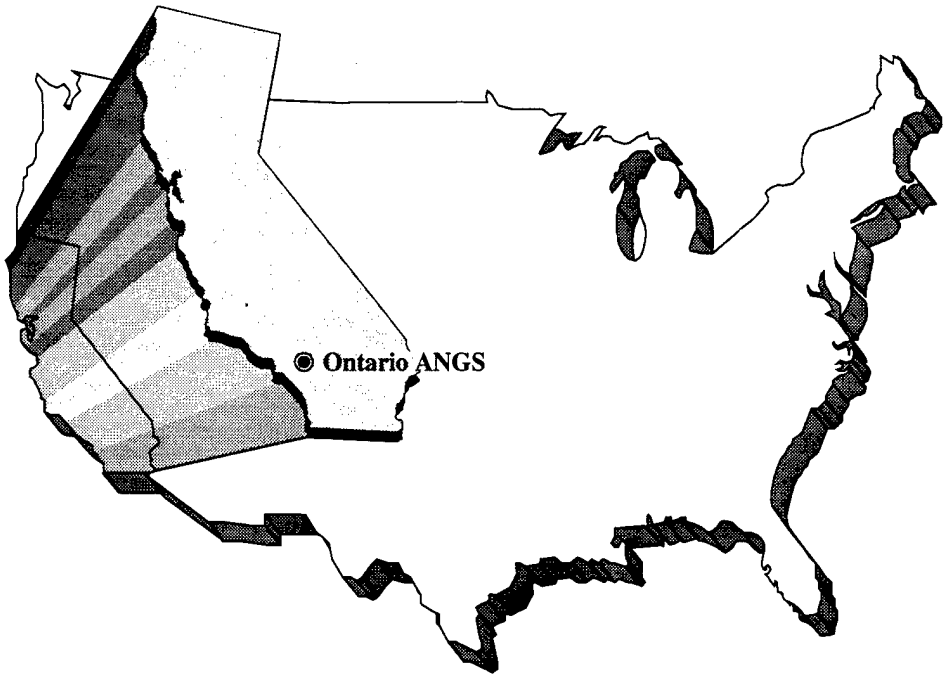
STATIONWIDE ENVIRONMENTAL BASELINE SURVEY AND RELATED ENVIRONMENTAL FACTORS ONTARIO AIR NATIONAL GUARD STATION CALIFORNIA

November 1996



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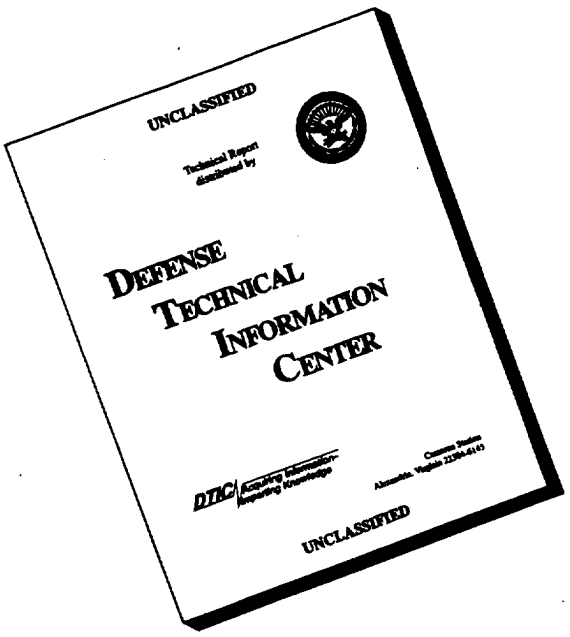

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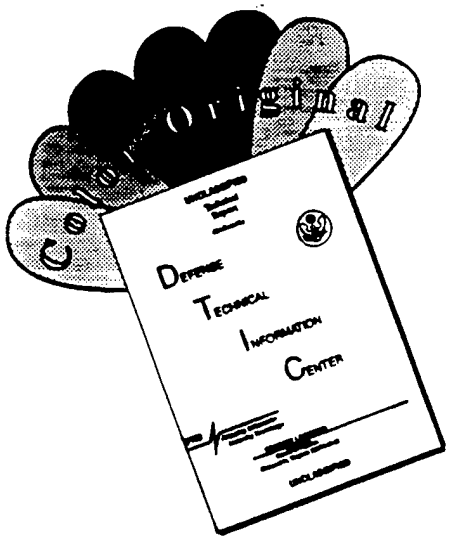

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STATIONWIDE ENVIRONMENTAL BASELINE SURVEY

ONTARIO AIR NATIONAL GUARD STATION, CALIFORNIA

NOVEMBER 26, 1996

EXECUTIVE SUMMARY

This Environmental Baseline Survey (EBS) has been prepared to document the environmental condition of real property at Ontario Air National Guard Station (ANGS), California, resulting from the storage, release, and disposal of hazardous substances and petroleum products and their derivatives over the installation's history. Although primarily a management tool, this EBS is also used by the Air Force to meet its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 United States Code Section 9620(h), as amended by the Community Environmental Response Facilitation Act (CERFA) (Public Law 102-426).

Attached is Table ES-1, which is a listing of all uncontaminated property based on information obtained through a records search, interviews, and visual site inspections at Ontario ANGS. Figure ES-1 depicts their respective locations.

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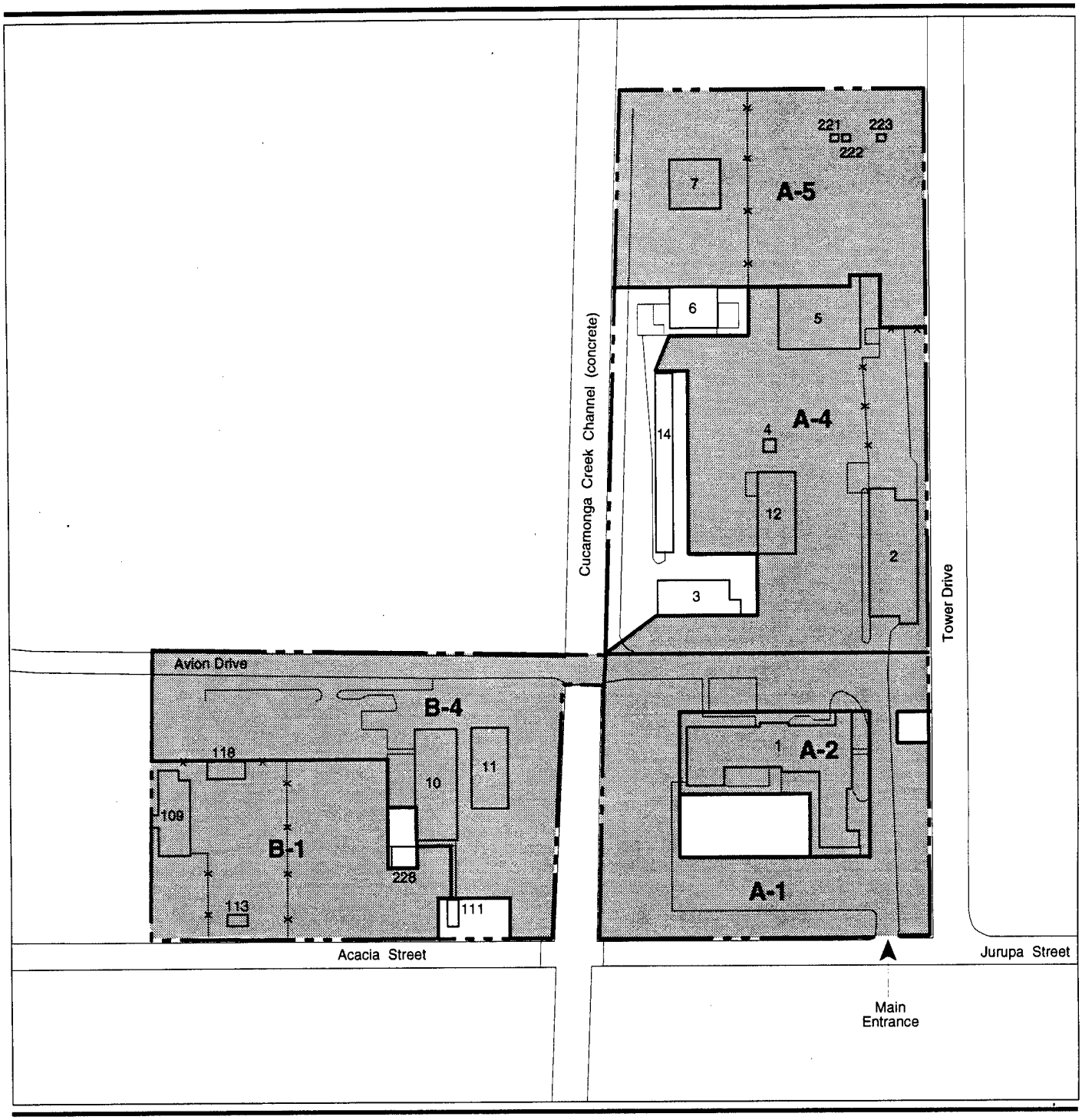
Table ES-1. Uncontaminated Properties

Areas and Associated Facilities	Acres	Square Feet
Study Area A-1	2.2	
Parking lot and surrounding area of Building 1		
Study Area A-2	0.3	
Building 1 (Administration)		10,566
Study Area A-4	2.4	
Building 2 (Supply Warehouse)		10,916
Building 4 (Hazardous Material Storage)		300
Building 5 (Radio Repair Shop)		7,616
Building 12 (Warehouse)		3,920
Study Area A-5	1.8	
Building 7 (Storage)		3,071
Facility 221 (Concrete Vault)		8
Facility 222 (Concrete Vault)		8
Facility 223 (Concrete Vault)		8
Study Area B-1	1.1	
Building 109 (CE Maintenance Shop)		2,408
Building 113 (Storage Shed)		276
Building 118 (Storage Shed)		1,000
Study Area B-4	1.8	
Building 10 (Dining Hall)		7,224
Building 11 (Administration)		3,384

CE = Civil Engineering



EXPLANATION

Uncontaminated Property

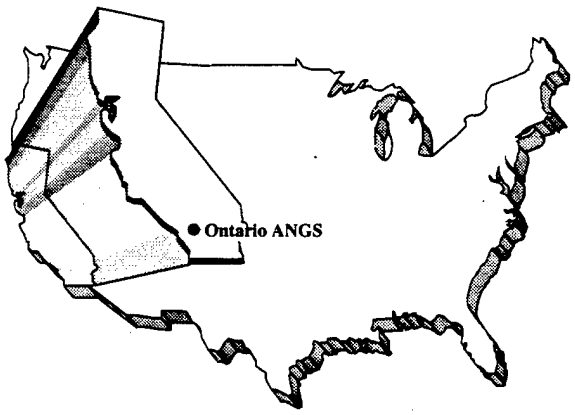
Station Boundary

Fence

0 50 100 200 Feet

Uncontaminated Properties

Figure ES-1



SUMMARY

SUMMARY

S.1 BACKGROUND

This Environmental Baseline Survey (EBS) has been prepared to document the environmental condition of real property at Ontario Air National Guard Station (ANGS), California, resulting from the storage, release, and disposal of hazardous substances and petroleum products and their derivatives over the installation's history; and establish a baseline for use by the Air Force in making decisions concerning real property transactions. The preparation of an EBS is required by Department of Defense (DOD) policy before any property can be sold, leased, transferred, or acquired. Air Force Policy Directive 32-70, Environmental Quality, provides responsibilities and procedures for conducting an EBS, and is implemented through Air Force Instruction 32-7066. Although primarily a management tool, this EBS will also be used by the Air Force in meeting its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 United States Code Section 9620(h), as amended by the Community Environmental Response Facilitation Act (CERFA) (Public Law 102-426).

S.1.1 CERFA Requirements

CERFA was enacted to facilitate the rapid return to local communities of uncontaminated properties identified during the Base Realignment and Closure (BRAC) process. Uncontaminated property refers to real property on which no hazardous substances and no petroleum products or their derivatives were stored for 1 year or more, or are known to have been released or disposed of (including no migration of these substances from adjacent areas). In order to identify uncontaminated properties on military installations scheduled for closure or realignment, an EBS is conducted and the results documented in a report. This EBS is based on existing environmental information related to the past and present storage, release, or disposal of hazardous substances on the installation.

This EBS is based on information obtained through a records search, interviews, and visual inspections. The records search included a review of all available Air Force and other agency records including environmental restoration and compliance reports, audits, surveys, facility drawings, and inspection reports; an analysis of aerial photographs; and a review of recorded chain-of-title documents for the property. Interviews with current and former employees and visual inspections of the station property and facilities were also conducted. This EBS also includes an assessment of the environmental condition of off-station properties immediately adjacent (contiguous) to or relatively near the station that could pose environmental concern and/or affect the subject property. Physical inspections were

conducted, when necessary, on contiguous off-station properties where access was authorized by the owner or operator.

Based on an analysis of the available data, property on Ontario ANGS was classified into one of eight categories:

- *Category 1* - Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).

- *Category 2* - Areas where only storage of hazardous substances has occurred, but no release, disposal, or migration from adjacent areas has occurred.

- *Category 3* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action (RA).

- *Category 4* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, and all RAs necessary to protect human health and the environment have been taken.

- *Category 5* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, removal and/or RAs are under way, but all required RAs have not yet been taken.

- *Category 6* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but required response actions have not yet been implemented.

- *Category 7* - Areas that are unevaluated or require additional evaluation.

- *Category P_S (petroleum storage); P_R (petroleum release); P_D (petroleum disposal)* - These properties shall be defined as any real property on which petroleum substances (or their derivatives, including aviation fuel and motor oil) were stored for 1 year or more, known to have been released or disposed of, and/or inmigrated.

Pursuant to U.S. Environmental Protection Agency (EPA) guidance and in order to fully implement Congress' intent to allow expeditious disposal of uncontaminated parcels of property for economic redevelopment, this EBS identifies property as uncontaminated under CERCLA Section 120(h)(4), even if some limited quantity of hazardous substances or petroleum products were stored, released, or disposed of in cases where the available information indicates that such storage, release, or disposal poses no threat

to human health or the environment. Examples, as provided in the U.S. EPA guidance include: usage of common household chemicals and storage of heating fuel in housing areas, incidental releases of petroleum products on roadways and parking lots, and the routine licensed application of pesticides (U.S. Environmental Protection Agency, 1994).

Property in the first four categories would be suitable for transfer by deed. Property in Categories 5 through 7 would be unsuitable for transfer until all necessary actions have been taken and the property has been reclassified into one of the first four categories. Property in Category P is considered suitable for transfer by deed unless the property is being remediated under CERCLA and all necessary remedial actions have not been taken. Leases would be considered on a case-by-case basis for properties within all eight categories.

S.2 FINDINGS

S.2.1 Property Categorization Factors/Resources

S.2.1.1 Environmental Factors. Areas where no past or present storage, release, or disposal of hazardous substances or petroleum products and their derivatives were identified are considered to be Category 1 property. Category 2 through 7 properties and Category P property were identified based upon the methodology presented in Chapter 2.0.

Areas where hazardous materials and/or hazardous waste were stored were considered Category 2 property unless a suspected or confirmed release was identified.

Category 3 designations are based on existing information to document that contaminant levels, if present, are considered to be below action levels.

Areas where known or suspected contamination has occurred were classified as Category 4 through 7 properties, based upon the current program status. In addition, new areas of potential contamination identified as a result of the EBS were classified as Category 7.

The following resources were used in property categorization. Each resource was categorized individually; findings for each resource were then reviewed to obtain the overall property category.

Hazardous Substances and Petroleum Product Storage. Hazardous materials and petroleum products are stored and used at Ontario ANGS in connection with various industrial operations. The most commonly used hazardous materials include motor fuels, other types of petroleum products such as motor oil, paints, thinners, solvents, adhesives, cleaners, lead-acid batteries, and hydraulic fluids. Hazardous materials are or have been stored at eight facilities throughout the station.

Hazardous waste and waste petroleum products are or were stored at three facilities throughout the station. Two satellite accumulation points and a Resource Conservation and Recovery Act (RCRA) 90-day accumulation point are located on station.

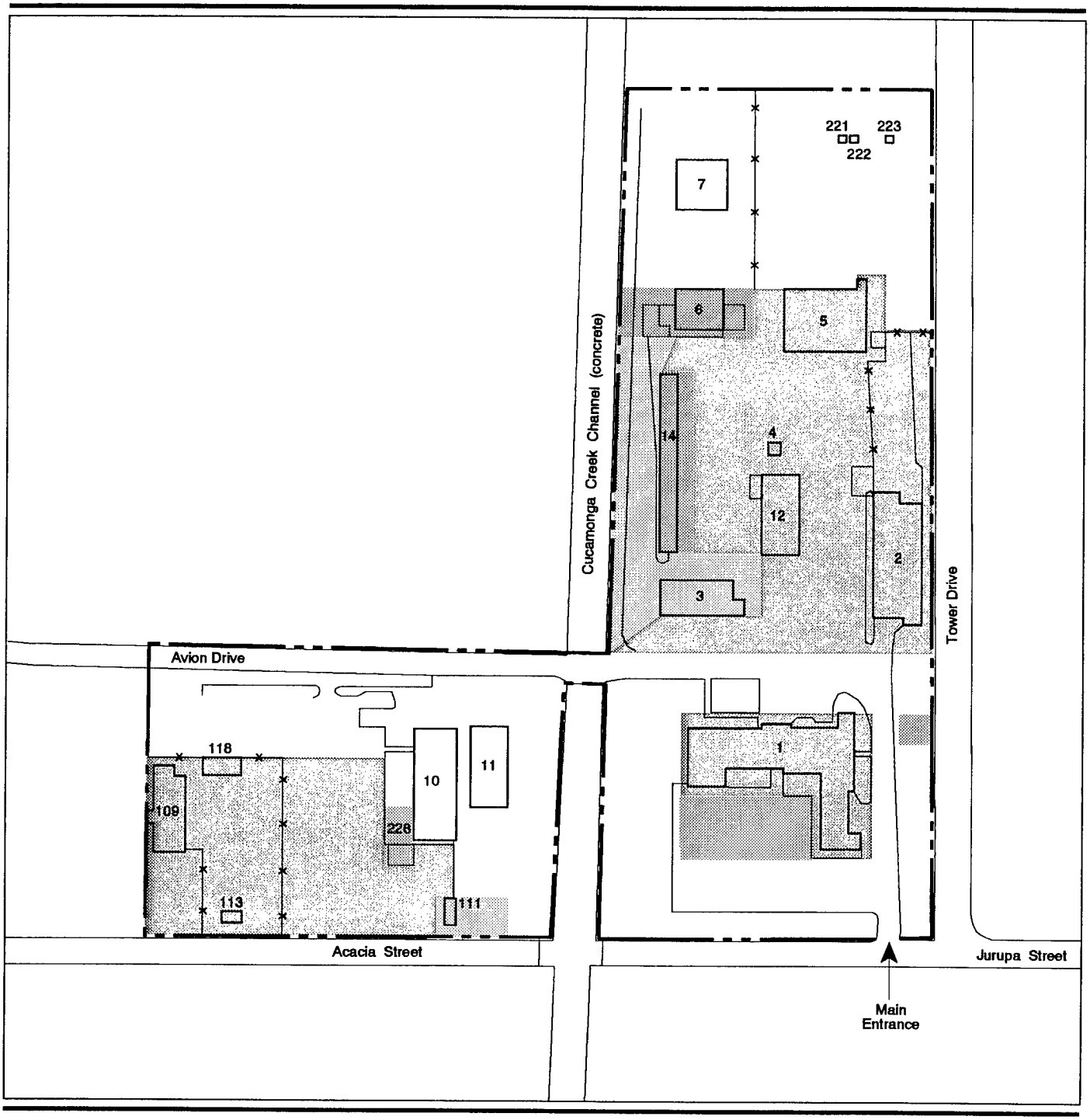
Installation Restoration Program Sites. Three Installation Restoration Program (IRP) sites have been identified at Ontario ANGS. IRP Site SS-01 has undergone an expanded site investigation that revealed contaminant concentrations below action levels; a no further response action planned decision document is being developed. IRP Sites ST-02 and ST-03 involve underground storage tank (UST) removals that were determined to be eligible for Defense Environmental Restoration Account funding. USTs associated with IRP Sites ST-02 and ST-03 have been removed, and contaminant concentrations were below action levels.

Storage Tanks and Pipeline Systems. Past and present locations of USTs and pipeline systems were identified. No aboveground storage tanks (ASTs) were identified. Storage tanks at Ontario ANGS have been used to store various petroleum products. There have been eight USTs utilized at Ontario ANGS; all have been removed.

Wastewater Treatment and Related Systems. Past and present locations of sanitary sewers, storm sewers, septic tanks, oil/water separators (OWSs), grease traps, and silver recovery systems were identified. There have been three OWSs, one grease trap, and one silver recovery system utilized at Ontario ANGS. Wastewater is discharged to the sanitary sewer, then to the city of Ontario treatment plant. Storm drain lines discharge to Cucamonga Creek.

Mercury. Buildings 1, 2, and 5 are the only facilities on Ontario ANGS in which mercury and/or equipment containing mercury is known to have been used.

S.2.1.2 Property Categorization. As described above, property on Ontario ANGS was classified into one of eight categories based on the findings of this EBS (Figure S-1). Category 1 properties generally occur in the vehicle parking area for Building 1, the northern portion of the station where munitions storage activities once took place, and around the administration and dining hall west of Cucamonga Creek. Category 2 properties occur throughout the central portion of the station including Buildings 1, 2, 4, 5, and 12, and most of the area west of Cucamonga Creek. Category 3 property is associated with IRP Sites SS-01 and ST-03. Portions of the storm drain system are also considered Category 3 as a result of past disposal activities. No Category 4, 5, or 6, properties were identified. Category 7 properties include Buildings 6 and 14 where subsurface soil conditions at OWSs are unknown. A grease trap (Facility 228) located adjacent to Building 10 is also considered Category 7 due to unknown subsurface soil conditions. The septic tanks and leach fields associated with



EXPLANATION

- Uncontaminated Property (Category 1)
- Hazardous substance stored - no release (Category 2)
- Hazardous substance release, below action levels (Category 3)
- Hazardous substance release, all actions have been taken (Category 4) *
- Hazardous substance release, not all actions have been taken (Category 5) *
- Hazardous substance release, no actions taken (Category 6) *
- Areas requiring additional evaluation (Category 7)
- Petroleum products storage (Category P)*
- Station Boundary
- Fence

0 50 100 200 Feet

* Not Applicable

Property Categorization

Figure S-1

Buildings 2 and 6 may have received hazardous substances and are considered Category 7. An area located south of Building 1 may have been utilized as a burn pit in the mid-1940s and is considered Category 7. IRP Site ST-02 is considered Category P_R as a result of past releases from fuel oil USTs, but is not shown on the figure because other factors contribute to the property, which outweighs Category P_R.

S.2.2 Disclosure Factors

Information on ten disclosure factors (asbestos, polychlorinated biphenyls [PCBs], lead-based paint, radon, drinking water quality, indoor air quality, pesticides, ordnance, medical/biohazardous waste, and radioactive materials and mixed waste) was reviewed. Based on DOD guidance on the implementation of CERFA, disclosure factors were not used in categorizing property. These factors are not considered to be hazardous when properly managed and in good condition. Their presence and any required protective actions will be identified and addressed in any lease/deed documentation.

Asbestos. A stationwide asbestos survey was conducted in 1993. Buildings 1, 2, 3, 4, 5, 6, 7, 10, 11, and 111 were found to contain asbestos.

PCBs. A stationwide survey to identify PCB transformers was conducted in 1985. The survey determined that none of the transformers at Ontario ANGS contained PCBs.

Lead-Based Paint. Facilities constructed prior to the implementation of the DOD ban on the use of lead-based paint in 1978 are likely to contain such paint. All facilities on station were constructed prior to 1978. No high-priority facilities exist at Ontario ANGS; therefore, a survey for lead-based paint is not required, and has not been scheduled.

Radon. Because no high-priority facilities exist at Ontario ANGS, a radon screening survey has not been conducted.

Drinking Water Quality. Drinking water is supplied to Ontario ANGS from the city of Ontario. Testing has shown no levels of contaminants exceeding state and U.S. EPA drinking water standards.

Indoor Air Quality. No indoor air quality issues were identified at Ontario ANGS.

Pesticides. Only over-the-counter pesticides are utilized at Ontario ANGS.

Ordnance. Ordnance-related activities were once conducted at Building 7 (Rocket Storage Facility), and small arms storage occurred at Building 2 and at three concrete vaults in the northeastern corner of the station.

Medical/Biohazardous Waste. Ontario ANGS operated a small occupational health clinic located in Building 1. Clinic activities ceased in 1984 and no medical/biohazardous wastes are currently generated.

Radioactive Materials and Mixed Waste. No radioactive materials or mixed waste were stored at Ontario ANGS.

S.2.3 Off-Station Property Findings

A total of ten properties contiguous to or in the vicinity of the station boundary were evaluated in the off-station land use analysis. Based on the records search and site inspections of the properties conducted for this EBS, there are no areas on Ontario ANGS where it is known that contamination has resulted from activities on any of the off-station properties, and no off-station properties where it is known that contamination has resulted from activities on the Ontario ANGS property.

S.3 REQUIRED INVESTIGATIONS AND DATA GAPS

The EBS identifies data gaps that need to be resolved. Data gaps will be resolved on a case-by-case basis. Data gaps identified to date are listed below.

- OWS and grease trap locations have unknown subsurface soil conditions and may require further investigation.
- Septic tanks and leach fields associated with Buildings 2 and 6 may have received hazardous substances and require further investigation.
- Facility-specific information regarding hazardous material storage was not available.
- Facility-specific information regarding hazardous waste generation was not available.
- The area south of Building 1 that may have been utilized as a burn pit may require further investigation.

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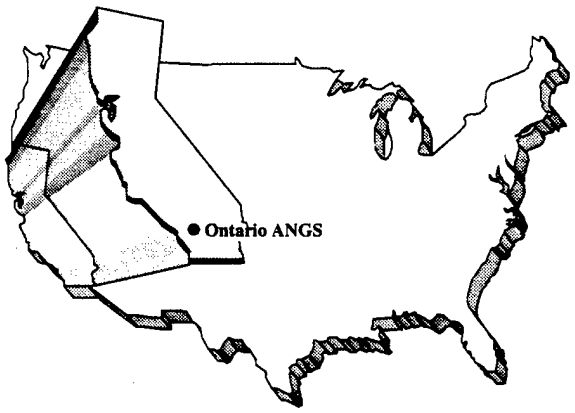

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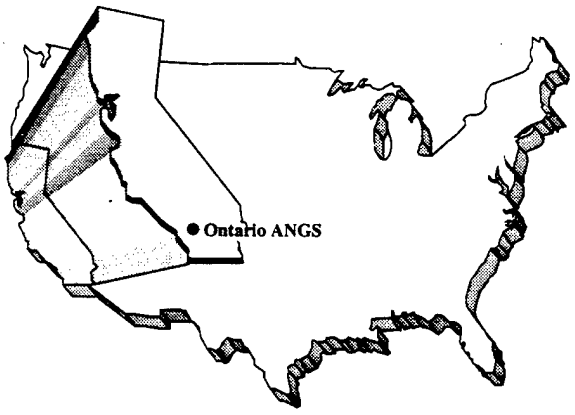


CHAPTER 1

1.0 PURPOSE OF THE ENVIRONMENTAL BASELINE SURVEY

1.1 INTRODUCTION

1.1.1 Purpose

This Environmental Baseline Survey (EBS) has been prepared to document the environmental condition of real property at Ontario Air National Guard Station (ANGS), California, resulting from the storage, release, and disposal of hazardous substances and petroleum products and their derivatives over the installation's history; and to establish a baseline for use by the Air Force in making decisions concerning real property transactions. The preparation of an EBS is required by Department of Defense (DOD) policy before any property can be sold, leased, transferred, or acquired. Air Force Policy Directive (AFPD) 32-70, Environmental Quality, provides responsibilities and procedures for conducting an EBS and is implemented through Air Force Instruction (AFI) 32-7066. Although primarily a management tool, the EBS will also be used by the Air Force in meeting its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 United States Code (U.S.C.) Section 9620(h), as amended by the Community Environmental Response Facilitation Act (CERFA) (Public Law [P.L.] 102-426).

CERFA was enacted to facilitate the rapid return to local communities of uncontaminated properties identified during the Base Realignment and Closure (BRAC) process. Uncontaminated property refers to real property on which no hazardous substances and no petroleum products or their derivatives were stored for 1 year or more, or are known to have been released or disposed of (including no migration of these substances from adjacent areas). In order to identify uncontaminated properties on military installations scheduled for closure or realignment, an EBS is conducted and the results documented in a report. This EBS is based on existing environmental information related to the past and present storage, release, or disposal of hazardous substances on the installation.

The EBS will be used by the Air Force, along with other available information, to:

- Develop sufficient information to assess the health and safety risks on the property surveyed, and determine what actions are necessary to protect human health and the environment prior to a real property transaction

- Support decisions for Finding of Suitability to Lease/Finding of Suitability to Transfer (FOSL/FOST) and aid in determining lease or deed restrictions

- Document uncontaminated property and obtain regulator concurrence as required and defined under Section 120(h)(4) of CERCLA

- Support notice, when required under Section 120(h)(1) of CERCLA, of the type, quantity, and time frame of any storage, release, or disposal of hazardous substances or petroleum products or their derivatives on the property

- Identify data gaps concerning environmental contamination

- Define potential environmental liabilities associated with real property transactions

- Aid in determining possible effects on property valuation resulting from any contamination/concerns identified.

1.1.2 Content of Environmental Baseline Survey Report

This EBS is based on information obtained through a records search, interviews, and visual site inspections (VSIs). The records search included a review of all available Air Force and other agency records including environmental restoration and compliance reports, records, audits, surveys and inspection reports; an analysis of aerial photographs; and a review of recorded chain-of-title documents for the property. Interviews with employees, and visual inspections of the station property and facilities were also conducted. The EBS also includes an assessment of off-station properties contiguous to or relatively near the station that could pose environmental concern and/or affect the subject property. Physical inspections were conducted on contiguous off-station properties where access was authorized by the owner or operator. Where access was not permitted, visual inspections of off-station properties were conducted from station property or public roads.

Based on an analysis of the available data, property on Ontario ANGS was classified into one of eight categories:

- Category 1 - Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

- Category 2 - Areas where only storage of hazardous substances has occurred, but no release, disposal, or migration from adjacent areas has occurred.

- Category 3 - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action (RA).

- Category 4 - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, and all RAs necessary to protect human health and the environment have been taken.

- Category 5 - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, removal and/or RAs are under way, but all required RAs have not yet been taken.

- Category 6 - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but required response actions have not yet been implemented.

- Category 7 - Areas that are unevaluated or require additional evaluation.

- Category P_S (petroleum storage); P_R (petroleum release); P_D (petroleum disposal) - These properties shall be defined as any real property on which petroleum substances (or their derivatives, including aviation fuel and motor oil) were stored for 1 year or more, known to have been released or disposed of, and/or inmigrated.

Pursuant to U.S. Environmental Protection Agency (EPA) guidance and in order to fully implement Congress' intent to allow expeditious disposal of uncontaminated parcels of property for economic redevelopment, this EBS identifies property as uncontaminated under CERCLA Section 120(h)(4), even if some limited quantity of hazardous substances or petroleum products were stored, released, or disposed of in cases where the available information indicates that such storage, release, or disposal poses no threat to human health or the environment. Examples, as provided in the U.S. EPA guidance include: usage of common household chemicals and storage of heating fuel in housing areas, incidental releases of petroleum products on roadways and parking lots, and the routine licensed application of pesticides (U.S. Environmental Protection Agency, 1994).

Property in the first four categories would be eligible for transfer by deed. Property in Categories 5 through 7 would not be considered for transfer until all necessary actions have been taken and the property has been reclassified into one of the categories eligible for transfer. Property in Category P is considered suitable for transfer by deed unless the property is being remediated under CERCLA and all necessary remedial actions have not been taken. Leases would be considered on a case-by-case basis for properties within all eight categories.

1.1.3 Data Gaps and Updates

Available information on the environmental condition of the Ontario ANGS property has been included in this EBS. Where data gaps exist, they are identified in the EBS, and sampling and analysis field efforts may be necessary to fill them. If possible, the Air Force will take action to fill the data gaps immediately at the time they are identified so that the EBS will be as complete and accurate as possible. Where it is not possible, the Air Force has several ongoing programs to identify and characterize environmental contamination and the presence of hazardous substances that may be used to fill data gaps. In all cases, actions to fill data gaps will be accelerated wherever possible to support the disposal schedule. As efforts to characterize or remediate property at Ontario ANGS are completed, this EBS will be updated periodically to reflect the latest information.

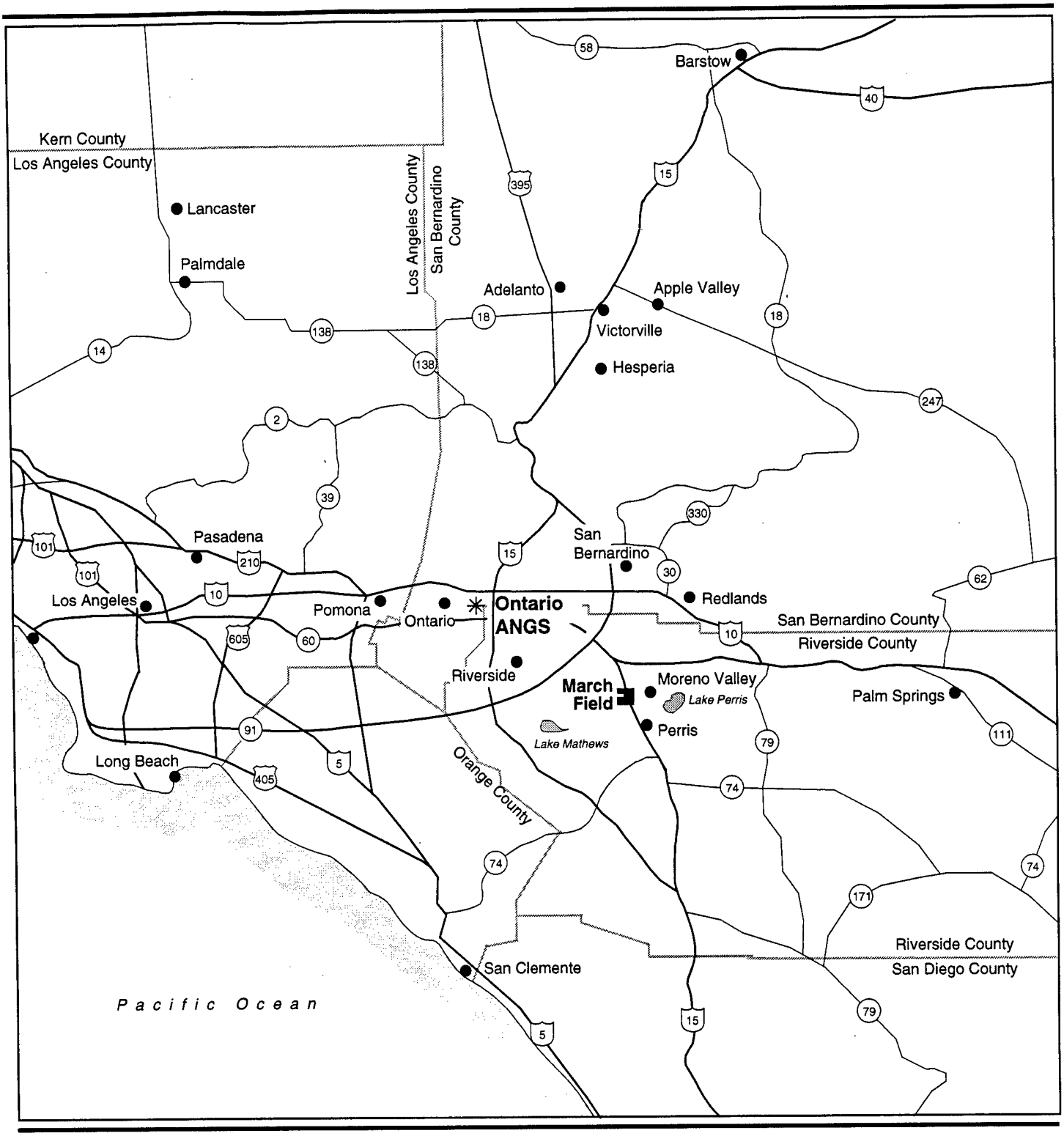
1.1.4 Relationship to Other Documents

The Air Force is preparing an Environmental Assessment (EA) for the disposal of Ontario ANGS. Although the EA will contain some of the same information presented in this EBS, the two documents serve different purposes. The EA will include an analysis of the potential impacts of disposal and reuse of the Ontario ANGS property. The EA addresses impacts associated with disposal and reuse activities, as well as indirect impacts related to changes on the surrounding communities. This EBS documents the environmental condition of the property related to the storage, release, or disposal of hazardous substances and their derivatives over the installation's history, establishing a baseline for use in making decisions concerning real property transactions.

1.2 BOUNDARIES OF SURVEY AREA

The findings of this EBS are based on a review of information available for and the inspection of (1) property on Ontario ANGS, (2) property immediately off station (i.e., having a contiguous border with the station boundary), and (3) property within approximately 0.25 mile to 1.0 mile of the station boundary with potential environmental concerns. The results of the survey for on- and off-station properties are discussed in Chapters 3.0 and 4.0, respectively.

Ontario ANGS, consisting of 8 acres of fee-owned land and 3 acres of leased property, is scheduled for closure in September 1997. The station is located in San Bernardino County, California, within the city of Ontario. It borders the southern boundary of the Ontario International Airport and is approximately 3 miles southeast of downtown Ontario and 35 miles east of Los Angeles (Figure 1-1). Figure 1-2 shows roads and major features at Ontario ANGS.



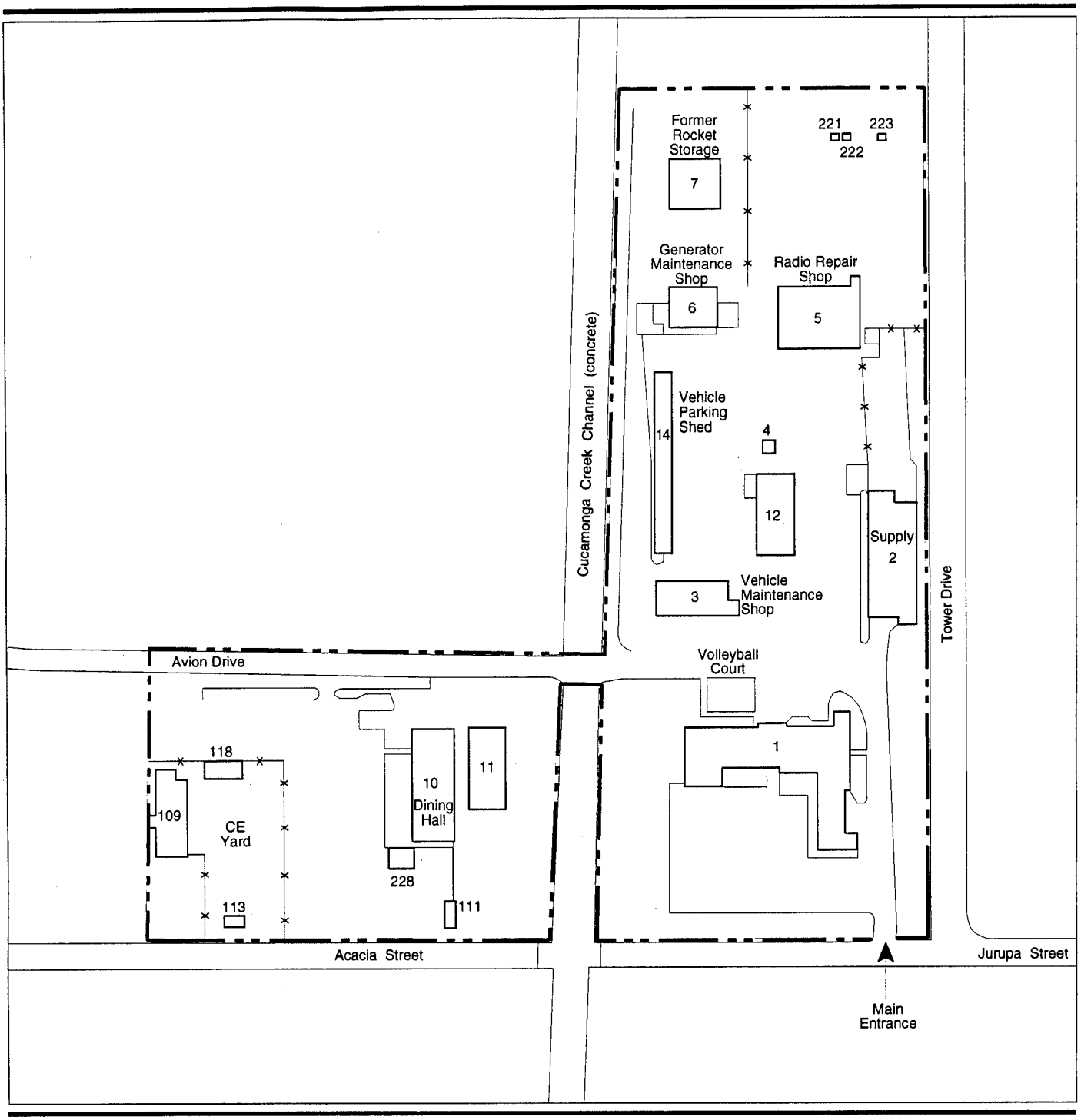
EXPLANATION

- 5 Interstate Highways
- 405 U.S. Highways
- 91 State Highways
- County Boundary

0 3.75 7.5 15 Miles

Regional Map

Figure 1-1



EXPLANATION

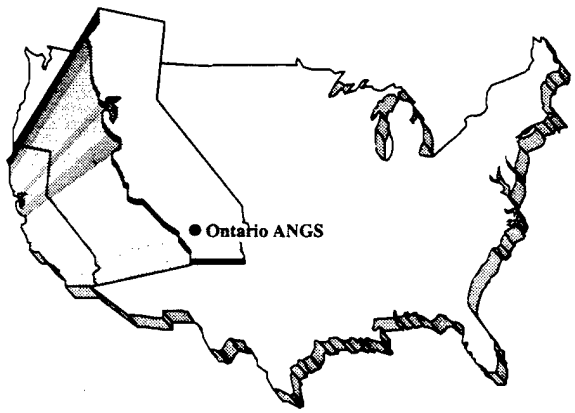
Station Boundary

Fence

Station Roads and Major Features

0 50 100 200 Feet

Figure 1-2



CHAPTER 2

2.0 SURVEY METHODOLOGY

The methods used to conduct this EBS of Ontario ANGS are described in this chapter. Section 2.1 includes a description of the approach used to accomplish each of the major components (i.e., records search, interviews, and inspections) of the EBS. Specific environmental factors considered in this EBS are also discussed in this section, including the primary sources of information used. The process used to inventory and track potential environmental concerns is described in Section 2.2. Section 2.3 discusses any assumptions and/or limitations of the data used in compiling the EBS.

2.1 APPROACH AND RATIONALE

A methodical process was followed for this EBS in which available information was analyzed and conclusions were drawn about the condition of the Ontario ANGS property. First, real property records, land use maps, facility drawings, and aerial photographs were reviewed to identify historical land and facility uses that may be primary indicators of potential contamination. Areas of the station where industrial activities occurred; solid and hazardous wastes were stored, disposed of, or released; and hazardous materials were stored were of particular interest and received the highest scrutiny. A review of recorded chain-of-title documents was also conducted to assess if any prior uses could reasonably have contributed to existing environmental concerns.

