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*Final*

# **POL Hill Outparcel Closure Report**

**Hamilton Army Airfield**

Prepared for  
**U.S. Army Corps of Engineers**

February 2004

**CH2MHILL**

2485 Natomas Park Drive, Suite 600  
Sacramento, California 95833-2937



DEPARTMENT OF THE ARMY  
BASE REALIGNMENT AND CLOSURE  
ATLANTA FIELD OFFICE  
BRAC ENVIRONMENTAL COORDINATOR  
HAMILTON ARMY AIRFIELD  
1 BURMA ROAD  
NOVATO, CALIFORNIA 94949



February 20, 2004

**DAIM-BO-A-HA**

Subject: Forwarding the *Closure Report POL Hill Outparcel* Hamilton Army Airfield; Novato, CA.

Ms. Naomi Feger  
S.F. Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Dear Ms. Feger,

The Army is pleased to provide the *Closure Report POL Hill Outparcel* Hamilton Army Airfield; Novato, CA for your review.

This document addresses all of the features of POL Hill not already addressed by the *POL Hill AST-2 Area Corrective Action Plan*.

If you have any questions, please contact me at (415) 883-6386.

Sincerely,

Edward Keller, P.E.  
BRAC Environmental Coordinator  
Hamilton Army Airfield

Enclosure

Copies Furnished

R. Seraydarian (EPA)  
D. Diebert (DTSC)  
L. McMahan (DTSC)  
M. Neilan (City of Novato)  
D. Doak (USACE SF)  
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Novato Library  
BRAC Files



# California Regional Water Quality Control Board San Francisco Bay Region



Terry Tamminen  
Secretary for  
Environmental  
Protection

1515 Clay Street, Suite 1400, Oakland, California 94612  
(510) 622-2300 • Fax (510) 622-2460  
<http://www.swrcb.ca.gov/rwqcb2>

Arnold Schwarzenegger  
Governor

Date: FEB 10 2004  
File No: 2159.5008 (NLF)

Mr. Ed Keller  
Department of the Army  
Base Realignment and Closure Office  
Atlanta Field Office  
BRAC Environmental Coordinator  
Hamilton Army Airfield  
1 Burma Road  
Novato, California 94949



**Subject: Transmittal of Closure Letter and Site Summary for Department of Defense (DOD) Underground Storage Tanks at Hamilton Army Airfield, POL Hill, Novato, CA.**

Dear Mr. Keller:

Army ID  
D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12,  
D13, D14, D15, D16, D17, D18, D19, D20, D21

RWQCB UST No.  
21D9228

Dear Mr. Keller:

Attached please find the uniform underground storage tank (UST) closure letter and the site closure summary form for the above-references USTs. This letter documents that based on available information, no further action (NFA) related to the above-mentioned tanks is required.

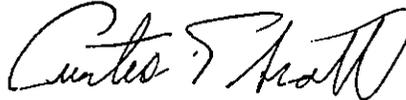
The NFA status applies only to releases of petroleum from the fuel USTs listed for the above referenced site. For those sites where groundwater is polluted by non-petroleum related chemicals, this determination is only applicable to soil and groundwater impacts associated with the USTs. The Regional Water Quality Control Board shall be notified of any changes in future land use; staff understands this parcel is currently planned for use as open space.

Mr. Ed. Keller

- 2 -

If you have any questions, you may call Naomi Feger of my staff at 510-622-2328 or email [nlf@rb2.swrcb.ca.gov](mailto:nlf@rb2.swrcb.ca.gov).

Sincerely,



*for* Bruce H. Wolfe  
Executive Officer

Enclosures: Case Closure Letter, Site Plan and Summary Format for DoD UST Nos. D1-D21.

cc: Lance McMahan, DTSC  
Linda Dorn, SWRCB





California Regional Water Quality Control Board  
San Francisco Bay Region



Arnold Schwarzenegger  
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Date: FEB 10 2004  
File No: 2159.5008 (NLF)

Mr. Ed Keller  
Department of the Army  
Base Realignment and Closure Office  
Atlanta Field Office  
BRAC Environmental Coordinator  
Hamilton Army Airfield  
1 Burma Road  
Novato, California 94949

**Subject: Case Closure Letter for Department of Defense (DoD) Underground Storage Tanks at Hamilton Army Airfield, POL Hill, Novato, CA, including:**

Army ID  
D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12,  
D13, D14, D15, D16, D17, D18, D19, D20, D21

RWQCB UST No.  
21D9228

Dear Mr. Keller:

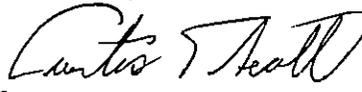
This letter confirms the completion of site investigations and remedial actions for the above listed underground storage tanks located at the above-described location (Figure 1-3). Thanks for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning these former tanks are greatly appreciated.

