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Community Environmental Response Facilitation Act (CERFA) Report

Jefferson Proving Ground
Madison, Indiana

Prepared for:

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

Prepared by:

THE EARTH TECHNOLOGY CORPORATION
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Aberdeen Proving Ground, Maryland 21010

April 1994

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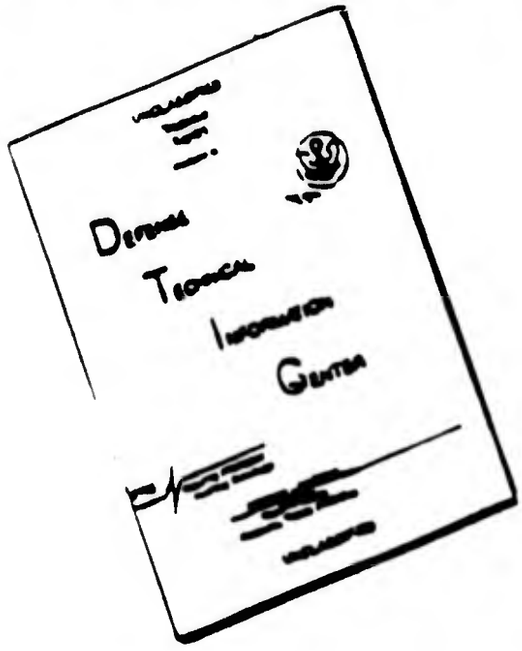

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0401.RPT

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave Blank)*	2. REPORT DATE **April 1994**	3. REPORT TYPE AND DATES COVERED **Final**

4. TITLE AND SUBTITLE **Community Environmental Response Facilitation Act (CERFA) Report, Jefferson Proving Ground, Madison, Indiana**	5. FUNDING NUMBERS **Contract No. DAAA15-91-D-0009; Delivery Order 0010**
6. AUTHOR(S) **Ethridge, M.; Kang, J.; Young, B.**	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **The Earth Technology Corporation** **1420 King Street, Ste. 600** **Alexandria, VA 22314**	8. PERFORMING ORGANIZATION REPORT NUMBER **N/A**
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) **U.S. Army Environmental Center** **Aberdeen Proving Ground, MD 21010**	10. SPONSORING/MONITORING AGENCY REPORT NUMBER **N/A**
11. SUPPLEMENTARY NOTES **Report is contained in one volume.**	
12a. DISTRIBUTION/AVAILABILITY StateMENT **Distribution Unlimited**	12b. DISTRIBUTION CODE

13.ABSTRACT *(Maximum 200 words)*

This report presents the results of the Community Environmental Response Facilitation Act (CERFA) investigation conducted by The Earth Technology Corporation (TETC) at Jefferson Proving Ground, 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 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.

The Jefferson Proving Ground is an approximately 56,156-acre site located in Jennings, Ripley, and Jefferson Counties, Indiana, approximately 7 miles north of Madison, Indiana. The installation's primary mission is to perform production and post production tests of both ammunition components and final ammunition products. Propellants, mines, cartridge cases, artillery projectiles, mortar rounds, grenades, tank ammunition, bombs, boosters, and rockets have been tested at Jefferson Proving Ground. Environmentally significant operations may be divided into activities related to munitions testing activities, hazardous substances/waste associated with facility maintenance activities, and miscellaneous solid waste such as office trash.

TETC reviewed existing investigation documents; U.S. Environmental Protection Agency (USEPA), State, and county regulatory records; environmental data bases; and title documents pertaining to Jefferson Proving Ground during this investigation. In addition, TETC conducted interviews and visual inspections of Jefferson Proving Ground 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 four categories of parcels: CERFA Parcels, CERFA Parcels with Qualifiers, CERFA Disqualified Parcels, and CERFA-Excluded Parcels, as defined by the Army.

The total BRAC property acreage at Jefferson Proving Ground is approximately 56,156 acres. Areas of the facility that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage are categorized as CERFA Parcels. TETC determined that approximately 3,941 acres of the approximately 56,156 acre property fall within the CERFA Parcel category, predominantly in the southern part of the installation.

14. SUBJECT TERMS **Jefferson Proving Ground, CERFA, Base Closure, BRAC**			15. NUMBER OF PAGES 183 16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT **Unclassified**	18. SECURITY CLASSIFICATION OF THIS PAGE **Unclassified**	19. SECURITY CLASSIFICATION OF ABSTRACT **Unclassified**	20. LIMITATION OF ABSTRACT **SAR**

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)

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LIST OF ACRONYMS & ABBREVIATIONS

BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
ERIIS	Environmental Risk Information and Imaging Services
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
pCi/L	PicoCuries per liter
POL	Petroleum, Oil, and Lubricant
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RI/FS	Remedial Investigation/Feasibililty Study
SPCC	Spill Prevention Control and Countermeasures
SWMU	Solid Waste Management Unit
TCA	Trichloroethane
TCE	Trichloroethylene
TETC	The Earth Technology Corporation
TPH	Total Petroleum Hydrocarbon
USAEC	U.S. Army Environmental Center
USATHAMA	U.S. Army Toxic and Hazardous Material Agency
USEPA	U.S. Environmental Protection Agency

EXECUTIVE SUMMARY

This report presents the results of the Community Environmental Response Facilitation Act (CERFA) investigation conducted by The Earth Technology Corporation (TETC) at Jefferson Proving Ground, 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 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.

The Jefferson Proving Ground is an approximately 56,156-acre site located in Jennings, Ripley, and Jefferson Counties, Indiana, approximately 7 miles north of Madison, Indiana. The installation's primary mission is to perform production and post production tests of both ammunition components and final ammunition products. Propellants, mines, cartridge cases, artillery projectiles, mortar rounds, grenades, tank ammunition, bombs, boosters, and rockets have been tested at Jefferson Proving Ground. Environmentally significant operations may be divided into activities related to munitions testing activities, hazardous substances/waste associated with facility maintenance activities, and miscellaneous solid waste such as office trash.

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Information in this CERFA Report was current as of April 1994. This information was used to divide the installation into four categories of parcels: CERFA Parcels, CERFA Parcels with Qualifiers, CERFA Disqualified Parcels, and CERFA-Excluded Parcels, as defined by the Army.

The total BRAC property acreage at Jefferson Proving Ground is approximately 56,156 acres. Areas of the facility that have no history of CERCLA-regulated hazardous substance or petroleum product release, disposal, or storage are categorized as CERFA Parcels. TETC determined that approximately 3,941 acres of the approximately 56,156 acre property fall within the CERFA Parcel category, predominantly in the south-central part of the installation.

Areas of the facility that had no evidence of such release, disposal, or storage, but contained hazards not regulated by CERCLA (such as asbestos, radon gas, lead-based paint, unexploded ordnance, radionuclides, or not in-use equipment containing polychlorinated biphenyl) were categorized as CERFA Parcels with Qualifiers. Approximately 49,845 acres of the facility were identified as CERFA Parcels with Qualifiers.

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. Two thousand three hundred and seventy acres of installation property are identified as CERFA Disqualified Parcels.

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. None of the property was identified as CERFA-Excluded Parcels.

The primary objective of CERFA is satisfied by the identification of CERFA Parcels and CERFA Parcels with Qualifiers. 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), Jefferson Proving Ground, Region V USEPA, and the Indiana Department of Environmental Management. Comments from these organizations have been incorporated into this final report. Any unresolved issues from the regulatory agencies are identified.

This report contains maps that summarize the categorization of Jefferson Proving Ground 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, nor does it address natural resource considerations such as the threat to plant or animal life.

1.0 INTRODUCTION

This Community Environmental Response Facilitation Act (CERFA) Report for Jefferson Proving Ground was prepared by The Earth Technology Corporation (TETC) under Contract No. DAAA15-91-0009, Delivery Order 0010, for the U.S. Army Environmental Center (USAEC), Base Closure Division. The purpose and scope of the work are presented in this section. The sources used to conduct the investigations for the CERFA report are identified in Section 2. Background information for the Jefferson Proving Ground is provided in Section 3. CERFA investigation results are discussed in Section 4. Finally, Section 5 includes maps that provide Jefferson Proving Ground boundaries, land transfers, and delineate the parcels of the facility according to CERFA Parcel identification requirements.

1.1 PURPOSE AND SCOPE

Public Laws 100-526 and 101-510 designated more than 100 Army facilities for closure and realignment. As a result, it became necessary to expedite the environmental investigation and cleanup process prior to the release and reuse of Army Base Realignment and Closure (BRAC) property. The BRAC environmental restoration program was established with the first round of base closures (BRAC 88) and continued with subsequent rounds (BRAC 91, BRAC 93, etc.). The BRAC program is similar to the Army's Installation Restoration Program (IRP), but 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 IRP program.

The first step in the BRAC environmental restoration program was the preparation of Enhanced Preliminary Assessments (PAs). The term "enhanced" is used to distinguish these assessments from previous IRP PAs: the BRAC PAs are conducted from a property transfer perspective and evaluate substances (e.g., asbestos, radon, PCBs) that are not included in the previous PAs. 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 Jefferson Proving Ground in March 1990 by Ebasco Environmental, under the direction of USAEC (formerly the U.S. Army Toxic and Hazardous Material Agency [USATHAMA]).

In October 1992, Public Law 102-426, CERFA, amended Section 120(h) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and established new requirements for contamination assessment and regulatory agency notification/concurrence for Federal facility closures. CERFA requires the Federal Government to identify property where no CERCLA-regulated hazardous substances or petroleum products were stored, released, or disposed before ending activities on real property owned. The government's assessment of a facility as uncontaminated must be concurred with by the appropriate regulatory agencies (U.S. Environmental Protection Agency on National Priority List bases and the State on non-National Priority List 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 objective of the CERFA is that Federal agencies expeditiously identify real property that can be rapidly reused and redeveloped. CERFA does not mandate that the Army transfer real property so identified.

TETC was awarded the task to identify real property where no CERCLA-regulated hazardous substances or petroleum products were stored, released, or disposed at 12 BRAC 88 sites. This report presents the findings of this CERFA response for Jefferson Proving Ground, Madison, Indiana.

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, and lead-based paint applied to building material surfaces, but which have since been fully remediated or removed.

- ★ CERFA Parcel with Qualifier(s) -- 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 derivatives; 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, 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:

- ★ P = CERFA Parcel
- ★ Q = CERFA Parcel with Qualifier(s)
- ★ D = CERFA Disqualified Parcel
- ★ E = CERFA-Excluded Parcel

Each parcel has been given a unique number to which the appropriate labels are attached. For example, 4P indicates that the fourth parcel is in the CERFA Parcel category.

The presence of hazards not regulated by CERCLA places a parcel in the CERFA Parcel with Qualifier category. This is indicated by the following labels:

- ★ A = Asbestos
- ★ L = Lead-based Paint
- ★ P = PCB
- ★ R = Radon
- ★ X = Unexploded Ordnance
- ★ RD = Radionuclides

For example, the designation 5Q-L indicates that the fifth parcel is in the CERFA Parcel with Qualifiers category because of the presence of lead-based paint. Similarly, parcel label 8Q-X/R indicates that the 8th parcel is in the CERFA Parcel with Qualifiers category because of the presence of unexploded ordnance and radon.

The following designations are used to indicate the type of contamination or storage present in a parcel that has been placed in the CERFA Disqualified category:

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

For example, 12D-HR indicates that the twelfth parcel is in the CERFA Disqualified category because of evidence of hazardous substance release.

For all parcels, "(P)" is used to indicate that the presence of a contaminant is possible, but that data are unavailable for verification. For example, 9Q-A(P) indicates that the ninth parcel is in the CERFA Parcel with Qualifiers category because of the possible presence (unverified) of asbestos-containing material. Similarly, parcel label 15D-HR/PS/A(P) indicates that the 15th

parcel is classified as a CERFA Disqualified on the basis of evidence of a hazardous substance release and petroleum storage. It may also have asbestos-containing material.

1.3 GEOGRAPHICAL AND ENVIRONMENTAL SETTING

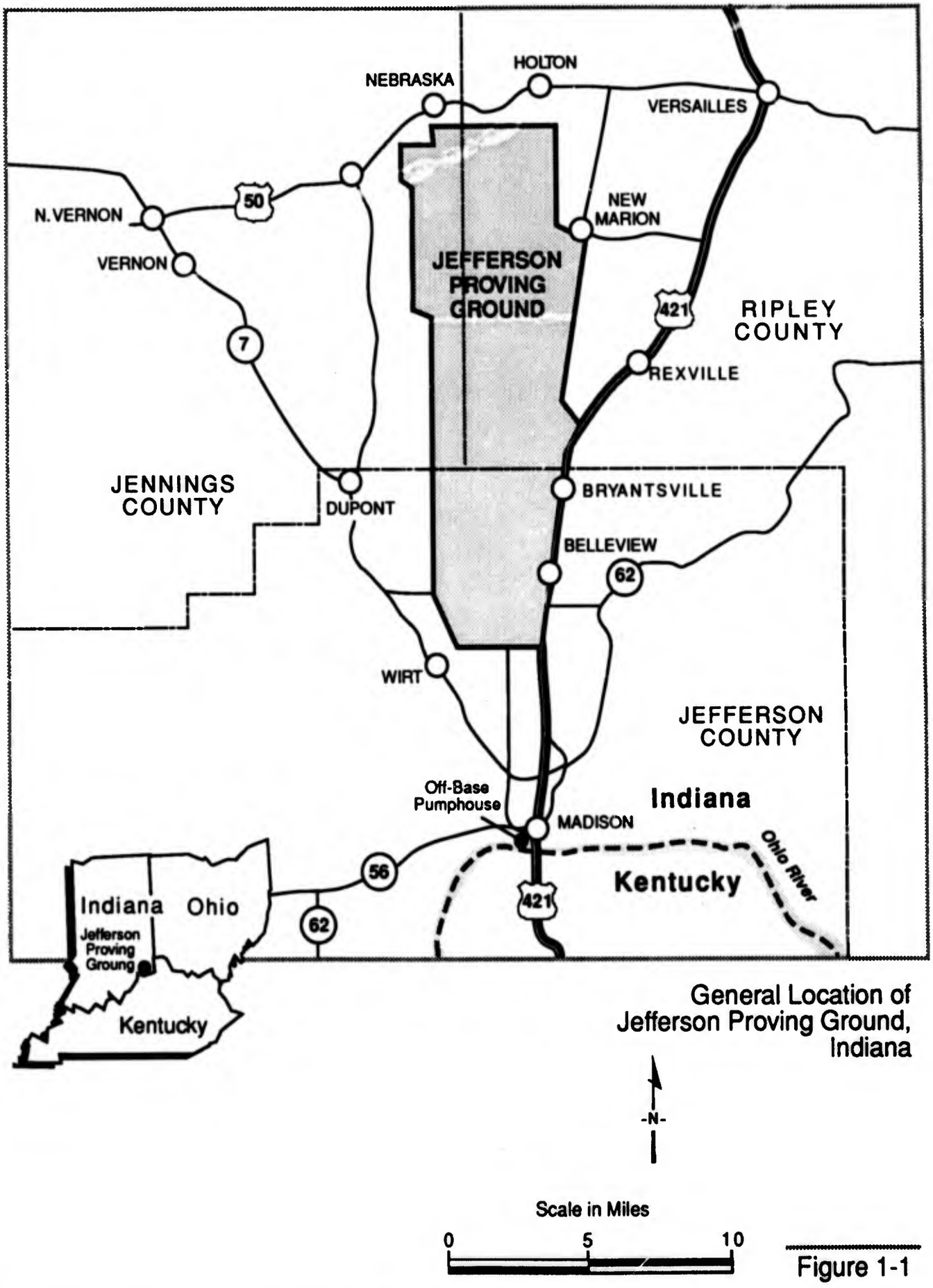
Jefferson Proving Ground occupies approximately 56,156 acres in parts of Jennings, Ripley, and Jefferson Counties in southeastern Indiana, approximately 7 miles north of the city of Madison. Figure 1-1 presents the location of the installation. The facility is approximately 85 miles southeast of Indianapolis, Indiana, and 45 miles northeast of Louisville, Kentucky. The installation is rectangular in shape, measuring approximately 17.2 miles from north to south and 5 miles from east to west. The approximate coordinates of the developed portion of the facility are 38°50'N, 85°24'W. Jefferson Proving Ground property also includes a 1.2-acre parcel on which an off-base pumphouse is located; formerly, it had been used to supply water to the facility.

1.3.1 Physical Setting

The facility is divided into a northern impact area and a southern cantonment area, separated by a firing line consisting of 268 gun positions for the testing of ordnance. This line runs east-west across the width of the facility. The northern area consists of 51,000 acres of undeveloped and heavily wooded land. Numerous, discrete areas in this part of the facility have been cleared and are targeted during certain munition tests. The southern cantonment area (see Figure 1-2) houses the support facilities used for administration, ammunition assembly and testing, vehicles and weapons maintenance, and residential housing. Most of these buildings are situated along a 1-mile-wide strip just south of the Firing Line Road (also known as Main Front Road). An abandoned airport with five runways and a hangar building is located in the southwest corner of the facility. Jefferson Proving Ground contains 379 buildings, 182 miles of roads, and 48 miles of boundary fenceline.

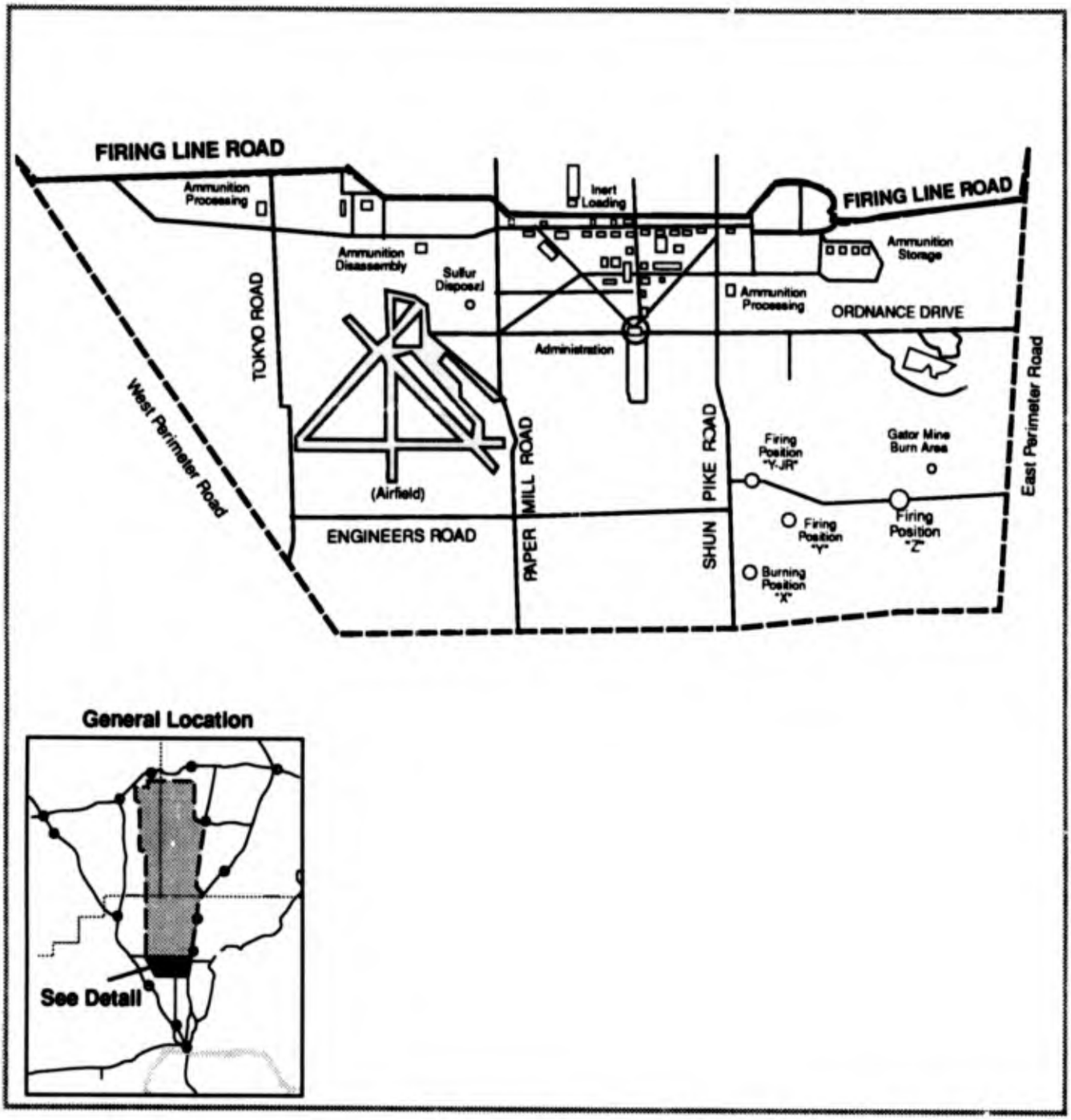
The installation is owned by the Department of Defense and is managed and operated by the U.S. Army under the U.S. Army Test and Evaluation Command. Prior to December 1941, when the Government purchased the Jefferson Proving Ground property, the land was primarily farmland and forested. To create Jefferson Proving Ground, the government purchased 423 farms, in addition to several schools, cemeteries, churches, stores, and mills that were located on the property. The surrounding land is primarily agricultural or rural residential. Several small towns border Jefferson Proving Ground along the eastern, northern, and southern boundaries. According to 1989 State records approximately 78,000 people reside in the three counties on which Jefferson Proving Ground is located. The facility currently employs nearly 250 military and civilian personnel.

The topography of the region slopes gently from east to west at an average rate of 15 to 20 feet per mile. Elevations range from 900 feet above mean sea level at the eastern boundary to 750 feet above mean sea level at the west. The topography of the southern two-thirds of the facility is flat, while that of the northern third is rolling. The topography in the northern portion of the site is influenced by several incised stream valleys, where the streams have cut into the underlying bedrock units, forming steeply sloping relief features.



General Location of Jefferson Proving Ground, Indiana

Figure 1-1



General Location of
Area South of Firing Line
Jefferson Proving Ground
Madison, Indiana

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Scale in Miles

0 .25 .5

Figure 1-2

The area climate is classified as "continental," which is characterized by a broad range of average temperatures and extremes between winter and summer. The average temperature in winter is 35 degrees Fahrenheit and 76 degrees Fahrenheit during the summer. Annual precipitation in the area averages about 43 inches and is evenly distributed throughout the year. The prevailing winds are from the south with average windspeeds of 10 miles per hour.

1.3.2 Surface Water

The facility lies within the White River Basin, and eight major drainageways located within Jefferson Proving Ground flow within this basin from northeast to southwest (see Figure 1-3). These drainageways are: Otter Creek, Little Otter Creek, Graham Creek, Little Graham Creek, Big Creek, Marble Creek, Middle Fork Creek, and Harberts Creek. Each of these creeks has a well-developed drainage network consisting of several tributaries. Surface runoff in the northern portion of the facility is controlled by these natural drainage networks. Surface drainage along roads in the northern portion of Jefferson Proving Ground is controlled by drainage ditches located adjacent to the roads. The ditches follow natural contours and discharge into the natural drainage areas.

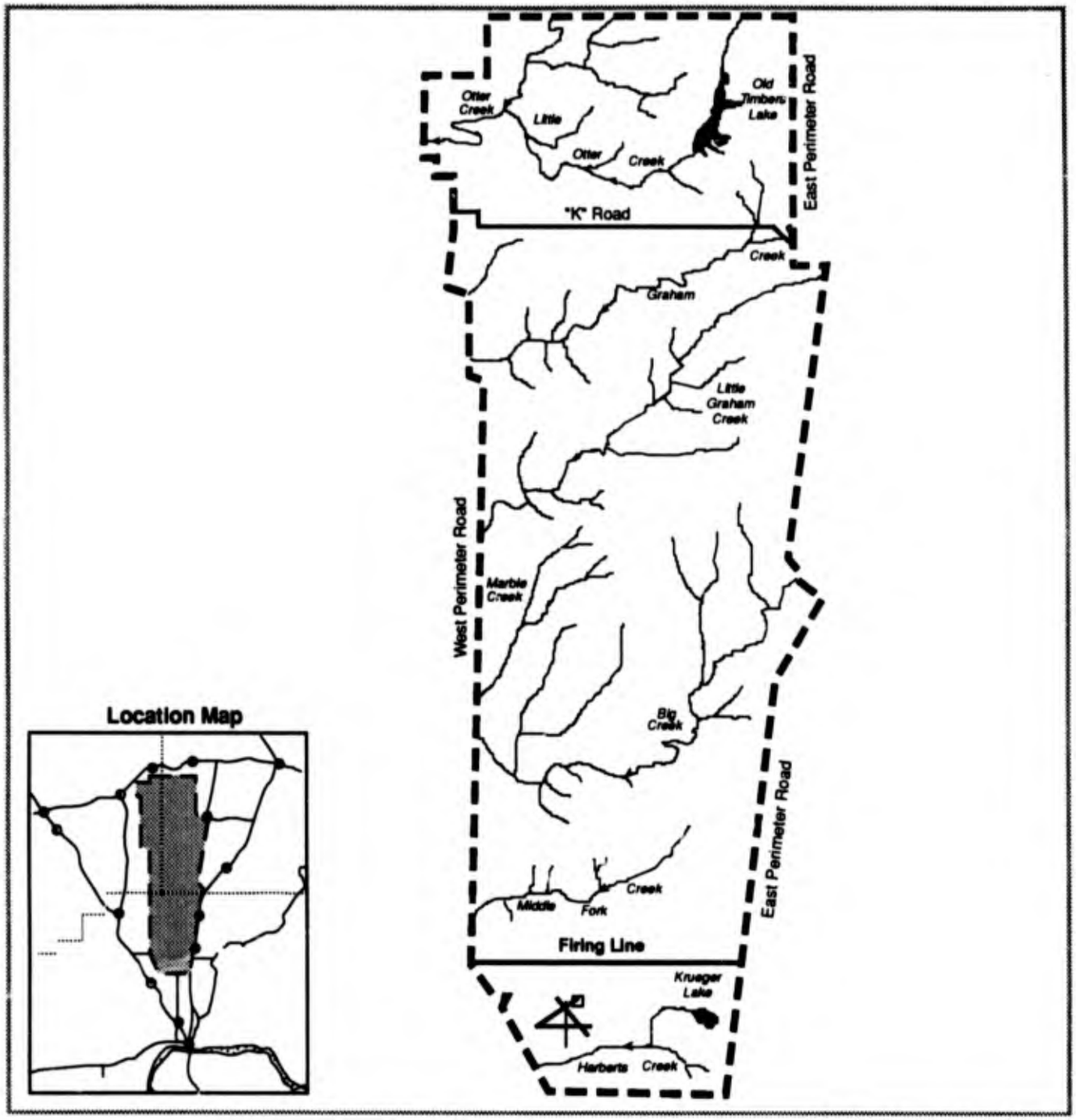
Surface drainage south of the Firing Line Road is managed by the storm sewer drainage system. In this system, surface runoff drains into surface inlets, through underground pipes, and into ditches. The ditches are located throughout the facility and generally flow to the southwest, ultimately discharging into surface streams.

Several ponds, lakes, and impoundments are located throughout the facility. Larger lakes include Krueger Lake, in the southeastern portion of the facility, and Old Timbers Lake, which is located in the northeastern portion of the facility.

Based on the National Wetlands Inventory Maps and the Gap Analysis performed by Indiana State University, the most current estimate of wetlands acreage amounts to 6,470 acres.

1.3.3 Geology and Soils

The subsurface geology at Jefferson Proving Ground generally consists of unconsolidated glacial deposits overlying carbonate bedrock units from 0 to 50 feet below ground surface. The unconsolidated material consists of a thin veneer of silty loam soil overlying Illinoisan-age glacial till deposits. The soils consist primarily of well-drained to poorly-drained silt loams. The till deposits are composed predominantly of silts and clays with minor amounts of gravel and rock fragments. The tills are generally not present in the incised river valleys where bedrock has been breached. Some clayey-silt is present in the low-lying areas of some of the larger rivers and creeks.



Surface Drainage, Jefferson Proving Ground, Indiana

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Figure 1-3

The carbonate bedrock units consist of thick sequences of interbedded limestones (or dolomites) and shales. The units range in age from Ordovician (oldest) to Silurian or Devonian (youngest). Silurian-age limestones and dolomites directly underlie the glacial deposits throughout most of the facility. The compositions of these units are variable, ranging from compact crystalline limestone to fine-grained, porous limestone and dolomite and dolomitic limestone. These range in thickness from 60 to 120 feet, and unconformably overlie Ordovician-age units.

Ordovician-age units consist of limestones, dolomites, and shales. These units are exposed in the incised valleys formed by Otter Creek and Graham Creek in the northern portion of the facility. The compositions of the Ordovician-age units range from fine-grained limestones to interbedded shales and limestones.

Devonian-age shale-dolomite underlies the glacial till only in a small area near the southwestern corner of the facility.

1.3.4 Hydrogeology

The Silurian or Devonian-age bedrock units are aquifers near Jefferson Proving Ground. However, these units have been described as poor sources of groundwater; yields from the aquifers have been reported at less than 25 to 50 gallons per minute (Appendix A, Reference 28). The glacial till is not utilized as a drinking water aquifer at the facility because of the many silt and clay-sized particles in the deposits. The Enhanced PA reported that a perched water table also exists within 1-foot of the surface at the facility from December to April. The perched water table is located within the silty-loam soils.

During the site sampling and analysis program, hydrogeological information was obtained (Appendix A, Reference 6) for Gate 19 Landfill (just to the north of the firing line) , where 21 monitoring wells have been installed. In the area surrounding Building 279, three wells have also been installed. Depth-to-groundwater measurements were collected from each of the wells. Near the Gate 19 Landfill (Jefferson Proving Ground-15), measurements ranged from approximately 7 to 16 feet below ground surface. On the basis of these measurements, groundwater contour maps were constructed and indicated groundwater flow toward the west-northwest. In the vicinity of Building 279, groundwater was encountered between 6 and 8 feet below ground surface. Flow was determined to be toward the south-southeast.

The unconsolidated deposits, described in Part 1.3.3 above, have been reported to be as thin as 4 feet in the southwestern portion of the facility and 7 feet in the southeastern portion of the facility (Appendix A, Reference 12). In the southern portion of the facility, groundwater was only 4 to 6 feet below ground surface.

2.0 SCOPE OF INVESTIGATION

The scope of this CERFA investigation followed the protocol established in Public Law 102-426 supplemented by Department of Defense Policy on the Implementation of CERFA dated May 19, 1993. This section describes the sources that were used during the CERFA investigation conducted for Jefferson Proving Ground. Relevant information available from previous environmental studies are presented. Findings from Federal, State, and local government regulatory records, installation documents, aerial photographs, and personnel interviews are addressed. The visual inspection methods used during the site survey are identified.

2.1 EXISTING DOCUMENTS

Existing investigation documents and aerial photographs were reviewed to evaluate pertinent information that could be used as part of the CERFA report. These documents are summarized below and listed in Appendix A, "Reference List for Jefferson Proving Ground." Primary source documents containing CERFA criteria information include the Enhanced PA which is summarized in Table 2-1.

2.1.1 Installation Assessment Relook Program, Working Document (September 1989)

As a supplement to the USEPA's original Environmental Photographic Interpretation Center photographs, a reassessment of possible CERCLA problems was conducted under the Installation Assessment Relook Program. Eighteen sites were rephotographed and analyzed in September 1989. Many of these sites had previously been identified in other environmental reviews of Jefferson Proving Ground.

2.1.2 Enhanced Preliminary Assessment (March 1990)

The USATHAMA conducted an Enhanced PA to assess the environmental quality of Jefferson Proving Ground in March 1990. Information contained in the Enhanced PA was assessed through visual inspection of the facility; review of available information from current property owners and from related regulatory agency files at the local, State, and Federal levels; and interviews with current and former personnel associated with the facility.

The Enhanced PA identified 53 areas requiring further evaluation: 36 solid waste management units (SWMUs) and 17 areas of concern. Areas requiring environmental evaluation resulted from the following conditions:

- ★ Ordnance disposal, burning, or test areas
- ★ Landfills, burning areas, or disposal sites
- ★ Hazardous waste and petroleum, oil, and lubricant (POL) storage areas
- ★ Facility support activities (photolab, wastewater treatment plant)
- ★ Documented and suspected releases (to air, soil, groundwater, and surface water)
- ★ Asbestos

TABLE 2-1
SUMMARY OF AREAS REQUIRING ENVIRONMENTAL EVALUATION IDENTIFIED IN THE ENHANCED PRELIMINARY ASSESSMENT, JEFFERSON PROVING GROUND, MADISON, INDIANA

CERFA Label	Enhanced Preliminary Assessment (1990)
Asbestos	Asbestos-containing materials are present in various construction materials of several buildings; an on-going asbestos removal program is in place; recommend removal and disposal or encapsulation of any asbestos material identified during an asbestos survey as presenting a threat to human health.
Lead-based paint	Several of the buildings at Jefferson Proving Ground were reportedly painted with lead paint; recommended that lead paint survey of residential buildings be conducted.
Polychlorinated biphenyls	252 transformers are located at Jefferson Proving Ground; analysis indicated that 7 of the transformers contained PCBs >500 parts per million; upcoming change of the electrical distribution system will require the replacement of all electrical devices, including transformers, capacitors, and breakers that contain PCBs; recommend removal and disposal of PCB transformers; wipe sample floor stains in transformer storage area; a waste pile used for the open storage of PCB-contaminated wood debris is located at the airport.
Radon	This gas can potentially exist in any of the buildings at Jefferson Proving Ground; recommend radon gas survey at each Priority 1 building (residential, hospital, and day care).
Unexploded ordnance	The area south of the firing line potentially contains significant amounts of unexploded ordnance; contamination can most likely be attributed to the rocket, mine, and armor plate testing and ammunition dumping during the World War II era; the area north of the firing line contains significant amounts of unexploded ordnance; approximately 8,600 acres have been utilized as designated impact or target areas; approximately 50,000 acres are suspected of being contaminated with unexploded ordnance; recommend location of ordnance materials, soil, surface, and ground water sampling.
Radionuclides	More than 60,000 kilograms of low-level radioactive depleted uranium penetrators were fired on a 2-square mile area; recommend soil sampling and continued surface and ground water sampling.
Petroleum release/disposal	Unlined open pit used for fire training purposes; wood debris is soaked with used diesel fuel and petroleum, oil, and lubricant products and ignited; soil sampling is recommended; underground storage tanks are potential release sources.

TABLE 2-1
SUMMARY OF AREAS REQUIRING ENVIRONMENTAL EVALUATION IDENTIFIED IN THE ENHANCED PRELIMINARY ASSESSMENT, JEFFERSON PROVING GROUND, MADISON, INDIANA

Continued

CERFA Label	Enhanced Preliminary Assessment (1990)
Petroleum storage	There are 54 underground storage tanks located at various sites; the tanks were installed between 1941 and 1985; the tanks vary in size (300 and 25,000 gallons) and construction (steel to coated steel) contents include No. 2 fuel and diesel oil, leaded and unleaded gasoline, kerosene and white gas; various buildings also store oil-filled drums prior to removal by Defense Reutilization and Marketing Office.
Hazardous substance release/disposal	Many sites are known to have received hazardous wastes for disposal on-site, including ordnance components and solvents; explosive components have likely leaked from cracked unexploded ordnance.
Hazardous substance storage/disposal	Various buildings/areas used to store hazardous materials prior to removal by Defense Reutilization and Marketing Office.

Key: CERFA = Community Environmental Response Facilitation Act

- ★ Lead-based paint
- ★ Radon
- ★ Ground and surface water
- ★ PCBs (releases, storage, active transformers)

The major conclusions and recommendations[1] of the Enhanced PA were as follows:

- ★ In theory, unexploded ordnance may exist anywhere north or south of the firing line at Jefferson Proving Ground, as well as the perimeter areas that surround the central building structures. The Enhanced PA recommended that no part of Jefferson Proving Ground be released without a sweep and removal of unexploded ordnance.

- ★ Because soil and water contamination may have occurred as a result of unexploded ordnance and other munitions-related items, soils, surface water, and groundwater should be monitored for the presence of ordnance-related contaminants.

- ★ Further investigation of numerous locations at the installation was needed to determine whether contaminants were released to the environment. These included many of the areas requiring environmental evaluations (discussed in Section 4 of this document).

- ★ Additional survey was recommended to determine whether asbestos, PCBs, lead paint, and radon gas are present.

2.1.3 Master Environmental Plan (November 1990)

This plan, prepared in November 1990, reports on the existing conditions of 46 SWMUs and areas requiring environmental evaluations. It details specific sampling requirements needed to determine the extent and magnitude of the contamination for the sites identified in the Enhanced PA as warranting additional study.

2.1.4 Base Closure Final Environmental Impact Statement (September 1991)

The purpose of the base closure Environmental Impact Statement (prepared in 1991) was to determine and address the environmental impacts of the closure of the facility and the relocation of its mission of ammunition acceptance testing to Yuma Proving Ground, Yuma, Arizona. The consequences of the closure, relocation, and further use of the facility were evaluated. The principal impacts were loss of 14 military and 407 civilian personnel positions at Jefferson Proving Ground, and the construction of additional facilities and gun emplacements at Kofa Range at Yuma.

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[1]These recommendations were based on limited information and do not accurately reflect the Army's current opinion with respect to sampling and property transfer. Current unexploded ordnance status is discussed in Chapter 4.

2.1.5 Draft Resource Conservation and Recovery Act Facility Assessment (February 1992)

This document, drafted in February 1992, presents the results of the Visual Site Inspection and the Preliminary Review of all available relevant documents. It identifies 86 SWMUs and areas of concerns, and includes functional and physical descriptions of 67 of the SWMUs and areas of concerns, their dates (or presumed dates) of operation, waste management practices and release controls. The remaining 19 SWMUs were identified during the Preliminary Review/Visual Site Inspection but not described since they existed under conditions where the release potential was extremely low.

2.1.6 Site Specific Sampling and Analysis Program Results (August 1992)

This report, prepared in August 1992, presents the results of sampling and laboratory analyses completed at the Gate 19 Landfill, Depleted Uranium Impact Area, 9 stream entrance points, and 18 stream exit points on the Jefferson Proving Ground facility boundary. The stated purpose of this document was to determine whether past activities at these locations caused contamination in the facility's groundwater, streamwater, or stream sediments.

2.1.7 Spill Prevention and Countermeasure Plan (November 1992)

The plan was developed in November 1992 to establish prevention and control measures for potential spill sites at Jefferson Proving Ground. Facilities storing POL, hazardous materials, and pesticides are listed and described. An Installation Spill Contingency Plan was separately prepared during December 1992, which includes the Spill Prevention Control and Countermeasures (SPCC) plan and hazardous waste management provisions.

2.1.8 Remedial Investigation Work Plans (1992-1993)

The U.S. Army initiated a Remedial Investigation/Feasibility Study (RI/FS) of the cantonment area south of the main firing line. Because of the potential presence of unexploded ordnance and ongoing test firing in the northern impact areas, the initiation of detailed environmental studies of the area north of the firing line has been deferred.

The purpose of the RI/FS will be to define the nature and extent of contamination south of the firing line. Several Sampling and Technical Work Plans were prepared in 1992 and 1993.

As part of the activities associated with the RI/FS, field screening surveys were performed at 24 sites during March, April, and May 1993. The field screening program involved only the detection of volatile organic compounds. Based on the information collected, a determination was made on the need for and direction of additional field investigations. The report concludes that five of the sites have significant volatile organic compound contamination. The RI/FS field program is expected to be completed in August 1994.

2.1.9 Comprehensive Asbestos Survey, Jefferson Proving Ground (1993)

An asbestos survey of the facilities south of the installation's firing range was completed in 1993. The purpose of the survey was to locate, identify, and recommend appropriate abatement action for asbestos-containing materials at Jefferson Proving Ground. A total of 430 functional spaces from 345 buildings were identified and surveyed. Of these, 114 functional spaces did not include asbestos-containing materials. The remaining 316 spaces were assigned an assessment rating ranging from B to F. No ratings of A (Immediate Action) were assigned. Twelve functional spaces were given an assessment rating of B ("Action As Soon As Possible"), 95 were given a rating of C ("Planned Action"), 32 were given a rating of D ("Repair"), 19 were given a rating of E ("Monitoring"), and 158 were given a rating of F ("No Immediate Action").

2.1.10 Installation Action Plan (March 1993)

The Installation Action Plan, completed in March 1993, summarizes the 103 previously identified sites at Jefferson Proving Ground. The contaminants of concern are listed for each site. Also included is the current status of each site in relation to further environmental work (if any) to be accomplished.

2.1.11 Radon Monitoring Results for the U.S. Army Radon Reduction Program (April 1993)

Monitoring for radon gas was conducted during early 1993, and 25 structures were surveyed. Radon concentration levels ranged from 0.5 picoCuries per liter (pCi/L) to 1.9 pCi/L. These results were far below the USEPA action level of 4 pCi/L, above which further testing is required under U.S. Army regulations.

2.1.12 Preliminary Site Inspection (Revised) (August 1993)

This report, completed in August 1993, is the revised edition to the June 1992 Draft Preliminary Site Inspection. The scope of the Preliminary Site Inspection was to provide the necessary data and information to help determine the score of Jefferson Proving Ground on USEPA's revised Hazard Ranking System. The report provides details on sites that were considered sources of contamination, or sites with actual or suspected releases of hazardous constituents to the environment; these include 16 sites in the southern administrative/industrial area and 6 sites in the Firing Range.

2.2 FEDERAL, STATE, AND LOCAL GOVERNMENT REGULATORY RECORDS

Information regarding permit and compliance status, enforcement actions, and the hazardous waste generator status of Jefferson Proving Ground was obtained through on-site and telephone interviews, an electronic data base search, and record reviews at various Federal, State, and local regulatory agencies.

Record reviews and interviews were conducted at the Indiana Department of Environmental Management and the U.S. Environmental Protection Agency Region V. Federal and Army records made available by AEC and Jefferson Proving Ground were also reviewed.

An electronic data base search of Federal and State records resulted in a Federal/State Data Report and Map containing information from the following data bases:

- ★ National Priorities List
- ★ Comprehensive Environmental Response Compensation, and Liability Information System
- ★ Toxic Release Inventory
- ★ Resource Conservation and Recovery Information System Treatment and Storage Facility
- ★ Resource Conservation and Recovery Information System Large Quantity Generators
- ★ Resource Conservation and Recovery Information System Small Quantity Generators
- ★ Civil Enforcement Docket
- ★ Emergency Response Notifications System
- ★ Facility Index System
- ★ Nuclear Facilities
- ★ Underground Storage Tanks
- ★ Leaking Underground Storage Tanks
- ★ Solid Waste Information System.

The search encompassed the properties within a 0.5-mile radius from the center of the installation. A copy of the data base search results is included in Appendix B. A summary of relevant regulatory information obtained during the record review process is presented below.

2.2.1 Permits and Permit Applications

The permit status of Jefferson Proving Ground is summarized below from information obtained through prior environmental document reviews, Federal and State record searches, installation record searches, and interviews with installation personnel.

Wastewater: The Jefferson Proving Ground drinking water supply, servicing 13 family housing units and a daily combined resident and working population of 450 people during 1990, is provided by the city of Madison. No permits or regulatory monitoring are required.

The facility holds a National Pollution Discharge Elimination System permit for the wastewater treatment plant effluent discharge into Harberts Creek. Laboratory analysis required by the permit is conducted on-site at the wastewater treatment plant Water Quality Laboratory. The wastewater treatment plant treats sanitary and some industrial process wastewater (wastewater from photo developing--about 200 gallons per day; and wastewater from boiler blowdown--about 300 gallons per day).

Jefferson Proving Ground has not met the effluent limitations during numerous storm events in the 1980s. These permit violations occurred when wastewater inflow exceeded plant capacity, and wastewater automatically bypassed and was discharged without treatment. The wastewater inflow exceeded capacity because of stormwater infiltration during periods of heavy rain and

resultant runoff. The facility and the State of Indiana entered into a Consent Agreement in 1983 to address the problem. The permit required that all bypassing incidents be reported. Sewer system upgrades completed in the late 1980s reduced stormwater inflows to meet permit requirements.

During the 1970s, discharges of cyanide wastes from the photographic laboratory killed biological growth in the wastewater treatment plant trickling filter and fish in Harbert's Creek. Since 1980, industrial process changes have eliminated the use of cyanides and bleaches.

Hazardous Waste: On November 14, 1980, Jefferson Proving Ground submitted a Resource Conservation and Recovery Act (RCRA) Part A permit application for the storage and treatment of hazardous waste. The application identified three container storage areas, one waste pile, four landfills, and two explosive waste treatment areas as Interim Status Facilities. In March 1982, the installation submitted a revised Part A permit application, which removed two of the container storage areas, the waste pile, and the landfills. The revised Part A thus listed only one container storage area (Building 305) and two explosive treatment units (the open burning units on Shun Pike Road in the southern portion, and the Shonk Farm Open Detonation unit in the north central portion of Jefferson Proving Ground) as Interim Status Facilities.

In February 1986, Jefferson Proving Ground submitted a revised Part A application stating that Building 305 was no longer a greater-than-90-day storage facility. A closure plan was submitted for the storage area and later approved by the State of Indiana. Closure activities have been put on hold until installation closure, and the building will continue to operate as a less-than-90-day facility until that time. The State also requested a closure plan for Building 279, the former Chemical Storage Area. The plan was approved and the building certified clean and closed in September 1993.

Jefferson Proving Ground submitted a RCRA Part B permit application for the open burning and the open detonation areas in November 1988. The facility is currently operating under an interim permit and is in the process of revising its Part B permit application.

Radioactive Materials: Depleted uranium has been used in the testing of 105 millimeter and 120 millimeter tank ammunition since March 1984, under Nuclear Regulatory Commission License No. SUB 1435. This Nuclear Regulatory Commission license also covers the use of depleted uranium as x-ray shielding in Building 501 and the storage of depleted uranium in Buildings 610, 611, and M1. Small amounts of Scandium-46 were in the past used as components in instrumentation that assisted in locating and recovering inert, test-fired ammunition. The Nuclear Regulatory Commission license covering this activity has been terminated, and Scandium-46 is no longer used at the installation. A decommissioning plan for the Nuclear Regulatory Commission license is scheduled to finalized in June 1994 and will the undergo Nuclear Regulatory Commission review.

In addition, promethium and tritium are used in artillery sighting devices. These, however, are sealed sources and are rechecked by a general, Army-wide Nuclear Regulatory Commission license maintained by the Army Materiel Command.

***Solid Waste Disposal*:** Dunnage and packaging material are generated from the large number of munitions shipped for testing at Jefferson Proving Ground. This material was burned in the past but is now shipped offsite to a landfill. One permitted landfill (Gate 19 Landfill) was used for on-site disposal of construction rubble and other debris. The landfill is currently undergoing the closure process. Office and household refuse are transported offsite.

Air: The Indiana Department of Environmental Management, Office of Air Management, has issued Jefferson Proving Ground an Open Burning Permit to burn excess propellants and explosives, vegetation, and scrap wood. This permit is renewed annually.

Other Permits: A Fire Training Permit to train personnel in firefighting is required by local authorities. Firefighting exercises are conducted under the supervision of State and local firefighting agencies. The current permit was issued on January 2, 1992, and is renewed annually.

2.2.2 Inspection Reports and Enforcement Actions

On numerous occasions, Jefferson Proving Ground has been inspected by USEPA Enforcement and State of Indiana Department of Environmental Management personnel. USEPA's National Enforcement Investigations Center conducted a major, detailed multimedia assessment of the installation during early 1990, and concluded that the facility was in compliance with RCRA, the Clean Air Act, the Toxic Substances Control Act, the Safe Drinking Water Act, and the Federal Insecticide, Fungicide and Rodenticide Act. In addition, the audit evaluated previous environmental studies and assessments conducted at Jefferson Proving Ground to identify SWMUs and areas requiring further study. Environmental concerns included the collection and disposal of unexploded ordnance, contamination of target areas by explosive residues and low-level radioactive penetrators, herbicide residues along roadways and in impact areas, and potential soil, surface water, and groundwater contamination from on-site activities, including past spen. solvent practices. Deficiencies included:

- ★ Failure to identify certain wastes as hazardous
- ★ Inadequate groundwater monitoring system at the Gate 19 Landfill
- ★ Shipment of land banned waste offsite without proper notifications
- ★ Unmarked PCB items and lack of PCB disposal records, annual inventories, and annual documents
- ★ Failure of wastewater treatment plant discharges to meet effluent limitations
- ★ Improper disposal of wastewater sludge
- ★ Lack of secondary containment in several POL storage areas
- ★ Failure to implement fully the SPCC plan.

During July 1991, a Compliance Evaluation Inspection was conducted by the Indiana Department of Environmental Management, which noted that the facility waste analysis plan did not detail analytical parameters and the rationale and frequency of analysis.

In several recent (August 23, 1990: September 30, 1992: and August 3-4, 1993) Indiana Department of Environmental Management RCRA inspections, the following violations were noted; failure to properly store, label, and identify hazardous wastes; cracks in the floor of the hazardous waste storage area; lack of a detailed analysis of waste ash generated from open burning; infrequent inspections of burn areas and the storage building; incomplete Installation Spill Contingency Plan; and training deficiencies.

2.3 INTERVIEWS

TETC conducted a site visit at Jefferson Proving Ground on October 18-22, 1993, to collect information and interview individuals associated with the installation. TETC's team included Mark Ethridge and John Kang.

Individuals interviewed at the installation included the USAEC representative, the Base Commander, Jefferson Proving Ground Office of Environmental Response, and maintenance personnel. In addition, TETC team members visited regulatory agencies in Indianapolis to obtain information not available at the installation. A complete list of the agencies visited or contacted and the people interviewed is provided in Table 2-2.

2.4 VISUAL INSPECTIONS

During the site visit, visual inspections were conducted throughout the facility and at adjacent properties. The purpose was to confirm findings reported in previous studies and information collected through interviews, as well as to identify new areas of concerns. The visual inspection consisted of automobile drive-through and walk-through surveys of areas in which CERCLA-regulated and non-regulated substances may be stored, released, or disposed. During the visual inspection, contamination sources were noted and leaks, spills, and other evidence of releases were observed and quantified; no samples were collected.

The drive-through and walk-through surveys were supplemented by a helicopter survey of the entire installation, originating in front of the Administrative Building. The purpose of the 1-hour flight, which took place on October 21, 1993, was to visually assess areas that were off-limits to vehicular traffic. The survey involved the TETC team members; Richard Herring and John Germano (both of Jefferson's Environmental Office); and two pilots from the Indiana National Guard who were in command of the aircraft.

2.4.1 Inspection of Jefferson Proving Ground

Evidence was gathered regarding current or past contamination with the following substances:

Asbestos-containing material: The presence of asbestos-containing material in most of the Jefferson Proving Ground buildings was identified in prior asbestos reports. A discrepancy was encountered when a cross-reference check was conducted between the Building Information Schedule and the list of buildings inspected in the 1993 Asbestos Survey. Buildings in the 60 and 70 series were surveyed but are not included in the Building Information Schedule. These buildings are described as "Residential Tool Sheds." An observation tower (Building 902),

TABLE 2-2
LIST OF PERSONNEL INTERVIEWED, JEFFERSON PROVING GROUND, MADISON, INDIANA

Reference	Name/Phone	Location	Dates of Employment	Job Position
a	Frances Bates (812) 273-7345	Jefferson Proving Ground, Office of Environmental Response	1989-present	Environmental Protection Specialist
b	C. Allen Durham (812) 273-7257	Jefferson Proving Ground, Installation Safety Office	1991-present	Safety & Occupational Health Manager
c	John J. Germano (812) 273-7303	Jefferson Proving Ground, Office of Environmental Response	1993-present	Environmental Protection Specialist
d	Richard Herring (812) 273-7303	Jefferson Proving Ground, Office of Environmental Response	1982-present	Environmental Protection Specialist/Radiation Protection Officer
e	John Manley (317) 233-6425	Indiana Department of Environmental Management, Office of Environmental Response	1992-present	Project Manager
f	Mike McCalister (812) 273-7284	Jefferson Proving Ground, Directorate of Engineering & Housing	1986-present	Engineering Technician
g	Curtis Napier (812) 273-7567	Jefferson Proving Ground, Ammunition Processing Branch (BIDS S06)	1986-present	Instrument Worker
h	Glenda Oakes (317) 232-3399	U.S. Environmental Protection Agency, Region V	1983-present	Point of Contact
i	Ken Quirk (410) 671-1616	U.S. Army Environmental Center, Base Closure Division	1991-present	Project Manager
j	Col. Terry M. Weekly (812) 273-7201	Jefferson Proving Ground	1993-present	Installation Commander
k	Roy Williams (812) 273-7303	Jefferson Proving Ground, Office of Environmental Response	1991-present	Environmental Protection Officer
l	Tom Wolfschlag (812) 273-7540	Jefferson Proving Ground Fire Department	1967-present	Fire Chief

Tornado Shelter, and Tunnel (Building 903) were also absent from the Building Information Schedule and could not be located on any map.

Lead-based paint: A lead-exposure risk assessment conducted on October 28, 1991 addressed 13 housing quarters built before 1978. These buildings were visually inspected during the automobile drive-through.

Records of the remaining buildings were not available. An inventory of all buildings present at Jefferson Proving Ground along with the date of construction was obtained. It was then assumed that any structure constructed prior to 1978 contained lead-based paint.

Polychlorinated Biphenyl: PCB-containing equipment at Jefferson Proving Ground was identified in previous investigations. PCB storage areas were visually inspected for the presence of transformers, PCB labeling, and evidence of spills. Transformers that were still in use and not leaking were not inspected or included in this report.

Radon: Written records from past surveys and investigations were used to determine the presence of radon. (Radon cannot be visually detected or accurately measured without real-time monitoring instruments.)

Unexploded ordnance: Impact areas were viewed during the helicopter flyover and on the ground where safety considerations permitted. Unexploded ordnance contamination is widespread, especially throughout the area north of the firing line.

Radionuclides: Installation personnel were interviewed and installation files searched to obtain data on radioactive material storage and use. In addition, the U.S. Army Environmental Hygiene Agency Health Physics Division provided the contractor with information obtained from installation files and U.S. Army Environmental Hygiene Agency archival report files. This information included Nuclear Regulatory Commission licenses and Department of the Army Radioactive Material Authorizations, and U.S. Army Environmental Hygiene Agency reports on radioactive material decommissioning.

Petroleum release or disposal: Areas of potential releases were inspected visually. Evidence of discoloration or spills were noted, as was any oil sheen on nearby bodies of water. Additional information on spills or releases was obtained from facility and regulatory agency records.

Petroleum storage: Information on storage tanks and pipelines that was initially gathered from the records search, particularly the location, volume, past and present contents, and evidence of removal actions, was verified during the inspections to the extent possible. Evidence was noted regarding excavation and removal, including changes in vegetation patterns, rectangular areas of disturbed soil filled with gravel, and pieces of polyurethane lining protruding above the ground surface. Several sources were assessed to develop a complete list of underground storage tanks that existed and still exist at Jefferson Proving Ground. The SPCC, prepared in November 1992, covers a total of 40 underground storage tanks present at the facility at that time. Seven of these underground storage tanks are no longer used, they remain in place or have been

removed. The records on underground storage tanks provide a complete list of tanks that remain or that have been removed. Information regarding earlier tank removals was not available.

Hazardous substance release or disposal: The records search and interviews with Jefferson Proving Ground personnel were used to identify areas of release. Larger disposal areas were also reviewed during the automobile drive-through survey and helicopter flyover.

Hazardous substance storage: Barrels, bags, or other containers of pesticides or herbicides were present at Building 204.

2.4.2 Inspection of the Adjacent Property

A visual inspection of the adjacent property was conducted. Prior to the site visit, a data base search was performed for the area adjacent to Jefferson Proving Ground within a 0.5-mile buffer to identify small and large quantity waste generators, underground storage tanks, and leaking underground storage tanks. Both Federal and State data bases were searched (see part 2.2 of this report). Information obtained from the search was verified through visual inspections and flyover. Possible areas of environmental concern were visually inspected to determine their potential for contamination.

2.5 TITLE DOCUMENTS

TETC conducted a review of tract maps and transfer documents to identify the former property owners of BRAC property at the time of its transfer to the Army. The purpose of this review was to determine the property's prior use and environmental condition at the time of its transfer. This review, did not result in additional information. Previous ownership and the dates of transfer to the U.S. Army are indicated on Figure 5-2.

2.6 NEWSPAPER ARTICLES AND MEDICAL RECORDS

A search of records pertaining to Jefferson Proving Ground was conducted at several locations, including State and Federal regulatory agencies. This search did not reveal any newspaper articles or medical/biohazardous waste records that are relevant to CERFA requirements.

3.0 PROPERTY BACKGROUND INFORMATION

This section presents an overview of past and current operations at Jefferson Proving Ground and a discussion of environmental changes associated with the facility. It addresses activities relevant to waste management practices and significant environmental incidents that occurred since the Enhanced PA was conducted.

3.1 GENERAL BACKGROUND

Jefferson Proving Ground is an active Government-owned, Government-operated facility. In April 1989, Congress mandated that the facility be closed by September 1995 and its mission be realigned with Yuma Proving Ground in Yuma, Arizona. The installation is owned by the Department of Defense and managed and operated by the Army under Test and Evaluation Command. The primary mission of Jefferson Proving Ground is to perform production and postproduction tests of both ammunition components and final ammunition products. In the past, the facility conducted approximately 85 percent of the Army's production ammunition acceptance testing; this figure is decreasing due to base closure and transfer of the mission to Yuma. The facility is also used to test and evaluate the weapons systems themselves, including propellants, mines, cartridge cases, artillery projectiles, mortar rounds, grenades, tank ammunition, bombs, boosters, and rockets.

The facility's history dates to the eve of World War II, with the first round being fired on May 10, 1941. Since then, the mission at Jefferson Proving Ground has remained essentially the same: to conduct production acceptance tests of ammunition and weapons systems and their components. The major change at the facility has been in the number of personnel employed over the years. Peak employment at the facility was achieved during the Korean War era, when nearly 1,800 employees worked three shifts. After the Korean War, testing activities decreased, and Jefferson Proving Ground was placed on standby status on July 1, 1958. The U.S. Army reactivated the facility on September 8, 1961, and the installation has been in continuous operation as a test range since that time. Currently, Jefferson Proving Ground has approximately 250 authorized military, civilian, stay-in-school, and on-call employees. Under the guidelines for the base closure plan, testing activities are expected to cease by 1994, with official closure occurring by 1995.

The current mission of the installation consists of the planning and conducting of the following types of tests:

- Production acceptance
- Preproduction
- Product improvement
- Engineering design
- Reconditioning, and
- Surveillance of ammunition and components.

The installation is divided by a 4-mile-long firing line that holds 268 gun positions. The southern cantonment area consists of approximately 3,600 acres and contains the support facilities for ordnance testing. The northern area encompasses about 51,000 acres, of which 8,600 acres are divided into over 50 parcels of smaller portions called "Impact Fields."

3.1.1 Past Activities

Jefferson Proving Ground has been used solely for ammunition testing. However, a number of industrial operations have been conducted in support of munitions testing, such as ammunition assembly and disassembly, inert projectile loading, weapons maintenance, and electronic equipment maintenance. In addition to the industrial operations related to munitions testing, facility support activities have occurred, including vehicle maintenance, machine maintenance, painting, photograph processing, carpentry, sewage treatment, and steam heat generation.

The general types of wastes generated at the facility have remained fairly constant since operations began. Waste generation can be divided into hazardous waste from munitions testing activities, hazardous waste from facility maintenance and support activities, and miscellaneous solid waste such as office trash. The hazardous waste generated by munitions testing is primarily reactive waste such as scrap propellant and scrap high explosive projectiles. In addition to reactive waste, some solvents are generated during inert shell loading and ordnance maintenance. The hazardous waste generated during general base maintenance activities has consisted primarily of spent solvents, waste paint, and photo finishing chemicals. Solid waste has consisted of packaging materials, construction rubble, sanitary wastewater, and miscellaneous solid waste. (See Tables 3-1 and 3-2 for a list of hazard substances/petroleum stored and hazardous/petroleum waste generated at Jefferson Proving Ground.)

Ordnance Disposal Activities: The assembly, disassembly, test-firing, and environmental testing of munitions conducted at Jefferson Proving Ground has generated a large quantity of reactive or potentially reactive wastes. The armed forces currently and historically have treated reactive waste by either open burning or open detonation. Open burning is normally conducted by placing the reactive waste in a steel pan or on the ground surface and igniting it. The resulting combustion renders the waste unreactive. Open detonation is normally conducted by placing the munitions in a shallow pit and detonating a trigger charge (which also detonates the ordnance to render it unreactive).

During the 1940s, reactive materials were destroyed at the Ammunition Demilitarization Area, which was located just north of the firing line and west of Morgan Road. Since the early 1950s, the two primary areas used for the treatment of reactive waste have been the Open Detonation Units, located in the north-central portion of the facility, and the open burning pans, located in the southeastern portion of the facility, near the Gator Mine area.

Several other areas at the facility are known or suspected to have been used to treat reactive material. These include the Engineer's Road Potential Explosives Burning Area, the Gate 19 Burning Area, the Engineer's Road Landfill/Burning Area, and the Burning Ground Off J Road.

