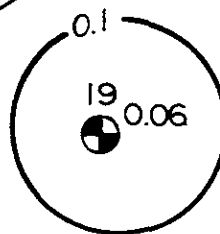


**NOTES:**

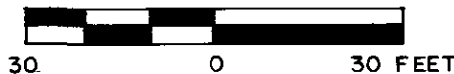
1. ALL CONCENTRATIONS GIVEN IN  $\mu\text{g}/\text{l}$

**LEGEND:**

- 1-18 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-18)
- 2-1C ⊕ PHASE 2 SOIL GAS ANALYSIS PROBE (2-21C)
- ND NO DETECTION AT OR ABOVE 0.01 ( $\mu\text{g}/\text{l}$ )



SCALE



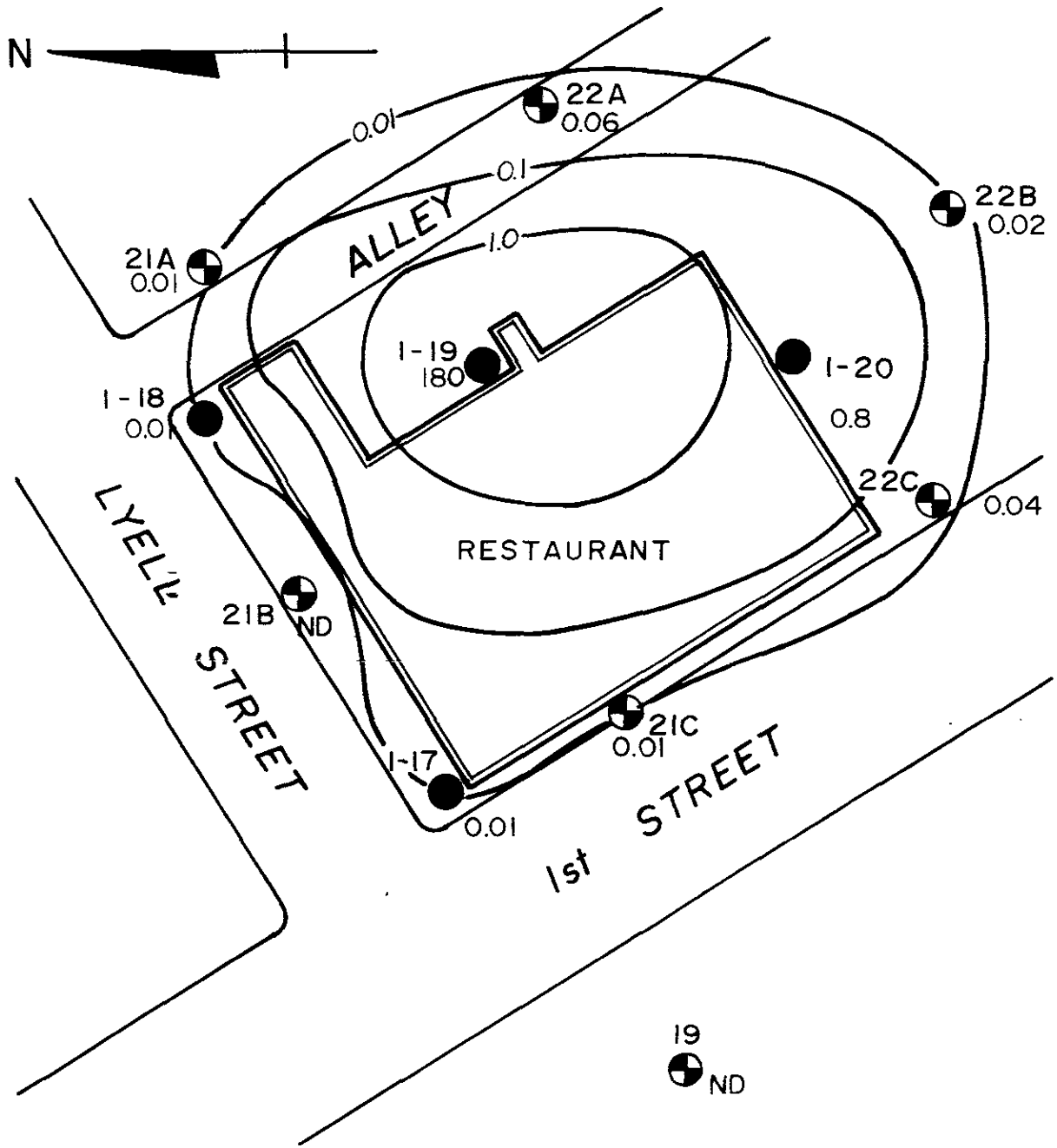
DETAILED SITE PLAN WITH  
TCE CONCENTRATION CONTOURS  
LOS ALTOS, CALIFORNIA  
PREPARED FOR  
CALIFORNIA DEPARTMENT  
OF HEALTH SERVICES

**Canonie Environmental**

DATE: 1-14-88  
SCALE: AS SHOWN

FIGURE 9

DRAWING NUMBER  
87-041-A31

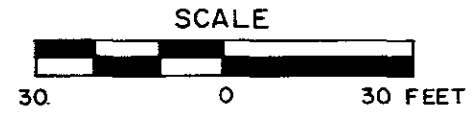


**NOTES:**

1. ALL CONCENTRATIONS GIVEN IN  $\mu\text{g}/\text{l}$

**LEGEND:**

- 1-18 ● PHASE 1 SOIL GAS ANALYSIS PROBE (1-18)
- 2-1C ● PHASE 2 SOIL GAS ANALYSIS PROBE (2-21C)
- ND NOT DETECTED AT OR ABOVE 0.01 ( $\mu\text{g}/\text{l}$ )



DETAILED SITE PLAN WITH PCE CONCENTRATION CONTOURS  
 LOS ALTOS, CALIFORNIA  
 PREPARED FOR  
 CALIFORNIA DEPARTMENT OF HEALTH SERVICES

**Canonie Environmental**

DATE: 1-14-88	FIGURE 10	DRAWING NUMBER 87-041-A33
SCALE: AS SHOWN		

NO.	DATE

DRAWING NUMBER 87-041-A34

CHECKED BY

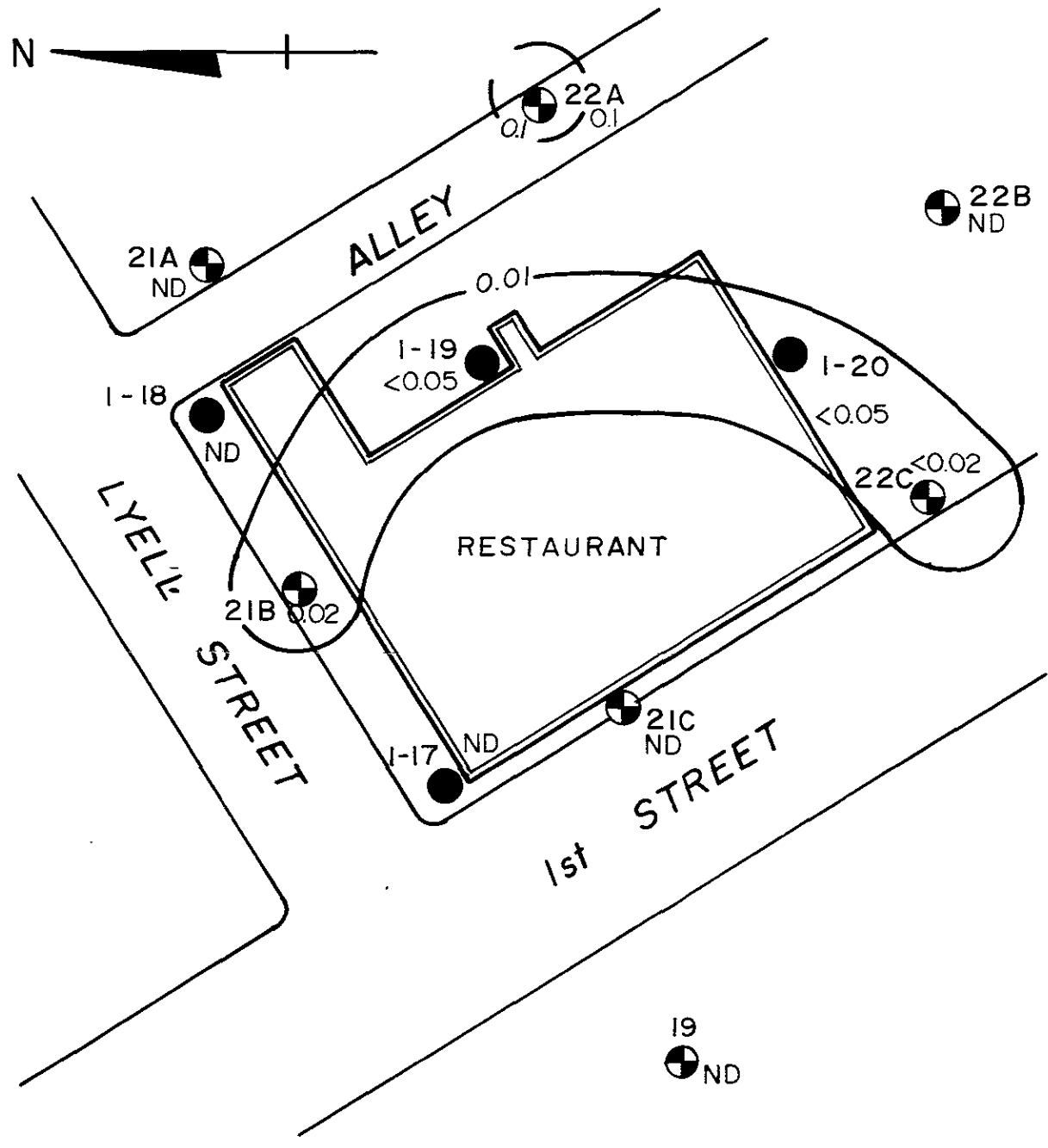
APPROVED BY

E. MINNER 1-14-88

DRAWN BY

NO. DATE

REVISIONS



**NOTES:**

1. ALL CONCENTRATIONS GIVEN IN  $\mu\text{g}/\text{l}$

**LEGEND:**

- I-18 ● PHASE 1 SOIL GAS ANALYSIS PROBE (I-18)
- 21C ⊕ PHASE 2 SOIL GAS ANALYSIS PROBE (2-21C)
- ND NOT DETECTED AT OR ABOVE 0.01 ( $\mu\text{g}/\text{l}$ )

DETAILED SITE PLAN WITH FREON 113 CONCENTRATION CONTOURS LOS ALTOS, CALIFORNIA

PREPARED FOR CALIFORNIA DEPARTMENT OF HEALTH SERVICES

**Canonie** Environmental

DATE: 1-14-88  
SCALE AS SHOWN

FIGURE II

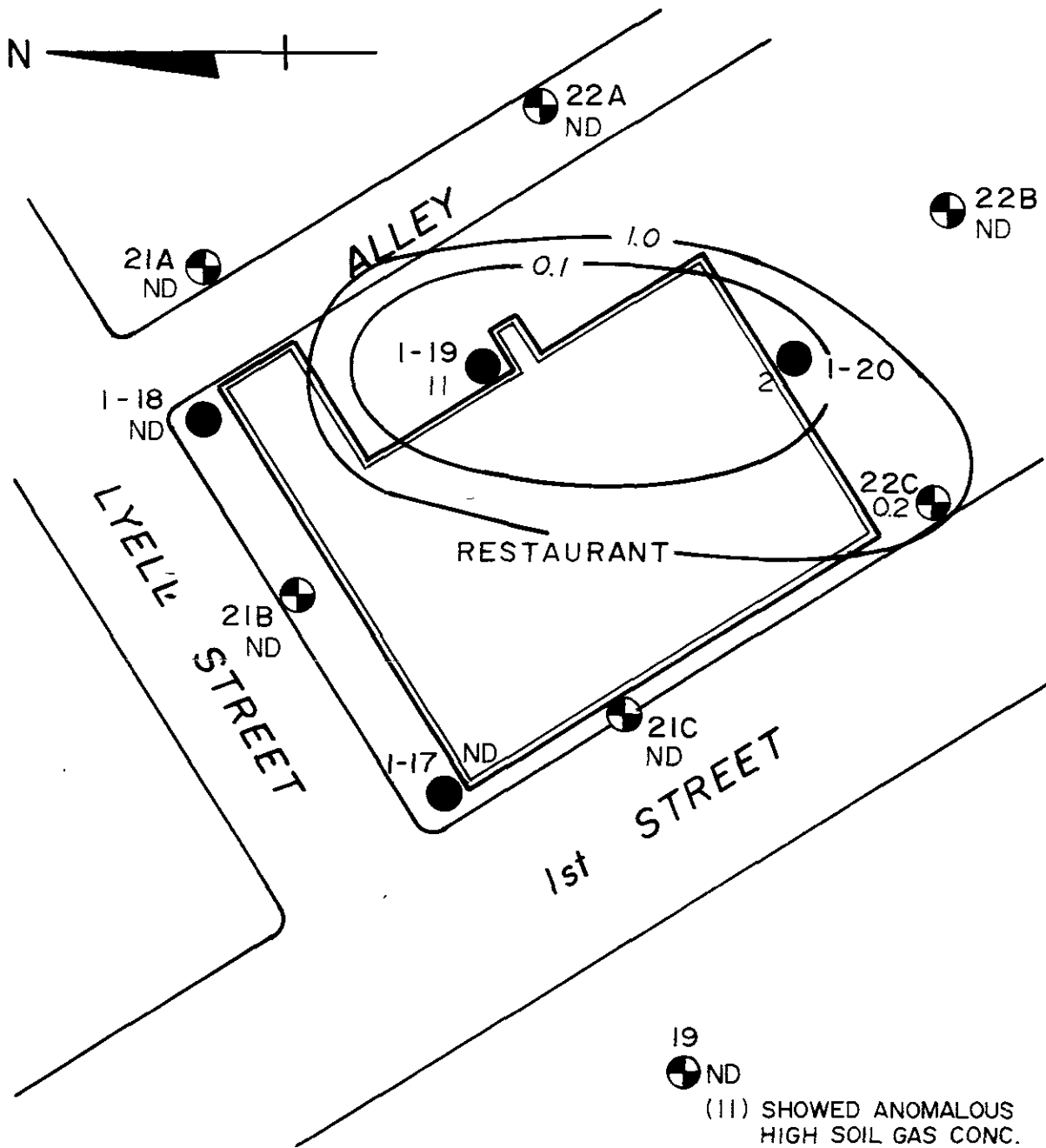
DRAWING NUMBER 87-041-A34

87-041-A24  
DRAWING NUMBER 87-041-A35

CHECKED BY  
APPROVED BY

E. MINNER 1-8-88  
1-14-88

DRAWN BY



19  
ND  
(11) SHOWED ANOMALOUS  
HIGH SOIL GAS CONC.  
PHASE II  
SCALE



**NOTES:**

1. ALL CONCENTRATIONS  
GIVEN IN  $\mu\text{g}/\ell$

**LEGEND:**

- 1-18 ● PHASE I SOIL GAS ANALYSIS PROBE (1-18)
- 2-1C ⊕ PHASE 2 SOIL GAS ANALYSIS PROBE (2-21C)
- ND NOT DETECTED AT OR ABOVE 01 ( $\mu\text{g}/\ell$ )

DETAILED SITE PLAN WITH  
TOTAL HYDROCARBON CONCENTRATION CONTOUR  
LOS ALTOS, CALIFORNIA

PREPARED FOR  
CALIFORNIA DEPARTMENT  
OF HEALTH SERVICES

**Canonie** Environmental

NO.	DATE	REVISIONS

DATE: 1-13-88	FIGURE 12	DRAWING NUMBER 87-041-A35
SCALE: AS SHOWN		



APPENDIX A



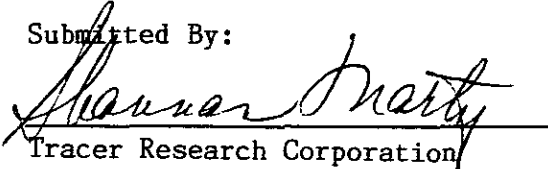
# Tracer Research Corporation

3855 North Business Center Drive Tucson, Arizona 85705 (602) 888-9400

DATA REPORT  
FOR  
SOIL GAS SAMPLING AND ANALYSIS  
HILLVIEW-ELEANOR SITE  
LOS ALTOS, CALIFORNIA

Prepared For:  
Mr. Doug Graham  
Canonie Engineering  
1825 S. Grant, Suite 260  
San Mateo, California 94402

Submitted By:

  
Tracer Research Corporation



INTRODUCTION

Tracer Research Corporation (TRC) performed soil gas sampling and analysis at the Hillview-Eleanor site in Los Altos, California on September 17 and 18, 1987. Twenty two soil gas locations were sampled and analyzed for the following components as part of this study:

- F113 - trichlorotrifluoroethane
- $\text{CCl}_4$  - carbon tetrachloride
- TCE - trichloroethene
- PCE - tetrachloroethene
- Benzene
- Toluene
- Total Xylene
- Total Hydrocarbons without Methane

CH2M HILL/CANONIE HILLVIEW-ELEANOR/LOS ALTOS, CALIFORNIA

Sample	Depth	Date	F113 (ug/l)	CC14 (ug/l)	TCE (ug/l)	PCE (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Total Xylene (ug/l)	Total Hydroc.w/o CH4 (ug/l)
S601	6'	09/17	<0.0005	<0.00002	0.005	0.006	<0.02	<0.02	<0.02	<0.02
S602	6'	09/17	<0.0005	0.0004	0.008	0.003	<0.02	<0.02	<0.02	0.4
S603	6'	09/17	<0.0004	0.006	<0.0003	0.001	<0.02	<0.02	<0.02	<0.02
S603	12'	09/17	<0.0004	0.01	<0.0003	<0.00009	<0.02	<0.02	<0.02	1
S604	6'	09/17	<0.0005	0.0001	0.003	0.01	<0.02	<0.02	<0.02	<0.02
S605	6'	09/17	<0.0005	<0.00002	<0.0004	0.02	<0.02	<0.02	<0.02	<0.02
S606	6'	09/17	<0.0005	<0.00002	0.002	0.003	<0.02	<0.02	<0.02	<0.02
S607	6'	09/17	<0.0005	<0.00002	0.006	0.001	<0.02	<0.02	<0.02	0.2
S608	6'	09/17	<0.0005	<0.00002	0.003	0.003	<0.02	<0.02	<0.02	<0.02
S609	6'	09/17	<0.0005	<0.00002	<0.0004	0.002	<0.02	<0.02	<0.02	<0.02
S610	6'	09/17	<0.0005	<0.00002	<0.0004	0.004	<0.02	<0.02	<0.02	<0.02
S610d	6'	09/17	<0.0005	<0.00002	<0.0004	0.002	<0.02	<0.02	<0.02	<0.02
S611	6'	09/17	<0.0005	0.0003	<0.0004	0.002	<0.02	<0.02	<0.02	<0.02
S612	5'	09/17	<0.0005	0.0003	0.004	0.002	<0.02	<0.02	<0.02	<0.02
S613	6'	09/17	<0.0005	0.00004	0.01	0.001	<0.02	<0.02	<0.02	<0.02
S614	6'	09/17	<0.0005	<0.00002	<0.0004	0.003	<0.02	<0.02	<0.02	<0.02
S615	6'	09/18	<0.0005	0.0002	0.006	0.007	<0.01	<0.01	<0.01	<0.01
S616	6'	09/18	<0.0005	<0.00002	0.002	0.008	<0.01	<0.01	<0.01	<0.01
S617	6'	09/18	<0.0005	0.002	0.002	0.01	<0.01	<0.01	<0.01	<0.01
S618	6'	09/18	<0.0008	0.08	<0.0005	0.01	<0.01	<0.01	<0.01	<0.01
S619	6'	09/18	<0.05	1	1	180	<0.05	<0.06	<0.06	11
S620	6'	09/18	<0.005	3	2	0.2	0.6	<0.02	<0.02	2
S620d	6'	09/18	<0.05	14	3	0.8	0.7	<0.02	<0.02	1

-2-

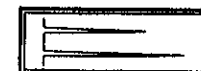
Notations:

I interference with adjacent peaks  
 NA not analyzed

Analyzed by T. Bode

Checked by M. Roddy

Proofed by L. Laplander



UNIVERSITY ANALYTICAL CENTER

University of Arizona, Department of Chemistry  
Biological Sciences East, Room 226  
Tucson, Arizona 85721  
(602) 621-3180

LABORATORY REPORT

DATE: 25 September 1987

TO: Mr. Dan Evans, Tracer Research Corporation

FROM: Ely Shemesh *ES*

RE: Req. 880055 - Gas Chromatography Analyses of Soil Gas Samples

Two soil gas samples were submitted to the UAC on September 22, 1987. The samples, delivered in gas-tight stainless steel bottles, were analyzed to detect the presence of volatile organic compounds. The analyses have now been completed and the results are attached.

The analyses of the sample was completed by gas chromatography (GC). The system used consisted of a Tracor model 565 GC equipped with a photoionization (PID) and Hall electrolytic conductivity detector. The column used was an 8' x 1/8" UAC/Supelco 60/80 Carbopack B/1% SP-1000. The data was collected using a Hewlett Packard model 3388A computing integrator.

If you have any questions pertaining to these analyses, or require additional analytical services, please contact us at (602) 621-3180.

Analyst: *Ely Shemesh*

Reviewed by: *Kay Jerin*

Kay Jerin, QA/QC OFFICER

REG 080055  
RAS CYLINDERS  
PURGEABLES

Hillview-Eleanor  
SG1106'917

Hillview-Eleanor  
SG17 9/18

UG/L

CHLOROMETHANE	NA	NA
BROMOMETHANE	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA
VINYL CHLORIDE	ND	ND
CHLOROETHANE	NA	NA
METHYLENE CHLORIDE	ND	ND
TRICHLOROFLUOROMETHANE	ND	ND
1,1-DICHLOROETHENE	ND	ND
1,1-DICHLOROETHANE	ND	ND
TRANS-1,2-DICHLOROETHENE	ND	ND
CHLOROFORM	ND	ND
1,2-DICHLOROETHANE	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND
CARBON TETRACHLORIDE	ND	ND
DIBROMODICHLOROMETHANE	ND	ND
1,2-DICHLOROPROPANE	ND	ND
TRANS-1,3-DICHLOROPROPENE	NA	NA
TRICHLOROETHENE	ND	ND
DIBROMOCHLOROMETHANE }*	ND	ND
1,1,2-TRICHLOROETHANE }	ND	ND
CIS 1,3-DICHLOROPROPENE }	ND	ND
1-CHLOROETHYL VINYL ETHER	ND	ND
BROMOFORM	ND	ND
1,1,2,2-TETRACHLOROETHANE }*	ND	ND
TETRACHLOROETHENE }	ND	ND
CHLOROBENZENE	ND	ND
1,3-DICHLOROBENZENE	ND	ND
1,2-DICHLOROBENZENE	ND	ND
1,4-DICHLOROBENZENE	ND	ND
BENZENE	ND	ND
TOLUENE	ND	ND
ETHYLBENZENE	ND	ND
XYLENE	ND	ND

\* - THESE COMPONENTS ARE UNRESOLVED  
NA: Not Analyzed

EPA 601/602 Detection Limits (Direct Injection)

UG/L		
	CHLOROMETHANE	NA
	BROMOMETHANE	NA
	DICHLORODIFLUOROMETHANE	NA
	VINYL CHLORIDE	<.05
	CHLOROETHANE	NA
	METHYLENE CHLORIDE	<0.005
	TRICHLOROFLUOROMETHANE	<0.001
	1, 1 DICHLOROETHENE	<0.001
	1, 1- DICHLOROETHANE	<0.001
	TRANS-1, 2-DICHLOROETHENE	<0.001
	CHLOROFORM	<0.001
	1, 2 DICHLOROETHANE	<0.001
	1, 1, 1- TRICHLOROETHANE	0.001
	CARBON TETRACHLORIDE	0.001
	BROMODICHLOROMETHANE	<0.001
	1, 2- DICHLOROPROPANE	<0.001
	TRANS-1, 3-DICHLOROPROPENE	NA
	TRICHLOROETHENE	<0.001
	DIBROMOCHLOROMETHANE }*	<0.001
	1, 1, 2- TRICHLOROETHANE }	<0.001
	CIS- 1, 3- DICHLOROPROPENE }	<0.001
	2-CHLOROETHYL VINYL ETHER	<0.2
	BROMOFORM	<0.2
	1, 1, 1, 2- TETRACHLOROETHANE }*	0.001
	1, 1, 2, 2- TETRACHLOROETHANE }	<0.001
	CHLOROBENZENE	<0.002
	1, 1 DICHLOROBENZENE	<0.005
	1, 2 DICHLOROBENZENE	<0.007
	1, 4 DICHLOROBENZENE	<0.005
	BENZENE	<0.5
	TOLUENE	<0.4
	ETHYL BENZENE	<0.4
	XYLENE	<0.4

\* - THESE COMPONENTS ARE UNRESOLVED

APPENDIX B





SHALLOW SOIL GAS INVESTIGATION  
AT THE  
HILLVIEW-ELEANOR SITE  
LOS ALTOS, CALIFORNIA

NOVEMBER, 1987

PREPARED FOR:

CANONIE ENVIRONMENTAL  
1825 South Grant Street, Suite 260  
San Mateo, California 94402

SUBMITTED BY:

  
Tracer Research Corporation



## INTRODUCTION

A shallow soil gas investigation was conducted by Tracer Research Corporation at the Hillview-Eleanor site in Los Altos, California. The investigation was conducted November 14-16, 1987 under contract to CH2M Hill and under the supervision of Canonic Environmental. The main purpose was to analyze soil gas samples for the following volatile organic compounds:

- 1,1,2-Trichlorotrifluoroethane (F113)
- Carbon Tetrachloride (CCl4)
- Trichloroethene (TCE)
- Tetrachloroethene (PCE)
- Benzene
- Toluene
- Xylenes
- Total Hydrocarbons

Xylenes are reported as the total of the three isomers and total hydrocarbons are C4-C9 aliphatic, aromatic and alicyclic compounds. Analytical results are condensed in Appendix A.

A total of 89 soil gas samples, eight of which were duplicate samples, were taken during the course of the investigation. Additionally, four split samples were taken for analysis by the University of Arizona Analytical Center. Results from the split samples are included in Appendix B.

The lowest concentrations of the compounds detected in soil gas which may be considered significant in terms of soil and/or groundwater contamination are as follows in µg/L:

F113	0.0002
CCl4	0.0001
TCE	0.0002
PCE	0.01
Benzene	0.02
Toluene	0.02
Xylenes	0.02
Total Hydrocarbons	0.1



### BACKGROUND ON THE METHODOLOGY

The presence of volatile organic chemicals (VOCs) in shallow soil gas indicates the observed compounds may either be in the vadose zone near the probe or in groundwater below the probe. The soil gas technology is most effective in mapping low molecular weight halogenated solvent chemicals and petroleum hydrocarbons possessing high vapor pressures and low aqueous solubilities. These compounds readily partition out of the groundwater and into the soil gas as a result of their high gas/liquid partitioning coefficients. Once in the soil gas, VOCs diffuse vertically and horizontally through the soil to the ground surface where they dissipate into the atmosphere. The contamination acts as a source and the above ground atmosphere acts as a sink, and typically a concentration gradient develops between the two. The concentration gradient in soil gas between the source and ground surface may be locally distorted by hydrologic and geologic anomalies (e.g. clays, perched water); however, soil gas mapping generally remains effective because distribution of the contamination is usually broader in areal extent than the local geologic barriers and is defined using a large data base. The presence of geologic obstructions on a small scale tends to create anomalies in the soil gas-groundwater correlation, but generally does not obscure the broader areal picture of the contaminant distribution.



