

STATE OF CALIFORNIA

PETE WILSON, Governor

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION**

 101 CENTRE PLAZA DRIVE  
 MONTEREY PARK, CA 91754-2156  
 (213) 266-7500


December 22, 1992

Mr. Daniel M. Tellep, President Lockheed Advanced Development Corporation 4500 Park Granada Boulevard Calabasas, California 91399	Certified with Return Receipt Claim No. P 577 359 524
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Mr. Tony Divincenzo Pacific Airmotive Corporation 2940 N. Hollywood Way Burbank, California 91505-1095	Certified with Return Receipt Claim No. P 577 359 523
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Mr. Don Schwartz American Real Estate Holding Limited Partnership 90 S. Bedford Road Mount Kisco, New York 10549	Certified with Return Receipt Claim No. P 577 359 522
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**LOCKHEED PLANT B-6 EAST FACILITIES, BURBANK, CLEANUP AND ABATEMENT  
ORDER NO. 92-066 (File No. 104.0674)**

Enclosed is a Cleanup and Abatement Order (92-066) directing you to perform a comprehensive investigation to determine the full extent of any soil contamination and ground water pollution resulting from current and historic site operations at Plant B-6 East facilities (Buildings 369 and 371).

Technical reports, including workplan(s) and results of investigation(s), must be submitted according to the schedule provided. This Order is issued under Section 13304 of the California Water Code. Failure to comply with the requirements of this Order may result in the imposition of administrative civil liability or injunctive relief in accordance with Section 13350 of the California Water Code.

Please contact Mr. Jay C. Huang at (213) 266-7608 or Ms. Heather Stone at (213) 266-7588 if you have any questions.

*Robert P. Ghirelli*

ROBERT P. GHIRELLI, D.ENV.  
Executive Officer

Enclosure

Clean-up and Abatement  
Order No. 92-066

MR. TELLEP  
MR. DIVINCENZO  
MR. SCHWARTZ  
PAGE TWO

cc: Regional Board Members  
Jorge Leon, SWRCB-OCC  
Maryanne Jones, SWRCB-DWQ  
Gil Torres, SWRCB-DWQ  
Colette Kostelec, U.S. EPA, Region IX  
Mel Blevins, ULARA Watermaster  
Bill Jones, L. A. County Department of Health Services  
Carolyn Barnes, City of Burbank, City Attorney's Office  
Dennis Dickerson, CalEPA, Burbank Office  
Ron Helgerson, Lockheed Engineering & Sciences Company

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

ORDER NO. 92-066

CLEANUP AND ABATEMENT ORDER

Cleanup and Abatement Order No. 92-066 Requiring Lockheed Advanced Development Company, Pacific Airmotive Corporation, and American Real Estate Holding Limited Partnership to Cleanup and Abate the Effects of Contaminants Discharged to Soil and Ground Water.

The California Regional Water Quality Control Board, Los Angeles Region finds that:

1. Lockheed Advanced Development Company, hereinafter called Lockheed, is a division of the Lockheed Corporation. Lockheed currently owns and operates the property located at 2777 Ontario Street referred to by Lockheed as Building 369. Building 371 at 2960 North Hollywood Way including Buildings 375, 376, 377, 378, 398 are owned by American Real Estate Holding Limited Partnership (AREHLP), and Lockheed is the current lease holder and operator of Building 371 facility. Building 369 is located east of and adjacent to Building 371. Building 369 and Building 371 facilities both located in Burbank California are hereafter referred to as Plant B-6 East Facilities, as shown on Figure 1.
2. The Lockheed Plant B-6 East Facilities are located within the designated U.S. Environmental Protection Agency's National Priority List Superfund Investigation Site for San Fernando Valley ground water contamination.
3. Lockheed's operations at Building 371 reportedly have consisted of aircraft parts fabrication including painting, vapor degreasing, alkaline parts cleaning and etching, acid deoxidizing, and application of chemical films. Solvents, paint thinner, mineral spirits, acids, jet fuel, hydraulic oil, kerosene, and diesel fuel have been used at the site by Lockheed. Since the operations at Building 371 are classified as secret, Regional Board staff have not received a comprehensive site audit and have been unable to inspect the interior of the facilities.
4. Prior to 1980, Building 371 was owned and operated by Pacific Airmotive Corporation (PAC). Building 371 was used by PAC for airplane part fabrication. Sumps, degreasers, drain trenches, and clarifier were in use by PAC as shown in Figure 2 and