TABLE 3-1
DECEMBER 1992 INVENTORY OF ACTIVE HAZARDOUS SUBSTANCES/PETROLEUM STORAGE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Facility Description	Materials Stored/Used	Total Capacity Quantity
Heating Plant (Building 602)		
1 Underground Tank (25,000-gallons)	Fuel Oil No. 2	25,000 gallons
Loading/Unloading Station (Building 118)		
2 Underground Tanks (12,000-gallons each)	Unleaded gasoline	24,000 gallons
1 Underground Tank (12,000-gallons)	Diesel	12,000 gallons
1 Underground Tank (25,000-gallons)	Fuel Oil No. 2	25,000 gallons
Central Heating Plant (Building 103)		
4 Underground Tanks (25,000-gallons each)	Fuel Oil No. 2	100,000 gallons
Eleven Operation/Storage Areas		
Building 177 Sewage Treatment Plant Gas Cylinders for Chlorination	Chlorine	180 pounds-900 pounds
Building 506 Degreasing Operation Two 55-gallons Steel Drums	1,1,1-Trichloroethane Drums	110 gallons
Building 108 Five 5-gallons Containers	Ammonia (aq)	25 gallons
Building 108A 3 Enclosed Storage Areas 5-Gallons Plastic Containers	Sulfuric Acid Acetic Acid Caustic Soda 1,1,1-Trichloroethane Motor Oil Lubricants & Hydraulic Oil Paints, Lacquers Thinners Photography Fixers and Developers Ammonium Thiosulfate Sodium Bisulfite Hydrochloric Acid	50 gallons 50 gallons 50 gallons 110 gallons 100 gallons 50 gallons 100 gallons 50 gallons 100 gallons — — —
Building 208 Photography Processing Lab Silver Recovery Operation 5-gallons Plastic Containers	Fixers, Developers Acetic Acid	100 gallons 25 gallons
Building 186 Equipment & Vehicle Maintenance 55-gallons 1,200-gallons underground storage tank	Safety Kleen (solvent) Used Motor Oil	150 gallons of used solvent drums, 1,000 gallons used oil

TABLE 3-1
DECEMBER 1992 INVENTORY OF ACTIVE HAZARDOUS SUBSTANCES/PETROLEUM STORAGE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Continued

Facility Description	Materials Stored/Used	Total Capacity Quantity
Building 305 Hazardous Waste Storage 55-gallons drums 25-gallons drums 10-gallons cans 6-mil plastic bags	Spent solvents, PCB containers and transformers, organic chemical wastes, asbestos containing insulations	
Building 211 Ammunition Processing Workshop Polyols and Polymeric	Two chemical mixtures Isocyanates Barium Sulfate Petroleum Wax	55-gallon drums 110 gallons 8,600 pounds —
Building 227 Weapons Maintenance	Safety Kleen (solvent) Kerosene Aerosol Cans-Solvents and Thinners	350 gallons 110 gallons 10 cans
Building 136 Painting Workshop	Paints, Lacquers Mineral Spirit Thinners	150 gallons 45 gallons 5 gallons
Building 105 Metal Working Workshop	Hydraulic Oil	55 gallons
Building 204 Pesticide Storage Containers	Insecticides and Herbicides	
Open Burning Pans (4) and Open Detonation Ground (Shonk Farm)	To Open Burning propellants To Open Detonation explosives	Propellants - 40,000 pounds Explosives - 5,000 pounds

Key: PCB = Polychlorinated Biphenyl

TABLE 3-2
HAZARDOUS/PETROLEUM WASTES GENERATED AND DISPOSAL METHODS (1992), JEFFERSON PROVING GROUND, MADISON, INDIANA

Hazardous Waste and Department of Transportation Code	Annual Amount and Source	Management Method Used
1. Excess, unserviceable PEP (D003)	40,000 pound-propellant 6,000 pound-pyrotechnics Ammunitions received or demil.	On-site open burning for propellants and explosives; on-site open detonation for pyrotechnics. Residue ash (600 pounds) analyzed (determined solid waste) and disposed of commercially.
2. Spent 1,1,1-trichloroethane solvent (D001)	55 gallon degreasing operation, Building 506	Distilled on-post in Bldg. 506. Residue collected and disposed of through Defense Reutilization and Marketing Office.
3. Used motor oil (D001)	1,000 gallon underground storage tank, Building 186	Disposed of commercially.
4. Used lead-acid batteries (D002)	1,500 pound (200 batteries), Building 186	Disposed of through the Defense Reutilization and Marketing Office.
5. PCB Transformers, not a Resource Conservation and Recovery Act hazardous waste	600 gallon, transformers removed from electrical service	Disposed of through the Defense Reutilization and Marketing Office.
6. Asbestos-containing material, not a Resource Conservation and Recovery Act hazardous waste	1,000 pounds piping insulation, roof shingles, boiler shell insulation, duct insulation	On-site disposal in Jefferson Proving Ground permitted solid fill site.
7. PCP-treated wood, not a Resource Conservation and Recovery Act hazardous waste	1,000 pounds, excess wooden pallets, on runway at old airport	Disposed of commercially.
8. Excess 80% Barium Sulfate, 20% paraffin wax, not a Resource Conservation and Recovery Act hazardous waste	150 gallon, the mixture is used as inert projectile filler, Building 211	Disposed of commercially.
9. Papers, cloth rags with paint residue (D001)	One 55-gallon steel drum per month, Building 121	Disposed of through Defense Reutilization and Marketing Office.
10. Waste paint (D008, D007, D001)	110 gallons per month, Building 136	Disposed of through Defense Reutilization and Marketing Office.
11. Waste lithium batteries	Land Mine Testing; 300 pounds	Disposed of through Defense Reutilization and Marketing Office.
12. Waste petroleum naptha (D001, D018, D039)	1,500 gallons, parts cleaning	Recycled through Safety-Kleen.

Key: PCB = Polychlorinated Biphenyl

In several other areas at the facility, it is known or suspected that live munitions and materials containing explosive residues have been disposed without first being detonated or combusted. These areas include the Morgan Road Disposal Site, the Inert Metal Landfill Off York Road, the Inert Landfill at 4.5 Impact Range, the Potential Munitions Dumpsite, the Gator Z Mine Scrap Disposal Area, the Abandoned Well Disposal Sites, and the Cistern Disposal Site.

Ammunition Assembly and Testing: Hazardous waste generated during the assembly and disassembly of ammunition consists primarily of scrap propellant and fuses. The scrap propellant is generated from spillage during loading of the shells, or from disassembly of munitions. Only dry propellants are used at the facility. The scrap propellant is swept up and placed in 30 gallon fiberboard containers at the Building 534 Scrap Propellant Accumulation Area. A scrap propellant accumulation area also existed within Building 600, but its use has been discontinued. The containers in the accumulation area are on concrete floors within the building. The scrap propellant is stored for less than 90 days before it is taken to the open burning pans for disposal. The scrap fuses are generated during munitions disassembly at Building 325. The fuses are removed from mis-fired mortar rounds and accumulated in small ammunition cans (approximately 1 gallon) at the Building 325 Scrap Fuse Accumulation Area. Approximately 8 to 10 cans are accumulated monthly. The fuses are transported directly to the open detonation units about once a month.

The filling of inert projectiles at Building 211 creates two types of waste. The first is waste polyurethane mixed with a solvent called M-Pyrol. The waste is generated from overfilling and drippage from the nozzle of the mixing/filling machine. The waste drips into a 55-gallon drum at the Building 211 Waste Filler/Methylene Satellite Accumulation Area. The drum is mounted on a dolly above the concrete floor. When the drum is full, it is transported to the Building 305 Hazardous Waste Storage Area.

Until approximately 1989, methylene chloride was the solvent mixed with the polyurethane filler. The waste filler containing methylene chloride may have been disposed at both the Gate 19 Landfill and the New Incinerator. According to the Environmental Audit conducted by USEPA, it is also possible that some of the waste methylene chloride/polyurethane filler was disposed between the railroad tracks just south of the Disposal Area behind Building 211.

The second type of waste generated during the inert filling is a mixture of barium sulfate, linseed oil, and paraffin wax. The waste generated is from spillage and leftover batches; it is disposed offsite in a municipal landfill.

Until the early 1970s, red lead was used in the inert filler mix. Red lead is a lead oxide that is normally used in glass, ceramics, and as a paint pigment. For the filler mix, the red lead was used because of its density. The scrap red lead filler is believed to have been disposed in a number of units at the facility. These include the Disposal Area Behind Building 211, the Gate 19 Landfill, the Engineers Road Landfill/Burning Area, and an area just south of Defense Reutilization and Marketing Office's fenced area.

The test firing of ordnance at Jefferson Proving Ground has resulted in numerous impact areas that are located throughout the facility. The Firing Range Impact Areas are a composite of all

areas where projectiles may have landed. It is estimated in Government Accounting Office Report #NSIAD-90-42 that 23 million rounds have been fired at Jefferson Proving Ground since 1941 and that approximately 7.6 million rounds are unexploded ordnance. The depleted uranium Firing Range is in the impact area for testing antitank projectiles, which contain depleted uranium as a penetrator. The Test Ponds are areas where projectiles were intentionally shot into water to test the projectile's performance in and over water. Several areas of the facility are used to test fire land mines. The Family of Scatterable Mines Test Area is located on the eastern side of the facility, just north of the firing line. The Gator Z Mine Test Area is in the southeast corner of the facility. In addition to the impact areas for test fired munitions, the Indiana Air National Guard operates the Aircraft Target Range in the north-central part of the facility. Aircraft use the area as a practice bombing and strafing range.

Weapons Maintenance Activities: Wastes currently generated at the Weapons Maintenance Building (used since 1941), Building 227, include waste oil, waste hydraulic oil, waste paint, and a waste citrus based solvent (replaced Stoddard Solvent). The citrus solvent is generated by two Magnaflux machines that are used to inspect gun barrels for cracks. The citrus solvent must be replaced every few years. The solvent from the first machine is drained into drums and accumulated at the Magnaflux Fluid Satellite Accumulation prior to off-site regeneration at the manufacturer's facility. The solvent from the second Magnaflux machine is removed by vacuum truck and returned to the manufacturer for regeneration. The other waste is currently stored at the Building 227 Satellite Accumulation Shed. Until January 1990, the wastes generated in the building were stored at the Building 227 Former Storage Pad, which had fallen into disrepair.

Electronics Parts Cleaning Activities: Building 506 contains a parts cleaner that used trichloroethane (TCA) to clean electronic gauges used during munitions testing. This building and process have been used since approximately 1988 for this purpose. The parts cleaner is an enclosed unit that recirculates TCA from a storage drum located at Building 506 TCA Accumulation/Storage Area. When TCA is spent, the drum is moved to the Building 506 Solvent Distillation Still for regeneration. The still bottoms are stored at the Building 506 TCA Accumulation/Storage Area prior to manifesting for offsite disposal.

The Solvent Disposal Pits (located at Buildings 602, 617, and 279) are gravel lined pits that were used to dispose of spent TCA, which may have been used for cleaning electronic equipment.

Facility Maintenance Activities: The primary hazardous waste generated during maintenance activities has been spent solvents. Cleaners containing Stoddard Solvent were used in the vehicle maintenance shop in Building 186 (Building 110 was also used until approximately 1980), the machine shop in Building 105, the paint shop in Building 136, and the weapons maintenance Building 227. Buildings 216 and 273 may have also been used in the past. The spent solvent in the parts cleaners must be changed on a periodic basis. The disposal practices for the spent Stoddard Solvent from the 1940s until 1980 are not well known. It is known or suspected that waste POL were burned at the Gate 19 Burning Area, the Fire Training Pit, and possibly the Engineer's Road Landfill/Burning Area during that time.

Since 1980, the spent Stoddard Solvent has been stored or accumulated in the Building 186 Solvent Accumulation Area, the Building 136 Satellite Accumulation Area, the Building 227 Former Storage Pad, and the Building 105 Machine Shop Accumulation Area. From the storage and accumulation areas, the waste is brought to the Building 305 Hazardous Waste Storage Area for storage prior to off-site disposal or recycling. The Building 305 Hazardous Waste Storage Area is an RCRA Interim Status unit. A closure plan for this unit was submitted to the State of Indiana in 1989 and has since been approved. Closure activities have been put on hold until installation closure. The unit will continue to operate as a less-than-90-day storage area until that time.

The facility has been trying to reduce the amount of hazardous waste generated during maintenance activities. The solvent parts cleaners containing Stoddard Solvent have been replaced with Safety Kleen Parts Cleaners. When the cleaning solvent in the Safety Kleen units requires changing, the manufacturer collects the spent solvent and transports it to their facility for regeneration. The Building 506 Solvent Distillation Still was also upgraded to increase the capacity to recycle TCA.

Other wastes generated during vehicle maintenance activities include spent batteries, used motor oil, used antifreeze, hydraulic fluid and other lubricants and washwater from cleaning vehicles. Facility representatives did not know past disposal practices for spent batteries, nor was that information available in the file. The batteries are currently stored at the Building 186 Spent Lead-Acid Battery Storage and the Defense Reutilization and Marketing Office Storage Area prior to offsite reclamation. The used motor oil was sprayed on the Unsurface Roads north of the firing line until 1979. Since then, the waste oil has been accumulated in the Tank No. 17 Waste Oil underground storage tank at Building 186, prior to offsite recycling. According to the Draft RCRA Facility Assessment (RFA), waste oil and other lubricants may have been disposed by burning at the Gate 19 Burning Area or the Fire Training Pit.

Wastewater from the cleaning of vehicles and the building floor are managed by the Building 186 Floor Drains and Wash Rack. The wastewater is directed to either the Building 186 Oil/Water Separator or the Portable Oil/Water Separator, prior to discharge to the Sanitary Sewer.

Previous waste management practices for antifreeze are not known. The used antifreeze is currently accumulated at the Building 186 Antifreeze Accumulation Area until it can be recycled at the antifreeze recycling unit at Building 186.

Facility Support Activities: There are several other facility support activities that generate or treat wastes. The facility operates a photograph processing lab in Building 208. The laboratory processes black and white, color, and x-ray film, which is used to record the ordnance testing activities. The lab has been equipped with a Silver Recovery Unit since 1967. Prior to that time the silver and photo processing chemicals were discharged to the Sanitary Sewer System. Prior to 1980, the photo processing chemical contained cyanide, and the cyanide solutions would be dumped in the sewer in batches via the Current and Former Photo Lab Floor Drains. The sewage treatment plant was not capable of treating the cyanide, and several fish kills were documented downstream of the plant in the 1970s. The facility changed to a biodegradable

developer in 1980. This developer was discharged slowly into the floor drains to keep from causing an upset at the treatment plant. Since the recent installation of a distillation machine in this building, photograph operations no longer include the discharge of processing chemicals to the sanitary sewer system.

The photo processing wastes and minor amounts of boiler blowdown from the two active steam generating plants in Buildings 103 and 617 are the only industrial wastewater treated by the sewage treatment plant. The treatment plant has been in operation since the facility began operating in 1941. The plant has a capacity of 0.4 million gallons per day and consists of an Imhoff sludge settling and digestion tank, a trickling filter, a final clarifier, and an ultraviolet light treatment module (replaced chlorination unit in FY93). An anthracite filter was added in 1981 as a final polisher. The facility discharge operates under National Pollution Discharge Elimination System Permit Number IN0024210. There is also a sludge drying bed at the treatment plant. The sludge (formerly placed at the Sewage Sludge Application Area) is now analyzed for heavy metals prior to off-site disposal at a sanitary landfill.

The wastewater is conveyed to the treatment plant by the Sanitary Sewer System. The sewer system was constructed in 1941 with (primarily) vitrified clay pipe. Problems with infiltration during precipitation were noted in the 1970s. The system was upgraded in 1988, and most of the clay pipe was replaced with polyvinyl chloride.

Building 136 is the facility painting and sand blasting shop. The building is equipped with two spray painting booths. Prior to approximately 1988, the over spray in the booths was filtered using the Former Building 136 Water Curtain. The water in the filter was periodically emptied into drums for offsite disposal. The facility currently uses dry filters to collect over spray. When the filters become clogged, they are taken to the Building 305 Hazardous Waste Storage Area prior to off-site incineration. Waste paint and paint solvents are accumulated in the Building 136 Satellite Accumulation Area. When the drum is full it is taken to the Building 305 Hazardous Waste Storage Area and them disposed.

Until 1980, paint wastes may have been disposed in the Gate 19 Burning Area, the Gate 19 Landfill, or the Engineer's Road Landfill/Burning Area. The Building 136 Paint Waste Area is located outdoors, just east of the building. The area consists of several bins for collecting empty paint cans. One of the containers was a steel pan that was completely filled with water and floating empty paint cans at the time of the visual site inspection conducted during the Draft RFA in 1990. This situation has been corrected and measures have been taken to prevent recurrence.

Solid Waste Disposal: The Jefferson Proving Ground facility has generated large quantities of dunnage and packaging materials due to the number of munitions shipped to the facility for testing. This material has historically been burned rather than landfilled (or recycled) due to the possible presence of trace amounts of reactive (D003) explosives or propellants that may have been introduced to the packaging during loading or shipment. Areas that are known or suspected of being used to burn trash and packaging material include the Old Incinerator, the New Incinerator, the Gate 19 Burning Area, the Wood Pallet Accumulation Area, the Gator Z Mine open burning Area, and the Engineer's Road Landfill/Burning Area.

Other solid waste generated at the facility consists primarily of construction rubble, debris, and office wastes. There are only a few residences and a small cafeteria to generate household trash. The construction rubble has been disposed at the Engineer's Road Landfill/Burning Area and the Gate 19 Landfill. The Gate 19 Landfill has also been temporarily allowed to receive asbestos waste at various times. Tree limbs and other debris are currently disposed at the Debris Dump North of Airfield. Office trash and household waste are transported off-site to a municipal landfill. It also received sludge from the sewage treatment plant under a special permit from April 1993 to September 1993.

3.1.2 Current Activities

As described above, Jefferson Proving Ground's mission as a munitions testing facility has not changed since 1941. Modifications to past activities have occurred due to both the eventual transfer of operations to Yuma and as a result of compliance regulations. These changes are summarized below:

- Building 279 has been certified clean and was closed in September 1993.
- Building 600 is no longer used as an accumulation area for scrap propellant.
- Building 208 no longer discharges chemicals into the floor drains since the installation of a still.
- The wastewater treatment plant replaced its chlorination unit with an ultraviolet light treatment module in FY93.
- Building 122 is currently used as a transformer storage area.
- Gate 19 landfill is in the closure process.

3.2 ENVIRONMENTAL CHANGES AT JEFFERSON PROVING GROUND

Overall, operations at Jefferson Proving Ground have been scaled down since the Enhanced PA was conducted in 1990. Changes to the facility's environmental condition have occurred in the form of incidents, as described below:

- Three 300-gallon capacity underground storage tanks, containing diesel fuel, gasoline, and No. 2 fuel oil, located in downtown Madison were formerly used to supply emergency power to water supply pumps. These tanks have been removed and the facility now receives the water supply from Madison. In the field screening conducted in May 1993, no significant contamination was detected; therefore, no further action was recommended for the former tanks.

  USAEC has since determined that the site was contaminated and has recommended remediation. Remediation activities were conducted from December 8, 1993, through December 22, 1993, and included the excavation of

test pits and the transportation of soils to a Bio-cell located at Jefferson Proving Ground for treatment. Laboratory analysis, performed per Indiana Department of Environmental Management guidelines on the samples from the excavations, showed total petroleum hydrocarbon (TPH) concentrations to be below the 100 parts per million guidelines for all 12 samples (Appendix A, Reference 48).

- ★ On March 9, 1987, twenty-five gallons of diesel fuel were released onto a concrete pad at an unspecified location on installation property.

- ★ On November 15, 1990, slight soil contamination was reported next to and beneath a fuel tank that had been removed next to Building 227. No other information is available regarding this site.

- ★ On May 20, 1993, approximately 30 gallons of hydraulic fluid were released from a ruptured hydraulic line of a bushhog. The location was reported to be on Bridge No. 1 on Jamestown Road at Middlefork Creek. This site spill was contained and remediated on the same day.

- ★ On July 28, 1993, an unknown amount of No. 2 fuel oil originating from a former underground storage tank near Building 211 was discovered flowing into the sewage treatment plant. Site remediation plans were completed, and all former underground storage tank sites are being addressed by the Corps of Engineers or in the RI/FS.

4.0 INVESTIGATION RESULTS

This section describes the results of the CERFA investigation. The first part describes all areas within the BRAC property that have been addressed in reports prior to the CERFA investigation, and the second part describes all areas within the BRAC property that have not been addressed in previous reports. The third part identifies adjacent properties that may be potential sources of contamination. The fourth part describes areas containing items not regulated by CERCLA, and the fifth part describes areas where remediation has occurred. Part six describes real property within the BRAC property that will be retained by the Army.

4.1 PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATIONS

This part describes both existing areas requiring environmental evaluations and those that have undergone change.

4.1.1 Existing Areas Requiring Environmental Evaluations

Tables 4-1A and 4-1B present all potential environmental sites identified in the Enhanced PA, a 1992 RCRA Facility Assessment, and a 1993 Installation Action Plan.

The initial USATHAMA Base Closure study was an Enhanced PA, completed in March 1990. It included 36 SWMUs and approximately 17 areas of concerns. Very little information was available from many of these sites. The Enhanced PA recommended that further study be undertaken at many of the locations.

The U.S. Army proposed performing a RI/FS of the cantonment area (area south of the firing line), originally scheduled for completion in September 1993. The original scope of the RI/FS covered approximately 20 areas requiring environmental evaluations, including landfills, asbestos-containing material, underground storage tanks, miscellaneous disposal areas, etc.

However, in March 1992, USEPA - Region V produced a Draft RFA for the entire installation. The Draft RFA identified 86 SWMUs and areas of concerns. Nineteen of these sites were described as areas where the potential for release was unlikely. As a result of the RFA, USATHAMA and the U.S. Army Environmental Hygiene Agency identified an additional 28 sites to be added to the RI/FS of the cantonment area for a total of 48 sites. The RI/FS field program has begun and the study is expected to be completed in April 1995.

The RI/FS field work is being conducted in two phases. The first phase of field work was completed on December 4, 1992, and included soil borings, soil sampling, surface water sampling, and a preliminary asbestos inspection. The second phase of field work was initiated in March 1993 and involved the installation of monitoring wells. Prior to installation, a field screening device called a soil probe was used to screen subsurface soils and groundwater for petroleum contaminants. Of the 23 sites surveyed, only 5 were found to have significant contamination. These include the Gate 19 Landfill, the Building 602 Solvent Disposal Pit and

TABLE 4-1A
PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATION IN BRAC PROPERTY, SOUTH OF FIRING LINE AND OFF-BASE PUMPHOUSE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Site Number	Name	Coordinate Location (x,y) Figure 5-1A	Parcel Number	Source of Information			
				Enhanced Preliminary Assessment (1990)	Draft RCRA Facility Assessment (1992)	Installation Action Plan (1993)	Current Investigative Status
01	Building 185 Incinerator	(70,16)	129D	✓	✓	✓	RI/FS
02	Building 177 - Sewage Treatment Plant Lab	(71,16)	129D	✓	✓	✓	NFA
03	Building 177 - Sewage Treatment Plant	(71,16)	129D	✓	✓	✓	RI/FS
04	Burn Area (Engineer's Road)	(96,15)	131D	✓	✓	✓	RI/FS
05	Landfill Abandoned (Engineer's Road)	(96,14)	131D	✓	✓	✓	RI/FS
06	Open Burning Pan Area (Shun Pike Road)	(120,9)	134D	✓	✓	✓	RI/FS
07	Wood Storage Pile (Airport)	Not Mapped	Not Mapped	✓	✓	✓	RI/FS
08	PCP Wood Storage Pile (Airport)	(78,34)	112D	✓	✓	✓	RI/FS
09	Disposal Area (Behind 211)	(107,47)	61D	✓	✓	✓	RI/FS
10	Building 208-Photo Lab	(111,47)	63D	✓	✓	✓	RI/FS
11	Building 333-Incinerator	(90,42)	82D	✓	✓	✓	RI/FS
12a	Building 281-Indoor Firing Range	(102,51)	38D	✓		✓	RI/FS
12b	Building 295-Indoor Firing Range	(90,50)	44D	✓		✓	RI/FS
14	Burning Area (Gate 19)	(42,60)	20D	✓	✓	✓	RI/FS
15	Landfill (Gate 19)	(42,61)	20D	✓	✓	✓	RI/FS
27	Building 602-Solvent Pit	(59,50)	41D	✓	✓	✓	RI/FS
28	Building 617-Solvent Pit	(73,50)	42D	✓	✓	✓	RI/FS
29	Building 279-Solvent Pit	(102,49)	38D	✓	✓	✓	RI/FS
30	Fire Training Pit	(81,31)	121D	✓	✓	✓	RI/FS
31	Building 105-Waste Storage	(107,43)	81D	✓	✓	✓	NFA
33	Building 204-Insecticide/Herbicide Storage	(111,47)	63D		✓	✓	RI/FS
34	Building 227-Weapons Maintenance Workshop	(98,47)	58D	✓	✓	✓	RI/FS
35	Building 186-Equipment Maintenance Shop	(98,45)	58D	✓	✓	✓	RI/FS
36	Building 305-Hazardous Waste Temp Storage	(85,33)	105D	✓	✓	✓	NFA
37	Transformers Installation Wide	Not Mapped	Not Mapped	✓		✓	RI/FS
39	Building 216-Locomotive Maintenance Pit	(114,47)	65D		✓	✓	RI/FS
41	Debris Dump (North of Airport)	Not Mapped	Not Mapped		✓	✓	RI/FS
42	Disposal Area (Papermill Road)	(93,42)	79D		✓	✓	RI/FS
43	Defense Reutilization and Marketing Office Storage Area	(94,41)	79D		✓	✓	RI/FS
44	Sulfur Disposal Area	(89,39)	98D	✓	✓	✓	RI/FS
45	Sewage Sludge Application Area	(70,14)	129D	✓	✓	✓	RI/FS
46	Potential Ammo Dump (Tokyo & RR)	(65,39)	97D		✓	✓	RI/FS
47	Open Burning Area (Gator Z)	(138,21)	126D	✓	✓	✓	RI/FS
48	Scrap Disposal Area (Gator Z)	(138,22)	126D		✓	✓	RI/FS

TABLE 4-1A
PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATION IN BRAC PROPERTY, SOUTH OF FIRING LINE AND OFF-BASE PUMPHOUSE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Continued

Site Number	Name	Coordinate Location (x,y) Figure 5-1A	Parcel Number	Source of Information			
				Enhanced Preliminary Assessment (1990)	Draft RCRA Facility Assessment (1992)	Installation Action Plan (1993)	Current Investigative Status
49	Building 186-Antifreeze Storage	(98,45)	58D		✓	✓	NFA
50	Building 205-Former Chemical Storage	(108,45)	1Q		✓	✓	RI/FS
51	Buiding 301 (Airport Hangar) - Waste Storage	(85,34)	105D		✓	✓	NFA
54	Building 108A-Former Transformer Storage	(111,43)	81D		✓	✓	NFA
55	Sanitary Sewer	Not Mapped	Not Mapped		✓	✓	NFA
56	Storm Sewer	Not Mapped	Not Mapped		✓	✓	NFA
57	Building 186-Waste Oil Underground Storage Tank	(98,45)	58D	✓	✓	✓	NFA
58	Building 186-Oil/Water Separator	(98,45)	58D	✓	✓	✓	NFA
59	Building 110-Oil/Water Separator	Not Mapped	Not Mapped		✓	✓	NFA
60	Building 136-Sand Blasting Area	(106,43)	81D		✓	✓	RI/FS
61	Building 136-Waste Paint Area	(106,43)	81D		✓	✓	NFA
62	Building 186-Floor Drain & Wash Rack	(98,45)	58D	✓	✓	✓	RI/FS
63a	Building 115-Photo Lab Drain	(107,40)	95D		✓	✓	NFA
63b	Building 208-Photo Lab Drain	(111,47)	63D	✓	✓	✓	NFA
63c	Building 325-Photo Lab Drain	(83,44)	75D		✓	✓	NFA
64	Building 602-Underground Storage Tank & Soil Staging Area	(59,50)	41D		✓	✓	RI/FS
65	Underground Storage Tanks (Known Releases)	Throughout	Throughout	✓	✓	✓	RI/FS
66	Building 103-Oil Spill	(108,45)	72D		✓	✓	RI/FS
67	Building 118-Gas Station	(107,42)	81D		✓	✓	RI/FS
69	Building 105-Solvent Tank/Lead Casting	(107,43)	81D		✓	✓	NFA
70	East-West Runway Testing	(81,23)	121D		✓	✓	RI/FS
74	Mine Test Area (Gator Z)	(135,16)	126D	✓	✓	✓	RI/FS
77a	Building M1-Low Level Rad Waste Storage	(85,27)	121D			✓	NFA
77b	Building 610-Low Level Rad Waste Storage	(76,53)	1Q			✓	NFA
78	Building 506-Solvent Distillation Stills	(119,42)	87D		✓[1]	✓	NFA
79	Building 506 TCA Accum Area	(119,42)	87D		✓[1]	✓	NFA
80	Building 186-Spent Lead/Acid Battery Storage	(98,45)	58D	✓	✓[1]	✓	NFA
81	Building 211 Waste Filler/Methylene Accumulation	(107,47)	61D		✓[1]	✓	NFA
82	Building 227 Satellite Accumulation Shed	(98,47)	58D	✓	✓[1]	✓	RI/FS
83	Building 600-Scrap Propellant Accumulation & Storage Shed	(57,51)	35D		✓[1]	✓	NFA
84	Building 534-Scrap Propellant Accumulation Area	(132,42)	70Q		✓[1]	✓	NFA
85	Building 534-TCU Storage	(132,42)	70Q		✓[1]	✓	NFA
86	Building 325-Scrap Fuse Accumulation Area	(83,44)	75D		✓[1]	✓	NFA

TABLE 4-1A
PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATION IN BRAC PROPERTY, SOUTH OF FIRING LINE AND OFF-BASE PUMPHOUSE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Continued

Site Number	Name	Coordinate Location (x,y) Figure 5-1A	Parcel Number	Source of Information			
				Enhanced Preliminary Assessment (1990)	Draft RCRA Facility Assessment (1992)	Installation Action Plan (1993)	Current Investigative Status
87	Portable Oil/Water Separator	Not Mapped	Not Mapped		✓[1]	✓	NFA
88	Building 119-Cyclone	Not Mapped	Not Mapped		✓[1]	✓	NFA
89	Building 136(former)-Water Curtain	Not Mapped	Not Mapped		✓[1]	✓	NFA
90a	Building 186-Safety Kleen Cleaner	Not Mapped	Not Mapped		✓[1]	✓	NFA
90b	Building 216-Safety Kleen Cleaner	Not Mapped	Not Mapped		✓[1]	✓	NFA
90c	Building 227-Safety Kleen Cleaner	Not Mapped	Not Mapped		✓[1]	✓	NFA
91	Building 227-Magnaflum Fluid Satellite Accumulation	(98,47)	58D		✓[1]	✓	NFA
92	Asbestos Materials	Throughout	Throughout	✓	✓[1]	✓	RI/FS
93	Building 216-Potential Solvent Pit	(114,47)	65D			✓	RI/FS
94	Building 105-Locomotive Maint Pit	(107,43)	81D			✓	RI/FS
95	Building 259-Discharge/Fill Pipe	(90,50)	44D			✓	RI/FS
96	Building 281-Former Underground Storage Tanks	(102,51)	38D			✓	RI/FS
97	Potential Wells or Tanks	(101,41)	93D			✓	RI/FS
98	Concrete Vault (Near Airport)	(87,43)	114D			✓	RI/FS
99	Explosive Ordnance (Airport)	(84,28)	121D			✓	RI/FS
100	Flare Test Sites (2 Sites)	(72,22), (75,22)	121D			✓	RI/FS
101	Possible Mine Test Area (South of Airport)	(81,17)	128D			✓	RI/FS
102	Storage Igloos	Not Mapped	Not Mapped			✓	RI/FS
103a	Unexploded Ordnance South 1	(121,19)	127D	✓		✓	RI/FS
103b	Unexploded Ordnance South 2	(136,19)	126D	✓		✓	RI/FS
76	Off-site Pumphouse	(45,15)	135D		✓	✓	RI/FS

Key: RI/FS = Remedial Investigation/Feasibility Study
NFA = No Further Action

[1]Units that exist under conditions where releases are unlikely.

TABLE 4-1B
PREVIOUSLY IDENTIFIED AREAS REQUIRING ENVIRONMENTAL EVALUATION IN BRAC PROPERTY, NORTH OF FIRING LINE, JEFFERSON PROVING GROUND, MADISON, INDIANA

Site Number	Name	Coordinate Location (x,y) Figure 5-1B	Parcel Number	Source of Information			
				Enhanced Preliminary Assessment (1990)	Draft RCRA Facility Assessment (1992)	Installation Action Plan (1993)	Current Investigative Status
13	Ammo Demil Area	(90,53), (90,55)	23D	✓	✓	✓	TBD
16	Ordnance Disposal Area (C & Morgan Roads)	(85,102)	14D	✓	✓	✓	TBD
17	Landfill (S of 4.5 MIR & York Road)	(150,102)	15D	✓	✓	✓	TBD
18	Disposal Well Abandoned(Grenades)	(97,211)	10D	✓	✓	✓	TBD
19	Munitions Test Pond	(84,288)	8D	✓	✓	✓	TBD
20	Macadam Test Pond	(89,288)	8D	✓	✓	✓	TBD
21	Abandoned Cistern (I & Cottrell Roads)	(133,267)	9D	✓	✓	✓	TBD
22	Open Burning Area (J & Cottrell Roads)	(142,311)	7D		✓	✓	TBD
23	Open Detonation Area (Shonk Farm)	(97,329)	6D	✓	✓	✓	TBD
24	Landfill Abandoned (Near East Perimeter Road)	(142,358)	3D	✓	✓	✓	TBD
25	Landfill Abandoned (Near East Perimeter Road)	(142,358)	3D	✓	✓	✓	TBD
26	Landfill (Within Impact Area)	(144,118)	13D	✓	✓	✓	TBD
32	Depleted Uranium Firing Range	(106,106)	12D	✓	✓	✓	TBD
38	Unsurfaced Roads	Not Mapped	Not Mapped		✓	✓	TBD
40	Disposal Area (North of 4.5 MIR)	(144,118)	13D		✓	✓	TBD
52	Air Gunnery Range Accum Area	(106,342)	4D		✓	✓	TBD
53	Scrap Equip at Air Gunnery Range	Not Mapped	Not Mapped		✓	✓	TBD
68	Firing Range Impact Areas	Throughout	Throughout		✓	✓	TBD
71	Air Gunnery Range	(106,348)	4D		✓	✓	TBD
72	Air Bombed Storage Tank Target Area	(101,185)	11D		✓	✓	TBD
73	Family of Scatterable Mines Area (8100 E)	Not Mapped	Not Mapped		✓	✓	TBD
75	Bromacil Area (Jinestown Road)	Not Mapped	Not Mapped		✓	✓	TBD

Key: TBD = To Be Determined
RI/FS = Remedial Investigation/Feasibility Study

underground storage tanks, the Building 617 solvent pit and underground storage tanks, the Building 118 gas station underground storage tanks, and the underground concrete vault.

Because an RI/FS of unexploded ordnance areas would require cleanup of unexploded ordnance, the Army is currently deferring a detailed environmental study of the area north of the firing line due to the potential physical hazards associated with unexploded ordnance and the ongoing test firing mission at Jefferson Proving Ground. A timeframe for an environmental investigation of the firing range will depend on the level of safety that may be attained for an investigation, and the unexploded ordnance technology available at the time of evaluation. Therefore, the current status of the area north of the firing line is yet to be determined.

Below is a description of sites identified in the Enhanced PA, RFA, and Installation Action Plan. Unless otherwise stated, each has been mapped on Figures 5-1A and 5-1B.

4.1.1.1 Existing Areas Requiring Environmental Evaluations South of the Firing Line

Jefferson Proving Ground-01: Building 185, Old Incinerator. This unit is a 556-square feet incinerator used from 1941 to 1978 to burn small ammunition as well as paper products. Particulate matter that had settled on the surrounding soil and within the stack itself are of concern. The particulate matter may have included hazardous substances from disposed materials. The building recently stored open containers of waste polyurethane contaminated with methylene chloride and full/empty containers of chlorine gas. This site is part of the ongoing RI/FS.

Jefferson Proving Ground-02: Building 177, Water Quality Laboratory. This site generates minor quantities of laboratory wastes, including cleaning detergent and residual sample waste. According to a USEPA Environmental Audit conducted in 1990, no further investigation of the site is warranted.

Jefferson Proving Ground-03: Building 177, Sewage Treatment Plant. This 682-square feet unit consists of primary and secondary treatment for sanitary wastes as well as some light industrial waste (boiler blowdown and photographic wastes). In the past, infiltration of surface water into the Sanitary Sewer System (see Jefferson Proving Ground-55) caused the concentrations of suspended solids to exceed the National Pollution Discharge Elimination System limits. A fish kill was attributed to cyanide releases from the unit in 1978. The facility has since changed film processing methods to exclude bleach and cyanide use, thereby mitigating similar contamination problems. A Sewage Sludge Application Area (see Jefferson Proving Ground-45) and a satellite accumulation area are also located adjacent to this plant. A RI/FS is underway.

Jefferson Proving Ground-04: Burn Area South of Engineers Road. This 2-acre unit is located just south of Engineers Road and east of Papermill Road. It was used to burn explosive-contaminated waste and fuses in the mid-1970s and has since been overgrown with vegetation. The RI/FS of the area is underway.

Jefferson Proving Ground-05: Abandoned Landfill. This 1-acre unit just south of Jefferson Proving Ground-04 consists of trenches and mounds that were used to landfill photographic wastes and other refuse. This area was the only on-base landfill south of the firing line and was used from 1941 to the 1970s. It was the probable recipient of pesticide containers, ash from the old incinerator (Jefferson Proving Ground-01), and paint wastes. The RI/FS of the area is underway.

Jefferson Proving Ground-06: Burn Area. This area consists of four trays used to burn unserviceable propellants. They were installed in 1986, spread out in an area measuring 200 feet by 200 feet. Before the use of these pans, demilitarization of propellants was conducted on gravel placed over the soil. This unit is located just east of Shun Pike Road in the southeast portion of the facility. Extensive use of herbicides have historically been used to clear vegetation. The RI/FS is underway.

Jefferson Proving Ground-07: Wood Storage Pile. This area is located on the airport runway and is used to stockpile wood debris prior to open burning by the facility's fire department. The site is not mapped because there is no evidence to suggest its inclusion to any CERFA category. A RI/FS is underway.

Jefferson Proving Ground-08: PCP Wood Storage Pile. This pile is located on the airport, due west of the hangar, about 50 feet from the Wood Storage Pile (Jefferson Proving Ground-07). The pentachlorophenol-treated wood is accumulated prior to disposal at an off-site landfill. The RI/FS will address this area.

Jefferson Proving Ground-09: Disposal Area, Behind Building 211. This area was reportedly used in 1957 to dispose of red lead and barium sulfate waste generated during the inert munitions loading process. An unknown amount of methylene chloride was also reportedly dumped between the rails of the railroad tracks behind Building 211. The RI/FS of this area is underway.

Jefferson Proving Ground-10: Building 208, Photographic Laboratory. This site has been used since the mid-1970s to process film related to the facility's activities. Discharges of cyanide and silver to the sanitary sewer occurred prior to 1980. A silver recovery process is currently being used. Following removal of the silver, the waste is fed into a distillation apparatus which eliminates the need to disposal of photo chemicals in the sewer. No further action is planned for this unit.

Jefferson Proving Ground-11: Building 333, Incinerator. The unit is used to treat burnable waste, including paper products, debris, plywood, polyurethane, and iron oxide. The polyurethane may have been contaminated with methylene chloride. The incinerator has been in use since 1978. Ash is routinely analyzed prior to disposal at the Gate 19 landfill (Jefferson Proving Ground-15). The RI/FS of this area is underway.

Jefferson Proving Ground-12: Buildings 281 & 295, Indoor Firing Ranges. These buildings were used to test small arms for training until the early 1980s. Lead dust from the firing of

ammunition is the primary environmental concern. A RI/FS is being conducted to determine the extent of lead contamination.

Jefferson Proving Ground-14: Burn Area Near Gate 19. This 0.5-acre area was reportedly used from the 1950s to the 1970s to burn construction debris as well as unserviceable propellants. In addition, trichloroethylene (TCE) was disposed at the unit. Currently, the area is overgrown by tall vegetation and the extent of this area is indiscernible. The site will be evaluated as part of the facility's RI/FS.

Jefferson Proving Ground-15: Gate 19 Landfill. Empty pesticide containers, incinerator ash, polyurethane/methylene chloride wastes, red lead, and TCE reportedly have been disposed in this 12-acre site. The landfill currently receives only construction debris and double-bagged asbestos-containing material. A RI/FS is underway to study the migration of contaminants.

Jefferson Proving Ground-27, 28, 29: Solvent Disposal Pits. These sites are located adjacent to Buildings 602, 617, and 279, respectively, which were all ammunition assembly plants. Buildings 617 and 279 have been deactivated. From 1970 to 1978, waste solvents/degreasers (including TCE) were disposed in 3-foot diameter, 3-foot deep gravel-filled pits. An estimated 4 to 500 gallons of TCE may have been disposed in these pits. The current RI/FS addresses the three solvent disposal pits. As part of the investigation, subsurface soil samples were collected at each of these three sites, and monitoring wells were installed to determine if groundwater had been affected.

Jefferson Proving Ground-30: Fire Training Pit. This 200-square foot, 2-foot deep pit is located adjacent to the airport runway. Wood soaked with petroleum products was ignited to train fire-fighting personnel. Although currently inactive, petroleum products have likely entered subsurface soils due to incomplete combustion. A RI/FS is underway to assess the extent of contamination.

Jefferson Proving Ground-31, 69, 94: Building 105. Jefferson Proving Ground-31 is a temporary storage area located within a metal shop where waste fluids such as cutting oil, cooling fluids, and napthalenic oils are temporarily stored before they are properly disposed offsite. The use of 55-gallon drums within steel containment pans makes the potential of release very low.

Jefferson Proving Ground-69 contains a former solvent tank and lead casting operations, both of which have been deactivated. Small machinery parts were cleaned in the dip tank, which probably was used from the early 1940s until the late 1980s. The lead casting process, used to make lead hammers, was put out of service in 1986.

Jefferson Proving Ground-94 is a locomotive maintenance pit located within the building. It is a 36-foot-long by 5-foot-wide trench covered with steel plates. The trench allowed access to the underside of locomotives and may have received fluids that were drained, spilled, or leaked from the locomotives. No records exist documenting whether the trench was cleaned out after locomotive maintenance ceased. It is assumed that the pit became operational along with the building. It is not known when the locomotive maintenance operations ceased.

Of the three sites located within Building 105, Jefferson Proving Ground-94 is the only one requiring further evaluation in the ongoing RI/FS.

Jefferson Proving Ground-33: Building 204, Insecticide/Herbicide Storage. The building has a concrete floor, and waste quantities are reported to be small and appropriately handled. Any accidental spills inside the facility would be contained; however, past practices are not well known. A small building just east of Building 204 appears to be used for mixing herbicides and rinsing containers. The area is contained, yet there is possibility of contamination via runoff. A RI/FS is underway to study these pathways.

Jefferson Proving Ground-34, 82, 91: Building 227, Weapons Maintenance Workshop. Jefferson Proving Ground-34 consists of a concrete pad situated approximately 30 yards east of the building. Minor spills have occurred in the past. This workshop was replaced in 1990 by the Satellite Accumulation Shed (Jefferson Proving Ground-82). The ongoing Remedial Investigation will assess the status of a former underground storage tank site; and if necessary it will be remediated by the Corps of Engineers in coordination with the Indiana Department of Environmental Management.

Jefferson Proving Ground-82 is a shed east of Building 227, adjacent to Jefferson Proving Ground-34, above. Both the shelter and the pad were used to store waste solvents, waste oil and lubricants, and waste paint from the operations conducted in the workshop. These units are being evaluated in the RI/FS.

Jefferson Proving Ground-91 is a Magnaflux Fluid Satellite Accumulation Shed.

Jefferson Proving Ground-35, 49, 57, 58, 62, 80: Building 186, Equipment Maintenance Shop. This building contains six areas requiring environmental evaluations described below.

Jefferson Proving Ground-49, the Antifreeze Accumulation Area, consists of a 55-gallon drum to collect used antifreeze and an antifreeze recycling unit. This recycling system is located within Building 186, which is an enclosed structure with a concrete floor. No further response action is planned based on Groundwater Consultation No. 38-26-KQ80-90 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-57 consists of a 1,000-gallon waste oil underground storage tank (Tank No. 17) located inside and outside of this shop, constructed of galvanized steel that is painted for corrosion protection, and an indoor tank that feeds waste oil to the outdoor tank. The underground storage tanks are approximately 8 years old and currently active. No releases have been reported or observed, and no response action is planned.

Jefferson Proving Ground-58, an Oil/Water Separator located just outside of Building 186, consists of a concrete pit 3 feet by 3 feet in size and manages wastewater from the Floor Drain and Wash Rack (Jefferson Proving Ground-62, below). Oily liquids are piped off the top of the fluid and are disposed of in the Tank No. 17 Waste Oil underground storage tank (Jefferson Proving Ground 57, above). The wastewater from the Oil/Water Separator is discharged to the Sanitary Sewer System (Jefferson Proving Ground-55). Solids are collected and disposed of at

a' off-site sanitary landfill annually. No further response action is planned based on ' oundwater Consultation No. 38-26-KQ80-90 (Army Environmental Hygiene Agency).

Je .. son Proving Ground-62 consists of a floor drain within the building and a wash rack immediately outside. The floor drain consists of a trench about 18 inches wide and 12 inches deep that spans the length of the shop. The wash rack is a 4 foot by 20 foot grate over a 3-foot-deep concrete pit that collects liquids from vehicular washing and maintenance activities. The RI/FS is addressing this drain.

Jefferson Proving Ground-80 is an accumulation area for used batteries. There is no evidence of a release from this area, and no further action is planned.

Jefferson Proving Ground-36: Building 305, Hazardous Waste Storage Area. This unit is used as a temporary storage area (less than 90 days) of RCRA hazardous waste prior to removal by Defense Reutilization and Marketing Office contractors. Waste stored here have included stoddard solvent, PCB-contaminated oil, electrical transformers, asbestos, copper slats, scrap propellant, and bagged ash. A closure plan has been approved for Building 305, as required under RCRA. The RI/FS is underway for this site.

Jefferson Proving Ground-37: Transformers. Jefferson Proving Ground currently has a program in place for inventory, control, sampling, and ultimate removal of all PCB-containing transformers. No further response action is planned. The use of transformers does not preclude its inclusion as a CERFA Parcel and therefore, Jefferson Proving Ground-37 is not mapped. However, transformer storage is addressed in Part 4.4.3.

Jefferson Proving Ground-39, 93: Building 216, Locomotive Maintenance Area. Jefferson Proving Ground-39 is a concrete trench in the floor of the building that may have been used as part of the maintenance of locomotives. No further information regarding this site exists.

Jefferson Proving Ground-93 is a potential solvent pit. A break in the concrete next to the north side of the building resembles a rock-covered area similar to the solvent pits at Buildings 602, 617, and 279 (Jefferson Proving Ground-27, 28, 29).

The RI/FS is currently evaluating these areas.

Jefferson Proving Ground-41: Debris Dump North of Airport. This unit is located to the west of the new incinerator (Building 333). The unit was reported to be a solid waste disposal area used for dumping construction debris from approximately 1955 to 1972, but appears to have been used more recently for the disposal of brush, woods, and tree trimmings. No further action is planned for this area. The type of materials disposed do not preclude its inclusion as a CERFA Parcel; therefore, Jefferson Proving Ground-41 is not mapped.

Jefferson Proving Ground-42: Papermill Road Disposal Area. This unit consists of an open field with few distinguishing features. It was used from approximately 1949 to 1968 for unknown purposes. Ground staining, along with debris, mounded material, vehicles, and containers were noted in successive aerial photographs. The area is presently overgrown, but

stressed. There is no information regarding the nature of potential contaminants at this site. The RI/FS is underway.

Jefferson Proving Ground-43: Defense Reutilization and Marketing Office Storage Area. This site, located at the northeast corner of Paper Mill Road and Infantry Road (adjacent to Building 189), consists of a flat, gravel-covered open storage area approximately 150 feet wide and 300 feet long. The area is currently used to store scrap metal, scrap equipment, and materials from the facility prior to being sold to offsite vendors. A small portion is used to store spent lead-acid vehicle batteries to offsite recycling. The southeastern corner of the site was used prior to 1980 for the storage of waste oil and transformers with PCB concentrations of less than 50 parts per million. The RI/FS is underway.

Jefferson Proving Ground-44: Yellow Sulfur Disposal Area. This area was identified in previous investigations. An analysis of area samples confirmed the presence of sulfur as the pH in the area is generally less than two. The RI/FS is underway.

Jefferson Proving Ground-45: Sewage Sludge Application Area. Four areas located in the vicinity of Building 185 and Building 177 were formerly used as drying beds for the sludge generated at the sewage treatment plant. In the past, high concentrations of silver and cyanide were reported in the sewage treatment plant effluent. The RI/FS is underway.

Jefferson Proving Ground-46: Potential Munitions Dump Site. A historical installation map indicated an area near the intersection of Tokyo Road and the railroad tracks that may have been used to dispose of ammunition. The accuracy of the map showing the location of the disposal area is questionable; no records exist that would indicate the type and quantity of materials dumped at this location. Also, an initial geophysical survey found no evidence of a dump site. The RI/FS is underway.

Jefferson Proving Ground-47: Gator Z Open Burning Area. This area is located in the southeastern portion of the facility, known as "Gator Z." Debris from materials used during mine testing was stockpiled and burned in a flat, open, nonvegetated area. Since there was a potential for ordnance components to be embedded in the refuse, it was burned before disposal. The unit was operated from 1985 until 1991, when the scrap was approved for disposal in the new incinerator (Jefferson Proving Ground-11). A RI/FS is underway.

Jefferson Proving Ground-48: Gator Z Mine Scrap Disposal Area. This unit consists of an open pit, with approximate dimensions of 12 feet × 25 feet × 5 feet. The pit was reportedly a disposal area for the components of "bouncing betty" mines. The only scrap disposed of here may be the steel carcasses of these mines, but these may contain explosive residuals. It is not known when the unit was first used, and it reportedly was last used in the late 1970s. The RI/FS is underway.

Jefferson Proving Ground-49: Building 186, Antifreeze Accumulation Area. See Jefferson Proving Ground-35.

Jefferson Proving Ground-50: Building 279, Former Chemical Storage. The unit consists of a 25 feet by 15 feet former shower room where 2 drums of photographic wastes had been stored from 1979 to October 1980. Building 279 was certified to be clean, and was closed in September 1993. A RI/FS is underway for the solvent pit located just outside Building 279 (Jefferson Proving Ground-29).

Jefferson Proving Ground-51: Waste Storage at Hangar. This 20 square foot room is located within the main airport hangar. Non-hazardous wastes are stored in 55-gallon drums directly on the concrete ground surface. No secondary containment system exists, but storage is indoors and over a concrete floor. No further response action is planned, per Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-54: Building 108A, Former Transformer Storage Area. The unit is located outdoors, north of Building 108A in a fenced-in area. This unit stored transformers that may have been filled with PCB oils. The time of operation is unknown. No releases were documented or observed. No further response action is planned, per Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-55: Sanitary Sewer System. This is a regulated unit, located throughout the southern portion of the facility. It consists of below-grade pipes that are used to convey sanitary wastewater from the photo development laboratory and boiler blowdown from the facility steam generators. The unit has been in use since 1941. No further response action is planned. No evidence exists to preclude this site as a CERFA Parcel; therefore, Jefferson Proving Ground-55 is not mapped.

Jefferson Proving Ground-56: Storm Sewer System. The unit, located throughout the southern portion of the facility, consists of concrete catch basins, open ditches, and below grade lines that are used to convey runoff away from developed portions of the facility. The unit currently manages stormwater runoff only. The unit has been in use since 1941. No further response action is planned per Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). No evidence exists to preclude this site as a CERFA Parcel; therefore, Jefferson Proving Ground-56 is not mapped.

Jefferson Proving Ground-57: Building 186, Waste Oil Underground Storage Tank (Tank No. 17). See Jefferson Proving Ground-35.

Jefferson Proving Ground-58: Oil/Water Separator. See Jefferson Proving Ground-35.

Jefferson Proving Ground-59: Building 110, Oil/Water Separator. The unit is located next to the driveway area in front of Building 110. The unit is comprised of a concrete pit with a lid about 3 feet by 3 feet in surface area, and about 5 feet deep, containing an Oil/Water Separator. No releases have been observed or reported. Oil/grease and solids from the carwash and garage in Building 110 were managed until 1980. No further response action is planned per Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). Oil/water separators do not preclude a site from being a CERFA Parcel; therefore, it is not mapped.

Jefferson Proving Ground-60, 61: Building 136, Painting Shop. Jefferson Proving Ground-60 is located just west of the building consisting of an approximately 20 foot by 20 foot area on a 6-inch thick asphalt pad that is used for sandblasting operations. Vehicles and other equipment are sandblasted there prior to being painted inside Building 136. Red primer containing lead was used in the past as a base coat. Waste sand is collected and analyzed for hazardous contamination. The unit began operations in 1942 and is still active. The site is being evaluated in the current RI/FS.

Jefferson Proving Ground-61 is located outdoors, between Buildings 136 and 121 on asphalt. It consists of steel contaminated pans and garbage cans used to store empty paint cans and associated wastes such as rags, etc. No further response action is planned, per Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-62: Building 186, Floor Drain and Wash Rack. See Jefferson Proving Ground-35.

Jefferson Proving Ground-63: Building 115, 208, 325, Photo Lab Drains. The unit consists of the floor drains and associated piping beneath Buildings 208, 325, and 115. The floor drains in each of the buildings were used to convey spent photo developing solutions, which contained high levels of cyanide, to the sanitary sewer system. The use of cyanide-bearing photo development chemicals ceased in 1980. Building 115 was used as the photo development lab prior to 1970; Building 208 has been used for this purpose since 1970. Building 325 was used as the x-ray photo development lab from 1965 to 1987. X-ray film is now processed in Building 208. No further response action is planned.

Jefferson Proving Ground-64: Building 602, Former Underground Storage Tank and Soil Staging Area. Contaminated soil was excavated in 1988 during the removal of a leaking underground storage tank and was stockpiled in the parking lot east of the building. The soil was contaminated with No. 2 fuel oil, which had leaked from tanks in the area. A sample of the excavated soil showed TPH levels of 146 milligrams per kilogram. The soil has subsequently been disposed offsite.

The former underground storage tank was utilized to store No. 6 fuel oil. In 1990, the Indiana Department of Environmental Management received notice that No. 6 fuel oil had been released to a ditch near Building 602. This tank (which had already been removed) was identified as the source, since other tanks in the area stored No. 2 fuel oil. This site is being evaluated in the current Remedial Investigation.

Jefferson Proving Ground-65: Underground Storage Tanks. Currently there are 37 underground storage tanks that were installed between 1941 and 1992 with capacities ranging from 300 to 25,000 gallons. Four of these tanks are in-place but inactive. The tanks have been used for the storage of fuel oil, diesel fuel, leaded and unleaded gasoline, kerosene, and white gas. The facility began a program to ensure compliance with Federal, State, and local regulations. In 1988, 10 inactive tanks were removed, and soil sampling in the excavation indicated that leakage of tank contents has occurred. Some contamination from metals (e.g.,

lead) may also have occurred. All underground storage tanks at the facility are being managed in accordance with Indiana underground storage tank regulations.

Jefferson Proving Ground-66: Building 103, Oil Spill. The Building 103 oil spill took place in April 1988 and was caused by the overfilling of an underground storage tank at the Central Heating Plant. About 300 gallons of No. 2 Heating Oil were spilled, covering about 600 square feet of soil south of the building. Most of the oil went into a nearby containment ditch, and approximately 65 percent of the spill was recovered from the ditch during the initial spill response. Most of the remainder was removed using adsorbents, which were subsequently landfilled or incinerated. According to facility personnel, the spill was cleaned up in 3 hours, and neither the storm sewer nor groundwater was affected. This area is of concern because of the nature of the contaminants and the lack of soil sample data confirming the cleanup. The RI/FS is underway.

Jefferson Proving Ground-67: Building 118, Gas Station. This unit consists of an office building (Building 118); a diesel pump house (Building 128); a gasoline pump house (Building 111); the dispensing pumps; and underground piping from three underground storage tanks. The unit has been in continuous operation since 1942. The underground storage tanks are tested annually. These tanks will not meet the new standards for underground storage tanks, due to lack of cathodic protection and spill control. The area is of concern due to the age of the underground piping and the large quantities of fuels, which are managed at the unit. The RI/FS is underway.

Jefferson Proving Ground-69: Building 105, Solvent Tank/Lead Casting. See Jefferson Proving Ground-31.

Jefferson Proving Ground-70: East-West Runway Test Area. This site was used for flare testing. The site is rectangularly shaped and is approximately 50 feet wide and several hundred feet long. The types of wastes that have resulted in the burning of flares have not been documented. Most flares contain magnesium, white phosphorus, sulphur, and either potassium or sodium nitrate. White phosphorus is poisonous when ingested and is ignitable at ambient temperatures. A RI/FS of this area is underway.

Jefferson Proving Ground-74: Gator Z, Mine Test Area. This site is located in the southeastern portion of the facility west of the East Perimeter Road between Mine Field Road and a tributary to Harberts Creek, encompassing approximately 220,000 square yards. There are 26 mine test pits placed in two rows parallel to Mine Field Road. Water and sediment samples were collected from Harberts Creek in January and July 1992. Silver was detected in both sample efforts. The exact source may be the Mine Test Area, the wastewater treatment plant, or runoff from sludge application. A RI/FS is underway.

Jefferson Proving Ground-77: Building 610, 611, M1, Low Level Radioactive Waste Storage. M1 is a portable facility that has been used for temporary storage of depleted uranium penetrators after they are recovered from the impact field. Presently, Buildings 610 and 611 are used for this purpose. These have been in use since 1986 and are all covered by a license from the Nuclear Regulatory Commission.

Jefferson Proving Ground-78, 79: Building 506. Jefferson Proving Ground-78 is comprised of solvent distillation stills. No further action is planned, based on the Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-79 is a TCA accumulation area. No further action is planned, based on the Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-80: Building 186, Spent Lead/Acid Battery Storage. See Jefferson Proving Ground-35.

Jefferson Proving Ground-81: Building 211, Waste Filler/Methylene Accumulation. No further action based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-82: Building 227, Satellite Accumulation Shed. See Jefferson Proving Ground-34.

Jefferson Proving Ground-83: Building 600, Scrap Propellant Accumulation and Storage Shed. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-84: Building 534, Scrap Propellant Accumulation Area. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-85: Building 534, TCU Storage. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-86: Building 325, Scrap Fuse Accumulation Area. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency).

Jefferson Proving Ground-87: Portable Oil/Water Separator. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). No evidence exists to preclude this area as a CERFA Parcel; therefore, it is not mapped.

Jefferson Proving Ground-88: Building 117, Cyclone. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). No evidence exists to preclude this area as a CERFA Parcel; therefore, it is not mapped.

Jefferson Proving Ground-89: Former Building 136, Water Curtain. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). No evidence exists to preclude this area as a CERFA Parcel; therefore, it is not mapped.

Jefferson Proving Ground-90: Buildings 186, 227, 216, Safety Kleen Cleaners. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (Army Environmental Hygiene Agency). No evidence exists to preclude this area as a CERFA Parcel; therefore, it is not mapped.

Jefferson Proving Ground-91: Building 227, Magnaflux Satellite Accumulation. See Jefferson Proving Ground-34.

Jefferson Proving Ground-92: Asbestos-containing Material. Asbestos-containing materials have been identified in many facility buildings, including pipes insulation, roofing, siding, and tiles. An asbestos survey was conducted in 1988 and again in 1993. Some asbestos abatement has occurred and the materials are disposed of at the Gate 19 landfill. Currently, asbestos-containing materials are managed through the Asbestos Management Plan in accordance with State and Federal regulations.

Jefferson Proving Ground-93: Building 216, Potential Solvent Pit. See Jefferson Proving Ground-39.

Jefferson Proving Ground-94: Building 105, Locomotive Maintenance Pit. See Jefferson Proving Ground-31.

Jefferson Proving Ground-95: Building 259, Discharge/Fill Pipe. This site consists of a horizontal pipe that exits the building and extends to the edge of the nearby railroad tracks. There is a black tarlike material on the ground surface at the end of the pipe, which appears to be some type of petroleum hydrocarbon; it is assumed that the pipe was formerly used to discharge some type of hydrocarbon. Leaching or infiltration of the possible hydrocarbon material is considered the only potential source at the site. The RI/FS is underway.

Jefferson Proving Ground-96: Building 281, Former Underground Storage Tanks. Two underground storage tanks were located at this site. One had a capacity of 500 gallons, the other 650 gallons; both were removed in the Spring 1992. Results of soil samples collected from the excavation ranged from 14.4 to 650 milligram per kilogram TPH. The RI/FS is being conducted to determine the extent of contamination.

Jefferson Proving Ground-97: Potential Wells/Tanks at Artillery and Infantry Roads. This site consists of two vertical pipes that rise approximately 3 feet above two former building floors. The history and former uses of the site are unknown. The RI/FS is underway.

Jefferson Proving Ground-98: Concrete Vault Near Airfield Railroad Tracks. There is no information on the former use of the site, but it appears to be a vault for underground piping that possibly leads to underground storage tanks at the former fuel storage area across the road northwest of the vault. The vault, the associated piping, and potential underground storage tanks would constitute possible contaminant sources. The site will be remediated by Corps of Engineers in coordination with the Indiana Department of Environmental Management.

Jefferson Proving Ground-99: Potential Unexploded Ordnance at Airfield. Reportedly, an area located on the southwestern side of the northwest-to-southwest runway was used as a mine mortar test area. The RI/FS is underway.

Jefferson Proving Ground-100: Flare Test Sites at Airport. These two sites have apparently been used to launch flares for flare testing, according to historical reports. The flares were reportedly launched onto the east-west runway. Most flares contain magnesium, white phosphorus, sulphur, and either potassium or sodium nitrate. The RI/FS is underway.

Jefferson Proving Ground-101: Potential Mine Test Area, South of Airfield. This area is characterized by numerous round surface depressions that appear to be the result of possible mine or mortar impact. The area has long since remained inactive, as evidenced by the thick growth of vegetation. The RI/FS is underway.

Jefferson Proving Ground-102: Ammunition Storage Igloos. Most of the 32 Ammunition Storage Igloos are located along Igloo Loop at the eastern end of the cantonment area; they consist of earth-covered concrete bunkers. The RI/FS is underway. The storage of ordnance does not preclude an area as a CERFA Parcel; therefore, Jefferson Proving Ground-102 is not mapped.

Jefferson Proving Ground-103: Potential Unexploded Ordnance South of Firing Line. There are three possible munitions testing areas: the Rocket Range, the hand-grenade testing area, and the mine test area. Potential contaminant sources include unexploded ordnance and explosive residues. The RI/FS is evaluating these areas.

4.1.1.2 Existing Areas Requiring Environmental Evaluations North of the Firing Line

Jefferson Proving Ground-13: Ammunition Demilitarization Area. This unit, located west of Morgan Road and north of Firing Line Road, consists of an area used to burn explosive charges from shells and for undefined demilitarization of other munitions. The area was first identified in aerial photographs, but its exact boundaries are unknown.

