FINAL

Community Environmental Response Facilitation Act (CERFA) Report

Fort George G. Meade
Maryland

Prepared for

U.S. ARMY ENVIRONMENTAL CENTER
ABERDEEN PROVING GROUND, MARYLAND 21010

Prepared by

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.
855 Springdale Drive
Exton, PA 19341

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This report presents the results of the Community Environmental Response Facilitation Act (CERFA) investigation conducted by Environmental Resources Management (ERM) at Fort George G. Meade (FGGM), a U.S. Government property selected for closure by the Base Realignment and Closure (BRAC) Commission under Public Laws 100-526 and 101-510. Under CERFA (Public Law 102-426), Federal agencies are required to expeditiously identify real property that can be immediately reused and redeveloped. Satisfying this objective requires the identification of real property where no hazardous substances or petroleum products, regulated by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), were stored for one year or more, known to have been released, or disposed.

FGGM is an approximately 4,000-acre site (originally comprising 13,596 acres) located in Anne Arundel County, Maryland, almost equidistant between Washington, D.C. and Baltimore, Maryland. The installation's primary mission is to provide training, security, logistical, and administrative support to the Military District of Washington (MDW). The most significant operation at the BRAC portion of Fort Meade is associated with Tipton Army Airfield. The environmentally significant operations associated with the property are aircraft maintenance and repair, fire training, and fuel storage.

ERM reviewed existing investigation documents; U.S. Environmental Protection Agency (EPA), State, and county regulatory records; environmental data bases; and title documents pertaining to FGGM during this investigation. In addition, ERM conducted interviews and visual inspections of the BRAC portion of FGGM as well as visual inspections and data base searches for the surrounding properties.

Information in this CERFA report was current as of April 1994. This information was used to divide the installation into three categories of parcels: CERFA Qualified Parcels, CERFA Disqualified Parcels, and CERFA Excluded Parcels, as defined by the Army.

The total BRAC property acreage at FGGM is 8,774 acres, of which 366.19 acres are specifically addressed by this report. Areas of the property that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage for one year or more; and no history of other environmental hazards (such as asbestos, radon gas, lead-based paint, unexploded ordnance, radionuclides, or not-in-use equipment containing polychlorinated biphenyls), are categorized as CERFA Parcels. ERM determined that none of the property falls within the CERFA Parcel category.

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TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
AEHA	Army Environmental Hygiene Agency
AREE	Area Requiring Environmental Evaluation
ASL	Active Sanitary Landfill
AST	Aboveground Storage Tank
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
DPW	Department of Public Works
DRMO	Defense Reutilization Marketing Office
EMO	Environmental Management Office
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
ERM	Environmental Resources Management
ERNS	Emergency Response Notification System
FGGM	Fort George G. Meade
FO/A	Freedom of Information Act
FORSCOM	Forces Command
FS	Feasibility Study
FTA	Fire Training Area
FY	Fiscal Year

GWQS	Ground Water Quality Survey
INSCOM	Intelligence Command
IRDMIS	Installation Restoration Data Management Information System
IRP	Installation Restoration Program
LBP	Lead-based Paint
MDE	Maryland Department of the Environment
MDW	Military District of Washington
NEPA	National Environmental Policy Act
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NSA	National Security Agency
^{o}F	Degrees Fahrenheit
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil, and Lubricant
ppb	Parts Per Billion
ppm	Parts Per Million
PWRC	Patuxent Wildlife Research Center
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
SI	Site Inspection

USAEC	U.S. Army Environmental Center
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USDA	U.S. Department of Agriculture
UST	Underground Storage Tank
UXO	Unexploded Ordnance
WTP	Wastewater Treatment Plant
WWI	World War I
WWII	World War II
XRF	X-Ray Fluoroscopy

EXECUTIVE SUMMARY

This report presents the results of the Community Environmental Response Facilitation Act (CERFA) investigation conducted by Environmental Resources Management (ERM) at Fort George G. Meade (FGGM), a U.S. Government property selected for closure by the Base Realignment and Closure (BRAC) Commission under Public Laws 100-526 and 101-510. Under CERFA (Public Law 102-426), Federal agencies are required to expeditiously identify real property that can be immediately reused and redeveloped. Satisfying this objective requires the identification of real property where no hazardous substances or petroleum products, regulated by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), were stored for one year or more, known to have been released, or disposed.

FGGM is an approximately 4,000-acre site (originally comprising 13,596 acres) located in Anne Arundel County, Maryland, almost equidistant between Washington, D.C. and Baltimore, Maryland. The installation's primary mission is to provide training, security, logistical, and administrative support to the Military District of Washington (MDW). The most significant operation at the BRAC portion of Fort Meade is associated with Tipton Army Airfield. The environmentally significant operations associated with the property are aircraft maintenance and repair, fire training, and fuel storage.

ERM reviewed existing investigation documents; U.S. Environmental Protection Agency (EPA), State, and county regulatory records; environmental data bases; and title documents pertaining to FGGM during this investigation. In addition, ERM conducted interviews and visual inspections of the BRAC portion of FGGM as well as visual inspections and data base searches for the surrounding properties.

Information in this CERFA report was current as of April 1994. This information was used to divide the installation into three categories of parcels: CERFA Qualified Parcels, CERFA Disqualified Parcels, and CERFA Excluded Parcels, as defined by the Army.

The total BRAC property acreage at FGGM is 8,774 acres, of which 366.19 acres are specifically addressed by this report. Areas of the property that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage for one year or more; and no history of other environmental hazards (such as asbestos, radon gas, lead-based paint, unexploded ordnance, radionuclides, or not-in-use equipment containing polychlorinated biphenyls), are categorized as CERFA Parcels.

ERM determined that none of the property falls within the CERFA Parcel category.

Areas of the facility that had no evidence of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage for one year or more, but contained other environmental hazards (such as asbestos, radon gas, lead-based paint, unexploded ordnance, radionuclides, or not-in-use equipment containing polychlorinated biphenyls), were categorized as CERFA Qualified Parcels. Three (3) CERFA Qualified Parcels, comprising 224.75 acres, were identified.

Areas of the facility, for which there is a history of release, disposal, or storage for one year or more of CERCLA-regulated hazardous substances or petroleum products or had a release of hazards identified above were categorized as CERFA Disqualified Parcels. Thirteen (13) CERFA Disqualified Parcels, comprising 141.44 acres, were identified.

Areas on the facility that will be retained by the Federal Government or that have already been transferred by deed are categorized as CERFA Excluded Parcels. Approximately 8,408 acres of the facility were identified within six (6) CERFA Excluded Parcels.

The primary objective of CERFA is satisfied by the identification of CERFA Parcels and CERFA Qualified Parcels. As a result, concurrence has been sought from the regulatory agencies on these two categories of parcels. This CERFA Report has been reviewed by the U.S. Army Environmental Center (USAEC), EPA Region III, and the Maryland Department of the Environment (MDE). Comments from the regulatory agencies and USAEC's response to those comments are located in the Appendix.

This report contains maps that summarize the categorization of FGGM on the basis of the above definitions. This Executive Summary should be read only in conjunction with the complete CERFA Report for this installation. The CERFA Report provides the relevant environmental history to substantiate the parcel categorization. This report does not address other property transfer requirements that may be applicable under the National Environmental Policy Act (NEPA), nor does it address natural resource considerations such as the threat to plant or animal life.

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

Public Laws 100-526 and 101-510 designated more than 100 Department of Army facilities for closure and realignment. As a result, it became necessary to expedite the environmental investigation and cleanup process, as necessary, prior to the release and reuse of Army Base Realignment and Closure (BRAC) property. The BRAC environmental restoration program was established in 1989 with the first round (BRAC 88) of base closures and continued with subsequent rounds (BRAC 91, BRAC 93, etc.). The BRAC program is patterned after the Army's Installation Restoration Program (IRP), except that it has been expanded to include such categories of contamination as asbestos, radon, polychlorinated biphenyls (PCBs), and others that are not normally addressed under the Army IRP.

The BRAC environmental restoration program begins by conducting enhanced Preliminary Assessments (PAs). The term "enhanced" is used to distinguish these assessments from previous IRP preliminary assessments since the BRAC PAs are conducted from a property transfer perspective and evaluate areas which are not included in the IRP (e.g., asbestos, radon, PCBs). The enhanced PAs include reviews of existing installation documents, regulatory records, and aerial photographs; a site visit and visual inspection; and employee interviews. Enhanced PAs were conducted for BRAC 88 and BRAC 91 installations, and are currently underway at BRAC 93 installations. An Enhanced PA was prepared for Fort George G. Meade in October 1989 by the Environmental Research Division of Argonne National Laboratory under the direction of USAEC (formerly the U.S. Army Toxic and Hazardous Materials Agency [USATHAMA]).

In October 1992, Public Law 102-426, the Community Environmental Response Facilitation Act (CERFA) amended Section 120 (h) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and established new requirements with respect to contamination assessment, cleanup, and regulatory agency notification/concurrence for federal facility closures. CERFA requires the federal government, before termination of federal activities on real property owned, to identify property where no hazardous substances were stored, released, or disposed of. Also, the designation must be concurred with by the appropriate regulatory agency (U.S. Army Environmental Protection Agency or National Priority List (NPL) bases

and state on non-NPL bases). These requirements retroactively affect the Army BRAC 88 and BRAC 91 environmental restoration activities, and are being implemented at BRAC 93 sites concurrently with their enhanced PAs. The primary CERFA objective is for federal agencies to expeditiously identify real property offering the greatest opportunity for immediate reuse and redevelopment. Although CERFA does not mandate the Army transfer real property so identified, the first step in satisfying the objective is the requirement to identify real property where no CERCLA-regulated hazardous substances or petroleum products were stored, released, or disposed.

Environmental Resources Management, Inc. (ERM) was awarded the task to identify real property where no CERCLA-regulated hazardous substances or petroleum products were stored, released, or disposed at twelve BRAC 88 sites. Under this task, an Execution Plan was developed to describe the process in satisfying the CERFA task objective. The purpose of this report is to present the findings for Fort George G. Meade (FGGM), Maryland.

1.2 *DEFINITION OF TERMS*

The following definitions are used to categorize and label parcels identified on the installation:

- CERFA Parcel - A portion of the installation real property for which investigation reveals no evidence of storage for one year or more, release, or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives and no evidence of being threatened by migration of such substances. CERFA Parcels include areas where PCB containing equipment is in operation, but there is no evidence of release. CERFA Parcels also include any portion of the installation which once contained related environmental, hazard, or safety issues including unexploded ordnance (UXO) located on firing ranges or impact areas, radon, stored (not in-use) PCB containing equipment, asbestos contained within building materials, radionuclides contained in products being used for their intended purposes, and lead-based paint applied to building material surfaces, but which have since been fully remediated or removed.
- CERFA Qualified Parcel - A portion of the installation real property for which investigation reveals no evidence of storage for one year or more, release, or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives and no evidence of being threatened by migration of such substances. Parcel does, however, contain related environmental, hazard, or safety issues including unexploded ordnance (UXO) located on firing ranges or impact areas,

radon, radionuclides contained within products being used for their intended purposes, asbestos contained within building materials, lead-based paint applied to building material surfaces, or stored (not in use) PCB-containing equipment.

- CERFA Disqualified Parcel - A portion of the installation real property for which investigation reveals evidence of a release, disposal, or storage for more than one year of a CERCLA hazardous substance, petroleum, or petroleum derivative; or a portion of the installation threatened by such a release or disposal. CERFA Disqualified Parcels also include any portion of the installation where PCB, asbestos containing material, lead-based paint residue, radionuclides, or any ordnance has been disposed of, and any locations where chemical ordnance has been stored. Additionally, CERFA Disqualified Parcels include any areas in which CERCLA hazardous substances or petroleum products have been released or disposed of and subsequently fully remediated.
- CERFA Excluded Parcel - A portion of the installation real property retained by the Department of Defense, and therefore not explicitly investigated for CERFA. CERFA Excluded Parcels also include any portions of the installation which have already been transferred by deed to a party outside the federal government, or by transfer assembly to another federal agency.

The following labels are used in conjunction with the identified parcels. Each parcel is given a unique number to which the appropriate labels are attached.

- P = CERFA Parcel
- Q = CERFA Qualified Parcel
- D = CERFA Disqualified Parcel
- E = CERFA Excluded Parcel

EXAMPLE: 4P indicates that the fourth parcel is in the CERFA Parcel category.

The presence of related environmental, hazard, and safety issues, responsible for placing a parcel in the CERFA Qualified Parcel category, is indicated by the following labels:

- A = Asbestos
- L = Lead-Based Paint

- P = PCB
- R = Radon
- X = Unexploded Ordnance (UXO)
- RD = Radionuclides

EXAMPLE: 5Q-L indicated that the fifth parcel is in the CERFA Qualified Parcel category because of the presence of lead-based paint.

The following designations are used to indicate the type of contamination or storage present in a parcel. Conditions responsible for placing a parcel in the CERFA Disqualified category are indicated by the following:

- PR = Petroleum Release
- PS = Petroleum Storage
- HR = Hazardous Release
- HS = Hazardous Storage

EXAMPLE: 12D-HR indicates that the twelfth parcel is in the CERFA Disqualified category because of evidence of hazardous release.

For all parcels, (P) [i.e., P with parentheses around it] is used to indicate that the presence of the contamination is possible, but that data is unavailable for verification.

EXAMPLE: 9Q-A(P) indicates that the ninth parcel is in the CERFA Qualified Parcel category because of the possible presence (unverified) of ACM.

OTHER EXAMPLES:

Parcel label 15D-HR/PS/A(P) indicates that the 15th parcel is in the CERFA Disqualified category based on evidence of a hazardous substance release and petroleum storage. It also contains possible ACM.

Parcel label 8Q-X/R indicates that the eighth parcel is in the CERFA Qualified Parcel category because of the presence of unexploded ordnance and radon.

1.3 *GEOGRAPHICAL/ENVIRONMENTAL SETTING*

Fort George G. Meade (FGGM) is a permanent U.S. Army installation situated in the northwest corner of Anne Arundel County, Maryland (see Figure 1.3-1). Anne Arundel County is located in central Maryland on the western shore of the Chesapeake Bay estuary. Nearby communities include Odenton, Maryland City, and Laurel. FGGM is close to the border of Howard County on the west and Prince George's County on the south. FGGM is located almost equidistant (12 miles) between Baltimore, Maryland and Washington, DC.

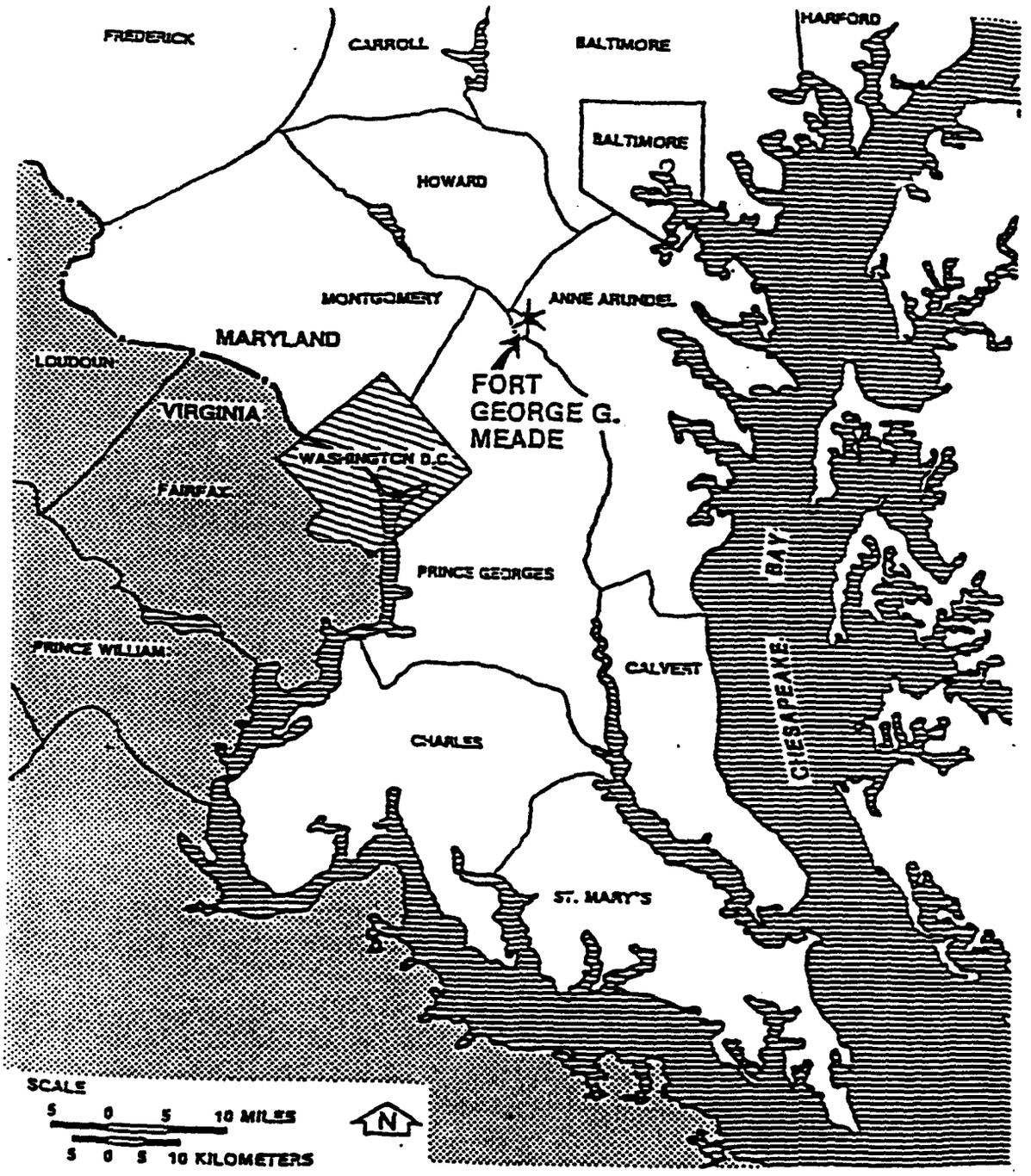
Of the 13,596 acres originally comprising FGGM, approximately 9,000 acres have been identified for excess (Figure 1.3-2). The CERFA investigation and this report are largely concerned with the 366 acres surrounding the Tipton Army Airfield.

FGGM is located in a region of significant population. Within a four-mile radius of the installation, military and civilian residential populations average approximately 40,000. The resident and working populations of FGGM approach 20,000.

The climate of the central Maryland region is continental, modified somewhat by the influence of the Atlantic Ocean. The average annual precipitation is about 40 inches. The average annual wind speed is 15.2 kilometers per hour (km/h) and the prevailing wind direction is from the west. The annual mean temperature in the FGGM area is 16 degrees Centigrade (°C), with a daily annual maximum of 22°C and a minimum of 7°C. Annual temperature extremes vary from -21°C to 38°C. The dominant air mass during the winter is continental-polar, with maritime-tropical air masses being of secondary influence. During the summer, the dominance of these two air masses is reversed. When northeasterly airflow prevails over this portion of the state, the maritime-polar air masses exert a greater influence. This condition is infrequent, of short duration, and may occur during all seasons, but rarely during summer.

FGGM is located within the Coastal Plain physiographic province. The installation is underlain by sediments of the Potomac Group. The sediments consist of sand, silt and clay layers that were deposited under fluvial and lacustrine conditions. According to the Soil Survey for Anne Arundel County [U.S. Department of Agriculture (USDA), 1973], the primary soil association that covers most of FGGM is the loamy and clayey Muirkirk-Evesboro association. This association contains nearly level to steep, well-drained, loamy and clayey soils and excessively drained, sandy soils.

Figure 1.3-1
General Location of Fort George Meade
Fort Meade, Maryland

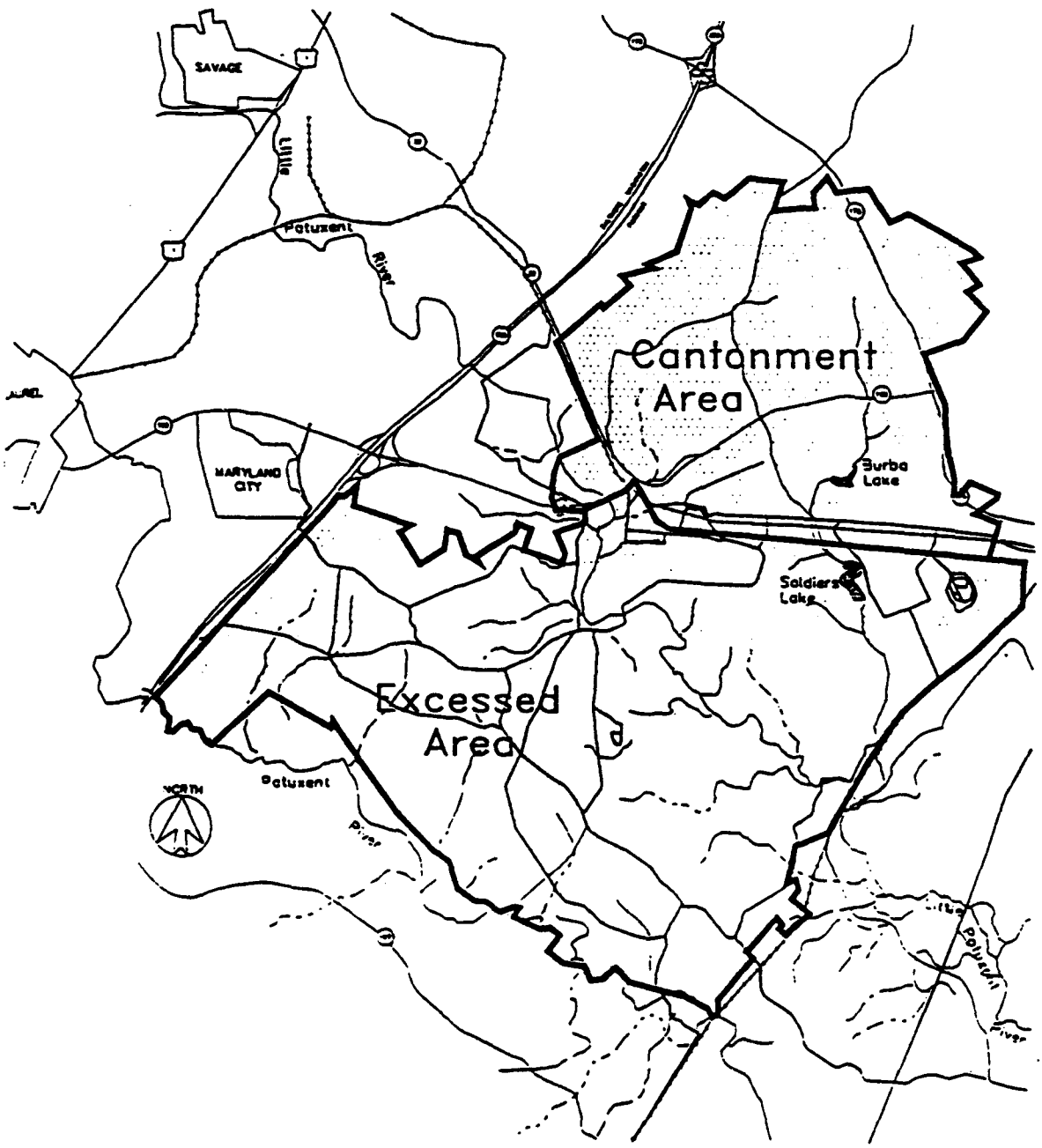


Source: "Enhanced Preliminary Assessment Report"
Argonne National Laboratory, October 1989.

THE ERM GROUP

0130/7.20/07.26.93-KLJ

Figure 1.3-2
The 9,000 Acre Area at Ft. Meade Scheduled to be Excessed
Fort Meade, Maryland



Source: "Enhanced Preliminary Assessment Report"
Argonne National Laboratory, October 1989

The installation lies within the Patuxent River watershed. It has several surface bodies of water including streams, small lakes, and ponding areas. The Patuxent River flows along the south side of FGGM and serves as the southern boundary for the installation. The Little Patuxent River, the major tributary of the Patuxent River, flows southeast across the midsection of the installation and receives most of the installation drainage. The northern portion of the installation drains southeastward into Midway Branch; the combined stream flows through Soldier Lake in route to the Little Patuxent River. Numerous intermittent streams drain the southern portion of the installation.

Both unconfined (water table) and confined ground water conditions exist beneath the site. The water table aquifer is contained in the Upper Patapsco Formation, while confined ground water exists within the Lower Patapsco Formation. These two aquifers are separated by a middle confining layer averaging 50 feet in thickness.

Historically, a large percentage of the surrounding population obtained drinking water from ground water wells. However, most of this population (such as the town of Odenton) has been switched to municipal water supplies based on surface water or other ground water systems. There are, however, local populations that still obtain water from domestic wells in the vicinity of FGGM. The installation also utilizes ground water for operations. Most of these wells are screened in the Lower Patapsco Formation.

The heavily wooded nature of FGGM, particularly the southern regions of the installation, combined with the numerous permanent and intermittent streams, provide habitats for a wide variety of plant and animal life. Of the nearly 14,000 acres constituting FGGM, less than 3,000 are developed and nearly 9,000 are forested. Habitats ranging from wetlands to deep woods support more than 200 species of birds, 500 species of insects, and nearly 100 more species of amphibians, reptiles, and mammals. Included in the inventory of birds are three species identified as federally endangered or threatened: the southern bald eagle, the peregrine falcon, and the red-cockaded woodpecker. The plant life at FGGM displays an abundance and variety comparable to the animal life.

Within 15 miles of FGGM, surface water is used for drinking, commercial/sport fishing, recreational boating, and marine-related services. The FGGM Water Treatment Plant (WTP) has its intake on the Little Patuxent River, and, with its daily intake supplemented by on-post ground water wells, is capable of serving a drinking population of 35,000. In 1990, a fish ladder was constructed to allow anadromous fish to pass through FGGM dam, which had previously blocked spawn runs.

2.0 *SCOPE OF INVESTIGATION*

The scope of the CERFA investigation includes:

- Review of previous environmental investigations, assessments, reports, etc.
- Review of applicable government regulatory records: federal, state, and local (where applicable and available).
- Interviews with representatives from the installation (or command responsible for the installation), other federal agencies, regulatory officials, and others.
- Review of maps, aerial photographs (where available), and conduct of aerial overflight.
- Inspection of adjacent property that potentially could contaminate the BRAC property.
- Detailed site inspection (the scope of these site inspections was determined principally by the review of previous investigations and assessments).
- Review of recorded chain of title documents.

These seven activities are specifically included within the statutory scope of CERFA. All seven activities were conducted during the CERFA investigation at FGGM.

2.1 *EXISTING INVESTIGATION DOCUMENTS*

Extensive documentation on environmental conditions at FGGM has been compiled within the past decade. Documents describing the environmental conditions or the results of previous or current investigations at locations either within or adjacent to the BRAC portion of FGGM were used as primary sources throughout the CERFA investigation. These sources are listed below.

1. *Update of the Initial Installation Assessment of FGGM and Gaithersburg Research Facility*, Environmental Science and Engineering, December 1987.

2. *Ground Water Quality Survey No. 38-26-1383-90 - Evaluation of Solid Waste Management Units*, U.S. Army Environmental Hygiene Agency (AEHA), May 1987 and December 1989.

3. *Enhanced Preliminary Assessment: FGGM, Fort Meade, Maryland,* Environmental Research Division, Argonne National Laboratory, October 1989.

4. *Preliminary Assessment Report for FGGM,* Roy F. Weston, Inc., November 1990.

5. *Ground Water Quality Survey No. 38-26-K165-92 - Evaluation of Ground Water at Building 8481,* AEHA, September 1991.

6. *Hazardous Waste Management Consultation No. 37-61-JK30-92,* AEHA, January 1992.

7. *Ground Water Consultation No. 38-26-K165-92 - Evaluation of Ground Water at Building 8481,* AEHA, January 1992.

8. *Base Closure Parcel Site Inspection Study,* Volumes 1 and 2, EA Engineering, Science, and Technology, Inc. (EA Engineering), October 1992.

9. *Active Sanitary Landfill and Clean Fill Dump Remedial Investigation Report,* EA Engineering, December 1992.

10. *Unexploded Ordnance (UXO) Survey,* IT Corp., June 1993.

11. *Technical and Sampling/Analysis Plan for 9,000-Acre Base Closure Parcel at Fort George G. Meade,* EA Engineering, February 1990.

12. *Analytical Data* from February/March 1993 sampling conducted by Arthur D. Little, Inc., as part of the Site Inspection Addendum. The data is available in the Installation Restoration Data Management Information System (IRDMIS), but has not yet been collected into a report.