### SAMPLING AND ANALYTIC PROCEDURES

Tracer Research Corporation utilized an analytical field van which was equipped with two gas chromatographs and two Spectra Physics SP4270 computing integrators. In addition, the van has two built-in gasoline powered generators which provide the electrical power (110 volts AC) to operate all of the gas chromatographic instruments and field equipment. A specialized hydraulic mechanism consisting of two cylinders and a set of jaws was used to drive and withdraw the sampling probes. Probes consist of 7-foot lengths of 3/4 inch diameter steel pipe which are fitted with detachable drive points. A hydraulic hammer was used to assist in driving probes past cobbles and through unusually hard soil.

Soil gas samples were collected by driving a hollow steel probe to a depth between 3.5 and 6 feet into the ground. The above-ground end of the sampling probes were fitted with a steel reducer and a length of polyethylene tubing leading to a vacuum pump. Five to 10 liters of gas was evacuated with a vacuum pump. During the soil gas evacuation, samples were collected by inserting a syringe needle through a silicone rubber segment in the evacuation line and down into the steel probe. Ten milliliters of gas were collected for immediate analysis in the TRC analytical field van. Soil gas was subsampled (duplicate injections) in volumes ranging from 1  $\mu$ L to 2 mL, depending on the VOC concentration at any particular location.

A gas chromatograph equipped with an electron capture detector was used for analyses of F113, carbon tetrachloride, TCE and PCE. Nitrogen was used as the carrier gas. A second gas chromatograph, equipped with a flame ionization detector, was used for analyses of benzene, toluene, xylenes, and total hydrocarbons. Xylenes are reported as the total of the three isomers and total hydrocarbons are C4-C9 aliphatic, aromatic and alicyclic compounds.



Detection limits are a function of the injection volume as well as the detector sensitivity for individual compounds. Thus, the detection limit varies with the sample size. Generally, the larger the injection size the greater the sensitivity. However, peaks for compounds of interest must be kept within the linear range of the detector. If any compound has a high concentration, it is necessary to use small injections, and in some cases to dilute the sample to keep it within linear range. This may cause decreased detection limits for other compounds in the analyses. The detection limits range down to 0.00005  $\mu\text{g/L}$  for compounds such as PCE depending on the conditions of the measurement, in particular, the sample size. If any component being analyzed is not detected, the detection limit for that compound in that analysis is given as a "less than" value (e.g.  $<0.0001 \mu\text{g/L}$ ). This number is calculated from the current response factor, the sample size, and the estimated minimum peak size (area) that would have been visible under the conditions of the measurement.



### QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

Tracer Research Corporation's normal quality assurance procedures were followed in order to prevent any cross-contamination of soil gas samples.

- . Steel probes are used only once during the day and then washed with high pressure soap and hot water spray or steam-cleaned to eliminate the possibility of cross-contamination. Enough probes are carried on each van to avoid the need to reuse any during the day.
- . Probe adaptors (steel reducer and tubing) are used once during the course of the day and cleaned at the end of each working day by baking in the GC oven. The tubing is replaced periodically as needed during the job to insure cleanliness and good fit.
- . Silicone tubing (connecting the adaptor to the vacuum pump) is replaced as needed to insure proper sealing around the syringe needle. This tubing does not directly contact soil gas samples.
- . Glass syringes are usually used for only one sample per day and are washed and baked out at night. If they must be used twice, they are purged with carrier gas (nitrogen) and baked out between probe samplings.
- . Septa through which soil gas samples are injected into the chromatograph are replaced on a daily basis to prevent possible gas leaks from the chromatographic column.
- . Analytical instruments are calibrated each day by the use of chemical standards prepared in water by serial dilution from commercially available pure chemicals. Calibration checks are also run after approximately every five soil gas sampling locations.
- . 2 cc subsampling syringes are checked for contamination prior to sampling each day by injecting nitrogen carrier gas into the gas chromatograph.
- . Prior to sampling each day, system blanks are run to check the sampling apparatus (probe, adaptor, 10 cc syringe) for contamination by drawing ambient air from above ground through the system and comparing the analysis to a concurrently sampled air analysis.



- . All sampling and 2 cc subsampling syringes are decontaminated each day and no such equipment is reused before being decontaminated. Microliter size subsampling syringes are reused only after a nitrogen carrier gas blank is run to insure it is not contaminated by the previous sample.
- . Soil gas pumping is monitored by a vacuum gauge to insure that an adequate gas flow from the vadose zone is maintained. A negative pressure (vacuum) of 2 in. Hg less than the maximum capacity of the pump (evacuation rate >0.02 cfm) usually indicates that a reliable gas sample cannot be obtained because the soil has a very low air permeability.



APPENDIX A: CONDENSED DATA



CH2M HILL/CANONIE ENGINEERING/HILLVIEW-ELEANOR/LOS ALTOS, CALIFORNIA

Sample	Depth	Date	F113 (ug/l)	CC14 (ug/l)	TCE (ug/l)	PCE (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Xylenes (ug/l)	Total Hydroc.w/o CH4 (ug/l)
SG01	5'	11/16	<0.0002	0.0002	0.003	0.001	<0.02	<0.02	<0.02	<0.02
SG02	6'	11/16	<0.0002	0.00003	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG03	5.5'	11/16	0.04	0.00003	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG03D	5.5'	11/16	0.04	0.00004	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG04	5.5'	11/16	0.03	0.00003	<0.0002	0.0007	<0.02	<0.02	<0.02	<0.02
SG04D	5'	11/16	0.03	0.00002	<0.0002	0.0008	<0.02	<0.02	<0.02	<0.02
SG05	5.5'	11/16	<0.0002	0.00004	0.001	0.0009	<0.02	<0.02	<0.02	<0.02
SG06	5.5'	11/16	<0.0002	0.00002	0.001	0.001	<0.02	<0.02	<0.02	0.09
SG07	6'	11/16	0.09	0.0001	<0.0002	0.0004	<0.02	<0.02	<0.02	<0.02
SG08	6'	11/16	0.04	0.0001	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG09	6'	11/16	<0.0002	<0.00001	<0.0002	0.0008	<0.02	<0.02	<0.02	<0.02
SG09D	6'	11/16	<0.0002	<0.00001	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG10	6'	11/16	<0.0002	0.00006	0.001	0.002	<0.02	<0.02	<0.02	<0.02
SG11	6'	11/16	<0.0002	0.00002	0.0008	0.0009	<0.02	<0.02	<0.02	<0.02
SG12	5.5'	11/16	0.1	<0.00001	<0.0002	0.002	<0.02	<0.02	<0.02	<0.02
SG13	5.5'	11/16	2	0.0003	<0.0002	0.001	<0.02	<0.02	<0.02	0.4
SG14	5.5'	11/16	0.5	0.0002	0.003	0.001	<0.02	<0.02	<0.02	<0.02
SG15	4.5'	11/16	<0.0002	0.00002	<0.0002	0.0009	<0.02	<0.02	<0.02	<0.02
SG16	6'	11/16	<0.0002	0.00002	<0.0002	0.002	<0.02	<0.02	<0.02	<0.02
SG17	6'	11/16	<0.0002	0.0002	<0.0002	0.003	<0.02	<0.02	<0.02	<0.02
SG18	6'	11/16	<0.0002	0.01	<0.0002	0.02	<0.02	<0.02	<0.02	<0.02
SG19	4.5'	11/15	<0.0002	0.0004	0.06	0.003	<0.009	<0.009	<0.01	<0.009
SG20	6'	11/15	<0.02	3	<0.02	<0.005	0.7	<0.009	<0.01	0.7
SG21A	6'	11/15	<0.001	0.07	<0.001	0.01	0.03	<0.009	<0.01	0.03
SG21B	5'	11/15	0.02	0.006	<0.0002	0.003	<0.009	<0.009	<0.01	<0.009
SG21C	6'	11/15	<0.0006	0.1	<0.0005	0.01	0.06	<0.009	<0.01	0.06
SG22A	5.5'	11/15	0.1	0.07	<0.009	0.06	<0.009	<0.009	<0.01	<0.009
SG22B	6'	11/15	<0.002	0.01	<0.002	0.02	<0.02	<0.02	<0.02	<0.02
SG22C	5'	11/15	<0.02	4	<0.02	0.04	0.2	<0.02	<0.02	0.2
SG22CD	3.5'	11/16	<0.02	0.6	<0.02	<0.005	0.1	<0.02	<0.02	0.1
SG23A	5.5'	11/15	<0.0002	0.00002	<0.0002	0.04	<0.009	<0.009	<0.01	<0.009
SG23B	6'	11/15	<0.0002	0.002	<0.0002	0.006	<0.009	<0.009	<0.01	<0.009
SG23C	6'	11/15	0.01	<0.000004	0.03	0.01	<0.009	<0.009	<0.01	<0.009
SG23D	5'	11/15	<0.0002	0.0002	<0.0002	0.003	<0.009	<0.009	<0.01	<0.009

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Notations:

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 NA not analyzed

Analyzed by T. Bode

Checked by P. Craft

Proofed by L. Laplander

CH2M HILL/CANONIE ENGINEERING/HILLVIEW-ELEANOR/LOS ALTOS, CALIFORNIA

Sample	Depth	Date	F113 (ug/l)	CC14 (ug/l)	TCE (ug/l)	PCE (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Kylenes (ug/l)	Total Hydroc.w/o CH4 (ug/l)
SG24	6'	11/15	<0.0002	0.001	0.2	0.01	<0.009	<0.009	<0.01	<0.009
SG25	5.5'	11/15	<0.0002	0.002	0.2	0.01	0.2	0.1	<0.01	0.5
SG26	5.5'	11/15	0.03	<0.000004	<0.0002	0.002	0.1	0.2	<0.01	0.3
SG27	5.5'	11/15	<0.0002	0.00005	<0.0002	0.008	<0.009	<0.009	<0.01	<0.009
SG28	6'	11/15	<0.0002	0.0002	0.02	12	<0.009	<0.009	<0.01	2
SG29	5.5'	11/15	<0.0002	0.00003	<0.0002	0.006	<0.009	<0.009	<0.01	<0.009
SG30	5'	11/15	<0.0002	0.00001	<0.0002	0.002	<0.02	<0.02	<0.02	0.02
SG31	5'	11/15	<0.0002	0.00006	<0.0002	0.003	<0.02	<0.02	<0.02	<0.02
SG32	5.5'	11/15	<0.0002	0.00003	0.001	0.002	<0.02	<0.02	<0.02	<0.02
SG33	5'	11/15	<0.0002	<0.000004	<0.0002	0.002	<0.02	<0.02	<0.02	<0.02
SG34	6'	11/15	<0.0002	0.000005	<0.0002	0.002	<0.02	<0.02	<0.02	<0.02
SG35	5.5'	11/15	<0.0002	0.0001	0.08	0.006	<0.02	<0.02	<0.02	0.06
SG35D	5.5'	11/15	<0.0002	0.0003	0.04	0.005	<0.02	<0.02	<0.02	<0.02
SG36	5.5'	11/15	<0.0002	0.0002	<0.0002	0.004	<0.02	<0.02	<0.02	<0.02
SG37	5.5'	11/15	<0.0002	0.00002	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG38	6'	11/15	<0.0002	0.00001	<0.0002	0.002	<0.009	<0.009	<0.01	<0.009
SG38D	5'	11/15	<0.0002	0.00003	<0.0002	0.003	<0.02	<0.02	<0.02	<0.02
SG39	6'	11/15	<0.0002	0.00002	<0.0002	0.004	<0.02	<0.02	<0.02	<0.02
SG40	6'	11/15	0.02	<0.000004	<0.0002	0.2	<0.009	<0.009	<0.01	<0.009
SG41	6'	11/15	0.01	<0.000004	<0.0002	0.0009	<0.009	<0.009	<0.01	<0.009
SG42	6'	11/15	<0.0002	0.00003	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
SG43	6'	11/15	<0.0002	<0.000004	<0.0002	0.002	<0.009	<0.009	<0.01	<0.009
SG44A	5.5'	11/15	0.04	0.00002	<0.0002	0.0004	<0.009	<0.009	<0.01	<0.009
SG44B	6'	11/15	<0.0002	0.00001	<0.0002	0.002	<0.009	<0.009	<0.01	<0.009
SG44C	6'	11/15	<0.0002	<0.000004	<0.0002	0.0008	<0.009	<0.009	<0.01	<0.009
SG44D	5.5'	11/15	<0.0002	0.001	0.001	0.001	<0.009	<0.009	<0.01	<0.009
SG44E	6'	11/15	<0.0002	0.00002	<0.0002	0.006	<0.009	<0.009	<0.01	<0.009
SG45	5.5'	11/14	<0.0002	0.00007	<0.0002	0.004	<0.009	<0.009	<0.01	<0.009
SG46	6'	11/14	0.04	<0.00001	<0.0002	0.0004	<0.009	<0.009	<0.01	<0.009
SG47	6'	11/14	<0.0002	0.001	0.006	0.0004	<0.009	<0.009	<0.01	<0.009
SG48	4.5'	11/14	<0.0002	0.00002	<0.0002	0.0002	<0.009	<0.009	<0.01	<0.009
SG49	5.5'	11/14	<0.0002	<0.00001	<0.0002	0.002	<0.009	<0.009	<0.01	<0.009
SG50	6'	11/14	<0.0002	0.00002	0.002	<0.00004	<0.009	<0.009	<0.01	<0.009
SG51	5.5'	11/14	0.02	0.00009	<0.0002	<0.00005	<0.009	<0.009	<0.01	<0.009

Tracer Research Corporation

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 NA not analyzed

Analyzed by T. Bode

Checked by P. Craft

Proofed by L. Laplander



CH2M HILL/CANONIE ENGINEERING/HILLVIEW-ELEANOR/LOS ALTOS, CALIFORNIA

Sample	Depth	Date	F113 (ug/l)	CC14 (ug/l)	TCE (ug/l)	PCE (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Xylenes (ug/l)	Total Hydroc.w/o CH4 (ug/l)
S652	6'	11/14	<0.0002	0.0003	<0.0002	0.0008	<0.009	<0.009	<0.01	<0.009
S653	5'	11/14	<0.0002	0.0002	0.02	0.0006	<0.009	<0.009	<0.01	<0.009
S654	6'	11/16	<0.0002	0.00004	0.002	0.02	<0.02	<0.02	<0.02	<0.02
S655	5'	11/16	<0.0002	0.00005	<0.0002	0.002	<0.02	<0.02	<0.02	0.09
S656	5'	11/14	<0.0002	0.00004	0.007	0.001	<0.009	<0.009	<0.01	<0.009
S657	5.5'	11/16	<0.0002	0.00001	<0.0002	0.001	<0.02	<0.02	<0.02	<0.02
S657D	6'	11/16	<0.0002	<0.00001	<0.0002	0.0009	<0.02	<0.02	<0.02	<0.02
S658	6'	11/15	<0.0002	<0.00004	<0.0002	0.001	<0.009	<0.009	<0.01	0.5
S659	6'	11/16	<0.0002	<0.00001	0.05	0.005	<0.02	<0.02	<0.02	<0.02
S660	5.5'	11/14	<0.0002	<0.00001	<0.0002	0.001	<0.009	<0.009	<0.01	<0.009
S661	6'	11/14	<0.0002	0.00004	0.0008	0.0008	<0.009	<0.009	<0.01	0.3
S663	6'	11/14	<0.0002	0.00002	<0.0002	0.0007	<0.009	<0.009	<0.01	<0.009
S664	5'	11/14	<0.0002	0.0009	<0.0002	0.0007	<0.009	<0.009	<0.01	<0.009
S665	6'	11/14	0.02	0.0001	0.01	0.0007	<0.009	<0.009	<0.01	<0.009
S666	5.5'	11/14	<0.0002	0.0002	2	<0.0005	<0.009	<0.009	<0.01	0.04
S666D	6'	11/16	0.03	0.00003	<0.0002	0.0005	<0.02	<0.02	<0.02	<0.02
S667	6'	11/14	<0.0002	<0.00004	<0.0002	<0.00004	<0.009	<0.009	<0.01	<0.009
S668	5.5'	11/14	<0.0002	0.0003	<0.0002	0.001	<0.009	<0.009	<0.01	<0.009
S669	5.5'	11/14	<0.0002	<0.00001	<0.0002	0.0004	<0.009	<0.009	<0.01	<0.009
S670	5'	11/14	<0.0002	0.004	<0.0002	<0.00005	<0.009	<0.009	<0.01	<0.009
S671	6'	11/14	<0.0002	0.00002	<0.0002	0.0004	<0.009	<0.009	<0.01	<0.009

Notations:

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 NA not analyzed

Analyzed by T. Bode

Checked by P. Craft

Proofed by L. Leplander

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APPENDIX B: SPLIT SAMPLE RESULTS .

APPENDIX C

HILLVIEW-ELEANOR PROJECT No. 87.041.21  
 SOIL-GAS LOCATER MAP 11/9/87

Day	Rank	Location No.	Address	Cross Street	Docket No.
Saturday	1	45	: 74,82 Hillview Av	: S.San Antonio	: 380585
	2	46	: 100 Hillview	: Eleanor	: 380587
	3	47	: 180 Hillview W#110	: Eleanor	: 380589
	4	48	: 214 Frances Dr	: Eleanor	: 380592
	5	49	: 212 Hillview Dr	: Eleanor	: 380595
	6	50	: 217 Eleanor Av	: Valley	: 380600
	7	51	: 165 Hawthorne	: Eleanor	: 380603
	8	52	: 132 Hawthorne	: Eleanor	: 380604
	9	53	: 80 Hawthorne	: S.San Antonio	: 380606
	10	68	: 215 Hawthorne	: Eleanor	: 380636
	11	67	: 190 Pepper Av	: Eleanor	: 380632
	12	69	: 169 Marvin Av	: Eleanor	: 380639
	13	70	: 124 Marvin Av	: Eleanor	: 380641
	14	71	: 41 Marvin Av	: Eleanor	: 380643
	15	63	: 65 Pepper Av	: Marvin Av	: 380627
	16	56	: 289 S.San Antonio	: Pepper	: 380612
	17	61	: 329 S.San Antonio	: Pepper	: 380623
	18	66	: 166 Pepper Av	: Eleanor	: 380631
	19	65	: 171 Pepper Court	: Pepper Av	: 380630
Sunday	1	21A	: 435 First Street	: Lyell	: 380513
	2	21B	: 435 First Street	: Lyell	: 380513
	3	21C	: 435 First Street	: Lyell	: 380513
	4	22A	: 441 First Street	: Lyell	: 380514
	5	22B	: 441 First Street	: Lyell	: 380514
	6	22C	: 441 First Street	: Lyell	: 380514
	7	20	: 496 First Street	: Lyell	: 380502
	8	19	: 444 First Street	: Lyell	: 380500
	9	23A	: 425 First Street	: Lyell	: 380519
	10	23B	: 425 First Street	: Lyell	: 380519
	11	23C	: 425 First Street	: Lyell	: 380519
	12	23D	: 425 First Street	: Lyell	: 380519
	13	25	: 448 S.San Antonio	: First Street	: 380525
	14	24	: 400 S.San Antonio	: Lyell	: 380522
	15	26	: 398 S.San Antonio	: Lyell	: 380528
	16	27	: 390 S.San Antonio	: Lyell	: 380529
	17	28	: 343 Second St.#4	: Whitney	: 380536
	18	29	: 355 First Street	: Whitney	: 380539
	19	58	: 301 S.San Antonio	: Pepper	: 380617
Monday	1	44A	: 1 S.San Antonio	: Edith,City Hall	: 380579
	2	44B	: 1 S.San Antonio	: Edith,City Hall	: 380579
	3	44C	: 1 S.San Antonio	: Edith,City Hall	: 380579
	4	44D	: 1 S.San Antonio	: Edith,City Hall	: 380579
	5	44E	: 1 S.San Antonio	: Edith,City Hall	: 380579

6	43	: 167 S.San Antonio	: Hillview Av	: 380575
7	40	: 4 Main Street	: Edith Av	: 380565
8	41	: 100 Main Street	: State St	: 380568
9	38	: 100 State St	: Fourth St	: 380561
10	39	: 50 W. Edith	: Fourth St	: 380563
11	37	: 86 Third St	: State Street	: 380559
12	36	: 271 A State	: Third	: 380556
13	35	: 169 State Street	: Third	: 380554
14	34	: 146 Main St	: State	: 380552
15	31	: 295 Main Street	: Second	: 380545
16	32	: 240 Third St	: Main	: 380547
17	33	: 275 Third St	: Whitney	: 380549
18	42	: 155 Main Street	: Hillview Av	: 380572
19	30	: 303 First St	: Main	: 380541

Tuesday	1	1	: 578 Lincoln Av	: Palm	: 380223
	2	15	: 551 Palm Ave	: Lincoln	: 380480
	3	16	: 502 Palm	: Lincoln	: 380484
	4	17	: 461 Orange	: Lincoln	: 380487
	5	18	: Shoup Park/CS Church	: Lincoln	: 380489
	6	14	: 496 First St	: Foothill Exp/SSA	: 380472
	7	13	: 495 S.San Antonio	: Cuesta	: 380470
	8	3	: 510 Tyndall	: Cuesta	: 380230
	9	2	: 526 Lassen	: Cuesta	: 380227
	10	4	: 149 Cuesta	: Gabilan	: 380232
	11	6	: 134 Lyell St	: Gabilan	: 380235
	12	5	: 455 Lassen	: Lyell	: 380234
	13	7	: 87 Lyell St	: Lassen	: 380240
	14	9	: 457 Tyndall	: Cuesta	: 380243
	15	10	: 7 Lyell	: Tyndall	: 380245
	16	12	: 445 S.San Antonio	: Lyell	: 380462
	17	8	: 426 Tyndall	: Lyell	: 380241
	18	11	: 399 S.San Antonio	: Lyell	: 380246
	19	59	: 345 S.San Antonio	: Pepper	: 380618

Wednesday	1	54	: 195 S.San Antonio	: Hawthorne	: 380607
	2	55	: 227 S.San Antonio	: Hawthorne	: 380609
	3	57	: 44 Pepper	: S.San Antonio	: 380614
	4	64	: 96 Pepper Av	: Marvin Av	: 380629
	5	62	: 45 Pepper Av	: S.San Antonio	: 380626
	6	60	: 24 Marvin Av	: Pepper	: 380619

3488 88 FEB -1 P2:49




## Memorandum

3/9 TII w/a  
 RJP  
 DDC  
 DCZ  
 NCL  
 YF

To : Mailing List

Date : March 5, 1987

Subject: Availability of  
Final ReportFrom : Clifton W. Davenport  
DHS- Toxics 

Attached is the final version of the Preliminary Site Assessment and Investigation Report for the Hillview-Eleanor Plume Area in Los Altos. The draft report was modified to address comments received from yourselves as well as our concerns. Maps and tables have been revised to more accurately depict known information. "Road Maps" have been added to the appendices to more clearly delineate the information contained within.

We believe that this report accurately reflects all known information regarding the site as well as what steps need to be taken to quantify the possible extent of contamination in the area. We plan to place this report in a nearby repository, such as a local library, so that it can be reviewed by any interested citizens or other concerned parties. We welcome any input on potential locations for such repository.

Thank you for your help in providing information, comments, and review on the report. Please call me at (415) 540-3401 if you have further comments regarding this report or any related matters.

CC: Bruce Bane  
 Ray Taylor  
 → Tom Iwamura  
 Bill Hurley  
 Jerry Marcotte

RECEIVED  
 MAR - 9 1987

S. C. V. W. D.

---

PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT  
HILLVIEW-ELEANOR AREA  
LOS ALTOS, CALIFORNIA  
TASK ORDER NO. 2-7-1.0-P21030  
CONTRACT NO. 84-84542

Dames & Moore Job No. 14886-003-44  
January 1987

---

# Dames & Moore



# Dames & Moore



500 Sansome Street  
San Francisco, California 94111  
(415) 433-0700  
TWX: 910-372-7980 Cable address: DAMEMORE

16 January 1987

Mr. Howard K. Hatayama  
Mr. Clifton W. Davenport  
California Department of Health Services  
Toxic Substances Control Division  
North Coast California Section  
2151 Berkeley Way, Annex 7  
Berkeley, CA 94704

Final Report  
Preliminary Site Assessment and Investigation  
Hillview-Eleanor Area  
Los Altos, California  
Task Order No. 2-7-10-P21030  
Contract No. 84-84542

---

Dear Howard and Clif:

Enclosed are 10 paper copies and one computer diskette copy of the above-referenced report. It has been revised in accordance with the discussions during our meeting of 26 November. If you have any further questions concerning our report, please contact us.

Sincerely,

DAMES & MOORE

Kenneth A. Strom, Ph.D.  
Project Director

Steven A. Trudell  
Project Administrator

Sarah E. Goodin, RG3743  
Project Manager

KAS:SAT:SEG:ajs  
Enclosure

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Figure 6           Aeration System Schematic Diagram

## 1.0 INTRODUCTION

This report presents the results of a preliminary site assessment concerning carbon tetrachloride contamination of two water wells in the Hillview-Eleanor area of Los Altos, California. The location of the study area within the southern San Francisco Bay area is shown on the Vicinity Map (Figure 1). The two contaminated wells are located adjacent to the Los Altos Community Center in an area bounded by Hillview Avenue to the south, Eleanor Avenue to the east, E. Edith Avenue (extended) to the north, and San Antonio Road to the west (Plate 1).

This work was performed for the California Department of Health Services under Task Order No. 2-7-1.0-P21030 to Contract No. 84-84542.

## 2.0 PURPOSE AND SCOPE

The purpose of the preliminary site assessment was to review available information and develop recommendations for further actions at the site, as appropriate. Concurrently, an assessment was to be made as to whether or not the available information provided a sufficient basis on which to provide recommendations.

### 2.1 SUBTASK NO. 1 - REVIEW OF EXISTING FILES AND DATA

Files were reviewed and individuals interviewed from the following agencies:

- o California Department of Health Services - Toxic Substances Control Division - North Coast California Section (DHS)
- o San Francisco Bay Regional Water Quality Control Board (RWQCB)
- o California Water Service Company (CWS)
- o Santa Clara Valley Water District (SCVWD)
- o City of Los Altos Fire and Planning Departments.

The DHS files contained correspondence describing previous investigations and other activities, boring logs, chemical analysis results of water samples from

wells and domestic outlets, and information describing the uses of carbon tetrachloride.

The RWQCB files, for the most part, duplicate the DHS files. They contained additional data on groundwater analyses obtained from the State's Assembly Bill (AB) 1803 groundwater monitoring program.

Boring logs, water level elevation data, and results of time-series chemical analyses of groundwater were obtained from CWS.

The SCVWD files contained information on regional geology, cross-sections prepared from available boring logs, and discussions concerning several hypothetical scenarios of contamination.