Jefferson Proving Ground-16: Ordnance Disposal Area. This unit, located at the intersection of Morgan and C Roads, consists of a 35-foot by 12-foot by 5-foot unlined pond used for the disposal of munitions collected during cleanup operations at facility ranges. The unit contains numerous corroding shells, which reportedly contain no explosive residues.

Jefferson Proving Ground-17: Landfill, Off York Road. The unit is on an extension of York Road, just north of B Road and south of the 4.5 Mortar Impact Range. It consists of a landfill that was reportedly used to bury inert projectiles and metals recovered from the impact areas, but facility personnel could not be certain of all the landfill contents. The actual size of the landfill is not known, but the unit is located within a clearing in the woods that is approximately 200 feet square in size.

Jefferson Proving Ground-18: Abandoned Grenade Disposal Wells. These two wells are located at the northwest corner of the intersection of Recovery and G Roads. File material

indicates that 100-200 riot control grenades and other munitions-related material were disposed in the wells. Only one of the wells has been located.

Jefferson Proving Ground-19: Munitions Test Pond. This unlined pond covers an area approximately 300 feet by 600 feet formerly used to test munitions' performance under water. Residual explosive materials are of concern.

Jefferson Proving Ground-20: Macadam Test Pond. This unit also tested the performance of munitions under water. The water was drained in the 1970s and found to hold no munitions, but the possibility of contamination to the surrounding soil has never been investigated.

Jefferson Proving Ground-21: Cistern Disposal Site. This site could not be located by facility personnel but is reported to be at the northwest corner of I and Cottrell Roads. File materials indicated that waste fuels were disposed in this cistern.

Jefferson Proving Ground-22: Burn Area. This unit is in the southwest end of the 1,600 east impact area, just east of Cottrell Road; it consists of 0.25-acre of land used to burn projectiles and propellants. This area was abandoned in 1980.

Jefferson Proving Ground-23: Detonation Area. This unit is located in the north central portion of Jefferson Proving Ground, north of Graham Creek and west of Bombfield Road. It consists of about 10 acres used for open detonation of unserviceable munitions.

Jefferson Proving Ground-24, 25: Landfills Near Hunting Lodge. These units (1-acre each) managed trash and debris from Old Timbers Lodge; they have become contiguous and indistinguishable. The combined landfill covers an area of about 100 feet by 100 feet on each side of the access road to the unit. Facility representatives indicated that ordnance may have been disposed in ponds near the landfill.

Jefferson Proving Ground-26: Landfill. This unit is located north of the firing line, and no response action is planned at this time. It was used for approximately 2 years for the disposal of trash and construction debris.

Jefferson Proving Ground-32: Depleted Uranium Firing Range. This unit is used as an impact area for the testing of munitions containing depleted uranium and is regulated by a Nuclear Regulatory Commission license. After firing, the facility attempts to recover the projectiles, but only 25 percent have been recovered. Low level radiation as well as explosive residue and metal contamination are of concern. The preparation of the depleted uranium Decommissioning Plan is underway and is being managed by the U.S. Army Test and Evaluation Command.

Jefferson Proving Ground-38: Unsurfaced Roads. Used motor oil was sprayed on unsurfaced roads for dust control. These roads are not mapped.

Jefferson Proving Ground-40: Landfill at 4.5 Mortar Impact Range. This unit is located near the northeast corner of the 4.5 Mortar Impact Range. The exact wastes managed at this unit (if any) are not known. This unit has been inaccurately identified in many of the facility documents

as Jefferson Proving Ground-17. However, Jefferson Proving Ground-17 is actually located south of the 4.5 Mortar Impact Range and is discussed as the Landfill Off York Road. As a result of the inaccurate identification, very little information has been collected regarding the portion of this unit in the northeast corner of the 4.5 Impact Range.

Jefferson Proving Ground-52: Air Gunnery Accumulation Area. This unit is located in the north central portion of the facility, west of Bombfield Road and north of Jefferson Proving Ground-23. It consists of a 55-gallon drum where steel slugs are collected and stored before they are detonated.

Jefferson Proving Ground-53: Air Gunnery Scrap Equipment Area. This unit stored scrap equipment that was later placed on the Aircraft Target Range (Jefferson Proving Ground-71) as targets. The storage of scrap equipment does not preclude an area as a CERFA Parcel; therefore, Jefferson Proving Ground-53 is not mapped.

Jefferson Proving Ground-68: Firing Range Impact Areas. This unit consists of the 50,000 acres north of the firing line. It is estimated that 7.6 million out of 23 million rounds fired into this area are unexploded (Government Accounting Office Report #NSIAD-90-42). Residual constituents of propellants and explosives may be present throughout the northern area.

Jefferson Proving Ground-71: Air Gunnery Range. The unit is located in the north-central portion of the facility south of K Road and west of Bombfield Road. It is used by both the Indiana Air National Guard and U.S. Air Force as an air gunnery and bombing practice area. The unit consists of 750 acres of relatively flat open field.

Jefferson Proving Ground-72: Air Bombed Storage Tank Target Area. This area is located off Center Recovery Road just north of F Road. It houses approximately eight storage tanks used as impact range targets.

Jefferson Proving Ground-73: Family of Scatterable Mines Area. This is a test area for mines, specifically mines designated as a Family of Scatterable Mines. The area, approximately 100 yards by 400 yards, is already qualified for unexploded ordnance and is therefore not mapped.

Jefferson Proving Ground-75: Bromacil Area. This area is located east of Jinestown Road, north of the Firing Line. This area was identified by aerial photographs as a vegetation-free area approximately 65 to 70 acres in size. Bromacil, an herbicide, was used to clear this area. Pesticide/herbicide use does not preclude an area as a CERFA Parcel; therefore, Jefferson Proving Ground-75 is not mapped.

Jefferson Proving Ground-76: Offsite Water Supply Wells. Two drinking-water wells, located near the Madison Country Club in downtown Madison, were formerly used to supply Jefferson Proving Ground with its drinking water. Three underground storage tanks, each with a 300-gallon capacity, supplied emergency power to the pumps. These underground storage tanks have been removed from the site. Field screening efforts conducted in May 1993 concluded that the site did not contain significant volatile organic compound contamination, and no further action was recommended for the former underground storage tanks at the site. The USAEC has since

determined that the site was contaminated and recommended remediation. The Corps of Engineers completed the field work on this remediation.

Also associated with this area are three buildings (150, 152, 154) that were used as pumphouses. They were studied during the Comprehensive Asbestos Survey and were given a rating of "F," which means that no immediate action was recommended until major renovations or demolition requiring removal is undertaken.

4.1.2 Existing Areas Requiring Environmental Evaluations That Have Expanded in Size

A number of areas requiring environmental evaluations identified in previous environmental documents have changed in size. Areas requiring environmental evaluation or sites where remediation has occurred are discussed in Section 4.5. Areas requiring environmental evaluation which have expanded in size are described in this part.

Underground Storage Tanks: At present, 33 underground product storage tanks located throughout the Jefferson Proving Ground facility are in use. Four additional underground storage tanks, ranging in size from 300 to 25,000 gallons, were used from 1941 to 1985. Some (but not all) of the tanks have been tested for leaks. None of the tanks are equipped with secondary containment or corrosion protection. The facility is in the process of removing the underground storage tanks; 9 have been removed since the Enhanced PA. Facility representatives reported that soil sampling will be conducted during all tank removal operations. A list of all the underground storage tanks at the facility, including size, contents, and dates of installation, are presented in Table 4-2.

SWMUs: A number of SWMUs identified in the Enhanced PA and RFA have been recommended for no further action. The source of the recommendation is identified in the discussion of each site. Sites north of the firing line were not recommended for further action at this time because of potential unexploded ordnance hazards; potential risk was not evaluated.

4.2 ADDITIONAL AREAS IDENTIFIED BY THE CERFA INVESTIGATION

The following section describes areas identified during the site visit and documents search of the Indiana Department of Environmental Management Spill Reports.

- ★ **February 17, 1987**. Twenty-five gallons of diesel fuel were released from a tank to a concrete pad, affecting an area approximately 50 square feet. The material was absorbed with Oil-Dry and disposed. The location of the spill was not specified in the Final Incident Report.

- ★ **May 5, 1993**. Approximately 25-30 gallons of hydraulic fluid were released near Bridge No. 1 on Jinestown Road at Middleford Creek in the range area, north of the firing line. The cause was a ruptured hydraulic line on a bushhog. A dike, water skimmer, and containment of exposed soil and water were used to control the release.

TABLE 4-2. UNDERGROUND PETROLEUM STORAGE TANKS, JEFFERSON PROVING GROUND, MADISON, INDIANA (Updated June 25, 1993)

Building Number	Capacity (gallons)	Install Year	Fuel Type	Tank Material	Status
Building 001	1,000	Unknown	No. 2 Fuel Oil	*	
Building 003	500	Unknown	No. 2 Fuel Oil	*	
Building 004	500	Unknown	No. 2 Fuel Oil	*	
Building 007	500	Unknown	No. 2 Fuel Oil	*	
Building 008	500	Unknown	No. 2 Fuel Oil	*	
Building 011	500	Unknown	No. 2 Fuel Oil	*	
Building 012	500	Unknown	No. 2 Fuel Oil	*	
Building 015	500	Unknown	No. 2 Fuel Oil	*	
Building 016	500	Unknown	No. 2 Fuel Oil	*	
Building 017	500	Unknown	No. 2 Fuel Oil	*	
Building 020	500	Unknown	No. 2 Fuel Oil	*	
Building 021	500	Unknown	No. 2 Fuel Oil	*	
Building 023	500	Unknown	No. 2 Fuel Oil	*	
Building 033	1,000	Unknown	No. 2 Fuel Oil	*	
Building 103	25,000	1952	No. 2 Fuel Oil	steel	Out of service 6/10/93
Building 103	550	1985	Diesel No. 2	steel	
Building 103	25,000	1952	No. 2 Fuel Oil	steel	
Building 103	25,000	1941	No. 2 Fuel Oil	steel	
Building 103	25,000	1941	No. 2 Fuel Oil	steel	
Building 118	12,000	1942	Diesel	steel	
Building 118	25,000	1942	No. 2 Fuel Oil	steel	
Building 118	12,000	1942	Unlead Gas	steel	
Building 118	12,000	1942	Unlead Gas	steel	
Building 125	1,000	1941	No. 2 Fuel Oil	*	
Building 177	300	1968	No. 2 Fuel Oil	steel	Out of service 6/2/93

TABLE 4-2. UNDERGROUND PETROLEUM STORAGE TANKS, JEFFERSON PROVING GROUND, MADISON, INDIANA (Updated June 25, 1993)

Continued

Building Number	Capacity (gallons)	Install Year	Fuel Type	Tank Material	Status
Building 186	1,000	1983	Oil	steel	
Building 189	500	1953	No. 2 Fuel Oil	*	
Building 236	1,000	1943	No. 2 Fuel Oil	*	
Building 313	1,000	1941	No. 2 Fuel Oil	*	
Building 322	1,000	1942	No. 2 Fuel Oil	*	
Building 325	2,000	1975	No. 2 Fuel Oil	*	
Building 333	10,000	1975	No. 2 Fuel Oil	steel	
Building 488	1,000	1941	No. 2 Fuel Oil	*	Out of service-date unknown
Building 530	4,000	1978	No. 2 Fuel Oil	steel	
Building 602	25,000	1952	No. 2 Fuel Oil	steel	Out of service 7/8/93
Building 711	500	Unknown	No. 2 Fuel Oil	*	
Building 714	1,000	1992	No. 2 Fuel Oil	steel	

*Unknown; assumed to be steel w/two coats of paint.

- ★ During the automobile drive-through survey conducted in October 1993, a pond containing ammunition boxes west of the airport was identified by Roy Williams (as Table 2-2). He described a sheen on the surface of the pond, possibly due to decaying organic matter, an occurrence that is often observed in shallow ponds at Jefferson Proving Ground. This area was also identified as a possible impoundment by EPA's Installation Assessment Relook Program (aerial photographs).

- ★ **Aboveground Storage Tanks.** Five aboveground storage tanks at Jefferson Proving Ground are still being used. There have been no documented or reported spills at these tanks; they are included in this report as petroleum storage facilities.

4.3 ADJACENT AND SURROUNDING PROPERTIES

The surrounding land use is primarily agricultural or rural residential. This information was verified during a perimeter inspection of the installation. Many of the homes were equipped with aboveground storage tanks, presumably containing heating oil.

4.3.1 Existing or Potential Pathways of Contamination Migration

Topographic and hydrogeological information for Jefferson Proving Ground provided in existing environmental documents was reviewed to assess potential contamination migration pathways onto Jefferson Proving Ground from adjacent properties. This information was used in combination with data on potential contamination sources on adjacent and surrounding property to determine if there were any existing or potential environmental impacts on the installation from off-site sources. Contamination source data were obtained through record searches, review of existing environmental reports, personnel interviews, and property site visits. The result of these adjacent and surrounding property evaluations are described below.

Nine streams flow into Jefferson Proving Ground many of which originate from adjacent farms. These streams have carried agricultural contaminants (fertilizers and pesticides) onto the facility. In August 1992, the Letter Report of Site Specific Sampling and Analysis Program Results prepared under USATHAMA reported the presence of atrazine (an herbicide) in entrance sampling results.

4.3.2 Environmental Concerns from Adjacent and Surrounding Properties

In order to identify potential offsite contamination sources for the Jefferson Proving Ground facility, a records search of Federal and State data bases (see Section 2.2) was conducted. The results of this search are provided in Appendix B. The search indicated the following:

- ★ No National Priorities List sites were located within a ½-mile buffer from the installation's boundary
- ★ No properties are currently under CERCLA review within a ½-mile buffer from the installation's boundary

- ★ No RCRA facilities are located in this area within a ½-mile buffer from the installation's boundary
- ★ No underground storage tanks were found within a ½-mile buffer from the installation's boundary.

According to Jefferson Proving Ground personnel, a fish kill was recently reported in one of the facility's northern creeks. The exact date could not be identified. After an analysis of the specimens, the source was determined to be an adjacent farm. In an attempt to free up a creek that had been clogged by vegetation, the owner used an herbicide in a dosage above the recommended amount.

In addition to the data base search completed for the installation, adjacent property visual site inspections and owner/operator interviews were also conducted. During the site inspection, there was no visible evidence of adjacent property operations that represented a potential contamination migration source.

4.4 Related Environmental, Hazards, and Safety Issues

Military installations frequently contain issues that the 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 commonly 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 Parcels with Qualifiers" in this CERFA report. Parcels which contain stored (not in use) equipment which contain some level of PCB oil, stored low level radionuclide-containing equipment such as dials and weapon site posts, and unexploded ordnance are also designated "CERFA Parcels with Qualifiers".

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. The following discussion addresses the presence of asbestos-containing material, lead-based paint, PCB storage, radon, unexploded ordnance, and radionuclides.

4.4.1 Asbestos

An asbestos survey of the facilities south of the firing line was conducted in 1993. A total of 430 functional spaces from 345 buildings were identified and surveyed. Of these, 316 functional

spaces were assigned assessment ratings, i.e., composed of some form of asbestos-containing material. The remaining 114 functional spaces were determined by an inspector not to have asbestos-containing material; in some instances, suspected materials were sampled, analyzed, and found to be free of asbestos.

An asbestos management plan has since been executed. Building 305 houses double-bagged asbestos-containing material prior to disposal at the Gate 19 landfill. Minor amounts of asbestos-containing material were remediated prior to the conduct of the survey during maintenance activities.

4.4.2 Lead-based Paint

A lead exposure risk assessment was conducted for the 13 living quarters built before 1978. All 13 buildings were rated as having medium risk.

The remaining buildings at the facility have not been surveyed for lead-based paint. Until this is done, all structures constructed before 1978 must be considered to contain some amounts of lead. The installation has some 380 buildings, of which only 25 have been built after 1978. The Building Information Schedule (Reference 23) was the main source of construction date information. In cases where a date was unavailable, the structure was assessed a "P" (possible) for lead-based paint.

4.4.3 Polychlorinated Biphenyls

Building 122, a former dry ice storage area, presently serves as an accumulation warehouse for out-of-service PCB containing transformers. Approximately 20 transformers were observed within the building at the time of the CERFA investigation. Jefferson Proving Ground currently has a program in place for the inventory, control, and sampling of all transformers. A PCB survey has been completed. There are currently no transformers containing more than 500 parts per million of PCB in service throughout the installation. Environmental staff also indicated there were currently no transformers in storage with PCB concentrations greater than 50 parts per million.

A former transformer storage area in the rear of building 108A is described in the RFA. The dates of operation are unknown. No releases were documented or observed. No further action is planned, per Ground-Water Consultation No. 38-26-KQ80-92.

4.4.4 Radon

Radon surveys were conducted in 1988 and again in 1993.

The 1988 Radon Gas Background Level Measurement was performed at 16 buildings that have basements. The readings were measured by the Radon Gas Home Test Detector, which meets USEPA Proficiency Testing. The results showed 1.9 pCi/L as the highest detected level.

A radon profile was conducted in 1993 as part of the U.S. Army Radon Reduction Program. Data based on the analysis of Alpha Track Monitors showed all levels of radon to be less than 4 pCi/L, the USEPA's suggested safe level.

4.4.5 Unexploded Ordnance

The main unit is located throughout the area north of the firing line, encompassing approximately 50,000 acres. Since the beginning of ordnance testing at the facility, an estimated 23 million rounds have been fired into this area. A Government Accounting Office Report (#NSIAD-90-42) has estimated that about 7.6 million rounds did not explode upon impact and may lie buried up to 20 feet below the ground surface.

While over 50 designated impact zones exist, unexploded ordnance is not confined to these identifiable, delineated areas. These target areas are used only when the detonation and/or impact of the projectile is being evaluated; impact points are nonessential when testing for velocity, gun tube proofing, propellant tests, etc. Thus, unexploded ordnance is not restricted to impact areas, and may be found anywhere north of the firing line.

There are also potential unexploded ordnance sites south of the firing line. These were identified from historical aerial photographs of the installation. These include ammunition dump sites, mine testing areas, a hand-grenade testing area, and a rocket range. In addition, the Enhanced PA mentions that a 1945 map indicates the presence of "duds" in areas south of the firing line. The current Remedial Investigation has not encountered any unexploded ordnance thus far south of the firing line.

Other concerns associated with unexploded ordnance are the contamination of the soil, surface water (several creeks run through the impact range), and ground water. Potential contaminants include heavy metals and explosive residues from cracked and leaking shell cases.

4.4.6 Radionuclides

A 2-square-mile area located north of the firing line serves as an impact range for depleted uranium armor plate penetrators. Since March 1984, when the first best firing occurred, 93,000 kilograms of these penetrators have been fired and tested. Every six months, facility personnel attempt to recover the depleted uranium projectiles, but only 23,000 kilograms (25 percent) have since been recovered.

Low-level radiation is a concern, although the facility has detected no elevated radiation levels in flora, fauna, or surface waters or ground water. While no radiation contamination has been detected, explosive residues were found in a 1992 semi-annual sampling and analysis round.

The depleted uranium projectiles are stored in Building 148 when they first arrive at Jefferson Proving Ground. When these penetrators are assembled to form a complete shell (i.e., with a sabot casing), they are transferred to Magazines 571 and 572. After they are tested and recovered, they are temporarily stored in Building 610 and 611 prior to shipment to the manufacturer for recycling. Magazine 001 has historically served this purpose but has since

been abandoned due to its small size. Depleted uranium is also used as shielding for an industrial x-ray located in Building 501.

The radionculides promethiaum and tritium are used in gun and artillery night-sighting devices. These are sealed sources of radioactivity and only presents a danger of release if the seal is broken. These sources are regulated under a general Nuclear Release Commission license maintained by the Army Materiel Command.

4.5 REMEDIATION EFFORTS

The U.S. Army has conducted a number of actions at Jefferson Proving Ground to remediate areas of potential threat to human health and environment since the publication of the Enhanced PA. However, no CERCLA remedial actions or RCRA Corrective Actions have occurred at the installation. Four types of remedial activities have occurred:

4.5.1 Underground Storage Tank Removal

Jefferson Proving Ground has begun a underground storage tank removal program. At the time of the preparation of the Enhanced PA, there were 46 underground storage tanks in place throughout the installation. Since that time, 9 underground storage tanks have been removed. Four of the remaining 37 underground storage tanks are currently out of service (see Table 4-2). Soil contamination has been identified at several of the former tank locations.

Three 300-gallon capacity underground storage tanks located in downtown Madison were formerly used to supply emergency power to water supply pumps. These underground storage tanks have been removed. USAEC determined that the site was contaminated and recommended remediation. Remediation activities were conducted from December 8, 1993, through December 22, 1993, and included the excavation of test pits and the transportation of soils to a Bio-cell located at the facility for treatment. Laboratory analysis, performed per Indiana Department of Environmental Management guidelines on the samples from the excavations, showed TPH concentrations to be below the 100 parts per million guidelines for all 12 samples (Appendix A, Reference 48).

4.5.2 Soil Remediation

Remediation of soil contaminated by leaking underground storage tanks or fuel spills has occurred at several locations. Adjacent to Building 211 near the Wastewater Treatment Plant, soil was remediated in coordination with the Indiana Department of Environmental Management after the removal of a leaking underground storage tank. POL-contaminated soils have also been removed at former underground storage tank sites near Buildings 602 and 281. During 1988, soil contaminated by a heating oil spill was disposed near Building 103.

4.5.3 Asbestos Abatement

Asbestos abatement occurred at the installation prior to the completion of an asbestos survey in 1993. Minor amounts of asbestos were encountered during maintenance activities and

subsequently removed. These asbestos-containing materials were double-bagged and stored in Building 305 prior to in-house landfilling. Since the completion of the survey, no asbestos abatement has taken place.

4.5.4 PCB Transformer Removal

A January 1989 survey indicated 252 transformers, of which 7 contained PCBs in concentrations greater than 500 parts per million. A July 1992 survey listed only six PCB transformers (> 500 parts per million) still in place. At the time of the site visit, Office of Environmental Response personnel stated that all PCB transformers had been removed and that none were currently in storage with concentrations greater than 50 parts per million.

4.6 CERFA-EXCLUDED PARCELS

CERFA-Excluded Parcels consist of those parcels to be retained by the Army or other Department of Defense agency or property that will be transferred to another Federal agency with restrictions by statute. At present, the Army does not have plans to retain any portion of Jefferson Proving Ground.

5.0 SITE PARCELIZATION

After reviewing investigation documents, regulatory records, personnel interviews, and visual inspections, TETC identified parcels on the installation as CERFA Parcels, CERFA Parcels with Qualifiers, 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 1-acre square grid for boundary definition. The Army chose a 1-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 1-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 1-acre, the grid system simplifies the depiction of the concern. Accordingly, the areal extent of many small areas of concern, such as underground storage tank sites, are liberally depicted in the CERFA report. Additionally, the 1-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 1-acre grid square is colored or shaded to indicate the applicable parcel category on the basis of the history of storage or release for any portion of that square. Parcels are labelled 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 Parcels with Qualifiers 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 do not overlap with CERFA Disqualified parcels or CERFA Parcels with Qualifiers. 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.

TETC's investigation and subsequent parcelization of Jefferson Proving Ground determined that approximately 3,941 acres of the facility fall within the CERFA Parcel category. Approximately 49,845 acres of the facility are categorized as CERFA Parcels with Qualifiers. Two thousand three hundred and seventy acres constitute the CERFA Disqualified portion of the installation. The CERFA Parcels are located predominantly in the south-central portion of the installation.

In determining the applicable parcel categories for the installation property, TETC observed the following guidelines 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 longer. 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.

- ★ Nonleaking equipment containing less than 50 parts per million PCBs does not preclude an area from becoming a CERFA Parcel. Nonleaking, out-of-service equipment with greater than 50 parts per million PCBs will place an area in the CERFA Parcel with Qualifier category. An area is designated CERFA Disqualified if there is a known release containing greater than 50 parts per million PCBs.

- ★ Areas where there are transport systems or equipment that handle hazardous substances or petroleum products and on which there has been no release, storage, or disposal of these substances are categorized as CERFA Parcels.

- ★ Ordnance disposal locations are designated CERFA Disqualified. This does not include ordnance impact areas that are designated CERFA Parcels with Qualifiers.

- ★ 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 automatically preclude an area from becoming a CERFA Parcel.

5.1 Parcel Designation Maps

Table 5-1 and Figures 5-1A and 5-1B identify the breakdown of Jefferson Proving Ground property according to the criteria for parcel identification under CERFA. Appendix D contains the data base from which Table 5-1 and Figures 5-1A and 5-1B are generated.

5.2 Tract Maps

The property boundaries and all property transfers including prior ownership information is shown in Figure 5-2.

5.3 Summary CERFA Maps

Figures 5-3A and 5-3B summarize the breakdown of Jefferson Proving Ground property according to the criteria for parcel identification under CERFA.

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
IQ-/A/L/X/RD	49738	108,48	Building 203	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
			Building 205	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		113,49	Building 210	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		117,47	Building 218	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		117,49	Building 220	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		104,49	Building 221	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		118,48	Building 222	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
			Building 224	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		98,49	Building 225	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		118,47	Building 226	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		119,49	Building 2[illegible]4	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		119,47	Building 230	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		122,49	Building 232	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		94,49	Building 237	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		114,49	Building 238	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1953	25 23	
		119,49	Building 240	Qualified, Lead	Lead-based paint associated with structure built in 1944	23	
		107,48	Building 241	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1945	25 23	
		121,49	Building 242	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1944	25 23	
		107,49	Building 243	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1946	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	111,49	Building 244	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		106,49	Building 245	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		114,49	Building 246	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		109,49	Building 247	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		116,49	Building 248	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		96,49	Building 249	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		102,53	Building 250	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		98,49	Building 253	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		96,49	Building 254	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		102,53	Building 255	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1954	25 23	
		109,49	Building 256	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		110,49	Building 258	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		126,52	Building 262	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		129,52	Building 268	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		103,49	Building 273	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		128,54	Building 274	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		103,50	Building 275	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		131,49	Building 276	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		130,52	Building 282	Qualified, Lead	Lead-based paint associated with structure built in 1942	23	
		69,54	Building 284	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		102,53	Building 285	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	130,53	Building 286	Qualified, Lead	Lead-based paint associated with structure built in 1942	23	
		128,53	Building 288	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1943	25 23	
		89,52	Building 289	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1943	25 23	
		69,54	Building 296	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		70,54	Building 297 Building 298	Qualified, Asbestos Qualified, Lead Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942 Lead-based paint associated with structure built in 1954	25 23 23	
		68,54	Building 299 Building 300	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942 Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23 25 23	
		67,54	Building 307	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		124,65	Building 400	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		126,76	Building 402	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		130,114	Building 404	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		129,130	Building 406	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		129,137	Building 408	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		127,81	Building 410	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		125,70	Building 412	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		127,92	Building 413	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		142,150	Building 414	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		142,146	Building 415	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		138,199	Building 416	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		141,67	Building 417	Qualified, Lead	Lead-based paint associated with structure built in 1955	23	
		142,64	Building 418	Qualified, Lead	Lead-based paint associated with structure built in 1955	23	
		127,95	Building 420	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	85,95	Building 421	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		130,118	Building 430	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		87,113	Building 431	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		97,161	Building 436	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		98,192	Building 437	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		93,289	Building 439	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		83,160	Building 441	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		97,160	Building 443	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		137,195	Building 450	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		98,185	Building 453	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		57,214	Building 459	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		140,217	Building 460	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		77,228	Building 461	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		140,231	Building 462	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		96,230	Building 463	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		87,100	Building 464	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		87,118	Building 465	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		82,164	Building 466	Qualified, Lead	Lead-based paint associated with structure built in 1951	23	
		79,202	Building 467	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		79,207	Building 469	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		135,291	Building 470	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		68,282	Building 471	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		140,295	Building 472	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		93,287	Building 473	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	77,225	Building 479	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		92,395	Building 481	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		101,361	Building 484	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		137,345	Building 485	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		101,346	Building 489	Qualified, Lead	Lead-based paint associated with structure built in 1944	23	
		90,350	Building 491	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		88,350	Building 493	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		84,50	Building 501	Qualified, Lead Qualified, Radionuclides	Lead-based paint associated with structure built in 1943 Presence of Depleted Uranium associated with X-ray shielding	23 38d	
		142,53	Building 542	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1953	25 23	
		54,54	Building 574	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		57,54	Building 596	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		56,54	Building 597	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		53,54	Building 598	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		80,53	Building 599	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		61,53	Building 603	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		59,54	Building 604	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		56,53	Building 605	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		79,53	[illegible]ding 607	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1953	25 23	
		80,53	Building 609	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1953	25 23	
		76,53	Building 610	Qualified, Asbestos Qualified, Lead Qualified, Radionuclides	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Presence of Depleted Uranium associated with Ammo Quality Facility	25 23 18	
		75,53	Building 611	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	75,53	Building 611	Qualified, Radionuclides	Presence of Depleted Uranium associated with Ammo Quality Facility	18	
		74,54	Building 612	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		73,54	Building 613	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		72,54	Building 614	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		74,52	Building 616	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		75,51	Building 618	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		54,54	Building 619	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		55,54	Building 620	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		56,54	Building 621 Building 622	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23 25 23	
		55,62	Building 623	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		55,65	Building 624	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		71,61	Building 625	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		53,54	Building 626	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		54,54	Building 627	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		54,53	Building 628	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1953	25 23	
		75,50	Building 630	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		71,64	Building 631	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		52,68	Building 650	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		55,73	Building 652	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		52,71	Building 654	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		52,92	Building 656	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
1Q-/A/L/X/RD	49738	52,97	Building 658	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		52,104	Building 660	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		52,111	Building 662	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		52,120	Building 664	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		49,161	Building 666	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		45,183	Building 668	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		44,188	Building 670	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		58,254	Building 672	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		57,256	Building 674	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		142,54	Building 800	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		92, 395	North of Firing Line	Qualified, Unexploded Ordnance	Unexploded Ordnance	12	
2D-/HR(P)	5	124,385	Little Otter Dam Landfill	Disqualified, Hazardous Substance Release (P)	Release of Solid wastes associated with Landfill (Litter Otter Dam)	4	
3D-/HR(P)	32	142,358	Abandoned landfills	Disqualified, Hazardous Substance Release (P)	1950s to 1980 -- Release of Explosive residues, heavy metals associated with Landfills (abandoned)	12	
4D-/L/HR(P)/HS	79	106,342	Air gunnery accumulation area	Disqualified, Hazardous Substance Storage	Scrap steel slugs, reactive waste stored in 55 gal Containers(Air gunnery accumulation area)	12	
		106,348	Aircraft Gunnery range	Disqualified, Hazardous Substance Release (P)	1976 to present -- Release of Explosive residues, herbicides associated with Aircraft target range	12	
		106,344	Building 490	Qualified, Lead	Lead-based paint associated with structure built in 1966	23	
5D-/L/PS	1	101,344	Building 488	Qualified, Lead Disqualified, Petroleum Storage	Lead-based paint associated with structure built in 1945 Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1941(Bldg 488) Fuel Oil No. 2 stored in 500 gal AGT(Bldg 488) Fuel Oil No 2 stored in 275 gal AGT(Bldg 488)	23 32, 38 47 47	Out of service, date unk

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
6D-/HR(P)	42	97,329	Detonation area (Shank Farm)	Disqualified, Hazardous Substance Release (P)	1950s to present -- Release of Explosive residues, heavy metals associated with Detonation area (Shank Farm)	12	
7D-/HR(P)	44	142,311	Burn area (J & Cottrell)	Disqualified, Hazardous Substance Release (P)	1940s to 1980 -- Release of Explosive residues, heavy metals associated with Burn area (J & Cottrell)	12	
8D-/HR(P)	92	89,288	Inactive macadam test pond	Disqualified, Hazardous Substance Release (P)	1950s to 1970s -- Release of Explosive residues, heavy metals associated with Inactive macadam test pond	12	
		84,288	Inactive munitions test pond	Disqualified, Hazardous Substance Release (P)	1950s -- Release of Explosive residues, heavy metals associated with Inactive munitions test pond	12	
9D-/HR(P)	35	133,267	Abandoned cistern disposal	Disqualified, Hazardous Substance Release (P)	1957 -- Release of Heavy metals associated with Abandoned cistern disposal	12	
10D-/HR(P)	37	97,211	Abandoned grenade diposal well	Disqualified, Hazardous Substance Release (P)	Release of Explosive residues, heavy metals associated with Abandoned grenade diposal well	12	
11D-/HR(P)	33	101,185	Storage tanks used for air bomb targets	Disqualified, Hazardous Substance Release (P)	Release of Unknown associated with Air bombed storage tanks	12	
12D-/RD(P)/HR	1462	106,106	Depleted Uranium range	Qualified, Radionuclides (P) Disqualified, Hazardous Substance Release	Presence of Depleted Uranium associated with Depleted Uranium Range 1984 to present -- Release of Explosive residues associated with Depleted Uranium range	4, 12 6, 12	
13D-/HR(P)	105	144,118	Landfill (Northeast 4.5 Mortar Impact Range)	Disqualified, Hazardous Substance Release (P)	Release of Unknown associated with Landfill (NE of 4.5 MIR)		
14D-/HR(P)	21	85,102	Ordnance disposal area (C & Morgan)	Disqualified, Hazardous Substance Release (P)	1940s to 1960s -- Release of Explosive residues, heavy metals associated with Ordnance disposal area (C & Morgan)	12	
15D-/HR(P)	18	150,102	Landfill (South of 4.5 Mortar Impact Range)	Disqualified, Hazardous Substance Release (P)	1960 to 1980 -- Release of Explosive residues, heavy metals associated with Landfill (S of 4.5 MIR)	12	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
16D-/PR	8	53,81	Ruptured line of bushhog at Bridge No. 1	Disqualified, Petroleum Release	1993 -- 30 gal Release of Hydrolic oil associated with Ruptured line of bushhog	43	Contaminant containerized
17P	3938	102,65		CERFA Parcel	No hazardous substances or petroleum products have been stored, released or disposed in this area.		
20D-/HR	17	42,60	Burn area (Gate 19)	Disqualified, Hazardous Substance Release (P)	1950s to 1970s -- Release of Heavy metals, TCE associated with Burn area (Gate 19)	12	
		42,61	Landfill (Gate 19)	Disqualified, Hazardous Substance Release	1970s to present -- Release of Acetone, mercury, methylene chloride associated with Landfill (Gate 19)	6	
23D-/A/L/HR(P)	11	90,55	Ammunition demilitarization area 1	Disqualified, Hazardous Substance Release (P)	1945 to 1950 -- Release of Explosive residues associated with Ammunition demilitarzation area 1	12	
		90,53	Ammunition demilitarization area 2	Disqualified, Hazardous Substance Release (P)	1945 to 1950 -- Release of Explosive residues associated with Ammunition demilitarzation area 2	12	
		92,54	Building 401	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		90,54	Building 403	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
35D-/A/L/HS	4	57,51	Building 600	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Unknown stored in Piles(Scrap property accum & stor shed)	25 23 12	
		58,51	Building 601	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		58,52	Building 608	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
36Q-/A/L	1	72,52	Building 615	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
38D-/A/L/PR/HR/HS	4	102,51	Building 257	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1944	25 23	
		103,50	Building 275	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		102,50	Building 277	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
38D-/A/L/PR/HR/HS	4	102,49	Building 279	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Release Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1942 1970 to 1978 -- Release of Solvents associated with Solvent pit Cyanide stored in 110 gal Containers -- Used from 1979 to 1980(Former chemical storage)	25 23 31 4, 12	
		102,51	Building 281	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Disqualified, Hazardous Substance Release (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1942 Release of Fuel Oil No. 2 associated with Former UST Release of Lead oxide associated with Indoor firing range	25 23 31 18	Partially remediated
		102,49	Building 283	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		102,50	Building 287 Building 287A	Qualified, Asbestos Qualified, Lead Qualified, Asbestos	Asbestos Containing Material Lead-based paint associated with structure built in 1942 Asbestos Containing Material	25 23 25	
40D-/A/L/PR	1	127,52	Building 264 Building 266	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former UST	25 23 25 23 31	
41D-/A/L/PR/PS/HR	2	59,50	Building 602	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Disqualified, Petroleum Storage Disqualified, Hazardous Substance Release	Asbestos Containing Material Lead-based paint associated with structure built in 1952 1990 -- Release of Fuel Oil No. 6 associated with UST & soil staging area Fuel Oil No. 2 stored in 25,000 gal UST -- Used from 1952 to 1993(Bldg 602) 1970 to 1978 -- Release of Solvents associated with Solvent pit	25 23 31, 12 32, 38 31	Partially remediated Out of service 7/8/93
42D-/A/L/PR/HR	2	73,50	Building 617	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Disqualified, Hazardous Substance Release	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Release of Fuel Oil associated with 3 Former USTs 1970 to 1978 -- Release of Solvents associated with Solvent pit	25 23 31 31	
44D-/A/L/PR/HR(P)	5	90,50	Building 259 Building 263	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942 Release of POL associated with Discharge/fill pipe Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 18 25 23	
		89,50	Building 265	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former UST	25 23 31	
		88,50	Building 267 Building 269	Qualified, Asbestos Qualified, Lead Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Lead-based paint associated with structure built in 1941	25 23 23	
		92,50	Building 291	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
44D-/A/L/PR/HR(P)	5	92,50	Building 291	Disqualified, Petroleum Release	Release of POL associated with Former UST	31	
		91,50	Building 293	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
		90,50	Building 295	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Release (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1943 Release of Lead oxide associated with Indoor firing range	25 23 18	
46Q-/L	1	128,50	Building 270	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
47Q-/A/L	1	91,49	Building 280	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	
50D-/A/L/PS	1	97,49	Building 137	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1972	25 23	
			Building 233	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
			Building 236	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1943 Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1943(Bldg 236)	25 23 32, 38	
			Building 239	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
			Building 251	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		98,49	Building 253	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
55Q-/L	1	128,48	Building 272	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
56Q-/A/L	1	89,47	Building 261	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
57Q-/A/L	1	97,47	Building 231	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
58D-/A/L/PR/PS/HS	4	98,45	Building 186	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release (P) Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1953 Release of POL associated with Floor drain & wash rack Used motor oil stored in 1,000 gal UST - First used in 1983(Bldg 186) Solvent, POL stored in 1,200 gal Containers(Equipment & vehicle maintenance)	25 23 12 32, 38 4, 12, 22	
		98,46	Building 196	Qualified, Lead	Lead-based paint associated with structure built in 1966	23	
		98,47	Building 227	Qualified, Asbestos	Asbestos Containing Material	25	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
58D-/A/L/PR/PS/HS	4	98,47	Building 227	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
				Disqualified, Petroleum Release	1990 -- 1 gal Release of TPH associated with Former UST	42	Soil excavated
				Disqualified, Petroleum Storage	Waste oil stored in Containers - First used in 1941(Weapons maintenance shop)	4	
				Disqualified, Hazardous Substance Storage	POL, solvent stored in 460 gal Containers -- Used from 1941 to 1990(Weapons maintenance workshop)	4, 12, 22	
		97,47	Building 231	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
59Q-/A/L	6	103,47	Building 215	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
			Building 217	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
			Building 219	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		101,47	Building 223	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		99,47	Building 229	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
60Q-/A/L	1	106,47	Building 213	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
61D-/A/L/PR/PS/HR(P)/HS	2	108,47	Building 201	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		107,47	Building 211	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
				Disqualified, Petroleum Release	1993 -- Release of Fuel Oil No. 2 associated with UST	42	
				Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 500 gal UST -- Used from 1942 to 1993(Bldg 211)	32, 38	Removed
					Fuel Oil No. 2 stored in 500 gal AGT(Bldg 211)	47	
				Disqualified, Hazardous Substance Storage	Barium sulfate, isocyanates, POL stored in 9,000 lbs Containers(Ammunition processing workshop)	12, 22	
			Disposal area (Behind 211)	Disqualified, Hazardous Substance Release (P)	Release of Barium, metals, methylene chloride associated with Disposal area (Behind 211)	12	
62Q-/A/L/RD	7	110,44	Building 132	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1955	23	
		109,46	Building 148	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
				Qualified, Radionuclides	Presence of Depleted Uranium associated with Storehouse	38d	
		109,45	Building 156	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
			Building 157	Qualified, Asbestos	Asbestos Containing Material	25	
		110,47	Building 168	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
			Building 202	Qualified, Asbestos	Asbestos Containing Material	25	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
62Q-/A/L/RD	7	110,47	Building 202	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
63D-/A/L/PS/HS	2	111,47	Building 204 Building 206 Building 208	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Pesticides stored in Containers(Insecticide/Herbicide storage) Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1954 Fuel Oil No. 2 stored in 275 gal AGT(Bldg 208) Acetic acid, developers, fixers stored in 125 gal Containers - First used in 1970(Photography lab)	25 23 18 25 23 25 23 47 18	
64Q-/A/L	1	113,47	Building 212	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
65D-/A/L/PR(P)	2	113,47 114,47	Building 212 Building 214 Building 216	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL, solvent, other associated with Locomotive maintenance pit	25 23 25 23 25 23 12	
66Q-/A/L	1	122,47	Building 260	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
67Q-/L	1	124,47	Building 290	Qualified, Lead	Lead-based paint associated with structure built in 1943	23	
68Q-/L	1	126,47	Building 292	Qualified, Lead	Lead-based [illegible] associated with structure built in 1943	23	
69Q-/L	1	130,47	Building 278	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
70Q-/L/RD	31	132,42 133,43 134,42 135,43 136,42	Building 558 Building 559 Building 560 Building 561 Building 562	Qualified, Lead Qualified, Lead Qualified, Lead Qualified, Lead Qualified, Lead	Lead-based paint associated with structure built in 1953 Lead-based paint associated with structure built in 1953 Lead-based paint associated with structure built in 1952 Lead-based paint associated with structure built in 1952 Lead-based paint associated with structure built in 1952	23 23 23 23 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
70Q-/L/RD	31	137,43	Building 563	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		137,44	Building 564	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		137,45	Building 565 Building 566	Qualified, Lead Qualified, Lead	Lead-based paint associated with structure built in 1952 Lead-based paint associated with structure built in 1953	23 23	
		136,46	Building 567	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		135,46	Building 568	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		134,46	Building 569	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		133,46	Building 570	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		131,45	Building 571	Qualified, Lead Qualified, Radionuclides	Lead-based paint associated with structure built in 1953 Presence of Depleted Uranium associated with Igloo Storage	23 38d	
		132,45	Building 572	Qualified, Lead Qualified, Radionuclides	Lead-based paint associated with structure built in 1953 Presence of Depleted Uranium associated with Igloo Storage	23 38d	
		134,45	Building 575	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		135,45	Building 576	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		136,45	Building 577	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
71Q-/A/L	2	84,45	Building 329	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1954	25 23	
		83,45	Building 331	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1954	25 23	
72D-/A/L/PR/PS	1	108,45	Building 101 Building 103	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 1988 – 300 gal Release of Heating Oil No. 2 associated with Oil spill Fuel Oil No. 2 stored in 25,000 gal UST - First used in 1952(Tank #103.1) Diesel Fuel stored in 550 gal UST - First used in 1985(Tank #103.2) Fuel Oil No. 2 stored in 25,000 gal UST - First used in 1952(Tank #103.3) Fuel Oil No. 2 stored in 25,000 gal UST - First used in 1941(Tank #103.4) Fuel Oil No. 2 stored in 25,000 gal UST - First used in 1941(Tank #103.5)	25 23 25 23 12, 31 32, 38 32, 38 32, 38 32, 38 32, 38	Fully recovered

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
73Q-/A/L	1	112,45	Building 140 Building 144 Building 162	Qualified, Lead Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Lead-based paint associated with structure built in 1972 Asbestos Containing Material Lead-based paint associated with structure built in 1954 Asbestos Containing Material Lead-based paint associated with structure built in 1954	23 25 23 25 23	
74P	2	133,44		CERFA Parcel	No hazardous substances or petroleum products have been stored, released or disposed in this area.		
75D-/A/L/PS/HS	2	83,44	Building 325	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1954 Fuel Oil No. 2 stored in 2,000 gal UST - First used in 1975(Bldg 325) Developers, fixers, cyanide stored in Containers -- Used from 1965 to 1977(Former X-Ray development lab) Unknown stored in Piles(Scrap fuse accumulation area)	25 23 32, 38 18 12	
76Q-/A/L	2	108,44 107,44	Building 146 Building 89	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Asbestos Containing Material Lead-based paint associated with structure built in 1966	25 23 25 23	
77P	1	109,44		CERFA Parcel	No hazardous substances or petroleum products have been stored, released or disposed in this area.		
78Q-/L	1	83,43	Building 327	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
79D-/A/L/PS/HR(P)/HS	6	93,41 94,41 93,42	Building 189 Defense Reutilitazation & Marketing Office storage Possible hazardous waste disposal (Papermill)	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage Disqualified, Hazardous Substance Release (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1953 Fuel Oil No. 2 stored in 500 gal UST - First used in 1953(Bldg 189) POL stored in Containers -- Used from 1940s to 1980(Defense Reutilization and Marketing Office storage area) Lead-acid batteries, PCB, POL stored in Containers - First used in 1940s(Def Reutilization & Mkt Off storage) 1940s to 1960s -- Release of Unknown associated with Possible Hazardous Waste disposal	25 23 32, 38 12 12 12	
80D-/A/L/PR	2	102,43	Building 127	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former UST	25 23 31	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
80D-/A/L/PR	2	102,43	Building 129	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
81D-/A/L/P(P)/PR(P)/PS/HR(P)/HS	9	108,43	Building 102	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		109,43	Building 104	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,43	Building 105	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release (P) Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Locomotive maintenance pit Hydraulic & machine oils stored in 55 gal Containers - First used in 1970s(Temporary storage area) Solvent, lead stored in Containers -- Used from 1940s to 1980s(Metal workshop)	25 23 18 4, 22 12	
		108,43	Building 106	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,42	Building 107	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		110,43	Building 108	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Ammonia stored in 25 gal Containers(Engineering, Housing & Logistics)	25 23 22	
		111,43	Building 108A	Qualified, Asbestos Qualified, Lead Qualified, PCBs Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1953 PCB contaminated dielectic fluid Acid, TCE, POL, other stored in 700 gal Containers(Storage)	25 23 12 22	
		107,42	Building 111	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,43	Building 117	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,42	Building 118	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release (P) Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Gas station USTs Diesel Fuel stored in 12,000 gal UST - First used in 1942(Tank #118.1) Fuel Oil No. 2 stored in 25,000 gal UST -- Used from 1942 to 1993(Tank #118.2) Unleaded gas stored in 12,000 gal UST - First used in 1942(Tank #118.3) Unleaded gas stored in 12,000 gal UST - First used in 1942(Tank #118.4)	25 23 31 32, 38 32, 38 32, 38 32, 38	Out of service 6/10/93
		107,43	Building 119	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		106,43	Building 121	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
81D-/A/L/P(P)/PR(P)/PS/HR(P)/HS	9	105,42	Building 125	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
				Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1941(Bldg 125)	32, 38	
		110,43	Building 126	Qualified, Lead	Lead-based paint associated with structure built in 1955	23	
		107,42	Building 128	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		106,43	Building 136	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
				Disqualified, Hazardous Substance Release (P)	1941 to present -- Release of Lead associated with Sand blasting area	12	
				Disqualified, Hazardous Substance Storage	Lacquer, paint, thinner, waste sand stored in 200 gal Containers - First used in 1940s(Painting workshop)	12, 22	
		111,43	Building 147	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
82D-/A/L/PS/HR(P)	1	90,42	Building 333	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1973	23	
				Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 10,000 gal UST - First used in 1975(Bldg 333)	32, 38	
				Disqualified, Hazardous Substance Release (P)	1978 to present -- Release of Ash, inert material associated with New incinerator (Bldg 333)	12	
83Q-/A/L	1	101,42	Building 131	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
			Building 169	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1944	23	
84Q-/A/L	1	106,42	Building 123	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
85Q-/A/L/P	5	109,42	Building 110	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		108,41	Building 113	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		107,41	Building 122	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
				Qualified, PCBs	PCB contaminated Dielectic Fluid	38	
		110,42	Building 138	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
		108,41	Building 145C	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	
			Building 145N	Qualified, Lead	Lead-based paint associated with structure built in 1952	23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
85Q-/A/L/P	5	108,41	Building 145S	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
86Q-/A/L	1	118,42	Building 502	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
87D-/A/L/PS/HS	4	118,42	Building 502	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		119,42	Building 504 Building 506	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 TCE stored in 110 gal Containers(Degreasing operations)	25 23 25 23 12, 22	
		120,40	Building 528	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		120,41	Building 530 Building 532	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Fuel Oil No. 2 stored in 4,000 gal UST - First used in 1978(Bldg 530) Lead-based paint associated with structure built in 1952	25 23 32, 38 23	
		118,41	Building 534	Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1952 Unknown stored in Piles(Scrap property accumulation area)	25 23 12	
88Q-/A/L	4	123,42	Building 508 Building 510	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 25 23	
		125,42	Building 512	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		122,42	Building 520	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		124,42	Building 526	Qualified, Lead	Lead-based paint associated with structure built in 1945	23	
89Q-/A/L	1	127,42	Building 514	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
90Q-/A/L	1	129,42	Building 516	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
91D-/HR(P)	2	91,40	Burn area South of new incinerator	Disqualified, Hazardous Substance Release (P)	Release of Heavy metals associated with Burn area (S of new incinerator)	18	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
			(Bldg 333)				
92Q-/A/L	1	92,41	Building 139	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
93D-/A/L/PS(P)	1	101,41	Building 167 Potential well or tank (Artillery & Infantry)	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Unknown POL stored in UST(Potential well or tank)	25 23 18	
94Q-/A/L	1	101,40 101,41	Building 133 Building 167	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 25 23	
95D-/A/L/HS	2	108,40 108,41 107,40	Building 112 Building 113 Building 115	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Developers, fixers, cyanide stored in Containers -- Used from 1941 to 1970(Former photographic lab)	25 23 25 23 25 23 18	
96Q-/A/L	1	120,40	Building 528	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
97D-/X(P)/HR(P)	12	65,39	Potential ammunition dump (RR and Tokyo)	Qualified, Unexploded Ordance (P) Disqualified, Hazardous Substance Release (P)	Ammunition associated with Potential ammunition dump Release of Explosive residues, heavy metals associated with Potential ammunition dump	12 12	
98D-/HR(P)	2	89,39	Sulfur Disposal area	Disqualified, Hazardous Substance Release (P)	Release of Sulfur associated with Sulfur Disposal area	31	
99Q-/A/L	1	108,39	Building 114	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1942	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
100Q-/A/L	4	115,38	Building 550	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		116,39	Building 551	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		116,38	Building 552	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
		117,38	Building 553	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1952	25 23	
101D-/A/L/PR	2	108,38	Building 116	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1943	25 23	
		107,38	Building 149	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former UST	25 23 31	
102D-/A/L/PS	3	89,36	Building 304	Qualified, Lead	Lead-based paint associated with structure built in 1953	23	
		88,36	Building 312 Building 313	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1951 Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1941(Bldg 313)	25 23 25 23 32, 38	
103Q-/A/L	3	108,35	Building 100	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		108,37	Building 130 Building 143	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1972 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 25 23	
104Q-/L	1	85,36	Building 314	Qualified, Lead	Lead-based paint associated with structure built in 1944	23	
105D-/A/L/P/PR/PS/HS	7	85,34	Building 301 (Hangar)	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Disqualified, Hazardous Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Diesel and Fuel Oil was stored in containers (Hanger Waste Storage Area) Contaminated soil, POL, XXCC, STB was stored in containers (Hanger Waste Storage Area)	25 23 12 12	
			Building 302	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		86,35	Building 303	Qualified, Asbestos	Asbestos Containing Material	25	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
105D-/A/L/P/PR/PS/HS	7	86,35	Building 303	Qualified, Lead (P) Disqualified, Petroleum Release	Lead-Based Paint associated with structure Release of POL associated with Former UST	25 31	
		85,33	Building 305	Qualified, Asbestos Qualified, Lead Qualified, PCBs Disqualified, Petroleum Storage Disqualified, Hazardous Substance Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1943 PCB contaminated dielectic fluid Waste oil stored in Containers - First used in 1980(Temporary Hazardous Waste storage area) Asb., PCB, solvent, org. chem waste stored in Containers - First used in 1980(Hazaedous Waste temporary storage)	25 23 12 4, 12, 22, 38 4, 12, 22	
		86,35	Building 309	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		86,36	Building 310	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former UST	25 23 31	
106Q-/A/L	1	87,36	Building 311	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
107Q-/A/L	1	92,36	Building 141	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
108Q-/A/L	1	151,36	Building 197 Building 198	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 25 23	
109D-/PR(P)	2	71,35	Impoundment west of airport	Disqualified, Petroleum Release (P)	Release of POL associated with Impoundment west of airport	1, 38k	
110D-/A/L/PS	1	106,35	Building 33 Building 37 Building 49	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 1,000 gal UST(Bldg 33) Asbestos Containing Material Lead-based paint associated with structure built in 1942 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 32, 38 25 23 25 23	
111Q-/A	1	139,35	Building 191	Qualified, Asbestos	Asbestos Containing Material	25	
112D-/HR(P)/HS	2	78,34	PCP wood storage pile at airport	Disqualified, Hazardous Substance Release (P) Disqualified, Hazardous Substance Storage	Release of Dioxin, PCP associated with PCP wood storage pile Dioxin, PCP stored in Piles - First used in 1975(PCP wood storage pile)	12 12, 29	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
114D-/PR/PS	1	87,34	Concrete vault at airport	Disqualified, Petroleum Release Disqualified, Petroleum Storage	Release of Fuel Oil associated with Concrete vault at airport Fuel oil stored in UST(Concrete vault at airport)	31 31	
116Q-/A/L	2	88,33 88,32	Building 320 Building 321	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23 25 23	
117Q-/A/L	2	143,33	Building 188	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1968	25 23	
118D-/A/L/PS	2	89,32	Building 322	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1942(Bldg 322) Fuel Oil No. 1 stored in 275 gal AGT(Bldg 322)	25 23 32, 38 47	
119Q-/A/L	4	107,32 106,32 106,30 106,31 106,32	Building 25 Building 47 Building 67 Building 69 Building 71 Building 73 Building 74	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead (P) Qualified, Asbestos Qualified, Lead (P) Qualified, Asbestos Qualified, Lead (P) Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-Based Paint associated with structure Asbestos Containing Material Lead-Based Paint associated with structure Asbestos Containing Material Lead-Based Paint associated with structure Asbestos Containing Material Lead-Based Paint associated with structure	25 23 25 23 25 25 25 25 25 25 25 25	
120Q-/A/L	2	110,32 110,31	Building 48 Building 72	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-Based Paint associated with structure	25 23 25 25	
121D-/X(P)/RD/PR/HR	66	84,28	Airport Unexploded Ordnance	Qualified, Unexploded Ordance (P)	Unexploded Ordnance associated with Airport Unexploded Ordnance	18	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
121D-/X(P)/RD/PR/HR	66	84,28	Airport Unexploded Ordnance	Disqualified, Hazardous Substance Release (P)	Release of Explosive residues, heavy metals associated with Airport explosive ordnance	18	
		81,23	East-west runway test area	Disqualified, Hazardous Substance Release (P)	Release of Explosive residues associated with East-west runway test area	12	
		81,31	Fire training pit	Disqualified, Petroleum Release	1970s to 1980s -- Release of Metal, PCB, POL associated with Fire training pit	31	
				Disqualified, Hazardous Substance Release	1970s to 1980s -- Release of Acetone, hexane associat d with Fire training pit	31	
		72,22	Flare test site 1	Disqualified, Hazardous Substance Release (P)	Release of Metals, explosive residuer, phosphorous associated with Flare test site	18	
		75,22	Flare test site 2	Disqualified, Hazardous Substance Release (P)	Release of Metals, explosive residues, phosphorous associated with Flare test site	18	
		85,27	Portable magazine	Qualified, Radionuclides	Presence of Depleted Uranium associated with Portable Magazine	18	
122D-/A/L/PS	13	108,28	Building 1	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 1,000 gal UST(Bldg 1)	25 23 32, 38	
		110,29	Building 10	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		[illegible],29	Building 11	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 11)	25 23 32, 38	
		110,29	Building 12	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 12)	25 23 32, 38	
		107,30	Building 13	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		110,30	Building 14	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,[illegible]	Building 15	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 15)	25 23 32, 38	
		110,30	Building 16	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 16)	25 23 32, 38	
		107,30	Building 17	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 17)	25 23 32, 38	
		110,30	Building 18	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		107,31	Building 19	Qualified, Asbestos	Asbestos Containing Material	25	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
122D-/A/L/PS	13	107,31	Building 19	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
		108,27	Building 2	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		110,30	Building 20	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 20)	25 23 32, 38	
		107,31	Building 21 Building 23	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 21) Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 23)	25 23 32, 38 25 23 32, 38	
		107,28	Building 3	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 3)	25 23 32, 38	
		109,28	Building 4	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 4)	25 23 32, 38	
		106,29	Building 45	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		110,29	Building 46	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		107,28	Building 5	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		109,28	Building 6	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		108,27	Building 60	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		107,28	Building 61	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		109,28	Building 62	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		107,28	Building 63	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		110,28	Building 64	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		107,29	Building 65	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		110,30	Building 68	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
122D-/A/L/PS	13	107,28	Building 7	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 7)	25 23 32, 38	
		110,30	Building 70	Qualified, Asbestos Qualified, Lead (P)	Asbestos Containing Material Lead-Based Paint associated with structure	25 25	
		109,28	Building 8	Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Fuel Oil No. 2 stored in 500 gal UST(Bldg 8)	25 23 32, 38	
		107,29	Building 9	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
123Q-/A/L	2	126,31	Building 190	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
		126,30	Building 192 Building 194	Qualified, Lead Qualified, Asbestos Qualified, Lead	Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1953	23 25 23	
124Q-/L	1	90,30	Building 323	Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
125Q-/A/L	1	92,28	Building 324	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1941	25 23	
126D-/X(P)/HR(P)	79	138,21	Burn area (Gator Z)	Disqualified, Hazardous Substance Release (P)	1985 to present -- Release of Ash, metals, other associated with Burn area (Gator Z)	12	
		138,22	Disposal area (Gator Z)	Qualified, Unexploded Ordance (P) Disqualified, Hazardous Substance Release (P)	Residual explosives, lithium associated with Potential mines at Gator Z 1970s -- Release of Explosive residues associated with Disposal area (Gator Z)	12 12	
		135,16	Mine test area (Gator Z)	Disqualified, Hazardous Substance Release (P)	1985 to present -- Release of Explosive residues, heavy metals associated with Mine test area (Gator Z)		
		136,19	Unexploded Ordnance South of firing line area 2	Qualified, Unexploded Ordance (P) Disqualified, Hazardous Substance Release (P)	Unexploded Ordnance associated with Potential UXO in south area 2 Release of Explosive residues, heavy metals associated with UXO South of firing line area 2	4, 10 4	
127D-/A/L/X(P)/HR(P)	39	120,19	Building 700	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1954	25 23	
		124,18	Building 702	Qualified, Asbestos Qualified, Lead	Asbestos Containing Material Lead-based paint associated with structure built in 1954	25 23	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
127D-/A/L/X(P)/HR(P)	39	124,18	Building 704	Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
			Building 706	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
			Building 708	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1954	23	
		121,19	Unexploded Ordnance South of firing line area 1	Qualified, Unexploded Ordance (P)	Unexploded Ordnance associated with Potential UXO in south area 1	4, 10	
				Disqualified, Hazardous Substance Release (P)	Release of Explosive residues, heavy metals associated with UXO South of firing line area 1	4	
128D-/X(P)/HR(P)	4	81,17	Possible mine test area	Qualified, Unexploded Ordance (P)	Unexploded Ordnance associated with Potential mine test area	18	
				Disqualified, Hazardous Substance Release (P)	Release of Explosive residues, heavy metals associated with Possible mine test area	18	
129D-/A/L/PS/HR/HS	9	71,16	Building 170	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
			Building 173	Qualified, Lead	Lead-Based Paint associated with structure	25	
		71,15	Building 175	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		71,16	Building 177	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
				Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 300 gal UST -- Used from 1968 to 1993(Bldg 177)	32, 38	Out of service 6/2/93
				Disqualified, Hazardous Substance Release	1941 to 1978 -- Release of Cyanide, silver associated with Sewage Treatment Plant	12	Cyanides no longer used
				Disqualified, Hazardous Substance Storage	Chlorine gas cylinders, lab waste stored in 180 to 900 lbs Containers - First used in 1941(Sewage Treatment Plant)	12, 22	
			Building 179	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
			Building 181	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
			Building 183	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
		70,16	Building 185	Qualified, Asbestos	Asbestos Containing Material	25	
				Qualified, Lead	Lead-based paint associated with structure built in 1941	23	
				Disqualified, Hazardous Substance Release (P)	1941 to 1978 -- Release of Inert material, metals associated with Inactive incinerator	12	
				Disqualified, Hazardous Substance Storage	Chlorine gas cylinders stored in Containers(Inactive Incinerator)	12	
		70,14	Sewage sludge application area	Disqualified, Hazardous Substance Release (P)	1941 to 1980 -- Release of Cyanide, silver associated with Sewage sludge application area	12	
130Q-/L(P)	1	72,16	Building 171	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
			Building 187	Qualified, Lead (P)	Lead-Based Paint associated with structure	25	
131D-/HR	9	96,15	Burn area (Engineer & Papermill)	Disqualified, Hazardous Substance Release (P)	mid 1970s -- Release of Explosive residues, lead associated with Burn area (Engineer & Papermill)	12	
		96,14	Landfill (Engineer & Papermill)	Disqualified, Hazardous Substance Release	1941 to 1970s -- Release of Hazardous Waste refuse, metals, VOCs associated with Landfill (Engineer & Papermill)	12, 31	

TABLE 5-1. Parcel Descriptions, Jefferson Proving Ground

PARCEL NUMBER	APPROX. SIZE (ACRES)	COORD (X,Y) ON FIG 5-1	LOCATION	CATEGORY	BASIS	APP. A REF(S)	REMEDIATION OR MITIGATION
132D-/PS	2	115,16	Building 714	Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 1,000 gal UST - First used in 1992(Bldg 714)	32, 38	
133D-/PS	1	117,16	Building 711	Disqualified, Petroleum Storage	Fuel Oil No. 2 stored in 500 gal UST(Bldg 711)	32, 38	
134D-/HR(P)	12	120,9	Burn area (Shun Pike)	Disqualified, Hazardous Substance Release (P)	1950s to present -- Release of Herbicides, heavy metals, expl residues associated with Burn area (Shun Pike)	12, 31	
135D-/A/L/PR/PS	1	45,15	Building 150 Building 152 Building 154	Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Qualified, Asbestos Qualified, Lead Disqualified, Petroleum Release Disqualified, Petroleum Storage	Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Asbestos Containing Material Lead-based paint associated with structure built in 1941 Release of POL associated with Former USTs Diesel Fuel stored in 300 gal UST(Tank #154.1) Gasoline stored in 300 gal UST(Tank #154.2) Fuel Oil No. 2 stored in 300 gal UST(Tank #154.3)	25 23 25 23 25 23 38 18, 31 18, 31 18, 31	Soil Excavated Removed Removed Removed