2.2 *GOVERNMENT REGULATORY RECORDS*

Federal Records

A records review was conducted at the U.S. Environmental Protection Agency Region III (EPA) in Philadelphia, Pennsylvania on 1 and 4 October 1993. Information collected from EPA corroborated the information obtained from the documents listed in Section 2.1 above and the CERFA site visit. No new information regarding releases or the potential for environmental contamination of the site was uncovered.

A search of the EPA's Emergency Response Notification System (ERNS) database over the period 30 January-2 February 1994 identified twelve reports of releases of oil or hazardous substances at FGGM since the inception of the database in 1986. These releases were identified as originating with the FGGM tenant National Security Agency (NSA), at on-post housing areas, or elsewhere on installation property unrelated to the Tipton Army Airfield. FGGM personnel were unaware of any such releases at the Airfield or the associated BRAC property. ERNS collects information on releases reported to Federal authorities.

State Records

A records review was conducted with the Maryland Department of the Environment (MDE) in Baltimore, Maryland on 28 October 1993. No records identifying additional areas of environmental concern were identified during the review.

NRC Records

Based on interviews with site personnel, FGGM has not been issued a Nuclear Regulatory Commission (NRC) license to work with radioactive material in the vicinity of Tipton Army Airfield or any other portion of the BRAC property covered by the CERFA investigation.

AEHA Records

A records search conducted by AEHA revealed a number of reports regarding the use of radioactive materials at FGGM. However, these reports concern activities, such as medical, dental, and Explosive Ordnance Disposal (EOD) activities, that would not have an impact on environmental conditions at the Tipton Army Airfield or any other portion of the BRAC property.

2.3 *INTERVIEWS*

Table 2.3-1 provides a summary for those individuals interviewed during the CERFA investigation.

2.4 *VISUAL INSPECTIONS*

The property included in the CERFA investigation is the Tipton Army Airfield, which includes the Airfield runways as well as support facilities for both helicopter and fixed-wing aircraft. The Airfield property also includes wooded and relatively natural areas. This property,

approximately 366 acres in size, is part of a total of approximately 9,000 acres of FGGM identified for excess under the Base Realignment and Closure (BRAC) program. The vast majority of this BRAC property, 7,600 acres, was transferred to the Department of the Interior's Patuxent Wildlife Research Center (PWRC) in 1991. In addition to the 366-acre Airfield, the remaining acreage includes a 500-acre tract that has also been transferred to the PWRC and the 308 acres comprising the FGGM Active Sanitary Landfill (ASL). A 1993 unexploded ordnance (UXO) survey considered only these latter three areas, known as the "1,400 acre parcel" (see Section 4.4 for further discussion). The entire 8,774 acre BRAC property is also known as the Base Closure Parcel.

The ASL has since been removed from consideration for transfer and will be retained for use by FGGM. However, because it was originally included within the BRAC property, it will be addressed in this report. BRAC property to be retained by the installation or the Department of Defense is by definition CERFA Excluded (see Section 1.2). The acreage described as the ASL also includes the associated Clean Fill Dump. In the description of Land Management Areas in the Enhanced PA, this property encompasses Areas B and C.

The CERFA site visit was performed by representatives of ERM. On-foot visual inspection of the Tipton Army Airfield was conducted during the period 20-22 September 1993. The locations described in previous investigations as representing areas of concern were inspected. A detailed walking tour of the property north of the Airfield included the Flying Club, current fire training area, helicopter hangars, petroleum, oil, and lubricant (POL) storage, and the deluge pumping station. The Airfield fire station, flight operations center, and hangars were also inspected.

A driving tour of the perimeter of the Airfield property was also conducted. This tour followed Md. Rt. 198 west to the entrance to the PWRC on Bald Eagle Drive (formerly Tank Road). The tour then proceeded along the western, southern, and eastern boundaries of the Airfield property. The location and extent of two of the inactive landfills, as well as the inactive landfill beneath the airfield, were estimated from maps and visible monitoring wells. The entire area is overgrown and/or wooded. No evidence of stressed vegetation or surface contamination was observed. No areas of contamination not identified in previous investigations were detected.

In addition, an aerial inspection of the site was conducted on 24 September 1993 to identify any visible surface damage not identifiable at ground level. No such evidence was observed. The overflight was conducted by helicopter and included representatives from Arthur D. Little, Inc. (FGGM SI/RI/FS contractor), IT Corporation (UXO contractor

for the FGGM 1,400 acre tract, including the Airfield), and OH Materials, Inc. (UXO contractor for the 7,600 acres of the BRAC property originally transferred to the PWRC). The BRAC property including the Tipton Army Airfield was overflown several times. Other portions of FGGM covered during the flight were the Active Sanitary Landfill (ASL) and clean fill dump, several firing ranges, and the Ordnance Demolition Pit. The inspection lasted approximately two hours and was evenly split between the Airfield property and the other sites.

2.5 *TITLE DOCUMENTS*

ERM conducted a review of tract maps and transfer documents to identify the prior property owners of the BRAC portion of FGGM at the time of its transfer to the Army. The purpose of this review was to collect additional information concerning the property's prior use and environmental condition at the time of its transfer to the Army. Based on this review, no additional information was collected. Previous ownership and the dates of transfer to the Army are indicated on Figure 5.2-1.

Table 2.3-1
List of Interviewees for FGGM CERFA Assessment

Interview No.	Date	Name	Telephone	Organization/Position	Length of Service
I-1	9/93 to 4/94	Scott Hill	(410) 671-1607	U.S. Army Environmental Center FGGM CERFA Project Officer	3 Years
I-2	9/93 to 12/93	Paul Robert	(301) 677-9549	FGGM Department of Public Works (DPW) Chief, Environmental Management Office (EMO)	5 Years
I-3	9/20-21/93	Terence Puls	(301) 677-9549	FGGM DPW Environmentalist, EMO	4 Years
I-4	9/93 to 4/94	Sarah Gracey	(301) 677-9549	FGGM DPW Environmentalist, EMO	3 Years
I-5	9/24/93	Stanley Brown	(301) 677-7594	FGGM Tipton Airfield Helicopter Hangar Environmental Officer - Bldg. 90	8 Years
I-6	2/28/94	Fred Keer	(410) 631-3418	MDE, Federal/NPL Superfund Division Remedial Project Manager - FGGM	8 Months
I-7	2/28/94	Drew Lausch	(215) 597-3161	EPA Region III, Office of Superfund Remedial Project Manager - FGGM	8 Years
I-8	3/2/94	Dave Kandt	(301) 677-9549	FGGM DPW Environmental Protection Specialist, EMO	10 Years
I-9	10/1/93 to 10/4/93	Maureen Zacharis	(215) 597-2842	EPA Region III Freedom of Information Act (FOIA) Officer	
I-10	10/28/93	Donald Mauldin	(410) 631-3000	MDE Waste Management Administration FOIA Liaison	

3.0 *PROPERTY BACKGROUND INFORMATION*

This section provides a description of the BRAC property and a discussion of its operational history (Section 3.1), and a description of any changes to environmental conditions since the last environmental assessment or investigation (Section 3.2).

3.1 *PROPERTY DESCRIPTION AND OPERATIONAL HISTORY*

FGGM is a permanent U.S. Army installation which originally covered approximately 13,500 acres in Anne Arundel County, Maryland near the town of Odenton. Presently, this facility occupies approximately 4,000 acres and was until recently a Forces Command (FORSCOM) installation whose mission is to support and command all units and provide training and security support as well as logistical and administrative support to assigned units and tenant activities. FGGM was transitioned from a FORSCOM installation to a Military District of Washington (MDW) installation on 1 October 1993.

As part of the Base Realignment and Closure (BRAC) Plan, approximately 9,000 acres of FGGM was designated for closure. In October 1991, 7,600 acres were transferred from FGGM to the PWRC. A second land transfer of approximately 500 acres took place on 29 January 1993, for a total of 8,100 acres transferred to the PWRC. This second transfer actually comprised 498.2 acres, but will be referred to as the "500-acre" transfer for consistency with previous documents.

The Tipton Army Airfield and surroundings, approximately 366 acres in size, are the subject of the current CERFA investigation. The Active Sanitary Landfill (ASL), 308 acres in size, is to be retained for use by FGGM. Thus, the approximate total acreage of the original BRAC property is 8,774 acres.

FGGM serves as host to over 40 distinct tenant organizations. Most notable of these are Headquarters, First U.S. Army; the NSA; and components of the U.S. Army Intelligence Command (INSCOM).

The installation was originally authorized by Congress in 1917 as one of sixteen training cantonments to be built for troops drafted during World War I (WWI). It became a permanent military installation in 1928. During WWI, more than 100,000 troops were trained at the installation. During

World War II (WWII), an additional 3.5 million men and women were trained at FGGM. Troops were also trained at FGGM during the Korean Conflict, Berlin and Cuban Missile Crises, and the Vietnam Conflict.

Based on the 1990 Preliminary Assessment Report, the population within a four-mile radius of the southeastern portion of the facility totals approximately 31,598 residents. Approximately 43,922 residents live within a four-mile radius of the northwestern portion of the facility; and, 49,587 residents live within a four-mile radius of the southwestern portion of the facility.

The property subject to the current CERFA investigation is that portion of the original BRAC property not already transferred to the PWRC (8,100 acres) or remaining with FGGM (the 308-acre Active Sanitary Landfill). These latter two areas, totaling 8,408 acres, have been designated by USAEC as CERFA Excluded Parcels The area under investigation, approximately 366 acres in size, encompasses Tipton Army Airfield as well as relatively natural areas. The property is bounded on the west by Bald Eagle Drive (formerly Tank Road), on the south by the PWRC and New Tank Road, on the east by New Tank Road, and on the north by Md. Rt. 32, the state electrical right-of-way, and Md. Rt. 198. Adjoining property on the west, south, and east has been transferred by FGGM to the PWRC. Adjoining property on the north is remaining with FGGM. The ASL does not border any portion of the Airfield property, but is located near the eastern boundary of FGGM. Future use of the Airfield and its surroundings has not yet been determined. The outlines of the Airfield and its location in relation to the remainder of the excessed area may be seen in the maps included in Section 5.

Future use plans may call for the entire Airfield tract to be transferred to a single custodian. However, there exists the potential for the Airfield property to be divided and transferred in pieces.

The PWRC is operated by the U.S. Department of Interior. In addition to its status as a wildlife refuge, the research center has conducted many biological and ecological studies of plant and animal species and successional patterns in the Patuxent River Basin.

Waste management operations at the Airfield have concentrated largely on the disposal of waste oils, lubricants, and solvents. Only two buildings at the Airfield, Buildings 85 and 90, are generating waste on a regular basis. Each of these buildings maintains a 90-day hazardous waste storage area. Waste materials are drummed for proper storage and disposal. Oil/water separators at Buildings 85 and 90 are routinely pumped and transferred to the appropriate storage location on FGGM. There are no existing records to indicate that hazardous materials were ever disposed

of by burial, land, or surface water dumping. However, it is likely that some waste POL, solvents, pesticides, and other contaminated material would have been disposed of in the three inactive landfill sites, which were operable prior to the introduction of environmental regulations. During the period of operation of these landfills, "sanitary landfills" commonly received waste that would now be regulated as hazardous.

The State of Maryland has issued FGGM a Resource Conservation and Recovery Act (RCRA) Part B permit (# MD9210020567) for the storage of hazardous waste. However, the permitted waste storage area is not located on or adjacent to the airfield parcel, and its operations are not expected to have any impact on the CERFA investigation. FGGM is operating its wastewater treatment plant under National Pollutant Discharge Elimination System (NPDES) permit # MD0021717, which was issued by the State of Maryland.

3.2 *CHANGES TO REAL PROPERTY ENVIRONMENTAL CONDITIONS SINCE ENHANCED PA INVESTIGATION*

There has been essentially no change in the status of the 366-acre Tipton Army Airfield property since the completion of the Enhanced Preliminary Assessment (October 1989) and the more recent Site Inspection Study (October 1992). The UXO survey of the Airfield tract was completed in June 1993. This survey is discussed in more detail in Section 4.1.1. There have been no recorded spills or other significant incidents.

The 500 acres contained in tracts on the western, northeastern, and southwestern boundaries of the airfield parcel were transferred to the PWRC on 29 January 1992, bringing the total land transferred to PWRC to 8,100 acres.

Tipton Army Airfield is still in use for both helicopter and fixed-wing aircraft. The Flying Club is still in operation, and the airfield fire department continues to conduct training at the fire training area located behind the Flying Club. The possible future uses of the property are still under consideration.

4.0 *INVESTIGATION RESULTS*

This section describes the results of the CERFA investigation by identifying areas of environmental concern, both those previously identified in prior investigations and those uncovered as a result of the CERFA site visit. In addition, Section 4 identifies parcels in accordance with the parcel definitions contained in Section 1.2.

A number of environmental studies have been conducted at FGGM (see Section 2.1 for a list of references). Environmental study of FGGM commenced in the late 1980s and continues today. An Initial Installation Assessment was conducted in June 1980. This assessment was updated in 1986. Two Ground Water Quality Surveys (GWQS) have been conducted, in 1989 and 1991.

An Enhanced Preliminary Assessment was submitted in October 1989, while a Preliminary Assessment was submitted in November 1990. A Remedial Investigation (RI) of the ASL (and clean fill dump) was issued in December 1992. A Site Inspection (SI) Study concentrating on the remainder of the approximately 9,000 acres targeted for excess under the BRAC program (including Tipton Army Airfield) was issued in October 1992. An asbestos survey was performed as part of the SI. Both the RI and SI recommended further investigations in their respective subject areas. As a result of these recommendations, an RI/SI Addendum has been initiated to collect additional data. A Feasibility Study (FS) is also being conducted in connection with the ASL. Based on analytical results obtained during the SI Addendum at the Airfield, it is likely that an RI will be initiated to further address specific areas of concern. Areas of environmental contamination identified during the SI/RI/FS are tentatively slated to undergo remedial action beginning in September of 1995.

4.1 *PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATION (AREES)*

A number of areas within the Tipton Army Airfield parcel have been identified as sites of known or potential environmental concern, several of which have had confirmed releases in the past. These sites, described below, are numbered sequentially to correspond to the Parcel numbers on Figure 5.1-1 and the accompanying map table (Table 5.1-1). Each site name also includes the appropriate CERFA Parcel identifiers, which describe the basis for Parcel selection (see Section 1.2). The sites included in this section are only those which have been determined to be CERFA

Disqualified Parcels. CERFA Qualified Parcels are described in Section 4.4. CERFA Disqualified Parcels not previously identified are described in Section 4.2.

An active program to identify leaking storage tanks is in place at FGGM. Tanks are tested on a regularly scheduled basis, depending on their age and contents. Heating oil tanks are generally tested every five years, while diesel fuel tanks are tested ten years after installation and annually thereafter. Reports of potential releases are investigated immediately. The tank management program is contracted to C.W. Over & Sons. There have been no reported incidents of suspected releases in the vicinity of the Airfield since the most recent actions described in this report. Table 4.1-1 below provides a listing of POL storage tanks within the BRAC portion of FGGM.

Table 4.1-1
Active POL Storage Tanks

Location	Number	Type	Contents	Capacity
Bldg 80	1	UST	Fuel oil	4,000
Bldg 81	1	UST	Fuel oil	1,000
Bldg 82	1	AST	Fuel oil	1,000
Bldg 82	6	AST	JP-4	2,500
Bldg 84	1	UST	Fuel oil	7,500
Bldg 85	1	UST	Fuel oil	5,000
Bldg 87	2	AST	Diesel fuel	275
Bldg 90	1	UST	Fuel oil	10,000
Bldg 91	4	AST	Diesel fuel	400
Bldg 92	1	UST	Fuel oil	550
Bldg 92	1	UST	Aviation fuel	10,000

1. *POL storage (Bldg. 90A) [Parcel 1D-HS/PS/PR/X(P)]*

This site is located just west of the helicopter hangar. Used oils, soaps, and solvents used to wash helicopters are discharged to a settling tank through a storm drain. Storage of materials for helicopter maintenance is in Bldg 90A. Minor releases of materials have been reported in this area.

2. *Helicopter Hangar (Bldg. 90) [Parcel 2D-HS/HR/PS/PR/L(P)/X(P)]*

The hangar is located toward the western end of the Airfield. Maintenance operations have included the use of organic solvents and lubricants. A 10,000-gallon No. 2 fuel oil underground storage tank (UST) is located on the western side of the hangar building. The hangar itself

was constructed above the former fire training area, which burned contaminated fuel and other organic liquids in training exercises. The hangar also houses one of the two 90-day hazardous waste storage areas at the Airfield. The age of the building leads to the presumption that lead-based paint is present.

3. *Deluge Pumping Station (Bldg. 91) [Parcel 3D-HR/PS/PR/L(P)/X(P)]*

Located at the western end of the Airfield just north of the helicopter hangar, this site is of concern mostly for past practices. Records indicate that four 290-gallon diesel fuel aboveground storage tanks (ASTs) located on the western side of the station were leaking. The tanks were removed, along with a quantity of soil, from the pumping station in January of 1990. A ground water recovery and treatment system is operating at this site. Four 400-gallon diesel fuel ASTs have been operating inside the building since 1988. The age of the building leads to the presumption that lead-based paint is present. Review of aerial photographs indicate that the former fire training area may have extended into this parcel.

4. *Current Fire Training Area and Flying Club [Parcel 4D-PR/HR/PS/X(P)]*

These two sites are adjacent to each other, located just north of Airfield Service Road. The current fire training area uses aviation fuel or gasoline for fire-fighting exercises. The fire department stores equipment for its exercises in a small storage shed located just off Airfield Service Road.

Data from sampling under the SI Addendum indicates that heavy metals, especially lead and chromium, are present in the ground water at the current fire training area (FTA). Total lead was found at a maximum of 24.4 parts per billion (ppb) and total chromium at a maximum of 57.9 ppb. In addition, one well at the FTA detected carbon tetrachloride at 35 ppb. Other organic compounds at the FTA were either not detected or were present at such low concentrations as to be unquantifiable. Data from the SI Addendum that were available for review were derived from sampling conducted during February and March of 1993 by Arthur D. Little, Inc. These data have not yet been published.

The Flying Club is available to military personnel and dependents for recreational purposes. The most extensive remediation at the Airfield was performed to address leaking aviation fuel USTs located just south of Airfield Service Road. These two 4,000-gallon USTs, which were used by the Flying Club, were removed in September 1988. Contaminated soil was excavated. The USTs were replaced by a single 10,000-gallon aviation fuel UST in April 1989 and no further contamination has been detected. No releases have been reported from the 550-gallon fuel oil UST located

behind the building (north of Airfield Service Road). The Flying Club is located in a trailer, which is not likely to contain lead-based paint.

5. *Airfield Fire Station (Bldg. 82) and Former Administration Building (Bldg. 83) [Parcel 5D-PS/PR/A/L(P)/X(P)]*

The fire station grounds currently house one 1,000-gallon fuel oil AST and six 2,500-gallon JP-4 fuel tanks, with space available for a seventh. These tanks are used for refueling of military helicopters. Asbestos has been detected in this building, but was found to be in good condition. The age of the building leads to the presumption that lead-based paint is present.

An UST containing No. 2 fuel oil was removed, along with a quantity of soil, in 1990. Monitoring wells were installed, and were reported to contain floating product in late 1990-early 1991.

Building 83 is a small structure located adjacent to the Fire Station. Formerly the Airfield Administration Building, this building now houses Airfield contractors. Asbestos has been detected in this building in good condition. The age of the building leads to the presumption that lead-based paint is present.

6. *Flight Operations Building (Bldg. 81) [Parcel 6D-PS/A/L(P)/X(P)]*

This building, located next to the Fire Station, is supplied by a 1,000-gallon fuel oil UST. Asbestos has been detected in this building. The condition of the asbestos was such that further action was recommended. The age of the building leads to the presumption that lead-based paint is present.

7. *Hangar (Bldg. 80) [Parcel 7D-PS/PR/A/L(P)/X(P)]*

This building is supplied by a 4,000-gallon fuel oil UST. A tank of similar size was removed in 1988 after releases were reported. Soil was also removed. Asbestos has been detected in this building. The condition of the asbestos was such that further action was recommended. The age of the building leads to the presumption that lead-based paint is present.

8. *Aircraft Hangar (Bldg. 84) and Flammable Storage (Bldg. 79) [Parcel 8D-PS/HS/A/L(P)/X(P)]*

Building 84 is supplied by a 7,500-gallon fuel oil UST. Asbestos has been detected in this building. The condition of the asbestos was such that further action was recommended. The building was tested for lead-based paint in 1993. Results were negative.

Building 79 was identified during the CERFA site visit. This is a small building located between Buildings 80 and 84 that stores flammable material such as solvents used in the maintenance operations at the Airfield. The age of the building leads to the presumption that lead-based paint is present. This building is included in the same Disqualified Parcel as Building 84 because CERFA guidelines require a Parcel to cover a minimum of one acre.

9. *Parts and Maintenance Hangar (Bldg. 85) [Parcel 9D-HS/PS/A/X(P)]*

This building is supplied by a 5,000-gallon fuel oil UST. This building also houses one of the two 90-day hazardous waste storage areas at the Airfield. Asbestos has been detected in this building (a paint curtain). The condition of the asbestos was such that further action was recommended. The building was tested for lead-based paint in 1993. Results were negative.

10. *Landfill #1, active from 1950-1964 [Parcel 10D-HR(P)/X(P)]*

This site occupies approximately 11 acres between the Little Patuxent River and Bald Eagle Drive, to the west of the Airfield. No records exist to indicate the properties of the material disposed, nor to accurately define the landfill boundary. The estimated boundary of this landfill has been extended to the north and east on Figure 5.1-1 based on findings in the 1993 UXO survey.

With regard to this landfill, there is a presumption based on the waste management practices in effect during its operable years that it was likely to have been used for the disposal of hazardous waste, such as solvent and petroleum contaminated material and pesticides. No records exist to rebut this presumption. As a result of the detection of metals in the SI Addendum sampling of Landfill # 2, Landfill #1 will be included in the next round of sampling.

11. *Landfill #2, active from 1952-1964 [Parcel 11D-HR(P)/X(P)]*

This site occupies approximately 10 acres north of the Little Patuxent River and New Tank Road, directly south of the western portion of the Airfield. No records exist to indicate the properties of the material disposed, nor to accurately define the landfill boundary. The estimated boundary of this landfill has been extended to the west on Figure 5.1-1 based on findings in the 1993 UXO survey.

With regard to this landfill, there is a presumption based on the waste management practices in effect during its operable years that it was likely to have been used for the disposal of hazardous waste, such as solvent and

petroleum contaminated material and pesticides. No records exist to rebut this presumption, which is supported by analytical data.

SI Addendum sampling data indicate that heavy metals, especially lead and chromium, are present in the ground water at Landfill #2. Total lead was found at a maximum of 173 ppb and total chromium at a maximum of 203 ppb. Ground water at the landfill was not analyzed for organic compounds. Data from the SI Addendum that were available for review were derived from sampling conducted during February and March of 1993 by Arthur D. Little, Inc. These data have not yet been published.

As a result of the detection of heavy metals in the samples from Landfill #2, other former landfill areas will be targeted for further investigation. Landfill # 1, located to the west of the Airfield and the Little Patuxent River, will be included in the next rounds of sampling, as will the area surrounding the Airfield itself, which includes the former site of Landfill # 3.

12. Landfill #3, active in the 1940s-1950s [Parcel 12D-HR(P)/X(P)]

This site occupies approximately 53 acres beneath the eastern two-thirds of the current Airfield. The boundaries extend north to the airfield support buildings (fire station, hangars). No records exist to indicate the properties of the material disposed, nor to accurately define the landfill boundary. The estimated boundary of this landfill has been extended to the south on Figure 5.1-1 based on findings in the 1993 UXO survey.

A major non-POL remediation project was performed in preparation for the construction of the Airfield in 1960. Records indicate that most of the material in the landfill occupying the site of the present Airfield was removed and the site regraded to provide a stable foundation. No records exist regarding the contents of the landfill or the ultimate disposition of the material.

With regard to this landfill, there is a presumption based on the waste management practices in effect during its operable years that it was likely to have been used for the disposal of hazardous waste, such as solvent and petroleum contaminated material and pesticides. No records exist to rebut this presumption. As a result of the detection of metals in the SI Addendum sampling of Landfill #2, Landfill #3 will be included in the next round of sampling.

4.2 *ADDITIONAL AREAS IDENTIFIED*

One new area of environmental concern resulting in a new Disqualified Parcel was identified during the CERFA investigation. This location has been mentioned in past reports but has not been targeted for investigation. It is described below, numbered sequentially to follow the sites in Section 4.1 and to correspond to the site map and accompanying table. In addition to the newly identified Disqualified Parcel, two other areas of environmental interest within the BRAC property are discussed briefly below.

13. *Building 87 (Generator Building) [Parcel 13D-PS/PR/L(P)/X(P)]*

This small building located north of Airfield Service Road between the Helicopter Hangar and the Flying Club is listed in facility records as the site of two 275-gallon diesel fuel ASTs. This building houses an emergency generator system in the event of a power loss at the Airfield. The age of the building leads to the presumption that lead-based paint is present. This site was identified based on FGGM POL storage records.

Prior to installation of the two ASTs at this site, a 500-gallon diesel fuel UST was in place. This tank was reported leaking in June 1991. The tank was pumped out on 21 June and removed by 15 July, when ground water monitoring wells were in place.

In addition to the Disqualified Parcel described above, the CERFA site investigation identified two other points of concern, only one of which resulted in a CERFA classification. Building 79, the small flammable storage building, is located between Buildings 80 and 84 and is included in the discussion of Disqualified Parcel 8 in Section 4.1.

A small sewage pumping station is located at the corner of Bald Eagle Drive and Md. Rt. 198, in the northwest corner of the Airfield parcel. This station operates in connection with the District of Columbia Children's Center, which is located to the west of FGGM. FGGM personnel stated that the station has experienced backups on occasion, at which time releases of sewage have occurred. However, these releases have always occurred on the northern side of Rt. 198, outside the boundaries of the Airfield parcel.

One potential site of environmental concern has been included in several of the previous investigations, but its existence has never been confirmed. A report from the 1950s refers to a worker who accidentally uncovered a canister containing mustard gas. The worker was reportedly injured and hospitalized when gas was released. Since that time, at least one attempt has been made to locate this "mustard gas burial site," which was reported

to be located within the boundaries of Landfill #2. That survey, using ordnance locating equipment, was unable to confirm the presence of canisters. Neither USAEC nor FGGM had planned to conduct further investigations into this site. However, both state and federal regulatory authorities have expressed concern that previous investigations have not been adequate to resolve the issue. It is possible that regulatory authorities will request that ground water sampling for mustard agent and associated chemical compounds be conducted at all three inactive landfill sites, not just Landfill #2. Because the initiation of an RI including this area is expected, sampling for mustard will likely be included in the RI Work Plan for this site.

4.3 *ADJACENT/SURROUNDING PROPERTIES*

The Tipton Army Airfield property is bounded on the south, east, and west by property transferred to the PWRC. Based on information available regarding the nature of the PWRC research activities, there are no current operations on this property that could have a detrimental effect on the conditions of the Airfield tract. Prior to its transfer, the land was used mainly for firing ranges and EOD activities. The northern edge of the parcel is bounded by property (north of Md. Rt. 32) remaining with FGGM.

There are several locations along this northern edge of the Airfield BRAC property whose operations provide the potential for environmental contamination that could affect the Airfield. These sites include the fuel dispensing station (FP-23), the motor maintenance yard, the Defense Reutilization and Marketing Office (DRMO) Salvage Yard and Transformer Storage, and the Troop Housing Boiler Station (Bldg. 8481). Conditions at the DRMO and motor maintenance yards are not believed serious enough to warrant further discussion in this report. The conditions at the other two sites is briefly described below.

- Fuel Dispensing Station (FP-23)

At the fuel storage and dispensing station (FP-23), located north of the Airfield off Airfield Road, five USTs were removed in January of 1990. Three of the USTs contained JP-4, one contained aviation gasoline, and the fifth contained No. 2 fuel oil. The USTs were replaced by ASTs. Soil was excavated to a depth of 15 feet and disposed in the ASL, located on the eastern side of FGGM. Six monitoring wells were installed at the site and sampled quarterly. After no contamination was detected for three consecutive quarters, a Notice of Compliance dated 12 July 1993 was received by FGGM from the MDE, stating that no further action was necessary and the file for this site should be considered closed.