The City of Los Altos Planning Department provided aerial photos of Los Altos, correspondence pertaining to previous studies of the problem, and background information about the history of development of downtown Los Altos.

In addition, individuals from Dow Chemical Company and Stanford Research Institute (SRI) were consulted concerning usage, marketing, distribution, and chemical degradation of carbon tetrachloride.

## 2.2 SUBTASK NO. 2 - SITE VISIT

Ms. Sally Goodin and Mr. Richard Roth of Dames & Moore were accompanied to the study area by Mr. Clifton Davenport of DHS and Mr. William Hurley of RWQCB on 22 July 1986, to become familiar with the study area, to evaluate site access, and to assess any readily observable constraints on sampling at local wells. The two contaminated wells, identified as numbers 10 and 110 on Plate 1, and the previous school maintenance yard area were inspected. In addition, the wells at the nursery (#13) and the high school (#5) were observed. The high school well was sampled by Mr. Davenport.

## 2.3 SUBTASK NO. 3 - SITE MAP

We prepared a map (Plate 1; 1 inch equals 400 feet scale) of the Hillview-Eleanor area and vicinity, approximately 2 miles on a side, surrounding California Water Service Well 110. The map shows wells which have been sampled

or where sampling has been attempted, the downtown Los Altos area, the location of the former high school maintenance yard, and the former Fire Department location. A supplemental map (Figure 5) shows the locations of former and present dry cleaners, gas stations, and auto repair garages within the Los Altos downtown triangle. Tables 1 and 2 and Appendices A and B contain information concerning the physical and chemical characteristics of the wells shown on Plate 1. Most of the active wells are used to provide domestic or irrigation water.

#### 2.4 SUBTASK NO. 4 - CONTRACTOR/DEPARTMENT MEETING

Ms. Goodin and Mr. Roth of Dames & Moore met with Mr. Davenport of DHS on 12 August 1986 to discuss preliminary findings and the scope of the draft report.

#### 2.5 SUBTASK NO. 5 - PRELIMINARY SITE ASSESSMENT AND INVESTIGATION REPORT

Following the completion of Subtask No. 4, we prepared this report which summarizes the results of our Preliminary Site Assessment. The information contained in this report represents a compilation of data and background information contained in the files of the agencies listed above. Inclusion in this report should not be construed as verification by Dames & Moore of the accuracy of the information, or the validity of sampling and analytical procedures used.

### 3.0 BACKGROUND

Carbon tetrachloride was first detected on 17 July 1984 in samples taken from a well owned by California Water Service Company (CWS) and located near the northwest corner of Hillview and Eleanor avenues (CWS well station no. 110, State well I.D. 6S02W29M02). The water samples were obtained by CWS as part of the AB 1803 monitoring program. Analysis by CWS indicated a concentration of 5.4 micrograms per liter (ug/L). Analysis of a confirmatory sample, obtained on 23 July indicated a concentration of 9.1 ug/L. The well was removed from service on 31 July 1984, because the analyses indicated carbon tetrachloride to be above the DHS action level of 5 ug/L. The analytical results are presented in Appendix B.

Distribution system samples were obtained in the vicinity of well 110 on 1 and 16 August 1984. According to CWS, analyses of these samples indicated the following:

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- o Water from well 110 was being mixed with water supplied by the Santa Clara Valley Water District (SCVWD) at an approximate proportion of 2 parts well 110 water to 1 part SCVWD water, prior to entering the distribution system.
- o Subsequent to dilution with SCVWD water, the water was distributed east along Hillview Avenue. Some of the water was directed northward at Eleanor Avenue. The remainder continued east along Hillview.
- o Carbon tetrachloride concentration was 4.8 and 4.0 ug/L at two delivery points in the distribution system.

On 22 August 1984 an irrigation well (well 10) owned by the City of Los Altos and located near well 110 was sampled by CWS. Carbon tetrachloride was detected at a concentration of 10.1 ug/L. Other wells in the vicinity which have been sampled have not shown contamination. However, several nearby wells could not be sampled because they were out of service, had been abandoned, or were not accessible for sampling.

Plate 1 shows the locations of wells in the area and their status. The well I.D. numbers were assigned for purposes of this report, with the exception of CWS station numbers 104, 107, 108, 110, 115, 116, and 119. Available information on the wells is presented in Table 1. Well 10 is the contaminated city irrigation well and well 110 is the contaminated CWS well.

CWS installed an aeration system to treat the water from well 110 and tested this system on 29 January 1985. CWS reported that 80% of the carbon tetrachloride present in the influent water was removed by the treatment process. The well has since been returned to service and CWS continues to monitor carbon tetrachloride concentrations.

#### 4.0 REGIONAL GEOLOGY AND HYDROLOGY

The information in this section is taken largely from the California Department of Water Resources Bulletin No. 118-1, Appendix A (DWR, 1967) and Volume III (DWR, 1975), and from the Groundwater and Drinking Water White Paper for the Santa Clara Valley (DHS et al., 1984).

The City of Los Altos is located in the northwestern corner of the Santa Clara Valley groundwater basin in a transition zone between the Santa Cruz Mountains to the southwest and the broad San Jose Plain to the northeast. The ground surface within the study area slopes towards the northeast at a gradient of approximately 0.015 (Plate 1).

The area is underlain by coalescing alluvial fans deposited by Adobe, Permanente, and Stevens creeks which drain from the Santa Cruz Mountains. The Recent stream alluvium is approximately 200 feet thick in the Los Altos vicinity, and consists of unconsolidated, irregularly bedded deposits of gravelly clay or gravel and clay with interlayers of sand, sandy gravel, and boulders. The range of grain sizes causes wide variation in the permeability of the deposits. Logs of groundwater wells drilled in the area indicate high gravel content. However, the relatively low specific capacity of these wells suggests that the gravel layers contain a high proportion of silt and clay (DWR, 1967). In general, grain size and permeability tend to decrease towards the east at the distal ends of the alluvial fans.

Underlying the Recent alluvium is the Pleistocene Santa Clara Formation. This formation is lithologically very similar to the Recent alluvium and is probably about 1,000 to 1,500 feet thick. It is very difficult to discern the contact between the two units on the basis of well logs. The Santa Clara Formation has been deformed by local uplift resulting in beds dipping 10 to 30 degrees to the east, and the formation of several northwest-southeast trending faults.

The scarcity of detailed well logs and the lateral discontinuity of bedding in the alluvial deposits makes it difficult to correlate subsurface stratigraphy. Conceptualized cross-sections are presented in Figures 2 and 3 to depict the general textural characteristics of the subsurface materials. The locations of the cross sections are shown on Plate 1.

Regional groundwater is inferred to flow generally to the northeast down the alluvial fans. However, local flow conditions are greatly influenced by well pumping and groundwater levels vary widely within small distances and with time. Groundwater elevations obtained from several CWS wells in the area are presented

in Table 2. Groundwater elevations rose 35 to 50 feet from 1981 to 1984, and declined on the order of 5 feet from 1984 to 1986, with the exception of wells 104 and 116. Depths to groundwater range between 64 and 165 feet.

Precipitation patterns in the Santa Clara Valley area reflect the Mediterranean-type climate which is characterized by wet winters (November to April) and dry summers (May to October). Average rainfall for the City of San Jose, located approximately 13 miles southeast of the Los Altos area, over the 97-year period from 1874 to 1971 was 14.13 inches per year (DWR, 1975). The average for Los Altos should be very close to this figure.

Groundwater recharge occurs mainly from infiltration during intermittent flow in Adobe, Permanente and Stevens creeks, located, respectively, 0.4, 5, and 6.5 miles from the site, and overall conditions are unconfined. However, we anticipate that in local areas, strata with relatively greater proportions of clay will act as barriers to downward migration of fluids and that conditions below such areas could be confined.

#### 5.0 GROUNDWATER WELLS

Most of the wells in the Hillview-Eleanor area (see Plate 1) are 300 to 700 feet deep. The few available well logs (see Appendix A) indicate that the wells are gravel-packed throughout their entire length. Information concerning other well construction details such as perforation intervals is sparse; available perforation depths are listed in Table 1.

The water produced from these wells is used predominantly for domestic or irrigation purposes. The information on well status presented in Table 1 and on Plate 1 was obtained from CWS records, from information compiled by the Regional Water Quality Control Board (RWQCB), and from a list of water-producing wells registered with the Santa Clara Valley Water District (SCVWD).

A well's status was described as "out of service" if the RWQCB was unable to sample the well due to access problems, or if the pump was not functioning. Abandoned wells were those where the pump had been removed and the well filled in. Wells were described as either "active" or "inactive" by the SCVWD with no more detailed explanation.

The contaminated well 110 consists of 16-inch casing to a depth of 700 feet, perforated from depths of 358 to 478 feet and 526 to 682 feet. The well is gravel-packed throughout its full depth. A sanitary seal is provided by a 30-inch conductor casing grouted against the formation from the surface to a depth of 80 feet. The well was tested after installation at 320 gallons per minute with a corresponding drawdown of 130 feet.

The second well contaminated with carbon tetrachloride is the City of Los Altos irrigation well (I.D. no. 10 on Plate 1 and Table 1). Construction details for this well are not available.

There are no shallow wells in the vicinity of the contaminated wells. The wells for which perforated intervals are known are perforated at depths ranging from 170 to 680 feet. Based on the lack of detailed stratigraphy on the available well logs, it was not possible to make stratigraphic correlations between perforated intervals in adjacent wells.

#### 6.0 WELL SAMPLING DATA

The results of carbon tetrachloride analyses performed on well-water and distribution-water samples were obtained during the review of agency files and are attached as Appendix B. The initial analyses were performed as part of the AB 1803 monitoring program by CWS. Additional analyses were performed to confirm the observed contamination at well 110 and to evaluate its extent.

The concentration of carbon tetrachloride detected in samples from well 110 has ranged between <1 and 17.1 ug/L. The carbon tetrachloride contamination detected in samples taken from the city irrigation well has ranged between 8.4 and 10.1 ug/L.

On 13 May 1985, CWS initiated a time-series sampling program at well 110 to provide data concerning the occurrence of carbon tetrachloride within the aquifer unit(s) tapped by the well. It was felt that if contamination was confined to upper aquifers not screened by the well, such that the carbon tetrachloride was entering the well by flowing down the gravel pack, then its concentration should decrease significantly shortly after the start of pumping.

The results of the CWS time-series sampling are shown on Figure 4 and are included in Appendix B. After an initial increase, the carbon tetrachloride concentration appears to decline, in general. However, the magnitude of these variations is similar to concentration differences observed in samples taken several weeks apart. Therefore, the variations noted during time-series sampling may not be significant. The possible decrease was not great enough to provide strong support for the "filter pack inflow" hypothesis.

Water levels measured during the test are also plotted on Figure 4 and these data are included in Appendix B. It can be seen that pumping in well 110 had, at most, a very slight effect on the groundwater elevation in the city irrigation well. This suggests that the two wells might not be tapping the same aquifer, that any shared aquifers have relatively low transmissivity, or possibly that resistance to horizontal movement of water between the two wells is greater than that to vertical movement in the vicinity of well 110. However, the existing information is insufficient to draw any meaningful conclusions.

#### 7.0 LAND USE

The Hillview-Eleanor area is residential in nature. Adjacent to well 110, west on Hillview Avenue, is the former Hillview Elementary School, presently a community center. A pre-school day care center playground is part of the community center. The former school district maintenance yard was located east of San Antonio Road and bordered on Hillview Avenue (Plate 1). The significance of the maintenance yard is discussed in section 8.3, Potential Local Use. Aerial photos taken around 1976 show metal drums being stored at two locations in the yard (see Plate 1).

According to the Los Altos Planning Department, much of the downtown development occurred in the 1950's and 60's (Hoffman, 1986). The main area of commercial development is shown on Plate 1.

The corner of Hillview Avenue and San Antonio Road was the location of a former school district administrative building. This building was demolished approximately 10 years ago and replaced with an office building.

## 8.0 USE OF CARBON TETRACHLORIDE

### 8.1 CURRENT USE

Currently, the most common use of carbon tetrachloride is for the production of fluorocarbons (Hughes, 1986; Neal, 1986; Spencer, 1986). Other applications include use as a solvent, grain and building fumigant, pesticide, ingredient in gasoline additives, and drying agent for wet spark plugs; to recover tin from tin plating waste; in the manufacture of semi-conductors; and as propellants and refrigerants.

### 8.2 FORMER USES

Carbon tetrachloride was formerly used in the applications described above and as a spot remover by the dry cleaning industry until it was banned for that use by the U.S. Environmental Protection Agency (EPA) in 1970. At that time, the EPA banned carbon tetrachloride from all consumer goods because of its suspected carcinogenicity.

According to a representative of the California Fabric Care Association, carbon tetrachloride was never the dominant solvent used by the dry cleaning industry, and it was rarely used after 1930 (Lowmann, 1986). Perchloroethylene is the primary solvent in use today for dry cleaning application. However, it is the opinion of employees of Dow Chemical Company, the major supplier to the West Coast that, although carbon tetrachloride has not been used for dry cleaning during the past 20 to 30 years, it may have had significant use prior to that period (McDade, 1986; Spencer, 1986). These possibly conflicting accounts cannot be resolved with the information available.

Carbon tetrachloride was also used in metal degreasers and in fire extinguishers until about 1950 (Archer, 1986; Farwell, 1986).

### 8.3 POTENTIAL LOCAL USE OF CARBON TETRACHLORIDE

The available information concerning past and present land use in the Hillview-Eleanor vicinity indicates that the two main, potential, local sources of carbon tetrachloride are the former school maintenance yard and the former firehouse. The former school district maintenance yard is located approximately

300 feet north of Hillview Avenue and 150 feet east of San Antonio Road (see Plate 1). The maintenance yard was relocated approximately 10 years ago, and the site has since been converted to a soccer field. According to a former school district employee, mechanical repair and degreasing of school district vehicles was performed at this site (Voss, 1986). Auto parts were cleaned with carburetor cleaner. Engine parts were degreased with a mixture of kerosene and solvent. The kerosene-solvent mixture was contained in a 6-gallon tank equipped with a circulating pump, and was dumped on the ground every 6 to 8 months. It is believed that the cleaning solution was dumped approximately 60 yards north of two large oak trees located immediately north of what is currently the city theatre workshop (Voss, 1986). It is not certain whether the carburetor cleaner or the kerosene-solvent mixture contained carbon tetrachloride, although carbon tetrachloride often was used in these types of products. The indications that these products were dumped onsite suggests that this site could be a potential source of the observed groundwater contamination.

The city fire station was located at 169 State Street at the corner of Third Street (see Plate 1) until 1968. The station was at this location during the period when carbon tetrachloride was used in fire extinguishers. According to the current Assistant Fire Chief, extinguishers containing carbon tetrachloride were stored at the firehouse, but that carbon tetrachloride had not been used in extinguishers since approximately 1950 (Farwell, 1986). Thus, the former fire station represents a potential source for the carbon tetrachloride in the local groundwater.

Based on the information discussed in sections 8.1 and 8.2, several other potential local sources of carbon tetrachloride cannot be ruled out. They comprise dry cleaners, gas stations, and auto repair garages. Former and present locations of these establishments in the downtown Los Altos triangle are shown on Figure 5; this information was compiled by the RWQCB and the Los Altos Fire Department. At least two dry cleaners that were operative 20 to 30 years ago when carbon tetrachloride could have been used are included on the map.

According to an employee of the City of Los Altos Planning Department, there are no electroplaters, semi-conductor manufacturers, or users of fumigants in large quantity in Los Altos, nor have there been in recent memory (Hoffman, 1986).

## 9.0 POTENTIAL EFFECTS OF CARBON TETRACHLORIDE CONTAMINATION

### 9.1 EXTENT OF CONTAMINATION

Carbon tetrachloride contamination has been detected in two wells in Los Altos (I.D. numbers 10 and 110 on Plate 1). Well 110 is screened at depths of 358 to 478 feet and 526 to 682 feet. The contamination could be coming from either or both of these screened intervals or from zones shallower than 358 feet by entering the gravel pack at any depth below 80 feet from ground surface, flowing downward, and subsequently entering the well once encountering the perforations.

The total depth and perforation intervals for the City of Los Altos irrigation well are not known, although the well is likely to be at least 450 feet deep. Construction details are also not available for many of the remaining wells that were sampled in the area.

It is not possible to determine the lateral and vertical extent of contamination on the basis of existing information. Due to the lack of detailed well logs, few inferences can be made about the stratigraphy of the area and the possible source zone(s) for the contaminated water. Wells that were sampled by CWS and by the RWQCB that showed no contamination (see Plate 1) may be located outside of the areal extent of the plume or be screened in different stratigraphic intervals than the two affected wells. In addition, if some of these wells contained carbon tetrachloride at low concentrations, it could have been lost by volatilization caused by aeration during sampling.

Based on the available information, it appears that carbon tetrachloride contamination is limited to a relatively small area in the vicinity of CWS well 110 and the city irrigation well. If subsequent investigations demonstrate that the shallow aquifer is contaminated, this would suggest that the source of the carbon tetrachloride is near the two wells, either between them, or slightly upgradient (southwest) of them. If the deeper aquifers are demonstrated to be contaminated and the shallow aquifer is not contaminated in the vicinity of the wells, this would suggest a more distant source of the contamination.



## 9.2 POTENTIAL FOR MIGRATION

The potential for contaminant migration is difficult to assess because of the paucity of existing information about its source and extent. If the contamination is confined to one of the aquifers within the perforated intervals in well 110, pumping and treatment at that well will influence local contaminant migration by creating a cone of depression. However, the contaminated city irrigation well does not appear to be within the cone of depression of well 110 (based on water level data) which indicates that the contamination could extend beyond the zone of capture associated with well 110. Therefore, some movement of carbon tetrachloride past wells 10 and 110 could be occurring.

## 9.3 POTENTIAL EFFECTS OF CONTAMINANT MIGRATION

If carbon tetrachloride is migrating (or has migrated) beyond the vicinity of wells 10 and 110, then sites/human populations downgradient (northeast) of these wells could be affected. The nature of potential effects of contaminant migration would depend on whether shallow or deep aquifers are contaminated (unknown at this time) and whether downgradient wells were drawing upon the affected zones.

The wells downgradient of the two contaminated wells known to be active are 108, 115, 116, and 119. These are CWS wells used for municipal water supply. The screened intervals of these wells are presented in Table 1. The top of the shallowest screened interval occurs at a depth of 230 feet in well 116. If any of these wells were to become contaminated, then the human populations relying on the wells for domestic water supply could be affected. CWS could also be impacted operationally and financially if it became necessary for them to shut down a well (possibly decreasing their ability to provide water), or to implement remedial measures such as their existing aeration tank at well 110 (see Section 10.0).

In addition, there are potential effects of the contamination due to the aeration treatment system at well 110 and use of the contaminated water in the City irrigation well. Air monitoring should be conducted at the aeration system and the adjacent pre-school playground to evaluate potential impacts from this treatment facility. If the City irrigation well is to continue to be used,

further data should be collected to evaluate possible effects due to potential contamination of air, soil and groundwater.

#### 10.0 AERATION SYSTEM

Water from well 110 is currently being treated prior to releasing it into the distribution system. The treatment system was installed and is being maintained by CWS. It consists of a 6.5-foot-high wooden tank with an influent line mounted to its inner roof. The influent line is fitted with spray nozzles and a large exhaust fan mounted on the roof of the tank is used to increase air circulation. A schematic diagram of the aeration system is presented on Figure 6. The system works by volatilizing the carbon tetrachloride by aeration. Based on the results of tests performed on 29 January 1985, CWS reported that this system removes at least 80% of the carbon tetrachloride from the influent water. The actual efficiencies calculated depended on the water levels inside the tank, as shown on Figure 6. In general, the system is more efficient, i.e., produces greater carbon tetrachloride removal, when the water level inside the tank is relatively low. Use of the system allows CWS to maintain the concentration of carbon tetrachloride at a level below the action level specified for drinking water by DHS (5 ug/L).

If evaluation of the performance of the treatment system is called for in a future task order, information on construction and maintenance costs with which to do so is available. However, air monitoring data needs to be obtained before the possible impact of the system on local air quality could be evaluated. In addition, the literature would have to be reviewed for design and performance data for similar systems.

#### 11.0 RECOMMENDATIONS

Based on the results of our preliminary site assessment and investigation, we recommend that an additional investigation be performed to further evaluate the source and extent of carbon tetrachloride contamination in the Hillview-Eleanor area of Los Altos. This investigation should include:

- 1) Soil-gas investigation.

- 2) Video logging of two wells located near well 110.
- 3) Installation of a well cluster at the location of well 110.
- 4) A concurrent round of groundwater sampling at a number of wells in the Hillview-Eleanor area.

#### 11.1 SOIL-GAS INVESTIGATION

We recommend that soil-gas surveys be performed at the locations of the former school district maintenance yard and the former firehouse. The review of past activities at the former school district maintenance yard indicated that materials used as metal degreasers were dumped onsite; these materials may have contained carbon tetrachloride. In addition, review of aerial photographs indicated that two areas of the maintenance yard were used for drum storage. The soil-gas survey would contribute information which could be used to assess whether carbon tetrachloride was released at the site.

Carbon tetrachloride formerly was used in fire extinguishers, including some kept at the former firehouse. The soil-gas survey could help determine if releases of carbon tetrachloride could have occurred as a result of its presence onsite.

At the present time, we do not recommend that soil-gas surveys be performed at other possible sources, including dry cleaners, auto repair garages, and gas stations. The available information provides less compelling evidence that carbon tetrachloride was used at these facilities than it does for the maintenance yard and fire station. An investigation of such facilities, which are located in the densely commercialized downtown Los Altos triangle, would involve relatively high costs because of the difficulties involved in working in such an area. Therefore, we recommend that the need for soil-gas surveys at these locations be assessed after the results from the other recommended field activities are available.

## 11.2 VIDEO LOGGING

We recommend that the pumps in wells 10 and 5 be pulled and that the wells be video logged. Well 10 is the city irrigation well which exhibits contamination. There is no information on construction details for this well and it is of critical importance to establish at least its depth and perforated interval. Well 5 is one of three nearby wells located downgradient of the two contaminated wells. Again, it is important to obtain information on the the depth and screened interval in order to interpret the analytical results, which to date have indicated that carbon tetrachloride is not present in the well.

## 11.3 GEOPHYSICAL SURVEYING

We recommend that wells 10, 5, and 104 be surveyed using gamma logging techniques to provide information about the subsurface lithology. This would provide additional data on the types of geologic units and the extent of their lateral continuity upgradient and downgradient of the contaminated wells. Gamma logging is appropriate in this situation because it can be used in cased holes.

## 11.4 INSTALLATION OF WELL CLUSTER AT WELL 110

We recommend that a cluster of wells be installed at the location of well 110. A well cluster is needed because well 110 could be in communication with multiple water-bearing zones to depths as great as 700 feet; therefore, it is impossible to determine at what level or levels the carbon tetrachloride is entering the well. In order to evaluate potential source(s) of contamination, it is extremely important to identify the zone or zones that are contaminated and those that are not.

The log for well 110 indicates that the subsurface materials at that location consist of clay and gravel primarily with some sandy lenses and some clean gravels. The well is perforated between 358 and 478 and between 526 and 682 feet in depth. In addition, the well log indicates that there is an upper clay-free gravel between the depths of 192 and 215 feet which could represent an aquifer. For the well cluster, we recommend as a minimum that:

- 1) A well be installed to screen the first perched water zone which might be encountered above the water table. Additional wells could be installed to screen other perched zones encountered if deemed appropriate.

- 2) A well be installed to screen the water table;
- 3) A well be installed to screen the clay-free gravel zone between 192 and 215 feet in depth.
- 4) A well be installed to screen the zone between 356 and 478 feet in depth (the upper perforated section of well 110).
- 5) A well be installed to screen the zone between 526 and 682 feet in depth (the lower perforated section of well 110).

During well installation, the boring for the deepest well should be drilled first in order to evaluate actual site stratigraphy; selection of intervals to be screened should be based on that information. In addition, the borings should be geophysically logged (including resistivity, self potential and gamma logging) prior to well installation.

#### 11.5 CONCURRENT ROUND OF SAMPLING

We recommend that a concurrent round of groundwater sampling of wells in the site vicinity be conducted after completion of the well cluster at well 110. A list of wells to be sampled is presented in Table 3 and the locations of these wells are shown on Plate 2. We have included wells which are not known to have been abandoned; thus, it is possible that it might not be feasible to sample all of the recommended wells. We recommend that the feasibility of sampling each well be assessed at the same time that the feasibility of removing the pumps from wells 5, 10, and 13 is assessed. We recommend that well 10 be sampled both with the pump in place and with the pump withdrawn to assess the reliability of data collected from wells with installed pumps which were not designed for monitoring use.

#### 11.6 SUMMARY

We believe that the scope of field work described above represents a cost-effective approach for assessing the possible source and extent of contamination in the Hillview-Eleanor area. The soil-gas surveys will investigate two potential sources of carbon tetrachloride, the video logging will provide necessary information on well completion details for two critical wells, gamma logging

will provide stratigraphic information for key wells, the installation of the well cluster will provide information on which water bearing zone(s) may be contaminated, and the concurrent round of sampling will provide information on the present extent of contamination. These studies thus will provide considerable information to help determine whether a comprehensive site assessment should be planned, remedial actions implemented, or some other course of action followed.

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TABLE 1

STATUS OF WELLS  
HILLVIEW-ELEANOR VICINITY

Well I.D. No.	Owner	Location	Perforation Interval (feet)	Depth (feet)	Status (a)
1	Calif. Water Service	Distel Circle/Panchita Wy.	172-177 196-210 299-306 307-317	332	NS-A
2	Calif. Water Service	Distel/Alvarado	NA	700	NS-A
3	Calif. Water Service	Alvarado/Los Ninos Wy.	NA	472	NS-A
4	Calif. Water Service	Jardin/Casita	NA	550	NS-A
5	Mountain View-Los Altos High School District	Almond/Valencia	NA	450	OK
6	Elise Higgins	Almond/Higgins	NA	604	NS-A
7	J.T. Bernard	Almond/El Monte	NA	605	NS-A
8	Calif. Water Service	Gordon/Merritt	489-499 505-510 570-580	605	NS-A
9	Erna Blinn	Todd/Springer	NA	NA	NS-A
10	City of Los Altos	Hillview/San Antonio	NA	>400	C
11	W. Lisac	Old Altos/Fremont	NA	NA	?
12	F. Koenig	Old Altos/Fremont	NA	205	OK
13	F. Furuichi	Hawthorne/Gordon Wy.	170-359	380	NS-O

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TABLE 1 (continued)

STATUS OF WELLS  
HILLVIEW-ELEANOR VICINITY

Well I.D. No.	Owner	Location	Perforation Interval (feet)	Depth (feet)	Status <sup>(a)</sup>
14	Del Beumer	Sherman/University	NA	120	OK
15	Sramek Thomas	Sunset/Burke	NA	NA	I
16	M. Sharpe Smith	Giffin Rd.	NA	130	NS-0
17	Los Altos Elementary School District	Covington/S. of El Monte	NA	NA	NA
104	Calif. Water Service	Giffin/Fremont	260-280 320-500	515	OK
107	Calif. Water Service	Hawthorne/Clark Av.	228-582	600	NS-0
108	Calif. Water Service	Edith Av./Azalea Way	312-456 504-600	600	OK
110	Calif. Water Service	Hillview/Eleanor	356-478 526-682	700	C
115	Calif. Water Service	Jardin Dr./Valencia	NA	470	OK
116	Calif. Water Service	Almond/Sunkist	230-580	695	OK
119	Calif. Water Service	Distel/Alvarado	NA	500	OK

(a) C = Carbon tetrachloride detected  
 OK = Sampled, no carbon tetrachloride detected  
 NS-0 = Not sampled, out of service  
 NS-A = Not sampled, abandoned

A = Active, no samples  
 I = Inactive, no samples  
 NA = Not available  
 ? = Status unknown

Status classifications are described in Section 5.0 of the text.