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- apparently were used for similar operations and involved the same substances as under Lockheed's leasehold.
5. Building 369 was reportedly used from the 1930's until 1966 as a mobile home park. According to an environmental assessment report prepared by Lockheed for this property, an office/warehouse building was erected onsite in 1966 for the storage of toys and used as an office and warehouse from 1966 to 1986. Lockheed acquired the property in 1986 from Rasco Stores & Gamble Import Company and remodeled the existing structures for manufacturing composite materials used in the aerospace industry. Solvents, acids, bases, and oils were used onsite to support Lockheed operations. In mid-1991, Lockheed ceased all site manufacturing operations and the site is currently vacant.
  6. Eleven soil test borings were completed in the Building 371 area from 1984 to 1989. These investigations identified chlorinated volatile organics consisting of primarily tetrachloroethylene (PCE), trichloroethylene (TCE), and/or 1,1,1-trichloroethane (TCA). Maximum concentrations of PCE, TCE, and TCA detected in soil samples obtained from various locations to evaluate facility operation were 5,460  $\mu\text{g}/\text{kg}$ , 18.2  $\mu\text{g}/\text{kg}$  and 9,420  $\mu\text{g}/\text{kg}$ , respectively. Known or potential point source areas that have contributed or are currently contributing to subsurface pollution, as shown on Figure 3, include: underground storage tanks, clarifiers, sumps, degreasers, sewers and/or process pipelines, chemical/waste drum storage areas, plating areas, and solvent recycling areas.
  7. Thirteen soil test borings and seven hand-augered soil test borings were completed during January 1992 at Building 369 to evaluate sumps, a clarifier, trenches, a press pit area, a chemical/waste storage area, a chiller unit and a freezer/cold box area. PCE, TCE, and/or TCA were identified in every soil test boring completed to evaluate current or historic site operations except one boring. In addition, petroleum-based hydrocarbons and aromatic hydrocarbons also were identified at the site.
  8. During February 1992, a soil gas investigation was conducted in outside areas surrounding Building 369 and Building 371 to further evaluate and identify potential sources of volatile organic compounds (VOC) in the vicinity of the site. The soil gas investigation was limited only to the periphery of the

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- buildings and did not include the building interior. This soil gas investigation identified source(s) of VOC contaminants near or in close proximity to the southeastern corner of the Building 371 property.
9. Ground water monitoring well B-6-CW16, located upgradient of Building 371, and a downgradient ground water monitoring well cluster containing B-6-CW1, B-6-CW2, B-6-CW3, B-6-CW3R have been installed to investigate the ground water pollution at the vicinity of the site, as shown in Figure 4. Concentrations of chlorinated solvent, primarily PCE and TCE have been detected in ground water. The maximum concentrations of PCE was up to 14,000  $\mu\text{g}/\text{l}$  in well B-6-CW3 in April 1990, while the maximum concentration of PCE in well B6-CW16 was 180  $\mu\text{g}/\text{l}$ . Well B-6-CW3 is currently dry and has not been sampled since second quarter, 1990, due to declining water table elevation. Well B-6-CW3R subsequently was installed nearby B-6-CW3 and screened deeper in the aquifer. The ground water data collected to date indicate that highly contaminated ground water pollution is present in the vicinity of Plant B-6 Facilities, and appears to have originated from sources at the Plant B-6 East Facilities. Upgradient offsite sources are likely not contributing significantly as indicated by the upgradient well.
  10. The extent of the chlorinated volatile organics, petroleum-based hydrocarbons and aromatic hydrocarbons contaminants in soils and ground water underlying or migrating offsite have not been sufficiently characterized at either Building 371 or Building 369.
  11. PCE and TCE are the predominant contaminants impairing the ground water quality beneath the site. PCE and TCE are implicated in the pollution of the San Fernando Valley Ground Water Basin. PCE and TCE are both carcinogenic, are toxic by ingestion, and are listed as Proposition 65 pollutants. The Maximum Contamination Level in drinking water, developed by the California Department of Health Services, is 5  $\mu\text{g}/\text{l}$  for both PCE and TCE.
  12. On December 17, 1987, the Board issued a Cleanup and Abatement Order No. 87-161 which directed Lockheed to clean up contaminated soil and ground water resulting from leakage of a clarifier in Plant B-1, Building 175, and also to complete a comprehensive site assessment to determine the sources and extent of soil and ground water contamination at all the

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Lockheed facilities. Lockheed was required to conduct four tasks: 1) perform comprehensive site assessment for all facilities; 2) pump and treat the contaminated ground water beneath Building 175; 3) install a vapor extraction system to treat the contaminated soil beneath Building 175; and 4) remove wastes from the Plant B-1 abandoned waste disposal site. To date, most of the requirements have either been initiated or fulfilled by Lockheed. Lockheed has installed a 1,000 gallon per minute (gpm) ground water extraction and treatment facility at Plant B-1 which has operated since September 1988.