- Troop Housing and Boiler Station (Bldg. 8481)

A Notice of Violation (NOV) was issued by the State in June of 1992 regarding the condition of the ground water at this site. The source of the contamination is uncertain, although significant spills during delivery and other releases of No. 2 fuel oil have been recorded since the early 1980s. All of the USTs associated with this building passed tightness testing in 1991. A 142,000 gallon AST was found to be leaking in three locations following its decommissioning in May 1993. The extent to which this tank might have contributed to the contamination is unknown. An extensive zone of ground water contamination, including detected floating free product, has been found beneath the plant and appears to be spreading. The contamination has extended beneath Simonds Street to the northwest of Building 8481. Geohydrologic evaluation indicates that the ground water in this region of FGGM is generally flowing in a south-southwesterly direction. This property is located approximately 2,000 feet north of the Airfield property and does not appear likely to affect conditions at the Airfield. Ground water recovery wells began operating in March 1994.

4.4 *RELATED ENVIRONMENTAL, HAZARD, AND SAFETY ISSUES*

Military installations frequently contain issues which the U.S. Army Environmental Center (USAEC) believes fall outside of the provisions of CERFA. For example, while a release of lead-based paint onto the ground may be a CERCLA concern, the application of lead-based paint to a building surface is generally not. However, lead-based paint applied to buildings may represent a safety hazard to young children. Similarly, other substances or materials commonsly applied to or found in buildings (for example, radon and asbestos) may not be explicitly regulated under CERCLA, but may require a notice to potential transferees and lessees that they exist.

USAEC has sought to balance the statutory requirements of CERFA with the law's intent to identify uncontaminated property to the public which can be expeditiously reused. Notice has been provided for those parcels which appear to be uncontaminated under the definition provided in CERFA, but which may contain environmental, hazard, or safety issues. Buildings which contain asbestos-containing materials, lead-based paint, or naturally occurring radon fall into this category and are identified as "CERFA Qualified Parcels" in this CERFA report. Parcels which contain stored (not in use) equipment containing 50 parts per million (ppm) or more of polychlorinated biphenyl (PCB) oil, low level radionuclide-containing equipment such as dials and weapon site posts, and unexploded ordnance are also designated "CERFA Qualified Parcels".

In those cases, however, where for example, asbestos or PCBs have been disposed in the environment, the parcel has been identified as "CERFA Disqualified". In this example, the designation indicates that a CERCLA hazard may exist at this location.

Sites described in this section are those which have been designated as CERFA Qualified Parcels. These sites have been determined through investigation to be of interest only for the presence of environmental, hazard, and safety issues, which are described above. The sites described below are numbered to follow the sequence established by Sections 4.1 and 4.2, corresponding to the site map and accompanying map table. In addition to the description of Qualified Parcels, a general discussion of several of the environmental, hazard, and safety issues at the Airfield is included in this section. A listing of buildings containing CERFA Qualifiers may be found in Table 4.4-1.

14. UXO throughout property [Parcel 14Q-X(P)]

A draft UXO Survey was completed in June 1993. This survey only included approximately 1,400 acres of the 9,000 acre BRAC parcel. The areas included in the survey were a 440-acre tract containing Tipton Army Airfield (the CERFA property under investigation), the 308-acre ASL (which will be retained for use by FGGM), and the tract of land directly west of the Airfield (included in the second land transfer to the PWRC). The UXO survey of the remaining 7,600 acres, comprising the original land transferred to the PWRC, was completed in September 1993. A draft report has been submitted for USAEC review. The status of the Airfield property is not expected to be affected by this report.

The 1,400-acre parcel UXO survey, conducted by IT Corporation, indicates that significant quantities of UXO to a depth of five feet were removed and disposed. The survey concludes that significant quantities at greater depth are still likely to be present. Records indicate that all of the UXO resulting from FGGM operations will be conventional; no chemical agents other than the potential mustard gas described in Section 4.2 are likely to be present.

The survey, which consisted of surface and subsurface surveys, was conducted on 1,400 acres of the BRAC Parcel from February 1992 through June 1993. The UXO report details the results of the survey. The 1,400-acre parcel was divided into the following work zones (Figure 4.4-1).

Work Zone A - 500-acre Department of the Interior Parcel

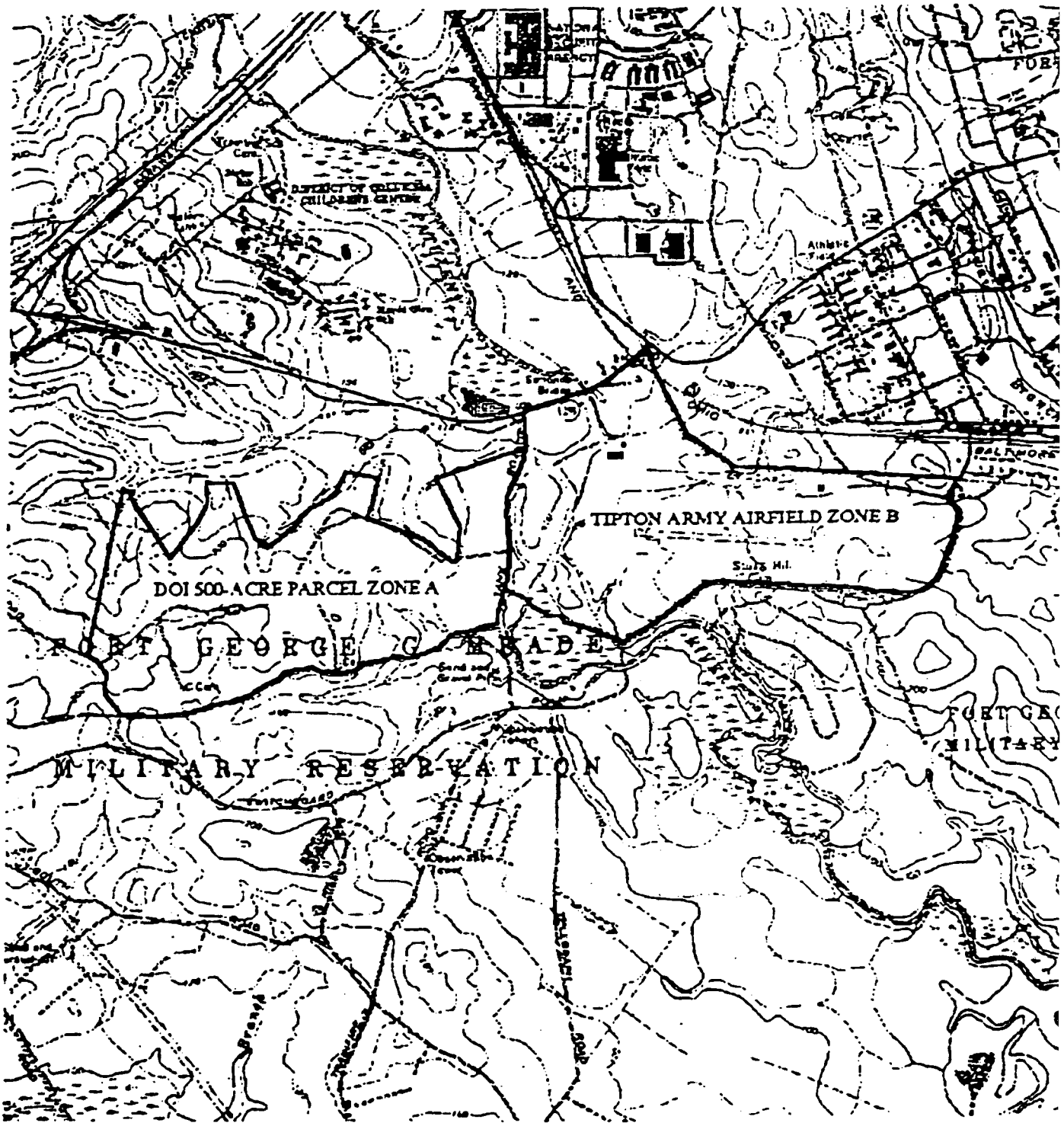
Work Zone B - 440-acre Tipton Army Airfield Parcel

Work Zone C - 308-acre Active Sanitary Landfill Parcel

Table 4.4-1
Buildings with CERFA Qualifiers
Fort George G. Meade
Odenton, Maryland

Buildings	Qualifiers
79	L(P)
80	A/L(P)
81	A/L(P)
82	A/L(P)
83	A/L(P)
84	A
85	A
87	L(P)
89	A/L(P)
90	A/L(P)
91	L(P)

A Asbestos-containing material
A(P) Asbestos-containing material (possible)
L Lead-based Paint
L(P) Lead-based paint (possible)
R Radon


TIPTON ARMY AIRFIELD ZONE B
DOI 500-ACRE PARCEL ZONE A
FORT GEORGE G MEADE
MILITARY RESERVATION

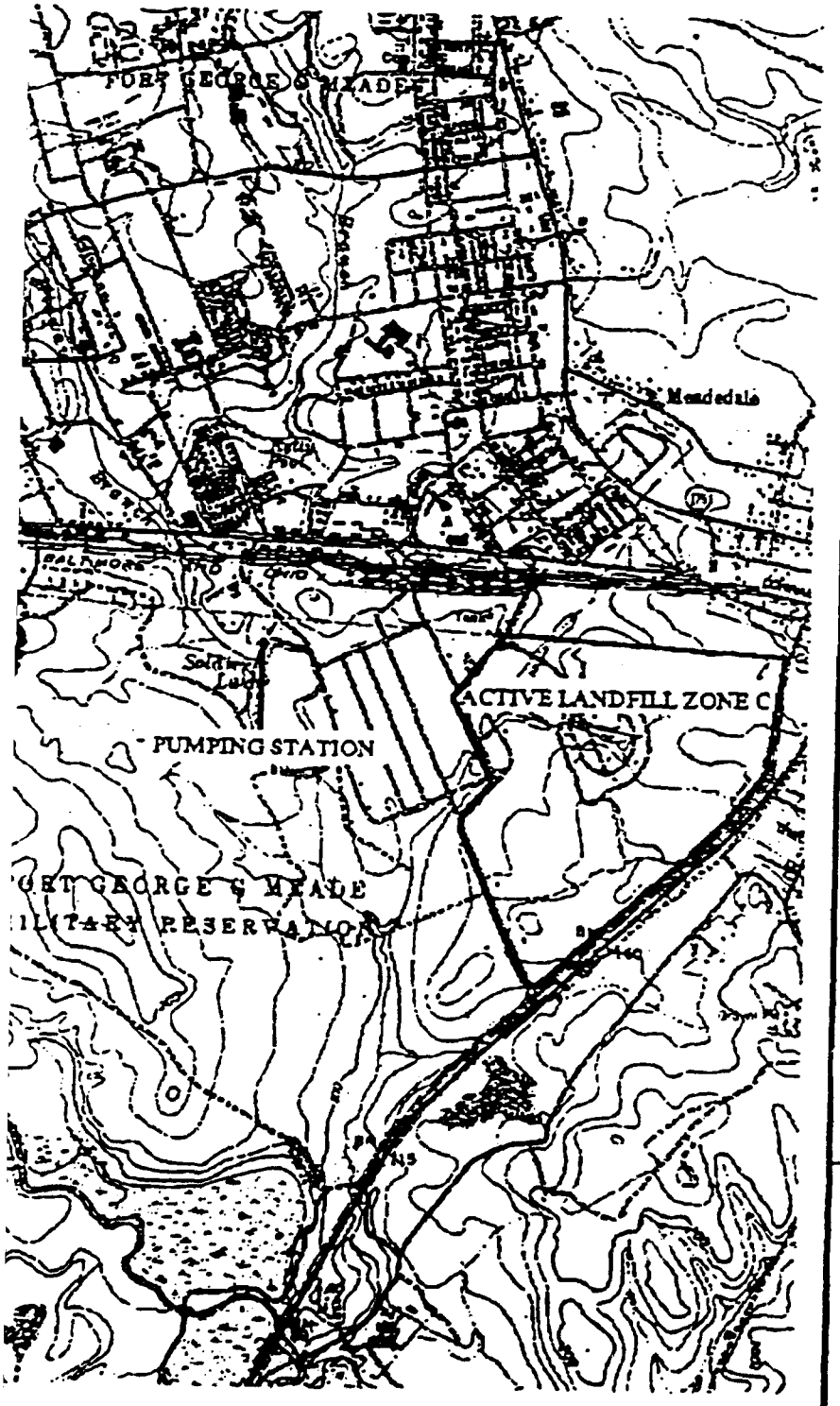


Figure 4.4-1
Unexploded Ordnance Survey
Fort George G. Meade
Fort Meade, Maryland

Zone Boundary

N

Source: "Fort George G. Meade Ordnance Survey (1400 Acre Parcel) Draft Report" IT Corporation, June 1993.

These work zone descriptions and their depiction on Figure 4.4-1 must be clarified. Although Work Zone A is described as the "500-acre" parcel, it does not include the entire 500 acres making up the second land transfer to the PWRC. Similarly, Work Zone A is 440 acres in size because it contains three pieces of land that were ultimately included in the 500-acre transfer. A comparison of this figure to the maps in Section 5.1 will illustrate the property distribution.

The surface survey was accomplished by surveying all accessible land surface, divided into smaller manageable units called subareas, using low-sensitivity magnetometers. Detected subsurface ferrous-metallic items were excavated to a depth of six inches in all areas except landfills. Items identified as UXO were disposed of by the 144th EOD Unit at FGGM.

Work Zone B, which includes the remaining excessed property to be transferred, was also surveyed using a high-sensitivity magnetometer. A one-meter wide survey was conducted every ten meters (10% sweep) to a depth of five feet in the area of Tipton Army Airfield.

The area containing the most UXO was Work Zone B, the Airfield property. In excess of 1,200 pieces of UXO were removed, with the greatest concentrations clustered around the Little Patuxent River directly west of the Airfield and the Airfield itself. Although the safety of the property has been increased by the removal of UXO, examination of the documentation for this work zone indicates several locations where subsurface UXO are likely to remain. While the lateral extent of UXO has been mapped, full removal and determination of the vertical extent of UXO would not be possible without intrusive excavations.

Work Zone C, which is to be retained by FGGM, contained relatively few UXO and currently presents a minimal UXO hazard. Work Zone A, which has been transferred to the PWRC, may contain a moderate amount of remaining UXO. Active portions of the Sanitary Landfill were not surveyed, and heavily wooded and overgrown areas presented problems of accessibility.

15. Control Tower (Bldg. 89) [Parcel 15Q-A/L(P)/X(P)]

Asbestos has been detected in this building, which is no longer in operation. The asbestos was not recommended for further action. Based on the age of the building, lead-based paint, which is a CERFA Qualifier, is presumed present.

16. Hangar (Bldg. 80) [Parcel 16Q-A/L(P)/X(P)]

Asbestos has been detected in this building in good condition. The age of the building indicates that the presence of lead-based paint is possible. This Qualified Parcel is listed separately from Disqualified Parcel 7 in Section 4.1 because, based on CERFA guidelines, a Parcel of at least one acre size could be drawn on the site map in which no CERFA Disqualifiers were present.

Other related environmental, hazard, and safety issues are not expected to pose a threat to either human health or the environment. Asbestos, which was detected in conditions ranging from poor (Bldgs. 80, 81, 84, 85) to fair or good (Bldgs. 82, 83, 89, 90) in buildings throughout the airfield, is expected to be addressed beginning in the Fall of 1994. Most of the samples addressed ceiling or floor tiles, or insulation, with the exception of the asbestos curtain in the paint shop area of Bldg. 85. This curtain was recommended for removal. The asbestos abatement policy will be reviewed for appropriateness prior to the start of abatement procedures.

Two buildings were identified as containing transformers contaminated with PCBs. Records from 1983 indicate that Building 81, the airfield operations building, and Building 86, a small transmitter station, both contained PCB-contaminated transformers. Building 81 is listed as containing one transformer and Building 86 as containing three. All four transformers were tested at between 50 and 500 ppm of PCBs. No evidence of damage or leakage was recorded, and no records exist to indicate that the transformers were removed. Building 86 is located adjacent to Bald Eagle Drive on the western edge of Landfill #1. While visible from the road, it was not accessible to inspection. In accordance with USAEC guidance, transformers in use are not considered Qualifiers or Disqualifiers under CERFA.

Buildings 84 and 85 (hangars) were tested for lead-based paint by X-ray fluoroscopy (XRF) in 1993. This sampling was conducted in connection with renovation projects at these buildings. Results indicate that lead-based paint is not present in these buildings. Other buildings at the Airfield have not been tested. FGGM guidelines require testing only for residences and day-care facilities. Other buildings are tested prior to any construction or renovation. All buildings within the BRAC portion of FGGM were constructed prior to 1978. All buildings constructed prior to 1978 are presumed to contain lead-based paint unless confirmatory sampling has been conducted.

Radon has not been detected at the Airfield.

4.5 *CERFA EXCLUDED PROPERTY*

None of the property investigated in connection with the Tipton Army Airfield is considered Excluded from the CERFA process. While final plans have not yet been developed, it is anticipated that all 366 acres of the property associated with the Airfield will be made available for transfer.

The remainder of the original 8,774-acre Base Closure Parcel falls into three pieces of property considered CERFA Excluded Parcels. These are listed below, numbered to correspond to the site map and accompanying map table. Four separate Excluded Parcels are included under the 500-acre transfer to the PWRC in 1992. This transfer was comprised of four distinct non-contiguous tracts. The acreage "500 Acres" listed on Figure 5.1-1 on the large parcel immediately west of the Airfield (Parce 18E) also includes Parcels 19E, 20E, and 21E.

17. *7,600 acres transferred to the PWRC in 1991 [Parcel 17E]*

18. *432.2 acres transferred to the PWRC in 1992 (Tract 1) [Parcel 18E]*

This Excluded Parcel is Tract 1 of the "500-acre" transfer.

19. *19.3 acres transferred to the PWRC in 1992 (Tract 2) [Parcel 19E]*

This Excluded Parcel is Tract 2 of the "500-acre" transfer.

20. *26.1 acres transferred to the PWRC in 1992 (Tract 3) [Parcel 20E]*

This Excluded Parcel is Tract 3 of the "500-acre" transfer.

21. *20.6 acres transferred to the PWRC in 1992 (Tract 4) [Parcel 21E]*

This Excluded Parcel is Tract 4 of the "500-acre" transfer.

22. *308-acre ASL [Parcel 22E]*

The ASL is being retained for use by FGGM until its disposition is decided.

All 8,774 acres of the BRAC property are being addressed by the current RI/SI Addendum. The ASL is also undergoing an FS.

5.0 SITE PARCELIZATION

After concluding the review of investigation documents, regulatory records, personnel interviews and visual inspections, ERM identified parcels on the installation as CERFA Parcels, CERFA Qualified Parcels, CERFA Disqualified Parcels, or CERFA Excluded Parcels in accordance with the definitions in Section 1.2. The parcels are delineated on a map of the BRAC portion of the installation using a one-acre square grid for boundary definition.

The Army chose a one-acre grid system to aid in the presentation of data gathered during the CERFA report investigation, and to facilitate use of the document by reuse groups and others. The one-acre grid provided a consistent method to report and locate environmental or other concerns. In the many cases where the concerns are much smaller than one acre, the grid system simplifies the depiction of the concern. Accordingly, the areal extent of many small areas of concern, such as UST sites, are liberally depicted in the CERFA report.

Additionally, the one-acre grid size was chosen as a generally redevelopable parcel size for either industrial or residential uses. However, the grid does not drive reuse nor restrict it. Reuse decisions should be made irrespective of the grid.

The entire one-acre grid square is colored or shaded to indicate the applicable parcel category based on the history of storage or release for any portion of that square. Parcels are labeled according to a system outlined in Section 1.2 of this report to indicate the applicable parcel category and the contaminating circumstances. Parcel labels are connected to the respective parcel boundaries by a line or are located within the parcel boundaries.

Where CERFA Disqualified Parcels and CERFA Qualified Parcels have coincided, the overlapped area has been designated CERFA Disqualified. Labels for any such overlapped parcels also indicate the presence of the qualifying hazards. CERFA Excluded Parcels have been excluded from this investigation of contaminant locations and therefore have no overlapping CERFA Disqualified Parcels or CERFA Qualified Parcels. Structures within CERFA Disqualified Parcels that contain qualifying safety hazards are designated with the applicable qualifying label, where map scale permits this level of detail.

ERM's investigation and subsequent parcelization of the BRAC property at FGGM determined that none of the facility falls within the CERFA

Parcel category. Approximately 224.75 acres of the facility are categorized as CERFA Qualified Parcels. 141.44 acres constitute the CERFA Disqualified portion of the installation and the remaining 8,408 acres are designated CERFA Excluded because of previous transfer to the Department of the Interior or mandate for retention by FGGM.

In determining the applicable parcel categories for the installation property, ERM observed the following guidance provided by the USAEC for specific circumstances:

- Buildings constructed prior to 1978 are assumed to contain lead-based paint. A similar assumption is made for asbestos in buildings constructed prior to 1985.
- Storage of petroleum products, petroleum derivatives and CERCLA regulated hazardous substances will prevent an area from becoming a CERFA Parcel as long as that storage is for one year or greater. The quantity of substances stored is not relevant to determining the applicable parcel category. However, if the operation requiring such substances is in the immediate area, and the storage is in limited quantities for immediate use, the area is not precluded from being a CERFA Parcel.
- Non-leaking equipment containing less than 50 ppm PCBs does not preclude an area from becoming a CERFA Parcel. Non-leaking, out-of-service equipment with greater than 50 ppm PCBs will place an area in the CERFA Qualified Parcel category. An area is designated CERFA Disqualified if there is a known release containing greater than 50 ppm PCBs.
- Areas where there are transport systems or process equipment which handle hazardous material or petroleum products and upon which there have been no release, storage, or disposal are categorized as CERFA Parcels.
- Ordnance disposal locations are designated CERFA Disqualified. This does not include ordnance impact areas which are designated CERFA Qualified Parcels.
- Routine pesticide and herbicide application in accordance with manufacturer's directions and chlorofluorocarbons and halon in operational systems do not preclude an area from becoming a CERFA Parcel.
- Coal storage piles and railroad tracks do not be themselves preclude an area from becoming a CERFA Parcel.

5.1 *CERFA CATEGORY AND DESIGNATION MAP*

Table 5-1 and Figure 5.1-1 identify the breakdown of the FGGM BRAC property according to the criteria for parcel identification under CERFA.

5.2 *CERFA TRACT MAP*

The property boundaries and all property transfers including prior ownership information is shown in Figure 5.2-1.

5.3 *CERFA PARCEL DESIGNATORS*

Figure 5.3-1 summarizes the breakdown of the FGGM BRAC property according to the criteria for parcel identification under CERFA.

Table 5.1-1
Fort George G. Meade (FGGM)
Fort Meade, Maryland

[illegible]	NAME AND LOCATION	[illegible] CATEGORY	BASIS	SOURCE OF EVIDENCE	REMEDIATION
1D-HS/PS/PR/X(P) (1 acre)	POL Storage (Bldg. 90A) Coordinates: 8,16	Disqualified	Solvents, lubricants, and waste oils used in helicopter maintenance and washing. Minor releases reported.	SI (1992)	
2D-HS/HR/PS/PR/L(P)/X(P) (2 acres)	Helicopter Hangar (Bldg. 90) Coordinates: 9,16	Disqualified	10,000 gal #2 fuel oil UST active. Hangar built over former Fire Training Area, indicating that solvents and fuels used previously. Solvents and lubricants currently used in hangar. 90-day waste storage area located here.	SI (1992)	
		Qualified	Asbestos	SI (1992)	
			Lead paint (P)	SI (1992)	
3D-PS/PR/HR/L(P)/X(P) (2 acres)	Deluge Pumping Station (Bldg. 91) Coordinates: 10,17	Disqualified	Four 400-gallon diesel fuel ASTs active inside the building. These replaced four similar ASTs which were located outside the building on the west side. Original ASTs found to be leaking. Former Fire Training Area may extend to this parcel.	SI (1992)	Four ASTs and soil on west side of the building removed. Pump and treat operation for ground water remediation ongoing.
		Qualified	Lead paint (P)	SI (1992)	
4D-PR/HR/PS/X(P) (7.6 acres)	Current Fire Training Area/Flying Club (Bldg. 92) Coordinates: 14,16	Disqualified	Solvents and fuels used to start fires in training exercises.	SI (1992)	
			550 gallon heating oil and 10,000 gallon aviation fuel USTs active at Flying Club. Aviation fuel south of Airfield Service Road. Two 4,000 gallon aviation fuel tanks and soil removed after releases detected in 1988.	SI (1992)	Two 4,000 gallon aviation fuel USTs and soil removed (1988)
5D-PS/PR/A/L(P)/X(P) (2 acres)	Airfield Fire Station (Bldg. 82), Former Administration Building (Bldg 83) Coordinates: 18,14	Disqualified	One fuel oil AST (1000 gal) and six 2,500 gal JP-4 ASTs active. JP-4 tanks used to refuel helicopters. Fuel oil AST replaced similar size UST when releases detected.	SI (1992) FGGM active POL tank records	1000 gallon fuel oil UST removed (1990) after releases detected.
		Qualified	Asbestos Lead paint (P)		
6D-PS/A/L(P)/X(P) (2 acres)	Flight Operations (Bldg. 81) Coordinates: 19,14	Disqualified	Fuel oil UST 1000 gal active.	SI (1992)	
		Qualified	Asbestos	SI (1992)	
			Lead paint (P)	SI (1992)	

Table 5.1-1
Fort George G. Meade (FGGM)
Fort Meade, Maryland

PARCEL NUMBER AND TYPE	NAME AND LOCATION	CERCLA CATEGORY	BASIS	SOURCE OF EVIDENCE	REMEDIATION
7D-PS/PR/ A/L(P)/X(P) (2 acres)	Hangar (Bldg. 80) Coordinates: 20,14	Disqualified	Fuel oil UST 4000 gallons active. Tank replaced UST of similar size in 1988 after releases detected.	SI (1992)	4,000 gallon fuel oil UST and soil removed (1988) after releases detected.
		Qualified	Asbestos	SI (1992)	
			Lead paint (P)	SI (1992)	
8D-HS/PS/ A/L(P)/X(P) (2.62 acres)	Aircraft Hangar (Bldg. 84) and Flammable Storage (Bldg. 79) Coordinates: 23,14	Disqualified	Fuel oil UST 7500 gal active.	9/93 Site Visit	
		Qualified	Asbestos (Bldg 84)	SI (1992)	
			Lead paint (P) (Bldg. 79)	9/93 Site Visit	
9D-HS/PS/ A/X(P) (4.5 acres)	Parts and Maintenance Hangar (Bldg 85) Coordinates: 26,13	Disqualified	Fuel oil UST 5000 gal active. Building operates as 90-day waste storage area.	SI (1992)	
		Qualified	Asbestos detected in building and in curtain in paint shop.		
10D-HR(P)/ X(P) (24.92 acres)	Landfill Coordinates: 3,12	Disqualified	Disqualified based on age of landfill and probable disposal of hazardous materials. No information on landfill contents.	SI (1992)	Site included in SI Addendum
11D-HR(P)/ X(P) (19 acres)	Landfill 2 Coordinates: 11,3	Disqualified	Disqualified based on age of landfill and probable disposal of hazardous materials. No information on landfill contents.	SI (1992)	SI Addendum found metals in ground water
12D-HR(P)/ X(P) (70.8 acres)	Landfill 3 Coordinates: 21,10	Disqualified	Disqualified based on age of landfill and probable disposal of hazardous materials. No information on landfill contents.	SI (1992)	Much of landfill contents removed to build airfield (1960). Site included in SI Addendum
13D-PS/PR/L(P)/ X(P) (1 acre)	Generator (Bldg. 87) Coordinates: 12,15	Disqualified	Two 2/5 gallon diesel fuel ASTs active. One 500 gallon diesel fuel UST removed 1991 (leaking).	FGGM active POL tank records	500 gallon diesel fuel tank removed 1991.
		Qualified	Lead paint (P)		
14Q-X(P) (222.7 acres)	Entire Site	Qualified	Possible UXO located throughout site.	1993 UXO Survey	Magnetometer survey/UXO removal to depth of 5 feet (1993)

