U.S. Army Environmental Center

NO FURTHER ACTION DECISION UNDER CERCLA

STUDY AREA 43M
HISTORIC GAS STATION SITES

FORT DEVENS, MASSACHUSETTS

CONTRACT DAAA15-91-D-0008

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND

JANUARY 1995

PRINTED ON RECYCLED PAPER

AEC Form 45, 1 Feb 93 replaces THAMA Form 45 which is obsolete.

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FORT DEVENS, MASSACHUSETTS

Prepared for:

U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland
Contract DAAA15-91-0008

Prepared by:

ABB Environmental Services, Inc.
Portland, Maine
Project No. 7053-12

JANUARY 1995

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EXECUTIVE SUMMARY

Investigations of Study Area 43M (Historic Gas Station Site) at Fort Devens, Massachusetts have resulted in the decision that no further hazardous waste studies or remediation are required at this site. Study Area 43M was identified in the Federal Facilities Agreement between the U.S. Environmental Protection Agency and the U.S. Department of Defense as a potential site of contamination.

Fort Devens was placed on the National Priorities List under the Comprehensive Environmental Response, Compensation and Liability Act as amended by the Superfund Amendments and Reauthorization Act on December 21, 1989. In addition, under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, Fort Devens was selected for cessation of operations and closure. In accordance with these acts, numerous studies, including a Master Environmental Plan, an Enhanced Preliminary Assessment, and an underground storage tank removal program, have been conducted which address Study Area 43M.

An investigation of subsurface soil at Study Area 43M was conducted by Kurz Associates in 1989 as part of an underground storage tank removal program at Fort Devens. Two USTs were removed, and were observed to be in good condition. The headspace of nine soil samples from each excavation were screened for total volatile organic compounds with a photoionization detector. Concentrations ranged from 1.0 to 7.4 parts per million. Four composite soil samples were collected from the excavations for total petroleum hydrocarbon analysis. The total petroleum hydrocarbon compound concentrations ranged from 73 to 101 parts per million.

After assessing the distribution and migration potential of the contaminants at Study Area 43M, it was concluded by Fort Devens personnel that groundwater was not being impacted by the concentration detected and that current site conditions pose no significant risk to potential receptors. Based on this assessment, the excavations were backfilled, and no additional investigation was conducted.

Based on the recommendations in the Kurz report, ABB Environmental Services, Inc. did not conduct a site investigation at SA 43M during the 1992 field program. Based on the results of the work by Kurz Associates, it does not appear that the past activities at SA 43M have impacted the soil quality in the vicinity of the former underground storage

tank location. The decision has been made to remove Study Area 43M from further consideration in the Installation Restoration Program.

1.0 INTRODUCTION

This decision document has been prepared to support a no further action decision at Study Area 43M - Historic Gas Station Site (SA 43M) at Fort Devens, Massachusetts. The report was prepared as part of the U.S. Department of Defense (DoD) Base Realignment and Closure (BRAC) program to assess the nature and extent of contamination associated with site operations at Fort Devens.

In conjunction with the Army's Installation Restoration Program (IRP), Fort Devens and the U.S. Army Environmental Center (USAEC; formerly the U.S. Army Toxic and Hazardous Materials Agency) initiated a Master Environmental Plan (MEP) in 1988. The MEP consists of assessments of the environmental status of SAs, specifies necessary investigations, and provides recommendations for response actions with the objective of identifying priorities for environmental restoration at Fort Devens. The Historic Gas Station Sites were identified in the MEP as potential areas of contamination. On December 21, 1989, Fort Devens was placed on the National Priorities List under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act.

An Enhanced Preliminary Assessment (PA) was also performed at Fort Devens to address areas not normally included in the CERCLA process, but requiring review prior to closure. A final version of the PA report was completed in April 1992.

Under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, Fort Devens has been selected for cessation of operations and closure. An important aspect of BRAC actions is to determine environmental restoration requirements before property transfer can be considered.

5.0 PRELIMINARY HUMAN HEALTH RISK EVALUATION

After assessing the distribution and migration potential of the contaminants at the station, it was concluded by Fort Devens personnel that groundwater was not being impacted by the concentration detected and that current site conditions pose no significant risk to potential receptors. Based on this assessment, the excavations were backfilled, and no additional investigation was conducted. Prior to backfilling, Kurz Associates collected four composite soil samples from the excavation walls which were analyzed for TPHC. TPHC concentrations levels ranged from 73 to 101 ppm. Based on a comparison of these results against the calculated risk-based commercial/industrial concentration value of 1,700 ppm for gasoline, and against the Massachusetts Contingency Plan's most conservative concentration of 500 ppm, there should be no significant risk to public health from soil contamination at SA 43M.

6.0 PRELIMINARY ECOLOGICAL RISK EVALUATION

A preliminary ecological risk evaluation was not prepared for SA 43M because contaminants associated with a UST would be confined to subsurface soil, and would not impact any ecological receptors.