13. Order 87-161 remains in effect, until rescinded by this Board, except for Plant B-6 Facilities which is now superseded by requirements outlined in this Order. This Order is issued to direct Lockheed, PAC, and AREHLP specifically to clean up and abate the soil and ground water contamination identified during site investigations in Plant B-6 East Facilities.
14. The site is located in the San Fernando Subunit of the Los Angeles River Basin. The San Fernando Subunit contains several well fields which provide domestic supply water to the residents of Burbank, Glendale, and Los Angeles.
15. This Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 3, 1991. This plan lists the beneficial uses of the San Fernando Subunit which underlies the facility. The beneficial uses, as described in the Basin Plan, include: municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
16. The discharge of PCE and TCE at Plant B-6 East Facilities has caused pollution of the ground water that now cannot be beneficially used for domestic drinking water supply because it contains PCE and TCE in concentrations exceeding the California Department of Health Services Maximum Contaminant Levels for these compounds.
17. The unauthorized discharge of wastes is in violation of Section 13260 of the California Water Code, which requires that any person proposing to discharge waste to land must file a report of waste discharge and receive requirement from the Board.

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18. The discharger has not submitted a report of waste discharge for the Plant B-6 Facilities. This Regional Board has not considered nor adopted waste discharge requirements for Plant B-6 East Facilities.
19. Section 13304 of the California Water Code states, in part, that:

"Any person.... who has caused or permitted..... any waste to be discharged or deposited where it is, or probably will be discharged into the water of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the Regional Board clean up such waste or abate the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action."
20. This enforcement action is separate and distinct from the "Consent Decree" entered into by Lockheed, the City of Burbank and Weber Aircraft, Inc. with U. S. EPA, and filed with the United States District Court for the Central District of California (Docket No. 91-4527-MRP [Tx]). The Consent Decree involves the design, construction and operation of a 12,000 gpm ground water extraction, treatment, and distribution system to address regional ground water contamination in the Burbank area.
21. The purpose of this enforcement action is to identify and cleanup areas of the Plant B-6 East Facilities that are sources of contamination to ground water and/or have the potential of contaminating ground water in order to prevent further pollution of ground water. Also contained in this enforcement action is a provision to require the evaluation of the potential effectiveness of the Consent Decree's Phase I ground water extraction system (the first 6,000 gpm of capacity) in containing and cleaning up highly contaminated ground water in the vicinity of Plant B-6 East Facilities.
22. This enforcement action is being taken for the protection of the environment and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000. et. seq.) in accordance with section 15321, Chapter 3, Title 14, California Administrative Code.

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IT IS HEREBY ORDERED, that pursuant to California Water code 13304, that Lockheed Advanced Development Company, Pacific Airmotive Corporation, and American Real Estate Holding Limited Partnership shall continue with the comprehensive site assessment program to determine the point sources of soil and ground water contamination, and clean up and abate the soil and ground water contamination beneath the Plant B-6 East Facilities by performing the following tasks:

1. Provide to the Board, a facility audit report documenting the industrial operations of all buildings on the Building 371 property before and after Lockheed purchased the property from PAC.
2. Provide to the Board, a revised soil gas report or addendum to the report dated April 24, 1992. The report must include a) contour maps depicting isoconcentrations of each of the volatile organic compounds detected; b) other interpretative conclusions relating soil gas investigation results to former and current operational units and previous soil test boring data from both Building 369 and Building 371, c) recommendations for companion soil test borings which must at a minimum include three borings to a depth of approximately 80 feet in the northwest corner and five 80-foot-deep borings along the eastern boundary, and d) recommendations for installation of multi-level, depth-specific vapor monitoring probes at locations including the southeast corner of Building 371 and in the northwest corner of Building 369, at a minimum.
3. Provide to the Board, for review and approval, a workplan to complete a supplementary subsurface soil investigation for Building 369 to further assess all point source areas evaluated during initial subsurface investigation. The workplan must propose a sufficient number of soil test boring completed to a minimum depth of 50 feet below land surface in each of the point source areas evaluated. A boring to refusal with a hollow stem auger (approximately 80 feet) is required in the area of the air conditioning chiller.
4. Provide to the Board, a hydrogeological assessment report of the area surrounding the Plant B-6 East Facilities. The area to be included in the assessment is bounded to the north by the San Fernando Boulevard, to the south by Winona Avenue, to the east by North Ontario Street, and to the west by North Hollywood Way. This report shall include an interpretation of ground water quality data collected to date, including all



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onsite wells and wells owned or operated by adjacent properties within the designated study areas. The report must contain recommendations for additional ground water monitoring wells to evaluate point source areas identified at the Plant B-6 East Facilities, and to evaluate the lateral and vertical extent of ground water pollution originating from Plant B-6 East vicinity.