Table 5.1-1
Fort George G. Meade (FGGM)
Fort Meade, Maryland

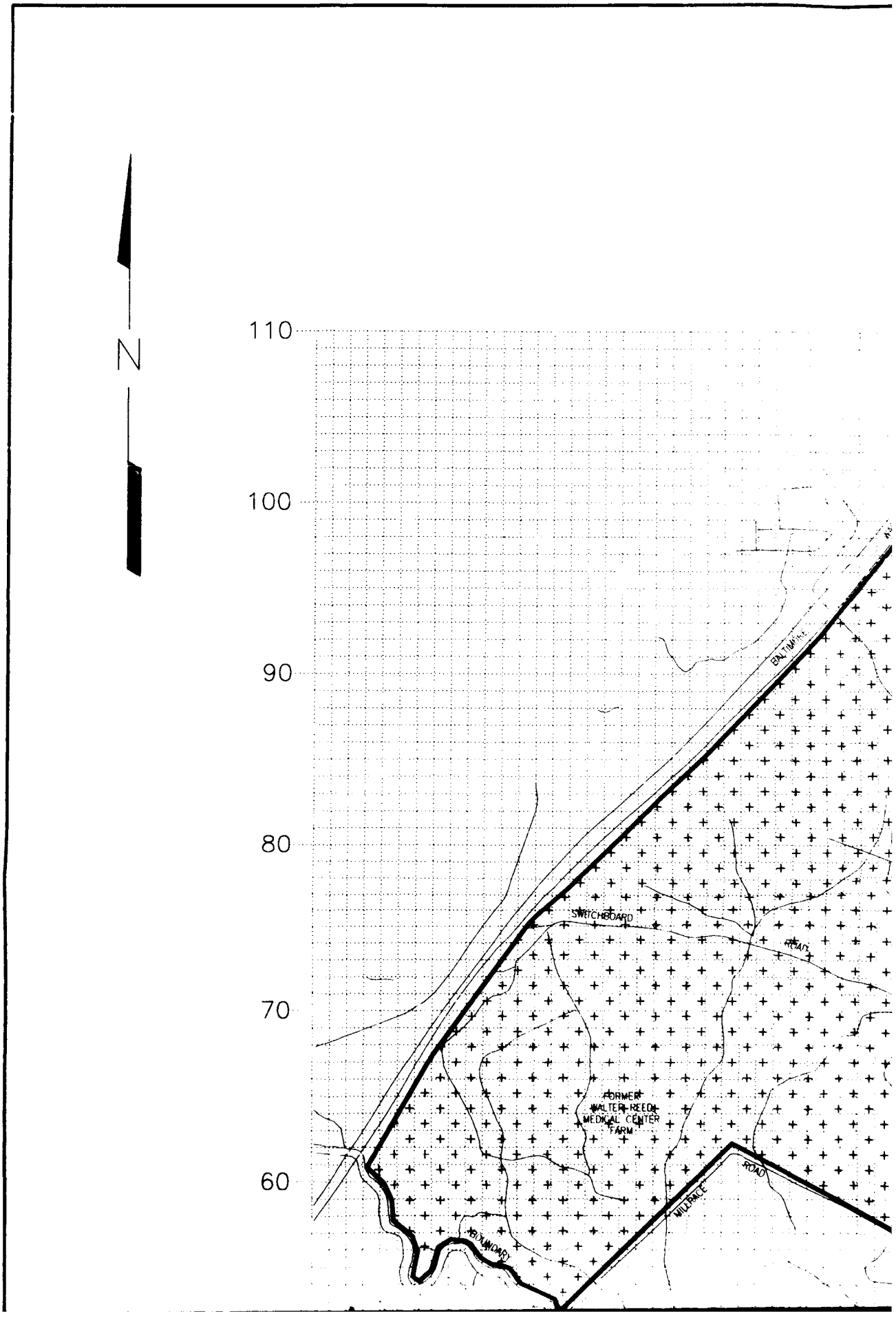
PARCEL [illegible]	[illegible] LOCATION [illegible]	CERFA CATEGORY	BASIS	SOURCE OF EVIDENCE	REMEDIATION
15Q-A/L(P)/ X(P) (1 acre)	Bldg. 69 (control tower) Coordinates: 11,14	Qualified	Asbestos Lead paint (P)	SI (1992) SI (1992)	None expected until 1994
16Q-A/L(P)/ X(P) (1.05 acres)	Bldg. 80 (Hangar) Coordinates: 21,14	Qualified	Asbestos Lead-based paint (P)	SI (1992) SI (1992)	None expected until 1994
17E (7,600 acres)	7,600 acre BRAC parcel south and surrounding Airfield	Excluded	Property transferred to Patuxent Wildlife Research Center in 1991	Property transfer documents	
18E (432.2 acres)	500 acre BRAC parcel west of Airfield (Tract 1)	Excluded	Property transferred to Patuxent Wildlife Research Center in 1992	Property transfer documents	
19E (19.3 acres)	500 acre BRAC parcel northwest corner of Airfield parcel (Tract 2)	Excluded	Property transferred to Patuxent Wildlife Research Center in 1992	Property transfer documents	
20E (26.1 acres)	500 acre BRAC parcel northeast of Airfield (Tract 3)	Excluded	Property transferred to Patuxent Wildlife Research Center in 1992	Property transfer documents	
21E (20.6 acres)	500 acre BRAC parcel northeast of Airfield (Tract 4)	Excluded	Property transferred to Patuxent Wildlife Research Center in 1992	Property transfer documents	
22E (308 acres)	Active Sanitary Landfill at East end of FGGM	Excluded	Property retained for use by FGGM	CERFA Investigation	

Parcel Category
D = CERFA Disqualified Parcel
Q = CERFA Disqualified Parcel
E = CERFA Excluded Parcel
P = CERFA Parcel

(P) = Pr[illegible]ible

Disqualified Designations
PS = Petroleum Storage
PR = Petroleum Release/Disposal
HS = Hazardous Materials Storage
HR = Hazardous Materials Release/Disposal

Qualified Designations
A = Asbestos
L = Lead-Based Paint
P = PCBs (Polych'orinated biphenyls)
R = Radon
X = UXO (unexploded ordnance)
RD = Radionuclides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60
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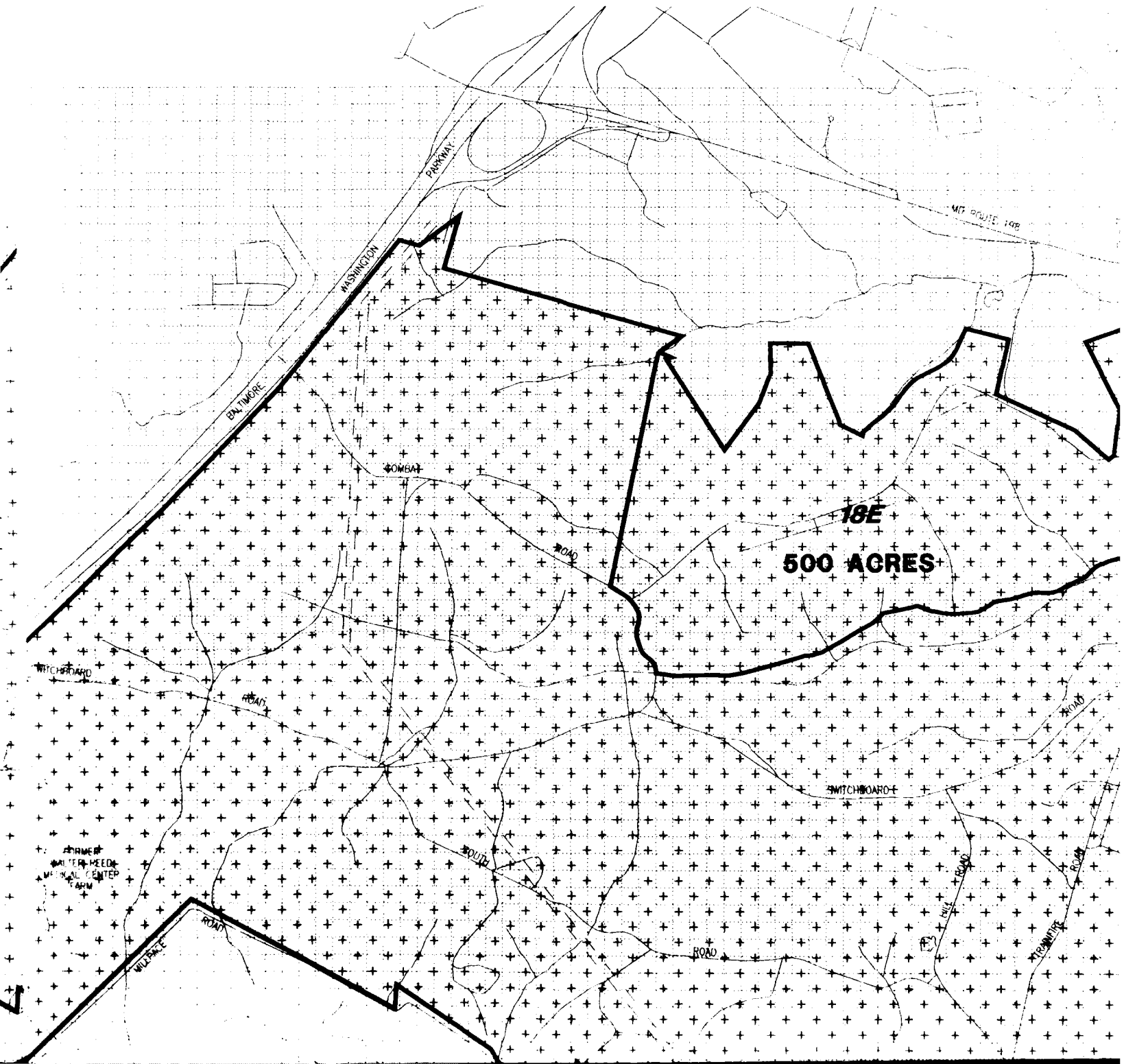
ROAD
FORMER
WALTER REED
MEDICAL CENTER
FARM
ROAD
WILLPACE
BOUNDARY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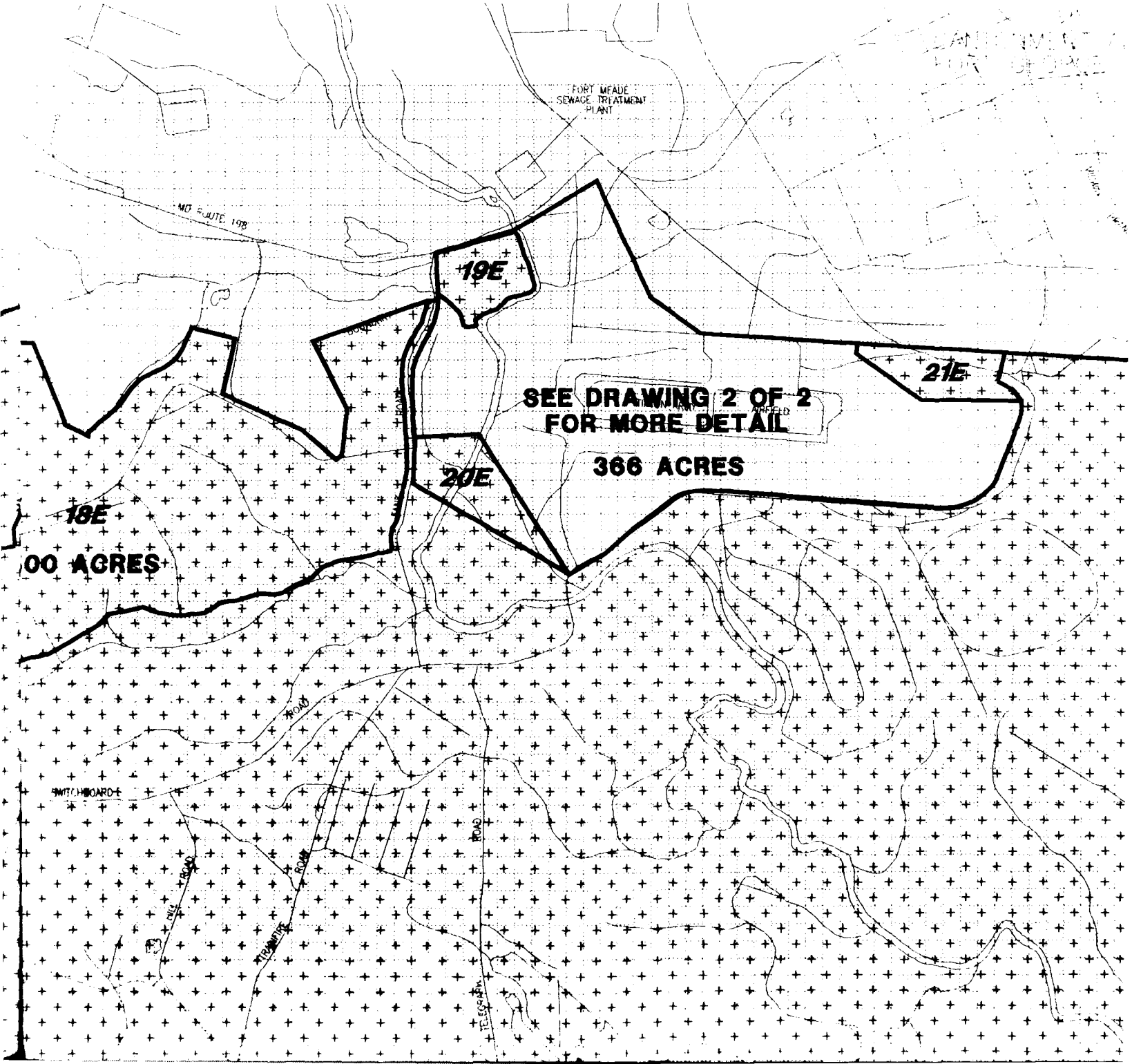
WASHINGTON
BALTIMORE
MD ROUTE 108
COMBAT
ROAD
18E
500 ACRES
SWITCHBOARD
WALTER REED
MEDICAL CENTER
FARM
MILL RACE
HILL
FRANKFORD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SEWAGE TREATMENT
PLANT
MD ROUTE 198
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21E
SEE DRAWING 2 OF 2
FOR MORE DETAIL
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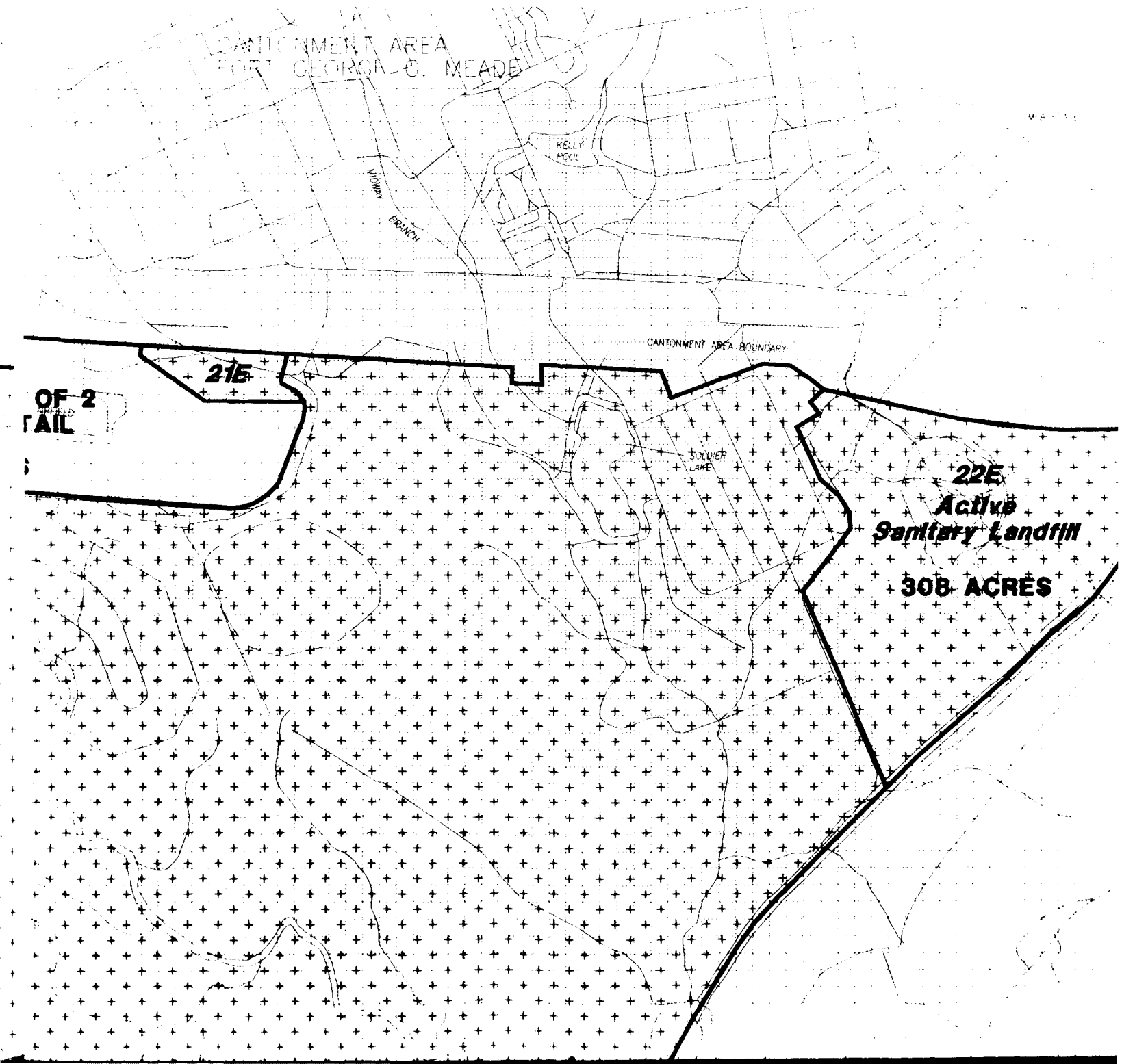
20E
18E
00 ACRES
SWITCHBOARD
ROAD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FORT GEORGE G. MEADE
KELLY HOLL
MIDWAY
BRANCH
CANTONMENT AREA BOUNDARY
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OF 2
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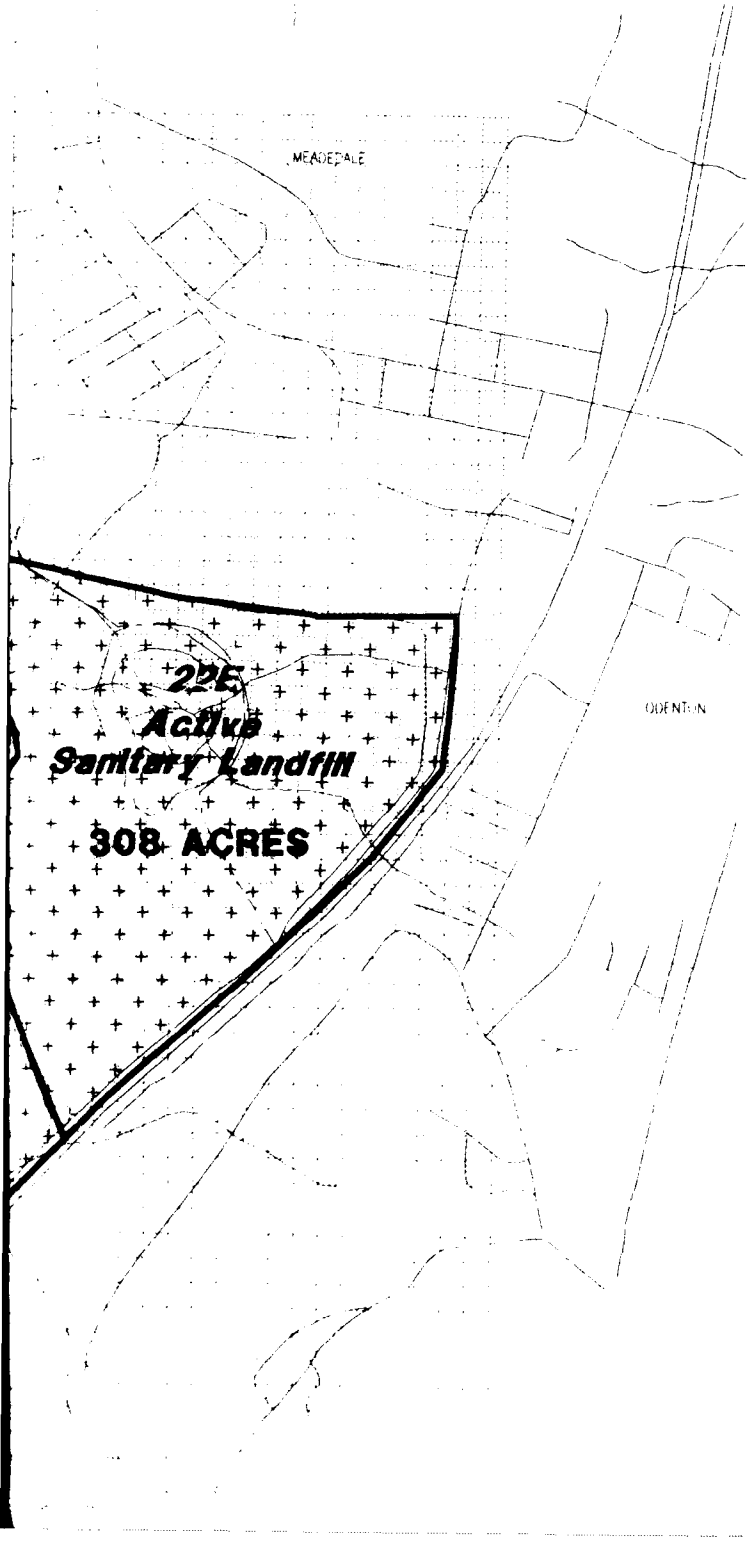
SOLDIER LAKE
22E
Active
Sanitary Landfill
308 ACRES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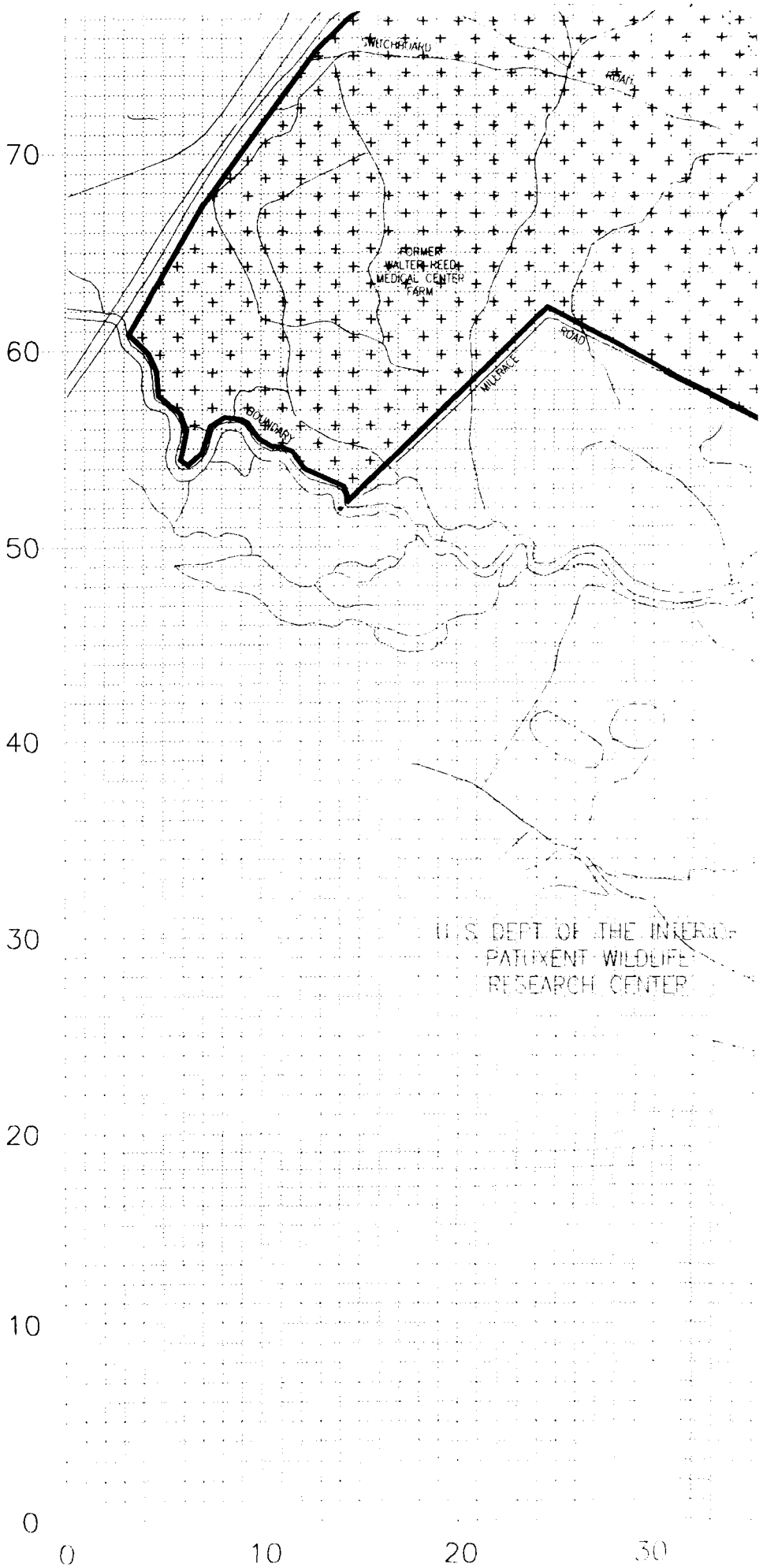
308 ACRES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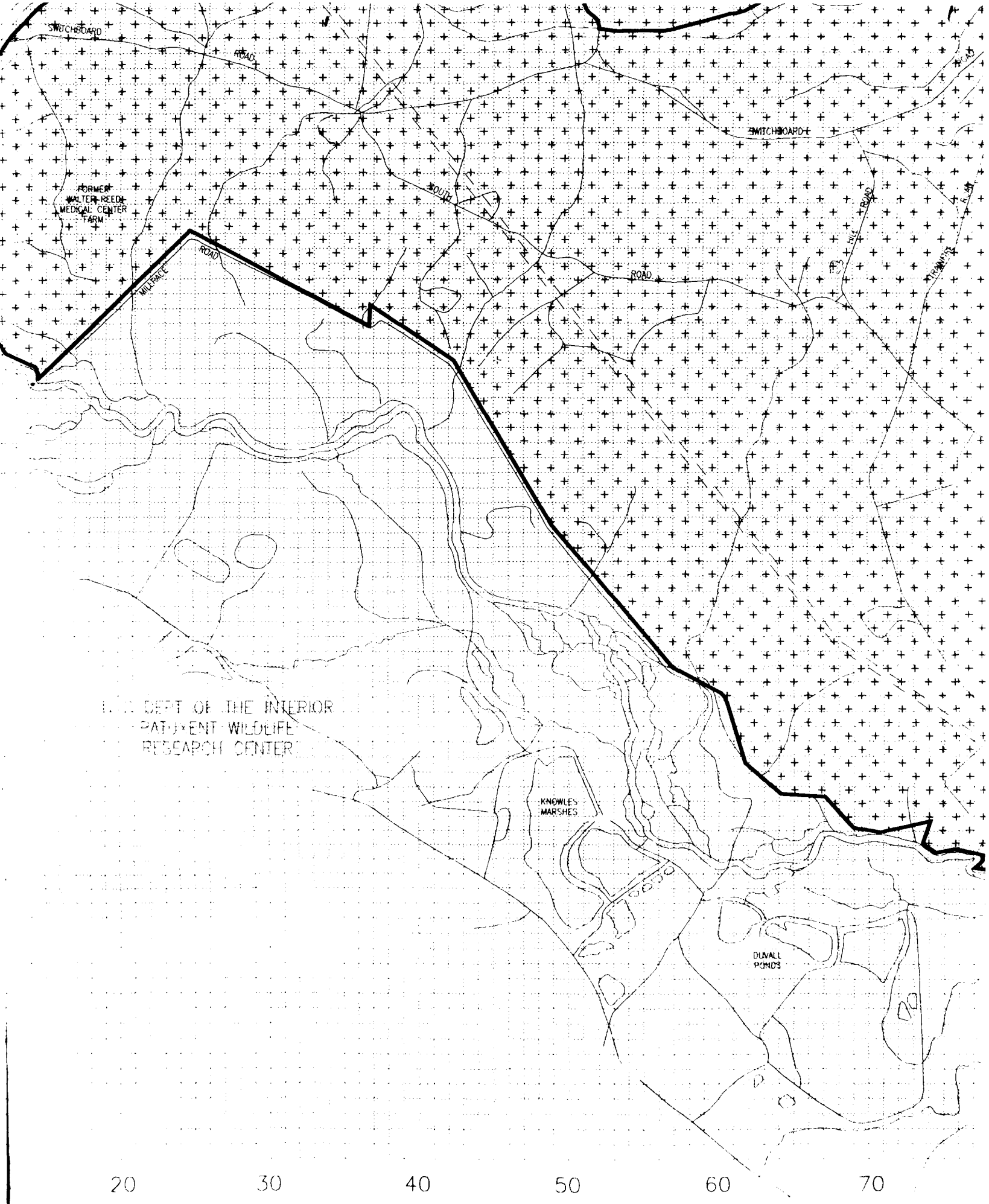
BOUNDARY
U.S. DEPT OF THE INTERIOR
PATUXENT WILDLIFE
RESEARCH CENTER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SOUTH
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U.S. DEPT OF THE INTERIOR
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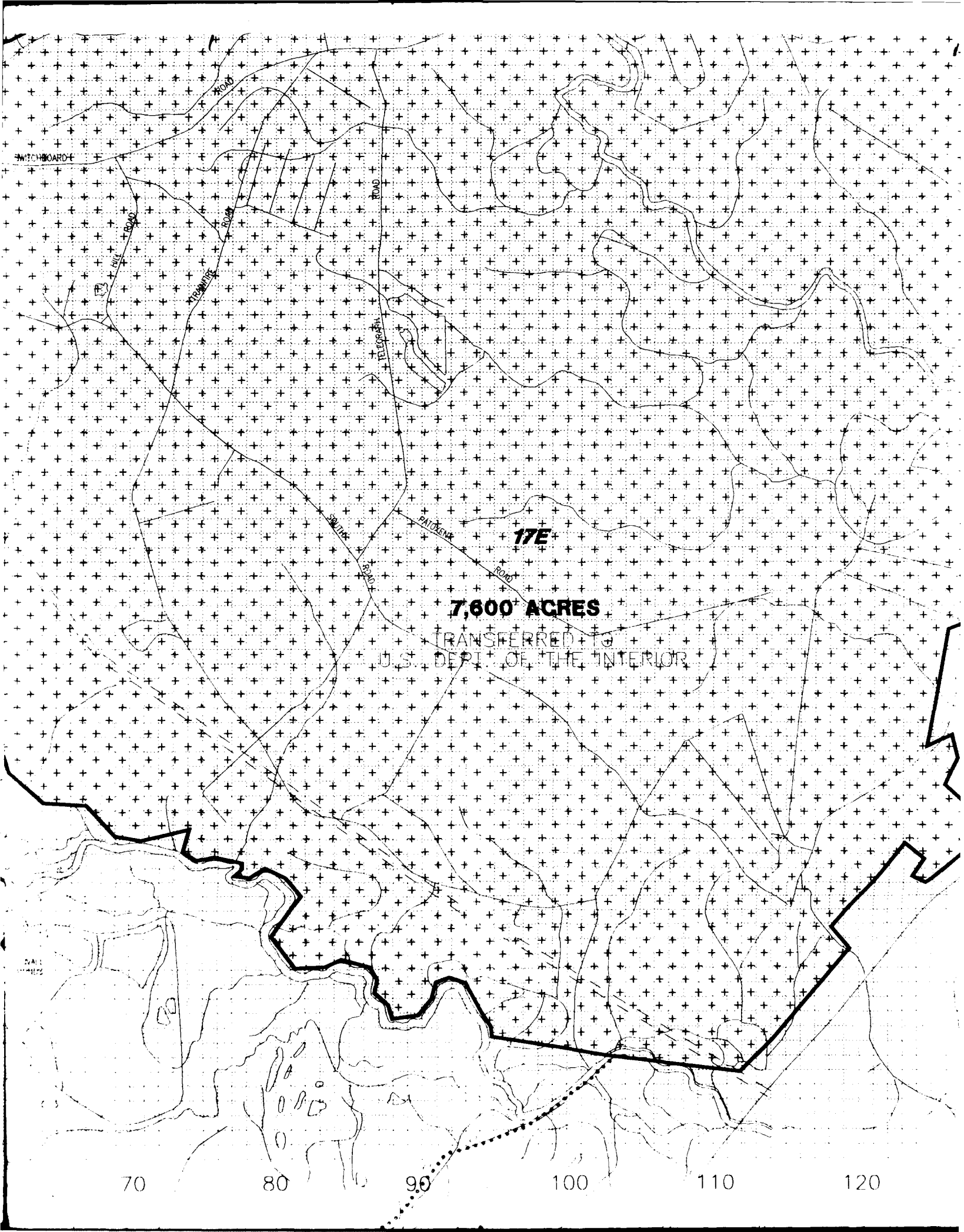
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ROAD
ROAD
HILL
ROAD
TELEGRAPH
ROAD
SOUTH
ROAD
PAUOKENA
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TRANSFERRED TO
U.S. DEPT. OF THE INTERIOR
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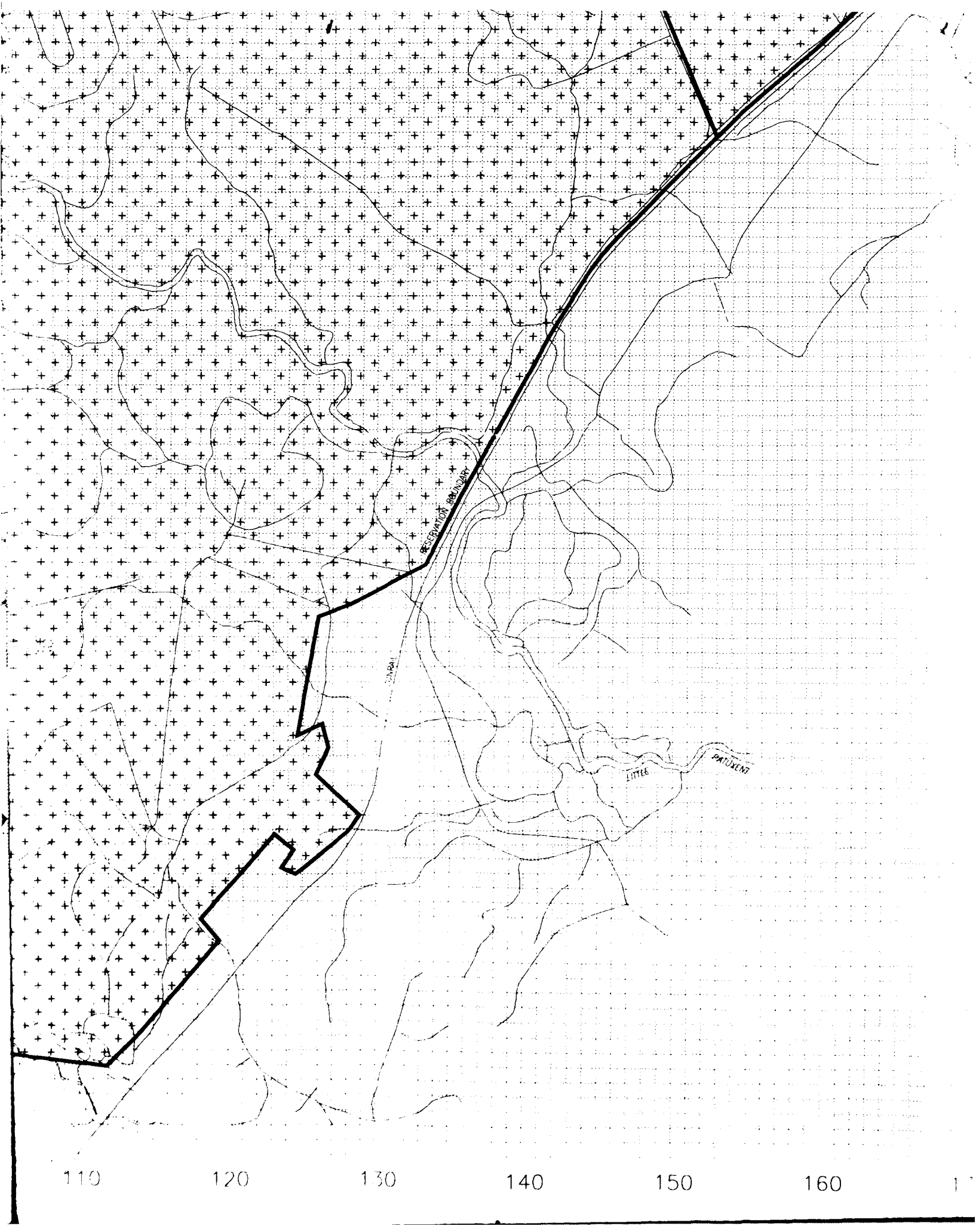
100
110
120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PATUXENT
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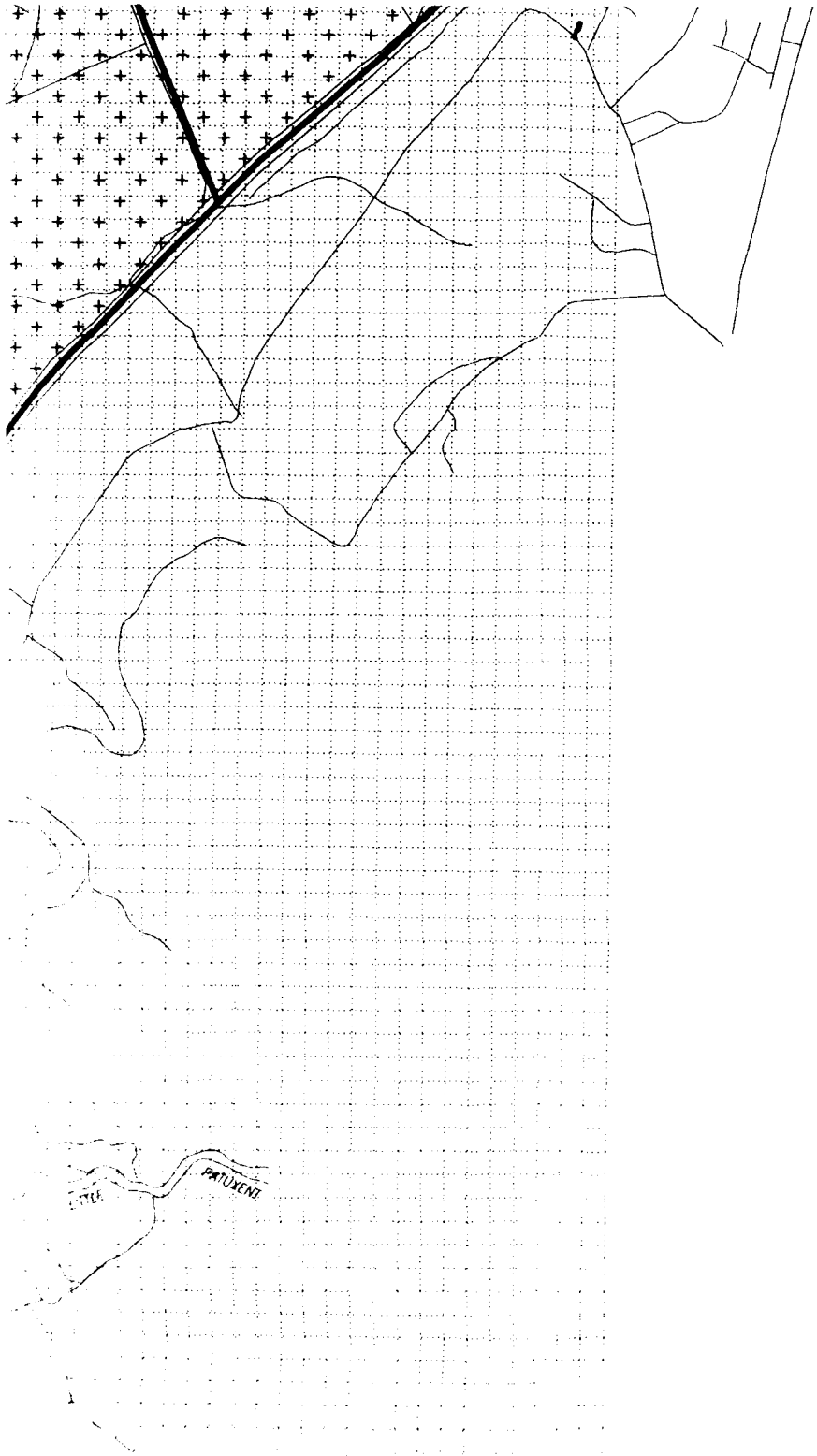
160