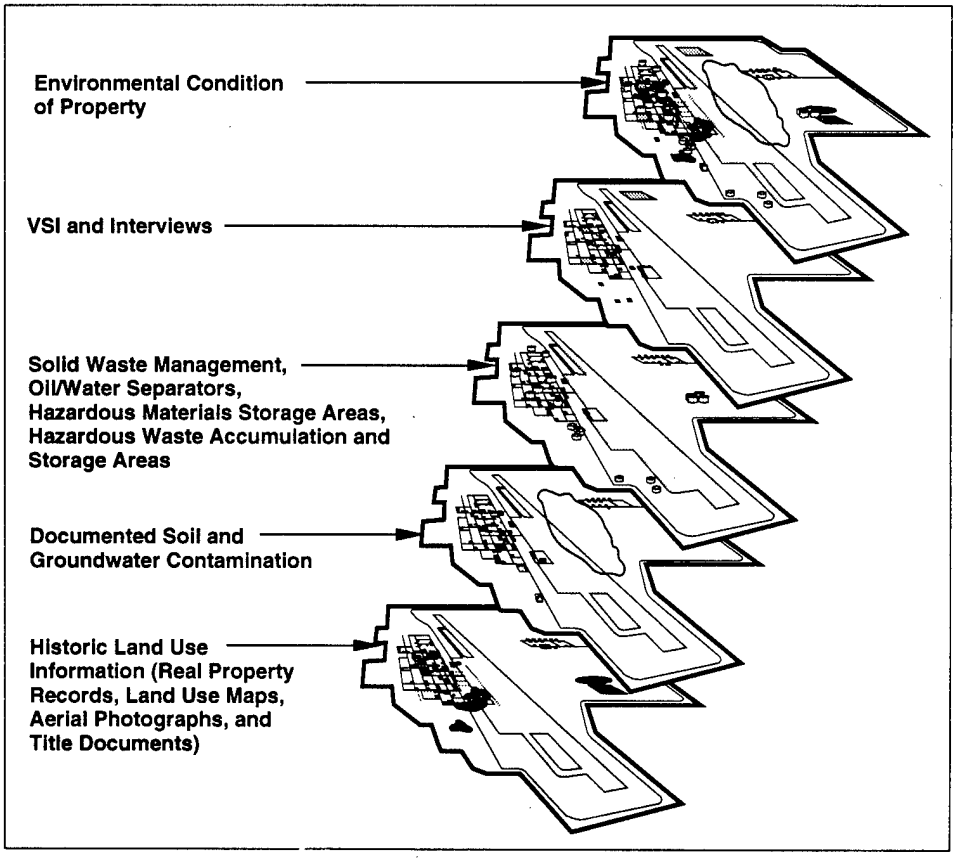
Information on five environmental factors (hazardous substances and petroleum product storage, Installation Restoration Program [IRP] sites, storage tanks and pipeline systems, wastewater treatment and related systems, and mercury) was reviewed to determine the baseline condition of each. Occurrence of each factor was first categorized individually based on its past or present potential for environmental concern. The categories for all factors present at each location were then integrated to determine the overall property category. The highest category within an individual property would determine the overall category for that property. For example, if a building has a storage tank classified as Category 2 and an IRP site classified as Category 7, the overall property category would be Category 7.

Information on ten disclosure factors (asbestos, polychlorinated biphenyls [PCBs], lead-based paint, radon, drinking water quality, indoor air quality, pesticides, ordnance, medical/biohazardous waste, and radioactive materials and mixed waste) was reviewed. Based on DOD guidance on the implementation of CERFA, disclosure factors were not used in categorizing property. These factors are not considered to be hazardous when properly managed and in good condition. Their presence and any required protective actions will be identified and addressed in any lease/deed documentation.

CERCLA and other studies and field investigations were then reviewed to identify areas where the presence (or absence) of contamination has been confirmed. Records from industrial shops, supply, the 162nd Combat Communications Group (CCGP) Civil Engineer at North Highland ANGS in Sacramento, California; the 163rd Air Reserve Wing (ARW) Bioenvironmental Engineer and Environmental Engineer at March Air Force Base (AFB), California; and other federal agencies, audits, or surveys (e.g., asbestos) were reviewed to identify any other areas of concern. In addition, interviews with employees were conducted, and physical inspections of the property and facilities were performed to identify evidence of stressed vegetation or discoloration that might indicate the presence of contamination.

The result of this process is a series of information layers that, when laid over one another, provide a picture of the environmental condition of the property that was used to classify the property into defined environmental condition categories (see Section 1.1) and to identify data gaps (Figure 2-1).

Figure 2-1 Resource Layer Approach



The major components of the EBS effort included a review of records and documents, including interpretation of aerial photographs and a review of recorded chain-of-title documents; inspections of on-station property and

associated improvements (e.g., buildings, structures); and interviews with employees. These components are described below. The approach for conducting the evaluation of off-station properties is presented in Chapter 4.0.

2.1.1 Description of Documents Reviewed

The records search of available documentation focused primarily on records, reports, and maps maintained by the Ontario ANGS Civil Engineering and Environmental Management offices, the 163rd ARW Bioenvironmental Engineer, and the 162nd CCGP Civil Engineer. Most of the files and records pertained to activities that have occurred since mid-1980.

Various studies, investigations, and inspections that consider environmental conditions at the station, including regulatory compliance issues, have been conducted by the Air Force and other federal and state agencies in the past several years. The results of these studies and investigations provided the initial baseline used in developing this EBS, and are referenced throughout this document. The primary types of studies or investigations include the following:

- IRP studies
- Stationwide environmental and infrastructure studies (e.g., PCB and asbestos surveys)
- Underground storage tank (UST) investigations/removals
- State and local regulatory documentation
- Radioactive materials and mixed waste data from Brooks and Kelly AFBs.

As part of the records search, a number of historic maps and aerial photographs were reviewed and analyzed to assist in identifying past land and facility uses and potential environmental contamination sources, and to verify other information found in the records search. Maps available to be reviewed covered the period from the early 1940s to 1995. The primary map resources reviewed included the station tab maps (scales from 1 inch = 50 feet to 1 inch = 500 feet). Aerial photographs dating from 1938 to 1995 were also reviewed. These photographs were dated 1938, 1945, 1949, 1951, 1955, 1964, 1969, 1972, 1978, 1983, 1986, 1991, and 1995.

A recorded chain-of-title search was conducted for on-station parcels to determine prior ownership or uses that could reasonably have contributed to an environmental concern. The title search reviewed DOD acquisition of on-station parcels from 1936 to the present.

The types of documents and records reviewed for each environmental factor are described below. In addition, U.S. EPA guidance in the identification of uncontaminated parcels under CERCLA Section 120(h) was utilized when categorizing station property. A detailed list of references used in preparing this EBS is presented in Chapter 8.0.

2.1.1.1 Environmental Factors

Hazardous Materials and Petroleum Products. Hazardous materials and petroleum products usage was determined through a review of Industrial Workplace Case Files maintained by the 163rd ARW Bioenvironmental Engineering Office. Items typically reviewed include historic and current Real Property Accountable Records (Form 1430), Master Workplace Exposure Data Summary forms (Air Force Form 2755), Hazardous Material Data forms (Air Force Form 2761), and relevant correspondence (e.g., Memos to the Record) contained in the files related to hazardous materials exposure. Sample forms are provided in Appendix I.

A cumulative hazardous materials inventory (Appendix C, Table C-3) was developed based on a review of Hazardous Material Data forms that lists all hazardous materials used in a particular workplace. *Note: Air Force Forms 2761 were not available for Ontario ANGS; however, they were available for the 147th Combat Communication Squadron in San Diego, California. The 163rd ARW Bioenvironmental Engineer indicated that the San Diego installation conducts similar activities and would be representative of materials utilized at Ontario ANGS.* Information on hazardous materials handling, including disposal methods, was also derived from a review of industrial workplace case files. Information contained in these files generally covers the period from the early 1990s to 1996.

Hazardous Waste and Waste Petroleum Products. Information on hazardous waste and petroleum waste collection and disposal procedures was obtained from interviews with station personnel, and from review of station and agency documents. The primary documents reviewed were compliance-related hazardous waste management and minimization plans, as well as other environmental management documents contained in the station files.

Installation Restoration Program Sites. The analysis of IRP sites consisted of a review of Ontario ANGS IRP documents, including a preliminary assessment and an expanded site investigation (SI). Station files related to the IRP were also reviewed and interviews were conducted with personnel responsible for implementing IRP activities.

Storage Tanks and Pipeline Systems. Sources included IRP reports, UST data sheets, Real Property Accountable Records, facility drawings, and station records and maps. Additional information was obtained through VSIs and the 162nd CCGP Civil Engineer.

Wastewater Treatment and Related Systems. A review of the station files and various published documents was conducted to determine wastewater treatment and disposal practices on the station. Information for septic tanks, oil/water separators (OWSs), and grease traps was obtained from a review of installation maps, the Real Property Accountable Records, and VSIs conducted as part of this EBS.

Information on photochemical waste was obtained from Environmental Management personnel and documents in the station files.

Mercury. Personnel from the Ontario ANGS Environmental Management and Civil Engineering offices were interviewed to obtain information on mercury.

2.1.1.2 Disclosure Factors. Information on ten disclosure factors (asbestos, PCBs, lead-based paint, radon, drinking water quality, indoor air quality, pesticides, ordnance, medical/biohazardous waste, and radioactive materials and mixed waste) was reviewed. Based on DOD guidance on the implementation of CERFA, disclosure factors were not used in categorizing property. These factors are not considered to be hazardous when properly managed and in good condition. Their presence and any required protective actions will be identified and addressed in any lease/deed documentation.

Asbestos. Information on buildings with asbestos-containing material (ACM) at Ontario ANGS was obtained from results of the stationwide asbestos survey conducted in 1993.

Polychlorinated Biphenyls. Information on PCB-containing equipment on the station was obtained from documents in the Ontario ANGS Environmental Management Office.

Lead-Based Paint. Real Property Accountable Records and personnel from the Environmental Management Office were interviewed to determine which facilities may potentially contain lead-based paint.

Radon. No radon testing has been conducted at Ontario ANGS.

Drinking Water Quality. The 163rd ARW Bioenvironmental Engineer was interviewed to obtain information on drinking water quality.

Indoor Air Quality. The 163rd ARW Bioenvironmental Engineer was interviewed to obtain information on indoor air quality.

Pesticides. Information on pesticides was obtained from the Ontario ANGS Environmental Management and Civil Engineering offices.

Ordnance. Sites on station where the use of firearms and storage of ordnance have occurred were identified through interviews, a review of

historic and current real property records, installation maps, and photographs.

Medical/Biohazardous Waste. Information on the generation and disposal of medical/biohazardous waste was obtained through interviews with the 163rd ARW Bioenvironmental Engineer, and from documents in the station and agency files.

Radioactive Materials and Mixed Waste. Information on radioactive materials and mixed waste was obtained from the Air Force Radioactive Isotope Committee at Brooks AFB, Texas, and the Air Force Low Level Radioactivity Program Office at Kelly AFB, Texas.

Details on many of these resources are provided in the following appendices:

- Appendix A: Summary of Environmental Factors by Facility
- Appendix B: Summary of Land Use by Study Area
- Appendix C: Inventory of Storage Areas
- Appendix D: Installation Restoration Program and Area of Concern Site Profiles
- Appendix E: Inventory of Storage Tanks and Pipeline Systems
- Appendix F: Inventory of Wastewater Treatment and Related Systems
- Appendix G: Inventory of Other Environmental Factors
- Appendix H: Disclosure Factor Information
- Appendix I: Sample Forms.

2.1.2 Inspection of Properties Conducted

Visual reconnaissance surveys (VRSs) and VSIs were conducted in March 1996 to verify characteristics or features identified in the records search, and to identify other potential environmental concerns. More focused VSIs, involving exterior and interior (walk-through) inspections, were conducted at all facilities on the station to identify readily apparent concerns or attributes.

The VSIs were conducted to determine or confirm the presence of environmental contamination or concerns including unusual odors, stained soils, stressed vegetation, USTs, or other indications of potential contamination. Each facility was evaluated for unique characteristics and potential environmental concerns. The station Real Property Accountable

Records were reviewed to identify specific facility characteristics such as construction materials, utility hookups, renovations, changes in facility utilization, and distinctive features (e.g., emergency electric power generators, storage tanks). These records are maintained from construction of the facility to demolition, and are kept as an inactive file after demolition. More detailed inspections were conducted at those facilities that had been used for industrial purposes or included specific features, such as storage tanks or OWSs.

A list of facilities on the station summarizing key characteristics and facility-specific environmental information is presented in Appendix A, Table A-1. A copy of the form used during the VSIs is presented in Appendix I.

2.1.3 Personnel Interviews

During the records search and VSIs, interviews were conducted with station personnel to identify potential environmental concerns related to recent and historic operations at Ontario ANGS, and to verify information found in the records search. A list of individuals contacted during the preparation of this EBS is provided in Chapter 8.0.

Primary contacts made were with personnel from the Ontario ANGS Civil Engineering and Environmental Management offices, the 163rd ARW Bioenvironmental Engineer, and the 162nd CCGP Civil Engineer. Principal Civil Engineering contacts were made with Real Estate and Operations personnel.

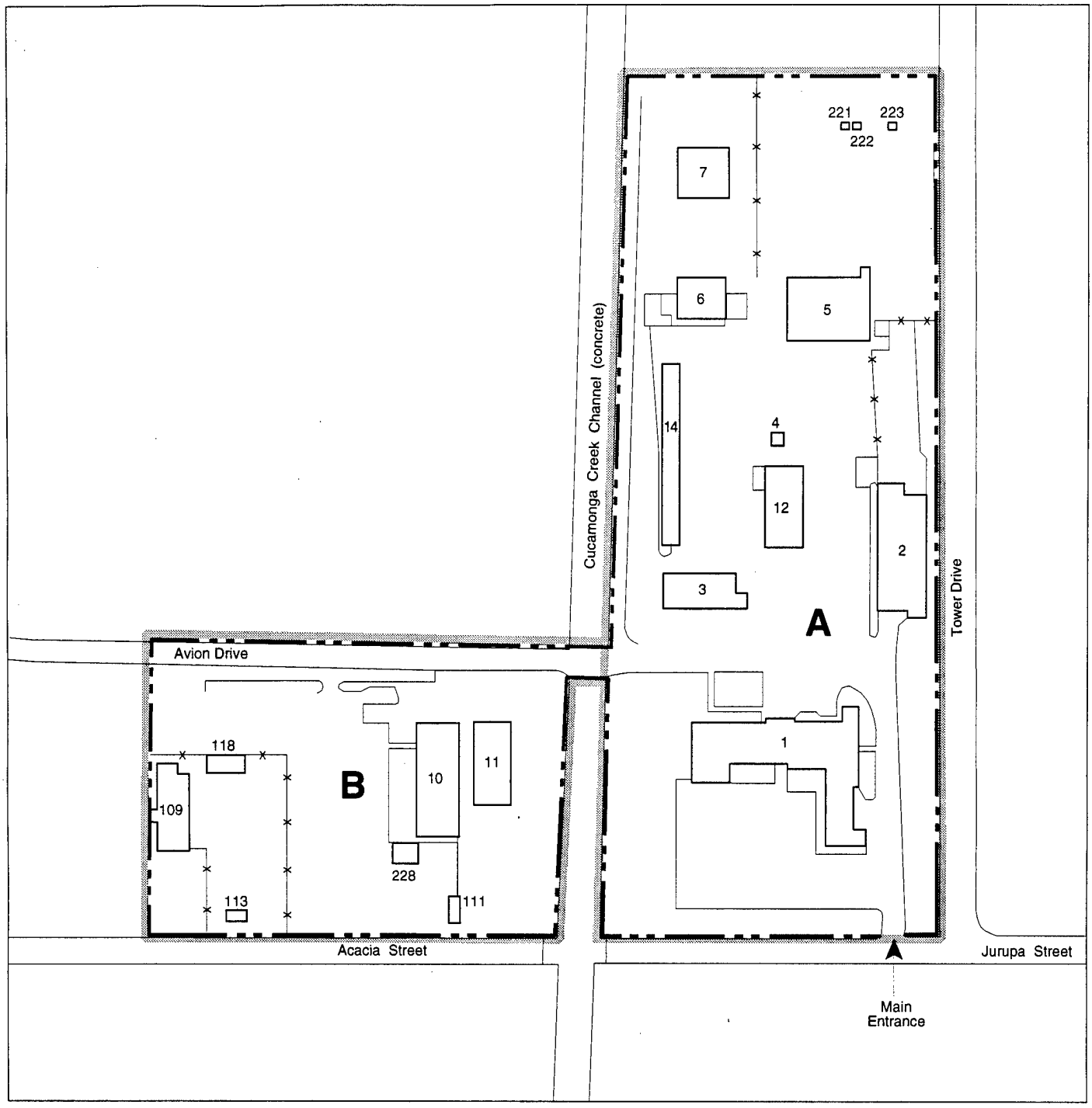
2.2 IDENTIFICATION OF ENVIRONMENTAL CONCERNS/MISCELLANEOUS ISSUES

2.2.1 Use of Study Areas

The station was divided into two study areas for the purpose of inventory, categorization, and analysis of environmental concerns; evaluation of historic and current land uses; and the referencing of findings discussed in this EBS (Figure 2-2). Delineation of the study areas was based on (1) current land use, (2) transportation corridors, and (3) IRP site location. *It should be noted that these study areas were used only for the purpose of analysis in preparing the findings of this EBS, and should not be interpreted as a predetermined parcelization of land for the purpose of property transactions.*

2.2.2 Labeling Conventions for Identified Environmental Concerns

Inventories for the following environmental factors were compiled based on the information described in Section 2.1.1: storage areas (Appendix C), IRP sites (Appendix D), USTs and pipeline systems (Appendix E), wastewater treatment and related systems (Appendix F), other environmental factors (Appendix G), and disclosure factor information (Appendix H).



EXPLANATION

- Station Boundary
- Survey Study Area Boundary
- Fence

0 50 100 200 Feet

Environmental Baseline Survey Study Areas

Figure 2-2

For the purpose of tracking specific environmental concerns identified in this EBS, each item in a particular inventory is given a unique alphanumeric identifier consisting of the type of environmental factor (e.g., AST = aboveground storage tank, IRP = IRP site, OWS = oil/water separator, HSTOR = hazardous material storage, WSTOR = hazardous waste storage, and UST = underground storage tank), and a facility number. For example, OWS-6 is an OWS located at Building 6. If a location had more than one of a specific item (e.g., two USTs), a sequential number is added to the alphanumeric identifier. For example, two removed USTs at Building 3 are identified as UST-3-1 and UST-3-2. If a site is not located close to a facility, the number of the nearest facility was given. For an IRP site, the number used to identify the site under that program was used.

2.3 LIMITATIONS AND ASSUMPTIONS

An inventory of hazardous material storage was developed for Ontario ANGS based on Air Force Form 2761, which lists hazardous materials used in a particular workplace. Information was available for 1994 only. *Note: Air Force Forms 2761 were not available for Ontario ANGS; however, they were available for the 147th Combat Communication Squadron in San Diego, California. The 163rd ARW Bioenvironmental Engineer indicated that the San Diego installation conducts similar activities and would be representative of materials utilized at Ontario ANGS.* An inventory of hazardous waste storage was developed from hazardous waste generation information for Ontario ANGS; this data was available for 1993 and 1995. Sampling for radon and indoor air quality has not been conducted. Facilities constructed prior to or during 1978 were assumed to contain lead-based paint.

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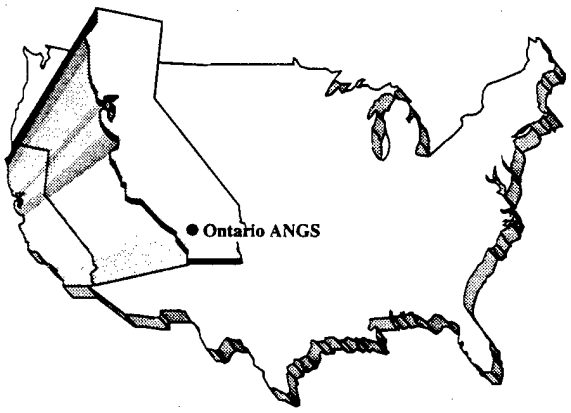


CHAPTER 3

3.0 FINDINGS

This chapter of the EBS presents the findings of the records search, interviews, and VSIs. An overview of the history of Ontario ANGS and historic land uses on the station is presented in Section 3.1. Section 3.2 gives a description of the environmental setting of the station, including utility systems. Sections 3.3 and 3.4 describe resource findings and conclusions. Resources discussed within Section 3.4 are disclosure issues only and are not used in property categorization. Overall property categorization is presented in Chapter 5.0.

Based on a review of existing documentation and/or the VSI, some sites were identified as potentially requiring remediation. If necessary, remediation of sites not currently undergoing restoration will be accomplished as part of the IRP or other environmental programs.

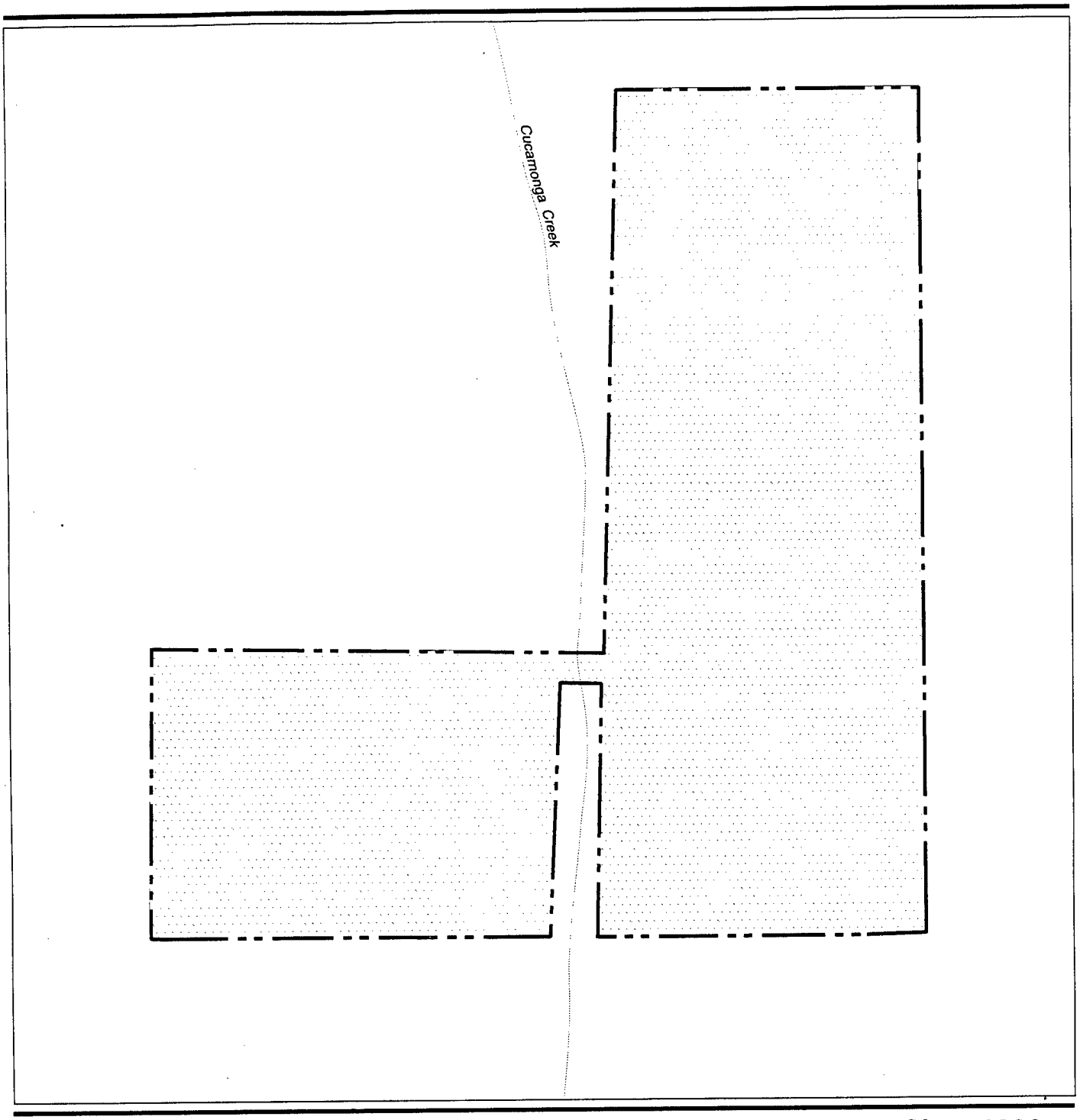
The data within each resource have been organized into tables, which are provided within the appendices at the end of this EBS. The data listed in the tables and shown on figures are based on information obtained during the records search and VSI. Because historic data were often incomplete, data gaps are shown as unknown or are footnoted at the bottom of the tables.

3.1 STATION HISTORY AND HISTORIC LAND USE

The following section describes the history of Ontario ANGS and provides a summary of historic land uses at the station. A summary of land use by study area is provided in Appendix B, Table B-1.

Prior to the 1940s, the area for the future site of the Ontario International Airport and Ontario ANGS was primarily agricultural (Figure 3-1).

From about 1942 until 1948, the station property and the rest of the Ontario International Airport property was utilized as a U.S. Army Airfield, with air and pilot training as its primary mission. The airfield consisted of an east-west runway and a cross-wind runway (southwest to northeast). In the mid-1940s, the southern portion of the station property on the east side of Cucamonga Creek was used for fire drill training (Figure 3-2). Although specific activities conducted at the fire drill area are unknown, a review of historic aerial photographs identified an apparent burn pit located south of the current location of Building 1. The 3-acre parcel west of Cucamonga Creek was used as a motor pool. Building 109 was the motor repair shop with an adjacent gas station to the southwest. A tire repair shop, tool shop, and grease rack were also located adjacent to Building 109. Building 111 served as a gas station with a 12,000-gallon tank, a dispatcher's house, and



EXPLANATION

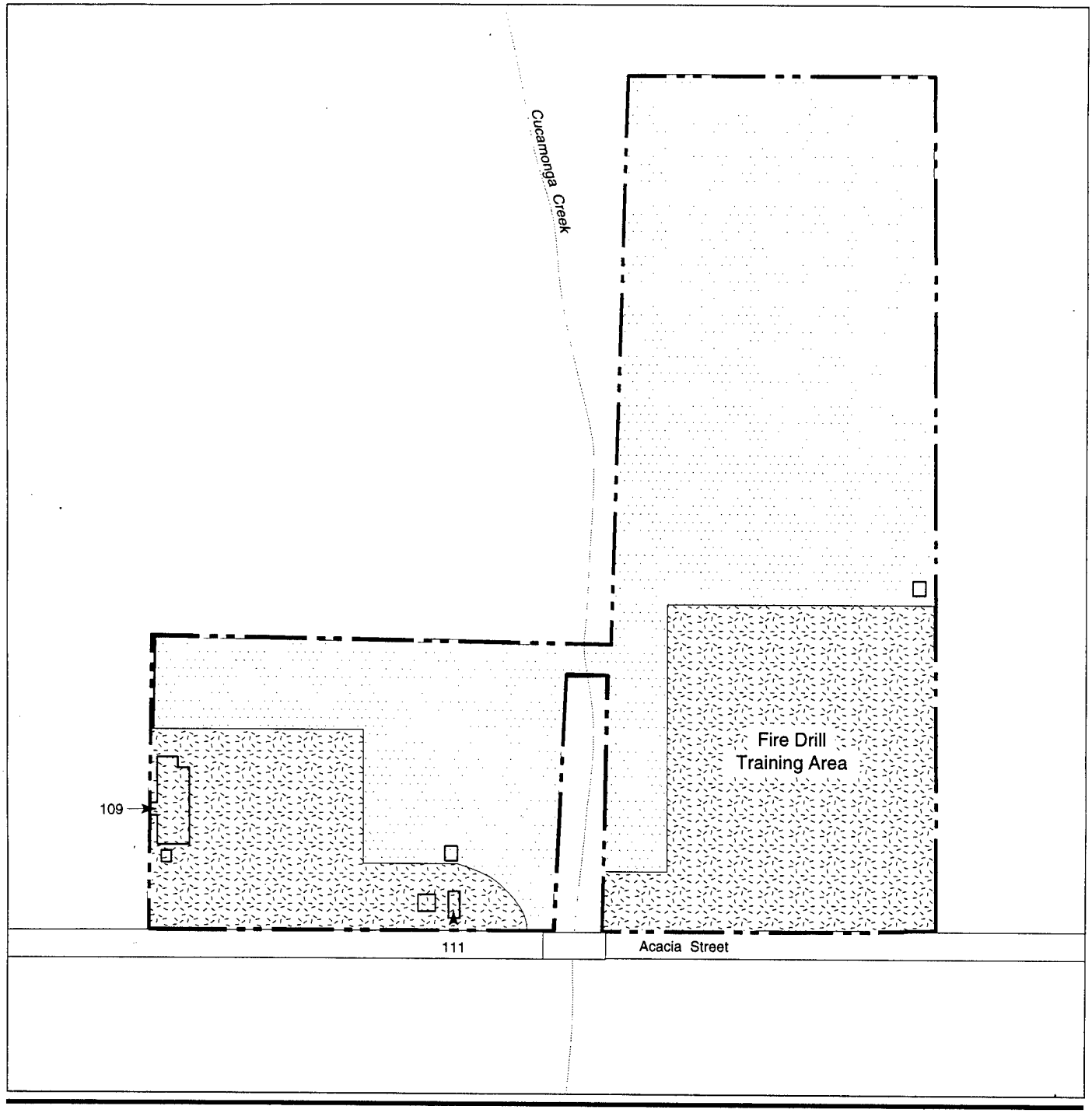
- Airfield*
- Aviation Support*
- Industrial*
- Medical*
- Educational*
- Commercial*
- Residential*
- Public Facilities/Recreation*
- Agriculture
- Vacant*
- Existing Station Boundary

0 50 100 200 Feet

* Standard land use designation not applicable to this figure

Land Use Circa 1938

Figure 3-1



EXPLANATION

- Airfield*
- Aviation Support*
- Industrial
- Medical*
- Educational*
- Commercial*
- Residential*
- Public Facilities/Recreation*
- Agriculture
- Vacant*
- Existing Station Boundary

0 50 100 200 Feet

* Standard land use designation not applicable to this figure

Land Use Circa 1945

Figure 3-2

an oil storage building. Facilities located adjacent to the present station boundary included utility shops and the motor pool turn-around to the west, a skeet range to the north, barracks to the southeast, and vineyards to the east and south.

By 1949, the present-day headquarters building (Building 1), supply shop (Building 2), and vehicle maintenance shop (Building 3) were constructed. Acacia Street provided access to the west side of Cucamonga Creek via a wooden bridge constructed by the U.S. Army. Activities included maintenance of aircraft and vehicles, and fuel storage.

In 1952, the 196th Fighter Interceptor Squadron assumed operations at the airfield. The P-51 "Mustang" became the unit's primary mission aircraft. By 1955, the east-west runway had been extended to approximately where Cucamonga Creek would intersect it. By the mid-1950s, the hazardous materials storage (Building 4), radio repair shop (Building 5), and rocket storage (Building 7) were constructed (Figure 3-3). Between 1957 and 1966, a medical dispensary was added to Building 1. The property occupied by the Air National Guard included the hangar and aircraft parking apron located west of Cucamonga Creek. The area west of Cucamonga Creek continued as a motor pool.

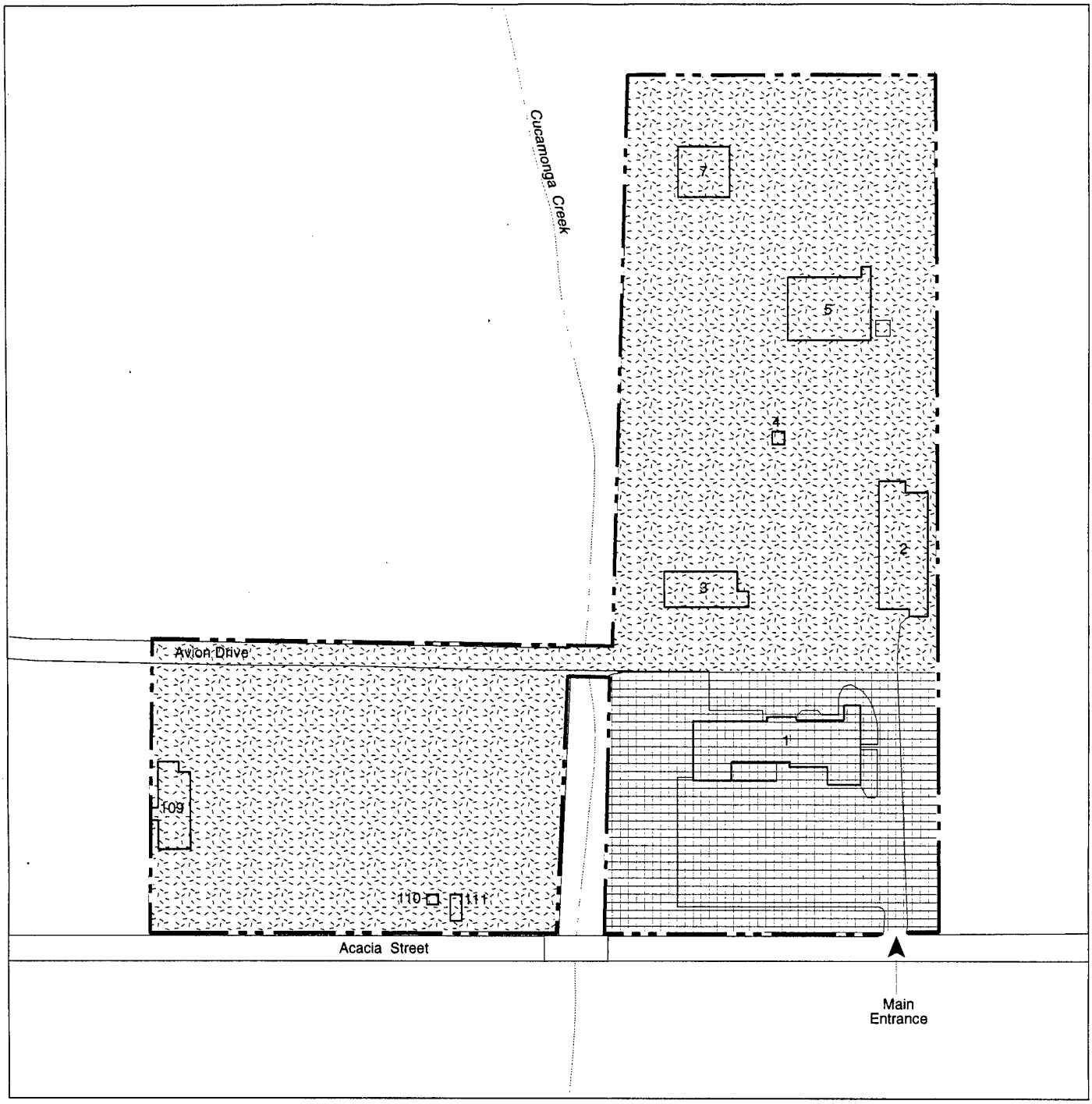
On May 2, 1958, the Air Force reorganized and expanded the 196th Fighter Interceptor Squadron into the 163rd Fighter Interceptor Group as part of the North American Defense Command. The unit progressed through the F-86 series aircraft and, in 1965, accepted the F-102 "Delta Dagger" as its new aircraft.

In 1962, the aerospace ground equipment (AGE) maintenance building (Building 6) was constructed. This building is now the generator maintenance facility.

Between 1966 and 1969, the wooden bridge at Acacia Street was removed. Access to the station continued to be provided by Avion Drive, north of Building 1. By 1969, the east-west runway had been extended past Archibald Avenue.

Civilian and military agencies shared responsibility of the airfield at the airport. In 1967, the cities of Ontario and Los Angeles entered into a joint powers agreement to develop the Ontario International Airport. The military activities were confined to the southeastern portion of the airport property, east of Hellman Avenue and south of the airfield.

On March 8, 1975, the unit was reassigned under the Tactical Air Command as the 163rd Tactical Air Support Group, receiving the O-2A "Super Skymaster" to accomplish its new mission. Operations included maintenance of aircraft, vehicles, AGE maintenance, as well as nondestructive inspection testing.



EXPLANATION

Land Use Circa 1957

- Airfield*
- Aviation Support*
- Industrial
- Medical*
- Educational*
- Commercial
- Residential*
- Public Facilities/Recreation*
- Agriculture*
- Vacant*
- Existing Station Boundary

0 50 100 200 Feet

* Standard land use designation not applicable to this figure

Figure 3-3

In 1982-1983, the 163rd Tactical Air Support Group moved to March AFB, and the 148th Combat Communications Squadron (CBCS) assumed responsibility for Ontario ANGS. The mission of the 148th CBCS is to uphold the capability of installing, operating, and maintaining mobile communication facilities that provide interbase and intrabase communication in support of state emergencies and tactical air forces. Land uses have changed very little on station property since the arrival of the 148th CBCS (Figure 3-4).

Cucamonga Creek was rechanneled in the early 1980s. The creek bed was originally 25 to 30 feet east of its present position. The original, gently sloping creek bank reached within 5 feet of the west wall of the vehicle maintenance shop (Building 3). The channel shifting involved the excavation of soil along the west side of the original creek bed and the addition of fill material over the original creek bed and bank.

The area that comprises Ontario ANGS currently includes one fee-purchased parcel (east of Cucamonga Creek) and one parcel leased from the city of Los Angeles, Department of Airports (LADOA) (west of Cucamonga Creek). The station is located on the southeast side of Ontario International Airport.

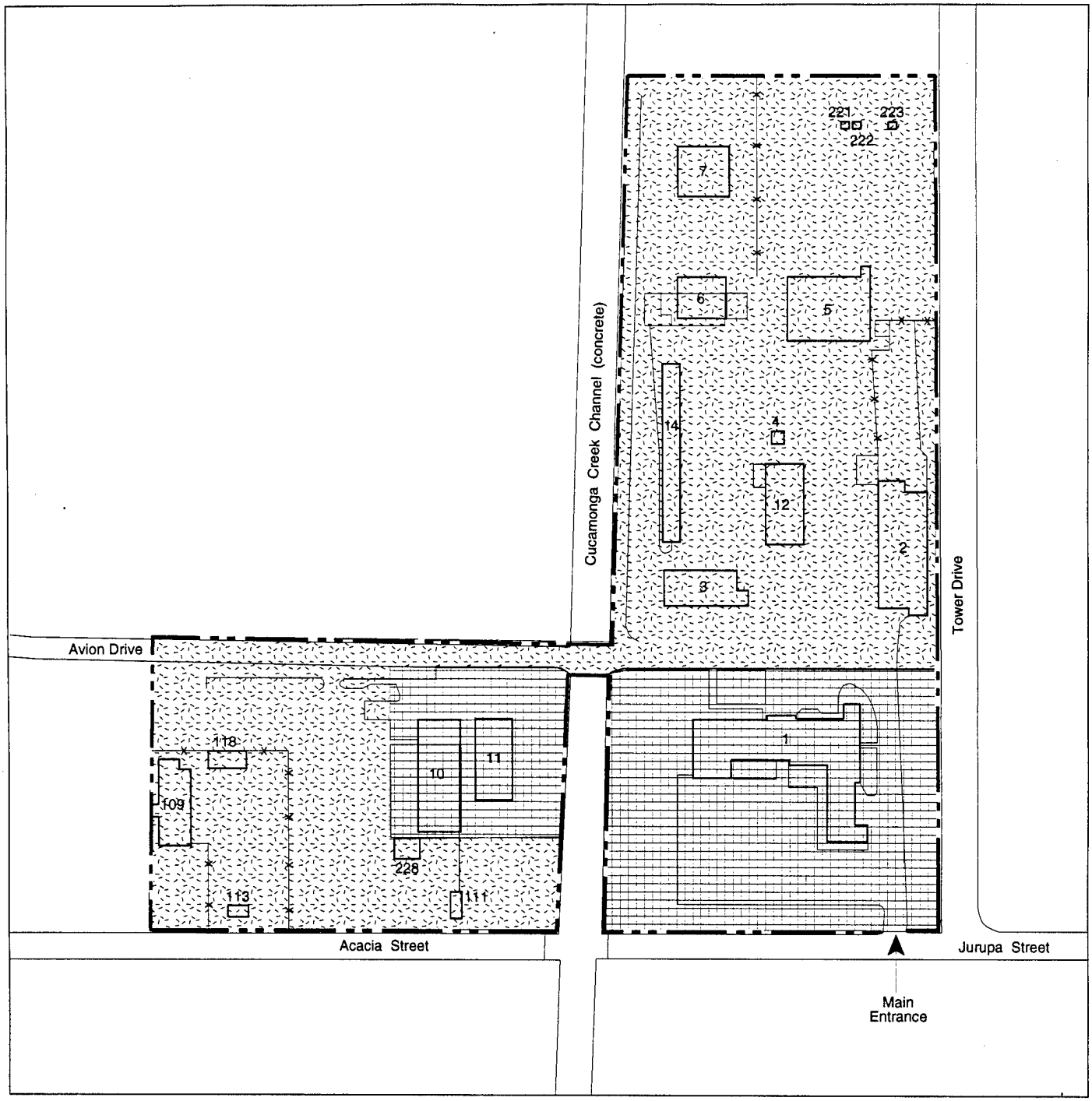
A recorded chain-of-title search was conducted for on-station parcels to determine prior ownership or uses that could reasonably have contributed to an environmental concern. The title search reviewed DOD acquisition of on-station parcels from 1936 to the present. If a parcel was acquired prior to 1936, the title search identified the owner previous to DOD.

Based on the review of recorded chain-of-title documents and other historic information, agricultural uses dominated prior to development of the station property. A review of the data obtained did not identify any areas of environmental concern related to past property use.

3.2 ENVIRONMENTAL SETTING

Ontario ANGS is located within the city of Ontario, California, in the southwestern portion of San Bernardino County (see Figure 1-1). It is located approximately 35 miles east of downtown Los Angeles, and 3 miles southeast of downtown Ontario. Ontario ANGS is adjacent to the southeast side of the Ontario International Airport.

The station occupies 11 acres in two contiguous parcels northwest of the intersection of Tower Road and Jurupa Street. The first parcel consists of approximately 8 acres located on the east side of Cucamonga Creek and is owned by the Air Force. The second parcel consists of approximately 3 acres on the west side of Cucamonga Creek, and is leased from the LADOA. Cucamonga Creek is a concrete flood control channel running north-south through the property.



EXPLANATION

- Airfield*
- Aviation Support*
- Industrial
- Medical*
- Educational*
- Commercial
- Residential*
- Public Facilities/Recreation*
- Agriculture*
- Vacant*
- Station Boundary
- Fence

0 50 100 200 Feet

* Standard land use designation not applicable to this figure

Land Use Circa 1996

Figure 3-4

Land uses immediately adjacent to the station include aviation support associated with the airport on the north and west sides, some vacant land and industrial uses associated with the General Electric Jet Engine Test Cell facility and an office/industrial park on the south side, and vacant land on the east side. Land uses associated with the airport extend 3/4 mile north of the station. Generally, land uses south of the airport are industrial, interspersed with vacant or agricultural land.

3.2.1 Topography and Drainage Patterns

3.2.1.1 Topography. The average elevation at Ontario ANGS is 890 feet above mean sea level and slopes generally to the south-southwest at approximately 1.5 percent (California Air National Guard, 1993). Total elevation change across the station is approximately 10 feet.

