United States
Environmental Protection
Agency

Solid Waste And
Emergency Response
(5201 G)

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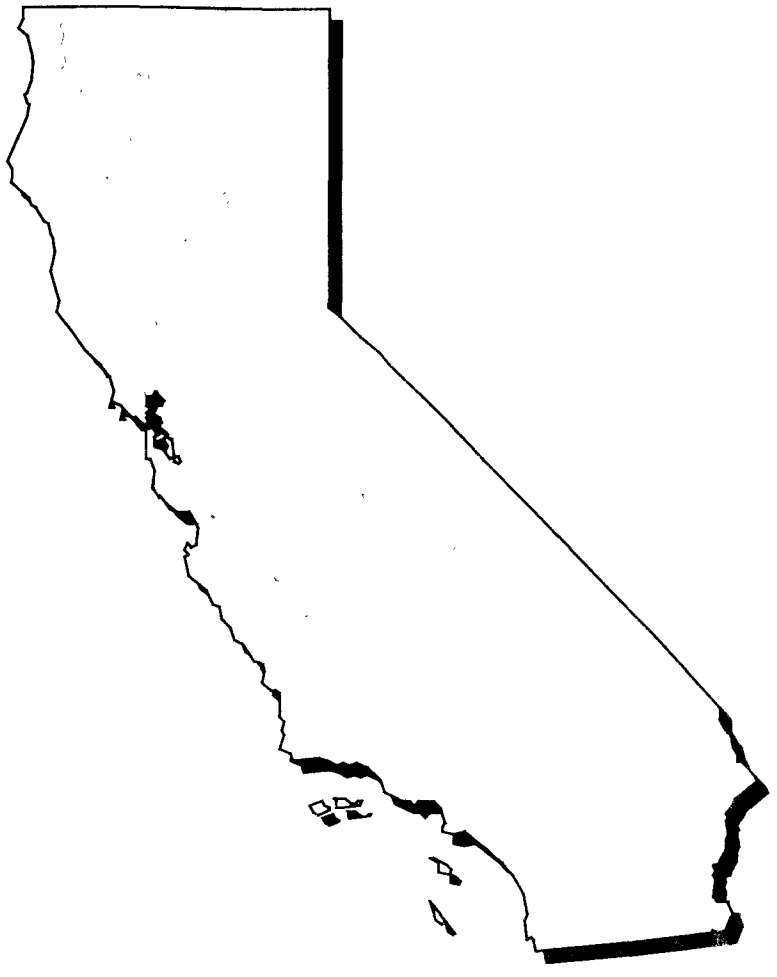
PB95-962907
9200 5-706C
May 1995

SUPERFUND: Progress at National Priority List Sites



CALIFORNIA 1995 UPDATE

Printed on Recycled Paper

How to Use the NPL Book

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress is always being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions. The following two pages show a generic fact sheet and briefly describe the information under each section.

How Can You Use This State Book?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.

NPL LISTING HISTORY

Provides the dates when the site was Proposed, made Final, and Deleted from the NPL.

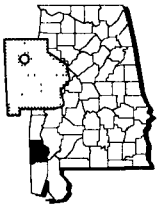
SITE RESPONSIBILITY

Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.

SITE NAME
STATE
EPA ID# ABC0000000



EPA REGION XX
COUNTY NAME
LOCATION

Other Names:

Site Description (A)

Site Responsibility:

NPL Listing History
Proposed XX/XX/XX
Final XX/XX/XX

Threats and Contaminants (B)

Cleanup Approach (C)

Response Action Status (D)

Site Facts: (E)

Environmental Progress

Site Repository

SITE REPOSITORY

Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.

A

SITE DESCRIPTION

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.

B

THREATS AND CONTAMINANTS

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.

C

CLEANUP APPROACH

This section contains a brief overview of how the site is being cleaned up.

D

RESPONSE ACTION STATUS

Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.

E

SITE FACTS

Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

Guide to the NPL Book Icons

The "icons," or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

Icons in the Threats and Contaminants Section

Contaminated *Groundwater* resources in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)

Contaminated *Surface Water and Sediments* on or near the site. (These include lakes, ponds, streams, and rivers.)

Contaminated *Air* in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)

Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)

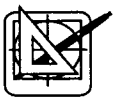
Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

Icons in the Response Action Status Section

Initial, Immediate, or Emergency Actions have been taken or are underway to eliminate immediate threats at the site.

Site Studies at the site to determine the nature and extent of contamination are planned or underway.

Remedy Selected indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.



Remedy Design means that engineers are preparing specifications and drawings for the selected cleanup technologies.

Cleanup Ongoing indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.

Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

EPA ID Number	Site Name
CAT080034234	ADVANCED MICRO DEVICES, INC. (BLDG. 915)
CAD048634059	ADVANCED MICRO DEVICES, INC.
CAD980358832	AEROJET GENERAL CORP.
CAD042728840	APPLIED MATERIALS
CAD980496863	ATLAS ASBESTOS MINE
CA8170024261	BARSTOW MARINE CORPS LOGISTICS BASE
CAD048645444	BECKMAN INSTRUMENTS (PORTERVILLE PLANT)
CAD052384021	BROWN & BRYANT, INC. (ARVIN PLANT)
CA2170023533	CAMP PENDLETON MARINE CORPS BASE
CA3570024551	CASTLE AIR FORCE BASE
CAD980638860	CELTOR CHEMICAL WORKS
CAD980817217	COALINGA ASBESTOS MINE
CAD063015887	COAST WOOD PRESERVING
CA7170024528	CONCORD NAVAL WEAPONS STATION
CAD055753370	COOPER DRUM CO.
CAD980498455	CRAZY HORSE SANITARY LANDFILL
CAD009212838	CTS PRINTEX, INC.
CAD029544731	DEL AMO FACILITY
CAD000626176	DEL NORTE PESTICIDE STORAGE
CA1570024504	EDWARDS AIR FORCE BASE
CA6170023208	EL TORO MARINE CORPS AIR STATION
CAD097012298	FAIRCHILD SEMICONDUCTOR CORP (S SAN JOSE)
CAD095989778	FAIRCHILD SEMICONDUCTOR CORP (MT VIEW)
CAD990793887	FIRESTONE TIRE & RUBBER CO. (SALINAS PLANT)
CA7210020676	FORT ORD
CAD980636914	FRESNO MUNICIPAL SANITARY LANDFILL
CAD071530380	FRONTIER FERTILIZER
CAD980498562	GBF, INC., DUMP
CA2570024453	GEORGE AIR FORCE BASE
CAD980884209	HEWLETT-PACKARD (620-640 PAGE MILL ROAD)
CAD980736284	INDUSTRIAL WASTE PROCESSING
CAD061620217	INTEL CORP. (MOUNTAIN VIEW PLANT)
CAT000612184	INTEL CORP. (SANTA CLARA III)
CAD092212497	INTEL MAGNETICS
CAD041472341	INTERSIL INC./SIEMENS COMPONENTS
CAD980498612	IRON MOUNTAIN MINE
CAD000625731	J. H. BAXTER & CO.
CAD009103318	JASCO CHEMICAL CORP.
CA9800013030	JET PROPULSION LABORATORY (NASA)
CAD980737613	JIBBOOM JUNKYARD
CAD009112087	KOPPERS CO. INC. (OROVILLE PLANT)
CA2890190000	LABORATORY FOR ENERGY-RELATED HEALTH RESEARCH/OLD CAMPUS LANDFILL (USDOE)
CA2890090002	LAWRENCE LIVERMORE LABORATORY (SITE 300)
CA2890012584	LAWRENCE LIVERMORE LABORATORY (USDOE)
CAT000646208	LIQUID GOLD OIL CORP.
CAD029295706	LORENTZ BARREL & DRUM CO.
CAD065021594	LOUISIANA-PACIFIC CORP.

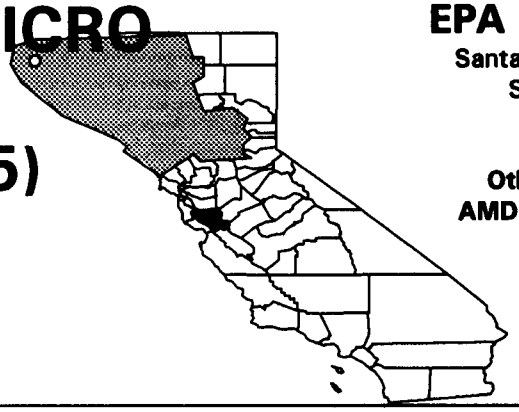
EPA ID Number	Site Name
CA4570024527	MARCH AIR FORCE BASE
CA8570024143	MATHER AIR FORCE BASE
CA4570024337	MCCLELLAN AIR FORCE BASE (GROUND WATER CONTAMINATION)
CAD980498695	MCCOLL
CAD009106527	MCCORMICK & BAXTER CREOSOTING CO.
CAD000074120	MGM BRAKES
CAD981997752	MODESTO GROUND WATER CONTAMINATION
CA2170090078	MOFFETT NAVAL AIR STATION
CAD049236201	MONOLITHIC MEMORIES
CAD008242711	MONTROSE CHEMICAL CORP.
CAD041472986	NATIONAL SEMICONDUCTOR CORP.
CAD981434517	NEWMARK GROUND WATER CONTAMINATION
CA4570024345	NORTON AIR FORCE BASE
CAT080012024	OPERATING INDUSTRIES, INC., LANDFILL
CAD980636781	PACIFIC COAST PIPE LINES
CAD980736151	PURITY OIL SALES, INC.
CAD981995947	RALPH GRAY TRUCKING CO.
CAD009205097	RAYTHEON CORP.
CA7210020759	RIVERBANK ARMY AMMUNITION PLANT
CA0210020780	SACRAMENTO ARMY DEPOT
CAD980894893	SAN FERNANDO VALLEY (AREA 1)
CAD980894901	SAN FERNANDO VALLEY (AREA 2)
CAD980894984	SAN FERNANDO VALLEY (AREA 3)
CAD980894976	SAN FERNANDO VALLEY (AREA 4)
CAD980677355	SAN GABRIEL VALLEY (AREA 1)
CAD980818512	SAN GABRIEL VALLEY (AREA 2)
CAD980818579	SAN GABRIEL VALLEY (AREA 3)
CAD980817985	SAN GABRIEL VALLEY (AREA 4)
CAD029452141	SELMA TREATING CO.
CA8210020832	SHARPE ARMY DEPOT
CAD981171523	SOLA OPTICAL USA, INC.
CAD980894885	SOUTH BAY ASBESTOS AREA
CAD980816466	SOUTHERN CALIFORNIA EDISON CO. (VISALIA)
CAD009138488	SPECTRA-PHYSICS, INC.
CAD066635442	STOKER COMPANY
CAT080012826	STRINGFELLOW
CAD980893275	SULPHUR BANK MERCURY MINE
CAD990832735	SYNERTEK, INC. (BUILDING 1)
CAD009106220	T. H. AGRICULTURE & NUTRITION CO.
CAD009111444	TELEDYNE SEMICONDUCTOR
CA4971520834	TRACY DEFENSE DEPOT
CA5570024575	TRAVIS AIR FORCE BASE
CA1170090087	TREASURE ISLAND NAVAL STATION-HUNTERS POINT ANNEX
CAD009159088	TRW MICROWAVE, INC (BUILDING 825)
CAD981436363	UNITED HECKATHORN CO.
CAD063020143	VALLEY WOOD PRESERVING, INC.
CAD980884357	WASTE DISPOSAL, INC.
CAD980893234	WATKINS-JOHNSON CO. (STEWART DIVISION)

EPA ID Number	Site Name
CAD980894679	WESTERN PACIFIC RAILROAD CO.
CAD001864081	WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)

ADVANCED MICRO DEVICES, INC. (BUILDING 915)

CALIFORNIA

EPA ID# CAT080034234



EPA REGION 9
Santa Clara County
Sunnyvale

Other Names:
AMD 915 Deguine

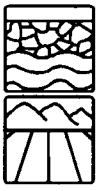
Site Description

Advanced Micro Devices, Inc. manufactures semiconductor and microprocessor devices on this 5 1/2-acre site. Building 915 was built on former agricultural land in 1973. At that time, three underground acid neutralization tanks were installed north of the building. The building's operations also involved underground storage tanks of waste organic solvents. In 1981, the company identified volatile organic compounds (VOCs) in wells near the building. High levels of solvents present in the on-site soils resulted from leaking tanks and spills during the solvent handling. Two other NPL sites have contributed to the contaminated groundwater plume: Advanced Micro Devices, Inc. and TRW Microwave, Inc.; a third facility, Signetics, Inc., has been removed from the NPL but the potentially responsible parties are required to participate in the cleanup process under Regional Water Quality Control Board Orders. The closest homes are located 400 feet north of the site. There was contamination from the site that had the potential to reach the deep groundwater that supplies municipal wells within 3 miles of the site. These wells provide drinking water to approximately 200,000 people in Santa Clara, Sunnyvale, and Mountain View.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

Threats and Contaminants



Groundwater contains various VOCs. The soil contaminated with organic solvents has been removed. People who come into direct contact with or ingest the contaminated water may be at risk.

Cleanup Approach

Response Action Status

Immediate Actions: In 1982, Advanced Micro Devices removed approximately 5,600 cubic yards of contaminated soil and a three-tank underground acid neutralization system, with a combined capacity of 4,700 gallons. The soil was transported to a federally approved hazardous waste facility. One of the tanks was found to have a hole in its side. Five additional underground storage tanks were removed between 1982 and 1983. Between 1982 and 1983, five groundwater extraction wells and pumps were installed to stop the migration of contaminants off site. Seven more wells were installed between 1983 and 1985 to provide an additional hydraulic barrier to trap the contaminant plume migrating off site. Water from these wells is being treated by an air stripper and carbon adsorption to remove VOCs. In addition, groundwater extracted from 18 other off-site wells, installed as part of the cleanup activities for the other NPL sites in the area, is being treated by the air stripping tower and carbon adsorption at this site. All construction is completed. Groundwater treatment will continue until established goals for the site are met.

Entire Site: In 1991, Advanced Micro Devices completed an investigation, under State supervision, to determine the type and extent of contamination at the site. The EPA chose to continue operation of the existing groundwater extraction and treatment system, which treats the water by air stripping and carbon adsorption, until established cleanup levels are met.

Environmental Progress

Construction of all cleanup remedies has been completed. The removal of contaminated soils and tanks and the continued treatment of contaminated groundwater have reduced the potential for exposure to hazardous materials at the Advanced Micro Devices, Inc. (Building 915) site.

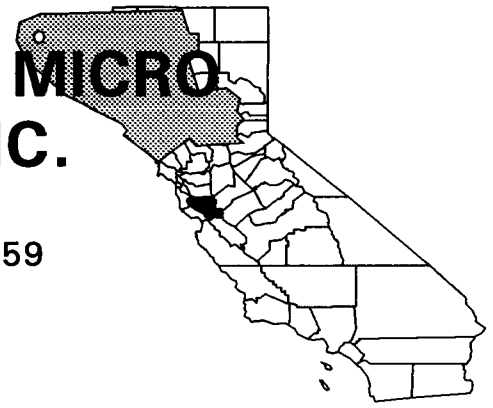
Site Repository

Regional Water Quality Control Board, San Francisco Bay Region,
2101 Webster Street, Suite 500, Oakland, CA 94612

ADVANCED MICRO DEVICES, INC.

CALIFORNIA

EPA ID# CAD048634059



EPA REGION 9

Santa Clara County
Sunnyvale

Other Names:
AMD 901/902
AMD - Thompson Place

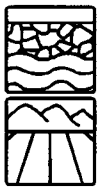
Site Description

The Advanced Micro Devices, Inc. (AMD) site covers 6 acres in Sunnyvale, where the company manufactures electronic equipment. Contamination of the groundwater has resulted from localized spills and leaking underground storage tanks and piping. Nearby facilities have contributed to the contaminated groundwater plume and are participating in the cleanup of this site. These facilities, Advanced Micro Devices (Building 915) and TRW Microwave Inc., are also sites on the NPL. A third site, Signetics, Inc., has been removed from the NPL, but the potentially responsible parties continue to assist in cleanup of the groundwater by order of the Regional Water Quality Control Board. Approximately 50,000 people live within 3 miles of the site, and about 300,000 people depend on nearby municipal groundwater wells as a source of drinking water. The closest residence is ½ mile away. No private wells are used in the vicinity of the facility. The municipal wells, located about ½ mile from the site, do not show signs of contamination.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Groundwater contains volatile organic compounds (VOCs) such as trichloroethylene (TCE) and freon. Soils also are contaminated with VOCs. People who come in direct contact with or accidentally ingest contaminated groundwater or soil may be at risk.

Cleanup Approach

Response Action Status

Immediate Actions: Following the removal of two acid neutralization tanks, AMD established a groundwater extraction and treatment system. AMD is continuing to participate with Signetics and TRW in extracting and treating contaminated groundwater through air stripping devices followed by carbon adsorption.

Entire Site: Under State supervision, AMD completed an investigation determining the type and extent of contamination on the site. The EPA selected the cleanup remedy in late 1991. The remedy calls for excavating contaminated soil followed by off-site incineration, continuing the ongoing operation of the existing groundwater extraction and treatment system, and installing new wells at the leading edge of the off-site commingled plume. Incineration of the soil and well installation were completed in late 1992.

Site Facts: In 1984, the State issued a Cleanup and Abatement Order, requiring Advanced Micro Devices, Signetics, and TRW Microwave to develop a joint plan to prevent the further migration of contaminants. A new order was issued in April 1989, requiring an investigation with the neighboring TRW and Signetics sites. This order did not include AMD Building 915, which is an adjacent, but separate, NPL site.

Environmental Progress

Construction of all cleanup remedies is complete at the Advanced Micro Devices, Inc. site. The removal of underground tanks, contaminated soil, and ongoing operation of the groundwater treatment system is helping to keep the contaminant levels within acceptable limits and is preventing the further spread of contaminants.

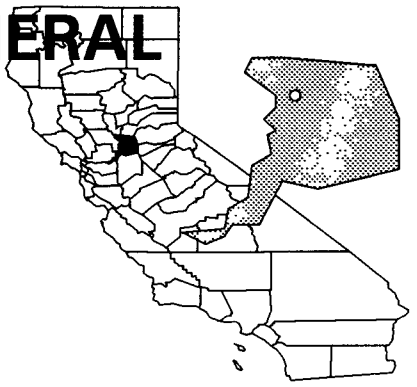
Site Repository

Regional Water Quality Board, San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

AEROJET GENERAL CORP.

CALIFORNIA

EPA ID# CAD980358832



EPA REGION 9

Sacramento County
Rancho Cordova

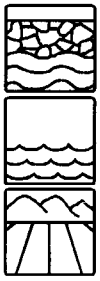
Site Description

The Aerojet General Corp. site covers 8,500 acres near Rancho Cordova, 15 miles east of Sacramento. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket engines for military and commercial applications and have formulated a number of chemicals, including rocket propellant agents, agricultural, pharmaceutical, and other industrial chemicals. In addition, the Cordova Chemical Company operated a chemical manufacturing facility on the Aerojet complex from 1974 to 1979. Both companies disposed of unknown quantities of hazardous waste chemicals, including trichloroethylene (TCE) and other chemicals associated with rocket propellants, as well as various chemical processing wastes. Some wastes were disposed of on the site in surface impoundments, landfills, deep injection wells, leachate fields, and directly on the ground. Other wastes were burned. Underlying the site is an extensive 50-foot-deep gold dredge tailings, a remnant of past mining operations. The communities potentially affected by this site are Rancho Cordova, population 43,000; Carmichael, population 43,000; and Sacramento, population 309,000. The closest residence lies about 500 feet away from the site. Groundwater is used extensively throughout the Rancho Cordova area to supply municipal, domestic, and industrial water. About 16 public and private drinking water supply wells have been contaminated. Some of these wells have been closed and Aerojet is providing wellhead treatment to others. Aerojet continues to monitor drinking water supplies to assure compliance with drinking water standards. The northeastern edge of the site is about 1/2 mile from the American River. Lake Natoma and Alder Creek are nearby and are used for recreational activities. The river is used for public water supplies.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/23/82
Final Date: 09/08/83

Threats and Contaminants

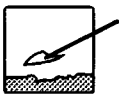


Groundwater and surface water contain volatile organic compounds (VOCs) such as TCE, perchloroethylene (PCE), chloroform, and Freon-113. Soils are contaminated with VOCs and heavy metals including antimony, arsenic, cadmium, and zinc. People who come in direct contact with, or accidentally ingest, contaminated groundwater may be at risk. In the past, groundwater containing TCE has been found on the banks of the American River. Recent sampling has shown no reoccurrence of TCE in the groundwater.

Cleanup Approach

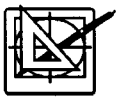
The site is being addressed in four stages: interim actions and three long-term remedial phases directed at cleanup of the entire site, the American River, and Area 40.

Response Action Status



Interim Actions: Between 1983 and 1986, six groundwater extraction and treatment facilities were installed as a barrier system to prevent further movement of contaminants off site. The facilities are a series of injection and extraction wells and a groundwater treatment system built to intercept groundwater as it moves off the facility boundary. Additional wells are currently being installed. Studies are underway to improve the effectiveness of the extraction and treatment facilities and to incorporate them into a final remedy at the site.

Entire Site: Under EPA, State Department of Health Services, and Regional Water Quality Control Board oversight, Aerojet began investigating the nature and extent of groundwater and soil contamination throughout the site. The first phase of the investigation addressed soil contamination and was completed in 1994. A second investigation phase, which includes treatability studies and a technology evaluation to assist in selecting final measures for groundwater cleanup is scheduled to be completed in late 1996.



American River: Aerojet completed an investigation in 1993 of the nature and extent of groundwater contamination on the north side and beneath the American River. In 1991, VOCs were detected in the groundwater samples Aerojet took from monitoring wells. Pumping and treating the groundwater, using aqueous phase carbon adsorption, was selected as the interim remedy, and is currently being designed. The system is scheduled to be operational in the summer of 1995.

Area 40: An investigation addressing soil and groundwater contamination at Area 40, an Aerojet General owned parcel of land west of the facility borders, is currently underway and is scheduled for completion in the fall of 1995. The investigation will explore the nature and extent of contamination and will recommend alternatives for cleanup.

Environmental Progress

The interim groundwater treatment system currently in operation at the Aerojet General facility is reducing contaminant levels and is preventing the further spread of the contaminant plume while final cleanup remedies are being planned.

Site Repository

Carmichael Regional Library, 5605 Marconi Avenue, Carmichael, CA 85608

APPLIED MATERIALS
CALIFORNIA
EPA ID# CAD042728840

EPA REGION 9
Santa Clara County
Santa Clara

Site Description

Applied Materials manufactures deposition equipment used in the semiconductor industry on this 9-acre site in Santa Clara. Monitoring wells on the site indicate the presence of volatile organic compounds (VOCs). Contamination is believed to have resulted from leaking pipes leading to underground tanks associated with an acid neutralization system. This is one of 28 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. The area surrounding the site is used mostly for light industrial, commercial, and residential purposes. The population of the City of Santa Clara is about 90,000 people. Approximately 300,000 people depend on groundwater within 3 miles of the site as a source of drinking water.

Site Responsibility: This site is being addressed through Federal, State, local, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants

Groundwater contains VOCs such as trichloroethylene (TCE). The contaminants in the groundwater could pose a threat to human health if the groundwater is used as a source of drinking water in the future. Presently, there do not appear to be any threats associated with exposure to these contaminants, because area drinking water wells have not been affected by the contaminant plume. Soils were thought to contain VOCs, but studies have shown that they are not contaminated.

Cleanup Approach

Response Action Status

Initial Actions: In 1984, Applied Materials installed a system to pump and treat contaminated groundwater. The system consists of three extraction wells, an extraction pit, and a dual-column air stripper. In 1985, underground storage tanks and some of the surrounding soil were excavated, and an excavation pit was built. In addition, a downgradient extraction well and a second deep monitoring well were installed to determine the extent of contaminant migration. The treated groundwater is discharged to a storm drain system, which flows into San Tomas Aquino Creek and South San Francisco Bay.

Groundwater: Under supervision by the State, Applied Materials completed an investigation into the extent of groundwater and soil contamination at the site. In 1990, the EPA chose to continue using the pump and treat system installed in 1984 to remove contaminants from the groundwater. All construction activities have been completed and the potentially responsible parties continue to operate and maintain the groundwater treatment system.

Soil: In 1990, under the direction of the Bay Area Water Quality Control Board, the potentially responsible parties began a study of the hazards posed by contaminated soil beneath the manufacturing facility. In 1993, it was determined the surface soils are not contaminated and the saturated soils under the building will be cleaned through the groundwater remedy.

Environmental Progress

Construction of all cleanup remedies is complete. The groundwater treatment system currently in operation at the Applied Materials site is reducing contaminant levels and preventing the further spread of the contaminant plume. The system will continue until cleanup goals are met.

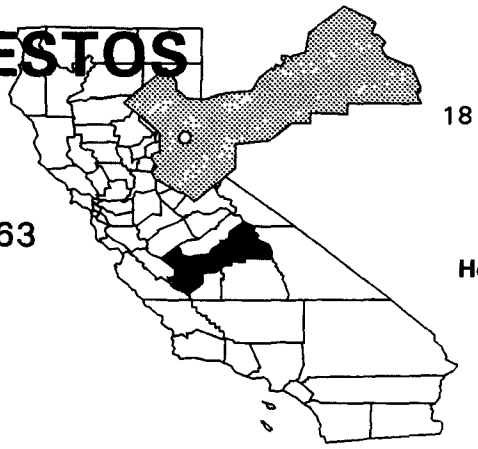
Site Repository

Regional Water Quality Control Board, San Francisco Bay Region,
2101 Webster Road, Suite 500, Oakland, CA 94612

ATLAS ASBESTOS MINE

CALIFORNIA

EPA ID# CAD980496863



EPA REGION 9

Fresno County
18 miles northwest of Coalinga

Other Names:
Arroyo Pasejaro
Hollister Resource/Bureau of Land Management

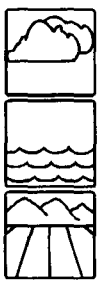
Site Description

The Atlas Asbestos Mine site covers 435 acres near Coalinga, California. The mine operated from 1963 until 1979 and consists of the asbestos mine, a processing mill, support buildings, and extensive asbestos mine tailings. During operation, some milling and mining products from Atlas and the Coalinga Asbestos Mine were transported to the City of Coalinga. In addition, the Coalinga Asbestos Mine, also listed on the NPL and located about 3 miles away, deposited its milling and mining products in Coalinga. (For additional information, please see the separate listing for Coalinga Asbestos Mine). The 107-acre area in the City of Coalinga was operated as an asbestos milling, manufacturing, storage, and transportation center. It consists of four distinct areas: the warehouse, which once was a mining waste distribution center and now houses 1,600 cubic yards of mining waste; a storage yard containing asbestos-contaminated stacked pipes; a shipping yard used as an asbestos distribution center by the Atlas Asbestos Company; and the U.S. Asbestos Company, which currently stores piles of asbestos-contaminated mining waste. The Atlas facility drains directly into White Creek, which drains into Los Gatos Creek, a tributary of the Arroyo Pasejaro, a flood area along the California Aqueduct. A detention basin was built in the flood plain to store water during heavy runoff and to allow the asbestos-laden sediment to settle. Sediments carried by floodwaters have silted up the detention basin and have diminished its storage capacity. As a result, during heavy floods the waters may be released into the canal through four drain inlets, and asbestos can be carried into the aqueduct. Elevated levels of asbestos have been found in the aqueduct. However, most of the downstream users of the aqueduct water are protected by filtration and settling pond systems, which trap most of the asbestos fibers. The area surrounding the Atlas site is primarily rural. The land is used for ranching, farming, and recreational activities such as hunting, hiking, camping, and off-road vehicles. About 10 ranchers live within 5 miles of the site. The closest community is Coalinga, about 18 miles away, with a population of approximately 8,000 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/01/84

Threats and Contaminants



Air, surface water, sediments, and soils are contaminated with asbestos. Soil and building debris in the City of Coalinga also are contaminated with chromium and nickel. People who touch, accidentally ingest, or inhale contaminated air, surface water, sediments, or soil may be at risk.

Cleanup Approach

The site is being addressed in two long-term remedial phases directed at cleanup of the surface asbestos/mine tailings and the contamination in the City of Coalinga.

Response Action Status

Surface Asbestos/Mine Tailings: The EPA completed investigations of the surface asbestos at the mine, the mine tailings, the ore stockpiles, and the mill in 1991. The selected remedy for the final cleanup includes diverting the stream flow away from the mine surfaces and tailing piles by building stream diversions, minimizing the release of sediments containing asbestos by building sediment trapping dams, stabilizing the slopes of the waste piles by regrading and limiting access to the site by erecting fences, and placing deed restrictions on private property at the mine area. Cleanup activities began in 1994 and are scheduled for completion in 1996.

City of Coalinga Contaminated Area: In 1989, the EPA selected a remedy to clean up the 107 acres of contamination in the City of Coalinga. The remedy includes excavating and consolidating approximately 20,000 cubic yards of asbestos, chromium, and nickel-contaminated soil and building debris; building an underground waste management unit (WMU) to contain and dispose of contaminated soil and waste on site; covering the WMU area with an impermeable cap; regrading the excavated area; decontaminating the debris; monitoring the soil, groundwater, and air; and implementing deed restrictions on the use of the land. The parties potentially responsible for site contamination began cleanup activities under EPA oversight in 1990 and completed activities in 1993.

Environmental Progress

The cleanup of the contaminated area in the City of Coalinga is complete, which protects the public and the environment at the Atlas Asbestos site while the final cleanup of surface asbestos and mine tailings is underway.

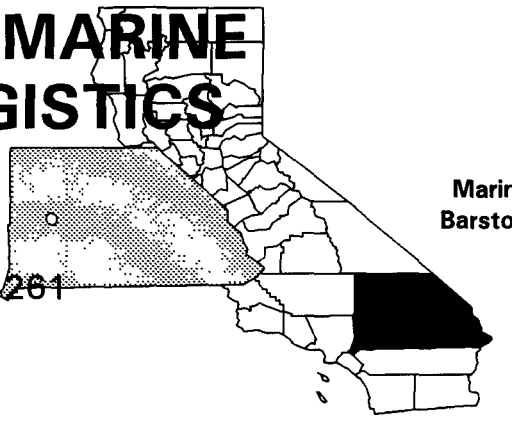
Site Repository

San Jose Public Library, Main Library, 180 West San Carlos Street, San Jose, CA 95113

BARSTOW MARINE CORPS LOGISTICS BASE

CALIFORNIA

EPA ID# CA8170024261



EPA REGION 9

San Bernardino County
Barstow

Other Names:
Marine Corps Logistics Base - Nebo
Barstow USMC Logistics Base - Nebo

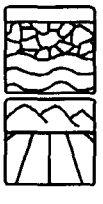
Site Description

The Barstow Marine Corps Logistics Base site covers 5,687 acres east of Barstow, California. The site consists of three areas: the Nebo area; the Yermo area; and the Rifle Range. The base was established at the Nebo location in 1942, when the U.S. Navy transferred command to the U.S. Marine Corps. In 1946, the Yermo area was annexed by the Marines from the U.S. Army. The Rifle Range was acquired in 1955 and was developed as a facility for the Marines to improve their marksmanship. The Barstow base has two major functions: providing equipment maintenance, repair, overhaul and rebuilding; and receiving, storing, maintaining, issuing, and shipping materials. Consequently, the majority of wastes historically generated by the base have been vehicle-related, and war surplus. Vehicle-related wastes include waste oils, grease, hydraulic fluids, fuels, battery acids, bilge waters, and antifreeze. Industrial wastes are generated by the Repair Division while maintaining, rebuilding, or preserving the vehicles. These include painting, degreasing, metal parts cleaning, and preservation wastes. Some hazardous or suspected hazardous wastes were contained in war surplus materials received at the base, including ammunition, various sources of low-level radiation (luminescent dials, watches, and scopes), and chemicals such as pesticides, herbicides, and raw materials. Investigations by the Marine Corps have found 38 areas of contamination on the base. Approximately 29,000 people live in the City of Barstow. About 1,300 people use on-site groundwater as a drinking water source. Groundwater is the only source for domestic, commercial, and industrial water supply, as well as crop irrigation. The base is located in the central Mojave Desert.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 11/21/89

Threats and Contaminants



Groundwater contains volatile organic compounds (VOCs) such as trichloroethylene (TCE) and perchloroethylene (PCE). Soil is contaminated with VOCs, pesticides, polynuclear aromatic hydrocarbons (PAHs), heavy metals, and polychlorinated biphenyls (PCBs). People who accidentally ingest or come in direct contact with contaminated groundwater or soil may suffer adverse health effects.

Cleanup Approach

The site is being addressed in four stages: immediate actions and three long-term remedial phases focusing on cleanup of the groundwater, source control, and the entire site.

Response Action Status

Immediate Actions: An alternate drinking water supply has been provided for personnel on the base. One drinking water well is being treated. Contaminated sludges in old wastewater lagoons were excavated and treated in 1993.

Groundwater: The Marine Corps is conducting an investigation to determine the extent and nature of contamination of the groundwater. At its completion, planned for early 1996, recommendations for cleanup remedies will be made.

Source Control: The Marine Corps is conducting an investigation to identify additional sources of contamination throughout the base. The study is expected to be completed in 1996, at which time cleanup remedies will be selected.

Entire Site: An extensive investigation into the nature and extent of contamination at the entire site began in 1990. The Marine Corps is expected to complete the study in 1997, at which time cleanup remedies will be selected.

Site Facts: The base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

By providing an alternate drinking water supply to base personnel, the potential for exposure to contaminants in the groundwater has been reduced while investigations continue and final cleanup activities are being planned for the Barstow Marine Corps Logistics Base site.

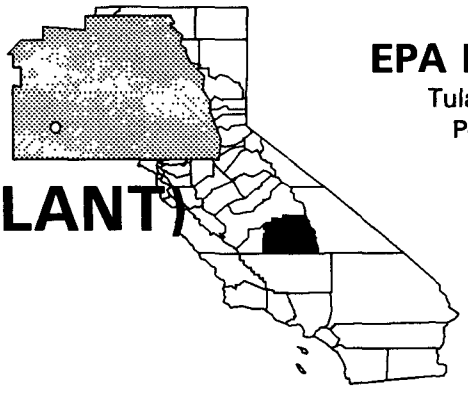
Site Repository

San Bernardino County Public Library, Barstow Branch, 304 East Buena Vista,
Barstow, CA 92311

BECKMAN INSTRUMENTS (PORTERVILLE PLANT)

CALIFORNIA

EPA ID# CAD048645444



EPA REGION 9
Tulare County
Porterville

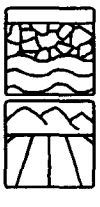
Site Description

The Beckman Instruments (Porterville Plant) site covers approximately 500 acres in Porterville, California. The plant itself occupies 12 acres. The company has manufactured printed circuit boards and electronic instruments parts at the facility since 1968. Wastes generated from these operations included solvents, acid solutions, and heavy metals. From 1974 until 1983, these wastes were disposed of in an evaporation pond on site. This pond is the most likely source of groundwater contamination in the area surrounding the Beckman facility. In addition to the pond, three other areas where wastes were dumped include the former enchant tank area, the ammonium persulfate and copper waste discharge area (known as the soil stain area), and the depression area. Liquids from the pond were first detected in 1978 in a leak detection sump underlying the pond. Subsequent groundwater monitoring indicated the presence of elevated levels of volatile organic compounds (VOCs) and heavy metals. Numerous residences are located near the site. In addition, Porterville College is located just east of the site, and downtown Porterville is located about 2,000 feet north of the site. A municipal water supply well lies about 500 feet northwest of the facility. Approximately 475 people live within a mile of the plant and are affected by the contaminated groundwater.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Groundwater contains VOCs such as trichloroethylene (TCE), and Freon-113. Lead is contaminating the soil. People who accidentally ingest or come into direct contact with contaminated groundwater or soil may be at risk.

Cleanup Approach

Response Action Status

Immediate Actions: In 1983, the pond liquids, liners, and surface soils were removed and disposed of in an EPA-approved facility. Beckman installed groundwater monitoring wells and provided alternate water supplies to about 300 residences affected by the contamination. Between 1983 and 1985, the company connected over 150 of the affected residences to the Porterville municipal water supply system. In 1985, Beckman installed a groundwater pump and treat system to stop the westward spread of contaminants in the upper aquifer and to begin cleaning the groundwater. These activities helped to slow, and eventually halt, the migration of the contaminant plume. In 1987, an eastern containment and reclamation well field was installed. Groundwater from this area is pumped to an on-site air stripping tower. The treated groundwater from both systems is used for local irrigation or is diverted to percolation basins east of the facility and near the Tule River. By January 1990, groundwater cleanup standards were achieved in the upper aquifer.

Entire Site: In 1989, the EPA selected a remedy to clean up the soils and lower aquifer areas of the Beckman Instruments site by extracting the contaminated groundwater, treating the groundwater by air stripping to remove the contaminants, releasing the treated groundwater into the aquifer, and excavating the lead-contaminated soil and disposing of it in an EPA-approved facility. In 1990, Beckman, under EPA oversight, began designing the technical specifications for the cleanup. The design of the groundwater remedy was completed in 1992. To date, soil cleanup has been completed and all components for the groundwater cleanup have been constructed and are operating.

Site Facts: In 1987, the EPA and Beckman Instruments signed a Consent Order requiring the company to clean up the site. Beckman designed cleanup technologies and is currently conducting cleanup activities under a Unilateral Administrative Order.

Environmental Progress

All construction at the site is complete. The pump and treat system operating at the Beckman Instruments site has been effective in reducing the levels of contamination in the groundwater. Cleanup standards for the upper aquifer have been achieved. The soils contaminated with lead have been removed from the site, eliminating the potential for direct exposure to hazardous materials at the site. Cleanup of the lower aquifer at the Beckman Instruments (Porterville Plant) is underway and will continue until established cleanup standards are achieved.

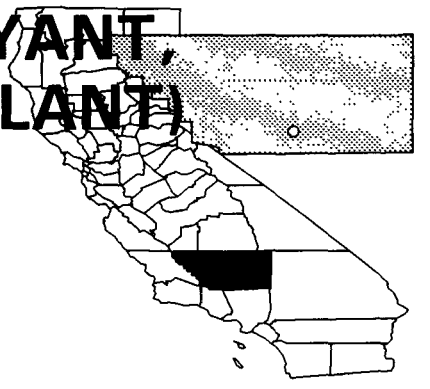
Site Repository

Porterville Public Library, 41 West Thurman Avenue, Porterville, CA 93257

BROWN & BRYANT, INC. (ARVIN PLANT)

CALIFORNIA

EPA ID# CAD052384021



EPA REGION 9
Kern County
Arvin

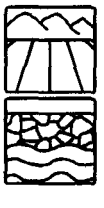
Site Description

The Brown & Bryant, Inc. (Arvin Plant) covers about 5 acres in Arvin, California. The company began operations in 1960 as a formulator of agricultural chemicals including fertilizers, herbicides, insecticides, and fumigants. During inspections by State agencies, improper handling and disposal of hazardous wastes at the facility have been documented. Accidental spills of pesticides have occurred at the site. In 1979, an evaporation pond was built in the southeastern corner of the site. This pond received pesticide rinse water and surface runoff from the site. As the result of heavy rains, this pond has overflowed on at least two occasions. The closest public well is located about 1,700 feet south of the site. The public water system supplies drinking water to approximately 7,800 people and irrigates about 19,600 acres of cropland. The area surrounding the site is industrial, agricultural, and residential. The Arvin-Edison Water District maintains six municipal groundwater wells within 1 mile of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants



Soil contains numerous pesticides such as dinoseb, ethylene dibromide and other fumigants. The groundwater also is contaminated with pesticides. People who accidentally ingest or come into direct contact with contaminated groundwater or soil may be at risk.

Cleanup Approach

The site is being addressed in three stages: interim actions and two long-term remedial phases focusing on cleanup of the entire site and the area-wide groundwater.

Response Action Status

Interim Actions: In 1988, under State supervision, Brown & Bryant, Inc., excavated the heavily contaminated soil under the pond and installed a liner. An additional removal of dinoseb-contaminated soil was conducted in 1991. The excavated soil was cleaned, treated, and returned to the ground. The water used to clean the soil was treated by an innovative technology called ultraviolet/ozone. This process uses special ultraviolet lights and ozone gas to break down hazardous chemicals. In addition, more monitoring wells were installed to detect any contaminants migrating to the Arvin Municipal wells and to monitor the perched water plume.

Entire Site: The EPA began an investigation in 1990 to develop a long-term solution to the groundwater and soil contamination problems. A remedy was selected in 1993 that includes consolidation of contaminated soil, installation of a cap over the consolidated soil, and extraction and treatment of water from the first water-bearing unit. Design of the remedies is scheduled to be completed in the spring of 1995.

Area-Wide Groundwater: An investigation to explore the nature and extent of the area-wide groundwater contamination is scheduled to be completed in 1997. Once the investigation is completed, alternative cleanup options will be recommended.

Site Facts: Under orders from the State, Brown & Bryant, Inc., conducted a limited investigation of the site and removed some of the contaminated soil. However, in 1989, the firm went out of business, leaving the EPA and the State to solve the remaining contamination problems.

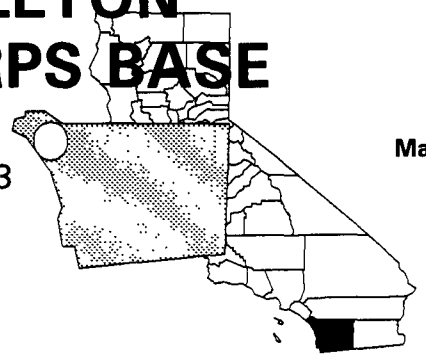
Environmental Progress

The removal and treatment of the heavily contaminated soil has reduced the potential for exposure to hazardous materials while the EPA and the State are planning additional cleanup actions at the Brown & Bryant, Inc. (Arvin Plant) site.

Site Repository

Kern County Library, 123 A Street, Arvin, CA 93203

CAMP PENDLETON MARINE CORPS BASE
CALIFORNIA
EPA ID# CA2170023533



EPA REGION 9
San Diego County

Other Names:
Marine Corps Base Camp Pendleton
Camp Pendleton PCB Spill

Site Description

The Camp Pendleton Marine Corps Base site covers 125,000 acres in San Diego County, California. The base provides housing, training, and logistical and administrative support for the Fleet Marine Force units. Past disposal practices have contaminated the groundwater and soil. In an initial investigation, the Marine Corps found nine areas of contamination. Waste generation operations at this site include maintenance and repair of vehicles (trucks, tanks, and aircraft); landfill operations; waste disposal areas, such as scrap yards; and firefighting drill areas. The base contains wetlands, streams, and rivers, which feed into the Pacific Ocean. This land is the only remaining undeveloped area between Los Angeles and San Diego.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 11/21/89

Threats and Contaminants

Groundwater and soils are contaminated with volatile organic compounds (VOCs), spent oils, fuels, polychlorinated biphenyls (PCBs), pesticides, metals and herbicides. Though groundwater provides drinking water to the entire installation, the current drinking water supply is within drinking water standards.

Cleanup Approach

The site is being addressed in four long-term remedial phases focusing on cleanup of soils; landfills, surface impoundments, and groundwater; other soils and groundwater; and remaining areas.

Response Action Status

Soils: In 1990, the Marine Corps began an investigation to determine the nature and extent of contamination of the soil and groundwater at six subsites where data were already available. The investigations were completed in the fall of 1993, and final cleanup measures are scheduled to be selected in 1995.

Landfills, Surface Impoundments, and Groundwater: In 1990, the Marine Corps began an investigation of the nature and extent of contamination in the landfills, surface impoundments, and groundwater. Final cleanup measures are expected to be selected in 1996.

Other Soils and Groundwater: In 1990, the Marine Corps began an investigation into the nature and extent of contamination of soils and groundwater on the base located in the Santa Margarita watershed, where data are not yet available. The investigation is scheduled to be completed in 1995, after which the final cleanup remedy for these areas will be selected.

Remaining Areas: An investigation of the nature and extent of soil and groundwater contamination in subsites outside the Santa Margarita watershed on the base is scheduled to begin in 1995.

Site Facts: Camp Pendleton is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

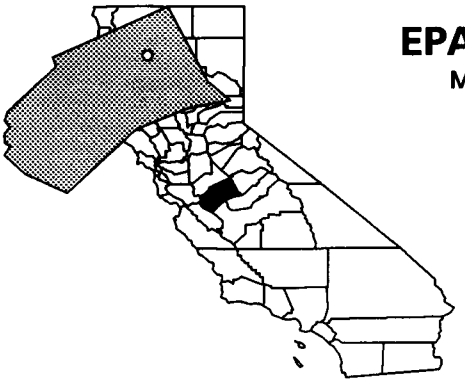
Environmental Progress

After listing the site on the NPL, preliminary investigations showed that no immediate actions are required at the Camp Pendleton Marine Corps Base while investigations are being completed.

Site Repository

Oceanside Public Library, 330 North Hill Street, Oceanside, CA 92054

CASTLE AIR FORCE BASE
CALIFORNIA
EPA ID# CA3570024551



EPA REGION 9
Merced County
Atwater

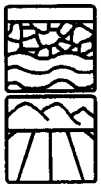
Site Description

The Castle Air Force Base site comprises 2,777 acres and is adjacent to Atwater, California. This installation originally was used as an aircrew training facility by the Army in 1941. The Strategic Air Command assumed responsibility for the base in 1946. Since the mid-1940s, aircraft maintenance, fuel management, and fire training activities on the base have generated wastes that consist primarily of waste fuels, oils, solvents and cleaners. Base activities also have generated lesser amounts of paints and plating wastes. Bulk wastes such as solvents, oils, fuels, and sludges were disposed of by the Air Force in pits at landfills around the base until 1977. Fuel and waste oils were incinerated by the Air Force during fire training exercises. The Air Force ceased disposal of hazardous waste on site in 1977, and there is only one remaining active landfill on the base. Investigations are proceeding at multiple areas of contamination including landfills, discharge areas, chemical disposal kits, fire training areas, fuel spill areas and polychlorinated biphenyl (PCB) spill areas. An estimated 12,210 persons work at the base. The primary base housing area is Castle Gardens, located immediately to the southwest of the base. Approximately 6,000 people obtain their drinking water from both municipal and private wells located near the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Shallow groundwater in the Main Base and the North, East, and West Flightline areas is contaminated with trichloroethylene (TCE) and benzene. Soils in the Main Base, the East Sector, and the West Flightline Sectors are contaminated with volatile organic compounds (VOCs) including toluene, ethyl benzene, and xylene. Off-base housing areas are contaminated with low levels of VOCs. Base employees and residents could be exposed to contaminants by accidentally ingesting or coming into direct contact with contaminated soil. Because groundwater is used by local farmers to irrigate crops, area residents also could be exposed to airborne concentrations of TCE in dusts, and contaminants bioaccumulated in area produce.

Cleanup Approach

The site is being addressed in five stages: immediate actions, one interim action concerning the shallow aquifer, and three long-term remedial phases focusing on cleanup of Disposal Area-4 and Wallace Road, the off-base groundwater and sub-shallow aquifers, and the entire base.