LEGEND:

CERFA DISQUALIFIED

CERFA QUALIFIED

CERFA EXCLUDED

CERFA PARCEL

PARCEL LABEL

5D-PR/HR

PARCEL DESIGNATION

PARCEL CATEGORY

PARCEL NUMBER AS NOTE
ON DRAWING AND TABLE

PARCEL CATEGORY

D = CERFA DISQUALIFIE
Q = CERFA QUALIFIED
E = CERFA EXCLUDED
P = CERFA PARCEL

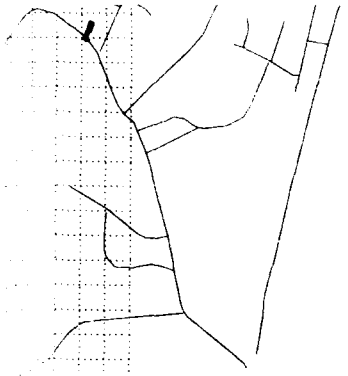
DISQUALIFIED DESIGNATIONS

PS = PETROLEUM STOR
PR = PETROLEUM RELE
HS = HAZARDOUS MATE
HR = HAZARDOUS MATE

QUALIFIED DESIGNATIONS

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCBs (POLYCHLORI
R = RADON
X = UXO (UNEXPLODED

150 160 170



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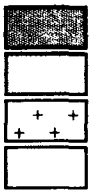

CERFA DISQUALIFIED

CERFA QUALIFIED

CERFA EXCLUDED

CERFA PARCEL

PARCEL LABEL

PARCEL DESIGNATION

PARCEL CATEGORY

PARCEL NUMBER AS NOTED ON DRAWING AND TABLE

PARCEL CATEGORY

D = CERFA DISQUALIFIED PARCEL
Q = CERFA QUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL
P = CERFA PARCEL

DISQUALIFIED DESIGNATIONS

PS = PETROLEUM STORAGE
PR = PETROLEUM RELEASE/DISPOSAL
HS = HAZARDOUS MATERIALS STORAGE
HR = HAZARDOUS MATERIALS RELEASE/DISPOSAL

QUALIFIED DESIGNATIONS

A = ASBESTOS
L = LEAD-BASED PAINT
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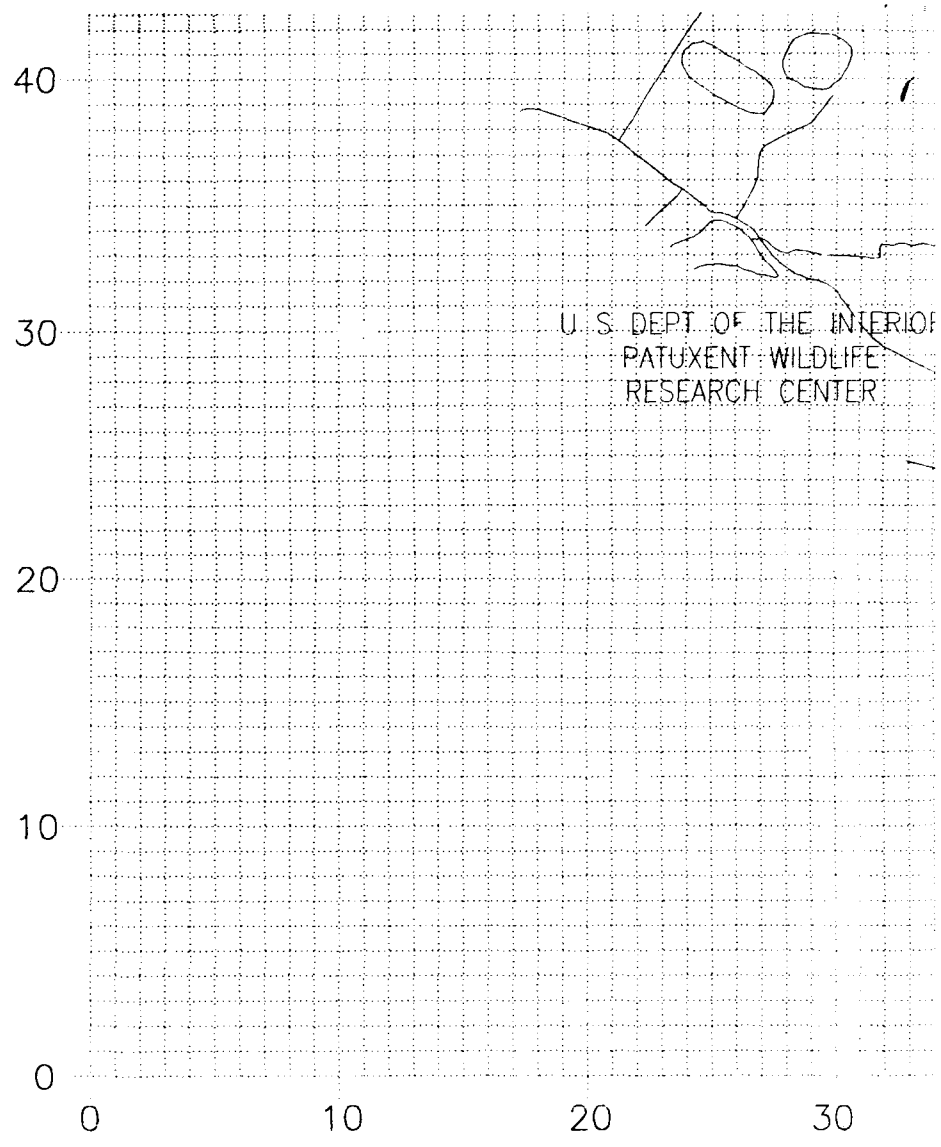
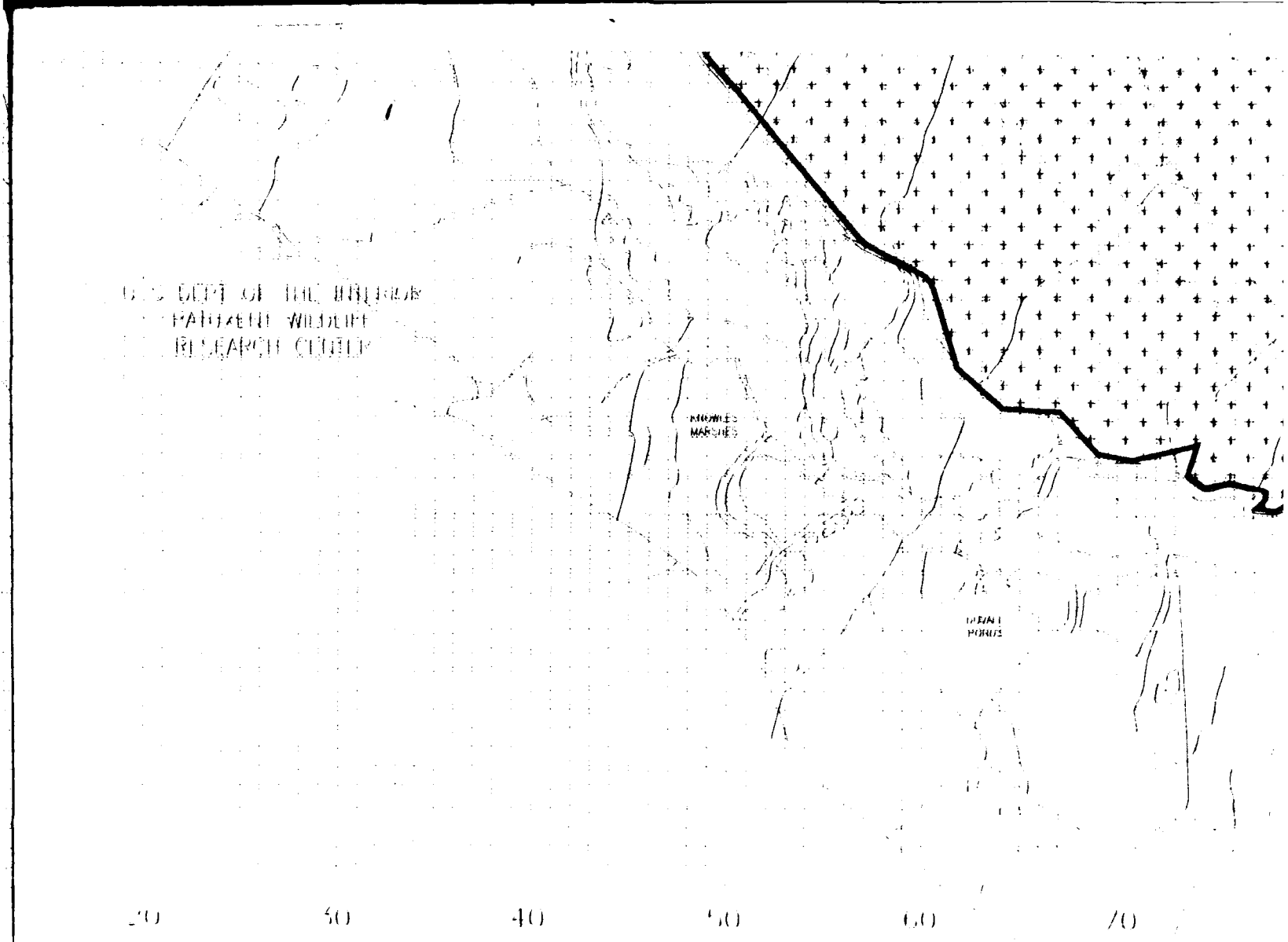
R = RADON
X = UXO (UNEXPLODED ORDNANCE)
RD = RADIONUCLIDE



NOTE: AVERAGES ARE APPROXIMATE, REFER TO FIGURE 5.2-1.

NO.	DATE	APPR.	REVISION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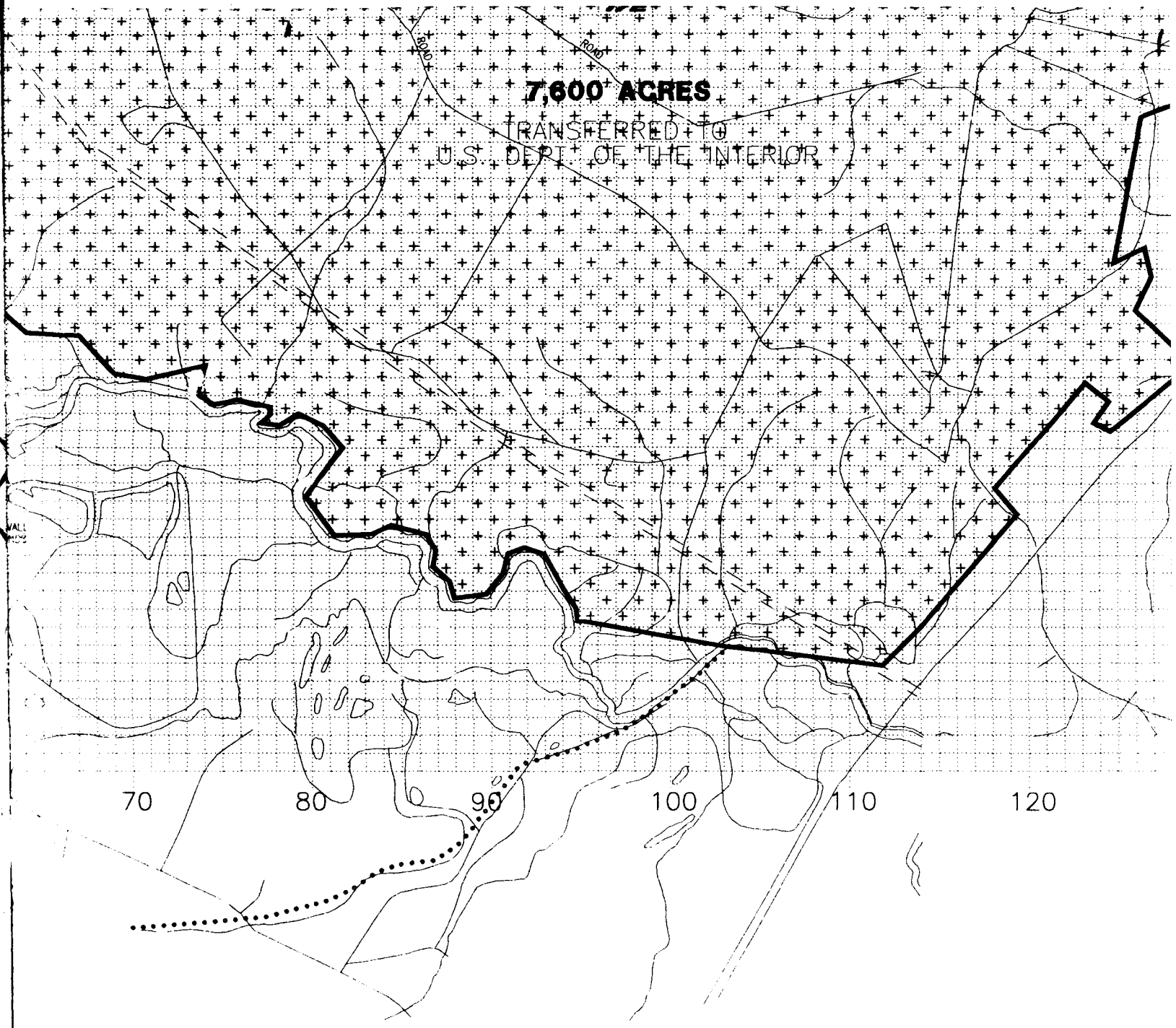

Fort George G. Meade

Odenton **Maryl**

Environmental Resources Management, Inc.