TABLE 2

STATIC GROUNDWATER ELEVATIONS:  
1981, 1984, 1986

<u>CWS Well No.</u>	<u>Year</u>	<u>Ground Surface Elevation(a) (feet)</u>	<u>Depth to Groundwater (feet)</u>	<u>Groundwater Elevation(a) (feet)</u>
104	1981	+225	135	+90
	1984	+225	100	+125
	1986	+225	155	+70
107	1981	+155	155	0
	1984	+155	105	+50
	1986	+155	110	+45
108	1981	+155	155	0
	1984	+155	115	+40
	1986	+155	120	+35
110	1981	+167	165	+2
	1984	+167	119	+48
	1986	+167	120	+47
115	1981	+134	124	+10
	1984	+134	84	+70
	1986	+134	88	+66
116	1981	+145	150	-5
	1984	+145	108	+37
	1986	+145	105	+40
119	1984	+100	64	+36
	1986	+100	68	+32

---

(a) Elevations relative to mean sea level.

Note: See Table 1 for perforation intervals.

TABLE 3

WELLS RECOMMENDED FOR SAMPLING

110	119
10*	11 (if possible)
13** (if possible)	12
107 (if possible)	14
108	16
116	104 (if possible)
5*	17 (if possible)
115	15 (if possible)

---

\* Pump will be pulled; well will be sampled and video logged.

\*\* Pump will be pulled if feasible.

APPENDIX A

WELL LOGS

WELL 1

ORIGINAL  
File Original, Duplicate and Triplicate with the  
REGIONAL WATER POLLUTION  
CONTROL BOARD No. 2  
(Insert appropriate number)

**WATER WELL DRILLERS REGISTRATION**

(Sections 7076, 7077, 7078, Water Code)

RECEIVED  
REGIONAL WATER POLLUTION  
CONTROL BOARD STATE OF CALIFORNIA

AUG 5 1954

I.D. No. 1

Well 1

Do Not Fill In  
No. 12580

State Well No.  
Other Well No. 6/211-2

0/1/1  
1496

**(1) OWNER:**

Name Spinks Water System  
Address 3601 El Camino Real  
Palo Alto, California

**(2) LOCATION OF WELL:**

County Santa Clara Owner's number, if any—  
R. F. D. or Street No. Off Jordan Ct & Panchita way  
T6S;R2E;nd 34  
1100' - S.W. of El Camino Real  
600' - N.W. of Distel Avenue  
460' - North of Panchita way Los Altos

**(3) TYPE OF WORK (check):**

New well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in Item 11.

**(4) PROPOSED USE (check):**

Domestic  Industrial  Municipal   
Irrigation  Test Well  Other

**(5) EQUIPMENT:**

Rotary   
Cable   
Dug Well

**(6) CASING INSTALLED:**

SINGLE <input type="checkbox"/> DOUBLE <input checked="" type="checkbox"/>		If gravel packed	
From 0 ft. to	ft. 16 1/2 in. 10 Gal.	Diameter of Hole	from ft. to ft.
0	332	12"	12 Gal.

Type and size of shoe or well ring 5/8 x 8  
Describe joint welded casing - welded joints

**(7) PERFORATIONS:**

Type of perforation used		Size of perforations		in. length by		Rows per ft.	
Hells		3"		1		1	
From	172 ft. to	177 ft.	4	1	1	1	1
	196	210	4	1	1	1	1
	299	306	4	1	1	1	1
	307	317	4	1	1	1	1

**(8) CONSTRUCTION:**

Was a surface sanitary seal provided?  Yes  No To what depth 46 ft.  
Were any struts used against pollution?  Yes  No If yes, note depth of struts 46  
From 0 ft. to 46 ft.

Method of Sealing Annular Space filled with Grout

**(9) WATER LEVELS:**

Depth at which water was first found 172 ft.  
Static level before perforating 165 ft.  
Static level after perforating 165 ft.

**(10) WELL TESTS:**

Was a pump test made?  Yes  No If yes, by whom?  
Yield: 15 gal./min. with 1 ft. draw down after 1 hrs.  
Temperature of water 15 Was a chemical analysis made?  Yes  No

**(11) WELL LOG:**

Total depth	332	ft.	Depth of completed well	332
Formation: Describe by color, character, size of material, and structure.				
0	ft. to	5	ft.	Top Soil - black
5		27		Yellow Clay - gravelly
37		65		Blue Clay - sticky
65		80		Blue Clay - gravelly
80		99		Yellow Clay - sticky
99		105		Gravel - to 2" - seepage
105		115		Yellow Clay - gravelly
115		127		Gravel - to 1 1/2"
127		146		Yellow Clay - gravelly
146		166		Blue Clay - sticky
166		172		Yellow Clay - sticky
172		177		Gravel - to 1" - water
177		196		Yellow Clay - gravelly
196		210		Gravel - to 2"
210		219		Gravel - fine sand
219		299		Yellow Clay - sticky
299		306		Gravel - to 1 1/2"
306		307		Yellow Clay - sticky
307		317		Gravel - to 1 1/2"
317		332		Gray Clay - sticky

FOR OFFICIAL USE ONLY

Work started 6-28- 19 54. Completed 7-10 19 54

**WELL DRILLER'S STATEMENT:**

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME C & N Pump and well Co.  
(Person, firm, or corporation) (Typed or printed)  
Address 1901 Washington Street  
Santa Clara, California

[SIGNATURE] George W. ...  
License No. 68648 Dated July 1 19 54

496

El Camino Real

Spinks Water System

TLS; R2W-MPBR

S W of El Camino

66' NW of Distel Ave

460' North of Panchiza Way X

Los Altos

Distel Way

Jordan Ct

Panchiza

FOR OFFICIAL USE ONLY

WELL 2



ORIGINAL

File Original, Duplicate and Triplicate with the

REGIONAL WATER POLLUTION CONTROL BOARD #2 (Sections 7876, 7877, 7878, Water Code)

CONTROL BOARD No. REGIONAL WATER POLLUTION CONTROL BOARD #2 (Insert appropriate number)

RECEIVED ZATERN WELL DRILLERS REPT I.D. No. 2 MAY 12 1958 STATE OF CALIFORNIA

Well 2 Do Not Fill In No. 24402 State Well No. 6/20-2 Other Well No.

OWNER:

Name North Los Altos Water Co. Address Box H Boulder Creek, California

(2) LOCATION OF WELL:

County Santa Clara Owner's number, if any-- R. F. D. or Street No. Approx. 276' Northeast of Alvarado st. and 25' southeast of Distel Street (if it were extended) in Los Altos City

(3) TYPE OF WORK (check): Test hole

New well [ ] Deepening [ ] Reconditioning [ ] Abandon [ ] If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [x] Other [ ]

(5) EQUIPMENT:

Rotary [x] Cable [ ] Dug Well [ ]

(6) CASING INSTALLED:

Table with columns: From, ft. to, ft., Diam., Gauge or Wall, Diameter of Bore, from ft., to ft. Includes 'If gravel packed' section.

Type and size of casing or well casing Describe joint

(7) PERFORATIONS:

Table with columns: Type of perforator used, No. of perforations, in., length, by, in., Depth, ft., Perf. per row, Rows per ft.

(8) CONSTRUCTION:

Was surface sanitary seal provided? [ ] Yes [ ] No To what depth ft. Were any strata sealed against pollution? [ ] Yes [ ] No If yes, note depth of strata ft. Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found ft. Level before perforating ft. Level after perforating ft.

(10) WELL TESTS:

Was pump test made? [ ] Yes [ ] No If yes, by whom? gal./min. with ft. draw down after hrs.

(11) WELL LOG:

Table with columns: Total depth, ft., Depth of completed well, ft., Formation: Describe by color, character, size of material, and structure. Includes log entries from 0 to 700 ft.

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Work started 2-20 19 58 Completed 2-25 19 58

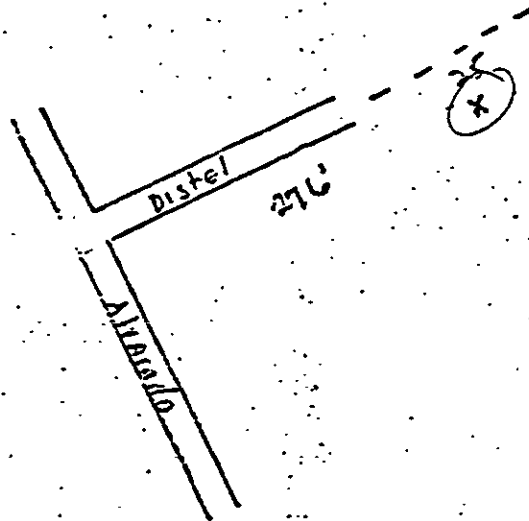
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME C & N Pump and Well Co. Address 1901 Washington Street Santa Clara, California

(SIGNED) Well Driller

NORTH



931

No Las Alts. Water Co  
 Santa Clara County  
 276 - N.E. of Alhambra  
 25' S.E. of Distel 276 - IT Here Continued  
 on former FISHER property

EXECUTIVE OFFICES: 2301 EAST VERNON AVE.  
 LOS ANGELES

FACTORIES: LOS ANGELES VERNON FRESNO HOUSTON BETHLEHEM

FOR OFFICIAL USE ONLY

WELL 8

DIVISION OF WATER RESOURCES

Well 8

Santa Clara

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

Do Not Fill In  
State Well No. 25-7-2964  
Other Well No. 29FE  
Region 29FE

Driller:  
Western Well Drilling Co., Ltd.  
522 N. Santa Clara St.  
San Jose, Calif.  
No. R-54265 Classification C 57

(2) Proposed use or uses (check):  
Domestic  Irrigation   
Municipal  Industrial   
Domestic and Irrigation  Test well   
Other \_\_\_\_\_  
(3) Equipment used (check):  
Rotary   
Cable   
Dug well   
Other \_\_\_\_\_

Contractor:  
California Water Service Co.  
374 N. Santa Clara St., San Jose  
at Station 6, Los Altos

(4) Type of work (check):  
New well  Reconditioning of well   
Deepening existing well

Log:  
depth of well 605 ft.

Give details of formations penetrated, such as silt, peat, muck, sand, gravel, clay, shale, sandstone, hardpan, rock. Include size of gravel (diameter) and sand (fine, medium, coarse); color of material, structure (loose, packed, cemented, soft, hard, brittle).

Depth From Ground Surface

Depth (ft.)	Formation
405	5 ft. Red Clay & Some Gravel
450	3 " Red Clay
487	20 " Small Gravel & Sand
497	3 " Yellow Clay
505	20 " Gravel & Sand
510	3 " Yellow Clay
538	22 " Gravel & Sand
545	3 " Yellow Clay
568	28 " Small Gravel & Sand
579	2 " Yellow Clay
605	

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Additional space is required, continue on DWR Form No. 246—Supplement, and attach to respective report copies.

Left in well:

DEPTH	DIAMETER INCHES	SINGLE. DOUBLE. WELDED. OTHER	LBS. PER FOOT OR GAGE OF CASING	SEATING BELOW GROUND SURFACE, FT.
	10	double	12 Ga	605

Size of shoe or well ring 5/8 x 10  
Welded joints  Yes  No

# WATER WELL DRILLERS REPORT

(Sections 707, 7077, 7078, Water Code)

297

Do Not Fill In

State Well No. \_\_\_\_\_  
Other Well No. \_\_\_\_\_  
Region \_\_\_\_\_

### (7) Perforations:

Type of perforator used	ft.	ft.	Hole size	No. of holes
Wells knife			5/16 x 2 1/2	5
<del>Perforated</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>
" 489	499	" "	" "	" "
" 505	510	" "	" "	" "
" 538	545	" "	" "	" "
" 570	580	" "	" "	" "
"		" "	" "	" "
"		" "	" "	" "
"		" "	" "	" "
"		" "	" "	" "
"		" "	" "	" "

### (8) Water levels:

Depth at which water first encountered 190 ft.  
 Depth to water before perforating 190 ft.  
 Depth to water after perforating 190 ft.  
 Note any change in water level while drilling \_\_\_\_\_

### (9) Well pumping test:

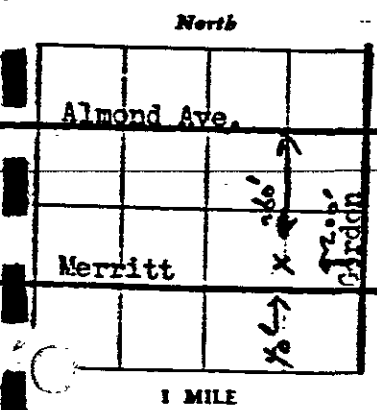
Date of test 2/26/52 By whom Western Well Drilling Co.,  
 Depth to water when test started 190 ft.  
 G.P.M. at beginning of test 160  
 Drawdown from standing level 2 190 ft.  
 G.P.M. at completion of test 300  
 Drawdown at completion of test 190 ft.  
 Length of time tested 78 hrs.  
 Temperature of water \_\_\_\_\_  
 Was gas present in water?  Yes  No

### (10) General:

Was well gravel packed? no Size of rock \_\_\_\_\_ Thickness of pack \_\_\_\_\_  
 Was a surface sanitary seal provided? \_\_\_\_\_  
 Were any strata sealed against pollution?  Yes  No If yes, attach detailed description.  
 Strata sealed \_\_\_\_\_  
 Was analysis made of water?  Yes  No If yes, attach copy.  
 Was electric log made of well?  Yes  No If yes, attach copy.  
 If well abandoned, was it plugged and sealed? \_\_\_\_\_  
 Method of plugging and sealing \_\_\_\_\_

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### (11) Location:



Section No. 29  
 Township 6 S  
 Range 2 W  
 Base & Meridian N D  
 Show location of well in Section, thus (X)  
 Distances to section lines from well, N or S \_\_\_\_\_ ft.  
 and E or W \_\_\_\_\_ ft.  
 Show location of nearest known well, thus (O)  
 Distance to nearest known well \_\_\_\_\_ ft.

### (12) Time of work:

Work started date 1/2/52 Completed date 3/20/52  
 Date of this report March 26, 1952

### WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

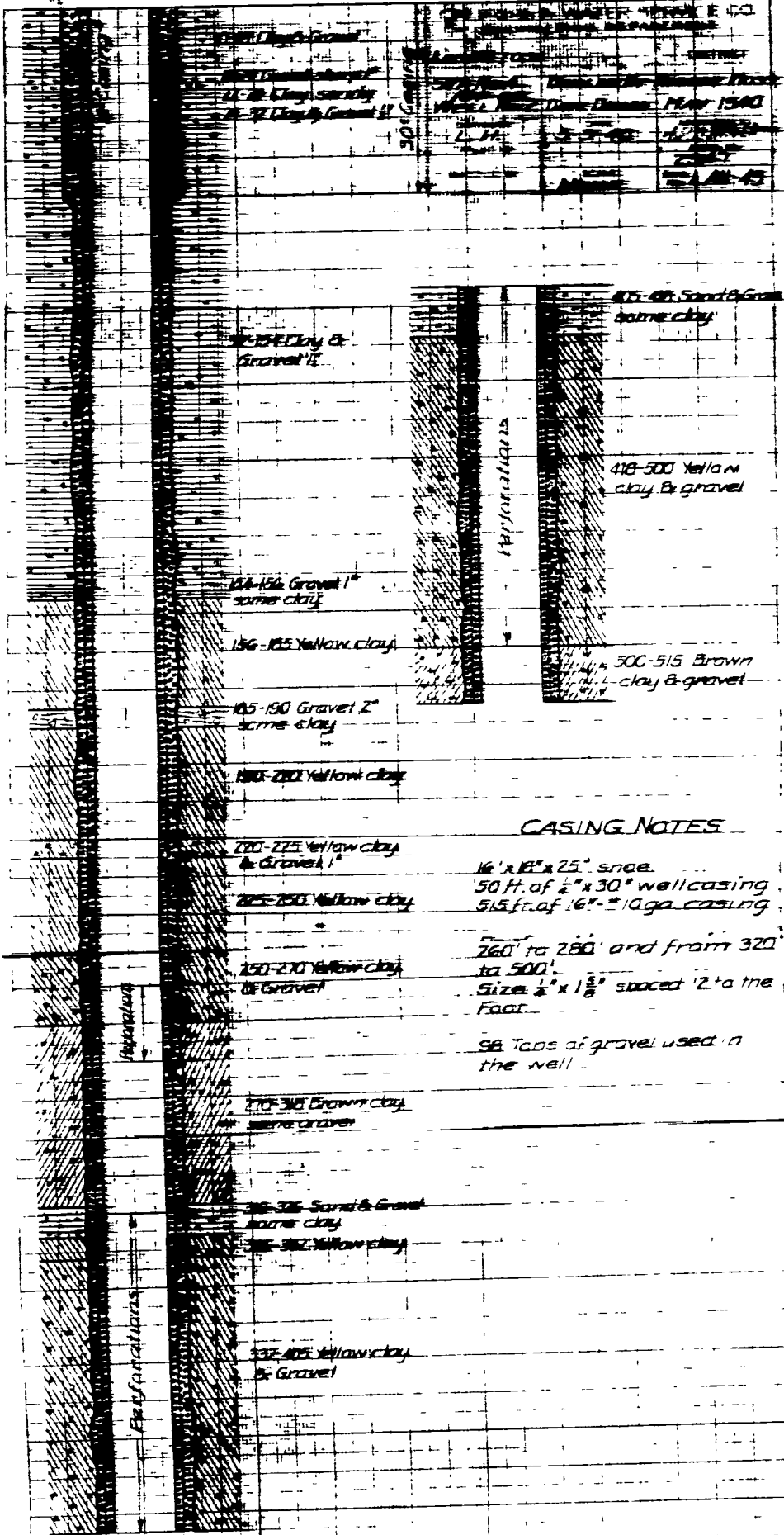
[SIGNED] WESTERN WELL DRILLING CO., LTD.  
 Well Driller

By [Signature]  
 License No. R-54265 Classification C 57  
 Dated March 26, 1952

WELL 104

104-02

WELL LOG 104-02  
 DATE: MAY 1940  
 LOCATION: ...  
 DEPTH: ...



**CASING NOTES**

16" x 18" x 25" snce  
 50 ft. of 2" x 30" well casing  
 515 ft. of 16" #10 ga. casing  
 260' to 280' and from 320' to 500'  
 Size 1/2" x 1 3/8" spaced 12" to the foot  
 98 Tons of gravel used in the well

WELL 107





WELL 108



WELL 110

LOS ALTOS

STATION 10 WELL HO-11  
WELL LOG

G.D. DOOLIDGE 6-27-52  
EST. RAILWAY  
MAY 1925

DRILLER: C.R. JAMES  
CASING NOTES: 30" 30" 1/4" Conductor  
402" 16" 1/4" Casing

PERFORATION DATA  
358 TO 478 20 SLOTS PER  
325 TO 382 1 1/4" FOOT  
5/32" x 1/2"

DEVELOPING DATA  
258 Wts Total Time

CEMENT

3-7 SURFACE  
SOIL

CONDUIT

4-2 CLAY &  
FINE GRAVEL

20-24 GRAVEL  
ENVELOPE WELL

4-2 COARSE GRAVEL &  
SANDY CLAY

4-2 COARSE GRAVEL &  
STICKY CLAY

4-2 COARSE GRAVEL &  
STICKY CLAY

CASING

17-21 FINE SANDY CLAY & GRAVEL

17-21 HARD SANDY CLAY & GRAVEL, HARD STREAKS

17-21 COARSE GRAVEL & CLAY FREE

25-27 GRAVEL-CLAY STREAKS

25-27 WANTED CLAY & GRAVEL FREE STREAKS

27-31 HARD CEMENTED CLAY & GRAVEL, SOME VERY HARD  
STREAKS

31-33 CEMENTED CLAY & GRAVEL, HARD STREAKS

33-35 COARSE GRAVEL & CLAY FREE

35-37 CLAY & STICKY

37-39 GRAVEL & SANDY CLAY FREE

39-41 CEMENTED CLAY & GRAVEL

39-41 SANDY CLAY & GRAVEL, FREE STREAKS

PERFORATED 358 TO 478

41-43 HARD SANDY CLAY & GRAVEL

43-45 GRAVEL &  
CLAY FREE

43-45 HARD  
SANDY CLAY  
& GRAVEL

43-45 CLAY &  
GRAVEL FREE

45-47 HARD  
SANDY CLAY  
& GRAVEL

43-45 HARD  
CLAY &  
GRAVEL

47-49 GRAVEL &  
SANDY CLAY  
FREE

43-45 HARD  
CLAY &  
GRAVEL

49-51 CLAY &  
GRAVEL  
STICKY

43-45 HARD  
CLAY &  
GRAVEL

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH

WELL DATA (1) Place and Owner California Water Service, Los Altos - Suburban

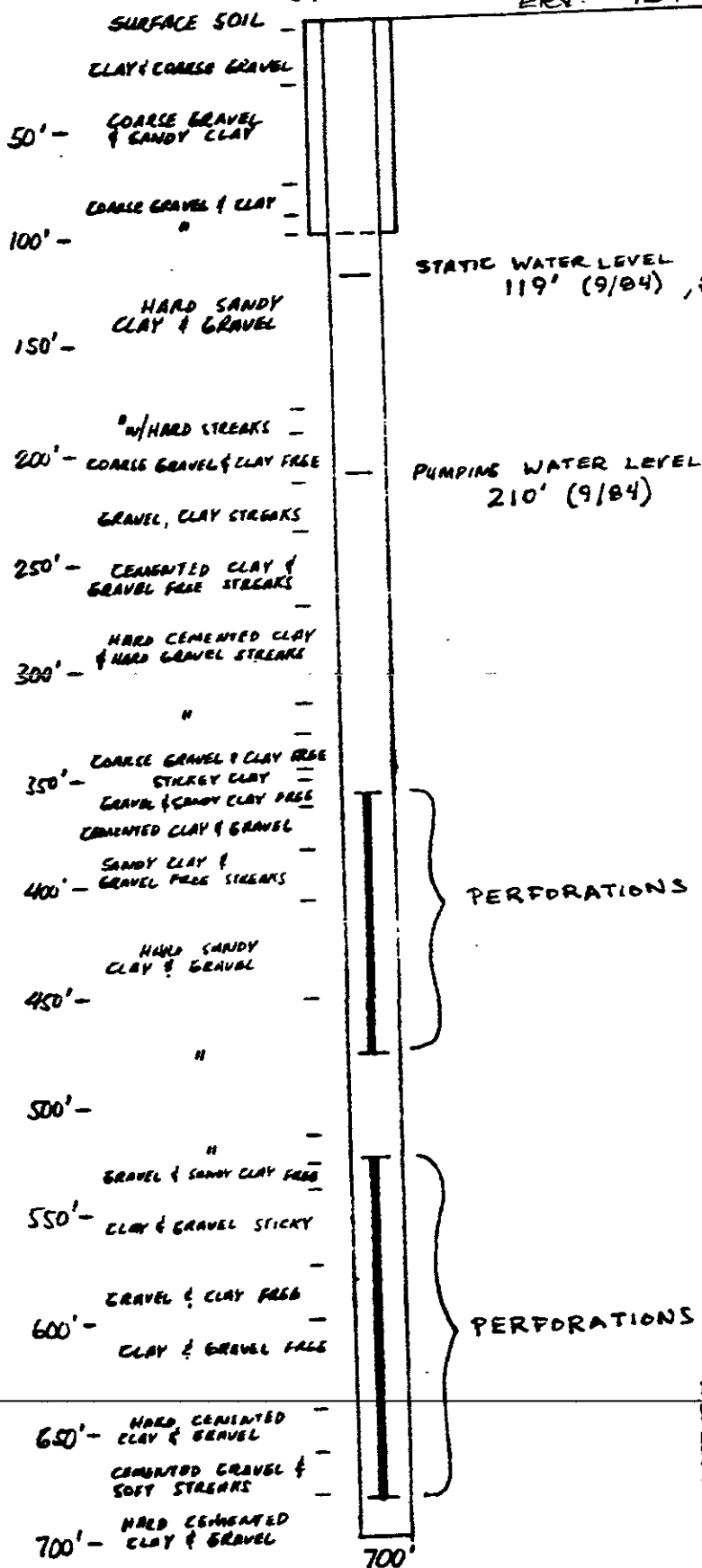
2) Source of Information J.R. Rossum, Sanitary Engineer; C.L. Garibaldi, Superintendent

Collected by C.F. Alessi, Assistant Sanitary Engineer Date October 31, 1967

3) Number or Name	110-01	115-01 (purchased)	116-01
Date drilled	1952	?	1958
4) Location: Neighborhood	Residential	Residential	Residential
Size of lot	140' x 60'	70'-95' x 143'	80 x 125
Distance to: Sewer	70'	50'	75'
Sewage disposal	-	-	-
Abandoned well	Far	Far	-
Nearest property line	25'	25'	10'
5) Housing: Type	None	Steel shelter	None
Condition	-	-	-
Pit depth (if any)	None	None	None
Floor (material)	Concrete block	Concrete	Concrete
Drainage	Good	Good	Good
6) Well Depth	700'	470'	600'
7) Casings: Depth	700'	470'	600'
Diameter	16" x 1/4"	12"	16 x 1/4
Kind	Steel	Calif. stove pipe	W.S.
Height above floor	10" above grnd.	12"	12"
Distance to highest perforations	358'	N.a.	230'
Surface sealed (yes or no)	Yes	Yes	Yes
Gravel pack (yes or no)	Yes	No	Yes
Second casing depth	80'	None	72'
Second casing diameter	30"	-	30 x 1/4
Annular seal (depth)	80' seal	None	72'
8) Impervious Strata: { Thickness	15'	N.a.	13
Penetrated { Depth to	76'	N.a.	59
9) Water Levels: { Surface	220'	210'	190'
Depth to { Static	330'	300'	330'
{ When pumping			
10) Pump: Make	B.-J.	Adrian	B.-J.
Type	Submersible	D.W.T.	Submersible
Capacity (g.p.m.)	280	200	375
Lubrication	Oil	Oil	-
Power	Electric	Electric	Electric
Auxiliary power	None	None	-
Control	Automatic	Automatic	Automatic
Discharge location	Above ground	Above ground	Above ground
Discharge to	Tank	Tank	
1) Frequency of Use	Seldom	All year	Summer
2) Flood Hazard	None	None	
3) Remarks and Defects (Use other side if necessary)		Will be put in operation in near future.	
4) Show well log on other side.			