5. Provide to the Board, for review and approval, a report of Cleanup Technology Evaluation and Proposed Approach to Soil Cleanup of contamination identified during soil gas investigation and soil test boring programs at the Plant B-6 East Facilities.
6. Provide to the Board, for review and approval, a report of Evaluation of the Potential Effectiveness of the Consent Decree Phase I Extraction System on Containment and Cleanup of Polluted Ground Water originating from the vicinity of the Plant B-6 East Facilities.
7. Perform the foregoing (Items 1-6) according to the following time schedule:

<u>Action</u>	<u>Workplan</u> (following review of reports from <u>Previous action</u> )	<u>Report</u> (following approval of <u>work plan</u> )
a. Site Audit for Building 371 (Item 1)		March 29, 1993
b. Soil-gas Investigation Report Revision (Item 2)		February 15, 1993
c. Supplementary Site Assessment for Building 369 (Item 3)	February 15, 1993	(12 Weeks)
d. Hydrogeological Assessment Report for Plant B-6 East Facilities (Item 4)		March 29, 1993

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- e. Soil Cleanup Technology Proposed Approach to Soil Cleanup (Item 5) May 30, 1993
  - f. Ground water Cleanup Evaluation (Item 6) June 30, 1993
8. In addition to hard copy reports, soil, soil gas and ground water results shall be submitted in digital form on computer disks stored in a standard data format, in accordance with Roy Sakaida's letter to Ron Helgerson dated December 10, 1992.
9. Provide to the Board, monthly progress reports until the site assessment work and cleanup activities are complete for the Plant B-6 East Facilities, submitted by the fifteenth day of the month. These monthly reports must discuss the following: 1) progress made in the previous month; 2) deliverables submitted to the Regional Board in the month previous; 3) anticipated activities for the following months; 4) deliverables to be submitted in the following months; 5) scheduled activities anticipated for the next four months

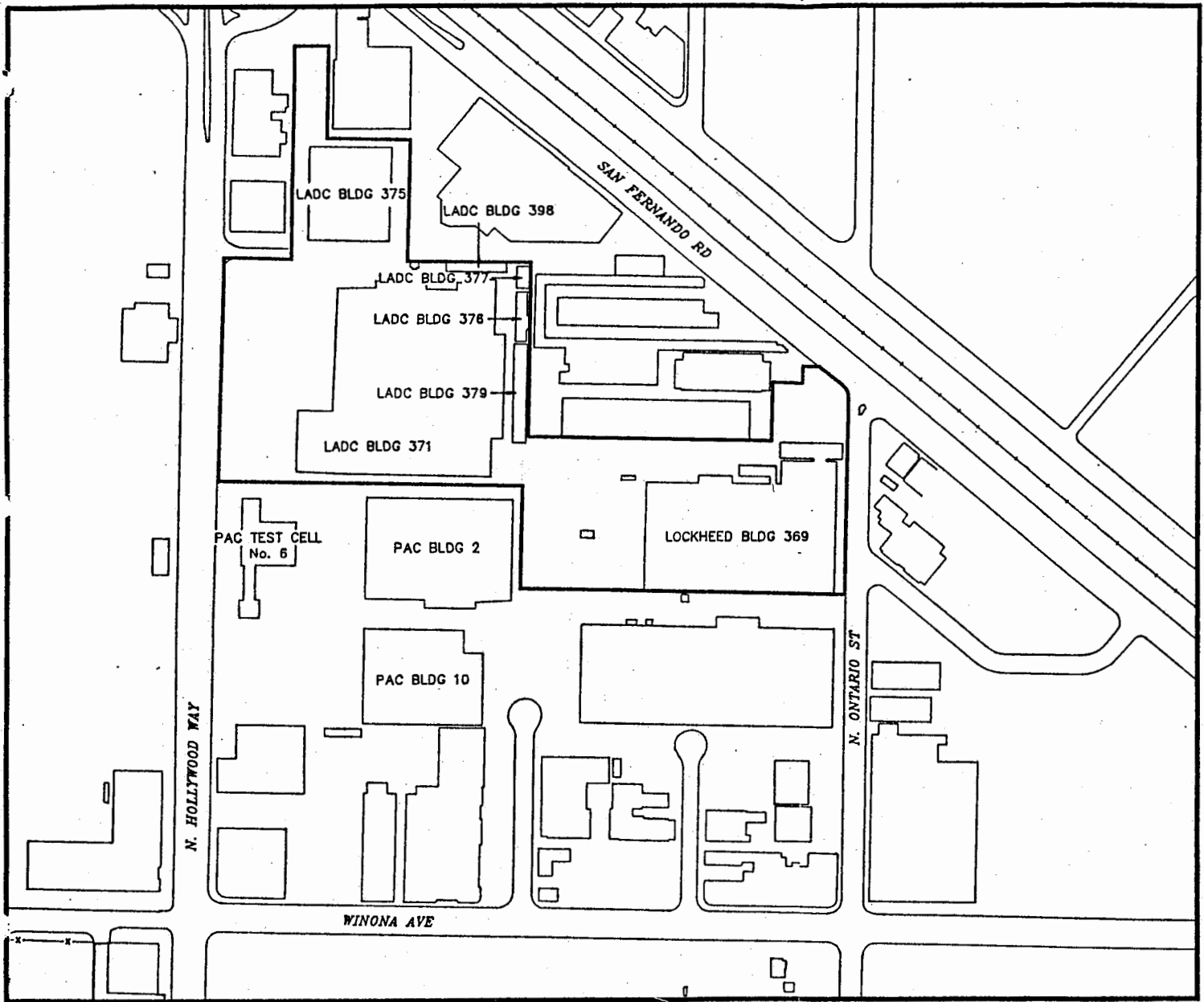
This Order may be revised by this Regional Board through its Executive Officer as additional information from the assessment(s) becomes available. The authority of the Regional Board, as contained in the California Water Code, to order investigation and cleanup additional to that described herein, is in no way limited by this order.