Exton, Pennsylvania 19341 (215) 524-3500

ERM

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		PROJECT ENGINEER	
		PROJECT MANAGER	
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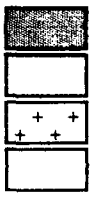

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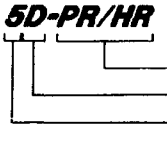
CERFA PARCEL



PARCEL LABEL

PARCEL CATEGORY

D = CERFA DISQUALIFIED PARCEL
Q = CERFA QUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL
P = CERFA PARCEL

DISQUALIFIED DESIGNATIONS

PS = PETROLEUM STORAGE
PR = PETROLEUM RELEASE/DISPOSAL
HS = HAZARDOUS MATERIALS STORAGE
HR = HAZARDOUS MATERIALS RELEASE/DISPOSAL

QUALIFIED DESIGNATIONS

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCBs (POLYCHLORINATED BIPHENYLS)
R = RADON
X = UXO (UNEXPLODED ORDNANCE)
RD = RADIONUCLIDE

(P) POSSIBLE DISQUALIFIER/QUALIFIER

170

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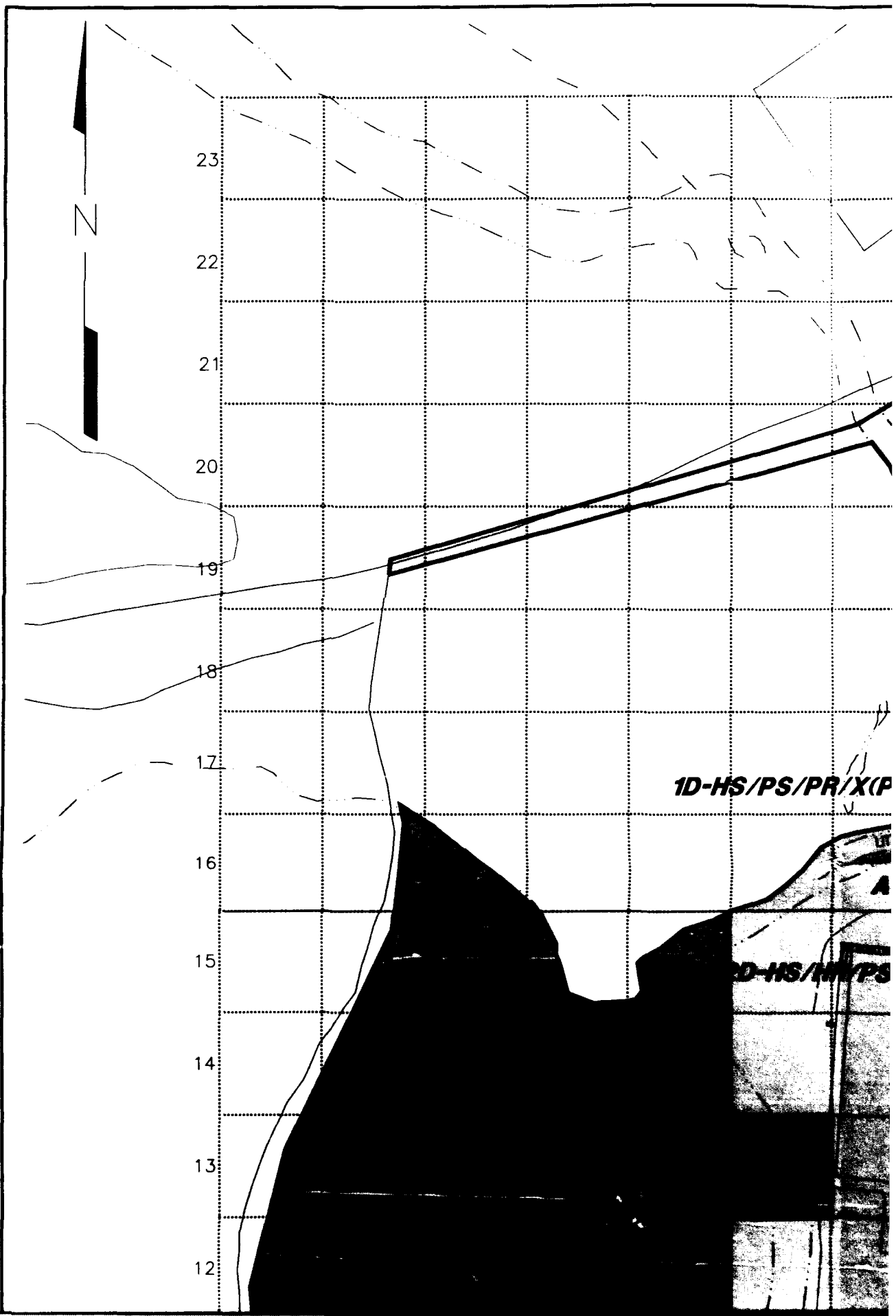
Scale in Feet

CERFA Category and Designation Map

Figure 5.1-1

C. Pomante/CMP	DATE 11.12.93/04.07.94	CLIENT APPROVAL	DRAWING NO.
SCALE 1" = 1500'	W.O. NO. PM307.70.01/A303-1	SUPERVISION DATE	SHEET 1 OF 2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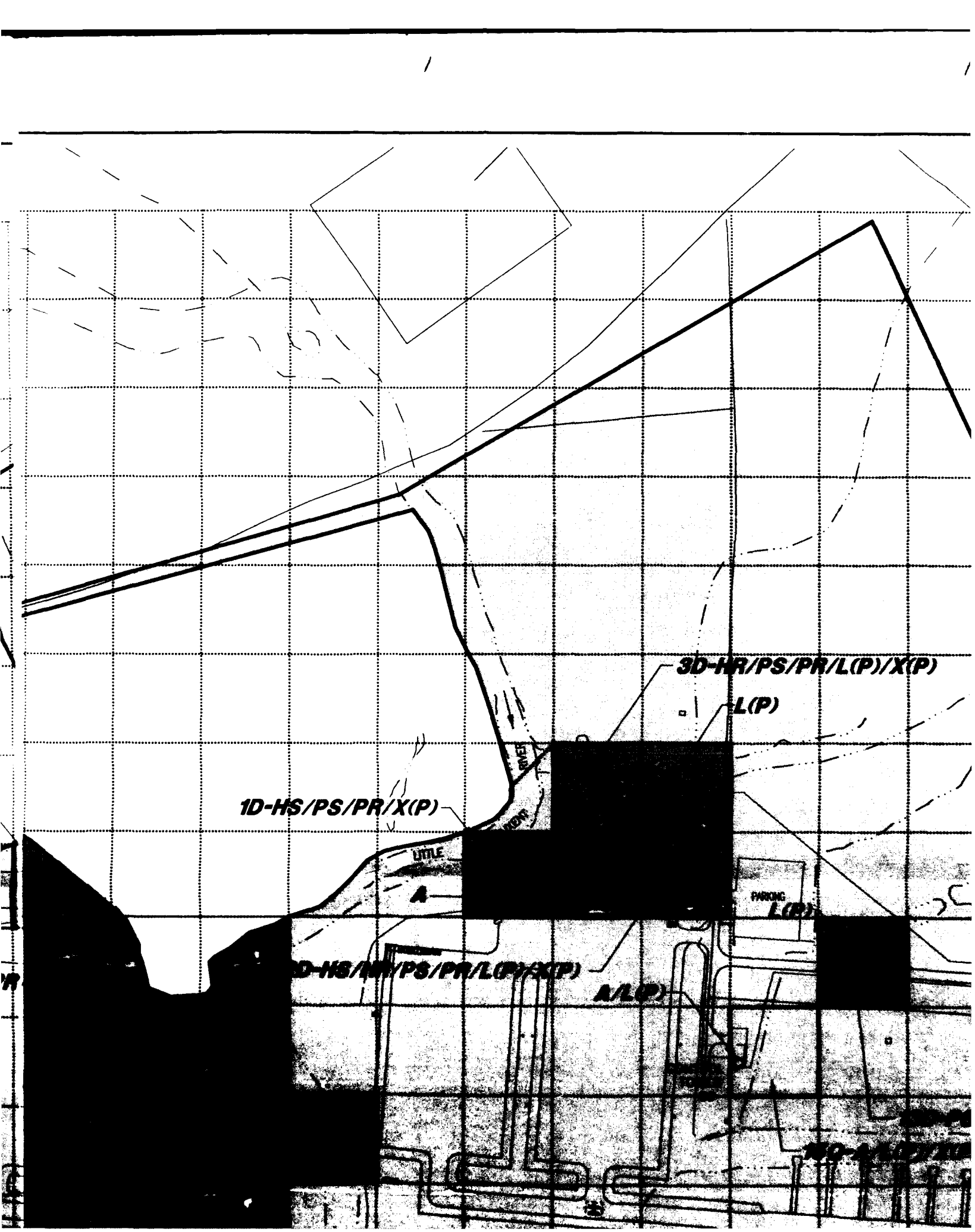
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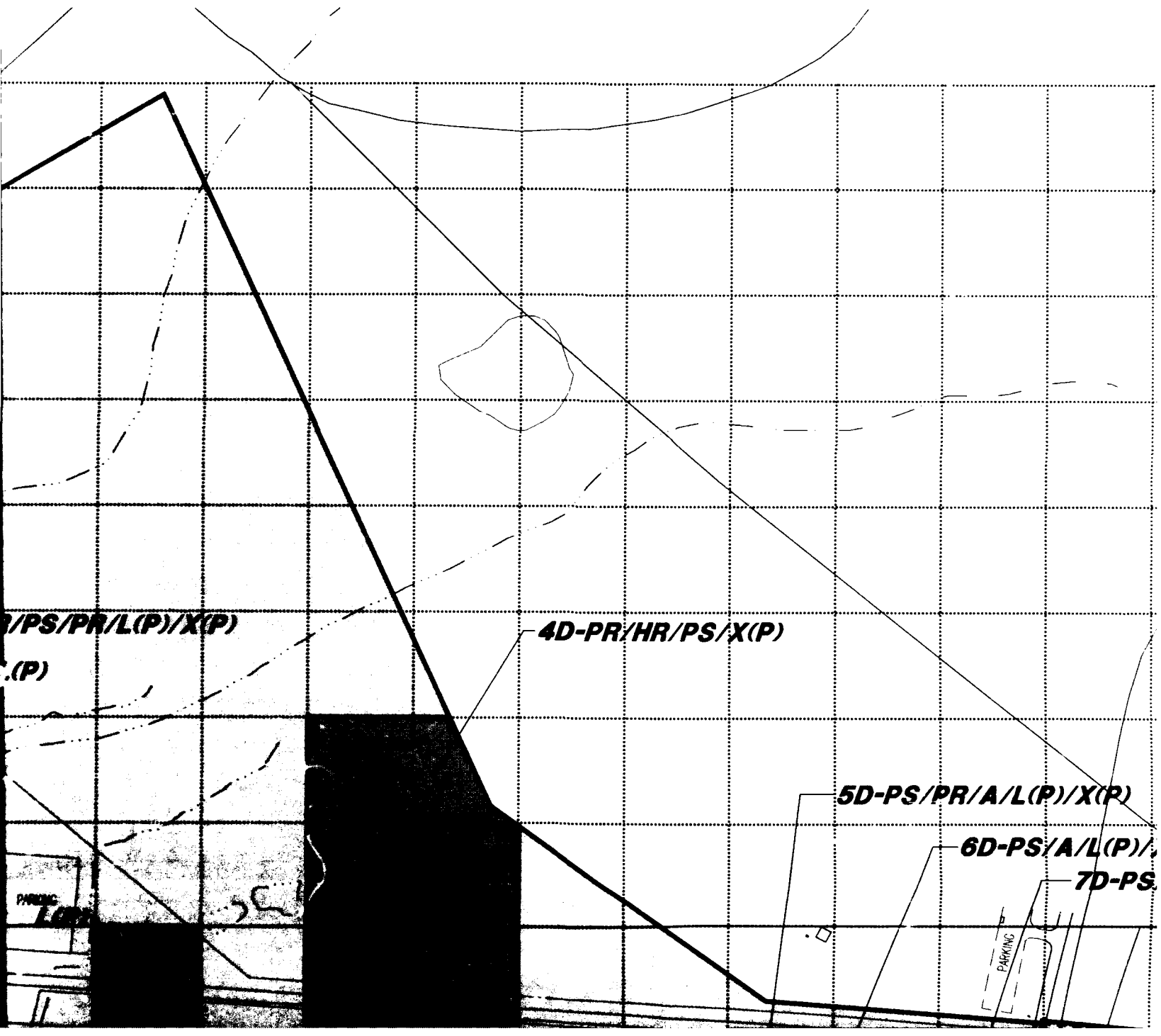
/PS/PR/L(P)/X(P)
.(P)
4D-PR/HR/PS/X(P)
5D-PS/PR/A/L(P)/X(P)
6D-PS/A/L(P)/
7D-PS
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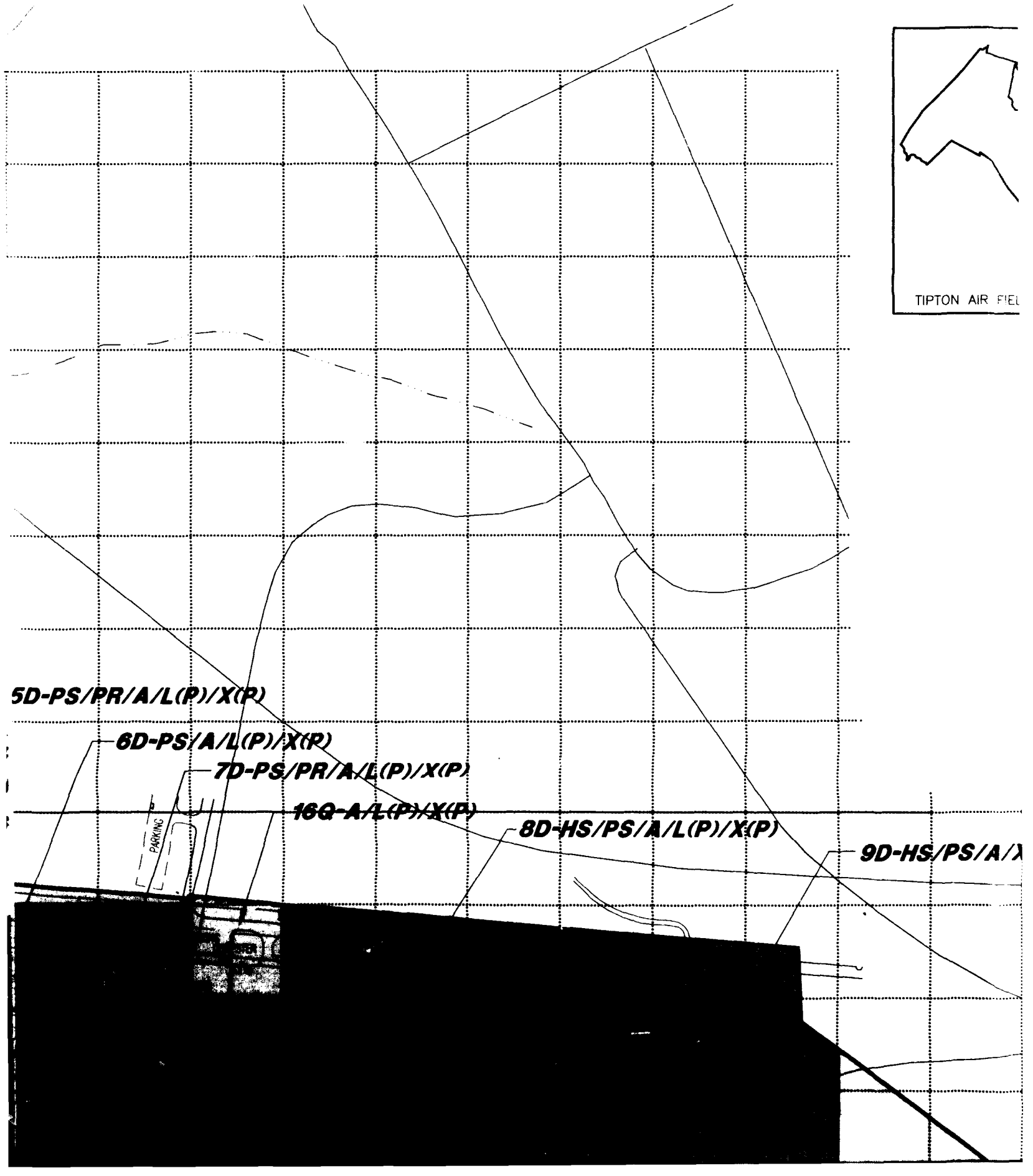
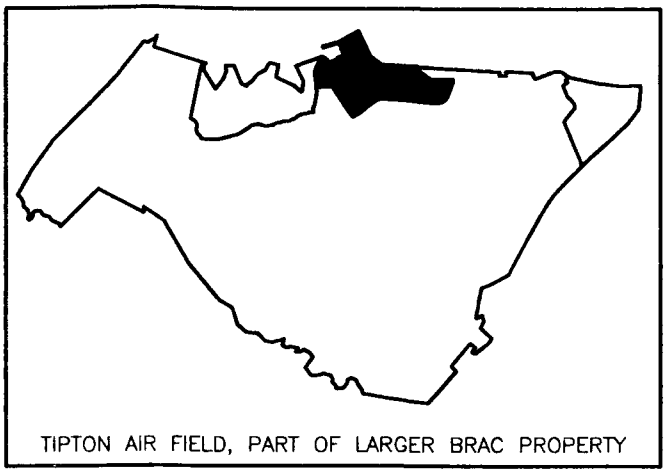
PARKING


TIPTON AIR FIEL
5D-PS/PR/A/L(P)/X(P)
6D-PS/A/L(P)/X(P)
7D-PS/PR/A/L(P)/X(P)
16Q-A/L(P)/X(P)
8D-HS/PS/A/L(P)/X(P)
9D-HS/PS/A/X
PARKING



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CERFA PARCEL

PARCEL LABEL

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PARCEL CATEGOR

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E = CERFA E
P = CERFA P

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ONE ACRE GRID SQUARE
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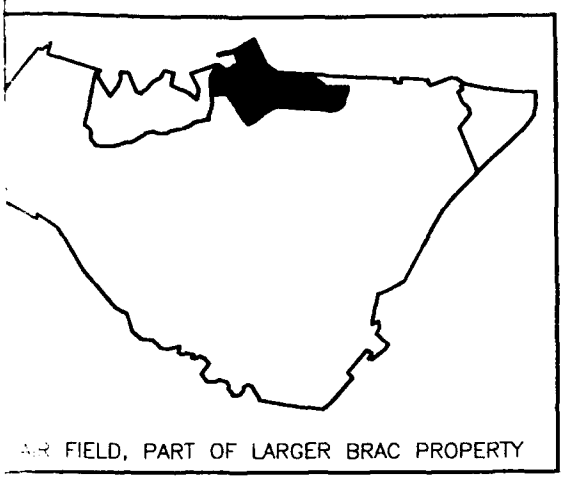

AIR FIELD, PART OF LARGER BRAC PROPERTY

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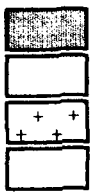

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5D-PR/HR

PARCEL DESIGNATION

PARCEL CATEGORY

PARCEL NUMBER AS NOTED ON DRAWING AND TABLE

PARCEL CATEGORY

D = CERFA DISQUALIFIED PARCEL
Q = CERFA QUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL
P = CERFA PARCEL

DISQUALIFIED DESIGNATIONS

PS = PETROLEUM STORAGE
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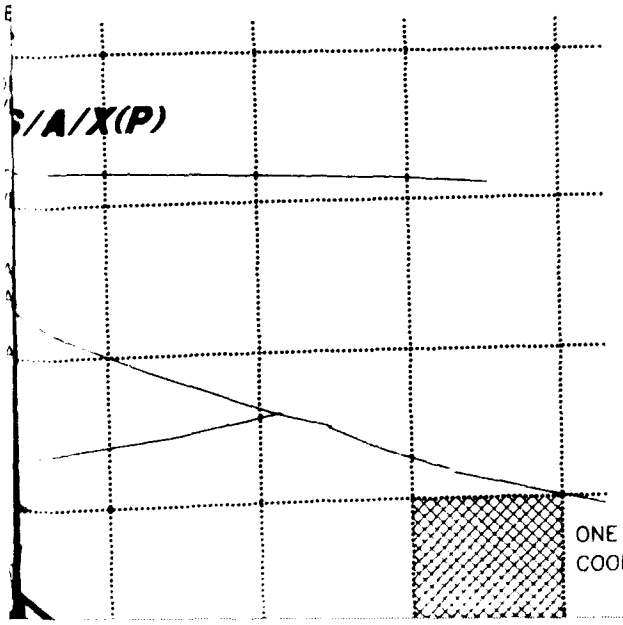
HS = HAZARDOUS MATERIALS STORAGE
HR = HAZARDOUS MATERIALS RELEASE/DISPOSAL

QUALIFIED DESIGNATIONS

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCBS (POLYCHLORINATED BYPHENYLS
R = RADON
X = UXO (UNEXPLODED ORDNANCE)
RD = RADIONUCLIDE



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LEAKING UST OR AST (FORMER OR ACTIVE)

RELEASE OR DISPOSAL OF PETROLEUM OR HAZARDOUS MATERIALS

81 BUILDING WITH CERFA QUALIFIER(S) IN A DISQUALIFIED PARCEL

ONE ACRE GRID SQUARE
COORDINATE LOCATION: 32,12

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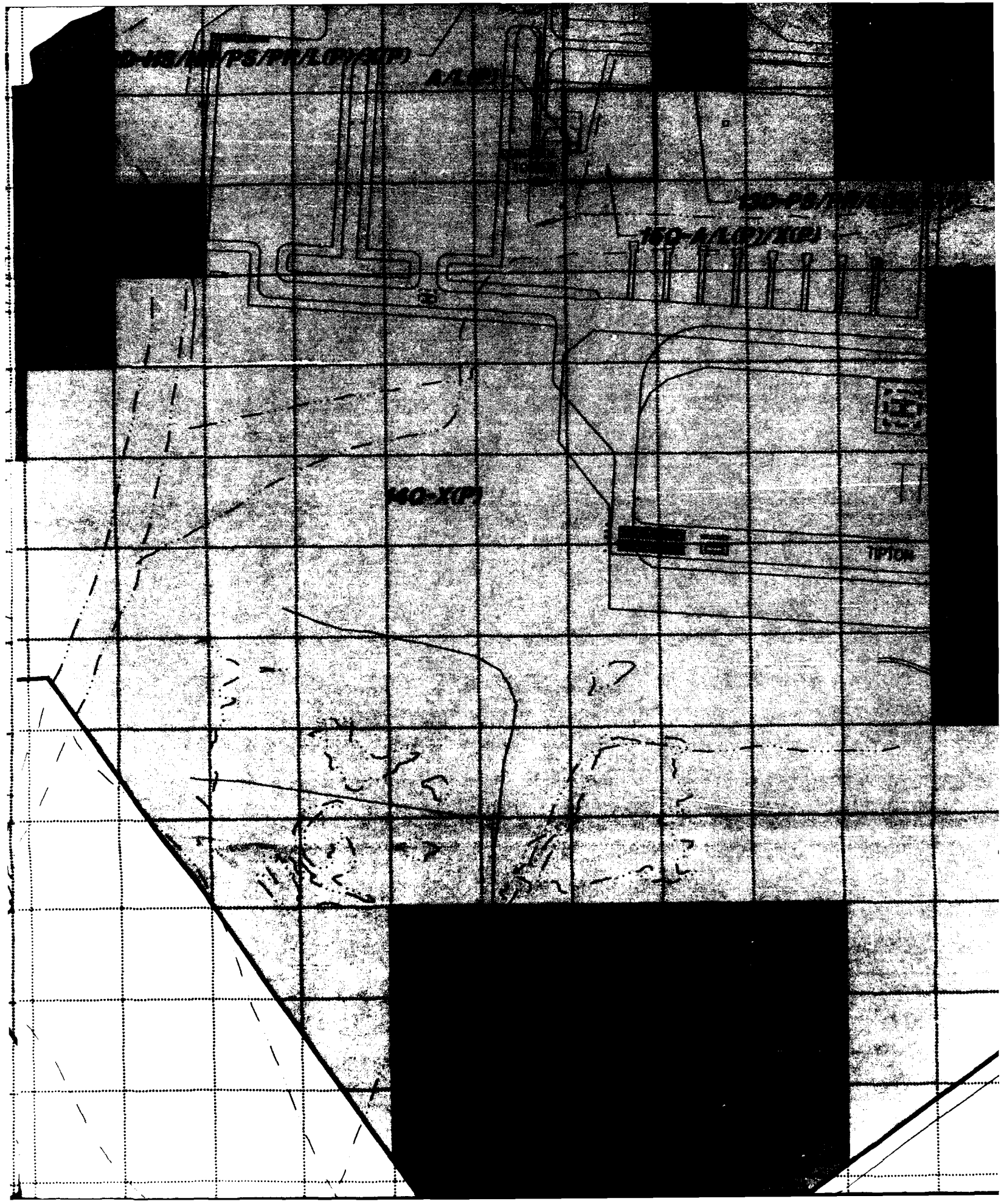

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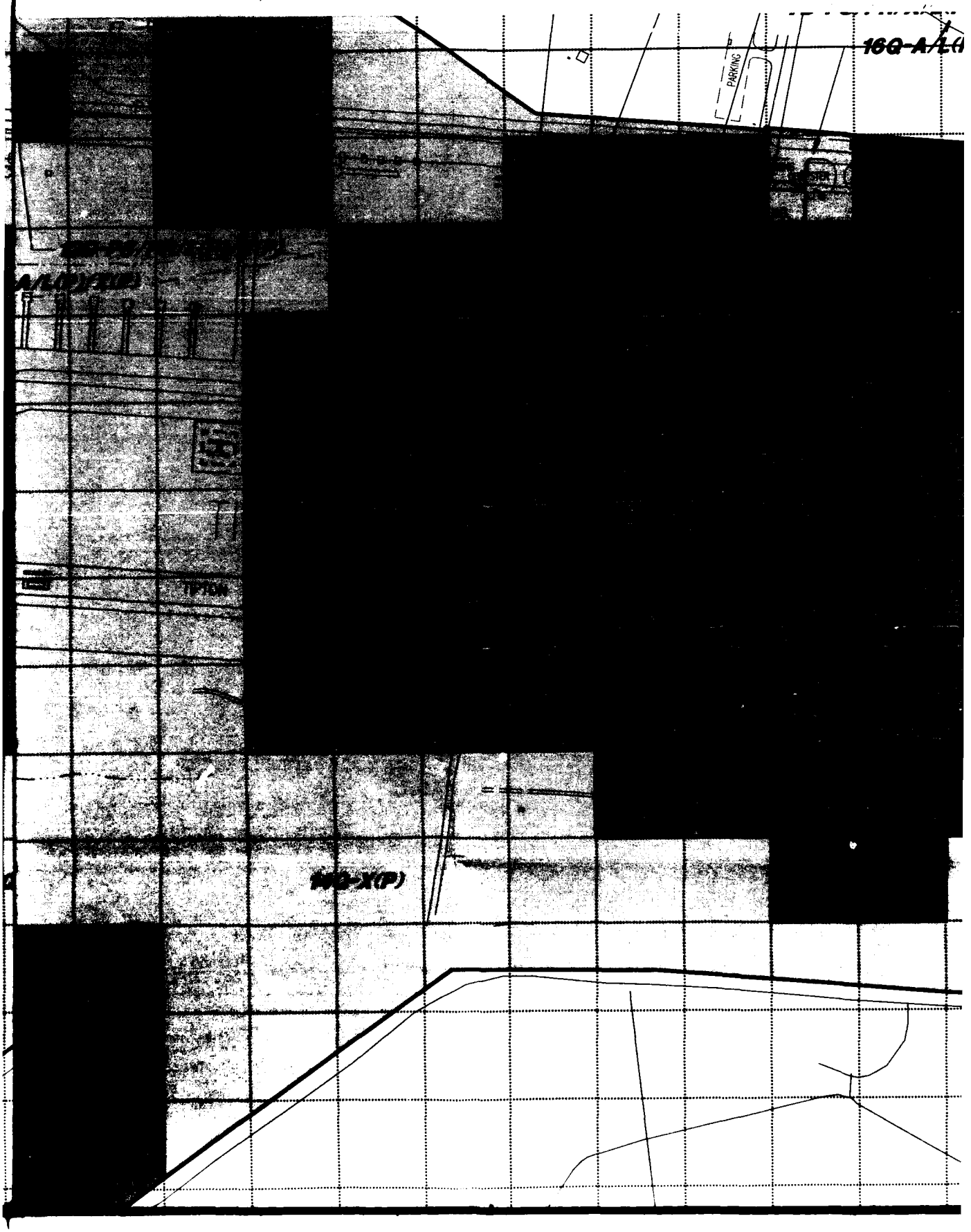
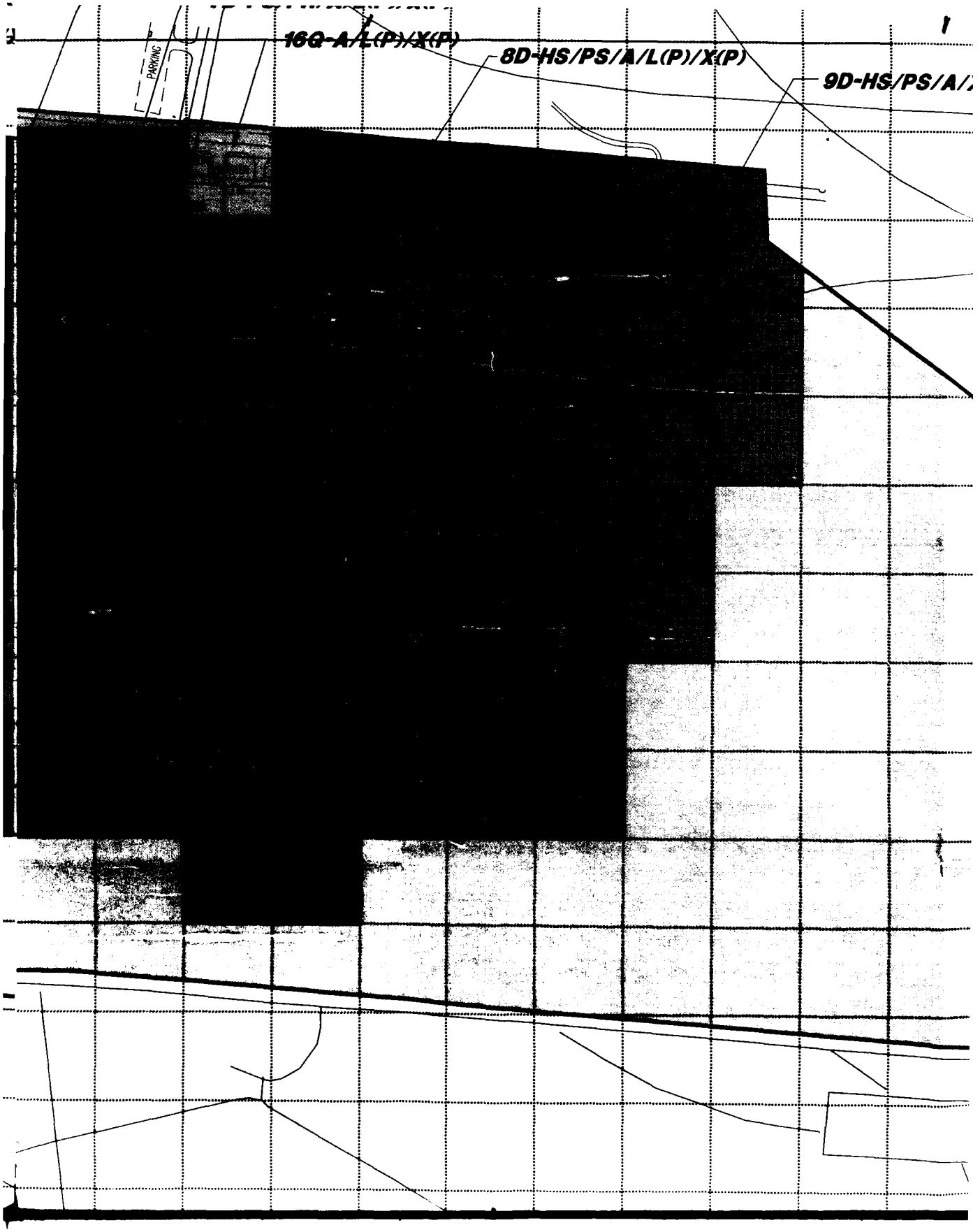
PR = PETROLEUM RELEASE/DISPOSAL
HS = HAZARDOUS MATERIALS STORAGE
HR = HAZARDOUS MATERIALS RELEASE/DISPOSAL