Based upon the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the above listed underground storage tanks release is required.

This notice is issued pursuant to a regulation contained in Section 2721 (e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

  
for Bruce H. Wolfe  
Executive Officer



## Site Summary Form

06-Feb-04

**Facility Name:** Hamilton Army Airfield

**Staff Initials:** Naomi Feger

**County Name:** Marin

**Site:** POL Hill

**RB File No.:** 21D9228

**County Code:** 21

**Address:** Burma Road  
Novato, CA 94949

## Hydrology

**Nearest Surface Water:** drainage ditch

**Direction of GW Flow:** northward

**Distance to Surface Water (ft.):** 75 feet

**Highest GW Depth (ft):** 0.46 MW112A

**Water Wells Affected?:** No

**Distance to Wells (ft):** n/a

**No. Wells:** 35

**Lowest GW Depth(ft):** -3.17

**Groundwater Benef. Use:** non-potable

## Geology

**Site Geology:** Four distinct geologic units; three unconsolidated units are underlain by bedrock. Pebbly sandy clay fill (0 to 7 feet thick) occur in gently sloping low lying areas and bay mud lies under the fill (0 to 4 feet thick). Bedrock is Franciscan Sandstone.

**Pit Samples Submitted?:** Yes

**No. Borings:** 36

**Ground Elev. (ft.):** 5 to 50

## Site Management

**Potential Ecological Risk:** site doesn't pose unacceptable level of risk

**Future Land Use:** open space

**Human Health Risk:** site doesn't pose unacceptable level of risk

**Current Land Use:** open space

**Institutional Controls:** residential deed restrictions

**Management Requirements:** N/A

**Comments:**

This is a former tank farm consisting of 20 25,000 gallon USTs and one 750 gallon UST. In addition, there were three ASTs, one 25,000, one 2,500 and one 600 gallons.

In 1985, TPH was detected in samples collected from surface and subsurface soils. 11 monitoring wells were installed. 21 USTs, water control pit, water-separator house, concrete vaults and piping were removed in 1986. Soil removal totalled 13,000 cyds. Wells destroyed as part of remediation.

In 1990 additional investigations were conducted. The three additional ASTs, the remaining fuel lines, concrete fuel islands, paving and additional soil (22,980.5 cyds) were removed. The cleanup goal was 100 ppm; soils were removed to the extent possible.

17 new wells were installed in 1991. 6 additional wells were installed in 1996. Wells in the former tank farm area were destroyed in 2002.

One 850,000 AST (AST-2) removed and is subject to a Corrective Action Plan. Nine wells remain open for monitoring the AST-2 portion of site.

**Reports:**

1993 Final Environmental Investigation Report, Hamilton Army Airfield, Volumes 1 and 2, Engineering Science, Inc.; 1991 Field Engineering Report - Miscellaneous Contaminated Sites, IT Corporation; 1194 Supplement to the Final Environmental Investigation Report, USACE, Sacramento District; 1996, Additional Environmental Investigation of BRAC Property, Woodward Clyde Federal Services; 1999, Petroleum, Oil and Lubricant Outparcel Closure Report BRAC Property, IT Corporation; 2003 Draft Closure Report POL Hill Outparcel, CH2MHill; Personal conversation with Hugh Ashley, November, 2003.

**Staff Notes:**

Trenching and soil borings used to characterize site. Note that well MW-16 discussed below in groundwater results was removed during the excavation activities. MW112A is one of the replacement monitoring wells.