Failure to comply with the terms or conditions of this Order may result in imposition of civil liabilities, either administratively by the Regional board or judicially by the Superior Court in accordance with Section 13350, et seq., of the California Water Code, and/or referral to the Attorney General of the State of California for such action as he may deem appropriate.

Ordered by: Robert P. Ghirelli

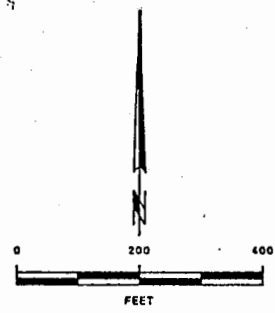
Dated: December 22, 1992

Robert P. Ghirelli, D.Env.  
Executive Officer



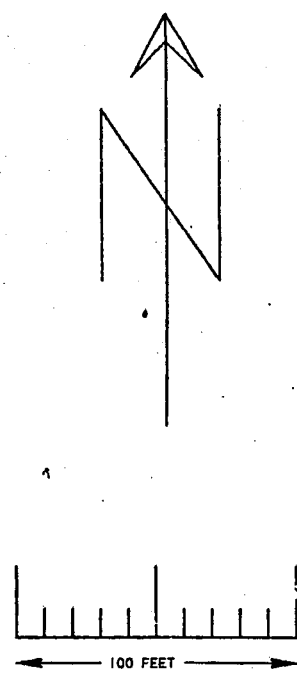
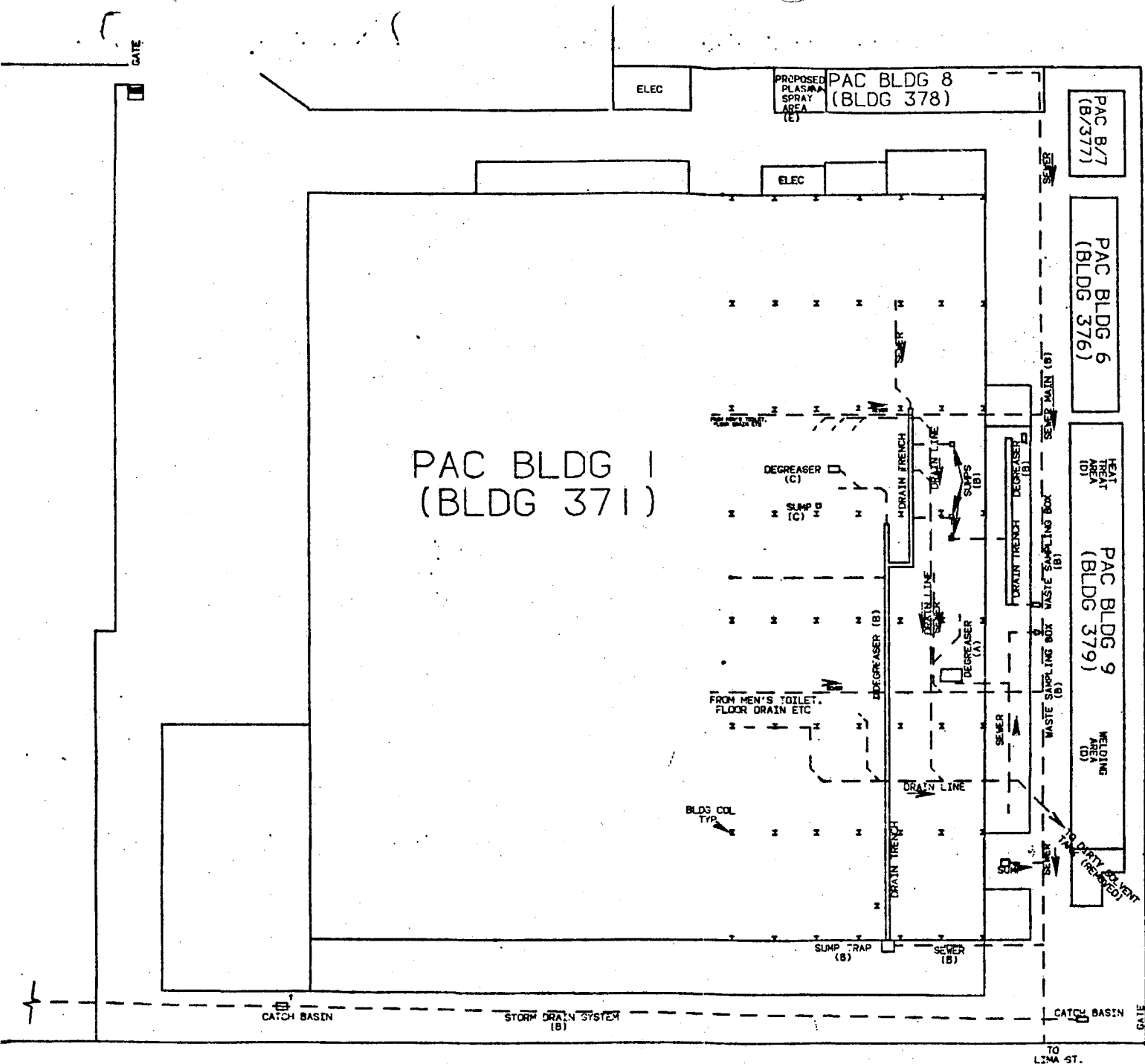
**EXPLANATION**