QUALIFIED DESIGNATIONS

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCBs (POLYCHLORINATED BIPHENYLS)
R = RADON
X = UXO (UNEXPLODED ORDNANCE)
RD = RADIONUCLIDE




16Q-A/L(P)/X(P)
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9D-HS/PS/A/
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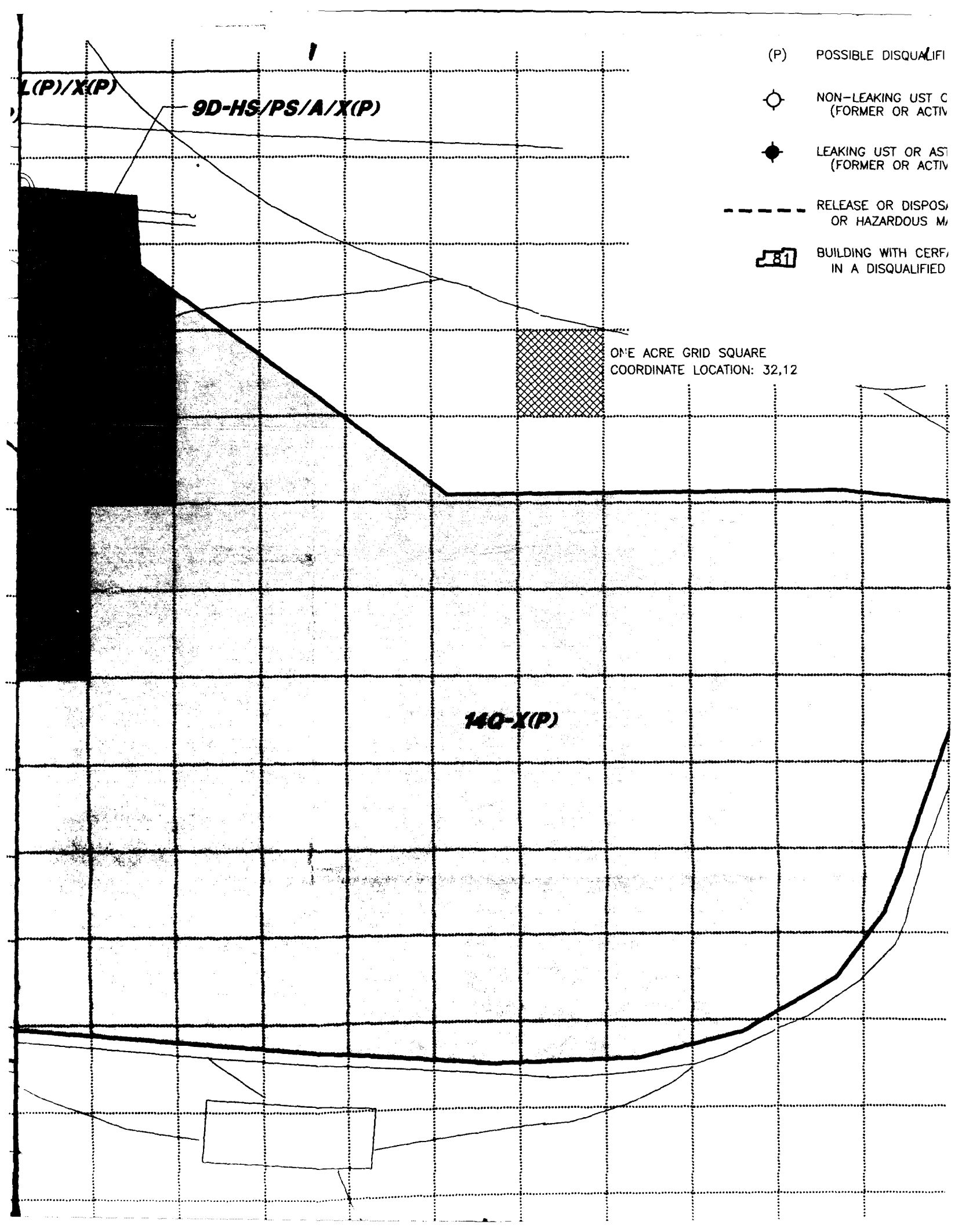
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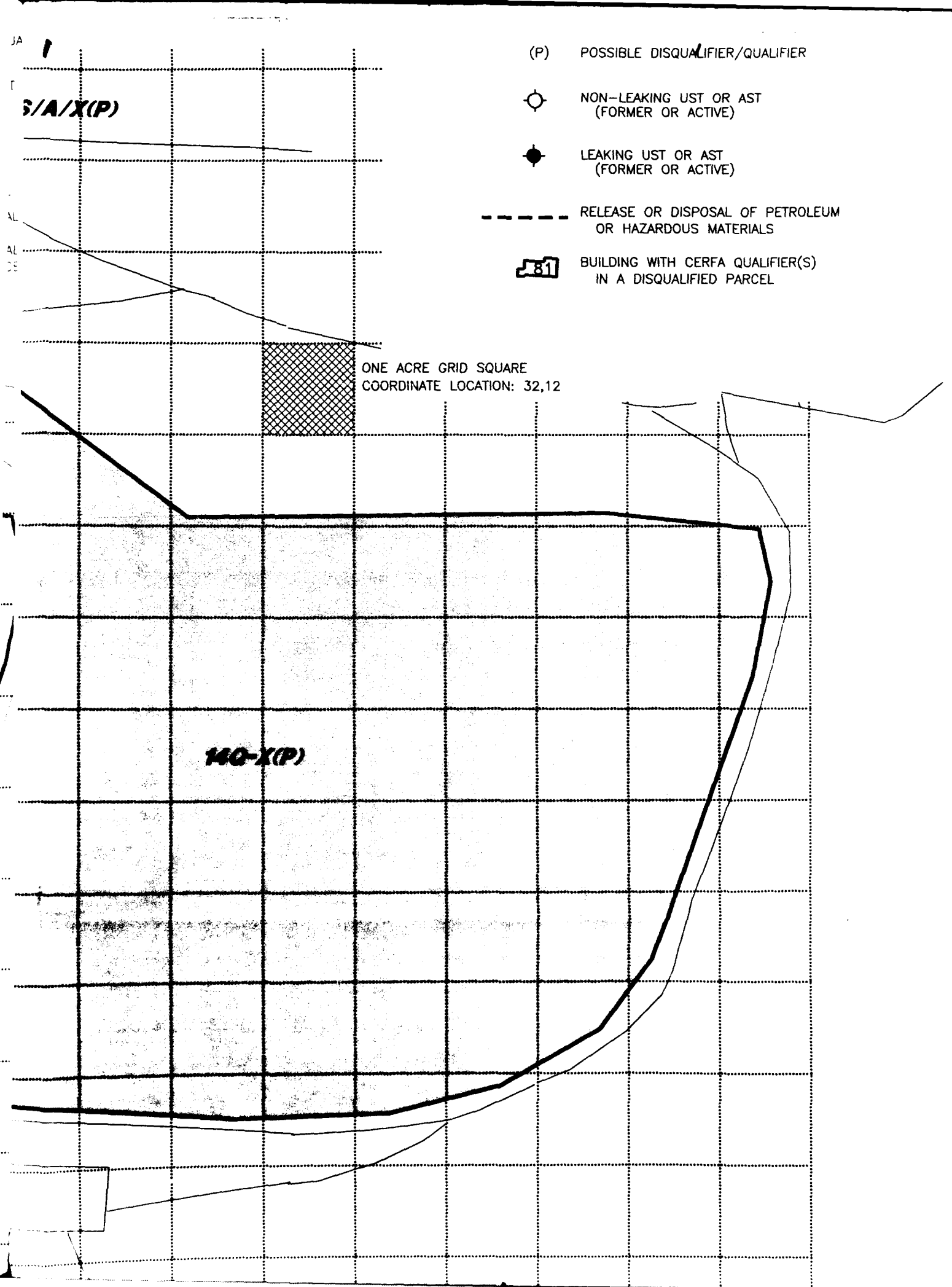
(P) POSSIBLE DISQUALIFIER/QUALIFIER
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LEAKING UST OR AST (FORMER OR ACTIVE)
RELEASE OR DISPOSAL OF PETROLEUM OR HAZARDOUS MATERIALS
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COORDINATE LOCATION: 32,12
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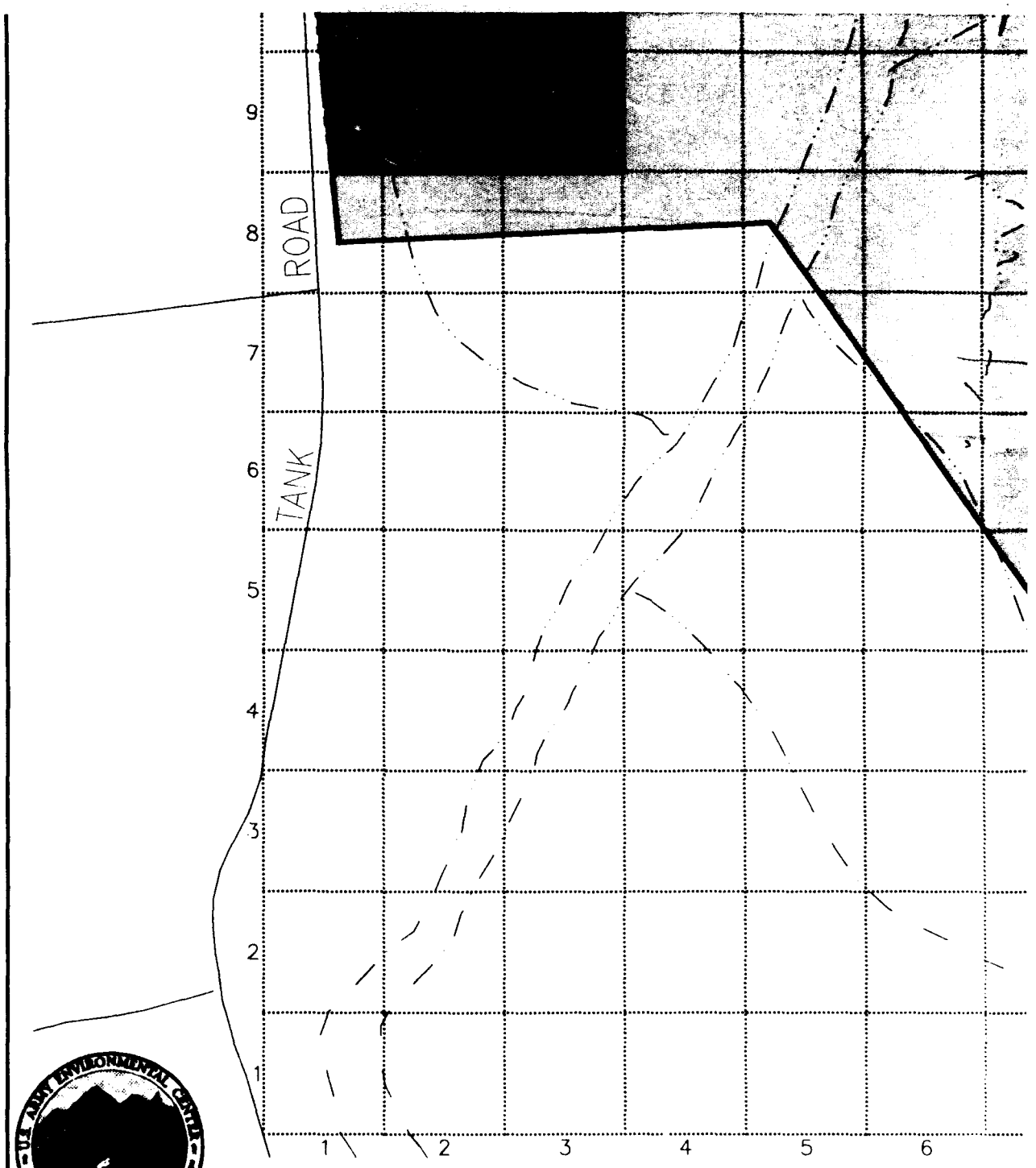

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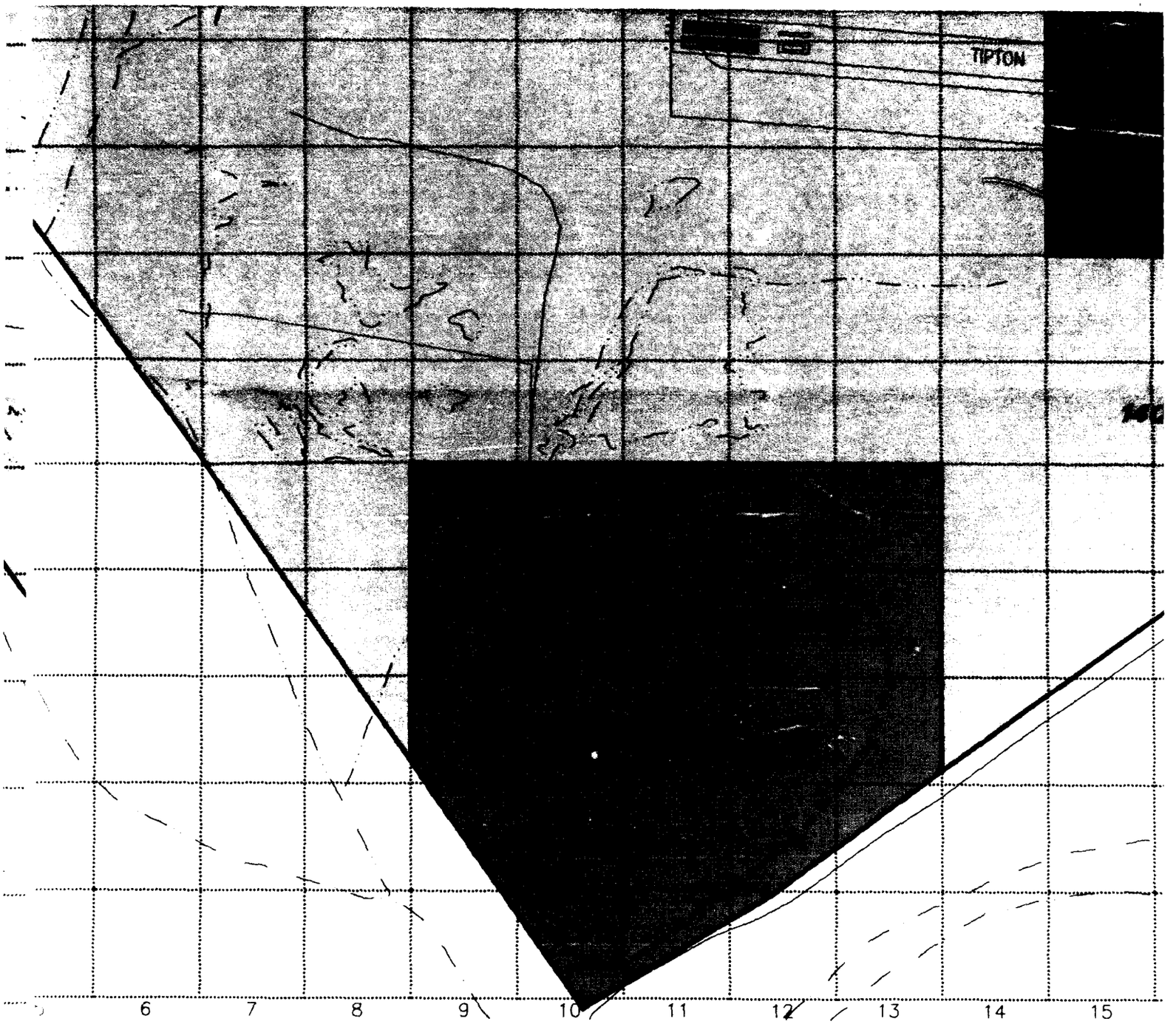

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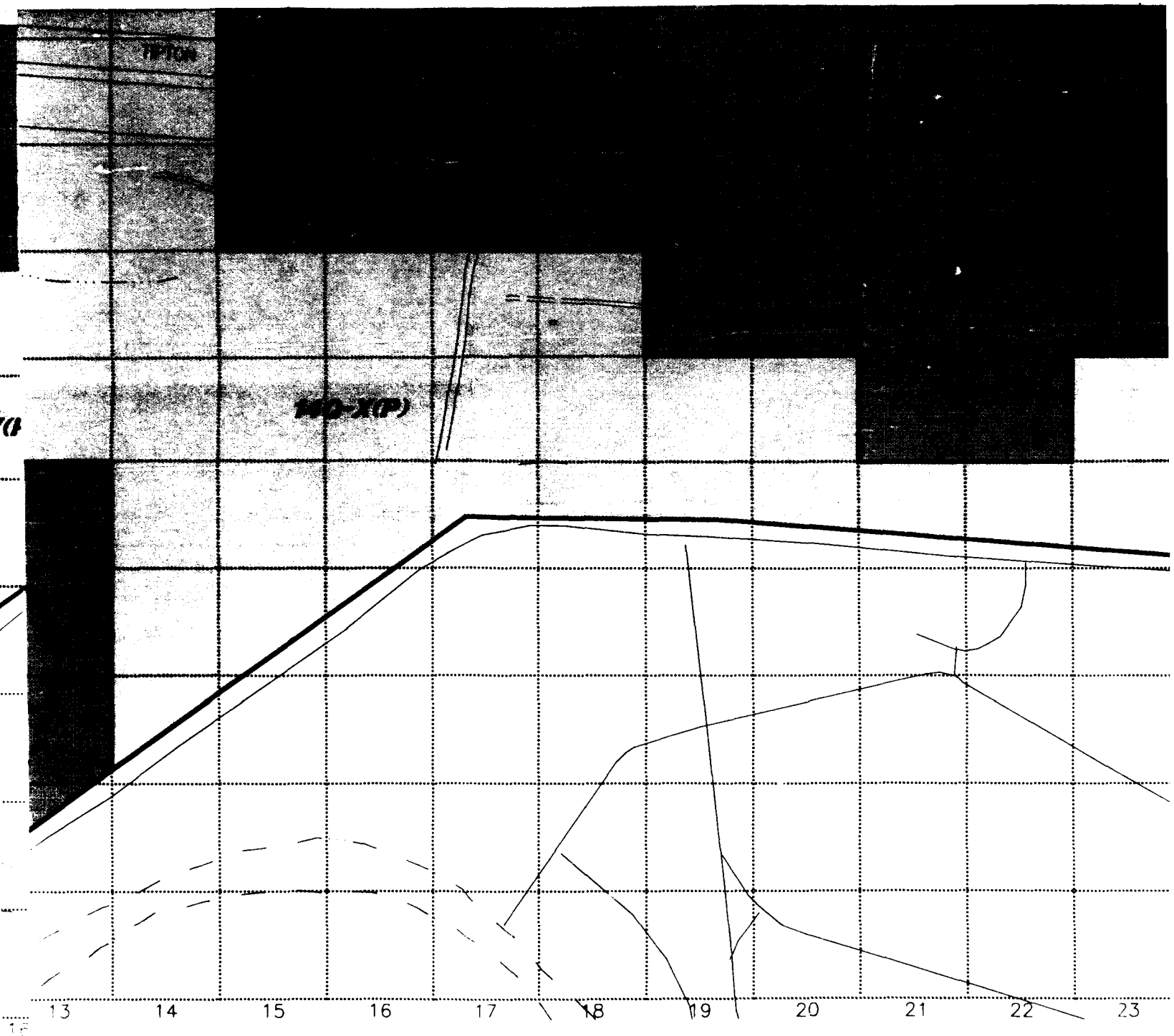


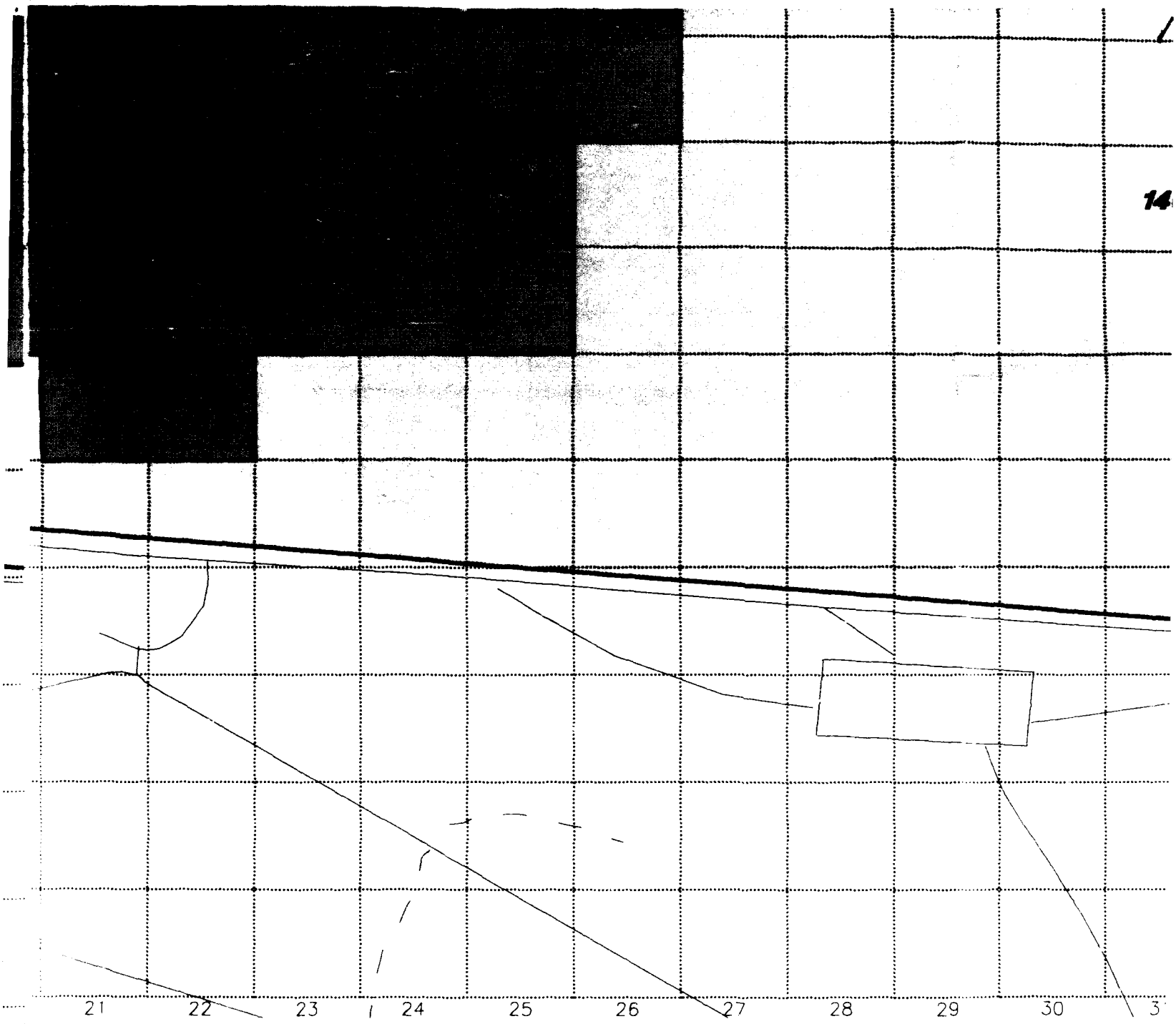
Fort George C. Meade
Tipton Air Field

Odenton **Maryland**

Environmental Resources Management, Inc.

Exton, East Swedesford 19341 (215) 524-3500

ERM



Maryland

nt, Inc.

ERM

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PROJECT MANAGER	
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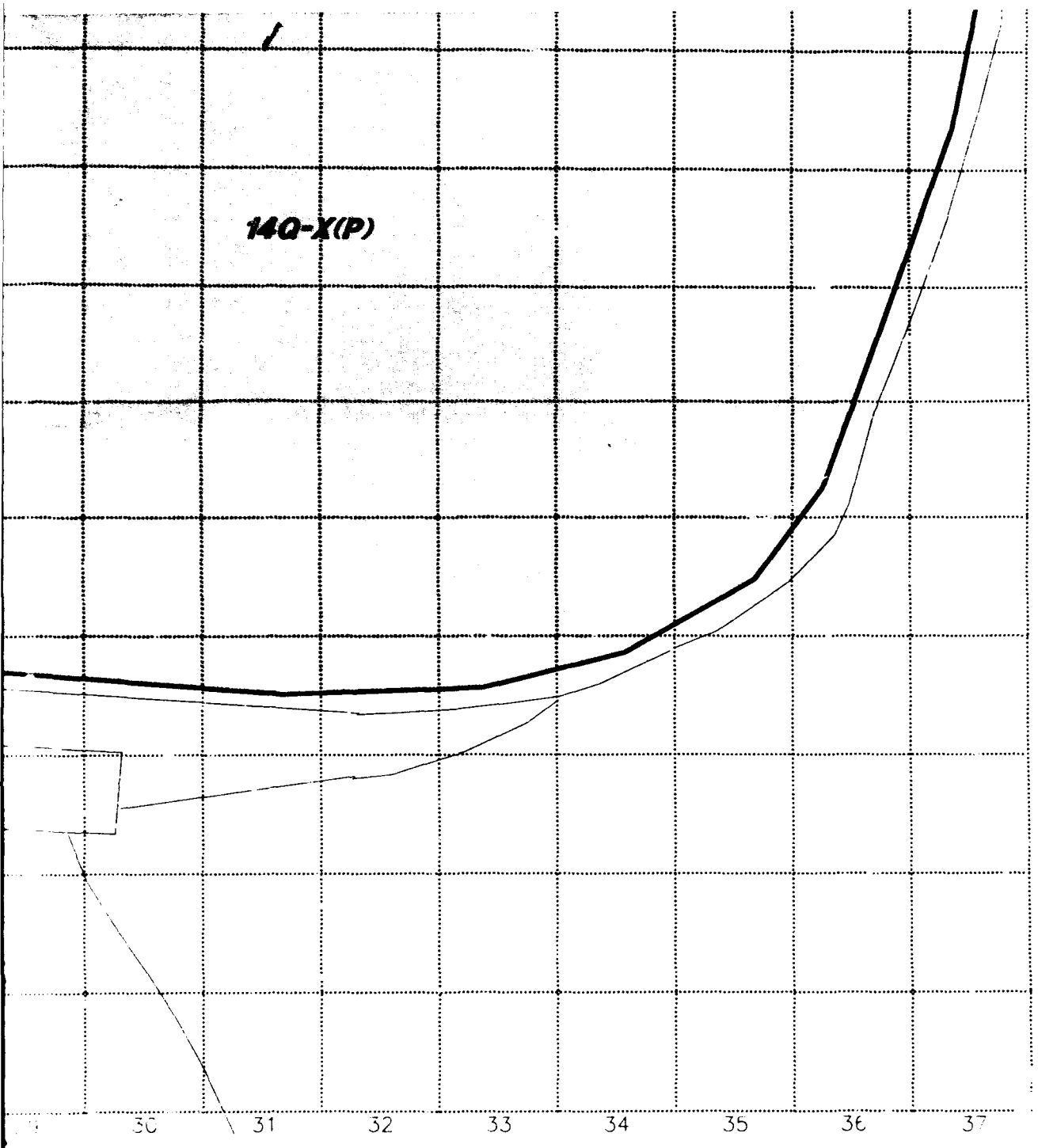
APPROVED	

CERFA (

DRAWN C. Pomante/CMP

SCALE 1" = 250'



CERFA Category and Designation Map

Figure 5.1-1

Pomante/CMP	11.04.93/04.06.94		
250'	PM307.70.01/1302-1		2 2

Fort George G. Meade Previous Owners

Tract. No.	Name of Previous Owner (Transferrors)	Date of Transfer	Acreage Fee
1	Part of the original Fort George G. Meade, originally acquired by the United States of America	Prior to 1944	8,848