D=CERFA DISQUALIFIED PARCEL
E=CERFA EXCLUDED PARCEL
P=CERFA PARCEL
Q=CERFA PARCEL WITH QUALIFIERS

A=ASBESTOS
L=LEAD-BASED PAINT
P=PCB STORAGE
R=RADON
RD=RADIONUCLIDES
X=UNEXPLODED ORDNANCE

PR=PETROLEUM RELEASE
PS=PETROLEUM STORAGE
HR=HAZARDOUS SUBSTANCE RELEASE
HS=HAZARDOUS SUBSTANCE STORAGE

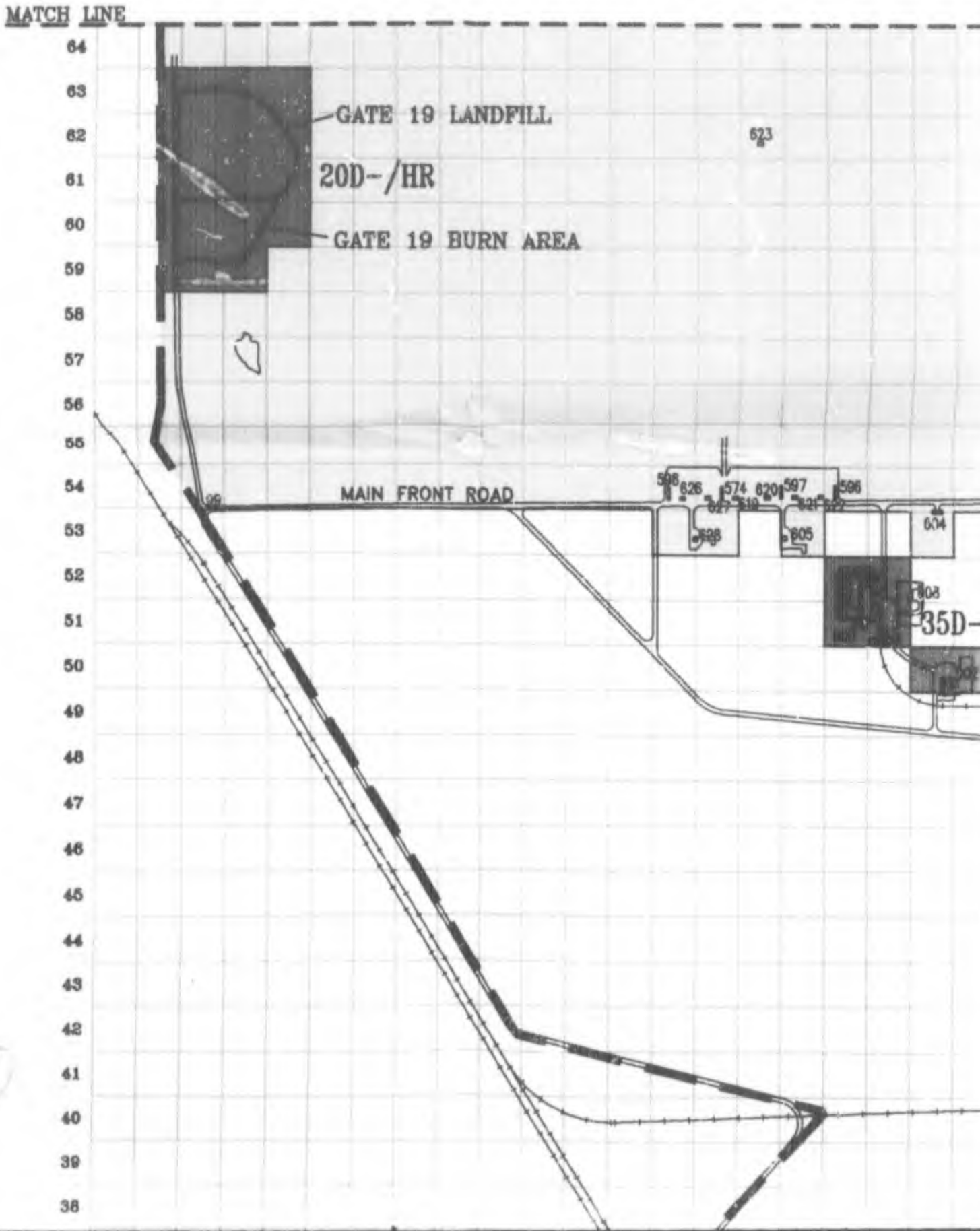
(P)=POSSIBLE QUALIFIER

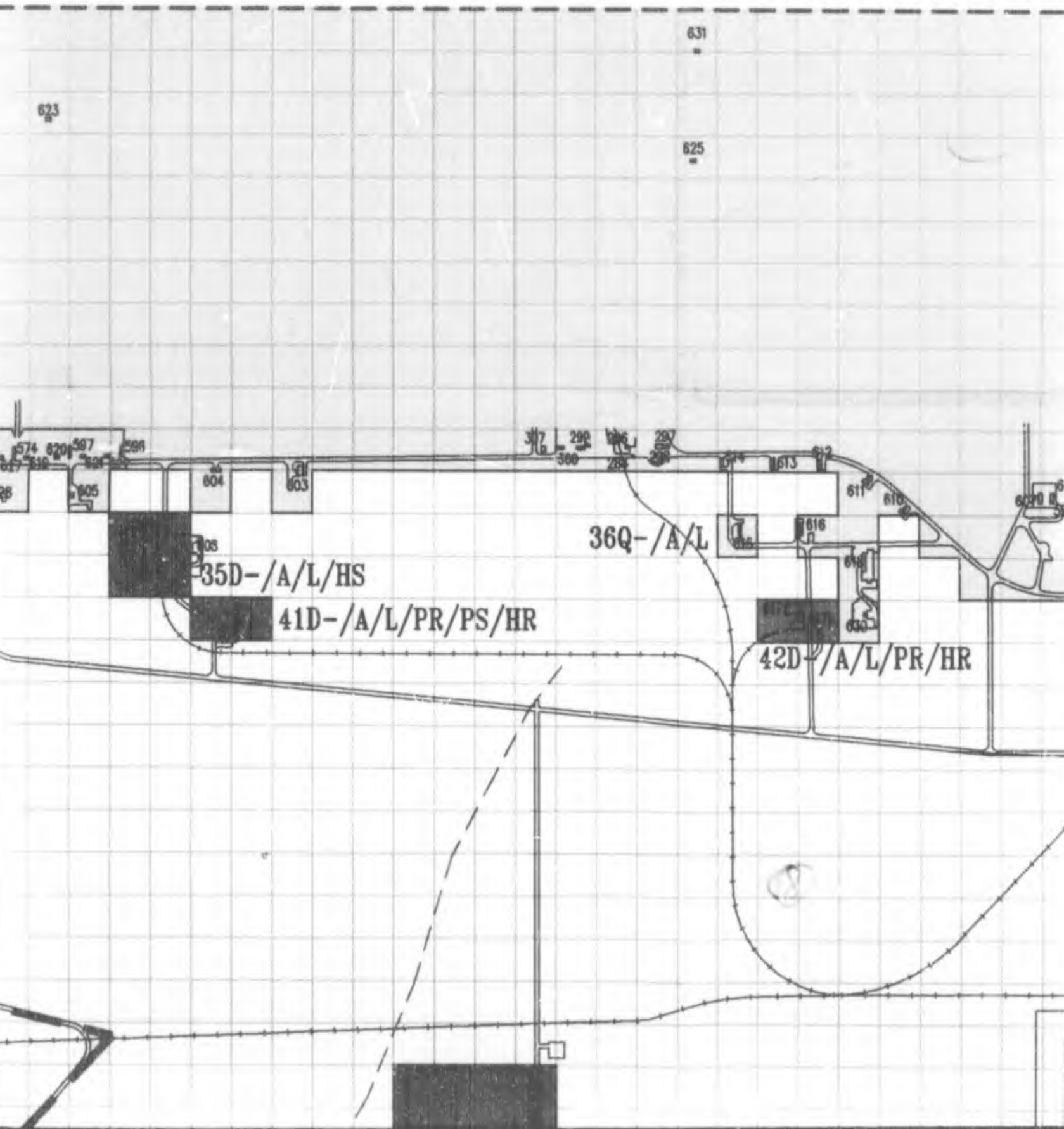
NOTE: The following Parcel Numbers have been removed from Map 5-1 and subsequently no longer appear in Table 5-1:

18	24	28	32	39	49	54
19	25	29	33	43	51	113
21	26	30	34	45	52	115
22	27	31	37	48	53	

FIGURE 5-1A
PARCEL DESIGNATION MAP, SOUTH OF FIRING LINE AND OFF-BASE PUMPHOUSE, JEFFERSON PROVING GROUND, MADISON, INDIANA

REVISION	DATE
0	12/01/93
1	04/11/94

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623
625
604
603
605
613
611
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35D-/A/L/HS
41D-/A/L/PR/PS/HR
42D-/A/L/PR/HR

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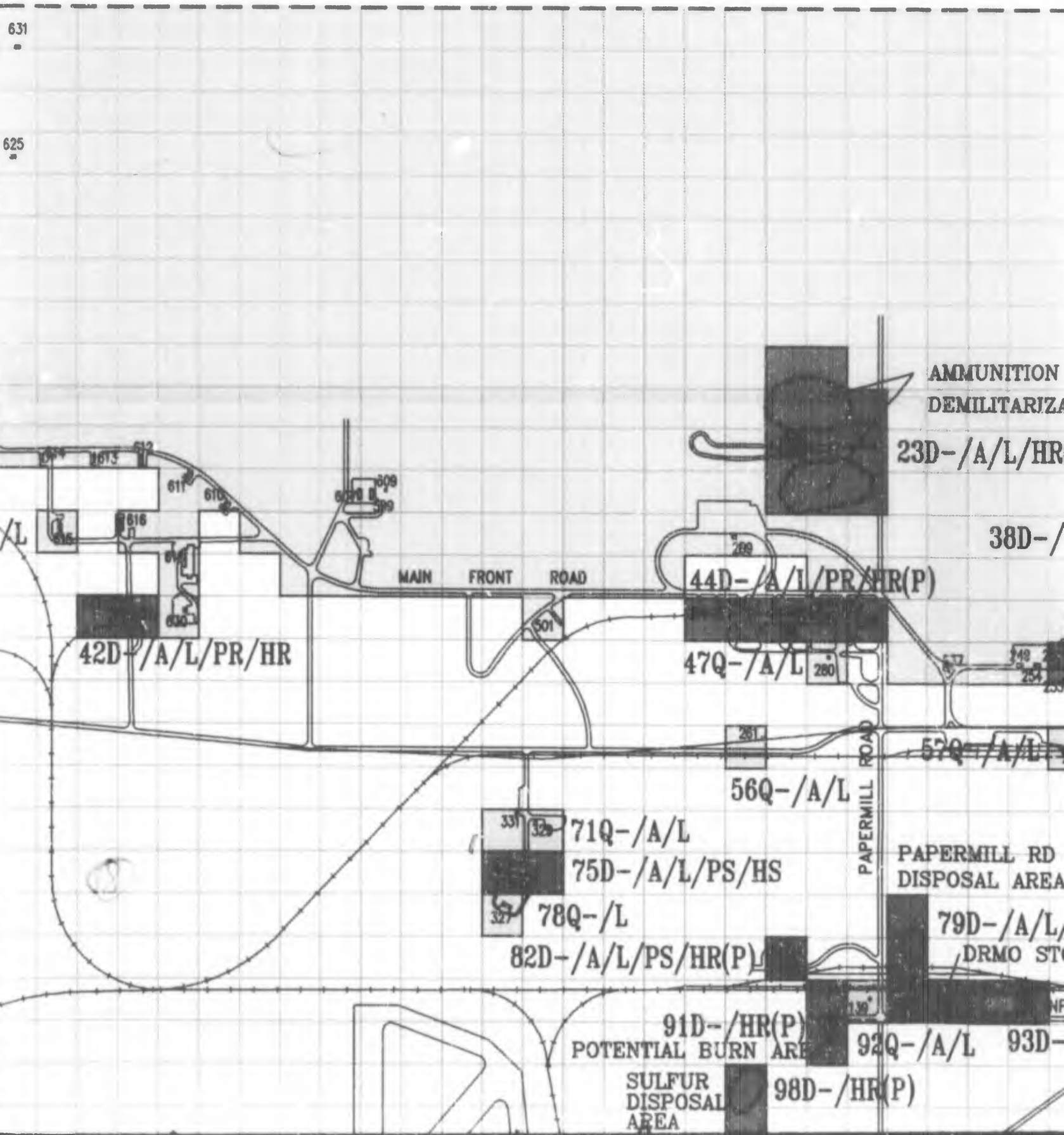
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DEMILITARIZA
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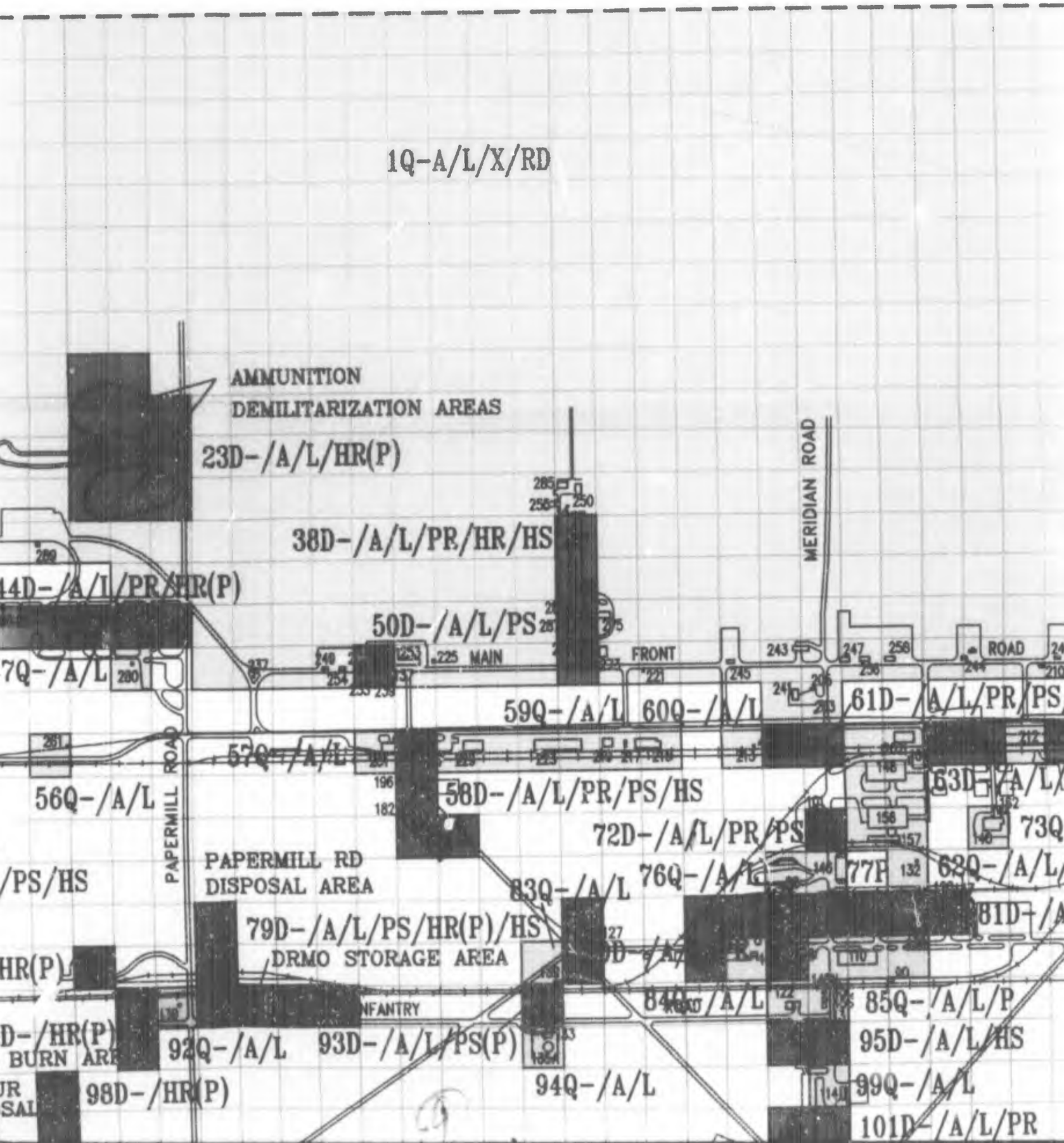
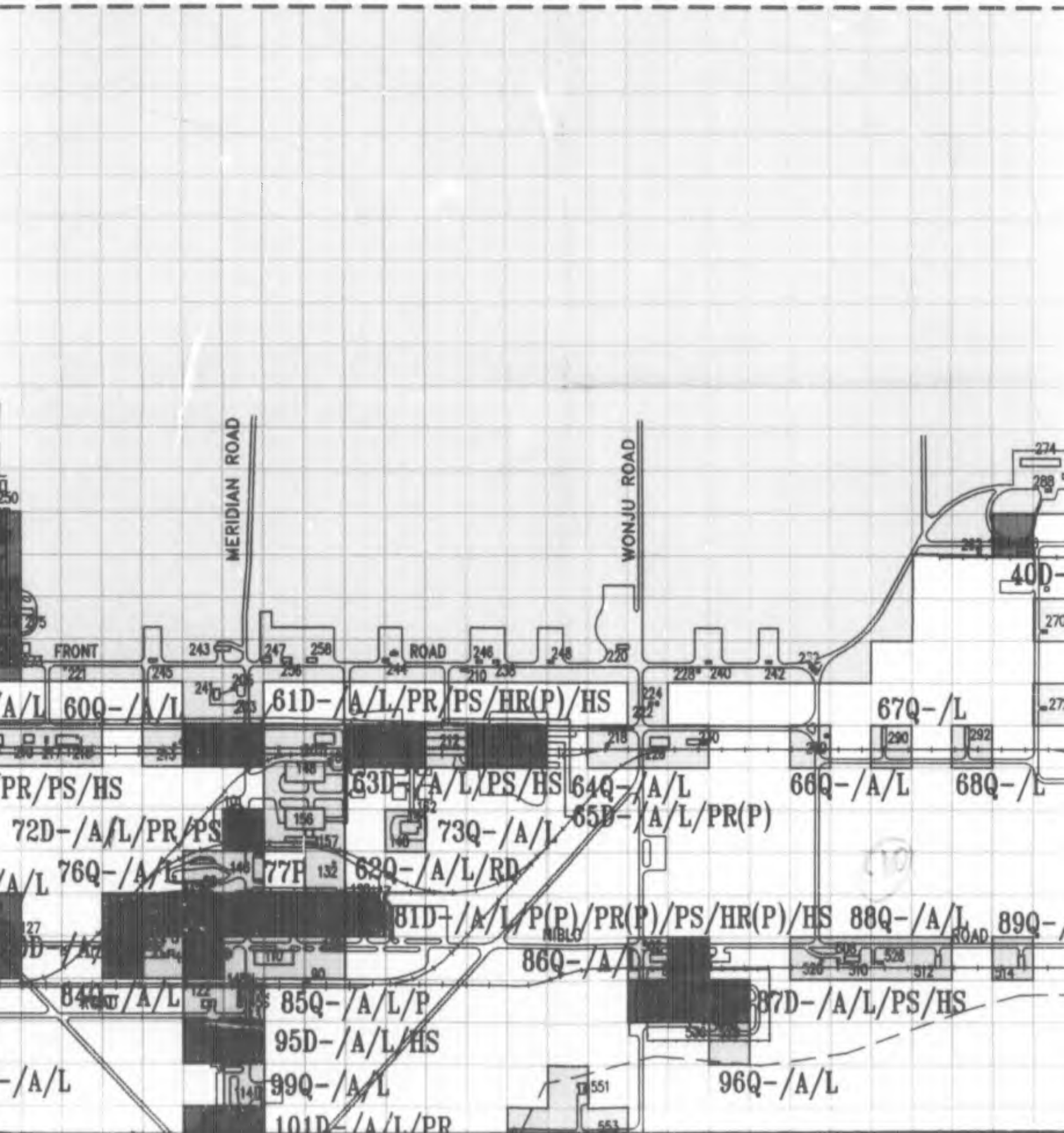
38D-/
/L
MAIN FRONT ROAD
44D-/A/L/PR/HR(P)
42D-/A/L/PR/HR
47Q-/A/L
57Q-/A/L
56Q-/A/L
PAPERMILL ROAD
71Q-/A/L
75D-/A/L/PS/HS
PAPERMILL RD
DISPOSAL AREA
78Q-/L
79D-/A/L/
82D-/A/L/PS/HR(P)
DRMO ST
91D-/HR(P)
POTENTIAL BURN ARE
92Q-/A/L
93D-
SULFUR
DISPOSAL
AREA
98D-/HR(P)

SEE FIGURE 5-1B



RE 5-1B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WONJU ROAD
FRONT
ROAD
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63D-/A/L/PS/HS
64Q-/A/L
66Q-/A/L
68Q-/L
72D-/A/L/PR/PS
73Q-/A/L
65D-/A/L/PR(P)
76Q-/A/L
77P
62Q-/A/L/RD
81D-/A/L/P(P)/PR(P)/PS/HR(P)/HS
88Q-/A/L
89Q-/
86Q-/A/L
85Q-/A/L/P
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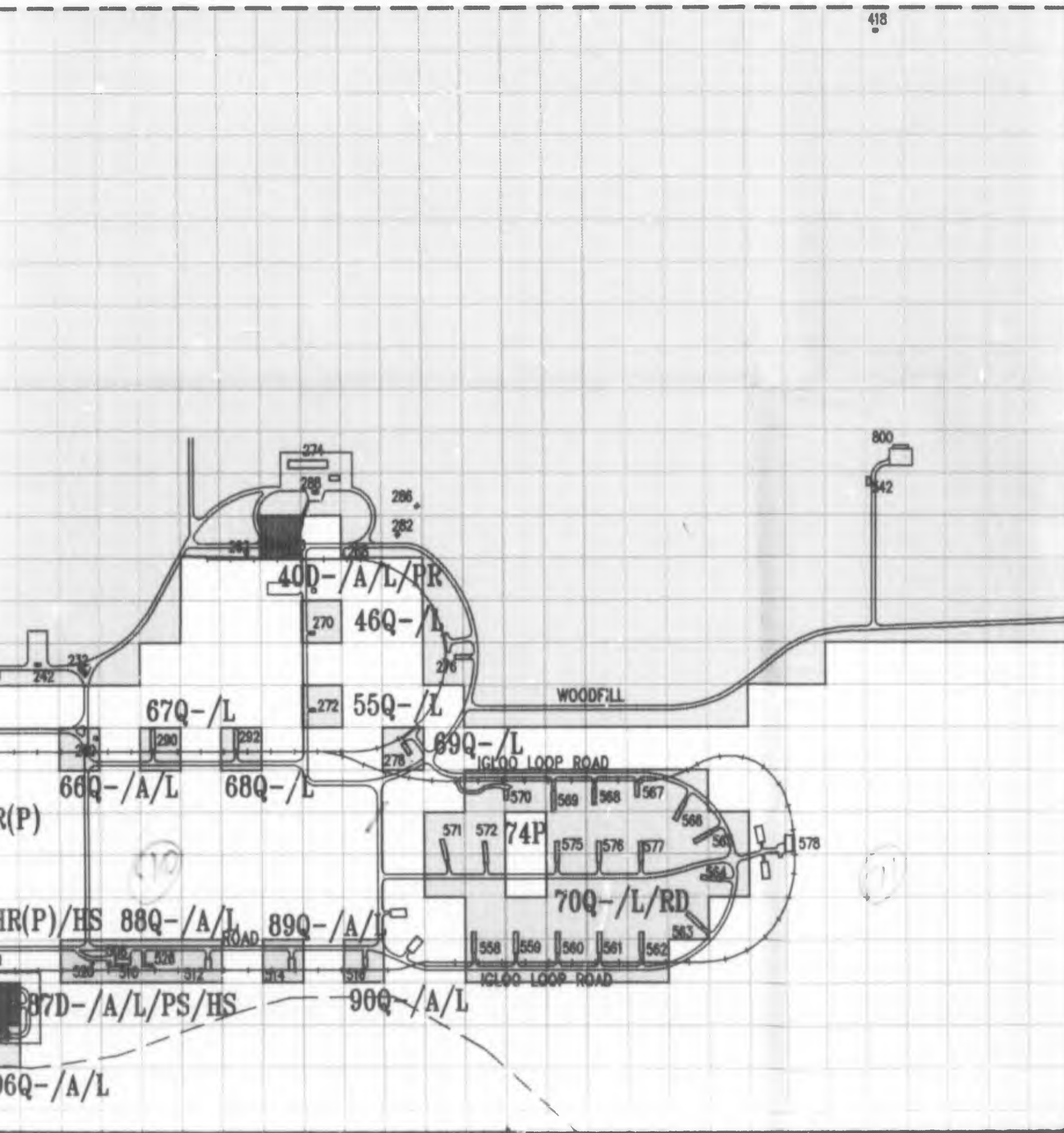
95D-/A/L/HS
99Q-/A/L
96Q-/A/L
101D-/A/L/PR
40D-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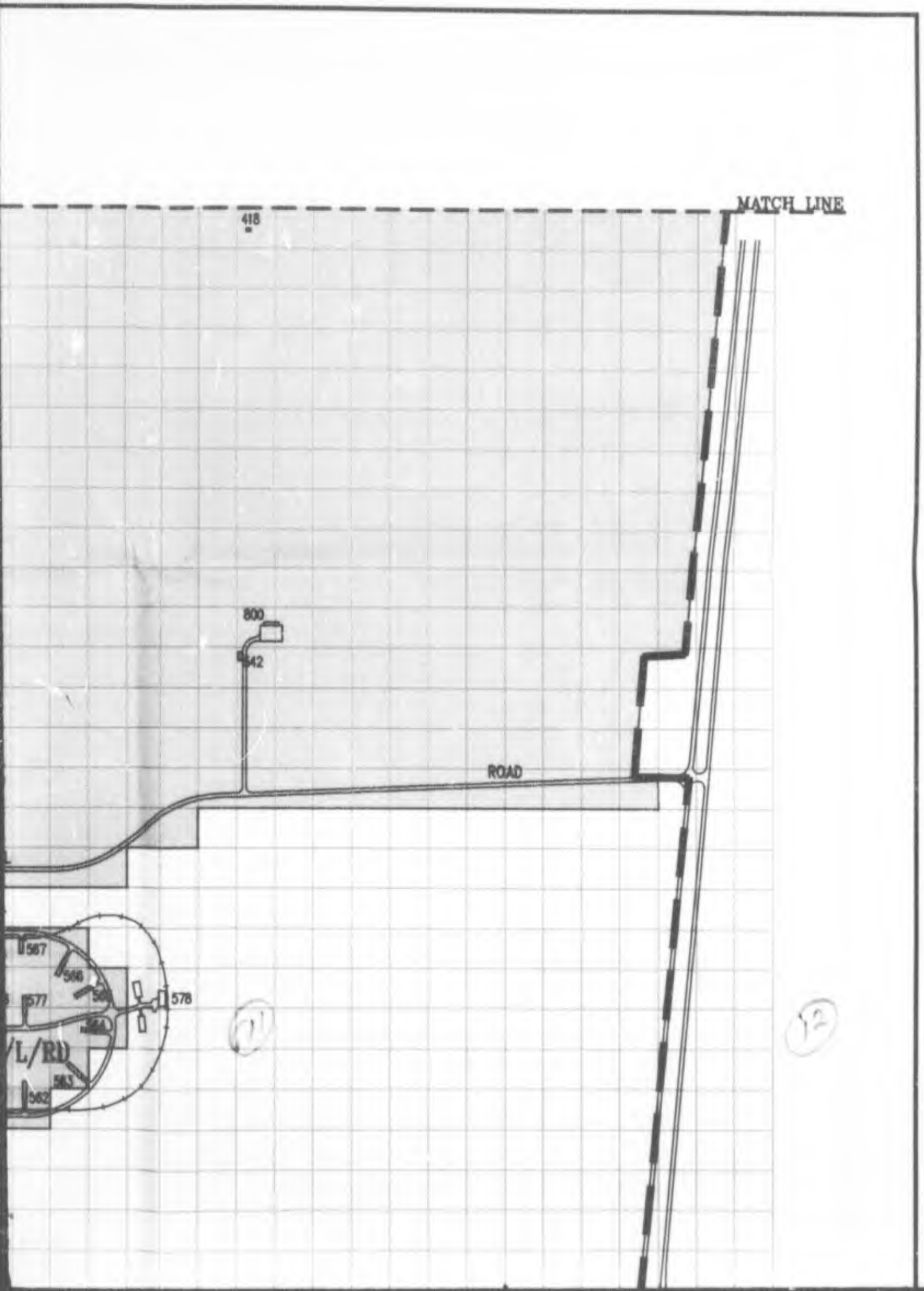
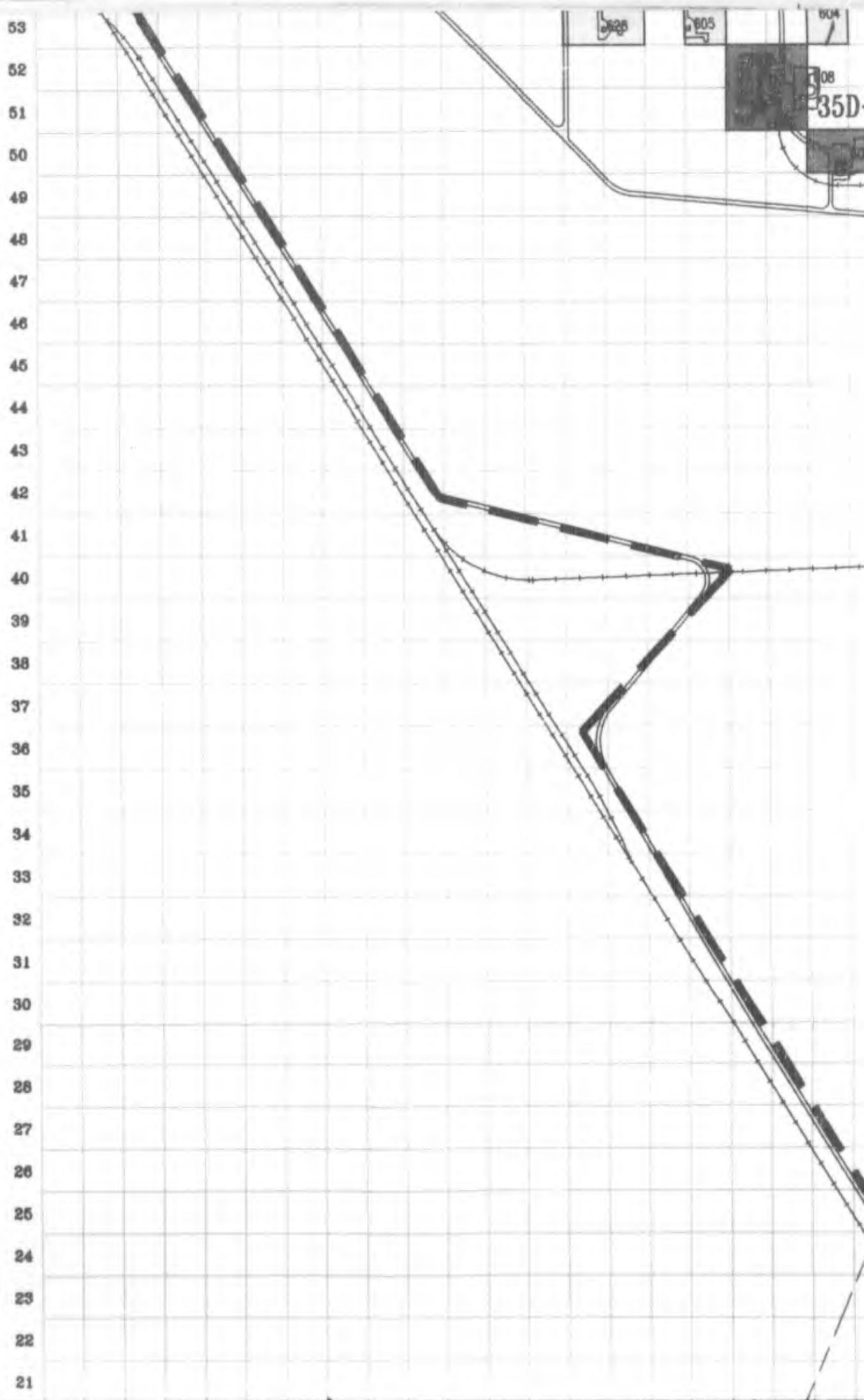
270
46Q-/L
276
232
242
WOODFILL
67Q-/L
272
55Q-/L
290
292
69Q-/L
278
IGLOO LOOP ROAD
66Q-/A/L
68Q-/L
570
569
568
567
566
R(P)
571
572
74P
575
576
577
578
564
70Q-/L/RD
HR(P)/HS
88Q-/A/L
89Q-/A/L
ROAD
563
558
559
560
561
562
526
510
512
514
516
IGLOO LOOP ROAD
87D-/A/L/PS/HS
90Q-/A/L
96Q-/A/L


MATCH LINE
418
800
542
ROAD
567
568
577
578
/L/RD
563
562
11
12


53
52
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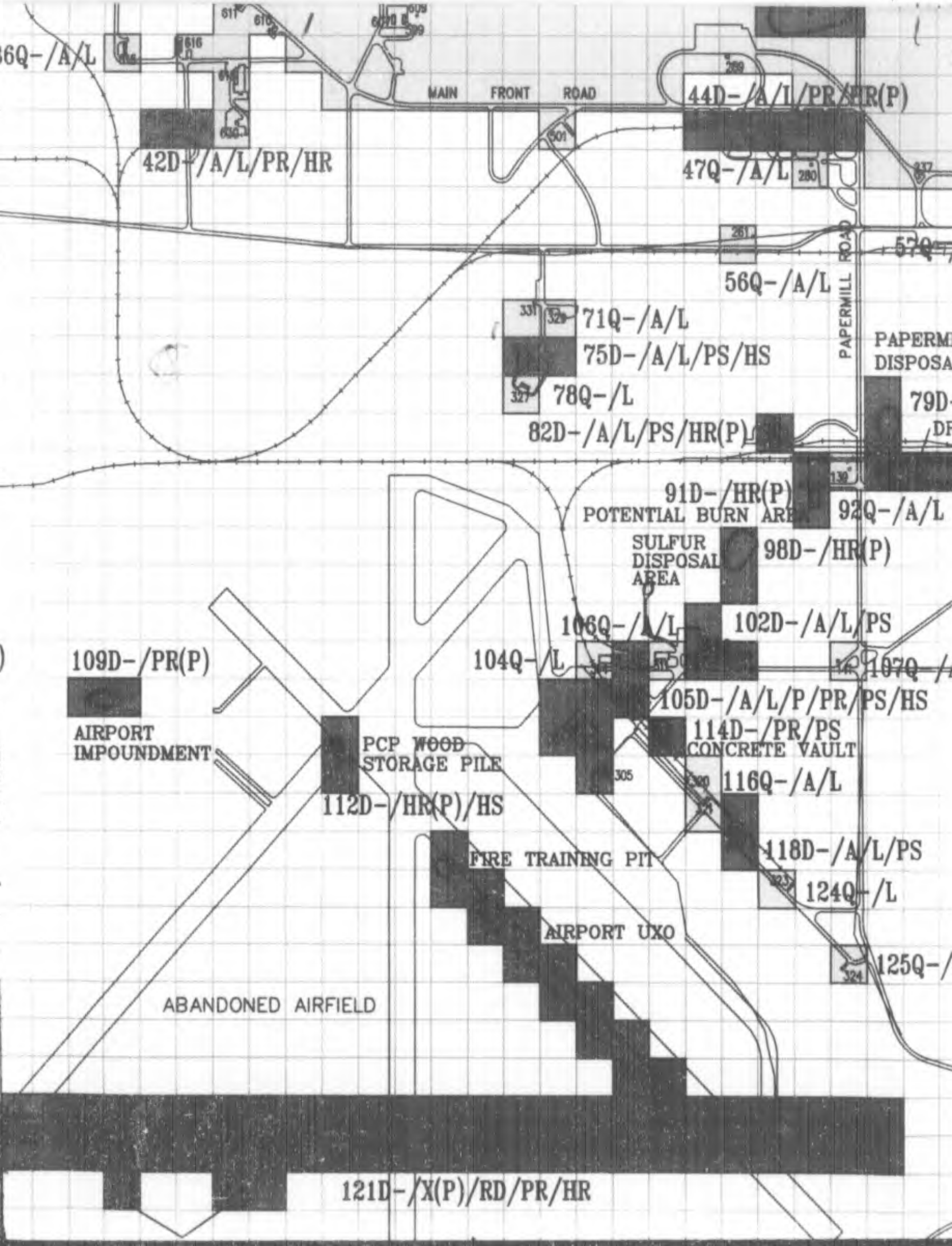
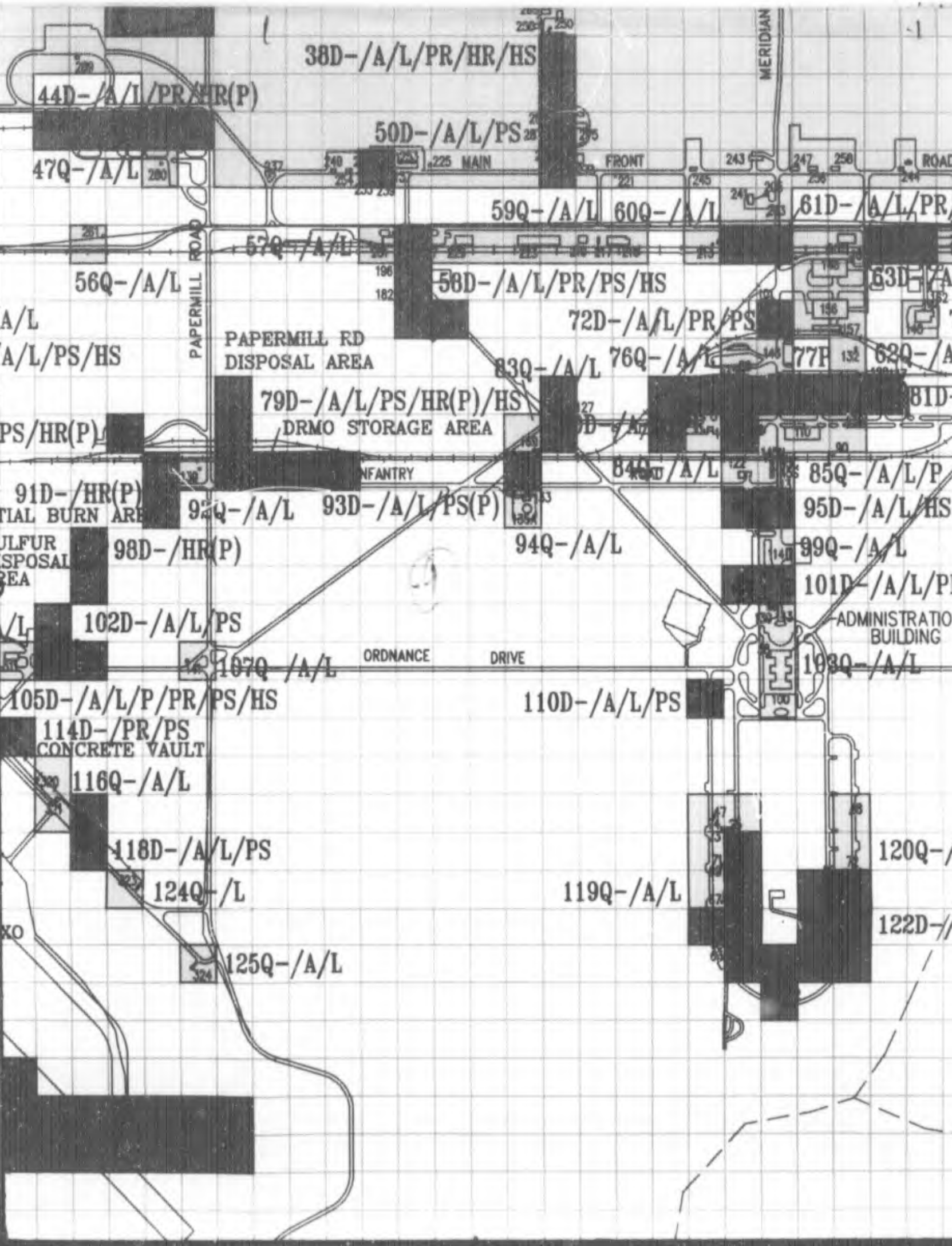
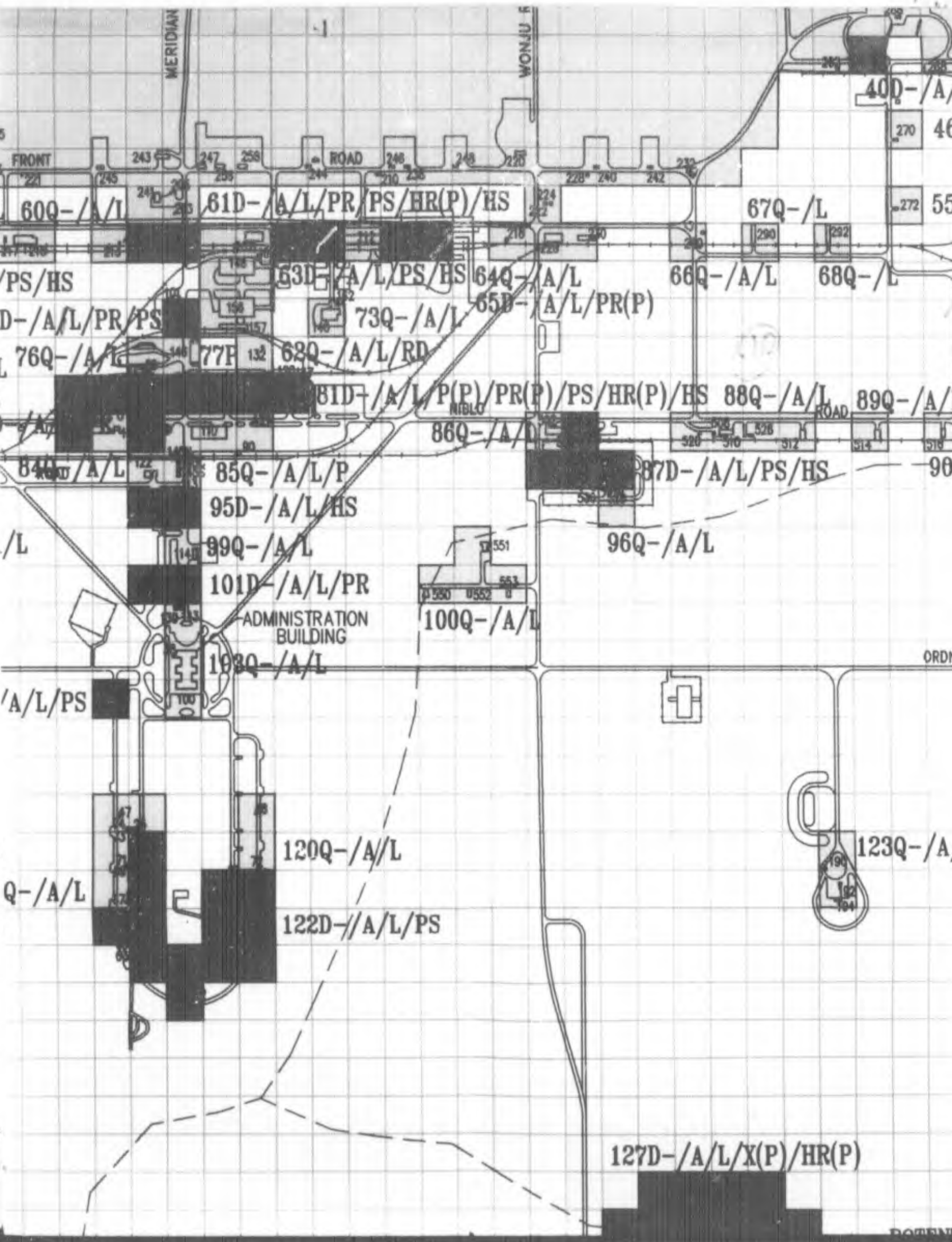
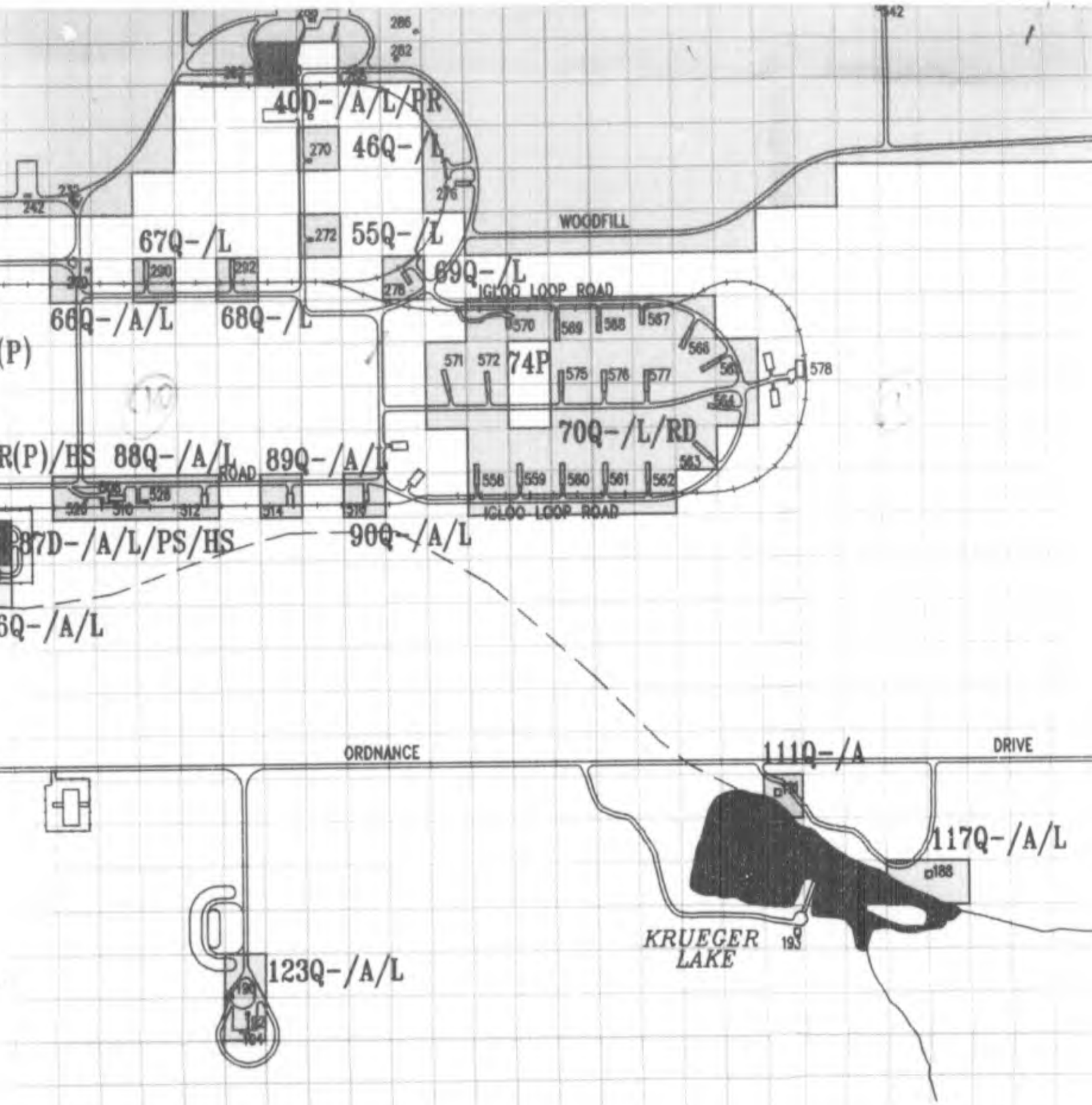
27
26
25
24
23
22
21
628
605
604
608
35D


35D-/A/L/HS
41D-/A/L/PR/PS/HR
36Q-/A/L
42D-/A/L/PR/HR
97D-/X(P)/HR(P)
109D-/PR(P)
AIRPORT
IMPOUNDMENT
TOKYO ROAD
ABANDONED AIRFI


36Q-/A/L
MAIN FRONT ROAD
44D-/A/L/PR/HR(P)
42D-/A/L/PR/HR
47Q-/A/L
PAPERMILL ROAD
56Q-/A/L
71Q-/A/L
75D-/A/L/PS/HS
78Q-/L
82D-/A/L/PS/HR(P)
91D-/HR(P)
POTENTIAL BURN AREA
92Q-/A/L
SULFUR DISPOSAL AREA
98D-/HR(P)
102D-/A/L/PS
106Q-/A/L
104Q-/L
109D-/PR(P)
AIRPORT IMPOUNDMENT
PCP WOOD STORAGE PILE
112D-/HR(P)/HS
105D-/A/L/P/PR/PS/HS
114D-/PR/PS
CONCRETE VAULT
116Q-/A/L
118D-/A/L/PS
FIRE TRAINING PIT
124Q-/L
AIRPORT UXO
125Q-/
ABANDONED AIRFIELD
121D-/X(P)/RD/PR/HR

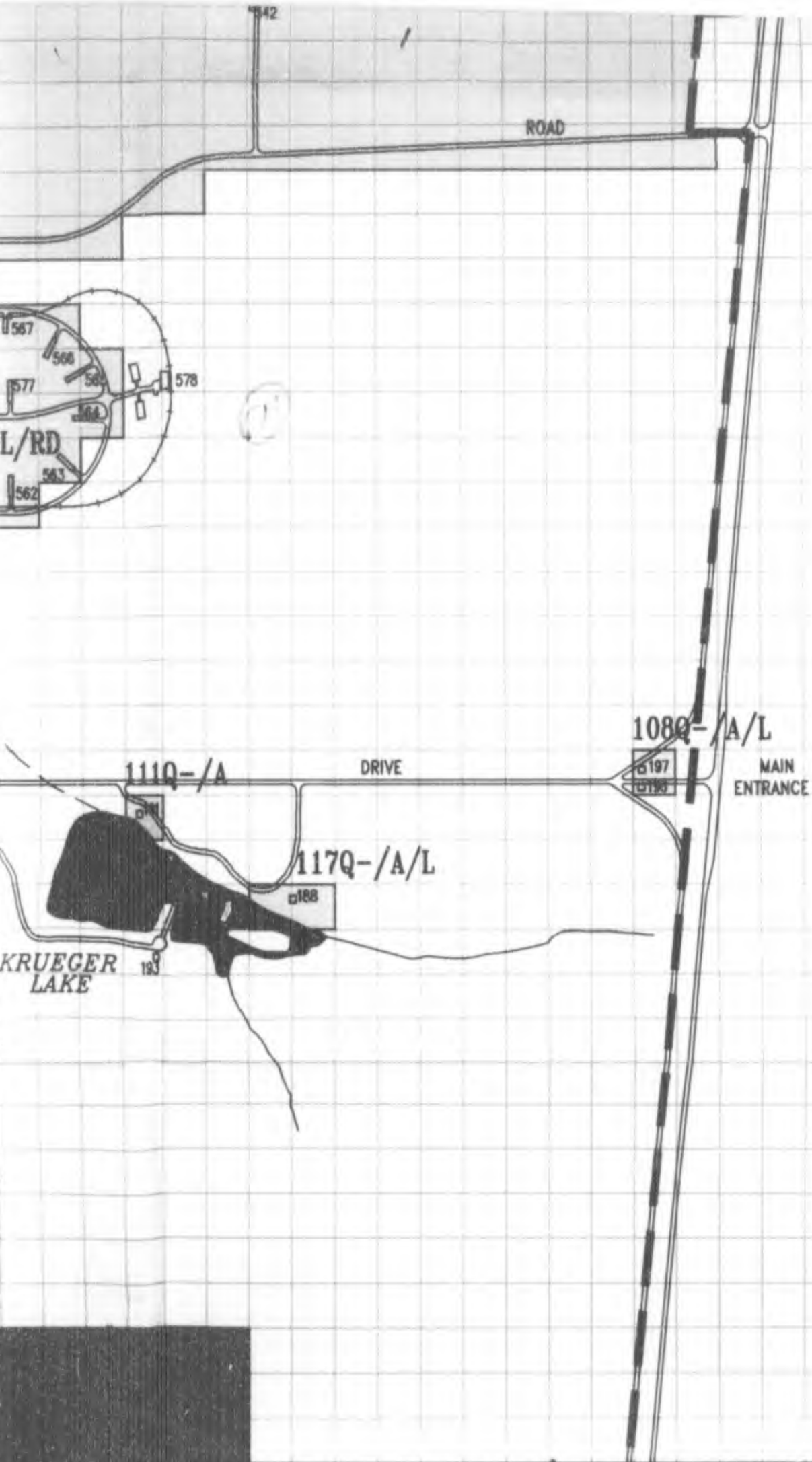

38D-/A/L/PR/HR/HS
44D-/A/L/PR/HR(P)
50D-/A/L/PS
47Q-/A/L
MAIN
FRONT
MERIDIAN
59Q-/A/L
60Q-/A/L
61D-/A/L/PR/
57Q-/A/L
56Q-/A/L
PAPERMILL ROAD
58D-/A/L/PR/PS/HS
72D-/A/L/PR/PS
A/L
A/L/PS/HS
PAPERMILL RD
DISPOSAL AREA
83Q-/A/L
76Q-/A/L
77P
79D-/A/L/PS/HR(P)/HS
DRMO STORAGE AREA
PS/HR(P)
84Q-/A/L
85Q-/A/L/P
91D-/HR(P)
TIAL BURN ARE
92Q-/A/L
93D-/A/L/PS(P)
95D-/A/L/HS
ULFUR
SPOSAL
EA
98D-/HR(P)
94Q-/A/L
99Q-/A/L
101D-/A/L/P
102D-/A/L/PS
ADMINISTRATIO
BUILDING
ORDNANCE
DRIVE
107Q-/A/L
103Q-/A/L
105D-/A/L/P/PR/PS/HS
110D-/A/L/PS
114D-/PR/PS
CONCRETE VAULT
116Q-/A/L
118D-/A/L/PS
120Q-/
124Q-/L
119Q-/A/L
122D-/
125Q-/A/L

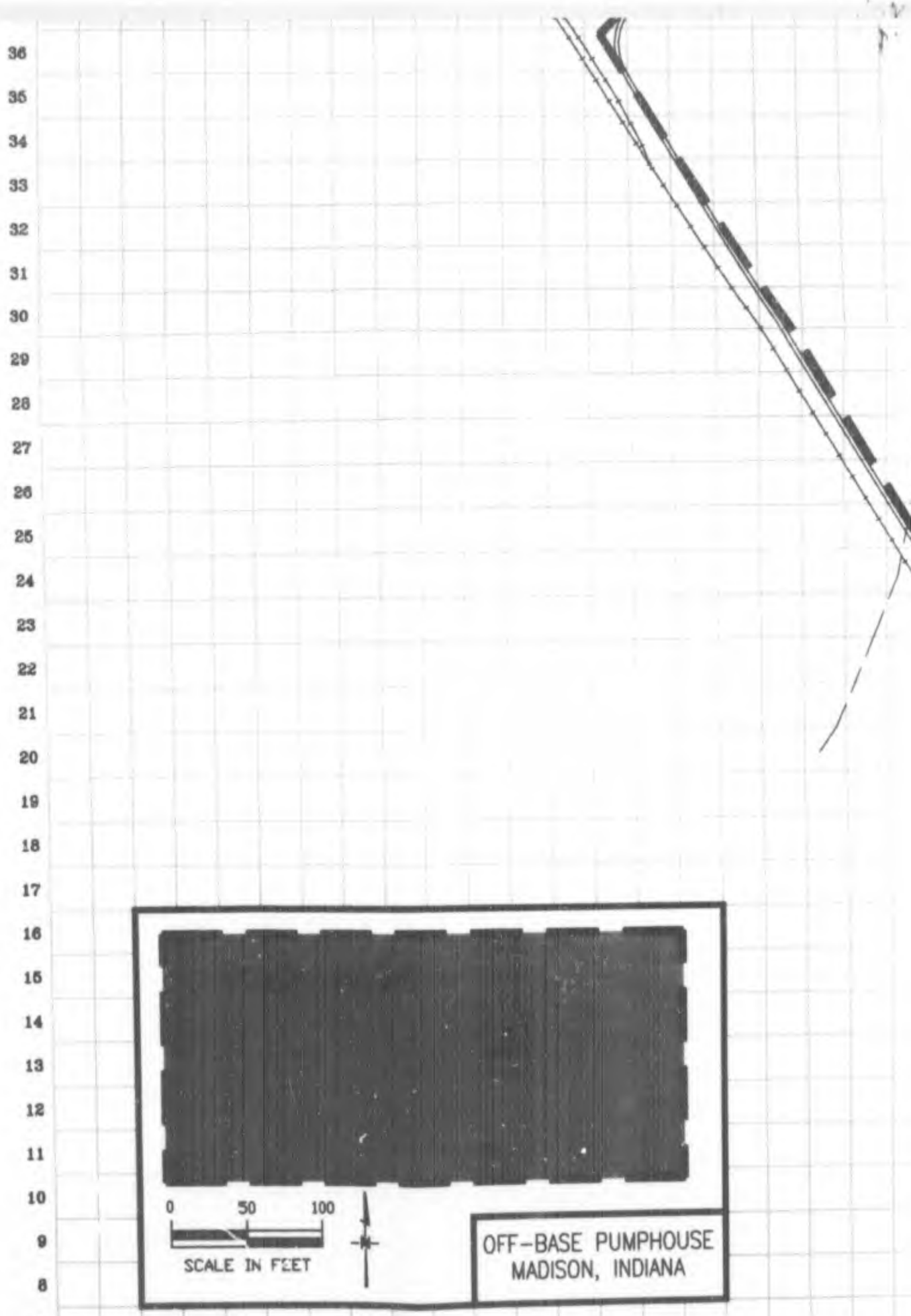

MERIDIAN
WONJU
FRONT
ROAD
60Q-/A/L
61D-/A/L/PR/PS/HR(P)/HS
67Q-/L
40Q-/A/
/PS/HS
63D-/A/L/PS/HS
64Q-/A/L
66Q-/A/L
68Q-/L
D-/A/L/PR/PS
73Q-/A/L
65D-/A/L/PR(P)
76Q-/A/L
77P
62Q-/A/L/RD
81D-/A/L/P(P)/PR(P)/PS/HR(P)/HS
88Q-/A/L
89Q-/A/
NIBLO
ROAD
86Q-/A/L
84Q-/A/L
85Q-/A/L/P
87D-/A/L/PS/HS
95D-/A/L/HS
99Q-/A/L
96Q-/A/L
101D-/A/L/PR
ADMINISTRATION BUILDING
100Q-/A/L
103Q-/A/L
/A/L/PS
120Q-/A/L
123Q-/A
Q-/A/L
122D-/A/L/PS
127D-/A/L/X(P)/HR(P)



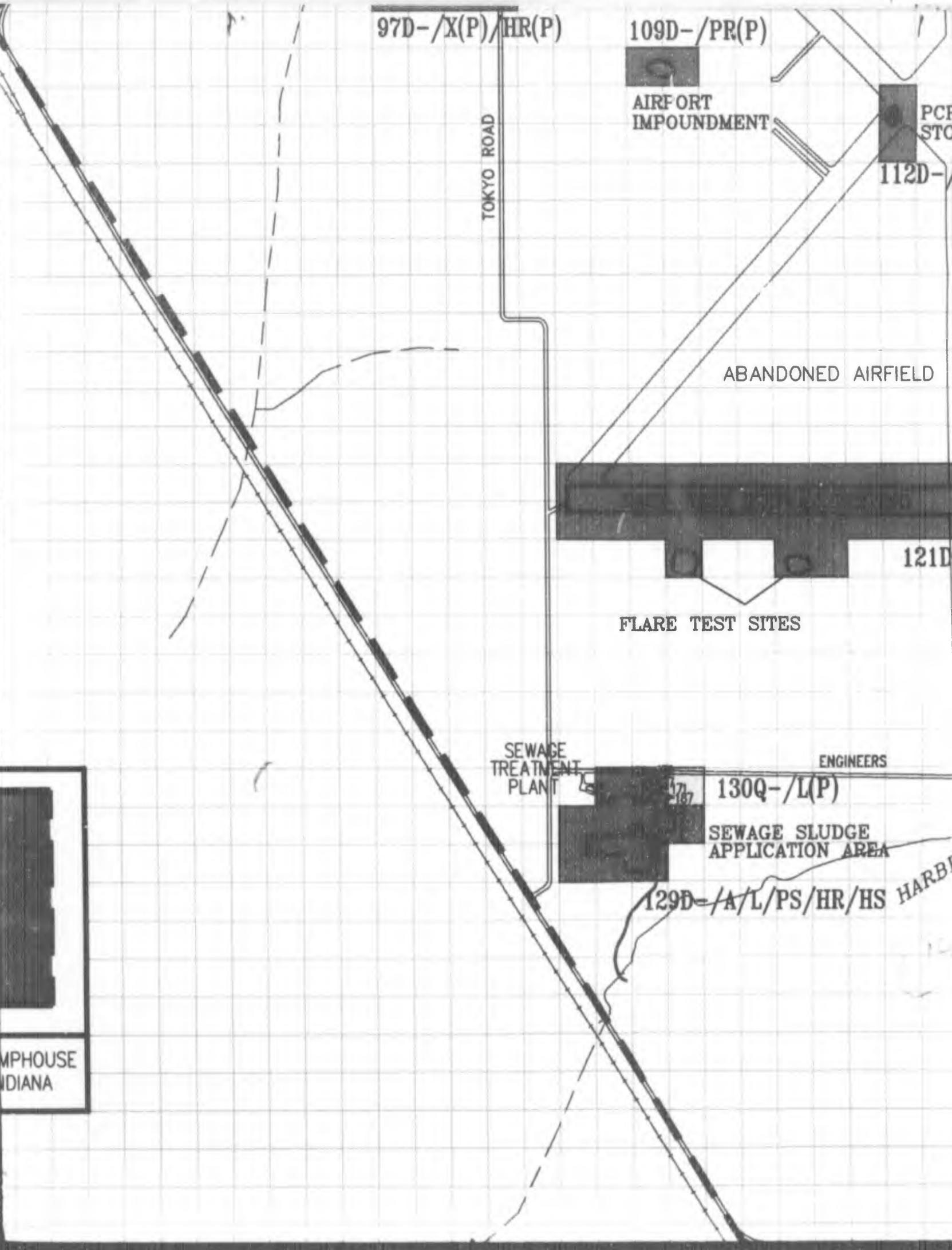
27D-/A/L/X(P)/HR(P)