STA. 110-01

Elev. = 157'



STATIC WATER LEVEL  
119' (9/84), Elev. = +38'

PUMPING WATER LEVEL  
210' (9/84)

PERFORATIONS

PERFORATIONS

ROTARY  
 ELEV. - 657'  
 DATE DRILLED - 1952'  
 PERF - 358' - 478, 526' - 682'  
 CPM - 300 40 HP MOTOR

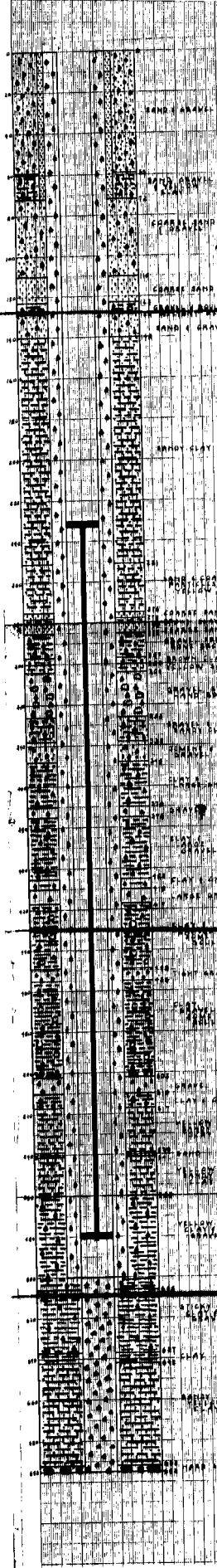
<b>CALIFORNIA M</b>	
LOS ALTOS	
Sta 110 WELL LOG	
DRAWN BY F. R.	
TRACED BY	
CHECKED BY	

WELL 116



CALIFORNIA WATER SERVICE CO  
 1000 BAYVIEW BLVD  
 OAKLAND, CALIF. 94612  
 STATION 110-01  
 WELL LOG  
 DRAWN BY: J. J. [unclear]  
 CHECKED BY: [unclear]

DEPTH: 500 FT  
 CONDUCTOR CASING: 12" x 30' x 1/2"  
 INNER CASING: 500' x 10" x 1/2"  
 PERFORATIONS: TYPE: HORIZONTAL HOLE  
 SIZE: 4 1/2"  
 LOCATION: 200-200  
 MUDS DEVELOPING: 4500  
 TYPE WELL: ROTARY DRILL ENVELOPE  
 GRAVEL MESH: 10-20 TONS  
 DRILLED BY: WESTERN DRILLING CO.



0-10 SAND & GRAVEL  
 10-15 SAND & GRAVEL  
 15-20 SAND & GRAVEL  
 20-25 SAND & GRAVEL  
 25-30 SAND & GRAVEL  
 30-35 SAND & GRAVEL  
 35-40 SAND & GRAVEL  
 40-45 SAND & GRAVEL  
 45-50 SAND & GRAVEL  
 50-55 SAND & GRAVEL  
 55-60 SAND & GRAVEL  
 60-65 SAND & GRAVEL  
 65-70 SAND & GRAVEL  
 70-75 SAND & GRAVEL  
 75-80 SAND & GRAVEL  
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 405-410 SAND & GRAVEL  
 410-415 SAND & GRAVEL  
 415-420 SAND & GRAVEL  
 420-425 SAND & GRAVEL  
 425-430 SAND & GRAVEL  
 430-435 SAND & GRAVEL  
 435-440 SAND & GRAVEL  
 440-445 SAND & GRAVEL  
 445-450 SAND & GRAVEL  
 450-455 SAND & GRAVEL  
 455-460 SAND & GRAVEL  
 460-465 SAND & GRAVEL  
 465-470 SAND & GRAVEL  
 470-475 SAND & GRAVEL  
 475-480 SAND & GRAVEL  
 480-485 SAND & GRAVEL  
 485-490 SAND & GRAVEL  
 490-495 SAND & GRAVEL  
 495-500 SAND & GRAVEL

I.D. No. 116 Well 116 6/24/29F

ORIGINAL  
File Original, Duplicate and Triplicate with the  
REGIONAL WATER POLLUTION CONTROL BOARD No. 2  
(Insert appropriate number)

### WATER WELL DRILLERS REPORT

RECEIVED  
REGIONAL WATER POLLUTION CONTROL BOARD #2  
JUN 18 1958

STATE OF CALIFORNIA  
(Sections 7074, 7077, 7078, Water Code)

Do Not Fill In  
No. 24307

State Well No. \_\_\_\_\_  
Other Well No. 6/20-2

#### 1) OWNER:

Name California Water Service Co.  
Address P. O. Box 1150  
San Jose, Calif.

#### (2) LOCATION OF WELL:

County Santa Clara Owner's number, if any— 16-01 B  
R. F. D. or Street No. \_\_\_\_\_  
150 Symkist Lane, Los Altos

#### (3) TYPE OF WORK (check):

New well  Deepening  Reconditioning  Abandon

If abandonment, describe material and procedure in Item 11.

#### (4) PROPOSED USE (check):

Domestic  Industrial  Municipal   
Irrigation  Test Well  Other

#### (5) EQUIPMENT:

Rotary   
Cable   
Dug Well

#### (6) CASING INSTALLED:

SINGLE <input checked="" type="checkbox"/> DOUBLE <input type="checkbox"/>		Gage or Wall	If gravel packed		
From	to		Diam.	ft.	ft.
0	72	30	1 1/4	38"	0
0	600	16	1 1/4	30"	72
					600

Type and size of shoe or well ring none  
Describe joint butt-weld

Size of gravel: 1/4 x 1/8

#### (7) PERFORATIONS:

Type of perforator used		Size of perforations		in., length, by		Rows per ft.	
<u>Factory punched</u>		<u>1/8</u>	<u>16</u>	<u>2</u>	<u>3</u>		
From	to						
230	570						

#### (8) CONSTRUCTION:

Was a surface sanitary seal provided?  Yes  No To what depth 72 ft.

Were any strata sealed against pollution?  Yes  No If yes, note depth of strata

From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

#### Method of Sealing

#### (9) WATER LEVELS:

Depth at which water was first found not available ft.

Static level before perforating \_\_\_\_\_ ft.

Static level after perforating \_\_\_\_\_ ft.

#### (10) WELL TESTS:

Was a pump test made?  Yes  No If yes, by whom? driller

Yield: 540 gal./min. with 130 ft. draw down after 259 1/2 hrs.

Temperature of water \_\_\_\_\_ Was a chemical analysis made?  Yes  No

#### (11) WELL LOG:

Total depth	ft.	Depth of completed well	ft.	Formation: Describe by color, character, size of material, and structure.	avail.
0	72			Bored with bucket rig, no	
72	80			Yellow Sandy Clay	
80	91			Light Sand	
91	101			Loose Sand	
101	123			Coarse Sand	
123	128			Gravel & Boulders (Tight)	
128	133			Clay & Gravel	
133	140			Gravel	
140	148			Pea Gravel, some Yel. Sand	
148	156			Boulders & Gravel (Free)	
156	163			Yellow Sandy Clay, some G	
163	179			Gravel & Yellow Sandy Clay	
179	185			Yellow Sandy Clay & Gravel	
185	192			Gravel & Yellow Sandy Clay	
192	197			Boulders (Tight)	
197	203			Boulders & Yellow Sandy Clay	
203	212			Gravel & Yellow Sandy Clay	
212	216			Yellow Sandy Clay	
216	227			Sharp & Tight Pea Gravel, (Sandy Clay)	
227	233			Yellow Sandy Clay	
233	240			Small Gravel, some Yellow (Sandy Clay)	
240	245			Boulders & Gravel, some (Yellow Sandy Clay)	
245	251			Sharp Gravel, some Yellow (Sandy Clay)	
251	258			Coarse Sharp Free Gravel, (Yellow Clay parti	
258	273			Coarse Free Sand, Yellow (particles)	
273	278			Coarse Free Sand	
278	280			Brown Clay	
280	285			Coarse Free Sand	
285	297			Gravel, some Boulders & (Yellow Clay)	
297	300			Yellow Clay & Gravel	
300	304			Yellow Sandy Clay	
304	311			Gravel & Boulders (Hard)	
311	326			Free Sand	
326	338			Sandy Clay, some Gravel	
338	348			Cemented Gravel	
348	370			Clay & Large Gravel ((	

Work started March 25, 1958 Completed June 7,

#### WELL DRILLER'S STATEMENT:

This well was drilled under my supervision and to the best of my knowledge and belief.

FOR OFFICIAL USE ONLY

NAME WESTERN WELL DRILLING CO., LTD.

(Incorporated, firm, or corporation) (Typed or printed)

Address P. O. Box 47  
San Jose, Calif.

[SIGNED] \_\_\_\_\_  
Well Driller

License No. 25182 Dated June 18, 19



APPENDIX B  
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Aeration System Results and Chemical Analyses	B-11

A.B. 1803 Chemical Analyses

January 3, 1985

CALIFORNIA WATER SERVICE COMPANY

LOS ALTOS DISTRICT

SUMMARY OF AB 1803 VOC ANALYSES

<u>Well Number</u>	<u>Date Sampled</u>	<u>Chemical Name</u>	<u>Concentration ug/L</u>
1-01	Not sampled		
1-02	7-11-84	N.D.	
2-02	7-23-84	N.D.	
2-03	Not sampled		
4-01	9-5-84	N.D.	
4-02	Not sampled		
6-02	7-23-84	N.D.	
15-01	Not sampled		
16-02	7-13-84	N.D.	
17-01	7-10-84	N.D.	
18-02	7-13-84	N.D.	
20-01	7-12-84	N.D.	
21-01	7-12-84	N.D.	
22-01	7-10-84	N.D.	
24-01	7-10-84	N.D.	
25-01	7-10-84	N.D.	
26-01	7-12-84	N.D.	
27-01	7-13-84	N.D.	
29-01	7-10-84	N.D.	
30-01	7-11-84	N.D.	
31-01	7-13-84	N.D.	
32-01	7-13-84	N.D.	
34-01	7-11-84	N.D.	
104-02	7-12-84	N.D.	
107-01	Not sampled		
108-01	7-11-84	N.D.	
*110-01	7-17-84	Carbon tetrachloride	5.4
	7-23-84	Carbon tetrachloride	9.1
115-01	9-5-84	N.D.	
116-01	7-17-84	N.D.	
119-03	7-11-84	N.D.	
120-01	7-17-84	N.D.	
121-02	Not sampled		
121-03	Not sampled		
122-01	9-5-84	N.D.	
123-01	7-17-84	N.D.	
123-02	7-17-84	N.D.	
Zanetti	7-13-84	N.D.	

\*Well 110-01 removed from service 7-31-84.

N.D. = None Detected

Confirming Analyses and Analyses of  
Other Wells in Site Vicinity

California Water Service Company - Los Altos System  
Well 110 - Volatile Organic Analysis Results  
Reported by SDHS Sanitation and Radiation Laboratory

<u>Lab No.</u>	<u>Date Sampled</u>	<u>Results</u>	<u>Remarks</u>
5140	8/16/84	Carbon Tetrachloride: 8.8 ppb	CWS Duplicate
5141	8/16/84	Carbon Tetrachloride: 8.8 ppb	
5159	8/23/84	Carbon Tetrachloride: <1.0 ppb	15 Min. Run
5160	8/23/84	Carbon Tetrachloride: 9.9 ppb	1 Hr. Run
5161	8/23/84	Carbon Tetrachloride: 9.9 ppb	2 Hr. Run

SEB/082984



CWS-Los Altos Well 110 and City Ag Well VOA Results as of 10/30/84

Well 110

<u>Date</u>	<u>Results</u>	<u>Analyzed By</u>
7-17-84	5.4 ppb $CCl_4$	CWS
7-23-84	9.1 ppb $CCl_4$	CWS
7-23-84	4.0 ppb $CCl_4$	CWS: Cal. Analytical Lab
8-1-84	9.4 ppb $CCl_4$	CWS
8-16-84	10.6 ppb $CCl_4$	CWS
8-16-84	8.8 ppb $CCl_4$	SRL
8-16-84	8.8 ppb $CCl_4$	SRL
8-23-84	<1.0 ppb $CCl_4$	SRL
8-23-84	9.9 ppb $CCl_4$	SRL
8-23-84	9.9 ppb $CCl_4$	SRL
9-20-84	9.3 ppb $CCl_4$	SRL

City Ag Well

8-22-83	10.1 ppb $CCl_4$	CWS
8-27-84	10.1 ppb $CCl_4$	CWS
9-20-84	8.4 ppb $CCl_4$	SRL
9-20-84	8.4 ppb $CCl_4$	SRL

## REPORT ON PARTIAL CHEMICAL ANALYSIS OF WATER

COMPANY California Water Service Company      LABORATORY San Jose  
 PLANT Los Altos-Suburban      TEST NO. 7857  
 DATE COLLECTED 8-1-84      DATE OF TEST 8-1-84  
 REPORTED TO DLC      DATE OF REPORT 8-7-84  
 REASON FOR TEST Special - Volatile Organic Chemicals

SOURCE OF SAMPLE	Hours Run	(1) µg/L	(2) µg/L	(3) µg/L	(4) µg/L		
98 Eleanor		1.4	4.0	1.3			
172 Eleanor		4.6		2.5	<0.5		
246 Hillview		1.3	4.8	1.2			
108 Hillview		4.4		2.3	<0.5		
Well 110-01	5 min.		17.1				
Well 110-01	1 hour		9.4				

*Kent Adney - Cal Water Lab*  
*408-298-1414 ext. 268*

*18.1ppb total trihalomethane*

*# 110 Well on 5/28/85 → 8.2 ppb ccl<sub>4</sub>*  
*Sample from Aeration Tank 5/28/85 → 0.8ppb ccl<sub>4</sub>*  
*Sample from 246 Hillview Ave. 5/28/85 → 0.5ppb cc*  
*Cal Water Lab performed test*

- (1) Chloroform
- (2) Carbon tetrachloride
- (3) Bromodichloromethane
- (4) Chlorodibromomethane

NOTE: Subject to further testing.

## REPORT ON PARTIAL CHEMICAL ANALYSIS OF WATER

COMPANY California Water Service LABORATORY San Jose  
 PLANT Los Altos-Suburban TEST NO. 7881  
 DATE COLLECTED 8-16-84 DATE OF TEST 8-17-84  
 REPORTED TO DLC DATE OF REPORT 8-28-84  
 REASON FOR TEST Special - Volatile Organic Chemicals

SOURCE OF SAMPLE	Hours Run	VOCs µg/L	(1) µg/L	(2) µg/L	SDHS Analysis (1) µg/L
Well 110-01 (Sample collected in SDHS bottle)	2.5		10.8	<0.5	8.8
Well 110-01 (Sample collected in SDHS bottle)	2.5		10.6	<0.5	
Well 110-01 (Sample collected in CWS bottle)	5 min.		6.1		
Well 110-01 (Sample collected in CWS bottle)	1		9.3		
Well 110-01 (Sample collected in CWS bottle)	2.5		10.5	<0.5	
Well 108-01 (Sample collected in CWS bottle)	1.5	N.D.			
Well 116-01 (Sample collected in CWS bottle)	Cont.	N.D.			
Outlet from redwood tank			≈ 7.0		
Well 104		N.D.			

- ( ) Carbon tetrachloride
- ( ) Chloroform

## REPORT ON PARTIAL CHEMICAL ANALYSIS OF WATER

COMPANY California Water Service LABORATORY San Jose  
 PLANT Los Altos-Suburban TEST NO. 7882  
 DATE COLLECTED 8-16-84 DATE OF TEST 8-17-84  
 REPORTED TO DLC DATE OF REPORT 8-28-84  
 REASON FOR TEST Special - Volatile Organic Chemicals

SOURCE OF SAMPLE	(1)	(2)	(3)	(4)	(5)			
	µg/L	µg/L	µg/L	µg/L				
Station 110-01 Tank effluent	6.8							
172 Eleanor		29.8	11.3	1.5	0.6			
98 Eleanor	2.7	18.1	7.1	0.7				
108 Hillview		28.4	10.4	1.3				
246 Hillview	3.5	8.1	3.4	0.3				

- (1) Carbon tetrachloride
- (2) Chloroform
- (3) Bromodichloromethane
- (4) Chlorodibromomethane
- (5) Bromoform

# REPORT ON PARTIAL CHEMICAL ANALYSIS OF WATER

CITY California Water Service Company LABORATORY San Jose  
 PLANT Los Altos-Suburban TEST NO. 7899  
 DATE COLLECTED 8-22-84 DATE OF TEST 8-27-84  
 REPORTED TO DLC DATE OF REPORT 8-29-84  
 REASON FOR TEST Special - Volatile Organic Chemicals

SOURCE OF SAMPLE	CHLORIDE AS CI P. P. M.	ALKALINITY P. P. M.	HARDNESS AS CA CO3 P. P. M.	Min. Run	(1) µg/L			
City of Los Altos irrigation well				5 min.	10.1			
City of Los Altos irrigation well				30 min.	10.1			

Carbon tetrachloride

*Sample set @ 150'*  
*depth = 7400'*

SPECIAL CHEMICAL SAMPLE RESULTS

District LAS  
 Source 104-02

43-001  
 65-2W-32D1

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)						Comments
Date	Time	Run Time										
7-12-84	-	3hrs.	-	-	x	x						No VOC's detected.
11-2-84	-	2hrs.	-	11-12-84	x	x						" " "
2-26-85	-	2hrs.	-	3-8-85	x	x						" " "
4-24-85	1512	3hrs.	4-25-85	4-25-85	L	/						" " "
7-23-85	0930	4hrs.	7-25-85	7-26-85	✓	✓						" " "
11-6-85	1203	3hrs	11-18-85	11-19-85	✓	✓						" " "

\*An "x" indicates data seen by designated person.

Source 104-02  
 LAS







Aeration System Information  
and Chemical Analyses

SPECIAL CHEMICAL SAMPLE RESULTS

SUPPLEMENTARY INFORMATION TO  
CARBON TETRACHLORIDE REMOVAL AT  
LAS 110-01 BY AERATION TREATMENT.

District LAS

Source CITY IRRIGATION WELL

Depth to Water (City Irrigation Well)

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)					(6)	(7)	Comments
Date	Time	Run Time											
5-13-85	915	-	-	-							116.5	54.0	
5-13-85	935	-	-	-							116.5	"	START WELL 110-01 ← AT 9:20
"	950	-	-	-							116.5	"	
"	1005	-	-	-							116.5	"	
"	1020	-	-	-							116.5	"	
"	1120	-	-	-							116.5	"	
5-14-85	920	-	-	-							116.5	"	
5-28-85	1300	-	-	-							118.0	52.5	
6-3-85	945	-	-	-							117.9	52.6	
12/85											123.5		
2/86											123.5		

\*An "x" indicates data seen by designated person.

- (6) Depth to groundwater in feet
- (7) USGS elevation of groundwater in feet

Source CITY IRRIGATION WELL

District LAS  
 Source 110-01

SPECIAL CHEMICAL SAMPLE RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)	VOCS µg/L						Comments	
Date	Time	Run Time					CCl4 (1)	CHCl3 (2)	TEMP. °C	K25	(3)	(4)		(5)
5-13-95	935	15min.	5-14-95	5-23-95		X	8.2	<0.5	19	720	-	-	-	STATEC DEPTH TO WATER = 115.0 FT. START WELL AT 9:20
"	"	-	"	"			1.0	N.D.	-	-	-	-	3	88 TANK @ 110-01.
"	1120	2 hrs	"	"			10.9	<0.5	19	740	1	<2.2	-	PUMPING DEPTH TO WATER = 149.0
"	"	-	"	"			2.2	N.D.	-	-	41	<2.2	4	80 TANK @ 110-01.
5-14-95	920	24hrs.	"	"			11.8	<0.5	19	780	<1	<2.2	-	UNIDENTIFIED PEAK. PUMPING DEPTH TO WATER = 176.0
"	"	-	"	"			2.2	N.D.	-	-	21	<2.2	3.5	81 UNIDENTIFIED PEAK. TANK @ 110-01.
5-15-95	1210	51hr.	5-16-95	"			9.0	<0.5	19	800	17	<2.2	-	
"	"	-	"	"			1.6	N.D.	-	-	14	<2.2	-	90 TANK @ 110-01.
5-16-95	935	71 hrs.	5-22-95	"			8.2	<0.5	18	800	<1	<2.2	-	UNIDENTIFIED PEAK.
"	936	-	"	"			1.4	N.D.	-	-	56	<2.2	-	83 UNIDENTIFIED PEAK. TANK @ 110-01.
5-17-95	820	93hr.	"	"			8.3	N.D.	19	775	-	<2.2	-	UNIDENTIFIED PEAK.
"	"	-	"	"			1.2	N.D.	-	-	-	<2.2	-	86 UNIDENTIFIED PEAK. TANK @ 110-01.
														5-17-95: PHONED CLEFF COVERN @ 4:15 PM. & GOT OK TO STOP DAILY SAMPLES & GO ON WEEKLY SAMPLES BEGINNING 5-20-95.
5-20-95	820	167 hrs.	5-22-95	"			8.4	N.D.	19	795	360	<2.2	-	UNIDENTIFIED PEAK.
"	"	-	"	"			1.2	N.D.	-	790	1600	<2.2	-	86 UNIDENTIFIED PEAK. TANK @ 110-01.
5-28-95	1300	364 hrs.	5-29-95	6-3-95		/	8.2	N.D.	19	820	36	<2.2	-	PUMPING DEPTH TO WATER = 170.6 FT. UNIDENTIFIED PEAK.
"	1301	-	"	"		/	0.8	N.D.	18.5	800	113	<2.2	5	90 UNIDENTIFIED PEAK. TANK @ 110-01.
"	1255	-	"	"		/	<0.5	*18.1	-	-	-	-	-	SAMPLE COLLECTED @ 246 HILL VIEW.
6-3-95	945	503 hrs.	6-4-95	6-7-95			7.9	N.D.	18.5	870	920	<2.2	-	PUMPING DEPTH TO WATER = 149.5 FT. UNIDENTIFIED PEAK.
"	"	-	"	"			0.9	N.D.	18	870	2800	<2.2	3	89 UNIDENTIFIED PEAK. TANK @ 110-01.

An "x" indicates data seen by designated person.  
 CARBON TETRACHLORIDE  
 TRICHLOROFORM  
 STANDARD PLATE COUNT (COLONIES PER ML.)  
 COLIFORM NUMBER PER 100 ML.  
 DISTANCE (IN FT.) OF WATER FROM TOP OF TANK.

(6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %  
 \* TOTAL TRIHALOMETHANE

Source 110-01  
LAS

RICT LAS  
 ce 110-01

SPECIAL CHEMICAL SAMPLES RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

Date	Sampled		Date Tested	Date Reported	*GWA (x)	*RHT (x)	VOCs 45/L						Comments		
	Time	-Run Time					C214 (1)	CHCl3 (2)	TEMP. °C	K25	(3)	(4)		(5)	(6)
6-21-95	845	672 HRS.	6-21-95	6-27-95	✓	✓	8.4	N.D.	17.5	920	570	<2.2	-	-	
	847	-	"	"	✓	✓	0.8	N.D.	18.5	925	5700	<2.2	-	90	UNIDENTIFIED PEAK UNIDENTIFIED PEAK TANK @ 110-01.
6-21-95	1310	916 HRS.	6-21-95	6-24-95	✓	✓	-	-	-	-	30	<2.2	-	-	
	1312	-	"	"	✓	✓	-	-	-	-	250	<2.2	-	-	TANK @ 110-01.
6-26-95	910	1008 HRS.	6-26-95	6-27-95	✓	✓	8.3	N.D.	18.5	910	9	<2.2	-	-	
	912	-	"	"	✓	✓	0.9	N.D.	18.5	970	110	<2.2	-	89	UNIDENTIFIED PEAK. UNIDENTIFIED PEAK TANK @ 110-01.
7-2-95	830	1176 HRS.	7-2-95	7-4-95	✓	✓	-	-	-	-	190	<2.2	-	-	
	830	-	"	"	✓	✓	-	-	-	-	>5700	<2.2	-	-	TANK @ 110-01.
7-9-95	1030	1346 HRS.	7-9-95	7-11-95	✓	✓	-	-	-	-	56	<2.2	-	-	
	1030	-	"	"	✓	✓	-	-	-	-	140	<2.2	-	-	TANK @ 110-01.
7-16-95	1215	1515 HRS.	7-16-95	7-18-95	✓	✓	-	-	-	-	40	<2.2	-	-	
	1215	-	"	"	✓	✓	-	-	-	-	80	<2.2	-	-	TANK @ 110-01.

\*x" indicates data seen by designated person.  
 CARBON TETRACHLORIDE  
 REFORM  
 STANDARD PLATE COUNT (COLONIES PER ML)  
 FORM NUMBER PER 100 ML'S  
 GALLON (IN FT.) OF WATER FROM TOP OF TANK.