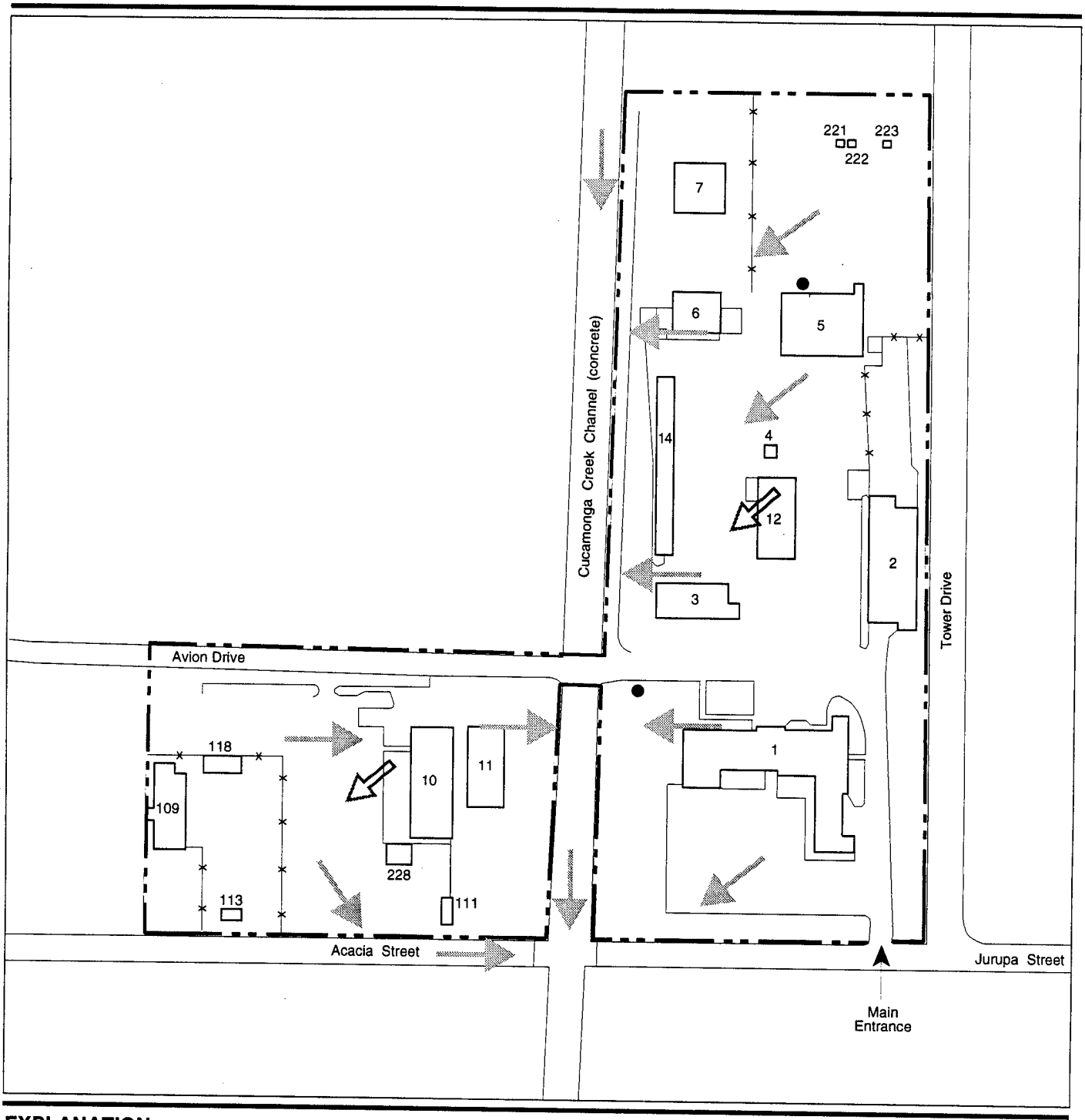
3.2.1.2 Surface Drainage. All storm water runoff at the station flows directly into Cucamonga Creek. Surface drainage at Ontario ANGS consists mostly of runoff from paved parking areas into storm drain inlets located throughout the parking areas and along building perimeters. The storm drain system generally drains to the central portion of the station towards Cucamonga Creek (Figure 3-5).

Flood potential studies conducted by the San Bernardino County Flood Control have been completed for the area. Results of the study indicated that there were no potential 100-year flood events within the Cucamonga Creek flood control channel, as the control channel was designed for greater than a 100-year flood event (Dames and Moore, Inc., 1990).

3.2.1.3 Surface Water Quality. The storm water discharge program for portions of Ontario ANGS is maintained by the LADOA, and is managed with guidelines set forth in their National Pollutant Discharge Elimination System (NPDES) permit, issued in 1993. Because of the complexity of operations at Ontario International Airport, the LADOA has assumed the role of principal permittee for the NPDES program for their owned and leased areas, with airport tenants who conduct industrial activities as co-permittees. The NPDES permit covers only the portion of Ontario ANGS west of Cucamonga Creek that is leased from the LADOA. The Department of Airports continues to meet all sampling, analysis, and reporting requirements established in their NPDES permit. The Ontario ANGS fee-owned property is not covered under an NPDES permit.

3.2.2 Groundwater Hydrology and Geology

3.2.2.1 Groundwater Hydrology. Ontario ANGS is in the northwestern portion of the Chino Groundwater Basin. Groundwater in the basin is contained in alluvial sediments that can be up to 2,000 feet thick. The uppermost aquifer is reported unconfined and is saturated at a depth



EXPLANATION

- Generalized Surface Flow
- Generalized Groundwater Flow
- Groundwater Monitoring Well
- Station Boundary
- Fence

0 50 100 200 Feet

Hydrology

Figure 3-5

of approximately 250 to 350 feet below ground surface. The groundwater aquifers are recharged, in small part, by surface water infiltration and, to a much larger extent, by runoff from the nearby San Gabriel Mountains during storm events. Hydraulic conductivity and the water yield to produce wells are generally high.

The water table in the vicinity of Ontario ANGS is approximately 250 feet below ground surface. Water from the aquifer is withdrawn from wells in the area by local municipalities for domestic consumption. The gradient of the water table is generally to the southwest. Locally, the amount of water removed by pumping has exceeded the amount of water naturally recharged to the aquifer, resulting in a decline of the water table of approximately 100 feet since the early 1900s (Dames and Moore, Inc., 1990).

Results of water quality data from the Chino Basin aquifer has shown trichloroethylene (TCE) and tetrachloroethylene (PCE) at concentrations exceeding standards in areas south and downgradient of Ontario ANGS along Cucamonga Creek. The primary source of the contaminants is unknown, but past aerospace operations at Ontario International Airport are being investigated. Municipal drinking water has not been affected by the groundwater contamination; however, approximately 20 private production wells located approximately 1 mile south of the station have TCE levels exceeding water quality standards (Santa Ana Regional Water Quality Control Board, 1996). Groundwater sampling from monitoring wells installed at Ontario ANGS showed that the levels of TCE and PCE were below federal and state standards, and this site was not considered the source contributing to the regional groundwater contamination problem (see Section 3.3.2.2).

3.2.2.2 Soils and Geology. Ontario ANGS is within the northern portion of the Chino Basin, which is bounded on the north by the San Gabriel Mountains, on the west by the Puente Hills, and on the south by the Santa Ana Mountains. The physiography of Ontario ANGS is generally flat, with the site situated on a gently undulating, southward sloping, alluvial fan complex.

Ontario ANGS is located in Seismic Hazard Zone IV (International Conference of Building Officials, 1991). Seismic Hazard Zone IV is characterized by areas likely to sustain major damage from earthquakes and corresponds to intensities of VIII or higher on the Modified Mercalli Scale.

Soil development at the station is dominated by loamy sands that cover the entire area. The only soil series on the station is the Tujunga series (U.S. Department of Agriculture, 1980). The Tujunga series consists of somewhat excessively drained, nearly level to moderately sloping soils that formed on alluvial fans in granitic alluvium. Due to the modification during station development, the soil complex could be classified as disturbed and,

therefore, may not be suitable for classification as Prime Farmland or Farmlands of Statewide Importance.

3.2.3 Utilities

3.2.3.1 Water Supply. The potable water supply for the station is provided by the city of Ontario. No water wells are present within the station boundaries. Ontario ANGS owns and maintains 7,800 linear feet of water distribution mains.

3.2.3.2 Sanitary Sewer. Sanitary sewer service is provided by the city of Ontario. Ontario ANGS owns and maintains 4,200 linear feet of sanitary sewer mains. In addition, there are 5,500 linear feet of storm drains that discharge to Cucamonga Creek. The station also contains four septic tank systems that were abandoned-in-place. See Section 3.3.4 for further discussion of wastewater treatment and related systems.

3.2.3.3 Electricity. Southern California Edison provides electrical power to Ontario ANGS. The station owns and maintains 1,800 linear feet of overhead distribution line and 15,000 linear feet of underground distribution line.

3.2.3.4 Natural Gas. Natural gas is provided to Ontario ANGS by the Southern California Gas company. The station owns and maintains 2,500 linear feet of gas mains for distribution.

3.2.3.5 Solid Waste. Solid waste is picked up by a commercial hauler and disposed of in landfills operated by San Bernardino County. The specific time frame that Ontario ANGS has utilized a commercial hauler for solid waste disposal is not known. Prior to contracting a commercial hauler, solid waste may have been disposed in a former landfill located northeast of the station. No known disposal of solid waste has occurred on Ontario ANGS.

3.3 ENVIRONMENTAL FACTOR FINDINGS

Category 2 through 7 properties were identified based upon the methodology presented in Chapter 2.0. Areas where no past or present storage, release, or disposal of hazardous substances or petroleum products and their derivatives were identified are considered to be Category 1 property. Areas where petroleum products and/or petroleum waste were stored were considered Category P.

Areas where hazardous materials and/or hazardous waste were stored were considered Category 2 unless a suspected or confirmed release was identified.

Category 3 designations for the station were based upon existing information (e.g., written records, reports, regulator concurrence memos) to

document that contaminant levels, if present, are below the applicable or relevant and appropriate requirements (ARAR). These areas do not present a threat to human health and the environment and no actions are required to remove or remediate.

Areas where known or suspected contamination has occurred were classified as Category 4 through 7 properties based on existing documentation or VSIs. In addition, new areas of potential contamination identified as a result of this EBS were classified as Category 7 properties. The following sections describe resources used in property categorization. Items within each resource have been given a specific resource category, and findings for each resource were reviewed to obtain the overall property category (see Appendix A, Table A-1).

3.3.1 Hazardous Substance and Petroleum Product Storage

3.3.1.1 Hazardous Materials. Hazardous materials commonly used at Ontario ANGS for industrial and electrical equipment maintenance operations include motor fuels; petroleum, oil, and lubricants (POL); hydraulic fluids; cleaning solvents; corrosives; paints; thinners; pesticides; compressed gases; and batteries. Station records were reviewed to identify quantities and types of hazardous materials used in station facilities. Records pertaining to hazardous material use at industrial workplaces and maintained by the 163rd ARW Bioenvironmental Engineer and the 162nd CCGP Civil Engineer provided the most complete information available.

Hazardous materials storage/inventory information for Ontario ANGS did not yield any usable information (e.g., quantity, constituents); however, a computerized listing (AF Form 2761) was collected from the 163rd Bioenvironmental Engineer at March AFB detailing the types of hazardous materials found at a typical station with the same operations and activities found at Ontario ANGS (i.e., 147th Combat Communications Squadron San Diego). The list was compiled in June 1994, and may include hazardous materials that have since been replaced by less toxic chemicals.

According to the San Bernardino County Department of Environmental Health Services, Hazardous Materials Handlers Permit 8701071130, Ontario ANGS is permitted to handle the following on an annual basis:

150 gallons combustible liquids
550 gallons petroleum oils
12 pounds carbon zinc batteries
5 pounds magnesium batteries
6 pounds lithium batteries
3 pounds mercury batteries
100 pounds rags contaminated with auto and paint waste
100 pounds aerosol paint

2 gallons paint removers with more than 10 percent halogenated solvents
55 gallons antifreeze
100 pounds oil and fuel filters.

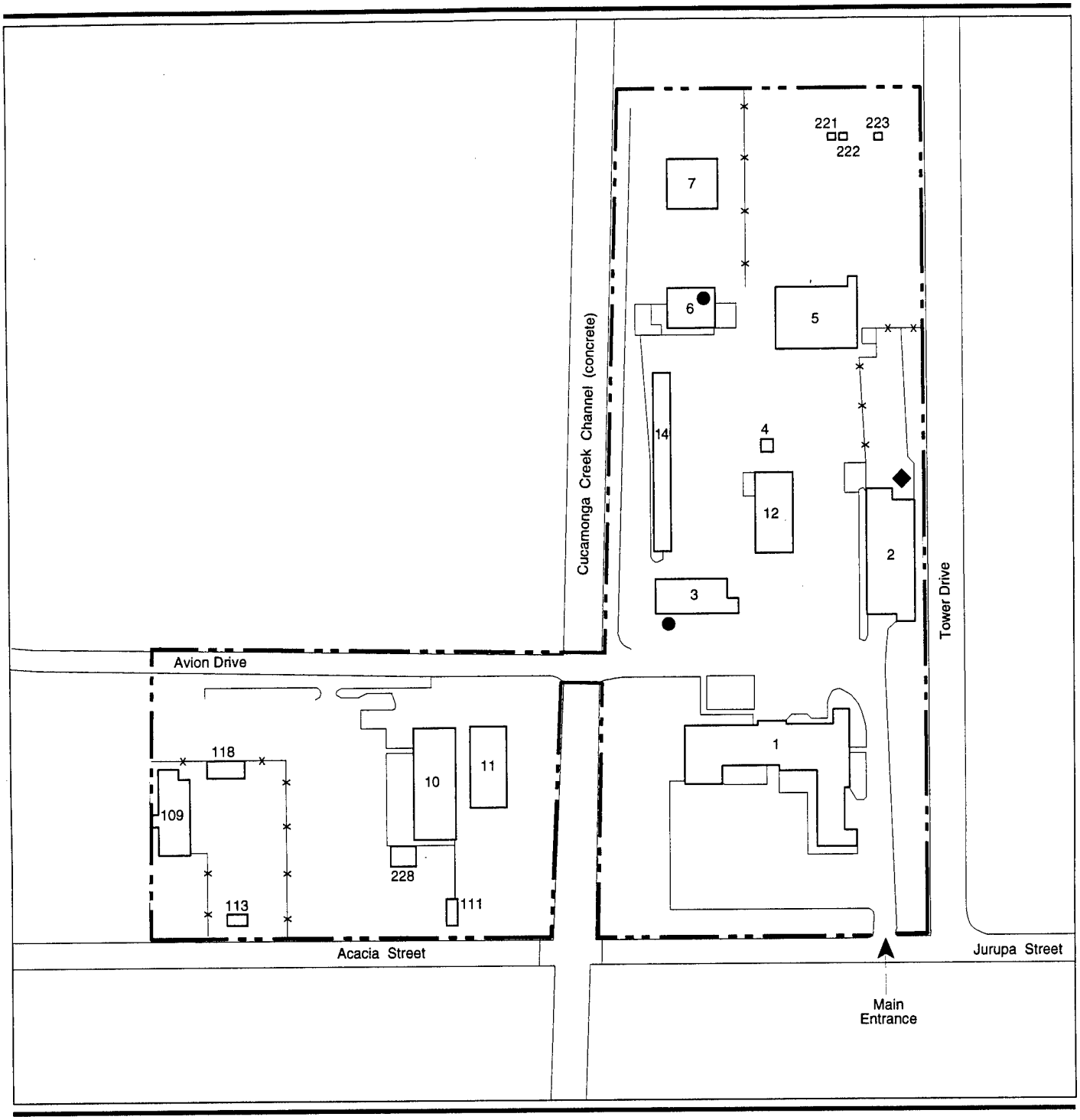
Based on the usage of a facility or on information obtained during the VSIs, it was determined that hazardous materials were used at eight facilities. The specific resource categories for these facilities are listed in Appendix C, Table C-1. Table C-3 provides historical data on storage of hazardous materials (for an installation with similar activities to Ontario ANGS). This data was derived from Air Force Form 2761, Hazardous Materials Data, which reflects hazardous materials usage. A major assumption made for Table C-3 is that usage data was the only available data for storage and that the 147th Combat Communications Squadron conducted similar operations.

Fuels management activities at Ontario ANGS require the monitoring of several USTs and pipelines for leaks and spills. These activities are discussed in Section 3.3.3, Storage Tanks and Pipeline Systems. Use of radioactive materials is discussed in Section 3.4.10, Radioactive Materials and Mixed Waste.

Based upon the methodology presented in Chapter 2.0, no evidence of a release was identified at any of the hazardous material storage locations; therefore, these facilities are considered Category 2 properties with regard to hazardous materials storage. Any known or potential release above action levels resulting in a possible site inspection or RA is discussed within Hazardous Waste and Waste Petroleum Products or Installation Restoration Program Sites (Sections 3.3.1.2 and 3.3.2 respectively).

3.3.1.2 Hazardous Waste and Waste Petroleum Products. Station records dating from 1993 were reviewed to identify quantities and types of hazardous wastes and petroleum wastes generated or stored in station facilities. Hazardous wastes and/or waste petroleum products were stored at Buildings 2, 3, and 6. Appendix C, Table C-2, provides an inventory of Hazardous Waste and Waste Petroleum Product Storage Areas. Hazardous waste manifests were reviewed for information on types and quantities of hazardous wastes or waste petroleum products stored by facility. The review of the hazardous waste manifests did not yield any usable information. Figure 3-6 shows the locations of facilities in which hazardous wastes or petroleum wastes were stored.

The following discussion relates to waste management practices and storage facilities used pursuant to regulatory requirements. The federal government issued regulations for hazardous waste management in Resource Conservation and Recovery Act (RCRA) (42 U.S.C. Sections 6901 through 6992k) in 1976. On August 1, 1992, the U.S. EPA authorized California EPA (Cal EPA) Department of Toxic Substances Control (DTSC) to administer both federal and state hazardous waste programs in California.



EXPLANATION

- Station Boundary
- Fence
- Satellite Accumulation Point
- 90-Day Accumulation Point

0 50 100 200 Feet

Hazardous Waste Storage Locations

Figure 3-6

Cal EPA/DTSC is now the lead agency for regulation interpretations, waste classification decisions, RCRA-permitted facility decisions, and implementation of hazardous waste regulations under the California Hazardous Waste Control Law (HWCL). The HWCL was originally enacted in 1972, and has been amended and revised several times to align it more closely with federal requirements. Requirements of HWCL are found in Health and Safety Code Sections 25100 et seq. State hazardous waste regulations have been promulgated in the California Code of Regulations Title 22.

Normal operations at Ontario ANGS currently produce wastes defined as hazardous by RCRA, 40 Code of Federal Regulations (CFR) 261-265, and California Code of Regulations, Title 22, Division 4, Chapter 30. The station is a federal, conditionally exempt generator. However, since the station handles waste oil, antifreeze, solvents, and batteries, it has been classified as a California small-quantity generator (U.S. EPA identification number CA 8572890137) generating less than 100 kilograms of hazardous waste per month. The station maintains Hazardous Material Handler and Hazardous Waste Generator permits, issued by the Environmental Health Services Department, County of San Bernardino, California, appropriate for small quantity generator facilities. All hazardous wastes generated on station are transferred to the 90-day accumulation point adjacent to Building 2, and disposed of off site.

Hazardous wastes are generated at several industrial shops at the station and collected at two satellite accumulation points (SAPs). The waste collection capacity of these SAPs varies in size with a maximum capacity of 55 gallons. Hazardous wastes may be accumulated for up to one year in accordance with land disposal restrictions. Upon reaching the 55-gallon limit, wastes are transferred to the 90-day accumulation point adjacent to Building 2 for final off-station disposal or recycling by a permitted waste hauler. SAPs are regularly inspected by the 148th CBCS Environmental Management Office. The county conducts annual inspections, and Air Force Environmental Compliance Assessment and Management Program inspections are conducted annually.

Based upon the methodology presented in Chapter 2.0, no evidence of a release was identified at either of the SAPs or the accumulation point; therefore, these facilities are considered to be Category 2 properties with regards to hazardous waste storage.

According to a preliminary assessment (PA) that was finalized in 1990 as part of the station IRP, the 148th CBCS generates hazardous wastes primarily through vehicle and AGE maintenance operations. The PA analyzed disposal methods at the station for Buildings 3 and 6 between 1984 and 1990. At Building 3 (Vehicle Maintenance Shop), all wastes were disposed of using a contractor or the Defense Reutilization and Marketing Office (DRMO) at March AFB from 1984 to 1990, except for battery acid

and ethylene glycol. Battery acid was neutralized and disposed of down drains leading to the storm sewer from 1984 to 1988, and by using DRMO from 1988 to 1990. Ethylene glycol was disposed of directly down the storm sewer until 1988, and through DRMO from 1988 to 1990. Since 1990, hazardous wastes have been disposed of using a contractor or the DRMO.

At Building 6 (Generator Maintenance Shop), engine oil and paint strippers and thinners were disposed of using contractors or DRMO from 1984 to 1990. Hydraulic oil was disposed of using either a contractor or pouring it onto the ground during this same time frame (IRP Site SS-01). Battery acid was neutralized and disposed of by pouring it down storm sewers until 1988 and disposed of using DRMO between 1988 and 1990. Safety Kleen removes and recycles spent solvent. Since 1990, hazardous wastes have been disposed of using a contractor or the DRMO.

According to the San Bernardino County Department of Environmental Health Services, Hazardous Waste Generator Permit 8610300013, Ontario ANGS has permission to dispose the following amounts of waste annually off site:

110 gallons combustible liquids
220 gallons petroleum oils
55 gallons non-RCRA state regulated waste
15 gallons cleaning compound
25 pounds carbon-zinc batteries
2 pounds lithium batteries
15 pounds magnesium batteries
2 pounds mercury batteries
2 pounds nicad batteries
200 pounds rags contaminated with auto and paint waste
30 pounds aerosols
220 pounds paint
40 pounds aerosol paint
2 gallons paint removers with more than 10 percent halogenated solvents
5 gallons paint removers with less than 10 percent halogenated solvents
10 gallons waste paint
60 pounds waste paint solids
5 pounds freon
55 gallons antifreeze
100 pounds oil and fuel filters.

3.3.1.3 Petroleum Products. Gasoline and diesel fuel were stored on station in USTs at Buildings 3 and 6, respectively. The two gasoline USTs at Building 3 had been inactive since 1987 and were removed in 1996. The UST at Building 6 was used for dispensing diesel fuel and was also removed

in 1996. Gasoline was also stored at Building 111 for dispensing; activities at this site ceased in 1954 and the UST was removed in 1996. In addition, fuel oil was once stored in USTs at Buildings 1, 2, 3, and 5 for heating purposes; these USTs were inactivated when the station was connected to the natural gas system and removed in 1995 and 1996. Specific property categorization for these USTs is provided in Section 3.3.3.2.

3.3.1.4 Petroleum Waste. The 148th CBCS generates petroleum wastes primarily through vehicle and generator maintenance operations. Waste generation and disposal activities at Ontario ANGS are discussed in detail in Section 3.3.1.2.

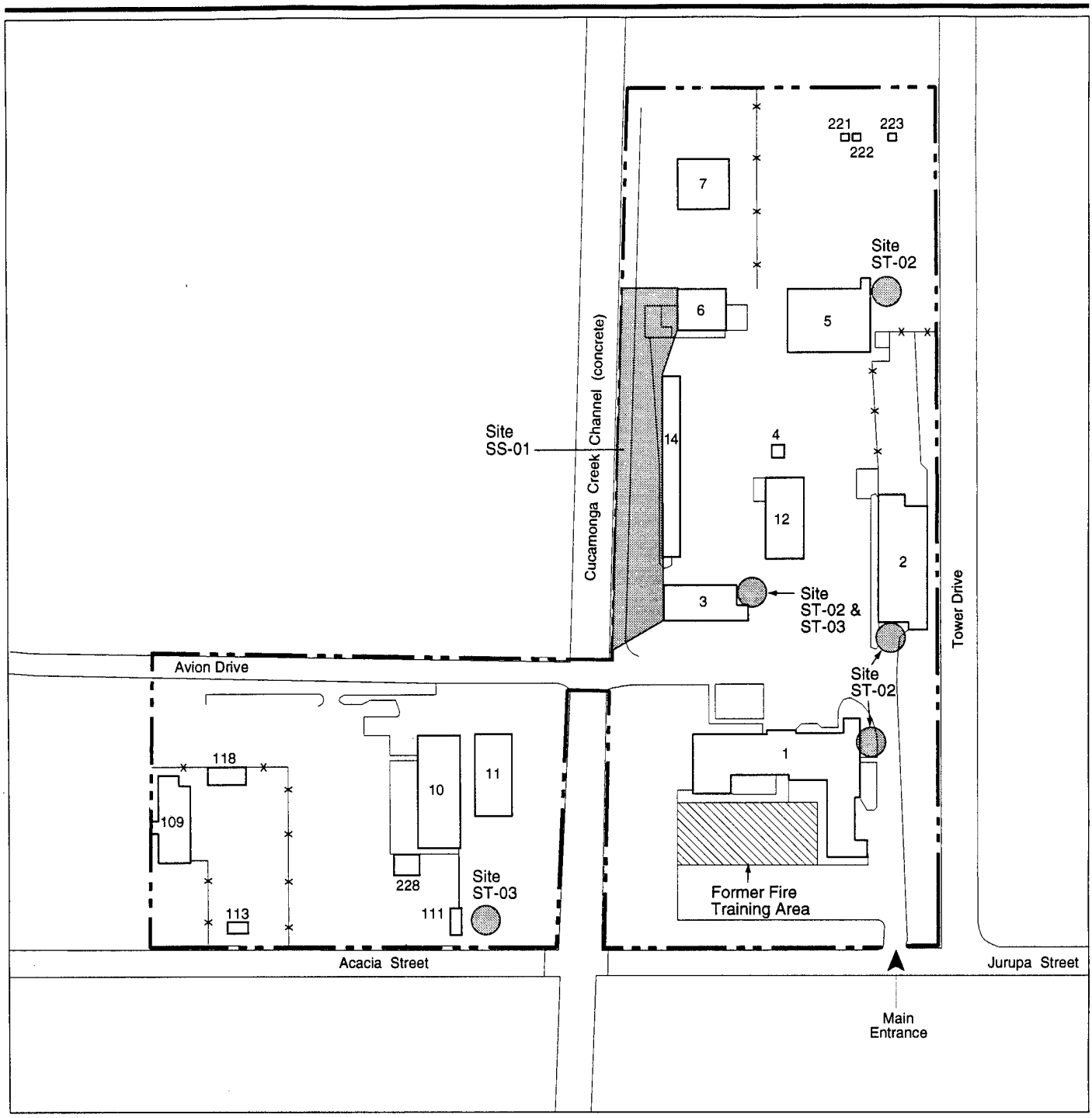
3.3.2 Installation Restoration Program Sites

3.3.2.1 Regulatory Background. The IRP was established to identify, characterize, and remediate CERCLA/RCRA-related contamination on Air Force installations. The program is designed to evaluate past disposal sites, control the migration of contaminants, and control potential hazards to human health and the environment.

The IRP at Ontario ANGS has been established as the mechanism for the CERCLA (42 U.S.C. 9601) process, incorporating applicable RCRA regulations, as well as meeting the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) (40 CFR 300). To ensure compliance with CERCLA/RCRA regulations, the IRP was implemented to identify and investigate potentially contaminated sites, and evaluate and select RAs. The U.S. EPA and Cal EPA will review, comment, and provide recommendations on projects, plans, and identify applicable or relevant and appropriate regulations.

In addition to the mandates of the IRP, the Air Force must also comply with the provisions of CERCLA Section 120(h) prior to the transfer of any property at Ontario ANGS. CERCLA Section 120(h) requires that before property can be transferred from federal ownership, the United States must provide notice of specific hazardous waste activities on the property and include in the deed a covenant warranting that "all remedial action necessary to protect human health and the environment with respect to any [hazardous] substance remaining on the property has been taken before the date of such transfer." Prior to the date of transfer, the U.S. EPA must provide concurrence that all remedial activities have been completed pursuant to the requirements of CERCLA 120(h)(3). Furthermore, the covenant must also warrant that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States."

3.3.2.2 IRP History. The Air Force began the IRP process at Ontario ANGS in 1990 with a PA. It initially identified three areas of possible contamination (Figure 3-7). Of these sites, one (IRP Site SS-01) was



EXPLANATION

- Station Boundary
- Fence
- IRP Site Locations
- Former Fire Training Area

0 50 100 200 Feet

Source: California Air National Guard 1994a.

IRP Site Locations

Figure 3-7

considered to pose a threat to human health and the environment and was therefore evaluated using the Hazard Assessment Rating Methodology (HARM). The HARM was used during early IRP investigations to prioritize sites of contamination for RA based on potential hazards to human health and the environment. Based on its HARM score, IRP Site SS-01 was recommended for further investigation.

IRP Site SS-01 is located west of the vehicle maintenance shop and shed (Buildings 3 and 14, respectively) where the disposal of small amounts of waste materials generated from vehicle maintenance and power production shops occurred. Wastes disposed of at the site consisted of small quantities of waste oils, fuels, paints, and solvents. Disposal took place from the 1950s to the early 1980s.

An expanded SI was conducted in 1993. Results of soil, soil gas, and groundwater sampling conducted in support of the expanded SI indicated that no contamination of soil and groundwater exists at IRP Site SS-01. This may be due to the soil removal activities conducted in the vicinity of IRP Site SS-01 during rechanneling and cement lining of Cucamonga Creek. The expanded SI also indicated that IRP Site SS-01 is not considered a possible source of contaminants contributing to the regional groundwater contamination. In addition, IRP Sites ST-02 and ST-03 were identified in 1990, when it was determined that USTs at the station were eligible for Defense Environmental Restoration Account (DERA) funding.

IRP Site ST-02 includes four former fuel oil USTs located at Buildings 1, 2, 3, and 5. Two tanks were abandoned in place in 1978 and the other two in 1982. The tanks were not tightness-tested prior to or since being abandoned. An interim RA to remove the USTs and any surrounding contaminated soil was completed in 1996. A discussion of USTs is provided in Section 3.3.3.2.

IRP Site ST-03 includes three gasoline USTs located at Buildings 3 and 111. The USTs at Building 3 were abandoned in place in 1987 and the UST at Building 111 was abandoned in place in 1954. The tanks were not tightness-tested prior to or since being abandoned. The completion of an interim RA to remove the USTs and any surrounding contaminated soil was completed in 1996. USTs are discussed in Section 3.3.3.2.

In addition to the IRP sites discussed above, a review of historic aerial photographs and maps of the station identified an apparent burn pit located south of the current location of Building 1. This area was used for fire training in the mid-1940s; specific activities conducted at the fire training area are unknown. This site has been identified for further investigation. If contamination is detected, remediation and close-out will be conducted in accordance with federal, state, and local regulations to protect human health and the environment.

3.3.2.3 Current IRP Status. As of April 1996, IRP Site SS-01 was considered "closed" by the Air Force. A decision document is being prepared for regulator approval. The fuel oil tanks associated with IRP Site ST-02 and the gasoline USTs at Buildings 3 and 111 associated with IRP Site ST-03 have been removed and closure reports submitted to regulatory agencies.

IRP Site SS-01 is considered Category 3 because results of the expanded SI indicated that contaminant levels were below action levels. IRP Site ST-02 is considered Category P_R since only fuel oil was stored at these locations and sampling conducted at the time of removal detected contaminant concentrations below action levels. Tank removal activities at Buildings 3 and 111 detected contaminant concentration below action; therefore, IRP Site ST-03 is considered Category 3. The former fire training area requires further investigation and is considered Category 7. Table 3-1 lists the IRP and area of concern sites and Appendix D provides individual site descriptions.

3.3.3 Storage Tanks and Pipeline Systems

The following section describes the findings for ASTs and USTs based on the records search and VSIs. An overview of pipeline systems is also provided. OWSs are discussed in Section 3.3.4.2.

3.3.3.1 Aboveground Storage Tanks. Based on a review of station records and VSIs, no ASTs have been or are currently utilized at Ontario ANGS.

3.3.3.2 Underground Storage Tanks. USTs are subject to federal regulations within RCRA, 42 U.S.C. 6991, and U.S. EPA implementing regulations 40 CFR 280. These regulations were mandated by the Hazardous and Solid Waste Amendments of 1984. The state regulates USTs under the California Underground Storage of Hazardous Substances Act (20-6.7). This law is implemented through the California Underground Storage Tank Regulations (Code of Regulations 23-3-16).

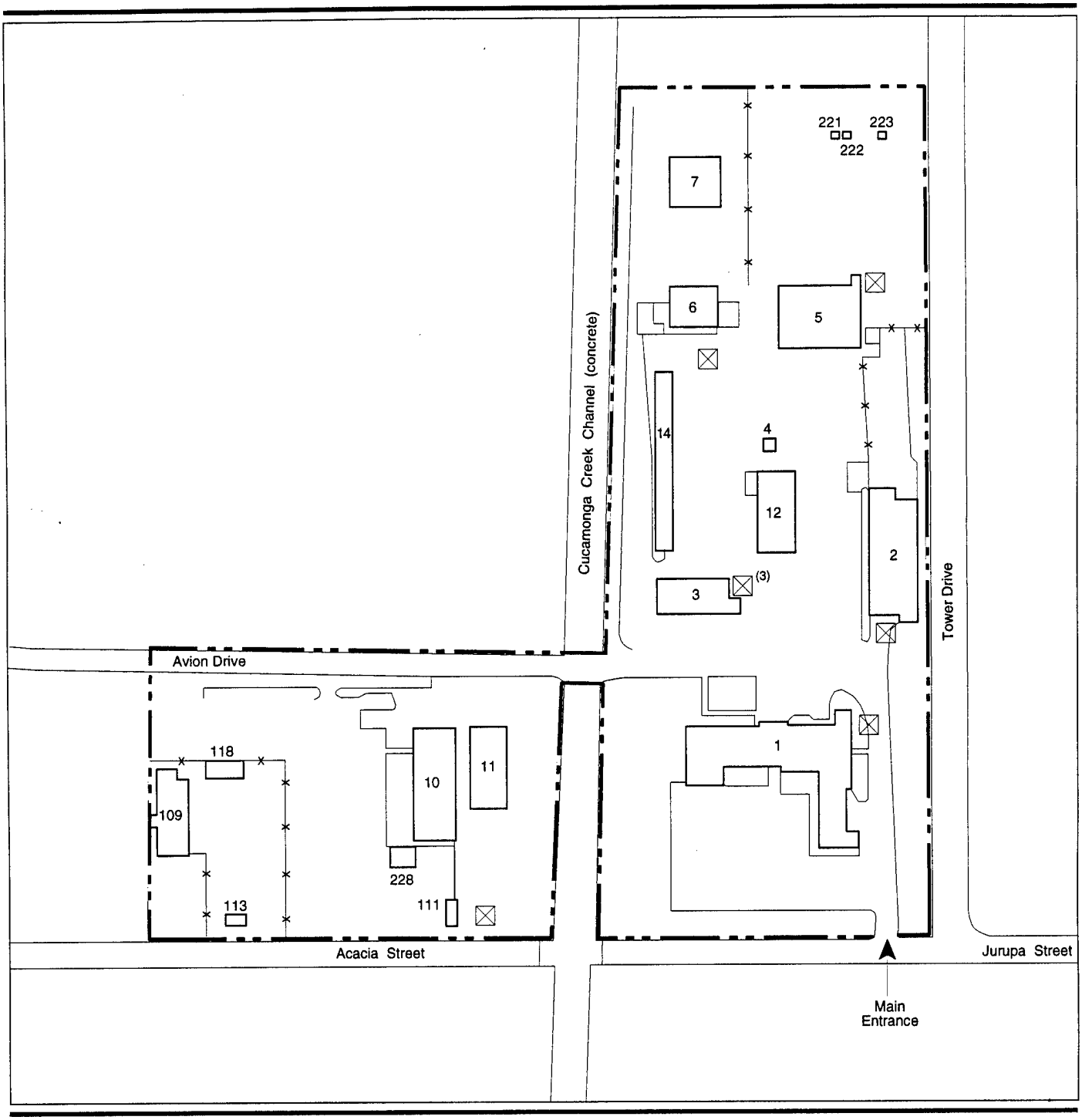
Based on the records search and VSIs, a total of eight locations were identified where USTs were located in the past (Figure 3-8). Appendix E, Table E-1, summarizes the status of all USTs at Ontario ANGS. All USTs have been removed.

The four removed fuel oil USTs at Buildings 1, 2, 3, and 5, and the removed diesel UST at Building 6 are considered Category P_R because only petroleum products were stored and contaminant concentrations detected during tank removal activities were below action levels. The removed gasoline USTs at Buildings 3 and 111 are considered Category 3 because contaminant concentrations detected during tank removal activities were below action levels.

Table 3-1. Summary of IRP and AOC Sites

Study Area	Site No.	Site Name	Status	Description	Category
A	SS-01	Area behind Vehicle Maintenance (Buildings 3 and 14)	Expanded SI completed; NFRAP DD to be prepared	From the 1950s to early 1980s, a potential for release of hazardous constituents to the environment in the area west of the vehicle maintenance shop and shed including waste oil, fuel, paint, and solvent.	3
A	ST-02	USTs at Buildings 1, 2, 3, and 5	USTs have been removed; closure report completed	From the 1940s to 1970s/1980s, Buildings 1, 2, 3, and 5 utilized 1,000-gallon steel USTs to store fuel oil for heating purposes.	P_R
B	ST-03	USTs at Buildings 3 and 111	UST has been removed; closure report completed	From the 1940s to 1980s, gasoline was dispensed from a 12,000-gallon steel UST at Building 111.	3
			USTs have been removed; closure report.submitted	From the 1940s to 1980s, gasoline was dispensed from 1,000- and 4,000-gallon USTs at Building 3.	3
A	NA	Former Fire Training Area	Further investigation recommended	In the mid-1940s, the area south of Building 1 was used as a fire training area. Specific activities conducted are unknown.	7

AOC = area of concern
DD = decision document
IRP = Installation Restoration Program
NA = not applicable
NFRAP = no further response action planned
SI = site investigation
UST = underground storage tank



EXPLANATION

- Station Boundary
- Fence
- Removed Underground Storage Tank

Underground Storage Tanks

0 50 100 200 Feet

Figure 3-8

3.3.3.3 Hydrant Fueling and Pipeline Systems. Ontario ANGS does not utilize a hydrant fueling system. The station did, however, dispense diesel fuel from a 6,000-gallon UST located at Building 6. In addition, the vehicle maintenance shop (Building 3) once dispensed gasoline from 1,000- and 4,000-gallon USTs; and Building 111 once dispensed gasoline from a 12,000-gallon UST. Fuel-dispensing activities at Buildings 3 and 111 ceased in 1987 and 1954, respectively. The former fuel-dispensing area at Building 6 is considered Category P_R because only petroleum products were stored and contaminant concentrations identified at the time of removal were below action levels. The former fuel-dispensing areas at Buildings 3 and 111 are considered Category 3 because contaminant concentrations identified at the time of removal were below action levels.

3.3.3.4 Other Tanks. No other tanks have been identified at Ontario ANGS.

3.3.4 Wastewater Treatment and Related Systems

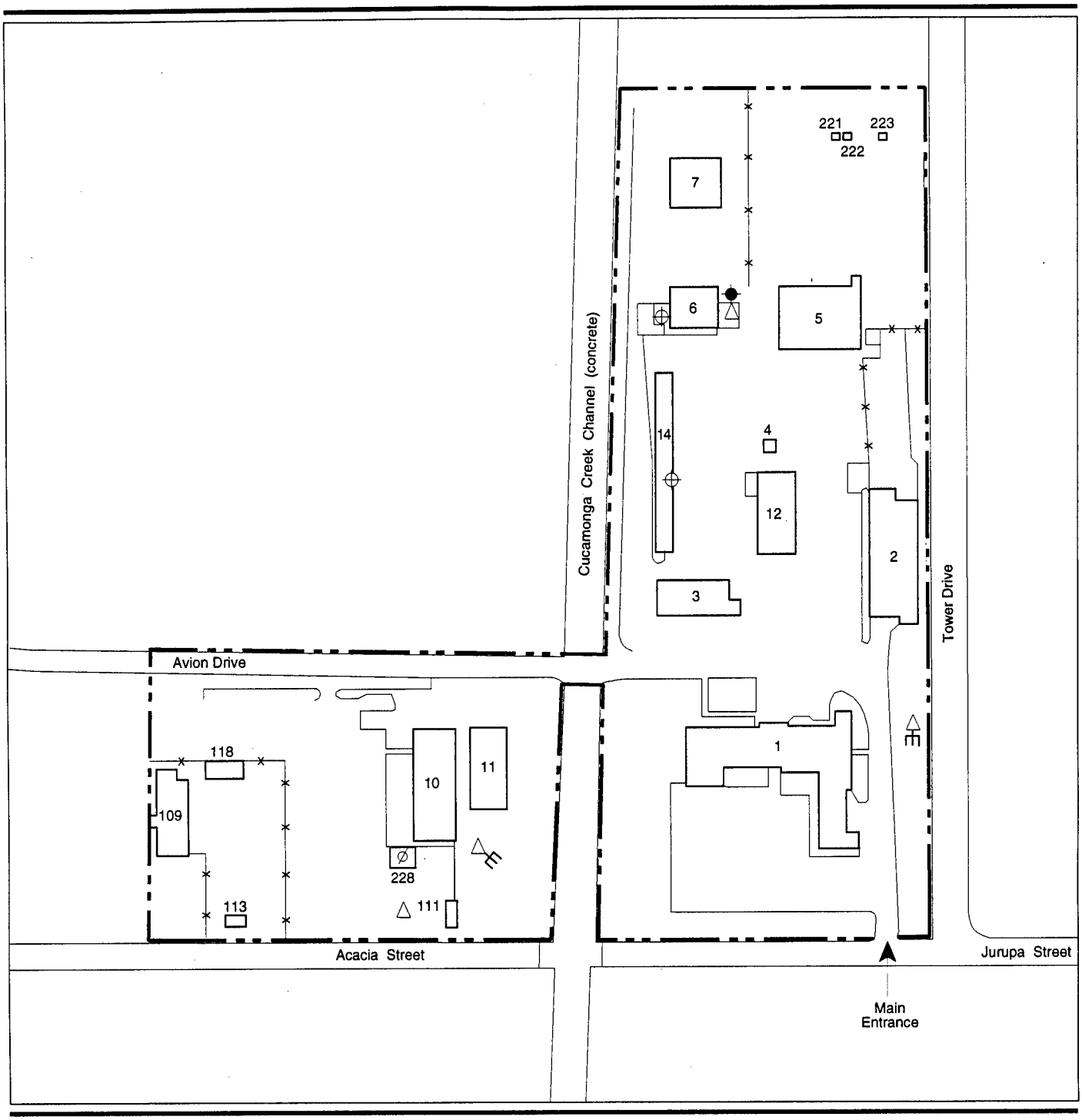
3.3.4.1 Sanitary Sewer Systems. All station sanitary and industrial wastewater flows from east to west, is pumped through lift stations underneath Cucamonga Creek, and is discharged to the city of Ontario. No evidence of contamination has been identified; therefore, sanitary sewers are considered Category 1.

3.3.4.2 Oil/Water Separators. OWSs are designed to separate oil, fuel, and grease from water. Other contaminants potentially present in water discharged to an OWS, such as solvents, cannot be removed by this process. Three OWSs have been or are currently in use at Ontario ANGS (Figure 3-9). The outfall for the currently active OWS at Building 6 is the sanitary sewer system. The OWS that was located at the vehicle maintenance facility (Building 14) discharged to the storm drainage system.

In 1991, the OWS at Building 14 was evaluated and did not comply with requirements under the Porter-Cologne Water Quality Control Act. Measurements exceeded the standard maximum requirements of concentrations in cadmium, lead, oil/greases, and coliform (raw sewage). The disposal of expended battery acid, oil and grease from the vehicle wash rack, and the coliform may have come from either cross-connection with the sewer line or the cleaning of portable latrines at the wash rack. The OWS was taken off-line based on these findings and was removed in 1996.

Appendix F, Table F-1, summarizes the status of OWSs and Table F-2 summarizes the grease trap activities at Ontario ANGS. The OWS locations and grease trap are considered Category 7 since subsurface soil conditions are unknown.