**Remedial Activity**

<u>Action Taken</u>	<u>Amount (gallons)</u>
<b><u>Free Product:</u></b>	
<u>Soil:</u> disposal	36,000 cyds
<b><u>Ground Water:</u></b>	n/a
<u>Vapor:</u>	

**Groundwater Results, ppb**

Sample No	Source Matrix	Sampling Phase	Analyte Name	Qualifier	Value	Unit	MW Elevation	MW Latitude	MW Longitude
12/1/85 MW-16	Groundwater	Initial	TPH		730,000	ppb	-2 ft	38.06431	122.51929
2/1/97 MW112A(D)	Groundwater	Final	TPH		100	ppb	1.7		

## Soil Results, ppm

DATE	Sample No	Source Matrix	Sampling Depth (ft)	Sampling Phase	Analyte name	Qualifier	Value	Unit	Comments
12/1/86	D12-04	Soil	0	Initial	TPH-purgeable		12000	ppm	
Sample collected from beneath tank at depth close to original grade of site prior to tank burial. Analyte reported as volatile fuel hydrocarbon. Tank with highest hit noted here.									
12/1/91	LPOL-117	Soil	0	Final	TPH - JP-4		120	ppm	
Surface sample - TPH reported as JP-4. Exact location not clear - close to tank D14. Highest confirmation sample within former tank farm.									