(6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

Source 110-01  
 LAS



**SPECIAL CHEMISTRY ANALYSIS RESULTS**  
**CARBON TETRACHLORIDE REMOVAL**  
**BY AERATION TREATMENT**

District 13  
 Source 110-01

Sampled			Date Tested	Date Reported	GWA (x)	PMT (x)	VOCs (ug/L)								Comments
Date	Time	Run Time					C2Cl4 (1)	C2Cl2 (2)	Temp. °C	K25	(3)	(4)	(5) *	(6)	
9-9-85	1351	2761 HRS.	9-10-85	9-12-85		✓	-	-	-	-	14	<2.2	-	-	
"	"	-	"	"		?	-	-	-	-	120	<2.2	-	-	TANK @ 110-01.
9-16-85	-	3024 HRS.	9-17-85	9-19-85			-	-	-	-	48	<2.2	-	-	
"	-	-	"	"			-	-	-	-	15	<2.2	-	-	TANK @ 110-01.
9-23-85	1346	3197 HRS.	9-24-85	9-26-85			-	-	-	-	270	<2.2	-	-	PUMPING DEPTH TO WATER = 199.0 FT. (W. ELEV. = -8.7')
"	1347	-	"	9-26-85			-	-	-	-	710	<2.2	-	-	TANK @ 110-01.
9-30-85	1300	3364 HRS.	10-2-85	10-8-85			-	-	18	815	26	<2.2	-	-	
9-30-85	1301	"	10-2-85	"			-	-	18	805	34	<2.2	-	-	TANK @ 110-01
10-2-85	0815	3407 HRS.	10-5-85	10-8-85		✓	6.5	N.D.	-	-	-	-	6.5	-	
10-2-85	0817	"	10-5-85	10-8-85		✓	0.4	N.D.	-	-	-	-	N.D.	94	TANK @ 110-01
10-7-85	1306	3532 HRS.	10-7-85	10-10-85			-	-	-	-	18	<2.2	-	-	
"	1307	"	"	"			-	-	-	-	40	<2.2	-	-	TANK @ 110-01.
10-15-85	1325	3724 HRS.	10-16-85	10-18-85			-	-	-	-	15	<2.2	-	-	
"	1330	"	10-16-85	"			-	-	-	-	910	<2.2	-	-	
10-21-85	1344	3868 HRS.	10-22-85	10-25-85			-	-	-	-	49	<2.2	-	-	
10-21-85	1346	"	10-22-85	"			-	-	-	-	25700	<2.2	-	-	TANK @ 110-01

\* An "x" indicates data seen by designated person.  
 (1) CARBON TETRACHLORIDE  
 (2) CHLOROFORM  
 (3) STANDARD PLATE COUNT (COLONIES PER ML)  
 (4) COLIFORM NUMBER PER 100 ML  
 (5) C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES.)  
 \* ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE'S RESPONSE FACTOR.  
 (6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

Source 110-01  
LMS

District LA5  
 Source 110-01

ANALYTICAL RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

CALIFORNIA WATER SERVICE COMPANY

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)	VOCs (ug/L)						Comments		
Date	Time	-Run Time					CCl4 (1)	CHCl3 (2)	TEMP. °C	K25	(3)	(4)		(5) *	(6)
10-28-85	0215	4026 HRS	10-29-85	11-01-85			-	-	-	-	7	<2.2	-	-	
10-28-85	0230	"	10-29-85	11-01-85			-	-	-	-	36	<2.2	-	-	Tank @ 110-01
10-28-85	0835	4042 HRS	11-1-85	11-4-85	✓	✓	6.7	N.D.	19	840			9.7	-	Static Pumping - 194.1 Water Elev. = 13.8
"	0836	"	"	"	✓	✓	0.4	N.D.	19	835			-	94	TANK @ 110-01 Tank level - 5' down
11-4-85	1530	4203 HRS	11-5-85	11-8-85	✓	✓	-	-	-	-	85	<2.2	-	-	...
"	1530	4203 HRS	"	"	✓		-	-	-	-	4200	<2.2	-	-	Tank @ 110-01
11-11-85	1445	4370 HRS	11-12-85	11-15-85	✓		-	-	-	-	11	<2.2	-	-	
"	1445	4370 HRS	"	"	✓		-	-	-	-	12	<2.2	-	-	Tank @ 110-01
11-18-85	1404	4538 HRS	11-19-85	11-22-85	✓		-	-	-	-	31	<2.2	-	-	Tank @ 110-01
"	1402	4538 HRS	"	"	✓		-	-	-	-	5	<2.2	-	-	Tank @ 110-01
11-25-85		4706 HRS	11-26-85	12-2-85	✓		-	-	-	-	41	<2.2	-	-	
11-25-85		4706 HRS	11-26-85	12-2-85	✓	✓	-	-	-	-	25	<2.2	-	-	Tank @ 110-01
12-2-85	0835	4862 HRS	12-4-85	12-5-85	✓	✓	7.4	<0.5	18	845	-	-	18.6	-	(PCE < 0.5, pumping level = 193.0 ft Static level = 123.5 ft)
"	0837	4862 HRS	"	"	✓	✓	0.9	N.D.	18	845	-	-	-	88	(PCE < 0.5, Tank 1 ft. down Tank @ 110-01
12-2-85	1401	4874 HRS	12-3-85	12-6-85	✓	✓	-	-	-	-	9	<2.2	-	-	
"	1403	4874 HRS	"	"	✓	✓	-	-	-	-	860	<2.2	-	-	Tank @ 110-01
12-9-85	1325	5042 HRS	12-10-85	12-13-85	✓	✓	-	-	-	-	41	<2.2	-	-	
"	1330	5042 HRS	"	"	✓	✓	-	-	-	-	9	<2.2	-	-	Tanks @ 110-01
12-16-85	1330	5214 HRS	12-17-85	12-23-85	✓		-	-	-	-	47	<2.2	-	-	
"	1330	5214 HRS	12-17-85	"	✓		-	-	-	-	28	<2.2	-	-	Tank @ 110-01

(SURF. 180.3)

Source 110-01  
 LA5

\*An "x" indicates data seen by designated person.  
 (1) CARBON TETRACHLORIDE  
 (2) CHLOROFORM  
 (3) STANDARD PLATE COUNT (COLONIES PER ML)  
 (4) COLIFORM NUMBER PER 100 ML'S  
 (5) C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES.)  
 \* ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE'S RESPONSE FACTOR.  
 (6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

District LAS

Source 110-01

SPECIAL CHEMICAL RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

CALIFORNIA WATER SERVICE COMPANY

Sampled			Date Tested	Date Reported	CGWA (%)	CBRT (%)	VOCs (µg/L)				(3)	(4)	(5) *	(6)	Comments
Date	Time	Run Time					2214 (U)	2213 (U)	Temp. °C	K <sub>15</sub>					
12-23-85	1340	5382 HRS	12-24-85	01-06-86	✓		-	-	-	-	2	<2.2	-	-	
"	"	"	"	"	✓		-	-	-	-	25	<2.2	-	-	Tank Sample
12-30-85	1425	5351 HRS	12-31-85	1-6-86	✓		-	-	-	-	*	<2.2	-	-	*Plate counts samples not taken, mistakenly thrown out.
"	"	"	"	"	✓		-	-	-	-	*	<2.2	-	-	Tank Sample
1-6-86	-	5719 HRS	1-7-86	1-13-86	✓		-	-	-	-	7	<2.2	-	-	
"	"	"	"	"	✓		-	-	-	-	48	<2.2	-	-	Tank Sample
12-23-85	1025	5344 HRS	1-9-86	1-13-86	✓		7.4	<0.5	17°	800	-	-	11.3	-	Static level = 123.5 ft. Pump level = 194.0 ft.
12-23-85	1030	5344 HRS	1-9-86	1-13-86	✓		09	N.D.	17°	835	-	-	-	88	Tank Sample, Tanks d down.
1-13-86	1419	5887 HRS	1-14-86	1-21-86			-	-	-	-	6	<2.2	-	-	
"	1420	"	"	"			-	-	-	-	6	<2.2	-	-	
1-20-86	1430	6052 HRS	1-21-86	1-29-86			-	-	-	-	53	<2.2	-	-	Tank Sample
2-3-86	1250	6388 HRS	2-4-86	2-5-86			5.2	<0.5	18	795	-	-	0.6	-	no static or pump levels.
"	1330	6388 HRS	"	"			0.8	N.D.	18	765	-	-	-	85	Tank sample: Tank Full
2-3-86	1245	"	2-4-86	2-6-86			-	-	-	-	10	<2.2	-	-	
"	1235	"	"	"			-	-	-	-	4300	<2.2	-	-	Tank Sample
2-24-86	0858	6840 HRS	2-25-86	3-3-86			-	-	-	-	*	<2.2	-	-	* Plate count data suspect.
"	0859	"	"	"			-	-	-	-	*	<2.2	-	-	* "Tank Sample" "

\* An "x" indicates data seen by designated person.  
 (U) CARBON TETRACHLORIDE  
 (C) CHLOROFORM  
 (3) STANDARD PLATE COUNT (COLONIES PER ML)  
 (4) COLIFORM NUMBER PER 100 ML  
 (5) C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES.)  
 \* ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE'S RESPONSE FACTOR.  
 (6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

Source 110-01  
LAS



**SPECIAL CHEMICAL ANALYSIS RESULTS  
CARBON TETRACHLORIDE REMOVAL  
BY AERATION TREATMENT**

District AS  
Source 110-01

State Well #: 43-001  
65/2W-27M2

Sampled			Date Tested	Date Reported	*GVA (x)	*RNT (x)	VOCs (u/l)						Comments		
Date	Time	-Run Time					(1)	(2)	TEMP. °C	K <sub>25</sub>	(3)	(4)		(5) *	(6)
3-10-86	1548	7099 HRS	3-11-86	3-14-86			-	-	-	-	<2.2	6	-	-	
"	1545	7099 HRS	"	"		✓	-	-	-	-	<2.2	6	-	-	Tank Sample
3-19-86	1400	7314 HRS	3-20-86	3-24-86			-	-	-	-	<2.2	3			
"	1408	"	"	"		✓	-	-	-	-	2.2	260			Tank Sample
3-24-86	1430	7434 HRS	3-25-86	3-31-86			-	-	-	-	<2.2	3			
"	1430	"	"	"			-	-	-	-	<2.2	24			Tank Sample
3-31-86	0950	7597 HRS	4-1-86	4-2-86		✓	5.9	<0.5	17	855	-	-	0.9		
"	0953	7597 HRS	4-1-86	4-2-86		✓	0.7	N.D.	17	845	-	-	-	88	Tank Sample
3-31-86	1430	7602 HRS	4-1-86	4-5-86			-	-	-	-	<2.2	187	-	-	
"	1435	"	"	4-5-86		✓	-	-	-	-	<2.2	100	-	-	Tank Sample
4-7-86	1451	7670 HRS	4-8-86	4-11-86			-	-	-	-	<2.2	56	-	-	Tank Sample
"	"	"	"	"			-	-	-	-	<2.2	3	-	-	
4-14-86	1440	7838 HRS	4-15-86	4-29-86			-	-	-	-	<2.2	<1.1	-	-	
"	"	"	"	"			-	-	-	-	<2.2	29	-	-	Tank Sample
4-21-86	1430	8006 HRS	4-22-86	4-29-86			-	-	-	-	<2.2	<1.1	-	-	
"	"	"	"	"			-	-	-	-	<2.2	1140	-	-	Tank Sample
4-27-86	1245	8172 HRS	4-28-86	5-2-86			-	-	-	-	<2.2	14			
"	"	"	"	"			-	-	-	-	<2.2	31			Tank Sample
4-28-86	0925	8106 HRS	4-29-86	5-2-86			5.7	<0.5	17	800	-	-	0.5		city well static level = 121.2ft pumping level = 178.0ft
"	"	"	"	"			0.6	N.D.	17	825	-	-	<0.5	89	Tank Sample Tank 5ft down

Source 110-01

\*An "x" indicates data seen by designated person.  
 (1) CARBON TETRACHLORIDE  
 (2) CHLOROFORM  
 (3) STANDARD PLATE COUNT (COLONIES PER ML)  
 (4) COLIFORM NUMBER PER 100 ML  
 (5) C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES)  
 \* ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE  
 (6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

District LAS

Source 110-01

SPECIAL CHEMICAL ANALYSIS RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

Sampled			Date Tested	Date Reported	*GVA (x)	*RHT (x)	VOCs (u/L)						Comments			
Date	Time	Run Time					CCl <sub>4</sub> (u)	CH <sub>2</sub> Cl <sub>2</sub> (u)	TEMP. °C	K <sub>25</sub>	(3)	(4)		(5) #	(6)	
5-5-86	1337	8274 HR	5-6-86	6-10-86		✓	-	-	-	-	-	6	<2.2	-	-	
"	1338	"	"	"		✓	-	-	-	-	-	24	<2.2			Tank sample
5-12-86	1330	8442 HR	5-13-86	6-10-86		✓	-	-	-	-	-	<1	<2.2			Tank sample
"	1335	"	"	"		✓	-	-	-	-	-	188	<2.2			Tank sample
5-19-86	1335	8610 HR	5-20-86	6-10-86		✓	-	-	-	-	-	<1	<2.2			Tank sample
"	1327	"	"	"		✓	-	-	-	-	-	>5700	<2.2			Tank sample
6-4-86	1051	8946 HR	6-5-86	6-10-86		✓	-	-	-	-	-	<1	<2.2			Tank sample
"	1115	"	"	"		✓	-	-	-	-	-	>5700	<2.2			Tank sample
6-6-86	1045	8946 HR	6-6-86	6-10-86		✓	9.5	<0.5	19	745	-	-	<0.5	-		Tank sample
"	1115	"	"	"		✓	1.1	N.D.	19	745	-	-	NO	88		Tank sample
6-11-86	1650	9072 HR	6-12-86	7-17-86								37	<2.2			Tank sample
"	1640	"	"	"								>5700	<2.2			Tank sample
6-16-86	1346	9189 HR	6-17-86									<1	<2.2			Tank sample
"	1345	"	"									>5700	<2.2			Tank sample
6-23-86	1310	9351 HR	6-24-86									71	<2.2			Tank sample
"	1312	"	"									>5700	<2.2			Tank sample
6-30-86	0712	9513 HR	7-1-86									27	<2.2			Tank sample
"	0710	"	"									>5700	<2.2			Tank sample
7-2-86	0900	9561 HR	7-10-86				4.7	<0.5	17	Not sampled	-	-	1.1			Tank sample
"	0850	"	"				<0.5	<0.5	17	"	-	-	N.D.	93		Tank sample

\*An "x" indicates data seen by designated person.  
 (U) CARBON TETRACHLORIDE  
 (D) CHLOROPHE  
 (S) STANDARD PLATE COUNT (COLONIES PER ML)  
 (O) CALIFORM NUMBER PER 100 ML

(L) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

(5) C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES)  
 \* ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE

Source 110-01

District LAS

Source 110-01

SPECIAL CHEMICAL ANALYSIS RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)	VOCs 43/2						Comments				
Date	Time	Run Time					CCl <sub>4</sub> (1)	CHCl <sub>3</sub> (2)	TEMP. °C	K <sub>25</sub>	(3)	(4)		(5) *	(6)		
7-7-86	1305	9600 HR	7-8-86	7-17-86													
"	1310	"	"	↓													
7-14-86	-	-	-	↓													

Tank Sample  
 Both Well and Tank  
 out of service

\*An "x" indicates data seen by designated person.  
 U CARBON TETRACHLORIDE  
 D CHLOROFORM  
 U STANDARD PLATE COUNT (COLONIES PER ML)  
 D COLIFORM NUMBER PER 100 ML  
 D C<sub>3</sub>H<sub>2</sub>Br<sub>2</sub>ClF - 1,1-DIBROMO-2-CHLORO-2-FLUORO CYCLOPROPANE (IDENTIFIED BY GC/MS AT STATE DEPARTMENT OF HEALTH SERVICES.)  
 † ESTIMATED CONCENTRATION BASED ON CHLORODIBROMOMETHANE'S RESPONSE FACTOR.  
 (6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

Source 110-01

SPECIAL CHEMICAL ANALYSIS RESULTS  
 CARBON TETRACHLORIDE REMOVAL  
 BY AERATION TREATMENT

District LAS  
 Source 110-01

Sampled			Date Tested	Date Reported	*GHA (x)	*RHT (x)	VOCs %/L						Comments		
Date	Time	Run Time					CCL <sub>4</sub> (1)	CHCl <sub>3</sub> (2)	TEMP. °C	K <sub>25</sub>	(3)	(4)		(5)	(6)
6-10-85	845	672 HRS.	6-21-85	6-25-85			8.4	N.D.	18.5	820	570	<2.2	+		PUMPING DEPTH TO WATER = 171.0 FT. UNIDENTIFIED PEAK.
"	847	—	"	"			0.8	N.D.	18.5	825	5700	<2.2	4	90	UNIDENTIFIED PEAK. TANK @ 110-01.
6-19-85	—	864 HRS.	6-19-85	6-21-85			—	—	—	—	30	<2.2	—	—	
"	—	—	"	"			—	—	—	—	248	<2.2	—	—	TANK @ 110-01.
6-24-85	910	1008 HRS.	6-26-85	6-27-85			8.3	N.D.	18.5	880	8	<2.2	—		PUMPING DEPTH TO WATER = 173.0 FT. UNIDENTIFIED PEAK.
"	912	—	"	"			0.9	N.D.	18.5	870	106	<2.2	4	89	UNIDENTIFIED PEAK. TANK @ 110-01.
7-1-85	830	1176 HRS.	7-2-85	7-4-85			—	—	—	—	190	<2.2	—	—	
"	830	—	"	"			—	—	—	—	25700	<2.2	—	—	TANK @ 110-01.
7-8-85	1030	1344 HRS.	7-9-85	7-11-85			—	—	—	—	56	<2.2	—	—	
"	1030	—	"	"			—	—	—	—	140	<2.2	—	—	TANK @ 110-01.
7-15-85	1215	1512 HRS.	7-16-85	7-18-85			—	—	—	—	40	<2.2	—	—	
"	1215	—	"	"			—	—	—	—	80	<2.2	—	—	TANK @ 110-01.
7-22-85	1105	1680 HRS.	7-23-85	7-25-85			—	—	—	—	91	<2.2	—	—	
"	1105	—	"	"			—	—	—	—	380	<2.2	—	—	TANK @ 110-01.
7-23-85	0945	1703 HRS.	7-25-85	7-26-85			5.7	—	—	—	—	—	—	—	UNIDENTIFIED PEAK.
"	0945	—	"	"			0.5	—	—	—	—	—	—	—	TANK @ 110-01

\*An "x" indicates data seen by designated person.

(1) CARBON TETRACHLORIDE

(2) CHLOROFORM

(3) STANDARD PLATE COUNT (COLONIES PER ML)

(4) COLIFORM NUMBER PER 100 ML'S

(5) DISTANCE (IN FT.) OF WATER FROM TOP OF TANK.

(6) CARBON TETRACHLORIDE REMOVAL EFFICIENCY IN %

SPECIAL CHEMICAL SAMPLE RESULTS

District LAS  
 Source 110-01

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)	VOCs ug/L			Comments
Date	Time	Run Time					CCl <sub>4</sub> (1)	CHCl <sub>3</sub> (2)	PCE	
7-17-84	—	.5hr.	—	—	X	X	5.4	N.D.	N.D.	
7-23-84	—	1.5hrs.	—	—	X	X	9.1	N.D.	"	
8-1-84	—	5min.	—	—	X	X	17.1	N.D.	"	Unidentified peak.
"	—	1 hr.	—	—	X	X	9.4	N.D.	"	" "
9-20-84	—	2.5hrs	—	9-25-84	X	X	9.2	N.D.	"	" "
"	—	2.5hrs	—	"	X	X	7.0	N.D.	"	Aerated sample
11-2-84	—	2hrs.	—	11-12-84	X	X	6.8	<0.5	"	
12-7-84	—	2hrs.	—	12-17-84	X	X	7.2	N.D.	<0.5	
1-18-85	—	2 hrs.	—	1-23-85	X	X	7.3	"	N.D.	
1-29-85	1443	15min.	1-30-85	1-31-85	X	X	6.2	"	"	
"	1449	—	"	"	X	X	0.6	"	"	Sample collected at top of tank at well 110-01 (Special aerated sample).
"	1520	—	"	"	X	X	1.0	"	<0.5	Tank report at 110-01 when H <sub>2</sub> O in tank was 2.5 ft. deep (special aerated sample).
"	1545	45min.	"	"	X	X	10.5	"	N.D.	
"	1547	—	"	"	X	X	1.9	"	"	Top of tank at 110-01 (Special aerated sample)
"	1548	—	"	"	X	X	1.8	"	"	Tank report at 110-01 when H <sub>2</sub> O in tank was 2.5 ft. deep (special aerated sample).
3-26-85	1100	2hrs.	3-27-85	4-8-85	✓	X	13.6	"	"	
4-24-85	1453	3hrs.	4-24-85	4-25-85			10.4	<0.5	"	

\*An "x" indicates data seen by designated person.

- (1) CCl<sub>4</sub>
- (2) Chloroform

Source 110-01  
 ATTACHMENT 2

**SPECIAL CHEMICAL SAMPLE RESULTS**

District LAS  
 Source 104-02

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)					Comments
Date	Time	Run Time									
7-12-94	-	3hrs.	-	-	X	X					No VOCs detected.
11-2-94	-	2hrs.	-	11-12-94	X	X					" " "
2-26-95	-	2hrs.	-	3-9-95	X	X					" " "
4-24-95	1512	3hrs.	4-25-95	4-25-95	L	✓					" " "
7-23-85	0930	4hrs.	7-25-85	7-26-85	✓	✓					" " "
11-6-85	1203	3hrs	11-18-85	11-19-85	✓	✓					" " "

\*An "x" indicates data seen by designated person.

Source 104-02  
LAS

SPECIAL CHEMICAL SAMPLE RESULTS

District LAS  
 Source 108-01

Sampled			Date Tested	Date Reported	*GWA (x)	*RHT (x)					Comments
Date	Time	Run Time									
7-11-84	-	2hrs.	-	-	x	x					No VOC's detected.
11-2-84	-	2hrs.	-	11-12-84	x	x					" " "
12-7-84	-	2hrs.	-	12-18-84	x	x					" " "
1-17-85	-	2.5hrs.	-	1-23-85	x	x					" " "
2-26-85	-	2.5hrs.	-	3-8-85	x	x					" " "
4-24-85	1441	3hrs.	4-25-85	4-25-85	✓	✓					" " "
7-23-85	1005	2hrs.	7-25-85	7-26-85	✓	✓					" " "
10-21-85	1030	2HRS	10-22-85	10-23-85	✓	✓					" " "

\*An "x" indicates data seen by designated person.

Source 108-01  
 LAS

SPECIAL CHEMICAL SAMPLE RESULTS

District LAS  
 Source 116-01

Sampled			Date Tested	Date Reported	*GWA (x)	*BHT (x)	VOCs 40/L				Comments
Date	Time	Run Time									
7-17-84	-	2 hrs.	-	-	X	X					No VOCs detected.
11-2-84	-	2 hrs.	-	11-12-84	X	X					" " "
12-7-84	-	2 hrs.	-	12-19-84	X	X					" " "
1-18-85	-	2 1/2 hrs.	-	1-23-85	X	X					" " "
2-26-85	-	2 hrs.	-	3-8-85	X	X					" " "
3-19-85	1545	7 <sup>0</sup> hrs.	3-20-85	3-22-85	X	✓					" " "
4-24-85	1427	2 hrs.	4-25-85	4-25-85	✓	✓					" " "
7-23-85	0955	4 hrs.	7-25-85	7-26-85	✓	✓					" " "
10-21-85	1045	2 hrs.	10-22-85	10-23-85	✓	✓					" " "

\*An "x" indicates data seen by designated person.

Source 116-01  
 LAS



LABORATORY RECORD PARTIAL CHEMICAL ANALYSIS OF WATER

Plant LAS  
Date Collected 1-29-85  
Reason for Test VOC's - special

Analysis No. 98077  
Date of Test 1-30-85  
Report to \_\_\_\_\_  
Reported: 1-31-85

Sample	Time	Collector	VOC's	Conc. ug/L			
WELL ON	1428						
Well 110-01	1443	George Adrien	(1) CCl <sub>4</sub>	6.2		Time = 15 MIN.	
Top of tank at well 110-01	1444	"	(1) CCl <sub>4</sub>	0.6		Water Depth - 4 1/2 ft. 90% removal of carbon test	
WELL OFF 1445 - 1450							
Tank faucet at 110-01 when H <sub>2</sub> O in tank was 3 1/2 ft. deep.	1520	"	(1) CCl <sub>4</sub> (2) C <sub>2</sub> Cl <sub>4</sub>	1.0 <0.5			
WELL ON 1520, BUT Q THROTTLED							
110-01	1545	"	(1) CCl <sub>4</sub>	10.5		TIME = 45 MIN.	
Top of tank at 110-01	1547	"	(1) CCl <sub>4</sub>	1.9		Water Depth - 5 1/2 ft. 82% removal of carbon test	
Tank faucet at 110-01 when H <sub>2</sub> O in tank was 5 1/2 ft. deep.	1548	"	(1) CCl <sub>4</sub>	1.8			
						Tank Depth = 6 1/2 ft.	
(1) Carbon tetrachloride (2) PCE (1,1,2,2-Tetrachloroethane)							