3.3.4.3 Septic Tank Systems. Four septic tank systems were located at Ontario ANGS (Figure 3-9). All septic tanks had a capacity of 750 gallons and were abandoned in place in 1972 when the station was connected to



EXPLANATION

- Station Boundary
- Fence
- Active
- Removed
- Septic Tank (abandoned in place)
- Grease Trap
- Leach Field

0 50 100 200 Feet

Oil/Water Separators and Septic Tanks

Figure 3-9

the city of Ontario sewer system. Septic tanks at Buildings 2, 6, and 11 discharged to leach fields; the septic tank at Building 10 utilized a settling basin for discharge. Appendix F, Table F-2, summarizes the history of the septic tank systems at Ontario ANGS. Septic tanks associated with Buildings 10 and 11 are considered Category 1 because these are administrative buildings and no evidence of a hazardous release to the septic tanks was identified during the records search or VSI. Septic tanks associated with Buildings 2 and 6 are considered Category 7 because industrial activities at these buildings may have discharged hazardous substances to the septic tanks.

3.3.4.4 Silver Recovery Systems. Photographic operations within the east wing of Building 1 generated photochemical waste from 1952 to about 1984. Photo chemical wastes are no longer generated at Ontario ANGS. Appendix F, Table F-2, summarizes other wastewater-related systems. Based on the records search and VSI conducted in March 1996, no evidence of improper disposal of photochemicals was identified; therefore, this area is considered Category 2.

3.3.4.5 Other Wastewater-Related Systems. Appendix F, Table F-2, summarizes other wastewater-related systems.

Grease Traps. One grease trap located at the southwest corner of Building 10 is currently in use. This grease trap is connected to Building 10 (Dining Hall) and a wash rack utilized for rinsing trash bins. The grease trap is considered Category 7 since subsurface soil conditions are unknown.

Surface/Storm Water Drainage Systems. The station storm drain system primarily collects runoff from building roofs and paved areas, and discharges into Cucamonga Creek.

The storm water discharge program for portions of Ontario ANGS is maintained by the City of Los Angeles, Department of Airports, and is managed with guidelines set forth in their most recent NPDES permit issued in 1993. Because of the complexity of operations at Ontario International Airport, the Department of Airports has assumed the role of principal permittee for the NPDES program for their owned and leased areas, with airport tenants who conduct industrial activities as co-permittees. The NPDES permit covers only the portion of Ontario ANGS west of Cucamonga Creek that is leased from the LADOA. The Department of Airports continues to meet all sampling, analysis, and reporting requirements established in the NPDES permit. The Ontario ANGS fee-owned property is not covered under an NPDES permit.

Vehicle maintenance and AGE activities at Buildings 3, 6, and 14 reportedly resulted in the disposal of various hazardous substances (i.e., antifreeze, battery acid) in the storm drain. A map of the storm drain system is not readily available; however, the storm drain lines in question run directly from

the buildings to Cucamonga Creek. These storm drains are considered Category 3 because investigations conducted in the vicinity of the storm drain lines, in support of IRP Site SS-01, detected contaminant concentrations below action levels. The remainder of the storm drain system is considered Category 1, as no documented releases were identified during the records search.

3.3.5 Mercury

The east wing of Building 1, which was used as the medical dispensary, is where equipment containing mercury (e.g., thermometers) are known to have been used. In addition, mercury batteries were utilized/stored at Buildings 2 and 5. The records search identified no documented release of mercury at these facilities. Buildings 1, 2, and 5 are considered Category 2 with regards to storage and use of mercury-containing equipment.

3.4 DISCLOSURE FACTOR FINDINGS

Disclosure resources include asbestos, PCBs, lead-based paint, radon, drinking water quality, indoor air quality, pesticides, ordnance, medical/biohazardous waste, and radioactive materials and mixed waste. If present in a properly managed condition (i.e., no release into the environment), these features/resources were not used in property categorization.

3.4.1 Asbestos

ACM is regulated by the U.S. EPA, the Occupational Safety and Health Administration, and the state of California. Ontario ANGS has developed asbestos management and asbestos operations plans in accordance with Air Force regulations. A stationwide asbestos inventory was conducted in October 1993 and the results were presented in the Asbestos Management Plan (Air National Guard, 1994), which provides a record of the type, location, and status of both friable and non-friable ACM. Friable ACM includes any material that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure. Asbestos abatement projects are performed by licensed asbestos abatement contractors on an as-needed basis and records of these abatements are maintained by the 162nd CCGP Civil Engineer.

The Air National Guard policy is to manage ACM in place as long as practicable; ideally until a facility with ACM is scheduled for disposal except in residences, medical facilities, and facilities used by children where any friable asbestos that might lead to exposure should be removed (Air National Guard, 1994). Air National Guard policy is to remove ACM when it is a potential threat to personnel health, and as necessary to comply with applicable regulations.

All facilities with suspect ACM were either sampled or were assumed to contain asbestos (Appendix H, Table H-1). No suspect ACM was present in Buildings 12, 14, and 118; therefore, no sampling was conducted at these buildings. Ten of the 14 buildings included in the survey contain ACM (Buildings 1, 2, 3, 4, 5, 6, 7, 10, 11, and 111). No ACM was identified in the remaining building (Building 109). Building 113 was not included in the survey.

3.4.2 Polychlorinated Biphenyls

PCBs are regulated under the Toxic Substances Control Act (TSCA) (40 CFR 761). A stationwide PCB survey was conducted in February 1985. The survey determined that none of the transformers at Ontario ANGS contain PCBs.

3.4.3 Lead-Based Paint

Lead-based paint is defined as paint on surfaces that contains lead in excess of 1.0 milligram per square centimeter (mg/cm^2) as measured by an X-ray fluorescence detector or 0.5 percent lead by weight. Under Title 22 Chapter 11, lead-based paint debris would be a hazardous waste if it exhibited the characteristic of toxicity specified in Section 66261.24 of 5 milligrams per kilogram (mg/kg) (5 parts per million [ppm]) for lead using the Toxicity Characteristic Leaching Procedure.

The use of lead-based paints declined after 1978 when the Consumer Product Safety Commission (CPSC) lowered the allowable lead content in paint to 0.06 percent by weight (trace amount) from its 1973 level of 0.5 percent by weight in a dry film of newly applied paint. This change was made under the Consumer Safety Act of 1977, P.L. 101-608, as implemented by 16 CFR 1303. DOD implemented a ban of lead-based paint use in 1978; however, it is possible that facilities painted prior to 1978 may contain lead-based paint. The Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4822 et. seq.), as amended by the Residential Lead-Based Paint Hazard Reduction Act of 1992 (P.L. 102-550 [also known as Title X]), requires that lead-based paint hazards in federal housing be identified and eliminated.

All facilities at Ontario ANGS were constructed prior to 1978 and are likely to contain lead-based paint with the exception of Buildings 12 and 14 that are not painted. The soils surrounding these buildings may also contain lead due to weathering and peeling of paint over the years. Because no high-priority facilities exist at Ontario ANGS, a lead-based paint survey is not required. The following paint conditions were noted during the VSI conducted in March 1996:

Building 1	good condition
Building 2	minor peeling in boiler room on the south side of the building; otherwise good condition
Building 3	peeling paint on boiler room door on west side of the building, otherwise good condition
Building 4	good condition
Building 5	good condition
Building 6	good condition
Building 7	good condition
Building 10	peeling paint along north, west, and southern surfaces, including support columns, roof overhang, walls, and awning
Building 11	good condition
Building 12	not painted
Building 14	not painted
Building 109	peeling paint on exterior - barn door frame, power box, and window frames
Building 111	peeling paint on exterior - door, door frame, concrete pad, roofline, awning, and walls; paint in good condition on interior
Building 113	peeling paint on exterior wall (south side)
Building 118	peeling paint on exterior.

3.4.4 Radon

There are no federal or state standards regulating radon exposure at the present time. The U.S. EPA offers a pamphlet, "A Citizen's Guide to Radon" (U.S. Environmental Protection Agency, 1992), which offers advice to persons concerned about radon in their homes. The U.S. EPA has made testing recommendations for both residential structures and schools; however, these are recommendations only, not regulatory standards. For residential structures, using a 2- to 7-day charcoal canister test, a level between 4 and 20 picocuries per liter (pCi/l) should lead to additional screening within a few years. If levels are below 4 pCi/l, no further action is recommended. Because no high-priority facilities exist at Ontario ANGS, a radon assessment survey has not been conducted.

3.4.5 Drinking Water Quality

Drinking water is supplied to Ontario ANGS by the city of Ontario. This water system is tested in accordance with state and federal drinking water regulations, and has shown no levels of contaminants exceeding state or U.S. EPA drinking water standards (City of Ontario, 1994).

3.4.6 Indoor Air Quality

Sampling of indoor air quality at Ontario ANGS is performed on an as-needed basis by the 163rd ARW Bioenvironmental Engineer. There have been no complaints of indoor air quality at Ontario ANGS; therefore, no sampling has been conducted.

3.4.7 Pesticides

Pesticides used at Ontario ANGS consist of over-the-counter materials used for spot treatment of insects and weeds. Pesticides are applied in accordance with manufacturers' label instructions. No evidence of contamination associated with pesticide management practices was identified at Ontario ANGS during the VSI and records search.

3.4.8 Ordnance

Ordnance is known to have been stored within the Ontario ANGS property at Building 7 (former rocket storage facility), Building 2 (supply warehouse), and at three concrete storage vaults. Ordnance storage at Building 2 and the three concrete vaults consisted of short-term small arms weapons storage prior to deployment readiness activities. Ordnance storage activities at Building 7 supported aircraft mission operations until 1983. No evidence of contamination was identified during the records search or VSI. Appendix G, Table G-1, summarizes ordnance storage issues.

3.4.9 Medical/Biohazardous Waste

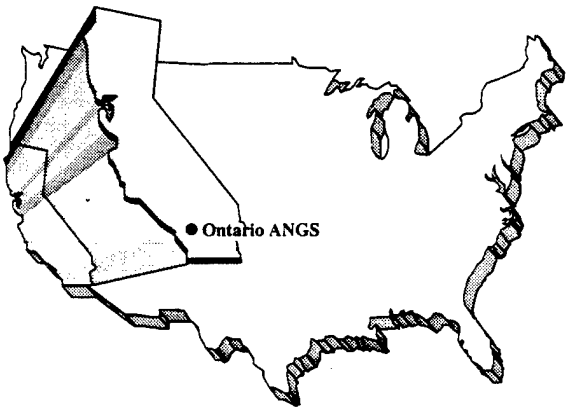
The east wing of Building 1 was used as a medical dispensary prior to 1954 until about 1984. Past medical wastes were disposed of off station. This area is currently used as office space and no evidence of a release was identified during the records search and VSI. Appendix G, Table G-1, summarizes medical/biohazardous waste issues.

3.4.10 Radioactive Materials and Mixed Waste

The U.S. EPA and the Department of Energy have overlapping authority on the disposal of radioactive materials and mixed wastes. Radioactive waste is classified as high-level wastes if it emits greater than 100 nanocuries per gram (nCi/g); low-level radioactive wastes (LLRW) are those that emit less

than 100 nCi/g. A mixed waste is one that contains an LLRW with an RCRA-regulated solid or hazardous waste.

Results of a records search conducted at the Air Force Radioactive Isotope Committee at Brooks AFB, Texas, and at the Air Force Low Level Radioactive Program Office at Kelly AFB, Texas, revealed no evidence of radioactive material use or storage at Ontario ANGS.



CHAPTER 4

4.0 OFF-STATION PROPERTIES

In accordance with Section 120(h)(4) of CERCLA, which requires the visual and physical inspection of property immediately adjacent to real property to be transferred from the federal government, an evaluation of off-station properties surrounding Ontario ANGS was conducted as part of this EBS, to the extent permitted by owners or operators of such property. Section 4.1 includes a description of the approach used to conduct the evaluation. The results of a review of federal, state, and local agency records and databases to identify reported sites where hazardous materials are stored and/or hazardous waste is generated are summarized in Section 4.2. A description of the off-station properties surveyed is provided in Section 4.3, and the findings of the off-station property evaluation are presented in Section 4.4. All referenced tables and figures are provided at the end of this chapter.

4.1 APPROACH

Adjacent properties, for the purpose of this EBS, are defined as (1) property adjacent to the station boundary (i.e., having a contiguous border with the station boundary), and (2) property within approximately 1.0 mile of the station boundary with potential environmental concerns identified through the agency records search (see Section 4.2).

Information on the identified properties (e.g., landowner, address, parcel number) was obtained from the San Bernardino County Assessor's Office through a review of property parcel maps and a computer database of landowner information maintained by the county. Letters were sent to each identified landowner via certified mail to obtain written permission (i.e., a signed right-of-entry form) for the physical inspection of the properties.

The inspection of all properties included a visual inspection from inside the station boundary or surrounding public roads, and a review of recent and historic aerial photographs. A physical inspection was conducted only for those properties for which a signed right-of-entry form was received. For properties for which no signed right-of-entry form was received, a visual inspection was conducted of those areas of the property visible from public rights-of-way (e.g., roads) or visible from adjacent properties for which right-of-entry was granted. The locations of specific properties considered in this evaluation are shown on Figures 4-1 and 4-2 (oversized).

The physical and visual inspection of the identified properties focused on those environmental factors (e.g., USTs, hazardous material handling practices) that could result in potential contamination of station property from activities occurring on the off-station property or potential contamination of the off-station property from activities on Ontario ANGS.

4.2 AGENCY RECORDS SEARCH

In conjunction with the visual and physical inspections of the adjacent and nearby properties, records maintained by federal, state, and local agencies were searched to identify reported sites using hazardous materials and/or generating hazardous waste in the vicinity of Ontario ANGS including transfer, storage, or disposal (TSD) facilities, facilities with USTs, facilities with leaking USTs, and uncontrolled or abandoned hazardous waste sites. The agency records search consisted of a search of computerized federal, state, and local environmental compliance databases, and a review of pertinent federal, state, and local agency records. The records review was conducted to obtain additional information on listed sites, as well as information on sites that were not included on the database.

The search of computerized databases was performed in April 1996 (Environmental Data Resources, Inc., 1996). A list and description of the databases included in the search are presented in Table 4-1. Distances searched for each database are also provided. These databases were investigated with due diligence based on the minimum search distances recommended by the American Society for Testing and Materials guidelines for conducting Phase I site assessments (American Society for Testing and Materials, 1993). A summary of the five sites identified in the computer records search is presented in Table 4-2, and these sites are shown on Figure 4-1.

4.3 SURVEYED PROPERTIES

A total of ten contiguous properties, as well as the five sites identified during the database search (see Section 4.2), were considered in the off-station property evaluation (Figure 4-2).

All contiguous off-station properties were visually inspected either from the station boundary or from adjacent roads. When permitted by the owner, contiguous off-station properties were physically inspected. Of the ten contiguous properties surveyed, nine were physically inspected. The inspection entailed a visit to the property, an interview with the property owner/operator (when present), and a walk-around of the property. No sampling of any kind was conducted. Table 4-3 lists the size and ownership of each contiguous property, the date on which the property was visually and/or physically surveyed, and a description of each. Unless otherwise noted, no visual signs of contamination or environmental concern were identified.

4.4 FINDINGS

The following findings are based on the records search and site inspections of the off-station properties conducted for this EBS.

Table 4-1. Federal, State, and Local Databases
Page 1 of 2

Database	Description	Search Distance (Miles)
Federal Databases		
National Priorities List (NPL)	A U.S. Environmental Protection Agency (EPA) listing of uncontrolled or abandoned hazardous waste sites. The list, also known as the Superfund List, is primarily based on a score that the site receives from the U.S. EPA Hazardous Ranking System. These sites are targeted for possible long-term remedial action under the Superfund Act.	1.0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	A compilation of known and suspected uncontrolled or abandoned hazardous waste sites. These sites have been investigated or are currently under investigation by the U.S. EPA for the release or threatened release of hazardous substances. Once a site is placed on CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priorities List.	0.5
Resource Conservation and Recovery Information System (RCRIS) Transfer, Storage, and Disposal (TSD) Facilities	This database contains information pertaining to those facilities that transfer, store, or dispose of hazardous waste.	1.0
RCRIS Large-Quantity Generators (RCRIS-LQG)	This database contains information pertaining to those facilities that either generate more than 1,000 kilograms (kg) of hazardous waste per month or meet other applicable requirements of the Resource Conservation and Recovery Act (RCRA).	0.25
RCRIS Small-Quantity Generators (RCRIS-SQG)	This database contains information pertaining to those facilities that generate between 100 and 1,000 kg of hazardous waste per month or meet other applicable requirements of RCRA.	0.25

Table 4-1. Federal, State, and Local Databases
Page 2 of 2

Database	Description	Search Distance (Miles)
RCRA Administration Action Tracking System (RAATS)	This database contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by U.S. EPA.	1.0
State Databases		
Leaking Underground Storage Tanks (LUST)	This database contains information on those underground storage tanks (USTs) for which a leak has been reported.	0.5
CAL-Sites	Identifies known and potential hazardous substance sites targeted for cleanup.	1.0
California Hazardous Material Incident Reporting System (CHMIRS)	Contains information on reported hazardous material incidents (accidental releases or spills).	1.0
CORTESE	Identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material, sites with USTs having a reportable release, and solid waste disposal facilities with known migration.	1.0
Facility Inventory Database	Contains active and inactive UST locations.	0.25
Solid Waste Information System	Contains an inventory of solid waste disposal facilities or landfills.	0.5
Toxic Pits	Identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.	1.0
	California Regional Water Quality Control Board LUST Records.	---
Bond Expenditure Plan (BEP)	Appropriation of hazardous substance cleanup bond act funds.	1.0
Local Databases		
---	Listing of UST cleanup sites	---

TABLE 4-2. DATABASE SITES

LETTER ID	NAME	LOCATION	TYPE OF SITE[a]	SOURCE
A	GENERAL ELECTRIC COMPANY	0.5 MILE WEST OF THE STATION	CERCLIS, RCRIS-SQG, RCRIS-TSD	EDR-RADIUS MAP REPORT
B	GENERAL ELECTRIC AVIATION SERVICES	0.5 MILE WEST OF THE STATION	RCRIS-LQG, RCRIS-TSD, CERCLIS-NFRAP	EDR-RADIUS MAP REPORT
C	LEISURE TIME CHEMICAL CORPORATION	0.3 MILE SOUTH OF THE STATION	RCRIS-SQG, RCRIS-TSD	EDR-RADIUS MAP REPORT
D	GENERAL ELECTRIC ENGINE MAINTENANCE	IMMEDIATELY SOUTH OF THE STATION	BEP	EDR-RADIUS MAP REPORT
E	1800 S. ARCHIBALD	0.7 MILE SOUTHEAST OF THE STATION	CHMIRS	EDR-RADIUS MAP REPORT

Note: (a) See Table 4-1 for description of federal, state, and local databases.

BEP = Bond Expenditure Plan
CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System
CHMIRS = California Hazardous Material Incident Reporting System
EDR = Environmental Data Resources
LQG = Large Quantity Generators
NFRAP = No Further Response Action Planned
RCRIS = Resource Conservation and Recovery Information System
SQG = small quantity generators
TSD = transfer, storage and disposal

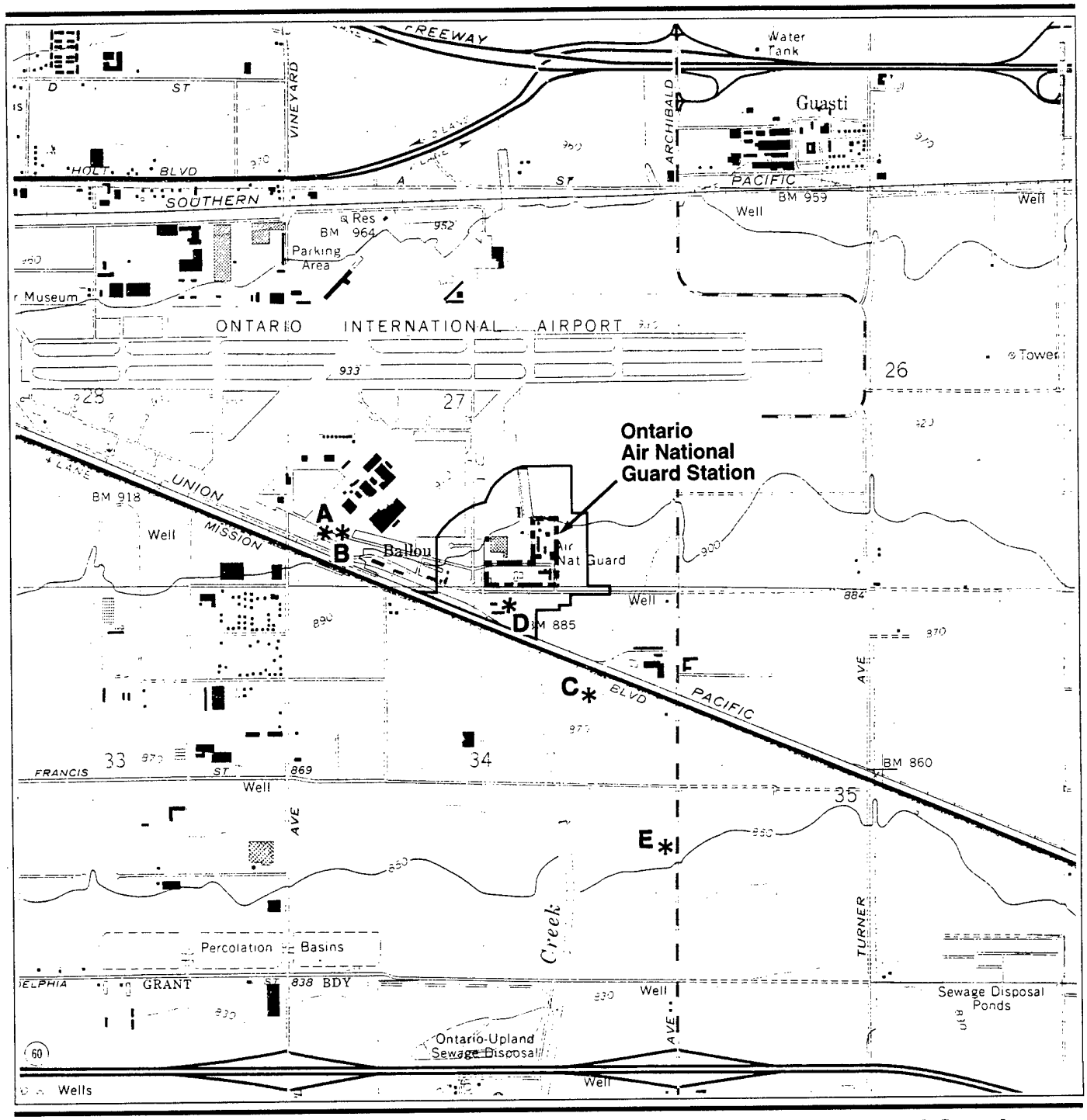
Table 4-3. Off-Station Properties Investigated
Page 1 of 2

Property ID	Assessor's Parcel No.	Size (Acres)	Property Owner (Name/Location)	Visual Inspection Date	Physical Inspection Date	Description
1	211-191-13	1.50	City of Ontario 303 E. B Street Ontario, CA 91764	3/5/96	5/21/96	This property consists of Tower Drive, a paved road with sidewalks on both sides, adjacent to east side of Ontario ANGS.
2	211-191-14	5.22	Mike Kelber Roy Leventhal 1868 N. Euclid Avenue Upland, CA 91786	3/5/96	5/21/96	This property is a vacant, weedy parcel east of Ontario ANGS. It contains some concrete rubble from land development south of Jurupa Street.
3	113-271-22	1.89	City of Ontario 303 E. B Street Ontario, CA 91764	3/5/96	5/21/96	This property consists of Jurupa Street, a paved road with no sidewalks.
4	113-271-30	3.17	RG Corporation 8133 Leesberg Pike Suite 630 Vienna, VA 22180	3/5/96		The property is a vacant, weedy parcel south of the main entry to Ontario ANGS. It contains two monitoring wells related to a groundwater contamination plume south of the station and some concrete rubble.
5	113-271-19	7.40	City of Los Angeles #1 World Way Los Angeles, CA 90009	3/5/96	5/21/96	This property is developed and landscaped, and consists of the General Electric Jet Engine Test Facility.
6	113-261-08	3.33	United States of America No address on file	3/5/96	5/21/96	This property is a vacant, weedy parcel southwest of the Ontario ANGS.

Table 4-3. Off-Station Properties Investigated
Page 2 of 2

Property ID	Assessor's Parcel No.	Size (Acres)	Property Owner (Name/Location)	Visual Inspection Date	Physical Inspection Date	Description
7	113-261-06	126.18	City of Los Angeles #1 World Way Los Angeles, CA 90009	3/5/96	5/21/96	This property consists of a portion of the airport operations and maintenance, and a portion of the airfield.
8	113-271-02	15.46	City of Los Angeles #1 World Way Los Angeles, CA 90009	3/5/96	5/21/96	This property consists of paved roads and aircraft apron. A larger hangar is located in the northwestern portion. The southeastern portion is leased to the Ontario ANGS.
9	113-271-01	22.10	City of Los Angeles #1 World Way Los Angeles, CA 90009	3/5/96	5/21/96	This property consists of aircraft parking apron and a portion of the airfield.
10	113-271-18	16.25	City of Los Angeles #1 World Way Los Angeles, CA 90009	3/5/96	5/21/96	This property includes the airport control tower and airport fire station north of Ontario ANGS. A storage yard is also located on this property for concrete construction material and dismantled aircraft.

ANGS = Air National Guard Station
CA = California
VA = Virginia



EXPLANATION

* Data Sites

Station Boundary

Contiguous Off-Station Property Boundary

0 500 1000 2000 Feet

Location of Contiguous Off-Station Properties and Agency Records Search Sites

Figure 4-1

Figure 4-2. Location of Off-Station Properties and Agency Records Search Sites (oversized)

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Based on the records search and site inspections of the properties for this EBS, there are no areas on Ontario ANGS where it is known that contamination has resulted from activities on any off-station properties, and no off-station property where it is known that contamination has resulted from activities on the Ontario ANGS property. Regional groundwater contamination south of Ontario ANGS has been identified; however, past aerospace operations at Ontario International Airport are the suspected source (see Section 3.2.2.1).

West of the station, Cucamonga Creek separates most of Ontario ANGS from adjacent airport property. During a review of historic aerial photographs and maps, it was noted that an area north of Avion Drive utilized aviation fuel USTs for refueling aircraft. These tanks have been removed and the area has been covered with gravel. Visual inspection revealed no evidence of a release. In addition, a former motor pool turn-around was identified west of Building 109 on airport property. Gasoline USTs at this location were removed and the area is covered with gravel. Visual inspection revealed no evidence of a release.

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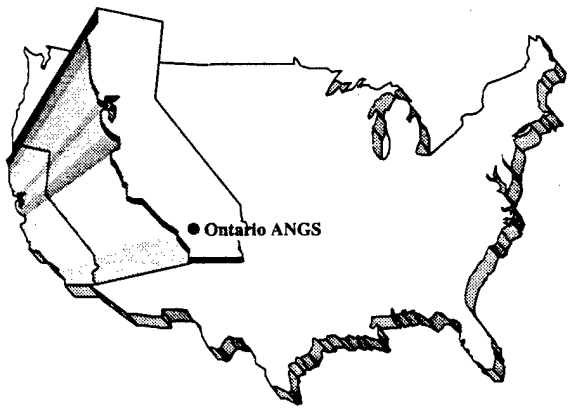


CHAPTER 5

5.0 CONCLUSIONS

The conclusions of the EBS for Ontario ANGS are presented in this chapter. Section 5.1 includes a discussion of facility-specific information derived from the records search and VSIs. The classification of station property into uncontaminated and contaminated categories for the purpose of property transactions, as described in Section 1.1, is presented in Section 5.2. Section 5.3 includes a discussion of identified data gaps and investigations required to determine what additional remedial or other actions, if any, are needed to close out the environmental concerns identified in this EBS. All referenced figures and tables are provided at the end of this chapter.

5.1 FACILITY INVENTORY AND ASSESSMENT

Facilities on Ontario ANGS were inventoried and assessed (both interior and exterior) to identify specific facility characteristics and potential environmental concerns. Real Property Accountable Records were reviewed to identify specific facility characteristics such as construction materials, utility hookups, renovations, changes in facility utilization, and distinctive features (e.g., emergency electric power generators, storage tanks). The level of analysis for each facility varied with facility type. For example, outdoor recreation facilities and antenna support structures, which have obvious uses, were not considered in detail, whereas industrial shops were considered thoroughly. In addition, as described in Section 2.1.2, VSIs were conducted to verify characteristics or features identified in the records search and to identify other environmental concerns.

A list of facilities considered in this EBS summarizing key characteristics and facility-specific information is presented in Appendix A, Table A-1. The information presented in this table was derived from the real property inventory and from the information presented in Appendices C through H. The locations of IRP sites, storage tanks, wastewater treatment and related systems, hazardous material/waste storage locations, and other environmental factors identified in Appendix A, Table A-1, are shown on Figure 5-1. IRP site boundaries are based on investigations that have been conducted to date.

5.2 PROPERTY CATEGORIZATION

As discussed in Section 2.1, five environmental factors were used in property categorization. Each occurrence of each factor was first categorized individually based on its past or present potential for environmental concern. The categories for all factors present at each location were then integrated to determine the overall property category. The highest category within an individual property would determine the overall category for that property.

Disclosure factors were not used in property categorization. These factors are not considered to be hazardous when properly managed and in good condition. Their presence and any required protective actions will be identified and addressed in any lease/deed documentation.

Based on the findings of this EBS, as presented in Chapter 3.0, property on Ontario ANGS was classified into one of eight categories:

- *Category 1* - Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

- *Category 2* - Areas where only storage of hazardous substances has occurred, but no release, disposal, or migration from adjacent areas has occurred.

- *Category 3* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.

- *Category 4* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken.

- *Category 5* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, removal and/or remedial actions are under way, but all required remedial actions have not yet been taken.

- *Category 6* - Areas where storage, release, disposal, and/or migration of hazardous substances has occurred, but required response actions have not yet been implemented.

- *Category 7* - Areas that are unevaluated or require additional evaluation.

- *Category* P *(*P_S; P_R; P_D) - These properties shall be defined as any real property on which petroleum substances (or their derivatives, including aviation fuel and motor oil) were stored for one year or more, known to have been released, or disposed of, and/or inmigrated.

Pursuant to U.S. EPA guidance and in order to fully implement Congress' intent to allow expeditious disposal of uncontaminated parcels of property for economic redevelopment, this EBS identifies property as uncontaminated under CERCLA Section 120(h)(4), even if some limited quantity of hazardous substances or petroleum products were stored, released, or disposed of in cases where the available information indicates that such storage, release, or disposal poses no threat to human health or the environment. Examples,

as provided in the U.S. EPA guidance include: usage of common household chemicals and storage of heating fuel in housing areas, incidental releases of petroleum products on roadways and parking lots, and the routine licensed application of pesticides (U.S. Environmental Protection Agency, 1994).

Property in the first four categories would be suitable for transfer by deed. Property in categories 5 through 7 would be unsuitable for transfer until all necessary actions have been taken and the property has been reclassified into one of the first four categories. Property in Category P is considered suitable for transfer by deed unless the property is being remediated under CERCLA and all necessary remedial actions have not been taken. Leases would be considered on a case-by-case basis for properties within all eight categories.

The categorization of property on Ontario ANGS is shown on Figure 5-2. These property zones reflect the findings of the EBS for Ontario ANGS as discussed in Chapter 3.0, including identification of areas considered uncontaminated based on the requirements of CERCLA Section 120(h).

Areas where no past or present storage, release, or disposal of hazardous substances or petroleum products and their derivatives were identified are considered to be Category 1 properties. Category 2 through 7 properties and Category P property were identified based upon the methodology presented in Chapter 2.0.

As described above, property on Ontario ANGS was classified into one of the eight categories based on the findings of this EBS (see Figure 5-2). Specific property categorization by study area is described in Table 5-1 and shown on Figure 5-1. A summary of uncontaminated property by study area is presented in Table 5-2 and illustrated in Figure 5-3. A listing of facilities by study area and property category is presented in Table 5-3.

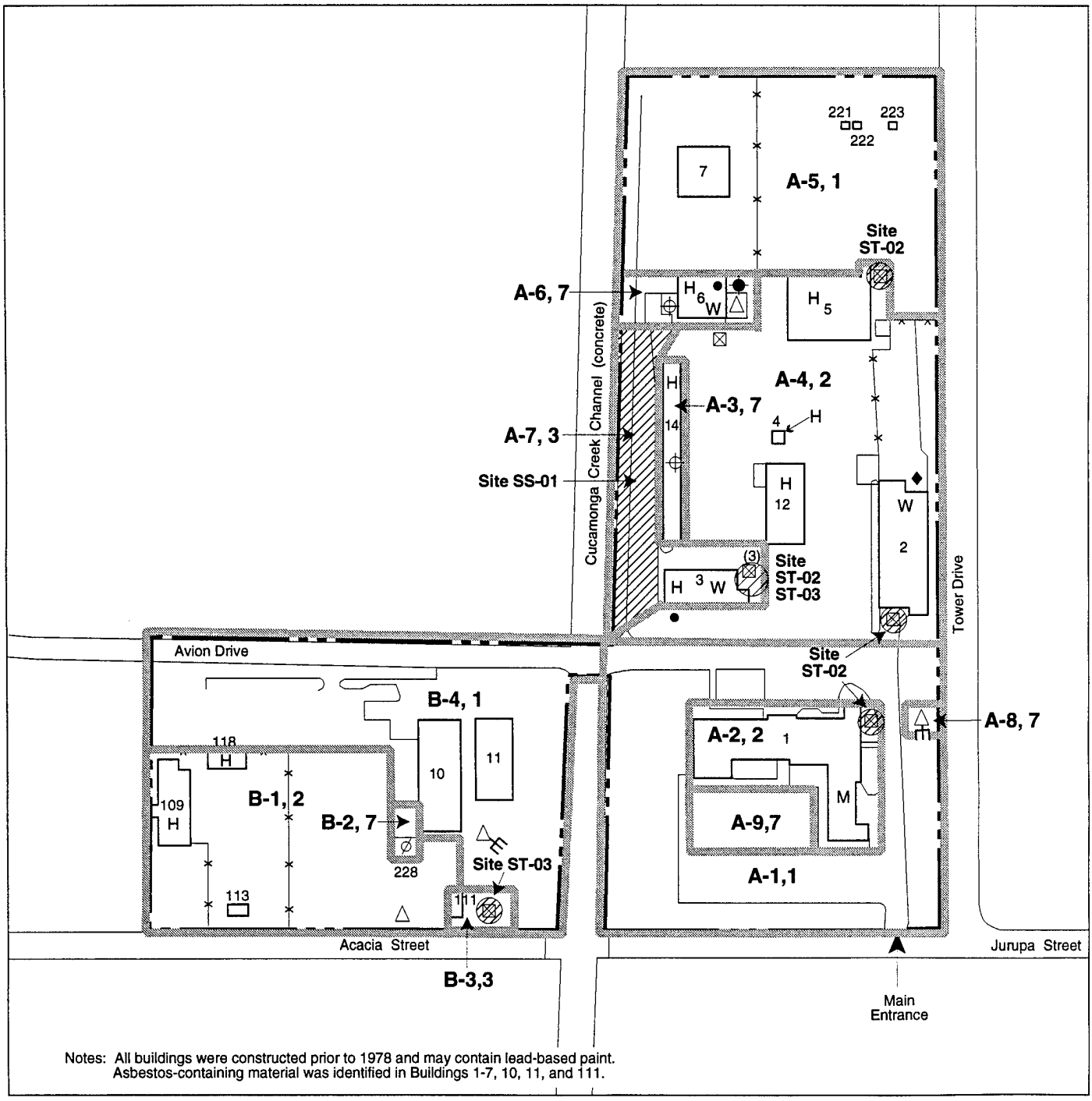
Category 1 properties generally occur in the vehicle parking area for Building 1, the northern portion of the station where munitions storage activities once occurred, and around the administration and dining hall west of Cucamonga Creek. Category 2 properties occur throughout the central portion of the station including Buildings 1, 2, 4, 5, and 12; and most of the area west of Cucamonga Creek. Category 3 property is associated with IRP Sites SS-01 and ST-03. Portions of the storm drain system are also considered Category 3 as a result of past disposal activities. No Category 4, 5, or 6 properties were identified. Category 7 properties include Buildings 6 and 14 where subsurface soil conditions at OWSs are unknown. A grease trap (Facility 228) located adjacent to Building 10 is also considered Category 7 due to unknown subsurface soil conditions. The septic tanks and leach fields associated with Buildings 2 and 6 may have received hazardous substances and are considered Category 7. An area located south of Building 1 may have been utilized as a burn pit in the mid-1940s and is considered Category 7. IRP Site ST-02 is considered Category P_R as a

result of past releases from fuel oil USTs. IRP Site ST-02 is considered Category P_R as a result of past releases from fuel oil USTs, but is not shown on the figure because other factors contribute to the property, which outweighs Category P_R.

5.3 INCOMPLETE FINDINGS AND DATA GAPS

As discussed in Section 1.1, the EBS identifies data gaps that need to be resolved. Data gaps will be resolved on a case-by-case basis. Data gaps identified to date are listed below.

- OWS and grease trap locations have unknown subsurface soil conditions and may require further investigation (see Section 3.3.4.2).
- Septic tanks and leach fields associated with Buildings 2 and 6 may have received hazardous substances and require further investigation (see Section 3.3.4.3).
- Facility-specific information regarding hazardous material storage was not available.
- Facility-specific information regarding hazardous waste generation was not available.
- The area south of Building 1 that may have been utilized as a burn pit may require further investigation.



Notes: All buildings were constructed prior to 1978 and may contain lead-based paint.
Asbestos-containing material was identified in Buildings 1-7, 10, 11, and 111.

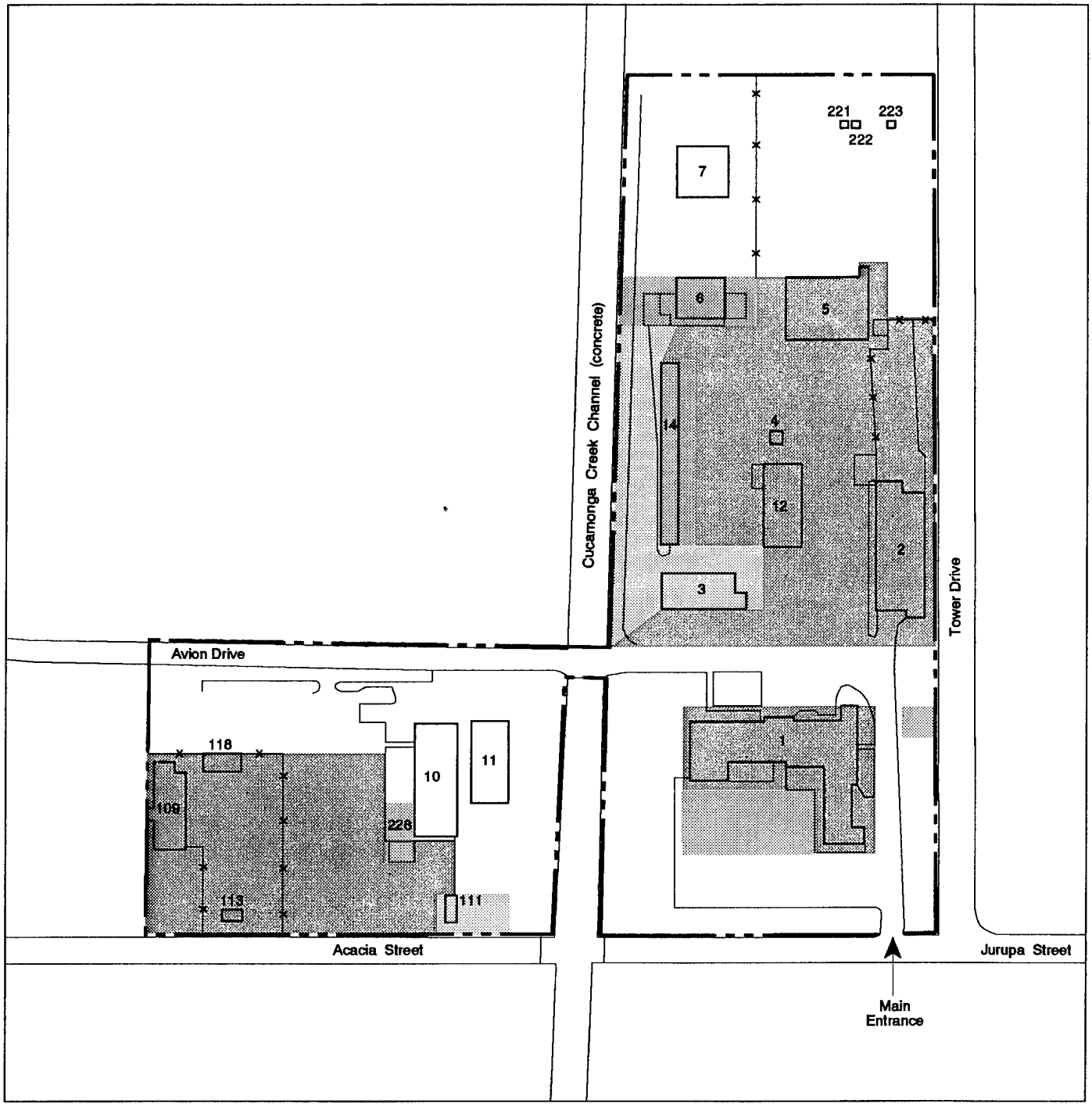
EXPLANATION

- Station Boundary
- Fence
- Study Area Boundary
- A-1, 1 Study Area Identification, Category
- IRP Site
- H Hazardous Material Storage
- W Hazardous Waste Storage
- M Medical/Biohazardous Waste Storage
- Removed Underground Storage Tank
- Active Oil/Water Separator
- Removed Oil/Water Separator
- Grease Trap
- Septic Tank
- Leach Field
- Satellite Accumulation Point
- 90-day Accumulation Point

0 50 100 200 Feet

Location of Environmental Factors

Figure 5-1



EXPLANATION

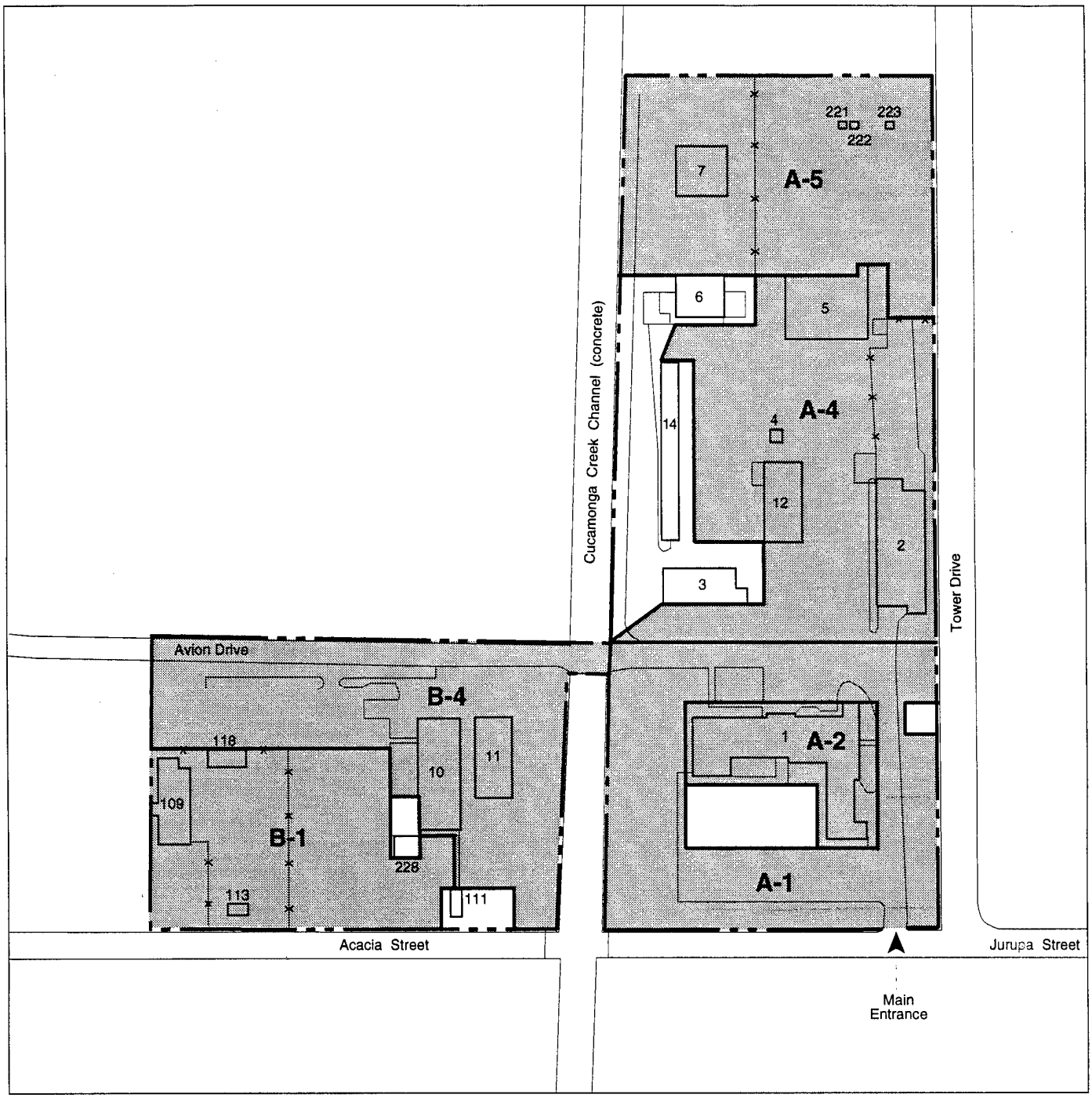
- Uncontaminated Property (Category 1)
- Hazardous substance stored - no release (Category 2)
- Hazardous substance release, below action levels (Category 3)
- Hazardous substance release, all actions have been taken (Category 4) *
- Hazardous substance release, not all actions have been taken (Category 5) *
- Hazardous substance release, no actions taken (Category 6) *
- Areas requiring additional evaluation (Category 7)
- Petroleum products storage (Category P) *
- Station Boundary
- Fence

0 50 100 200 Feet

* Not Applicable

Property Categorization

Figure 5-2



EXPLANATION

Uncontaminated Property

Station Boundary

Fence

0 50 100 200 Feet

Uncontaminated Properties

Figure 5-3

Table 5-1. Summary of Property Categorization by Study Area

Area	Description
A	Land in Study Area A is designated as Category 1, 2, 3, and 7. Category 1 property is located in the vehicle parking area for Building 1, and in the northern portion of the study area where munitions storage once occurred. Category 2 property includes Buildings 1, 2, 4, 5, and 12; and the hazardous waste storage location. Category 3 property consists of Building 3 and the area west of Buildings 3 and 14 where IRP and UST removal investigations revealed contaminant concentrations below action levels. Category 7 property includes Buildings 6 and 14 where subsurface soil conditions of OWS locations are unknown. An area south of Building 1 that may have been used as a burn pit is considered Category 7. Septic tank locations associated with Buildings 2 and 6 are also considered Category 7.
B	Land in Study Area B is designated as Category 1, 2, 3, and 7. Category 1 property includes Buildings 10 and 11 and surrounding areas. Category 2 property includes Buildings 109, 113, and 118, and miscellaneous storage and parking areas surrounding these facilities. Category 3 property is located at Building 111 where a gasoline UST has been removed; contaminant concentrations identified during removal activities were below action levels. Category 7 property is located at the grease trap adjacent to Building 10.