7.0 CONCLUSIONS

ABB-ES used the results of previous field investigations at SA 43M to determine if the historic gas station activities had adversely impacted the soil or groundwater quality in the area around SA 43M. Based on the results of the work by Kurz Associates, it does not appear that the past activities at SA 43M have impacted the soil quality in the vicinity of the former UST locations. Therefore, no further action is recommended for this historic gas station.

8.0 DECISION

On the basis of the findings at SA 43M, there is no evidence or reason to conclude that petroleum contamination from the former USTs has caused significant environmental contamination or pose a threat to human health or the environment. The decision has been made to remove SA 43M from further consideration in the IRP process. In accordance with CERCLA 120 (h) (3), all remedial actions necessary have taken place, and the USEPA and MADEP signatures constitute concurrence in accordance with the same.

James C Chambers

JAMES C. CHAMBERS
BRAC Environmental Coordinator

18 JAN 95
Date

U.S. ENVIRONMENTAL PROTECTION AGENCY

James P. Byrne

JAMES P. BYRNE
Fort Devens Remedial Project Manager

1/10/95
Date

[X] Concur

[ ] Non-concur (Please provide reasons for non-concurrence in writing)

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

D. Lynne Welsh

D. LYNNE WELSH
Section Chief, Federal Facilities - CERO

1/18/95
Date

[X] Concur

[ ] Non-concur (Please provide reasons for non-concurrence in writing)

ABB-ES	ABB Environmental Services, Inc.
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DoD	U.S. Department of Defense
gpm	gallons per minute
IRP	Installation Restoration Program
LUST	leaking underground storage tank
MEP	Master Environmental Plan
MSL	mean sea level
PA	Enhanced Preliminary Assessment
ppm	part per million
SA	Study Area
SI	site investigation
TPHC	total petroleum hydrocarbon compounds
USAEC	U.S. Army Environmental Center
UST	underground storage tank
VOC	volatile organic compound

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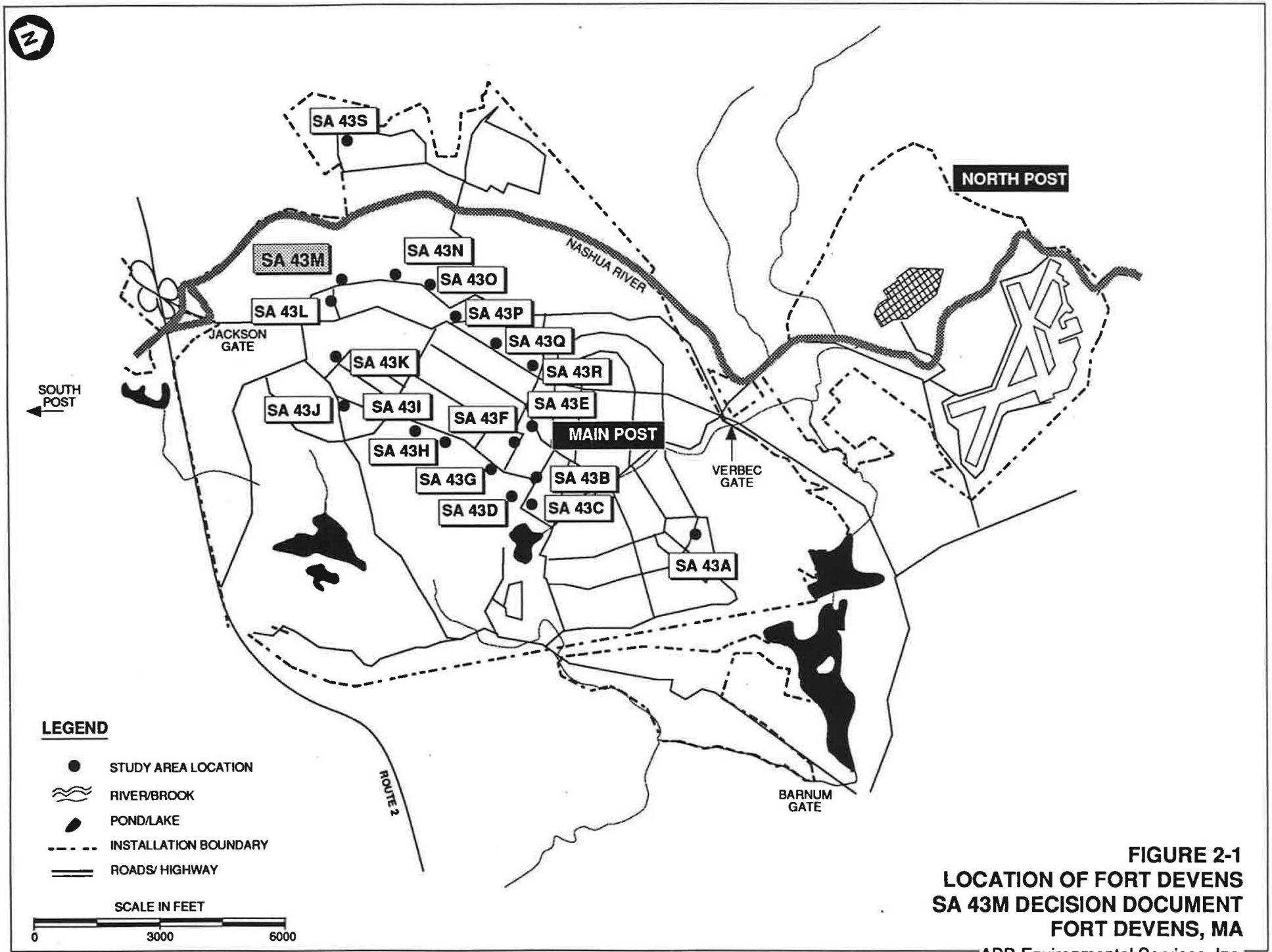