- LOCKHEED PROPERTY
- +— RAILROAD TRACKS
- LADC LOCKHEED ADVANCED DEVELOPMENT COMPANY
- PAC PACIFIC AIRMOTIVE CORPORATION



LOCKHEED ENGINEERING & SCIENCES COMP	
BURBANK, CALIFORNIA	
<b>SITE LOCATION</b>	
HARGIS + ASSOCIATES, INC.	4/92
FIGURE 1	
PREP BY WTN	REV BY ACM RPT NO. 341.10 410-0110

Figure 1



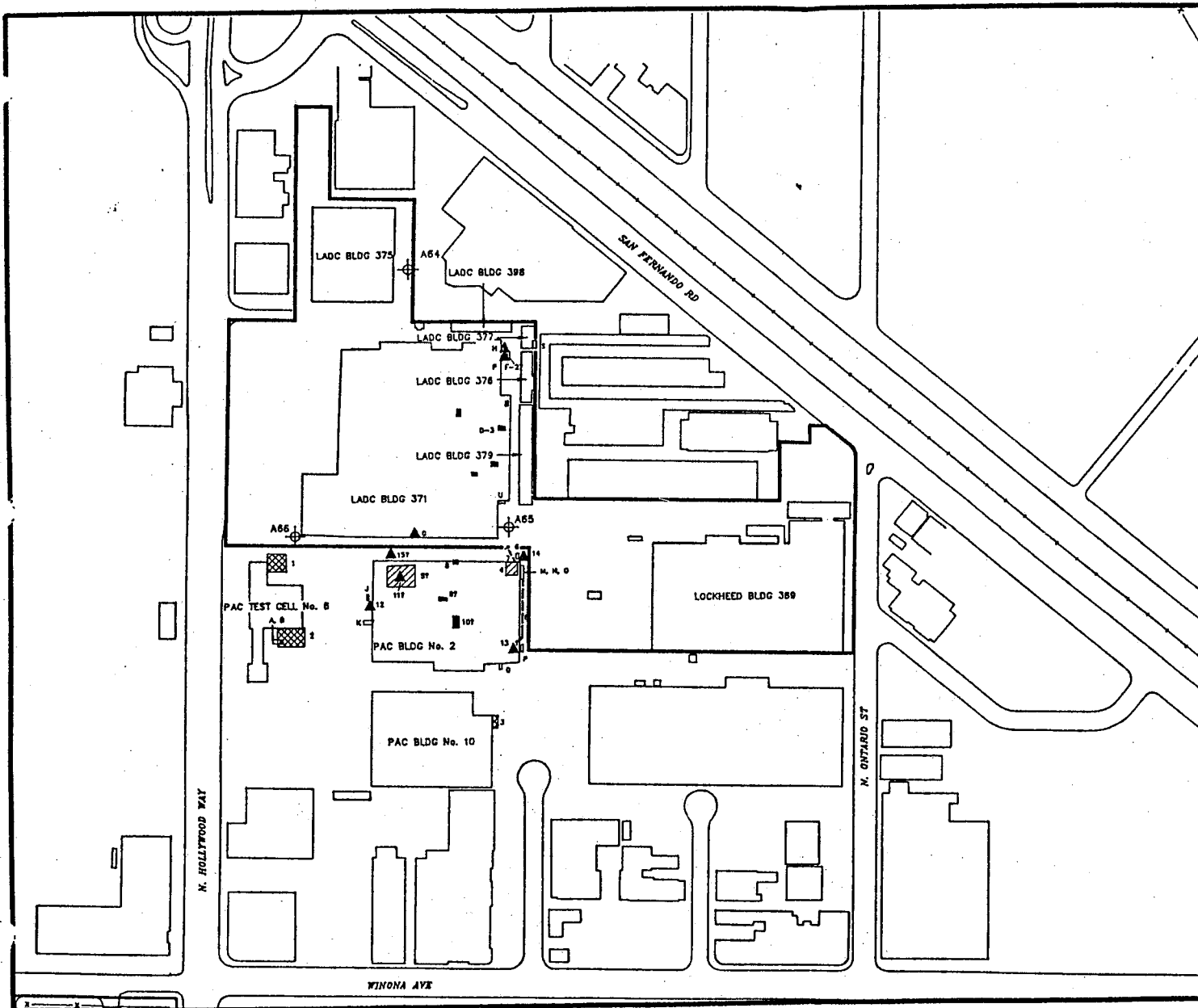
SOURCES OF INFORMATION:

DRAWINGS PREPARED BY  
 PUREX CORP. LTD FOR  
 PACIFIC AIRMOTIVE CORP.

- (A) 75-540-72 1/27/71
- (B) 75-500-11 5/13/71
- (C) 75-524-5 4/ 8/71
- (D) 75-540-86 4/19/71
- (E) 75-540-121 9/16/71

PACIFIC AIRMOTIVE CORP.  
 BUILDINGS 1, 6, 7, 8, AND 9.  
 SEWER MAIN, STORM DRAIN,  
 SUMPS, CLARIFIERS AND  
 DEGREASERS

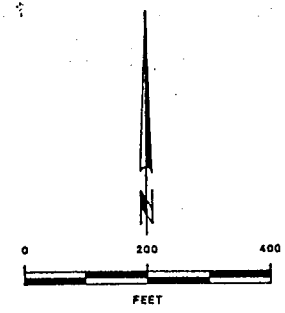
Figure 2



### EXPLANATION

- 1 DRUM STORAGE AREA
- 97 CHEMICAL USE AREA
- K UNDERGROUND STORAGE TANK
- 12 SUMP OR CLARIFIER
- 8 DEGREASER
- PIPELINE ROUTE, QUERIED WHERE LOCATION IS UNKNOWN
- PREVIOUS SOIL GAS SAMPLING LOCATION
- LOCKHEED PROPERTY BOUNDARY
- RAILROAD TRACKS
- LADC LOCKHEED ADVANCED DEVELOPMENT COMPANY
- PAC PACIFIC AIRMOTIVE CORPORATION

NOTES: CHEMICAL USE AND STORAGE FACILITIES ARE IDENTIFIED IN TABLES 1 AND 2; LOCATIONS ARE APPROXIMATE AND QUERIED WHERE UNCERTAIN; SOIL GAS ANALYTICAL RESULTS ARE SUMMARIZED IN TABLE 3



LOCKHEED ENGINEERING & SCIENCES COMP BURBANK, CALIFORNIA	
<b>CHEMICAL USE AND STORAGE FACILITIES</b>	
HARGIS + ASSOCIATES, INC.	4/92
FIGURE 2	
PREP BY <i>WJN</i> REV BY <i>WJN</i> RPT NO. 341.10 410-0007 B	

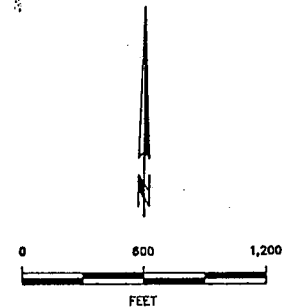
Figure 3

# EXPLANATION

## SHALLOW MONITOR WELLS

3850H	LOCKHEED CORPORATION
(190/480)	CONCENTRATIONS OF PCE/TCE IN MICROGRAMS PER LITER
NO	NOT DETECTED
LADC	LOCKHEED ADVANCED DEVELOPMENT COMPANY
PAC	PACIFIC AIRMOTIVE CORPORATION
PRP	POTENTIALLY RESPONSIBLE PARTY
CRWQCB	CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION
PCE	TETRACHLOROETHYLENE
TCE	TRICHLOROETHYLENE
*	GROUNDWATER SAMPLES COLLECTED IN JULY 1990 BY RADIAN CORPORATION.
↘	DIRECTION OF GROUNDWATER FLOW JUNE 1990