IRP = Installation Restoration Program
OWS = oil/water separator
UST = underground storage tank

Table 5-2. Uncontaminated Properties

Areas and Associated Facilities	Acres	Square Feet
Study Area A-1	2.2	
Parking lot and surrounding area of Building 1		
Study Area A-2	0.3	
Building 1 (Administration)		10,566
Study Area A-4	2.4	
Building 2 (Supply Warehouse)		10,916
Building 4 (Hazardous Material Storage)		300
Building 5 (Radio Repair Shop)		7,616
Building 12 (Warehouse)		3,920
Study Area A-5	1.8	
Building 7 (Storage)		3,071
Facility 221 (Concrete Vault)		8
Facility 222 (Concrete Vault)		8
Facility 223 (Concrete Vault)		8
Study Area B-1	1.1	
Building 109 (CE Maintenance Shop)		2,408
Building 113 (Storage Shed)		276
Building 118 (Storage Shed)		1,000
Study Area B-4	1.8	
Building 10 (Dining Hall)		7,224
Building 11 (Administration)		3,384

CE = Civil Engineering

Table 5-3. Property/Facility Key

Property ID Number, Property Category	Facility (Use)
A-1, 1	Parking lot and area surrounding Building 1
A-2, 2	Building 1 (Administration)
A-3, 7	Building 14 (Vehicle Parking Shed)
A-4, 2	Building 2 (Supply Warehouse) Building 4 (Hazardous Material Storage) Building 5 (Radio Repair Shop) Building 12 (Warehouse) Hazardous Waste Storage Facility
A-5, 1	Building 7 (Storage) Facility 221 (Concrete Vault) Facility 222 (Concrete Vault) Facility 223 (Concrete Vault)
A-6, 7	Building 6 (Generator Maintenance Shop)
A-7, 3	Building 3 (Vehicle Maintenance Shop) Area west of Buildings 3 and 14
A-8, 7	Septic tank east of Building 1
A-9, 7	Area south of Building 1
B-1, 2	Building 109 (CE Maintenance Shop) Building 113 (Storage Shed) Building 118 (Storage Shed)
B-2, 7	Facility 228 (Wash Rack)
B-3, 3	Building 111 (Storage Shed)
B-4, 1	Building 10 (Dining Hall) Building 11 (Administration)

CE = Civil Engineering

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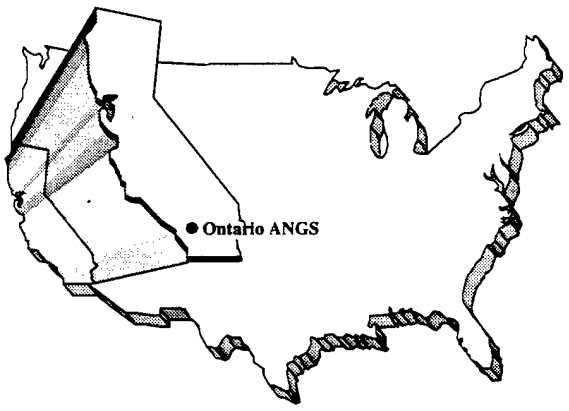

CHAPTER 6

6.0 CERTIFICATION AND LIST OF PREPARERS

CERTIFICATION OF THE
ONTARIO AIR NATIONAL GUARD STATION, CALIFORNIA,
ENVIRONMENTAL BASELINE SURVEY

The Environmental Baseline Survey of Ontario ANGS utilized only those techniques, procedures, and processes described in this report. In our professional judgment and opinion, the facts and conditions depicted are accurate and are subject to limitations inherent in the investigative techniques used and any expressed limitations in this survey.

Sandra L. Cuttino, P.E., Program Manager
Air Force Base Closure - BRAC IV
EARTH TECH

18 Oct 96
Date

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

Jon M. Satrom, P.E.
BRAC Environmental Coordinator,
March AFB

26 Nov 1996
Date

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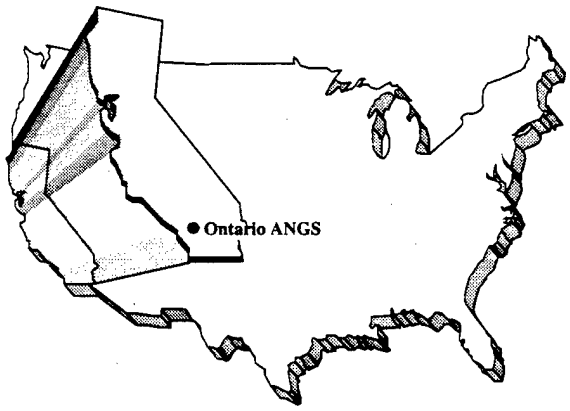


CHAPTER 7

7.0 GLOSSARY OF TERMS AND ACRONYMS

7.1 GLOSSARY OF TERMS

Accumulation Point. A location where a generator accumulates hazardous waste awaiting transfer to a transfer, storage, or disposal (TSD) facility. An accumulation point does not require a U.S. EPA TSD permit as long as waste is stored for less than 90 days.

Acquisition. Obtainment, use, or control of real property by purchase, condemnation, donation, exchange, easement, lease revestment, and/or recapture.

Asbestos. Six naturally occurring fibrous minerals found in certain types of rock formations. Of the six, the minerals chrysotile, amosite, and crocidolite have been most commonly used in building products. When mined and processed, asbestos is typically separated into very thin fibers. Because asbestos is strong, incombustible, and corrosion-resistant, asbestos was used in many commercial products beginning early in the twentieth century, and peaking in the period from World War II into the 1970s. When inhaled in sufficient quantities, asbestos fibers can cause serious health problems.

Asbestos-containing material (ACM). Any material or product that contains more than 1 percent asbestos.

Contaminants. Undesirable substances rendering something unfit for use.

Contamination. The degradation of naturally occurring water, air, or soil quality, either directly or indirectly, as a result of human activities.

Corrosive. A material that has the ability to cause visible destruction of living tissue and has a destructive effect on other substances. An acid or a base.

Discharge. Release of groundwater in springs or wells through evapotranspiration, or as outflow.

Disposal. Any authorized method of divesting the Air Force control of, and responsibility for, real property.

Effluent. Waste material discharged into the environment.

Floodplain. The relatively flat land lying adjacent to a river channel that is covered by water when the river overflows its banks.

Friable. Easily crumbled or reduced into powder by hand pressure.

Groundwater. Water within the earth that supplies wells and springs.

Hazardous Assessment Rating Methodology (HARM). Harm is a site rating model that was used to provide a relative ranking of suspected sites of contamination. The system assisted the user in establishing priorities for subsequent site investigations. The rating system was utilized only after the potential for contamination and the contaminant migration had been determined for a site. Following this determination, the system considered and scored four aspects of the hazards posed by that site. These aspects are: possible receptors of contamination, potential pathway of contamination migration, contamination characteristics, and existing management of the contamination. Sites in which there is little or no hazard(s) were provided a low score, with high hazard sites receiving higher scores (maximum score is 100).

Hazardous material. A substance or mixture of substances that generally has the capability of either causing or significantly contributing to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or posing a substantial present or potential risk to human health or the environment. Use of these materials is regulated by the Department of Transportation, Occupational Safety and Health Administration, and the Superfund Amendments and Reauthorization Act (SARA).

Hazardous substances. Hazardous substances are a broad classification and include hazardous materials, hazardous chemicals, hazardous wastes, and petroleum products. Several different federal and state rules individually regulate the storage of these hazardous substances.

Hazardous waste (federal definition under Resource Conservation and Recovery Act [RCRA], 42 U.S.C. 6903). RCRA defines hazardous waste as "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may pose a hazard to human health or the environment" (RCRA, Section 1004[5]). The U.S. EPA has listed several wastes that are known to be hazardous. A waste can also be classified as a characteristic hazardous waste if it exhibits one or more of the four hazardous waste characteristics described in Subpart C: ignitability, corrosivity, reactivity, or toxicity.

Hazardous waste (state of California definition under the California Health and Safety Code, Division 20, Chapter 6.5). California regulates more wastes as hazardous wastes than those regulated under RCRA. California's non-RCRA hazardous wastes are identified using the same criteria as the federal requirements (i.e., wastes that pose a substantial threat to human health or the environment). These include extremely hazardous waste and acutely hazardous waste in addition to the listed and characteristic wastes under the federal regulations.

Herbicide. A pesticide, either organic or inorganic, used to destroy unwanted vegetation, especially various types of weeds, grasses, and woody plants.

Installation Restoration Program (IRP). The Air Force program designed to identify, characterize, and remediate environmental contamination on Air Force installations. Although widely accepted at the time, procedures followed prior to the mid-1970s for managing and disposing of many wastes often resulted in contamination of the environment. The program has established a process to evaluate past disposal sites, control the migration of contaminants, and control potential hazards to human health and the environment. Section 211 of SARA, codified as the Defense Environmental Restoration Program, of which the Air Force IRP is a subset, ensures that Department of Defense (DOD) has the authority to conduct its own environmental restoration programs. DOD coordinates IRP activities with the U.S. EPA and appropriate state agencies.

Lead. A heavy metal, used in many industries, which can accumulate in the body and cause a variety of negative effects.

PCB-contaminated equipment. Equipment that contains a concentration of PCBs from 50 to 499 parts per million (ppm) and is regulated by the U.S. EPA.

PCB equipment. Equipment that contains a concentration of PCBs of 500 ppm or greater and is regulated by the U.S. EPA.

PCB items. Equipment that contains a concentration of PCBs from 5 to 49 ppm and is regulated by the Cal EPA.

Pesticides. Any substance, organic or inorganic, used to destroy or inhibit the action of plant or animal pests; the term thus includes insecticides, herbicides, fungicides, rodenticides, miticides, fumigants, and repellents. All pesticides are toxic to humans to a greater or lesser degree. Pesticides vary in biodegradability.

Physical Inspection. An inspection of a contiguous property that included a visit to the subject property, an interview with the property owner/operator (when present), and a walk-around of the property.

Polychlorinated biphenyls (PCBs). Any of a family of industrial compounds produced by chlorination of biphenyls. These compounds accumulate in organisms and concentrate in the food chain with resultant pathogenic and teratogenic effects and decompose very slowly.

Release. Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance, or pollutant, or contaminant), but excludes (1) any release that results in exposure to persons solely within a workplace with respect to a claim that such persons may assert against the employer of such persons; (2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; (3) release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 170 of such Act, or, for the purposes of Section 104 of this title or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under Section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and (4) the normal application of fertilizer.

Solvent. A substance that dissolves or can dissolve another substance.

Storage. The holding of hazardous substances for a temporary period prior to the hazardous substances being either used, treated, transported, or disposed of.

Transfer. Permits to other government agencies, donations, land exchanges, transfers of federal government property accountability, easements, leases, or licenses.

Underground storage tank (UST). Any tank, including underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products, and the volume of which is 10 percent or more beneath the surface of the ground.

U.S. Environmental Protection Agency (EPA). The independent federal agency, established in 1970, that regulates environmental matters and oversees the implementation of environmental laws.

Visual Inspection. An inspection of a contiguous property that included a survey of the subject property from public access roads or station property.

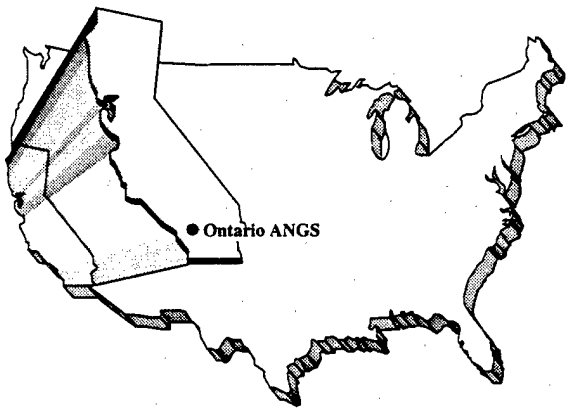
Visual Reconnaissance Survey (VRS). A physical inspection based on the review of aerial photographs.

Visual Site Inspection (VSI). A physical inspection of station property.

7.2 ACRONYMS

ACM	asbestos-containing material
AFB	Air Force Base
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AGE	aerospace ground equipment
ANGS	Air National Guard Station
AOC	area of concern
ARAR	applicable or relevant and appropriate requirements
ARW	Air Reserve Wing
AST	aboveground storage tank
BCP	BRAC Cleanup Plan
BEP	Bond Expenditure Plan
BRAC	Base Realignment and Closure
CA	California
Cal EPA	California Environmental Protection Agency
CASRN	Chemical Abstract Services Registry Number
CBCS	Combat Communications Squadron
CCGP	Combat Communications Group
CE	Civil Engineering
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERFA	Community Environmental Response Facilitation Act
CFR	Code of Federal Regulations
CHMIRS	California Hazardous Materials Incident Reporting System
CPSC	Consumer Product Safety Commission
DD	decision document
DERA	Defense Environmental Restoration Account
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DTSC	Department of Toxic Substances Control
EA	environmental assessment
EBS	environmental baseline survey
EDR	Environmental Data Resources
EPA	Environmental Protection Agency
FFA	Federal Facility Agreement
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
HARM	Hazardous Assessment Rating Methodology
HUD	Housing and Urban Development
HWCL	Hazardous Waste Control Law
IRP	Installation Restoration Program
LADOA	Los Angeles Department of Airports
LBPPPA	Lead-Based Paint Poisoning Prevention Act
LLRW	low-level radioactive wastes

LQG	large quantity generator
LUST	Leaking Underground Storage Tank
mg/cm^2	milligrams per square centimeter
mg/kg	milligrams per kilogram
nCi/g	nanocuries per gram
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NFRAP	no further response action planned
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSN	National Stock Numbers
OWS	oil/water separator
P_D	petroleum disposal
P_R	petroleum release
P_S	petroleum storage
PA	preliminary assessment
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
pCi/l	picocuries per liter
P.L.	Public Law
POL	petroleum, oil, and lubricants
ppm	parts per million
RA	remedial action
RAATS	RCRA Administration Action Tracking System
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
SAP	satellite accumulation point
SARA	Superfund Amendments and Reauthorization Act
SI	site investigation
SQG	small quantity generator
TCE	trichloroethylene
TSCA	Toxic Substances Control Act
TSD	transfer, storage, or disposal
U.S.C.	U.S. Code
UST	underground storage tank
VA	Virginia
VRS	visual reconnaissance survey
VSI	visual site inspection



CHAPTER 8

8.0 REFERENCES AND PERSONS CONTACTED

8.1 REFERENCES

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8.2 PERSONS CONTACTED

The following individuals were contacted during the preparation of this EBS and provided information used in developing the findings described in Chapter 3.0 and Appendices A through H.

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Vehicle Maintenance

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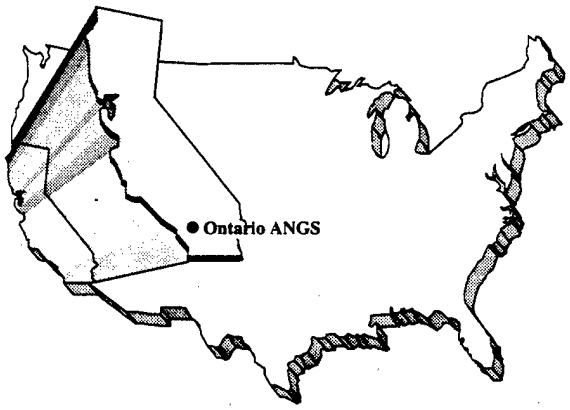
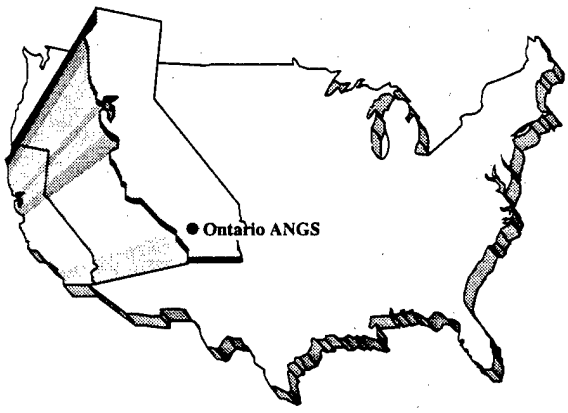


APPENDICES



APPENDIX A

APPENDIX A

SUMMARY OF ENVIRONMENTAL FACTORS BY FACILITY

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SUMMARY OF ENVIRONMENTAL FACTORS BY FACILITY

Table A-1 lists the facilities considered in this Environmental Baseline Survey (EBS), and summarizes key characteristics and facility-specific information. The locations of underground storage tanks, wastewater treatment and related systems, hazardous material/waste storage areas, Installation Restoration Program (IRP) sites, and other environmental factors identified in Table A-1 are shown on Figure 5-1.

Information presented in Table A-1 includes the following:

- Facility ID: facility identification number.
- Property ID: property identification numbers were assigned based on the study areas developed for the EBS (Figure 2-2). As the station was further divided based on property categories, the parcels were given numeric values in addition to the alpha (e.g., A-2, A-3).
- Facility Name: facility use description.
- Square Feet: the area of the facility in square feet.
- Year Constructed: the year the facility was constructed.
- Facility Type: general facility use description.
- HM/HW
  - H = facility has been used as a hazardous materials storage area
  - W = facility has been used as a hazardous waste storage area (daily collection point, satellite collection point, collection point)
  - M = medical/biohazardous waste has been stored or generated within the facility.
  - Number in parentheses indicate categorization for the specific environmental factor.
- Storage Tank Type: facility identification number and number of tanks.
  - Number in parentheses indicate categorization for the specific environmental factor.
  - The letter P indicates that the tank stored petroleum products only.
- Asbestos: indicates whether or not the facility contains asbestos
  - Y = asbestos was identified in surveys or asbestos register
  - N = no suspected material was identified, or building type excludes use of asbestos-containing material
  - U = unknown if asbestos is present.

- Comments: indicates other environmental concerns (e.g., IRP sites, areas of concern).

- Overall Property Category: indicates how the property has been categorized.

Each occurrence of an environmental factor was first categorized individually based on its past or present potential for environmental concern. Then, the categories for all factors present at each location were integrated to determine the overall property category. The highest category within an individual property/facility would determine the overall category for that property/facility. For example, if a facility has a storage tank classified as Category 2 and an IRP site classified as Category 7, the overall property category would be Category 7. Information on disclosure factors was also reviewed. Based on Department of Defense guidance on the implementation of Community Environmental Response Facilitation Act, disclosure factors were not used in categorizing property.

TABLE A-1. SUMMARY OF ENVIRONMENTAL FACTORS BY FACILITY

FACILITY ID	PROPERTY ID	FACILITY NAME	SQUARE FEET	YEAR CONSTRUCTED	FACILITY TYPE	HM/HW	STORAGE TANK TYPE	ASBESTOS	COMMENTS	OVERALL PROPERTY CATEGORY
1	A-2	ADMINISTRATION	10,566	1949	ADMIN	M(2)	UST-1 (P_R)	Y	IRP SITE ST-02	2
2	A-4	SUPPLY WAREHOUSE	10,916	1949	STOR	W(2)	UST-2 (P_R)	Y	IRP SITE ST-02, ACCUMULATION POINT LOCATED NORTH OF BUILDING	2
3	A-3	VEHICLE MAINTENANCE SHOP	3,303	1949	IND	H(2), W(2)	UST-3-1 (P_R) UST-3-2(3) UST-3-3(3)	Y	IRP SITE SS-01, ST-02, ST-03 SATELLITE ACCUMULATION POINT	3
4	A-4	HAZARDOUS MATERIAL STORAGE	300	1955	HAZ	H(2)		Y		2
5	A-5	RADIO REPAIR SHOP	7,616	1956	IND	H(2)	UST-5 (P_R)	Y	IRP SITE ST-02	2
6	A-6	GENERATOR MAINTENANCE SHOP	2,500	1962	IND	H(2), W(2)	UST-6 (P_R) OWS-6-1(7) OWS-6-2(7)	Y	SATELLITE ACCUMULATION POINT	7
7	A-5	STORAGE	3,071	1957	STOR			Y	FORMER ROCKET STORAGE FACILITY	1
10	B-4	DINING HALL	7,224	1962	COMM			Y		1
11	B-4	ADMINISTRATION	3,384	1966	ADMIN			Y		1
12	A-4	WAREHOUSE	3,920	1966	STOR	H(2)		N	PAINT BOOTH INSIDE OF BUILDING	2
14	A-3	VEHICLE PARKING SHED	4,000	1967	IND	H(2)	OWS-14(7)	N	IRP SITE SS-01	7
109	B-1	CE MAINTENANCE SHOP	2,408	1942	IND	H(2)		N		2
111	B-3	STORAGE SHED	528	1942	STOR		UST-111(3)	Y	IRP SITE ST-03	3
113	B-1	STORAGE SHED	276	1970	STOR			U		2
118	B-1	STORAGE SHED	1,000	1976	STOR	H(2)		N		2
221	A-5	CONCRETE VAULT	8	1971	STOR			N	FORMER EXPLOSIVE STORAGE, ABANDONED IN PLACE	1
222	A-5	CONCRETE VAULT	8	1971	STOR			N	FORMER EXPLOSIVE STORAGE, ABANDONED IN PLACE	1
223	A-5	CONCRETE VAULT	8	1971	STOR			N	FORMER EXPLOSIVE STORAGE, ABANDONED IN PLACE	1
228	B-2	WASH RACK	NA	1970	IND		GT-228(7)	N	GREASE TRAP AT SOUTHWEST CORNER OF BUILDING 10	7

ADMIN = Facilities primarily used for office/administrative-typeuses.
CE = Civil Engineering
COMM = Community center facilities including commercial retail and food sales.
GT = grease trap
HAZ = Facilities specifically designated for the accumulation and/or storage of hazardous substances.
HM/HW = hazardous material/hazardous waste
IND = Facilities primarily used for industrial-typeuses.
IRP = Installation Restoration Program
NA = not applicable
OWS = oil/water separator
P_R = petroleum product/storage location (Release)
STOR = Facilities used primarily for small-scale storage.
UST = underground storage tank

Source: U.S. Air Force, 1996; EARTH TECH, 1996.

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APPENDIX B

SUMMARY OF LAND USE BY STUDY AREA

APPENDIX B

SUMMARY OF LAND USE BY STUDY AREA

An analysis of historic land use patterns on the station property was conducted to identify those uses that may have resulted in or contributed to environmental contamination or other environmental concerns. This analysis involved the preparation of an inventory of all buildings/facilities that could be identified from historic facility inventories, installation maps, and aerial photographs. Information was derived from current real property records and available historic real property records and files regarding the disposal of buildings. Approximately ten buildings/facilities were identified in the analysis that have been removed since the station was initially constructed in the early 1940s. Information obtained from the review of chain-of-title documents was also used in this analysis.

A summary of preclosure (1996) and historic land use for each of the two study areas shown in Figure 2-2 is presented in Table B-1. The preclosure land uses are based on information contained in the Ontario Air National Guard Station Real Property Inventory and the visual site inspections. The historic land use descriptions are based on a review of historic aerial photos and maps found during the records search.

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Table B-1. Preclosure (1996) and Historic Land Use by Study Area

Study Area	Map	Buildings/Facilities	Preclosure Land Use	Historic Land Use
A	Figure 2-2	1, 2, 3, 4, 5, 6, 7, 12, 14, 81 (demolished), 116 (demolished)	Study Area A is divided into two land use categories. The commercial land use area includes the southern portion of the study area surrounding Building 1 (Administration). It includes the entrance parking lot, perimeter landscaped areas, sand volleyball court, and an abandoned septic tank on the eastern perimeter. The industrial land use area includes Buildings 2, 3, 4, 5, 6, 7, 12, and 14; an outside generator and vehicle storage area; and a field.	Prior to development, this area was utilized for agriculture. In the 1940s, the area occupied by Building 1 was used for fire drill training and a gas chamber (Building 81) stood south of where Building 2 would eventually be located. By the mid-1950s, most of this study area had been developed with buildings and parking areas. The field in the northeastern corner of the station contains three concrete vaults for munitions storage prior to mobility exercises. A hazardous storage shed (Building 116) was constructed southwest of the generator maintenance building (Building 6) and has since been demolished. By 1976, all buildings in this study area were developed; the land uses were similar to preclosure.
B	Figure 2-2	10, 11, 41 (demolished), 43 (demolished), 44 (demolished), 56 (demolished), 57 (demolished), 109, 110 (demolished), 111, 112 (demolished), 113, 114 (demolished), 116 (demolished and different from the Building 116 in Study Area A), and 118	Study Area B may be divided into two separate land use areas. The commercial land use area includes Building 10 (Dining Hall) and Building 11 (Administration). In addition, this land use area includes a picnic and barbecue area east of Building 11. The industrial land use area includes the rest of the study area, including the CE maintenance building (Building 109), equipment storage yard, vehicle storage areas, and other storage buildings.	Prior to development, this study area was utilized for agriculture. During the 1940s and 1950s, this area was used as a motor pool facility. Prior uses of existing and demolished buildings include a dispatcher's house, oil storage building, wash rack, gas station, and driver's shed. Building 109 and surrounding storage yard and storage sheds were used as a motor repair shop, grease rack, gate house, tire repair shop, and tool shed. Of the original structures, only Buildings 111 and 109 remain. The dining hall (Building 10) was constructed in 1962. Building 11 was constructed in 1966 as a dormitory; it was later converted for office and classroom space as it is used under preclosure.

CE = Civil Engineering

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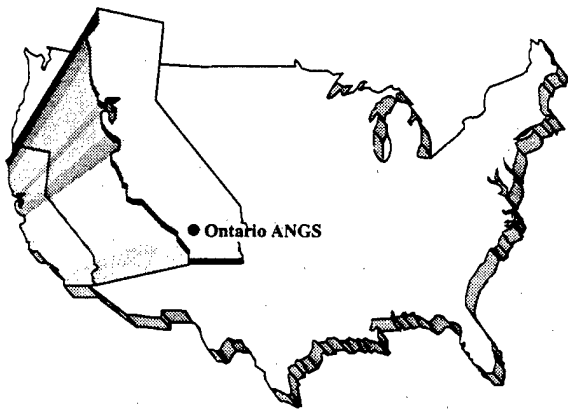

APPENDIX C

APPENDIX C

INVENTORY OF STORAGE AREAS

APPENDIX C

INVENTORY OF STORAGE AREAS

Table C-1 provides a list of facilities in which hazardous materials and/or petroleum products are or were stored. Table C-2 provides a list of facilities in which hazardous waste and/or waste petroleum products are or were stored. Table C-3 provides a list of hazardous materials stored by facility. Information contained within this table was obtained during the visual site inspections or documentation reviewed during the records search. Household cleaning supplies are not included within these listings. Information on the storage of petroleum or waste petroleum products within tanks is provided in Appendix E.

Comprehensive Environmental Response, Compensation, and Liability Act Section 120(h) Hazardous Substance Information

An inventory of hazardous materials stored in industrial workplaces is presented in Table C-3. Specifically, this inventory reflects information derived from Air Force Form 2761, Hazardous Materials Data, which reflects hazardous materials usage. The only available records were for 1994. Two major assumptions made for Table C-3 are that usage data was the only available data for storage and that the 147th Combat Communications Squadron conducted similar operations.

Note: Air Force Forms 2761 were not available for Ontario Air National Guard Station (ANGS); however, they were available for the 147th Combat Communications Squadron in San Diego, California. The 163rd Air Reserve Wing Bioenvironmental Engineer indicated that unit conducts similar activities and would be representative of materials utilized at Ontario ANGS.

The units of measure vary for different classes of products listed on the Hazardous Material Data forms. The quantity used for many products is given in conventional quantitative units of ounces, pounds, tons, pints, quarts, gallons, liters, and grams. Other products, however, are listed in terms of nonquantified units such as cans, boxes, rolls, tubes, kits, packs, drums, and cylinders. For these products, the conversion factors listed below were used.

1 bag	= 25 lb.	1 ball	= 1 lb.	1 bar	= 1 lb.
1 barrel	= 350 lb.	1 box	= 100 lb.	1 can	= 50 lb.
1 canister	= 50 lb.	1 caplet	= 1 lb.	1 cartridge	= 1 lb.
1 case	= 50 lb.	1 cycle	= 1 lb.	1 cylinder	= 100 lb.
1 disk	= 1 lb.	1 dozen	= 1 lb.	1 drop	= 1 lb.
1 drum	= 417 lb.	1 each	= 1 lb.	1 jar	= 1 lb.
1 keg	= 100 lb.	1 kit	= 1 lb.	1 mon	= 1 lb.
1 pack	= 1 lb.	1 package	= 1 lb.	1 pad	= 1 lb.
1 pail	= 50 lb.	1 pellet	= 1 lb.	1 pillow	= 1 lb.
1 roll	= 1 lb.	1 spool	= 1 lb.	1 stick	= 1 lb.
1 tablet	= 1 lb.	1 tub	= 1 lb.	1 tube	= 1 lb.

For products listed using volumetric measures such as pints, quarts, gallons, and liters, knowledge of the density or specific gravity of each product would be required to calculate the respective total weights of product usage per unit time. Given the fact that such data are not recorded on Hazardous Materials Data forms, the weight of an equivalent volume of water (1 U.S. gallon weighs 8.3453 pounds or 3.7854 kilograms [kg]) was used to calculate an approximate total product weight.

Under Section 120(h)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), whenever any agency, department, or instrumentality of the United States enters into any contract for the sale or other transfer of real property that is owned by the United States, and on which any hazardous substance was stored for 1 year or more, known to have been released, or disposed of, the contract must include notice of the type and quantity of such hazardous substance, and the time at which such storage, release, or disposal took place, to the extent such information is available based on a complete search of agency files. Requirements for such notice are outlined in 40 Code of Federal Regulations (CFR) Part 373.

The notice required by 40 CFR Part 373 for the storage of hazardous substances applies only when hazardous substances have been stored in quantities greater than or equal to 1,000 kilograms (kg) (or 2,205 pounds) or the CERCLA-reportable quantity for the substance as listed in 40 CFR Part 302.4, whichever is greater. Hazardous substances that are also listed under 40 CFR 261.30 as acutely hazardous wastes and that are stored for 1 year or more are subject to the notice requirement when stored in quantities greater than or equal to 1 kg (2.205 pounds).

Only product constituents listed in 40 CFR Part 302.4 are presented in Table C-3. Products, National Stock Numbers (NSNs), product constituents, and constituent percentages are listed as provided on Air Force Form 2761. Chemical Abstract Services Registry Numbers (CASRNs) and synonyms for constituents are listed as provided in 40 CFR 302.4.

For Ontario ANGS, data needed to compile Table C-4 was not available. Hazardous waste manifests were reviewed to determine if any usable data could be provided for Table C-4 (e.g., CASRNs, RCRA Hazardous Waste Numbers, synonyms for constituents listed in 40 CFR 302.4). The review of the hazardous waste manifests did not yield any usable information.

TABLE C-1. INVENTORY OF HAZARDOUS MATERIALS AND PETROLEUM PRODUCT STORAGE AREAS

STUDY AREA	FACILITY NUMBER	SITE ID	STORAGE AREA DESCRIPTION	DATE OPENED	DATE CLOSED	MATERIAL TYPE	CATEGORY	COMMENTS
A	3	HSTOR-3	STORAGE CABINETS, DRUMS	UNK	(a)	OIL, PAINT, SOLVENT, ANTIFREEZE	2	VEHICLE MAINTENANCE SHOP
A	4	HSTOR-4	STORAGE CABINETS	UNK	(a)	OIL, PAINT, FUEL, BATTERIES, SOAP, CORROSIVES, GREASE, ADHESIVES, SOLVENTS	2	HAZARDOUS MATERIALS STORAGE AREA
A	5	HSTOR-5	STORAGE CABINET	UNK	(a)	BATTERIES	2	
A	6	HSTOR-6	SHELF STORAGE	UNK	(a)	OIL, BATTERIES, SOLVENT	2	GENERATOR MAINTENANCE SHOP
A	12	HSTOR-12	SHELF STORAGE	UNK	(a)	PAINT, THINNER	2	
A	14	HSTOR-14	PALLET STORAGE, STORAGE CABINETS	UNK	(a)	ACETYLENE, NITROGEN, FUEL, OIL, BATTERIES	2	
B	109	HSTOR-109	SHELF STORAGE	UNK	(a)	SOLVENT, THINNER, ADHESIVES, SEALERS, OIL, PAINT	2	
B	118	HSTOR-118	STORAGE CABINET, SHELF STORAGE	UNK	(a)	PAINT, GREASE, SEALANT	2	

Note: (a) Active storage area at time of March 1996 visual site inspection.

UNK = Unknown

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TABLE C-2. INVENTORY OF HAZARDOUS WASTE AND WASTE PETROLEUM PRODUCT STORAGE AREAS

STUDY AREA	FACILITY NUMBER	SITE ID	DATE OPENED	DATE CLOSED	TYPE	CATEGORY	COMMENTS
A	2	WSTOR-2	UNK	(a)	AP	2	LOCATED NORTH OF BUILDING 2, IN PORTABLE STORAGE UNITS
A	3	WSTOR-3	UNK	(a)	SAP	2	LOCATED SOUTH OF BUILDING 3
A	6	WSTOR-6	UNK	(a)	SAP	2	LOCATED IN NORTHERN PORTION OF BUILDING 6

Note: (a) Active storage area at time of March 1996 visual site inspection.
AP = 90-day accumulation point
SAP = satellite accumulation point
UNK = unknown

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TABLE C-3. HAZARDOUS MATERIALS STORAGE BY FACILITY

FACILITY ID	WORKPLACE STORAGE AREA	PRODUCT	NSN	YEAR	PRODUCT QUANTITY STORED	PRODUCT (LBS/YR)	PRODUCT (KG/YR)	CONSTITUENT	CONSTITUENT PERCENTAGE	CONSTIT (KG)	CONSTITUENT REPORTABLE QUANTITY (KG)	CASRN	SYNOMYN
SAN DIEGO ANGS		ACETYLENE, TECHNICAL	6830-00-264-6751	1994	450 CFT./YR.			ACETYLENE	100				
		ADHESIVE	8040-00-142-9193	1994	10 BXS./YR.			ETHYL-2-CYANOACRYLATE	95-98				
								POLYMETHYLMETHACRYLATE	2-5				
		ADHESIVE, SILICONE	8040-00-843-0802	1994	18 TU./YR.			ALKYL TRIACETOXY SILANE	<5				
								ACETIC ACID	0.01			64197	
		ADHESIVE, WEATHERSTIR	8040-00-109-2481	1994	6 TU./YR.			NAPHTHA	30-40				
								METHYL ETHYL KETONE	20-30			78933	2-BUTANONE
								POLYCHLOROPRENE	10-20				
								MAGNESIUM RESINATE	10-20				
								TOLUENE	1-10			108883	BENZENE, METHYL-
		ALCOHOL, DENATURED	6810-00-205-6786	1994	48 QTS./YR.			ETHYL ALCOHOL	86.52				
								METHYL ALCOHOL	3.66			67561	METHANOL
								ETHYL ACETATE	0.94			141786	ACETIC ACID, ETHYL ESTER
								RUBBER SOLVENT	0.83				
								METHYL ISOBUTYL KETONE	0.96			108101	4-METHYL-2-PENTANONE
								WATER	7.09				
		ALCOHOL, ISOPROPYL	6810-00-286-5435	1994	20 GALS./YR.			ISOPROPYL ALCOHOL	99				
		ANTIFREEZE	6850-00-181-7929	1994	72 GALS./YR.			ETHYLENE GLYCOL	795				
								WATER	4				
								SODIUM NITRATE	<0.2				
								SODIUM TETRABORATE	<0.5				
								SODIUM METASILICATE	<0.2				
								SODIUM ORTHOPHOSPHATE	<0.3				
		ANTIFREEZE	6850-00-068-1409	1994	2 DR./YR.			ETHYLENE GLYCOL (VAPOR)	90				
								DIETHYLENE GLYCOL	5				
		BATTERY	6140-01-032-1326	1994	20 EA./YR.			LEAD	43-70			7439921	
								ANTIMONY	0-4			7440360	
								SULFURIC ACID	20-44			7664939	
		BATTERY, STORAGE-ACID	6140-01-031-6882	1994	12 EA./YR.			SULFURIC ACID	10-30			7664939	
								LEAD, FUMES	>60				
								ANTIMONY	>2			7440360	
								ARSENIC	>0.2			7440382	
								CALCIUM	>0.2				
								POLYPROPYLENE	5				
		BRAKE FLUID	9150-01-102-9455	1994	18 GALS./YR.			SILICONE	0.01				
								DIOCTYL SEBACATE	3				
								TRIBUTYL PHOSPHATE	2				
								DIMETHYL SILICONE RESIN	0.01				
		BRAKE FLUID	9150-01-231-9071	1994	4 GALS./YR.			TRIETHYLENE GLYCOL	45-50				
								DIETHYLENE GLYMONETH	20-25				
								DIETHYLENE GLYCOL	1-10				
								DIETHYLENE GLY MONO PETH	1-5				
								DIETHYLENE GLY MONOE PETH	1-5				
								TRIETHYLENE GLY MONO PETH	1-5				
		BREAK-FREE UP LIQUID	9150-01-054-6453	1994	24 PTS./YR.			BUTYL ACETATE	<5			123864	
								1,1,2-TRICHLORO-1,2,2-TRIFLUOR	7.3				
								METHYL CHLOROFORM	<20			71556	ETHANE 1,1,1-TRICHLORO-
								ISOPROPYL ALCOHOL	<5				
								ISOBUTYL ACETATE	<5				
		CHOKE AND CARBURETOR CLEANER	6850-01-085-1423	1994	12 CNS./YR.			XYLENE (O-,M-,P- ISOMERS)	>75			133027	BENZENE, DIMETHYL
								METHYL ETHYL KETONE	10			78933	2-BUTANONE
								2-BUTOXY ETHANOL	10				
								CARBON DIOXIDE	<5				
		CLEANING COMPOUND, WINDSHIELD	6850-00-926-2275	1994	72 PTS./YR.			METHYL ALCOHOL	80			67561	METHANOL
		CLEANER, GLASS	7930-00-184-9423	1994	6 GALS./YR.			ISOPROPYL ALCOHOL	>1				
								AMMONIA	<1			7664417	
		CORROSION PREVENTATIVE COMPOUND	8030-00-838-1947	1994	12 CNS./YR.			PETROLEUM OXIDATE	33				
								MEDIUM ALPHATIC NAPTHA	33				