Response Action Status

Immediate Actions: The Air Force installed two deep wells in 1988 to replace TCE-contaminated water supplies: one for the City of Atwater and one to meet on-base needs. In 1989, the Air Force also built a granular activated carbon filtration system to treat TCE-contaminated groundwater. Prior to the installation of these filters, the Air Force supplied area residents with bottled water. The Air Force began removing TCE-contaminated materials from Disposal Area-4 and Wallace Road, a residential area, in 1991. Contaminated groundwater from these two areas is being pumped and treated using carbon adsorption. The treated groundwater is being discharged into Casad Lateral Canal. Cleanup activities are scheduled for completion in 1995.

Shallow Aquifer: In 1991, an investigation into the nature and extent of contamination of the shallow aquifer was completed and an interim cleanup action was selected. A pump and treat system to address groundwater contamination was built in 1993. The cleanup is scheduled to last through 1999.

Disposal Area-4 and Wallace Road: The investigation to determine the nature and extent of contamination at Disposal Area-4 and Wallace Road, a residential area, was completed in 1993. The selected remedy calls for pumping and treating contaminated groundwater. Construction of the pump and treat plant began in March 1995, and is expected to be completed in the fall of 1995.

Off-Base Groundwater and Sub-Shallow Aquifers: The investigation to determine the nature and extent of contamination in the off-base groundwater and sub-shallow aquifers is underway. The investigation is scheduled to be completed in 1996.

Entire Base: The study into the nature and extent of contamination at the base and the most effective methods for addressing it began in 1989. The base-wide investigation is scheduled to be completed in 1996.

Site Facts: Castle Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. The site has been placed on the Base Closure List. It is expected to be closed within the next 5 years.

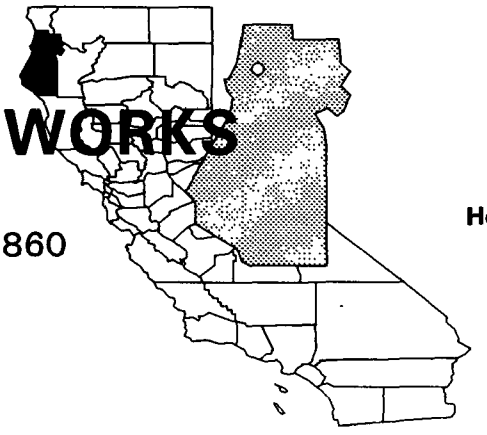
Environmental Progress

By supplying the on-base and local residents affected by groundwater contamination with a safe drinking water supply, installing a groundwater filtration system, and removing contaminated materials, the Air Force has reduced the potential for exposure to hazardous materials while extensive investigations into the areas of contamination at the Castle Air Force Base site are taking place and further cleanup activities are being planned.

Site Repository

Merced County Library, Central Branch, 2100 O Street, Merced, CA 95430

CELTOR CHEMICAL WORKS
CALIFORNIA
EPA ID# CAD980638860



EPA REGION 9
Humboldt County
Hoopa

Other Names:
Hoopa Valley Indian Reservation

Site Description

The 2-acre Celtor Chemical Works site, located in the northern Hoopa Valley Indian Reservation, is a former ore concentrating facility that processed sulfide ore for copper, zinc, and precious metal extraction. The Hoopa Valley Indian Tribe, the site's owner, leased the land in 1958 to the Celtor Chemical Corporation. From 1958 until 1962, copper, zinc, and precious metals were recovered on site from sulfide ore mined and trucked to Celtor from the nearby Copper Bluff Mine. In 1962, Celtor Chemical Corporation abandoned the site and mine tailings generated from the milling operations were left on site. These tailings, along with non-specific releases of processed ore, were thought to be the cause of the acidic surface water runoff and elevated metals concentrations in the soils throughout the site. The site consists of the plant, an adjacent pasture used for grazing livestock, a gully connecting the plant and the Trinity River, a drainage creek that collects surface runoff and carries it into the Trinity River, and a fishing access road that is frequently used by local residents. There are approximately 900 people living within 3 miles of the site. The Trinity River, which supports the only fish resources for the Hoopla Indians, flows through the center of the reservation and near the site.

Site Responsibility: This site was addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Soil was contaminated with heavy metals including arsenic, copper, lead, cadmium, and zinc. Potential health threats to people included accidental ingestion or inhalation of contaminated soil and dust generated by wind.

Cleanup Approach

Response Action Status

Immediate Actions: In 1983, the EPA excavated several hundred cubic yards of visibly contaminated materials. This material included tailings, non-concrete structures, and a portion of the pasture adjacent to the site. The main portion of the site was fenced, and the access road was covered with gravel. The flow of several springs was diverted away from the contaminated areas and into a nearby creek, which emptied into the Trinity River.

Entire Site: In mid-1987, the EPA selected a remedy to clean up the Celtor Chemical Works site. From 1987 to 1989, the EPA excavated an additional 1,400 cubic yards of contaminated soils from the site and disposed of them off site at an EPA-approved hazardous waste disposal facility. All site cleanup activities have been completed, and the process for deleting the Celtor Chemical Works site from the NPL has been initiated.

Environmental Progress

The EPA has completed all actions for the cleanup of contamination at the Celtor Chemical Works site. The EPA, in conjunction with the State, has determined that the site has now meets human health and environmental goals and currently is in the process of deleting the site from the NPL. Monitoring will continue to ensure the long-term effectiveness of the remedies.

Site Repository

Bureau of Indian Affairs, Looped Road, Room 102, Hoopa, CA 95546

COALINGA ASBESTOS MINE
CALIFORNIA
EPA ID# CAD980817217

EPA REGION 9
Fresno County
17 miles northwest of Coalinga

Other Names:
Johns-Manville Asbestos Company
Southern Pacific Land Company/Coalinga
Arroyo Pasajero Regional Asbestos Study

Site Description

The Coalinga Asbestos Mine site covers 557 acres near Coalinga. The mill was operated by the Coalinga Asbestos Company as a joint venture between the Johns-Manville Sales Corporation, the Kern County Land Company, and private investors from 1962 to 1974, when the mill property reverted to the Southern Pacific Land Company (SPLC). SPLC leased the facility to the Marmac Resource Company for chromite mining in 1975. All operations ceased in 1977. The site consists of partially demolished mill buildings and a process waste mine tailings pile that occupies about 20 acres. Two large open-pit mines are located above the mill site and were used as the sources of ore for the Coalinga Asbestos Company milling operations. While the mill was operating, some milling and mining products from Coalinga and from the Atlas Asbestos Mine, located about 3 miles away, were transported to the City of Coalinga. Because these two mines contributed to the contamination of a 107-acre area in Coalinga, the contamination in Coalinga is also being cleaned up. (For additional information, please see the separate listing for Atlas Asbestos Mine site.) The area surrounding the Coalinga Asbestos Mine is primarily rural. The land is used for ranching, farming, and recreational activities such as hunting. About 10 ranchers live within 5 miles of the site. The closest community is Coalinga, located approximately 14 miles away. The town has a population of approximately 8,000 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants

Air, soils, sediments, and surface water contain asbestos. People who come into direct contact with, accidentally ingest, or inhale contaminated surface water, sediments, soil, or air may be at risk.

Cleanup Approach

The site is being addressed in two long-term remedial phases directed at cleanup of the Coalinga Asbestos Mines and the City of Coalinga contaminated area.

Response Action Status

Coalinga Asbestos Mines: Under EPA supervision, the parties potentially responsible for contamination at the Coalinga Asbestos Mines investigated the nature and extent of contamination. The cleanup remedy, selected in 1991, includes diverting the stream flow away from the tailings pile by building a cross-canyon stream diversion, minimizing the release of asbestos into a nearby creek by improving the existing sediment trapping dam, paving the road through the Mill Area to suppress dust, dismantling the mill building and disposing of the debris, and limiting access to the site by erecting a fence and placing deed restrictions on the property. The design of the remedy was completed in early 1994 and cleanup activities are scheduled to be completed in the fall of 1995.

City of Coalinga Contaminated Area: In 1989, the EPA selected a remedy to clean up the 107 acres of contamination in the City of Coalinga that resulted from the Atlas and Coalinga asbestos mines. The remedy includes: excavating and consolidating approximately 20,000 cubic yards of asbestos, chromium, and nickel-contaminated soil and building debris; building an underground waste management unit (WMU) to contain and dispose of contaminated soil and waste on site; covering the WMU area with an impermeable cap; regrading the excavated area; decontaminating the debris; monitoring the soil, groundwater, and air; and implementing deed restrictions on the use of the land. The parties potentially responsible for site contamination began cleanup activities in late 1989, under EPA oversight. While cleanup activities have been completed, implementation of a deed restriction which was filed by a potentially responsible party is still under consideration.

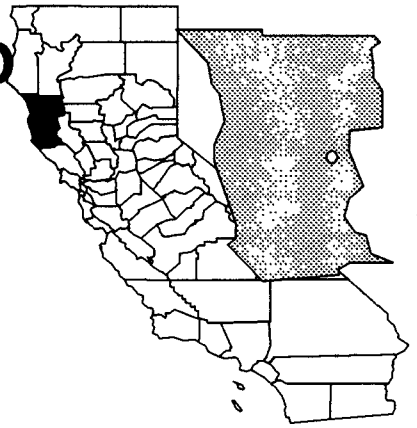
Environmental Progress

The excavation and disposal of contaminated soil and debris and covering of the WMU with a cap in the City of Coalinga have reduced the health risk to residents while final cleanup of the Coalinga Asbestos Mine is underway.

Site Repository

Coalinga District Library, 305 North 4th Street, Coalinga, CA 93210

COAST WOOD PRESERVING
CALIFORNIA
EPA ID# CAD063015887



EPA REGION 9
Mendocino County
3 miles south of Ukiah

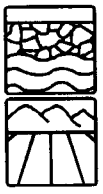
Site Description

Coast Wood Preserving is an 8 acre, active wood treatment facility located 3 miles south of Ukiah. Since 1971, the Coast Wood Preserving facility has used a solution of sodium dichromate, copper sulfate, and arsenic acid to pressure-treat and preserve wood products. Over the years of operation, dripping and spillage of this chemical solution have contaminated soil and groundwater on and off site. The Town of Ukiah has a population of approximately 13,300 people. There are two duplexes, two bunk houses, and six motel units located within 1/2 mile of the site. The motel units are used to house seasonal workers at a nearby packing facility. The land near the site is used for timber-related purposes, sewage treatment, pear orchards, and business and commercial facilities. The groundwater in the area supplies municipal, domestic, and agricultural water. Portions of the site are located over two streams 1/2 mile upstream from where they meet the Russian River. The river also supplies municipal, domestic, and agricultural water.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



Groundwater and soils are contaminated with heavy metals including chromium, arsenic, and copper. Drinking or coming into direct contact with on- and off-site runoff and contaminated groundwater used for drinking or agricultural purposes may pose a threat to human health. Since the areas of contaminated soil are covered with pavement, no direct contact with contaminated soil is expected. Public access to the site is prevented by a security fence that is locked after business hours.

Cleanup Approach

The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1983, Coast Wood Preserving, under EPA oversight, began pumping out the contaminated groundwater plume and storing it on site. Subsequently, the company built a slurry wall and an interceptor trench to prevent the off-site migration of contaminated groundwater. A groundwater extraction well was installed to pump the contaminated groundwater, and an injection well, where Coast Wood Preserving injected treated water, was built downgradient from the site. Other activities included grading and building berms to prevent surface water runoff from the operations area.

Entire Site: The selected cleanup remedy to address soil and groundwater contamination included: paving over soils to prevent water penetration, treating contaminated soils on site by fixating them with cement after closure of the site, implementing deed restrictions on future use of the site property, controlling the groundwater plume through pumping and treating, and monitoring groundwater on a continuous basis. The groundwater cleanup system is operating and will continue until established cleanup goals are met. All other cleanup activities were completed began in early 1990.

Site Facts: In 1981, the North Coast Regional Water Quality Control Board issued an order requiring Coast Wood Preserving to establish measures to stop the release of toxic waste. Later that year, the company was referred to the Board for violation of the order. The Court subsequently issued an injunction, requiring that the company perform the site cleanup. It was later determined that Coast Wood Preserving was not complying with the injunction.

Environmental Progress

Groundwater extraction and treatment, and construction of a slurry wall and berms have been effective in controlling the spread of groundwater contamination, thereby reducing the potential for exposure to hazardous materials. The remedies for final soil cleanup at the Coast Wood Preserving site were completed in early 1990. Groundwater treatment will continue until established cleanup goals are met.

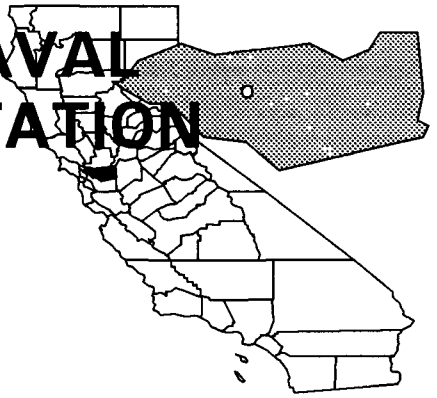
Site Repository

Contact the Region 9 Superfund Community Relations Office.

CONCORD NAVAL WEAPONS STATION

CALIFORNIA

EPA ID# CA7170024528



EPA REGION 9
Contra Costa County
Concord

Site Description

Concord Naval Weapons Station (CNWS) is a 12,800-acre site located in the north-central portion of Contra Costa County. CNWS is composed of 12,800 inland and tidal areas and a radiology facility in Pittsburg, California. Aside from typical administrative and support work activities, this facility is the major ammunition transshipment port on the West Coast for the Department of the Navy. Transshipment operations are conducted on the 7,630-acre wetlands bordering Suisun Bay, commonly called the Tidal Area. Wastes generated from base operations have been disposed of in the Tidal Area since base operations began in 1942. Naval investigations of the site have identified 32 areas potentially containing hazardous substances. The investigations are focusing primarily on six areas located within the Tidal Area. These six areas are: the Tidal Area Landfill, the R-Area Disposal Site, the Wood Hogger Site, Allied Sites A and B, the Kiln Site, and the K-2 Area. The Tidal Area Landfill, the R-Area Disposal Site, and the Wood Hogger Site are wetlands in the western tidal area. Contamination of these areas comes from on-base waste disposal practices, 3,000 tons of mixed wastes that have been deposited since the 1940s, material and waste generated during the segregation of conventional munitions, and chipped wood contaminated with pentachlorophenol (PCP). Investigations identified volatile organic compounds (VOCs) and heavy metals to be the primary contaminants in these areas. Allied Sites A and B, the Kiln Site, and the K-2 Area are wetlands in the eastern tidal area. These areas were contaminated as a result of private industrial activities and were subsequently purchased by the Navy to create a buffer zone for base operations. Soil sampling that took place in 1986 detected heavy metals in these areas. High tides have inundated the sources, carrying contaminants to Suisun Bay. Other potential areas of concern at the station include the Froid and Taylor Road Disposal Area, the Black Pit at Red Rock Site, and the G-1 Site. The contaminated areas are critical habitats for the salt mash harvest mouse, an endangered species. The black clapper rail, also an endangered species, inhabits wetlands adjacent to the site. Suisun Bay supports extensive commercial and recreational fishing.

Site Responsibility: This site is being addressed through Federal actions.

NPL Listing History
Proposed Date: 02/07/92

Threats and Contaminants

Soil, sediments, and surface water are contaminated with VOCs and heavy metals including zinc, copper, lead, cadmium, and arsenic. Ingesting or coming into direct contact with contaminated soil, sediments, or surface water may pose a potential health threat. Area wetlands, and the salt marsh harvest mouse and the black capper rail, endangered specisies, are at risk.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Since 1983, CNWS has excavated contaminated soils and disposed of them offsite. In addition, CNWS performed wetlands restoration activities. Excavation on some additional portions of the site were completed in the fall of 1994. Replanting of the site is scheduled for completion in 1995.

Entire Site: Investigations to determine the source of contamination and the nature and extent of contamination at the entire site are underway. Cleanup remedies will be determined upon completion of the investigations.

Site Facts: CNWS is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify and investigate military and other DOD facilities.

Environmental Progress

Initial actions such as wetland restoration and excavation of contaminated soils are protecting nearby populations and the environment while investigations are ongoing at the CNWS site.

Site Repository

Contra Costa County Library, Main Branch, 1750 Oak Park Blvd., Pleasant Hill, CA 94523

COOPER DRUM CO.
CALIFORNIA
EPA ID# CAD055753370

EPA REGION 9
Los Angeles County
South Gate

Site Description

Since 1941, Cooper Drum Co. has reconditioned closed-topped, steel drums that previously held a variety of industrial chemicals. The 4-acre facility is bordered by industrial properties on the north and east, mixed commercial/residential properties on the west, and a former elementary school (Tweedy Elementary School) on the south. The Cooper Drum Co. property is primarily a paved area composed of storage areas for used and reconditioned drums; a drum processing area; and office, maintenance, and warehouse buildings. In April 1987, the Los Angeles County Health Department (LACHD) Emergency Response Team responded to an incident at the Tweedy Elementary School property. An unknown quantity of highly caustic liquid waste had migrated via underground seepage from the Cooper Drum Co. property. The waste resulted from the caustic wash water from the drum recycling process line located in the building directly north of the school property. Initially, the waste was thought to comprise mainly sodium hydroxide and oil. When contamination migrated onto school property, the top layer of soil was excavated and the area was paved. Due to public health concerns, Tweedy Elementary School has remained closed. In 1987, the City of South Gate also closed four municipal wells due to volatile organic compound (VOC) contamination. These four wells are located between 500 and 1,500 feet downgradient of Cooper Drum Co. and draw water from the Silverado Aquifer, approximately 600 feet below the ground surface. Contamination of these wells cannot be attributed solely to Cooper Drum Co. at this time because there are other potential sources of VOC contamination in the vicinity. However, evidence suggests that the shallow aquifer and the lower Silverado Aquifer are hydraulically connected, allowing the water to move between them. In 1990, an analysis of samples from on-site monitoring wells documented VOC contamination. Municipal wells located within 4 miles of the site supply drinking water to approximately 335,000 people; the nearest of these wells is located within 1/2 mile of the site. An estimated 340,000 people live within 4 miles of the site. The Cooper Drum Co. was sold to a new drum company in 1992, which employs 50 on-site workers.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL Listing History
Proposed Date: 02/07/92

Threats and Contaminants

On-site soil is contaminated with VOCs. Shallow groundwater is contaminated with VOCs including vinyl chloride and benzene. Tanks and sludge pits in the drum processing area are exposed to the air, potentially allowing gases and particles to be released. Coming into contact with or ingesting contaminated soil and groundwater may pose a potential health threat. Sensitive environments are located within 3 miles of the site.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In April of 1987, contaminated soil at Tweedy Elementary School was excavated, the area was paved, and the school was closed. The City of South Gate closed four municipal wells in the same year. In mid-1987, Cooper conducted an analysis of on-site soil samples and detected VOCs to depths of 30 feet. In 1990, Cooper drilled three monitoring wells to determine the extent of contamination in shallow groundwater beneath the site.

Entire Site: The EPA initiated an investigation into the nature and extent of contamination at the site in 1993. This investigation will result in the selection of remedies for the final cleanup of the site.

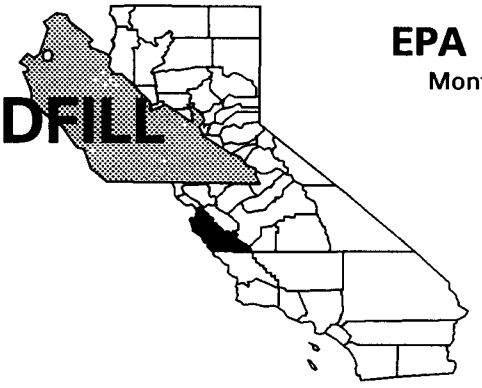
Environmental Progress

The immediate actions taken to excavate contaminated soils at Tweedy Elementary School and the closure of the school have reduced threats to public health while further investigations at the Cooper Drum Co. site are ongoing.

Site Repository

Not established.

CRAZY HORSE SANITARY LANDFILL
CALIFORNIA
EPA ID# CAD980498455



EPA REGION 9
Monterey County
Salinas

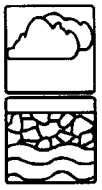
Site Description

The 125-acre Crazy Horse Sanitary Landfill site has operated as a sanitary landfill since 1950. Prior to 1950, the site was used as an open burning dump for approximately 20 years. The landfill is owned by the City of Salinas and is operated by Salinas Disposal Services. The facility currently receives approximately 162,000 tons of refuse a year and is expected to remain in operation until at least 1999. In 1977, the landfill received a permit from the State allowing it to accept various wastes. Some pesticide containers have been disposed of at the facility. Reportedly, from the early 1970s to 1982, the Firestone Tire & Rubber Company disposed of large quantities of waste on the site from its vulcanizing process, which included rubber, carbon black and other fillers, oils, and mixed solvents. This material consisted of wastes containing mainly benzene and toluene. In 1987, off-site properties with contaminated wells were purchased by the City of Salinas in 1987. Since 1987, Pacific Energy has operated and maintained a gas collection system and an electric generation plant on the site. Land surrounding the site is used for residential and agricultural purposes. Approximately 6,200 people obtain drinking water from private wells located within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, Municipal, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

Threats and Contaminants



Air and groundwater on site are polluted with volatile organic compounds (VOCs). Potential health threats include ingesting, coming into direct contact with, and inhaling contaminated groundwater and groundwater vapors. Concentrations of contaminants in the air are not high enough to pose a significant health threat.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Approximately 6 acres of the landfill were closed in 1988 and covered with a high-density, polyethylene membrane and 2 feet of soil. Dewatered, digested, sewage sludge was placed on top of the area to promote revegetation. The southeastern edge of the area was lined with bales of straw to retard surface water runoff. The City also pumped water from wells in an attempt to stabilize the groundwater contamination. Six extraction wells initially were installed as an interim measure, followed by the installation of 17 additional wells to completely capture the migrating plume. Adjacent residential wells were either permanently sealed or converted into extraction or monitoring wells. Contaminated water was pumped from the extraction wells and treated by air stripping. Treated water is stored in collection tanks and then either reinjected into the ground through 27 recharge wells or used for dust control.

Entire Site: EPA is reviewing the effectiveness of the initial actions to determine whether additional cleanup measures are needed. This review is scheduled for completion in the fall of 1995.

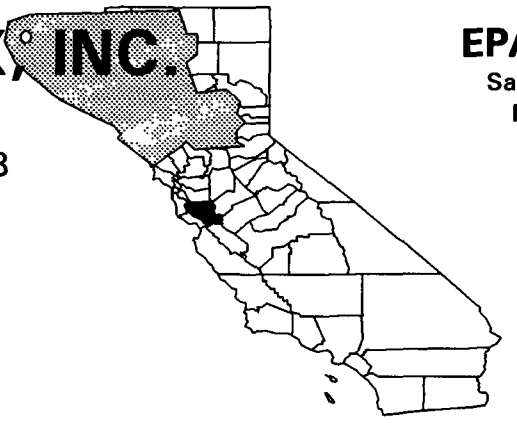
Environmental Progress

Covering portions of the landfill and treating the groundwater have reduced the potential of exposure to contaminated materials at the Crazy Horse Sanitary Landfill site while investigations are being completed.

Site Repository

State of California CRWQCB, Central Coast Region, 82 Higuera Street, Suite 200, San Luis Obispo, CA 93401-5414

CTS PRINTEX, INC.
CALIFORNIA
EPA ID# CAD009212838



EPA REGION 9
Santa Clara County
Mountain View

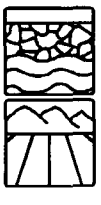
Site Description

From 1966 to 1985, CTS Printex, Inc. manufactured printed circuit boards on a 5 1/2-acre site. The facility used a wet and dry process to manufacture the circuit boards. The wet process occurred in the "wet-floor" building, where process water containing heavy metals and volatile organic compounds (VOCs) was discharged to the floor drains and ultimately into a neutralization sump. The plant received a license from the City of Mountain View that allowed the sump to discharge into the City's sewer system. The facility also generated other waste solvents that were disposed of off-site. Data from environmental monitoring show that the soils under the "wet-floor" were contaminated with copper and lead. Also, groundwater on and off site was contaminated with VOCs and heavy metals from discharges to the "wet-floor" and the neutralization sump. Approximately 61,000 people live in the City of Mountain View. More than 188,000 people live within 3 miles of the site and use groundwater from municipal wells as a source of drinking water. Permanente Creek is located 400 feet from the site. This creek and all surface water in the area discharge into the San Francisco Bay, which is located 2 1/2 miles north of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/22/90

Threats and Contaminants



Groundwater on and off site contains VOCs and heavy metals including lead and copper. Soils on site are contaminated with lead and copper. People who worked in the "wet-floor" building may have been exposed to hazardous chemicals if they inhaled gases from the contaminated soils under it, especially in a confined space. The building has since been decontaminated and the soils have been excavated, thereby, eliminating this threat.

Cleanup Approach

Response Action Status

Immediate Actions: In 1986, CTS Printex, Inc. excavated 255 cubic yards of soil under the building, decontaminated the building, and sent the wastes to an EPA-approved storage facility for hazardous wastes. The company also excavated the neutralization sump between 1985 and 1986 and backfilled the area with gravel, clay, and asphalt. One off-site and three on-site extraction wells have been pumping groundwater since 1987 and discharging it into Mountain View's sanitary sewer system for treatment. Three additional off-site extraction wells began pumping in 1989.

Entire Site: In 1991, under the State's oversight, CTS Printex, Inc. completed an investigation into the nature and extent of site contamination. As a result of the investigation, the EPA decided to continue treating groundwater through the existing extraction system until established cleanup goals are met. Water will continue to be discharged into Mountain View's sanitary sewer system after treatment. Operation and maintenance of the system is expected to continue through 1999.

Site Facts: In 1987 and 1989, the California Regional Water Quality Control Board issued Cleanup and Abatement Orders requiring the company to be more expeditious and thorough in meeting its schedule for cleaning up the site.

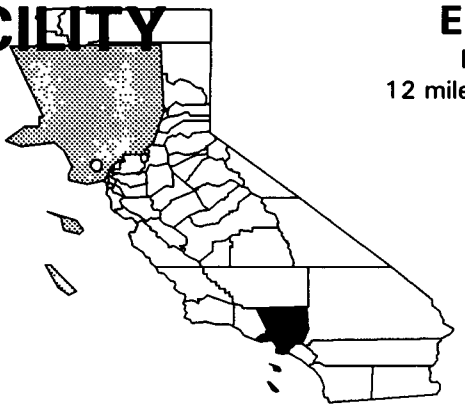
Environmental Progress

All construction at the site is complete. The excavation and disposal of contaminated soil, the excavation of the neutralization sump, and the operation of the groundwater extraction system have reduced the potential for exposure to contaminated materials at the CTS Printex, Inc. site while groundwater treatment activities continue.

Site Repository

Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

DEL AMO FACILITY
CALIFORNIA
EPA ID# CAD029544731



EPA REGION 9
Los Angeles County
12 miles south of the City of Los Angeles

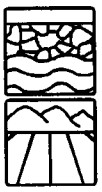
Site Description

From 1943 until the mid-to-late 1960s, the Del Amo Facility site was a center of large-scale industrial activities. Built by the U.S. Government to produce synthetic rubber during World War II, the 270-acre site consisted of a styrene plant operated by Dow Chemical Co., a butadiene plant operated by Shell Oil Co., and a synthetic rubber plant operated by U.S. Rubber Co., Goodyear Tire & Rubber Co., and others. Synthetic rubber was produced by manufacturing styrene and butadiene separately, piping them to the rubber plant, and then mixing the two together. Within each facility, wastes from the production processes were directed into separator units. Settled sludge from the separator units was disposed of either off site or in a waste disposal area located on site. Six unlined pits and three unlined evaporation ponds made up the 4-acre on-site disposal area. Outflowing waste from the separator units was released into a flood control channel located 1/2 mile away from the site. Upon closure in the mid-to-late 1960s, the unlined pits and ponds were covered with soil. Most of the 270-acre facility has since been developed as an industrial park. In 1984, contamination was discovered in the disposal area and underlying soils. Groundwater located beneath the site is threatened because of the permeable nature of the soil. This drinking water source supplies 34,000 people located within 4 miles of the site. Today, the 4-acre disposal area is vacant and overgrown with weeds. The Del Amo Facility is bounded to the north by residences and to the west, north, and east by industrial and commercial facilities. Approximately 17,600 people live within 1 mile of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL Listing History
Proposed Date: 07/29/91

Threats and Contaminants



Groundwater and soils are contaminated with volatile organic compounds (VOCs), including benzene and toluene, and polynuclear aromatic hydrocarbons (PAHs). Floating product, including benzene and petroleum, also has been identified on top of the water table at the site.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the disposal pit area and the entire site.

Response Action Status

Disposal Pit Area: In 1992, the potentially responsible parties began an investigation to determine the nature and extent of contamination and alternative cleanup remedies for the 4-acre disposal pit. This investigation is scheduled to be completed in late 1995, at which time cleanup remedies will be determined.

Entire Site: In 1992, under EPA oversight, the potentially responsible parties began an investigation into the nature and extent of contamination at the entire site. This investigation, scheduled to be completed in early 1996, will recommend cleanup remedies for the entire site.

Site Facts: Two potentially responsible parties, Shell Oil Co. and Dow Chemical Co., have signed an Administrative Order on Consent agreeing to perform an investigation of the 4-acre disposal pit area. They will also conduct an investigation of the entire 270-acre site. A health clinic for community members has been established with an Agency for Toxic Substances and Disease Registry (ATSDR) grant near the Del Amo Facility and Montrose Chemical Corp. sites. The clinic will test residents for exposure to chemicals such as benzene and DDT to determine if a link exists between the sites and residents' health effects. The clinic opened for residents in January 1995 and is scheduled to run for three years. Workgroups made up of health officials, community members, and physicians will ensure that the clinic continues to meet the needs of the community.

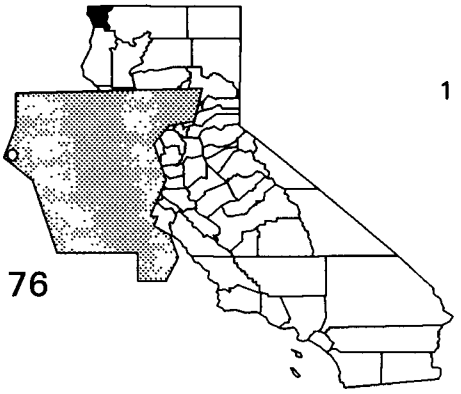
Environmental Progress

After initial investigations were conducted by the State of California, the EPA determined that the site poses no immediate threat to human health or the environment, while site investigations are underway.

Site Repository

Carson Public Library, 151 East Carson Street, Carson, CA 90745

DEL NORTE PESTICIDE STORAGE
CALIFORNIA
EPA ID# CAD000626176



EPA REGION 9
Del Norte County
1 mile northwest of Crescent City

Other Names:
Del Norte County
Department of Agriculture
Del Norte County Airport

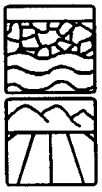
Site Description

The Del Norte County Pesticide Storage Area site operated from 1970 until 1981, accepting containers from local agricultural and forestry related industries. The site was intended to be an interim or emergency storage area for pesticide containers, which previously had been triple-rinsed and punctured. Wastes and rinse water were improperly disposed of in an unlined sump. Approximately 1,600 drums that had held the wastes and rinse water were recovered and recycled by the County Agricultural Department. This site is bordered by the Pacific Ocean, State-owned land, residences, and farmland. Private wells supply the domestic water to the area, and four wells are located within 2,500 feet of the site. Approximately 250 people live within 1 mile of the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



Groundwater and soil were found to be contaminated with various pesticides/herbicides and volatile organic compounds (VOCs). Coming into direct contact with or accidentally ingesting contaminated soil or groundwater may pose a potential threat to human health.

Cleanup Approach

Response Action Status

Immediate Actions: In 1987, the EPA removed 300 cubic yards of contaminated soils that were considered to be the source of groundwater contamination. An air stripping groundwater treatment system was built in 1989 and has been successfully stripping the pesticide DCP from the groundwater prior to discharge to the municipal waste treatment system. The groundwater system has been operating dependably with daily oversight conducted by county representatives since 1990. In 1991, operations temporarily were halted as workers repaired a discharge pipe that had been damaged from freezing conditions.

Entire Site: In 1985, the EPA selected a cleanup remedy for the entire site that included: excavation and off-site disposal of the remaining contaminated soils from the sump and trench areas; extraction of contaminated groundwater; treatment of contaminated groundwater by coagulation and sand filtration technologies; piping of treated groundwater to the county sewer main; and groundwater monitoring. Since the concentration of pesticides fell after the removal of the source of contamination, high rainfall rates, volatilization, and biodegradation, the EPA decided to stop treating the contaminated groundwater with coagulation and filtration. Instead, groundwater treatment continues through air stripping techniques initiated in 1990. Although initial cleanup actions were thought to be completed in the spring of 1992, the lack of contaminant reduction in the groundwater during the treatment in 1992 and 1993 led the EPA to install a pumping well and an air injection system in 1994. As of 1995, approximately 15 million gallons of contaminated groundwater had been treated and discharged.

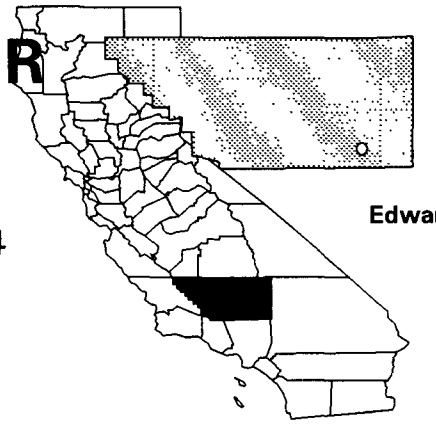
Environmental Progress

The removal of contaminated soils and the installation and operation of the groundwater treatment system at the Del Norte Pesticide Storage site have reduced the potential for exposure to contaminated materials. All construction at the site is complete.

Site Repository

Del Norte County Library District, 190 Price Mall, Crescent City, CA 95531

EDWARDS AIR FORCE BASE
CALIFORNIA
EPA ID# CA1570024504



EPA REGION 9
Kern County
Near Lancaster

Other Names:
Edwards AFB Rocket Engine Test Area

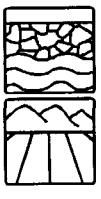
Site Description

Edwards Air Force Base, which is used for aircraft research and development, covers approximately 301,000 acres. The Main/South Base at the western edge of Rogers Dry Lake is primarily used for maintaining and refueling aircraft. Large amounts of fuel have been spilled and poor disposal practices have resulted in the release of volatile organic compounds (VOCs) to the ground. Other contaminated areas include an abandoned sanitary landfill containing heavy metals and an area where electroplating wastes were dumped. The North Base, located 5 miles northeast of the Main Base area, has a drum storage site at the northern end of Rogers Dry Lake and three unlined surface impoundments where wastes were poured during the 1960s and 1970s. A total of eight areas are being studied to confirm the presence of contaminants. The 13,800 employees at Edwards Air Force Base obtain drinking water from wells located within 3 miles of the Main/South Base.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 08/30/90

Threats and Contaminants



Groundwater and soils have been contaminated with various VOCs. People may face a health risk by drinking contaminated groundwater.

Cleanup Approach

This site is being addressed in six stages: immediate actions and five long-term remedial phases focusing on cleanup of the entire base, the Main Base/Flightline, the South Base, the NASA/Ames Laboratory, and remaining areas.

Response Action Status

Immediate Actions: In 1984, drums and contaminated soil in a drum disposal area were removed, and the site was capped. In addition, contaminants at the Main Base toxic waste disposal area were removed, and the site was regraded. In the South Base storage area, tanks were excavated or filled with clean sand, and the area was regraded. In 1989, a groundwater/fuel separation system was installed and put into operation. The system was designed to extract jet fuel from the groundwater. It was shut down when trichloroethylene (TCE) was discovered in the fuel, but was re-started in 1992 after pump replacement.

Entire Base: An investigation into the extent and type of contamination is currently underway. The investigation is scheduled for completion in 2004, and will help determine final cleanup remedies for the site.

Main Base/Flightline: In 1992, the Air Force began an investigation of the contamination found at the Main Base/Flightline. The investigation is scheduled to be completed in early 1997.

South Base: The Air Force began investigations of the South Base in 1992. The South Base was abandoned and almost completely demolished in the 1960s. The investigation into the nature and extent of contamination at South Base is scheduled to be completed in late 1998.

NASA/Ames Laboratory: Investigation of this area used by NASA for testing purposes was initiated in the summer of 1992, and is scheduled to be completed in late 1999.

Remaining Areas: Investigations into the nature and extent of contamination at the abandoned homestead wells, the Phillips Laboratory, the Jet Propulsion Laboratory, and other areas are scheduled to begin in 1996 through 1999.

Site Facts: Edwards Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. Because of the protracted schedule required to complete long-term cleanup activities, the base Environmental Program has proposed initiating an aggressive removal action program beginning in 1995. The State of California and the EPA are in agreement that this is an excellent approach. Design of this program is underway.

Environmental Progress

The removal of drums, tanks, and contaminated soils has reduced the potential of exposure to hazardous substances at the Edwards Air Force Base site while investigations are taking place and cleanup activities are being planned.

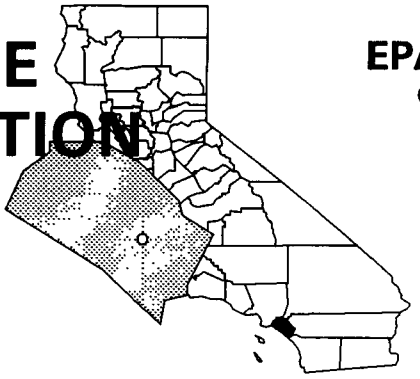
Site Repository

Kern County Public Library, Rosamond Branch, 2645 Diamond Street, Rosamond, CA 93560

EL TORO MARINE CORPS AIR STATION

CALIFORNIA

EPA ID# CA6170023208



EPA REGION 9

Orange County
El Toro

Site Description

The El Toro Marine Corps Air Station covers approximately 4,700 acres. Commissioned in 1943, it supports the Fleet Marine Forces in the Pacific Ocean, serving as the major west coast jet fighter facility. A total of 25 potentially contaminated areas have been identified on the Air Station, including four landfills containing both hazardous and solid waste, and areas where polychlorinated biphenyls (PCBs), battery acids, leaded fuels, and other hazardous substances were dumped or spilled. The Orange County Water District has identified volatile organic compounds (VOCs) in groundwater over a 3-mile radius off base. There are plumes of contamination at or near the base boundary. Approximately 1,100 acres of land are irrigated by wells located within 3 miles of the site; however, none of these wells are drinking water sources. Surface water flows into the Upper Newport Bay Ecological Reserve, located approximately 8 miles from the base.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/21/90

Threats and Contaminants

The four landfills are contaminated with PCBs, VOCs, acids, fuels, oils, pesticides, and heavy metals. VOCs have been detected in groundwater. No drinking water sources have been contaminated. Crops are being watered from VOC-contaminated irrigation wells. The Upper Newport Bay Ecological Reserve is potentially threatened.

Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of the groundwater, identification of the source of VOC contamination, and cleanup of abandoned wastewater treatment lines and tanks.

Response Action Status

Groundwater: An investigation into the nature and extent of groundwater contamination began in 1990. An interim remedy, scheduled to be selected in mid-1996, will address the migration of contamination off site.

Source of VOC Contamination: In 1990, the El Toro Marine Corps began an investigation to identify the source of VOC contamination at the site. The second phase of the investigation is scheduled for completion in mid-1996.

Abandoned Wastewater Treatment Lines and Tanks: In 1990, the El Toro Marine Corps began a study into the nature and extent of contamination caused by abandoned wastewater treatment lines and leaking tanks. The investigation is scheduled for completion in mid-1996.

Site Facts: El Toro Marine Corps Air Station is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

After adding the El Toro Marine Corps Air Station to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required while further investigations are underway.

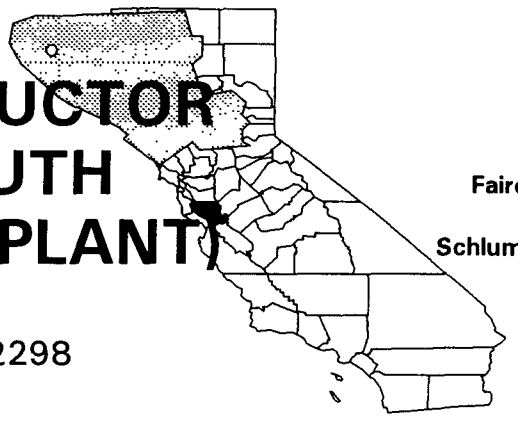
Site Repository

Heritage Park Regional Library, Reference Section, 14361 Yale Street, Irvine, CA 92714

FAIRCHILD SEMICONDUCTOR CORP. (SOUTH SAN JOSE PLANT)

CALIFORNIA

EPA ID# CAD097012298



EPA REGION 9

Santa Clara County
San Jose

Other Names:
Fairchild Camera and Instrument Corporation
Schlumberger Technology Corporation

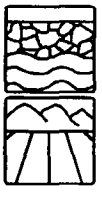
Site Description

The 22-acre Fairchild Semiconductor Corp. (South San Jose Plant) site is a former semiconductor manufacturing facility. Operations were conducted at the site from 1977 until 1983. Manufacturing operations required the use and storage of industrial solvents. In 1981, Fairchild discovered that an underground organic solvent waste tank had failed, resulting in soil and on- and off-site groundwater contamination by a mixture of solvents. Contamination exceeding drinking water standards was discovered in a public supply well located approximately 1,800 feet downgradient from the site. The well subsequently was plugged and abandoned. Fairchild has been investigating and cleaning up soil and groundwater pollution at the facility since contamination was first detected in 1981. This is one of 28 NPL sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents. Although these sites are listed separately, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. The City of San Jose has a population of approximately 750,000. The Great Oaks Water Company provides drinking water to 18,500 connections in southern San Jose, including the site area. Drinking water is obtained from groundwater production wells, several of which are located in the area adjacent to and downgradient from the site. There are 25 known private wells in the area surrounding the site. All but three of these wells have been sealed or properly abandoned. Of these three wells, two are used for agricultural irrigation and one is used by Fairchild as a monitoring well.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 10/04/89

Threats and Contaminants



Soil was contaminated with various volatile organic compounds (VOCs). Groundwater is contaminated with VOCs. The potential threat of direct contact with contaminated soil has been eliminated through initial actions. All private drinking water wells located in the area surrounding the site have been sealed or abandoned. The plume of contaminated groundwater has been reduced through ongoing treatment, and the potential health threat posed by ingesting groundwater contaminants continues to decrease.

Cleanup Approach

Response Action Status

Initial Actions: Fairchild implemented several initial cleanup actions that have decreased the extent and magnitude of groundwater contamination in the area. In 1981, a leaking tank was removed. In 1982, 3,440 cubic yards of contaminated soils were removed. Since 1982, a series of on- and off-site groundwater extraction wells have been operating to control the migration of groundwater contaminants. In 1983, wells in several aquifers that provided potential pathways for contaminant migration to the C Aquifer were sealed. A slurry wall was built around the perimeter of the site in 1986 to help contain on-site contaminants within the A and B aquifers.

Entire Site: In early 1989, the potentially responsible party, under EPA oversight, completed an investigation of the nature and extent of contamination at the entire site. The following cleanup remedies were selected: treating contaminated on-site soil using a vapor extraction process; pumping on-site shallow groundwater and off-site groundwater and treating it using air stripping and carbon adsorption, followed by on-site reinjection of the treated groundwater; pumping deep groundwater from off-site wells, followed by air stripping and discharging to surface water using storm drains, or reuse of the groundwater for road construction and irrigation; conducting laboratory and field studies to determine the effectiveness of biodegradation on on-site chemicals; implementing deed restrictions to limit groundwater and land use; and monitoring groundwater. All construction of cleanup remedies was completed by early 1992. Treatment of the groundwater continues. Groundwater treatment has significantly reduced the size of the contaminant plume and will continue until approximately late 1999, or until contaminant levels are within established health-based levels. One of the two off-site aquifers (the C Aquifer) has reached the designated level.

Site Facts: In response to a Unilateral Order from the State, Fairchild is taking action to contain and reduce the contaminated groundwater plume.

Environmental Progress

Construction of all cleanup remedies is complete. The removal and treatment of contaminated soil, the closure of private wells, the operation of the groundwater treatment system, and the installation of the slurry wall have reduced the potential for exposure to hazardous substances at the Fairchild Semiconductor Corp. (South San Jose Plant) site while groundwater treatment system continues until health-based levels are met.

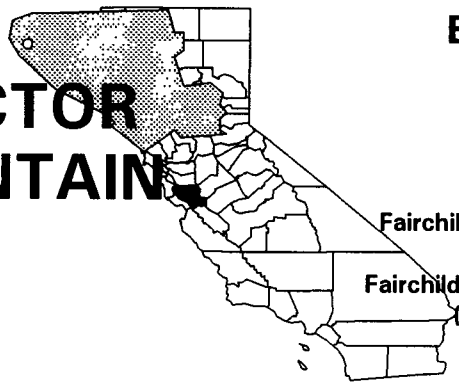
Site Repository

Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

FAIRCHILD SEMICONDUCTOR CORP. (MOUNTAIN VIEW PLANT)

CALIFORNIA

EPA ID# CAD095989778



EPA REGION 9

Santa Clara County
Mountain View

Other Names:
Fairchild Hazardous Waste Storage Facility
Fairchild Camera & Instrument Corp. (Mountain View Plant)

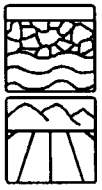
Site Description

The 56-acre Fairchild Semiconductor Corp. (Mountain View Plant) facility manufactures semiconductors and is located in an area referred to as the Middlefield-Ellis-Whisman (MEW) Study Area. The MEW Study Area comprises facilities currently owned or operated by 17 companies, including three Superfund sites: Fairchild Semiconductor Corp., Intel Corp., and Raytheon. The area supports numerous light industries involved in the manufacture of semiconductors, metal-finishing operations, parts cleaning, aircraft maintenance, aerospace research and development, missile construction, distribution of petroleum products, dry cleaning, and other chemical-use and storage operations. Fourteen potential sources of contamination have been identified in the Fairchild facility, including underground and aboveground storage tanks for chemical products and wastes, pH neutralization systems, and industrial wastewater treatment systems. Approximately 270,000 people depend on wells located within 3 miles of the site for drinking water. Approximately 116,000 residents live within a 3-mile radius.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 02/11/91

Threats and Contaminants



Groundwater is contaminated with volatile organic compounds (VOCs), freon, isopropyl alcohol, and heavy metals including cadmium, chromium, lead, and nickel. Soil is contaminated with VOCs. Inhaling vapors from contaminated groundwater or coming into direct contact with contaminated groundwater or soil may pose a potential health threat.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on the cleanup of the shallow aquifer and deep aquifer.

Response Action Status

Initial Actions: Initial cleanup actions included removing tanks from the site, removing and treating soil, sealing affected wells, and controlling groundwater movement by installing three slurry walls and 21 groundwater extraction wells.

Shallow Aquifer: In 1989, the following remedies were selected to address contamination in the shallow aquifer: in-place vapor extraction with treatment of contaminated soil found within the Fairchild and Raytheon slurry walls; limited soil excavation and treatment by aeration for some areas outside of the slurry walls, with on-site disposal of residues in the excavated area; and groundwater extraction and treatment using air stripping. In 1991, the parties potentially responsible for site contamination began designing the selected remedy. Final designs are currently being reviewed by the EPA. Cleanup activities are scheduled to begin in 1996.