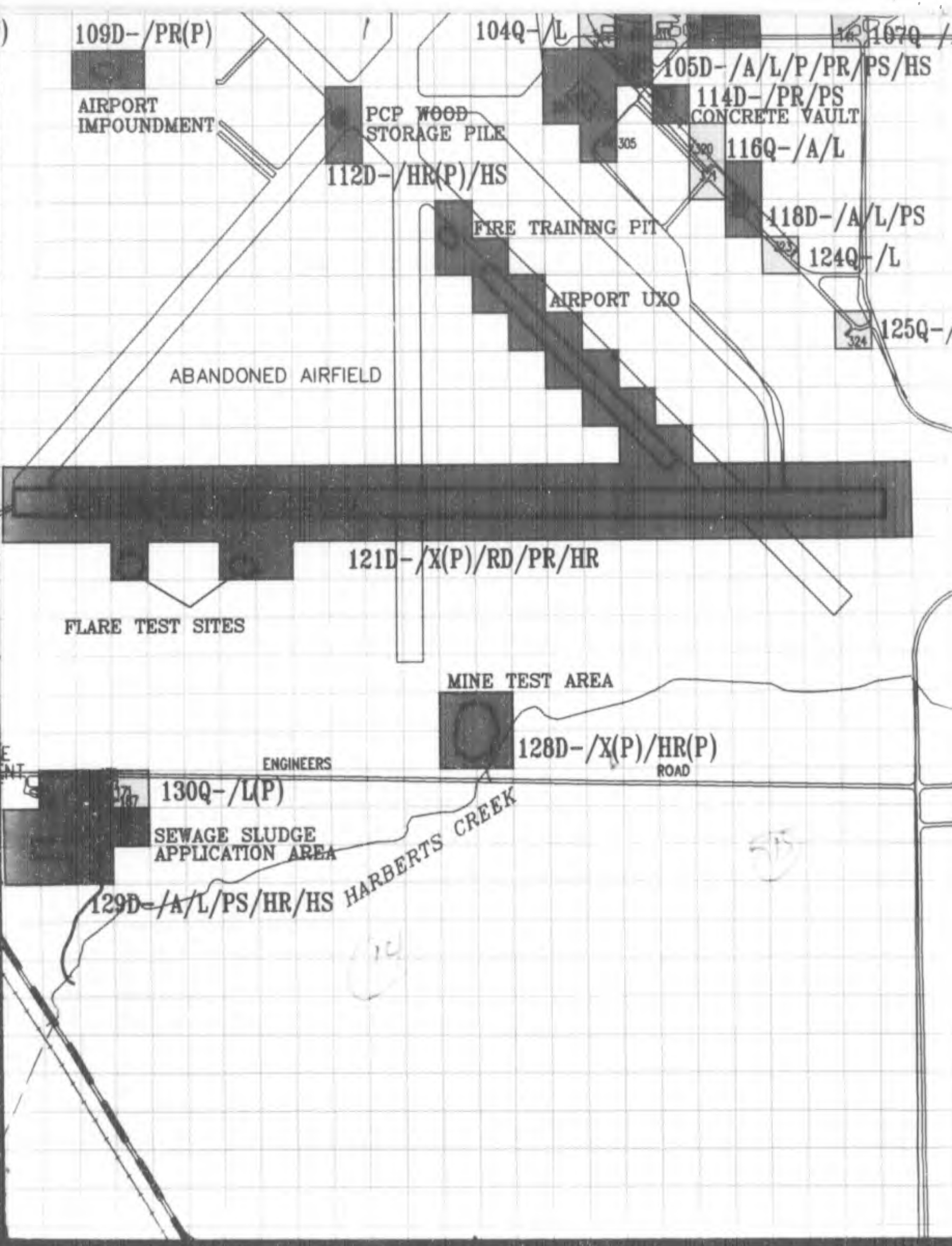
POTENTIAL

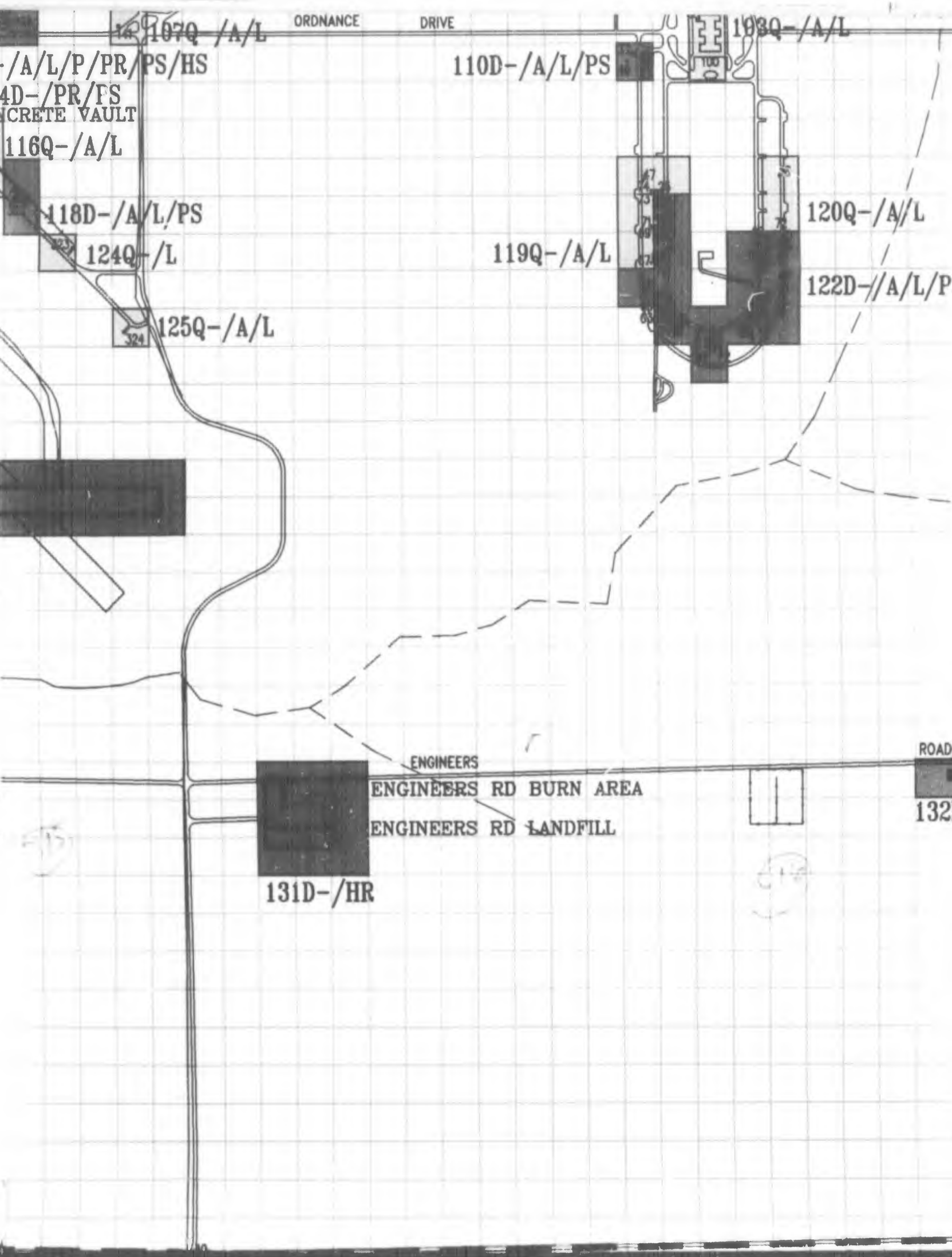

542
ROAD
567
566
577
578
L/RD
563
562
108Q-/A/L
197
198
MAIN
ENTRANCE
111Q-/A
DRIVE
117Q-/A/L
188
KRUEGER
LAKE
193

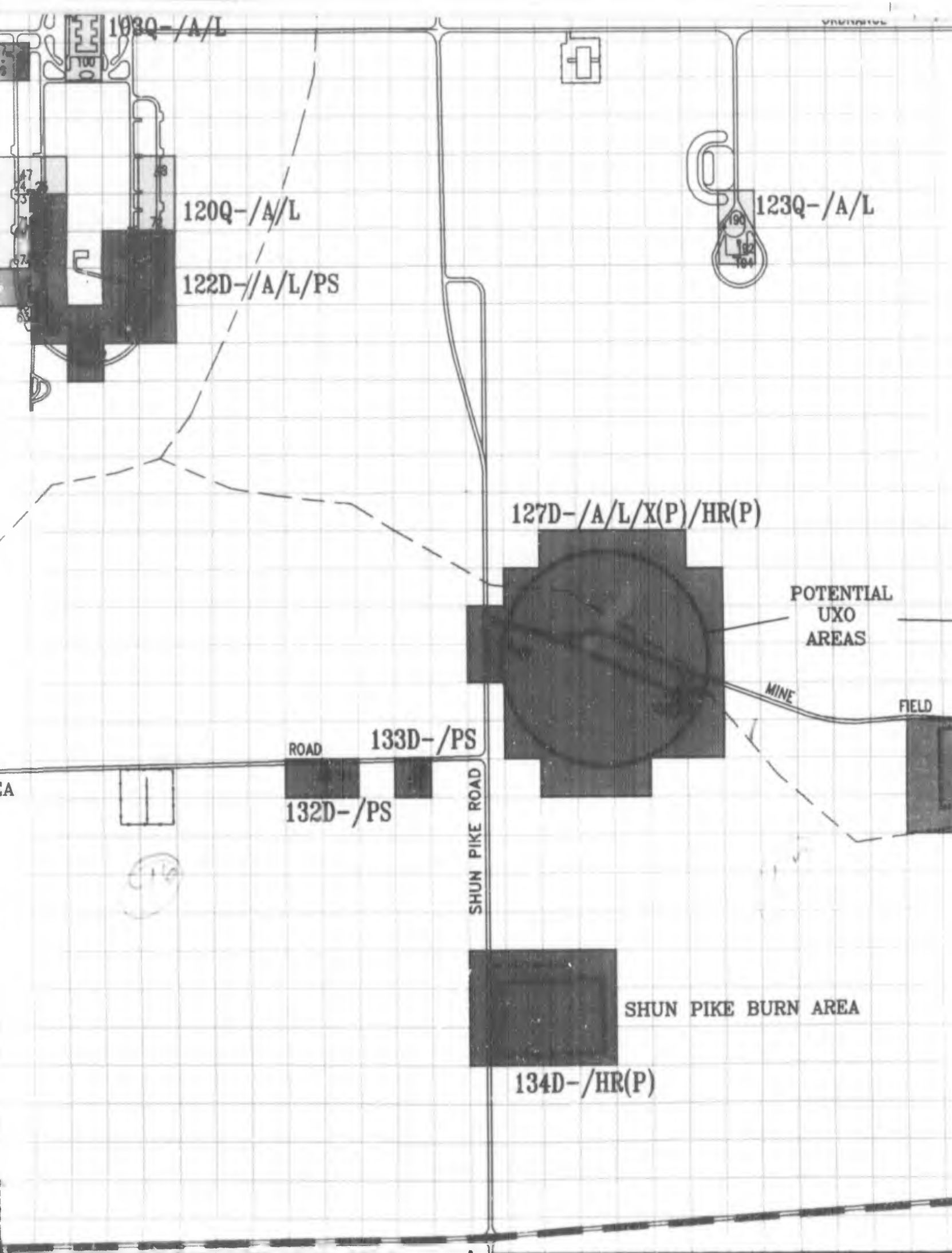


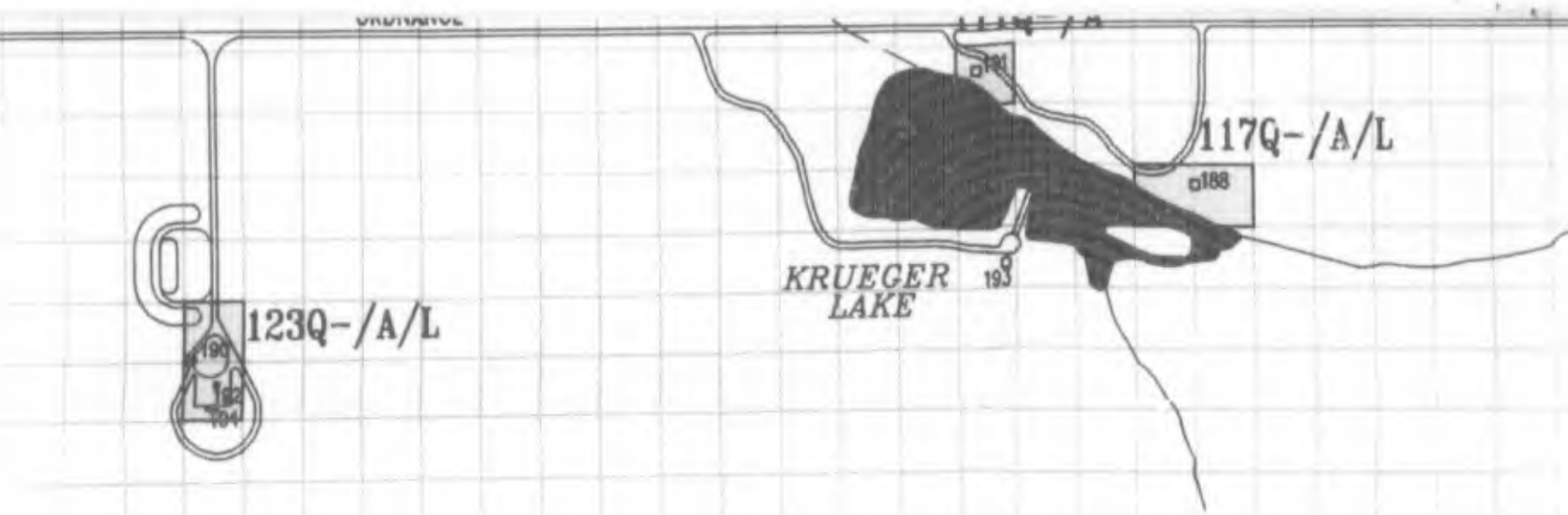
One Acre Grid Square
Coordinate Location: (43,5)

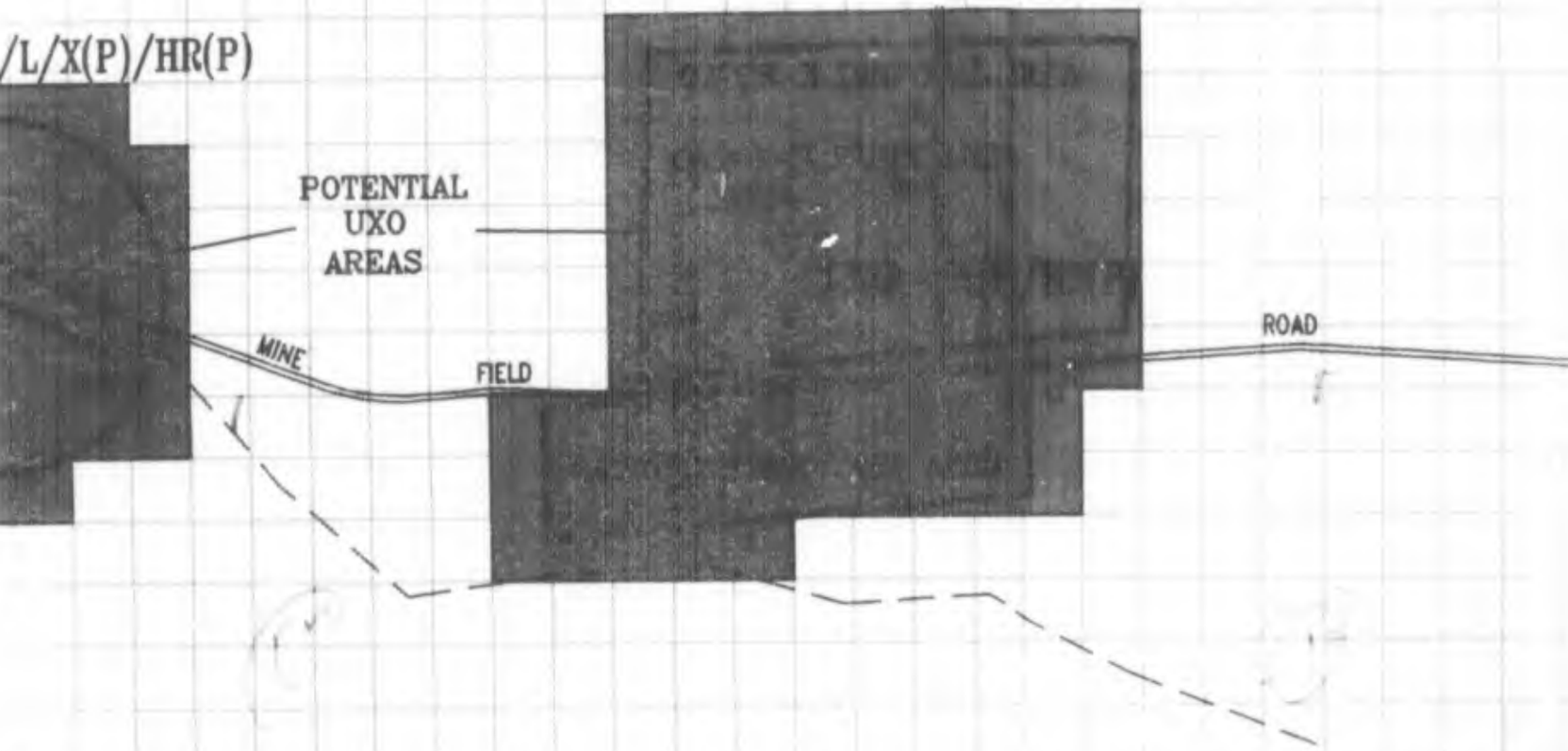

97D-/X(P)/HR(P)
109D-/PR(P)
AIRFORT
IMPOUNDMENT
TOKYO ROAD
112D-
ABANDONED AIRFIELD
121D
FLARE TEST SITES
SEWAGE
TREATMENT
PLANT
ENGINEERS
130Q-/L(P)
SEWAGE SLUDGE
APPLICATION AREA
129D-/A/L/PS/HR/HS
MPHOUSE
DIANA


109D-/PR(P)
AIRPORT IMPOUNDMENT
PCP WOOD STORAGE PILE
112D-/HR(P)/HS
104Q-/L
105D-/A/L/P/PR/PS/HS
114D-/PR/PS
CONCRETE VAULT
116Q-/A/L
118D-/A/L/PS
124Q-/L
125Q-/
FIRE TRAINING PIT
AIRPORT UXO
ABANDONED AIRFIELD
121D-/X(P)/RD/PR/HR
FLARE TEST SITES
MINE TEST AREA
128D-/X(P)/HR(P)
ROAD
ENGINEERS
130Q-/L(P)
SEWAGE SLUDGE APPLICATION AREA
129D-/A/L/PS/HR/HS
HARBERTS CREEK


ORDNANCE
DRIVE
107Q -/A/L
-/A/L/P/PR/PS/HS
4D-/PR/FS
CRETE VAULT
116Q-/A/L
118D-/A/L/PS
124Q-/L
125Q-/A/L
110D-/A/L/PS
193Q-/A/L
120Q-/A/L
119Q-/A/L
122D-/A/L/P
ENGINEERS
ENGINEERS RD BURN AREA
ENGINEERS RD LANDFILL
131D-/HR
ROAD
132

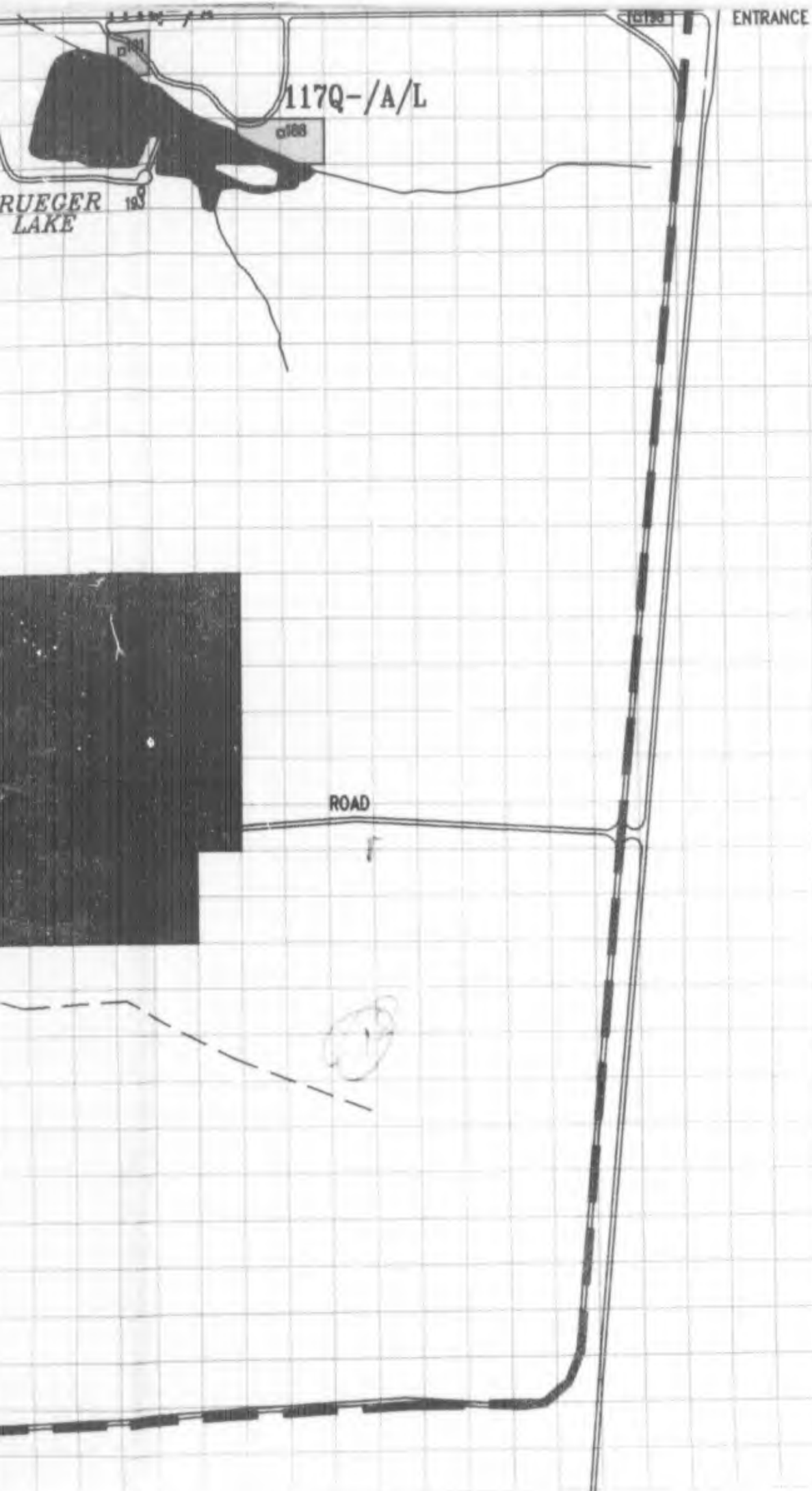

103Q-/A/L
120Q-/A/L
122D-/A/L/PS
123Q-/A/L
127D-/A/L/X(P)/HR(P)
POTENTIAL
UXO
AREAS
MINE
FIELD
ROAD
133D-/PS
132D-/PS
SHUN PIKE ROAD
SHUN PIKE BURN AREA
134D-/HR(P)

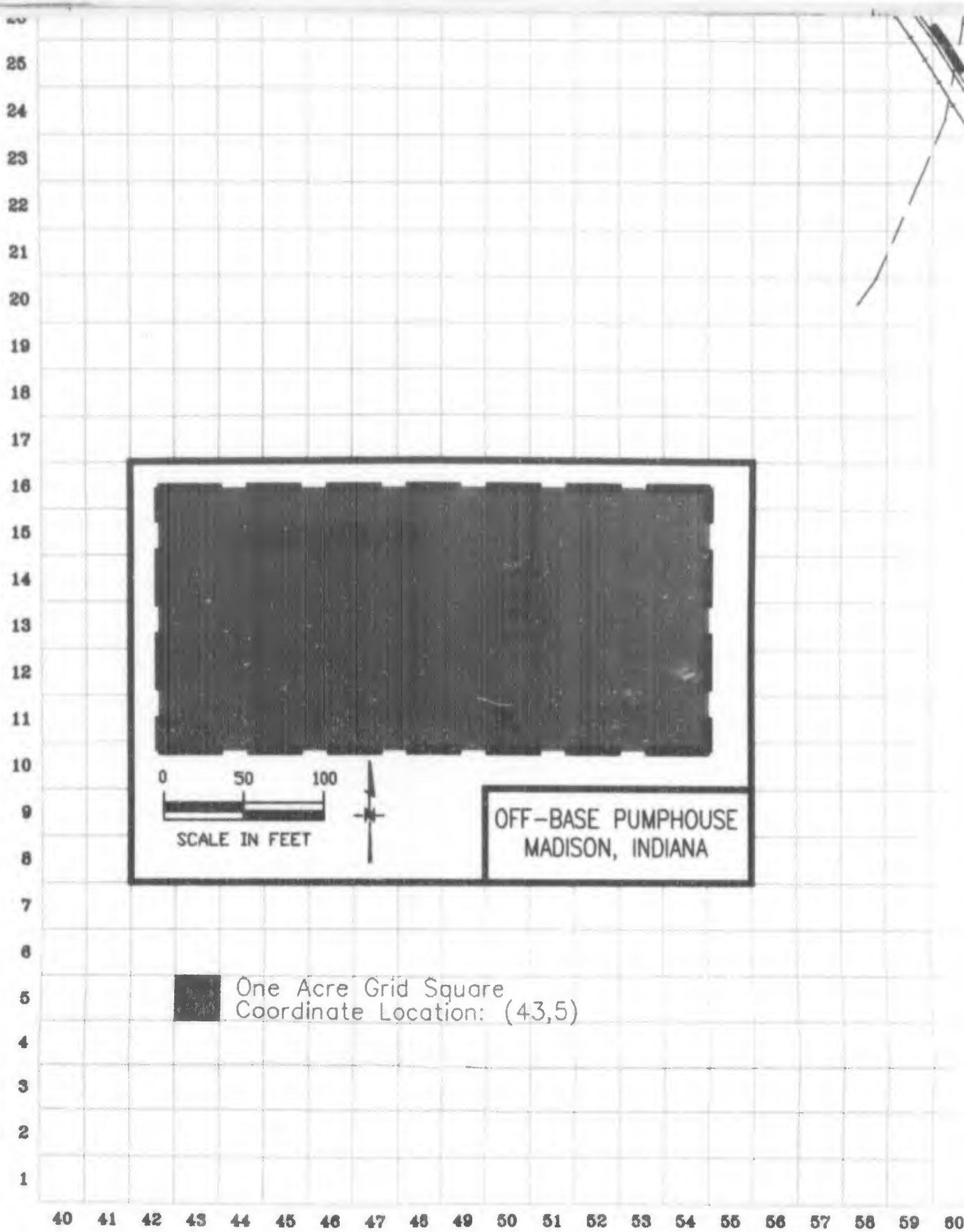




SHUN PIKE BURN AREA

HR(P)


ENTRANCE
117Q-/A/L
RUEGER
LAKE
ROAD


0
50
100
SCALE IN FEET
OFF-BASE PUMPHOUSE
MADISON, INDIANA
One Acre Grid Square
Coordinate Location: (43,5)
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
40
41
42
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53
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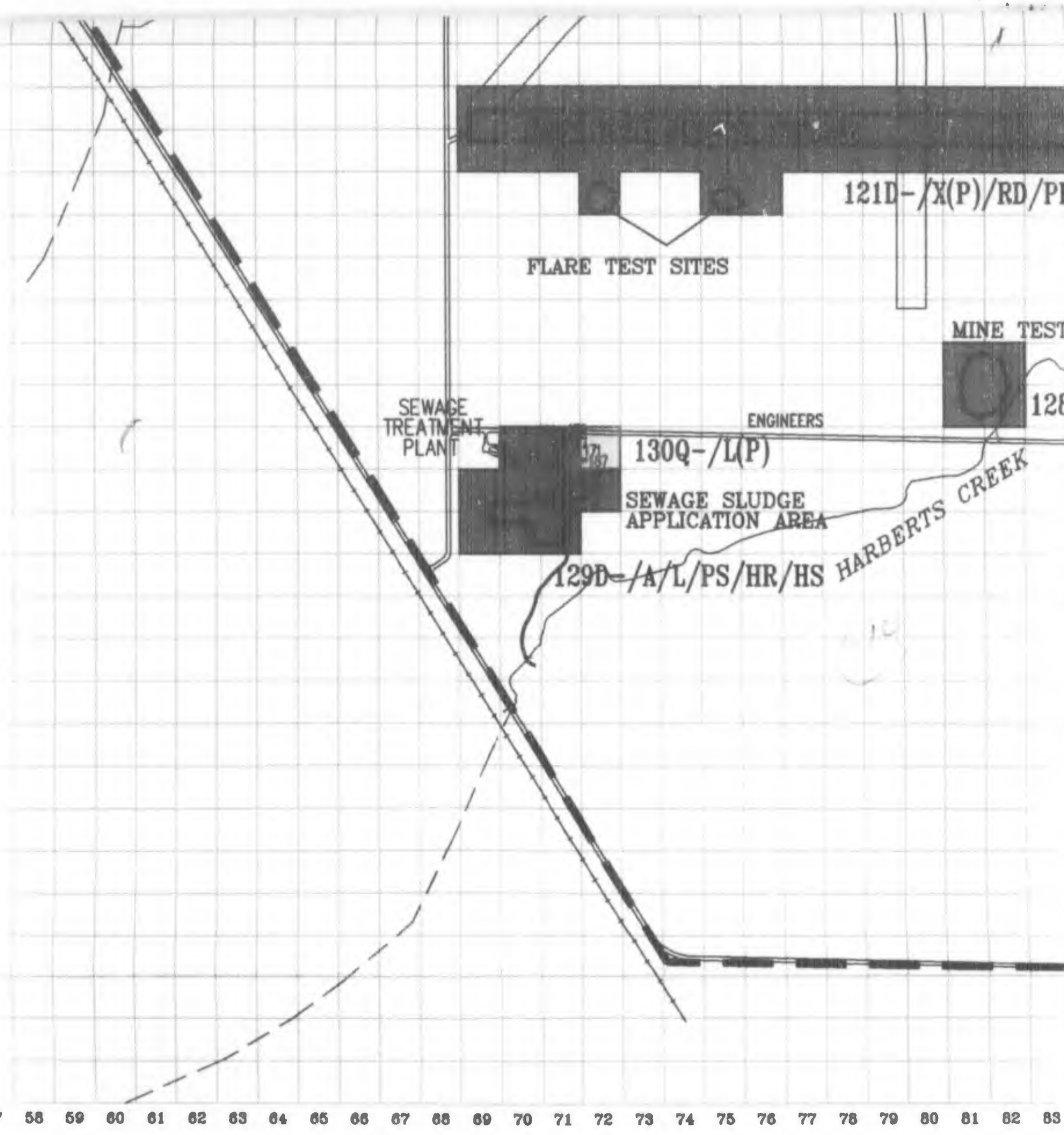
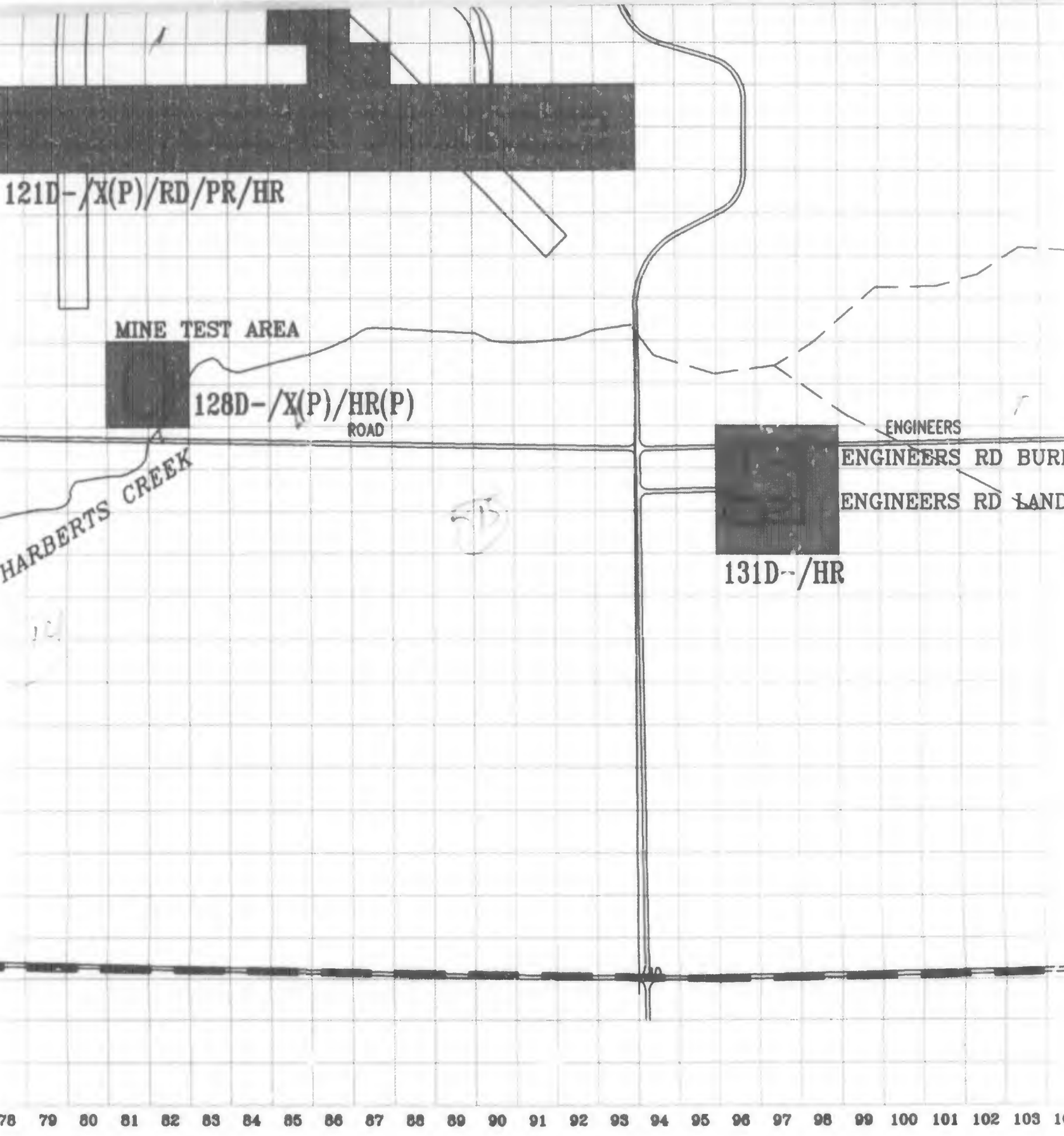
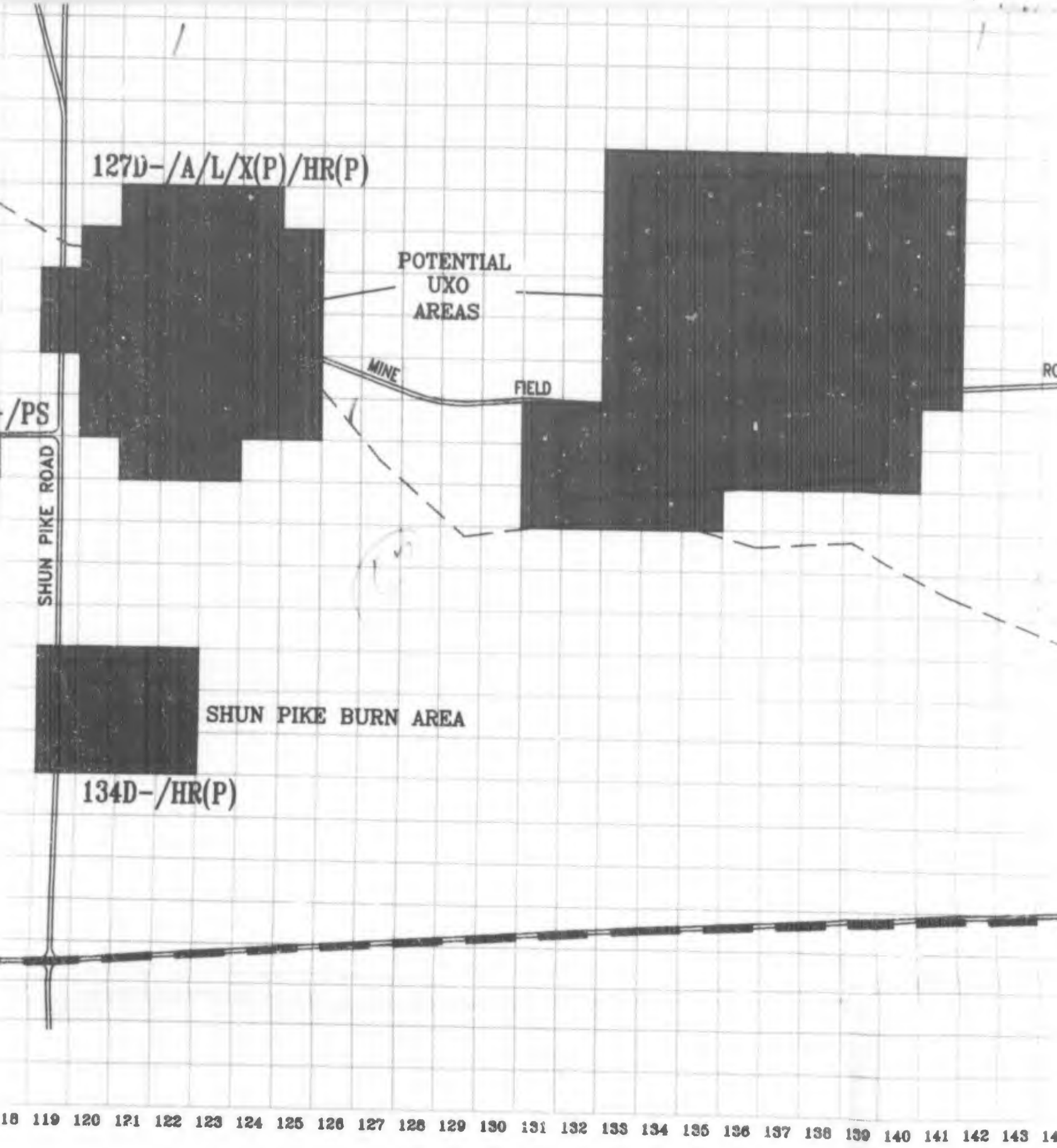
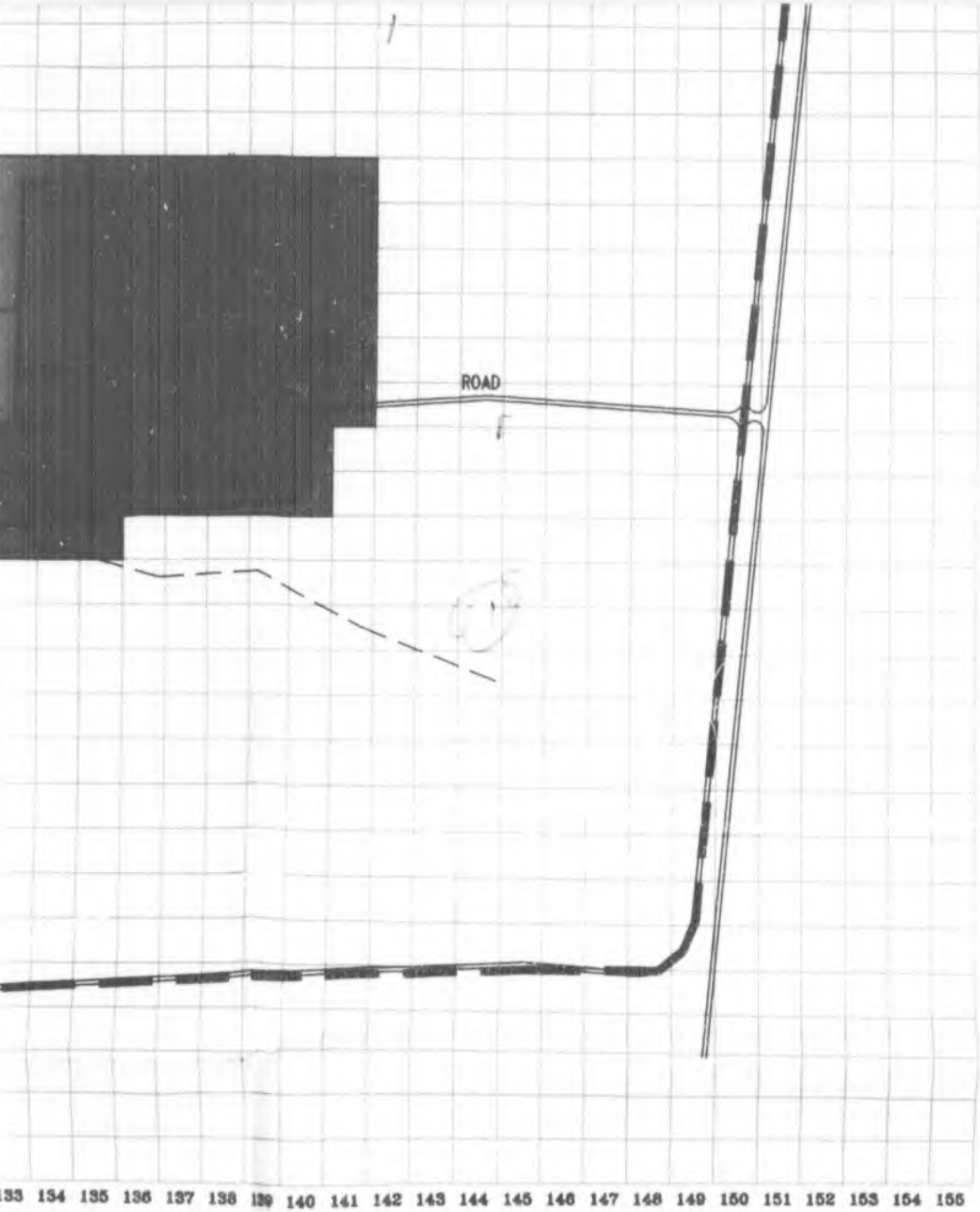
57
58
59
60

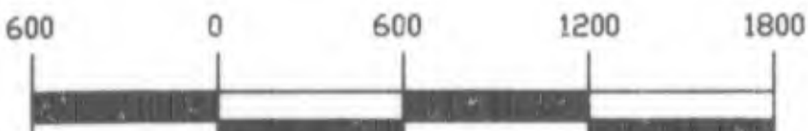

121D-/X(P)/RD/PI
FLARE TEST SITES
MINE TEST
128
SEWAGE TREATMENT PLANT
ENGINEERS
130Q-/L(P)
SEWAGE SLUDGE APPLICATION AREA
129D-/A/L/PS/HR/HS
HARBERTS CREEK
58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83

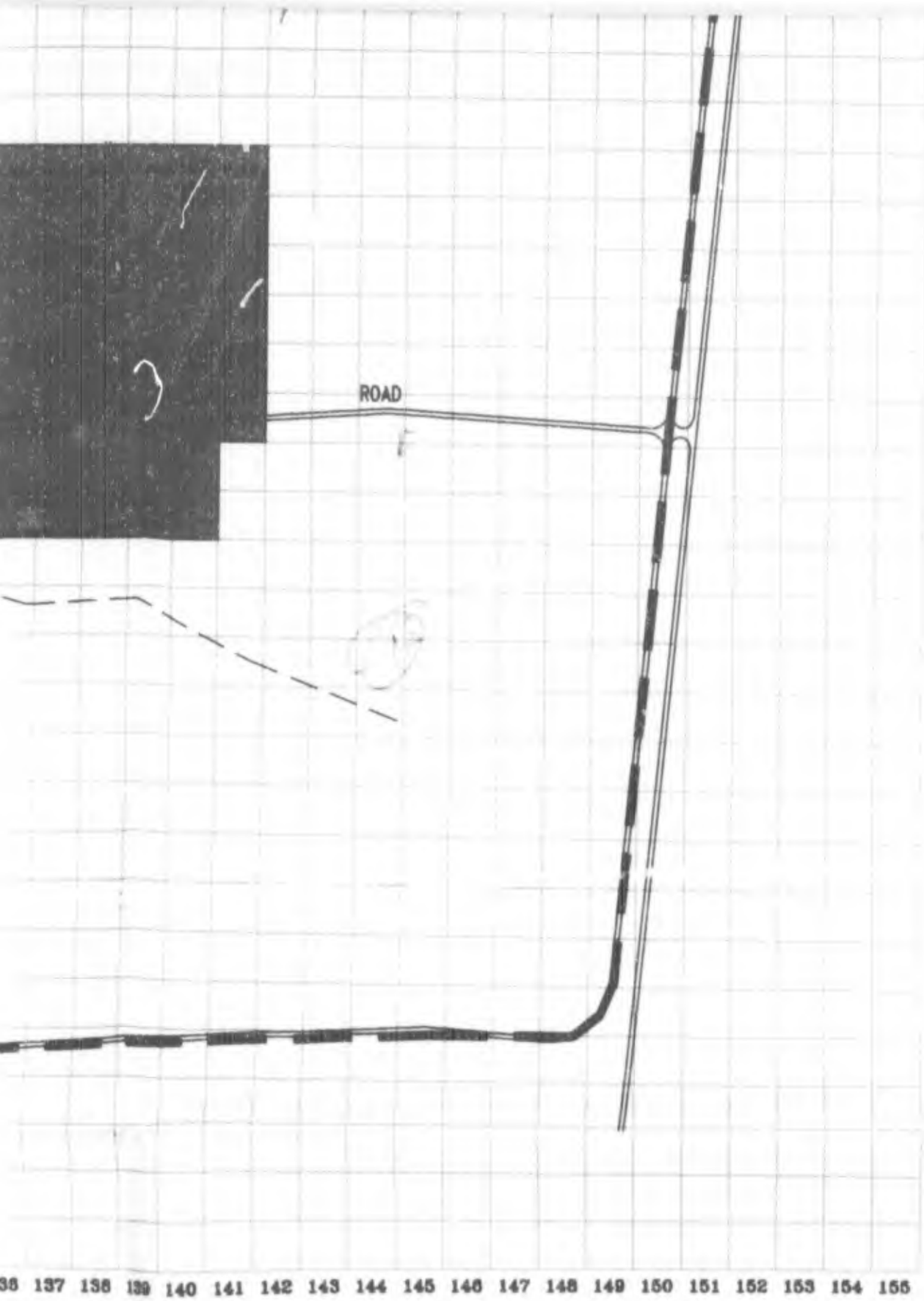

121D-/X(P)/RD/PR/HR
MINE TEST AREA
128D-/X(P)/HR(P)
ROAD
HARBERTS CREEK
ENGINEERS
ENGINEERS RD BURI
ENGINEERS RD LAND
131D--/HR
78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103

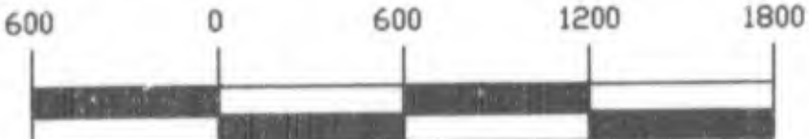

127D-/A/L/
133D-/PS
ROAD
ENGINEERS
ENGINEERS RD BURN AREA
ENGINEERS RD LANDFILL
132D-/PS
SHUN PIKE ROAD
-/HR
SH
134D-/HR(P
98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123

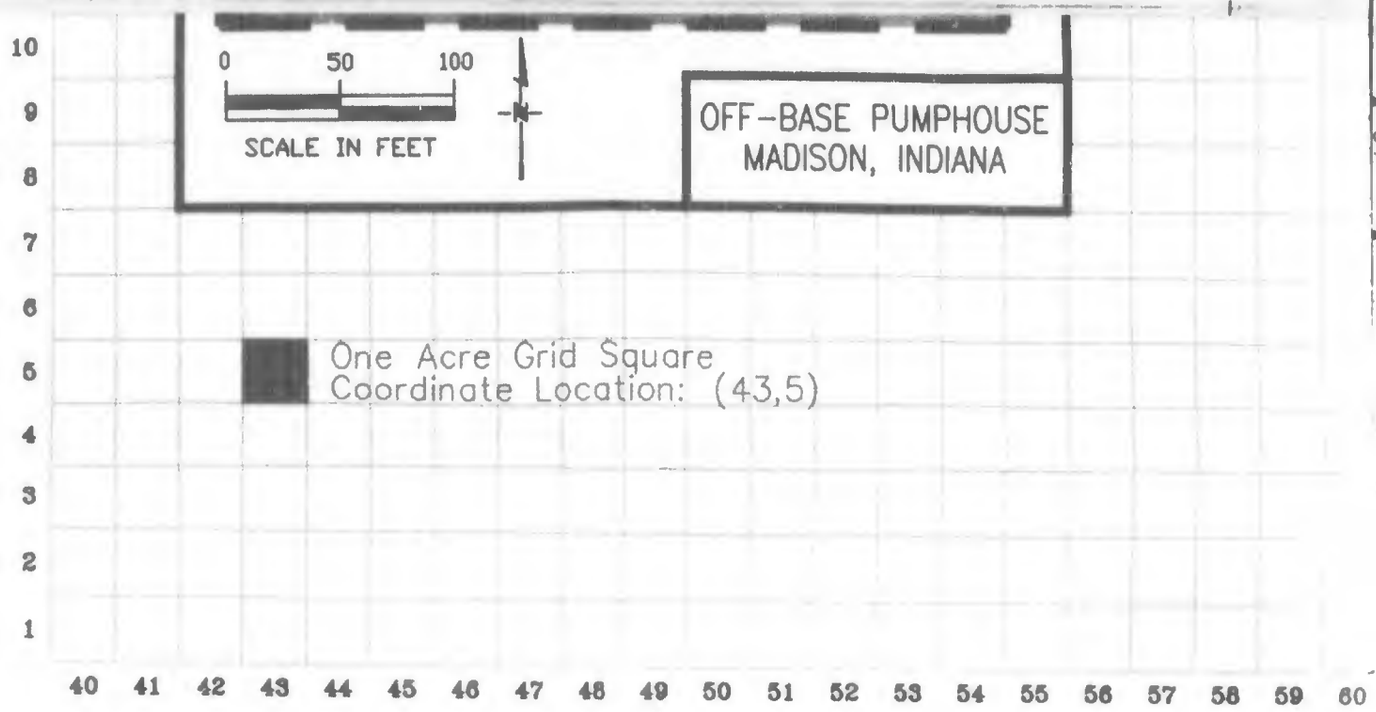

127D-/A/L/X(P)/HR(P)
POTENTIAL
UXO
AREAS
MINE
FIELD
/PS
SHUN PIKE ROAD
SHUN PIKE BURN AREA
134D-/HR(P)
118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143


ROAD
133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155

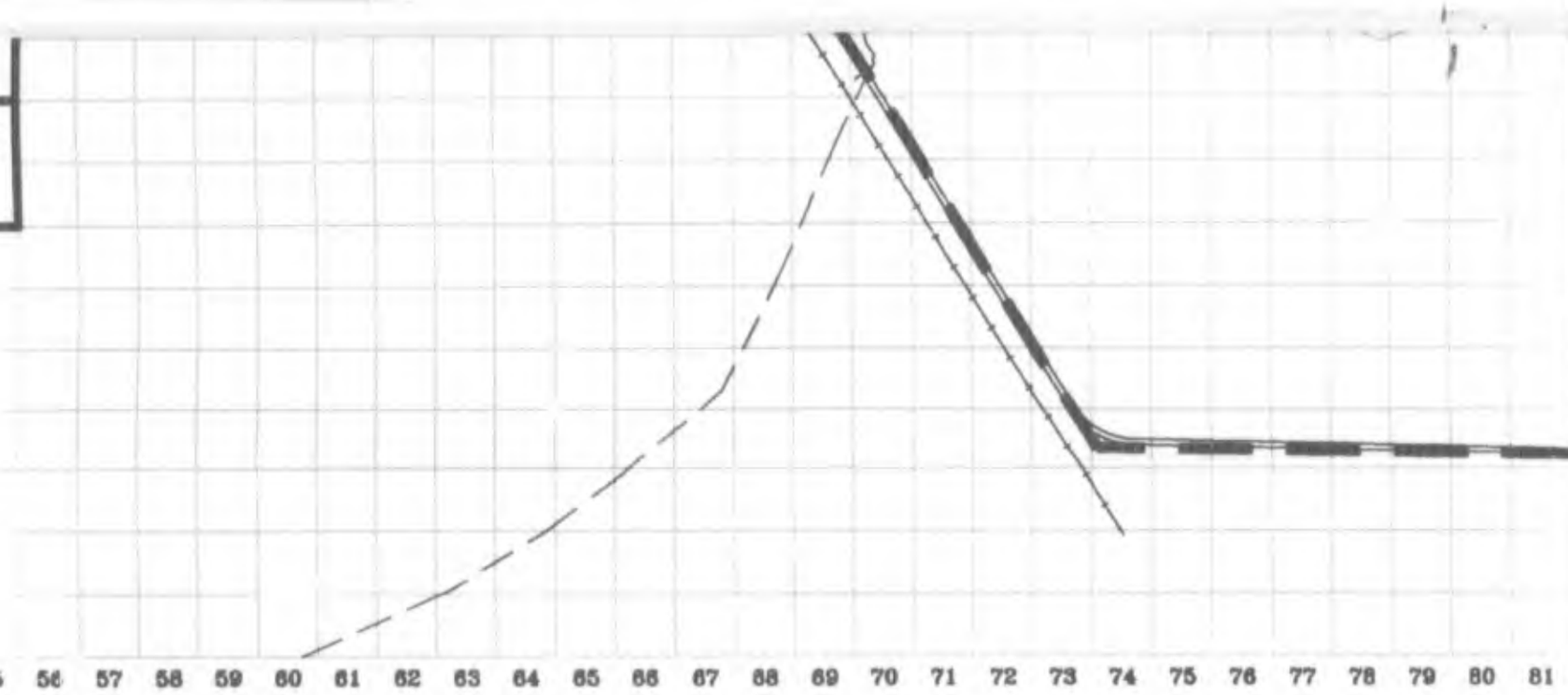

600
0
600
1200
1800


ROAD
136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155


600
0
600
1200
1800



Source: CERFA Investigation, April 1994



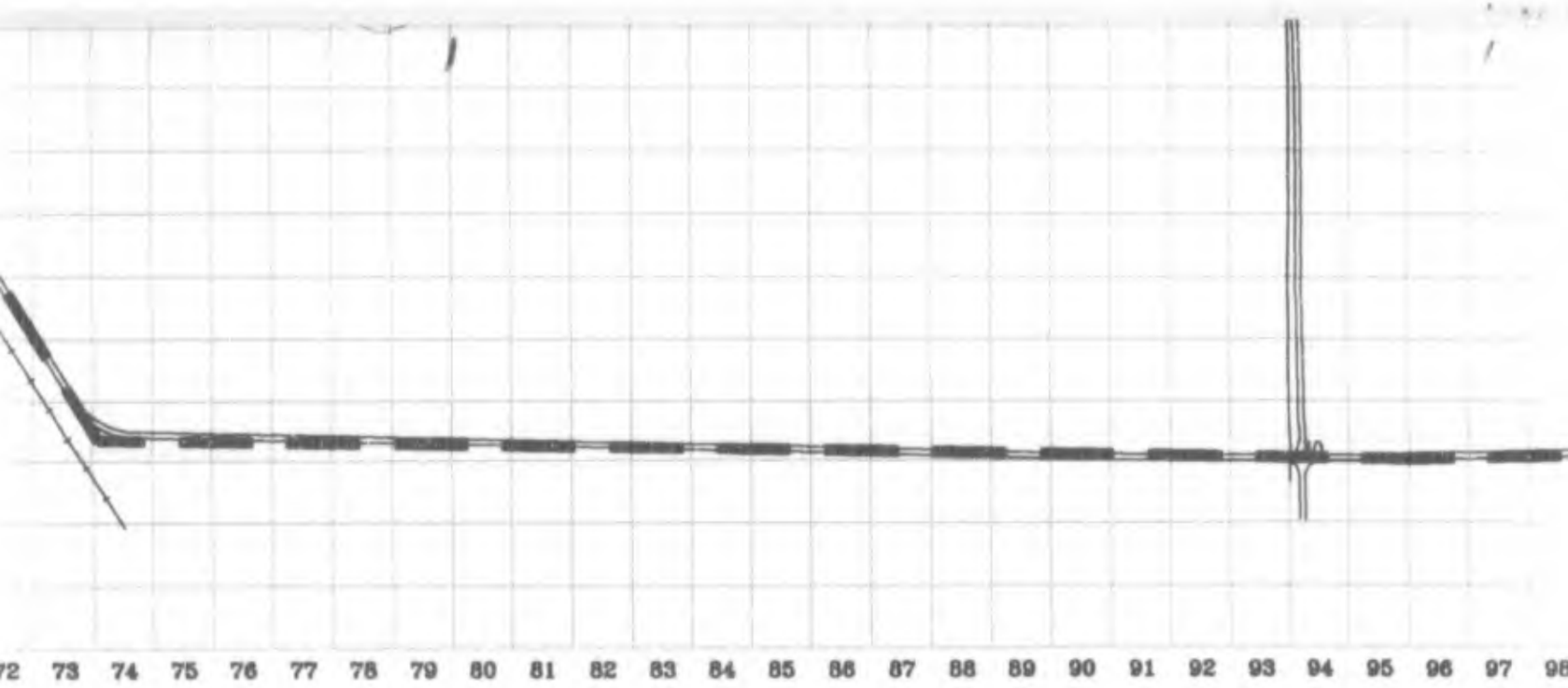
CERFA Parcel

CERFA Parcel with Qualifiers

CERFA Disqualified Parcel

CERFA Excluded Parcel

ril 1994



Parcel

Parcel with Qualifiers

Disqualified Parcel

Excluded Parcel

BURN AREA

★

■

△

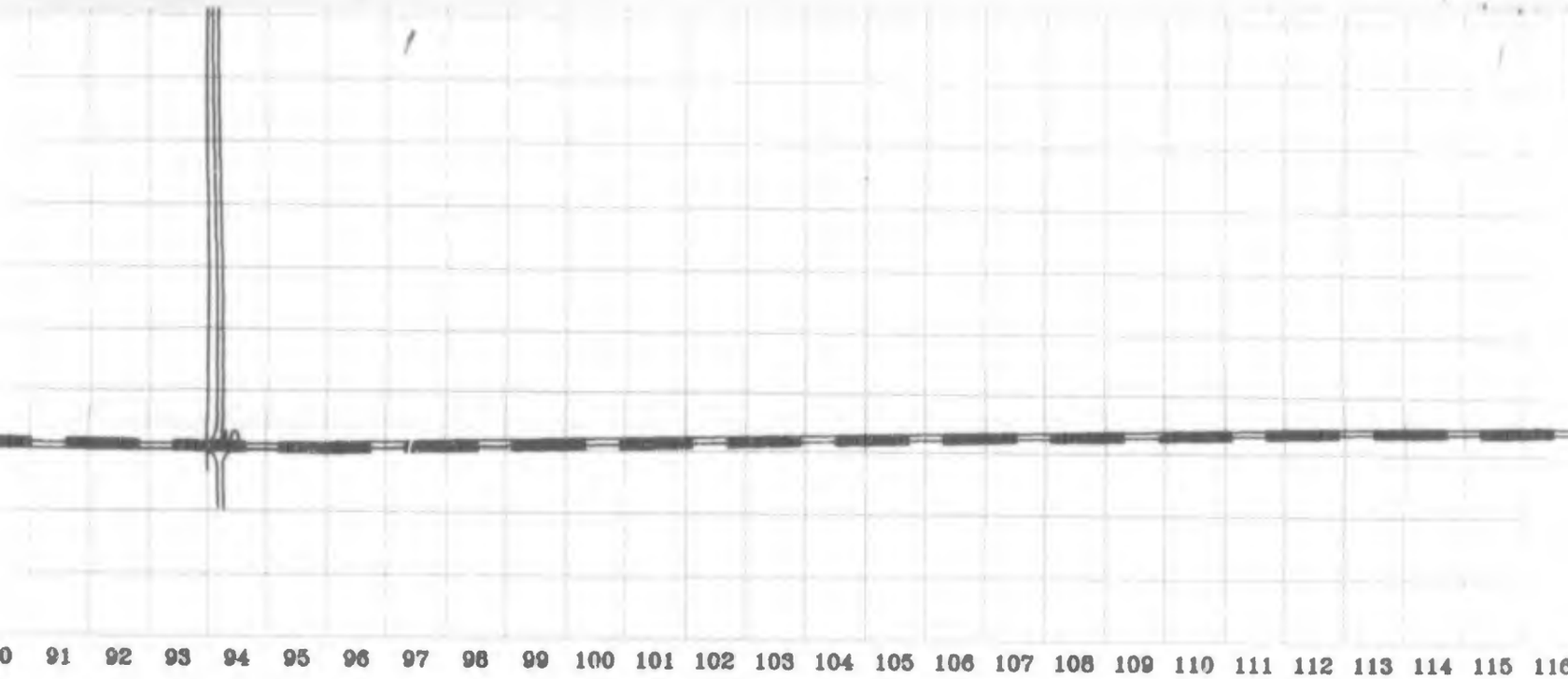
Study Area Currently Under Investigation