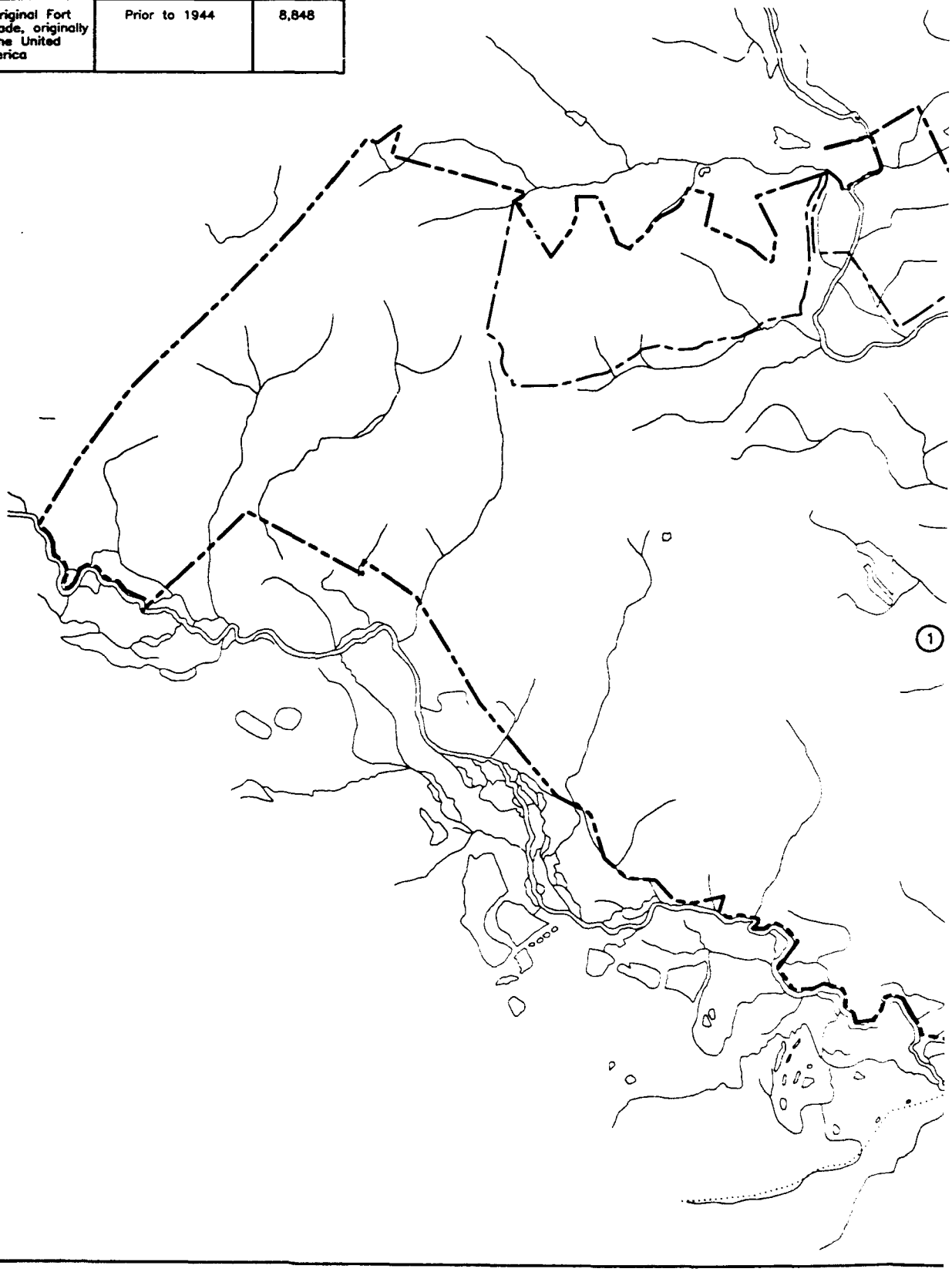
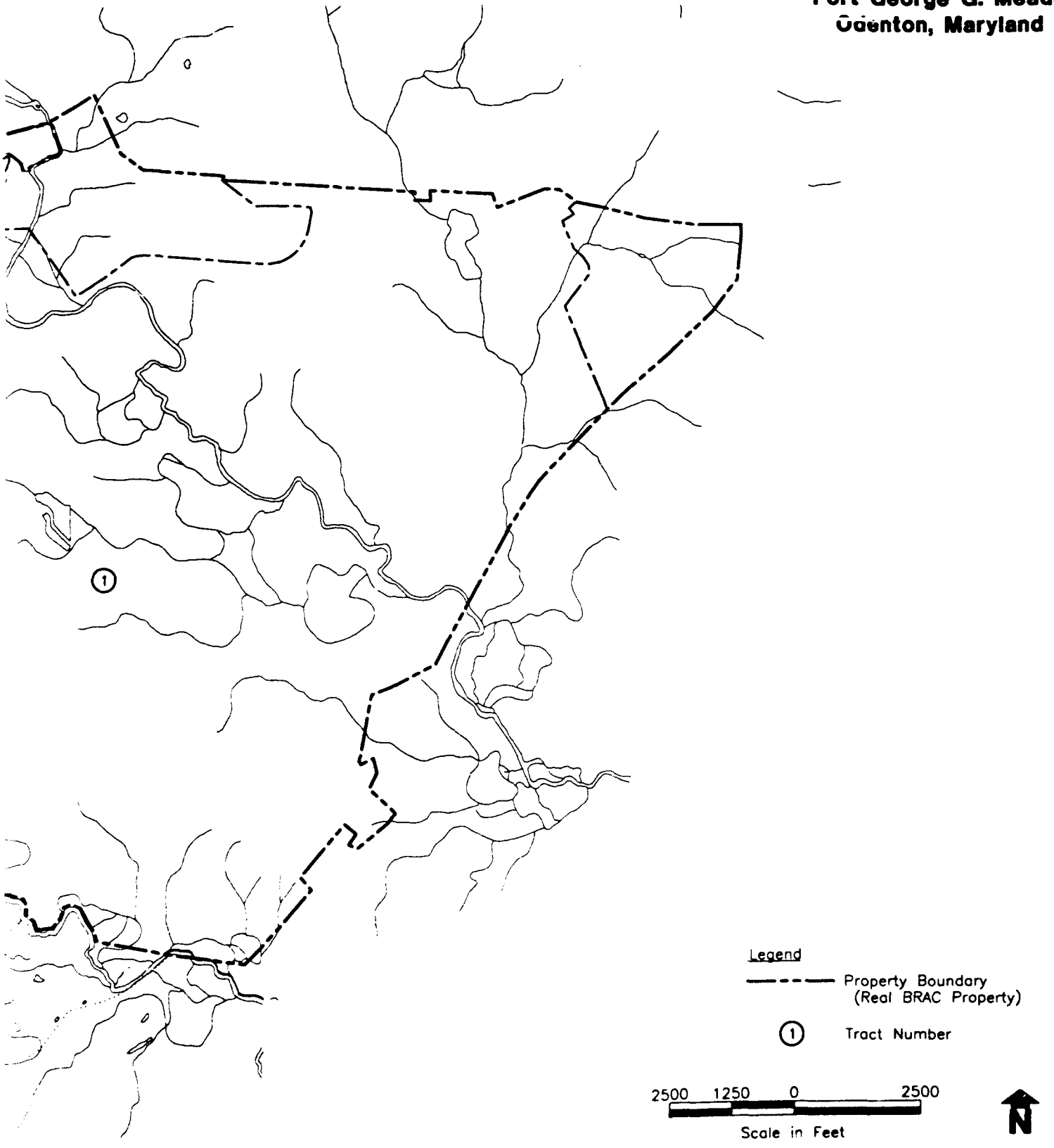
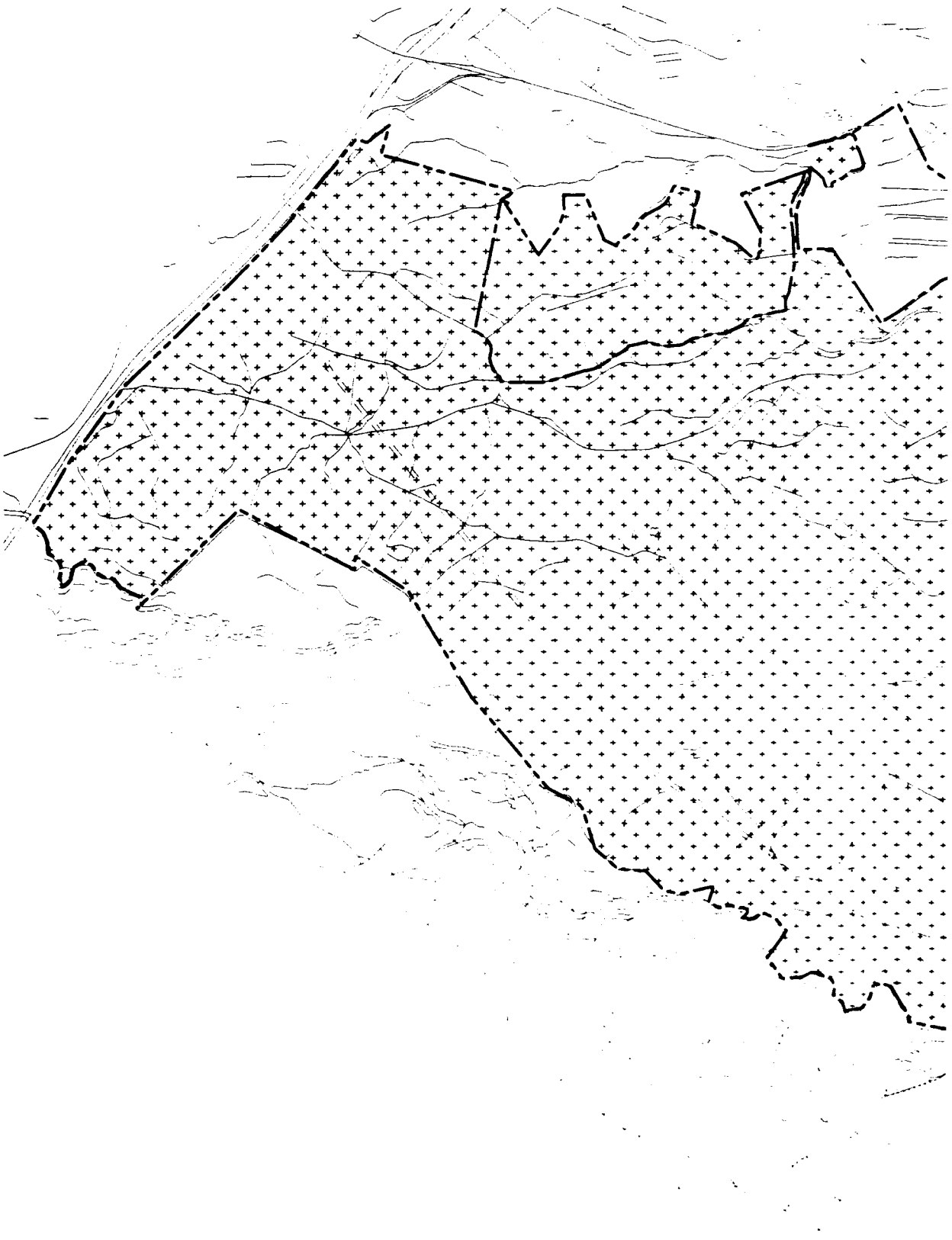


Figure 5.2-1
Tract Map
Fort George G. Meade
Odenton, Maryland

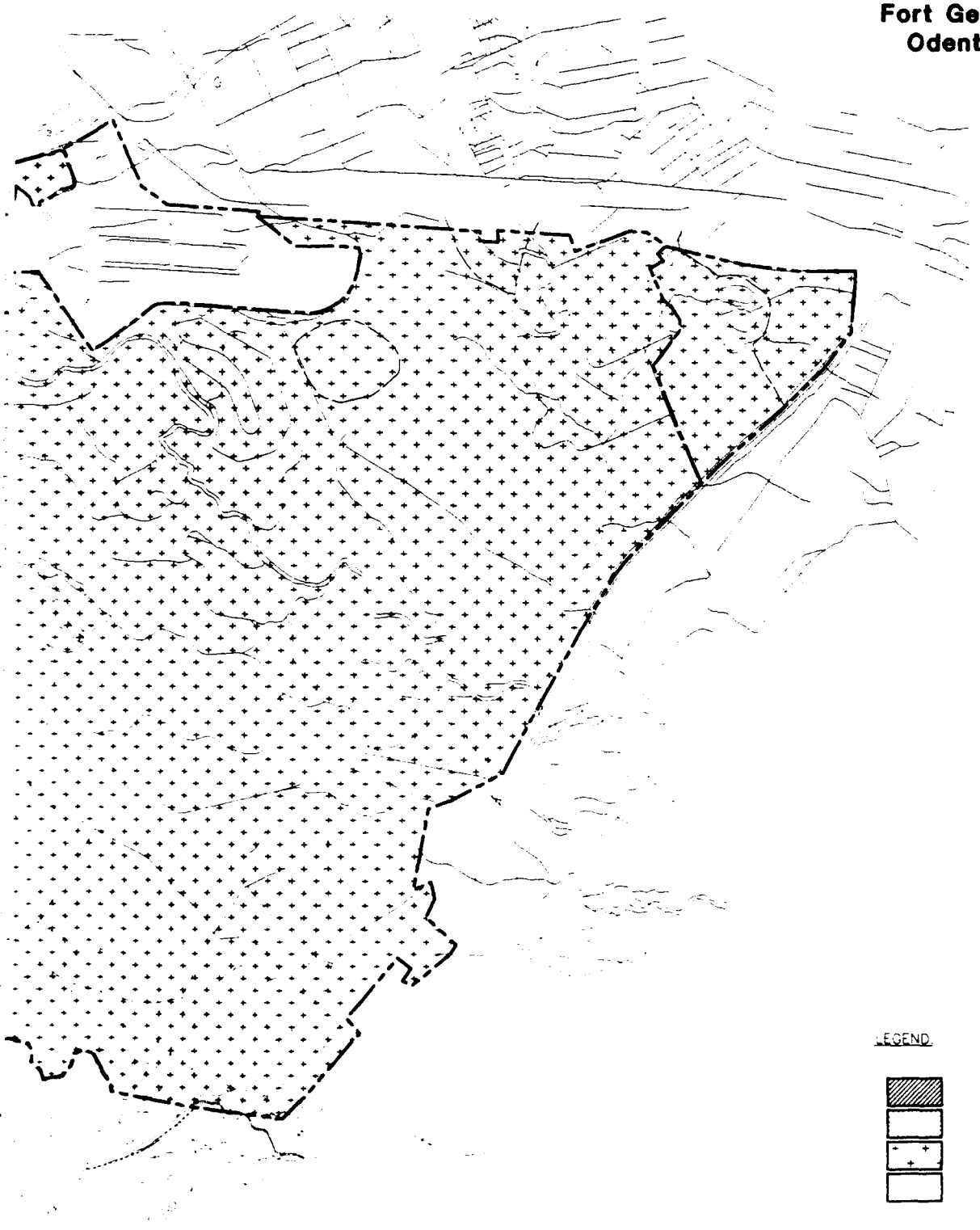


PM307 70 01/12 17 93-MKB/04 06 94-CMP/A203

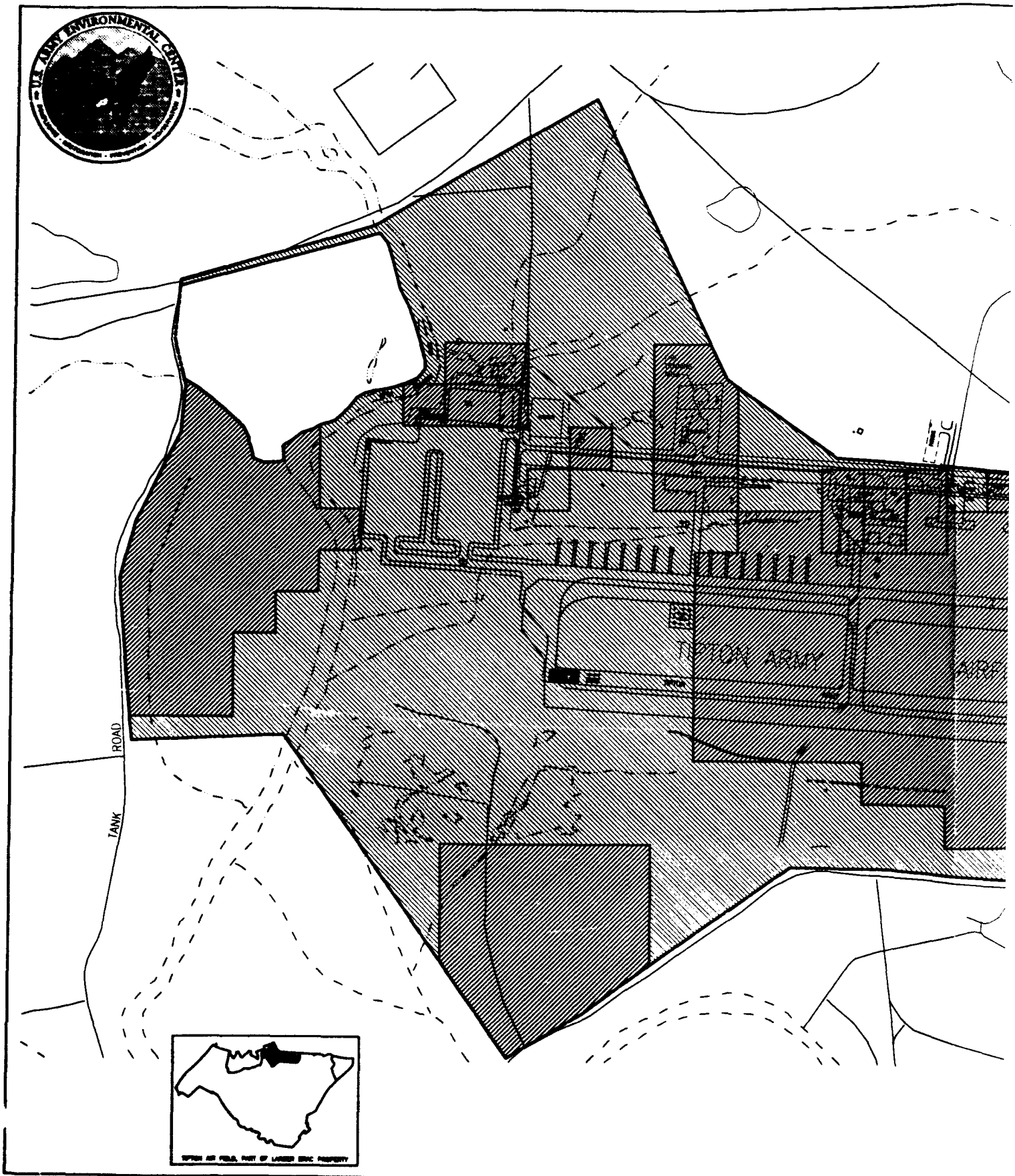


THE ERM GROUP

Figure 5.3-1
CERFA Parcel Designations
Fort George G. Meade
Odenton, Maryland

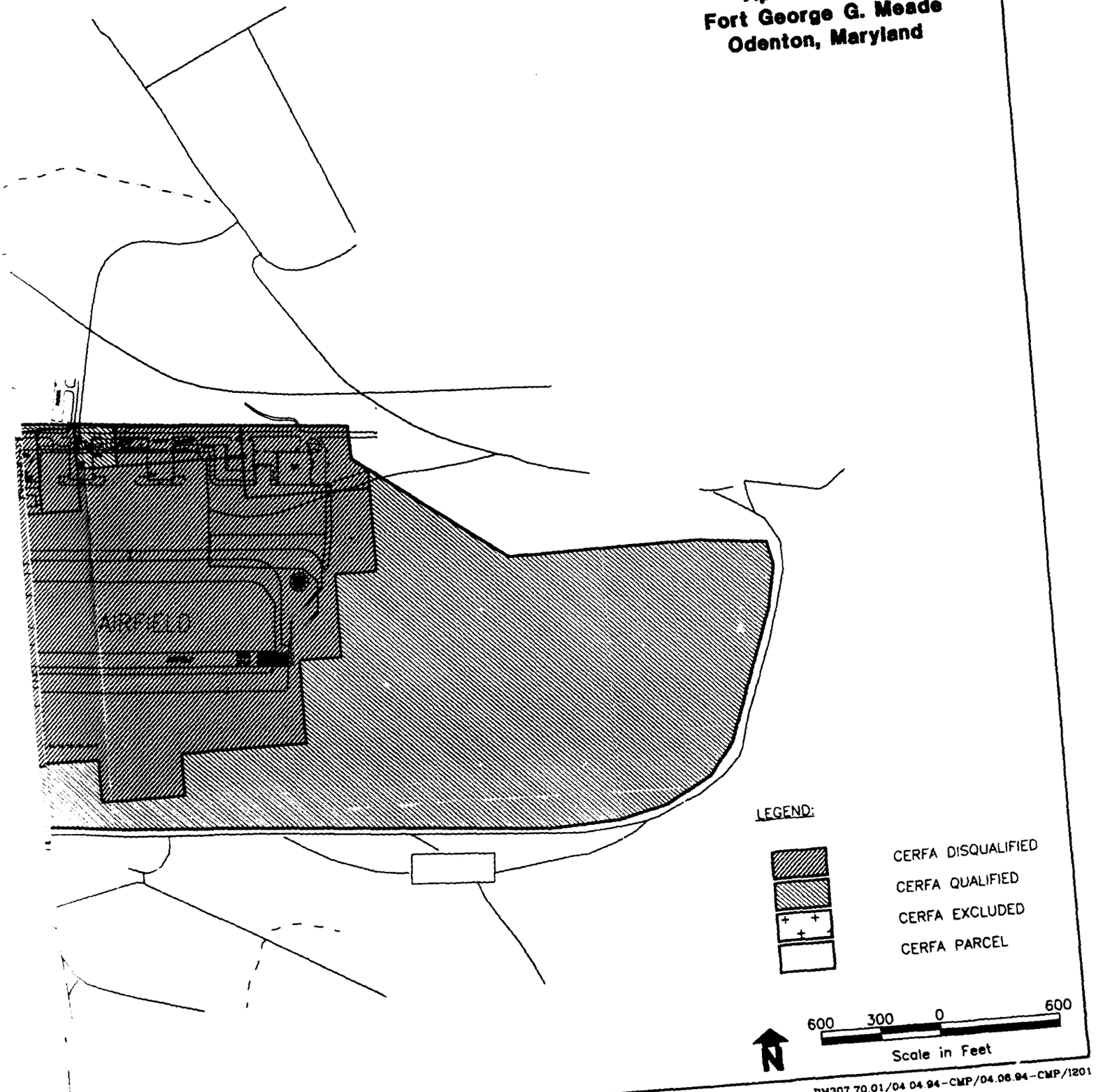


PM307-70.01 12.17.93 MKB 04.06.94 CMP A203



ERM, INC

Figure 5.3-1
CERFA Parcel Designations
Tipton Air Field
Fort George G. Meade
Odenton, Maryland



PM307.70.01/04 04.94-CMP/04.06.94-CMP/1201

MARYLAND DEPARTMENT OF THE ENVIRONMENT
2500 Broening Highway • Baltimore, Maryland 21224
(410) 631-3000

William Donald Schaefer
Governor

David A.C. Carroll
Secretary

March 23, 1994

PU 3-24-94

Lieutenant Colonel Paul E. Wojciechowski
Acting Chief, Base Closure Division
Department of the Army
United States Army Environmental Center
Aberdeen Proving Ground MD 21010-5401

RE: DRAFT, SUPPLEMENTARY PRELIMINARY ASSESSMENT COMMUNITY ENVIRONMENTAL RESPONSE FACILITATION ACT (CERFA PA), FORT GEORGE G. MEADE, MARYLAND

Dear Colonel Wojciechowski:

The Environmental Response and Restoration Program of the Waste Management Administration (WAS) has conducted a review of the subject document.

The beneficial reuse of excess Federal real property is an admirable objective, which is supported by WAS and the State of Maryland. However, our review indicates some errors and omissions in the Draft, CERFA PA document. Therefore, the State of Maryland does not concur with the draft document at this time. We await any response your office may have relative to our enclosed comments.

If you have any questions concerning our response, please contact Fred Keer, Remedial Project Manager, Federal/NPL Superfund Division, at (410) 631-3440.

Sincerely,

RW Collins

Richard W. Collins, Director
Waste Management Administration

RWC/cb

Enclosure

cc: Mr. Robert A. DeMarco
Mr. Paul Robert, U.S. Army
Ms. Kelly Koontz, U.S. Army
Mr. Scott Hill, U.S. Army
Mr. Drew Lausch, U.S. EPA

MARYLAND DEPARTMENT OF THE ENVIRONMENT
WASTE MANAGEMENT ADMINISTRATION
COMMENTS
DRAFT, SUPPLEMENTARY PRELIMINARY ASSESSMENT
COMMUNITY ENVIRONMENTAL RESPONSE
FACILITATION ACT (CERFA PA)
FORT GEORGE G. MEADE, MARYLAND

General Comments

1. Comments received dated January 28, 1994 by the Base Closure Division of the Department of the Army are attached and appended to these comments by reference.

Specific Comments

Figure 5.1-1, CERFA Category and Designation Map

1. Block 15N, 12E. According to the State of Maryland, Oil Control Program Case #91-2516-AA1, a release of petroleum was noted at this site. A "PR", petroleum release designation should be appended.

2. Block 16N, 8E. According to the State of Maryland, Oil Control Program Case #9-1437-AA1, a release of petroleum was noted at this site. A "PR", petroleum release designation should be appended.

3. Landfill (LF) #1

Blocks: 15N, 2E; 15N, 3E; 15N, 4E, 15N, 5E.
14N, 5E.
13N, 5E; 13N, 6E.
12N, 5E.

Comparison of the LF #1 as delineated in the Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated 10D-HR(P)/X(P).

4. Landfill (LF) #2

Blocks: 5N, 9E.
4N, 9E.
3N, 9E.
2N, 9E.
1N, 9E.

Comparison of the LF #2 as delineated in the Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated 11D-HR(P)/X(P).

5. Landfill (LF) #3
Blocks: 6N, 21E; 6N, 22E.

Comparison of the LF #3 as delineated in the Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated 12D-HR(P)/X(P).

6. Unnamed Landfill (ULF) NE
Blocks: 12N, 28E; 12N, 29E.
11N, 28E; 11N, 29E.

The Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated HR(P)/X(P) due to the presence of a landfill.

7. Unnamed Landfill (ULF) Fire Training Dump (FTD)
Blocks: 15N, 16E; 15N, 17E.

The Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated HR(P)/X(P) due to the presence of a landfill.

8. Unnamed Landfill (ULF) North Peak
Blocks: 23N, 11E; 23N, 12E.
22N, 9E; 22N, 10E; 22N, 11E;
22N, 12E; 22N, 13E.
21N, 7E; 21N, 8E, 22N, 9E;
21N, 10E; 21N, 11E; 21N, 12E;
21N, 13E.
20N, 7E; 21N, 8E.

The Fort George G. Meade Ordnance Survey (1400 - Acre Parcel), Draft Final Report, October 1993, indicates that the above blocks should be considered CERFA Disqualified and notated HR(P)/X(P) due to the presence of a landfill.

9. Old Fire Training Area Blocks
Blocks: 17N, 9E; 17N, 10E.

The Multi-Media Investigation Report, Fort George G. Meade (Ft. Meade), Ft. Meade, Maryland, April 1993 (EPA-330/2-93-016) indicates that an old fire training area existed at this approximate location. Therefore the listed blocks should have the "HR", hazardous materials release/disposal designation appended.

10. Unnamed Landfill (south of DPDO, north-east boundary of subject parcel)

The Fort George G. Meade Ordnance Survey (1400 - Acre Parcel),

Draft Final Report, October 1993, indicates that a landfill exists north-east of the subject parcel. This landfill and the CERFA blocks bordering this landfill should be evaluated for environmental impact.

11. The State has been informed during several Base Closure Team meetings that the parcel of land north of LF #1 and West of the Little Patuxent River (generally designated the "Ball Field") has been transferred to the Department of the Interior. Is this the case? If this is true then the blocks listed below should be deleted from the CERFA designation process.

Blocks: 20N, 4E; 20N, 5E; 20N, 6E; 20N, 7E.
19N, 2E; 19N, 3E; 19N, 4E; 19N, 5E;
19N, 6E; 19N, 7E.
18N, 2E; 18N, 3E; 18N, 4E; 18N, 5E;
18N, 6E; 18N, 7E; 18N, 8E.
17N, 2E; 17N, 3E; 17N, 4E; 17N, 5E;
17N, 6E; 17N, 7E; 17N, 8E.
16N, 3E; 16N, 4E; 16N, 5E; 16N, 6E;
16N, 7E.
15N, 4E; 15N, 5E.

12. According to incomplete, ongoing environmental studies ground water contamination may impact CERFA blocks surrounding LFs 1, 2 and 3 and blocks south of the Defense Property Disposal Office Salvage Yard and LF 4. Consideration should be given to evaluating CERFA blocks at the subject site which could be impacted by ground water contamination due to these contamination sources.

13. During discussions at the March 11, 1994, Tipton Army Airfield Base Closure Team meeting, some consideration was given to the potential for the existence of pollutants from operations along the old railroad (generally now Route 32) to the north of the CERFA parcel. Consideration should be given to evaluating blocks south of the old railroad for environmental impact and CERFA classification.