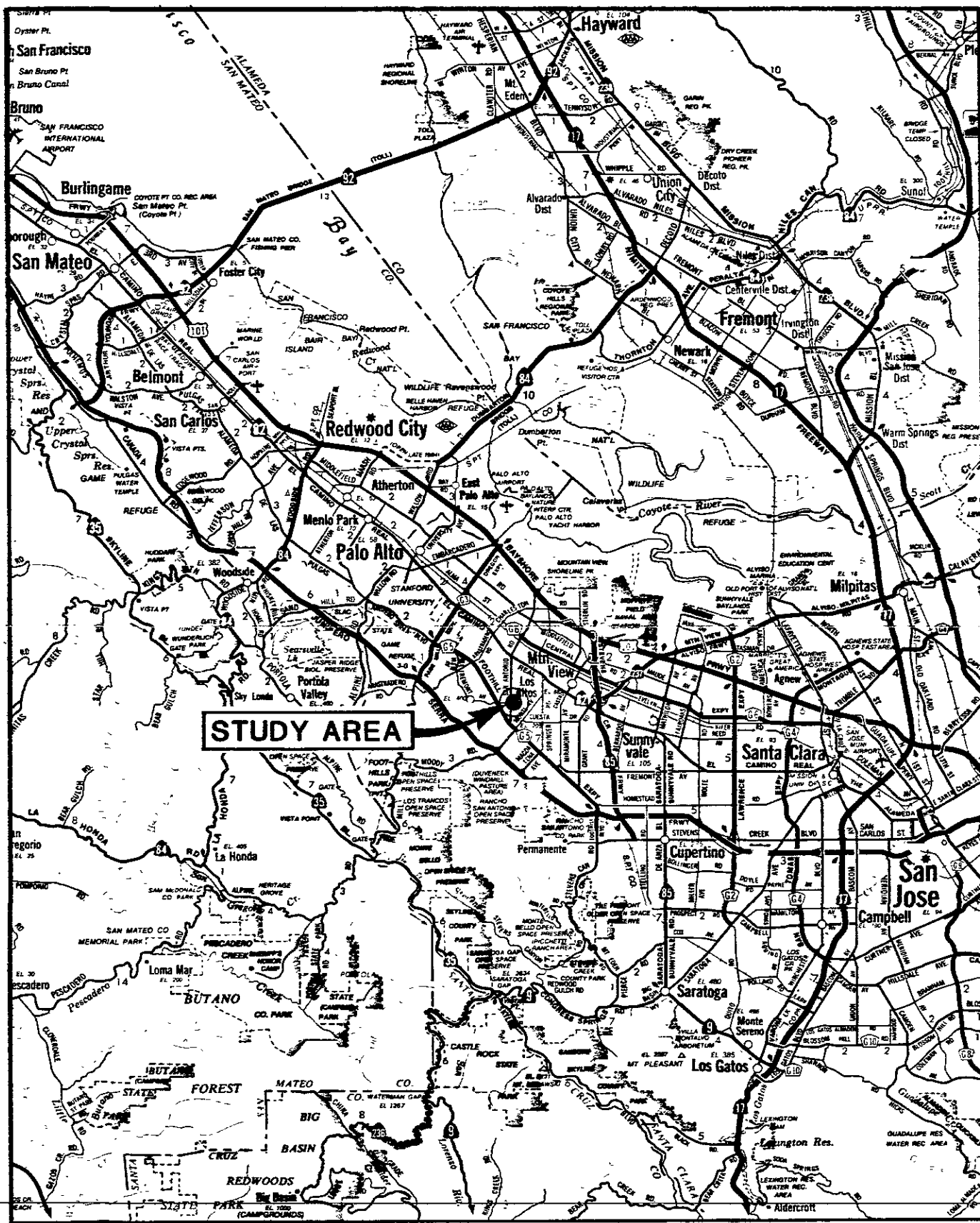
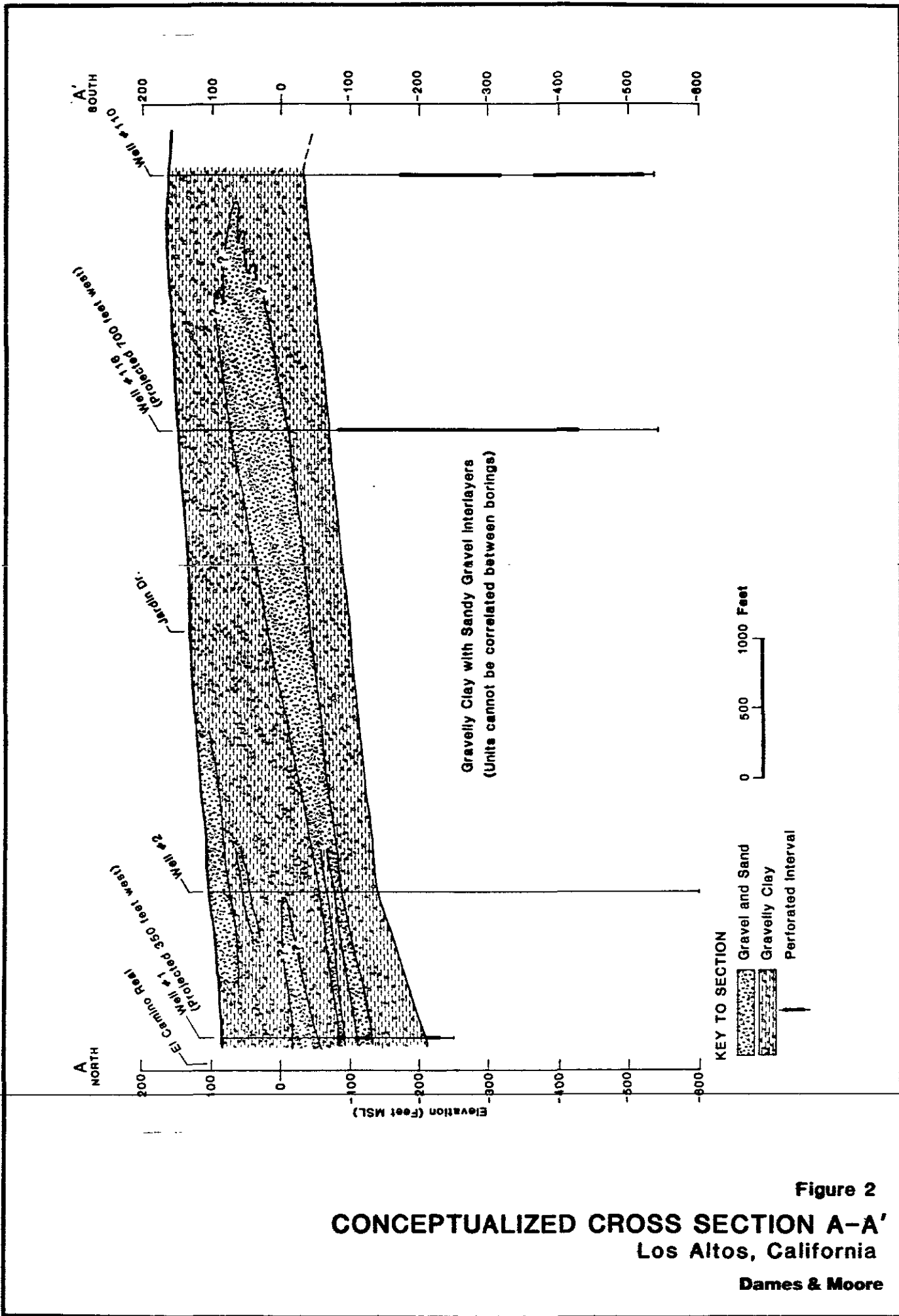
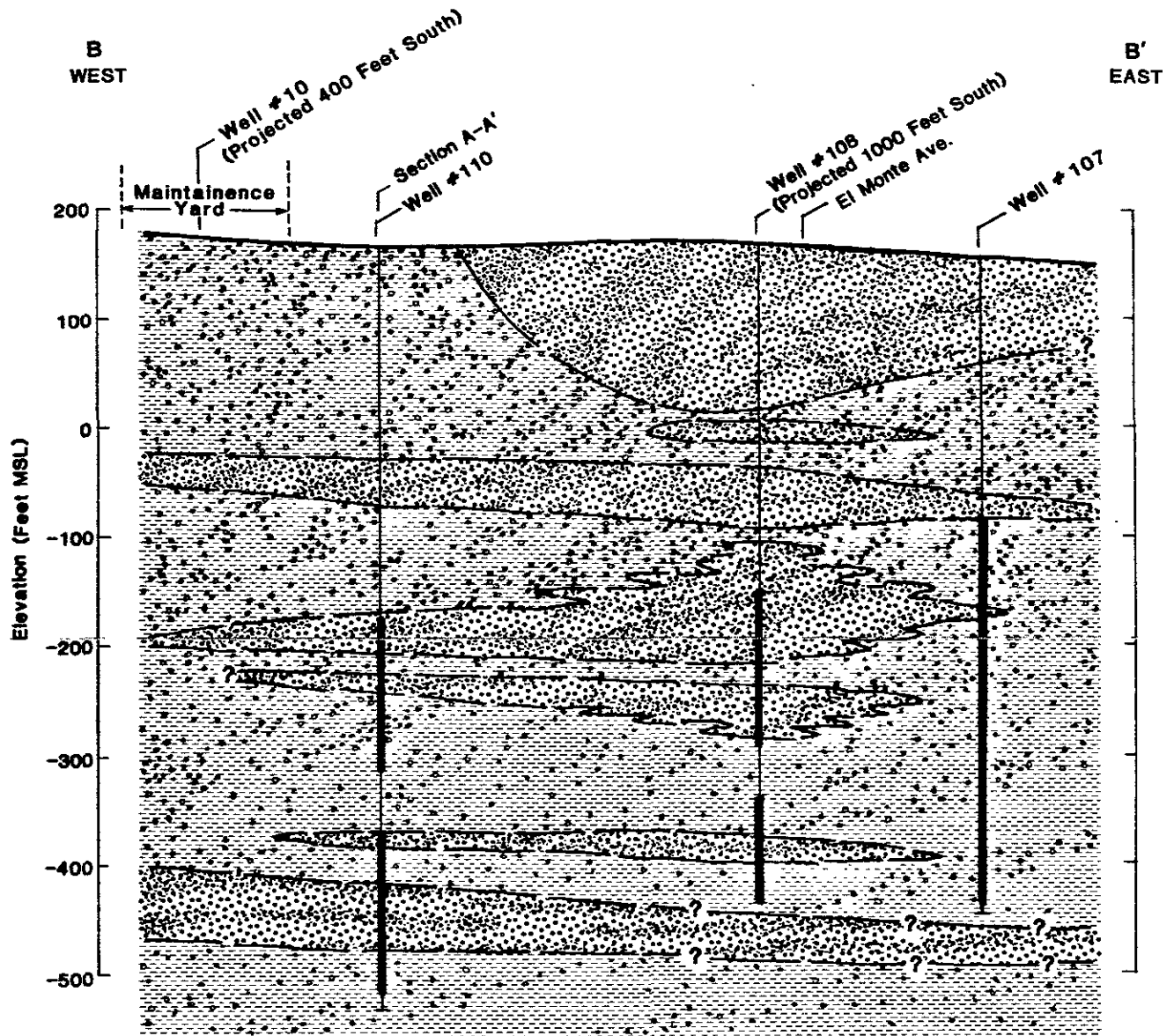

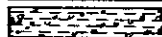



Figure 1  
**VICINITY MAP**  
 Los Altos, California  
 Dames & Moore



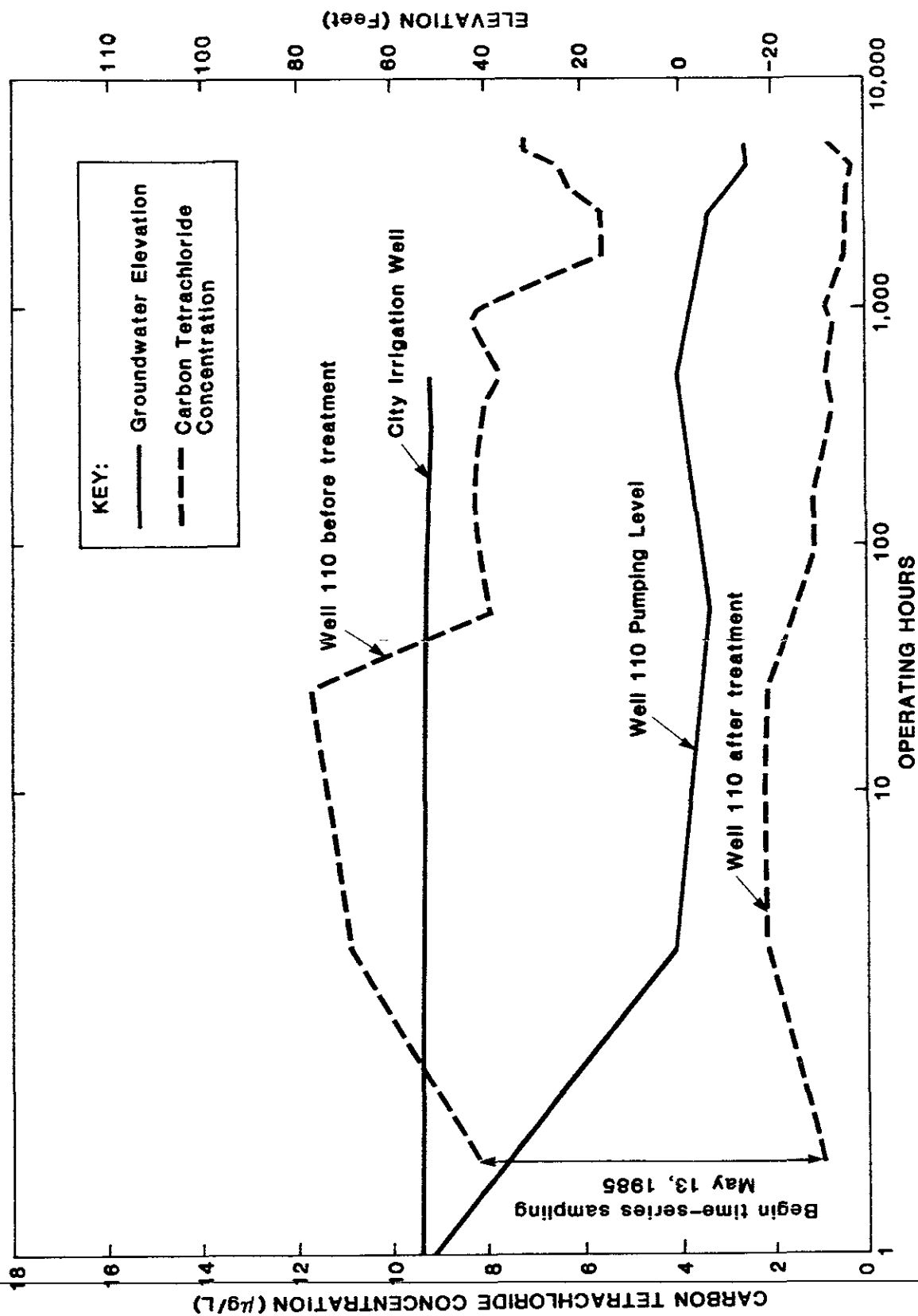


**KEY TO SECTION**

-  Gravel and Sand
-  Gravelly Clay
-  Perforated Interval

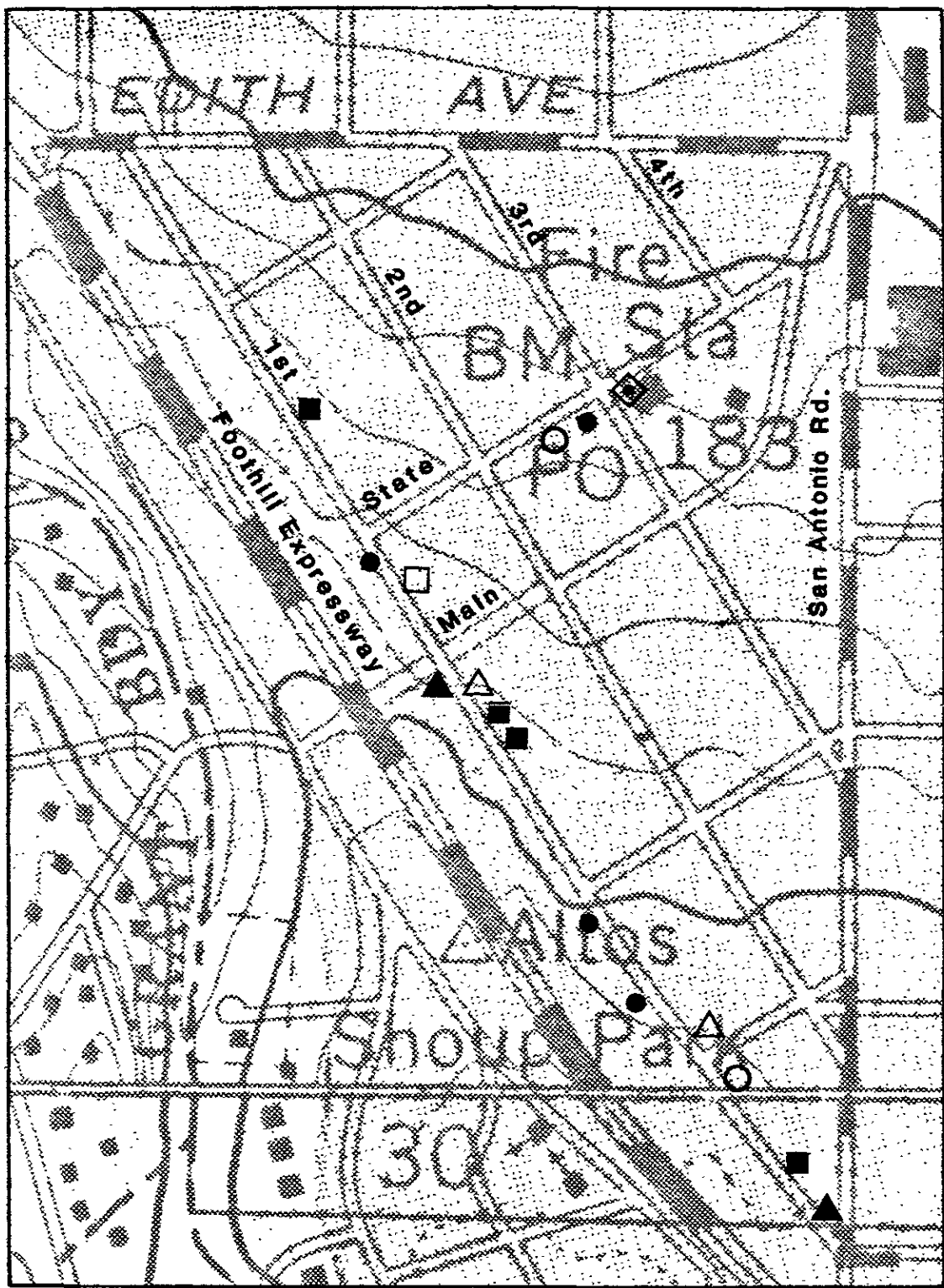
0 500 1000 Feet

**Figure 3**  
**CONCEPTUALIZED CROSS SECTION B-B'**  
 Los Altos, California  
 Dames & Moore



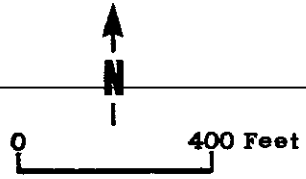
Source: California Water Service

Figure 4  
**CARBON TETRACHLORIDE  
 CONCENTRATION VS. TIME - CWS WELL 110**  
 Los Altos, California  
 Dames & Moore



**LEGEND**

- |                      |                      |                             |
|----------------------|----------------------|-----------------------------|
| ▲ Gas Stations       | △ Former Gas Station | □ Former Auto Repair Garage |
| ● Cleaners           | ○ Former Cleaners    |                             |
| ■ Auto Repair Garage | ◇ Old Fire Station   |                             |

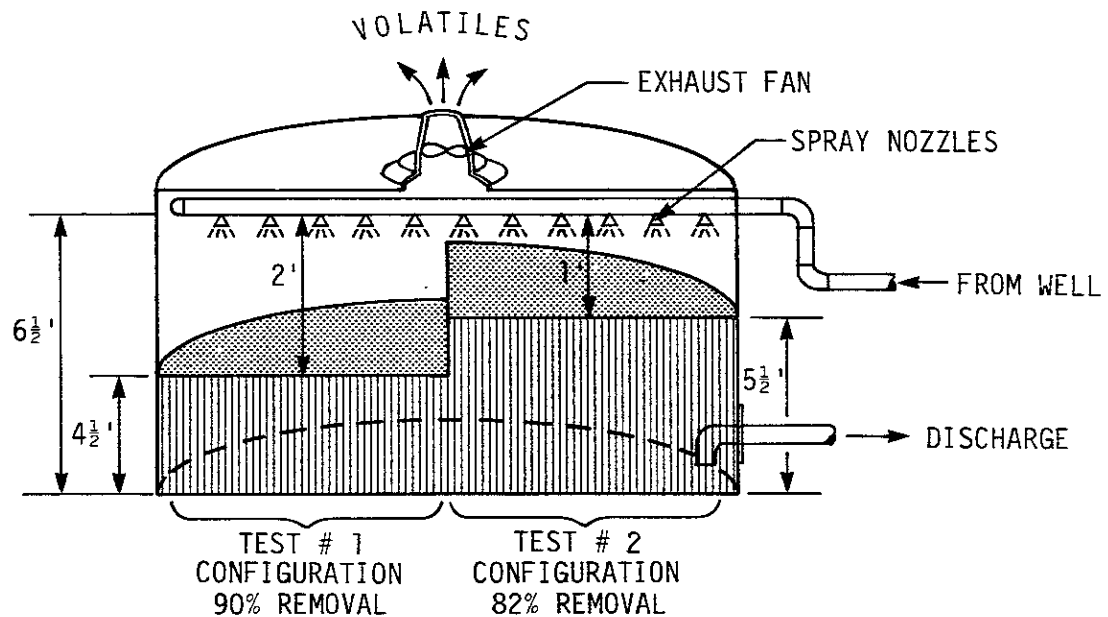


**Figure 5**  
**PAST AND PRESENT LOCATIONS OF DRY CLEANERS,**  
**GAS STATIONS, AND AUTO REPAIR GARAGES**  
 Downtown Los Altos, California

LOS ALTOS STATION 110-01

Carbon tetrachloride removal using  
spray aeration - Test Date: January 29, 1985

	<u>Test 1</u>	<u>Test 2</u>
Tank depth	6.5 ft.	6.5 ft.
Water depth in tank	4.5 ft.	5.5 ft.
Spray exposure	2.0 ft.	1.0 ft.
Carbon tet conc. (initial)	6.2 ug/L	10.5 ug/L
Carbon tet conc. after spray	0.6 ug/L	1.9 ug/L
% carbon tet removal	90%	82%



These results indicate greater than 80% removal of carbon tetrachloride during the least favorable operating conditions; i.e. highest carbon tet concentration with least spray exposure (highest water level). Increasing the spray exposure by decreasing the water depth in the tank, increases the carbon tet removal. Ideal conditions would be to maintain the water level in the tank at less than 4.5 feet to maximize water/air exposure and carbon tet removal.

Source: California Water Service

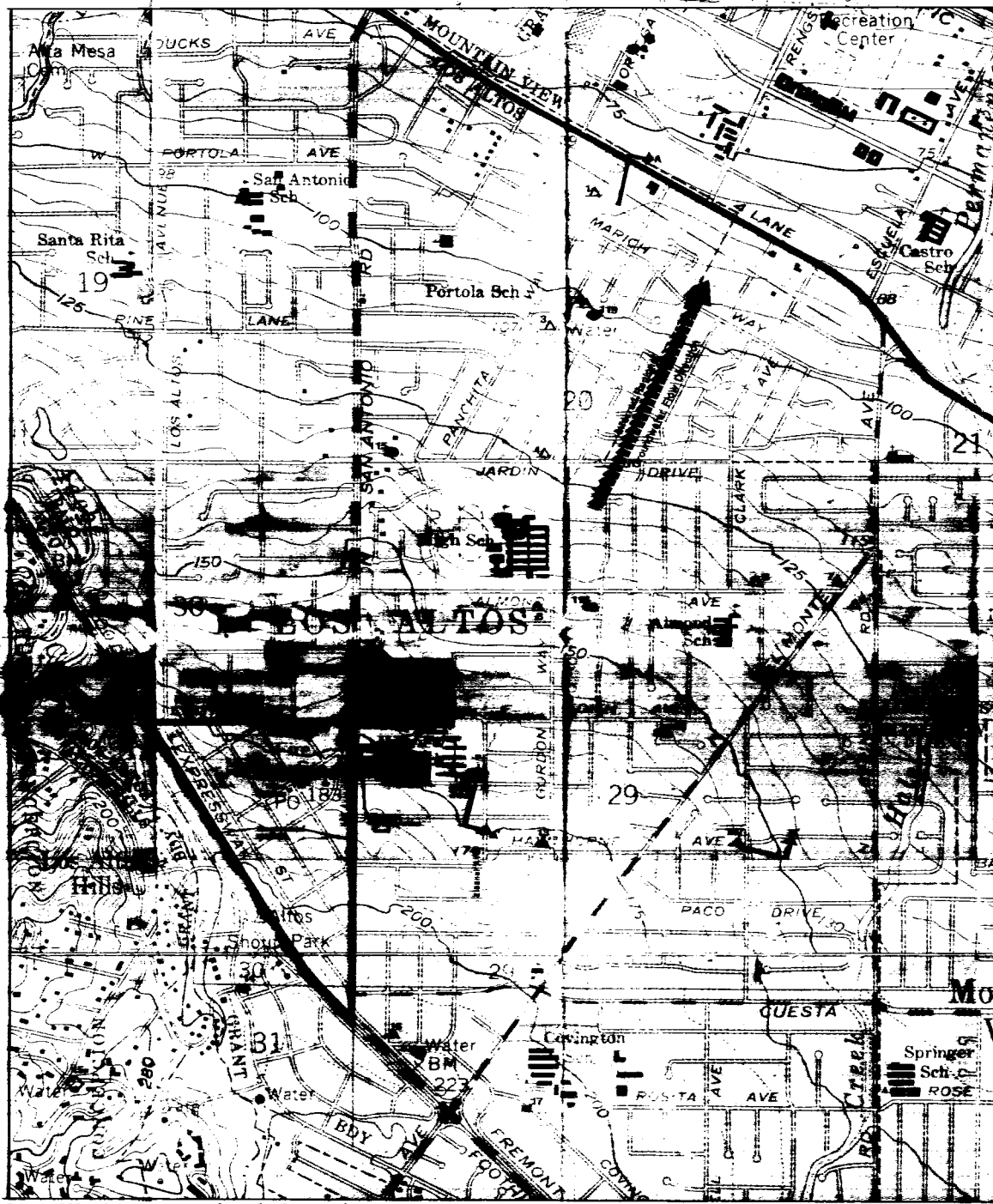
Figure 6  
**AERATION SYSTEM SCHEMATIC DIAGRAM**  
California Water Service Well 110  
Los Altos, California

**Dames & Moore**

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S. C. V. W. D.





#### KEY TO WELL SYMBOLS

- ① Sampled - Under Waterworks District
- ② Sampled - On Under Waterworks District
- ③ Not Sampled - Out of Service
- ④ Not Sampled - Abandoned
- ⑤ Well - No Sample
- ⑥ Junction - No Sample
- ⑦ Meter Station
- ⑧ Former Orchard

#### 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

1. [Symbol] - [Description]
2. [Symbol] - [Description]
3. [Symbol] - [Description]

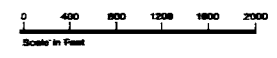
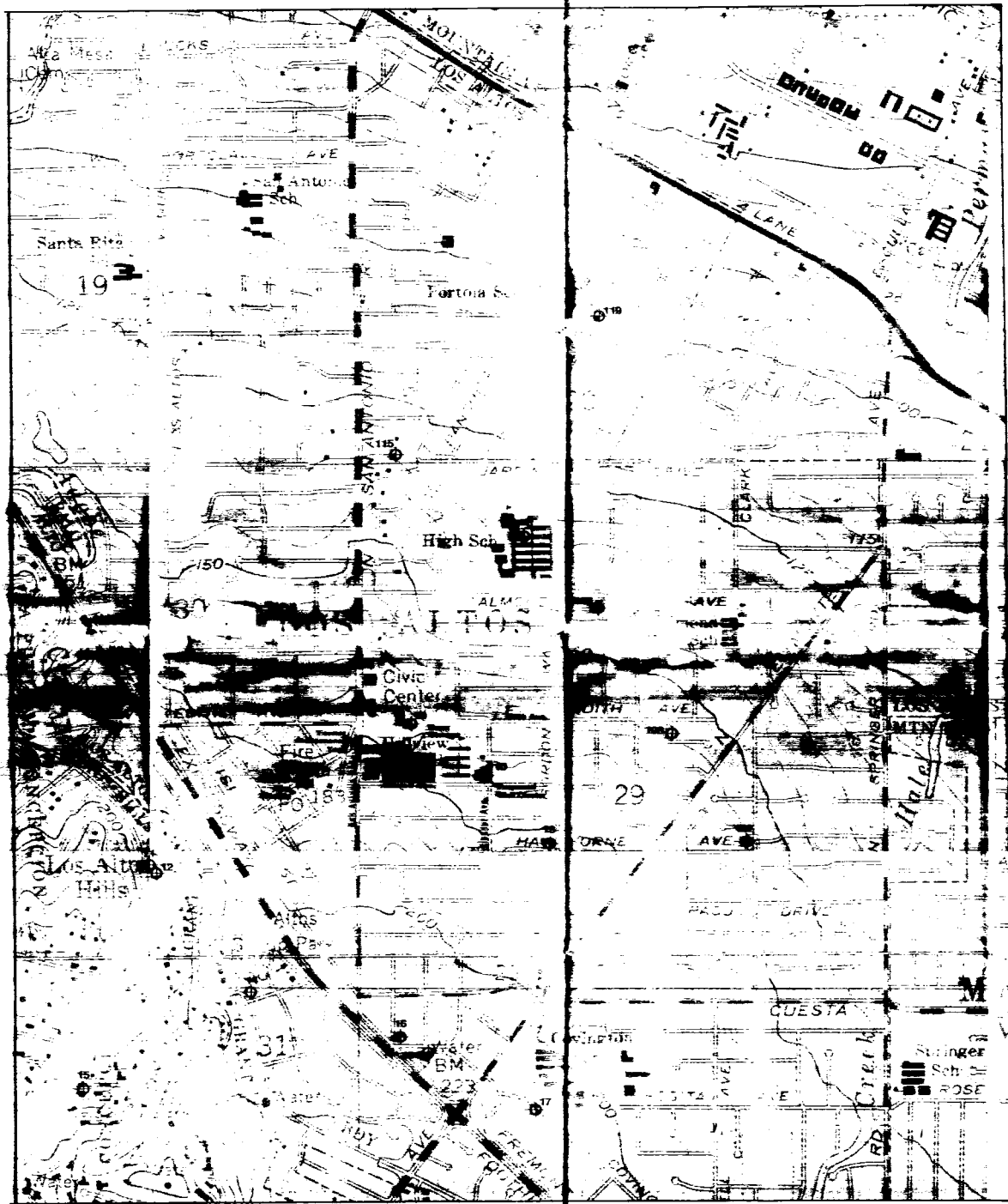
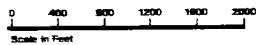


PLATE 1  
WELL LOCATION  
AND STATUS MAP  
LOS ALTOS, CALIFORNIA



**KEY**

- 11 Site Proposed for Streambed Sampling
- 12 Site Proposed for Streambed Sampling and Stream Sampling
- 13 Site Proposed for Streambed Sampling, Stream Sampling and Micro Logging
- 14 Area Proposed for Soil Site Survey



**PLATE 2**  
**RECOMMENDED FIELD**  
**INVESTIGATION**  
**LOS ALTOS, CALIFORNIA**



# ecology and environment, inc.

160 SPEAR STREET, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415/777-2811

International Specialists in the Environment

## SCREENING SITE INSPECTION REASSESSMENT

**SUBMITTED TO:** Carolyn Douglas, Site Assessment Manager  
EPA Region IX

**PREPARED BY:** Cathleen Cauz, Ecology and Environment, Inc.

**THROUGH:** Daniel Hafley, Ecology and Environment, Inc.

**DATE:** June 12, 1990

**SITE:** Los Altos Well Field

**TDD#:** F9-9002-41

**EPA ID#:** CAD980994464

**PROGRAM ACCOUNT#:** FCA1432SAA

16 169  
 RECEIVED  
 DEPT. OF HEALTH SERVICES  
 1990 OCT 18 AM 11:17  
 TSCP/REGION 2  
 [Signature]

**FIT REVIEW/CONCURRENCE:** *James M. James 6/12/90*

**cc:** FIT Master File  
 Don Plain, California Department of Health Services

### INTRODUCTION

The U.S. Environmental Protection Agency, Region IX, has tasked Ecology and Environment, Inc.'s Field Investigation Team (FIT) to reassess all sites with completed Screening Site Inspections (SSI) in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database that are still being considered for further action. The strategy for determining whether these sites actually merit further action is based primarily on each site's potential to achieve a score high enough on the proposed revised Hazard Ranking System (rHRS) for inclusion on the National Priorities List (NPL). This strategy is intended to identify those sites posing the highest relative risk to human health or the environment. All other sites needing remedial or enforcement follow-up will be referred to the states or an appropriate federal authority. Actions and involvement by authorities other than the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) will also be considered.

cc/losaltoswell/si-re

## SUMMARY

The Los Altos Well Field site consists of all groundwater wells in the Los Altos area of Santa Clara County, California (1). California Water Service Company Well #110 is located near the northwestern corner of Hillview and Eleanor Avenues in Los Altos (1,2). In July 1984, water samples obtained from this municipal well by the California Water Service Company (CWSC) indicated the presence of carbon tetrachloride as high as 9.1 µg/l. In August 1984, CWSC sampled City of Los Altos irrigation Well #10, located 400 feet northwest of Well #110. Carbon tetrachloride was detected at 10.1 µg/l (2,3,4). In the same period of time that carbon tetrachloride was detected in Wells #10 and #110, eight other private and municipal wells in the area were sampled for carbon tetrachloride. None of these wells showed detectable levels of carbon tetrachloride. Eleven other wells in the area were determined to be out of service or abandoned, and thus were not sampled (4).