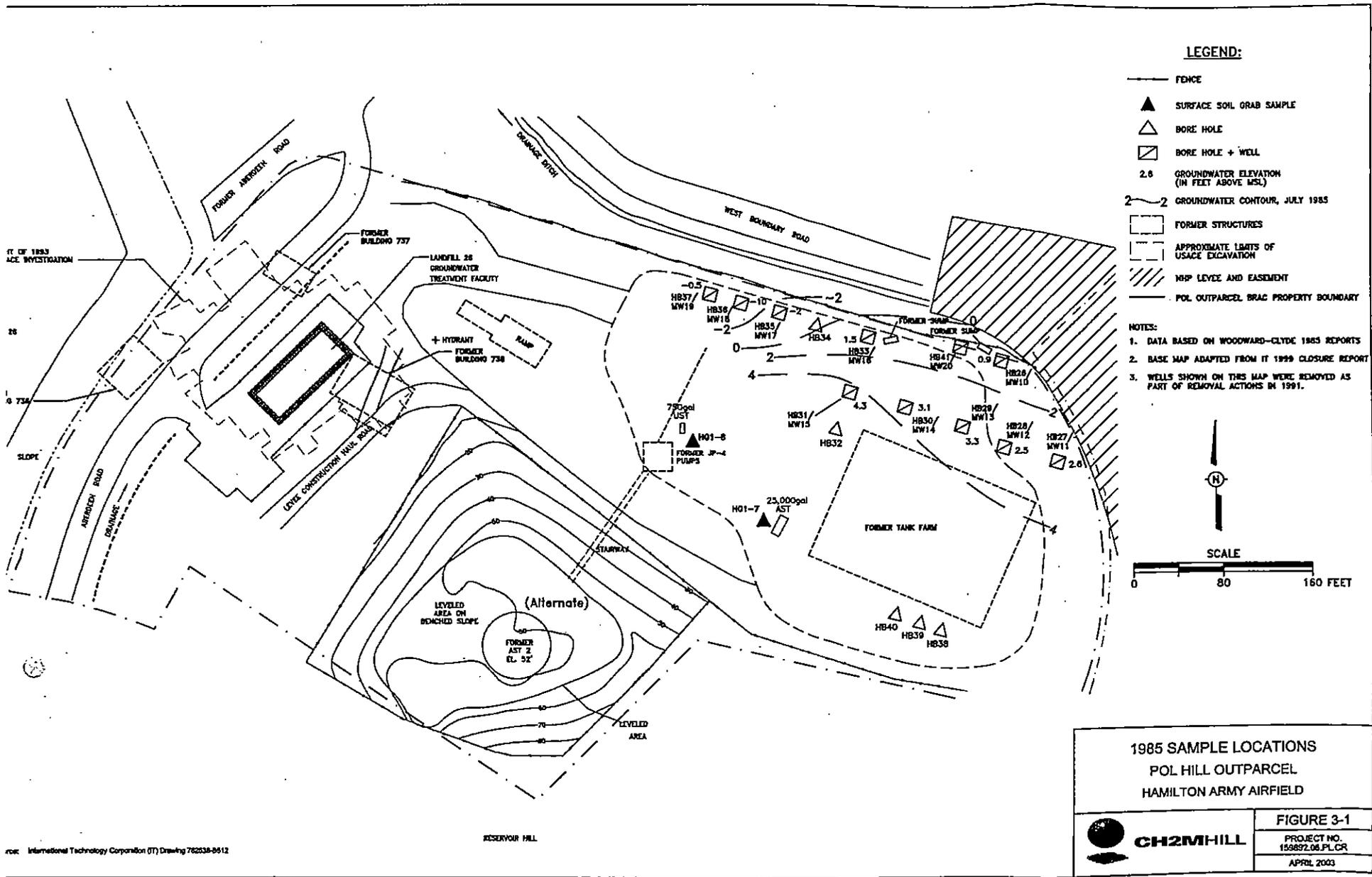
## Tank Information

TANK NO.	TANK SIZE (gal)	TANK CONTENTS	TANK ACTION	DATE	LATITUDE (Decimal Degrees)	LONGITUDE (Decimal Degrees)
AST1	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
AST3A	2,500	diesel fuel	Removed	5/1/86	38.06394	122.51934
AST3B	600	unknown/gasoline	Removed	5/1/86	38.06394	122.51934
D01	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939

D02	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D03	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D04	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D05	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D06	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D07	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D08	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D09	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D10	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939

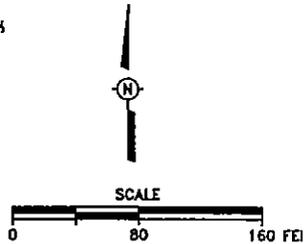
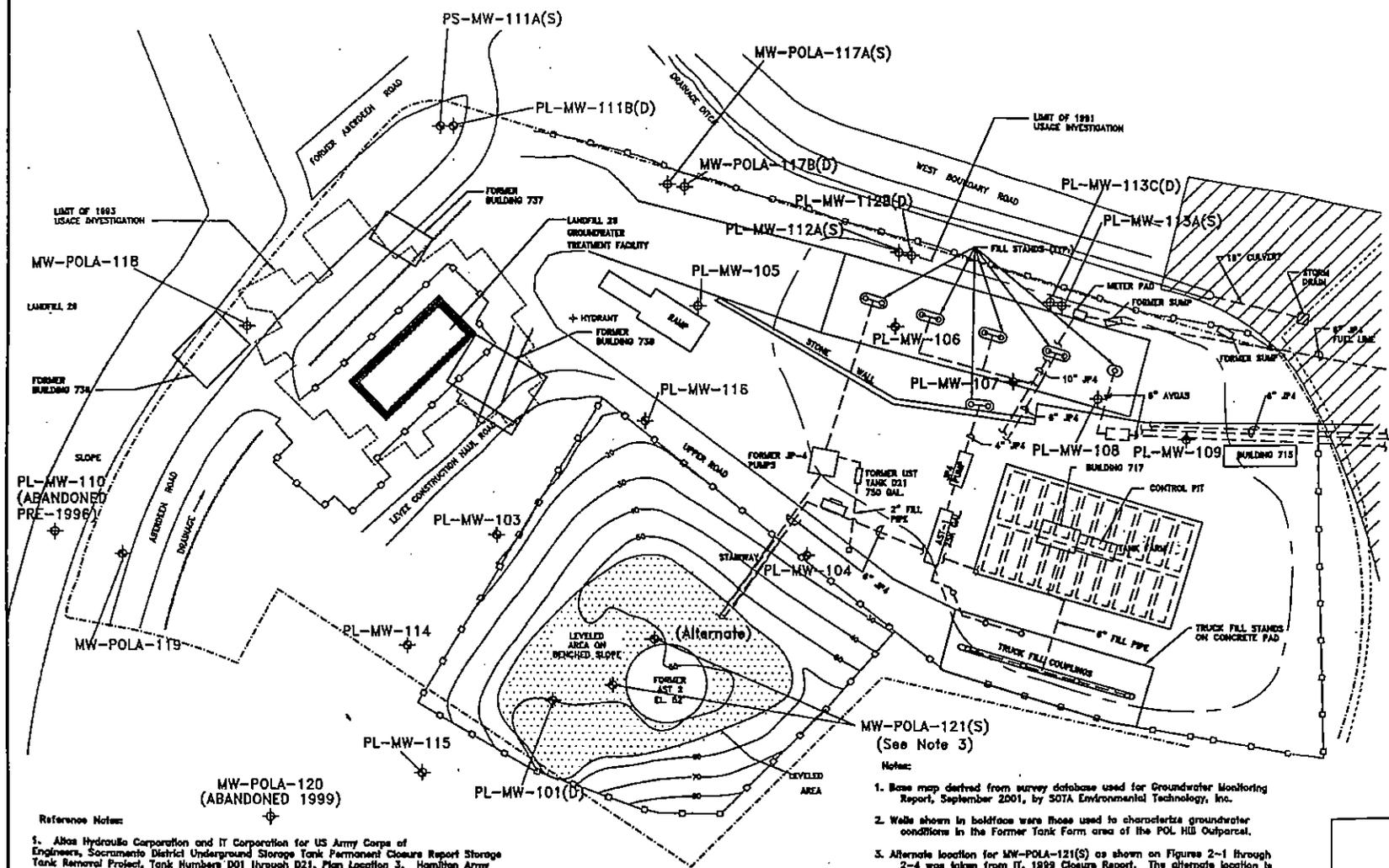
D11	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D12	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D13	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D14	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D15	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D16	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D17	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51939
D18	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51934
D19	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51934