TABLE C-3. HAZARDOUS MATERIALS STORAGE BY FACILITY

FACILITY ID	WORKPLACE STORAGE AREA	PRODUCT	NSN	YEAR	PRODUCT QUANTITY STORED	PRODUCT (LBS/YR)	PRODUCT (KG/YR)	CONSTITUENT	CONSTITUENT PERCENTAGE	CONSTIT (KG)	CONSTITUENT REPORTABLE QUANTITY (KG)	CASRN	SYNOMYN
SAN DIEGO ANGS		CORROSION PREVENTATIVE COMPOUND (continued)						1,1,2-TRICHLORO-1,2,2-TRIFLUOR					
								CARBON DIOXIDE	3				
		EPOXY EPOWELD 8173A	8040-00-092-2816	1994	2 BXS./YR.			EPICHLOROHYDRIN	0.01			106898	OXIRANE, (CHLOROMETHYL)-
		EPOXY EPOWELD 8173B	8040-00-092-2816	1994	2 BXS./YR.			EPOXY RESIN	NL				
		EPOXY PATCH, EPK 1C HARDENER	8040-00-777-0631	1994	8 KT./YR.			SILICA	15-35				
								TALC (NON-ASBESTIFORM)	35-60				
								DIETHYLENE TRIAMINE	15-35				
		EPOXY PATCH, EPK 1C RESIN	8040-00-777-0631	1994	8 KT./YR.			TALC (NON-ASBESTIFORM)	35-60				
		HYDRAULIC FLUID	9150-00-252-6383	1994	6 QTS./YR.			HYDRAULIC FLUID, PET BASE	0.01				
								TRIORTHOCRESYL PHOSPHATE	0.5				
		HYDRAULIC FLUID, DEXTRON II ATF	9150-00-698-2382	1994	24 QTS./YR.			LUBRICATING OIL	90.48				
								ZINC SALT	0.01				
								C.I. SOLVENT RED	0.02				
								XYLENE (O-,M-,P- ISOMERS)	0.01			133027	BENZENE, DIMETHYL
		HYDRAULIC FLUID, FORD ATF	9150-01-092-9755	1994	6 QTS./YR.			MINERAL OIL	0.01				
								ZINC	0.01			7440666	
		LUBRICATING COMPOUND, SLYDE	9150-00-823-7860	1994	12 CNS./YR.			HYDROGENATED LIGHT PET	72-75				
								PROPANE	0.01				
								ISOBUTANE	0.01				
		LUBRICATING OIL, GEAR	9150-01-035-5392	1994	30 QTS./YR.			PETROLEUM DISTILLATES	<40				
								RESIDUAL OIL	<55				
								ZINC	0.01			7440666	
		OXYGEN	6505-00-132-5181	1994	500 CFT./YR.			OXYGEN	99-100				
		PAINT REMOVER	8010-00-597-8234	1994	6 GALS./YR.			METHYLENE CHLORIDE	<80			75092	METHANE, DICHLORO-
								ISOPROPANOL	<15				
								METHYL ALCOHOL	<5			67561	METHANOL
		PAINT, AEROSAL BLACK	8010-00-616-9143	1994	40 PTS./YR.			STODDARD SOLVENT	7.33				
								XYLENE (O-,M-,P- ISOMERS)	1.22			133027	BENZENE, DIMETHYL
								BARIUM SULFATE	2.44				
								TALC (NON-ASBESTIFORM)	3.67				
								METHYLENE CHLORIDE	32.48			75092	METHANE, DICHLORO-
								ACETONE	5.20			67641	2-PROPANONE
		PAINT, AEROSAL ENAMEL BLACK	8010-00-067-5437	1994	20 PTS./YR.			VM&P NAPHTHA	5				
								TOLUENE	30			108883	BENZENE, METHYL-
								ACETONE	15			67641	2-PROPANONE
								PROPANE	19				
								XYLENE (O-,M-,P- ISOMERS)	2			133027	BENZENE, DIMETHYL
								MAGNESIUM SILICATE	5				
		PAINT, AEROSAL ENAMEL OLIVE	8010-00-598-5936	1994	40 PTS./YR.			XYLENE (O-,M-,P- ISOMERS)	<2.07			133027	BENZENE, DIMETHYL
								TOLUENE	14.66			108883	BENZENE, METHYL-
								PROPANE	18.88				
								BENZENE	<.21			71432	
		PAINT, AEROSOL ENAMEL RED	8010-00-079-3760	1994	18 PTS./YR.			VM&P NAPHTHA	4				
								TOLUENE	30			108883	BENZENE, METHYL-
								ACETONE	10			67641	2-PROPANONE
								PROPANE	19				
								MAGNESIUM SILICATE	1				
		PAINT, AEROSOL ENAMEL WHITE	8010-00-079-3762	1994	8 PTS./YR.			TITANIUM DIOXIDE	8				
								VM&P NAPHTHA	3				

TABLE C-3. HAZARDOUS MATERIALS STORAGE BY FACILITY

FACILITY ID	WORKPLACE STORAGE AREA	PRODUCT	NSN	YEAR	PRODUCT QUANTITY STORED	PRODUCT (LBS/YR)	PRODUCT (KG/YR)	CONSTITUENT	CONSTITUENT PERCENTAGE	CONSTIT (KG)	CONSTITUENT REPORTABLE QUANTITY (KG)	CASRN	SYNOMYN
SAN DIEGO ANGS		PAINT, AEROSOL ENAMEL WHITE (continued)						MAGNESIUM SILICATE	3				
								TOLUENE	27			108883	BENZENE, METHYL-
								ACETONE	12			67641	2-PROPANONE
								PROPANE	19				
		PAINT, AEROSOL ENAMEL YELLOW	8010-00-852-9033	1994	20 PTS./YR.			ETHYL BENZENE	<1			100414	
								TOLUENE	15			108883	BENZENE, METHYL-
								ACETONE	25			67641	2-PROPANONE
								PROPANE	15				
								LEAD	<1			7439921	
								TITANIUM DIOXIDE	<1				
		PAINT, AEROSOL GRAY PRIMER	8010-00-616-9181	1994	48 PTS./YR.			VM&P NAPHTHA	<5				
								TITANIUM DIOXIDE	<5				
								XYLENE (O-,M-,P- ISOMERS)	10-15			133027	BENZENE, DIMETHYL
								TOLUENE	5-10			108883	BENZENE, METHYL-
								METHYLENE CHLORIDE	10-15			75092	METHANE, DICHLORO-
								ACETONE	15-20			67641	2-PROPANONE
		PAINT, AEROSOL HIGH GLOSS BLUE	8010-00-988-1458	1994	24 PTS./YR.			MINERAL SPIRITS	16.76				
								ETHYL BENZENE	<1.67			100414	
								LEAD	<.33			7439921	
								TITANIUM DIOXIDE	<1.67				
								METHYLENE CHLORIDE	30.53			75092	METHANE, DICHLORO-
								ACETONE	10.90			67641	2-PROPANONE
		PAINT, AEROSOL LACQUER BLACK	8010-00-582-5382	1994	18 PTS./YR.			VM&P NAPTHA	1				
								TOLUENE	25			108883	BENZENE, METHYL-
								ACETONE	20			67641	2-PROPANONE
								PROPANONE	19				
								XYLENE (O-,M-,P- ISOMERS)	2			133027	BENZENE, DIMETHYL
								CARBON BLACK	2				
		PAINT, AEROSOL LACQUER BLUE	8010-00-721-9747	1994	20 PTS./YR.			VM&P NAPHTHA	2				
								TOLUENE	25			108883	BENZENE, METHYL-
								ACETONE	10			67641	2-PROPANONE
								PROPANE	19				
								XYLENE (O-,M-,P- ISOMERS)	2			133027	BENZENE, DIMETHYL
								TITANIUM DIOXIDE	2				
		PAINT, AEROSOL LACQUER GREEN	8010-00-141-2951	1994	10 PTS./YR.			XYLENE (O-,M-,P- ISOMERS)	2			133027	BENZENE, DIMETHYL
								VM&P NAPHTHA	3				
								TOLUENE	30			108883	BENZENE, METHYL-
								ACETONE	15			67641	2-PROPANONE
								PROPANE	19				
								2-BUTOXY ETHANOL	2				
		PAINT, AEROSOL LACQUER OLIVE	8010-00-584-3149	1994	24 PTS./YR.			VM&P NAPHTHA	2				
								TOLUENE	25			108883	BENZENE, METHYL-
								ACETONE	15			67641	2-PROPANONE
								PROPANE	19				
		PAINT, AEROSOL LACQUER YELLOW	8010-00-141-2950	1994	15 PTS./YR.			VM&P NAPHTHA	1				
								TOLUENE	25			108883	BENZENE, METHYL-
								ACETONE	15			67641	2-PROPANONE
								PROPANE	19				
								XYLENE (O-,M-,P- ISOMERS)	2			133027	BENZENE, DIMETHYL
								2-BUTOXY ETHANOL	1				
		PAINT, ENAMEL ALKYD BLACK FLAT	8010-00-297-0547	1994	24 GALS./YR.			VM&P NAPTHA	1				
								SILICA	1				
								TALC (NON-ASBESTIFORM)	1				

TABLE C-3. HAZARDOUS MATERIALS STORAGE BY FACILITY

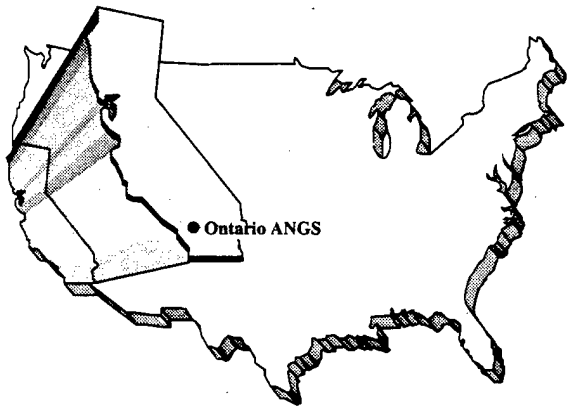
FACILITY ID	WORKPLACE STORAGE AREA	PRODUCT	NSN	YEAR	PRODUCT QUANTITY STORED	PRODUCT (LBS/YR)	PRODUCT (KG/YR)	CONSTITUENT	CONSTITUENT PERCENTAGE	CONSTIT (KG)	CONSTITUENT REPORTABLE QUANTITY (KG)	CASRN	SYNOMYN
SAN DIEGO ANGS		PAINT, ENAMEL ALKYD FIED DRAB	8010-00-597-7862	1994	24 GALS./YR.			VM&P NAPHTHA	1				
								XYLENE (O-,M-,P- ISOMERS)	1			133027	BENZENE, DIMETHYL
								IRON OXIDE	1				
								TALC (NON-ASBESTIFORM)	1				
		PAINT, ENAMEL ALKYD FL GREEN	8010-00-598-5464	1994	24 GALS./YR.			CARBON BLACK	1				
								IRON OXIDE	1				
								TALC (NON-ASBESTIFORM)	1				
								VM&P NAPHTHA	1				
								XYLENE (O-,M-,P- ISOMERS)	1			133027	BENZENE, DIMETHYL
		PAINT, HEAT RESIST OLIVE	8010-00-616-4009	1994	2 GALS./YR.			TOLUENE	4			108883	BENZENE, METHYL-
								VM&P NAPHTHA	10				
								ZINC CHROMATE	3.04				
								MICA	5				
								CHRISTOBALITE	11.21				
		PENETRATING FLUID	6850-00-973-9091	1994	16 CNS./YR.			2-BUTOXY ETHANOL	9				
								PROPANE	10				
		PENETRATING OIL	9150-00-261-7899	1994	12 PTS./YR.			NAPHTENIC OILS	28				
								MINERAL SPIRITS	71				
								ETHYLENE GLYCOL (VAPOR)	<1				
								MONOBUTYL ETHER	<1				
		POLYURETHANE COATING, BASE	8010-01-023-4261	1994	24 KTS./YR.			2-ETHOXYETHLACETATE	20				
								N-BUTYL ACETATE	<.1				
								METHYL ETHYL KETONE	10			78933	2-BUTANONE
								ETHYL ACETATE	15			141786	ACETIC ACID, ETHYL ESTER
								PMGE ACETATE	<.1				
								DIBUTYL TIN DILAURATE	<.1				
		POLYURETHANE COATING, CAT	8010-01-023-4261	1994	24 KTS./YR.			METHYL ISOBUTYL KETONE	10			108101	4-METHYL-2-PENTANONE
								2-ETHOXYETHYLACETATE	5				
								TOLUENE	<5			108883	BENZENE, METHYL-
								ALIPHATIC ISOCYANATE	30				
								BUTYL ACETATE	<5			123864	
								XYLENE (O-,M-,P- ISOMERS)	<5			1330207	BENZENE, DIMETHYL
		PRIMER, SYNTHETIC GRAY	8010-00-936-9890	1994	6 GAL./YR.			MINERAL SPIRITS	15				
								TOLUENE	4			108883	BENZENE, METHYL-
								TITANIUM DIOXIDE	10				
								MAGNESIUM SILICATE	15				
		SODIUM BICARBONATE	6810-00-264-6618	1994	12 BXS./YR.			SODIUM BICARBONATE	100				
		STARTING FLUID	6850-00-823-7861	1994	3 OZ./YR.			ETHYL ETHER	0.01			60297	ETHANE, 1,1'-OXYBIS-
								PETROLEUM DISTILLATE	0.01				
		SULFIC ACID, ELECTROLYTE	6810-00-843-1640	1994	18 DR./YR.			SULFURIC ACID	37.1			7664939, 8014957	
								WATER	62.9				
		THINNER, POLYURETHANE COATING	8010-00-181-8079	1994	6 CNS./YR.			XYLENE (O-,M-,P- ISOMERS)	8			133027	BENZENE, DIMETHYL
								TOLUENE	12			108883	BENZENE, METHYL-
								PROPYLENE GLYCOL	40-45				
								BUTYL ACETATE	10-13			123864	
								METHYL ETHYL KET	30-33			78933	2-BUTANONE
		THINNER, SYNTHETIC	8010-00-160-5794	1994	40 GALS./YR.			N-BUTYL ALCOHOL	20-22			71363	1-BUTANOL
								VM&P NAPTHA	50-57				
								TOLUENE	14-16			108883	BENZENE, METHYL-
								ISOBUTYL ISOBUTYRATE	9-12				

TABLE C-4. HAZARDOUS WASTE STORAGE BY FACILITY

				WASTE			CONSTITUENT						
FACILITY ID	WORKPLACE STORAGE AREA	WASTE	YEAR	QUANTITY STORED	(LBS/YR)	(KG/YR)	CONSTITUENT	PERCENT	(KG)	REPORTABLE QUANTITY (KG)	CASRN	RCRA HW	SYNONYM
ONTARIO ANGS		COMBUSTIBLE LIQUIDS N.O.S.	1993	110 GALS./YR	919	416.8							
		PETROLEUM OILS	1993	220 GALS./YR	1,836	832.8							
		NON-RCRA STATE-REG. WASTE	1993	55 GALS./YR	459	208							
		CLEANING COMPOUND N.O.S.	1993	15 GALS./YR	125	56.7							
		BATTERIES CARBON-ZINC	1993	25 LBS./YR	25	11							
		LITHIUM BATTERIES	1993	2 LBS./YR	2	1							
		MAGNESIUM BATTERIES	1993	15 LBS./YR	15	6.8							
		MERCURY BATTERIES	1993	2 LBS./YR	2	1							
		NICAD BATTERIES	1993	2 LBS./YR	2	1							
		RAGS CONTAMINATED WITH AUTO AND PAINT WASTE	1993	200 LBS./YR	200	90.7							
		N.O.S. AEROSOLS	1993	30 LBS./YR	30	13.6							
		N.O.S. PAINT	1993	220 LBS./YR	220	99.8							
		AEROSOL PAINT	1993	40 LBS./YR	40	18							
		PAINT REMOVERS, WITH >10% HALOGENATED SOLVENTS	1993	2 GALS./YR	16.7	7.6							
		PAINT REMOVERS, WITH <10% HALOGENATED SOLVENTS	1993	5 GALS./YR	41.7	19							
		N.O.S. WASTE PAINT	1993	10 GALS./YR	83.4	37.8							
		WASTE PAINT SOLIDS	1993	60 LBS./YR	60	27.2							
		FREON	1993	5 LBS./YR	5	2.3							
		ANTIFREEZE	1993	55 GALS./YR	459	208							
		OIL AND FUEL FILTERS	1993	100 LBS./YR	100	45.4							
		COMBUSTIBLE LIQUIDS N.O.S.	1993	150 GALS./YR	1,251.8	567.8							
		PETROLEUM OILS	1993	550 GALS./YR	4,590	2,082							
		CARBON ZINC BATTERIES	1993	12 LBS./YR	12	5.4							
		MAGNESIUM-BATTERIES	1993	5 LBS./YR	5	2.3							
		LITHIUM BATTERIES	1993	6 LBS./YR	6	2.7							
		MAGNESIUM BATTERIES	1993	15 LBS./YR	15	6.8							
		MERCURY BATTERIES	1993	3 LBS./YR	3	1.4							
		RAGS CONTAMINATED WITH ACID AND PAINT WASTE	1993	100 LBS./YR	100	45.4							
		AEROSOL PAINT	1993	100 LBS./YR	100	45.4							
		PAINT REMOVERS, WITH >10% HALOGENATED SOLVENTS	1993	2 GALS./YR	16.7	7.6							
		ANTIFREEZE	1993	55 GALS./YR	459	208.2							
		OIL AND FUEL FILTERS	1993	100 LBS./YR	100	45.4							
		DRUMS OF DIESEL(S)	1994	275 GALS./YR	2,295	1,041							
		DRUM OF GASOLINE(1)	1994	55 GALS./YR	459	208.2							
		DRUM OF RAGS (1)	1994	55 GALS./YR	417	189							
		DRUM OF OIL (1) - ABSORBENT MATERIAL	1994	55 GALS./YR	417	189							
		DRUMS OF MOTOR OIL (2)	1994	110 GALS./YR	918	416.4							
		DRUM OF FILTERS (1)	1994	55 GALS./YR	417	189							
		DRUMS OF FILTERS, RAGS, ABSORBENT (3)	1995	1,251 LBS./YR	1,251	567.5							
		DRUM OF WASTE ABSORBENT (1)	1995	417 LBS./YR	417	189							
		DRUM OF SHOCK ABSORBERS (1)	1995	417 LBS./YR	417	189							
		DRUM OF EMPTY CONTAINERS (1)	1995	417 LBS./YR	417	189							

TABLE C-4. HAZARDOUS WASTE STORAGE BY FACILITY

				WASTE			CONSTITUENT						
FACILITY ID	WORKPLACE STORAGE AREA	WASTE	YEAR	QUANTITY STORED	(LBS/YR)	(KG/YR)	CONSTITUENT	PERCENT	(KG)	REPORTABLE QUANTITY (KG)	CASRN	RCRA HW	SYNONYM
		DRUMS OF WASTE PETROLEUM OILS, COMBUSTIBLE LIQUID (8)	1995	440 GALS./YR	3,672	1,665.6							
		DRUMS OF ETHYLENE GLYCOL (2)	1995	110 GALS./YR	918	416.4	ETHYLENE GLYCOL						
Ontario ANGS		DRUMS OF WASTE PETROLEUM OIL, COMBUSTIBLE LIQUID (4)	1995	220 GALS./YR	1,836	832.8							
		DRUM OF WASTE PAINT RELATED MATERIAL (1)	1995	1 GAL/YR	8.4353	3.8							
		DRUM OF NON-RCRA WASTE BATTERIES	1995	120 LBS./YR	120	54.4							



APPENDIX D

APPENDIX D

INSTALLATION RESTORATION PROGRAM SITE PROFILES

APPENDIX D

INSTALLATION RESTORATION PROGRAM AND AREA OF CONCERN SITE PROFILES

Appendix D includes a description of the three Installation Restoration Program (IRP) sites and area of concern (AOC) sites that have been identified to date resulting from military activities at Ontario Air National Guard Station. The locations of these IRP and AOC sites are shown on Figures 3-7 and 5-1.

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Table D-1. IRP Site Descriptions

ONTARIO ANGS IRP SITE PROFILE		Study Area: A
Site ID: SS-01	Old Site ID: NA	SWMU: NA
Site Name: Area behind Vehicle Maintenance Shop (Buildings 3 and 14)		Operable Unit: NA
Description: Site SS-01 is located west of the vehicle maintenance shop and shed. From the 1950s to the early 1980s, small amounts of hazardous materials/wastes were reported to be disposed of in this area. Hazardous substances disposed of may include waste oil, fuel, paint, and solvents. Exact quantities disposed of are unknown.		
Relevant Documentation: a.) California Air National Guard, 1990. Preliminary Assessment, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, December. b.) California Air National Guard, 1993. Final Expanded Site Investigation Report, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, November. c.) California Air National Guard, 1994a. Management Action Plan, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, July. d.) California Air National Guard, 1994b, c, d. Expanded Site Investigation Quarterly Monitoring Well Sampling Letter Reports, 148th Combat Communications Squadron, Ontario Air National Guard Station, California Air National Guard, Ontario, California, May, June, September.		
Status: Site SS-01 was identified during interviews in support of the Preliminary Assessment. The site was rated using the HARM and identified as having a high rating because of the characteristics of solvents disposed of in the area. Results of soil, soil gas, and groundwater sampling conducted in support of the Expanded Site Investigation indicate that no contamination of soil and groundwater exists at Site SS-01. Site SS-01 is not considered a probable source of contaminants contributing to the regional groundwater contamination because contaminants have been identified both upgradient and downgradient of Ontario ANGS.		

ANGS = Air National Guard Station
HARM = Hazardous Assessment Rating Methodology
IRP = Installation Restoration Program
NA = not applicable
SWMU = solid waste management unit

Table D-1. IRP Site Descriptions

ONTARIO ANGS IRP SITE PROFILE		Study Area: A
Site ID: ST-02	Old Site ID: NA	SWMU: NA
Site Name: USTs at Buildings 1, 2, 3, and 5		Operable Unit: NA
Description: Site ST-02 consists of four 1,000-gallon fuel oil USTs associated with Buildings 1, 2, 3, and 5. The USTs were used to store fuel oil for heating these buildings. Two tanks were abandoned in place in 1978 and the other two in 1982; no tightness testing was conducted at that time.		
Relevant Documentation: a.) California Air National Guard, 1990. Preliminary Assessment, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, December. b.) California Air National Guard, 1994a. Management Action Plan, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, July. c.) CKY, Inc., 1996. Site Closure Report, Underground Storage Tank Removal Action at California Air National Guard Ontario Station, California, June.		
Status: All four USTs were removed in 1995 and 1996. Results of sampling conducted during removal activities indicated contaminant concentrations were below action levels.		

ANGS = Air National Guard Station
IRP = Installation Restoration Program
NA = not applicable
SWMU = solid waste management unit
UST = underground storage tank

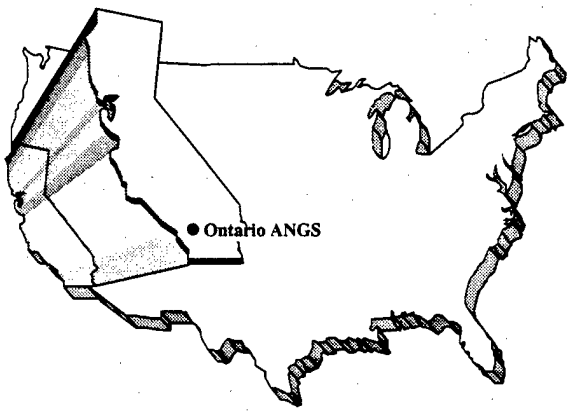
Table D-1. IRP Site Descriptions

ONTARIO ANGS IRP SITE PROFILE		Study Area: B
Site ID: ST-03	Old Site ID: NA	SWMU: NA
Site Name: USTs at Buildings 3 and 11		Operable Unit: NA
Description: Site ST-03 consists of three USTs; a 1,000-gallon gasoline UST and a 4,000-gallon gasoline UST associated with Building 3, and a 12,000-gallon gasoline UST associated with Building 111. The USTs at Building 3 were abandoned in place in 1987 and the UST at Building 111 was abandoned in place in 1954. The tanks were not tightness tested before or since they were abandoned.		
Relevant Documentation: a.) California Air National Guard, 1990. Preliminary Assessment, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, December. b.) California Air National Guard, 1994a. Management Action Plan, 148th Combat Communication Squadron, California Air National Guard, Ontario, California, July. c.) CKY, Inc., 1996. Site Closure Report, Underground Storage Tank Removal Action at California Air National Guard Ontario Station, California, June.		
Status: The USTs were removed in 1996. Results of sampling conducted during removal activities identified contaminant concentrations below action level.		

ANGS = Air National Guard Station
IRP = Installation Restoration Program
NA = not applicable
SWMU = solid waste management unit
UST = underground storage tank

Table D-2. AOC Site Description

ONTARIO ANGS IRP SITE PROFILE		Study Area: A
Site ID: NA	Old Site ID: NA	SWMU: NA
Site Name: Former Fire Training Area		Operable Unit: NA
Description: The former fire training area is located south of the current location of Building 1. Fire training activities were conducted in the mid-1940s; however, specific activities conducted at the site are unknown.		
Relevant Documentation: a.) Aerial photograph of Ontario ANGS, November, 1945. b.) Ontario Army Airfield, General Layout Plan, July, 1945.		
Status: Further investigation of this area has been recommended.		



APPENDIX E

APPENDIX E

INVENTORY OF STORAGE TANKS AND PIPELINE SYSTEMS

APPENDIX E

INVENTORY OF STORAGE TANKS AND PIPELINE SYSTEMS

Table E-1 provides an inventory of underground storage tanks by facility including the tank capacity, contents, and status. Table E-2 provides information on pipeline systems at Ontario Air National Guard Station (ANGS). Ontario ANGS does not utilize aboveground storage tanks. Acronyms, abbreviations, and references used are listed at the end of each table.

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TABLE E-1. INVENTORY OF UNDERGROUND STORAGE TANKS

STUDY AREA	FACILITY NUMBER	TANK NUMBER	INSTALLATION DATE	REMOVAL DATE	STATUS	CAPACITY (GALLONS)	CONTENTS	CONSTRUCTION TYPE	SECONDARY CONTAINMENT	CONTAMINANT	CATEGORY	REGULATED
A	1	UST-1	1949	1995	R	1,000	FUEL OIL	STEEL	NO	YES	P_R	NA
A	2	UST-2	1949	1996	R	1,000	FUEL OIL	STEEL	NO	YES	P_R	NA
A	3	UST-3-1	1949	1996	R	1,000	FUEL OIL	STEEL	NO	YES	P_R	NA
A	3	UST-3-2	1949	1996	R	1,000	GASOLINE	STEEL	NO	YES	3	NA
A	3	UST-3-3	1958	1996	R	4,000	GASOLINE	STEEL	NO	YES	3	NA
A	5	UST-5	1949	1995	R	1,000	FUEL OIL	STEEL	NO	YES	P_R	NA
A	6	UST-6	1965	1996	R	6,000	DIESEL	STEEL	NO	NO	P_R	NA
B	111	UST-111	1943	1996	R	12,000	GASOLINE	STEEL	NO	YES	3	NA

A = active
I = inactive
NA = not applicable
P_R = petroleum product storage (release)
R = removed
UST = underground storage tank

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TABLE E-2. INVENTORY OF HYDRANT FUELING AND PIPELINE SYSTEMS

STUDY AREA	FACILITY NUMBER	SITE ID	DESCRIPTION	INSTALLATION DATE	REMOVAL DATE	SYSTEM TYPE	CATEGORY	COMMENTS
A	3	UST-3-2 UST-3-3	2 USTs CONNECTED TO FILLING STAND	1949, 1958	1996	SUCTION LINES	3	USTs ARE 1,000 AND 4,000 GALLON IN SIZE AND DISPENSED GASOLINE.
A	6	UST-6	UST CONNECTED TO FILLING STAND	1965	1996	SUCTION LINES	P_R	6,000-GALLON DIESEL UST.
B	111	UST-111	UST CONNECTED TO FILLING STAND	1943	1996	SUCTION LINES	3	12,000-GALLON GASOLINE UST. REMOVED IN 1996.

P_R = petroleum product storage (release)
UST = underground storage tank

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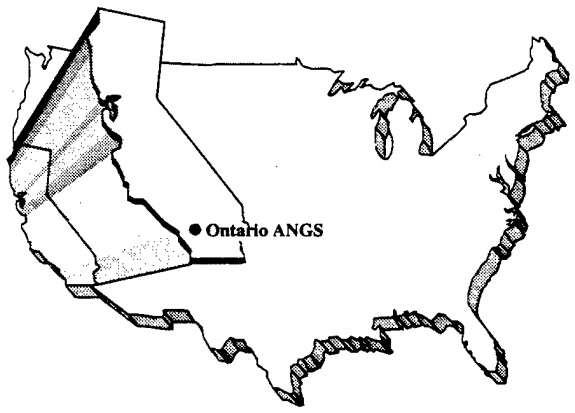

APPENDIX F

APPENDIX F

INVENTORY OF WASTEWATER TREATMENT AND RELATED SYSTEMS

APPENDIX F

INVENTORY OF WASTEWATER TREATMENT AND RELATED SYSTEMS

Table F-1 provides an inventory of oil/water separators by facility at Ontario Air National Guard Station, including capacity and status. Table F-2 provides a listing of other wastewater-related systems at the station. Acronyms, abbreviations, and references used are listed at the end of each table.

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TABLE F-1. INVENTORY OF OIL/WATER SEPARATORS

STUDY AREA	FACILITY NUMBER	OWS ID NUMBER	ASSOCIATED TANK DATA	INSTALLATION DATE	REMOVAL DATE	STATUS	CAPACITY (GALLONS)	CONTENTS	CONSTRUCTION TYPE	SWMU ID NO.	CAT	COMMENTS
A	6	OWS-6-1	NA	1970	1995	R	375	OIL/WATER	CONCRETE	NA	7	REMOVED DURING BUILDING ADDITION
A	6	OWS-6-2	NA	1995	NA	A	375	OIL/WATER	UNKNOWN	NA	7	INSTALLED DURING BUILDING ADDITION
A	14	OWS-14	NA	1970	1996	R	375	OIL/WATER	CONCRETE	NA	7	

A = active
NA = not applicable
OWS = oil/water separator
R = removed

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TABLE F-2. OTHER WASTEWATER-RELATED SYSTEMS

STUDY AREA	FACILITY NUMBER	SYSTEM TYPE	INSTALLATION DATE	REMOVAL DATE	STATUS	CATEGORY	COMMENTS	DISCHARGES TO
A	2	ST/LF	1949	NA	I	7	IDENTIFIED IN MARCH 1996 TANK INVENTORY, 750 GALLON	SUBSURFACE SOILS
A	6	ST	1970	NA	I	7	IDENTIFIED IN MARCH 1996 TANK INVENTORY, 750 GALLON	SUBSURFACE SOILS
B	10	ST	1962	NA	I	1	IDENTIFIED IN MARCH 1996 TANK INVENTORY, 4,000 GALLON	SUBSURFACE SOILS
B	11	ST/LF	1970	NA	I	1	IDENTIFIED IN MARCH 1996 TANK INVENTORY, 750 GALLON	SUBSURFACE SOILS
A,B	-	M	1954	NA	A	1	3,135 LINEAR FEET	CITY OF LOS ANGELES, DEPT. OF PUBLIC WORKS
A,B	-	M	1966	NA	A	1	1,071 LINEAR FEET	CITY OF LOS ANGELES, DEPT. OF PUBLIC WORKS
A,B	-	SD	1962	NA	A	3	5,534 LINEAR FEET	CITY OF ONTARIO
B	228	GT	1970	NA	A	7	WASH RACK FOR DUMPSTERS, 375-GALLON	SANITARY SEWER

A = active
DEPT. = department
GT = grease trap
I = inactive
LF = leach field
M = main sanitary sewer line
NA = not applicable
SD = storm drain
ST = septic tank

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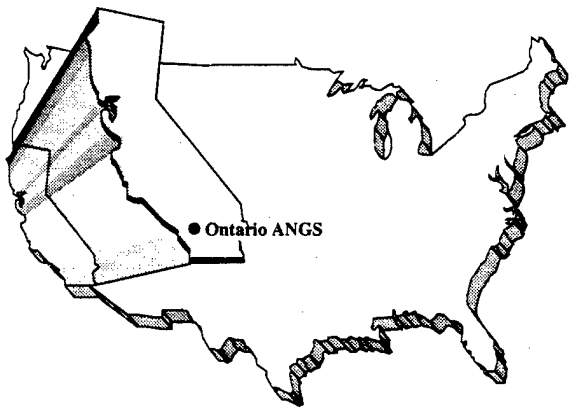

APPENDIX G

APPENDIX G

INVENTORY OF OTHER ENVIRONMENTAL FACTORS

APPENDIX G

INVENTORY OF OTHER ENVIRONMENTAL FACTORS

Table G-1 provides a summary of miscellaneous environmental factors (e.g., medical/ biohazardous waste).

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TABLE G-1. MISCELLANEOUS ENVIRONMENTAL FACTORS

STUDY AREA	FACILITY NUMBER	FACILITY DESCRIPTION	MATERIAL WASTE	CONCERN	CATEGORY	COMMENTS
A	1	ADMINISTRATION	BIOMEDICAL/PHOTO CHEMICAL	AID STATION ACTIVITIES	2	AID STATION ACTIVITIES DISCONTINUED IN 1984. ACTIVITIES INCLUDED PHYSICALS, DENTAL LAB, AND X-RAY.
A	7	STORAGE	ORDNANCE		1	ORDNANCE STORAGE CEASED IN 1983.
A	12	WAREHOUSE	PAINTS/THINNERS	PAINT BOOTH	2	ONLY PERIODICALLY UTILIZED.
A	221	CONCRETE VAULT	ORDNANCE		1	
A	222	CONCRETE VAULT	ORDNANCE		1	
A	223	CONCRETE VAULT	ORDNANCE		1	
A	NA	BURN PIT	UNKNOWN	FIRE TRAINING ACTIVITIES	7	AREA UTILIZED FOR FIRE TRAINING IN THE MID-1940s.

NA = not applicable

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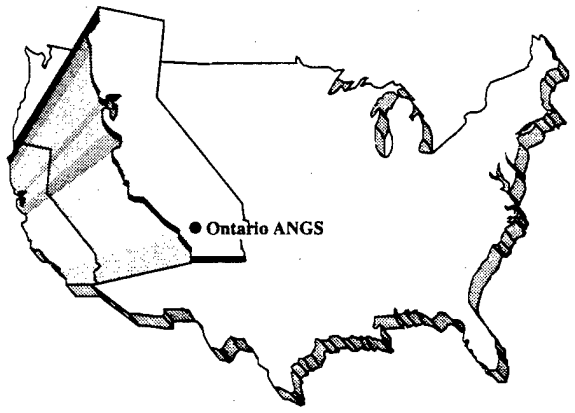

APPENDIX H

APPENDIX H

DISCLOSURE FACTOR INFORMATION

APPENDIX H

DISCLOSURE FACTOR INFORMATION

Table H-1 provides a summary of information for facilities with asbestos-containing material obtained from the stationwide asbestos survey. Stationwide information was not available for lead-based paint. No environmental issues were identified for polychlorinated biphenyls. No sampling has been conducted for radon or indoor air quality. A description of drinking water quality, pesticides, ordnance, medical/biohazardous waste, and radioactive materials and mixed waste issues are presented in Sections 3.4.5, 3.4.7, 3.4.8, 3.4.9, and 3.4.10, respectively.

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TABLE H-1. SUMMARY OF ASBESTOS SURVEY INFORMATION

STUDY AREA	FACILITY NUMBER	SQUARE FEET	YEAR CONSTRUCTED	SURVEY DATE	ACM IDENTIFICATION	FACILITY CLASSIFICATION[a]
A	1	10,566	1949	1993	PIPE FITTING INSULATION, PIPE INSULATION, BOILER INSULATION, FLOOR TILE, FLOOR TILE MASTIC	5
A	2	10,916	1949	1993	PIPE FITTING INSULATION, PIPE INSULATION, BOILER INSULATION, FLOOR TILE, FLOOR TILE MASTIC, CEILING TILE, TAR ROOFING, SEALANT, ROOFING MATERIAL	3
A	3	3,303	1949	1993	PIPE FITTING INSULATION, PIPE INSULATION, BOILER INSULATION, FLOOR TILE MASTIC	2
A	4	300	1955	1993	TRANSITE CEILING TILE	6
A	5	7,616	1956	1993	PIPE FITTING INSULATION, PIPE INSULATION, FLOOR TILE	3
A	6	2,500	1962	1993	FLOOR TILE	6
A	7	3,071	1957	1993	FLOOR TILE	6
B	10	7,224	1962	1993	PIPE FITTING INSULATION, TANK INSULATION, FLOOR TILE	4
B	11	3,384	1966	1993	PIPE FITTING INSULATION, FLOOR TILE	4
A	12	3,920	1966	1993[b]	NO ACM IDENTIFIED	
A	14	4,000	1967	1993[b]	NO ACM IDENTIFIED	
B	109	2,408	1942	1993	NO ACM IDENTIFIED	
B	111	528	1942	1993	FLOOR TILE	6
B	113	276	1970		NOT SURVEYED	
B	118	1,000	1976	1993[b]	NO ACM IDENTIFIED	

Notes: (a) Facility classification refers to the USAF Guidance for Rating and Assessing Damage and Exposure with classification ranges from 1-6. Classification 1 indicates immediate removal; classification 6 indicates no immediate action. Highest classification is presented; some ACM within the facilities may have lower classification rating.

(b) Visual ACM inspection revealed no building materials potentially containing ACM; no sampling conducted.

ACM = asbestos-containing material

Source: Air National Guard, 1994.

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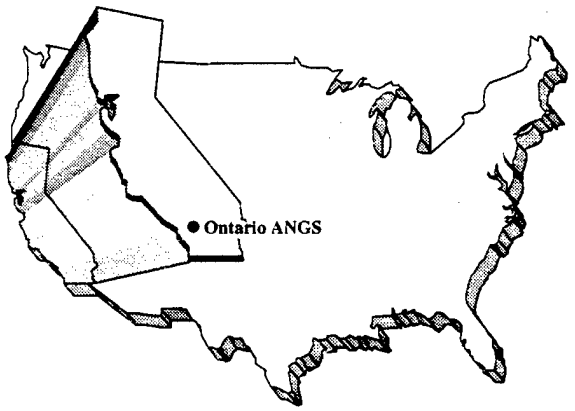

APPENDIX I

APPENDIX I

SAMPLE FORMS

APPENDIX I

SAMPLE FORMS

Appendix I contains copies of forms used during the Environmental Baseline Survey: visual site inspection form; Air Force Form 1430, Real Property Accountable Record; and Air Force Form 2761, Hazardous Material Data.

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ONTARIO AGS
STATIONWIDE ENVIRONMENTAL BASELINE SURVEY
Visual Site Inspection (VSI)

Date _____

Inspector _____

Facility Escort _____

Facility: #_____ Name _____

This Facility and associated property with regards to disposal represents:

☐ no constraints ☐ known or suspected constraints ☐ unknown constraints

Bio/Physical Setting: _____

Current Use: _____

Past Use: ☐ Same as above_____

Does facility generate or store Hazardous Material/Waste: ☐ Yes ☐ No

Did it ever store these: ☐ Yes (Provide Dates _____) ☐ No ☐ Don't Know

Accumulation Point: ☐ Yes ☐ No

Types: _____

Disposal practices: _____

"Housekeeping" in and around building is ☐ Good ☐ Poor: _____

Effluent waste created/Destination: _____

Conditions not mentioned that present concerns: _____

Interviews: _____

BUILDING INSPECTION CHECKLIST

Are there any signs of the following on the property Y Yes N No U Unknown

A)	_____	UST	K)	_____	Discolored Soil
B)	_____	AST	L)	_____	Noxious Odors
C)	_____	Oil Water Seperator	M)	_____	Sensitive Receptors
D)	_____	Septic Tank	N)	_____	Stressed vegetation
E)	_____	Waste Piles	O)	_____	Fill Areas/Buried Objects
F)	_____	Lead Paint/Pipes	P)	_____	Drums/Drum Strorage
G)	_____	PCBs	Q)	_____	Surface Water
H)	_____	Stained Sinks/Floor Drains	R)	_____	Suspected ACM
I)	_____	Evidence of Spills	S)	_____	Other (Explain Below)
J)	_____	Evidence of improper disposal			

Check List Description:

_____

_____

_____

_____

_____

_____

_____

Photo Log:

Roll Frame Subject

_____

_____

_____

Facility Diagram

INSTALLATION NAME AND NO.	DATE	DRAWING NO.	RP ACCOUNT NO.	CONTROL NO.	BUILDING NO.
ONTARIO ANG BASE 7571	10 JUL 57	LADO 1111/39-57	SKKA	~~54050~~ ~~54401-4~~	00002

Fac 1211-6

DIMENSIONS *(Width x length)*

MAIN BUILDING	OFFSETS	WINGS	BASEMENTS
128'x65'2"	N. 28'x17'4"		
	S. 24'x15'8"		

MATERIALS

FOUNDATION	FLOOR	WALL	ROOF
CONCRETE	CONCRETE	CONCRETE	STRUCT. STEEL w/CORR METAL w/TAR

HEATING

SOURCE	TYPE	FUEL
SPACE HEATERS & STEAM RADIATORS	STEAM BOILER (LOCATED IN SOUTH OFFSET)	NATURAL GAS

NO. OF USABLE FLOORS	FIRE PROTECTION NO.	FIRE PROTECTION TYPE
1		2" WATER STANDPIPE & HOSE

UTILITY CONNECTIONS

	BLDG EQPT	NO.	TOTAL CAPACITY
WATER 2"	AIR CONDITIONING	~~1~~	~~12,000 BTU~~
SEWER 1"-4" CONNECTED TO 4" SANITARY SEWER	EVAPORATIVE COOLING	1	3,500 CFM (state owned)
ELECTRIC 115-230V AC 100A	MECHANICAL COOLING	NONE	
GAS 1½" NATURAL GAS	HOT WATER FACILITIES	NONE	
STEAM NONE			
CONDENSATE NONE			

	CODE
STATE CALIFORNIA	
ASSIGNMENT ANG	4
TYPE OF CONSTRUCTION PERMANENT	P
CONDITION USABLE	1
OCCUPANCY	
AIR FORCE INTEREST OWNED	1
UNIT OF MEASURE *(Other than area)*	
QUANTITY	
NOMENCLATURE WAREHOUSE SUPPLY AND EQUIPMENT BASE	
CATEGORY	442-758

REMARKS

CONSTRUCTED BY C.O.E.
CONSTR. W-04-353-ENG-2620

LAVATORY EQUIPMENT:
COMMODES: 2 DRINKING FOUNTAIN: 1
SINKS: 2 (REFRIGERANT)
URINALS: 1

LOADING DOCK 165'x12' NOT INCLUDED IN TOTAL AREA.

VOUCHER NO.	DATE	DESCRIPTION	DATE COMPLETED	AREA UNIT AMOUNT	AREA UNIT TOTAL	COST	TOTAL COST
F1-58	10 JUL 57	AIRCRAFT CONTROL & WARNING WARE-HOUSE w/ALL EXT. UTILITIES & FAC.	1949	9204	9204	65,578 43	65,578 43
F4-63	29 OCT 62	ALUMINUM SUN AWNINGS	16 OCT 62	No Change		200 00	65,778 43
F7-63	2 APR 63	ALTERATION TO PROVIDE MORE ADMINISTRATION & OFFICE SPACE	AUG 62	NC		7,969 00	73,747 43
22-73	30 JUN 73	INSTALLED AIR CONDITIONING UNIT FOUND ON BASE)	AUG 68	NC		350 00	74,097 43
11-77	3 Jan 77	Construct loading dock	10 Dec 76	NC		6,718 00	80,815 43
		BALANCES FORWARDED					

AF FORM 15 JUN 56 1430 REPLACES DA FORM 5-47. 1 NOV 45 WHICH IS OBSOLETE IN THE USAF.