Deep Aquifer: In 1989, a remedy was selected to address contamination in the deep aquifer that includes sealing any conduit or potential conduits to protect the deep aquifer, and monitoring groundwater. The parties potentially responsible for site contamination began designing the selected remedy in 1991. Certain cleanup activities began in 1994, with the design of remaining remedies expected to be completed in early 1996. To date, some potential conduits have been sealed.

Site Facts: In 1985, the EPA issued an Administrative Order on Consent to the parties potentially responsible for site contamination. As a result of this Order, the potentially responsible parties are performing site design and cleanup activities.

Environmental Progress

The removal of tanks and contaminated soil and the installation of slurry walls and extraction wells have reduced the potential of exposure to contaminated groundwater and soil at the Fairchild Semiconductor Corp. (Mountain View Plant) final cleanup remedies are being designed.

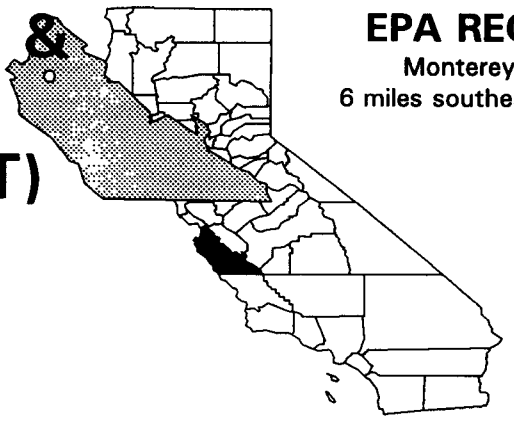
Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

FIRESTONE TIRE & RUBBER CO. (SALINAS PLANT)

CALIFORNIA

EPA ID# CAD990793887



EPA REGION 9
Monterey County
6 miles southeast of Salinas

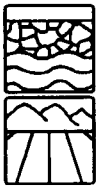
Site Description

The Firestone Tire & Rubber Co. (Salinas Plant) site consists of a 43-acre former tire manufacturing plant on a 256-acre parcel of land. The site is an industrial park containing warehouses. Firestone operated a tire manufacturing plant on the site from 1965 to 1980. Production chemicals apparently were spilled during the manufacturing process. The major chemical types and raw materials that were used at the plant include carbon, rubber, processing oil, zinc oxide, solvents, anti-oxidants, steel wire, and petroleum fuels. Solid and hazardous wastes from the manufacturing processes were disposed of in off-site facilities. Aqueous industrial wastes and domestic wastewater were treated at two on-site treatment plants. In 1980, Firestone received a permit to store hazardous wastes. Seventy-nine drums were stored on a concrete pad on site. Flammable liquids were stored in 52 drums, and 27 drums contained corrosive liquids. In 1981, these drums were removed to a licensed disposal site. The contamination at the site was first discovered in 1983, during the plant closing. In 1983, 20 monitoring wells were installed for groundwater investigations, and soil samples were taken. An estimated 400 drinking water wells have been identified in the area. Approximately 120 people reside within a 1-mile radius of the site, and 14,000 people live within a 4-mile radius.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Groundwater contains volatile organic compounds (VOCs). Soil was contaminated with VOCs. Health threats posed by direct contact with contaminated soil have been eliminated. While no exposure has been documented, people may face a health threat by ingesting, coming into direct contact with, or inhaling vapors from contaminated groundwater until treatment is completed.

Cleanup Approach

Response Action Status

Initial Actions: Contaminated soil was removed from 1983 to 1984. Soil capping was performed in 1984 and 1985. On- and off-site shallow aquifers were treated in 1986 and 1987.

Entire Site: In 1989, the California Department of Health Services and the EPA announced the approval of a cleanup remedy. The plan called for Firestone to install five new extraction wells to extract groundwater from the intermediate aquifer and to continue pumping from the wells located in the shallow aquifer. The extracted groundwater will continue to be treated by the existing treatment plant before being discharged into the Salinas River. Construction of the cleanup remedy was completed in late 1991. Monitoring of the aquifers continues. Recent monitoring has shown that the cleanup action has significantly reduced the size of the contaminated groundwater plume. Treatment is scheduled to continue until 1999 when all site cleanup goals are expected to have been met.

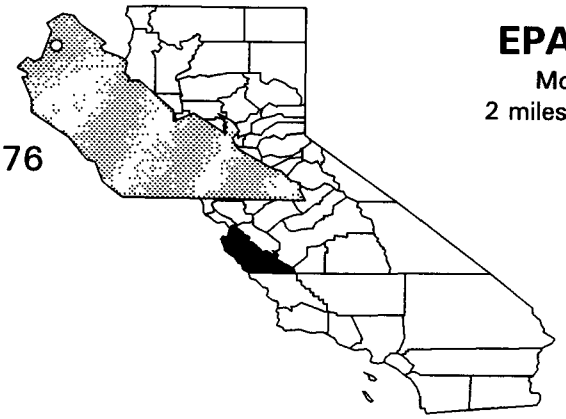
Environmental Progress

Construction of all cleanup remedies has been completed. The removal and capping of the contaminated soil and the extraction and treatment of contaminated groundwater have reduced the potential of exposure to contaminants at the Firestone Tire & Rubber Co. (Salinas Plant) site while final groundwater treatment activities are underway.

Site Repository

EPA Region 9 Superfund Community Relations Office, 75 Hawthorne St., San Francisco, CA 94105

FORT ORD
CALIFORNIA
EPA ID# CA7210020676



EPA REGION 9
Monterey County
2 miles north of Monterey

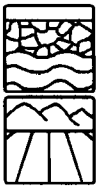
Site Description

The 29,440-acre Fort Ord site was established in 1917 by the U.S. Army as a maneuver area and field artillery target range. Prior to closing in September 1994, the base's primary mission was training infantry military personnel. Several areas of contamination exist on site. The facility contained leaking waste tanks, containers of waste oil and various automotive chemicals, chemical storage areas, oil-waste separators, target ranges, and landfills. One on-site area is a 150-acre landfill that was primarily used to dispose of residential waste, as well as small amounts of commercial waste. Other areas include a former fire drill pit, motor pool maintenance areas, small dump sites, and small arms target ranges. An 8,000-acre firing range, and other limited areas on-site, pose threats from unexploded ordnance. Approximately 40,000 people obtain drinking water from wells located within 3 miles of the site. The Salinas River alluvial basin, El Toro Creek, and Monterey Bay border the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 02/21/90

Threats and Contaminants



On-site groundwater and soil are contaminated with heavy metals, fuel hydrocarbons, and volatile organic compounds (VOCs). Contaminants have been detected in groundwater samples collected from Fort Ord and Monterey County Water District water supply wells. On-site soils in several vehicle maintenance and motor pool areas, and minor dump sites, have been contaminated with chemicals that spilled onto the ground. In addition, soils at the beach target ranges are contaminated with lead. Coming into direct contact with contaminated soils may pose a potential health threat to on-site workers, as well as employees of the Fort Ord Army base. Unexploded ordnances on an 8,000-acre firing range and limited on-site areas also pose health threats. Should site-related contaminants migrate off site through the soils or groundwater, the Salinas River, El Toro Creek, and Monterey Bay could be affected.

Cleanup Approach

This site is being addressed in four stages: interim actions and three long-term remedial phases focusing on cleanup of the entire site, the Fritzsche Army Airfield practice fire pit, and the Fort Ord Landfill.

Response Action Status

Interim Actions: The Army initiated an investigation into the nature and extent of groundwater contamination. Preliminary findings showed an area of contamination known as the Fritzsche Army Airfield practice fire pit. As an interim action, the Army installed a groundwater and soil treatment system that has been operational since 1988. The contaminated groundwater is treated through carbon adsorption. A mixture of treated groundwater and necessary nutrients was sprayed on the contaminated soil adjacent to the groundwater treatment plant to facilitate the treatment of the soil. Soil treatment is nearing completion. The interim actions are focused on addressing primarily surface soils contaminated with fuels and waste oils from motor pools. Soils will be excavated and then treated at a treatment area using bioremediation or soil vapor extraction. In addition, in 1994, contaminated soil and debris, buried drums, and buried unexploded ordnance were removed.

Entire Site: In 1990, the Army began further investigations into the nature and extent of on- and off-site soil and groundwater contamination, as well as any ecological or health threats that may be present. The investigation has identified two dump sites, firing ranges, and a vehicle maintenance area that require cleanup actions. The Army expects to complete the investigation and make final cleanup decisions in the fall of 1997.

Fritzsche Army Airfield Practice Fire Pit: An investigation into the nature and extent of contamination in the Fritzsche Army Airfield practice fire pit began in 1990. A remedy is expected to be completed in mid-1995 that will establish groundwater cleanup standards for the area which must be met through the existing pump and treatment system.

Fort Ord Landfill: In 1994, the Army completed an investigation focusing on groundwater and soil contamination originating from the landfill. Monitoring wells were installed, surface soil samples collected, and soil gas samples taken. The EPA selected a remedy in the fall of 1994 that includes capping the landfill and installing a groundwater pump and treatment system. Design of the remedy is underway and expected to be completed in 1997.

Site Facts: Fort Ord is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. In 1990, Fort Ord signed an Interagency Agreement with the EPA and the State of California to address on- and off-site contamination. Fort Ord was officially closed in 1994. The Army is considering proposals for re-use of the land, but intends to retain a portion of the base for a reserve enclave. Several parcels have already been transferred to the State University system. Cleanup activities are not affected by base closure activities, except to the extent that they are being accelerated to facilitate more rapid land transfers.

Environmental Progress

The groundwater treatment system at the former fire pit and the removal of soil and debris have reduced the potential of exposure to contaminants while studies leading to the selection of final cleanup remedies are taking place at the Fort Ord site.

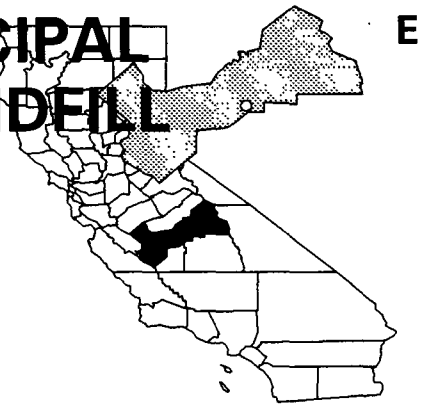
Site Repository

Monterey County Free Libraries, Seaside Branch, 550 Harcourt Avenue, Seaside, CA 93955

FRESNO MUNICIPAL SANITARY LANDFILL

CALIFORNIA

EPA ID# CAD980636914



EPA REGION 9
Fresno County
Fresno

Site Description

The 130-acre Fresno Municipal Sanitary Landfill site was owned and operated by the City of Fresno, under a permit issued by the State, from 1935 until it was closed in 1989. The landfill was used for the disposal of domestic and municipal trash. While conducting tests in 1983, the California Department of Health Services (CDHS) found methane gas had migrated from the landfill to the surrounding areas. These tests also concluded that contaminated groundwater had migrated off site to several private residential wells located nearby. The City of Fresno installed monitoring wells around the landfill perimeter in 1984. Subsequent tests indicated that volatile organic compounds (VOCs) were present in groundwater taken from wells at the edge of the landfill. Monitoring wells located upgradient of the site have been found to be contaminated. Sampling of groundwater from private wells performed in 1989 found that the contaminants do not pose a significant health threat; however, these wells will continue to be monitored. Access to the site is restricted by means of a locked gate and a fence that encloses the site. The landfill is covered with a layer of dirt. Nine municipal wells are located within 3 miles of the site. Water from these wells empties into a blended system that serves the City of Fresno. The general distribution area of the system serves approximately 300,000 people. Two agricultural irrigation wells are located along the western edge of the landfill, and several more are located within a few thousand feet of the site.

Site Responsibility: This site is being addressed through Federal and municipal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

Air contains high concentrations of methane and carbon dioxide, and lower concentrations of VOCs. Groundwater is contaminated with VOCs from surface wastes. Since private wells located south of the landfill are contaminated with VOCs, area residents who depend on these wells as their sole source of drinking water could be exposed to site-related contaminants. An irrigation canal runs through a pipe beneath the landfill. Leachate from the landfill may leak into the pipe and contaminate the irrigation water.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the entire site and the groundwater.

Response Action Status

Initial Actions: In 1984, the City of Fresno installed wells around the perimeter of the landfill to monitor methane and groundwater. The City also built barriers on two sides of the landfill to prevent methane from migrating off site to nearby homes. In 1990, the City began the removal of migrating landfill gas containing VOCs. The treatment involves placement of an active vacuum on an existing gas migration barrier to enhance its effectiveness. The action was completed in 1991.

Entire Site: The potentially responsible parties began an investigation into the nature and extent of contamination at the Fresno Landfill in 1990. The study addressed contamination in the groundwater, landfill gas, soils, leachate, and surface gas emissions. The EPA selected a cleanup remedy in 1993 that calls for capping the landfill, constructing a gas collection system, building a stormwater management system and, if necessary, building a leachate collection system. Design of the remedies is currently underway. Construction is expected to begin in 1997.

Groundwater: In 1990, the potentially responsible parties began an investigation into the nature and extent of groundwater contamination. The investigation is expected to be completed in 1996.

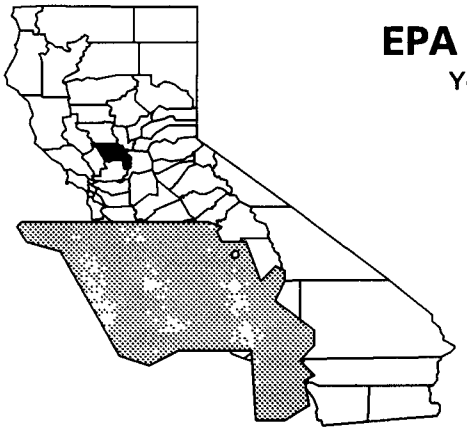
Environmental Progress

The construction of barriers and the removal of migrating landfill gas have reduced the threat of exposure to contaminants from the Fresno Municipal Sanitary Landfill site while studies are taking place and additional cleanup activities are being planned.

Site Repository

Fresno County Central Library, 2420 Mariposa Street, Fresno, CA 93721

FRONTIER FERTILIZER
CALIFORNIA
EPA ID# CAD071530380



EPA REGION 9
Yolo County
Davis

Site Description

The 18-acre Frontier Fertilizer site is located near the eastern boundary of the City of Davis, California. The Barber and Rowland Co. operated a pesticide and fertilizer distribution facility on the site from 1972 to 1982. The Frontier Fertilizer Co. used the site from 1982 to 1987. Operations consisted of delivering pesticides, herbicides, and non-bulk chemicals in cans, drums, and other containers. Both the Barber and Rowland and Frontier Fertilizer companies used a 4,000-cubic-foot former disposal basin to dispose of unused pesticides and fertilizers. Returned tanks and containers were washed and the rinsate was dumped into the disposal basin or onto the ground. In 1985, Frontier Fertilizer excavated approximately 1,100 cubic yards of contaminated soil from the former disposal basin and land farmed the soil on a field east of the site. Contaminants not attributed to the former disposal basin were detected in groundwater samples. These contaminants may be from other potential sources at the site, such as underground storage tanks, waste oil storage tanks, the northern fuel area, railroad hopper cars, washracks, the grain storage building, the east and west pole barns, the central machine shop, the eastern farm shop, the western and central concrete slabs, and the tomato grading station. A new residential area is being built directly adjacent to the site. Sampling of on-site monitoring wells has shown a release of contaminants from the site to three aquifers. The deepest aquifer supplies water to the city of Davis, population 43,168, and the Barthel Mobile Home Park, population 540. Although actual contamination has not been documented in any of the drinking water wells, the potential for contamination from the Frontier Fertilizer site exists.

Site Responsibility: The site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 01/18/94
Final Date: 05/31/94

Threats and Contaminants

Surface and subsurface soils in the area of the former disposal basin are contaminated with numerous pesticides. Some of these pesticides were also found in groundwater samples collected from on-site and off-site monitoring wells. The groundwater is also contaminated with numerous volatile organic compounds. People who come in contact with or ingest surface soils, subsurface soils, and groundwater may face a health risk.

Cleanup Approach

The site is being addressed in both short- and long-term remedial phases focusing on cleanup of the entire site.

Response Action Status

Early Action: The EPA is addressing the spread of contaminated groundwater with a granular activated carbon pump and treat system. The system is currently under construction and is scheduled to be in operation in the summer of 1995. In addition, the EPA is drafting an Engineering Estimate and Cost Analysis for the excavation of contaminated soil from a former pesticide pit. The excavation is scheduled to begin in early 1996.

Entire Site: The EPA began an investigation of the nature and extent of remaining areas of contamination at the site in 1993. An on-site field lab is evaluating potential areas of contamination to determine if additional soil should be removed. If additional soil removal is necessary, the removal will be performed along with the early action removal described above.

Site Facts: The Frontier Fertilizer site was never issued a Resource Conservation and Recovery Act (RCRA) permit to treat, store, or dispose of hazardous wastes. The EPA is addressing this site using the Superfund Accelerated Cleanup Model (SACM). Under SACM, site assessment activities are undertaken to support both early and long-term cleanup actions. Site conditions and their associated risks are assessed continuously until all necessary data are collected to screen the site or support any needed response actions. Response actions are initiated once evidence indicates that early action is warranted. Under SACM, the public is notified early of the potentially hazardous conditions of the site. The EPA also gives early notification to polluters of their potential liability for conducting or paying for cleanup activities.

Environmental Progress

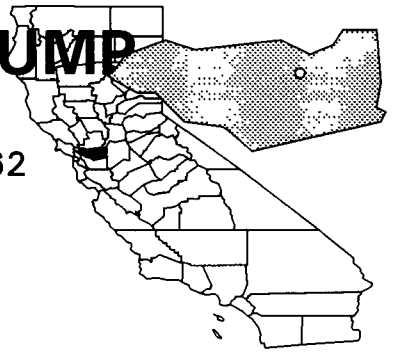
When the site was added to the NPL, the EPA determined that the site did not pose an immediate threat to people or the environment; however, recent migration of contamination into an important aquifer has prompted the groundwater treatment response described above.

Site Repository

Yolo County Library, 315 East Fourteenth St., Davis, CA 95616

University of California, Shields Library Government Documents Department, Davis, CA 95616

GBF, INC., DUMP
CALIFORNIA
EPA ID# CAD980498562



EPA REGION 9
Contra Costa County
Antioch

Site Description

The GBF, Inc., Dump is an 88-acre site located at the corner of Somersville Road and James Donlon Boulevard. The site is bordered by residential developments on the north and east, a former petroleum tank farm on the east, and the former Lynch sanitary landfill for municipal wastes on the south. From the early 1960s to 1975, Industrial Tank Corp. leased the eastern 64 acres of the site and operated 10 unlined surface impoundments covering approximately 11 acres. The impoundments were interconnected by a series of cascading conduits, allowing liquid wastes to flow freely. The company accepted sludges, acids, oils, and slurries containing hazardous substances such as heavy metals, asbestos, formaldehyde, pesticides, and volatile organic compounds (VOCs). In 1974, the California Regional Water Quality Control Board (CRWQCB) issued a Cleanup and Abatement Order which closed the surface impoundments and prohibited hazardous waste disposal after 1974. Since then, the site has accepted only non-hazardous waste. In 1990, the California Department of Toxic Substances Control (CDTSC) conducted a study that revealed contamination in monitoring wells north of the site. High levels of lead were detected in the sediments of Markley Creek which is located west of the property and runs north between the cities of Antioch and Pittsburgh, eventually emptying into a marsh adjacent to the San Joaquin River. The Contra Costa Canal runs west along the northern border of the site and is the primary source of drinking water for nearby cities. Intakes located within 15 miles downstream provide drinking water to approximately 327,500 people. Residents outside the limits of the municipal canal water system generally drink bottled water.

Site Responsibility: This site is being addressed through Federal, State, and local actions.

NPL LISTING HISTORY
Proposed Date: 02/07/92

Threats and Contaminants

Monitoring wells to the north of the site are contaminated with cyanide, VOCs, and heavy metals such as cadmium and nickel. Markley Creek sediments are contaminated with high levels of lead. Individuals who ingest or come into direct contact with contaminated sediments or groundwater could be at risk.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on the cleanup of the entire site.

Response Action Status

Initial Actions: In 1974, the surface impoundments were closed and hazardous waste disposal at the site was prohibited.

Entire Site: In 1993, the potentially responsible parties began an investigation, under CDTSC oversight, to determine the nature and extent of contamination at the site and to identify alternatives for cleanup action. The investigation is expected to be completed in late 1995.

Site Facts: A Cleanup and Abatement Order was issued by the CDTSC in 1974, which closed the surface impoundments and prohibited further hazardous waste disposal.

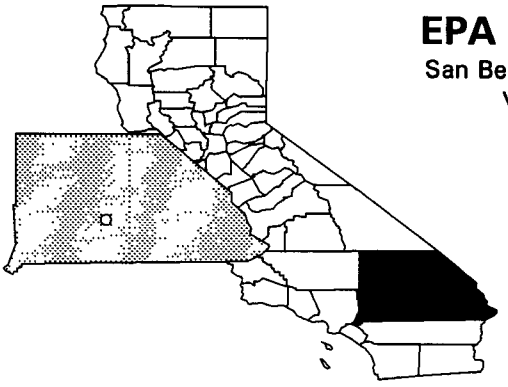
Environmental Progress

Closing the surface impoundments and prohibiting further hazardous waste disposal at the site have reduced potential threats to public health and safety while investigations continue at the GBF, Inc. Dump site.

Site Repository

California Department of Toxic Substances Control
916-255-2002

GEORGE AIR FORCE BASE
CALIFORNIA
EPA ID# CA2570024453



EPA REGION 9
San Bernardino County
Victorville

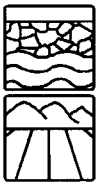
Site Description

George Air Force Base occupies 5,347 acres. The base, which was closed in December 1992, supported tactical fighter operations and provided training for air crew and maintenance personnel. Sixty-three potential areas of contamination have been identified at this facility. Approximately 15,400 people live within 3 miles of the base, and 11,000 people reside within 1 mile of the facility.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 02/21/90

Threats and Contaminants



Groundwater and soil are contaminated with jet fuel, chlorinated solvents including trichloroethylene (TCE), volatile organic compounds (VOCs), and medical wastes. Accidental ingestion of, or direct contact with the contaminants may pose a health risk.

Cleanup Approach

This base is being addressed in several phases: initial actions and three long-term remedial phases focusing on cleanup of the Northeast disposal and S-20 areas, Liquid Fuel Distribution System, and the landfills and disposal areas.

Response Action Status

Initial Actions: In late 1991, the Air Force finished installing and began operating a system for pumping and treating groundwater contaminated with TCE under the northeast disposal area. In early 1992, the Air Force finished installation and began operation of a system designed to remove jet fuel free product at the Liquid Fuel Distribution System (LFDS). The Air Force has performed several removal actions at sites with soil contaminated with low levels of jet fuel.

Northeast Disposal and S-20: This subsite has further been divided into three areas: the industrial storm drain line and outfall; the sewage treatment plant percolation ponds; and the TCE groundwater plume beneath the northeast disposal area. Following an investigation, a decision was made that the industrial storm drain line and outfall and the sewage treatment plant percolation ponds would not require cleanup. A remedy was selected; however, to further address the groundwater plume under the northeast disposal area. When the remedy was selected, the Air Force had already installed a treatment system to address part of the TCE plume. This treatment system consisted of two air stripping towers and nine extraction wells, pumping approximately 240 gallons per minute. The remedy indicated that additional extraction wells should be installed to capture the entire plume. These additional extraction wells are scheduled to be installed in 1995.

Liquid Fuel Distribution System: This area consists of six areas that make up the liquid fuel distribution system. The system delivered jet fuel from several large above ground tanks, near the main gate, to the runway several miles away, where it was dispensed from seven fuel hydrants to the aircraft. The investigation of the area was completed in 1992 and determined that fuel had leaked along the runway and is present in four separate ways beneath the flight line: in the vadose zone; in the capillary fringe; as floating free product; and dissolved in the groundwater. The VOCs benzene, toluene, ethylbenzene, and xylene are the contaminants of concern. An additional study is being performed to determine alternatives for the cleanup of groundwater contaminated with jet fuel to supplement the initial action currently underway which is removing jet fuel free product.

Landfills and Disposal Areas: This subsite consists of the 56 areas at the base. Most of them are disposal areas of varying size including 12 large landfills. Other areas include the fire fighting training area, the engine test cells, a medical waste site, and various small disposal points. Investigations into the nature and extent of contamination at the subsite are ongoing and scheduled for completion in late 1995.

Site Facts: The EPA and the Department of Defense (DOD) have signed an Interagency Agreement for cleaning up the base. This base is participating in the Installation Restoration Program, a specially funded program established by the DOD in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

The pumping and treating of groundwater contaminated with TCE and the removal of jet fuel free product are reducing the threat to human health and the environment. The Air Force has investigated the suspected low level radioactive waste area and determined that no wastes or residual contamination were present. The Air Force has already removed several areas of soil contamination thereby further reducing the risks while further cleanup actions are being planned.

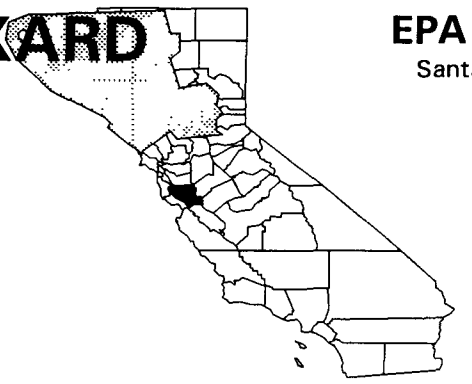
Site Repository

San Bernardino County Public Library, Adelanto Branch, 11744 Bartlett Avenue, Adelanto, CA 92301

HEWLETT-PACKARD (620-640 PAGE MILL ROAD)

CALIFORNIA

EPA ID# CAD980884209



EPA REGION 9
Santa Clara County
Palo Alto

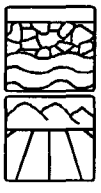
Site Description

Hewlett-Packard manufactured optoelectronic equipment on this 10-acre site from 1962 to 1986. In 1981, at least 300 gallons of waste solvents leaked from a buried storage tank. The company excavated the tank and approximately 100 cubic yards of contaminated soil in 1981 and transported the materials to a hazardous waste facility. Since 1982, the company has been pumping and treating contaminated groundwater. The nearest residential areas are located approximately 1/8 mile northeast of the facility. Five municipal backup supply wells draw water from a deeper aquifer located within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/21/90

Threats and Contaminants



Volatile organic compounds (VOCs) were detected in groundwater under the tank area and in the soils sampled from the former tank location. Potential health risks include accidentally ingesting or coming into direct contact with contaminated groundwater or soil. Chemicals in the shallow aquifer have migrated off site in a northerly direction.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In addition to the tank and soil excavation activities conducted in 1981, Hewlett-Packard excavated an additional 810 cubic yards of soil around the former tank area in 1987. Pumping and treating contaminated groundwater has been underway since 1982.

Entire Site: In 1989, under State oversight, Hewlett Packard initiated an investigation to determine the nature and extent of contamination remaining at the site and to identify alternative cleanup remedies. The investigation was completed and a final cleanup remedy was selected in 1995. The remedy includes groundwater extraction and treatment, and soil vapor extraction and treatment.

Environmental Progress

The excavation and disposal of the storage tank and contaminated soil and the continuing treatment of contaminated groundwater have reduced the potential for exposure to hazardous materials at the Hewlett-Packard (620-640 Page Mill Road) site while final cleanup activities are being planned.

Site Repository

U.S. Geological Survey Library, 345 Middlefield Road, Menlo Park, CA 94025

INDUSTRIAL WASTE PROCESSING

CALIFORNIA

EPA ID# CAD980736284

EPA REGION 9
Fresno County
Pinedale

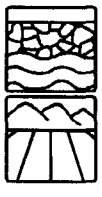
Site Description

The 1/2-acre Industrial Waste Processing site was a solvent recycling facility from 1967 to 1981. The facility reclaimed glycols from petroleum residues recovered from natural gas field pipelines and non-chlorinated solvents generated by the paint and ink industries. The facility also recovered lead solder and zinc from waste solder flux generated by the metal can manufacturing industry. The site consisted of an office/laboratory building, an open chemical storage shed, eight aboveground tanks, solvent distillation stills, approximately 250 drums containing waste solvents and lead solder flux, approximately 50 cubic yards of lead solder waste stored in two piles, and about 50 bags and 30 drums of asbestos. The closest residence is located 40 feet from the site perimeter. The surrounding population within a 3 mile radius of the site is approximately 68,000. An estimated 348,000 people depend on the groundwater for drinking water. There are 119 wells located within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/26/89
Final Date: 08/30/90

Threats and Contaminants



Groundwater is contaminated with solvents. Lead, asbestos, acetone and other solvents have been found in the soil. Potential health threats may exist if contaminated vapors or particles are inhaled. People also may be at risk from accidentally ingesting or coming into direct contact with contaminated groundwater or soil.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1988, the EPA removed all asbestos found in bags, drums and building insulation, and all lead solder wastes in drums and piles; secured the site from unauthorized access; developed site safety plans; implemented dust suppression actions; monitored for fugitive vapors and dusts; and removed 19,000 gallons of hazardous liquids and 290 cubic yards of contaminated soil.

Entire Site: In 1992, the potentially responsible parties, under EPA oversight, began an investigation into the nature and extent of residual soil contamination at the site. The investigation, which was completed in the fall of 1993, has identified soil contaminants and recommend alternatives for the final cleanup. The decision about the final soil cleanup action is scheduled to be made in mid-1995. In 1995, the potentially responsible parties began additional investigations into the nature and extent of groundwater contamination. These investigations are scheduled for completion in 1997.

Environmental Progress

Restricting site access, removing asbestos, lead solder waste, hazardous liquids, and contaminated soil, and performing the dust suppression actions described above, have reduced the potential threat of direct contact with contaminants in the soil at the Industrial Waste Processing site while studies and final cleanup activities are being planned.

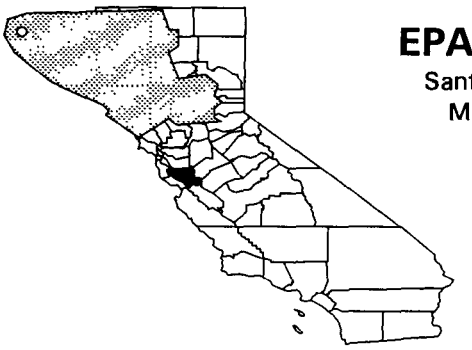
Site Repository

Fresno County Library, Main Library, 2420 Mariposa Street, Fresno, CA 93721

INTEL CORP. (MOUNTAIN VIEW PLANT)

CALIFORNIA

EPA ID# CAD061620217



EPA REGION 9
Santa Clara County
Mountain View

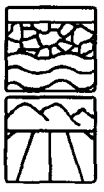
Site Description

The Intel Corp. manufactured semiconductors at this 2-acre site from 1968 until 1981. The site is one of three Superfund sites that are being cleaned up simultaneously. The other two NPL sites are Fairchild Semiconductor Corp. (Mountain View Plant) and Raytheon Corp. The sites are located in the Middlefield-Ellis-Whisman (MEW) Study Area. Various industrial activities were conducted near the site, including semiconductor manufacturing, metal finishing operations, parts cleaning, aircraft maintenance, and other activities requiring the use, storage, and handling of a variety of chemicals, particularly solvents. Site investigations at several of these facilities during 1981 and 1982 revealed significant soil and groundwater contamination by toxic chemicals, primarily volatile organic compounds (VOCs). Approximately 270,000 people depend on groundwater located within 3 miles of the site as a source of drinking water. Most of the runoff from the area goes into Stevens Creek.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/01/86

Threats and Contaminants



Groundwater is contaminated with VOCs, isopropyl alcohol, and freon. VOCs also are found in the soil. People who inhale vapors from contaminated groundwater or come into direct contact with contaminated groundwater or soil may be at risk.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Since 1982, Intel has been pumping and treating groundwater by carbon adsorption. By 1986, Intel had removed about 4,600 cubic yards of contaminated soil. Other immediate actions performed by the company included removing tanks and sealing contaminated wells to prevent contaminant migration.

Entire Site: In 1989, under EPA oversight, the potentially responsible parties completed a site investigation. The following remedies were selected: treatment of contaminated soil by in-place vapor extraction; limited excavation of soil and treatment by aeration for some areas outside of the slurry walls, with on-site disposal of residues in the excavated area; groundwater pumping and treatment using air stripping; sealing any conduits or potential conduits of contaminant migration to protect the deep aquifer; and groundwater monitoring. In 1991, the potentially responsible parties began the technical design for the selected cleanup remedies. Final site cleanup is scheduled to begin in the fall of 1995. Soil cleanup will take from 1 to 6 years, with groundwater cleanup lasting much longer, due to the physical and chemical nature of the contaminated aquifers. Regular monitoring is planned to assess cleanup progress.

Site Facts: In 1985, the EPA issued an Administrative Order On Consent to Intel, Fairchild Semiconductor, and Raytheon, requiring the three companies to conduct a joint site investigation.

Environmental Progress

The pumping and treatment of the groundwater as well as the removal of contaminated soil and tanks have reduced the potential of exposure to contaminated materials at the Intel Corp. (Mountain View Plant) site while final cleanup remedies are being designed.

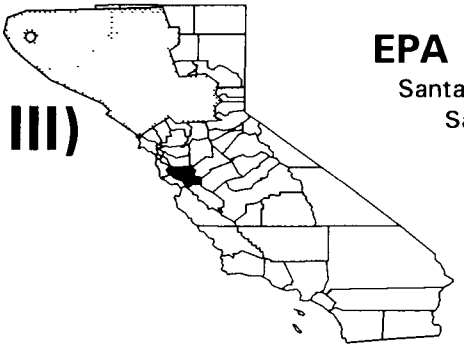
Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

INTEL CORP. (SANTA CLARA III)

CALIFORNIA

EPA ID# CAT000612184



EPA REGION 9
Santa Clara County
Santa Clara

Site Description

The Intel Corp. (Santa Clara III) plant performs quality control of chemicals and tests microprocessors at this 4-acre facility. Volatile organic compounds (VOCs) are present in the groundwater in the shallow aquifer. This is one of 28 sites in the South Bay Area, located near San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. Approximately 300,000 people depend on groundwater located within 3 miles of the site as a source of drinking water. There are 27 wells within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/01/86

Threats and Contaminants

Groundwater has been contaminated with VOCs. Based on available information, this site is not considered to be of public health concern because of the apparent absence of people being exposed to hazardous substances. However, people could face a health risk if they accidentally ingest or come into direct contact with contaminated water. Inhaling contaminated vapors could also pose a health risk.

Cleanup Approach

Response Action Status

Immediate Actions: In 1985, the potentially responsible party installed and began operating a groundwater extraction and treatment system.

Entire Site: In 1990, under EPA oversight, the potentially responsible parties completed an investigation of the nature and extent of contamination at the site. The remedy selected by the EPA in 1990 included: continuing groundwater extraction and treatment with an expanded granular-activated carbon system, discharging the treated groundwater to San Tomas Aquino Creek; monitoring groundwater; and performing a demonstration project to evaluate various groundwater pumping strategies for cleaning up residual levels of VOCs left behind in aquifer material. A pulsed pumping strategy was identified and currently is in operation. Additional wells to extract contaminants have been installed. Deed restrictions for use of the property were put into place in 1992. Construction of cleanup remedies was completed in the fall of 1992. The groundwater treatment system is currently in operation. Cleanup activities are expected to continue until the fall of 1999, or until established cleanup goals are met. Pollutant concentrations have reached levels such that only small amounts of pollutants are being removed. Strategies for cleaning up residual VOC contamination are being evaluated because pulsed pumping has not significantly decreased contamination levels.

Environmental Progress

The construction of all cleanup remedies is complete. The groundwater extraction and treatment system continues to reduce the potential of exposure to contaminated groundwater at the Intel Corp. (Santa Clara III) site.

Site Repository

Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

INTEL MAGNETICS
CALIFORNIA
EPA ID# CAD092212497

EPA REGION 9
Santa Clara County
Santa Clara

Other Names:
Micro Storage/Intel Magnetics

Site Description

The Intel Magnetics site is a 1-acre facility that produced and tested magnetic products and computer memories. Micro Storage occupied the site from 1985 to 1986 and used the facility for research and development and pilot manufacturing. Micro Storage also occupied a property adjacent to and upgradient from the site that contributes to the contamination. Monitoring wells on the site are contaminated with volatile organic compounds (VOCs), believed to have resulted from surface spills and a leak from an underground storage tank. This is one of 28 NPL sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. Approximately 300,000 people depend on groundwater within 3 miles of the site as a source of drinking water. Twenty Santa Clara wells and four Sunnyvale wells are located within a 3-mile radius of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

Groundwater is contaminated with various VOCs. Accidental ingestion of or direct contact with contaminated groundwater may pose a health risk.

Cleanup Approach

Response Action Status

Immediate Actions: The company installed a groundwater extraction and treatment system to pump and treat contaminated groundwater in 1990. In early 1991, additional wells for the extraction and treatment system were installed at the site.

Entire Site: The potentially responsible parties, under State supervision, completed an investigation into the nature and extent of contamination at the site in early 1991. A groundwater extraction and carbon adsorption treatment remedy was chosen in late 1991. Construction of the treatment system began in late 1991 and was completed in 1992. California's Regional Water Quality Control Board is currently investigating the potential need for additional monitoring wells. Groundwater treatment will continue until established cleanup goals for the site are met.

Environmental Progress

The construction of cleanup remedies is complete. The pumping and treating of contaminated groundwater has, and will continue to reduce the potential of exposure to contaminated groundwater at the Intel Magnetics site. Treatment will continue until established cleanup goals are met.

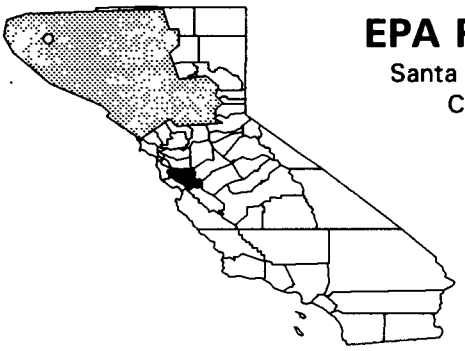
Site Repository

Santa Clara City Library, Central Library, 2635 Homestead Road, Santa Clara, CA 95051

INTERSIL, INC./ SIEMENS COMPONENTS

CALIFORNIA

EPA ID# CAD041472341



EPA REGION 9
Santa Clara County
Cupertino

Site Description

Intersil, Inc. and Siemens Components have manufactured semiconductors for several years on two locations covering 15 acres. Siemens currently is an operating facility, while Intersil is now inactive. Investigations conducted in 1982 as part of the California Regional Water Quality Control Board's (CRWQCB) underground storage tank leak detection program found volatile organic compounds (VOCs) in soils on the site and in on- and off-site contamination. Contamination is believed to have resulted from localized spills and from leaking underground storage tanks and piping from the two companies. At the Siemens facility, four underground tanks were used to store waste solvents. At the Intersil facility, possible sources of contamination include the waste neutralization systems and the concrete scrubber pit sumps. More than 300,000 people obtain drinking water from public wells located within 3 miles of the site. The groundwater is used for the municipal water supplies of the cities of Cupertino, Santa Clara, and Sunnyvale. Five municipal water supply wells are located within 1 mile of the site. Three of these wells, operated by the City of Santa Clara, are located downgradient of the site. The distance from the site to the City of Santa Clara Well #15, the closest municipal well, is 1,300 feet. Calabazas Creek, an intermittent stream, is located approximately 1,500 feet east of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

Threats and Contaminants

Groundwater, soil, and air have been contaminated with VOCs. Ongoing cleanup activities continue to reduce the potential health threats from direct contact with contaminated soils, ingestion of contaminated groundwater, inhalation of VOCs from the use of groundwater, and inhalation of chemicals released from the soils.

Cleanup Approach

Response Action Status

Immediate Actions: Immediate actions included the removal of an underground waste handling and solvent storage system and surrounding soil, installation and operation of groundwater extraction and treatment systems, and installation and operation of soil vapor extraction and treatment systems.

Entire Site: In 1990, the EPA selected a remedy to address soil and groundwater contamination at the site. Approximately 40 cubic yards of soil have been removed and disposed of in an EPA-approved facility. Twenty-three soil vapor extraction wells have been built, along with a carbon adsorption treatment facility. Groundwater is being extracted, treated by air stripping, and discharged into Calabazas Creek. Monitoring of groundwater and soil will continue to verify the contaminants remain within health-based levels. The soil and groundwater treatment systems are expected to continue to operate until 1999.

Site Facts: In 1986, the CRWQCB issued waste discharge requirements under the California Water Code that required Intersil, Inc. and Siemens Components to determine the extent of contamination in groundwater and soils. In 1989, the CRWQCB issued site cleanup requirements and approved the work plan and schedule for on- and off-site investigative activities.

Environmental Progress

Construction of all cleanup remedies has been completed. The removal of tanks and contaminated soil has reduced the potential for exposure to contaminated materials at the Intersil, Inc./Siemens Components site while groundwater cleanup continues.

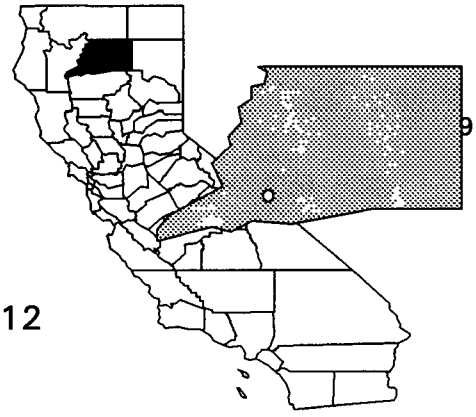
Site Repository

Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

IRON MOUNTAIN MINE

CALIFORNIA

EPA ID# CAD980498612



EPA REGION 9

Shasta County

9 miles northwest of Redding

Site Description

From the 1860s through 1963, the 4,400-acre Iron Mountain Mine (IMM) site periodically was mined for iron, silver, gold, copper, zinc, and pyrite. Though mining operations were discontinued in 1963, underground mine workings, waste rock dumps, piles of ore mine tailings, and an open mine pit still remain at the site. Historic mining activity at IMM has fractured the mountain, exposing minerals in the mountain to surface water, rain water, and oxygen. When pyrite is exposed to moisture and oxygen, sulfuric acid forms. This sulfuric acid runs through the mountain and leaches out copper, cadmium, zinc, and other heavy metals. This acid flows out of the seeps and portals of the mine. Much of the acidic mine drainage ultimately is channeled into the Spring Creek Reservoir by creeks surrounding IMM. The Bureau of Reclamation periodically releases the stored acid mine drainage into Keswick Reservoir. Planned releases are timed to coincide with the presence of diluting releases of water from Shasta Dam. On occasion, unplanned spills and excessive waste releases have occurred when Spring Creek Reservoir reached capacity. Without sufficient dilution, this results in the release of harmful quantities of heavy metals into the Sacramento River. Approximately 47,600 people use surface water within 3 miles as their source of drinking water. The low pH level and the heavy metal contamination from the mine have caused the virtual elimination of aquatic life in Slickrock Creek, Boulder Creek, and a section of Spring Creek. Since 1940, high levels of contamination in the Sacramento River have caused numerous fish kills. The continuous release of metals from IMM has contributed to a steady decline in the fisheries population in the Sacramento River. In 1989, the National Marine Fisheries Service took emergency action to list the Winter Run Chinook Salmon as threatened under the Endangered Species Act and to designate the Sacramento River from Red Bluff Diversion Dam to Keswick Dam as a critical habitat. In January 1994, the National Marine Fisheries Services issued its final rule reclassifying the Winter Run Chinook Salmon as an endangered species.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/01/83

Threats and Contaminants

Surface water has been contaminated by the release of sulfuric acid, copper, zinc, and cadmium from the mine. People face a health risk if they accidentally ingest or come into direct contact with contaminated water or mine drainage. There is a potential for accumulation of contaminants in fish. The unplanned release of contaminants acutely toxic to fisheries has led to the steady decline in fish populations and has contributed to the listing of the Winter Run Chinook Salmon as an endangered species.

Cleanup Approach

This site is being addressed in five stages: emergency actions and four long-term remedial phases focusing on water management, and cleanup of Boulder Creek, the Old Mine/No. 8 Mine, and the entire site.

Response Action Status

Emergency Actions: A lime neutralization process was installed at the site to treat acid mine discharge from the Richmond Portal prior to discharge to the reservoir. This system was operated by the EPA during the winter rainy season of 1988 until 1989. Zeneca (formerly ICI Americans), a potentially responsible party, operated a similar system during the 1989 to 1990, 1990 to 1991, 1991 to 1992, and 1992 to 1993 rainy seasons.

Water Management: In late 1986, the EPA selected cleanup remedies addressing several parts of the Water Management area. Cleanup activities include: capping selected cracked and caved ground areas; diverting clean Upper Slickrock Creek water around waste rock and mine tailing piles; diverting Upper Spring Creek; diverting clean surface water in South Fork Spring Creek to Rock Creek; enlarging the Spring Creek debris dam; and performing hydrogeologic studies and field-scale pilot demonstrations to better define the acid mine drainage formation. The studies and pilot demonstrations were completed. In 1989, the EPA completed capping cracked and caved ground areas and the open pit mine on Iron Mountain. The EPA completed the diversion of Slick Rock Creek in early 1990. Zeneca also completed construction of the Upper Spring Creek diversion in early 1990. In the summer of 1994, the EPA proposed that the diversion of South Fork Spring Creek not be part of the selected remedy. The construction of the diversion has been delayed until the fall of 1995, when a final decision regarding the potential change in the remedy is scheduled to be made. The EPA is in the process of amending the remedy selected to enlarge the Spring Creek debris dam. The final remedy is scheduled to be finalized in the fall of 1995.

Boulder Creek: The EPA has studied the nature and extent of contamination in the Boulder Creek Watershed. In late 1992, the EPA selected a remedy to treat the acid mine drainage discharges from the Richmond and Lawson tunnels by constructing a treatment plant. The treatment plant has been built and is operating. Treatment will continue until all cleanup goals are met.

Old Mine/No. 8 Mine: The EPA has studied the nature and extent of contamination from the mine seep that originated from the Old Mine and No. 8 Mine. In the fall of 1993, the EPA selected the final cleanup remedy, which included collecting and treating the acid mine drainage discharges. The treatment system has been built and will operate until all cleanup goals have been met.

Entire Site: In addition to the activities listed above, the EPA is studying the type and extent of contamination across the entire site. At the conclusion of the study, planned to be completed in 1996, recommendations for the final site cleanup remedies will be made.

Site Facts: In 1989, the EPA ordered the potentially responsible parties to implement emergency response corrective measures to remove the metal contamination. In 1990, the EPA, under an Administrative Order, required the parties to implement the Upper Spring Creek diversion cleanup action. In 1991, the EPA ordered the potentially responsible parties to assume responsibility for operation and maintenance of the completed cleanup actions. In 1992, the EPA ordered the potentially responsible parties to construct the treatment system for the Boulder Creek Watershed. In 1993, the EPA ordered potentially responsible parties to implement the collection and treatment system for the acid mine drainage discharges at the Old Mine/No. 8 Mine.