Hazardous Substance Waste Accumulation Ar

Underground Storage

Above Ground Storage

BRAC Property Bounda



y Area Currently
er Investigation

rdous Substance Storage or
e Accumulation Area

erground Storage Tank

e Ground Storage Tank

Property Boundary

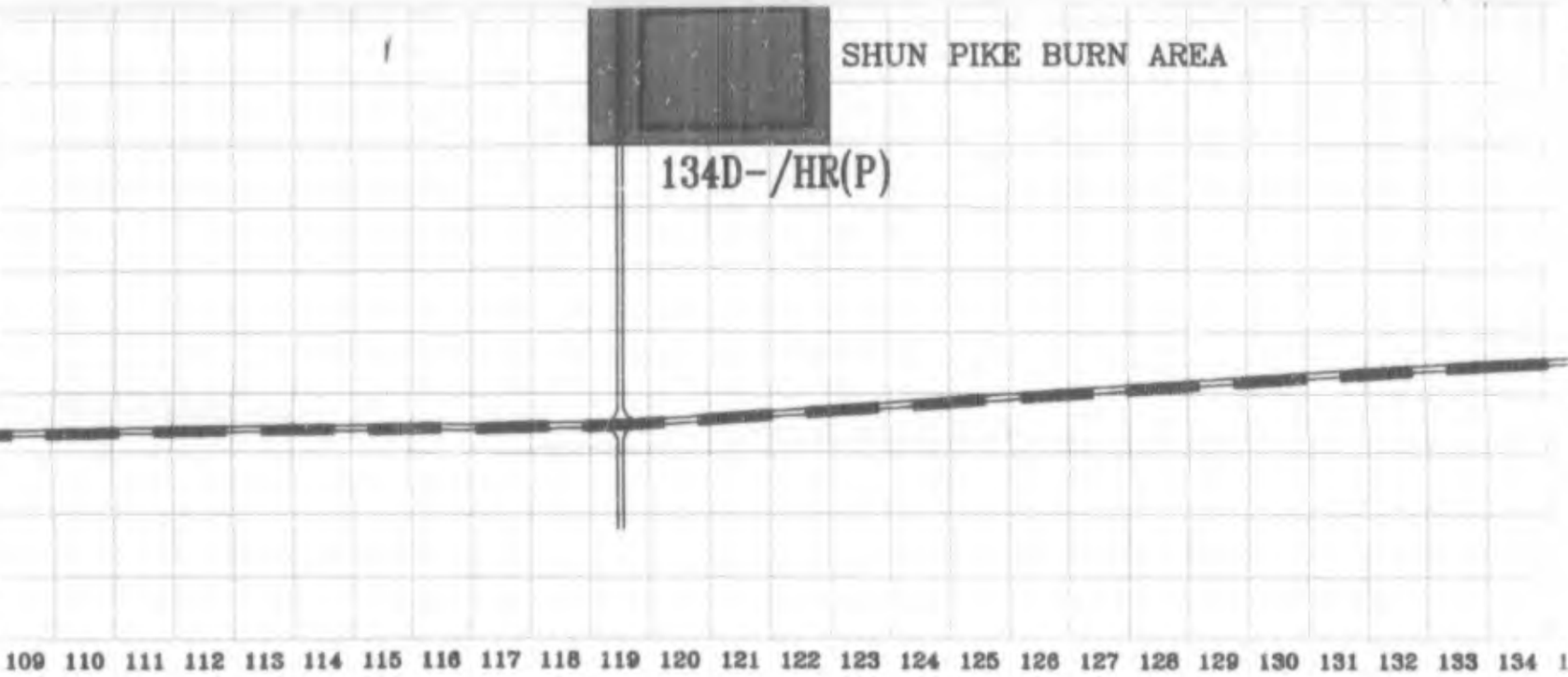
PARCEL LABEL DEFINI

13P-/A/L

A = ASE
L = LEA
P = PCE
R = RAD
X = UNE
RD = RA
PR = PE
PS = PE
HR = HA
HS = HA
(P) = P

P = CER
Q = CER
D = CER
E = CER

PARCEL



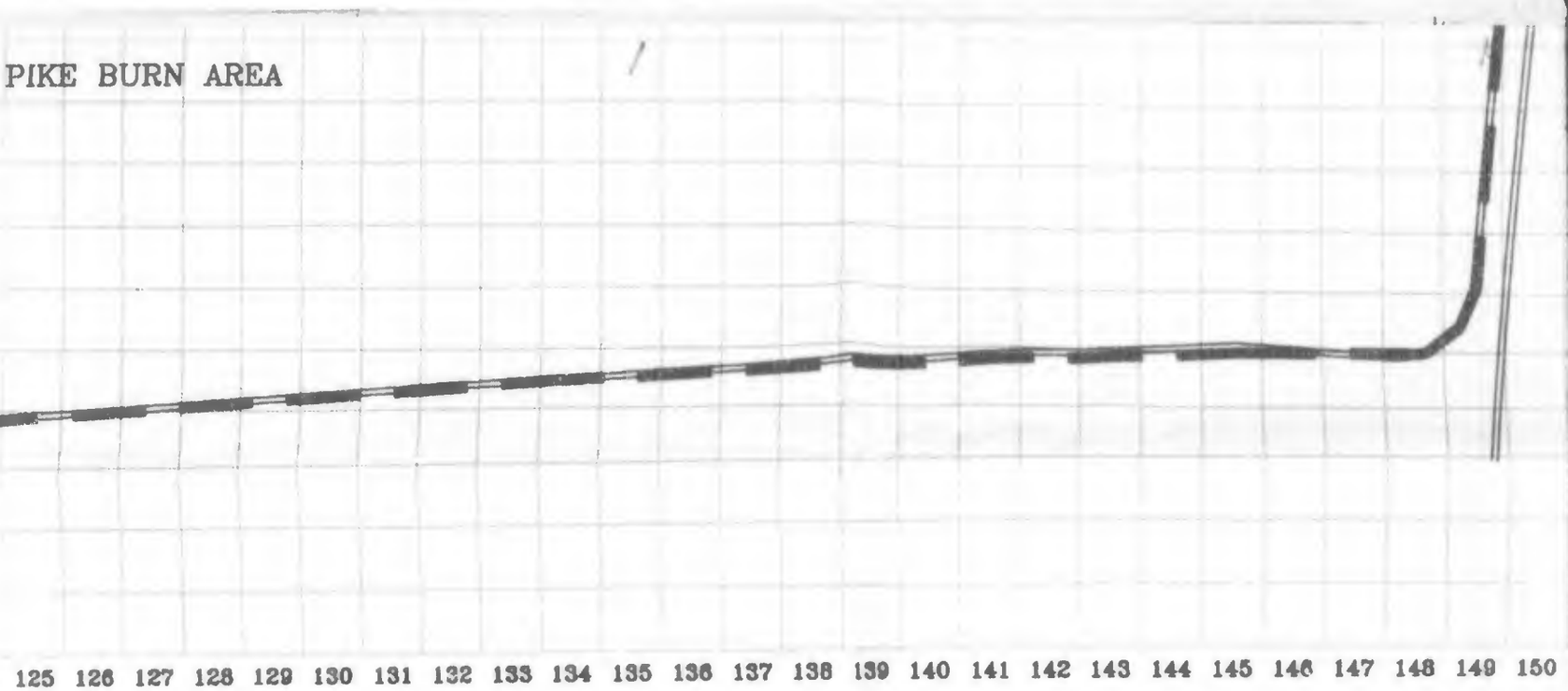
PARCEL LABEL DEFINITIONS

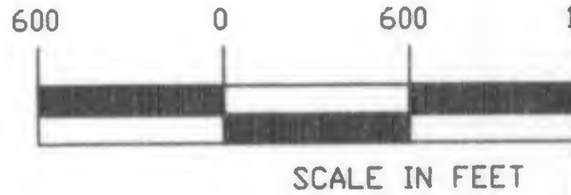
13P-/A/L

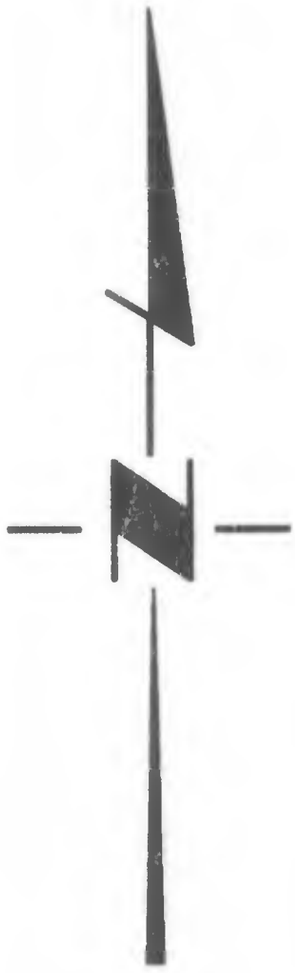
A = ASBESTOS
L = LEAD-BASED PAINT
P = PCB
R = RADON
X = UNEXPLODED ORDNANCE
RD = RADIONUCLIDES
PR = PETROLEUM RELEASE
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER

P = CERFA PARCEL
Q = CERFA PARCEL WITH QUALIFIER(S)
D = CERFA DISQUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL

PARCEL NUMBER





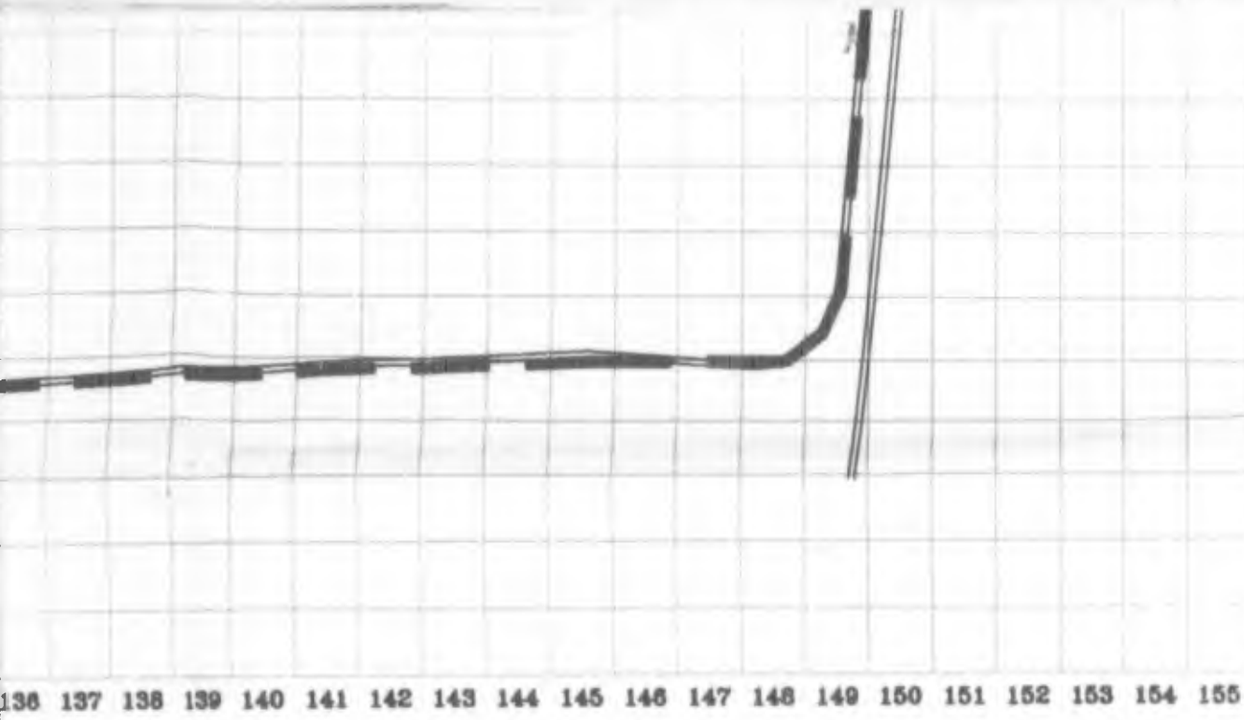


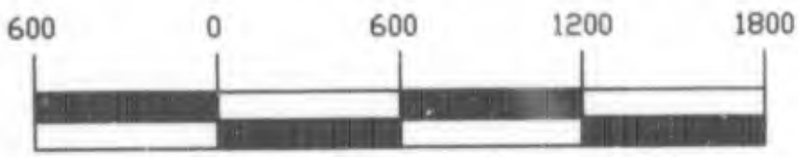
The Earth
Corporatio

1420 KING STREET SUITE 600, AL

FIGURE
PARCEL DESIG
SOUTH OF F
AND OFF-BASE
JEFFERSON PRO
MADISON,

DRAWN BY: MTM, JGC	DESIGNED B
CHECKED BY: JK	APPROVED B
TETC PROJECT NUMBER 931977-08	DRAWING NU SHEET 1





SCALE IN FEET

The Earth Technology Corporation

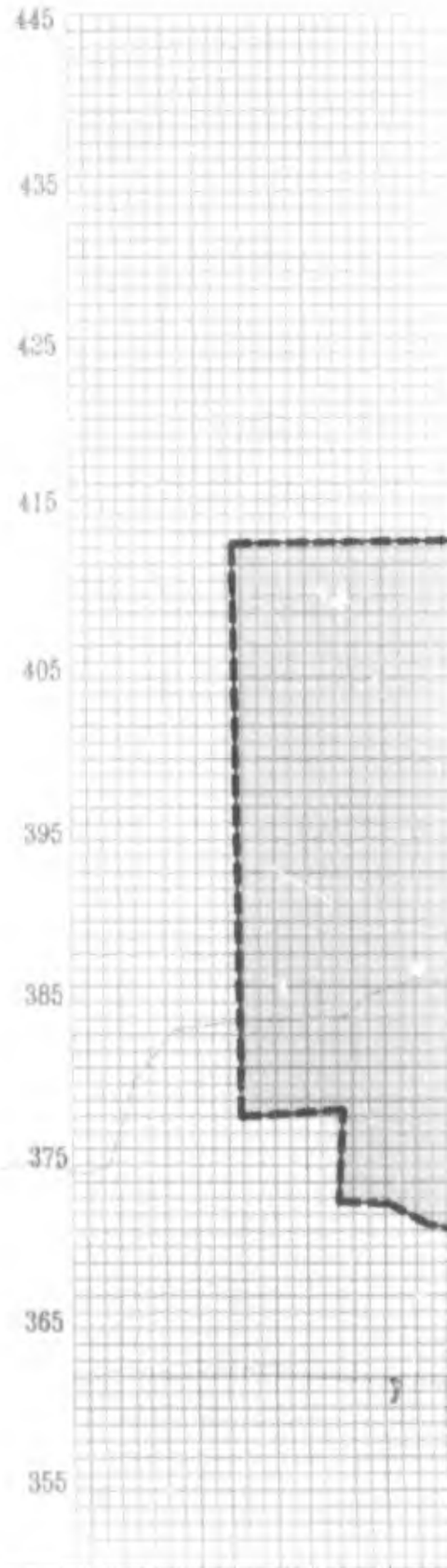
1420 KING STREET SUITE 600, ALEXANDRIA, VIRGINIA 22314

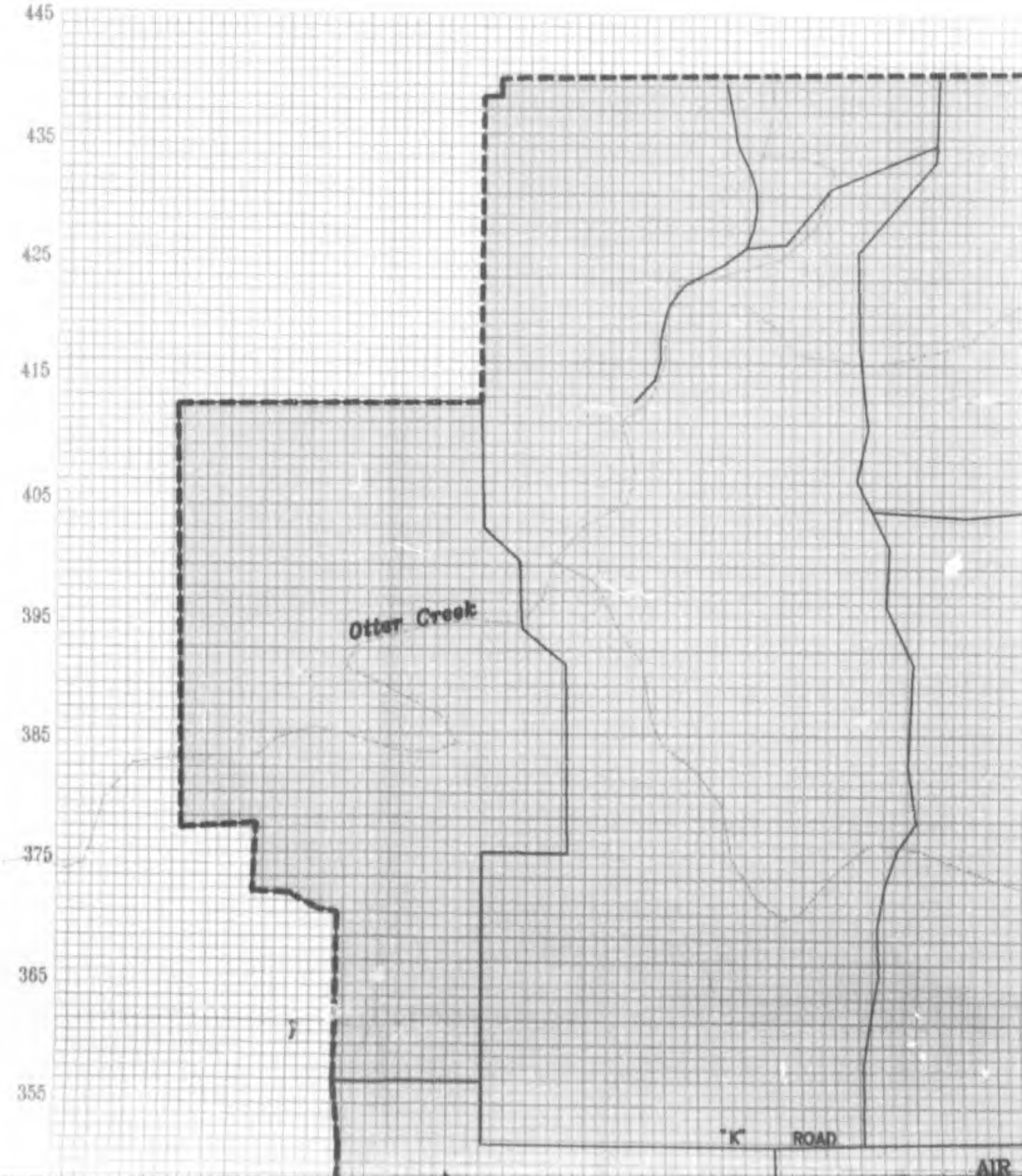
FIGURE 5-1A
PARCEL DESIGNATION MAP
SOUTH OF FIRING LINE
AND OFF-BASE PUMPHOUSE
JEFFERSON PROVING GROUND
MADISON, INDIANA

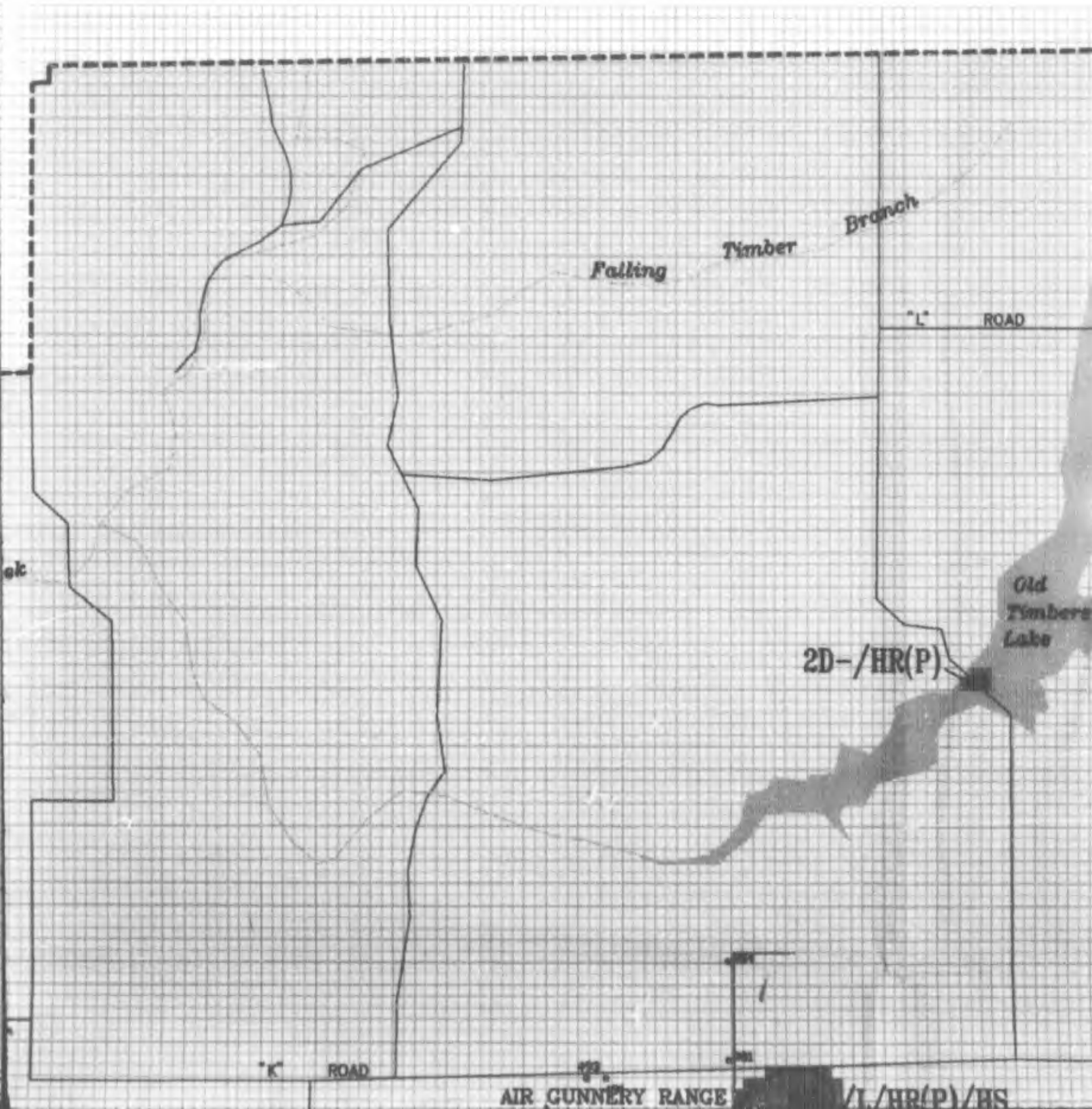
DRAWN BY: MTM, JGC	DESIGNED BY: N/A	SCALE: 1" = 600'
CHECKED BY: JK	APPROVED BY: BY	DATE: 04/11/94
TETC PROJECT NUMBER 931977-08	DRAWING NUMBER SHEET 1 OF 2	REV. NO. 1

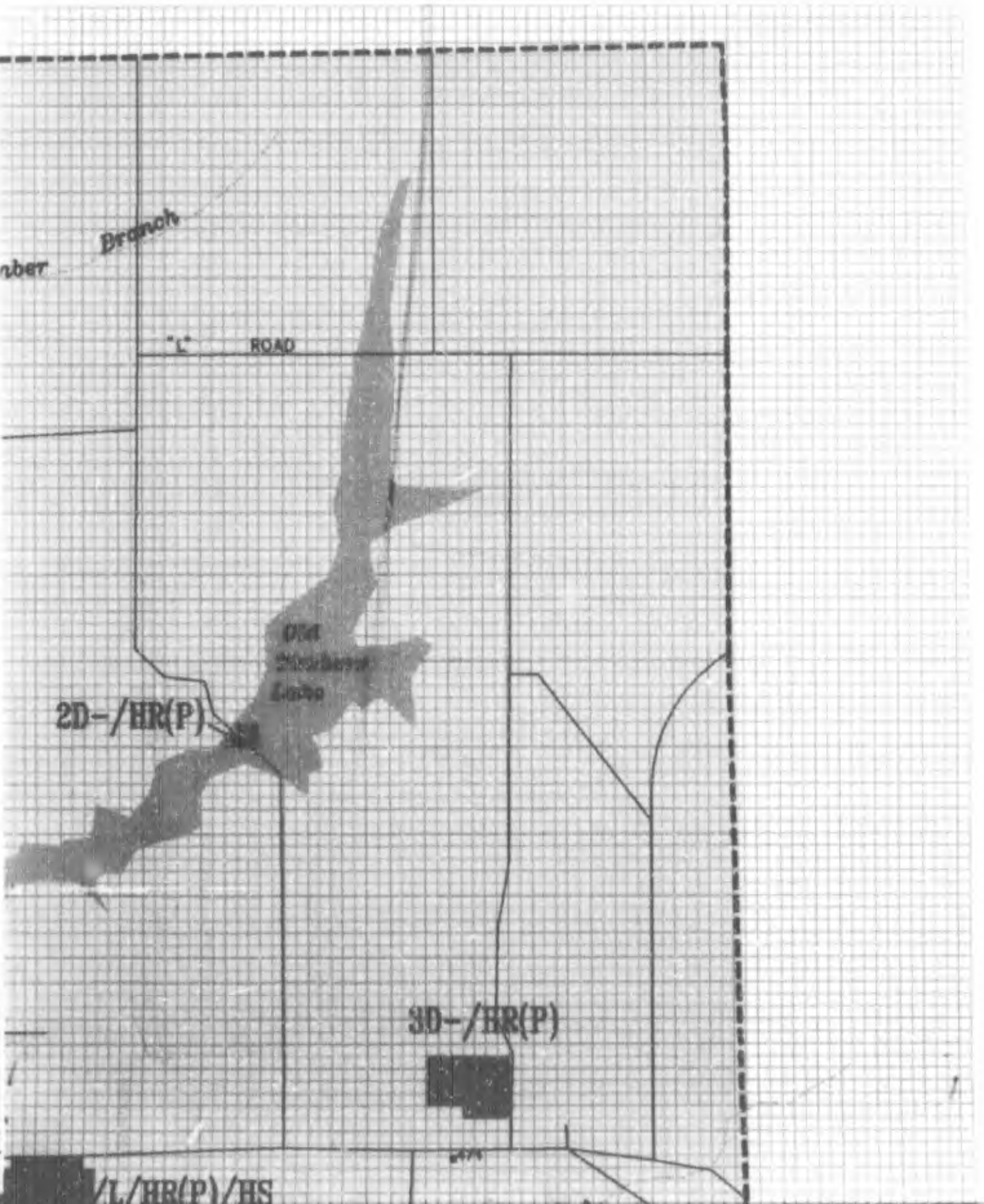
FIGURE 5-1B
PARCEL DESIGNATION MAP, NORTH OF FIRING LINE, JEFFERSON PROVING GROUND, MADISON, INDIANA

REVISION	DATE
0	12/01/93
1	04/06/94

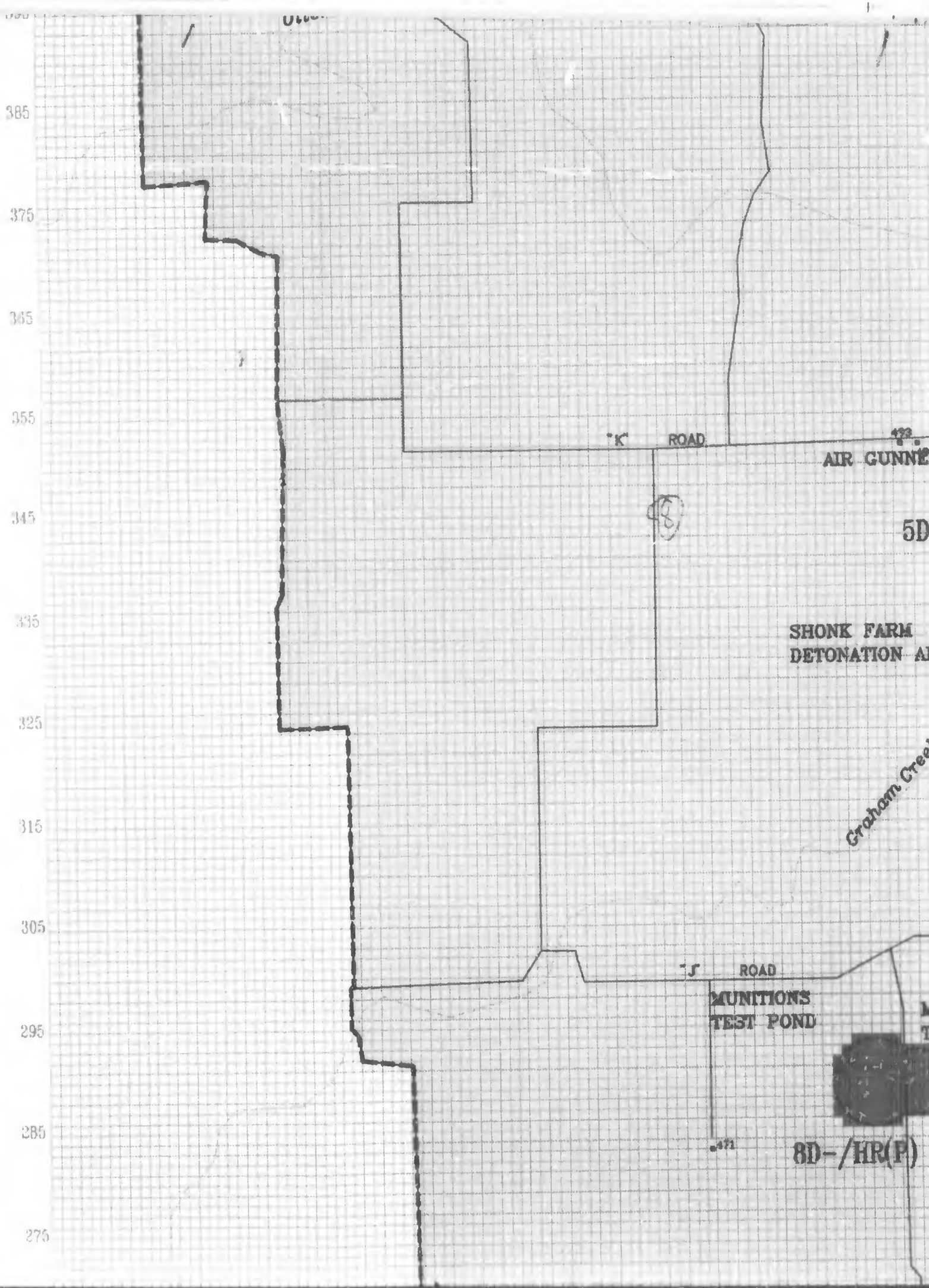


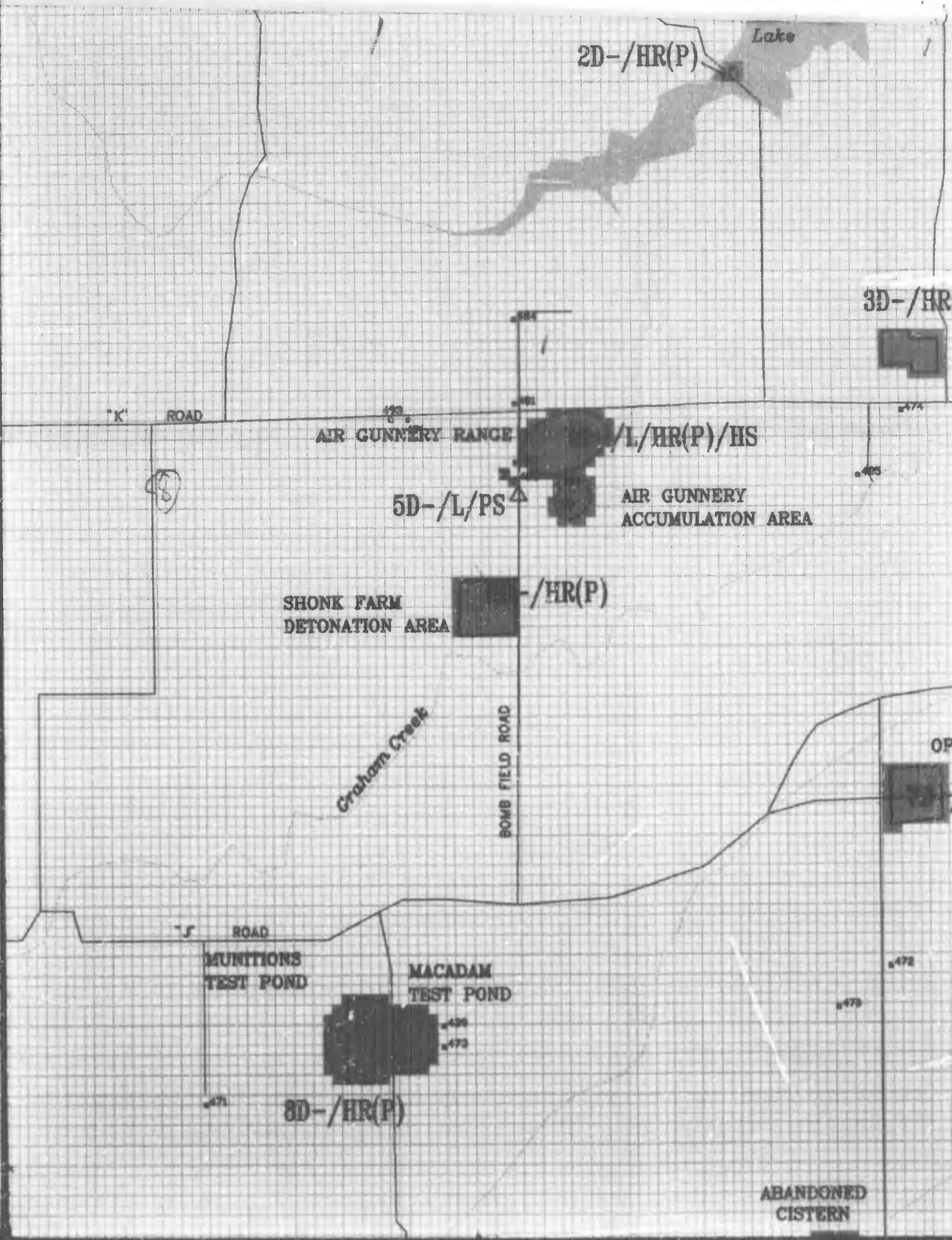

445
435
425
415
405
395
385
375
365
355
Otter Creek
"K" ROAD
AIR

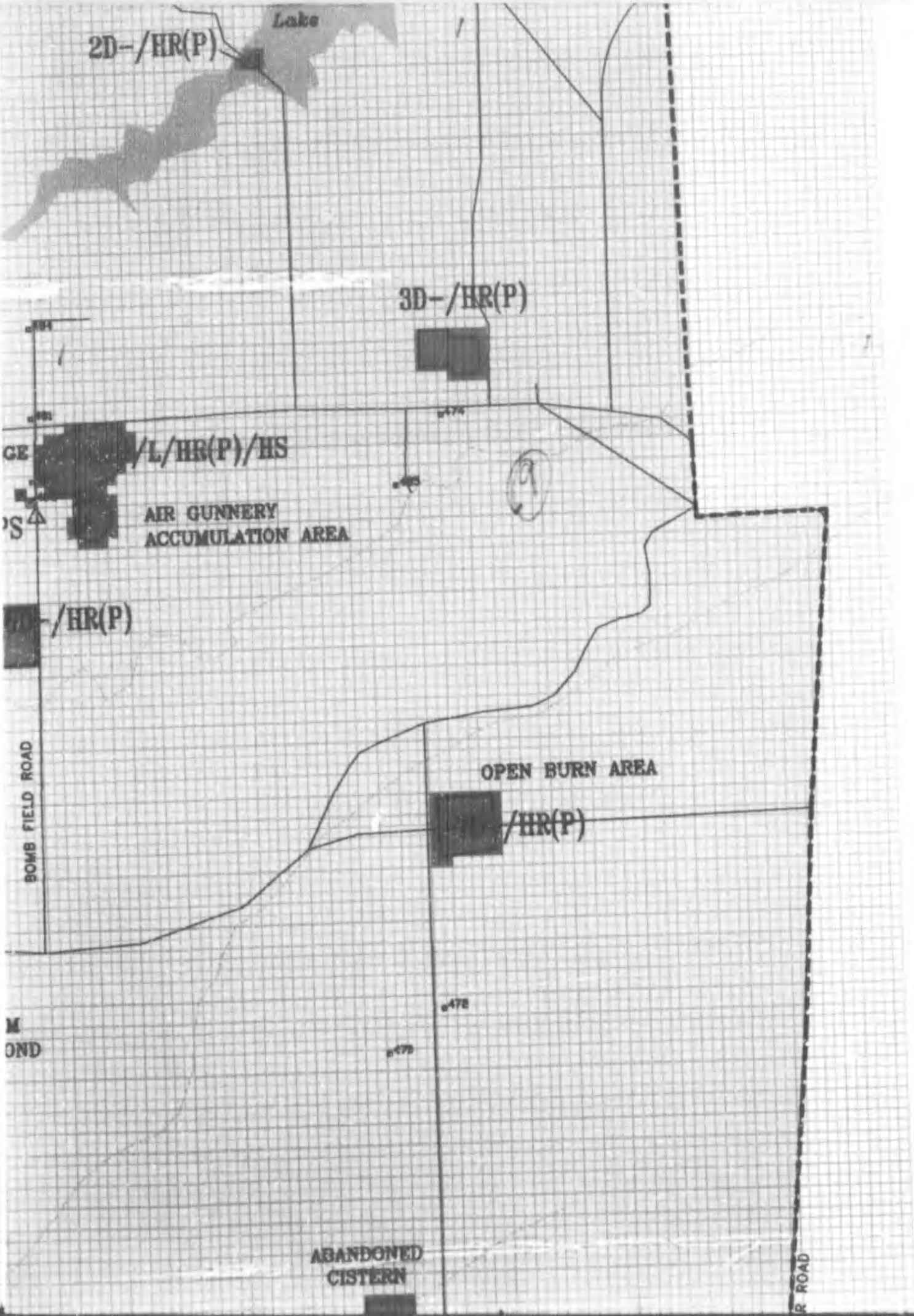

Falling
Timber
Branch
"L"
ROAD
Old
Timber
Lake
2D-/HR(P)
"K"
ROAD
AIR GUNNERY RANGE
/L/HR(P)/HS


Branch
"L" ROAD
2D-/HR(P)
3D-/HR(P)
/L/HR(P)/HS


385
375
365
355
345
335
325
315
305
295
285
275


385
375
365
355
345
335
325
315
305
295
285
275
"K" ROAD
AIR GUNNE
5D
SHONK FARM
DETONATION A
Graham Cree
"S" ROAD
MUNITIONS
TEST POND
8D-/HR(P)


Lake
2D-/HR(P)
3D-/HR
"K" ROAD
AIR GUNNERY RANGE
/L/HR(P)/HS
5D-/L/PS
AIR GUNNERY
ACCUMULATION AREA
SHONK FARM
DETONATION AREA
-/HR(P)
Graham Creek
BOMB FIELD ROAD
"S" ROAD
MUNITIONS
TEST POND
MACADAM
TEST POND
8D-/HR(P)
ABANDONED
CISTERN


Lake
2D-/HR(P)
3D-/HR(P)
/L/HR(P)/HS
AIR GUNNERY
ACCUMULATION AREA
/HR(P)
BOMB FIELD ROAD
OPEN BURN AREA
/HR(P)
ABANDONED
CISTERN

OPEN BURN AREA

Study Area Curren
Under Investigatio

Hazardous Substa
Waste Accumulatio

Underground Stor

Above Ground Sto

BRAC Property Bo

CERFA Parcel

OPEN BURN AREA

Study Area Currently Under Investigation

★ Hazardous Substance Storage or Waste Accumulation Area

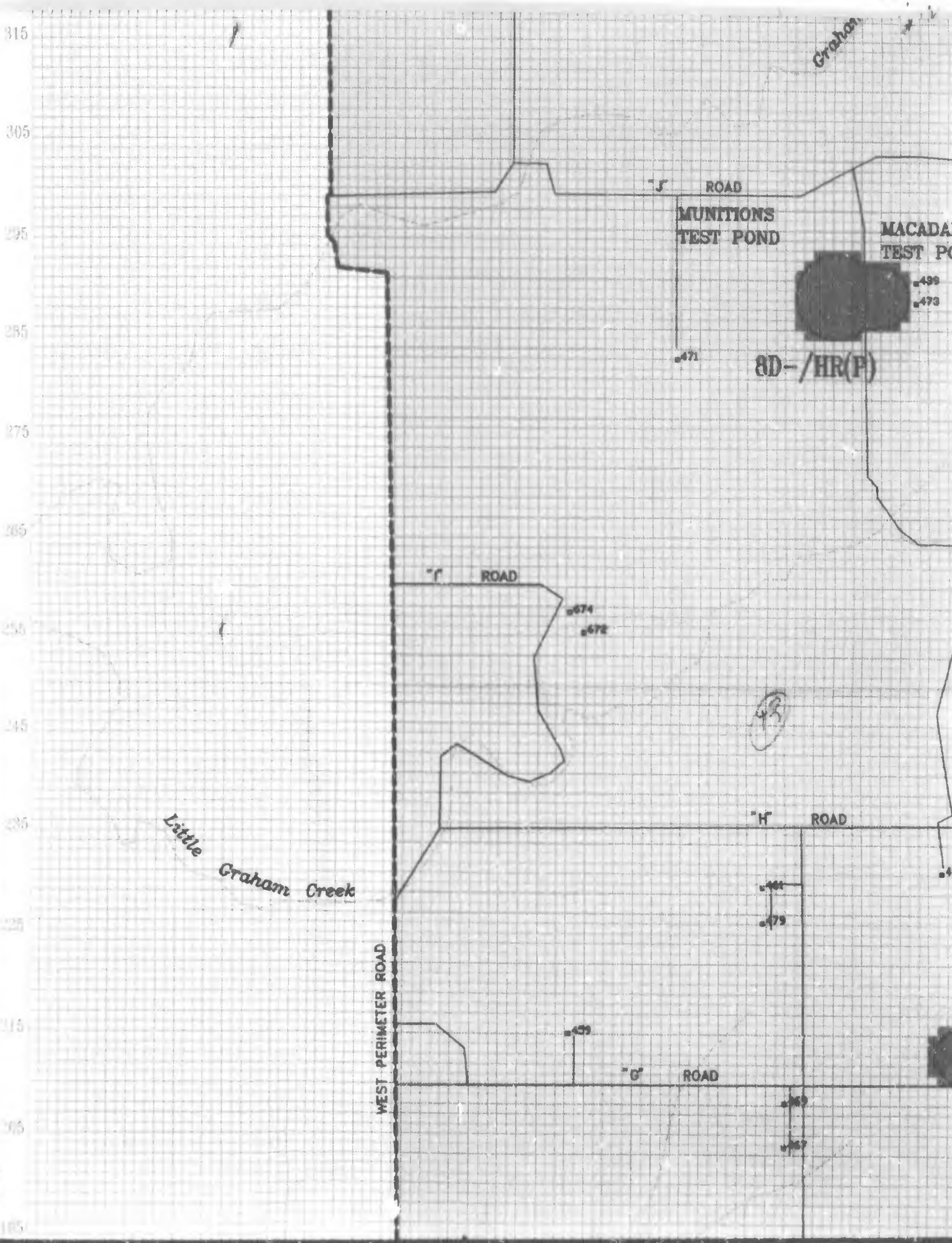
■ Underground Storage Tank

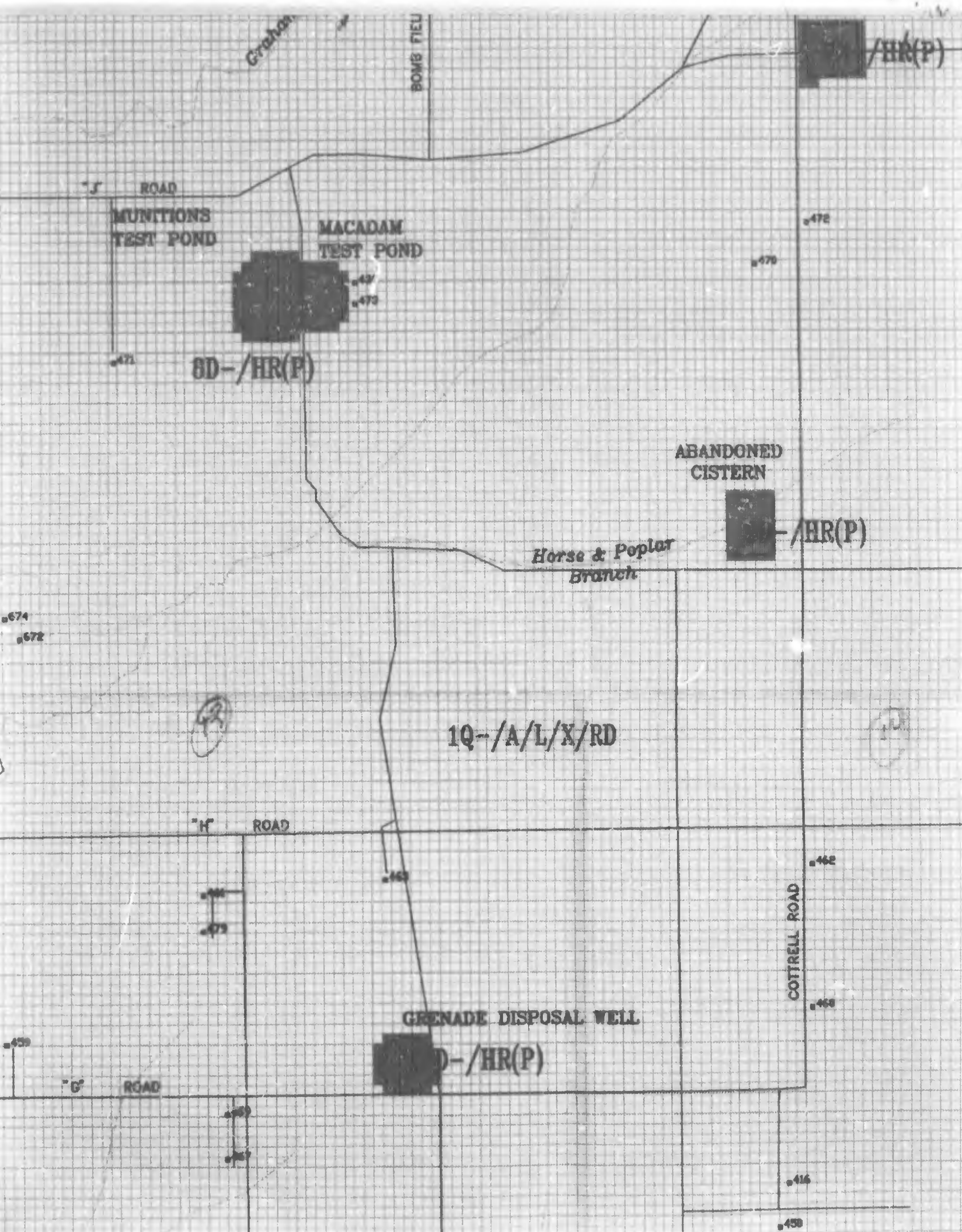
△ Above Ground Storage Tank

------ BRAC Property Boundary

CERFA Parcel


315
305
295
285
275
265
255
245
235
225
215
205
Little
Graham


Graham
"J" ROAD
MUNITIONS
TEST POND
MACADA
TEST PO
499
473
471
8D-/HR(P)
"F" ROAD
674
672
"H" ROAD
Little
Graham Creek
461
479
WEST PERIMETER ROAD
459
"G" ROAD
469
467


Graham
BOMB FIELD
/HR(P)
"J" ROAD
MUNITIONS
TEST POND
MACADAM
TEST POND
8D-/HR(P)
ABANDONED
CISTERN
-/HR(P)
Horse & Poplar
Branch
1Q-/A/L/X/RD
"H" ROAD
COTTRELL ROAD
GRENADE DISPOSAL WELL
D-/HR(P)
"G" ROAD


/HR(P)
472
479
ABANDONED
CISTERN
/HR(P)
Horse & Poplar
Branch
EAST PERIMETER ROAD
A/L/X/RD
462
COTTRELL ROAD
450
SPOSAL WELL
(P)
436
450

★ Hazardous Substance Stora
Waste Accumulation Area

■ Underground Storage Tank

△ Above Ground Storage Tan

------ BRAC Property Boundary

CERFA Parcel

CERFA Parcel with Qualifie

CERFA Disqualified Parcel

CERFA Excluded Parcel

PARCEL LABEL DEFINITIONS

13P-/A/L

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCB
R = RADON
X = UNEXPLODED ORDNANCE
RD = RADIONUCLIDES
PR = PETROLEUM RELEASE
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER

★ Hazardous Substance Storage or Waste Accumulation Area

■ Underground Storage Tank

△ Above Ground Storage Tank

------ BRAC Property Boundary

CERFA Parcel

CERFA Parcel with Qualifiers

CERFA Disqualified Parcel

CERFA Excluded Parcel

PARCEL LABEL DEFINITIONS

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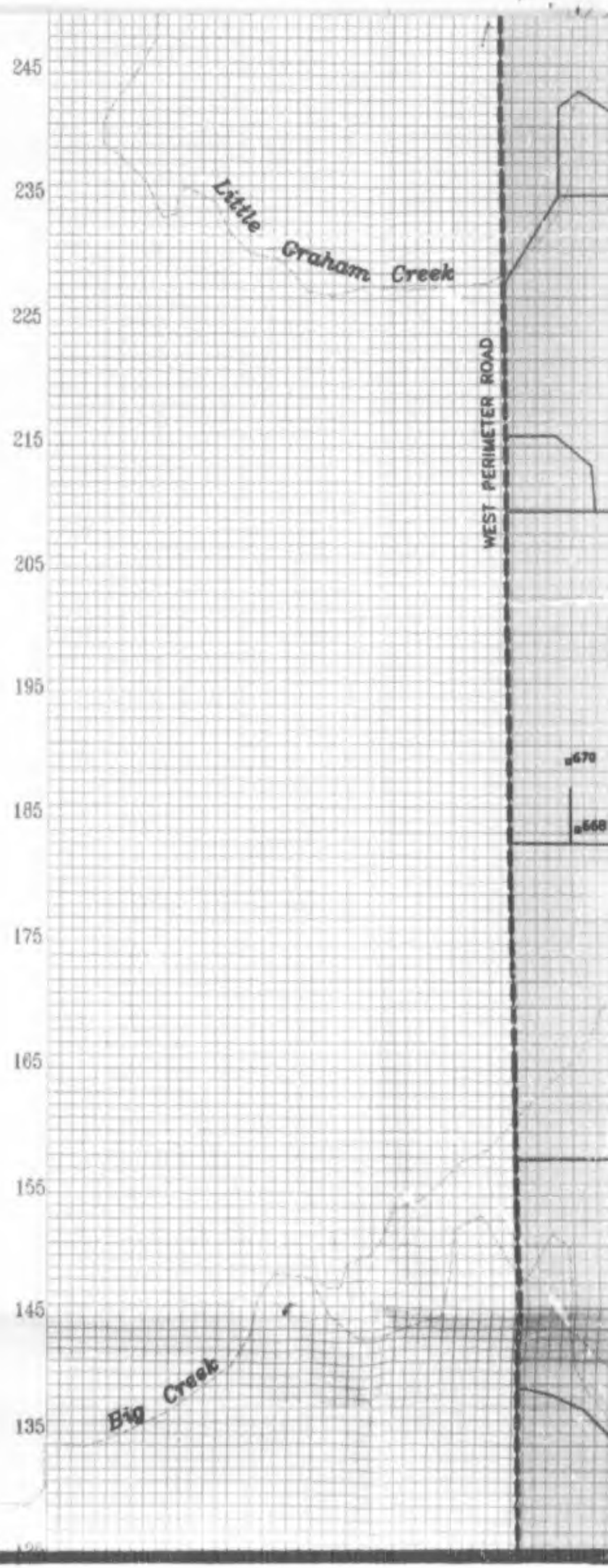
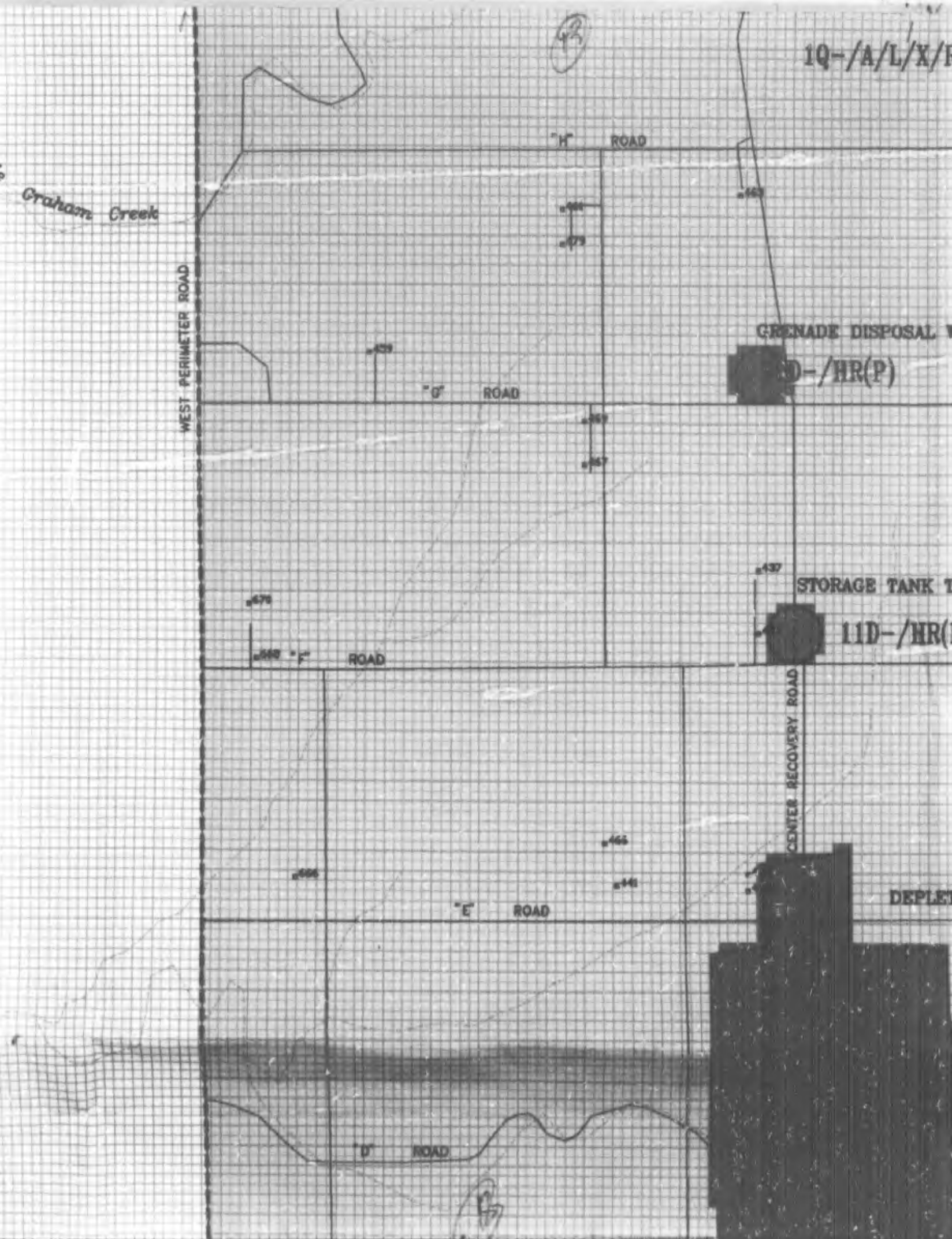
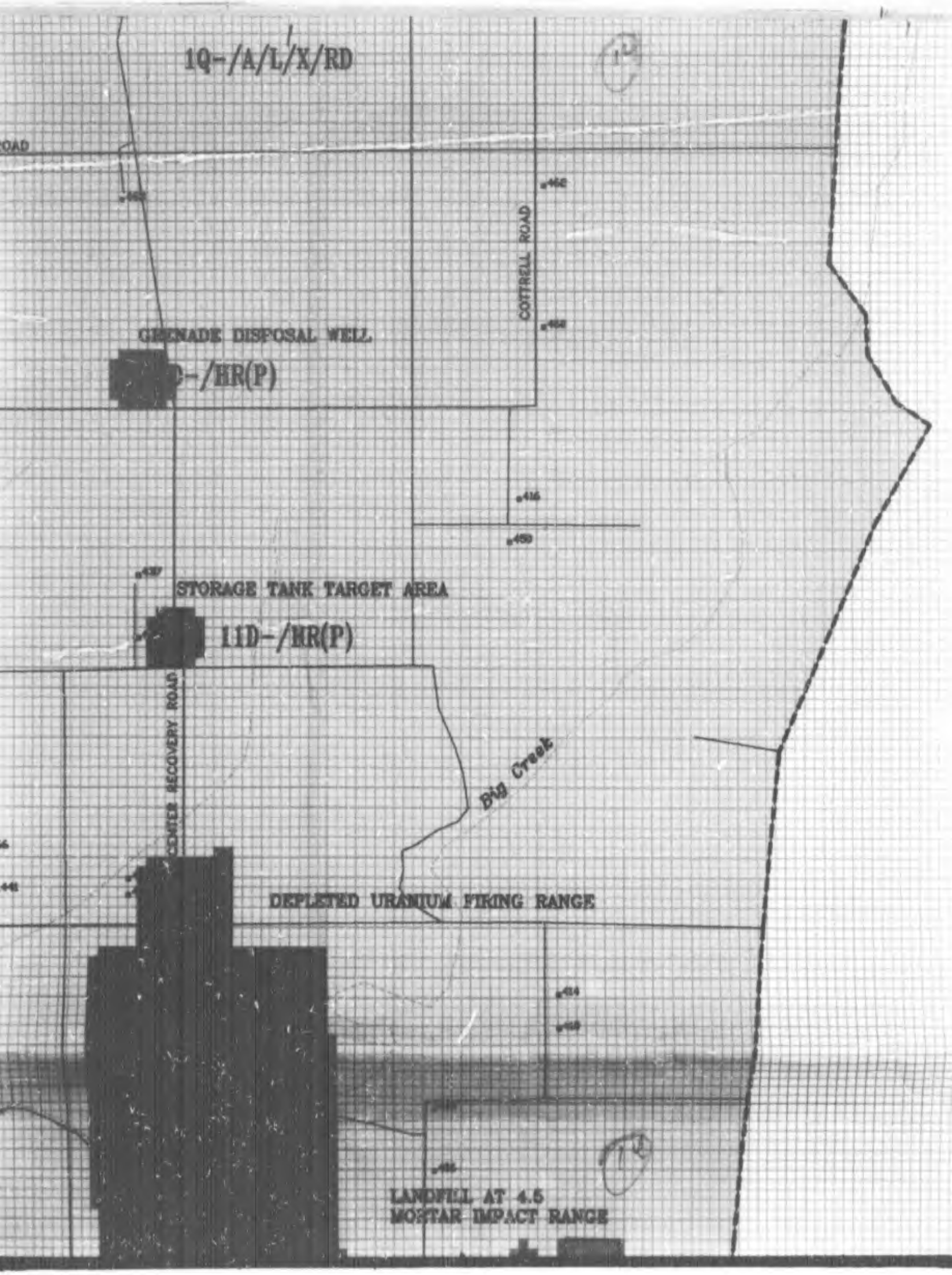
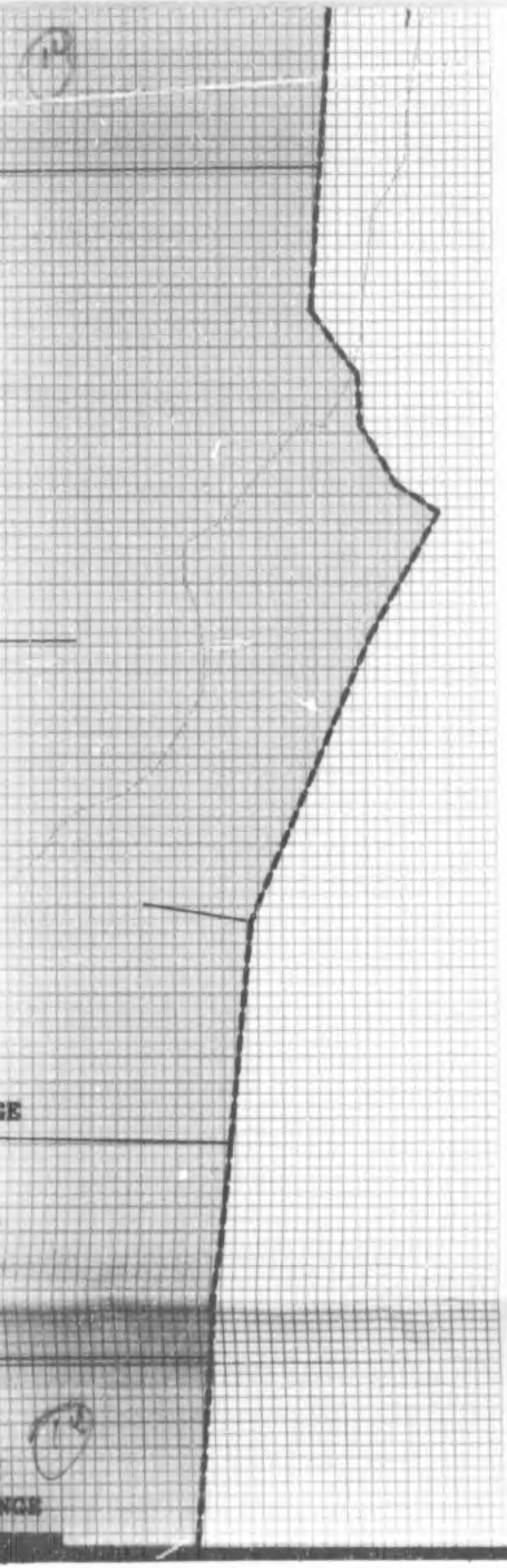
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER


245
235
225
215
205
195
185
175
165
155
145
135
Little Graham Creek
WEST PERIMETER ROAD
670
668
Big Creek


1Q-/A/L/X/
"H" ROAD
Graham Creek
WEST PERIMETER ROAD
GRENADE DISPOSAL
D-/HR(P)
"G" ROAD
STORAGE TANK
11D-/HR(
"F" ROAD
CENTER RECOVERY ROAD
DEPLET
"E" ROAD
"D" ROAD