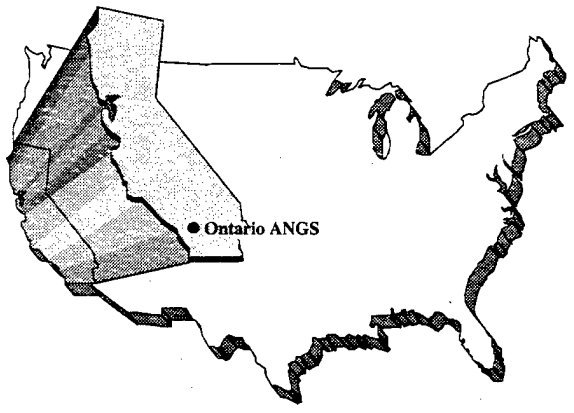
REAL PROPERTY ACCOUNTABLE RECORD - BUILDINGS

HAZARDOUS MATERIALS DATA | Date: 94.06.17

Workplace ID: 0126-TAVM-143A | Base: MARCH AFB, CA

Organization: 147TH CCSQ-SAN DIEGO | Workplace: VEHICLE MAINTENANCE | Room/Area: | Bldg:

Material Nomenclature (Manufacturer & Major Ingredients)	National Stock No. or NIOSH No.	Spec. (MIL/FED)	MSDS ?	Quantity Used?	Disposal Method	IEX (8,9)	Potential Haz. Inh	Abs	Ing	Con
1. AIRCO WELDING PRODUCTS										
ACETYLENE, TECHNICAL	6830-00-264-6751	BB-A-106B	BOTH	450.0 CFT/yr	IN PROCESS	8				
- ACETYLENE 100%	A0960000						Y	N	Y	Y
2. THREE BOND OF AMERICA INC										
ADHESIVE, CYANACRYLATE	8040-00-142-9193	A-46050C	BOTH	10.0 BX/yr	IN PROCESS	8				
- ETHYL-2-CYANOACRYLATE 95-98%	1003351ET						N	N	Y	Y
- POLYMETHYLMETHACRYLATE 2-5%	TR0400000						Y	N	N	N
3. POLYMERIC SYSTEMS INC										
ADHESIVE, SILICONE	8040-00-843-0802	A-46106A	BOTH	18.0 TU/yr	IN PROCESS	8				
- ALKYL TRIACETOXY SILANE <5%	VV450000						N	N	Y	Y
- ACETIC ACID 0.01%	AF122500						Y	N	N	N
4. 3M CO ADHESIVES COATINGS DIV										
ADHESIVE, WEATHERSTRIP	8040-00-109-2481	NONE	BOTH	6.0 TU/yr	IN PROCESS	8				
- NAPTHA 30-40%	1003692SN						Y	N	Y	Y
- METHYL ETHYL KETONE 20-30%	EL647500						Y	N	Y	Y
- POLYCHLOROPRENE 10-20%	1004142PC						Y	N	Y	Y
- MAGNESIUM RESINATE 10-20%	1002900MR						Y	N	N	Y
- TOLUENE 1-10%	XS525000						Y	Y	Y	Y
5. AAPER ALCOHOL AND CHEMICAL CO										
ALCOHOL, DENATURED	6810-00-205-6786	NONE	BOTH	48.0 QT/yr	IN PROCESS	8				
- ETHYL ALCOHOL 86.52%	KQ630000						Y	N	Y	Y
- METHYL ALCOHOL 3.66%	PC140000						Y	N	Y	Y
- ETHYL ACETATE .94%	AH542500						Y	N	Y	Y
- RUBBER SOLVENT .83%	1003586RH						Y	N	Y	Y
- METHYL ISOBUTYL KETONE .96%	SA927500						Y	N	Y	N
- WATER 7.09%	ZC0110000						N	N	N	N
6. CSD INC										
ALCOHOL, ISOPROPYL	6810-00-286-5435	TT-I-735	BOTH	20.0 GL/yr	HAZ WASTE PGM	8				
- ISOPROPYL ALCOHOL 99%	NT8050000						Y	N	Y	Y
7. MALTER INTERNATIONAL										
ANTIFREEZE	6850-00-181-7929	NONE	BOTH	72.0 GL/yr	HAZ WASTE PGM	8				
- ETHYLENE GLYCOL >95%	KW297500						Y	N	Y	Y
- WATER 4%	ZC0110000						N	N	N	N
- SODIUM NITRATE <.2%	WC560000						N	N	N	N
- SODIUM TETRABORATE <.5%	VZ227500						N	N	N	N
- SODIUM METASILICATE <.2%	1002257SM						Y	N	Y	Y
- SODIUM ORTHOPHOSPHATE <.3%	1004396SO						Y	N	Y	Y
8. CAPTREE CHEM CO										
ANTIFREEZE	6850-00-066-1409	NONE	BOTH	2.0 DR/yr	HAZ WASTE PGM	7				
- ETHYLENE GLYCOL (VAPOR) 90%	KW297500						Y	N	Y	Y
- DIETHYLENE GLYCOL 5%	111-46-6						Y	N	Y	Y
9. EAST PENN MFG CO INC										
BATTERY, STORAGE	6140-01-032-1326	W-B-131	BOTH	20.0 EA/yr	HAZ WASTE PGM	8				



RELATED ENVIRONMENTAL FACTORS

RELATED ENVIRONMENTAL FACTORS

BASEWIDE ENVIRONMENTAL BASELINE SURVEY

ONTARIO AIR NATIONAL GUARD STATION, CALIFORNIA

NOVEMBER 26, 1996

TABLE OF CONTENTS

1.0 FINDINGS

1.1 BIOLOGICAL RESOURCES

Threatened and endangered species and sensitive habitats are discussed in this section.

1.1.1 Threatened and Endangered Species

A letter was sent to U.S. Fish and Wildlife Service (USFWS) requesting information on sensitive species potentially occurring at Ontario Air National Guard Station (ANGS) as part of an informal consultation under Section 7 of the Endangered Species Act. The May 16, 1996, USFWS response indicated that the disposal of Ontario ANGS is not likely to adversely affect federally listed or proposed to be listed threatened or endangered species or designated critical habitats, since none are known to occur on Ontario ANGS. The California Department of Fish and Game Natural Diversity Data Base (CNDDB) has identified several species within the two topographic quadrangles encompassing Ontario ANGS including the California gnatcatcher (*Polioptila califonica*), the San Diego horned lizard (*Phrynosoma coronatum blainvillei*), and the intermediate mariposa lily (*Calochortus weedii* var. *intermedius*). The Delhi Sands flower-loving fly is also known to be present in the area (Mattoni, et al., 1996).

The California gnatcatcher requires low, coastal sage scrub in arid washes and on mesas and slopes. No coastal sage scrub species are present on Ontario ANGS. The closest recorded occurrence of this species is 7 miles away.

The San Diego horned lizard prefers friable, rocky, or shallow sandy soils in coastal sage scrub and chaparral. All habitats on Ontario ANGS are disturbed and do not contain any coastal sage scrub or chaparral vegetation. The closest recorded occurrence of this species is 5 miles away.

The intermediate mariposa lily is found on dry, rocky, open slopes in coastal scrub or chaparral communities. This habitat is not present on Ontario ANGS; the closest recorded occurrence of this species is 7 miles away.

The Delhi Sands flower-loving fly is found in vegetation communities associated with the Delhi Sands soil series. These soils are found in the adjacent field east of Ontario ANGS. This habitat is not found on Ontario ANGS and the site is not identified in the draft recovery plan as being suitable for this species.

1.1.2 Sensitive Habitats

Sensitive habitats include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer/winter habitat). The CNDDB has identified the Riversidean Alluvial Fan Sage Scrub sensitive habitat as being present within the region of Ontario ANGS. The closest occurrence is in Deer Creek, approximately 4 miles north of Ontario ANGS. This vegetation community does not occur on the station nor in the adjacent areas.

No wetland or other sensitive habitats have been observed or identified on Ontario ANGS.

1.2 CULTURAL RESOURCES

In compliance with the National Historic Preservation Act, the Air Force has initiated the Section 106 review process with the California State Historic Preservation Officer (SHPO). Records and literature searches were performed using documents obtained from the SHPO, the city of Ontario Planning Department, and at Ontario ANGS.

1.2.1 Prehistoric Resources

The physiography and climate of southern California have supported aboriginal people since early Holocene time (circa 10,000 Before Christ [B.C.]); prior to this time occupation patterns are both speculative and controversial. Five major periods of prehistory, or the time prior to European contact, based upon a temporal range of distinctive projectile points and associated radiocarbon dates, identify a cultural chronology for the region: Lake Mojave Period (10,000-5000 B.C.), Pinto Period (5000-2000 B.C.), Gypsum Period (2000 B.C.-Anno Domini [A.D.] 500), Saratoga Springs Period (A.D. 500-A.D. 1200), and the Protohistoric (A.D. 1200-historic) (Warren and Crabtree, 1986).

What is known of the pre-contact period around the Ontario area is extrapolated from data collected from investigations conducted elsewhere in the region. The archaeological record reflects gradual population movement into the San Jacinto Plain area beginning approximately 2300 Before Present (B.P.) (300 B.C.), with a dramatic increase in the population density around 500 B.P. (A.D. 1500). The Native American groups, Serrano and Cahuilla, who utilized the resources on and around the Ontario area during protohistoric (between European contact and established written history) and historic periods are described in ethnographic data that have been collected since the early 1900s (Bean, 1978; Bean and Shipek, 1978).

1.2.2 Historic Structures and Resources

A 1996 review of architecturally significant property listings maintained by the SHPO resulted in no findings. In addition, the National Register of Historic Places (National Register) listed no historic properties within Ontario ANGS. The facilities were evaluated for their eligibility to be nominated to the National Register based upon standard Section 106 criteria for the evaluation of historic facilities. Additionally, the facilities were evaluated under the guidelines provided in the U.S. Air Force (1993) document *Interim Guidance: Treatment of Cold War Historic Properties for U.S. Air Force Installations.* This guidance establishes the criteria set by the Air Force for the evaluation of Cold War-era facilities.

Based upon an evaluation of all station facilities, it was determined that no facilities at Ontario ANGS meet either National Register or Cold War-era criteria for historic properties.

1.2.3 Traditional Resources

Consultation with local tribal chairpersons has been initiated to ensure that any Native American concerns relating to the disposal and reuse of Ontario ANGS are adequately considered. Any modern traditional resources at Ontario ANGS would be associated with the Cahuilla or the Serrano Native American groups; to date, no such resources have been identified.

1.2.4 Paleontological Resources

Fossils, both marine and non-marine, are found throughout the Peninsular Ranges Province in sedimentary rock units. These rocks are not present on Ontario ANGS.

1.3 PHYSIOGRAPHIC RESOURCES

1.3.1 Floodplains

Cucamonga Creek presently flows inside a concrete-lined flood control channel through the central part of the station. The intermittent flowing creek originates in the San Gabriel Mountains and collects surface runoff from nearby properties along its length. Cucamonga Creek empties into the Santa Ana River, approximately 7 miles to the south.

Flood potential studies conducted by the San Bernardino County Flood Control District have been completed for the area. Results of the study indicated that there was no potential for a 100-year flood event within the Cucamonga Creek flood control channel, as it was designed for greater than a 100-year flood event (Dames and Moore, Inc., 1990).

1.3.2 Prime Farmland

The only soil series on the station is the Tujunga series (U.S. Department of Agriculture, 1980).

Due to the modification during station development, the soil complex has been classified as disturbed and, no Prime Farmland or Farmlands of Statewide Importance exist within the station boundary.

1.4 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

No Occupational Safety and Health Administration violations have been identified at Ontario ANGS.

2.0 REFERENCES

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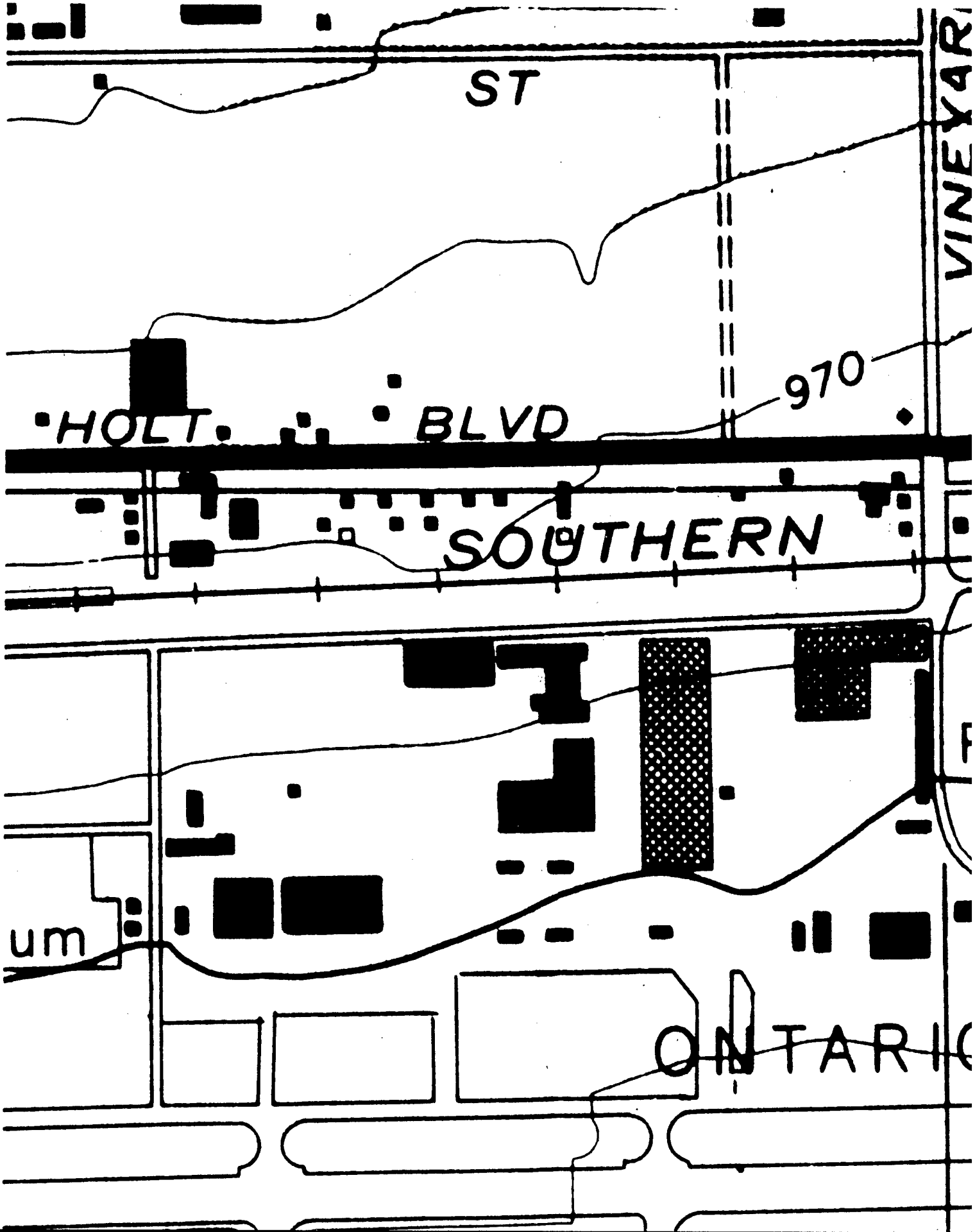
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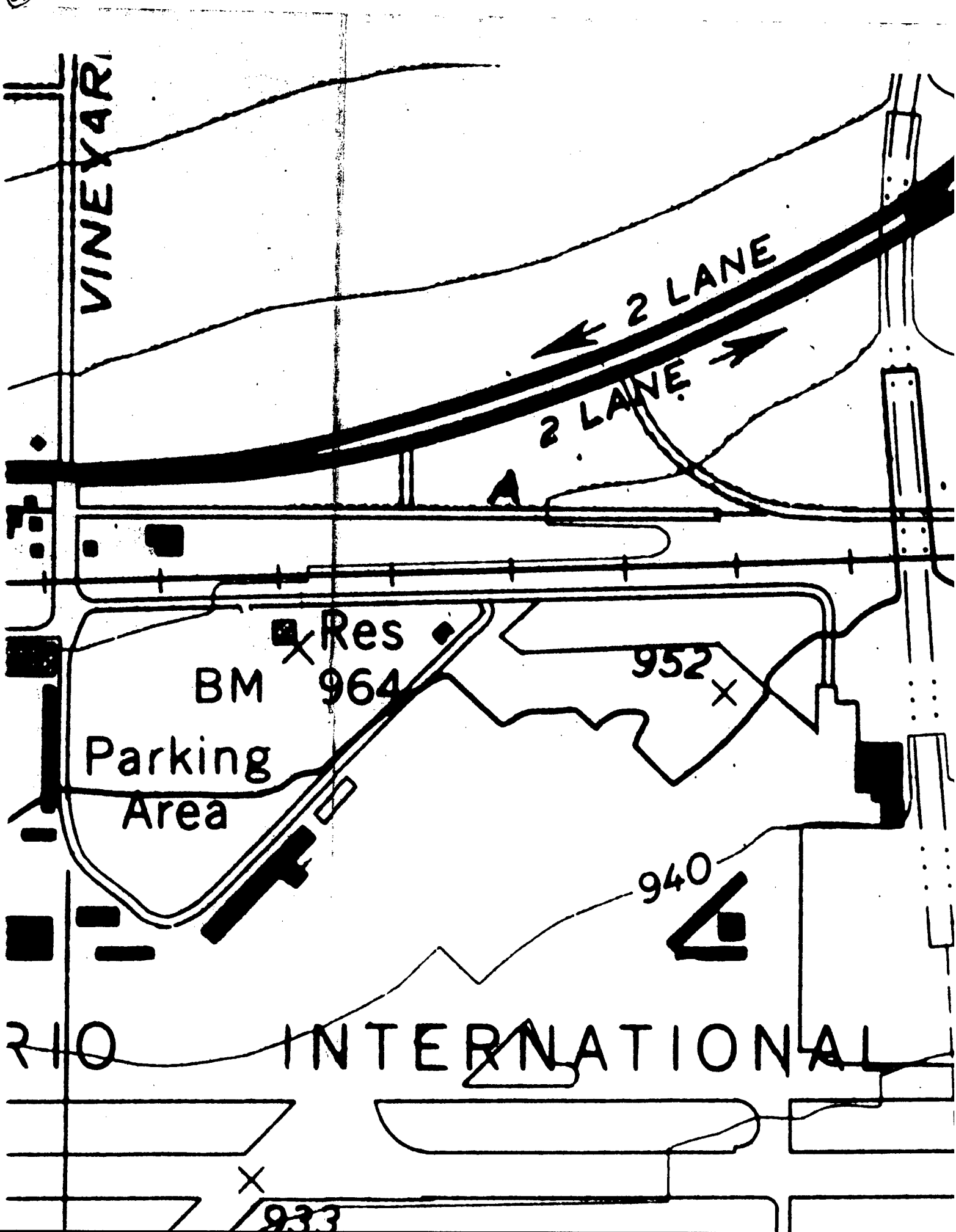
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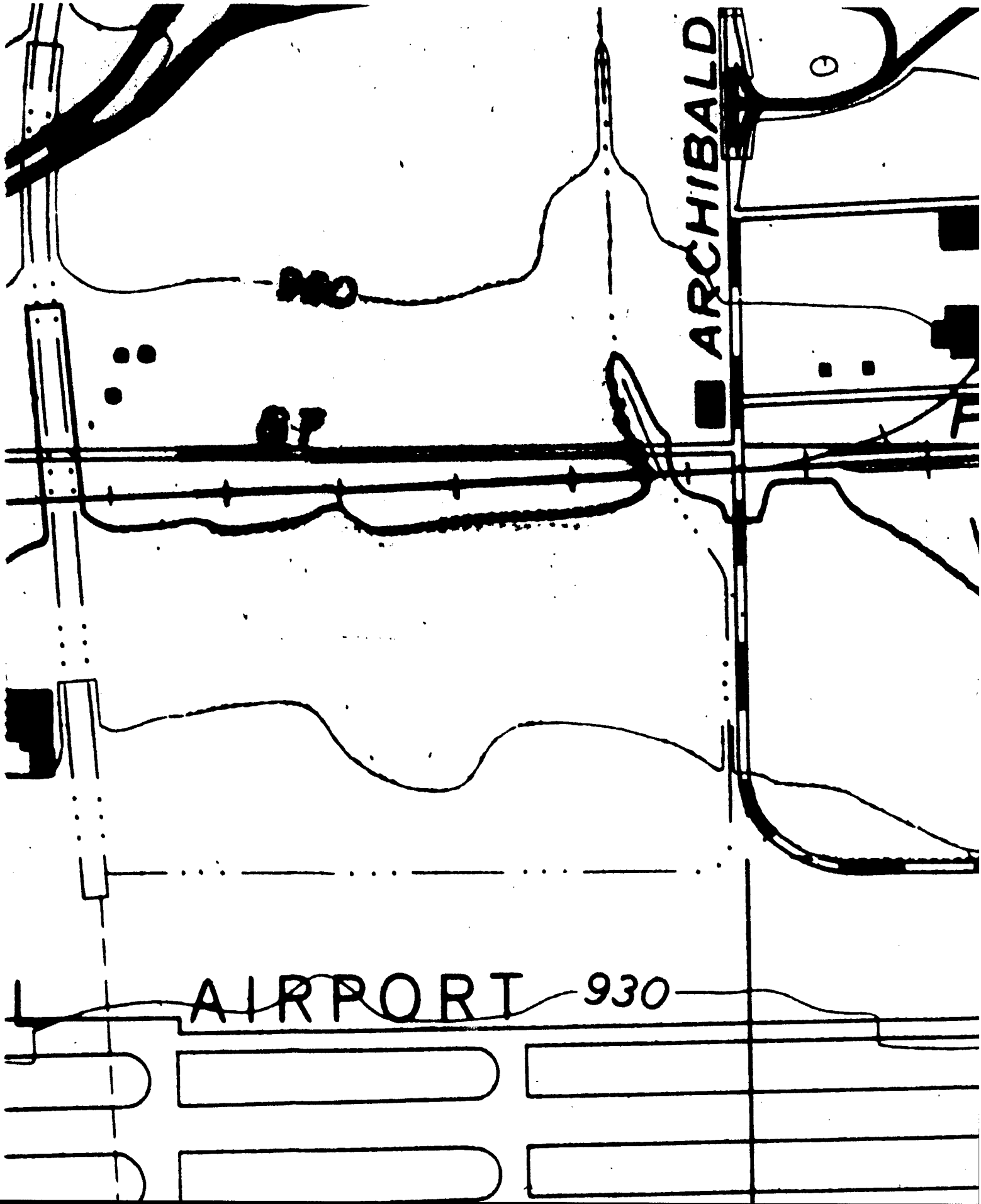
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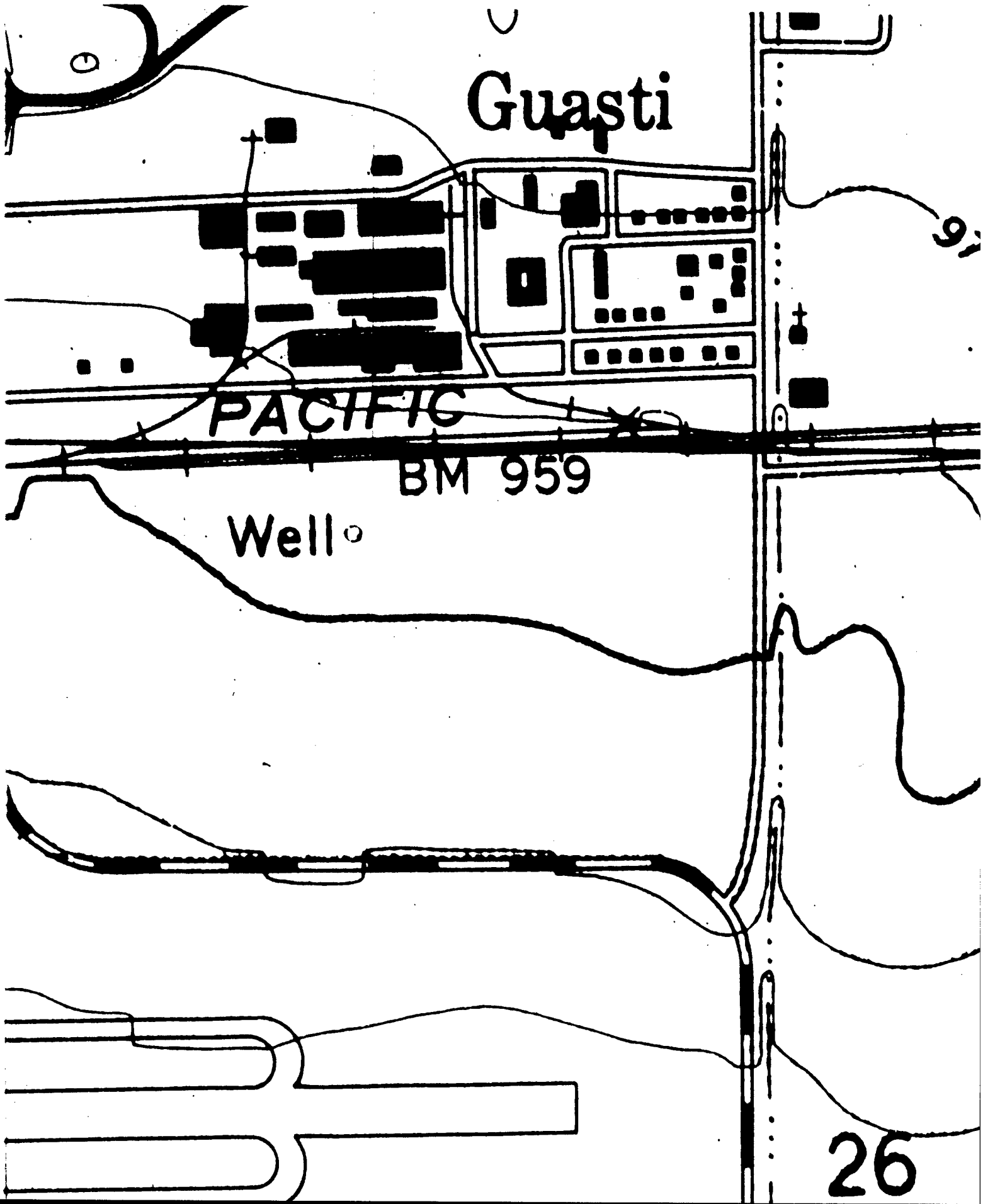
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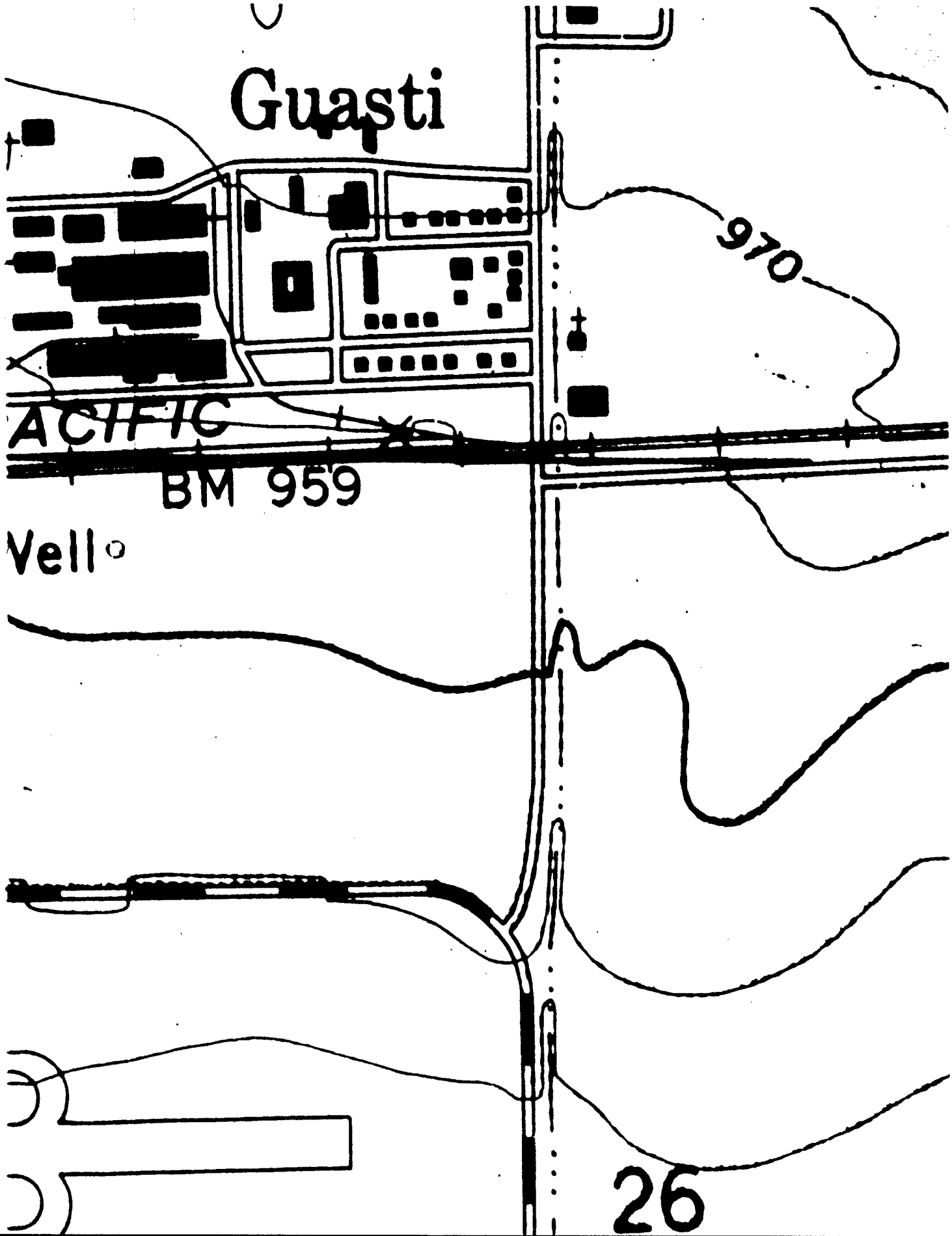

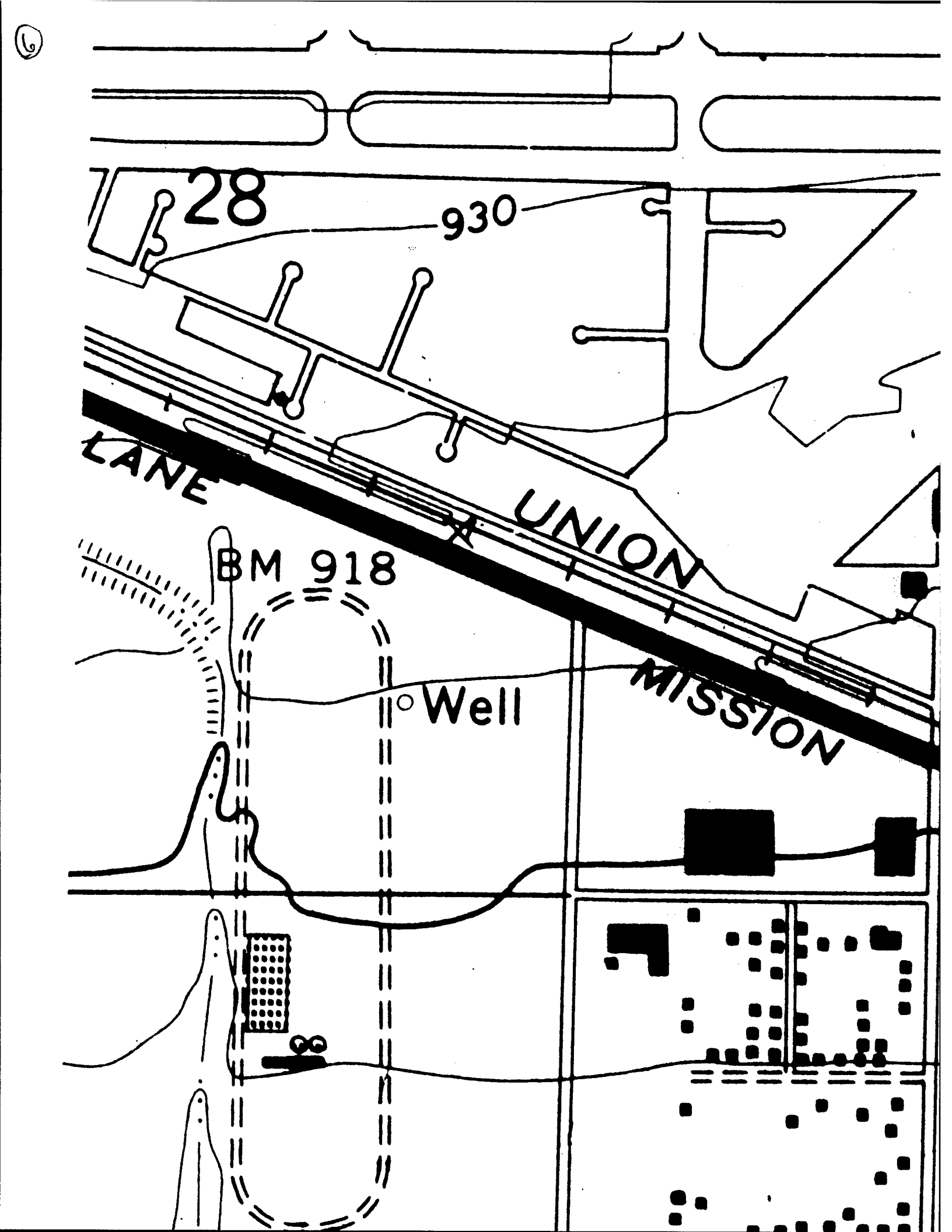
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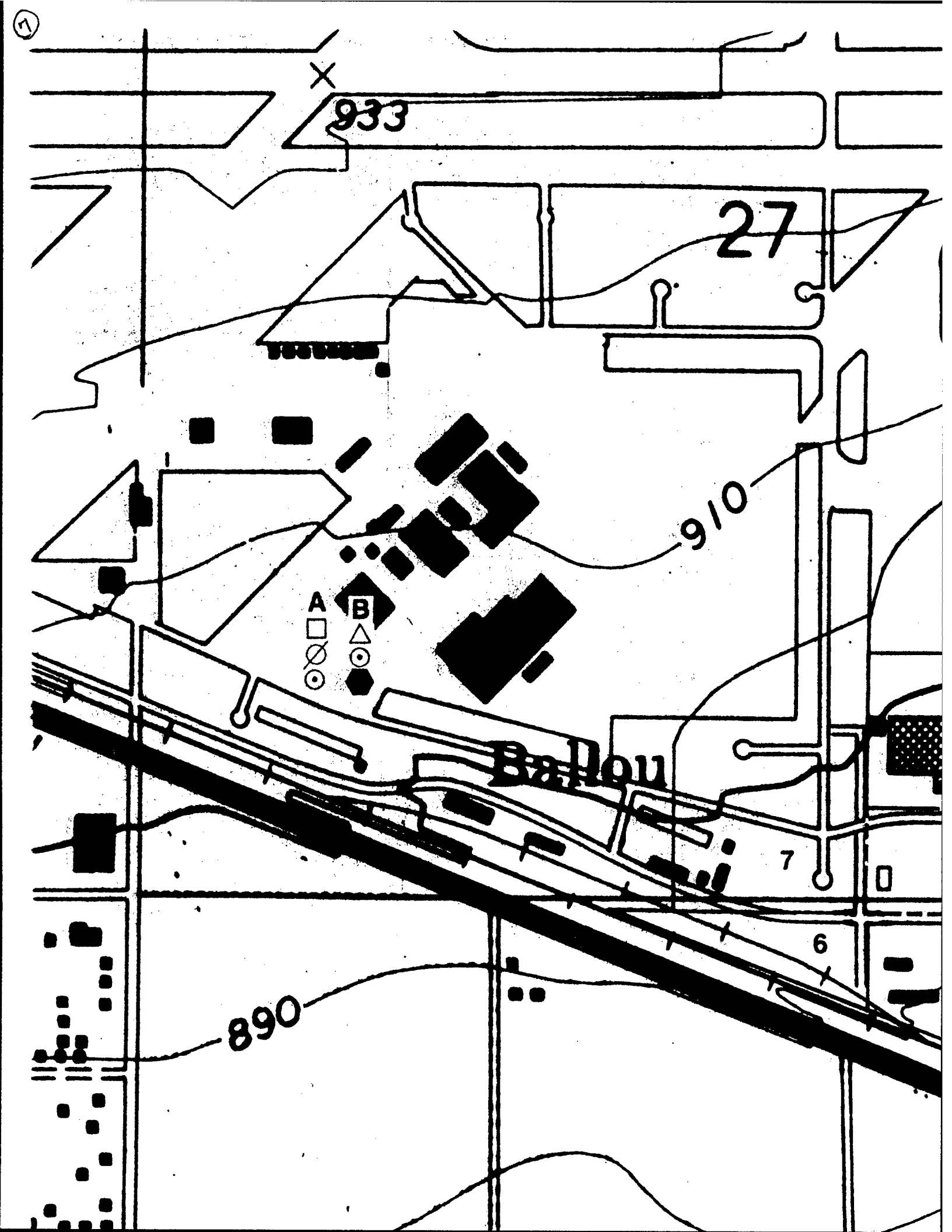
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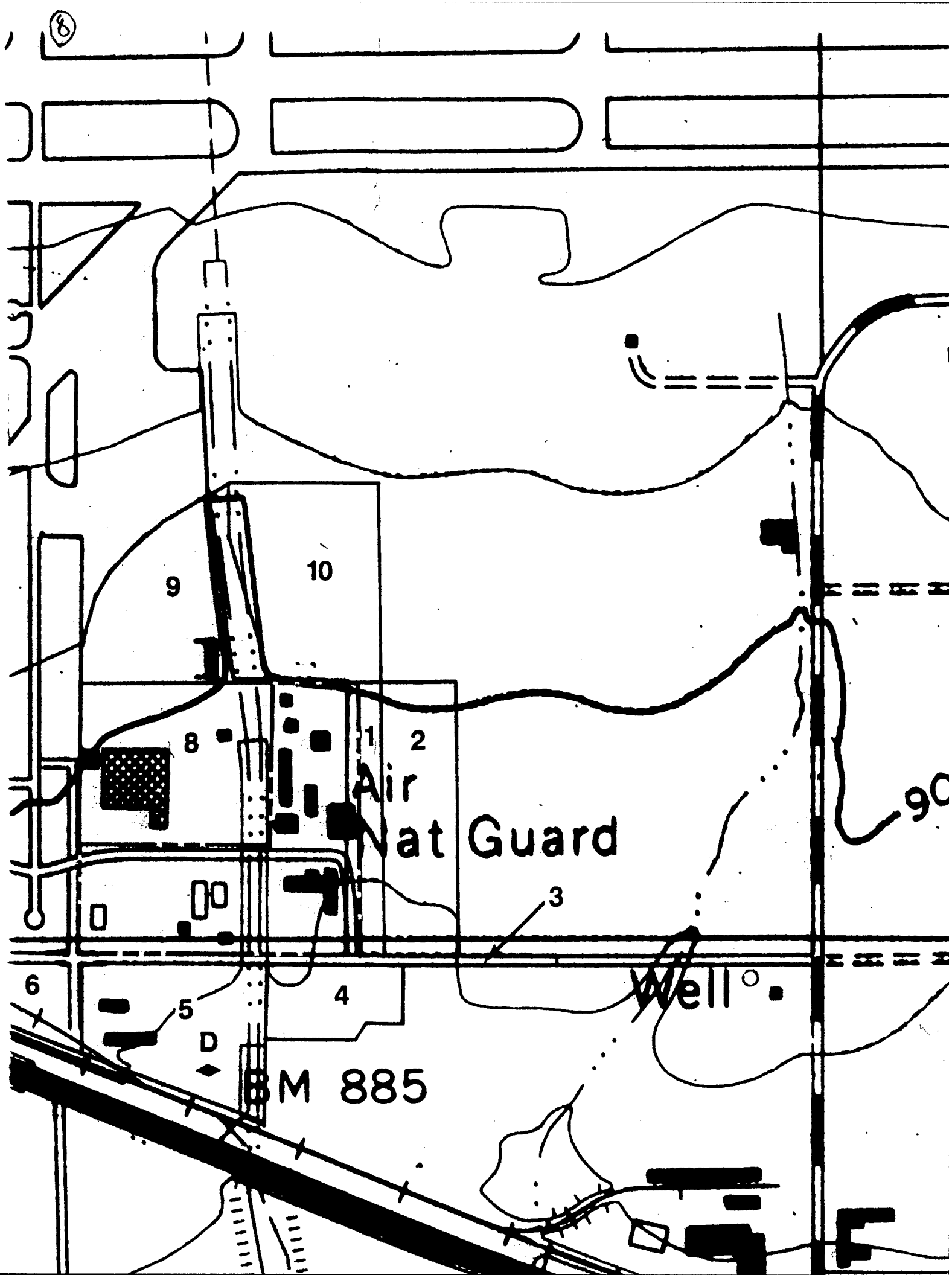
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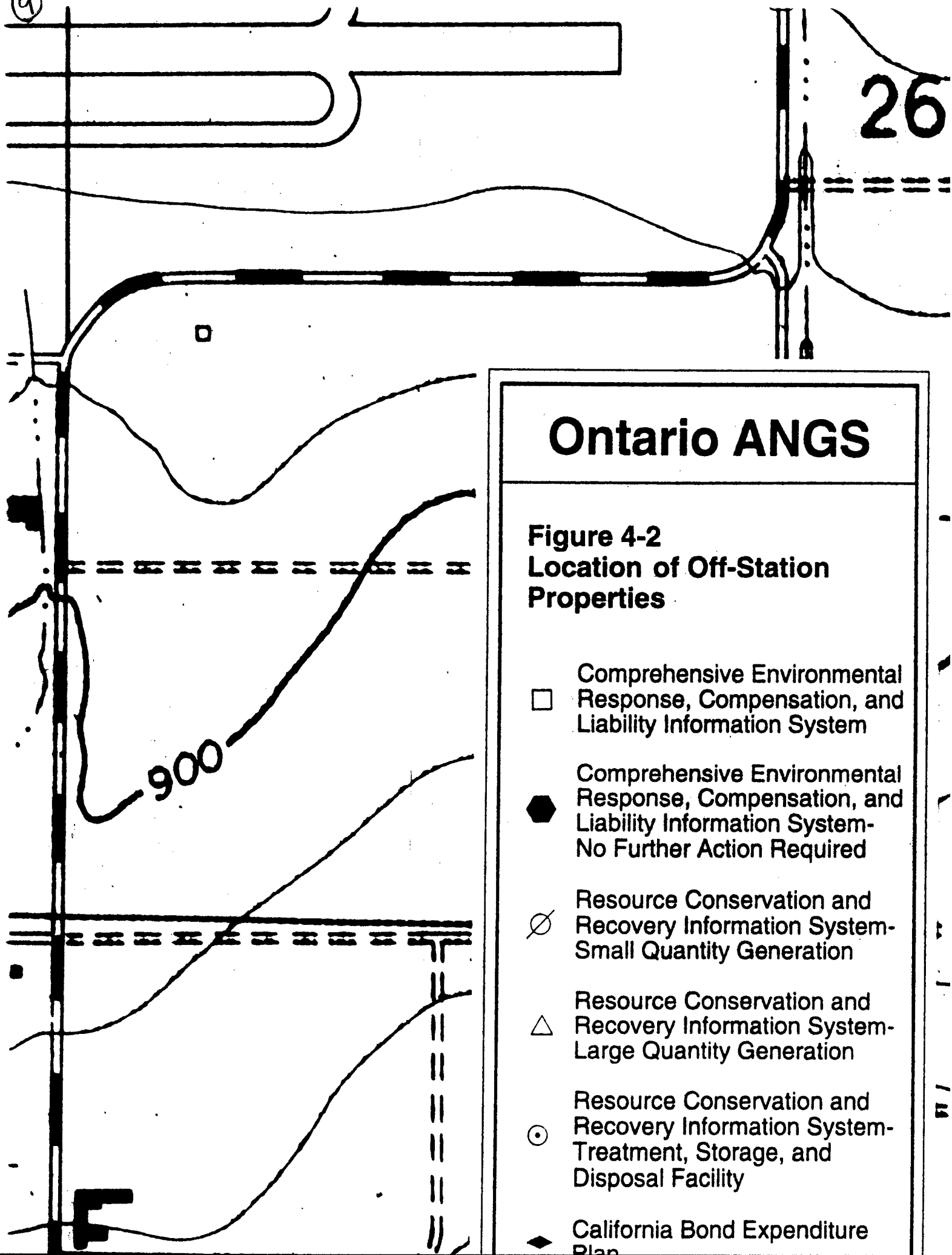
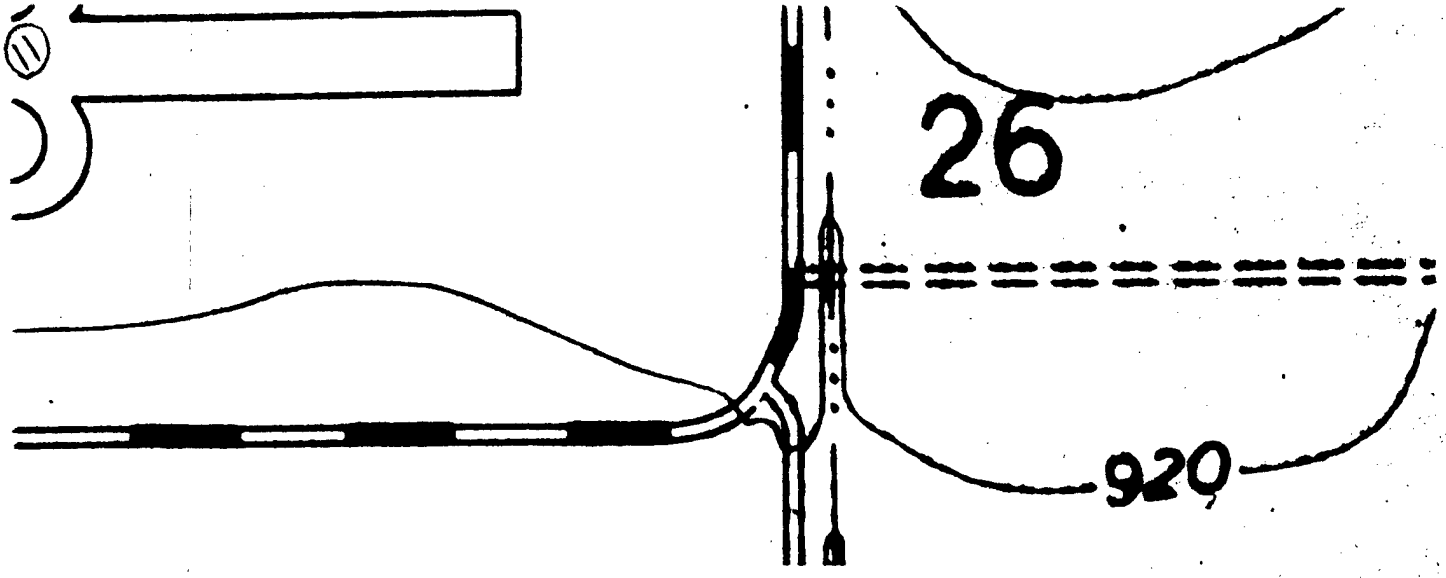