D20	25,000	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51934
D21	750	Jet Fuel / Kerosene	Removed	5/1/86	38.06394	122.51934



**LEGEND:**

- FENCE
- ⊕ EXISTING MONITORING WELL
- ⊕ ABANDONED MONITORING WELL
- (S) SHALLOW MONITORING WELL
- (D) DEEPER MONITORING WELL
- ▭ FORMER STRUCTURES
- ▭ APPROXIMATE LIMITS OF USAGE EXCAVATION
- ▨ RIP LEVCE AND EASEMENT
- POL OUTPARCEL BRAC PROPERTY BOUNDARY
- CSA PHASE I TRANSFERRED PROPERTY BOUNDARY
- LANDFILL 26 BOUNDARY



**Reference Notes:**

1. Atlas Hydraulic Corporation and IT Corporation for US Army Corps of Engineers, Sacramento District Underground Storage Tank Permanent Closure Report Storage Tank Removal Project, Tank Numbers D01 through D21, Plan Location 3, Hamilton Army Airfield, Nevada, California, November 7, 1986 Figures 1 through 5 and report text.
2. Weston for USATHAMA, US Army Toxic and Hazardous Materials Agency Task Order 2, Preliminary Assessment Report, Hamilton Army Airfield, Nevada, California, January 1990 Figure ES-1, photographs 5 & 6, and Chapter 3 text.
3. EC Jordan Co. for USATHAMA and US Army Corps of Engineers Final Technical Plan, Data Item A003, Hamilton Army Airfield, Nevada, California, November 1990 Figures 4-3 and Chapter 4 text.

Source: International Technology Corporation (IT) Drawing 782538-B512  
System: April 11 1999 02:02:52 (4/11/99 1:3 (platt)) C:\paw

**Note:**

1. Base map derived from survey database used for Groundwater Monitoring Report, September 2001, by SOTA Environmental Technology, Inc.
2. Wells shown in boldface were those used to characterize groundwater conditions in the Former Tank Farm area of the POL Hill Outparcel.
3. Alternate location for MW-POLA-121(S) as shown on Figures 2-1 through 2-4 was taken from IT, 1999 Closure Report. The alternate location is incorrect and the actual location is due west of the former tank.
4. Abandoned monitoring wells were closed in October 2002 unless alternate date is indicated in parentheses. Well abandonment information taken from Table 1: Monitoring Well Summary for HAAF contained within IT Corporation (2001) Work Plan, Monitoring Well Abandonment, Hamilton Army Airfield, Nevada, CA, Revision 1, December. This table was revised for the Army just before the well destruction occurred in October 2002.