1Q-/A/L/X/RD
COTTRELL ROAD
GRENADE DISPOSAL WELL
-/HR(P)
STORAGE TANK TARGET AREA
11D-/HR(P)
CENTER RECOVERY ROAD
Big Creek
DEPLETED URANIUM FIRING RANGE
LANDFILL AT 4.5
MORTAR IMPACT RANGE



CERFA Di

CERFA Ex

PARCEL LABEL DEFI

13P-/A/L

A =
L =
P =
R =
X =
RD =
PR =
PS =
HR =
HS =
(P) =

P =
Q =
D =
E =

PARC

CERFA Disqualified Parcel

CERFA Excluded Parcel

PARCEL LABEL DEFINITIONS

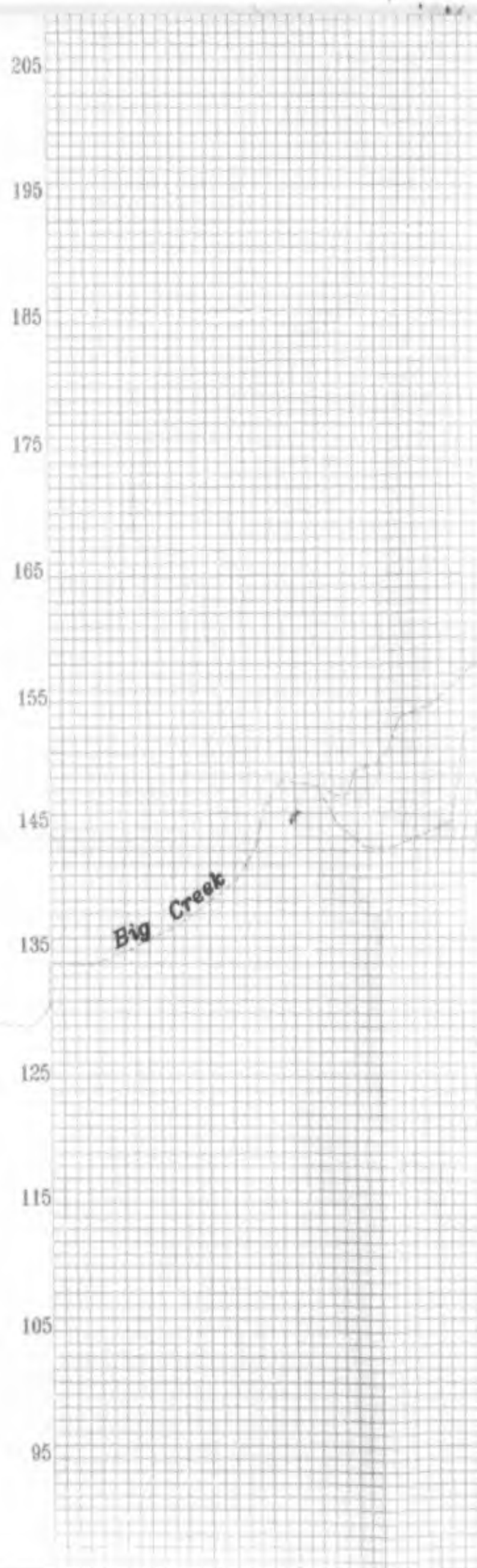
13P-/A/L

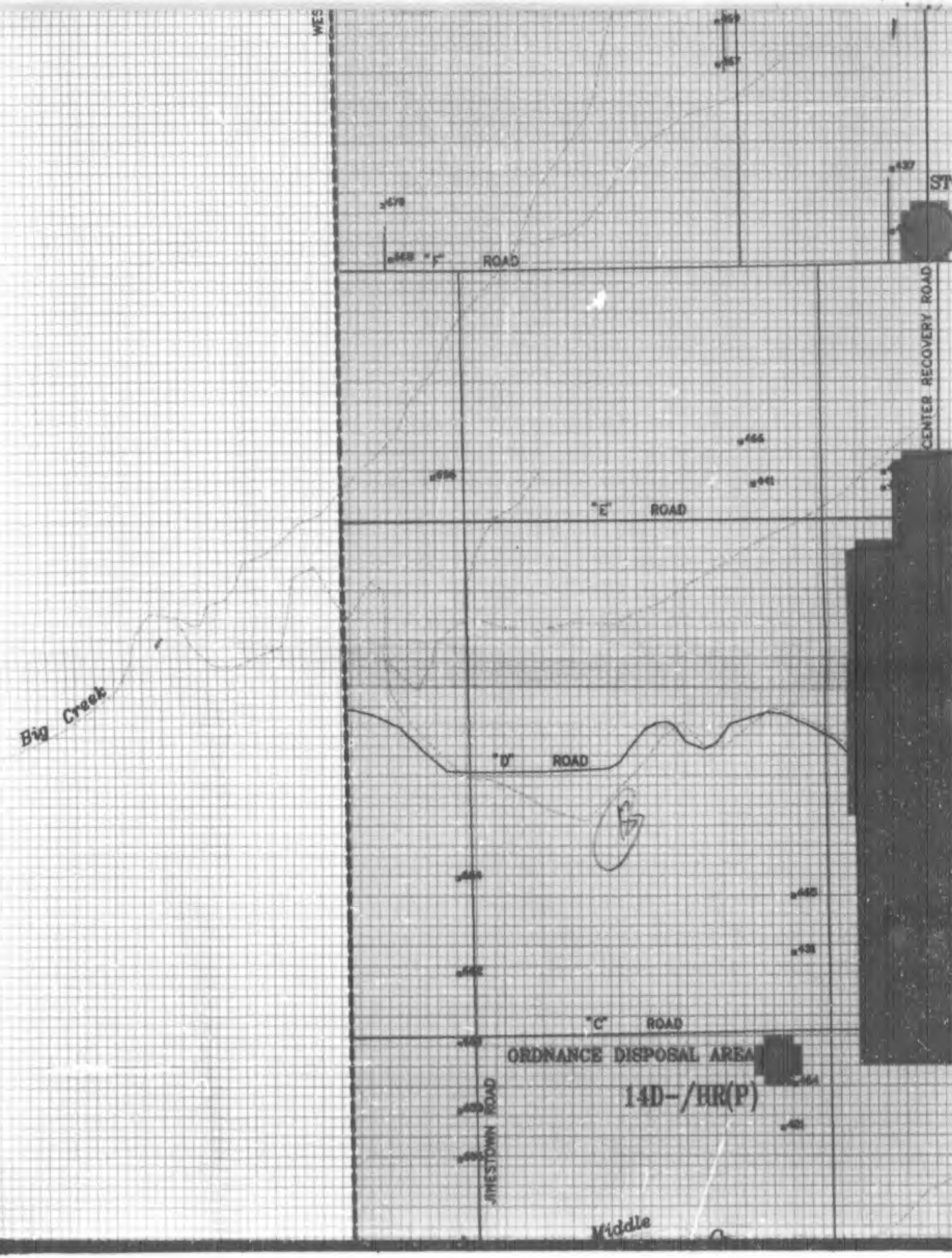
A = ASBESTOS
L = LEAD-BASED PAINT
P = PCB
R = RADON
X = UNEXPLODED ORDNANCE
RD = RADIONUCLIDES
PR = PETROLEUM RELEASE
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER

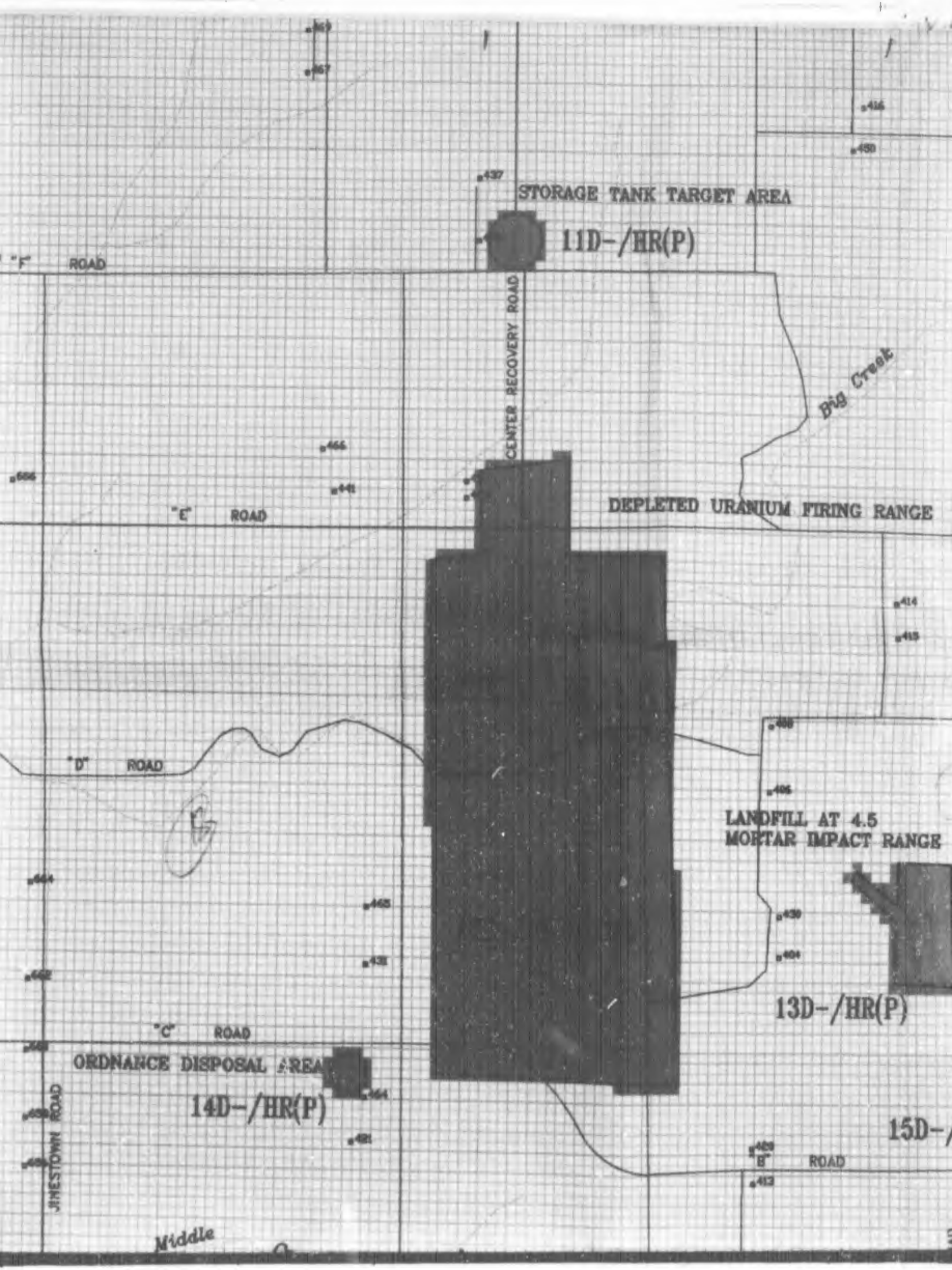
P = CERFA PARCEL
Q = CERFA PARCEL WITH QUALIFIER(S)
D = CERFA DISQUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL

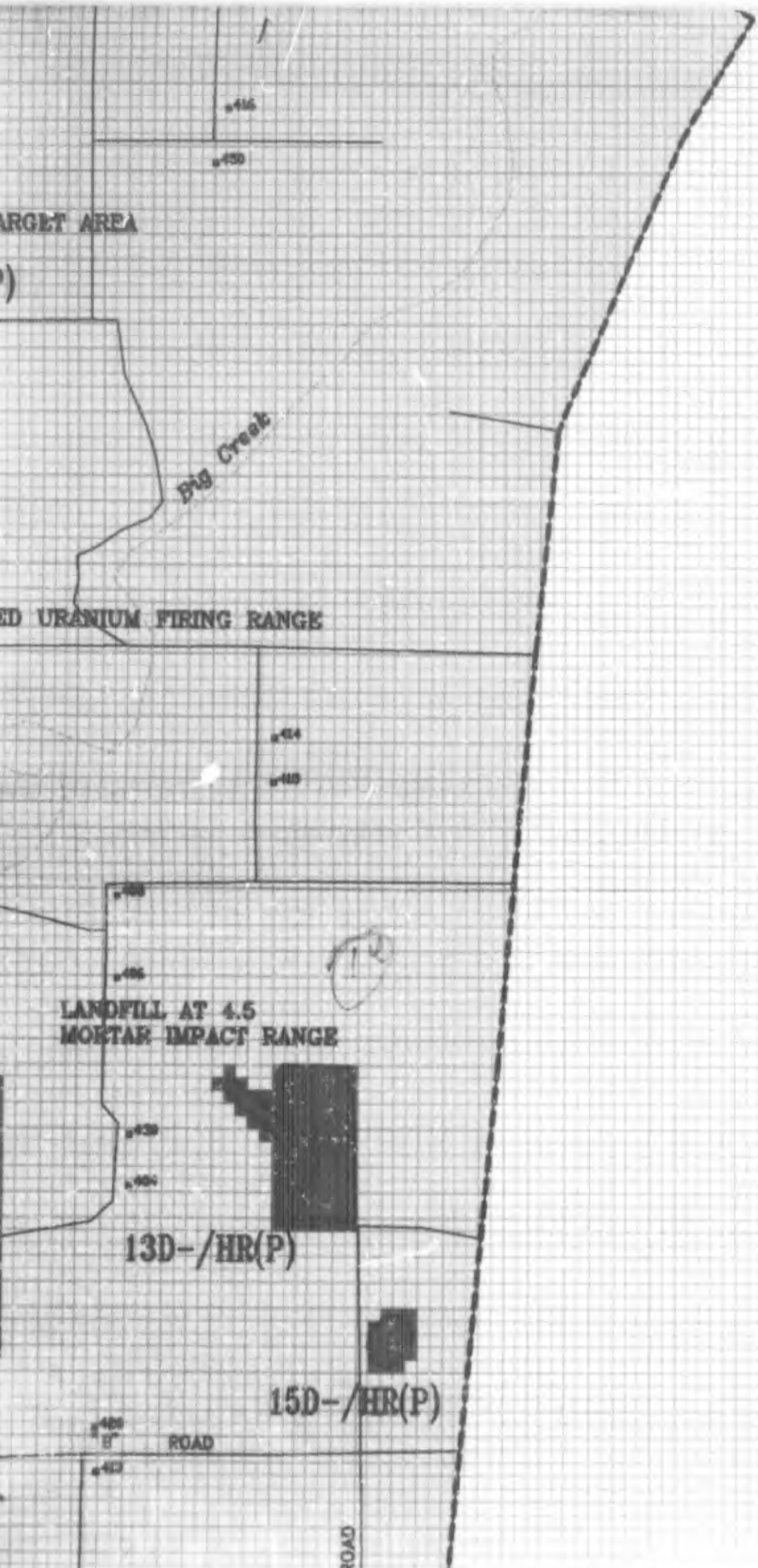
PARCEL NUMBER

N


205
195
185
175
165
155
145
135
125
115
105
95
Big Creek


WES
"F" ROAD
CENTER RECOVERY ROAD
"E" ROAD
Big Creek
"D" ROAD
"C" ROAD
ORDNANCE DISPOSAL AREA
14D-/HR(P)
JAMESTOWN ROAD
Middle

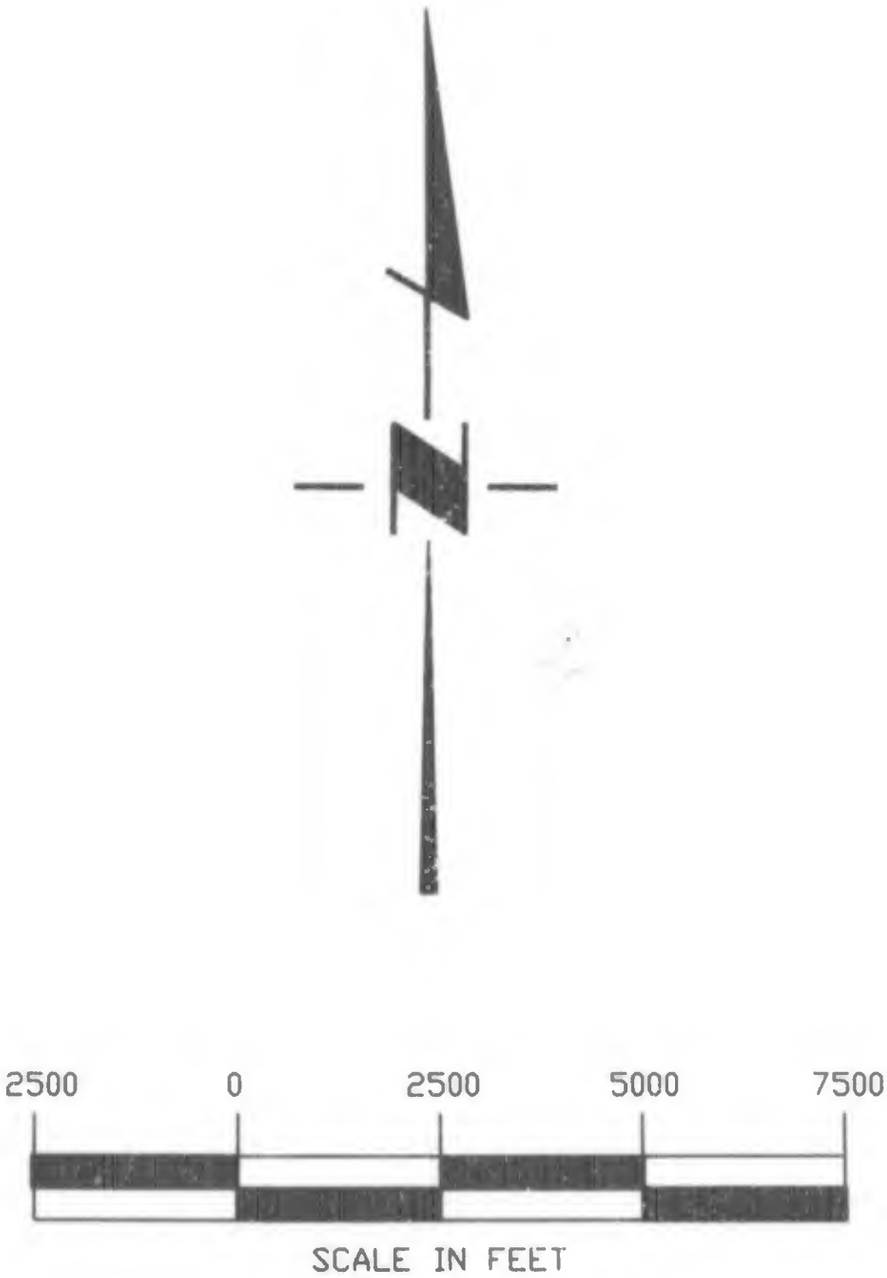

STORAGE TANK TARGET AREA
11D-/HR(P)
"F" ROAD
CENTER RECOVERY ROAD
Big Creek
DEPLETED URANIUM FIRING RANGE
"E" ROAD
"D" ROAD
LANDFILL AT 4.5
MORTAR IMPACT RANGE
13D-/HR(P)
"C" ROAD
ORDNANCE DISPOSAL AREA
14D-/HR(P)
JINESTOWN ROAD
15D-/
"B" ROAD
Middle


ARGET AREA
)
Big Creek
ED URANIUM FIRING RANGE
LANDFILL AT 4.5
MORTAR IMPACT RANGE
13D-/HR(P)
15D-/HR(P)
ROAD
ROAD

A = ASBESTOS
L = LEAD-BASED PAINT
P = PCB
R = RADON
X = UNEXPLODED ORDNANCE
RD = RADIONUCLIDES
PR = PETROLEUM RELEASE
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER

P = CERFA PARCEL
Q = CERFA PARCEL WITH QUALIFIER(S)
D = CERFA DISQUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL

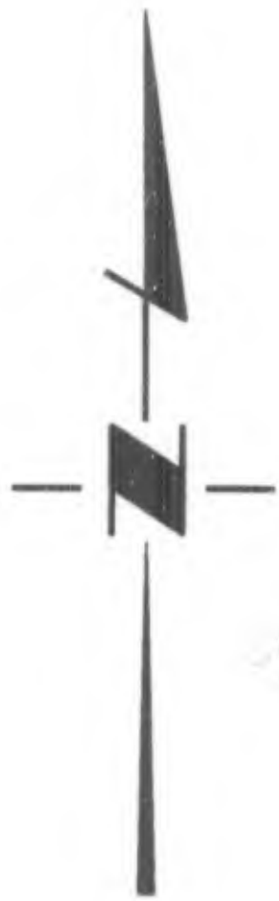
PARCEL NUMBER

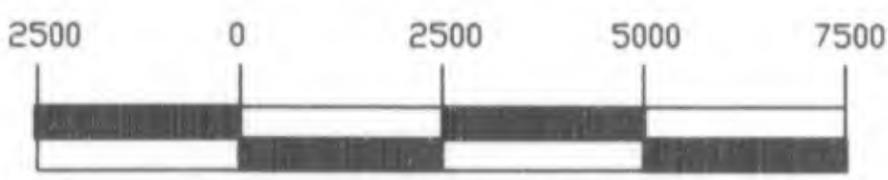


A = ASBESTOS
L = LEAD-BASED PAINT
P = PCB
R = RADON
X = UNEXPLODED ORDNANCE
RD = RADIONUCLIDES
PR = PETROLEUM RELEASE
PS = PETROLEUM STORAGE
HR = HAZARDOUS SUBSTANCE RELEASE
HS = HAZARDOUS SUBSTANCE STORAGE
(P) = POSSIBLE QUALIFIER

P = CERFA PARCEL
Q = CERFA PARCEL WITH QUALIFIER(S)
D = CERFA DISQUALIFIED PARCEL
E = CERFA EXCLUDED PARCEL

PARCEL NUMBER

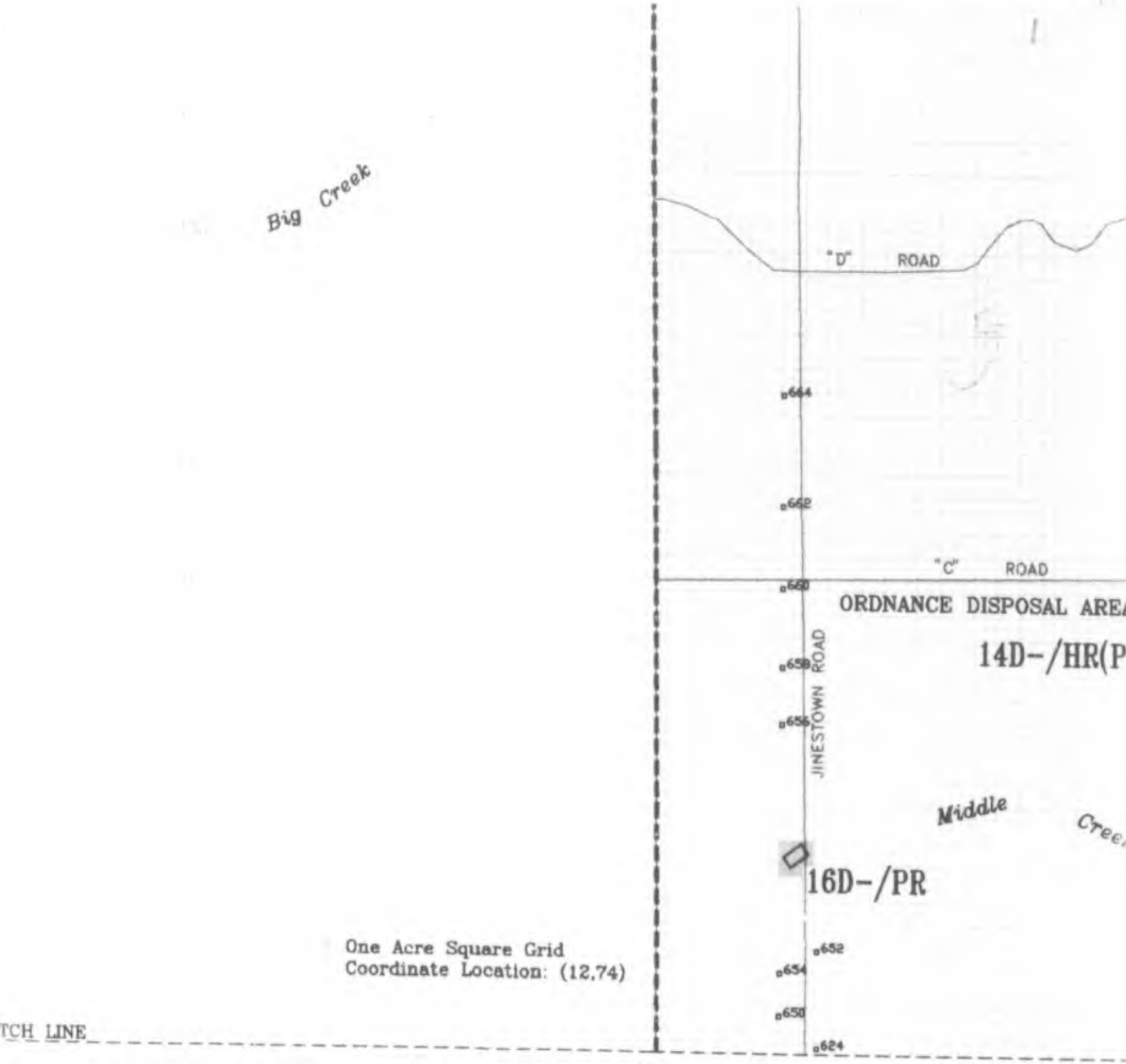




SCALE IN FEET

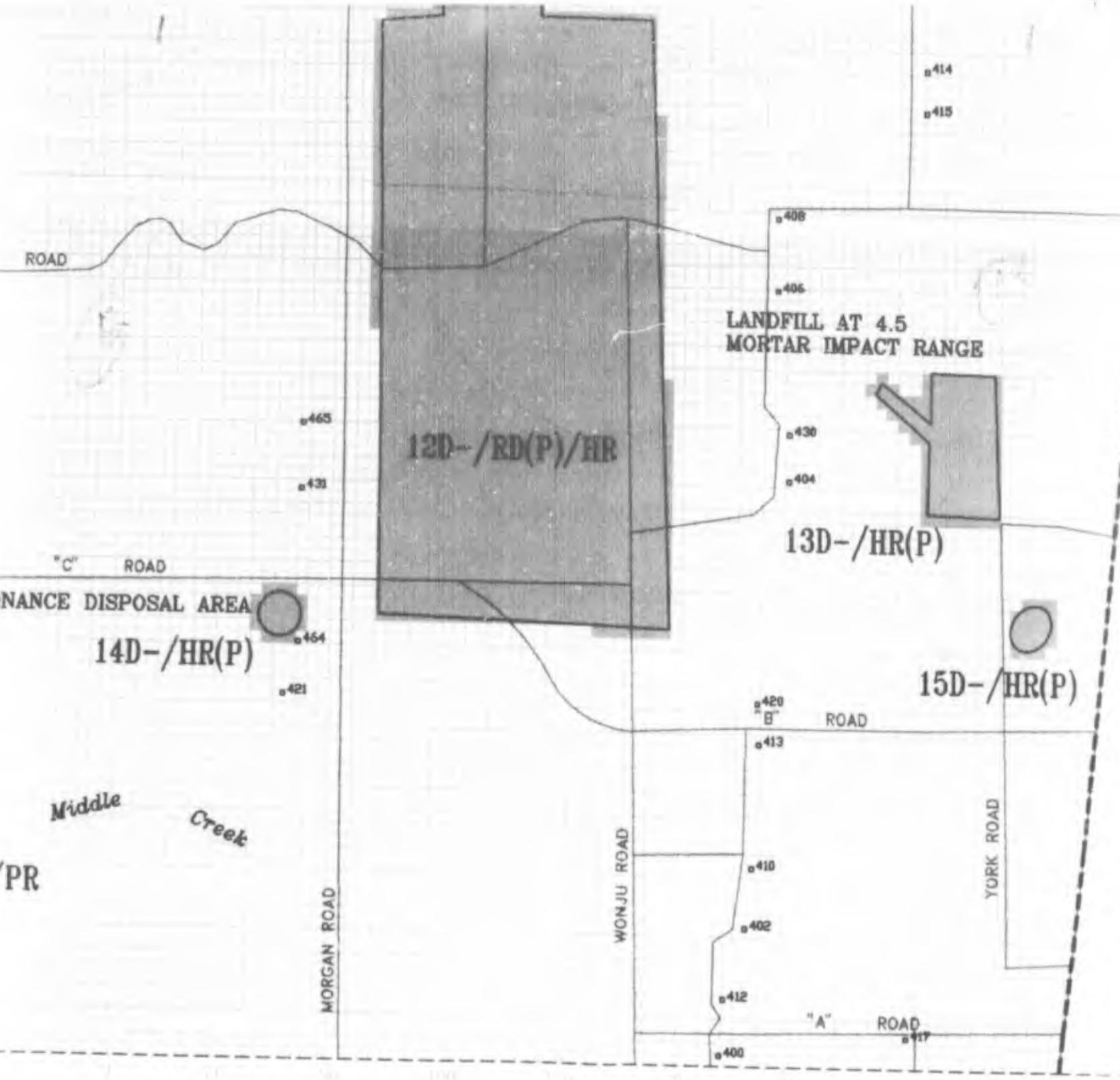
MATCH LINE

Source: CERFA Investigation, April 1994


Big Creek
"D" ROAD
664
662
"C" ROAD
660
ORDNANCE DISPOSAL AREA
14D-/HR(P
658
656
JINESTOWN ROAD
Middle
Cree
16D-/PR
One Acre Square Grid
Coordinate Location: (12,74)
652
654
650
624
TCH LINE

SE

ril 1994



SEE FIGURE 5-1A

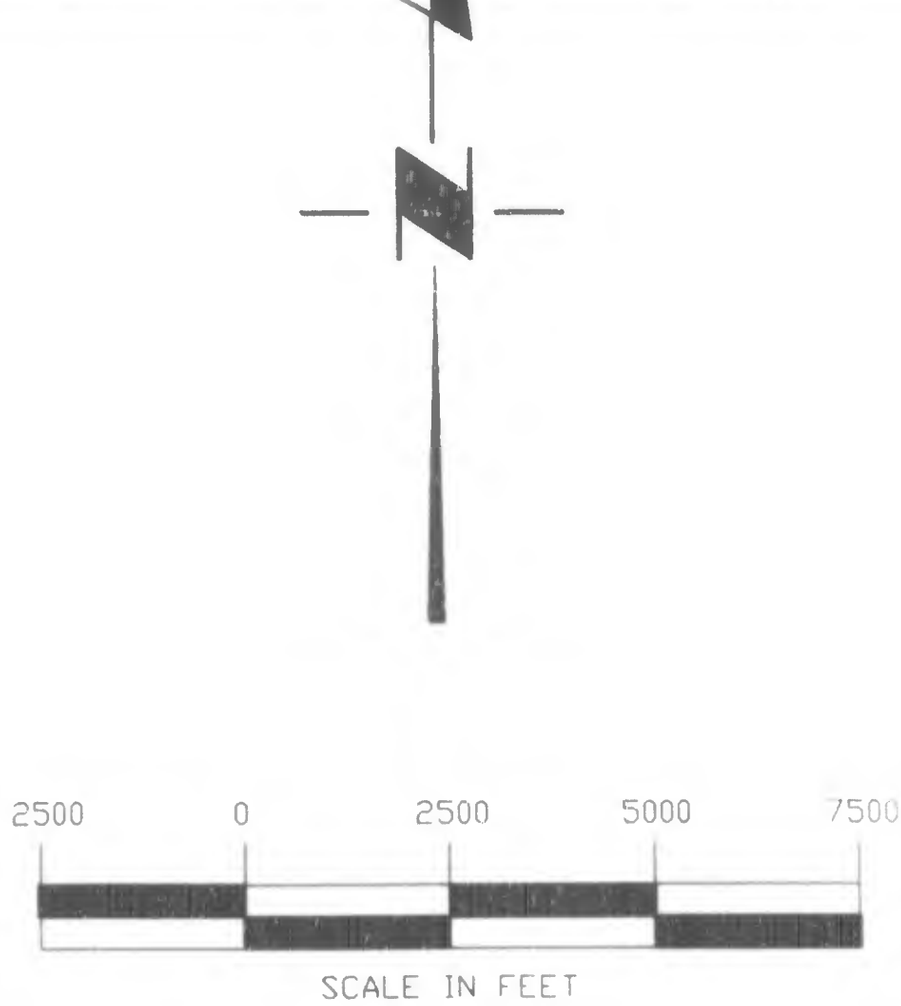
2500

DRAWN BY:

CHECKED BY:

TETC PROJEC

931



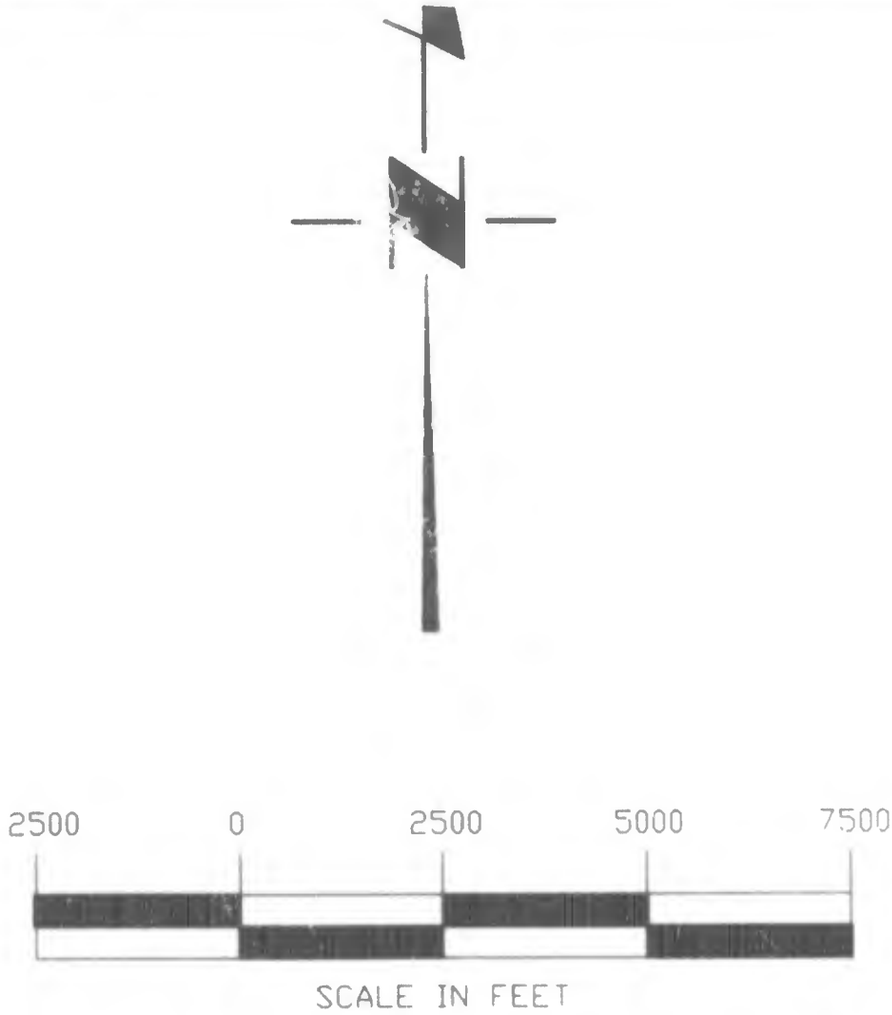
MATCH LINE

The Earth Technolo
Corporation

1420 KING STREET SUITE 600, ALEXANDRIA, VIRGINIA 22

FIGURE 5-1B
PARCEL DESIGNATION MAP
NORTH OF FIRING LINE
JEFFERSON PROVING GROUN
MADISON, INDIANA

DRAWN BY: MTM, JGC	DESIGNED BY: N/A	SCALE:
CHECKED BY: JK	APPROVED BY: BY	DATE:
TETC PROJECT NUMBER 931977-08	DRAWING NUMBER SHEET 2 OF 2	



CH LINE

The Earth Technology Corporation

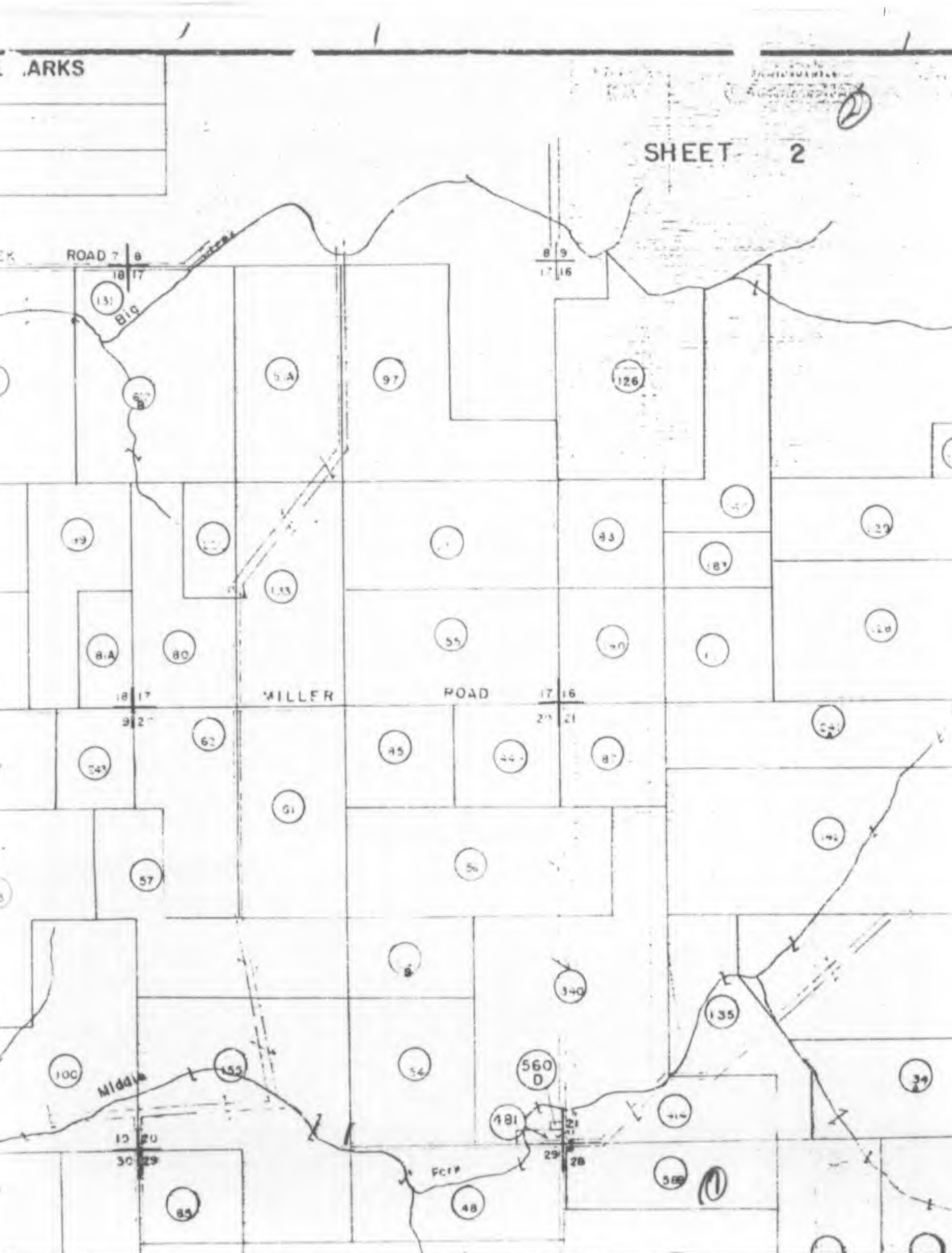
1420 KING STREET SUITE 600, ALEXANDRIA, VIRGINIA 22314

FIGURE 5-1B
PARCEL DESIGNATION MAP
NORTH OF FIRING LINE
JEFFERSON PROVING GROUND
MADISON, INDIANA

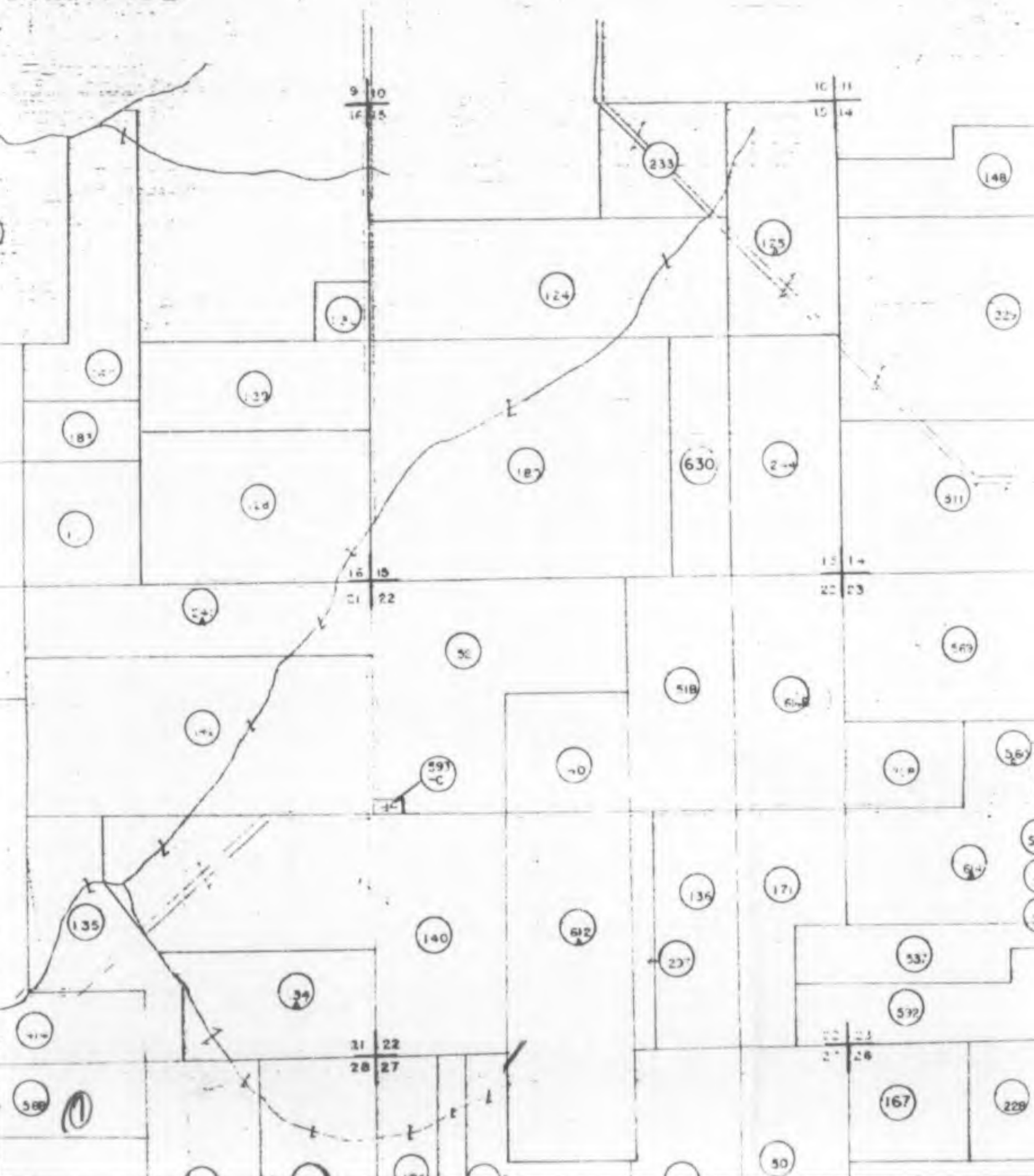
DRAWN BY: MTM, JGC	DESIGNED BY: N/A	SCALE: 1" = 2500'
CHECKED BY: JK	APPROVED BY: BY	DATE: 04/06/94
TETC PROJECT NUMBER 931977-08	DRAWING NUMBER SHEET 2 OF 2	REV. NO. 1

FIGURE 5-2
TRACT MAPS, JEFFERSON PROVING GROUND, MADISON, INDIANA

TRACT NO.	VENDOR (EASEMENT)	ACREAGE (EASEMENT)	REMARKS

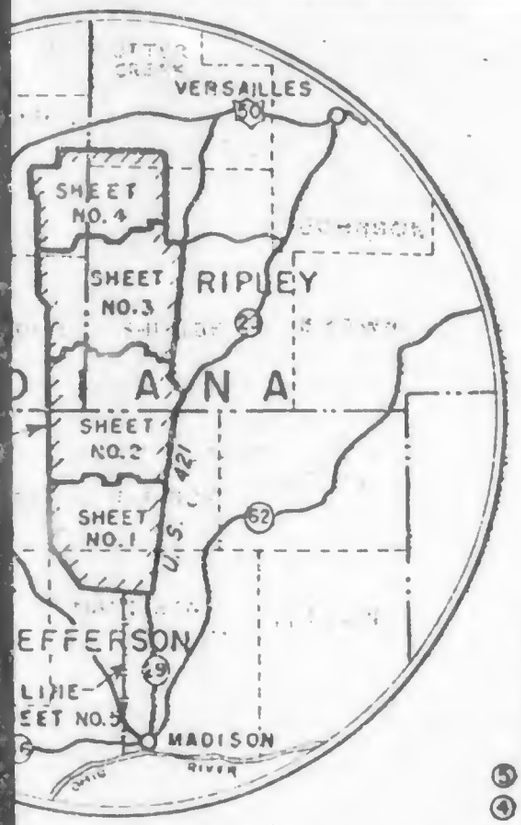

ARKS
SHEET 2
ROAD
Big
MILLER
ROAD
Middle
Fork
560
D
481

SHEET 2


9 10
16 15
10 11
15 14
233
148
124
630
311
16 15
21 22
15 14
22 23
518
591
-C
135
140
612
171
167
228
31 22
28 27
50

VICINITY MAP & SHEET INDEX

TRACT NO	VENDOR	ACR F
1	DANIEL W. MISSI ET UX.	4
2	CARL RICHMOND ETUX.	12
3 A	JOHN N. RAUSCH ET UX.	9
3 B	JOHN N. RAUSCH ET UX.	-
4	ELMER W. & ALICE TURNER	1
5	WM. A. & CORA M. BOGGS	
6	MARY FRANCISCO	
7	RICHARD C. HECK ETAL.	
8	FRANK W. & CORA J. RODGERS	
9	MARGARET RINGWALD	
10	EDGAR F RINGWALD	
11	GEO. W. & AMY W. WEHNER	
12	ALLIE WATLINGTON	1
13	JAMES P. MADDOX ET UX.	
14	LILLIAN HEITZ BOSAW ET VIR.	1
15	EMORY & IDA BROWN	1
16	HARRY BUCHANAN	
17	LAWRENCE STORIE & MINNIE BLATCH	
18	JOHN ROGERS	1
19	WILLIAM HIGGINS	
20	JOHN & ALTA DANNER	
21	JACOB BENTZ ETUX.	
22	JAMES A. & S. L. ELLIOTT	
23	CARL & ANETON BARE	
24	WILLIAM C. WALTZ	
25	GLEN WALTZ ETAL.	



AP & SHEET INDEX

STATE INDEX

ACQUISITION AUTHORIZATION		
(5)	RE-D 8559B	17 DEC. 1987
(4)	RE-D 8403	7 DEC. 1983
GEN.	RE-D 1002 (SUPPLEMENT A)	28 OCT. 1942
	RE-D 1002	21 MAY 1942
	RE-D (UNNUMBERED)	26 NOV. 1940

VENDOR	ACREAGE FEE	TRACT NO	VENDOR	ACREAGE FEE
DANIEL W. MISSI ET UX.	40.00	90	NICHOLAS LAWRENCE ET UX	20.00
CARL RICHMOND ETUX.	120.00	91	FRANCIS L. MILLER ET UX.	40.00
JOHN N. RAUSCH ET UX.	90.00	93	STEPHEN A. & ISAIAH IRWIN	121.50
JOHN N. RAUSCH ET UX.	41.50	94	ARTHUR E. IRWIN ET UX.	40.00
ELMER W. & ALICE TURNER	158.00	97	FOSTER B. WILSON ET UX.	100.00
WM. A. & CORA M. BOGGS	78.40	99	LESTER FACEMIRE ET UX.	60.00
MARY FRANCISCO	508-	100	GERALD E. & MARTHA R. REA	120.00
RICHARD C. HECK ETAL.	80.00	124	CHARLES W. & GEO. H. WEBER	120.00
FRANK W. & CORA J. RODGERS	63.50	125A	HERMAN E. BOWMAN	80.00
MARGARET RINGWALD	80.00	125B	HERMAN E. BOWMAN	0.75
EDGAR F. RINGWALD	80.00	126	ELMER W TURNER ET UX.	94.00
GEO. W. & AMY W. WEHNER	68.75	127	ALBERT M. ANDRESS	40.00
ALLIE WATLINGTON	113.05	128	JOHN & ROSETTA YOST	100.00
JAMES P. MADDOX ET UX.	84.75	129	FREDDIE & HELEN GEISLER	60.00
LILLIAN HEITZ BOSAW ET VIR.	131.00	130	FRED B. & F. E. GARLINGHOUSE	10.00
EMORY & IDA BROWN	109.39	131	CHARLES O. & GRACE BEAR	20.00
HARRY BUCHANAN	3.00	132	FLETCHER S. & A. MURPHY	80.00
LAWRENCE STORIE & MINNIE BLATCH	20.00	133	ROSS DEMAREE ET UX.	79.25
JOHN ROGERS	100.00	134A	HUBERT DIERKES	80.00
WILLIAM HIGGINS	79.75	134B	HUBERT DIERKES	40.00
JOHN & ALTA DANNER	82.00	135	MARY HEARN	60.00
JACOB BENTZ ETUX.	80.00	136	FRANCIS E. CUMMISKEY	60.00
JAMES A. & S. L. ELLIOTT	60.00	137	FRANK A. & MARTHA GEISLER	80.00
CARL & ANETON BARE	40.00	138	CHESTER P. & MARGARET MURPHY	41.97
WILLIAM C. WALTZ	50.00	139	JAMES W. & MINNIE ANDERSON	2.26
GLEN WALTZ ETAL.	80.00	140	FRED G. & E. F. BARBER	180.00
FINLEY SARGENT ET UX.	80.00	142	CLARENCE E. BROWN ET UX.	160.00

P

STATE

COUNTY

DIVISION

DISTRICT

IST

USING AC

5

* TO

TR

PENNS

ROUTES

ROUTE

EAL &

TOTA

ACRES F

ACRES

ACRES

ACRES

ACRES

TOTAL

ACRES

ACRES

ACRES

INDEX

AUTHORIZATION

17 DEC. 1987
7 DEC. 1983
28 OCT. 1942
21 MAY 1942
26 NOV. 1940

ENDOR	ACREAGE FEE
LAWRENCE ET UX	20.00
MILLER ET UX.	40.00
& ISAIAH IRWIN	121.50
E. IRWIN ET UX.	40.00
B. WILSON ET UX.	100.00
FACEMIRE ET UX.	60.00
& MARTHA R. REA	120.00
W. & GEO. H. WEBER	120.00
E. BOWMAN	80.00
E. BOWMAN	0.75
TURNER ET UX.	94.00
ANDRESS	40.00
OSETTA YOST	100.00
& HELEN GEISLER	60.00
& F. E. GARLINGHOUSE	10.00
& GRACE BEAR	20.00
S. & A. MURPHY	80.00
MAREE ET UX.	79.25
DIERKES	60.00
DIERKES	40.00
EARN	60.00
CUMMISKEY	60.00
& MARTHA GEISLER	80.00
& MARGARET MURPHY	41.97
MINNIE ANDERSON	2.26
E.F. BARBER	180.00
F. BROWN ET UX.	160.00

FINAL

PROJECT OWNERSHIP MAP

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS & RIPLEY

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

* TO OMAHA DISTRICT 1 APRIL 1970

1ST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADISON, IND.

MILES OF

* TO LOUISVILLE DIST. 31 MAR. 82

TRANSPORTATION FACILITIES

PENNSYLVANIA RAILROAD

ROUTES 7 STATE ROAD

ROUTE 50 & 421 FEDERAL ROAD

EAL & AA TO LOUISVILLE, KY. AIRLINE

ACQUISITION

TOTAL ACRES ACQUIRED 55,320.75

ACRES FEE 55316.62

(THIS SHEET FEE 13132.43)

ACRES LEASED BY W.D.

ACRES LEASED FROM W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTERESTS { LICENSE (3) No Area; EASEMENTS (6); PERMITS (3) NO AREA } 4.13

DISPOSALS

TOTAL ACRES DISPOSED OF 52.45

ACRES SOLD

ACRES TO W.A.A. FEE 52.45

ACRES TO GSA FEE

(5)

(10)

N A

ECT
E

DEX

HORIZATION

17 DEC. 1987
7 DEC. 1983
28 OCT. 1942
21 MAY 1942
26 NOV. 1940

OOR	ACREAGE FEE
WRENCE ET UX	20.00
LER ET UX.	40.00
AIAH IRWIN	121.50
IRWIN ET UX.	40.00
ILSON ET UX.	100.00
MIRE ET UX.	60.00
HA R. REA	120.00
GEO. H. WEBER	120.00
DWMAN	80.00
WMAN	0.75
NER ET UX.	94.00
DRESS	40.00
A YOST	100.00
EN GEISLER	60.00
. GARLINGHOUSE	10.00
ACE BEAR	20.00
A. MURPHY	80.00
ET UX.	79.25
ES	60.00
ES	40.00
	60.00
MISKEY	9 60.00
THA GEISLER	80.00
RGARET MURPHY	41.97
E ANDERSON	2.26
BARBER	180.00
WN ET UX.	160.00

(5)

FINAL

PROJECT OWNERSHIP MAP

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS & RIPLEY

DIVISION OHIO RIVER

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ACRES SOLD

ACRES TO W.A.A. FEE 52.45

ACRES TO GSA FEE

(10)

N A

DECT
E

DEX

THORIZATION

17 DEC. 1987
7 DEC. 1983
28 OCT. 1942
21 MAY 1942
26 NOV. 1940

DOR	ACREAGE FEE
AWRENCE ET UX	20.00
LER ET UX.	40.00
SAIAH IRWIN	121.50
IRWIN ET UX.	40.00
ILSON ET UX.	100.00
MIRE ET UX.	60.00
HA R. REA	120.00
GEO. H. WEBER	120.00
OWMAN	80.00
WMAN	0.75
NER ET UX.	94.00
DRESS	40.00
A YOST	100.00
EN GEISLER	60.00
. GARLINGHOUSE	10.00
ACE BEAR	20.00
A. MURPHY	80.00
ET UX.	79.25
ES	80.00
ES	40.00
	60.00
MISKEY	9 60.00
THA GEISLER	80.00
RGARET MURPHY	41.97
E ANDERSON	2.26
BARBER	180.00
WN ET UX.	160.00

(5)

FINAL

PROJECT OWNERSHIP MAP

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS & RIPLEY

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

* TO OMAHA DISTRICT 1 APRIL 1970

1ST ARMY AREA

USING AGENCY ORDNANCE

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MILES OF

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DISPOSALS

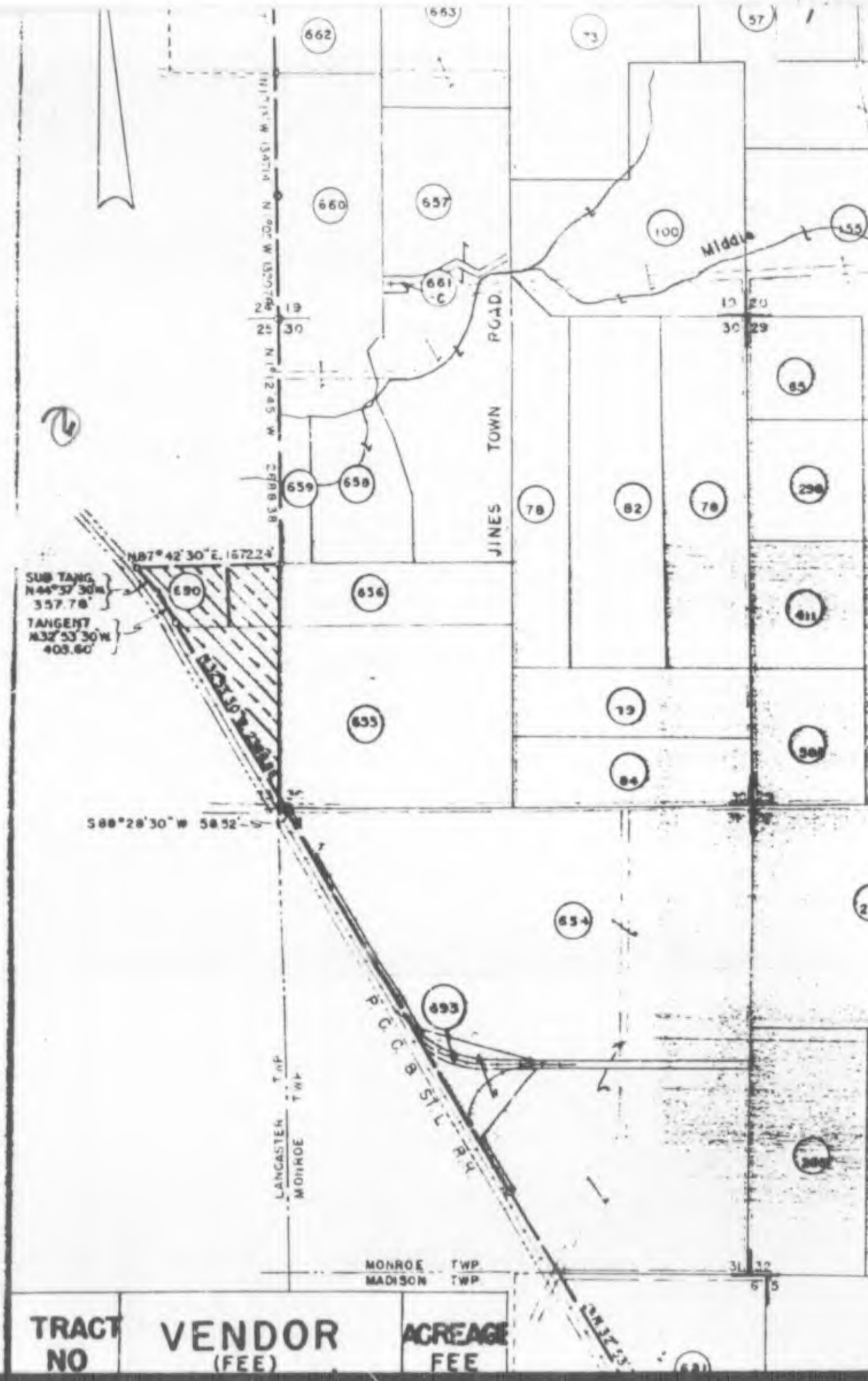
TOTAL ACRES DISPOSED OF 52.45

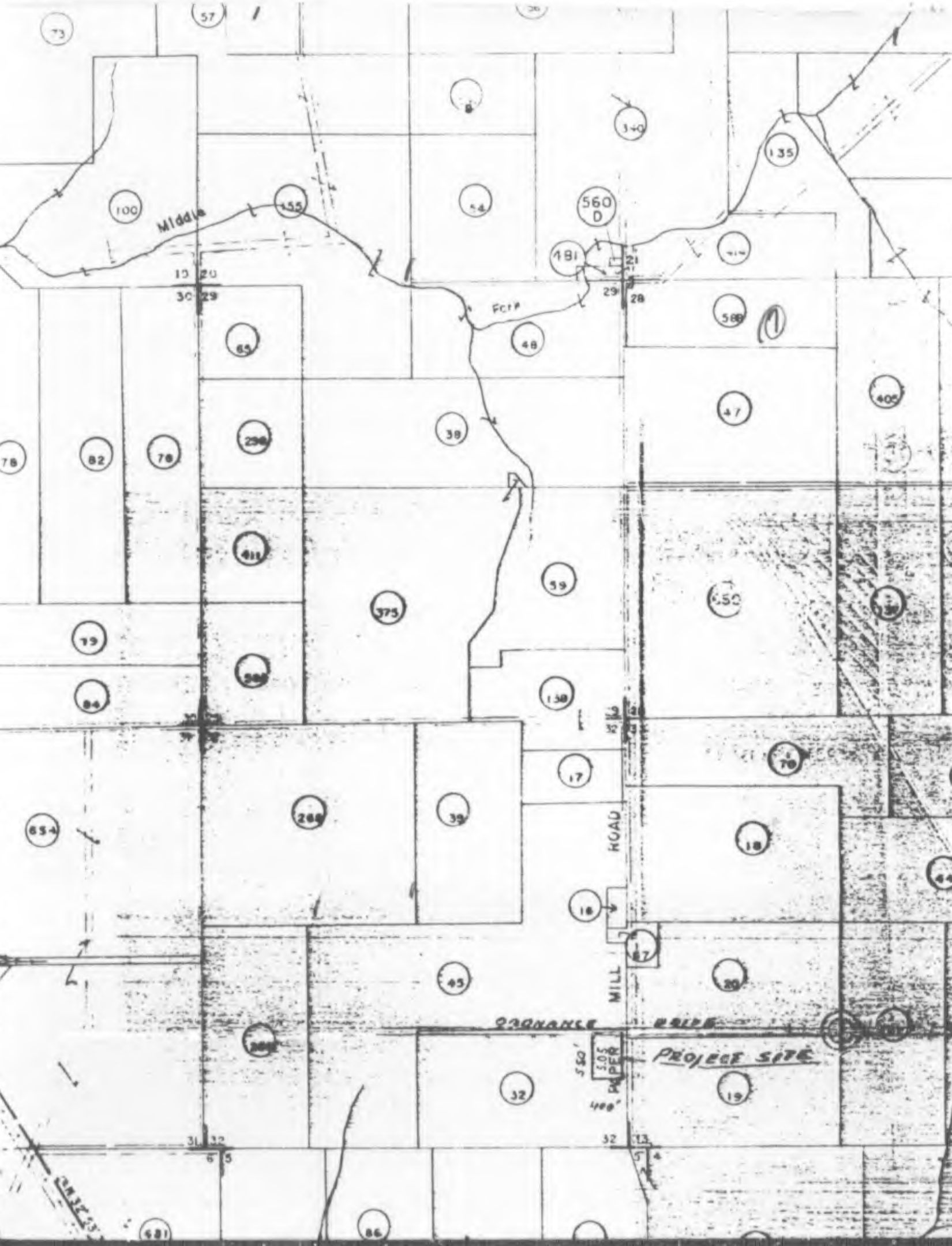
ACRES SOLD

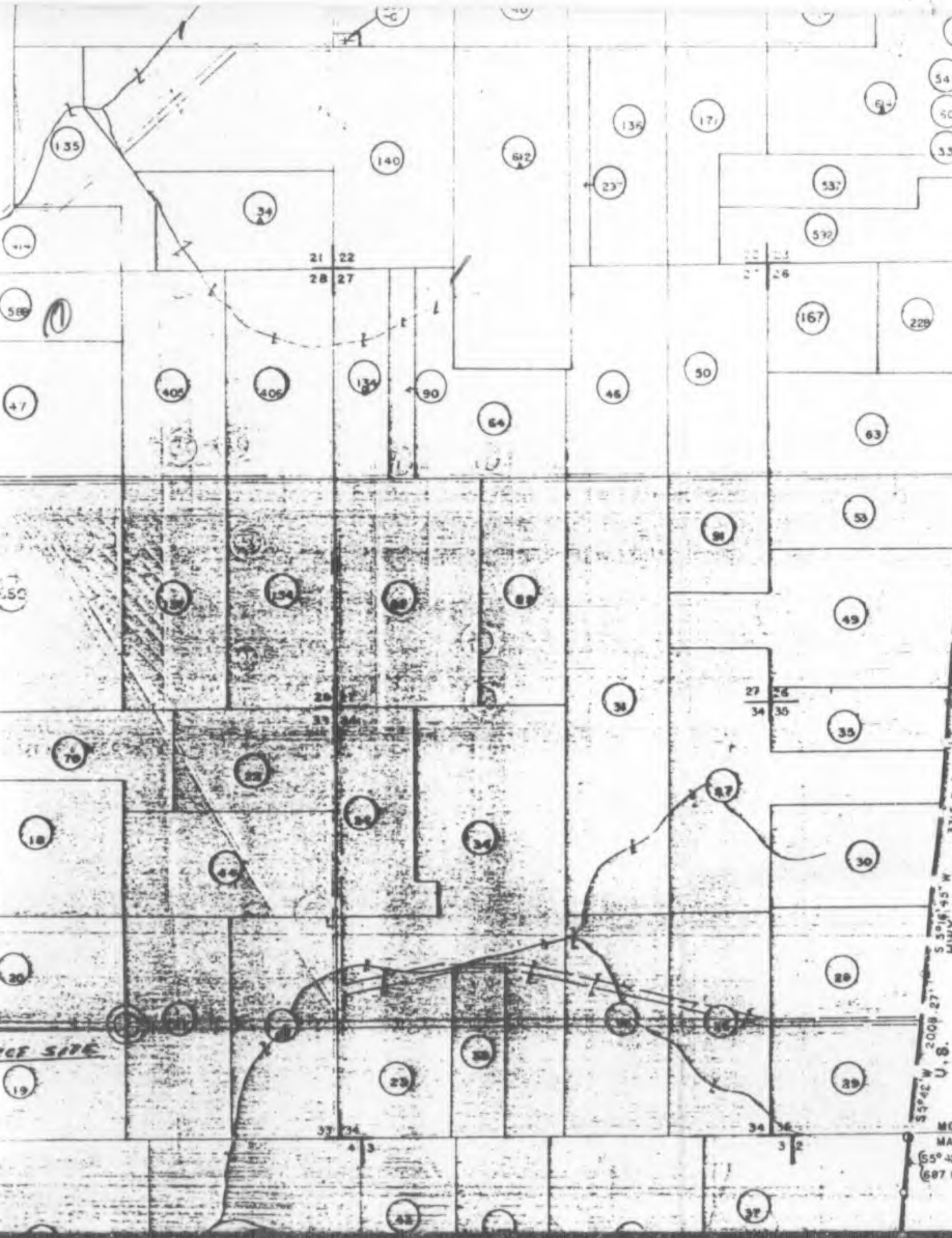
ACRES TO W.A.A. FEE 52.45

ACRES TO GSA FEE

(10)