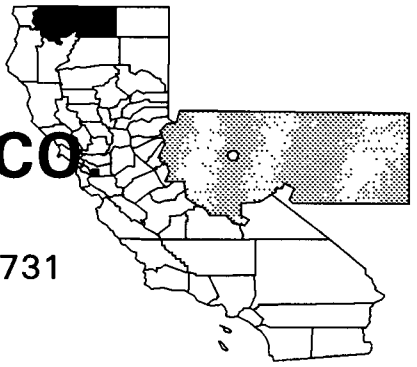
Environmental Progress

The installation and operation of the full scale neutralization system, the capping of areas of the mine, and the diversion of Slickrock Creek have reduced the acid and metal contamination in surface water at the Iron Mountain Mine site while cleanup activities are continuing and additional studies are taking place. The diversion of Upper Spring Creek has greatly increased the ability of the EPA and the Bureau of Reclamation to manage the release of contaminants from the site, which will avoid harm to fisheries in the future.

Site Repository

Shasta County Library, 1855 Shasta Street, Redding, CA 96001

J. H. BAXTER & CO
CALIFORNIA
EPA ID# CAD000625731



EPA REGION 9
Siskiyou County
Weed

Other Names:
Roseburg Forest Products
Baxter/International Paper/Roseburg

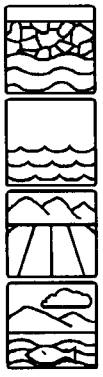
Site Description

J.H. Baxter & Co. has owned and operated a 35-acre wood-treatment facility at this site since 1962. Prior to 1962, the plant was owned by Long Bell Lumber Company and International Paper. Roseburg Forest Products operates a 1,000-acre lumber mill adjacent to the site. Wood treatment operations at Baxter involve the application of chemical compounds to lumber to help the wood resist deterioration caused by insects and fungi. The current processes use creosote, petroleum, arsenic, copper, chromium, and zinc. Until 1982, however, Baxter also used pentachlorophenol (PCP). For approximately 25 years prior to 1962, the International Paper Company operated the facility and used many of these same chemicals. Hazardous sludges were disposed of on site in unlined pits or bermed areas. From 1976 to 1983, contaminated process water was sprayed onto an open field at the southern edge of Baxter's property. Excess wastewater periodically was held in unlined ponds, entering soil and groundwater. An additional source of contamination has been excess chemicals that have dripped from treated lumber onto the soil. In addition, periodic overflows, accidents, and leaks have contributed to the environmental problems at the site. Approximately 3,450 people live within 3 miles of the site, and 200 people within 3 miles use groundwater as a drinking water source. Beaughton Creek, which has been contaminated by site chemicals, runs through the site and formerly was a prime trout habitat.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants



Groundwater, surface water, and sediments are contaminated with PCP, creosote, polynuclear aromatic hydrocarbons (PNAs), arsenic, and heavy metals including chromium, and zinc. Soil contains arsenic, chromium, PCP, creosote, PNAs, and dioxin. People face a health threat if they accidentally ingest, inhale, or come into direct contact with contaminated groundwater, soil, surface water, sediments, or dust. In 1990, the EPA sampled off-site soils for arsenic and chromium, but found no significant contamination. Beaughton Creek, formerly a trout habitat, has been contaminated with creosote.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1986, the potentially responsible parties installed a fence around the site to prevent direct contact with the site contaminants.

Entire Site: In 1990, the EPA selected a cleanup approach for contaminated groundwater and soils at the site. The selected groundwater cleanup plan involves extraction, biotreatment, and chemical precipitation of contaminants. The treated groundwater will be reinjected or used for irrigation or industrial processes. Contaminated soil will be excavated and treated in one of two ways: naturally occurring microorganisms will be used to treat soils contaminated with organic chemicals, and soils contaminated with inorganic chemicals will be treated using a cement-like substance to chemically fix the contaminants. Recent surveys indicate that fish are returning to Beaughton Creek and that dredging sediments for cleanup purposes would do more harm than good. Engineering designs for the groundwater and soil cleanup began in 1991 and are expected to be completed in late 1995. In 1993, the potentially responsible parties built an interim groundwater treatment plant while the final design work is being completed.

Site Facts: In 1983, the California Regional Water Quality Control Board (CRWQCB) issued a Cleanup and Abatement Order and a Cease and Desist Order. In 1984, the CRWQCB ordered Roseburg to cease discharge of contaminated water. In 1991, EPA issued a Unilateral Administrative Order to the responsible parties requiring them to carry out the cleanup.

Environmental Progress

A fence installed at the site restricts contact with site contaminants at the J.H. Baxter site while cleanup activities are being planned.

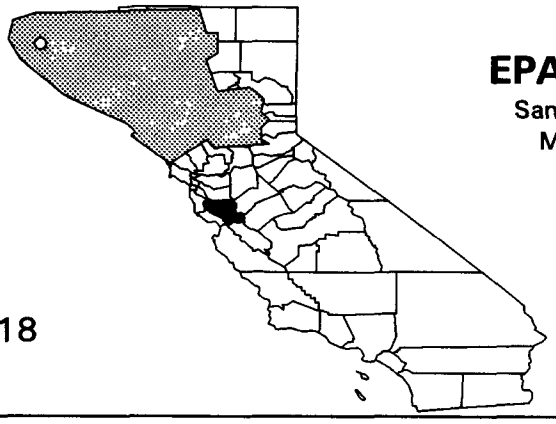
Site Repository

Weed Library, 780 South Davis Street, Weed, CA 96094

JASCO CHEMICAL CORP.

CALIFORNIA

EPA ID# CAD009103318



EPA REGION 9
Santa Clara County
Mountain View

Site Description

The 2-acre Jasco Chemical Corp. site has been at its present location since 1976, although it has operated for 35 years. Jasco repackages or formulates chemical products for retail sales. Bulk solvents used at the site are received by tankers and are stored in eight underground storage tanks. Prior to 1985, Tank #3 was used to store pentachlorophenol (PCP), which was an ingredient of a wood preservative formerly produced by Jasco. The product was discontinued in 1985, and the tank was converted to store paint thinner. Elevated levels of volatile organic compounds (VOCs) were detected in soils from a swale area located behind the building and in the shallow groundwater. Past waste disposal practices, and possibly leakage from an underground storage tank and surface water, may have contributed to soil and groundwater contamination. The City of Mountain View has a total population of approximately 62,000. The only surface water body within 1 mile is Permanente Creek. Approximately 330,000 people within 3 miles of the site depend on groundwater for drinking water. In 1987, the City of Mountain View shut down one well near the site to determine whether site activities would affect the well. In 1988, the well was placed back into operation, after investigations revealed that contamination had not migrated into the groundwater for this well.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

Groundwater is contaminated with VOCs, PCPs, and diesel fuel. Soil contains VOCs and diesel fuel. Surface water is contaminated with VOCs. People's health may be adversely affected if they inhale contaminated vapors, or drink or come in direct contact with contaminated water or soils.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Jasco has installed groundwater monitoring wells, took soil samples, and removed some contaminated soil. In early 1987, Jasco began extracting and discharging groundwater from an on-site well to the city sewer system.

Entire Site: In early 1991, the potentially responsible party, under EPA supervision, completed investigations into the nature and extent of groundwater contamination at the site. Treatability studies for soil cleanup were completed and, in 1992, a cleanup remedy was selected to address site contamination. During the winter of 1994, the EPA approved the installation of a pilot-scale dual vacuum extraction system for the drainage swale area of the site. The purpose of this pilot test is to evaluate dual vacuum extraction as a remedy for cleanup of the soil and groundwater. The pilot-scale dual vacuum extraction system currently is being designed and is scheduled to start operating in 1995.

Site Facts: In 1983, the California Regional Water Quality Control Board requested that Jasco install a monitoring well to determine if groundwater was contaminated.

Environmental Progress

The removal of contaminated soil in addition to the operation of the interim groundwater extraction system have reduced the potential of exposure at the Jasco Chemical Co. site while final remedies are being designed.

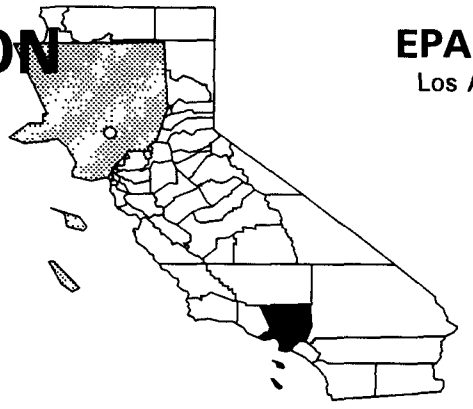
Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

JET PROPULSION LABORATORY (NASA)

CALIFORNIA

EPA ID# CA9800013030



EPA REGION 9
Los Angeles County
Pasadena

Site Description

The Jet Propulsion Laboratory (JPL) is a 176-acre site in Pasadena, California. The area is primarily residential with some light commercial operations. The site is bordered by the San Gabriel Mountains on the north, an equestrian club and the local Fire Station on the south, a residential neighborhood on the west, and the Arroyo Seco Dry Wash on the east. The Army developed and operated JPL between 1945 and 1957. In 1958, jurisdiction was transferred to the National Aeronautics and Space Administration (NASA). The California Institute of Technology conducts research and development at JPL under a NASA contract in the areas of aeronautics, space technology, and space transportation. JPL's primary activities include the exploration of the earth and solar system by automated spacecraft and the design and operation of the Global Deep Space Tracking Network. Sources of contamination at the site include approximately 35 seepage pits where liquid and solid wastes were reportedly disposed of, a settling chamber in the JPL storm drain system, contaminated soil excavated from part of that system, and an area where waste solvents were dumped into three separate holes. Hazardous substances located at JPL include waste solvents, solid rocket fuel propellants, cooling tower chemicals, sulfuric acid, Freon, mercury, and chemical laboratory wastes. In 1990, JPL detected significantly elevated levels of contaminants in the groundwater underneath and down-gradient of the site. Due to volatile organic compound (VOC) contamination in the groundwater, four municipal wells were shut down between 1989 and 1990 and two Lincoln Avenue Water Company wells were shut down in 1987. NASA installed a treatment system, and municipal wells began operating again in October of 1990. The Lincoln Avenue Water Company also has installed a treatment system on its wells, which are again operational. Approximately 120,840 people live within 4 miles of the site; an estimated 68,000 people obtain drinking water from municipal wells within 4 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and local actions.

NPL Listing History
Proposed Date: 02/07/92
Final Date 10/14/92

Threats and Contaminants

The groundwater contamination from the JPL has traveled off site and has affected several drinking water wells, including four municipal drinking wells belonging to the city of Pasadena and two drinking water wells belonging to the Lincoln Avenue Water Company. The contaminants are primarily VOCs including trichloroethylene and carbon tetrachloride. People who touch or ingest contaminated groundwater could be at risk.

Cleanup Approach

This site is being addressed in four stages: initial actions and three long-term remedial phases focusing on the on-site groundwater, source control, and off-site contamination.

Response Action Status

Initial Actions: In 1987, two Lincoln Avenue Water Company wells were affected by groundwater contamination from the JPL and were shut down. A treatment system has since been installed and the wells are now operational. Between 1989 and 1990, four wells in the city of Pasadena also were impacted; a treatment system has since been installed on these wells.

On-Site Groundwater: During an investigation of the on-site groundwater, the JPL installed several wells to sample the nature and extent of contamination at the site. The results of the investigation will be used to select a final cleanup remedy, expected in 1996.

Source Control: During the summer of 1993, the JPL began investigating sources of contamination at the site. These studies are primarily focused on the seepage pits and three other disposal points. The JPL is collecting soil samples from numerous deep soil bearings and subsurface gas samples to determine which seepage pits are sources of contamination. The JPL also is investigating the extent of soil contamination. The results of these investigations are expected to be submitted in late 1995. The selection of a final cleanup remedy for controlling the source of contamination is anticipated in 1996.

Off-Site Contamination: The JPL has installed several groundwater wells to determine the nature and extent of contamination off site. The results of these investigations are expected to be submitted to the EPA in mid-1995, with a final cleanup remedy for off-site groundwater scheduled for selection in 1996.

Site Facts: The EPA and the JPL have negotiated a Federal Facilities Agreement that requires JPL to conduct the cleanup efforts at the site.

Environmental Progress

The treatment systems installed on the Lincoln Avenue and Pasadena drinking water wells have reduced potential risks to human health and the environment while further investigations of site contamination are being completed at the Jet Propulsion Laboratory (NASA) site.

Site Repository

Not established.

JIBBOOM JUNKYARD
CALIFORNIA
EPA ID# CAD980737613

EPA REGION 9
Sacramento County
Sacramento

Other Names:
City of Sacramento Dump
Associated Metals
PG&E Power Plant

Site Description

The Jibboom Junkyard site is approximately 9 acres in size, although roughly 7 acres have been covered by an interstate highway. The site, formerly owned by the Associated Iron and Metals Company, began operations in 1951. Operations included metal salvaging of a variety of materials such as railroad cars, army tanks, batteries, and electric transformers. Some scrap metal was disposed of on site, and transformer oil was poured onto the ground. Operations ceased in 1965, the same year the California Department of Transportation purchased the property. The uncovered section of the site is flat, fenced, and includes the portions used by the original salvage yard and the electric power generating plant property. An old building and the underground storage tanks of an old electric power generating plant remain, and the other ancillary structures and storage tanks have been dismantled and removed. The remaining structures are included within the fenced area. Approximately 250,000 people live within 3 miles of the site. The bicycle path adjacent to the site receives regular traffic during the week as a route to and from work. The city's drinking water is taken from the river at the northeastern corner of the site. The river also is used for recreation and irrigation. The site is in the flood plain for the Sacramento River.

Site Responsibility: This site was addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/01/83
Deleted Date: 09/10/91

Threats and Contaminants

Soil was contaminated with lead, copper, and zinc. People faced a health threat if they inhaled particles, accidentally ingested, or came into direct contact with contaminated soils prior to cleanup.

Cleanup Approach

Response Action Status

Entire Site: In 1983, the site was fenced and soil samples were collected. From 1985 to 1987, over 11,000 cubic yards of contaminated soil were excavated and removed to an approved hazardous waste disposal facility. The site was deleted from the NPL in September of 1991.

Environmental Progress

The removal of contaminated soil and fencing has eliminated the potential of exposure to hazardous materials at the Jibboom Junkyard site. All cleanup measures have been proven effective and the site was deleted from the NPL in September of 1991.

Site Repository

Contact the Region 9 Superfund Community Relations Office, 75 Hawthore Street, San Francisco, CA 94105

KOPPERS COMPANY, INC. (OROVILLE PLANT)

CALIFORNIA

EPA ID# CAD009112087

EPA REGION 9

Butte County
Oroville

Other Names:
Koppers Feather River Plant

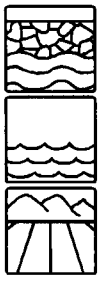
Site Description

Since 1948, the 200-acre Koppers Company, Inc. (Oroville Plant) site was used to conduct wood treating operations designed to prevent wood deterioration by insects or fungi. Koppers purchased the plant from the National Wood Treating Company in 1955. Chemical handling procedures and wood treatment and storage operations have contaminated the soil and groundwater on and off site. Fires at the Koppers facility occurred in 1963 and 1987, causing increased contamination at the site. Groundwater, surface water, and soils on and off site have been contaminated with pentachlorophenol (PCP) and other hazardous substances used in Koppers' wood treating activities. The contaminated groundwater is located beneath this site and the adjacent Louisiana-Pacific site (also on the NPL), and in the area south of the Koppers site. In 1973, PCP was discovered in nearby residential wells that are used as a source of drinking water. In 1988, Koppers Company, Inc. was bought by the parent company of Beazer East, Inc. Beazer later sold the wood treating plants to Koppers Industries, Inc.. Koppers Industries, Inc. is the current owner and operator. However, Beazer is the recognized potentially responsible party. Approximately 10,650 people live within a 3-mile radius of the site. These people also depend on groundwater as their source of drinking water. The site is within 1 mile of the nearest water supply well, and there are other water supply wells within 3 miles of the site. Contamination of groundwater from site-related chemicals extends 2 miles to the south.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



Groundwater, surface water, and soil contain PCP, dioxins, furans, creosote, polycyclic aromatic hydrocarbons (PAHs), and heavy metals including copper, chromium, and arsenic. Potential health risks include drinking contaminated surface water or groundwater, or coming into direct contact with or accidentally ingesting contaminated soils. Residents in this contaminated area currently receive an alternate drinking water supply.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Beazer has been providing an alternative water supply to residents south of the site since 1986. Between 1987 and 1988, the EPA directed the construction of a temporary asphalt cap over the contaminated soil in the process area. The cap's function is to stabilize the site and to prevent contact with contaminants after a fire spread hazardous substances. In 1994, the EPA directed Beazer to build an on-site landfill for disposal of surface soils containing high levels of dioxins.

Entire Site: The parties potentially responsible for site contamination completed a study of the site in 1989. The EPA used the results of this study to select the following methods to address site contamination: removing and treating contaminated groundwater with a carbon adsorption process; treating the contaminated soil in place; capping the wood treating area; providing a permanent water supply to those residents with contaminated wells; and discharging treated groundwater to the aquifer. Two groundwater extraction, treatment, and discharge systems have been built, one on site and one off site. Both use a carbon absorption process, with discharge to recharge injection wells. In 1989, the EPA selected three different treatment technologies to clean up approximately 335,000 cubic yards of contaminated soil. However, treatability tests conducted during the design phases have shown that the selected technologies cannot achieve cleanup goals for all contaminants. Beazer will initiate a focused feasibility study and suggest other cleanup alternatives for soils in 1995. Once the initial soil treatment systems have been built, Beazer, under EPA oversight, will evaluate their effectiveness and expand the systems as necessary. All construction activities are expected to be completed by 1996.

Site Facts: In 1982, the State issued two orders to Koppers to clean up contaminated soil and groundwater at the site. In 1986, the EPA and Koppers signed a Consent Order, which required the company to conduct a study into the nature and extent of contamination at the site. In December 1990, Beazer signed a Consent Decree to perform the engineering design and cleanup activities at the site.

Environmental Progress

The provision of an alternate water supply and construction of the asphalt cap have reduced the potential of exposure to contaminated drinking water at the Koppers Company site while final cleanup activities are being completed.

Site Repository

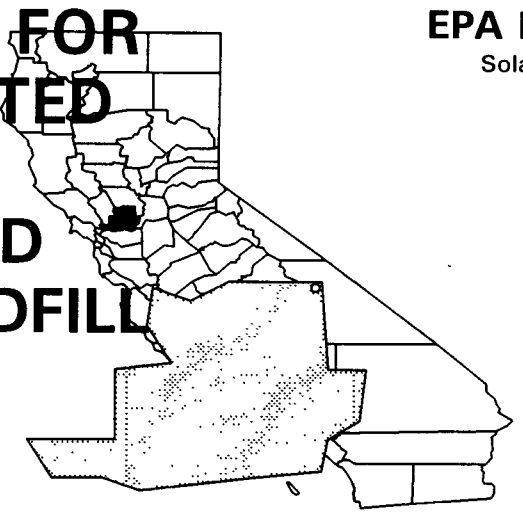
Butte Public Library, 1820 Mitchell Ave., Oroville, CA 95965

Meriam Library, California State University at Chico, Chico, CA 95929-0295

LABORATORY FOR ENERGY-RELATED HEALTH RESEARCH/OLD CAMPUS LANDFILL (USDOE)

CALIFORNIA

EPA ID# CA2890190000



EPA REGION 9
Solano County
Davis

Site Description

The Old Campus Landfill site is a facility that was leased by the U.S. Department of Energy (USDOE) as the Laboratory for Energy-Related Health Research (LEHR). The 15-acre Old Campus Landfill is situated on the Putah Plain adjacent to Putah Creek and surrounded by agricultural land to the south, east, and west. The University of California-Davis (UC-Davis) campus and the City of Davis are north of the site. LEHR engaged in studies on the biological effects of bone-seeking radionuclides (strontium-90 and radium-226) in laboratory animals (beagles) from 1960 to 1989. During the 29 years of operations, LEHR generated and disposed of radioactive, biologic, and chemical wastes, as well as municipal and laboratory wastes. Dogs were buried on site in the early years, but later, the dog carcasses were shipped to the Hanford National Laboratory in Washington State for disposal. Approximately 35,000 gallons of dog feces contaminated with strontium-90 was disposed of in underground concrete banks. The site also was used as a landfill area for residential and laboratory waste disposal from the late 1940s to 1967. The site contains radioactive waste disposal areas for waste generated from campus and LEHR activities. Records indicate that radioactive wastes with long half lives were buried on site in trenches and holes. Two separate special liquid radioactive waste treatment and discharge systems released radionuclides to on-site leach fields. There are 19 municipal wells within 4 miles of the site serving approximately 47,500 people. The nearest resident is approximately 1/2 mile from the site and the estimated population within 4 miles is 41,789.

Site Responsibility: The site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 01/18/94
Final Date: 05/31/94

Threats and Contaminants

Groundwater and soil are contaminated with chloroform and radioactive wastes including carbon-14 and tritium. Groundwater sampling has found contaminants in 5 of 23 monitoring wells. People coming into contact with or ingesting soil or groundwater are at risk.

Cleanup Approach

The site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of entire site.

Response Action Status

Initial Action: The EPA plans to decommission two on-site animal labs, demolish two buildings, and excavate and remove a disposal tank.

Entire Site: The EPA is planning an investigation into the nature and extent of site contamination. This investigation will lead to the selection of final cleanup remedies for the site.

Site Facts: The LEHR facility is classified under the Resource Conservation and Recovery Act (RCRA) as a large quantity generator.

Environmental Progress

The EPA has determined that the Laboratory for Energy-Related Health Research/Old Campus Landfill (USDOE) site does not pose an immediate risk to people or the environment while site studies are being planned.

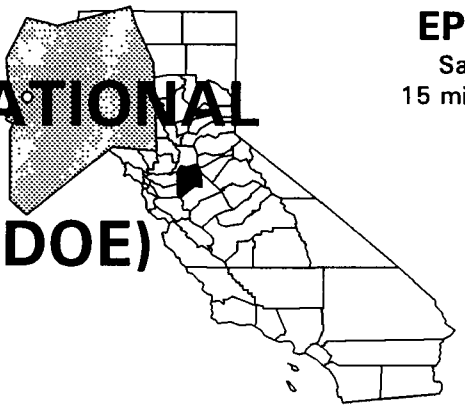
Site Repository

Not yet established.

LAWRENCE LIVERMORE NATIONAL LABORATORY (SITE 300) (USDOE)

CALIFORNIA

EPA ID# CA2890090002



EPA REGION 9
San Joaquin County
15 miles east of Livermore

Site Description

The 11-acre Lawrence Livermore National Laboratory (Site 300) was developed in the 1950s as a research facility. It is operated by the University of California for the U.S. Department of Energy (DOE) primarily as a high-explosives and materials testing site in support of nuclear weapons research. Approximately 350 people who work in the area are provided with potable water from a groundwater in the area. Most people are laboratory employees and State employees who work in a nearby State vehicular recreation area. Adjacent ranch houses and a State fire station also draw drinking water from the aquifer.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 08/30/90

Threats and Contaminants

Groundwater and soil have been contaminated with solvents and other volatile organic compounds (VOCs). Groundwater also contains tritium. The primary health threat is drinking contaminated groundwater.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site. In the fall of 1992, another groundwater extraction and treatment system was installed for the same purpose but at another location for another VOC plume.

Response Action Status

Initial Actions: In spring 1991, DOE installed a groundwater extraction and treatment system to curtail the migration of the VOC contamination plume. In another plume of VOC-contaminated groundwater was discovered in 1992, a second extraction and treatment system was installed. DOE also began capping two landfills to prevent rainwater runoff from causing contaminant migration.

Entire Site: Site investigations currently are being conducted under the facility's Environmental Restoration Program. To date, six areas are under investigation: General Services Area; the Building 834 Complex; Landfill/Pit 6 Area; the High Explosive Process Area; East and West Firing Areas; and the B833 Complex. These investigations began in mid-1992 and are expected to be completed between 1995 and 1997. Results from these investigations will lead to the selection of final cleanup actions for the site.

Site Facts: A Federal Facilities Agreement was signed between the EPA and DOE in June 1992, which outlines DOE's responsibilities for addressing site contamination.

Environmental Progress

The pumping and treating of contaminated groundwater is reducing the exposure to contamination at the Lawrence Livermore National Laboratory (Site 300) while additional studies are taking place and final cleanup activities are being planned.

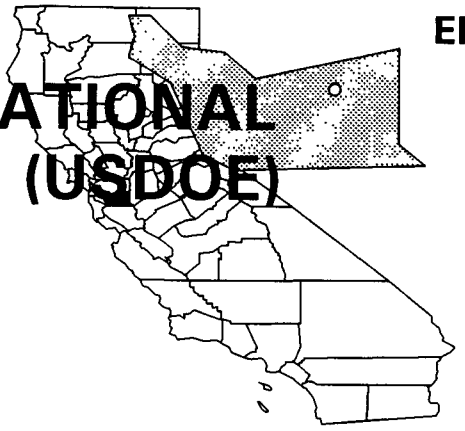
Site Repository

Livermore Public Library, 1000 South Livermore Avenue, Livermore, CA 94550

LAWRENCE LIVERMORE NATIONAL LABORATORY (USDOE)

CALIFORNIA

EPA ID# CA2890012584



EPA REGION 9
Alameda County
Livermore

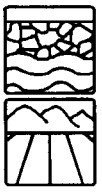
Site Description

The 1-square-mile Lawrence Livermore National Laboratory (LLNL) site is an active multi-program research laboratory operated by the University of California for the U.S. Department of Energy. A number of operations at LLNL handle, generate, or manage hazardous materials that include radioactive wastes. Hazardous waste treatment activities are carried out on site. The site first was used as a Naval Air Station in the 1940s. In 1951, it was transferred to the U.S. Atomic Energy Commission and was established as a nuclear weapons and magnetic fusion energy research facility. In 1984, the California Department of Health Services (CDHS) issued an Order for Compliance to LLNL to provide alternative water supplies to residents west of the facility, whose wells had been contaminated by hazardous substances from LLNL. Another NPL site, the Lawrence Livermore National Laboratory (Site 300), is located 15 miles east of LLNL. There are approximately 50,000 people living within a 2-mile radius of the site. Private drinking water wells exist near the site.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Both on- and off-site groundwater are contaminated with volatile organic compounds (VOCs) and chromium. Fuel hydrocarbons including benzene and ethylene dibromide, the heavy metal lead, and tritium appear only in wells on site. Soil excavated from the site was contaminated with solvents, radioactive wastes, heavy metals, polychlorinated biphenyls (PCBs), and fuel hydrocarbons. Soils remaining on site contain VOCs, tritium, PCBs, fuel hydrocarbons, and inorganic substances. People may face a health threat if they ingest or come in direct contact with contaminated water or soil.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Initial actions included the excavation and removal of 4,000 cubic yards of contaminated soil from several waste disposal pits to certified off-site disposal sites and closure of an inactive landfill, with subsequent removal of approximately 14,000 cubic yards of contaminated soil. LLNL also provided alternative water supplies to residents with wells affected by contamination.

Entire Site: In 1989, one of two proposed on-site pilot treatment facilities began treating groundwater contaminated with VOCs using an ultraviolet light/hydrogen peroxide treatment technology. The study has shown positive results using a cleanup process for groundwater known as vacuum-induced venting. Contaminated groundwater from seven locations on and off site will be pumped to these facilities as well. Additionally, in 1990 LLNL began a pilot treatment study on a major gasoline spill area on-site. In 1992, a remedy was selected that called for continued pump and treat operations for groundwater, and soil vapor extraction. In December 1994, the design of the soil vapor extraction at Building 518 was completed. The design for pumping and treating VOCs at Treatment Facilities G-1 and G-2 is expected to be completed mid-1995. All other pump and treat activities are in progress.

Site Facts: In 1984, the CDHS issued an Order for Compliance to LLNL to provide alternative water supplies and to investigate groundwater quality at LLNL. In 1987, the California Regional Water Quality Control Board (CRWQCB) issued an order directing LLNL to investigate and clean up the on- and off-site contamination. In 1988, LLNL signed an Interagency Agreement with the EPA, the CDHS, and the CRWQCB to address contamination on and off site.

Environmental Progress

The removal of contaminated soil, provision of alternate drinking water supplies, and use of groundwater treatment systems have reduced the potential of exposure to contaminated materials at the Lawrence Livermore National Laboratory (USDOE) site while studies continue and cleanup activities are being planned. To date, over 110 pounds of VOCs and 10,000 gallons of gasoline have been removed.

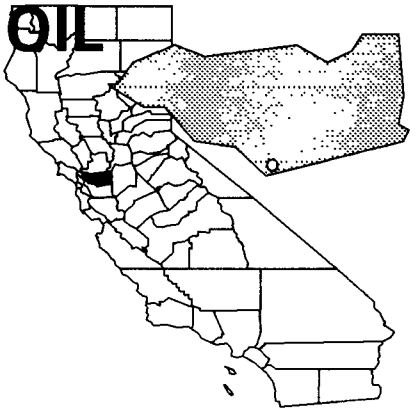
Site Repository

Livermore Public Library, 1000 South Livermore Avenue, Livermore, CA 94550

LIQUID GOLD OIL CORP.

CALIFORNIA

EPA ID# CAT000646208



EPA REGION 9
Contra Costa County
Richmond

Site Description

The Liquid Gold Oil Corp. site consists of approximately 18 acres of a 29-acre property owned by Southern Pacific Transportation (SPT). Originally, a major portion of the property was marshland, which was reclaimed in the 1940s and 1950s. SPT leased approximately 3 acres of the site to an asphalt manufacturing plant and later to a waste oil storage and transfer facility that operated under the name of Liquid Gold Oil Corporation. In 1982, Liquid Gold Oil ceased operations and left several deteriorating buildings and 27 storage tanks of various sizes on the site. Currently, the site is inactive, with the exception of a pistol firing range. Improper handling and disposal practices have resulted in soil contamination. The population within a mile is approximately 7,000, and an estimated 92,000 people live within 4 miles of the site. There are public wells located within 1/2 mile of the site, and nine private wells located within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Soils are contaminated with lead. People may be exposed to a health risk through accidental ingestion of or direct contact with soils. Adjacent wetlands also may have been adversely affected by the site.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: In response to inspections and regulatory actions, some surface soil was removed in 1974, liquid waste and soil from a drainage area and holding pond were removed in 1980, leaking storage tanks were removed in 1982 and 1983, and drums were removed in 1984. During late 1989, a wooden building containing lead was demolished and disposed of, roofing materials containing asbestos were disposed of, non-hazardous wastes such as wooden pallets and stacked timber were removed, and approximately 655 cubic yards of soil from various on-site areas were excavated and removed.

Entire Site: An investigation into the extent and type of contamination in the soils and marsh was conducted by the potentially responsible party, under State supervision. This study led to the selection of final cleanup actions for the entire site which include capping the remaining contamination from a used oil recycler and excavating portions of the adjacent wetlands. Cleanup activities are scheduled for completion by late 1995, at which time monitoring of the cap and the groundwater will be conducted.

Environmental Progress

The removal of the contaminated soil, liquid waste, and leaking storage tanks and the demolition and removal of the building have reduced the potential for exposure to contaminated materials at the Liquid Gold Oil Corp. site while cleanup activities are underway.

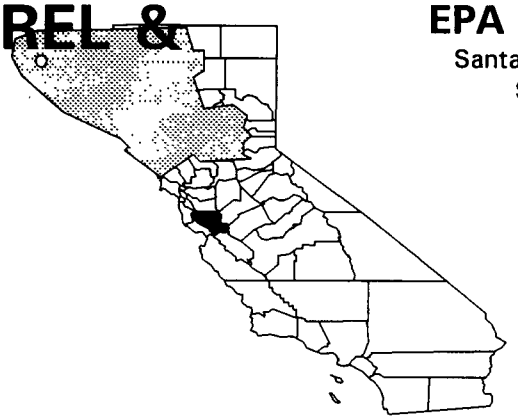
Site Repository

Richmond Public Library, 325 Civic Center Plaza, Richmond, CA 94804

LORENTZ BARREL & DRUM CO.

CALIFORNIA

EPA ID# CAD029295706



EPA REGION 9
Santa Clara County
San Jose

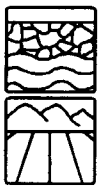
Site Description

The Lorentz family began a drum recycling operation at the 5 1/2 acre Lorentz Barrel & Drum Co. (LB&D) site in 1947. Many drums containing residual aqueous wastes, organic solvents, acids, oxidizers, caustic residues, and oils were received for recycling. During the early years of operation, portions of the site also were leased to other companies. Between 1950 and 1978, a drainage ditch carried process wastes to a large sump and other ponded areas in the northern corner of the property. Wastes from the sump were discharged to a storm drain system. Sometime between 1968 and 1971, the discharge was diverted to a sanitary sewer; investigations indicate that this discharge occurred until 1983 or 1984. After this time, liquid wastes were reportedly evaporated, drummed, and disposed of as hazardous waste along with incinerator ash, residual liquids, and sludge. Surface runoff was collected and recycled in a drum wash. Since 1981, several investigations have revealed soil and groundwater contamination of heavy metals, organics, and polychlorinated biphenyls (PCBs). The facility was closed in 1987. In late 1987 and 1988, drums and highly contaminated soil were removed from the site, and the 5 1/2 acre property was partly covered to prevent surface water infiltration, contaminated surface water runoff, and airborne dispersion of contaminated material. This is one of 28 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA has combined cleanup activities at some of the sites as part of an area-wide approach to the contamination. The closest residence is located about 700 feet north of the site. Less than 3,000 people live within a 1-mile radius of the site. The site lies directly above an aquifer which is a major source of drinking water in the San Francisco Bay area, and three public water supply well fields are located within a mile of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 10/04/89

Threats and Contaminants

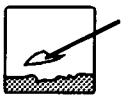


The groundwater is contaminated with heavy metals, pesticides and volatile organic compounds (VOCs). Soil contains PCBs, heavy metals including arsenic and lead, and pesticides. Individuals are at risk through inhaling, ingesting, or otherwise coming into direct contact with contaminated groundwater or soils.

Cleanup Approach

This site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on cleanup of the entire site and groundwater.

Response Action Status



Immediate Actions: In 1988, the California Department of Health Services and the EPA removed 26,000 drums and 3,000 cubic yards of contaminated soil. Also, the site was fenced, and most of the site area was paved. In 1994, a group of potentially responsible parties completed a two-phased removal of contaminated buildings and sumps, debris, drums, and asbestos waste.

Entire Site: In 1993, the EPA completed an investigation to determine the extent and type of contamination at the site. Based on the results from this investigation, the EPA selected a remedy that includes using a soil vapor extraction system to clean contaminated soil, containing soils using an asphalt-concrete cap, removing underground conduits and disposing them off site, monitoring soil gas near residences, and imposing land use restrictions to prevent unauthorized access to the site.

Groundwater: Cleanup remedies were selected in 1988 that included building an on-site groundwater extraction and treatment system which uses an ozone/ultraviolet process for organic removal and ion exchange for nickel removal, with discharge of treated water to a local creek. In 1989, a small-scale pilot study was conducted to test the toxicity of treated water to freshwater organisms to determine the necessary cleanup levels for nickel. In early 1991, the potentially responsible parties completed optimization studies. In late 1992, construction of the system was completed, and full-scale operation and maintenance project began. Groundwater treatment is expected to continue through 1996.

Site Facts: The California Regional Water Quality Control Board issued a Cleanup and Abatement Order in 1983. A group of 11 potentially responsible parties signed a Consent Decree in 1990 to design, construct, and operate a shallow groundwater extraction and treatment system using an ultraviolet/oxidation technology. In 1992, a group of seven potentially responsible parties signed an Administrative Order on Consent to perform the immediate actions described above.

Environmental Progress

Removing drums, highly contaminated soil, contaminated structures, sumps, debris, and asbestos waste, and fencing and paving the site have reduced the potential of exposure to contaminated materials at the Lorentz Barrel & Drum Co. site. Contaminated groundwater is being treated while the cleanup of remaining soil contamination is being planned.

Site Repository

Dr. Martin Luther King, Jr. Public Library Reference Desk
180 W. San Carlos Street, San Jose, CA 95113
(408) 277-4815

San Jose State University
One Washington Square, San Jose, CA 95192
(408) 277-2730

At this library, information regarding the site is available at three locations:

Clark Library, Government Publication Desk:
General information regarding the location of Lorentz Superfund site documents.

Walquist Library, Reserve Book Room:
Paper copies of site documents.

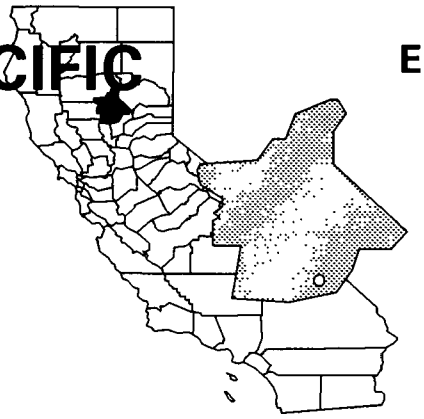
Clark Library, Media Center:
Copies of site documents on microfiche.

EPA Superfund Records Center
75 Hawthorne Street, San Francisco, CA 94105
(415) 744-2165

LOUISIANA-PACIFIC CORP.

CALIFORNIA

EPA ID# CAD065021594



EPA REGION 9

Butte County
South of Oroville

Other Names:
Georgia Pacific

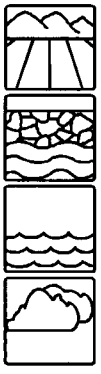
Site Description

The Louisiana-Pacific Corp. site consists of two pieces of property located 1/2 mile apart: a 100-acre wood processing plant and a 115-acre landfill. Georgia-Pacific Corporation built the plant in 1969 and operated it until 1973, when the Louisiana-Pacific Corp. assumed plant ownership and operation. In 1978, the California Solid Waste Management Board approved a permit for Louisiana-Pacific Corp. to operate the landfill. The plant is made up of the following components: a log deck and log deck pond, a sawmill, a kiln dryer, the planing mill, a hardboard plant, and wood particle storage areas. Prior to 1980, wastewater from the hardboard plant's glue kitchen was discharged to an unlined pond at the site. Wastewater is now recycled. Until 1988, a fungicide spray was applied to cut timber several months of each year. In 1973, high levels of pentachlorophenol (PCP) were discovered in nearby residential wells. By 1983, the groundwater contaminant plume extended 1 1/2 miles south of the neighboring Koppers Company, Inc. (Oroville Plant) wood treating plant, another NPL site. Approximately 10,650 people live within 3 miles of the site and use groundwater as a source of drinking water. Site-related chemicals have contaminated the shallow aquifer beneath the plant, and possibly, the deeper regional aquifer beneath the landfill. The Feather River is located approximately 1/2 mile east of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Dust samples showed contamination with PCP, formaldehyde, and other volatile organic compounds (VOCs). Groundwater is contaminated with PCP, arsenic, and possibly formaldehyde. Contaminants found in sediments include PCP, dioxins, furans, heavy metals, and polynuclear aromatic hydrocarbons (PAHs). Surface water contains PCP, ether, and heavy metals including arsenic, boron, and copper. The only current health risk is inhalation of air emissions from the hardboard plant. Potential future exposures that pose a health threat are ingestion or inhalation of vapors from contaminated groundwater at the plant and landfill, or accidental ingestion of surface soil at the plant.

Cleanup Approach

This site is being addressed in a long-term remedial phase focusing on cleanup of the groundwater and soil.

Response Action Status

Groundwater and Soil: In late 1990, the EPA chose an interim cleanup strategy. The interim soil remedy includes site access restrictions, such as a perimeter fence, deed restrictions on future residential use of the site, and additional soil sampling. The groundwater remedy includes establishing well permit restrictions, monitoring of on-site wells to obtain additional information about formaldehyde and arsenic levels in the groundwater at the site, and construction and monitoring of additional off-site wells if formaldehyde is detected during the on-site well monitoring. Engineering designs for the interim remedy were completed in mid-1992. Construction began shortly thereafter and is expected to be completed by 1996. In the meantime, the EPA is evaluating whether additional cleanup actions are necessary to address contamination at the site.

Site Facts: In 1991, the EPA issued a Unilateral Order to Louisiana-Pacific Corp. requiring the company to begin interim cleanup actions at the Louisiana-Pacific Corp. site.

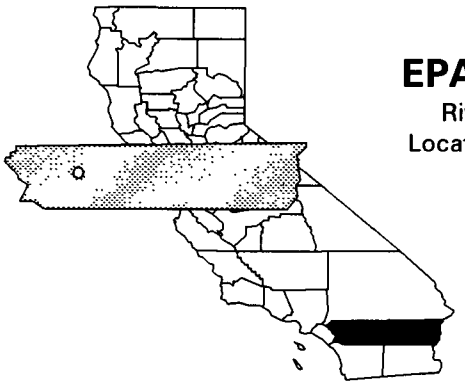
Environmental Progress

The interim actions completed to date have reduced the threat of exposure to contaminated soil and groundwater while additional information is obtained to determine the need for any further cleanup actions at the Louisiana-Pacific Corp. site.

Site Repository

Butte County Public Library, 1820 Mitchell Avenue, Oroville, CA 95965
Meriam Library, California State University at Chico, Chico, CA 95929-0295

MARCH AIR FORCE BASE
CALIFORNIA
EPA ID# CA4570024527



EPA REGION 9
Riverside County
Located near Riverside

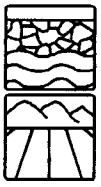
Site Description

The 7,000-acre March Air Force Base has been used for aircraft maintenance and repair, refueling operations, and training activities since 1918. The Air Force conducted a preliminary investigation of 39 potentially contaminated areas on base which included three fire training areas, seven inactive landfills, underground solvent storage tanks, an engine test cell, and spills. Significant contamination was found at seven of the 39 areas. Three regions of groundwater contamination beneath the base were identified and a well on the base was shut down in 1984. Groundwater contamination has migrated to wells located off base. These wells are no longer in use. Approximately 11,600 people obtain drinking water from municipal wells within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 11/21/89

Threats and Contaminants



Groundwater is contaminated with volatile organic compounds (VOCs). Soils contain VOCs and heavy metals. Potential health threats may exist for individuals who accidentally ingest contaminated soils and groundwater. However, the off-site wells with contamination at levels that exceed state drinking water standards were shut down, and the private well owners have been provided with bottled drinking water since the contamination was discovered. The wells on the base were closed in 1988, and drinking water is being purchased from the Eastern Municipal Water District.

Cleanup Approach

This site is being addressed in five stages: immediate actions and four long-term remedial phases focusing on cleanup of the entire site, Area 5 and Site 4, the Panero Area, and the remainder of the base.

Response Action Status

Immediate Actions: In 1988, the Air Force closed all contaminated wells on and off site. Affected residents off site were provided with bottled water. People on site are provided water through the municipal water system from the Eastern Water District. In 1989, activities supporting design of a system to remove VOCs from groundwater began. The contaminated groundwater interception and treatment system was put into operation in 1992. The removal of abandoned underground storage tanks and contaminated soil was completed by the Air Force in 1992. In 1993, the Air Force began pumping and disposing of free product floating on the groundwater beneath a fueling system.

Entire Site: In 1990, the Air Force began an investigation to determine the nature and extent of contamination base-wide. This investigation is scheduled for completion in 1996.

Area 5 and Site 4: In 1990, the Air Force began an investigation into the contamination at Area 5 and Site 4 on the base. The Air Force anticipates completing this investigation in 1995, after which final cleanup actions will be selected.

Panero Area: The Air Force began a study of contamination associated with jet fuel in the groundwater vadose zone and groundwater at the Panero fueling area of the base in late 1991. The Air Force anticipates selecting final cleanup remedies based on the results of this investigation in 1995.

Remainder of Base: In 1992, the Air Force initiated an investigation of the areas of the base outside of area 5, Site 4, and the Panero Area. This investigation is expected to be completed in 1997.

Site Facts: March Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. March Air Force Base was classified as a realignment base in the summer of 1993 under the Base Realignment and Closure act. A Draft Environmental Impact Statement for reuse of about 75 percent of the base land is scheduled to be completed in 1995.

Environmental Progress

Providing an alternate water supply to affected residents and on-site personnel has eliminated the potential of exposure to contaminated drinking water. The removal of underground storage tanks, soil, and floating free product, and the treatment of contaminated groundwater continues to protect residents near the March Air Force Base site while investigations leading to the selection of final cleanup remedies are completed.

Site Repository

Riverside City and County Public Library, Moreno Valley Branch Library,
25480 Alessandro Boulevard, Moreno Valley, CA 92388

MATHER AIR FORCE BASE
CALIFORNIA
EPA ID# CA8570024143

EPA REGION 9
Sacramento County
12 miles east of Sacramento

Other Names:
AC & W Disposal Site

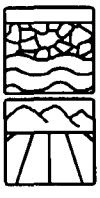
Site Description

The Mather Air Force Base (MAFB) was first activated in 1918 as a combat pilot training school and was officially closed on September 30, 1993. Past operation and maintenance of aircraft at MAFB required the use of toxic and hazardous materials, such as petroleum, oils, lubricants, solvents and protective coatings. During the course of their use, these materials were disposed of or spilled onto the ground and into unlined ditches throughout the base. From 1958 to 1966, trichloroethylene (TCE), waste solvents, and oils were reportedly poured down an underground pipe. Environmental investigations began at MAFB in 1982 with a records search that identified 23 areas with significant soil contamination. Subsequent investigations identified additional contaminated areas, resulting in a total of 68 soil areas of concern. These soil areas range from fire training areas, drainage ditches, waste pits, and asphalt storage areas to underground storage tank sites. In addition, groundwater is contaminated beneath portions of MAFB. The groundwater plume extends westward off the base beneath residential and industrial neighborhoods. The Aircraft Control and Warning (AC&W) Disposal Area is located on the east-central part of the base between family housing and the aircraft alert apron (a paved area where aircraft were kept on stand-by status). A groundwater plume contaminated with TCE is associated with the AC&W Disposal Area. The AC&W Disposal Area was listed on the National Priorities List (NPL) in July 1987. The entire base was listed on the NPL in November 1989. Approximately 10,000 people live within a 1-mile radius of the site. Approximately 60,000 people within 3-mile radius of the site depend on groundwater for their main drinking water supplies.

Site Responsibility: This site is being addressed through Federal actions, with the Air Force as the lead agency.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Soil and groundwater contain various volatile organic compounds (VOCs), gasoline, diesel fuel, metals, pesticides, and other contaminants. There is the potential for human exposure to these hazardous chemicals by accidentally ingesting, inhaling, or coming into direct contact with contaminated soil or groundwater. In addition, the EPA is concerned about the ecological impact of these contaminants.

Cleanup Approach

This site is being addressed in four stages: immediate actions and three long-term remedial phases focusing on cleanup of the AC&W Disposal Area, the landfills, and base-wide groundwater and soils.

Response Action Status

Immediate Actions: MAFB is taking immediate actions to clean up three soil areas using soil excavation, bioventing, and air sparging. In addition, MAFB has completed three drinking water supply projects to provide alternate sources of drinking water to residents along the western boundary of the base whose domestic wells have been contaminated by base operations. In 1984, MAFB initially provided bottled water to residents of Old Placerville Road and Happy Lane. In March 1986, MAFB connected the Citizens Utility District water supply to four residences on Old Placerville Road and the Camelia Mather Mobile Home Park (37 units). In July 1987, MAFB provided water from its own drinking water system via a pipeline to four private residences along Happy Lane.