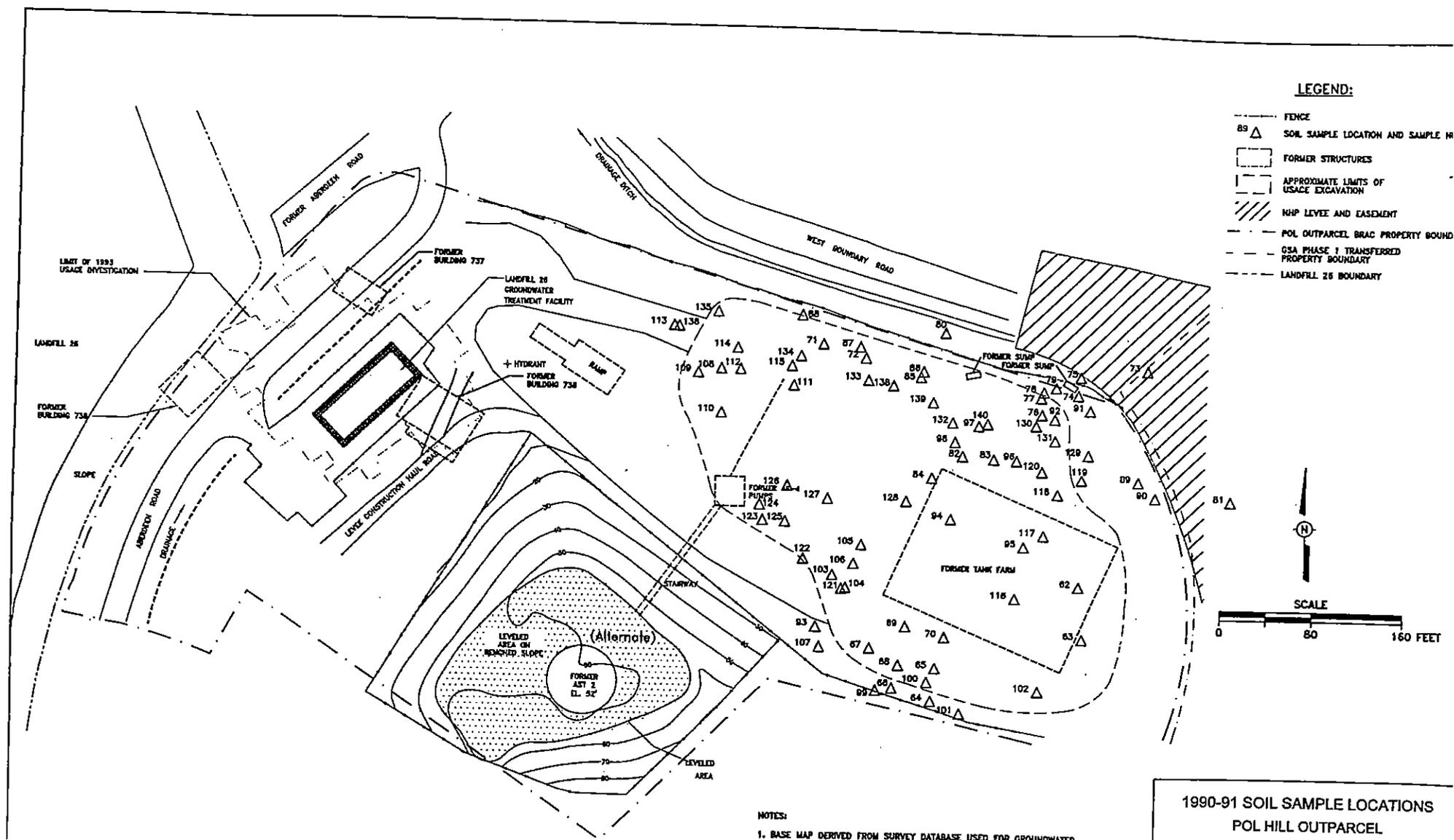
**SITE LOCATION MAP  
POL HILL OUTPARCEL  
HAMILTON ARMY AIRFIELD**



**FIGURE 1**  
159882.08.PL (1)  
APRIL 2003

**LEGEND:**

- FENCE
- 89 ▲ SOIL SAMPLE LOCATION AND SAMPLE NO.
- FORMER STRUCTURES
- - - APPROXIMATE LIMITS OF USACE EXCAVATION
- /// NHP LEVEL AND EASEMENT
- - - POL OUTPARCEL BRAC PROPERTY BOUND
- - - GSA PHASE 1 TRANSFERRED PROPERTY BOUNDARY
- - - LANDFILL 26 BOUNDARY



- NOTES:**
1. BASE MAP DERIVED FROM SURVEY DATABASE USED FOR GROUNDWATER MONITORING REPORT, SEPTEMBER 2001, BY SOTA ENVIRONMENTAL TECHNOLOGY, INC.
  2. SOURCE OF SAMPLE LOCATION DATA TAKEN FROM IT 1991, FIGURE 2.

<p>1990-91 SOIL SAMPLE LOCATIONS POL HILL OUTPARCEL HAMILTON ARMY AIRFIELD</p>	
	<p><b>FIGURE 3-3</b> PROJECT NO. 159892.08.PL.CR APRIL 2003</p>

Source: International Technology Corporation (IT) Drawing 702538-8512

RESERVOIR HILL