FIGURE 2-1
LOCATION OF FORT DEVENS
SA 43M DECISION DOCUMENT
FORT DEVENS, MA
ABB Environmental Services, Inc.

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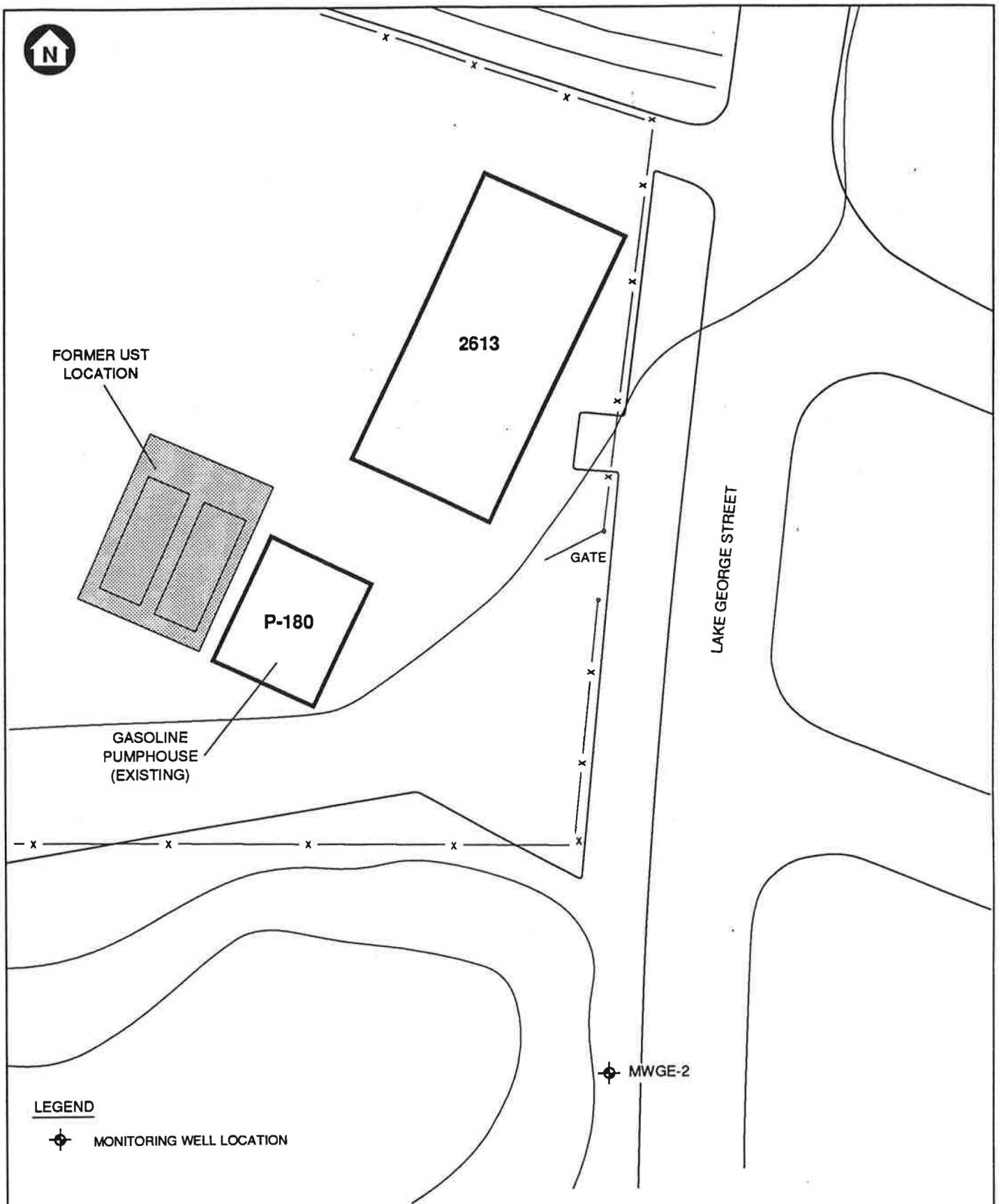

FIGURE 2-2
LOCATION OF SA 43M
SA 43M DECISION DOCUMENT
FORT DEVENS, MA
ABB Environmental Services, Inc.

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