AC&W Disposal Area: In 1989, the Air Force began investigating the nature and extent of contamination at the AC&W Disposal Area. Late in 1993, the Air Force selected a cleanup remedy for the area that includes: pumping and treating the contaminated groundwater; treating the extracted groundwater by air stripping, and reinjecting the treated groundwater into the ground. This system is currently under construction and is expected to be operational in late 1995.

Landfills: Currently, six municipal landfills exist at MAFB. The Air Force anticipates cleanup actions that will consist of excavation of the smaller landfills and consolidation of the refuse with a larger existing landfill on the base. The landfills likely will remain in place and be covered with impermeable caps, which would eliminate the potential for human contact with the refuse and reduce infiltration. The Air Force is continuing investigations into cleanup alternatives for the landfills and expects to make a final cleanup decision in mid-1995.

Basewide Soils and Groundwater: MAFB is currently completing an evaluation of cleanup alternatives for soil and groundwater contamination throughout the site. These studies are expected to be completed by 1996, at which time cleanup remedies will be selected.

Site Facts: Mather Air Force Base is participating in the Installation Restoration Program (IRP), a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. Mather Air Force Base was approve for closure under the 1988 Defense Base Closure and Realignment Commission and Congressional Action, which established special accounts for funding the environmental cleanup at closing bases.

Environmental Progress

Excavating and treating soils and providing an alternate water supply to affected residents has eliminated the potential of exposure to contaminated drinking water and continues to protect residents near the Mather Air Force Base while studies are being completed and cleanup actions are being planned.

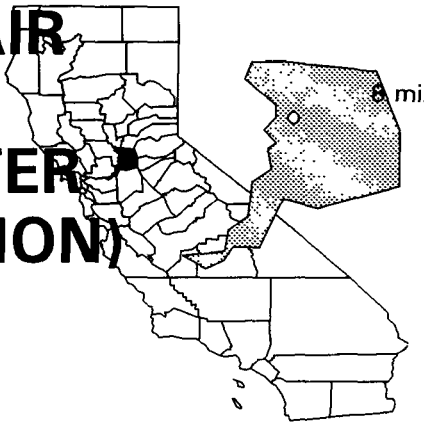
Site Repository

Sacramento Central Library, 828 I Street, Sacramento, CA 95814

MCCLELLAN AIR FORCE BASE (GROUNDWATER CONTAMINATION)

CALIFORNIA

EPA ID# CA4570024337



EPA REGION 9

Sacramento County

6 miles northeast of Sacramento

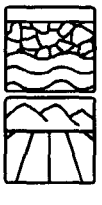
Site Description

The 2,952-acre McClellan Air Force Base (MAFB) site was established in 1936 and operates today as an Air Force Logistics Command Base with a primary mission of management, maintenance, and repair of aircraft, electronics, and communication equipment. The operation and maintenance of aircraft have involved the use, storage, and disposal of hazardous materials including industrial solvents, caustic cleansers, low-level radioactive wastes, and a variety of fuel oils and lubricants. Approximately 170 waste areas and potential release locations have been identified and divided into 12 subsites. Approximately 22,800 people live within a 3-mile radius of the site. The closed municipal well served 23,000 people.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Groundwater, sludge, and soil have been contaminated with volatile organic compounds (VOCs). People may face a health risk if they accidently ingest or come into direct contact with contaminants. People also may be at risk if they eat foods containing accumulated contaminants or if they inhale contaminated dust.

Cleanup Approach

This site is being addressed in six stages: immediate actions and five long-term remedial phases focusing on cleanup of the entire site, Area A, Area B, Area C, and Area D. The Air Force has identified Areas B and C have as high priority areas, and has taken immediate actions to reduce levels of contamination.

Response Action Status

Immediate Actions: In 1989, the Air Force began to undertake several immediate actions to reduce threats while cleanup studies were underway. Contaminated soil has been removed from Area B (located in the northwestern area of the base) and disposed of, and an 11-acre cap was built. A groundwater extraction system to control the plume at Area B was also built, and a plant was constructed to treat extracted groundwater. An alternative water supply was provided to 548 residences with hookups to city and county water supplies. A carbon filtration system was installed for base well 18. A groundwater extraction system was installed in Area C. Building 666 was demolished and removed, and 59 underground storage tanks were removed.

Entire Site: An investigation into the extent and type of contamination at the entire site began in 1989. At the conclusion of the investigation, scheduled for 1996, recommendations for final cleanup actions will be presented.

Area A: An investigation into the extent and type of contamination at Area A began in 1989. At the conclusion of the investigation, expected in 1997, recommendations for final cleanup activities will be presented.

Area B: An investigation into the extent and type of contamination began in 1989. At the conclusion of the investigation, which is expected to continue for several years, recommendations for final cleanup actions will be presented. Priority areas have been identified for interim cleanup and include soil contamination at a plating shop and storage area. Three soil vapor extraction systems have been installed and are now treating contaminated soils. The Air Force is cleaning the worst areas of soil contamination first, so as to reduce the future cost of pumping and treating groundwater contaminated by the chemicals in the soil.

Area C: An investigation into the extent and type of contamination at this area began in 1990. At the conclusion of this study, recommendations for final cleanup activities will be presented. A burn pit has been identified as a priority for expedited cleanup. Expedited efforts are expected to begin over the summer of 1995.

Area D: An investigation into the extent and type of groundwater contamination in the vadose zone is underway. At the conclusion of the investigation, recommendations for alternatives for final cleanup will be presented. The Air Force plans to conduct soil gas treatability studies as part of this investigation.

Site Facts: In 1989, the EPA, the California Department of Health Services, and the Air Force signed an Interagency Agreement. McClellan Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

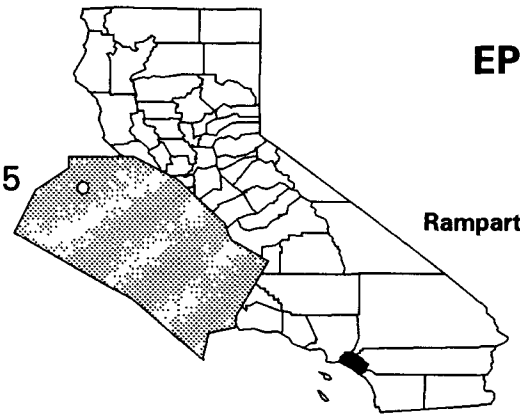
Environmental Progress

The removal and disposal of contaminated soil and underground tanks, the capping of the northwestern area of the base, and the installation and operation of a groundwater extraction system have reduced the potential for exposure to contaminants at the McClellan Air Force Base (Groundwater Contamination) site. Providing an alternate water supply has eliminated the potential for exposure to contaminated drinking water and continues to protect area residents while studies are taking place and final site cleanup activities are being planned.

Site Repository

Sacramento Public Library, Central Library, 536 Downtown Plaza, Sacramento, CA 95814

MCCOLL
CALIFORNIA
EPA ID# CAD980498695



EPA REGION 9
Orange County
Fullerton

Other Names:
Ramparts & Los Coyotes Tracts

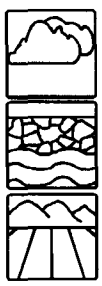
Site Description

The McColl site is an inactive refinery-waste disposal facility covering approximately 22 acres. The site consists of two distinct areas: the Ramparts Area, which is in the eastern portion of the site and is surrounded by developed property and residences, and the Los Coyotes Area, which is in the western portion and once had a portion of the Los Coyotes Country Club Golf Course overlying it. The Ramparts and Los Coyotes Areas each contain six waste sumps with depths up to 55 feet. Approximately 97,100 cubic yards of contaminated material (72,600 cubic yards of solid waste and 24,500 cubic yards of contaminated soil) is contained in the waste sumps. The waste is primarily an acidic sludge waste generated during the refining process for high octane aviation fuel during the 1940s. Drilling muds were placed over a few of the Ramparts sumps in the early 1950s. The Los Coyotes area was covered with soil in 1960 to build the Los Coyotes Golf Course. In 1968, homes were built in the area. Subsequently, complaints from residents near the site about odors and health problems initiated investigations by local, State, and Federal agencies. The Ramparts area was covered in 1983 by a temporary liner. Tar like waste continues to seep to the surface of the dirt cap. Access to the site is restricted by a fence and a security guard. There are more than 6,700 people living within 3 miles of the site. The distance from the site to the nearest residence is less than 100 feet.

Site Responsibility: This is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



Air, groundwater, and soil on site contain thiophene compounds, which can cause severe odors; sulfur dioxide, which can cause respiratory inflammation when inhaled; and various volatile organic compounds (VOCs) including benzene. The waste contaminating the air, groundwater and soil is a very acidic. People may face health risks from direct contact with the waste because of its acidic nature. Inhalation of emissions of sulfur dioxide and VOCs from the waste also can pose health threats. Low levels of inorganic chemicals, volatile, and semi-volatile compounds have been detected in the regional groundwater. Some of these compounds have also been detected in the soil.

Cleanup Approach

Site cleanup is being addressed in three phases: initial actions and two long-term remedial phases focusing on cleanup of soil and waste and groundwater.

Response Action Status

Initial Actions: Access to the site is restricted by a fence and a 24 hour security guard. A temporary cap was placed over portions of the site. Waste that seeps to the surface of the sumps that is exposed is periodically removed.

Soil and Waste: In 1984, the EPA selected a cleanup remedy including excavation and disposal of wastes at an approved disposal facility. Groundwater monitoring wells were installed on site and sampled to determine whether the groundwater had been contaminated by the soil. A State court injunction in 1985 stopped the transfer of the contaminated soil. As a result of this injunction, the EPA revised the original study. The EPA issued a proposed plan in 1989 identifying excavation and thermal destruction as the preferred cleanup alternative. The EPA then conducted various treatability studies including rotary kiln incineration, low temperature thermal extraction, solvent extraction, and a trial excavation of the waste. Based on information gained from these studies, in mid-1993, the EPA again chose to revise its plan for cleanup; the EPA selected partial solidification followed by landfill closure. The engineering design work began in the summer of 1993 and is expected to be completed in late 1995.

Groundwater: In the early 1980's, a limited number of monitoring wells were installed on site. Samples from these wells produced no conclusive results. In 1986, the EPA conducted a groundwater investigation. Samples taken during the study indicated that thiophenes may have leached into the groundwater. A more comprehensive groundwater investigation began in 1990 to determine the nature and extent of the contamination and to identify cleanup alternatives. This investigation is scheduled for completion in 1995.

Environmental Progress

The removal of sludge to an off-site landfill and the construction of a fence have reduced the potential of exposure to contaminated sludge at the McColl site while further studies are completed and remedy design activities continue.

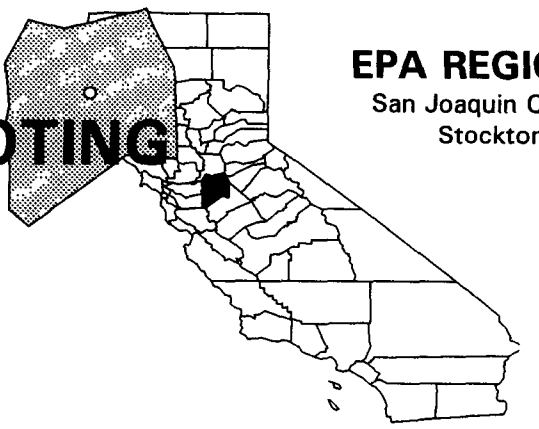
Site Repository

Fullerton Public Library, 353 West Commonwealth Avenue, Fullerton, CA 92632

MCCORMICK & BAXTER CREOSOTING CO.

CALIFORNIA

EPA ID# CAD009106527



EPA REGION 9
San Joaquin County
Stockton

Site Description

McCormick & Baxter Creosoting Co. formerly operated a wood-preserving facility on this 29-acre site located in a light industrial area near the Port of Stockton. Old Mormon Slough, a tributary to the San Joaquin River, borders the site on the north. Excluding an 8-acre portion of the site owned and leased by Southern Pacific Railroad Company since the 1950s, McCormick & Baxter owns the entire property. From 1942 to 1990, McCormick & Baxter treated utility poles and railroad ties with creosote, pentachlorophenol (PCP), and arsenic compounds. Waste oils generated from the wood-treatment processes were disposed of on site in unlined ponds and concrete tanks. In 1977, the California Department of Fish and Game reported a release of PCP-contaminated surface water runoff from the site that resulted in a fish kill in Mormon Slough and the Port of Stockton. In 1978, McCormick & Baxter installed two storm water collection ponds to collect surface water runoff from the site, as well as a perimeter dike around the site. Between 1983 and 1984, McCormick & Baxter found that soils throughout the site were contaminated with heavy metals, PCPs, and various constituents of creosote. Soil contamination extends to depths of 40 feet below ground surface in some areas. Site investigations indicate that the shallow aquifer is interconnected with the deep aquifer. The deep aquifer is within 4 miles of the site and provides drinking water to approximately 97,000 people. In 1989, the California Department of Toxic Substances Control (CDTSC) detected arsenic and PCP air particles on site. Approximately 105,000 people live and work within 4 miles and people regularly fish in the Old Mormon Slough and the San Joaquin River.

Site Responsibility: This site is being addressed through Federal, State, local, and potentially responsible parties' actions.

NPL Listing History
Proposed Date: 02/07/92
Final Date: 10/14/92

Threats and Contaminants

Soils and groundwater are contaminated with arsenic, chromium, copper, PCP, and polycyclic aromatic hydrocarbons (PAHs), which are constituents of creosote. Arsenic and PCP have been detected in air particles on site. Individuals who accidentally ingest or come in direct contact with contaminated soil or groundwater could be at risk. Surface water contaminated with PCP that spread from the site caused a fish kill in Mormon Slough and the Port of Stockton.

Cleanup Approach

The site is being addressed in four stages: immediate actions and three long-term remedial phases focusing on cleanup of the groundwater, soils, and sediment.

Response Action Status

Immediate Actions: Two storm water collection ponds and a perimeter dike were installed on site in response to a 1978 Cleanup and Abatement Order. McCormick & Baxter also installed two on-site groundwater extraction wells that discharge water to the Stockton wastewater treatment plant. In July 1992, EPA emergency staff took measures to improve site security and to inventory chemicals and sludges remaining on site. EPA completed demolition of the site in 1994.

Groundwater: In mid-1992, the EPA began an investigation into the nature and the extent of groundwater contamination at the site. This investigation, scheduled for completion in late 1995, will lead to decisions about a remedy for final groundwater cleanup.

Soils: In early 1993, the EPA began a study of the nature and extent of soil contamination at the site. This study is scheduled to be completed in mid-1995, at which time remedies for the first phase of soil cleanup will be selected. The EPA anticipates cleaning up the soil in two phases. The remedy for the second phase of cleanup is expected to be selected in 1996.

Sediment: The EPA began a study of contaminated sediment in Old Mormon Slough next to the site in 1993. The next phase of sediments sampling will take place in 1995. The EPA expects to select a final cleanup remedy for sediment in 1996.

Site Facts: The California Regional Water Quality Control Board issued a Cleanup and Abatement Order to McCormick & Baxter in January 1978. In October 1984, McCormick & Baxter received a permit to maintain a concrete oily-water treatment tank and a drum storage area under Subtitle C of the Resource Conservation and Recovery Act (RCRA). With approval from the CDTSC, the company completed a RCRA clean closure of the permitted units in 1990. The storm water collection ponds are under Interim Status as RCRA hazardous waste management units. Because the owner of this site filed for protection under Chapter 11 of the Federal Bankruptcy Code in 1988, cleanup of the site is being completed through Federal actions.

Environmental Progress

The installation of the storm water collection ponds, the perimeter dike, and sites security have reduced threats to public health and safety while site studies are being completed.

Site Repository

Stockton Public Library, 605 North El Dorado Street, Stockton, CA 95203

MGM BRAKES
CALIFORNIA
EPA ID# CAD000074120

EPA REGION 9
Sonoma County
Cloverdale

Site Description

The MGM Brakes facility has manufactured and cast aluminum brake components for large motor vehicles at this 5-acre site since 1965. From 1965 until 1972, hydraulic fluids containing polychlorinated biphenyls (PCBs) were used to cast the brakes. Wastewater containing PCBs then was discharged into a field south of the plant. From 1972 until 1981, the company also discharged wastewater containing ethylene glycol on site. The ethylene glycol reacts with water and makes it easy for PCBs already in the ground to travel rapidly over wide areas. In 1981, the California Regional Water Quality Control Board (CRWQCB) discovered PCB in the soils of the open field and in the casting plant. The State ordered the company to stop all discharge activity and to investigate the nature and extent of contamination. Runoff from the site drains into Icaria Creek, which is a tributary to the Russian River. Intakes on the river, 1 mile from the site, supply drinking water to Marin and Sonoma Counties. The river also supplies water to farms in the area for irrigating crops. Approximately 4,280 people live in the surrounding community of Cloverdale. There are 40 homes located within 1/2 mile of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Air, soils, and the concrete slab in the casting building on site are contaminated with PCBs. Soil on and off site contains PCBs and xylenes. Volatile organic compounds (VOCs) were detected in groundwater off site. People could be exposed to hazardous chemicals from the site by inhaling contaminants released into the air, drinking contaminated groundwater, or coming in direct contact with contaminated groundwater or soils. Drainage potentially containing PCBs from the ditch flows into Icaria Creek and the Russian River during periods of heavy rainfall.

Cleanup Approach

Response Action Status

Entire Site: In 1981, the CRWQCB ordered MGM Brakes to study the nature and extent of PCB contamination at the site. The company completed its study in 1983, and the EPA used the results to recommend alternative methods for cleaning up the site. However, community objections to the remedy and new information on the site led the EPA to conduct a second study of the site in 1988 and select the following remedies to address contamination at the site: excavating approximately 15,000 cubic yards of soil contaminated with high levels of PCBs and disposing of them off site; evaluating the extent of VOC contamination at the site; if necessary, developing additional cleanup measures; and filling, grading, and planting the excavated area with vegetation. Cleanup of the soil is complete. Natural attenuation was the remedy selected for groundwater contamination. It is expected to take approximately seven years for contaminants in the groundwater to naturally dissipate.

Site Facts: In 1989, the EPA entered into a Consent Decree with MGM Brakes, in which the company agreed to design and build the remedy selected by the EPA.

Environmental Progress

Construction for all cleanup remedies is complete at the MGM Brakes site. It will take approximately seven years for the contaminants in the groundwater to naturally dissipate to safe levels.

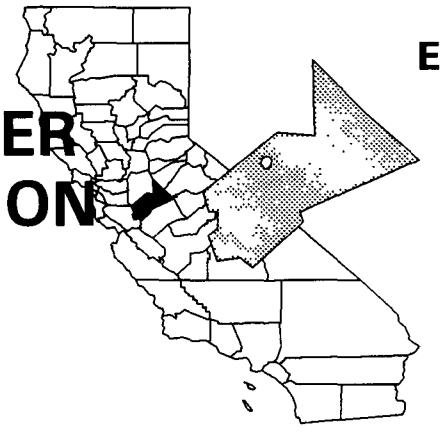
Site Repository

Cloverdale Regional Library, 401 North Cloverdale Boulevard, Cloverdale, CA 95425

MODESTO GROUND WATER CONTAMINATION

CALIFORNIA

EPA ID# CAD981997752



EPA REGION 9
Stanislaus County
Modesto

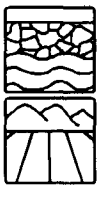
Site Description

The Modesto Ground Water Contamination site is related to a dry cleaning facility that leaked tetrachloroethylene (PCE) into the soil and ground water. The dry cleaning facility discharged wastewater containing PCE into the sewer system for approximately 50 years, and an unknown quantity of PCE was released into the subsurface. The old leaky dry cleaning equipment has been replaced with new modern equipment, and PCE is no longer being discharged into the sewer. The dry cleaner is located approximately 1,200 feet from a municipal well, which was contaminated with PCE from the dry cleaner. The City of Modesto began monitoring ground water in 1984 and Municipal Well 11 was found to be contaminated with PCE above the allowable drinking water standard. Well 11 was taken out of service by the City and a granular activated carbon treatment system was installed in June 1991 to remove the PCE contamination from the ground water. Well 11 was then shut off in October 1994 because it was found to be contaminated with low levels of naturally occurring uranium that are slightly above the allowable drinking water level. It is unknown if Well 11 will ever be used again as a source of drinking water because of the naturally occurring uranium.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants



Ground water and soil at the site are contaminated with PCE and low levels of naturally occurring uranium. Potential health threats to people include drinking, eating, breathing, or touching contaminated soil or ground water. To minimize the possibility of drinking contaminated ground water, Municipal Well 11 has been shut off, and institutional controls have been implemented to restrict private usage of ground water. Most of the site is paved to minimize touching or ingesting contaminated ground water and soil. Breathing volatile PCE fumes is not a significant risk because the levels of contamination in the air are very low.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Information on the soil and ground water contamination at the site was collected during a removal assessment in 1990, and a soil vapor extraction system was installed to address shallow soil contamination. Subsequent investigations determined that no immediate actions were required and the soil vapor extraction system was turned off until a final remedy is selected.

Entire Site: EPA completed a Phase 1 investigation and is conducting a Phase 2 investigation to determine the nature and extent of contamination. Once the investigation is completed, scheduled for early 1996, remedies will be recommended for final cleanup of the soil and ground water.

Environmental Progress

After adding this site to the NPL, EPA performed preliminary investigations and determined that no immediate actions were required while the final cleanup is being planned.

Site Repository

Stanislaus Country Free Library
15000 I Street
Modesto, CA 95354
(209) 558-7814

MOFFETT NAVAL AIR STATION
CALIFORNIA
EPA ID# CA2170090078

EPA REGION 9
Santa Clara County
10 miles north of San Jose

Other Names:
Naval Air Station Moffett Field

Site Description

The 1,500-acre Moffett Naval Air Station site provides aircraft maintenance operations in support of anti-submarine patrol. There are 19 separate areas of contamination identified by the Navy on the station, with four areas being clusters of underground tanks or sumps within a geographic area. Other areas include two landfills and operational areas that led to spills or releases into the environment. Hazardous materials from aircraft maintenance and base operations, which were disposed of on base, have caused soil and groundwater contamination. Materials disposed of include solvents, caustics, acids, polychlorinated biphenyls (PCBs), and aviation fuels. The closest residence is located 2,000 feet from the site. Approximately 272,000 people depend on wells within 3 miles of the station as a source of drinking water. Private and public wells are in use within 3/4 miles of the site. The estuarine wetlands of San Francisco Bay are located adjacent to the base.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 04/10/85
Final Date: 07/22/87

Threats and Contaminants

Groundwater and soil contain various volatile organic compounds (VOCs). People who accidentally ingest or come in direct contact with contaminated groundwater or soils may be at risk. The adjacent wetlands could be harmed if contaminants migrate off base.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on base-wide cleanup and source control.

Response Action Status

Initial Actions: Abandoned wells that may be potential conduits for subsurface cross-contamination have been evaluated and properly closed. Initial source control measures currently being implemented at Areas 12 and 14 include bioremediation of contaminated soil and treatment of groundwater through carbon absorption. These interim activities are expected to be completed in 1996.

Base-Wide: In 1989, the Navy began a thorough investigation to determine the type and extent of contamination base-wide. The areas being investigated include: contaminated soil at Areas 12 and 15, the westside aquifers, the eastside aquifer, and the wetland area. Once the investigations are completed, final cleanup measures will be recommended for each of the areas.

Source Control: In 1989, the Navy began an investigation to determine the source of contamination on the base. This investigation is scheduled for completion in early 1997.

Site Facts: Moffett Naval Air Station is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contamination at military and other DOD facilities. This site is designated a closing base under the Base Realignment and Closure Act.

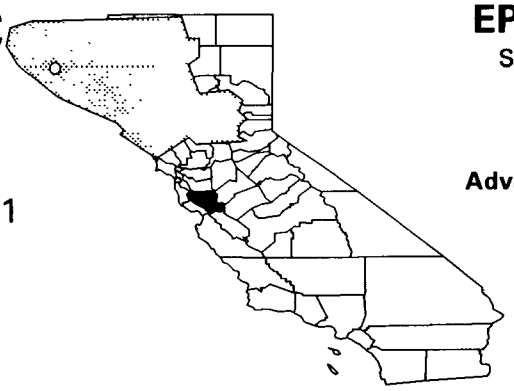
Environmental Progress

The closure of abandoned wells and the initial treatment of soils and groundwater at Areas 12 and 14 have reduced the potential migration of contaminated soil into the groundwater at the Moffett Naval Air Station site while studies are taking place and final cleanup activities are being planned.

Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

MONOLITHIC MEMORIES
CALIFORNIA
EPA ID# CAD049236201



EPA REGION 9
Santa Clara County
Sunnyvale

Other Names:
Advanced Micro Devices
AMD-Arques

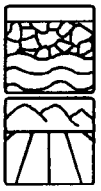
Site Description

Monolithic Memories manufactured integrated circuits on this 20-acre site. The facility consists of four buildings that were used for production, assembly, storage, offices, and laboratories. In 1982, monitoring wells on the site were found to be contaminated with volatile organic compounds (VOCs). Contamination probably resulted from leaking pipes in solvent waste drains. The company has removed two subsurface waste solvent tanks and two subsurface acid neutralization systems. In 1986, under the direction of the State, the company began pumping and treating the groundwater to contain the contaminant plume. The property was purchased by Advanced Micro Devices (AMD) in 1987, and the company has assumed the ongoing activities. The contaminant plume has merged with the National Semiconductor plume (located immediately upgradient of Monolithic). This is one of 28 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to cleaning up the contamination. Approximately 300,000 people live within 3 miles of the site and depend on groundwater as their source of drinking water. A medical clinic is adjacent to the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



The groundwater and soil are contaminated with various VOCs. While there is no current pathway through which people can come into contact with contaminants, people who ingest or come into direct contact with contaminated groundwater or soil may be at risk.

Cleanup Approach

Response Action Status

Immediate Actions: Under State oversight, Monolithic Memories has been extracting and treating groundwater since 1986.

Entire site: Monolithic Memories completed an investigation determining the type and extent of contamination at the site. Based on the results of the investigation, the EPA selected remedies for the final cleanup of the site which include continuing to extract and treat the contaminated groundwater and treating contaminated soil through vapor extraction. Cleanup activities are underway and are expected to be completed in 1995.

Site Facts: The site is being cleaned up under orders from the California Regional Water Quality Control Board.

Environmental Progress

Construction for all cleanup remedies is complete. The groundwater extraction and treatment system continues to reduce the potential for exposure to contaminated groundwater at the Monolithic Memories site while cleanup of soil contamination continues.

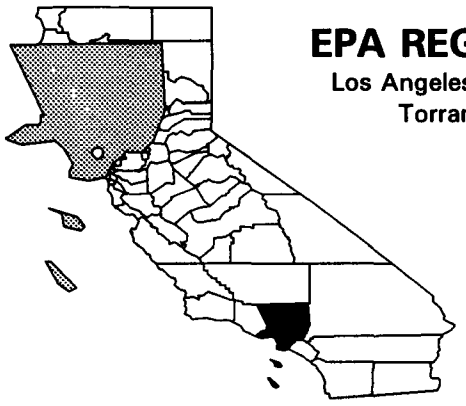
Site Repository

Santa Clara City Library, Central Library, 2635 Homestead Road, Santa Clara, CA 95051
Cal Regional Water Quality Control Board, 2101 Webster Street, Suite 500, Oakland, CA 94612

MONTROSE CHEMICAL CORP.

CALIFORNIA

EPA ID# CAD008242711



EPA REGION 9
Los Angeles County
Torrance

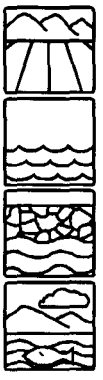
Site Description

The 13-acre Montrose Chemical Corp. site was the location of a plant that manufactured the pesticide DDT from 1947 until 1982. Operations included formulating, grinding, packaging, and distributing the pesticide. Various locations across the site were used for storage of either DDT or waste products. Montrose used large quantities of monochlorobenzene (MCB) as a reactant in the process of making DDT. MCB is a dense non-aqueous phase liquid (DNAPL) which is heavier than water and does not readily dissolve in it. Much of the MCB remained unreacted and was released into the ground through a settling and recycling pond. The area used as a settling and recycling pond for process wastes was completely unlined until 1970, when it was lined with concrete. In 1985, Montrose regraded and paved portions of the site with asphalt to reduce the further migration of contaminants until final cleanup of the site. DDT dust was dispersed from the facility during the time of its operation and may be present in surface soils or dust outside the plant boundaries. In 1993 and 1994, EPA also discovered fill material in the backyards of two homes on 204th Street in Torrance. This fill, which was laid down prior to homes being built in the 1950s, was found to contain bowling ball-sized chunks of technical grade DDT. Four different aquifers under the site are contaminated with MCB and DDT. These aquifers are largely interconnected. The upper two aquifers are not drinking water sources, whereas the lower aquifers are used for drinking water; however, none of the wells within the Montrose plume is currently being used due to the contamination. The closest drinking water well is located 2 miles southeast of the site and draws water from the two deepest aquifers. Stormwater flows from the site into the Normandie Avenue Ditch, the Kenwood Drain, the Torrance Lateral, the Dominquez Channel, the Consolidated Slip and, finally, the Los Angeles Harbor. Approximately 3,000 people live or work within 1/4 mile of the site. The Del Amo Superfund site is located immediately adjacent to the Montrose site, and groundwater contamination from the two sites has merged.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 10/04/89

Threats and Contaminants

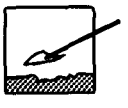


Soils, surface water, and groundwater are contaminated with DDT, MCB, and volatile organic compounds (VOCs). Storm drain and sewer sediments are contaminated with DDT. People living or working in an area with DDT in the soil or dust may be exposed to the chemical in any of three ways: ingestion of contaminated soil; inhalation of contaminated dust; or direct contact with contaminated soil. The concentrations of DDT are not high enough to produce any immediate health effects, but there is an increased risk of cancer for individuals exposed to the contaminated dust or soil over a long period of time. Without cleanup, the MCB, which contains dissolved DDT, may continue to migrate in the groundwater in all four aquifers, potentially reaching drinking water wells and threatening the loss of the groundwater resource. In addition, sediments contaminated with DDT may still be present along the stormwater pathway or in the Los Angeles Harbor and may pose a threat to biota and wildlife.

Cleanup Approach

This site is being addressed in two stages: interim actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Interim Actions: In 1985, Montrose built a temporary asphalt cap over some of the contaminated soil areas at the former plant. EPA has relocated the residents from their homes on 204th Street and is expected to remove DDT-contaminated fill in 1995. In September 1992, EPA approved a removal action to address DDT contamination in the sanitary storm sewer that was studied and evaluated by Montrose. The action was delayed until the installation of a replacement sewer line was completed by the County of Los Angeles. The sewer cleanup is scheduled to begin in the summer of 1995. EPA is scheduled to begin a sampling of dust and soils in neighborhoods near the former Montrose facility in late 1995. If unacceptable levels of DDT are found, an appropriate removal action will be implemented.

Entire Site: Montrose Chemical Corporation, under EPA oversight, is conducting an investigation to determine the nature and extent of contamination at the site, including areas on and off the property and in the sanitary sewers. EPA expects that Montrose will complete the portion of the investigation that will lead to an interim groundwater remedy in mid-1995. This interim action should contain the groundwater in the vicinity of the Montrose site and prevent contamination from migrating further, allowing EPA to finish studies on the final remedy for groundwater. The interim groundwater remedy also will provide an alternative to address DNAPL contamination. If some of the DNAPL becomes more mobile during attempts to clean it up, it will be contained by this interim action. The investigation will then continue to propose further remedies, including the methods for addressing remaining groundwater contamination, as necessary. In 1995 and 1996, EPA is expecting to integrate the Del Amo Superfund site groundwater investigation with the Montrose investigation, so that a final

groundwater remedy can be selected that addresses the merged plumes. Montrose Chemical Corporation is performing feasibility studies, under EPA oversight, which evaluate options for the final groundwater remedy and for the soils that are contaminated with DDT and MCB. Remedies for the pure DNAPL will be evaluated by Montrose and EPA once the interim groundwater remedy is in place. After problems with Montrose's investigation, EPA took over the investigation of DDT-contaminated sediments in the stormwater drainage pathway leading from the former Montrose facility to the Los Angeles Harbor, which includes the Normandie Avenue Ditch, the Kenwood Drain, the Torrance Lateral, the Dominquez Channel, and the Consolidated Slip. EPA is conducting an ecological evaluation, which is expected to be completed in 1995, and a remedy, if needed, is expected to be selected in 1996.

Site Facts: In 1983, EPA issued an Administrative Order requiring Montrose Chemical to cease all discharges of DDT and to initiate a study to determine the nature and extent of contamination. In 1985, 1987, and 1989, the EPA and Montrose signed additional orders requiring Montrose to expand its studies. In 1994, EPA ordered Montrose to perform the cleanup of DDT-contaminated fill from the backyards of residents on 204th Street. A health clinic for community members has been established with an Agency for Toxic Substances and Disease Registry (ATSDR) grant near the Del Amo Facility and Montrose Chemical Corp. sites. The clinic will test residents for exposure to chemicals such as benzene and DDT to determine if a link exists between the sites and residents' health effects. The clinic opened for residents in January 1995 and is scheduled to run for three years. Workgroups made up of health officials, community members, and physicians will ensure that the clinic continues to meet the needs of the community.

Environmental Progress

The construction of the asphalt cover has reduced the potential of exposure to contaminated soil at the Montrose Chemical Corp. site while studies are taking place and interim and final cleanup activities are being planned.

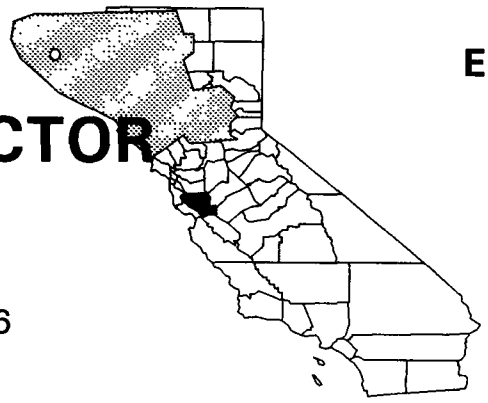
Site Repository

Carson Public Library, 151 East Carson Street, Carson, CA 90745

NATIONAL SEMICONDUCTOR CORP.

CALIFORNIA

EPA ID# CAD041472986



EPA REGION 9
Santa Clara County
Santa Clara

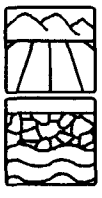
Site Description

The National Semiconductor Corp. manufactures electronic equipment at this 50-acre site. Underground storage tanks, sumps, and pipes are suspected to be the source of contaminated groundwater and soil. National Semiconductor has taken leaking tanks out of service, instituted a program of pumping and treating the groundwater, and removed contaminated soil from selected areas of the facility. This is one of 28 NPL sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater area. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. Approximately 300,000 people live within 3 miles of the site and depend on groundwater as a source of drinking water.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Volatile organic compounds (VOCs) have contaminated the soil and shallow groundwater. People who accidentally ingest or come in direct contact with contaminated groundwater or soils may be at risk; however, there is no current pathway by which people can come into contact with contaminants.

Cleanup Approach

This site is being addressed in two stages: immediate actions and two long-term remedial phase focusing on cleanup of the entire site and the source of contamination.

Response Action Status

Immediate Actions: In 1982, 36 cubic yards of soil and a waste solvent tank were removed. Since 1982, approximately 400 cubic yards of chemical-bearing soils have been removed. The company initiated a program of pumping and treating the groundwater to contain the contaminated plume while further site studies are underway.

Entire Site: In 1989, National Semiconductor began investigating the type and extent of contamination at the site. The investigation was completed in 1991, and the EPA selected the final remedy for the site. Construction of the remedy began in 1991. The final cleanup remedy, which includes soil vapor extraction and operation of the groundwater extraction and treatment system, is underway and will continue for many years until cleanup goals are met.

Source Control: An investigation to determine the nature and extent of the source of contamination at the site was completed in 1991. The remedy chosen to address source contamination is soil vapor extraction. The California Regional Water Quality Control Board (CRWQCB) is currently treating the three most contaminated areas of the twelve source areas, and the remaining nine areas are expected to be operational in late 1995.

Site Facts: This site is being cleaned up under cleanup orders from the CRWQCB.

Environmental Progress

The removal of contaminated soil and the operation of a groundwater pump and treatment system and soil vapor extraction have reduced the potential of exposure to contamination at the National Semiconductor Corp. site while final cleanup activities are underway.

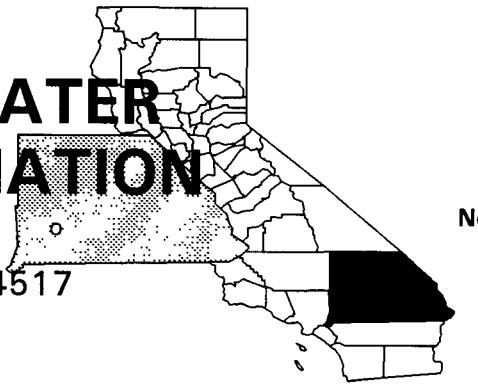
Site Repository

Santa Clara City Library, Central Library, 2635 Homestead Road, Santa Clara, CA 95051
Regional Water Quality Control Board in Oakland

NEWMARK GROUNDWATER CONTAMINATION

CALIFORNIA

EPA ID# CAD981434517



EPA REGION 9

San Bernardino County
San Bernardino

Other Names:
North San Bernardino Muscoy Site
San Bernardino - Muscoy Area

Site Description

The Newmark Groundwater Contamination site consists of two areas of groundwater contamination and a World War II Army base, which has been developed for light industry and residential uses. The two groundwater plumes border Shandin Hills. On the east side of the site, a contaminated groundwater plume extends for 5 miles and is referred to as the Newmark Plume area. On the west side of Shandin Hills is a 4-mile long contaminated groundwater plume known as the Muscoy Plume area. The site covers a portion of an essential groundwater aquifer underlying the City of San Bernardino. Groundwater contamination from Norton Air Force Base is not considered part of this site. Although the suspected disposal occurred in the 1940s, the problem was not discovered until a water supply monitoring program was instituted in 1980. The discovery of contaminants, including chlorinated solvents, tetrachloroethylene (PCE), and trichloroethylene (TCE), resulted in the closing of 20 water supply wells within a 6-mile radius of the site. The State brought 12 of the wells back into operation by installing air stripping towers on eight wells and carbon filtration systems on the other four. More than 25 percent of the municipal water supply for the City of San Bernardino's 175,000 residents has been affected by the advancing contamination plumes. The City of Riverside, with a population of approximately 250,000, relies on wells downgradient from the Newmark plume for approximately 75 percent of its total water supply. The rapidly growing communities of Colton, Loma Linda, Fontana, Rialto, with approximately 115,000 people, and several unincorporated areas also use well water unprotected from the contamination. No alternative water sources currently are available.

Site Responsibility: This site is being addressed through Federal and municipal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants

Groundwater contains volatile organic compounds (VOCs) including TCE and PCE. People who drink or come into direct contact with contaminated groundwater may suffer adverse health effects.

Cleanup Approach

This site is being addressed in three stages: an immediate action to inhibit further spread of the two contaminant plumes and three long-term remedial actions addressing the Newmark Plume Area, the Muscoy Plume Area, and the source of the contamination.

Response Action Status

Immediate Action: In May 1992, the EPA conducted a soil gas investigation to evaluate the need for a removal action at a potential disposal site in a residential neighborhood. It was confirmed that a disposal trench existed but no VOCs were present. In-home air sampling confirmed that volatile contaminants from the groundwater were not detectable in residences above the contaminated groundwater. In October 1993, EPA conducted a state-of-the-art subsurface survey over several acres to investigate a potential military equipment disposal area. No buried waste was discovered.

Newmark Plume Area: An investigation was initiated in 1990 to identify the source of the contaminant plume on the east side of the Shandin Hills, and to identify ways to control continued down-gradient migration of the plume while removing contaminants. The investigation determined that the contamination originated at least 2 miles upgradient of the site in another portion of the valley. A remedy was chosen in 1993 to pump and treat nearly 18 million gallons of contaminated water per day. This action will control the spread of contamination into clean parts of the aquifer and prevent additional contaminants from entering this part of the valley. The water will be treated by conventional activated carbon adsorption technology to meet all drinking water standards. The treated water will be delivered to the local municipal water departments, which will bear the majority of the operating costs. Design of the remedy began in 1993 and is scheduled to conclude in early 1995. It is expected that the cleanup actions will take approximately 30 years.

Muscoy Plume Area: The investigation of the Muscoy area began in 1992, identifying the source or sources of contamination and determining how to control the migration of the plume. In 1994, the EPA separated the Muscoy Area into two projects: the Muscoy Plume, targeted at controlling the spread of contamination into clean areas; and the Source project, which will address final cleanup of the source of contamination (described on the next page). The remedy for the Muscoy Plume is expected to be selected in early 1995. The preferred remedies involve pumping of approximately 9 million gallons per day from the leading edge of the plume, treating the water with conventional technologies to drinking water standards, and delivering the treated water to local water departments.

Source Control: The suspected source of site-wide contamination is the former WWII army base, Camp Ono, which closed in 1947 and has been developed for light industry and residential uses. The base covered over 1,600 acres and had been largely undeveloped until the 1980s. A San Bernardino County landfill and several industrial operations are also located in this portion of the San Bernardino Valley. The U.S. Department of Defense and the EPA have been working closely with the Army Corps of Engineers and San Bernardino County Solid Waste Department to perform an investigation into the nature and extent of contamination. The investigation to date has included research of military archives, numerous interviews, seismic and magnetometer surveys of the subsurface, and construction of four monitoring wells. Once the investigation is completed, scheduled for late 1996, a final cleanup remedy will be selected.

Environmental Progress

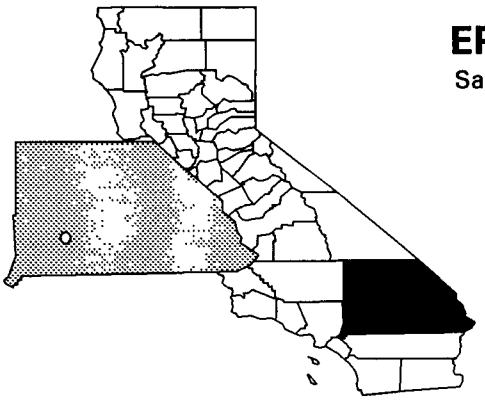
After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Newmark Groundwater site while studies are ongoing and final cleanup activities are being planned. However, the San Bernardino Municipal Water Department has constructed and operated four wellhead treatment systems to ensure the safety of the public water supply.

Site Repository

San Bernardino County Public Library, 104 West Fourth Street, San Bernardino CA 92415

San Bernardino Valley Municipal Water District Office, 1350 South 'E' Street,
San Bernardino CA 92412

NORTON AIR FORCE BASE
CALIFORNIA
EPA ID# CA4570024345



EPA REGION 9
San Bernardino County
San Bernardino

Other Names:
Area II Landfill

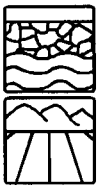
Site Description

The 2,003-acre Norton Air Force Base site began operations in 1942 and has served as a major overhaul center for jet engines and the general repair of aircraft. The site formerly had the responsibility of providing maintenance and logistics for liquid-fuel intercontinental ballistic missiles. Past hazardous waste management practices may have contributed to existing contamination problems throughout the base. The practices include burial of drums and other unspecified materials; disposal of waste oils, solvents, and paint residues into landfills, unlined pits, ponds, and drying beds; storage of contaminants in leaking underground tanks; and spills of gas, oils, solvents, polychlorinated biphenyls (PCBs), and acids. There are more than 20 areas of contamination on the base including two landfills, six discharge areas, four chemical pits, a fire training area, a fuel spill area, a PCB spill area, a chemical spill area, two waste storage areas, an underground storage tank area, and a rumored low-level radioactive waste burial site. The base was closed in March 1994. It is currently undergoing cleanup and conversion to private use.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Groundwater contains various volatile organic compounds (VOCs), such as trichloroethylene (TCE). Soil also is contaminated with VOCs, PCBs, and heavy metals including chromium, arsenic and copper. People who accidentally ingest or come into direct contact with contaminated groundwater or soils may be at risk. However, drinking water wells show no contamination.

Cleanup Approach

This site is being addressed in five stages: immediate actions and four long-term phases focusing on cleanup of the entire site; the central base area; the northeast area; and the industrial wastewater treatment plant and golf course area.

Response Action Status

Immediate Actions: In 1986, the Air Force removed the industrial wastewater treatment plant sludge drying beds. A well contaminated with low levels of VOCs is being monitored. In 1989, 24 underground storage tanks were removed. The removal of the floor in Building 763 was completed in late 1992. A new floor was placed in the building, which is currently leased to the San Bernardino International Airport authority.

Entire Site: In 1989, the Air Force began an investigation into the nature and extent of contamination. In 1993, 44 areas of contamination were identified. A full characterization of contamination in each of these areas is continuing.

Central Base Area: In 1992, the Air Force completed an investigation into the nature and extent of contamination at the central area of the base. The selected remedy includes a pump and treat system, which was installed in 1992 and has since been expanded to control the source of the TCE groundwater plume.

Northeast Area: In 1991, the Air Force began an investigation to determine the nature and extent of contamination in the northeastern area of the base. Several potential sources of groundwater contamination have been identified. The investigation is scheduled to be completed in 1996, at which time remedies to clean up the northeast area of the site will be selected.

Industrial Wastewater Treatment Plant and Golf Course Area: In 1989, the Air Force began an investigation of the industrial wastewater treatment plant and golf course areas to determine the type and extent of contamination. Contamination attributed to the treatment plant is being identified. The investigation is scheduled for completion in 1996. Cleanup plans to address contamination will be selected based on the investigation results. The waste water treatment plant has been removed.

Site Facts: In 1986, the California Regional Water Quality Control Board issued a Cleanup and Abatement Order, requiring Norton to clean the Industrial Wastewater Treatment Plant Sludge Drying Beds. Norton Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. Norton Air Force Base was closed in 1994 under the Base Realignment and Closure Act.

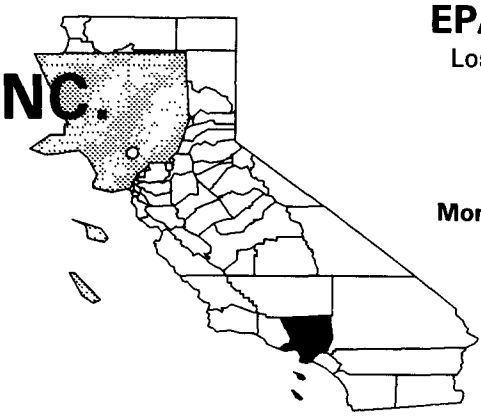
Environmental Progress

The cleanup of the sludge drying beds, the removal of underground storage tanks, and the installation of a groundwater pump and treat system have reduced the potential for exposure to contaminants at the Norton Air Force Base site while further studies are taking place and cleanup activities are being planned. The Base Boundary Pump Treat System is completed and operating. A new and expanded radioactive survey of the base is underway.