NOTES: LOCKHEED WATER QUALITY DATA BASED ON GROUNDWATER SAMPLES COLLECTED IN APRIL AND MAY, 1990. SAMPLES ANALYZED BY ANALYTICAL TECHNOLOGIES, INC. USING EPA METHOD 8240 OR RADIAN LABORATORIES USING EPA METHOD 624 EXCEPT AS NOTED



LOCKHEED ENGINEERING & SCIENCES COMPANY  
BURBANK, CALIFORNIA

## TETRACHLOROETHYLENE AND TRICHLOROETHYLENE SHALLOW MONITOR WELLS



HARGIS + ASSOCIATES, INC.

2/91

FIGURE 1

PREPARED BY *JAL* REVIEWED BY *RFM* 340/R310/F01

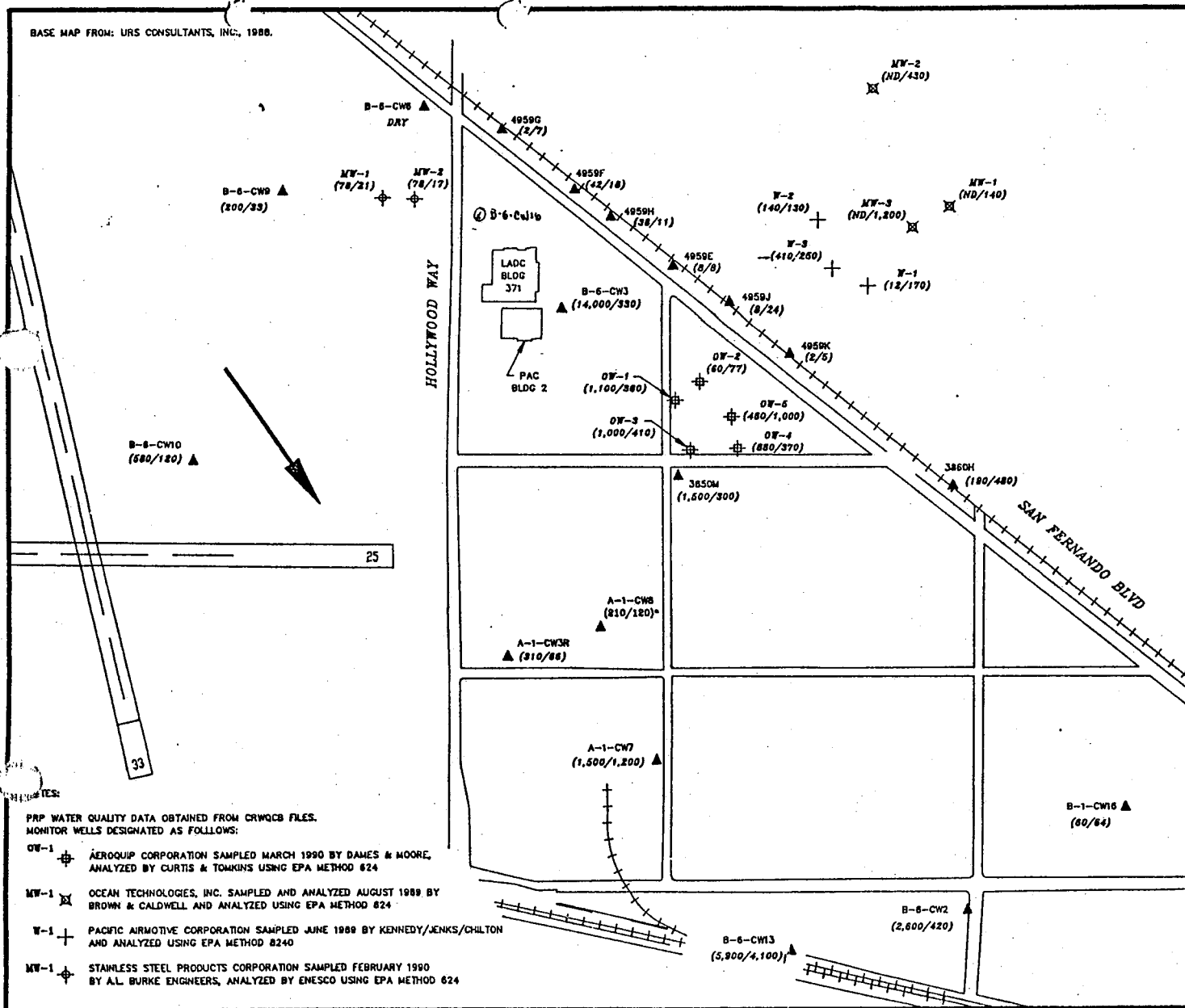


Figure 4