Well #110 was removed from service on July 31, 1984 (4). After an aeration system was installed to treat the contaminated groundwater, Well #110 returned to service in January 1985. This aeration system removed a sufficient amount of carbon tetrachloride to meet the EPA drinking water quality criterion for a Maximum Contaminant Level (MCL) of 5 µg/l for carbon tetrachloride (2,4). In February 1989, California Title 22 adopted a new state action level of 0.5 µg/l for carbon tetrachloride (5). Well #110 has since been removed from service and will probably be abandoned due to the inability of the aeration system to reach this new state action level (6).

Well #110 was constructed in 1952 and was used only during peak demand periods. The well is approximately 700 feet deep, with perforations beginning at 356 feet below ground surface (bgs). The total depth and screened intervals for Well #10 are not known (4).

The city of Los Altos is located at the northwestern edge of the Santa Clara Valley groundwater basin, at the apex of the Adobe Creek alluvial fan. According to available well logs, this section of the fan consists of poorly graded material of low permeability. Intercalated with this massive section are thin, well-sorted beds of sands and gravels which constitute the principal aquifer zones. The local hydraulic gradient is not known. Local flow conditions are greatly influenced by well pumpage. The regional groundwater flow is toward the northeast (7). Depths to groundwater in the vicinity of the site range between 64 and 165 feet bgs (4).

CWSC operates 37 municipal wells within 3 miles of the two contaminated wells. The nearest CWSC well is located approximately 0.3 mile east of Wells #10 and #110 (9). Groundwater from these wells is blended with water purchased from the Santa Clara Valley Water District. Approximately one-third of the total water supplied by CWSC is from the system of groundwater wells. This blend of water serves all of Los Altos, most of Los Altos Hills, small portions of Sunnyvale and Mountain View, and approximately one-third of Cupertino. In all, CWSC serves 17,600 connections (6).

## OTHER AUTHORITY INVOLVEMENT

Well #110 is already listed as a CERCLA site under the name Hillview-Eleanor (CAD982400053). A CERCLA Preliminary Assessment of the Hillview-Eleanor site was completed in February 1989; it was then concluded that no further action was warranted under CERCLA since the site had no history of using, storing, or disposing of hazardous substances (8).

The California Department of Health Services (DHS) is the lead agency for the Los Altos Well Field site. Although DHS is addressing the groundwater contamination under the site name of Hillview-Eleanor, the scope of work is not limited to Well #110 but rather encompasses groundwater contamination in the entire Los Altos area. The site is listed on the State Bond Expenditure Plan under the category of sites undergoing characterization by DHS because responsible parties cannot be identified (13). In January 1987, a DHS consultant conducted a preliminary assessment and identified potential sources of the local groundwater contamination. An initial inventory of potential sources included existing and former gas stations, dry cleaners, auto repair garages, a former school district maintenance yard, and a former fire station (see Appendix B, Potential Source Location Map) (2,10).

Another consultant to DHS conducted a two-phase soil and soil gas survey of the site area. During the first phase in September 1987, 22 soil and soil gas samples were obtained at potential contaminant sources. Then in the second phase in November 1987, 89 soil gas samples were collected, encompassing a broader area. The two-phase survey indicated the presence of carbon tetrachloride, trichloroethene, 1,1,2-trichlorotrifluoroethane, perchloroethene, and hydrocarbons in subsurface soils in a number of areas. The highest concentrations occurred in the vicinity of the dry cleaners. DHS determined that the detected contamination was present in local subsurface soils and was not caused by vapors migrating vertically from the groundwater (2).

A subsequent DHS investigation involved the drilling and collecting of soil samples from 31 30-foot borings. In addition, four deep boreholes (approximately 700 feet bgs) were drilled to obtain general geologic information (2,11). The shallow borings were drilled near the two contaminated wells and in areas formerly identified as potential sources (see Appendix B, Soil Boring Locations) (2,10,11). Neither carbon tetrachloride nor any other volatile organic contaminants were detected in any shallow boring samples. DHS has thus eliminated the dry cleaners as a potential source. DHS is now speculating that the contamination may be a very localized phenomena and possibly due to old septic tanks at Los Altos Civic Center or to the former school district maintenance yard (also known as the Hillview Maintenance Yard) (11). Both the Civic Center and the Hillview Maintenance Yard are located within 0.25 mile of the two contaminated wells (1).

A CERCLA Preliminary Assessment of the Hillview Maintenance Yard (CAD982400202) was completed in October 1989 and recommended a medium priority Screening Site Inspection of the site (12). A search of the April 1990 CERCLA database did not find listings for any of the other

potential sources identified by DHS.

At the time of this report, DHS was in the process of resampling the two contaminated wells (#10 and #110). There were no plans to sample other wells in the Los Altos Well Field to determine if carbon tetrachloride contamination had migrated to other wells. It is likely that DHS will require the owners of Wells #10 and #110 to begin monitoring on a regular basis (11).

**SUMMARY OF HRS CONSIDERATIONS**

As of this report, Wells #10 and #110 were the only two wells in the Los Altos Well Field found to be contaminated with carbon tetrachloride. There are many potential sources of contamination for Wells #10 and #110. Currently, however, there is no evidence to link the contamination to a specific source. Under the proposed revised Hazard Ranking System (rHRS), it is necessary to identify the source(s) of contamination. Therefore, the carbon tetrachloride contamination of wells located in the Los Altos Well Field cannot be evaluated as a distinct site at this time.

**EPA RECOMMENDATION**

	<u>Initial</u>	<u>Date</u>
No Further Remedial Action Planned (NFRAP)	<u>cyd</u>	<u>9/10/90</u>
Low-priority LSI (lLSI)	_____	_____
Medium-priority LSI (mLSI)	_____	_____
High-priority LSI (hLSI)	_____	_____
Refer to Other Authority (R)	_____	_____

## References

1. U.S. Geological Survey, map of Mountain View, California, 7.5' Quadrangle map, 1961 (photorevised 1981).
2. California Department of Health Services, "Update on Los Altos Groundwater Contamination, Hillview-Eleanor Site," August 15, 1988.
3. California Department of Health Services, "Fact Sheet on Hillview-Eleanor Site," April 1988.
4. Dames & Moore, "Preliminary Site Assessment and Investigation Report, Hillview-Eleanor Area, Los Altos, California," prepared for California Department of Health Services, January 1987.
5. Sun, Stanley, California Department of Health Services, and Cathleen Cauz, Ecology and Environment, Inc. Field Investigation Team (E & E FIT), telephone conversation, March 21, 1990.
6. Steele, Rick, California Water Service Company, and Cathleen Cauz, E & E FIT, telephone conversation, March 21, 1990.
7. Iwamura, Thomas, Santa Clara Valley Water District, to Adrian, George, California Water Service Company, letter re: Contamination of Station 110 Well at Los Altos, dated January 15, 1985.
8. ICF Technology Incorporated, "Preliminary Assessment of Hillview-Eleanor Site (CAD982400053)", prepared by Sonja Echeverria, February 1, 1989.
9. California Water Service Company, "Los Altos - Suburban District, Well Production - Year 1983, Schedule D-1".
10. Canonie Environmental, "Phase One Remedial Investigation, Hillview-Eleanor, Los Altos, California," prepared for California Department of Health Services, August 1989.
11. Sun, Stanley, California Department of Health Services, and Cathleen Cauz, E & E FIT, telephone conversation, April 25, 1990.
12. ICF Technology Incorporated, "Preliminary Assessment of Hillview Maintenance Yard (CAD982400202)", prepared by Charles So, October 10, 1989.
13. California Department of Health Services, "Expenditure Plan for the Hazardous Substance Cleanup Bond Act of 1984," originally published January 1985, revised January 1989.

---

**Appendix A**

**Contact Reports**



**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> California Water Service Company		
<b>DEPARTMENT:</b>		
<b>ADDRESS/CITY:</b> Los Altos		
<b>COUNTY/STATE/ZIP:</b> Santa Clara County, California		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Rick Steele		(415)968-1686
2.		
<b>E &amp; E PERSON MAKING CONTACT:</b> Cathleen Cauz		<b>DATE:</b> 3/21/90
<b>SUBJECT:</b> Well #110, groundwater service		
<b>SITE NAME:</b> Los Altos Well Field		<b>EPA ID#:</b> CAD980994464

Well #110 is not currently being used. The MCL for carbon tetrachloride has been reduced and the California Water Service does not feel that the aeration system could bring the water up to the necessary standards, that is, reduce the concentration of carbon tetrachloride to below the new MCL. They will probably abandon the well.

Two-thirds of the total water provided by the California Water Service in the Los Altos district is purchased from the Santa Clara Valley Water District. This water is blended with California Water Service groundwater. They have 17,600 services (connections). This water serves all of Los Altos, most of Los Altos Hills, very small portions of Sunnyvale and Mountain View, and one-third of Cupertino.

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> California Department of Health Services		
<b>DEPARTMENT:</b> Toxic Substances Control Division		
<b>ADDRESS/CITY:</b> 700 Heinz Street, Building F, Berkeley		
<b>COUNTY/STATE/ZIP:</b> Alameda, California		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Remedios Sunga	Project Officer	(415) 540-2122
2. Stanley Sun	Project Officer	(415)540-3835
<b>E &amp; E PERSON MAKING CONTACT:</b> Cathleen Cauz		<b>DATE:</b> 3/21/90
<b>SUBJECT:</b> Hillview-Eleanor site		
<b>SITE NAME:</b> Los Altos Well Field		<b>EPA ID#:</b> CAD980994464

Stanley Sun is the new project officer for the site. A soil gas survey was done by Canonie Environmental for the area. No conclusions could be drawn from this study as to where contamination of groundwater well came from. Carbon tetrachloride was detected above detection limits in surface soil samples, but nothing was detected in 30 foot deep boreholes. No contamination has been detected in any other wells except for #110 and #10. Well #110 is sampled more frequently than #10 because it is with the California Water Service. Water sampling results will be in either at the end of this month or the beginning of next month.

Well #110 is no longer being used because of a new, more stringent Maximum Contaminant Level (MCL) for carbon tetrachloride. The old MCL was 5 µg/l; the new MCL is 0.5 µg/l. The aeration system would probably not satisfy this requirement. California Water Service may abandon well #110, but this has not yet been approved by DHS. The MCL that Stanley is referring to is not the federal (Clean Drinking Water Act) MCL but rather the MCL given by California Title 22. The federal MCL is still 5 µg/l. The Title 22 MCL was changed in February 1989.

~~CONTACT REPORT~~

<b>AGENCY/AFFILIATION:</b> California Department of Health Services		
<b>DEPARTMENT:</b> Toxic Substance Control Division		
<b>ADDRESS/CITY:</b> 700 Heinz Street, Building F, Berkeley		
<b>COUNTY/STATE/ZIP:</b> Alameda, California 94710		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Stanley Sun	Project Officer	(415)540-3835
2.		
<b>E &amp; E PERSON MAKING CONTACT:</b> Cathleen Cauz		<b>DATE:</b> 4/25/90
<b>SUBJECT:</b> Investigations completed to date at Hillview-Eleanor site		
<b>SITE NAME:</b> Los Altos Well Field		<b>EPA ID#:</b> CAD980994464

No fact sheets have been put out by DHS since the August 1988 sheet.

The four deep boreholes were completed. They were for geological information only. No samples were taken. One was at City Hall, and the other three were in the surrounding area. They were 700 feet deep.

Canonie's (consultant to DHS) most recent report came out in 1989.

Boreholes were drilled to 30 feet. Carbon tetrachloride was not detected in any of the boreholes. Some of the boreholes were in the area of Wells #10 and #110; others were in the area of the dry cleaners. During the soil gas survey, higher levels of carbon tetrachloride were detected in surface soils near the dry cleaners relative to other areas sampled. However, as in all the boreholes, neither carbon tetrachloride nor anything else was detected.

Thus the dry cleaners are no longer being considered a potential source of the contamination by DHS. DHS is thinking that maybe the contamination is only a local phenomena. They are speculating that the source may be old septic tanks at City Hall or the maintenance yard.

DHS plans to take more water samples of #10 and #110. No other wells will be sampled. This sampling effort is in the process. Results should be in next month. DHS will probably require the owners of the wells to do monitoring.

The new project manager for the site is Robert Fether, 540-3831.

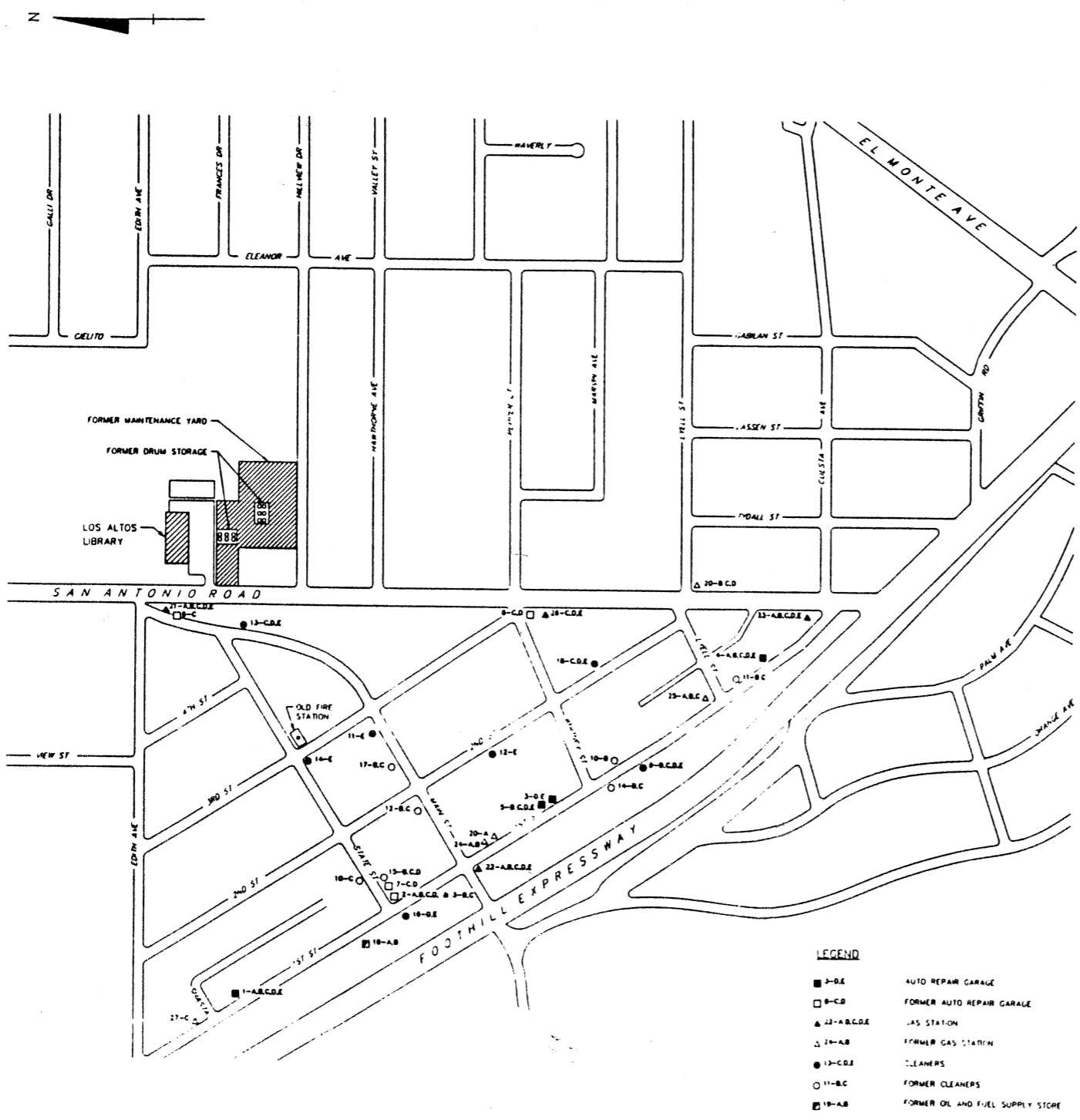
cc/losaltoswell/si-re

**Appendix B**

**Potential Source Location Map and  
Soil Boring And Well Location Map**

**Source: Canonie Environmental, "Phase One Remedial Investigation,  
Hillview-Eleanor, Los Altos, California," August 1989.**

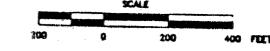
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 CHECKED BY [initials] APPROVED BY [initials]  
 DATE 2-10-89  
 DRAWN BY [initials]



- LEGEND**
- 3-DE AUTO REPAIR GARAGE
  - 8-CD FORMER AUTO REPAIR GARAGE
  - ▲ 23-AB, CDE GAS STATION
  - ▲ 24-AB FORMER GAS STATION
  - 12-CAE CLEANERS
  - 11-BC FORMER CLEANERS
  - 18-AB FORMER OIL AND FUEL SUPPLY STORE

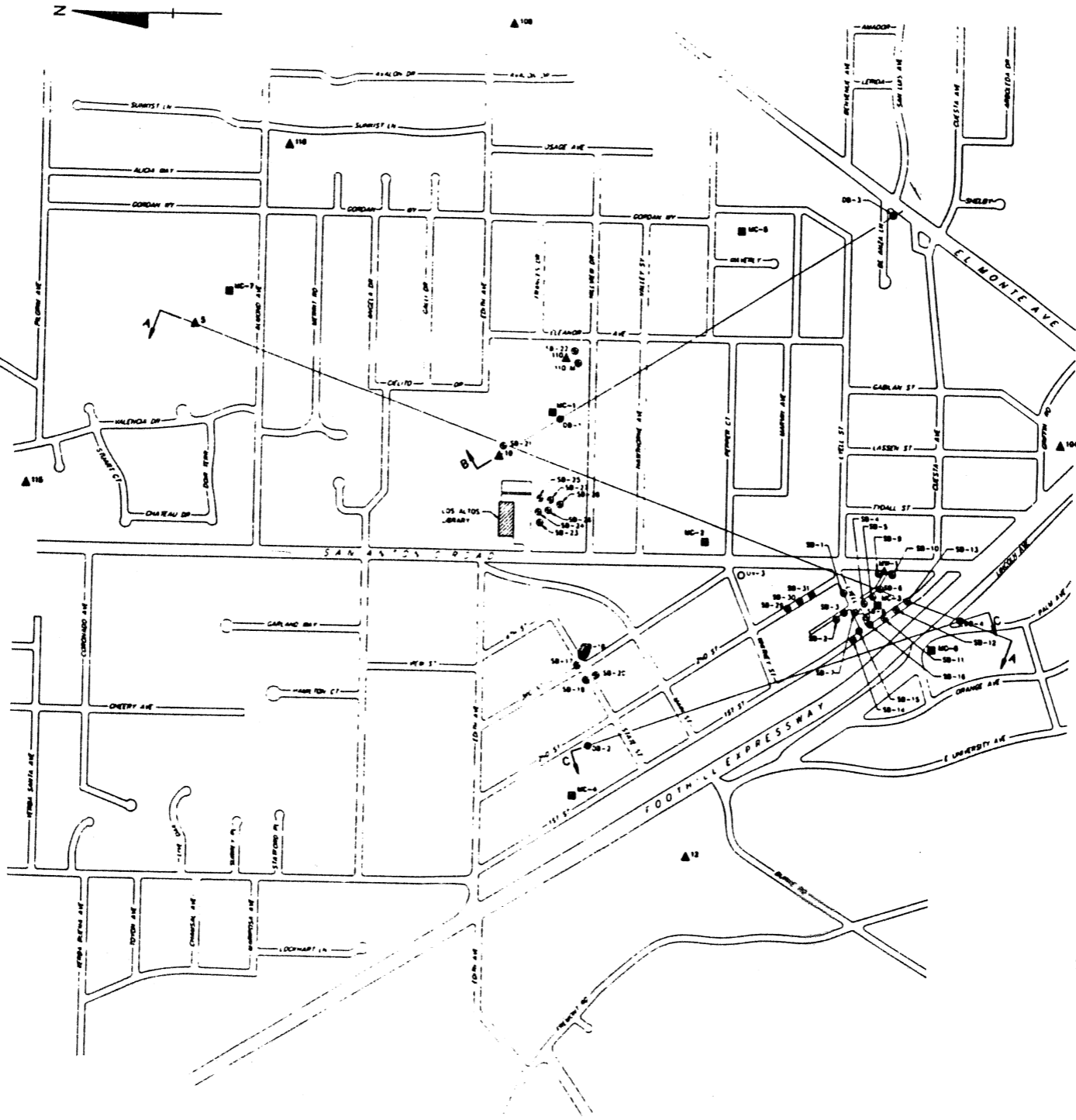
SOURCES	YEAR OF OCCUPANCY	A 1955	B 1963	C 1971
REPAIR	1	JACKIE'S AUTO REPAIR 124 FIRST ST	JACKIE'S AUTO REPAIR 124 FIRST ST	JACKIE'S AUTO REPAIR 124 FIRST ST
	2	PETERSON'S BODY AND PAINT 201 FIRST ST	PETERSON'S BODY AND PAINT 201 FIRST ST	PETERSON'S BODY AND PAINT 201 FIRST ST
	3	JACKIE'S AUTO ELECTRIC 141 FIRST ST	JACKIE'S AUTO ELECTRIC 141 FIRST ST	JACKIE'S AUTO ELECTRIC 141 FIRST ST
	4	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	5	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	6	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	7	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	8	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	9	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	10	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
CLEANERS	11	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	12	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	13	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	14	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	15	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	16	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	17	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	18	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	19	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	20	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
OIL AND FUEL SUPPLY STORES	21	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	22	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	23	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	24	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	25	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	26	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	27	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	28	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	29	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	30	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST

SOURCES	YEAR OF OCCUPANCY	D 1980	E 1988
REPAIR	1	JACKIE'S AUTO REPAIR 124 FIRST ST	JACKIE'S AUTO REPAIR 124 FIRST ST
	2	PETERSON'S BODY AND PAINT 201 FIRST ST	PETERSON'S BODY AND PAINT 201 FIRST ST
	3	JACKIE'S AUTO ELECTRIC 141 FIRST ST	JACKIE'S AUTO ELECTRIC 141 FIRST ST
	4	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	5	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	6	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	7	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	8	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	9	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
	10	WELCH AUTO ELECTRIC 141 FIRST ST	WELCH AUTO ELECTRIC 141 FIRST ST
CLEANERS	11	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	12	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	13	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	14	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	15	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	16	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	17	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	18	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	19	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
	20	LOS ALTOS LAUNDRY 201 FIRST ST	LOS ALTOS LAUNDRY 201 FIRST ST
OIL AND FUEL SUPPLY STORES	21	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	22	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	23	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	24	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	25	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	26	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	27	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	28	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	29	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST
	30	LOS ALTOS SUPPLY CO 141 FIRST ST	LOS ALTOS SUPPLY CO 141 FIRST ST



POTENTIAL SOURCE LOCATION MAP  
 LOS ALTOS, CALIFORNIA  
 PREPARED FOR  
**CALIFORNIA DEPARTMENT OF HEALTH SERVICES**  
**CanoneEnvironmental**

REVISIONS NO. DATE  
 1 4-17-89  
 2 4-17-89  
 3 4-17-89  
 4 4-17-89  
 5 4-17-89  
 6 4-17-89  
 7 4-17-89  
 8 4-17-89  
 9 4-17-89  
 10 4-17-89  
 DRAWN BY VZC 4-4-89  
 CHECKED BY *[Signature]* APPROVED BY *[Signature]*  
 DRAWING 88-091-E59 NUMBER



- LEGEND:**
- SB-1 SHALLOW BORING
  - DB-1 DEEP BORING
  - UV-3 DEEP BORING (PREVIOUS INVESTIGATION BY OTHERS)
  - ▲ 108 WATER SUPPLY WELL
  - GEOLOGIC PROFILE
  - ▲ MW-1 PROPOSED SHALLOW MONITORING WELL
  - MC-1 PROPOSED MONITORING WELL CLUSTER

SOIL BORING AND WELL LOCATION MAP  
 LOS ALTOS, CALIFORNIA  
 PREPARED FOR  
 CALIFORNIA DEPARTMENT  
 OF HEALTH SERVICES  
**Canonie** Environmental