Site Repository

Norman F. Feldhym Central Library, 555 West 6th Street, San Bernardino, CA 92410

OPERATING INDUSTRIES, INC. LANDFILL
CALIFORNIA
EPA ID# CAT080012024



EPA REGION 9
Los Angeles County
Monterey Park

Other Names:
Monterey Park Landfill
OII

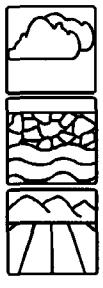
Site Description

The Operating Industries, Inc. (OII) Landfill site is located approximately 10 miles east of downtown Los Angeles. The Pomona Freeway divides the 190-acre site into two parcels. The Monterey Park Disposal Co. began landfilling operations at the site in 1948, and in the 1950s, Operating Industries, Inc. purchased the landfill and continued operations. The landfill is currently owned by OII. Over the life of the landfill, many wastes have been disposed of, including residential and commercial refuse, liquid wastes, and various hazardous wastes. In January 1984, the State of California placed OII on the California Hazardous Waste Priority List. The landfill stopped accepting wastes and was closed in late 1984. The U.S. EPA proposed OII to the NPL in the same year, and began conducting studies and taking actions to protect the local environment and those who live near the site. Approximately 23,000 people live within 3 miles of the site, and 2,100 people live within 1,000 feet of the landfill.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Air, groundwater, soil, and leachate contain various volatile organic compounds (VOCs). Potential health threats include inhalation of gases and direct contact or accidental ingestion of contaminated groundwater, soils, or leachate. There is also the potential for an explosion or fire at the site.

Cleanup Approach

This site is being addressed in five stages: emergency actions and four long-term remedial phases focusing on cleanup of the entire site, leachate management, installation of a gas control and landfill cover, and site control and monitoring.

Response Action Status

Emergency Actions: The EPA fenced the site and posted a guard to keep trespassers from coming into contact with hazardous substances. The EPA has conducted a number of emergency actions, including rehabilitation of the main gas flare station, slope stability and erosion control improvements, surface runoff and drainage improvements, and off-site trucking and treating of the leachate collected at the site. Approximately 5 1/2 million gallons of leachate have been collected to date.

Entire Site: The EPA initiated an investigation in 1989 to explore the nature and extent of groundwater contamination beneath the landfill and to select final remedies to cleanup the entire site. The EPA has installed 45 groundwater monitoring wells around the boundary of the landfill. Groundwater samples are taken regularly from these wells and sent to laboratories for analysis to determine the levels of the groundwater contamination at or near the site. The results of the first phase of the study show that some of the groundwater near the boundary of the landfill is contaminated beyond the area where contaminants previously had been detected. New wells will be installed beyond the area where contaminants have been detected so the extent of contamination can be more fully defined. Once the groundwater sampling is completed, the EPA will conduct a more detailed study and decide what remedy is appropriate. In addition to groundwater cleanup, the final remedy will address the long-term operation and maintenance of all site systems. Final cleanup remedies are expected to be selected in late 1996.

Leachate Management: Approximately 300 million gallons of liquid industrial wastes were disposed of in the landfill. Leachate forms from these liquids as they mix with water at the site. If this leachate is not controlled, it may contaminate the soil, surface water, or groundwater. Currently, leachate is collected and stored in temporary on-site tanks and then removed by trucks for off-site treatment and disposal. In 1991, construction of an on-site leachate treatment plant began on the North Parcel, away from homes. Following start-up and testing, the plant began operating in late 1991. Cleanup activities are expected to be completed in the fall of 1995. Only liquids from the site are being treated at this plant.

Gas Control and Landfill Cover: In 1990, the EPA amended the remedy selected to address landfill gas migration. Three site systems were selected, which include a system for gas control, a landfill cover, and surface water management. The gas control system will control both surface emissions and subsurface movement of gas coming out of the landfill. The system will include new gas extraction wells, new gas piping, additional gas destruction capacity, and monitoring facilities. A landfill cover system also will be designed and built to help prevent the movement of gas through the surface of the site and to decrease odors, dust, and landfill gas emissions. The cap also will keep water and oxygen out of the landfill, and will be designed to prevent erosion and movement of material down the slopes of the site. The addition of the landfill cover also will enhance the overall effectiveness of the gas control system, and will improve the appearance of the site. To the extent possible, vegetation will be planted over the cover. The surface water management system will ensure that the potential for runoff of landfill contaminants during rainfall is limited. Design of these remedies began in 1992 and is expected to be completed in late 1996.

Site Control and Monitoring (SCM): A variety of daily site activities are necessary to maintain the landfill and the existing environmental control facilities. These activities include the operation of the existing gas control systems and flares to destroy the extracted gas; maintenance of the soil cover, access roads, drainage facilities, and security fences; and monitoring of the environment both on and off the site. SCM activities also include several improvements to the existing site control systems such as repairs and modifications to the gas flare system to allow for better operation, increased capacity, and improved destruction efficiency of landfill gas. Activities also include installation of new gas recovery wells and monitoring probes to allow more gas to be collected, repairs to the gas control system at different on-site locations to improve collection of landfill gas, tests of different types of landfill cover components and vegetation, and improvements to the site irrigation system. These site control and monitoring activities have been going on since 1987.

Site Facts: In 1989, a Consent Decree was entered into by the EPA and over 100 companies that disposed of waste at the site. A number of these companies formed a cooperative group, referred to as the Steering Committee, to address the contamination at the site. In March 1992, another Consent Decree was entered into by the EPA and the potentially responsible parties, requiring the potentially responsible parties to implement, under EPA's supervision, major portions of the gas control and landfill cover remedies selected by the EPA.

Environmental Progress

The fencing of the site, removal of leachate, and the other emergency actions to control flammable site gases have reduced the potential threats from contaminated materials at the Operating Industries, Inc. Landfill site while studies are taking place and final cleanup activities are being planned.

Site Repository

Montebello Regional Library, 1550 West Beverly Boulevard, Montebello, CA 90640

PACIFIC COAST PIPE LINES
CALIFORNIA
EPA ID# CAD980636781

EPA REGION 9
Ventura County
Fillmore

Other Names:
Fillmore Texaco Refinery

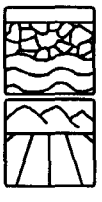
Site Description

From 1920 to 1952, the 100-acre Pacific Coast Pipe Lines site was operated by Texaco as an oil refinery. During this time, refinery wastes were deposited into unlined waste pits. The largest waste pit was located on the western boundary of the site. In 1980, Texaco requested permission from the Los Angeles Regional Water Quality Control Board (LARWQCB) to use refinery wastes to resurface on-site service roads. During site investigations, the LARWQCB detected lead at the site. Between 1981 and 1984, Texaco performed an environmental assessment of the site. Soil and groundwater were found to be contaminated with heavy metals and volatile organic compounds (VOCs). Approximately 10,000 people obtain drinking water and as many as 4,000 acres of agricultural land are irrigated from wells within 3 miles of the site. The site is secured by a barbed-wire fence. The Santa Clara River is located within 1 mile of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants



Groundwater and soil are contaminated with heavy metals and VOCs. People who accidentally ingest or come in direct contact with contaminated soil or groundwater may be at risk.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1986, Texaco excavated the main waste pit and other smaller areas and transported the soil to a federally-approved hazardous waste storage facility.

Entire Site: Pacific Coast Pipelines conducted an investigation into the nature and extent of contamination at the site under EPA oversight. A final cleanup remedy was selected in 1992 that called for groundwater treatment through solvent extraction. Treatability studies and the design of the remedy were completed in 1994. Cleanup actions began in 1995.

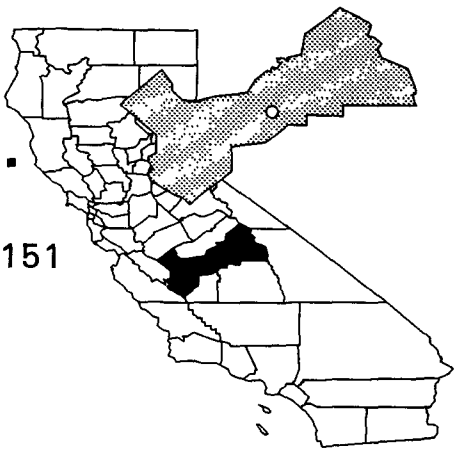
Environmental Progress

The excavation of the main waste pit and the removal of the contaminated soil have reduced the potential for exposure to contaminants at the Pacific Coast Pipe Lines site while cleanup activities are underway.

Site Repository

Fillmore City Hall, 524 Sespe Road, Fillmore, CA 93015

PURITY OIL SALES, INC.
CALIFORNIA
EPA ID# CAD980736151



EPA REGION 9
Fresno County
1/2 mile south of Fresno

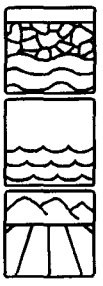
Site Description

The approximately 7-acre Purity Oil Sales Inc. site operated as a used oil reprocessing facility from 1934 until 1974. The oil and by-products from the refining process were collected and stored in sumps and storage tanks and were disposed of on site in sludge pits. Waste oil sludge was used by local farmers for dust control or buried in on-site unlined pits and ponds. Contamination problems resulted from the improper storage and disposal of wastes. Numerous surface spills occurred during site operations. In 1973, Purity Oil began to empty and backfill the waste pits. Although the waste pits were backfilled with construction debris, there is no evidence that the pits were emptied. In 1976, a fire at the site destroyed the main warehouse building and adjacent equipment. The remaining equipment was removed from the site, and the area was partially regraded. Seven aboveground steel tanks were left on site. The tanks are believed to have been used to store oil prior to reprocessing and during the acidification process. One of the tanks had an exterior asbestos coating. Although the tanks were not leaking severely, all of the tanks were rusting. All buildings and tanks have been removed from the site, and the site has been fenced. By 1982, the site was abandoned. Approximately 180 residents live in an adjacent trailer park. The Fresno Aquifer, designated as a sole source aquifer, provides water for municipal, industrial, and agricultural purposes, as well as for a number of private wells. A number of properties in the area were affected and are now served by the Fresno and Malaga water districts. The site is located in the San Joaquin River drainage basin, and the San Joaquin River is 12 miles north of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

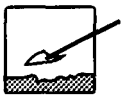


Groundwater is contaminated with various volatile organic compounds (VOCs) and heavy metals including iron and manganese. Sediment samples taken from the North Central Canal indicate the presence of lead. Soils are contaminated with phenols, polychlorinated biphenyls (PCBs), pesticides, oil and grease, VOCs, and heavy metals including lead, copper, and zinc. The contaminants identified in tank samples include PCBs, pesticides, and heavy metals including lead and zinc. Direct contact with contaminated soils may present a health threat; however, since the site is fenced, the potential of direct contact with soils has been reduced. Other potential health threats include the use of contaminated groundwater or surface water by residents or workers or inhaling site dusts.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the groundwater and tanks, and soil.

Response Action Status



Initial Actions: During 1984, several potentially hazardous sections of the site near the trailer park were covered with concrete to reduce potential human contact with site wastes. In 1985, the EPA staged and sampled drums, sampled pits and the area surrounding them, and transported the waste for disposal at an approved hazardous waste disposal facility. Approximately 1,800 cubic yards of hazardous materials from two waste pits and numerous surface seeps were shipped for disposal, and 25,000 gallons of liquids from an aboveground tank were removed. Sludge from the pits was solidified, and the pits were excavated and backfilled. In 1987, the EPA removed an additional 33,000 gallons of oil and water from an on-site tank. The site was completely fenced in 1987.

Groundwater and Tanks: The EPA selected final remedies for cleanup of the tanks that include removing and disposing of remaining contaminated wastes in the tanks; solidifying tank wastes prior to off-site disposal, if necessary; and cleaning, dismantling, and disposing of the tanks off site. The EPA removed remaining tanks in 1991. The final cleanup remedies to address groundwater contamination include using extraction wells and air stripping technology to remove contaminants from the groundwater, and a process known as "greensand" to filter iron and manganese from the water. The treated groundwater will be disposed of in the North Central Canal. Groundwater is being monitored to verify contaminant cleanup. An alternate water supply has been provided to affected private well users northwest of the site. Treatment of contaminated groundwater began in 1995.

Soil: The EPA conducted an investigation into the nature and extent of soil contamination at the site. The investigation included soil treatability studies which showed that the proposed cleanup plan, which includes soil vapor extraction of contaminants from lower layers of soil, would not adequately address lead contamination. The EPA, therefore, issued a revised proposed plan for soil cleanup before the final remedy was selected in 1992. The remedy consists of soil vapor extraction, capping the lead-contaminated soil, lining the flood control channel, and constructing slurry walls at the site perimeter. Design of these remedies began in 1993 and is expected to be completed in late 1995.

Environmental Progress

By removing hazardous materials and tanks, providing alternate water supplies to affected residents, and fencing the site, the EPA has reduced the potential of exposure to contaminated materials at the Purity Oil Sales site while final groundwater and soil cleanup activities are being planned.

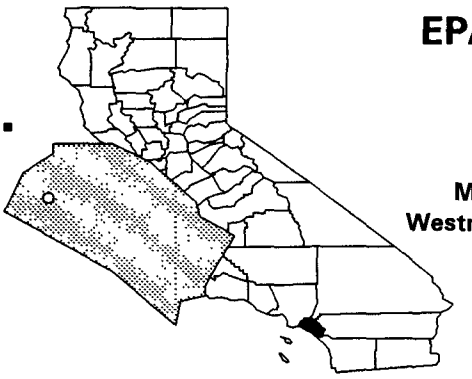
Site Repository

Fresno County Central Library, 2420 Mariposa Street, Fresno, CA 93721

RALPH GRAY TRUCKING CO.

CALIFORNIA

EPA ID# CAD981995947



EPA REGION 9

Orange County
Westminster

Other Names:
Murdy Dairy Farm
Westminster Tract #2633

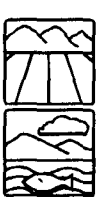
Site Description

Local records show that beginning in 1936, the Ralph Gray Trucking Co. deposited highly acidic petroleum refinery sludge in four open pits on the 23-acre site. When the area was developed for housing in the late 1950s, two trenches approximately 20 feet wide and 20 feet deep were dug in the backyards of the houses under construction. The residual sludge in the pits was then excavated and reburied in the trenches, with a shallow dirt cover of 1 to 3 feet. Upon moving into their new homes, residents complained about sulfur-like odors, respiratory irritation, and oozing of tar-like material from the buried waste onto lawns and patios and into swimming pools. In 1986, the California Department of Toxic Substances Control (CDTSC) initiated an investigation of the problem and began to periodically remove seeps of the tar-like material from residents' yards. In early 1992, at the request of CDTSC, EPA assumed lead responsibility for the site. Removal of the buried waste required the restoration of backyard at about 30 residences, and the temporary relocation of about 45 families for periods ranging from 30 days to 9 months.

Site Responsibility: This site is being addressed through Federal actions.

NPL Listing History
Proposed Date: 07/29/91
Final Date: 10/14/92

Threats and Contaminants



The waste material in the seeps contains petroleum hydrocarbons; volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylene (BTEX); non-volatile, polynuclear aromatic hydrocarbons (PAHs); and various sulfur compounds including sulfuric acid. Inhaling, ingesting, or coming into direct contact with contaminants poses a health threat, as the contaminants are located near play areas, residences, and food preparation and eating areas.

Cleanup Approach

The site is being addressed in three stages: immediate actions and two long-term phases focusing on the cleanup of the soil and groundwater.

Response Action Status

Immediate Actions: Removal of contaminated soil and buried hazardous waste began in August 1994 and is expected be completed in early 1996. Some areas have been covered with vapor barriers and clean soil. A soil vapor monitoring system is also being installed to monitor the site for any residual contamination problems.

Soil: An investigation is underway to determine if a long-term remedy to address contaminated soil is necessary, and to identify any soil contamination that remains at the location of the original disposal pits. The investigation is expected to be completed in late 1995.

Groundwater: An investigation into the nature and extent of groundwater contamination began in the summer of 1993 and is expected to be completed in late 1995. Upon completion of the investigation, remedies for groundwater cleanup will be selected.

Site Facts: The site is located in a culturally diverse neighborhood; 12 different languages are spoken in 75-home subdivision. Most site fact sheets and many other site documents are available in both English and Vietnamese. Community outreach has been conducted in Vietnamese, Cantonese, Portuguese, and Spanish, as well as English. An extensive community relations program was initiated early in the project and has been part of project, planning, and scheduling. Community support for the project is strong. The project is being addressed under Superfund Accelerated Cleanup Model (SACM), allowing the design of immediate actions to be completed within 10 months of listing the site on the NPL. Project design and contract oversight is being provided by the U.S Bureau of Reclamation through an inter-agency agreement with EPA. The Bureau of Reclamation is also responsible for the temporary relocation of site residents during the work.

Environmental Progress

Air-borne contamination and air emissions have been reduced by removing surface seeps and exposed waste on a regular basis, and by covering some areas with vapor barriers and clean soil. These actions have made the site safer while long-term cleanup activities are being planned.

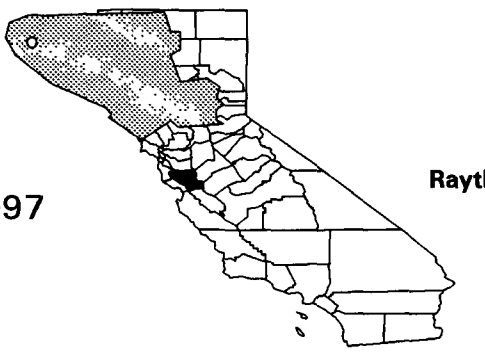
Site Repository

Westminister Public Library
Westminister Civic Center
Westminister, CA

RAYTHEON CORP.

CALIFORNIA

EPA ID# CAD009205097



EPA REGION 9

Santa Clara County
Mountain View

Other Names:
Raytheon Semi Conductor Division

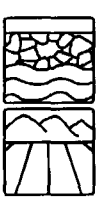
Site Description

The Raytheon Corp. operates as a semiconductor products manufacturer on this 30-acre site. The Intel Corp. (Mountain View Plant) site, the Fairchild Semiconductor Corp. (Mountain View Plant) site, and this site are being cleaned up simultaneously. All three sites are located in the Middlefield-Ellis-Whisman (MEW) study area. Various industrial activities conducted in the area of the site include semiconductor manufacturing, metal finishing operations, parts cleaning, aircraft maintenance, and other activities requiring the use, storage, and handling of a variety of chemicals, particularly solvents. Site investigations at several of these facilities during 1981 and 1982 revealed significant contamination from toxic chemicals, primarily volatile organic compounds (VOCs), in soil and groundwater. The primary causes of the contamination were leaking storage tanks and lines and poor facility management practices. Most of the site runoff is intercepted by a storm drain system and is discharged to an off-site creek. This site is one of 28 NPL sites in the South Bay Area of San Francisco that contaminate a common groundwater basin. Approximately 270,000 people within 3 miles of the site depend on groundwater as a source of drinking water.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Groundwater beneath the site and on-site soils are primarily contaminated with VOCs. Potential health threats to people include drinking contaminated groundwater, accidentally ingesting contaminated soils, and coming into direct contact with contaminated groundwater and soils.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Initial cleanup activities currently being conducted at the site by the potentially responsible parties include tank removals, well sealing, soil removal and treatment, slurry wall construction around contaminated soil areas, and local groundwater treatment.

Entire Site: The final cleanup technology chosen to address groundwater contamination is extraction and treatment. Extracted groundwater will be treated by air stripping towers. Emission controls using granular activated carbon may be required. The treated groundwater will be reused; water that cannot be reused will be discharged to local streams. This cleanup phase also includes identifying and sealing any potential conduit wells. Inward and upward hydraulic gradients will be maintained by pumping and treating water inside the slurry walls. The aquifers within and adjacent to the slurry walls will be monitored regularly. The selected cleanup technologies to address soil contamination include in-place vapor extraction, with treatment by vapor phase granular activated carbon, and excavation with air treatment. Most of the vapor extraction will take place within the slurry walls that contain the bulk of the soil contamination. Several smaller areas outside of the slurry walls also will be cleaned by in-place vapor extraction. Under EPA oversight, Raytheon began preparing the technical specifications and design for the selected groundwater and soil cleanup remedies in 1991. Groundwater and soil cleanup activities are scheduled to begin once the design phase is completed, with soil and source control (local) groundwater treatment scheduled to begin in late 1995, and regional groundwater cleanup scheduled to begin in mid-1996. Raytheon is responsible for groundwater treatment on regional basis and is using soil vapor extraction on their property as a source control remedy.

Site Facts: In 1985, the EPA issued an Administrative Order on Consent to several potentially responsible parties, including Raytheon Corporation. The Order required the parties to conduct an investigation into the nature and extent of site contamination and to recommend alternatives for final site cleanup.

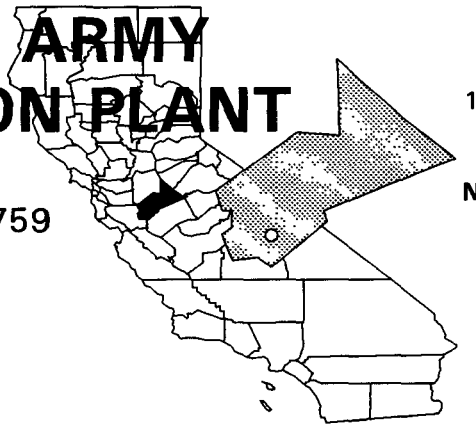
Environmental Progress

The removal of tanks and soil, the sealing of contaminated wells, and the construction of slurry walls have reduced the potential of exposure to contaminated materials at the Raytheon Corp. site while the design of final cleanup remedies is taking place.

Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

RIVERBANK ARMY AMMUNITION PLANT
CALIFORNIA
EPA ID# CA7210020759



EPA REGION 9
Stanislaus County
10 miles northeast of Modesto

Other Names:
NI Industries Inc. Riverbank Plt

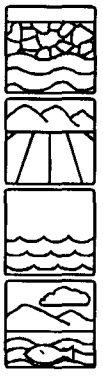
Site Description

The 173-acre Riverbank Army Ammunition Plant site has been used to manufacture materials, including cartridge cases, grenades, and projectiles, since 1951. The site comprises the 145-acre main facility and four unlined industrial waste treatment ponds in the flood plain of the Stanislaus River, located approximately 1 1/2 miles north of the main facility. In 1942, the Aluminum Company of America built the site plant as an aluminum reduction facility to supply the military. The plant closed in 1944 and reopened in 1951, with Norris Industries, Inc. as the operating contractor. As a result of industrial activities, the site has generated corrosive wastes, solvents, and wastewater containing heavy metals. Reportedly, significant levels of contaminants, including chromium and cyanide, have migrated into groundwater close to or beyond the installation boundary. In addition, a variety of waste and debris were burned or disposed of on the ground surface and in trenches in a landfill area at the facility. Studies also have determined that sediments in the waste treatment ponds contain elevated levels of zinc. Overflows from the ponds have dumped into the Stanislaus River, and the river has occasionally overflowed into the ponds during periods of flooding. Approximately 13,700 people obtain drinking water from public and private wells within 3 miles of the site, and at least 3,500 acres of nut and fruit orchards are irrigated partially by groundwater. The Stanislaus River is used for irrigation and recreational activities.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/21/90

Threats and Contaminants

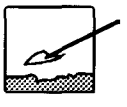


Groundwater is contaminated with chromium and cyanide. Soils in the landfill are contaminated with chromium and arsenic. Sediments in the industrial waste treatment ponds contain zinc and petroleum. Potential human health threats include drinking contaminated groundwater and showering or bathing with the water, and accidentally coming into contact with or ingesting contaminated soils from the landfill or sediments from the ponds. Potential ecological threats include exposure of local species that live in the air or on the land to contaminated soils from the landfill and sediments from the ponds.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Immediate Actions: When chromium was found in off-site domestic water wells in 1989, the Army supplied affected residents with bottled water. The Army subsequently closed the contaminated wells and replaced them with new deeper, clean wells. The Army completed an interim groundwater treatment system that became fully operational in October 1991. This system treats chromium and cyanide contaminants from extracted groundwater. In 1991, the Army began work to extend the existing City of Riverbank's public water supply system to all residents who have been, or could potentially be, affected by the contaminated groundwater. By December 1992, the residents were connected to the Riverbank water system. In 1993, the Army removed petroleum and zinc-contaminated sediments from its industrial waste treatment ponds and disposed of the sediments off-site. Groundwater around the ponds is monitored quarterly as a requirement in the National Pollution Discharge Elimination System (NPDES) permit for the ponds.

Entire Site: A remedy was selected in the spring of 1994 that includes a comprehensive groundwater extraction and treatment system for the contaminated groundwater; stabilization, capping, and monitoring of the landfill; and no further cleanup action for the ponds, which were cleaned up through the immediate actions described above. Preservation of the ponds as an ecological habitat for the local species is under consideration. The Army completed its design of the landfill cap in late 1994. Design of the groundwater extraction and treatment system is expected to be completed in the fall of 1995.

Site Facts: The Riverbank Army Ammunition Plant is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and clean up petroleum and hazardous contaminants at DOD facilities. In April 1990, the Army, the EPA, and the State of California signed a Federal Facility Agreement, which established a procedural framework and schedule for the Army to carry out the necessary site cleanup actions.

Environmental Progress

Supplying residences with clean water, replacing contaminated wells, treating and monitoring the groundwater, and disposing of contaminated sediments have reduced the potential for exposure while final cleanup activities are being planned at the Riverbank Army Ammunition Plant site.

Site Repository

Stanislaus County Library, Riverbank Branch, 3442 Santa Fe Street, Riverbank, CA 95367

SACRAMENTO ARMY DEPOT
CALIFORNIA
EPA ID# CA0210020780

EPA REGION 9
Sacramento County
Sacramento

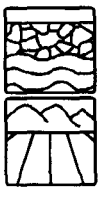
Site Description

The 485-acre Sacramento Army Depot site, established in 1945, is a supply depot primarily responsible for the receipt, storage, issuance, maintenance, and disposal of electronics supplies. Wastes from metal-plating operations, spray booth operations, and degreasing operations were discharged to unlined sewage lagoons, burned, or buried on site. These practices have resulted in the contamination of some on-site soils at the Former Oxidation Lagoons and Burn Pits and other areas, as well as the groundwater beneath the site. Soil contamination also was shown in drainage ditches leading to the Old Morrison Creek. Approximately 50,000 people live within 3 miles of the site. Morrison Creek flows around the southern boundaries of Sacramento Army Depot. The groundwater contamination at the site is in the shallow and intermediate water-bearing zones, and has migrated off site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Groundwater is contaminated with various volatile organic compounds (VOCs). Soils at the Former Oxidation Lagoons contain heavy metals including lead, cadmium, and chromium. Surface soils from on-site drainage ditches are contaminated with heavy metals including cadmium. Potential health threats to people include drinking, eating, breathing, or coming into direct contact with contaminated soils or groundwater.

Cleanup Approach

This site is being addressed in five long-term remedial phases focusing on cleanup of the entire site, groundwater, Tank 2, the oxidation lagoons, and the burn pits.

Response Action Status

Entire Site: The Army currently is investigating the nature and extent of contamination associated with the site. The investigations will identify the contaminants and recommend alternatives for final cleanup. Investigations focus on identifying all areas of soil contamination, especially those that are affecting groundwater. The Army also plans to close the old oxidation lagoons and burn pits and remove any leaking storage tanks.

Groundwater: In 1990, the Army began operating a groundwater treatment facility. Seven groundwater extraction wells pump the water to the treatment plant where hydrogen peroxide is added; the water then passes through a bank of ultraviolet lights to be decontaminated and is discharged into a sanitary sewer. The plant currently treats 1/2 million gallons of contaminated groundwater per day. Treatment of the on-site groundwater is expected to continue until the fall of 1995. Once the remedy is amended to include cleanup of off-site groundwater, treatment is expected to continue to the year 2001.

Tank 2: A study of the contamination around Tank 2 was completed in 1991. The final cleanup remedy, selected in late 1991, called for soil vapor extraction to remove the VOCs from the soil. All cleanup activities were completed in the summer of 1994.

Oxidation Lagoons: In 1988, the Army began a study of the nature and extent of contamination related to the oxidation lagoons. The final cleanup remedy, selected in the fall of 1992, calls for soil washing treatment to remove heavy metal contamination. Design of the cleanup remedy is expected to be completed in the fall of 1995.

Burn Pits: In 1991, the Army began a study of the contamination in and around the burn pits. A remedy was selected in 1993 that divides the cleanup into two phases. The first phase uses soil vapor extraction to remove VOCs from the soil. After this cleanup action is completed, the Army will remove heavy metals from the soil through solidification. Design of the first phase of cleanup is complete, with cleanup activities expected to be completed in early 1996. The second phase of cleanup, the solidification of soil contaminated with heavy metals, is expected to begin shortly thereafter.

Site Facts: The Sacramento Army Depot is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

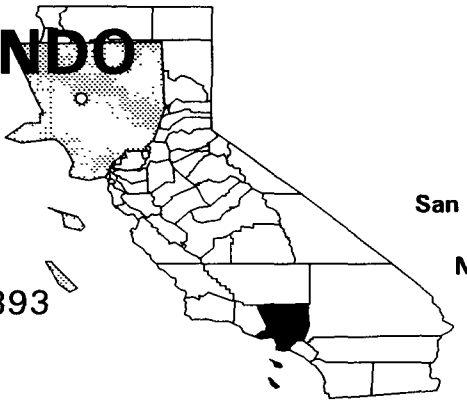
Environmental Progress

The Army has cleaned up the soil surrounding Tank 2. The operation of the groundwater treatment facility will continue to protect area residents from exposure to contaminated groundwater at the Sacramento Army Depot site while final cleanup activities are being planned.

Site Repository

Sacramento Army Depot, Visitor Control Building, 8350 Fruitridge Road, Sacramento, CA 95813

SAN FERNANDO VALLEY (AREA 1)
CALIFORNIA
EPA ID# CAD980894893



EPA REGION 9
Los Angeles County
North Hollywood

Other Names:
San Fernando Valley North Hollywood Wellfield
North Hollywood Operable Unit
Burbank Operable Unit

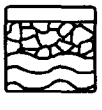
Site Description

San Fernando Valley (Area 1) is an area of contaminated groundwater covering approximately 9,336 acres near the North Hollywood section of the City of Los Angeles and the City of Burbank. This area is part of the San Fernando Valley Basin, a natural underground reservoir. Groundwater contaminated with volatile organic compounds (VOCs) was discovered in 1980. Some groundwater contaminants currently affecting the Basin's water supply can be traced back to a period between the 1940s and the 1960s, when the disposal of large quantities of chemical wastes went unregulated throughout the Valley. The discharging of chemicals still may be happening today. After 1980, contaminated wells either were taken out of service or were blended with water from clean sources. Contaminated groundwater is difficult to replace in this area because alternate sources of drinking water from the metropolitan water district and the City of Los Angeles may not always be available due to periodic drought conditions. Results of a groundwater monitoring program conducted from 1981 through 1987 revealed that approximately 50 percent of the water supply wells in the eastern portion of the San Fernando Valley Groundwater Basin were contaminated. Many of the wells have been shut down. Approximately 3 million people reside within 3 miles of the site. More than 60 public drinking water supply wells are located within the Area 1 site perimeter; 56 are owned and operated by the Los Angeles Department of Water and Power, and 11 are owned by the Burbank Public Service Department. The Basin provides drinking water to the communities of Los Angeles, Burbank, Glendale, and La Crescenta, serving approximately 600,000 residents.

Site Responsibility: This site is being addressed through Federal, State, municipal, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



The groundwater is contaminated with VOCs. Exposure to VOC contamination can occur through drinking, bathing, or cooking with contaminated groundwater. However, local residents have been provided with imported drinking water or groundwater mixed with imported water since before the site was listed on the NPL, thereby reducing the threat of exposure.

Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of area-wide groundwater, the North Hollywood Area, and the Burbank Area.

Response Action Status

Area-wide Groundwater: The California Regional Water Quality Control Board is conducting an investigation into the area-wide sources of groundwater contamination in the San Fernando Valley Groundwater Basin. This study will include the three other sites in the Valley that are listed on the NPL. The EPA selected an interim remedy in June 1993 that calls for groundwater extraction and treatment. The EPA plans to complete a Basin-wide feasibility study in early 1996.

North Hollywood Area: Based on the results of the study conducted by the State, the EPA has chosen the following interim cleanup remedy: groundwater pump and treat using aeration and granular activated carbon air filtering units, with discharge of treated water to the Department of Water and Power's pumping station for chlorination and distribution as a public water supply. Construction of the treatment plant at the site began in 1987. The system was activated in 1989; the pump and treat system will continue to operate for at least 10 years. Water is pumped to an aeration tower where the contaminants are removed from the water by an air stripper. These contaminants are then captured by a carbon adsorption system to limit air emissions of the compounds. The spent carbon will be removed and scheduled either for disposal or regeneration. Treated water is transferred to a holding reservoir before entering the city's distribution system. Approximately 50 percent of the production wells are still being pumped, with the other 50 percent of the wells shut down due to contamination.

Burbank Area: In 1989, an interim cleanup remedy was selected for the Burbank area of the site that calls for extraction of groundwater from new extraction wells in the most highly contaminated zones. The contaminated water will be treated through a stripping process (air or steam) to remove the organic solvents. Carbon adsorption will be used to treat air emissions from the air stripping process. Once the treated water is blended, it will be delivered to the City of Burbank's Public Service Department for distribution through the public water supply system. Excess water will be reinjected into the aquifer. The design for Phase I of the remedy, which will extract and treat groundwater at an approximate rate of 8 million gallons a day, began in 1994. Construction of Phase I was completed in 1995, and the system currently is operational. Phase II currently is being designed, and the design for Phase III is expected to begin in late 1996.

Site Facts: The EPA and the California Regional Water Quality Control Board entered into a Cooperative Agreement for the Basin-wide investigation of the San Fernando Valley Basin. The potentially responsible parties will continue to conduct site cleanup under EPA oversight. The North Hollywood Area and the Burbank Area treatment facilities combined will treat contaminated water at a rate of approximately 15 million gallons a day.

Environmental Progress

The provision of an alternate water supply and the operation of the groundwater treatment system in the North Hollywood and Burbank Areas have reduced the potential of exposure to contaminated drinking water at the San Fernando Valley (Area 1) site and will continue to protect residents near this site while further cleanup activities are being planned.

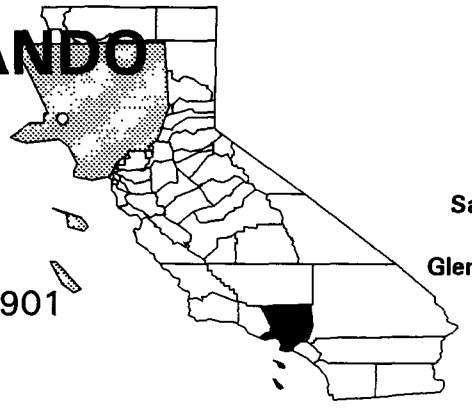
Site Repository

Burbank Public Library, Central Library, 110 North Glen Oaks Boulevard, Burbank, CA 91502

SAN FERNANDO VALLEY (AREA 2)

CALIFORNIA

EPA ID# CAD980894901



EPA REGION 9

Los Angeles County
Los Angeles and Glendale

Other Names:
San Fernando Valley Basin-Crystal Springs Area
Glendale North & South Operable Unit

Site Description

San Fernando Valley (Area 2) is an area of contaminated groundwater covering approximately 6,680 acres near the Crystal Springs Well Field in the Cities of Los Angeles and Glendale. This area is part of the San Fernando Valley Basin, a natural underground reservoir. Groundwater contaminated with volatile organic compounds (VOCs) was discovered in 1980. Some groundwater contaminants currently affecting the Basin's water supply can be traced back to a period between the 1940s and 1960s, when the disposal of large quantities of chemical wastes went unregulated throughout the Valley. The discharging of some chemicals still may be occurring. To alleviate the groundwater contamination, wells either were taken out of service or well water was blended with water from clean sources. Contaminated groundwater is difficult to replace in this area, because water from the metropolitan water district, an alternate source of drinking water, may not always be available due to periodic drought conditions. Results of a groundwater monitoring program conducted from 1981 to 1987 revealed approximately 50 percent of the water supply wells in the eastern portion of the San Fernando Valley Groundwater Basin were contaminated. Many of the wells have been shut down. Approximately 3 million people reside within 3 miles of this site. Approximately 50 public drinking water supply wells are located within the Area 2 site perimeter. The Basin provides drinking water to the communities of Los Angeles, Burbank, Glendale, and La Crescenta, serving a population of approximately 600,000 residents.

Site Responsibility: This site is being addressed through Federal, State, and municipal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

The groundwater is contaminated with various VOCs. Exposure to the VOC contamination can occur through drinking, bathing, or cooking with contaminated groundwater. However, local residents have been provided with imported drinking water or groundwater mixed with imported water since before the site was listed on the NPL, thereby reducing the threat of exposure.

Cleanup Approach

This site is being addressed in four long-term remedial phases focusing on cleanup of area-wide groundwater, the North Hollywood Area, the Burbank Area, and the Glendale North and South Areas.

Response Action Status

Area-wide Groundwater: The California Regional Water Quality Control Board is conducting an investigation into the area-wide groundwater contamination in the San Fernando Valley Groundwater Basin. This investigation includes the three other sites in the Valley that are on the NPL. The EPA selected an interim remedy in June 1993 that calls for groundwater extraction and treatment. The EPA plans to complete the Basin-wide feasibility study in early 1996.

North Hollywood Area: Based on the results of the study conducted by the State, the EPA has chosen the following interim cleanup remedy: groundwater pump and treatment using aeration and granular activated carbon air filtering units, with the discharge of treated water to the Department of Water and Power's pumping station for chlorination and distribution as a public water supply. Construction of the treatment plant began in 1987. The system was activated in 1989 and will continue to operate for at least 10 years. Water is pumped to an aeration tower where the contaminations are removed from the water by an air stripper. These contaminants are then captured by a carbon adsorption system to limit air emissions of the compounds. The spent carbon will be removed and scheduled either for disposal or regeneration. Treated water is transferred to a holding reservoir before entering the city's distribution system. Approximately 50 percent of the production wells are still being pumped, with the other 50 percent of the wells shut down due to contamination.

Burbank Area: In 1989, an interim cleanup remedy was selected for the Burbank area of the site that calls for extraction of groundwater from new extraction wells in the most highly contaminated zones. The contaminated water will be treated through a stripping process (air or steam) to remove the organic solvents. Carbon adsorption will be used to treat air emissions from the air stripping process. Once the treated water is blended, it will be delivered to the City of Burbank's Public Service Department for distribution through the public water supply system. Excess water will be reinjected into the aquifer. The design of Phase I of the remedy, which will extract and treat groundwater at an approximate rate of 8 million gallons a day, began in 1994. Construction of Phase I was completed in 1995, and the system currently is operational. Phase II currently is being designed, and the design for Phase III is expected to begin in late 1996.

Glendale North and South Areas: The Los Angeles Department of Water and Power conducted an investigation to determine the nature and extent of groundwater contamination at the Glendale North & South areas. Investigations for both areas as well as proposed cleanup plans were prepared in 1992. Groundwater pump and treat was selected as the final cleanup remedy in 1993. Design of the remedy is underway and expected to be completed in early 1996.

Site Facts: The EPA and the California Regional Water Quality Control Board have entered into a Cooperative Agreement to perform an investigation of contamination sources in the San Fernando Valley Basin.

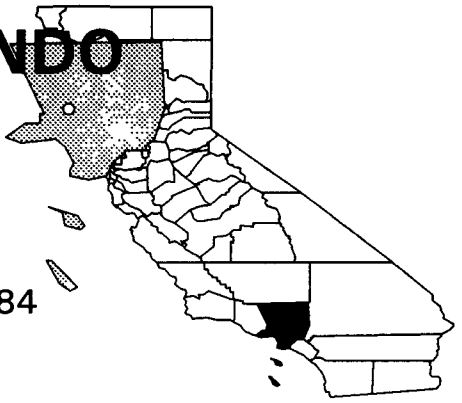
Environmental Progress

The provision of an alternate drinking water supply and pumping and treating of contaminated groundwater in the North Hollywood and Burbank Areas have reduced the potential of exposure to contaminated drinking water at the San Fernando Valley (Area 2) site and will continue to protect residents near this site while further cleanup activities are being planned.

Site Repository

City of Glendale Public Library, 222 East Harvard Street, Glendale, CA 91205

SAN FERNANDO VALLEY (AREA 3)
CALIFORNIA
EPA ID# CAD980894984



EPA REGION 9
Los Angeles County
Glendale

Other Names:
San Fernando Valley Basin-Glorietta Area
La Crescenta Operable Unit
Verdugo

Site Description

The 5,200-acre San Fernando Valley (Area 3) site is an area of contaminated groundwater located near the Glorietta Well Field in the City of Glendale. This area is part of the Verdugo Basin, a natural underground reservoir that represents an important source of drinking water for people in the City of Glendale and the unincorporated area of La Crescenta. The Verdugo Basin flows into the San Fernando Valley Groundwater Basin. Groundwater contaminated with volatile organic compounds (VOCs) was discovered in 1980. Some groundwater contaminants currently affecting the Basin's water supply can be traced back to a period between the 1940s to the 1960s, when the disposal of large quantities of chemical wastes went unregulated throughout the Valley. Illegal dumping and currently leaking underground storage tanks may be the cause of further groundwater contamination. To alleviate this groundwater contamination, wells either were taken out of service or were blended with water from clean sources. Contaminated groundwater is difficult to replace in this area because water from the metropolitan water district, an alternate source of drinking water, may not always be available due to periodic drought conditions. Results of a groundwater monitoring program conducted from 1981 to 1987 revealed approximately 50 percent of the water supply wells in the eastern portion of the San Fernando Valley Groundwater Basin were contaminated. Approximately 3 million people reside within 3 miles of the site. Many of the wells have been shut down. The Basin provides drinking water to the communities of Los Angeles, Burbank, Glendale, and La Crescenta and serves approximately 600,000 residents.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

The groundwater is only minimally contaminated with various VOCs. Exposure to the VOC contamination can occur through drinking, bathing, and cooking with contaminated groundwater. However, local residents have been provided with imported drinking water or groundwater mixed with imported water since before the site was listed on the NPL, which thereby reduces the threat of exposure.

Cleanup Approach

This site is being addressed in a long-term remedial phase focusing on cleanup of the area-wide groundwater.

Response Action Status

Area-wide Groundwater: The California Regional Water Quality Control Board is conducting an investigation into the area-wide sources of groundwater contamination in the San Fernando Valley Groundwater Basin. This study will include the three other sites in the Valley that are on the NPL. The EPA selected an interim remedy in June 1993 that calls for groundwater extraction and treatment. The EPA plans to complete the Basin-wide feasibility study in early 1996.

Site Facts: The EPA and the California Regional Water Quality Control Board entered into a Cooperative Agreement to perform an investigation of the contamination in the San Fernando Valley Basin.

Environmental Progress

The provision of an alternate water supply has reduced the potential of exposure to contaminated drinking water at the San Fernando Valley (Area 3) site and will continue to protect residents near this site while final cleanup activities are being planned.

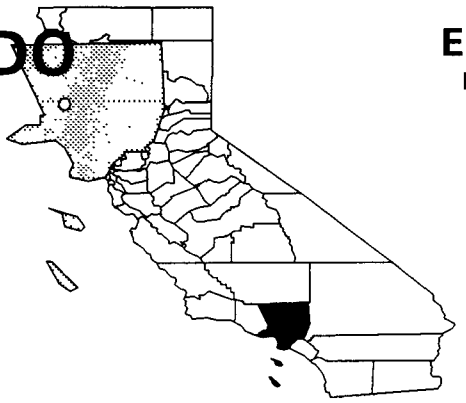
Site Repository

Burbank Public Library, Central Library, 110 North Glen Oaks Boulevard, Burbank, CA 91502

SAN FERNANDO VALLEY (AREA 4)

CALIFORNIA

EPA ID# CAD980894976



EPA REGION 9
Los Angeles County
Los Angeles

Site Description

The 5,860-acre San Fernando Valley (Area 4) site is an area of contaminated groundwater located near the Pollock Well Field in the City of Los Angeles. This area is part of the San Fernando Valley Basin, a natural underground reservoir. Groundwater contaminated with volatile organic compounds (VOCs) was discovered in 1980. Some groundwater contaminants currently affecting the Basin's water supply can be traced back to a period between the 1940s and the 1960s, when the disposal of large quantities of chemical wastes went unregulated throughout the Valley. To alleviate this groundwater contamination, wells either were taken out of service or blended with water from clean sources. Contaminated groundwater is difficult to replace in this area because alternate sources of drinking water from the metropolitan water district and the City of Los Angeles may not always be available due to periodic drought conditions. Results of a groundwater monitoring program conducted from 1981 to 1987 revealed approximately 50 percent of the water supply wells in the eastern portion of the San Fernando Valley Groundwater Basin were contaminated. Many of the wells have been shut down. Approximately 3 million people reside within 3 miles of the groundwater basin. The Basin provides drinking water for the communities of Los Angeles, Burbank, Glendale, and La Crescenta and serves approximately 600,000 residents.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

The groundwater is contaminated with various VOCs. Exposure to VOC contamination can occur through drinking, bathing, or cooking with contaminated groundwater. However, local residents have been provided with imported drinking water or groundwater mixed with imported water since before the site was listed on the NPL, which thereby reduces the threat of exposure.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the area-wide groundwater and Pollock Well Field.

Response Action Status

Area-wide Groundwater: The California Regional Water Quality Control Board is conducting an investigation into the area-wide sources of groundwater contamination in the San Fernando Valley Groundwater Basin. This investigation will include the three other sites in the Valley that are on the NPL. The EPA selected an interim remedy in June 1993 that calls for groundwater extraction and treatment. The EPA plans to complete the Basin-wide feasibility study in early 1996.

Pollock Well Field: EPA completed an interim investigation of Pollock Well Field in April 1994. The Los Angeles Department of Water and Power, under EPA oversight, is expecting to reactivate the Pollock Well Field and begin wellhead treatment in 1997. Investigations are continuing to determine the full nature and extent of contamination at this area. These investigations are expected to be completed in 1996, at which time final cleanup remedies will be selected.

Site Facts: The EPA and the California Regional Water Quality Control Board entered into a Cooperative Agreement to perform an investigation of the contamination in the San Fernando Valley Groundwater Basin.

Environmental Progress

The provision of an alternate water supply has reduced the potential of exposure to contaminated drinking water at the San Fernando Valley (Area 4) site and will continue to protect residents while investigations continue.