Ontario ANGS

Figure 4-2
Location of Off-Station Properties

- □ Comprehensive Environmental Response, Compensation, and Liability Information System
- ⬢ Comprehensive Environmental Response, Compensation, and Liability Information System-No Further Action Required
- ∅ Resource Conservation and Recovery Information System-Small Quantity Generation
- △ Resource Conservation and Recovery Information System-Large Quantity Generation
- ⊙ Resource Conservation and Recovery Information System-Treatment, Storage, and Disposal Facility
- ◆ California Bond Expenditure Plan



Ontario ANGS

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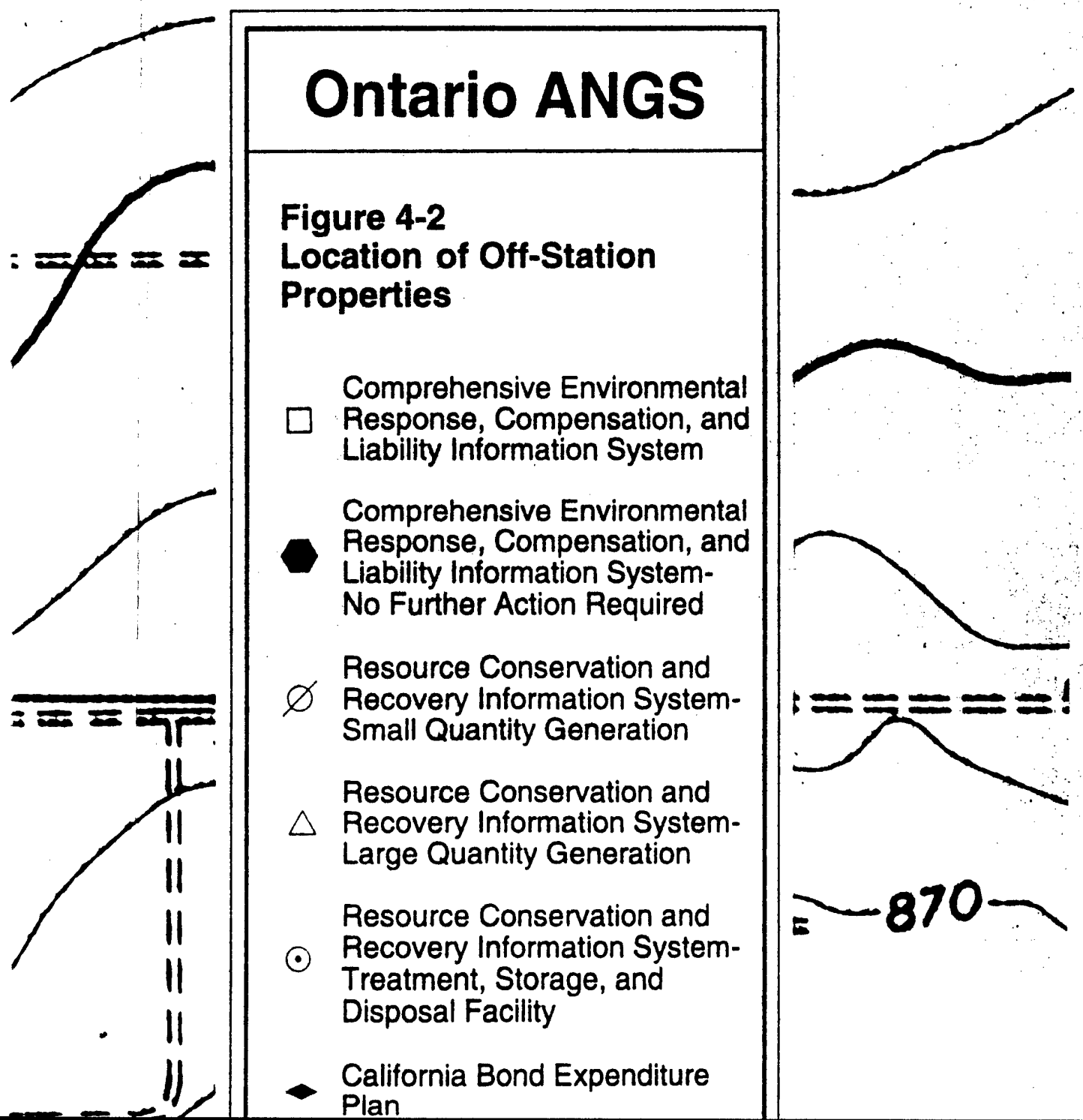

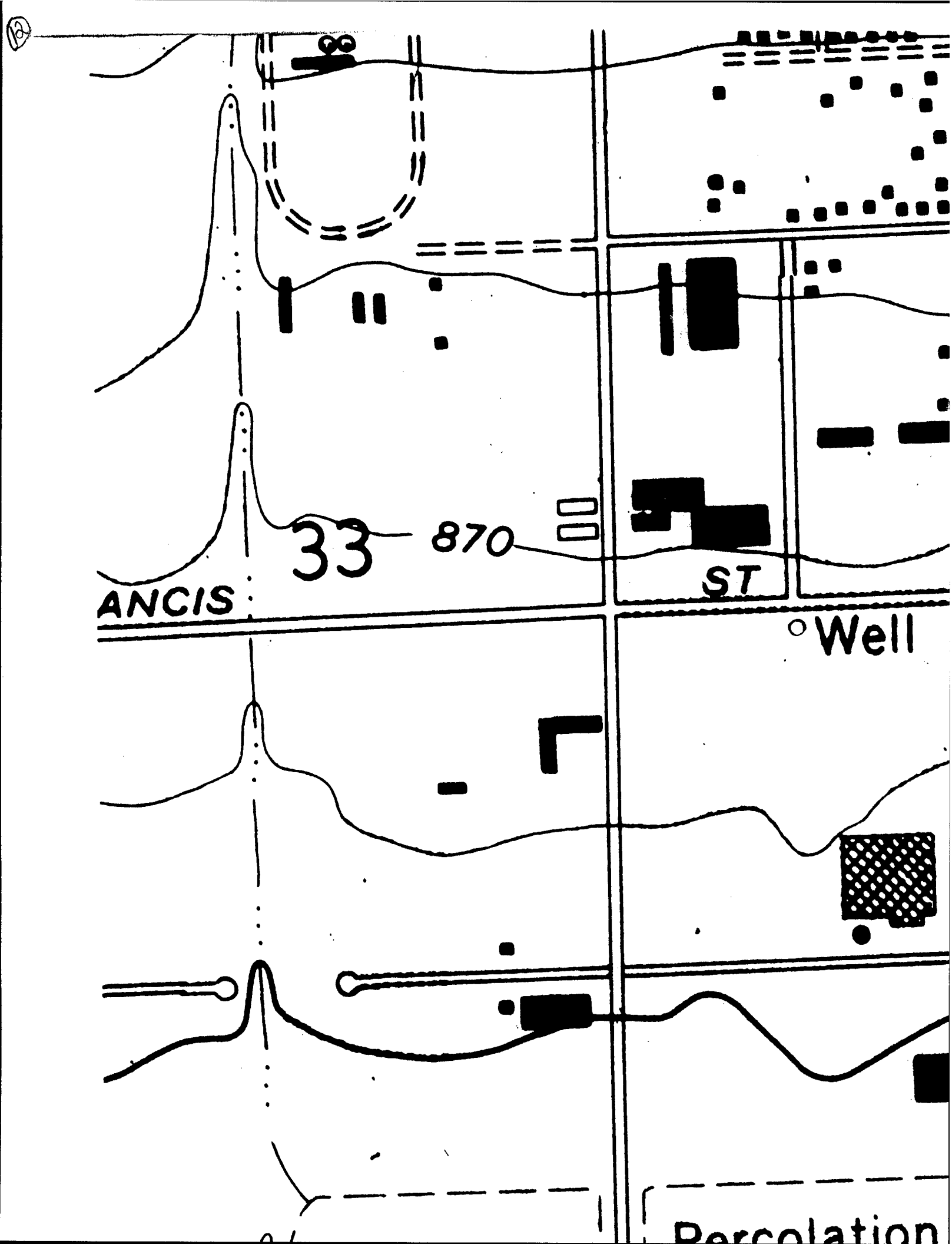
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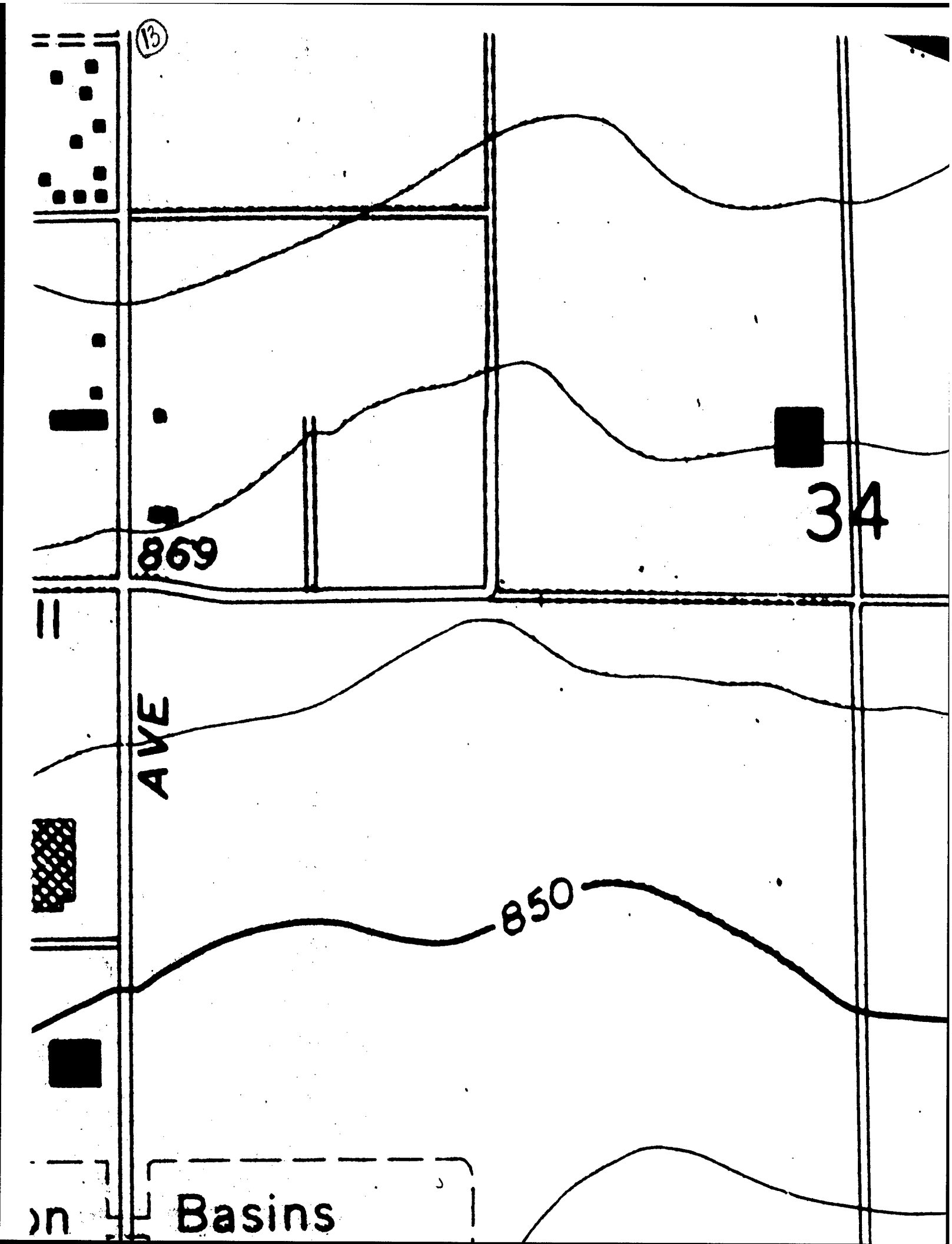
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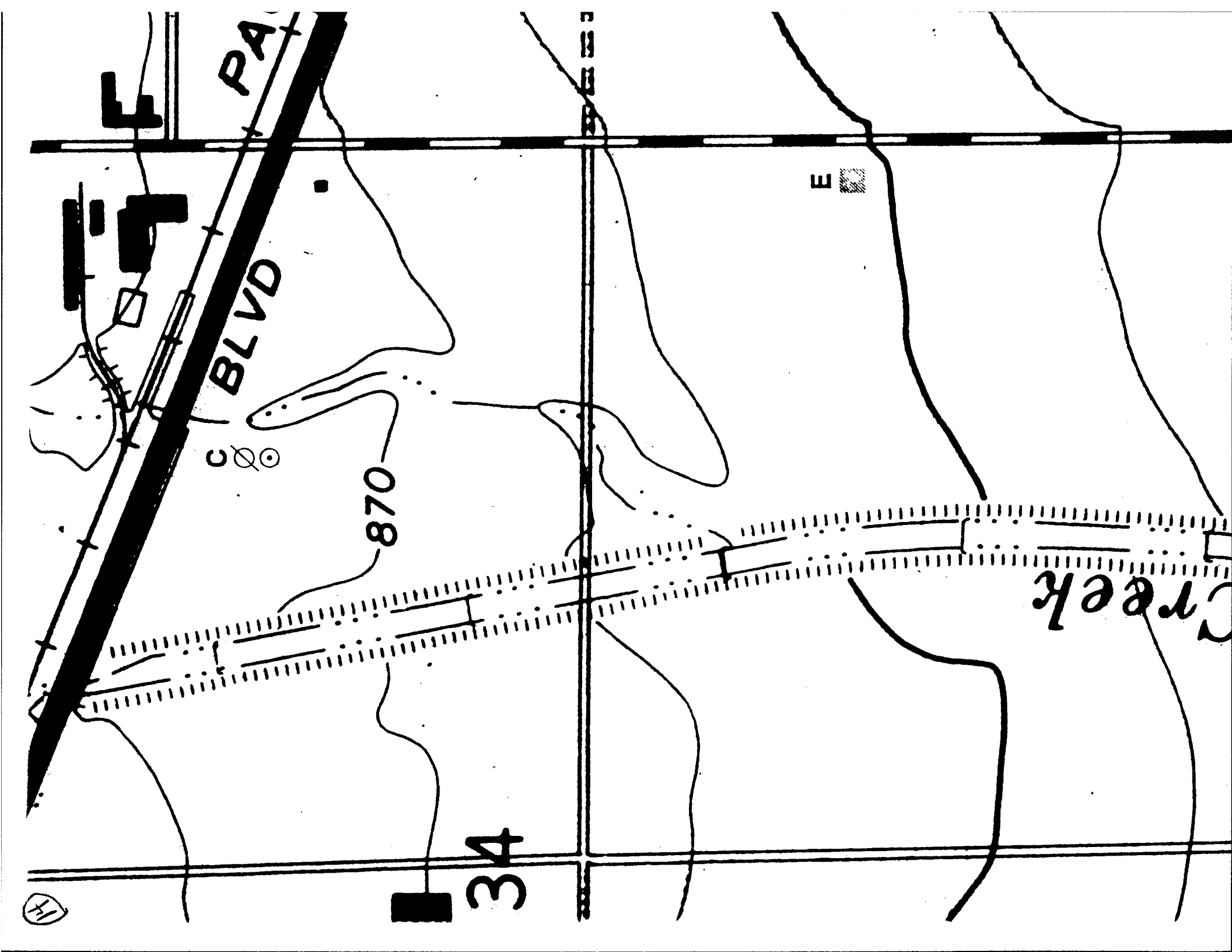
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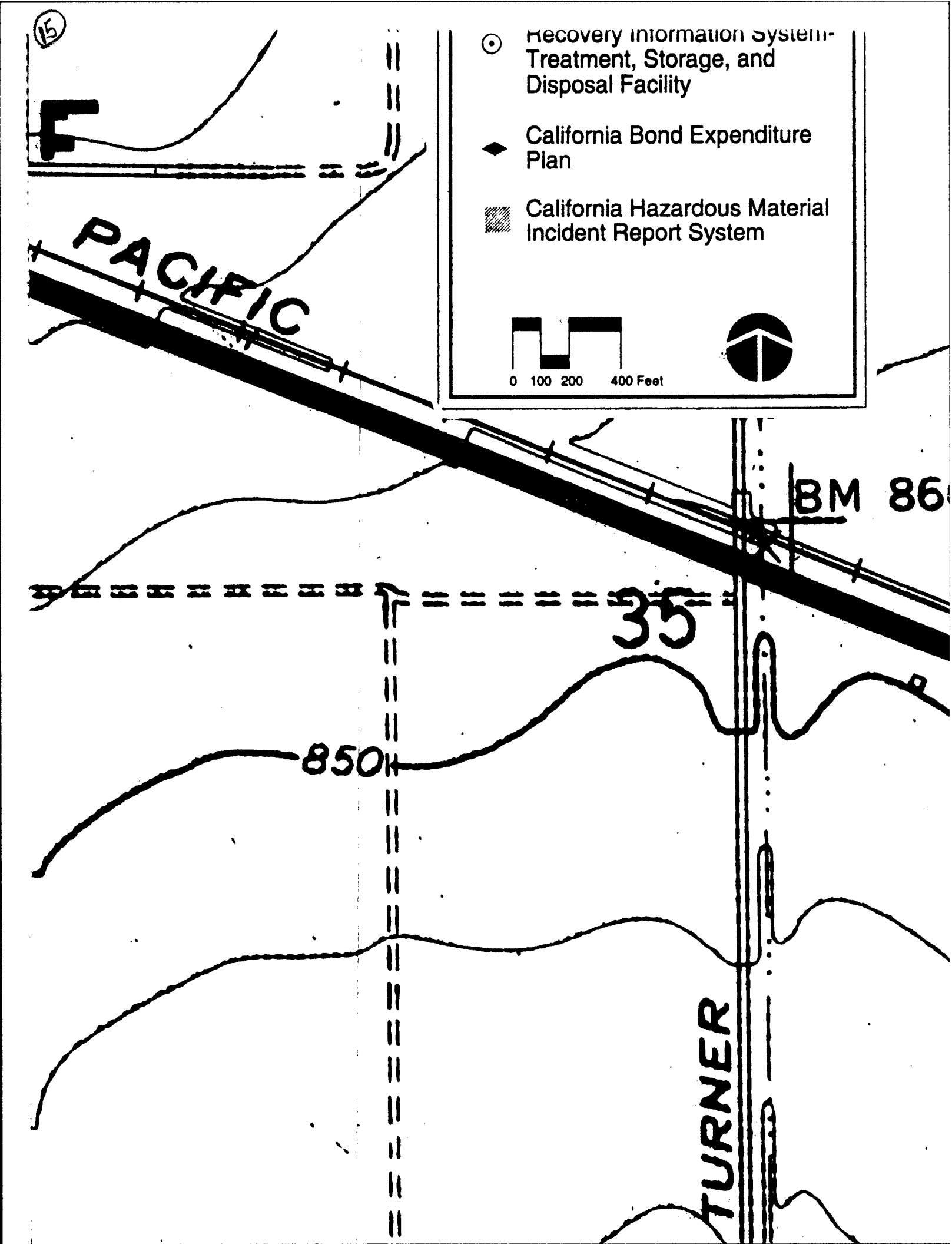
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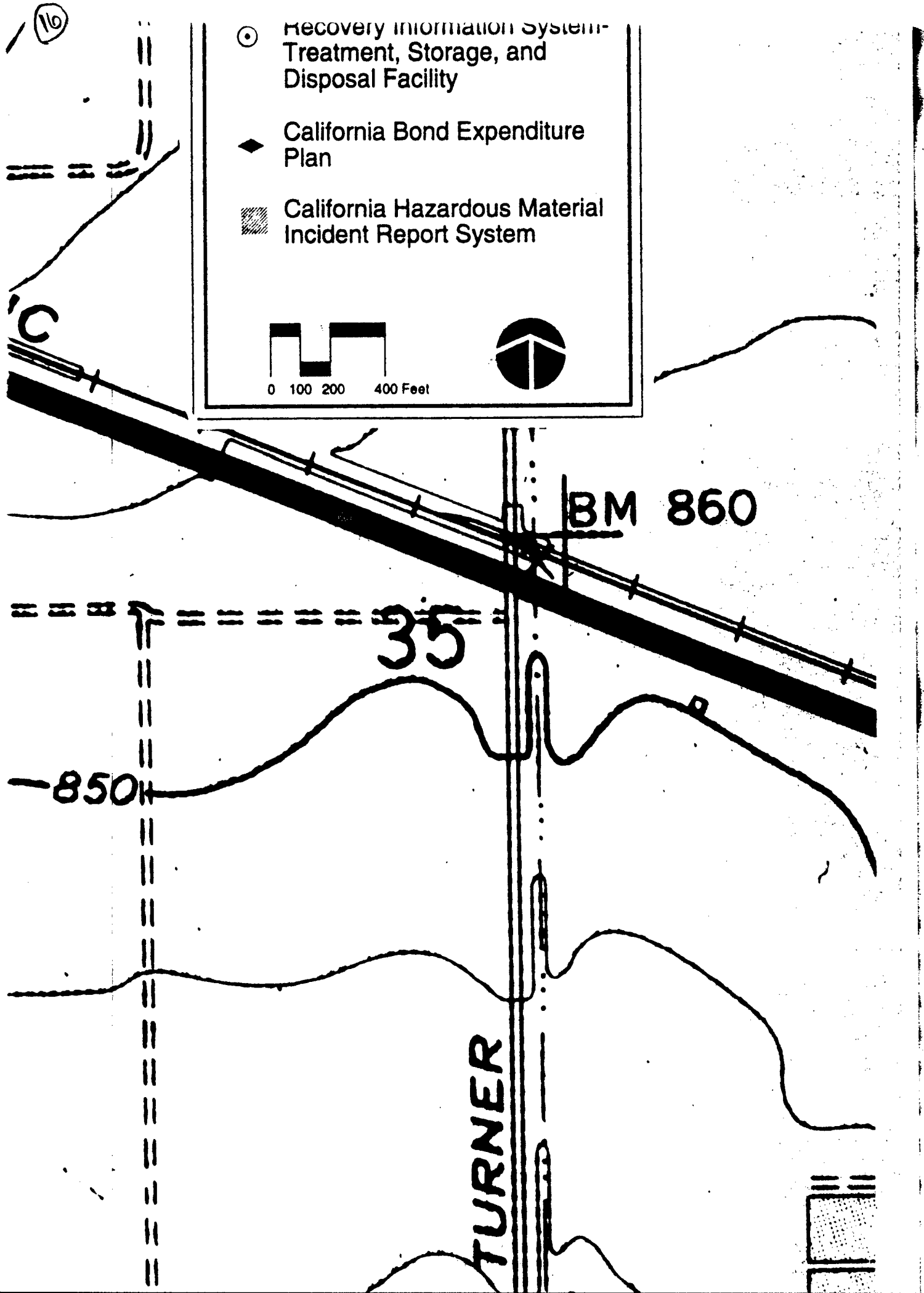
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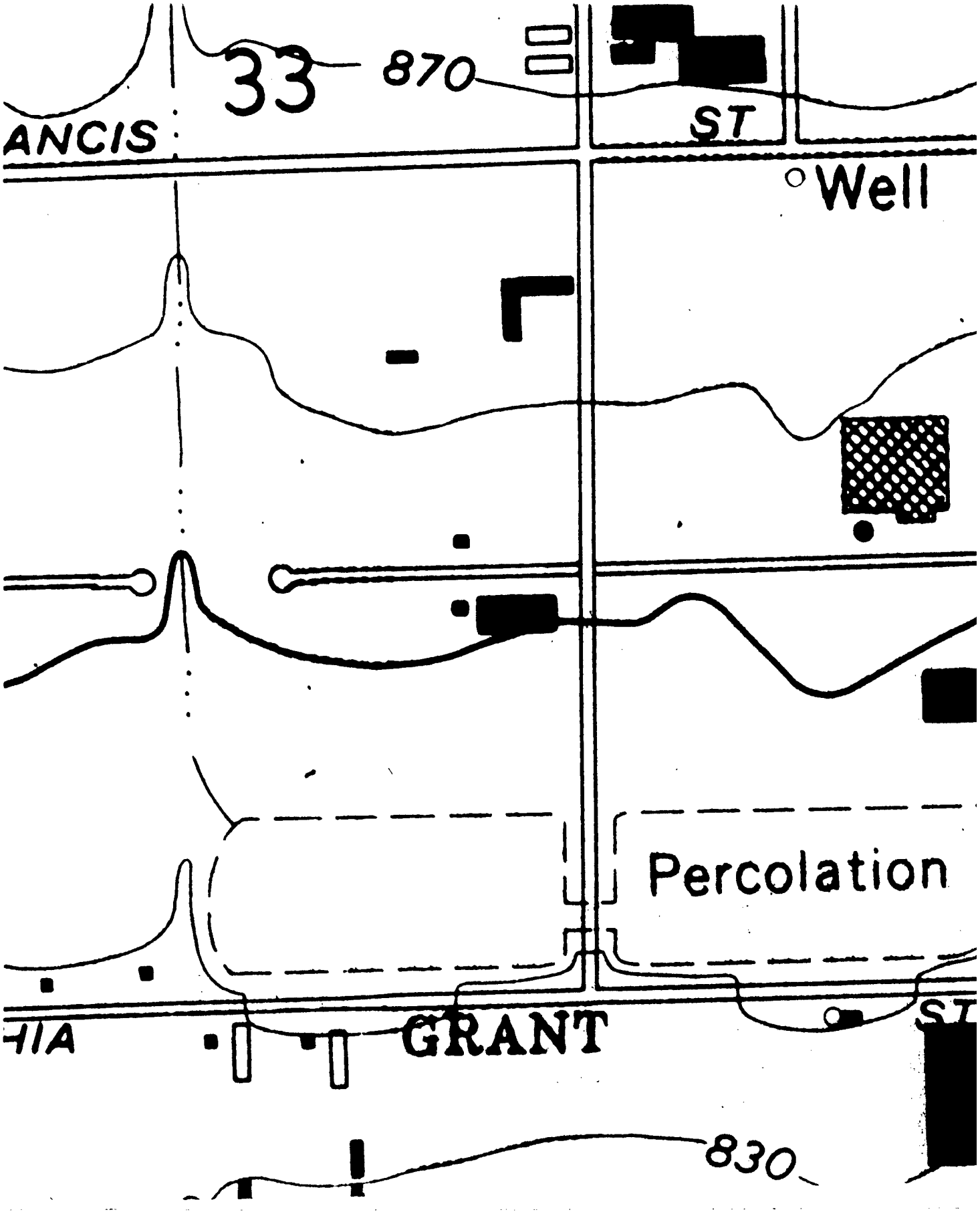
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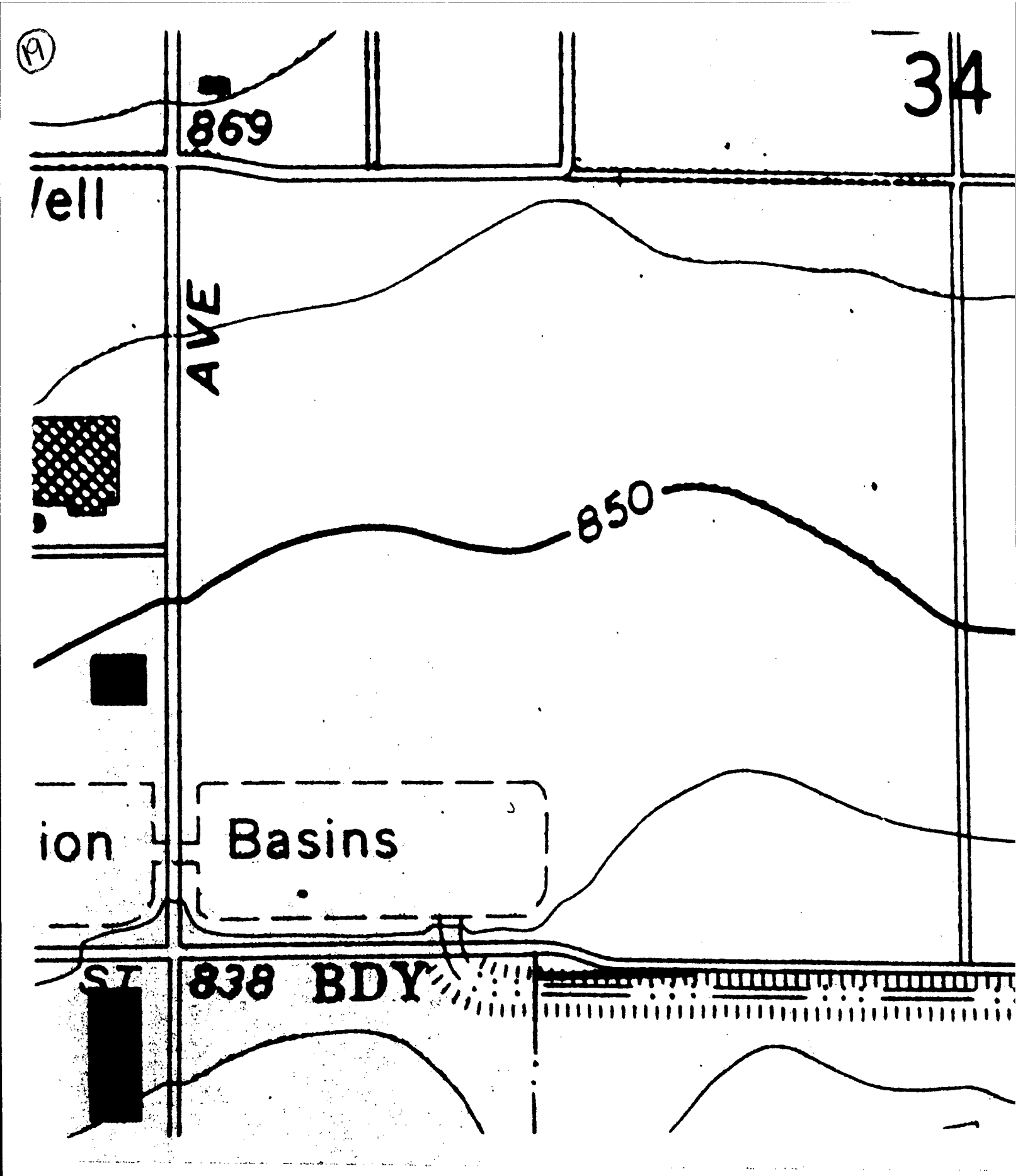
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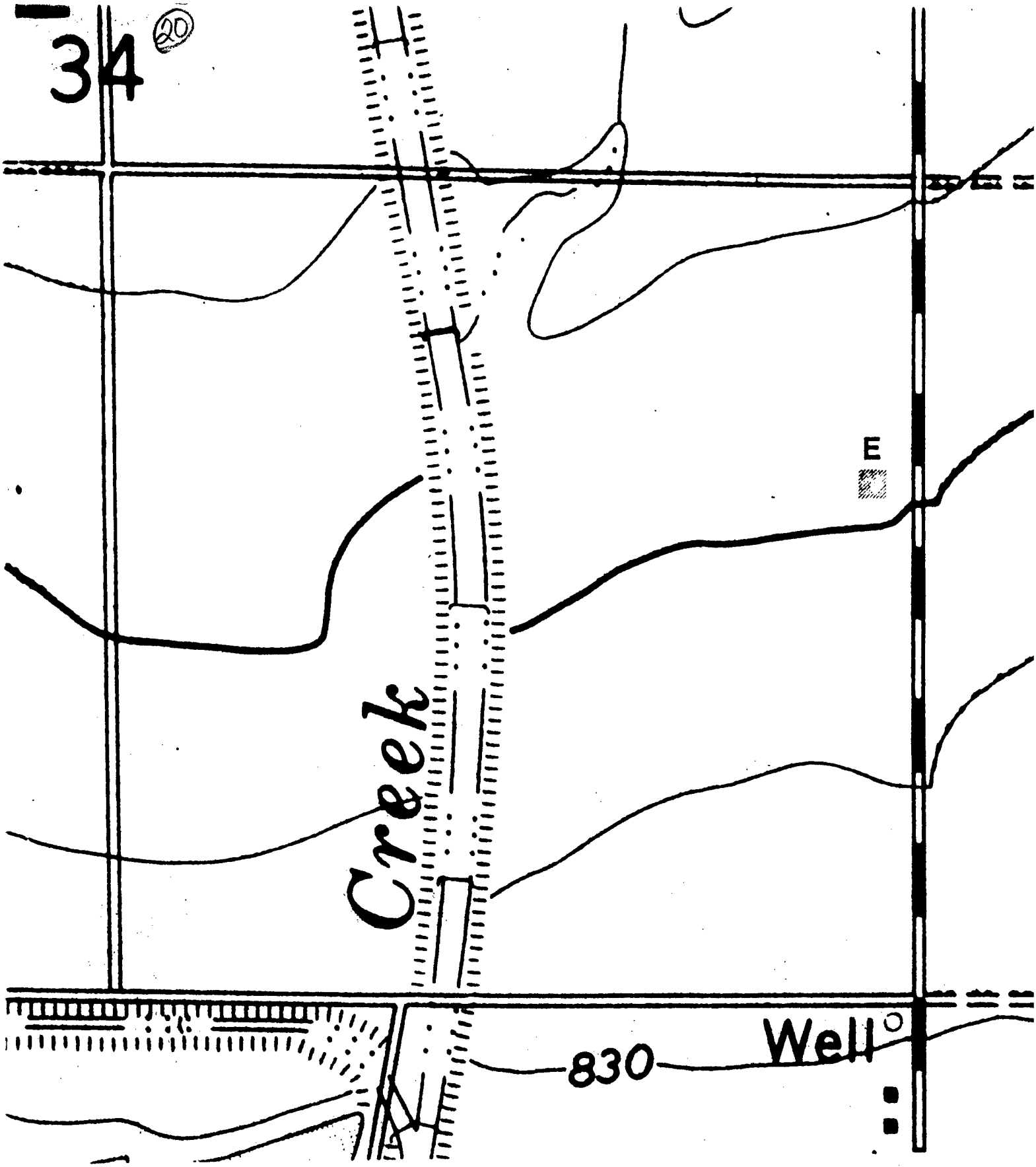
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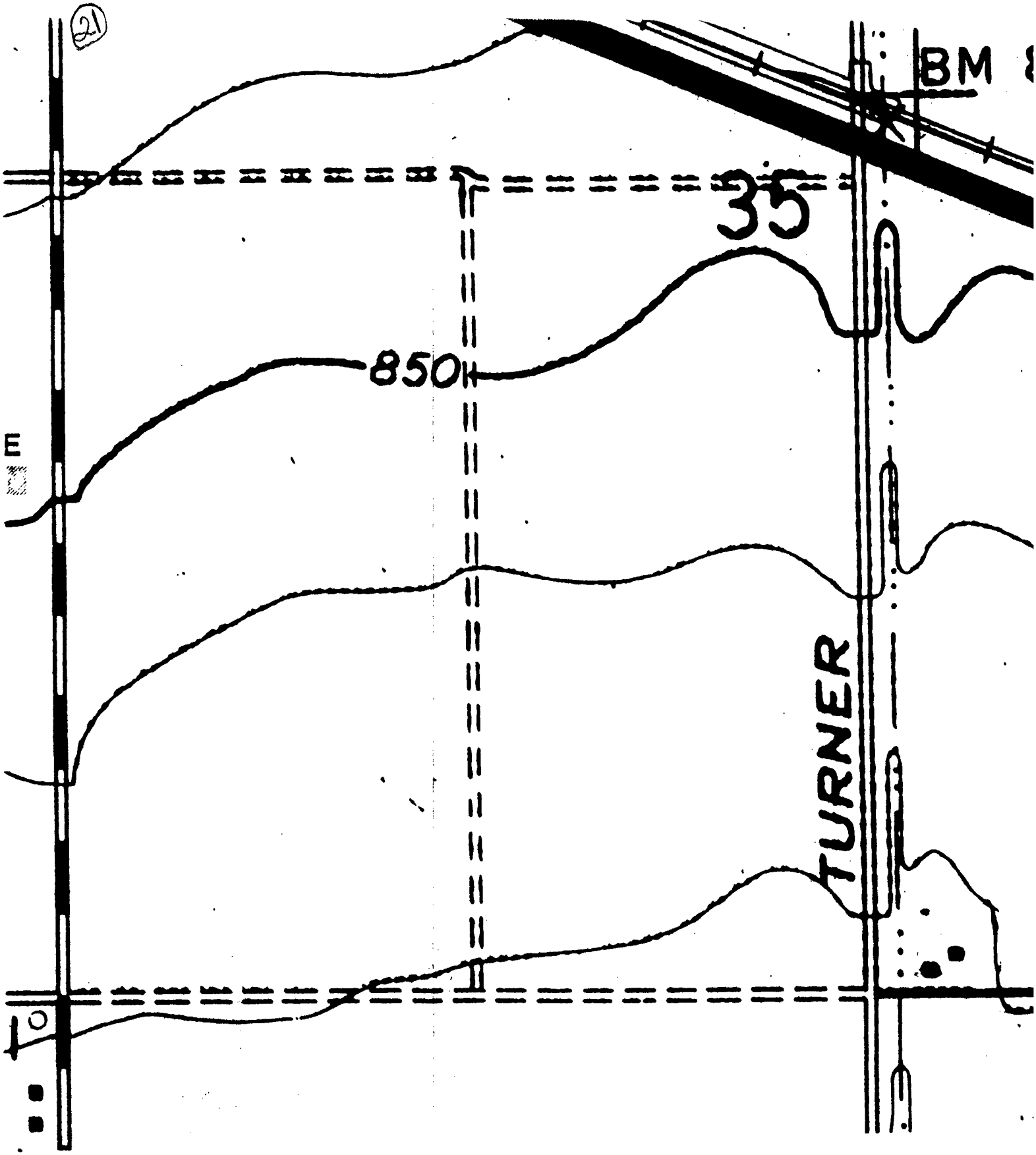
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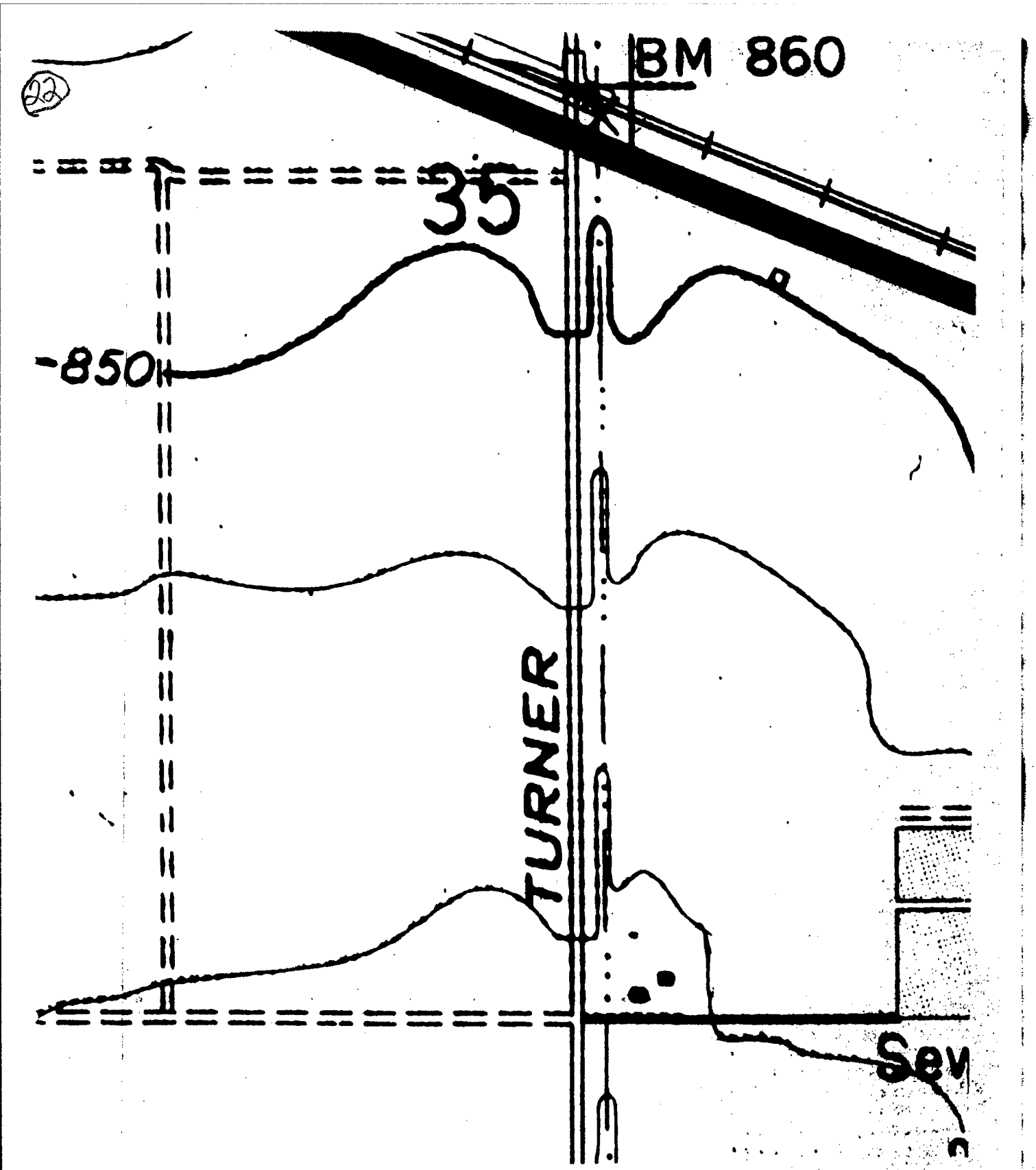
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