Site Repository

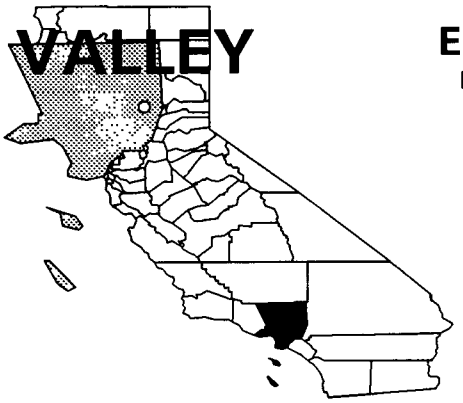
City of Glendale Public Library, 222 East Harvard Street, Glendale, CA 91205

Los Angeles Department of Water and Power Library, 111 North Hope Street, Room 518, Los Angeles, CA 90012

SAN GABRIEL VALLEY (AREA 1)

CALIFORNIA

EPA ID# CAD980677355



EPA REGION 9
Los Angeles County
El Monte

Site Description

The San Gabriel Valley (Area 1) site is an area of contaminated groundwater over 4 miles long and 1½ miles wide located in the San Gabriel Valley. In 1984, the EPA identified four large areas of groundwater contamination in the San Gabriel Valley; each area is a separate Superfund site. The sites include four large areas of groundwater contamination that underlie significant portions of the Cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, West Covina, and other areas of the 170 square-mile San Gabriel Valley. Over 30 square miles of groundwater under the Valley may be contaminated. Contamination of the groundwater by volatile organic compounds (VOCs) was first detected in 1979 when Aerojet Electrosystems in Azusa sampled nearby wells in the Valley County Water District. Subsequently, the California Department of Health Services (CDHS) initiated a well sampling program to assess the extent of contamination. By 1984, 59 wells were found to be contaminated with high levels of VOCs. Hundreds of individual facilities could be contributing to the contamination in the basin through improper handling and disposal practices. The area of contamination parallels the San Gabriel River to the east. The basin's groundwater provides approximately 90 percent of the domestic water supply for over 1,000,000 people who live in the Valley. Over 400 water supply wells are used in the basin to extract groundwater for industrial, business, agricultural, and domestic uses. Forty-five different water suppliers operate in the basin and provide drinking water to more than 1,000,000 people. In 1992, EPA completed construction of a water treatment plant for the Richwood Mutual Water Company to assist them in providing water that meets drinking water standards.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 05/08/84

Threats and Contaminants

Groundwater and soil are contaminated with various VOCs. People in the San Gabriel Valley may be exposed to contaminants in groundwater and soil through drinking, bathing, or cooking. People who inhale vapors that contain VOCs could be exposed to hazardous substances. Currently, all drinking water provided meets Federal and State drinking water standards.

Cleanup Approach

This site is being addressed in five long-term remedial phases focusing on cleanup of area-wide contamination, the Whittier Narrows area, the Suburban Water System's Bartolo Well Fields, the Richwood Mutual Water Company area, and identification and cleanup of the source of contamination.

Response Action Status

Area-wide Contamination: In 1984, the EPA began a study into the nature and extent of contamination throughout the four San Gabriel Valley sites. The intent of the investigation is to identify areas of the site for focused study and provide support to ongoing cleanup efforts. This study is expected to continue through late 1996.

Whittier Narrows Area: In 1987, the EPA began a study of the nature and extent of contamination in the Whittier-Narrows area of the San Gabriel Valley. The investigation led to a decision in 1993 that no further action was required in this area except groundwater monitoring, because contaminant levels were within health-based levels.

Suburban Water System's Bartolo Well Field: In 1988, the EPA selected the following alternatives to address contamination at the Bartolo Well Field: extracting groundwater from the existing wells in the Bartolo Well Field; modifying, if feasible, the existing wells and installing new production wells to selectively extract groundwater from the most highly contaminated zones of the underlying aquifer; building an air stripping system; taking measures to floodproof the wells; installing a gas treatment system to control the emissions of VOCs from the air stripping system; treating contaminated water to concentrations that meet the requirements of the State and the EPA; and feeding the treated water directly into Suburban Water System's water distribution system. Design of the cleanup activities was completed in 1991. However, groundwater contamination levels at the Bartolo Well Field and throughout the area adjacent to and upgradient from the wells dropped and now meet federal drinking water standards. Therefore, the remedy was amended in the fall of 1993 to include monitoring only, with a contingency plan to treat groundwater should contaminant levels again exceed federal drinking water standards.

Richwood Mutual Water Company: In 1992, the EPA installed a water treatment system to provide clean water to the Richwood Mutual Water Company. In 1993, responsibility for operating the plant was transferred from the EPA to the California State Department of Toxic Substances.

Source Identification and Control: The California Regional Water Quality Control Board, Los Angeles Region, working under a Cooperative Agreement with the EPA, is identifying the sources of contamination. To date, nearly 400 individual facilities have been confirmed as having soil contamination.

Environmental Progress

Completed actions to ensure that residents are being provided with a safe drinking water supply have addressed immediate site contamination concerns. The EPA performed preliminary investigations and determined that residents near the San Gabriel Valley (Area 1) site are protected while studies are taking place and final cleanup actions are being planned.

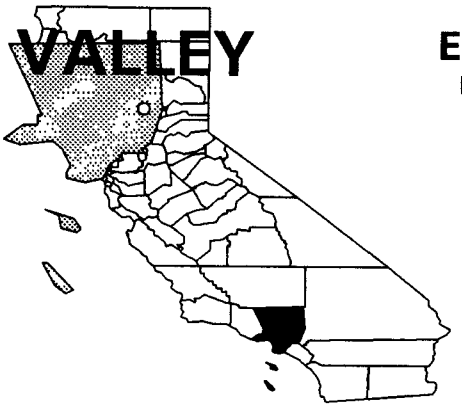
Site Repository

Whittier Central Library, 7344 South Washington Street, Whittier, CA 90602

SAN GABRIEL VALLEY (AREA 2)

CALIFORNIA

EPA ID# CAD980818512



EPA REGION 9
Los Angeles County
Baldwin Park

Site Description

The San Gabriel Valley site is an area of contaminated groundwater that runs along the west fork of Alhambra Creek in the San Gabriel Valley. This site is located in the 170-square-mile San Gabriel Valley. Over 30 square miles of groundwater under the Valley may be contaminated. The site includes large areas of groundwater contamination that underlie significant portions of the Cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, West Covina, and other areas of the San Gabriel Valley. Contamination of the groundwater by volatile organic compounds (VOCs) was first detected in 1979 when Aerojet Electrosystems in Azusa sampled nearby wells in the Valley County Water District. Following this discovery, the California Department of Health Services (CDHS) initiated a well sampling program to assess the extent of contamination. By 1984, 59 wells were found to be contaminated with high levels of various VOCs. Hundreds of individual facilities could be contributing to the contamination in the basin through improper handling and disposal practices. Analyses show that many wells in the area do not meet the EPA's standards for water quality. The basin's groundwater provides approximately 90 percent of the domestic water supply for over 1,000,000 people who live in the Valley. Over 400 water supply wells are used in the basin to extract groundwater for industrial, business, agricultural, and domestic uses. Forty-five different suppliers of water operate in the basin and provide drinking water to more than 1,000,000 people.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 05/08/84

Threats and Contaminants

The San Gabriel Valley (Area 2) site includes multiple plumes of groundwater contamination. The area of contamination is several miles long, thousands of feet wide, and several hundred feet deep. The most prevalent contaminants in the groundwater are trichloroethene (TCE), perchloroethylene (PCE), and carbon tetrachloride. Other volatile organic compounds (VOCs) are also present. The peak contaminant concentration measured in groundwater is 7500 times the maximum contaminant level (MCL) allowed by Federal and State law. People could face a health threat by ingesting or touching contaminated soil or water.

Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of area-wide contamination, the Baldwin Park area, and identification and control of the source of contamination.

Response Action Status

Area-wide Contamination: In 1984, the EPA began efforts to understand the nature and extent of the soil and groundwater contamination, develop a basin-wide cleanup plan to set cleanup priorities, and develop the institutional framework necessary to address the contamination. The EPA expects to continue these efforts through late 1996.

Baldwin Park: The EPA has compiled and analyzed sampling results from existing water supply wells, sampled inactive water supply wells, worked with businesses to install and sample more than 25 groundwater monitoring wells, installed one 1,500-foot monitoring well, and established a basin-wide groundwater database now shared by numerous agencies. EPA completed an investigation and issued its proposed plan for cleanup in 1993. A remedy was selected in March 1994. The selected remedy, now in the design stage, calls for large groundwater pump and treat systems capable of extracting approximately 19,000 gallons per minute, or 27 million gallons per day, of contaminated groundwater.

Source Identification and Control: The California Regional Water Quality Control Board, Los Angeles Region, working under a Cooperative Agreement with the EPA, is identifying the sources of contamination. To date, nearly 400 individual facilities have been confirmed as having soil contamination.

Site Facts: The Baldwin Park remedy attempts to combine cleanup and regional water supply goals. EPA is working with local agencies to reach agreements to implement a joint clean up/water supply project that would satisfy EPA cleanup goals and regional water supply goals by transporting treated groundwater to displace imported surface water from the Colorado River and Northern California. A joint project would cost more than a "cleanup only" project, but has the potential to use revenue from sales of treated groundwater and Federal and local subsidies to offset the increased costs. Efforts are underway to resolve the many institutional obstacles to a joint clean up/water supply project, including the need for modifications to the existing water rights agreement, agreements to fund the water supply components of remedy, and agreements for use of existing water distribution infrastructure. An agreement is in place for the potentially responsible parties to begin the design of the Baldwin Park remedy. Special Notice indicating responsibility for the remainder of the design and for cleanup actions is expected in 1995. In the 1980s, EPA and the California Regional Water Quality Control Board began efforts to identify the sources of the groundwater contamination in San Gabriel Valley (Area 2) with a list of more than 1,600 commercial and industrial facilities. Through searches of State and local records, information requests to hundreds of businesses, facility inspections, soil vapor and groundwater sampling, and other investigative techniques, the EPA and the Regional Water Quality Control Board have narrowed the list to 17 potentially responsible parties that EPA believes are responsible for the majority of the groundwater contamination in the area.

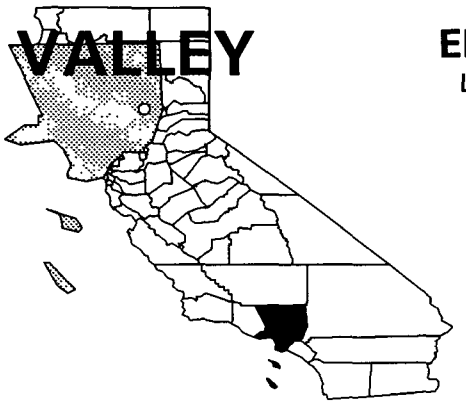
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the San Gabriel Valley (Area 2) site while studies are taking place and final cleanup actions are planned.

Site Repository

Whittier Central Library, 7344 South Washington Street, Whittier, CA 90602

SAN GABRIEL VALLEY (AREA 3)
CALIFORNIA
EPA ID# CAD980818579



EPA REGION 9
Los Angeles County
Alhambra

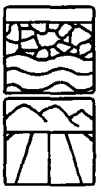
Site Description

The San Gabriel Valley site is an area of contaminated groundwater that runs along the west fork of Alhambra Creek in the San Gabriel Valley. This site is located in the 170-square-mile San Gabriel Valley. Over 30 square miles of groundwater under the Valley may be contaminated. The site includes large areas of groundwater contamination that underlie significant portions of the Cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, West Covina, and other areas of the San Gabriel Valley. Contamination of the groundwater by volatile organic compounds (VOCs) was first detected in 1979 when Aerojet Electrosystems in Azusa sampled nearby wells in the Valley County Water District. Following this discovery, the California Department of Health Services (CDHS) initiated a well sampling program to assess the extent of contamination. By 1984, 59 wells were found to be contaminated with high levels of various VOCs. Hundreds of individual facilities could be contributing to the contamination in the basin through improper handling and disposal practices. Analyses show that many wells in the area do not meet the EPA's standards for water quality. The basin's groundwater provides approximately 90 percent of the domestic water supply for over 1,000,000 people who live in the Valley. Over 400 water supply wells are used in the basin to extract groundwater for industrial, business, agricultural, and domestic uses. Forty-five different suppliers of water operate in the basin and provide drinking water to more than 1,000,000 people.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 05/08/84

Threats and Contaminants



Groundwater and soil are contaminated with various VOCs. People in the San Gabriel Valley may be exposed to contaminants in groundwater and soil through drinking, bathing, or cooking. People who inhale vapors from groundwater that contain VOCs could be exposed to hazardous substances. Currently, all drinking water provided meets Federal and State drinking water standards.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of area-wide contamination and identification and control of the source of contamination.

Response Action Status

Area-wide Contamination: In 1984, the EPA began a study of the nature and extent of contamination throughout the San Gabriel Valley. The intent of this investigation is to identify specific areas at the San Gabriel Valley site for focused study as well as to support ongoing activities at other areas of the San Gabriel Valley sites. Under this investigation, additional groundwater cleanup or monitoring may be required. The EPA expects to continue these efforts through late 1996.

Source Identification and Control: The California Regional Water Quality Control Board, Los Angeles Region, working under a Cooperative Agreement with the EPA, is identifying sources of contaminants. To date, nearly 400 individual facilities have been confirmed as having soil contamination.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the San Gabriel Valley (Area 3) site while studies are taking place and final cleanup actions are planned.

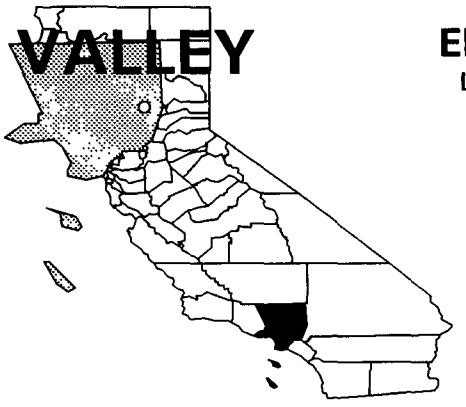
Site Repository

Whittier Central Library, 7344 South Washington Street, Whittier, CA 90602

SAN GABRIEL VALLEY (AREA 4)

CALIFORNIA

EPA ID# CAD980817985



EPA REGION 9
Los Angeles County
La Puente

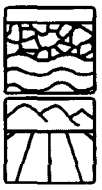
Site Description

The San Gabriel Valley (Area 4) site is an area of contaminated groundwater that runs along San Jose Creek in La Puente. This site is one of four Superfund sites located in the 170-square-mile San Gabriel Valley. Over 30 square miles of groundwater under the Valley may be contaminated. The sites include four large areas of groundwater contamination that underlie significant portions of the Cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, West Covina, and other areas of the San Gabriel Valley. Contamination of the groundwater by volatile organic compounds (VOCs) was first detected in 1979 when Aerojet Electrosystems in Azusa sampled nearby wells in the Valley County Water District. Following this discovery, the California Department of Health Services (CDHS) initiated a well sampling program to assess the extent of contamination. By 1984, 59 wells were found to be contaminated with high levels of various VOCs. Hundreds of individual facilities could be contributing to the contamination in the basin through improper handling and disposal practices. Analyses show that many wells in the area do not meet the EPA's standards for water quality. The basin's groundwater provides approximately 90 percent of the domestic water supply for over 1,000,000 people who live in the Valley. Over 400 water supply wells are used in the basin to extract groundwater for industrial, business, agricultural, and domestic uses. Forty-five different suppliers of water operate in the basin and provide drinking water to more than 1,000,000 people.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 05/08/84

Threats and Contaminants



Groundwater and soil are contaminated with various VOCs. People in the San Gabriel Valley may be exposed to contaminants in groundwater and soil through drinking, bathing, or cooking. People who inhale vapors from groundwater that contain VOCs could be exposed to hazardous substances. Currently, all drinking water provided meets Federal and State drinking water standards.

Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of area-wide contamination, the Puente Valley area, and identification and control of the source of contamination.

Response Action Status

Area-wide Contamination: In 1984, the EPA began a study of the nature and extent of contamination throughout the San Gabriel Valley. The intent of this investigation is to identify specific areas of the site for focused study and provide support to ongoing activities at all areas of the San Gabriel Valley site. The EPA expects to continue these efforts through late 1996.

Puente Valley Area: Potentially responsible parties, under EPA oversight, are investigating the nature and extent of contamination at the Puente Valley area. The investigation is expected to be completed in late 1996.

Source Identification and Control: The California Regional Water Quality Control Board, Los Angeles Region, working under a Cooperative Agreement with the EPA, is identifying sources of contaminants. To date, nearly 400 individual facilities have been confirmed as having soil contamination.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the San Gabriel Valley (Area 4) site while studies are taking place and final cleanup actions are planned.

Site Repository

Whittier Central Library, 7344 South Washington Street, Whittier, CA 90602

SELMA TREATING CO.
CALIFORNIA
EPA ID# CAD029452141

EPA REGION 9
Fresno County
1/2 mile from Selma

Other Names:
Selma Pressure Treating Company
Saw Mill Properties

Site Description

The 18-acre Selma Treating Company site includes a 3- to 4-acre wood treatment facility and 14 acres of an adjacent vineyard that were used for site drainage. The facilities on site have been used by a series of owners to treat lumber products almost continuously since 1936. At least two general methods of wood preservation have been used. Before 1965, lumber was dipped into a mixture of pentachlorophenol (PCP) and oil, and then was dried on open racks, letting the excess liquid drip off. In 1965, the site converted to a pressure-treating process, which consisted of two basic steps: conditioning the wood to reduce moisture content and to increase permeability, and impregnating the wood with chemical preservatives. From 1936 to 1971, chemical wastes from the treatment plant were disposed of on site in percolation ditches, dry wells, an unlined pond, and a sludge pit. Chemical preservatives also were released to the ground, particularly in the wood treatment area, as a result of spillage, dripping, and leaking. Waste fluids were discharged through pipelines that ran along the boundaries of the vineyard into off-site drainage areas and ditches. In 1971, the State collected samples from an unlined sump on the property. After concluding that the discharges posed a serious threat, the State issued discharge requirements. Subsequently, the company installed an effluent recovery system. Between 1978 and 1981, the State issued new waste discharge requirements for the facility that included provisions for preventing and monitoring spills and leaks from waste storage areas onto unpaved areas and for preventing surface runoff from the unpaved areas. In 1981, the Selma Treating Company filed for bankruptcy. In 1982, Sawmill Properties, Inc. acquired the facility with the stipulation that Selma Leasing Company continue to accept responsibility for the site cleanup. The aquifer beneath the site is the sole source of water in the area. There are 12 residences and businesses within 1/4 mile of the site. The Town of Selma has a population of approximately 10,000 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Groundwater contains chromium. Soil is contaminated with PCP, volatile organic compounds (VOCs), and heavy metals such as chromium, arsenic, and copper. People who accidentally ingest or come into direct contact with contaminated groundwater or soils may be at risk. However, no contamination has been found in any public or private drinking water wells. If contaminants reach irrigation wells, crops may become contaminated.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: In 1982, Sawmill Properties installed concrete drip drying pads and runoff containment berms and instituted operational controls to prevent further soil and groundwater contamination.

Entire Site: In 1988, the EPA selected a remedy to clean up the site by extracting and treating the groundwater and then reinjecting the treated water into the aquifer or discharging it off site; excavating the contaminated soil, solidifying it, placing it back in the excavated areas, and covering it with clean soil or clay; monitoring the groundwater and soil for 30 years; and placing restrictions on land and groundwater use. The EPA completed the technical specifications for the soil cleanup in mid-1992. Cleanup began shortly thereafter and is expected to be completed in late 1996. Groundwater cleanup is being undertaken in two phases. This approach is the result of changes in the contaminated aquifer from five years of drought. The EPA completed the design for a pilot groundwater treatment system in early 1992 and is expected to complete construction of the pilot system in late 1995. The second phase is now underway, with completion of the design for a full-scale treatment system expected in late 1995. Construction of the full-scale treatment system is expected to begin in 1996.

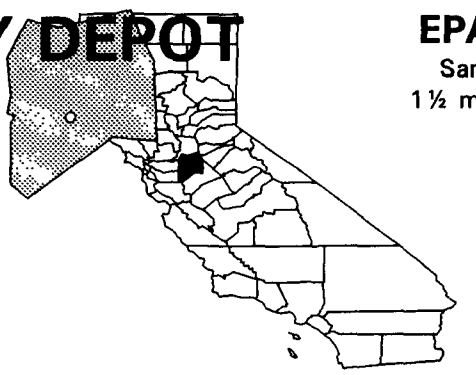
Environmental Progress

The installation of concrete pads and berms has contained contaminated soil and groundwater at the Selma Treating Company site while cleanup continues.

Site Repository

Fresno County Library, Selma Beach, 2200 Selma Street, Selma, CA 93662

SHARPE ARMY DEPOT
CALIFORNIA
EPA ID# CA8210020832



EPA REGION 9
San Joaquin County
1 ½ miles east of Lathrop

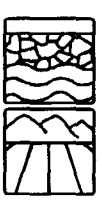
Site Description

The 724-acre Sharpe Army Depot site has been involved in the storage, shipping, packaging, and maintenance of general supplies. Between 1941 and 1975, maintenance of aircraft, vehicles, industrial equipment, and medical equipment resulted in the generation of a variety of chemical wastes. Wastes produced on site were disposed of in multiple locations, including the South Balloon Area, the Burning Pits Area, and the North Balloon Area. The wastes include sludge containing phenols, polychlorinated hydrocarbons, and used paints and solvents. Wastes have contaminated both soil and groundwater. All maintenance activities have ceased, and the waste areas no longer are used. The Depot employs approximately 1,200 people. The contaminated sole source aquifer supplies water to approximately 33,600 people within 3 miles of the facility. The San Joaquin River is 2 miles from the depot.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Groundwater and soil contain volatile organic compounds (VOCs) including trichloroethylene (TCE). People who accidentally ingest contaminated groundwater or come in direct contact with site contaminants may be at risk.

Cleanup Approach

This site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on cleanup of the entire site and groundwater cleanup.

Response Action Status

Immediate Actions: The Army built an interim groundwater treatment system at the South Balloon area. Extraction and treatment of groundwater to remove VOC began in early 1987. A second interim groundwater treatment system became operational in the North Balloon area in late 1990.

Entire Site: In 1989, the Army began an investigation to determine the extent of contamination throughout the base. The remedy feasibility study was finalized in December 1993. Currently the proposed cleanup plan is being drafted and a final remedy is expected to be selected in the fall of 1995.

Groundwater: In 1989, the Army began an investigation to determine the nature and extent of groundwater contamination. The groundwater remedy selected in early 1993 includes the installation of a groundwater treatment system for the Central Area. The system is being designed and is scheduled to be operational in 1995.

Site Facts: The Sharpe Army Depot is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

The operation of two interim groundwater treatment systems at the Sharpe Army Depot site has reduced the potential for exposure to contaminated groundwater while further investigations are underway and final cleanup activities are being planned.

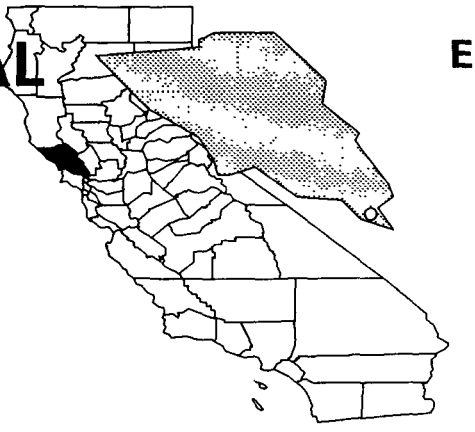
Site Repository

Manteca Library (Administrative File Index), 320 West Center Street, Manteca, CA 95336

SOLA OPTICAL USA, INC.

CALIFORNIA

EPA ID# CAD981171523



EPA REGION 9
Sonoma County
Petaluma

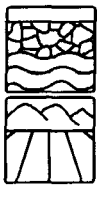
Site Description

Sola Optical USA, Inc. has been producing optical lenses on this 35-acre site since 1978. In 1982, the California Department of Health Services (CDHS) identified acetone in an on-site well. Subsequently, Sola reported that soil adjacent to six underground solvent storage tanks at the facility was contaminated with volatile organic compounds (VOCs). In 1985, Sola removed the underground storage tanks and confirmed that the shallow groundwater underneath the site was contaminated with VOCs. In 1986 and 1987, the State found low levels of solvents in the Petaluma #5 City Well. This well is located approximately 500 feet from the site and may be hydraulically connected to the contaminated aquifer beneath the site. The well has been shut down until treatment of the contaminated groundwater is completed. Affected residences have been connected to the Petaluma Water Department distribution system, which serves approximately 50,000 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/22/90

Threats and Contaminants



Groundwater contains various VOCs, including acetone. The low level of contaminant concentrations in the soil are within federal guidelines. Scientific data shows that these soil contaminants will not affect the groundwater. If contaminants had migrated off site, people who accidently ingested or came in direct contact with contaminated groundwater or soils may have been at risk.

Cleanup Approach

Response Action Status

Entire site: In 1989, Sola, under EPA oversight, began an investigation to determine the nature and extent of contamination at the site. The investigation was completed in 1991. The selected remedy for final cleanup included continued operation of the existing extraction well that has been in use since 1988, installation of two additional shallow wells, conversion of two deep monitoring wells into extraction wells, and treatment by carbon adsorption of the contaminated groundwater, which is then discharged to a creek or to the City sewage treatment plant. All site construction activities were completed in late 1992. Groundwater treatment will continue until established cleanup goals for the site are met.

Site Facts: In 1985, the California Regional Water Quality Control Board (CRWQCB) issued Waste Discharge Requirements calling for Sola to conduct groundwater studies. In 1987, the CRWQCB issued site cleanup requirements calling for Sola to determine the lateral and vertical extent of groundwater contamination and to propose cleanup alternatives. The State of California worked with Sola to install a groundwater pump and treat system.

Environmental Progress

Construction of all cleanup remedies are complete. Ongoing treatment of groundwater will continue to reduce site-related contamination at the Sola Optical USA, Inc. site. until established cleanup goals are met.

Site Repository

Petaluma Public Library, 100 Fairgrounds Drive, Petaluma CA 94952

SOUTH BAY ASBESTOS AREA
CALIFORNIA
EPA ID# CAD980894885

EPA REGION 9
Santa Clara County
Alviso

Other Names:
Alviso Dumping Area

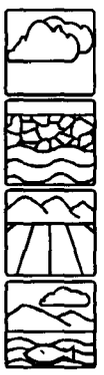
Site Description

The 550-acre South Bay Asbestos Area site is located on the southern edge of the San Francisco Bay. Portions of the site served as dumping areas for over 30 years. Three landfills located within the site boundaries (the Santos Landfill, the Leslie Salt Landfill, and the Sainte Claire Corporation Landfill) received asbestos wastes from an asbestos-cement pipe manufacturing plant, located 4 miles south of the site, that operated from 1953 until 1982. Residents reportedly used waste asbestos pipe to drain excess water from their properties before curbs and gutters were installed. Several areas may have been filled with asbestos-containing soils transported in by residents to raise the elevation of their property and to improve flood protection. As a result of heavy rains in 1983, Coyote Creek flooded the site. The City of San Jose built a levee around the town to pump out the floodwater. The levee material was taken from the Raisch Quarry in southern San Jose and was later found to contain asbestos. Asbestos also was found in the Guadalupe River levee, the ring levee, and in surface soils around the town. Approximately 1,700 people live in Alviso. Most water is provided to South Bay residents through public supply systems that draw groundwater from the deep aquifer. The majority of private wells draw water from the less-protected shallow aquifer. The ring levee lies within the 100-year flood plain of the Guadalupe River and was built on portions of wetland areas adjacent to Alviso. The levee also abuts wetland areas next to a National Wildlife Refuge.

Site Responsibility: This site is being addressed through Federal, municipal, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/01/86

Threats and Contaminants



Past studies indicated that the air was polluted with asbestos due to the disturbance of asbestos-contaminated soils, caused primarily by heavy truck traffic. Groundwater in the shallow aquifer contains asbestos. Site soils are contaminated with asbestos. The wetland areas adjacent to Alviso have been threatened. The greatest health threat to people is the inhalation of airborne asbestos fibers. Once asbestos fibers enter the lungs, the fibers can be trapped in the body. Asbestos fibers also may be ingested through contaminated food and water.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the entire site and of the ring levee.

Response Action Status

Initial Actions: In 1983, the Santa Clara valley Water District removed asbestos wastes from the Guadalupe River levee. From 1986 to 1987, the EPA paved a lot at the George Mayne School and an unpaved portion of Spreckles Avenue, removed a debris pile and stabilized a trail at the Environmental Education Center, and applied polymer sealant to the ring levee. The levee since has been sprayed annually by the City of San Jose. In 1992 and 1993, the levee was sprayed twice a year. The asbestos contaminated ring levee was removed in 1993.

Entire Site: The final cleanup remedies selected to address contamination of the entire site include paving the asbestos-contaminated truck and industrial yards, wet-sweeping Alviso streets monthly, removing asbestos debris, installing landfill covers, implementing deed restrictions, and maintaining and monitoring the site. The design of the cleanup technologies was completed in 1992. Four truck yards have since been paved, and maintenance inspections and repairs take place on an annual basis. An ambient air study for asbestos was conducted in 1994 to assess the effectiveness of these cleanup efforts. Results of the study will be available in 1995. All construction was completed in 1993. Landfill covers meet applicable clean soil cover requirements, and deed restrictions will be implemented during 1995 to control site property use. The City of San Jose is wet-sweeping the streets on a monthly basis.

Ring Levee: The EPA had decided to build a vegetated soil cover to address the asbestos-contaminated ring levee. However, this remedy was revised via a Consent Decree signed in 1990 requiring the City to remove the contaminated levee and restore the wetlands after an alternate flood control project is devised and in place. The flood control project, scheduled for completion by late 1995, includes Coyote Creek channel improvements. The asbestos-contaminated ring levee was removed in 1993 and replaced with a levee made with clean soil. The replacement of the levee and the wetlands restoration are scheduled to take place by 1996, after the flood control project is completed.

Environmental Progress

Removing asbestos wastes, paving of the lots, and removing the asbestos-contaminated ring levee have reduced the potential of exposure to contaminated materials at the South Bay Asbestos Area site while flood control measures and additional site cleanup take place.

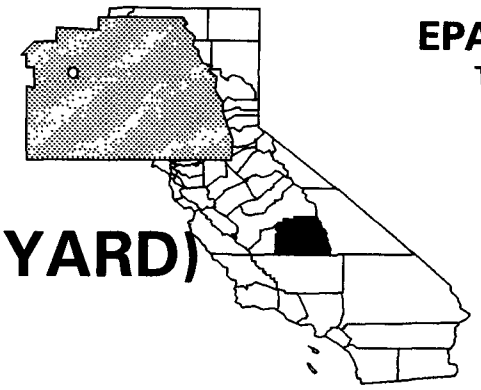
Site Repository

San Jose Public Library, Alviso Branch, 1060 Taylor Street, Alviso, CA 95002

SOUTHERN CALIFORNIA EDISON CO. (VISALIA POLEYARD)

CALIFORNIA

EPA ID# CAD980816466



EPA REGION 9
Tulare County
Visalia

Site Description

The 20-acre Southern California Edison Co. (Visalia Poleyard) site was operated as a utility pole treatment yard from the 1920s until 1980. Wood preservatives, including creosote and pentachlorophenol (PCP), were used and stored on site during site operations. Leaking tanks and stored treated poles have contaminated groundwater and soil. Approximately 60,000 people live within 6 miles of the site. The distance from the site to the closest residence is 1/4 mile. California Water Service Company wells within 3 miles of the site supply drinking water to Visalia residents. The local municipal water system includes over 35 drinking water wells within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 01/22/87
Final Date: 03/31/89

Threats and Contaminants

Groundwater and soil are contaminated with wood-treatment chemicals including creosote and PCP. Potential health threats include accidental ingestion of or direct contact with contaminated soils or groundwater.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1977, a slurry wall was built to slow contaminant migration in the shallow aquifer. Southern California Edison, the potentially responsible party, removed 2,300 cubic yards of contaminated soil and disposed of it off site at an approved disposal facility. The facility has upgraded its on-site groundwater treatment system to include anthracite filtration in addition to carbon filtration. The potentially responsible party now discharges the treated groundwater directly to Mill Creek, a small tributary two blocks from the site. This discharge is licensed by the State.

Entire Site: Southern California Edison and the State, under EPA supervision, conducted an investigation into the nature and extent of the contamination at the site. The investigation defined the contaminants and provided alternatives for the final groundwater and soil cleanup. In mid-1994, the State selected a final cleanup remedy for the site and the EPA concurred. Since the immediate actions at the site addressed the principal threats, the final remedy includes bioremediating remaining contaminated soil, establishing access and deed restrictions, and capping the soil, if necessary. Further testing is being conducted before the remedy is designed.

Site Facts: In 1976, the State issued a Cleanup and Abatement Order, requiring Southern California Edison to abate discharge of treatment fluids into the soil, to contain contaminated soil and water on the property, to pump shallow groundwater under the site before and during construction of an underground slurry wall around the site, to pump and lower the confined aquifer to remove contamination, and to clean up contaminated shallow groundwater off site. In 1987, Southern California Edison and the State signed an agreement requiring the utility to perform a study to determine the nature and extent of site contamination and to recommend alternatives for final cleanup action.

Environmental Progress

The construction of a slurry wall, removal of contaminated soil, and treatment of contaminated groundwater have reduced the potential of exposure to contaminants at the Southern California Edison Co. (Visalia Poleyard) site while cleanup remedies are being planned.

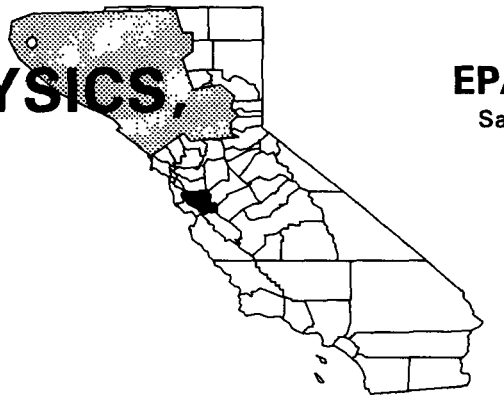
Site Repository

Contact the Region 9 Superfund Community Relations Office.

SPECTRA-PHYSICS, INC.

CALIFORNIA

EPA ID# CAD009138488



EPA REGION 9
Santa Clara County
Mountain View

Site Description

The 11½-acre Spectra-Physics, Inc., site has been the location of a manufacturer of electronic equipment and gas lasers since 1961. Beginning in 1981, Spectra-Physics, Inc. stored its hazardous wastes on bermed concrete pads. Only one storage area has a cement floor without a berm, and that area is used for storing solid wastes. A variety of cleaners, degreasers, and lubricants are used in the manufacturing process. Wastes from manufacturing processes include volatile organic compounds (VOCs), paints, oils, acids, and bases. In 1981, the State discovered areas where hazardous wastes were stored that had no dikes or leachate collection systems. Additionally, several on-site wastewater sumps are suspected of contributing VOCs to the soils and groundwater. Contaminated groundwater from the site has moved off site to the north and merged with the contaminated plume of another NPL site, the Teledyne Semiconductor, Inc. site, which borders the Spectra-Physics, Inc. site. The two firms are jointly cleaning up the sites. Approximately 189,000 people obtain drinking water from public and private wells within 3 miles of the site. Groundwater within 1 mile of the site is used for private and municipal purposes. More than 200 private drinking water wells were drilled into the contaminated plume; most of these wells have been closed. Between 1982 and 1985, the users of these private wells were connected to municipal water supplies. The closest residence is located 200 feet southwest of the site. San Francisco Bay is 2½ miles downstream of the site and is used for recreation. The tides that influence the Bay also influence Permanente Creek, which is within 1 mile of the site. Several species of endangered birds are found within the area of tidal influence.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/11/91

Threats and Contaminants

Soil contained VOCs, but has since been cleaned up. Groundwater is contaminated with VOCs. Elevated concentrations of VOCs were detected in water samples from Permanente Creek. Potential health threats to people include drinking, inhaling, or coming in direct contact with contaminated groundwater and groundwater vapors, or touching or accidentally ingesting contaminated soils. Several species of endangered birds could be affected by contaminated surface water.

Cleanup Approach

Response Action Status

Initial Actions: In 1987, one wastewater sump was removed, and 6 feet of surrounding soils were excavated. In 1986 and 1988, an on-site shallow groundwater extraction well and one intermediate zone groundwater extraction well were installed. These wells were installed to prevent the plume of contaminants from migrating off site. Twenty additional wells were installed and have begun extracting groundwater from the off-site contaminant plume areas. Extracted groundwater is discharged to the City of Palo Alto sanitary sewer system. All actions were performed by Teledyne and Spectra-Physics.

Entire Site: In 1991, the EPA chose the following cleanup remedies: vapor extraction for soil cleanup, groundwater extraction and treatment, and quarterly monitoring of the groundwater as well as the soil. Soil cleanup has been completed. Groundwater treatment will continue until established cleanup goals are met.

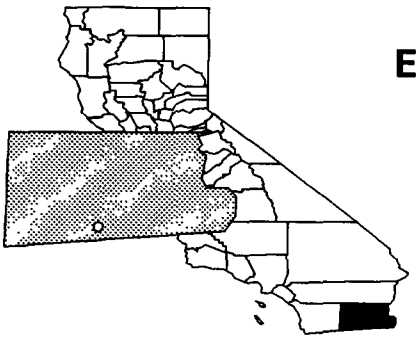
Environmental Progress

The construction of all cleanup remedies is complete. The removal of sumps and contaminated soil and the installation of groundwater extraction wells have reduced the potential of exposure to contaminants at the Spectra-Physics, Inc. site while groundwater treatment is being completed.

Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

STOKER CO.
CALIFORNIA
EPA ID# CAD066635442



EPA REGION 9
Imperial County
Imperial

Site Description

The Stoker Co., which is located in a sparsely populated agricultural area, has supplied and aerially applied pesticides since 1966. Waste and rinse waters resulting from the cleanup of equipment are sprayed onto a 20-acre land treatment unit, which consists of a dirt road and landing strip. Studies have shown that in the 1970s close to 300 gallons of waste waters per day were disposed of in the land treatment unit; this amount dropped to 100 gallons sometime before 1988. Empty pesticide bags and boxes were also burned on site. While the disposal of waste waters is permitted by the California Regional Water Quality Control Board (CRWQCB), the Stoker Co. is required to sample the soil and the groundwater beneath the site. In 1988, birds and fish that died in a pond at a nearby residence were found to have high levels of pesticides in their tissue. This discovery alerted local authorities to site contamination and resulted in the closing of the pond. Shortly afterwards an on-site warehouse containing pesticide supplies burned to the ground. The Stoker Co. responded to this incident by removing contaminated soil, an action performed under the Resource Conservation and Recovery Act (RCRA). Although a closure plan was submitted in 1989 to the CRWQCB, the Stoker Co. reconsidered closing the land treatment unit and continues to spray waste waters today. A canal runs along the southern and eastern borders of the airstrip, delivering water to a residence less than 80 feet from the site, wetlands, and a fishery. The wetlands also border the entire length of the airstrip and provide a habitat for four endangered or threatened species. The fishery, which raises catfish, is located within 1/4 mile of the site. Close to 130 people live within 1 mile of the site. Employees of the Stoker Co. are exposed to contaminated soils. One family has been relocated due to site contamination. Poor groundwater and surface water quality has forced nearby residents to drink bottled water.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 07/21/91

Threats and Contaminants

Even though the site is located in an agricultural area where pesticides are used extensively, the levels of pesticides in air, surface water, sediment, and soil samples greatly exceed background concentrations. In 1988, several pesticides were detected in the canal. Pesticides also were found in on-site soil and the pond. Sediment and air samples collected in 1989 indicated that pesticides had been released into the air and the wetlands.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1988, after discovering contaminants in dead birds and fish, local authorities closed the nearby pond. In response to the 1988 fire, approximately 300 tons of contaminated soil were removed and disposed of in a landfill regulated under the Resource Conservation and Recovery Act (RCRA).

Entire Site: In early 1993, the EPA evaluated the site to determine if any additional immediate actions were necessary. Assessment results indicated that further actions were not warranted at the site at that time. The EPA is currently evaluating the scope of any additional investigations pending the site's final listing on the NPL.

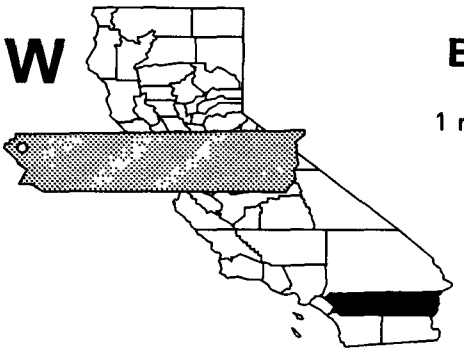
Environmental Progress

Immediate actions such as closing the pond and removing contaminated soil have reduced health and safety risks to the nearby population and environment while further investigations into contamination at the Stoker Co. site are being planned.

Site Repository

Not established.

STRINGFELLOW
CALIFORNIA
EPA ID# CAT080012826



EPA REGION 9
Riverside County
1 mile north of Glen Avon

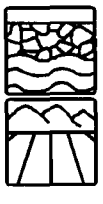
Site Description

From 1956 until 1972, the 17-acre Stringfellow site was operated as a hazardous waste disposal facility. Over 34 million gallons of industrial waste, primarily from metal finishing, electroplating, and pesticide production, were deposited in evaporation ponds. Spray evaporation procedures were used to accelerate the reduction of pond content volume. In 1969, excessive rainfall caused the disposal ponds to overflow and resulted in the contamination of Pyrite Creek and Channel. In 1978, heavy rains caused the California Regional Water Quality Control Board (CRWQCB) to authorize a controlled release of 800,000 gallons of wastewater from the site to prevent further waste pond overflow and massive releases. An additional 500,000 gallons of liquid wastes were removed at that time to a Federally approved facility. In 1979 and 1980, heavy rains again threatened releases from the waste ponds. Between the years 1975 and 1980, approximately 6 1/3 million gallons of liquid wastes and materials contaminated with pesticides were removed from the site. Glen Avon has a population of approximately 7,700 people. Over 200 residences have private wells in Glen Avon. Few private wells have been found to be contaminated, and none presently are used for drinking water. The Glen Avon area receives drinking water by three facilities: the Jurupa Community Services District, the Mutual Water Company of Glen Avon, and the Santa Ana River Water Company.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/23/81
Final Date: 09/01/83

Threats and Contaminants



Groundwater contains various volatile organic compounds (VOCs) and heavy metals such as cadmium, nickel, chromium, and manganese. Soil is contaminated with pesticides, polychlorinated biphenyls (PCBs), sulfates, and heavy metals. People who accidentally ingest or come into direct contact with contaminated groundwater or soil may be at risk. The original disposal area is covered by a clay cap, fenced, and guarded by security services. No one is currently drinking water affected by the contaminant plume.

Cleanup Approach

This site is being addressed in five stages: initial actions and four long-term remedial phases focusing on installation of a pre-treatment plant, control of the source of contamination, cleanup of the lower canyon, and cleanup of the community wells and source control.

Response Action Status

Initial Actions: From 1980 to 1984, three groundwater extraction wells, a subsurface barrier structure, and an on-site surface water drainage system with gunite channels were built. All liquid wastes on the site were removed to a Federally approved hazardous waste disposal facility. With the exception of 1,000 cubic yards of DDT-contaminated soil, which were taken to a Federally approved facility, contaminated soils from the site were used to fill waste ponds. The surface was graded, covered with clean soil, and seeded. In 1984, the State completed initial cleanup measures including fencing the site, maintaining the existing soil cap, controlling erosion, and disposing of the leachate extracted above and below the on-site clay barrier dam. In 1989, residences that had been receiving bottled water from the State were connected to the Jurupa Community Services District.

Pre-Treatment Plant: In 1984, the EPA selected a remedy for interim treatment of contaminated groundwater. The remedy featured installing a pre-treatment system consisting of lime precipitation for removing heavy metals and removing VOCs through granular activated carbon treatment. The treated groundwater is discharged to an industrial sewer line, which ultimately discharges to a publicly owned treatment works system. Additional interceptor and monitoring wells were installed to extract contaminated groundwater downgradient of the site. The State completed installation of the pre-treatment plant in 1985. As of June 1992, nearly 49 million gallons of groundwater had been extracted and treated.

Source Control: In 1984, the State completed an investigation to identify and evaluate alternatives to control the source of contamination. The State determined that continuing the pumping and treating of contaminated groundwater is sufficient to reduce contamination at the site. The treatment system will operate until established cleanup levels have been met.

Lower Canyon: In 1987, the EPA selected a remedy to capture and treat the groundwater in the lower canyon area of the site by installing a groundwater barrier system in the area and treating the extracted groundwater, installing a peripheral channel to direct uphill surface water runoff, extending the existing gunite channels southward to discharge surface water into Pyrite Creek, and reconstructing the Pyrite Creek Channel. The potentially responsible parties installed the groundwater barrier system and reconstructed the Pyrite Creek Channel. The State designed the system and completed construction of the northern channels in 1990.

Community Wells and Source Control: In 1988, the State and the EPA completed an investigation determining the type and extent of contamination in the canyon and community areas. In 1990, the EPA selected a remedy that called for the installation of a groundwater extraction system in the community to treat contaminated groundwater that has migrated downgradient to the area, possibly followed by reinjection of the treated water. The potentially responsible parties conducted design tests for the community wells system, which will lead to overall design of the pump and treat system, scheduled for completion in 1995. In addition, they selected dewatering of the on-site groundwater, a more aggressive effort to remove water from the groundwater table, as an interim source control measure. The potentially responsible parties also conducted field studies of soil vapor extraction in the on-site area, and paper studies of reinjection.

Site Facts: In 1983, the Department of Justice, on behalf of the EPA, joined with the State to file a suit against 32 potentially responsible parties. As a result of a 1988 Administrative Order on Consent, an amendment to that Order in 1992, and a 1992 Consent Decree, the potentially responsible parties developed the engineering designs and agreed to construct cleanup remedies for certain aspects of the cleanup. As of January 1995, the majority of this work had been completed.

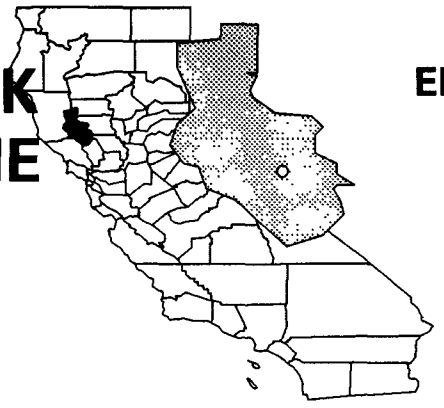
Environmental Progress

The removal of liquid waste, connection of affected residences to an alternate water supply, and installation of a groundwater capture and treatment system have reduced the potential for exposure to contaminated materials at the Stringfellow site while the remaining cleanup activities are being planned and conducted.

Site Repository

Riverside Public Library, 3581 7th Street, Riverside, CA 92509

SULPHUR BANK MERCURY MINE
CALIFORNIA
EPA ID# CAD980893275



EPA REGION 9
Lake County
Clear Lake

Site Description

The 120-acre Sulphur Bank Mercury Mine site initially was mined for sulfur from 1865 to 1871. Mercury ore was mined intermittently by underground methods from 1873 to 1905. The site periodically was opened for pit mining from 1915 to 1957. The mine, once one of the largest producers of mercury in California, has been inactive since 1957. Approximately 120 acres of mine tailings and waste rock and an open, unlined mine pit (called the Herman Impoundment) are located on the property. The mine tailings extend into the Oaks Arm of Clear Lake along 1,300 feet of shoreline. Approximately 193,600 cubic yards of waste remain on site. The Herman Pit, which is filled with acidic water, covers 23 acres and is located 750 feet upgradient of the lake. The State has found mercury in the tailings and in the biota and bottom sediments in Clear Lake. The levels of mercury in fish from the lake led the State to issue an advisory against eating fish. The Clear Lake Oaks Water District, which provides municipal drinking water for 4,700 people, is recharged by Clear Lake. Approximately 70 houses are located within 3 miles of the site. A former freshwater wetland is located 900 feet to the east of the mine. A critical habitat for three endangered wildlife species, the Peregrine Falcon, Southern Bald Eagle, and Yellow-Billed Cuckoo, is located less than 1/4 mile from the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

Threats and Contaminants

Sediments from Clear Lake, soil, surface water, and fish are contaminated with mercury and arsenic. Mercury bioaccumulation in excess of the Federally recommended limit for human consumption has been documented in Clear Lake fish; one of the major health threats associated with the site is eating mercury contaminated fish. In addition, people who accidentally ingest or come into direct contact with contaminated surface water and sediments may suffer adverse health effects. Ingestion and inhalation of contaminated soil also are primary concerns. If contaminants leach into the nearby wetland, wildlife in or around the water may be harmed.

Cleanup Approach

This site is being addressed in four stages: emergency actions and three long-term remedial phases focusing on cleanup of the Herman Impoundment, the waste piles, and lake sediments.

Response Action Status

Emergency Actions: The waste piles by the shoreline slope are being cutback to reduce further erosion of mine waste into Clear Lake. Additional activities will take place once investigations are completed.

Herman Impoundment: In 1990, the EPA began an investigation into the nature and extent of contamination at the impoundment. Alternatives under consideration for cleanup of the Herman Impoundment are taking no action, neutralizing the site, or draining and plugging the pit. The EPA is expected to select a final cleanup remedy for the impoundment in 1995.

Waste Piles: Studies concerning the nature and extent of contamination caused by the waste piles currently are underway. Possible cleanup remedies include further cutting back of the slope, covering and revegetating the area, or disposing of the tailings in the Herman Impoundment if the pit is drained and plugged. The EPA completed these studies in late 1994 and is now reviewing alternatives for final cleanup. The EPA expects to select a final remedy in late 1995.

Lake Sediments: The EPA has started an investigation exploring the nature and extent of contamination in the lake sediments. Cleanup remedies being considered include dredging and treating the sediments, or covering the contaminated sediments with sand or clay. The EPA expects the study to be completed by the end of 1997.

Environmental Progress

The EPA is currently conducting an emergency action to reduce further erosion of mine waste into Clear Lake while studies continue and final cleanup activities are being planned.

Site Repository

Lake County Library, 1425 North High Street, Lakeport, CA 95453

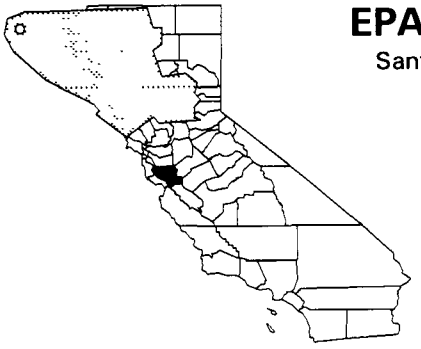
Redbud Library, 4700 Golf Avenue, Clearlake, CA 95422

EPA Region 9 Superfund Community Relations Office, 75 Hawthorne St., San Francisco, CA 94105

SYNERTEK, INC. (BUILDING 1)

CALIFORNIA

EPA ID# CAD990832735



EPA REGION 9
Santa Clara County
Santa Clara

Site Description

From 1978 to 1986, electronics were manufactured in five buildings on the 3 1/2-acre Synertek, Inc. (Building 1) site. Building 1 is adjacent to three underground storage tanks used as a neutralization system which leaked volatile organic compounds (VOCs) into the soil. These tanks were removed in 1985. At that time, it was discovered that on- and off-site groundwater had become contaminated. Subsequently, Honeywell, the property owner, installed three on- and two off-site groundwater extraction wells, along with an air stripping tower to treat the extracted groundwater. The extraction and treatment system has been in operation since 1987. Approximately 300,000 people obtain drinking water from public wells within 3 miles of the site. The nearest downgradient municipal well is located 1 1/2 miles north of the plume.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

Groundwater contains various VOCs. Based on the monitoring data, there are no indications that exposure to site-related contaminants is occurring.

Cleanup Approach

Response Action Status

Initial Actions: In 1987, Honeywell installed three on- and two off-site groundwater extraction wells, along with an air stripping tower to treat the extracted groundwater. The treated groundwater was then discharged to the storm drain, as permitted by the State.

Entire Site: Synertek, under State supervision, completed an investigation resulting in the selection of remedies for final cleanup of the site. These remedies featured continuing the operation of the groundwater extraction and air stripping system. Instead of discharging water to the storm drain, the EPA decided to reinject treated groundwater back into the ground. In 1991, Synertek completed constructing an injection well and coupled it with the existing extraction and treatment system. Groundwater treatment will continue until established cleanup goals have been met.

Environmental Progress

Construction of all remedies is complete. The groundwater treatment continues to reduce the potential of exposure to contaminated drinking water and protect residents near the Synertek, Inc. (Building 1) site.

Site Repository

Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

T.H. AGRICULTURE & NUTRITION COMPANY

CALIFORNIA

EPA ID# CAD009106220

EPA REGION 9

Fresno County
Fresno

Other Names:
Thompson-Haywood Chemical Company

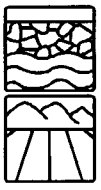
Site Description

The 5-acre T.H. Agriculture & Nutrition Company (THAN) site operated as a pesticide-formulating facility from 1962 until 1981. Other companies formulated pesticides on the site from 1950 to 1962. During the 1950s and 1960s, on-site landfills were used for disposal of wastes generated from site operations, including pesticide-laden clays from cleaning equipment. Waste has been spilled on the surface of the site and left in piles on the ground. Sampling at the site conducted by the California Department of Health Services (CDHS) detected pesticides in soil and groundwater. Approximately 30,000 people live within 3 miles of the site, with the closest resident being 500 feet from the site. Approximately 35,000 people depend on groundwater as a source of drinking water.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/01/86

Threats and Contaminants



The groundwater and soil are contaminated with pesticides. Chloroform also is contaminating the groundwater. People who accidentally ingest or come into direct contact with contaminated groundwater or soils may suffer adverse health effects.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: T.H. Agriculture & Nutrition Company, under State supervision, excavated and removed 14,000 cubic yards of contaminated soil. All affected residences have been hooked up to the public water supply system to eliminate the use of domestic wells near the site and the threat of exposure from contaminated water. A soil vapor extraction system is being installed to reduce the level of chloroform in the area.

Entire Site: The potentially responsible party is sampling to characterize soil contamination, monitor groundwater, and characterize the hydrogeology beneath the site. Extensive on- and off-site groundwater studies have been conducted. Currently, the results of the groundwater field study are being evaluated to identify cleanup remedies that could be applied at the site. The study is expected to be completed and final cleanup remedies selected in 1995.

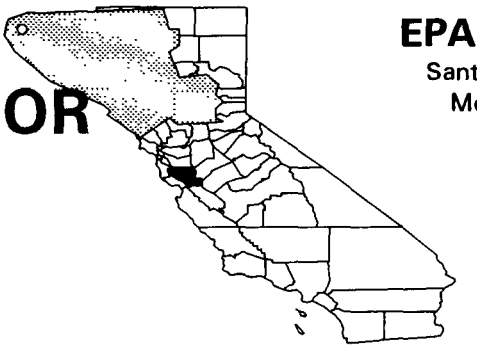
Environmental Progress

The removal of contaminated soil has reduced the potential for exposure to contaminated materials at the T.H. Agriculture & Nutrition Company site while studies are taking place and cleanup activities are being planned. The threat of exposure to chemicals through direct contact, ingestion, and inhalation of contaminated groundwater has been eliminated by extending the public water supply system to affected residences.

Site Repository

Fresno Country Library, Sunnyside Branch, 5547 East Kings Canyon Road,
Fresno, CA 93727

TELEDYNE SEMICONDUCTOR
CALIFORNIA
EPA ID# CAD009111444



EPA REGION 9
Santa Clara County
Mountain View

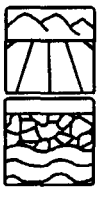
Site Description

Teledyne Semiconductor has operated as a semiconductor manufacturer at this 1-acre site since 1962. In 1982, Teledyne reported to the California Regional Water Quality Control Board (CRWQCB) that soil and groundwater were contaminated with solvents from an underground solvent storage tank. The State inspected the site and found that contaminants had migrated north of the site and affected approximately 50 private domestic wells. Furthermore, contaminated groundwater that migrated north from another NPL site, Spectra-Physics, Inc., merged with the contaminated plume of the Teledyne site. The two firms are cleaning up the sites jointly. These sites are among the 28 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. The site is located in a densely populated, urban area. Approximately 189,000 people live within a 3-mile radius of the site, all of whom depend on groundwater as the source of drinking water. The distance from the site to the nearest residence is 200 feet.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Soil was contaminated with volatile organic compounds (VOCs). Groundwater is contaminated with VOCs. People could be exposed to hazardous substances from the site by accidental ingestion of or direct contact with contaminated groundwater.

Cleanup Approach

Response Action Status

Entire Site: In 1990, the EPA selected the following cleanup remedies: excavation and removal of contaminated soil; groundwater extraction and treatment through an air stripper; and quarterly monitoring of the groundwater, as well as the soil. All soil excavation is complete at the site. Groundwater treatment will continue until established cleanup goals are met.

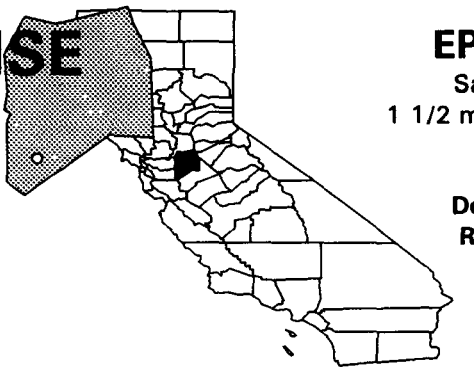
Environmental Progress

Construction of all cleanup remedies is complete. Contaminated soil has been removed. Ongoing extraction and treatment of the groundwater continues to reduce the potential for exposure to contaminants at the Teledyne Semiconductor site. Groundwater treatment will continue until established cleanup goals are met.

Site Repository

Mountain View Public Library, 585 Franklin Street, Mountain View, CA 94041

TRACY DEFENSE DEPOT
CALIFORNIA
EPA ID# CA4971520834



EPA REGION 9
San Joaquin County
1 1/2 miles southwest of Tracy

Other Names:
Defense Distribution Region West-Tracy

Site Description

The 448-acre Tracy Defense Depot site was an Army Supply Depot from 1942 to 1963, when it was turned over to the Defense Logistics Agency. Operations at the site include repacking leaking chemical containers, fumigating shipping materials, maintaining vehicles, painting, storing chemicals, preserving metal parts, operating chemical and photographic laboratories, storing and mixing pesticides, and storing and treating liquid and solid wastes. Liquid waste treatment and storage areas include an unpaved storage area, two unlined sewage effluent ponds, two abandoned sewage lagoons, two lined industrial wastewater ponds, an abandoned paint spraying/stripping rinse water pond, an abandoned trench where 150 drums of waste oil were buried, an unlined pond for holding stormwater, an abandoned pesticide disposal trench, an abandoned area where substantial amounts of formaldehyde were buried, and aboveground and underground waste tanks. Hazardous materials, including solvents, radioactive materials, medical supplies, and solid and liquid chemicals, were disposed of in three burn pits. Former solid waste treatment and storage areas included a fill area where food items were buried, a fill area where construction material was buried, and three impoundments where wastes containing mercury phosphate compounds were stored. Currently, all solid hazardous waste is hauled off site to Federally approved disposal facilities. According to tests conducted in 1985, the shallow aquifer below the site is contaminated with volatile organic compounds (VOCs). Approximately 25,000 people live within 3 miles of the site. Water from depot's municipal well, which is within 3 miles of the site, is blended with water from other wells and from the Delta Mendota Canal to provide drinking water to approximately 28,600 people.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 08/30/90

Threats and Contaminants

Groundwater is contaminated with VOCs, heavy metals, and petroleum/oil lubricants. People who accidently ingest or come into direct contact with contaminated groundwater may face health risks.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the groundwater and the entire site.

Response Action Status

Groundwater: The Defence Logistics Agency has investigated groundwater contamination in the northern area of the facility, under the direction of the State. As part of this investigation, an interim groundwater pump and treat system was installed. A final cleanup remedy was selected for the groundwater in the summer of 1993. It was determined that the existing pump and treat system should be expanded to pump more water, and thereby address contamination in the entire groundwater plume. Treatment of the groundwater will continue until established cleanup goals are met.

Entire Site: An investigation began in 1991 to determine the nature and extent of contamination throughout the site. Following this investigation, scheduled for completion in 1996, final cleanup remedies will be selected.

Site Facts: Tracy Defense Depot is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

Pumping and treating contaminated groundwater has reduced threats at the Tracy Defense Depot site while studies are taking place to determine if additional cleanup activities are necessary.

Site Repository

DDRW-Sharpe, Lathrope, CA

TRAVIS AIR FORCE BASE
CALIFORNIA
EPA ID# CA5570024575

EPA REGION 9
Solano County
3 miles east of Fairfield

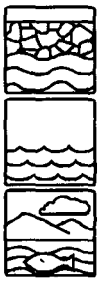
Site Description

Established in 1943, the 5,025-acre Travis Air Force Base serves as Military Air Command Headquarters to the 22nd Air Force, as well as a medical center. The Air Force has identified a number of potentially contaminated areas, including three landfills used from 1943 to 1977, one of which (Landfill No. 3) was used for the disposal of crushed and rinsed pesticide containers; areas where combustible wastes were burned for firefighting exercises from 1943 to the mid-1970s; a pit where 250 pounds of cyanide were buried in 1967; a solvent spill area where various volatile organic compounds (VOCs) may have been spilled during paint stripping operations; and the storm sewer system, one of the most contaminated portions of the base, where chemical wastes from the various shops were dumped throughout the history of the base. The old decommissioned sewage treatment plant is also of concern because cracked oxidation ponds may have contaminated the groundwater with pesticides and industrial chemicals. Approximately 27,600 people live within 1 mile of the site, and 400 people obtain drinking water from wells within 3 miles of the base. The nearest well lies 3,400 feet from the base. A spill of jet fuel in 1978 killed all aquatic wildlife along 2 miles of Union Creek. The creek flows 1 mile to Hill Slough, which is a branch of Suisun Marsh, a major coastal wetland. Because Hill Slough is tidally influenced, any contamination can reach San Francisco Bay and the Pacific Ocean. Suisun Marsh is widely used for various recreational activities and is a major stop for migratory birds on the Pacific Flyway.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 11/21/89

Threats and Contaminants



The groundwater is contaminated with various VOCs and heavy metals. Heavy metals, VOCs, and polycyclic aromatic hydrocarbons (PAHs) were detected in stormwater sewers and surface water. VOCs were found in Union Creek. People may face a health risk if they accidentally ingest or come in direct contact with contaminated groundwater or surface water. Contamination could pose a threat to Suisun Marsh, a major coastal wetland located near the site.

Cleanup Approach

Initially, Travis Air Force Base was treated as a single investigative area with one associated comprehensive cleanup schedule. In May 1993, as a result of negotiations with other Federal Agencies, the base was divided into initial actions and the four remedial phases described below.

Response Action Status

Initial Actions: Twenty-seven underground storage tanks were removed from the base in 1986.

East Industrial Area: Environmental concerns in the East Industrial Area include four fighter training areas, a gas station complex, an inactive sewage treatment plant, a jet fuel spill area and solvent spills. The Air Force began investigating the nature and extent of contamination at these areas in 1990. Final cleanup actions are expected to be selected by 1997.

Northeast Corner: The northeast corner of Travis Air Force Base is composed of two landfills that operated from 1942 to 1974. The landfills were primarily used to dispose of base refuse. The Air Force began investigating these landfills in early 1994 and expects to select appropriate cleanup actions in 1996.

West Industrial Area: The West Industrial Area consists of a skeet range, two small arms training ranges, solvent spill areas, former landfill sites, a 1950 B-29 crash site, and buildings that formed the Fairfield Air Force Station. The Air Force began investigating these landfills in mid-1994 and expects to select appropriate cleanup actions by 1998.

Remaining Areas: Remaining contaminated areas at the site include the former West Zone and 11 non-contiguous annex parcels. The annexes are parcels of land, located apart from the main installation, that come under the jurisdiction of the Travis Base Commander. In addition, other contaminated areas identified in the future that are not associated with the areas described above will be addressed under this action. The Air Force is currently investigating these remaining contaminated areas, and expects to select appropriate cleanup measures in 1996.

Site Facts: Travis Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress

The removal of underground storage tanks has reduced the potential for exposure to contaminated materials at the Travis Air Force Base site while studies are taking place and cleanup activities are being planned.

Site Repository

Mitchell Memorial Library
510 Travis Avenue (Building 436)
Travis AFB, CA
(707) 424-3279

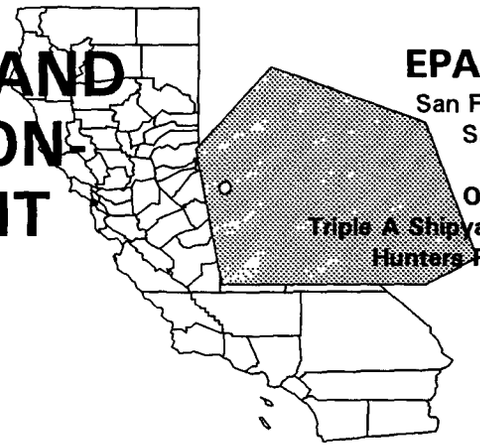
Vacaville Public Library
1020 Ulatis Drive
Vacaville, CA
(707) 449-6290

Fairfield-Suisun, Community Library
1150 Kentucky Street
Fairfield, CA
(707) 421-6500

TREASURE ISLAND NAVAL STATION-HUNTERS POINT ANNEX

CALIFORNIA

EPA ID# CA1170090087



EPA REGION 9

San Francisco County
San Francisco

Other Names:
Triple A Shipyard-Hunters Point Division
Hunters Point Naval Shipyard

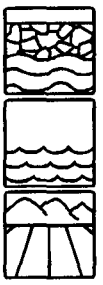
Site Description

The 936-acre Treasure Island Naval Station-Hunters Point Annex site was established in 1869 as the first dry dock on the Pacific Coast. The Navy purchased the installation in 1939 and leased it to Bethlehem Steel Company. The Navy operated Hunters Point Annex as a shipbuilding and repair facility from 1941 until 1976. Triple A Machine Shop then leased the facility from 1976 to 1986 and subleased numerous buildings to private tenants. The Navy began an investigation of potential hazardous waste contamination in 1984. A study in 1987 confirmed the presence of toxic contaminants in at least 11 site areas. In 1987, the Navy began working with the California Department of Toxic Substances Control on an overall program to clean up these and other potentially contaminated areas. The 11 known areas are: Industrial Landfill, Bay Fill Area, Oil Reclamation Ponds, Scrap Yard, Old Transformer Storage Yard, Tank Farm, Sub-Base Area, Building 503 Polychlorinated Biphenyl (PCB) Spill, Pickling and Plate Yard, Battery and Electroplating Shop, and Building 521 Power Plant. Additional potentially contaminated areas have been identified and will be evaluated during the site study process. A Technical Review Committee was formed in 1988. The committee was converted to a Restoration Advisory Board (RAB) in 1993 to include not only local, state, and federal agency representatives, but community group representatives and local residents, as well. A technical assistance grant has been awarded to a community group for this site; the group is also represented on the RAB. A water bottling company draws groundwater from a spring located approximately 1 mile from the site. Area surface waters are used for various recreational activities.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 07/14/89
Final Date: 11/21/89

Threats and Contaminants

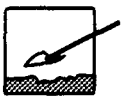


Groundwater, sediments, soil, and surface water are contaminated with fuels, pesticides, heavy metals, PCBs, and volatile organic compounds (VOCs). Soil also contains asbestos. People who accidentally ingest or come in direct contact with contaminated soils, sediments, surface water, or groundwater may face a health risk.

Cleanup Approach

This site is being addressed in two stages: immediate actions and six long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Immediate Actions: In 1988 and 1989, the Navy removed abandoned hazardous materials and industrial wastes including lead-based paint, flammables, corrosives, poisons, and waste oil from PCB-bearing transformers. Approximately 1,500 drums of these materials were collected, tested, packaged, labeled, and disposed of. PCB-bearing transformers, drums, and contaminated soil were removed from the site. In 1990, approximately 226,000 square feet of asbestos-contaminated materials were removed from 24 areas on the site. Additional removal actions, scheduled for completion by late 1995, also are being conducted for the pickling and plate yard and the tank farm. A treatment program for the sandblast grid reused the waste for asphalt and was completed.

Parcel A: This 90-acre parcel is primarily developed for residential use. The Navy has investigated three utilities sites, four building sites, one underground storage tank, and groundwater. In 1993, the Navy removed contaminated soil and the underground storage tank. In 1994, the Navy removed additional soil. Investigations of the site are expected to be completed by late 1995, at which time remedies for cleanup will be selected and the Parcel A property will be transferred to the City of San Francisco. This will be the first property transfer at the site.

Parcel B: This 66-acre parcel is primarily developed for industrial and maritime uses. The Navy has investigated 15 areas in addition to stormdrains, sanitary sewers, and fuel lines. Soil "hotspots" and groundwater plumes are contaminated with petroleum, PCBs, and VOCs. Naturally occurring radiation was discovered along with stormwater releases to San Francisco Bay. Tanks from the Tank Farm were removed in 1993. Further investigation of seven areas are required and will begin in 1995. A bioremediation treatability study for the remaining contaminated soils is being planned. Investigations of Parcel B are scheduled for completion by 1996, at which time final cleanup remedies will be selected.

Parcel C: This 77-acre parcel is primarily developed for industrial and maritime uses. The Navy has investigated nine areas in addition to stormdrains, sanitary sewers, and fuel lines. Navy investigations have determined that there are 15 "hotspots" contaminated with petroleum, VOCs, pesticides, heavy metals, PCBs, and semi-VOCs. There are also six groundwater plumes contaminated with heavy metals, VOCs, and petroleum. Dry Dock 4, which will be leased to Astoria Metals for ship dismantling, will have contaminated sediment removed beginning in 1995. The potential further groundwater contamination from another aquifer is suspected. Further investigations at eight other areas of the site are being conducted. Final cleanup remedies are scheduled to be selected in late 1996.

Parcel D: This 128-acre parcel is primarily developed for industrial and maritime uses. Investigations by the Navy have indicated that soils and groundwater are contaminated with VOCs, petroleum, and PCBs. Further investigations are necessary at Parcel D. Removal actions at the Pickling and Plating Yard are scheduled for completion by late 1995. Investigations leading to the selection of final cleanup remedies are scheduled for completion by late 1996.

Parcel E: This 135-acre parcel is primarily undeveloped and was formerly used for landfilling and other waste disposal. Investigations indicate that the soil and groundwater are contaminated with VOCs, petroleum, PCBs, heavy metals, and pesticides. Three treatability studies are proposed for this parcel: bioremedialtion of soils at the Oil Reclamation Pond; selective removal of radium dials buried at the radium dial dump and in the landfill; and, installation of a slurry wall around the landfill/Bay Fill area. Further investigations are planned for remaining areas of Parcel E. Final cleanup remedies are scheduled to be selected by early 1997.

Parcel F/Basewide: Four hundred and sixty-five acres of underwater property at Hunters Point Annex is proposed to be included with Parcel F. An ecological risk assessment was begun in 1993 to evaluate the level of harm to the aquatic habitat. Other basewide activities include: an asbestos survey completed in 1994; ongoing radiation survey; PCB-bearing transformer removal completed in 1993; completion of a sandblast grid fixation; and steamline and stormdrain sediment removal (which have not yet begun). Final cleanup remedies will be selected once investigations are completed.

Site Facts: Treasure Island Naval Station-Hunters Point Annex is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. A Federal Facilities Agreement, which will govern the site cleanup process, was signed September 28, 1990. This site is being closed under the Base Realignment and Closure Act. Additionally, 1990 federal legislation requires the Navy to lease the site to the City of San Francisco.

Environmental Progress

The removal of hazardous materials, drums, transformers, and contaminated soil has reduced the potential for exposure to contaminated materials at the Treasure Island Naval Station-Hunters Point Annex site while investigations continue and final cleanup activities are being planned.

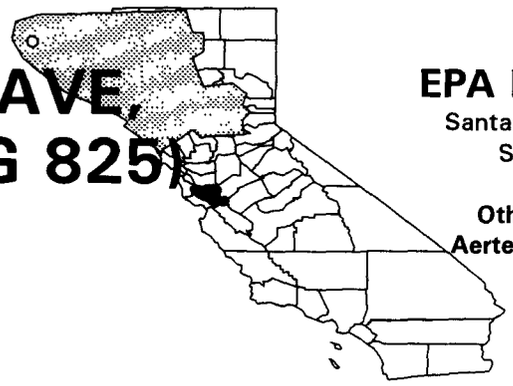
Site Repository

Contact the Region 9 Superfund Community Relations Office.

TRW MICROWAVE, INC. (BUILDING 825)

CALIFORNIA

EPA ID# CAD009159088



EPA REGION 9

Santa Clara County
Sunnyvale

Other Names:
Aertech Industries
FEI

Site Description

The TRW Microwave, Inc. (Building 825) site neighbors three other NPL sites: Signetics, Advanced Micro Devices (AMD), and AMD #915. A groundwater plume from the four sites covers 1/3 square mile in Sunnyvale. The TRW facility was occupied by Aertech Industries from 1968 until it was sold to TRW, Inc. in 1984. In 1987, TRW sold the facility to FEI Microwave, Inc., its current occupant. The primary activity at the site was assembling and testing microwave components, until semiconductor processing began in 1970. Primarily solvents and small quantities of acids are used in the assembly areas for semiconductors. Solvents, acids, and heavy metals are used in the fabrication areas and plating shop. The paint shop uses paints and solvents. Groundwater beneath the site is contaminated with volatile organic compounds (VOCs). Acid rinse water generated by the assembly processes is neutralized on site and is discharged to the City of Sunnyvale sewer system. However, rinse water containing metals is not sent to the neutralizers; it is collected in containers and disposed of off site. An underground ammonia gas acid neutralization system was installed when the facility first opened. Floor drains and acid sinks in the plating shop were connected to buried plumbing that carried acid waste to the neutralization system. This system was closed in 1986, and the underground piping was sealed. The system was replaced with three aboveground tanks. Spent solvents were stored in one of four on-site underground tanks. Since 1983, solvents have been stored in drums and transported off site. The closest residence is located 1,200 feet north of the site. Contaminants from the site have the potential to migrate to deep drinking water aquifers. Municipal wells for the cities of Santa Clara and Mountain View tap a deep aquifer that serves approximately 300,000 people.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/21/90

Threats and Contaminants

Groundwater and soil contain various VOCs. People who accidentally ingest or come in direct contact with contaminated groundwater or soils may be at risk. The deep aquifer, used as a drinking water source, is not contaminated; however, the shallow aquifer is contaminated. There are some agricultural wells that could act as conduits for contaminant migration between the shallow contaminated aquifer and the deep aquifer.

Cleanup Approach

Response Action Status

Initial Actions: Four spent solvent underground tanks, along with some soil, were removed in 1973, 1976, 1980, and 1983. In 1984, 120 cubic yards of contaminated soils were excavated and transported to an EPA-approved hazardous waste facility. The site was backfilled to the surface with gravel, and concrete was poured over the gravel to prevent rainwater from seeping into the pit. This water extraction pit is part of an eight-well groundwater extraction system operated by TRW. Since 1985, groundwater has been pumped from seven on-site extraction wells and the pit to prevent VOCs from migrating off site and to extract the groundwater for cleanup. On-site groundwater is treated by an air stripper and then discharged to Calabasas Creek. In addition, groundwater has been pumped from a total of 24 off-site extraction wells and conveyed through an underground piping system to the air strippers located at the AMD #915 site. Approximately 20 percent of the water is treated and then discharged to a storm drain, which empties into the Calabasas Creek. The remainder is used as process water by AMD #915.

Entire Site: In 1989 under State oversight, TRW began investigating the type and extent of contamination remaining on the site. TRW completed the investigation in early 1991. The final cleanup remedy selected in late 1991 was the continuation of groundwater extraction and air stripping, which will proceed until established cleanup goals are met.

Site Facts: In 1984, the State issued an order requiring AMD, Signetics, and TRW to develop a joint plan to prevent further migration of contaminants. New orders in 1989 required TRW to submit an investigation and proposed cleanup plan with AMD and Signetics.

Environmental Progress

Construction of all cleanup remedies is complete. The removal of tanks and contaminated soil has reduced the potential for exposure to contaminated materials at the TRW Microwave, Inc. (Building 825) site while groundwater continues to be treated.

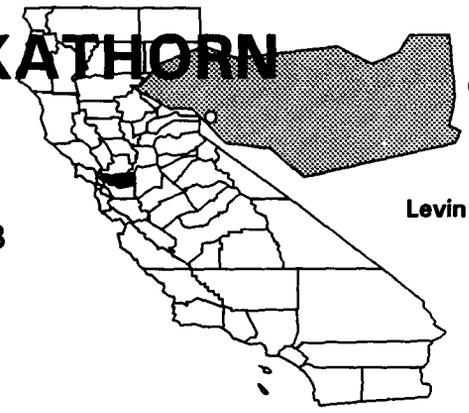
Site Repository

Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500, Oakland, CA 94612

UNITED HECKATHORN CO.

CALIFORNIA

EPA ID# CAD981436363



REGION 9

Contra Costa County
Richmond

Other Names:
Levin Richmond/Parr Canal Site

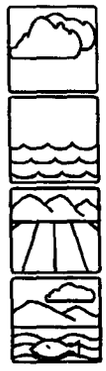
Site Description

From 1948 through 1965, several companies leased the United Heckathorn Co. site, located on the northern 4 1/2 acres of the Levin-Richmond Terminal Corporation's property, to process chemicals. Site owners included Parr Industrial Corporation (1947 to 1961), Parr Richmond Terminal Corporation (1961 to 1981), and Levin-Richmond Terminal Corporation (1981 to the present). In the late 1940s and early 1950s, Universal Pigment and Chemical Company produced napalm on site. From 1958 to 1965, Montrose Chemical Corporation contracted with United Heckathorn, United Chemetrics, and ChemWest for pesticide-grinding services. United Heckathorn was the last company to formulate pesticides at this site. The California Department of Fish and Game has recorded several instances of chemicals being discharged into the Lauritzen Canal, including naphthenic acid in 1951 and the pesticide DDT in 1960. In 1980, the State found elevated levels of pesticides in the soil. In 1988, the EPA detected DDT in the air at numerous locations on and off site. The site is adjacent to the Lauritzen Canal. The canal is on the Richmond Inner Harbor, which is on the San Francisco Bay. The Harbor is used for recreational and commercial fishing and shellfish harvesting. A coastal wetland is located less than 1/2 mile from the site. Approximately 10,900 people live within 1 mile of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/26/89
Final Date: 03/14/90

Threats and Contaminants



Air contains various pesticides. Sediments in the Lauritzen Canal and site soils are contaminated with pesticides, including DDT and dieldrin. People who accidentally ingest or come into direct contact with contaminated soils or sediments may be at risk. Contaminants in the wetlands or other bodies of water may harm wildlife in or around the water. People who ingest contaminated shellfish also may be at risk. Results of the State of California Mussel Watch Program show that the highest levels of DDT and dieldrin bioaccumulation in fish across the State occur in the waters near this site.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Under a Unilateral Order issued by the EPA in September 1990, the potentially responsible parties removed approximately 2,500 cubic yards of pesticide residue and contaminated soil from the shoreline. The residue contained high quantities of the pesticides DDT and dieldrin. The action was completed in 1991.

Entire Site: In 1994, the EPA completed investigations that determined the nature and extent of contamination at the site. Based on the results of this investigation, late in 1994 the EPA recommended dredging marine sediments that are contaminated with DDT and dieldrin. The EPA believes this action will protect human health and the environment from further harm. The engineering design for dredging is underway and cleanup is expected to begin shortly.

Environmental Progress

The removal of contaminated soils has reduced the potential for exposure to pesticide contaminants from the United Heckathorn Co. site while cleanup activities are being planned.

Site Repository

Richmond Public Library, 325 Civic Center Plaza, Richmond, CA 94804

VALLEY WOOD PRESERVING, INC.

CALIFORNIA

EPA ID# CAD063020143

EPA REGION 9

Stanislaus County

1 ½ miles southwest of Turlock

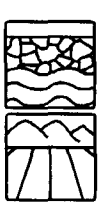
Site Description

The 13-acre Valley Wood Preserving, Inc. site was in operation from 1973 until the County revoked the company's license in 1979. The wood preserving process involved pressure treating lumber with an aqueous chromated copper arsenate (CCA) solution. This solution was mixed in an above ground tank near the site boundary and was stored in three adjacent above ground tanks. Water was piped to the mixing tanks from a well. After the treatment cycle, the wood-treatment solution was drained into sumps and was pumped back to the mixing tank for reuse. The areas around the treatment cylinders and storage tanks were unpaved during the first two years of operation. Asphalt paving now covers areas where treated wood was once stored on the ground. Paved areas were added from 1975 to 1978 as the plant increased production. In 1979, the California Regional Water Quality Control Board (CRWQCB) identified toxic wood-treating chemicals in an on-site storage pond, monitoring wells, and on- and off-site soils. Approximately 34,000 people live within 3 miles of the site. The City of Turlock municipal wells, which draw water from an aquifer underlying the site, serve 26,200 people within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants



Groundwater and soil contain hexavalent chromium and arsenic. The upper aquifer is contaminated. Private and irrigation wells draw water from the upper aquifer. People who accidentally ingest or come into direct contact with contaminated groundwater or soil may suffer adverse health effects.

Cleanup Approach

This site is being addressed in two stages: emergency actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Emergency Actions: After closing the site, the company excavated and disposed of approximately 1,500 cubic yards of contaminated soil. During initial groundwater cleanup from 1979 to 1983, approximately 70,000,000 gallons of chromium-contaminated groundwater were extracted. The groundwater was treated by an electrochemical treatment process and then discharged to paved depressions for evaporation. The purpose of this action was to retard plume movement and to protect domestic wells downgradient from the site. Additionally, Valley Wood Preserving removed sludge from the tank that would be used to hold water from pumping for testing; drilled several wells, originally used for monitoring, and now used for groundwater extraction; removed underground storage tanks; and drilled three deep wells as an alternate source of drinking water for three homes.

Entire Site: The potentially responsible parties conducted an investigation to determine the type and extent of contamination on the site. In 1991, the EPA selected remedies to address soil and groundwater contamination at the site. The major components of the selected remedies are continued extraction of contaminated groundwater followed by electrochemical treatment and alumina adsorption. The treated groundwater will be reinjected. Contaminated soils will be treated by chemical fixation, followed by on-site disposal. The EPA currently is designing the selected remedies, slated for completion in 1995. The completion of the design phase was delayed to allow for a one-year, full-scale pilot study of an innovative groundwater remedy. It has not yet been determined who will conduct actual cleanup activities at the site.

Site Facts: In 1989, the EPA and Valley Wood Preserving entered into a Consent Order which required the company to conduct emergency actions including the on-site removal and treatment of contaminated groundwater. The potentially responsible parties continue to extract and treat groundwater in accordance with the Consent Order. In 1990, Valley Wood Preserving and the EPA entered into a Consent Order requiring the company to conduct an investigation of the site.

Environmental Progress

Removing tanks and contaminated soil, extracting and treating groundwater, and providing an alternate water supply have reduced the potential for exposure to site contaminants at the Valley Wood Preserving, Inc. site while final remedies are being designed.

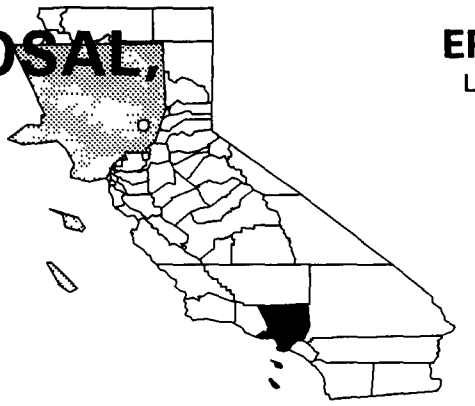
Site Repository

Stanislaus County Library, Turlock Branch, 550 Minaret Avenue, Turlock, CA 95380

WASTE DISPOSAL, INC.

CALIFORNIA

EPA ID# CAD980884357



EPA REGION 9
Los Angeles County
Santa Fe Springs

Site Description

The 40-acre Waste Disposal, Inc. site contains a concrete-lined pond, oil sumps, and a solid waste landfill. The company operated the facility from 1928 to 1965. The facility was licensed by the California Regional Water Quality Control Board (CRWQCB) to accept acetylene sludge, brewery residue, and fluids from cesspool operations. It also was licensed by the Los Angeles County Engineer to accept rotary drilling muds, construction debris, and oil field sump sludges. The 15,000 residents of Santa Fe Springs obtain drinking water from wells within 3 miles of the site. The closest residence is within 50 yards of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/10/86
Final Date: 07/22/87

Threats and Contaminants

The soil is contaminated with metals, polynuclear aromatic hydrocarbons (PNAs) and volatile organic compounds (VOCs). Most of the contamination has been detected in subsurface soils, which are covered with relatively clean fill. However, people may be exposed to potential health hazards by accidentally ingesting or coming into direct contact with contaminants in the soil.

Cleanup Approach

This site is being addressed in two stages: an immediate action and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Action: The EPA erected a fence around the site in 1988 to prevent direct contact with site contaminants.

Entire Site: In 1988, the EPA began a study to determine the nature and extent of contamination at the site and to identify possible long-term cleanup actions. Late in 1993, the EPA selected a final remedy to address soils and subsurface gas at the site. This remedy consists of building a hazardous waste cap, with gas extraction and treatment, if necessary. Design activities for the cap and extraction and treatment system are underway and are scheduled to be completed in late 1995. The EPA also is investigating groundwater contamination and expects to select a final remedy in late 1996.

Environmental Progress

Fencing the site has reduced the potential for exposure to contaminants at the Waste Disposal, Inc. site while groundwater studies are taking place and soil cleanup activities are being designed.

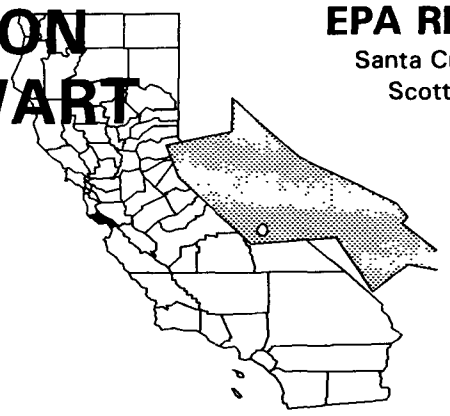
Site Repository

Santa Fe Springs City Library, 11700 East Telegraph Road, Santa Fe Springs, CA 90670

WATKINS-JOHNSON COMPANY (STEWART DIVISION)

CALIFORNIA

EPA ID# CAD980893234



EPA REGION 9
Santa Cruz County
Scotts Valley

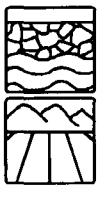
Site Description

The plant on the 3-acre Watkins-Johnson Company (Stewart Division) site began to manufacture industrial furnaces and electrical parts in 1963. The California Regional Water Quality Control Board (CRWQCB) and Watkins-Johnson detected volatile organic chemicals (VOCs) in the on-site soil and groundwater in 1984. The contamination probably resulted from improper handling of hazardous waste generated during plant operations. Access to the site is limited to employees by a fence and controlled gate. Approximately 10,600 people living within a 3-mile radius of the site obtain their drinking water entirely from groundwater sources.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 01/22/87
Final Date: 08/30/90

Threats and Contaminants



Groundwater and soil are contaminated with various VOCs. On-site workers could be exposed to contaminants through direct contact with or accidental ingestion of contaminated soils or groundwater.

Cleanup Approach

Response Action Status

Interim Actions: In response to a Cleanup and Abatement Order from the CRWQCB, the Watkins-Johnson Company began an interim program to pump and treat contaminated groundwater in 1986. Current groundwater monitoring data show that the extraction network has successfully stopped the migration of the VOC plume.

Entire Site: The remedy selected by the EPA in 1990 includes: installing a soil vapor extraction system; installing a groundwater extraction and treatment system; treating the extracted groundwater with granular activated carbon and discharging the treated groundwater into nearby Bean Creek; and monitoring the groundwater and soil. Construction of the treatment systems was completed in late 1994. Soil and groundwater cleanup is now underway and will continue until established cleanup goals are met.

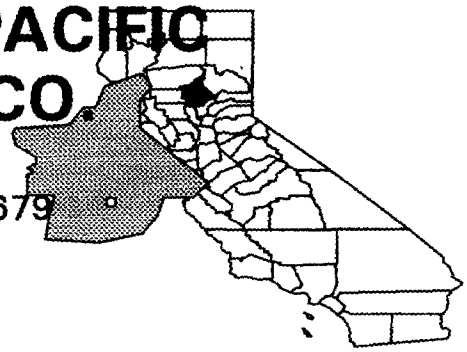
Environmental Progress

Construction of all remedies is complete. Pumping and treating contaminated groundwater has reduced the size of the plume and the threats posed to the nearby population. The soil vapor extraction and treatment system is reducing VOC concentrations in the soil so that they no longer present a threat to the groundwater.

Site Repository

Santa Cruz City-County Library, Scotts Valley Branch, 230-D Mount Hermon Road, Scotts Valley, CA 95066

WESTERN PACIFIC RAILROAD CO.
CALIFORNIA
EPA ID# CAD980894679



EPA REGION 9
Butte County
2 miles south of Oroville

Other Names:
Western Pacific Railroad Roundhouse Facility and Yard

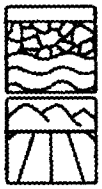
Site Description

The 90-acre Western Pacific Railroad Co. site located near Oroville operated as a rail yard from 1920 until 1982. A wooden structure known as the roundhouse was used to fuel, repair, service, and clean rail cars. Specific activities included sandblasting, welding, cutting, and fabricating. As a result of these activities, waste solvents, oils, grease, and wastewaters containing heavy metals were discharged to an unlined surface impoundment until 1987. This impoundment was cleaned up by the current owner, Union Pacific, in 1989 in response to an order issued by the California Regional Water Quality Control Board (CRWQCB). A concrete tank containing an unknown, oily-like substance also was located on site. Fuel-contaminated soil is located on the site. Four California Water Service Company (CWS) wells are located within 3 miles of the site. Water from the wells is blended with water from the Feather River to serve the company's 10,000 customers. One of the wells is located on the site and is leased by Western Pacific to CWS. The Feather River is located 1 mile from the site in the direction of surface water runoff and is used for recreational activities.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/26/89
Final Date: 08/30/90

Threats and Contaminants



Groundwater on site is contaminated with various volatile organic compounds (VOCs). The surface impoundment was contaminated with heavy metals including arsenic, lead, and chromium. Potential health threats to people include drinking contaminated groundwater or accidentally ingesting contaminated soil.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Under State supervision, soils and sludges associated with the surface impoundment were removed and transported to Utah, where they were recycled into asphalt road base. The two 30-gallon concrete sumps were closed; soil samples collected from the surrounding area at the sumps revealed no contamination. The underground oil/waste separator was emptied and backfilled with clean soil. The underground storage tank was removed. An extraction system is pumping and treating a plume of contaminated groundwater near the former underground storage tank.

Entire Site: Contaminated soils found in the fueling area and adjacent to the abandoned oil/water separator currently are being analyzed. Quarterly groundwater monitoring by the Union Pacific still is being conducted to determine the need for additional cleanup activities. Union Pacific will conduct a baseline risk assessment for the site to determine potential risks to human health and the environment. Based on the results of the soil analysis and risk assessment, the EPA will recommend appropriate cleanup actions.

Site Facts: In 1989, the State issued a Cleanup and Abatement Order to Union Pacific and Solano Railcar, the potentially responsible parties, requiring them to sample abandoned water supply wells to determine the best way to seal them, to install a water separator to collect runoff from locomotives, and to install equipment to prevent runoff. In 1993, Union Pacific signed an agreement with the EPA to clean up the VOC-contaminated water. In 1994, Union Pacific signed an agreement with the EPA to complete the soil analysis and baseline risk assessment.

Environmental Progress

The removal of soils and sludges has virtually eliminated the sources of contamination from the impoundment. The EPA, the State, and Union Pacific will continue to assess the site to determine if other sources of contamination exist at the Western Pacific Railroad Co. site.

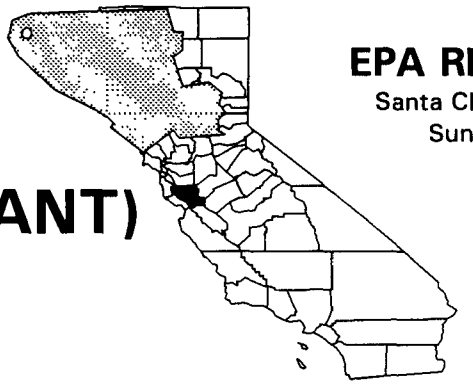
Site Repository

Butte County Public Library, Oroville, California

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)

CALIFORNIA

EPA ID# CAD001864081



EPA REGION 9
Santa Clara County
Sunnyvale

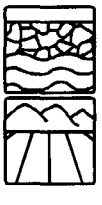
Site Description

The 75-acre Westinghouse Electric Corp. (Sunnyvale Plant) site was formerly used to manufacture electrical transformers. It is currently is used to manufacture steam generators, marine propulsion systems, and missile launching systems for the Department of Defense. Groundwater contamination is believed to have resulted from a leaking polychlorinated biphenyls (PCBs) storage tank and from localized spills. This is one of 28 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which have contaminated a common groundwater basin. Although the sites are listed separately on the NPL, the EPA intends to combine cleanup activities at some of the sites as part of an area-wide approach to the contamination. Most of the contaminated areas on site have been removed or have been paved over. Access to the site is restricted. Approximately 710,000 people live within 3 miles of the site. The nearest residence is located adjacent to the site. Approximately 300,000 people depend on groundwater within 3 miles of the site for their drinking water supply. There are no private wells within the vicinity of the site; however, area municipal wells are located within 1/4 mile of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants



Groundwater and soil are contaminated with PCBs, fuels, and volatile organic compounds (VOCs). Potential health threats to area residents include accidentally ingesting or coming into direct contact with site contaminants.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Westinghouse removed contaminated soils in 1984 and 1985, and a gasoline tank in 1986.

Entire Site: Westinghouse completed an investigation into the nature and extent of contamination at the site in 1991. The EPA selected the following remedies to address groundwater and soil contamination: extracting and treating groundwater, conducting off-site incineration of soil contaminants, and implementing land-use restrictions at the site. The company, under EPA supervision, completed the detailed specification for the groundwater and soil cleanup plans in the summer of 1994. Construction of the remedies began in later in 1994. Soils in the main plant areas and the underground storage tank area were removed in late 1994. Full-scale treatment of the contaminated groundwater began in early 1995 and will continue until established cleanup goals are met.

Site Facts: In 1984 and 1985, the State issued Waste Discharge Requirements to Westinghouse, requiring the company to conduct interim cleanup measures and to investigate the nature and extent of contamination at the site. In 1988, Westinghouse entered into an agreement to investigate the contamination problems at the site and to evaluate potential cleanup options. In 1992, Westinghouse entered into an agreement with the EPA to develop a detailed design of the cleanup activities. The EPA approved the final detailed design on June 28, 1994.

Environmental Progress

The removal of contaminated soil and a gasoline tank, and the operation of the groundwater treatment system has reduced the potential for exposure to contaminated materials at the Westinghouse Electric Corp. (Sunnyvale Plant) site. Cleanup activities will continue until established standards are met.

Site Repository

Sunnyvale Public Library, 665 West Olive Avenue, Sunnyvale, CA 94088

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