662
663
73
57
660
657
100
Middle
661-C
19
30
25
20
29
JINES TOWN ROAD
85
659
658
78
82
78
296
N87°42'30"E. 1672.24'
SUB TANG. N44°37'30"W 357.78'
TANGENT N32°53'30"W 403.60'
690
656
411
655
19
84
S88°28'30"W 58.52'
654
493
P.C.C. & St. L. R.R.
LANCASTER TWP
MONROE TWP
MONROE TWP
MADISON TWP
31
32
6
5
TRACT NO
VENDOR (FEE)
ACREAGE FEE


Middle
FCIP
MILL ROAD
ORANGE BELT
PROJECT SITE
SOS PAPER
550'
400'


135
140
34
21 22
28 27
167
228
50
46
63
53
49
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43
37

9	MARGARET RINGWALD	80.00
10	EDGAR F. RINGWALD	80.00
11	GEO. W. & AMY W. WEHNER	68.75
12	ALLIE WATLINGTON	113.05
13	JAMES P. MADDOX ET UX.	84.75
14	LILLIAN HEITZ BOSAW ET VIR.	131.00
15	EMORY & IDA BROWN	109.39
16	HARRY BUCHANAN	3.00
17	LAWRENCE STORIE & MINNIE BLATCH	20.00
18	JOHN ROGERS	100.00
19	WILLIAM HIGGINS	79.75
20	JOHN & ALTA DANNER	82.00
21	JACOB BENTZ ETUX.	80.00
22	JAMES A. & S. L. ELLIOTT	60.00
23	CARL & ANETON BARE	40.00
24	WILLIAM G. WALTZ	50.00
25	GLEN WALTZ ETAL.	80.00
26	FINLEY SARGENT ET UX.	80.00
27	JOHN A. BUSSE	134.00
28	ALPHA COPE ET UX.	60.00
29	JOSEPH W. & IOTA HARRELL	55.00
30	JOSEPHINE RINGWALD	64.00
31	JENNIE B. TAGUE	160.00
32	CHARLES FEWELL ET UX.	80.00
33	CHARLES G. LOOS ET UX.	30.00
34	WM. H. & JAS. H. HUMPHREYS	139.53
35	WM. & AGNES E. MUTH	44.00
36A	WILLIAM E. NICKLAUS ET UX.	18.75
36B	WILLIAM E. NICKLAUS ET UX.	15.00
37	CLEMENS E. & M. G. GILLES	92.50
38	WM. & AGNES E. MUTH	119.25
39	G. ALBERT & BYLESS ET UX.	60.00
40	MATTIE MAGEE	60.00
41	EDWARD J. HEITZ ET UX.	100.00
42	JOSEPH J. & F. AUGUSTIN	33.00
43	WILLIAM & AGNES E. MUTH	60.85
44	CLARENCE M. WOLF	80.00
45	AVERY & LOUISE JORDAN	200.00
46	[illegible] W. BADER ET UX.	75.00
47	CLARENCE R. BARTON ET UX.	100.00
48	KATHRYN S. BAYLESS ET VIR.	80.00
49	CHAS. T. BENTLEY, GUARDIAN	160.00
50	WM. T. BRINSON	80.00
51A	JOHN H. CARRINSKEY ET UX.	80.00
52	WALTER H. DAY ET UX.	[illegible]
53	[illegible]	[illegible]
54	HARVEY H. GEAR ET UX.	[illegible]
55	CHARLEY E. GUNLEY ET UX.	80.00
56	EVERETT D. RICHARDSON ET UX.	100.00
57	JESSE W. KELLER ET UX.	80.00
58A	EARL M. BEAR ET UX.	40.00
58B	EARL M. BEAR ET UX.	60.00
59	E. ALBERT & E. T. LAMB	71.53
60	JAMES G. & ADA RISK	40.00
61	NICHOLAS K. ROBINUS	80.00
62	ROBERT W. ROGERS ET UX.	70.00

MARGARET RINGWALD	8.00	125	[illegible]	
EDGAR F. RINGWALD	8.00	126	ELMER W TURNER ET UX.	94.00
GEO. W. & AMY W. WEHNER	68.75	127	ALBERT M. ANDRESS	40.00
ALLIE WATLINGTON	113.05	128	JOHN & ROSETTA YOST	100.00
JAMES P. MADDOX ET UX.	84.75	129	FREDDIE & HELEN GEISLER	60.00
LILLIAN HEITZ BOSAW ET VIR.	131.00	130	FRED B. & F. E. GARLINGHOUSE	10.00
EMORY & IDA BROWN	109.39	131	CHARLES O. & GRACE BEAR	20.00
HARRY BUCHANAN	3.00	132	FLETCHER S. & A. MURPHY	80.00
LAWRENCE STORIE & MINNIE BLATCH	20.00	133	ROSS DEMAREE ET UX.	79.25
JOHN ROGERS	100.00	134A	HUBERT DIERKES	60.00
WILLIAM HIGGINS	79.75	134B	HUBERT DIERKES	40.00
JOHN & ALTA DANNER	82.00	135	MARY HEARN	60.00
JACOB BENTZ ETUX.	80.00	136	FRANCIS E. CUMMISKEY	60.00
JAMES A. & S. L. ELLIOTT	60.00	137	FRANK A. & MARTHA GEISLER	80.00
CARL & ANETON BARE	40.00	138	CHESTER P. & MARGARET MURPHY	41.97
WILLIAM C. WALTZ	50.00	139	JAMES W. & MINNIE ANDERSON	2.26
GLEN WALTZ ETAL.	80.00	140	FRED G. & E.F. BARBER	180.00
FINLEY SARGENT ET UX.	80.00	142	CLARENCE E. BROWN ET UX.	160.00
JOHN A. BUSSE	134.00	148	THOMAS G. & JEAN CHATHAM	50.00
ALPHA COPE ET UX.	60.00			
JOSEPH W. & IOTA HARRELL	55.00	154	CHAS. McKINLEY ELLIOTT ETUX.	80.00
JOSEPHINE RINGWALD	64.00	155	IDA B. GRAY	140.00
JENNIE B. TAGUE	160.00	158	JOHN L. HIGBIE	10.34
CHARLES FEWELL ET UX.	80.00			
CHARLES G. LOOS ET UX.	30.00	165	CORNELIUS PEAK ET UX.	70.00
WM. H. & JAS. H. HUMPHREYS	199.93	167	MAE E. UNDERWOOD ET VIR.	40.50
WM. & AGNES E. MUTH	44.00	171	K. R. & A. R. WILLIAMS	60.00
WILLIAM E. NICKLAUS ET UX.	18.75	173	GEORGE W. MILES ETAL.	60.87
WILLIAM E. NICKLAUS ET UX.	15.00	174-C	BAYLESS CEM. TRUSTEES	3.75
CLEMENS E. & M. C. GILLES	92.50	180	THEO. COTTON ET UX.	200.00
WM. & AGNES E. MUTH	119.25	183	MINNIE V. HAMMEL	20.00
G. ALBERT BAYLESS ET UX.	60.00	190	J. CLAUDE ROSE ET UX.	40.00
MATTIE MAGEE	[illegible]	218	HARRIET DENNY ET VIR.	0.34
EDWARD C. HEITZ ET UX.	[illegible]	232	WILBUR S. BENEFIEL ET UX.	20.75
JOSEPH J. F. AUGUSTIN	33.00	238	CHARLES L. & GOLDIE C. GEISLER	39.50
WILLIAM & AGNES E. MUTH	[illegible]	239	CHARLES E. VESTAL ET UX.	194.00
CLARENCE M. WOLF	[illegible]	256	EDITH J. BOWMAN	40.00
AVERY & LOUISE JORDAN	[illegible]	24A	FLORENCE SCHWARTZ ET VIR.	80.00
JAMES W. BAKER ET UX.	[illegible]	24B	FLORENCE SCHWARTZ ET VIR.	35.00
CLARENCE P. BARTON ET UX.	[illegible]	243	CORNELT F. WOOD ET UX.	25.00
KATHRYN S. BAYLESS ET VIR.	[illegible]	244	JOHN WATERS	80.00
CHAS. T. BENTLEY, GUARDIAN	[illegible]	[illegible]	[illegible] GABBARD	160.00
WM. T. BRUNSON	[illegible]	[illegible]	[illegible] M. RITCHEY ETAL.	80.00
JOHN H. CUMMISKEY ET UX.	[illegible]	[illegible]	CHAS. C. & LILLIAN DENNY	20.00
WALTER H. BAYLESS ET UX.	[illegible]	[illegible]	[illegible] ELDOWHITMER ETAL.	40.00
[illegible]	[illegible]	[illegible]	[illegible] SOPHIA HOUSEFIELD	30.00
HARVEY E. GORE ET UX.	[illegible]	[illegible]	[illegible] LODGE #458 I.O.O.F.	0.75
CHARLEY E. GURLEY ET UX.	[illegible]	[illegible]	[illegible] & VIOLA PAUGH	144.00
EVERETT D. RICHARDSON ET UX.	100.00	[illegible]	[illegible] & ELIZABETH P. JONES	138.75
JESSE W. KELLER ET UX.	[illegible]	400	SARAH E. PAUGH	80.00
EARL M. BEAR ET UX.	[illegible]	404	SARAH E. PAUGH ET AL.	80.00
EARL M. BEAR ET UX.	60.00	411	OSCAR SMITH ET AL.	40.00
E. ALBERT & E. T. LAMB	71.53	414	GEORGE & KATHRYN BAYLESS	37.00
JAMES C. & ADA RISK	40.00			
NICHOLAS KROHNUS	80.00	449	WM. A. & MARG. E. DAUGHERTY	40.00
ROBERT W. ROGERS ETUX.	70.00	481	MONROE PRESBYTERIAN CH.	4.15
DAVIDSON & MYRTLE SMITH	72.00	[illegible]	[illegible] ETAL.	108.00

ACRES
ACRES
ACRES
ACRES

TOTAL
ACRES
ACRES
ACRES

PROJE

TRACT

RAILRO

SECTIO

TOWNS

ROAD

DATE
29 APR 66
25 AUG 66
12 MAR 87
15 JUN 87

ER ET UX.	94.00
RESS	40.00
YOST	100.00
N GEISLER	60.00
GARLINGHOUSE	10.00
CE BEAR	20.00
MURPHY	80.00
ET UX.	79.25
S	60.00
ES	40.00
	60.00
SKEY	9 60.00
HA GEISLER	80.00
GARET MURPHY	41.97
ANDERSON	2.26
ARBER	180.00
WN ET UX.	160.00
CHATHAM	50.00
LIOTT ETUX.	80.00
	140.00
E	10.34
ET UX.	70.00
OD ET VIR.	40.50
AMS	60.00
ES ETAL.	60.87
TRUSTEES	3.75
ET UX.	200.00
MEL	20.00
ET UX.	40.00
ET VIR.	0.34
EFIEL ET UX	20.75
EG GEISLER	39.50
TAL ET UX.	194.00
N	40.00
RTZ ET VIR.	80.00
RTZ ET VIR.	35.00
OOD ET UX.	25.00
	80.00
D	160.00
CHEY ETAL.	80.00
AN DENNY	20.00
YMER ETAL.	40.00
OUSEFIELD	30.00
458 I.O.O.F.	0.75
PAUGH	144.00
TH R. JONES	138.75
H	80.00
H ET AL.	80.00
ET AL.	40.00
F BAYLESS	37.00
DAUGHERTY	40.00
TERIAN CH.	4.15
ETAL.	106.00

ACRES LEASED BY W.D. _____

ACRES LEASED FROM W.D. _____

ACRES TRANSFERRED TO W.D. _____

ACRES LESSER INTERESTS { LICENSE (3) No Area; EASEMENTS (6); PERMITS (3) NO AREA } 4.15

DISPOSALS

TOTAL ACRES DISPOSED OF _____ 52.45

ACRES SOLD _____

ACRES TO W.A.A. FEE _____ 52.45

ACRES TO GSA FEE _____ (10)

LEGEND

PROJECT BOUNDARY

TRACT BOUNDARY

RAILROAD

SECTION CORNER

TOWNSHIP LINE

ROAD

DATE	REVISIONS
29 APR 66	REV. ACRE[illegible]
25 AUG 66	REV. [illegible]
12 MAR 67	ADDED TRACT 65
15 JUN 67	REVISED TRACT 65

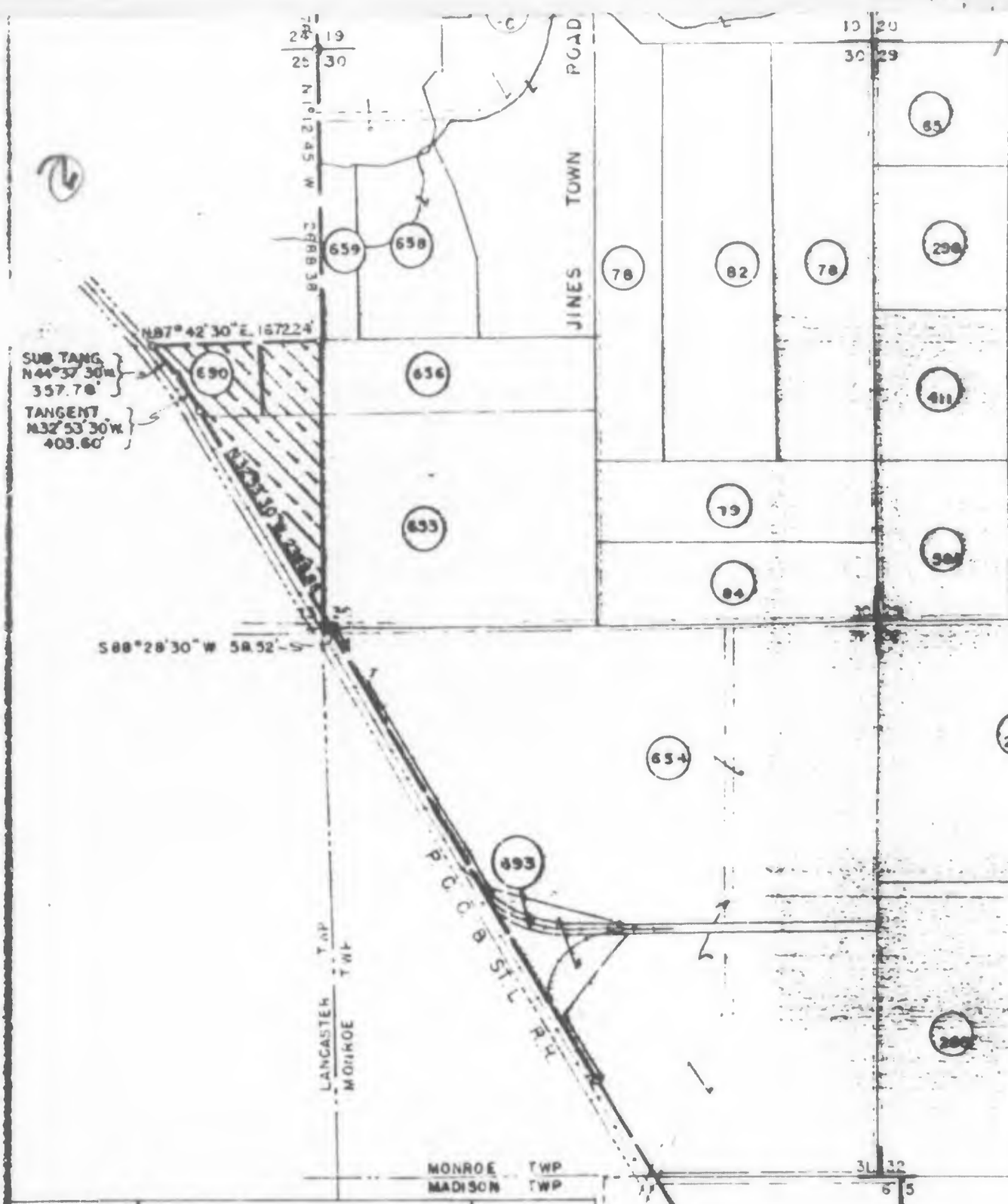
SCALE IN FEET

0 1320' 2640' [illegible]

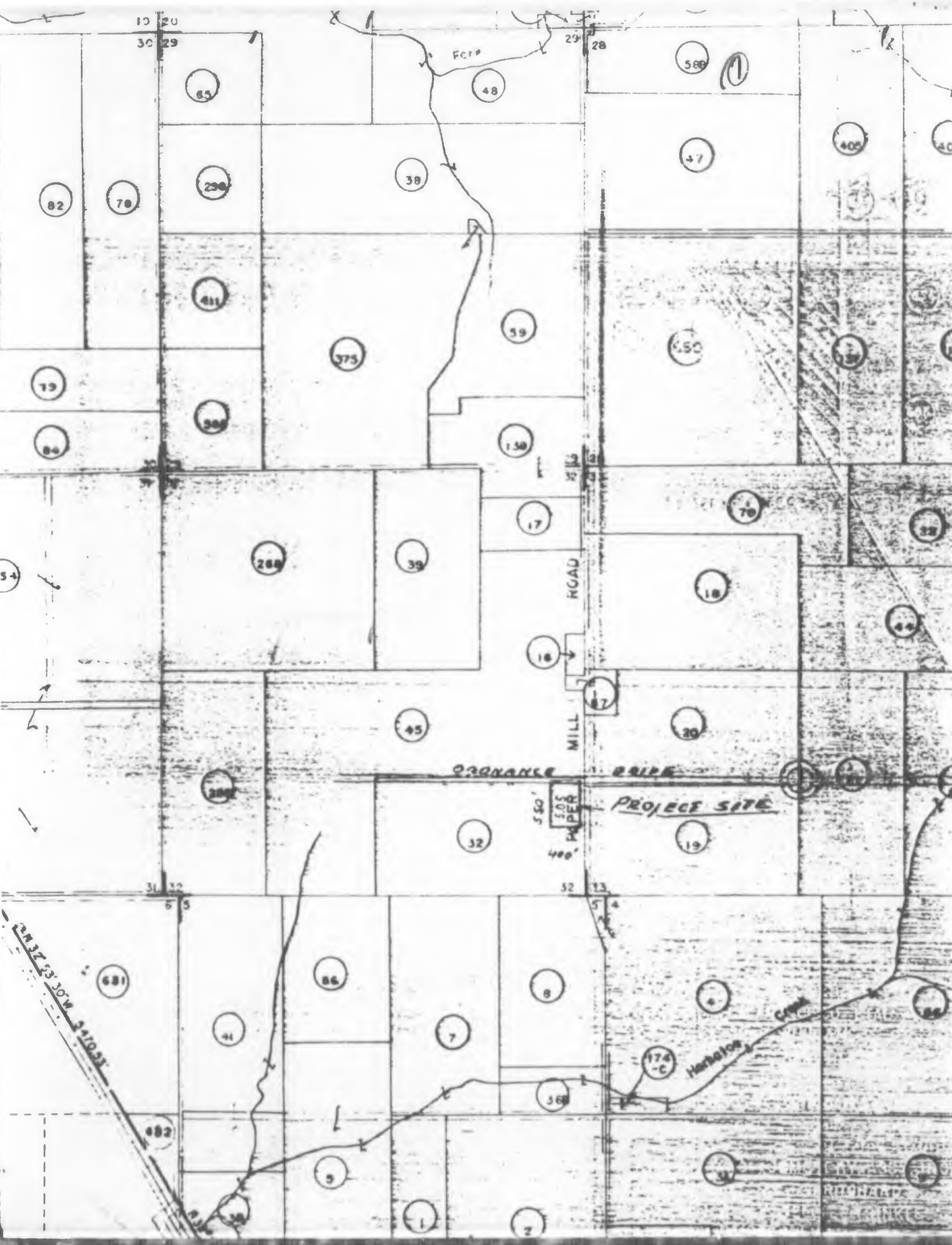
0 1/4 1/2 3/4 1 MILE

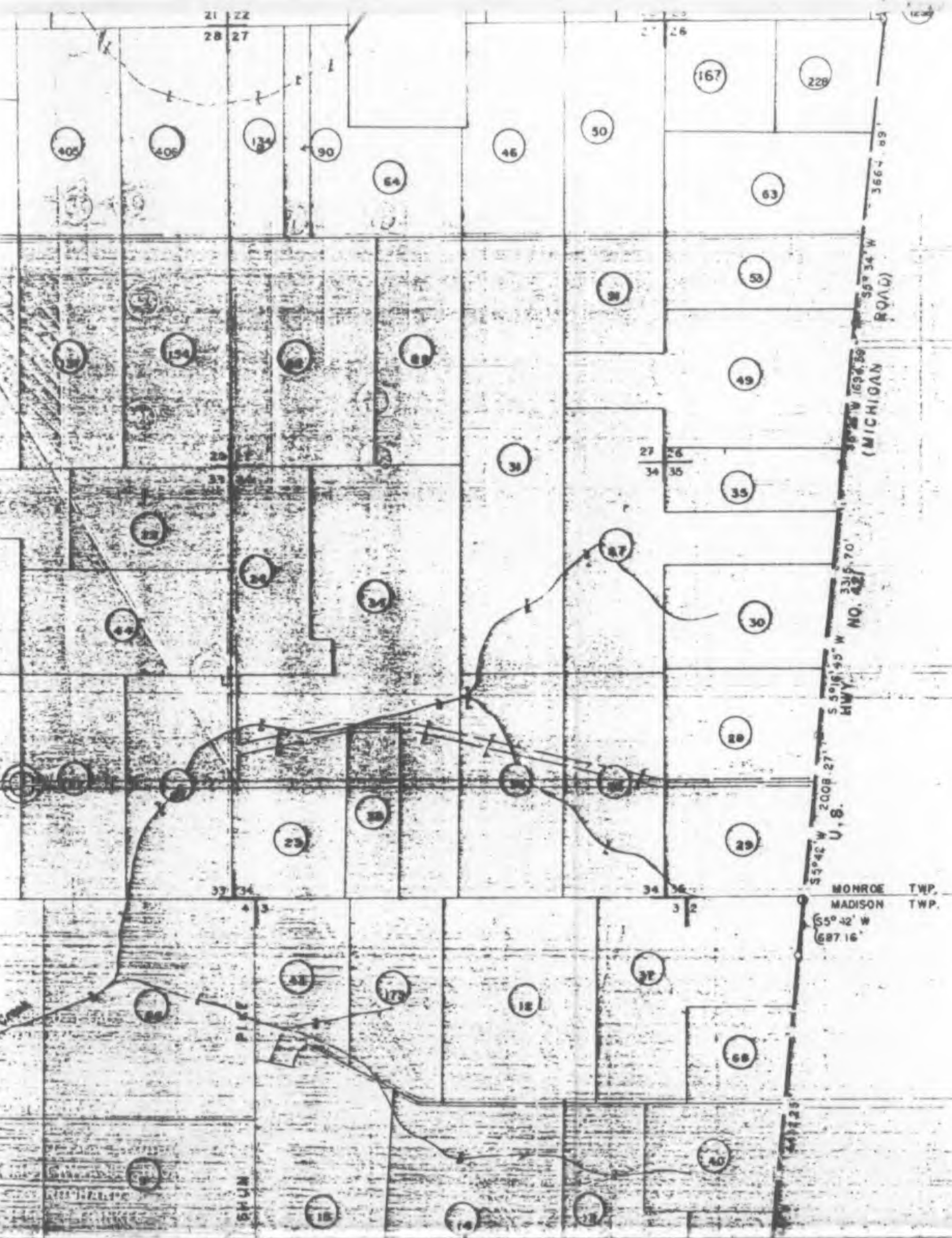
WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

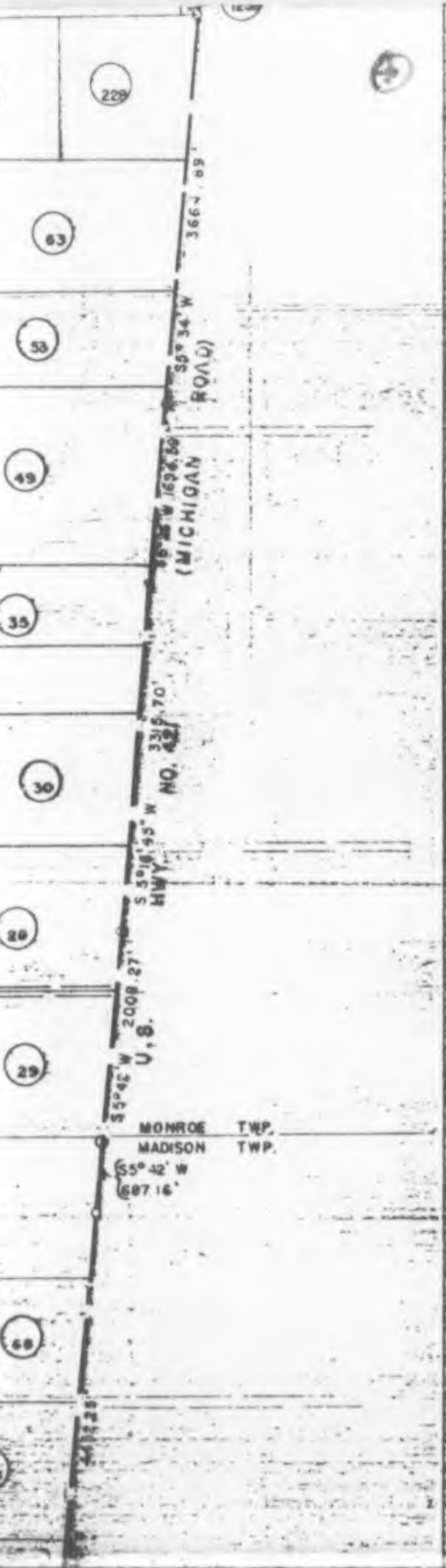
REAL ESTATE



TRACT NO	VENDOR (FEE)	ACREAGE FEE
654	MARY FRANCISCO ETAL	413.21
655	ISAAC N. WILLIAMS	143.93
656	CATHERINE COLEN	49.77
657	GERALD & MARTHA R. REA	149.71
658	KIRBY BUCHANAN ET AL	45.00
659	DAVID STEARNS	15.00
660	ETHEL S. C. BLAND ET VIR	103.00
661-C	CRAIG CEMETERY ASSN. INC.	1.50
662	MORTON M. PRITCHARD	34.00
663	FRED & NELLIE TRINKLE	52.00
664	CURTIS BUSH	46.00


MILL ROAD
ORONACE BRIDGE
PROJECT SITE
Harlaton Creek
550'
400'


MONROE TWP.
MADISON TWP.
S 55° 42' W
687.16'
U.S. HWY. NO. 23
(MICHIGAN ROAD)
S 59° 34' W
S 59° 42' W
2008.27'
S 5°16'45" W
336.70'
S 59°26' W
1696.59'
366.69'



20	JOHN & ALTA DANNER	82.00	135	
21	JACOB BENTZ ETUX.	80.00	136	
22	JAMES A. & S. L. ELLIOTT	60.00	137	
23	CARL & ANETON BARE	40.00	138	
24	WILLIAM C. WALTZ	50.00	139	
25	GLEN WALTZ ETAL.	80.00	140	
26	FINLEY SARGENT ET UX.	80.00	142	
27	JOHN A. BUSSE	134.00	148	
28	ALPHA COPE ET UX.	60.00		
29	JOSEPH W. & IOTA HARRELL	55.00	154	CH
30	JOSEPHINE RINGWALD	64.00	155	
31	JENNIE B. TAGUE	100.00	158	
32	CHARLES FEWELL ET UX.	[illegible]		
33	CHARLES G. LOOS ET UX.	30.00	165	
34	WM. H. & JAS. H. HUMPHREYS	139.53	167	
35	WM. & AGNES E. MUTH	44.00	171	
36A	WILLIAM E. NICKLAUS ETUX	18.75	173	
36B	WILLIAM E. NICKLAUS ETUX	15.00	174-C	
37	CLEMENS E. & M. C. GILLES	92.00	180	
38	WM. & AGNES E. MUTH	112.50	183	
39	G. ALBERT B. YLESS ET UX.	80.00	190	
40	NATTIE MAGEE	66.00	218	
41	EDWARD J. HEITZ ET UX.	100.00	222	
42	JOSEPH J. F. AUGUSTIN	33.00	228	
43	WILLIAM & AGNES E. MUTH	60.25	229	
44	CLARENCE M. WOLF	60.00	235	
45	AVERY & LOUISE JORDAN	200.00	241A	
46	[illegible] W. BADER ET UX.	78.00	241B	
47	CLARENCE P. BARTOR ET UX	100.00	243	
48	KATHRYN G. BAYLESS ET VIR.	60.00	244	
49	CHAS. T. MONTLEY, GUARDIAN	100.00	246	
50	WM. T. BRIRSON	60.00	249	
51A	JOHN H. CUMMINSKEY ET UX.	80.00	257	
51B	WALTER H. DAY ET UX.	115.00	258	
53	[illegible] & HELEN C. HENRY	[illegible]	[illegible]	
54	HARVEY B. GRAY ET UX.	60.00	[illegible]	
55	CHARLEY E. GURLEY ET UX.	80.00	340	
56	EVERETT D. RICHARDSON ET UX.	100.00	376	
57	JESSE W. KELLER ET UX.	98.00	408	
58A	EARL M. BEAR ET UX.	40.00	409	
58B	EARL M. BEAR ET UX.	60.00	411	
59	E. ALBERT & E. T. LAMB	71.53	414	
60	JAMES G. & ADA RISK	40.00	—	
61	NICHOLAS F. ROBINUS	80.00	449	
62	ROBERT W. ROGERS ETUX	70.00	461	
63	DAWSON & MYRTLE SMITH	79.00	511	
64	[illegible] J. WELCH ET UX.	60.00	527	
65	HOYNIE WILSON	40.00	56[illegible]	
66	ELIZABETH E. DAVIS ET VIR.	160.00	549	
67	LOUISE & ALMA J. HARLOW	6.00	[illegible]	
68	WALTER & EVELYN IRWIN	3[illegible]	5[illegible]	
69	HOWARD S. MOFFETT	75.[illegible]	[illegible]	
70	CHESTER G. WEATHERFORD ET UX	7[illegible]	[illegible]	
72	BERNARD CASSIDY ET UX.	[illegible]	[illegible]	
73	FRANK L. SAGEMIRE ET UX.	1[illegible]	[illegible]	

0	JOHN & ALTA DANNER	82.00	135	MARY HEARN	60.00
1	JACOB BENTZ ETUX.	80.00	136	FRANCIS E. CUMMISKEY	60.00
2	JAMES A. & S. L. ELLIOTT	60.00	137	FRANK A. & MARTHA GEISLER	80.00
3	CARL & ANETON BARE	40.00	138	CHESTER P. & MARGARET MURPHY	41.97
4	WILLIAM C. WALTZ	50.00	139	JAMES W. & MINNIE ANDERSON	2.26
5	GLEN WALTZ ETAL.	80.00	140	FRED G. & E.F. BARBER	190.00
6	FINLEY SARGENT ET UX.	80.00	142	CLARENCE E. BROWN ET UX.	160.00
7	JOHN A. BUSSE	134.00	148	THOMAS G. & JEAN CHATHAM	50.00
8	ALPHA COPE ET UX.	60.00			
9	JOSEPH W. & IOTA HARRELL	55.00	154	CHAS. McKINLEY ELLIOTT ETUX.	80.00
0	JOSEPHINE RINGWALD	64.00	156	IDA B. GRAY	140.00
1	JENNIE B. TAGUE	180.00	158	JOHN L. HIGBIE	10.34
2	CHARLES FEWELL ET UX.	80.00			
3	CHARLES G. LOOS ET UX.	30.00	165	CORNELIUS PEAK ET UX.	70.00
4	WM. H. & JAS. H. HUMPHREYS	199.33	167	MAE E. UNDERWOOD ET VIR.	40.50
5	WM. & AGNES E. MUTH	44.00	171	H. R. & A. R. WILLIAMS	60.00
6A	WILLIAM E. NICKLAUS ETUX	18.75	173	GEORGE W. MILES ETAL.	60.87
6B	WILLIAM E. NICKLAUS ETUX	15.00	174-C	BAYLESS CEM. TRUSTEES	3.75
7	CLEMENS E. & M. C. GILLES	98.30	180	THEO. COTTON ET UX.	200.00
8	WM. & AGNES E. MUTH	119.[illegible]	183	MINNIE V. HAMMEL	20.00
9	G. ALBERT BAYLESS ET UX.	60.00	190	J. CLAUDE ROSE ET UX.	40.00
0	MATTIE MAGEE	[illegible]	218	HARRIET DENNY ET VIR.	0.34
1	EDMUND J. NEUTZ ET UX.	[illegible]	222	WILMUR S. BENEFIEL ET UX.	20.75
2	JOSEPH J. F. AUGUSTIN	33.00	228	CHARLES L. & GOLDIE C. GEISLER	39.50
3	WILLIAM & AGNES E. MUTH	69.85	233	CHARLES E. VESTAL ET UX.	194.00
4	CLARENCE M. WOLF	80.00	238	EDITH J. BOWMAN	40.00
5	AVERY & LOUISE JORDAN	206.00	240A	FLORENCE SCHWARTZ ET VIR.	80.00
6	JAMES W. BAKER ET UX.	78.00	240B	FLORENCE SCHWARTZ ET VIR.	35.00
7	CLARENCE P. BARTON ET UX.	100.00	243	CORNELL F. WOOD ET UX.	25.00
8	KATHRYN S. BAYLESS ET VIR.	[illegible]	244	JOHN WATERS	80.00
9	CHAS. T. MONTLEY, GUARDIAN	[illegible]	250	[illegible] E. GABBARD	160.00
0	WM. T. BRINSON	[illegible]	260	[illegible] M. RITCHEY ETAL.	80.00
1 A	JOHN H. CUMMISKEY ET UX.	[illegible]	267	CHAS. G. & LILLIAN DENNY	20.00
1	WALTER H. BAY ET UX.	[illegible]	[illegible]	[illegible] ELDOWHITMER ETAL.	40.00
3	[illegible] & NELLIE C. DENNY	[illegible]	[illegible]	[illegible] SOPHIA HOUSEFIELD	30.00
4	HARVEY E. GRAY ET UX.	[illegible]	[illegible]	[illegible] LODGE #458 I.O.O.F.	0.75
5	CHARLEY E. GURLEY ET UX.	80.00	344	[illegible] & VIOLA PAUGH	144.00
6	EVERETT D. RICHARDSON ET UX.	100.00	375	CHAS. A. & ELIZABETH P. JONES	138.75
7	JESSE W. KELLER ET UX.	98.00	400	SARAH E. PAUGH	80.00
8A	EARL M. BEAR ET UX.	10.00	400	SARAH E. PAUGH ET AL.	80.00
8B	EARL M. BEAR ET UX.	60.00	411	OSCAR SMITH ET AL.	40.00
9	E. ALBERT & E. T. LAMB	71.53	414	[illegible] & KATHRYN BAYLESS	37.00
0	JAMES C. & ADA RISK	40.00			
1	NICHOLAS K. ROBINUS	80.00	449	WM. A. & MARG. E. DAUGHERTY	40.00
2	ROBERT W. ROGERS ETUX	70.00	491	MONROE PRESBYTERIAN CH.	4.15
3	DAWSON & MYRTLE SMITH	79.00	511	WM. WAHLMAN ETAL.	106.00
4	[illegible] J. WELCH ET UX.	60.00	512	DANIEL & FLORA CHAMBERS	35.00
5	RUTHIE WILSON	40.00	545	[illegible] NUT GEN. TEL. CO.	0.51
6	ELIZABETH S. DAVIS ET VIR.	160.00	548	GEORGE LYON ET UX.	13.50
7	LOUIS & ALMA J. HARLOW	6.00	[illegible]	MONROE TWP. OF JEFF. CO.	0.13
8	VANTER & EVELYN IRWIN	[illegible]	[illegible]	ANNIE [illegible] GUARDIAN	120.00
9	HOWARD S. HOFFETT	75.00	[illegible]	ROBT. O. KENNEDY ETAL.	66.75
0	SHERMAN & WEATHERFORD ET UX.	[illegible]	[illegible]	[illegible] TWP. JEFF. CO. 2ND.	0.50
2	BERNARD CARBOT ET UX.	[illegible]	[illegible]	[illegible] & ZERNA VESTAL	7.00
3	FRANK L. PACEMORE ET UX.	[illegible]	[illegible]	JOHN E. SAMPLE	122.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible] SAMPLE	[illegible]

	[illegible]	40.00
S	MARY HEARN	60.00
S	FRANCIS E. CUMMISKEY	9 60.00
F	FRANK A. & MARTHA GEISLER	80.00
3	CHESTER P. & MARGARET MURPHY	41.97
9	JAMES W. & MINNIE ANDERSON	2.26
0	FRED G. & E.F. BARBER	180.00
2	CLARENCE E. BROWN ET UX.	160.00
3	THOMAS G. & JEAN CHATHAM	50.00
A	CHAS. McKINLEY ELLIOTT ET UX.	80.00
0	IDA B. GRAY	140.00
8	JOHN E. HIGBIE	10.34
5	CORNELIUS PEAK ET UX.	70.00
7	MAE E. UNDERWOOD ET VIR.	40.50
0	H.R. & A.R. WILLIAMS	60.00
5	GEORGE W. MILES ETAL.	60.87
C	BAYLESS CEM. TRUSTEES	3.75
0	THEO. COTTON ET UX.	200.00
3	MINNIE V. HAMMEL	20.00
0	J. CLAUDE ROSE ET UX.	40.00
R	HARRIET DENNY ET VIR.	0.34
2	WILLIAM S. BENEFIEL ET UX	20.75
8	CHARLES L. & GOLDIE C. GEISLER	39.50
9	CHARLES E. VESTAL ET UX.	194.00
8	EDITH J. BOWMAN	40.00
1A	FLORENCE SCHWARTZ ET VIR.	80.00
1B	FLORENCE SCHWARTZ ET VIR.	35.00
3	CORNETT F. WOOD ET UX.	25.00
10	JOHN WATERS	80.00
0	[illegible] E. GABBARD	160.00
0	[illegible] W. RITCHEY ETAL.	80.00
2	CHAS. C. & LILLIAN DENNY	20.00
0	[illegible] ELDOWHITMER ETAL.	40.00
2	[illegible] SOPHIA HOUSEFIELD	30.00
8	[illegible] LODGE #458 I.O.O.F.	0.75
10	[illegible] & VIOL PAUGH	144.00
5	CHARLES & ELIZABETH P. JONES	138.75
0	SARAH E. PAUGH	80.00
14	SARAH E. PAUGH ET AL.	80.00
11	OSCAR SMITH ET AL.	40.00
4	GEO. W. & KATHRYN BAYLESS	37.00
10	WM. A. & MARY E. DAUGHERTY	40.00
01	MONROE PRESBYTERIAN CH.	4.15
11	[illegible] WAHLMAN ETAL.	106.00
12	DANIEL & FLORA CHAMBERS	35.00
8	[illegible] NUT CEN. TEL. CO.	0.51
8	GEORGE LYON ET UX.	13.50
10	MONROE TWP. OF JEFF. CO.	0.13
10	[illegible] GUARDIAN	120.00
10	[illegible] G. KENNEDY ETAL.	66.75
12	[illegible] TWP. JEFF. CO. 2ND.	0.50
8	[illegible] VESTAL	7.00
	[illegible] SAMPLE	122.00
	[illegible]	106.00

TOTAL ACRES DISPOSED OF 1 5

ACRES SOLD

ACRES TO W.A.A. FEE 5

ACRES TO GSA FEE

LEGEND

PROJECT BOUNDARY

TRACT BOUNDARY

RAILROAD

SECTION CORNER

TOWNSHIP LINE

ROAD

DATE	REVISIONS
29 APR. 66	REV. ARMY COR [illegible]
25 AUG 66	REV. ARMY [illegible]
12 MAR 67	ADDED TR. 653
15 JUN 67	REVISED TRACT 653

SCALE IN FEET

0 1320' 2640' [illegible]

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROU

MILITARY RESERVATION

RECOMMENDED: Joseph N. Doyle DATE

	40.00
	60.00
SKEY	9 60.00
HA GEISLER	80.00
SARET MURPHY	41.97
ANDERSON	2.26
ARBER	180.00
N ET UX.	160.00
CHATHAM	50.00
IOTT ETUX.	80.00
	140.00
	10.34
ET UX.	70.00
D ET VIR.	40.50
MS	60.00
S ETAL.	60.87
RUSTEES	3.75
T UX.	200.00
EL	20.00
ET UX.	40.00
ET VIR.	0.34
FIEL ET UX	20.75
C. GEISLER	39.50
L ET UX.	194.00
	40.00
Z ET VIR.	80.00
Z ET VIR.	35.00
D ET UX.	25.00
	80.00
	160.00
EY ETAL.	80.00
DENNY	20.00
ER ETAL.	40.00
USEFIELD	30.00
58 I.O.O.F.	0.75
UGH	144.00
P. JONES	138.75
	80.00
ET AL.	80.00
AL.	40.00
BAYLESS	37.00
UGHERTY	40.00
RIAN CH.	4.15
AL.	106.00
AMBERS	35.00
EL. CO.	0.51
ET UX.	13.50
FF. CO.	0.13
	120.00
ETAL.	66.75
2MD.	0.50
TAL	7.00
	122.00
	100.00

TOTAL ACRES DISPOSED OF 1 52.45

ACRES SOLD .....

ACRES TO W.A.A. FEE 52.45

ACRES TO GSA FEE .....

(10)

LEGEND

PROJECT BOUNDARY

TRACT BOUNDARY

RAILROAD

SECTION CORNER

TOWNSHIP LINE

ROAD

DATE	REVISIONS
29 APR 64	REV. ARMY [illegible]
25 AUG 66	RE-[illegible]
12 MAR 67	ADDED TRACT 693
15 JUN 67	REVISED TRACT 693

SCALE IN FEET

0 1320' 2640' [illegible]

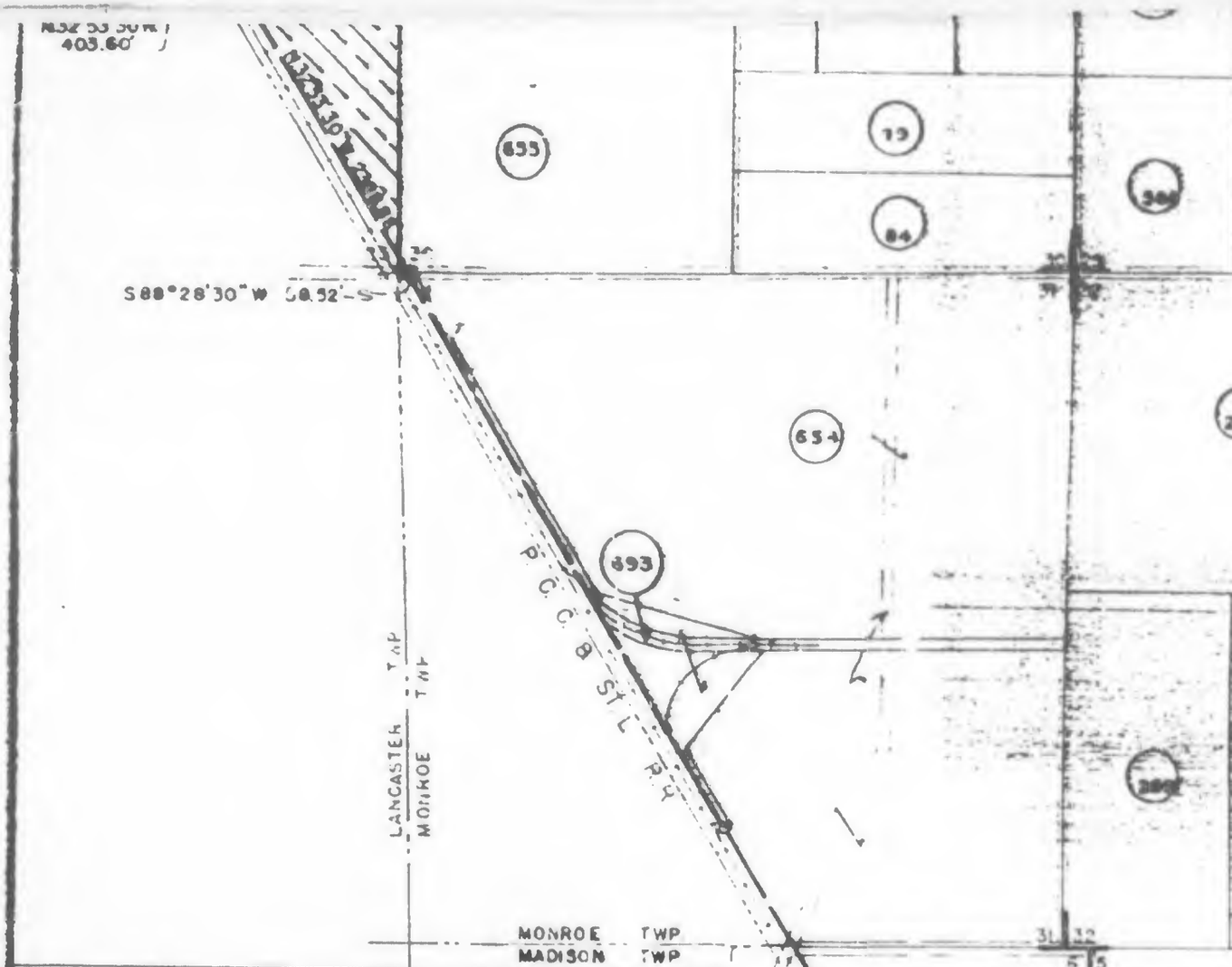
0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

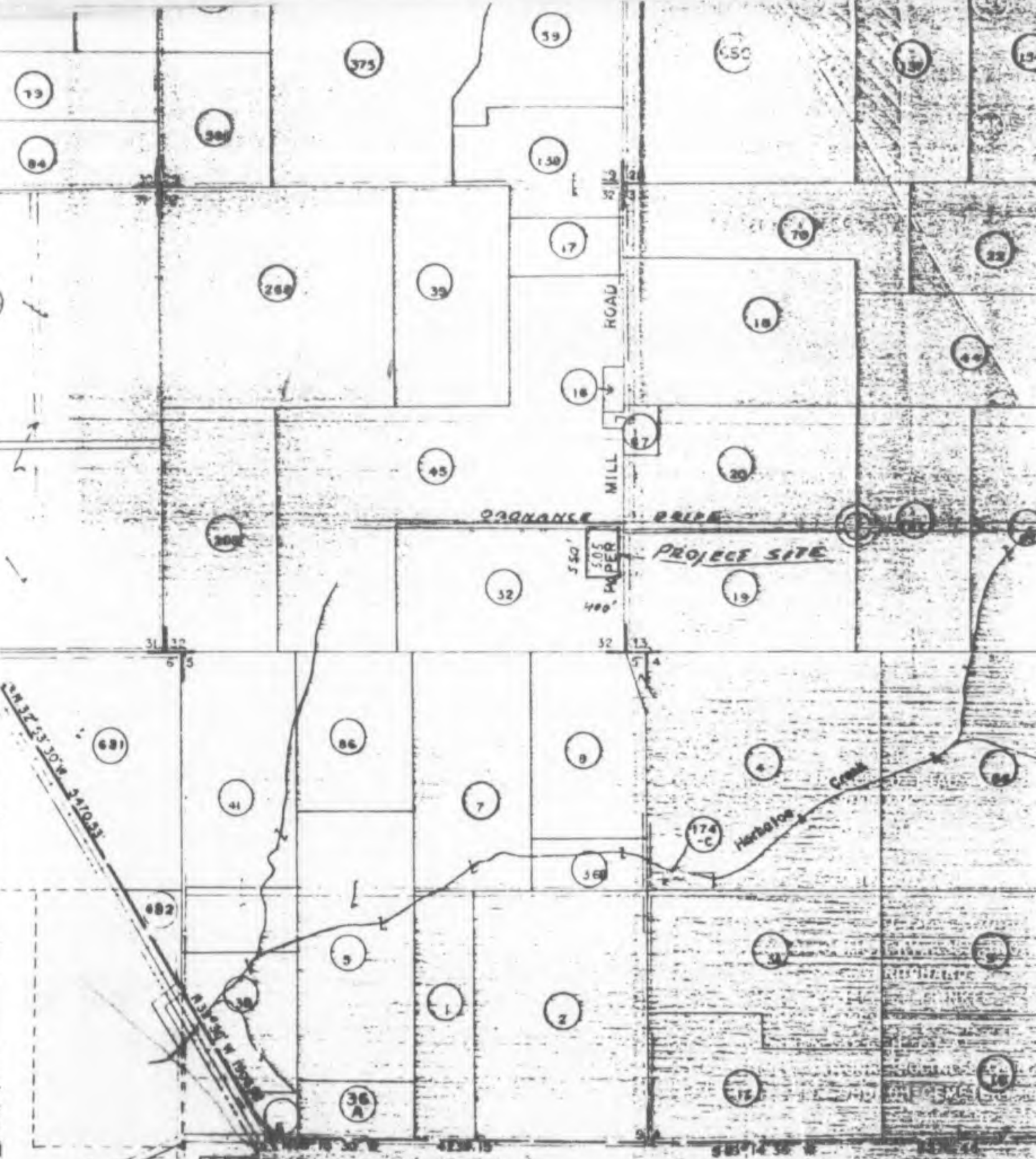
MILITARY RESERVATION

RECOMMENDED: Joseph N Doyle DATE [illegible]



TRACT NO	VENDOR (FEE)	ACREAGE FEE
654	MARY FRANCISCO ETAL	413.21
655	ISAAC N. WILLIAMS	145.93
656	CATHERINE COLEN	49.77
657	GERALD & MARTHA R. REA	149.71
658	KIRBY BUCHANAN ET AL	45.00
659	DAVID STEARNS	15.00
660	ETHEL S. C. BLAND ET VIR	103.00
661-C	CRAIG CEMETERY ASSN. INC.	1.50
662	MORTON M. PRITCHARD	34.00
663	FRED & NELLIE TRINKLE	52.00
664	CURTIS BUSH	46.00
665	NORMAN HEATH ET AL	118.75
666	INTERNATIONAL HOLINESS CHURCH	0.75
667-C	MT. ZION CHURCH CEMETERY	0.50
668	GRAMAR INVESTMENT CORP.	128.00
669	ARTHUR E. IRWIN ET UX	40.00
678	STEPHEN A. IRWIN	21.50
680	DAVID STEARNS	13.00
681	MARY FRANCISCO ETAL	82.70
682	JOHN C. SWAFFORD ET UX	7.49
	(LICENSE AGREEMENT)	

(11)

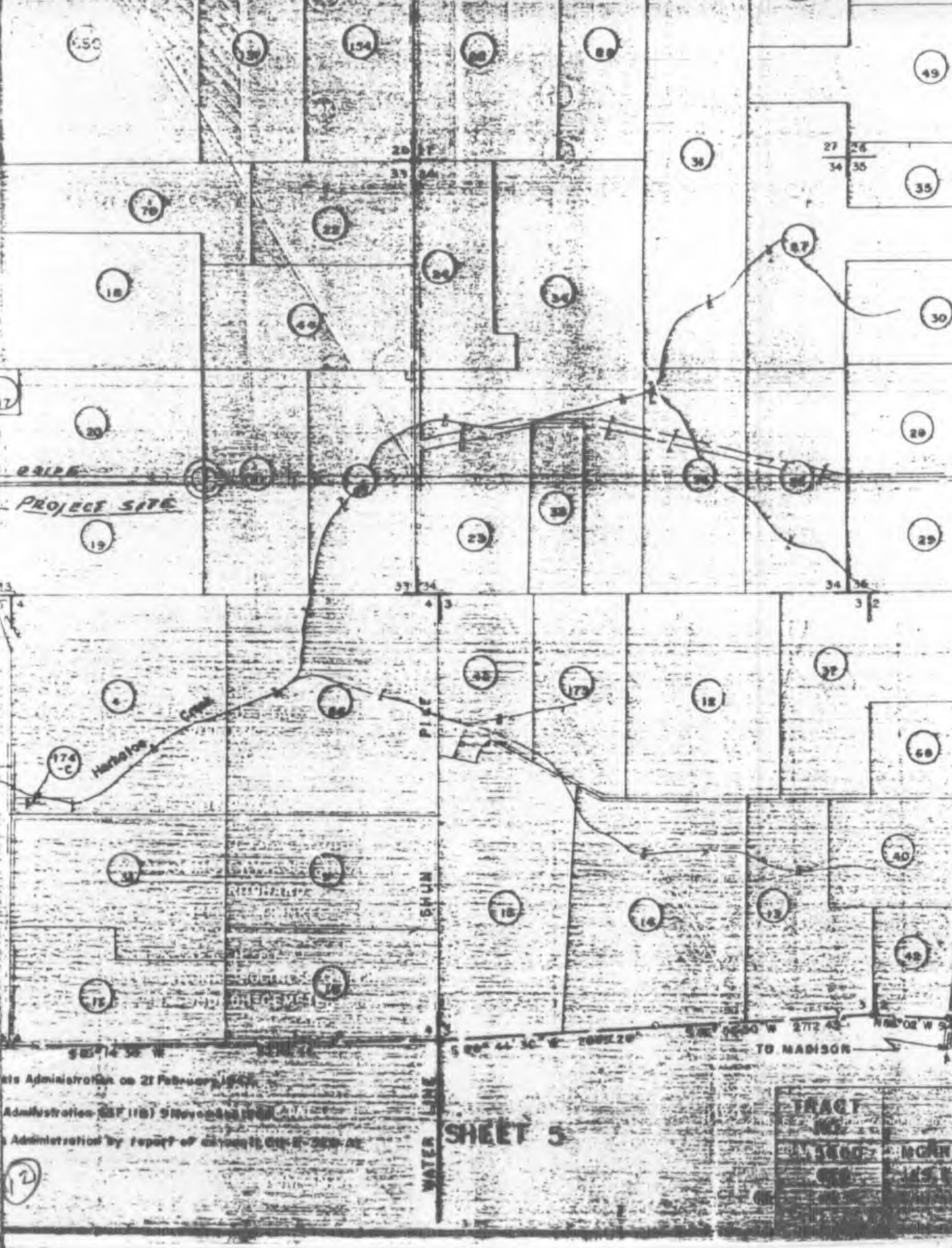


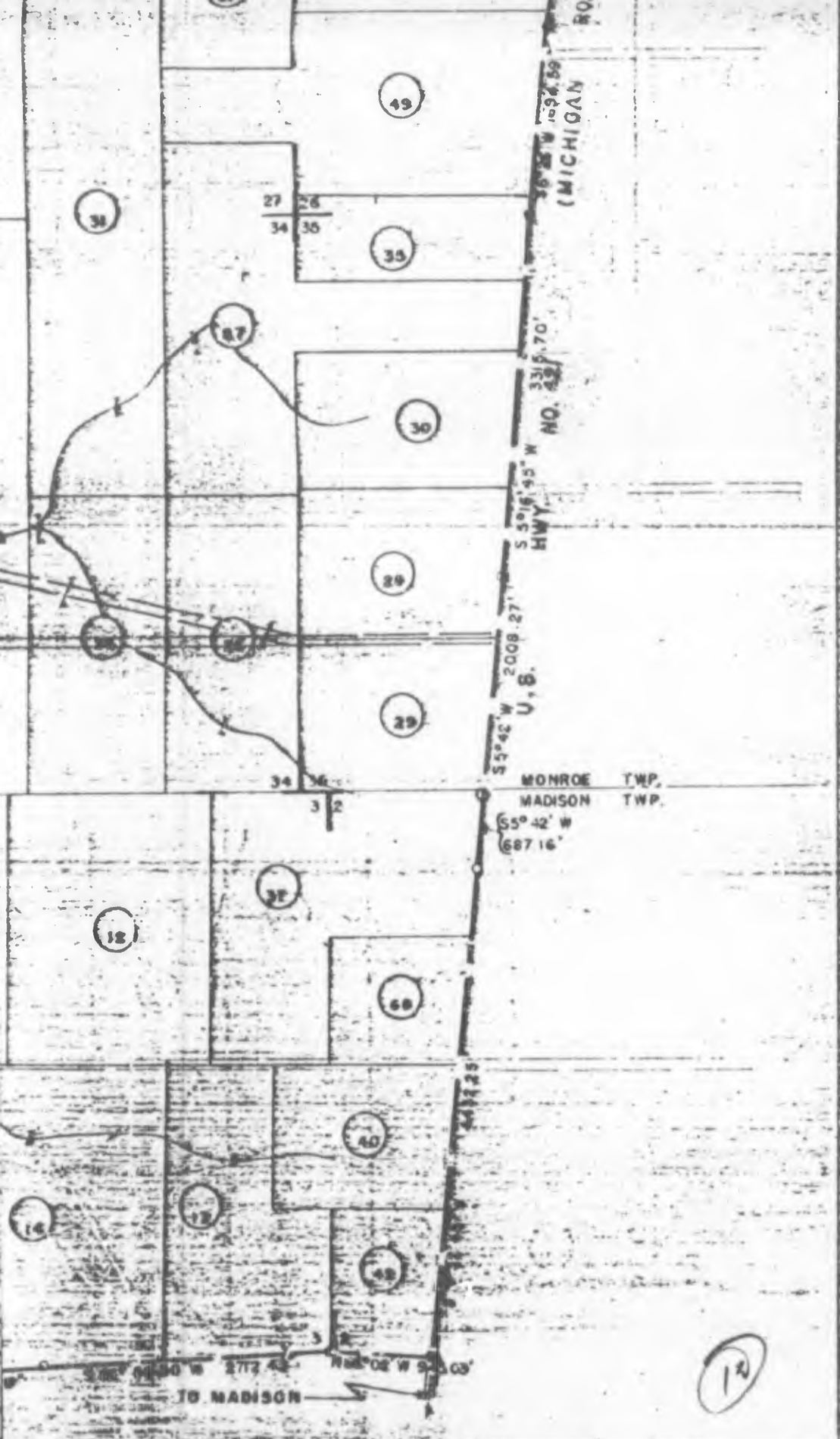
[illegible] Acres, Fee, accountability assumed by War Assets Administration on 21 February [illegible]

[illegible] Acres, Fee, reported excess to General Services Administration [illegible] 9 November [illegible]

[illegible] Acres, Fee, withdrawn from General Services Administration by report of excess [illegible] dated 14 June 1966.

(12)


PROJECT SITE
Harbster Creek
TO MADISON
WATER LINE
SHEET 5
TRACT



TRACT NO.	VENDOR	ACREAGE FEE
[illegible]	MONROE TWP. OF JEFF. CO.	0.50
[illegible]	[illegible] & CHAS. E. MILES	2.00
[illegible]	[illegible] ROBINS ET UX ET AL	24.01

33	CHARLES O. LOOS ET
34	WM. H. & JAS. H. HUMPHRE
35	WM. & AGNES E. MUTH
36A	WILLIAM E. NICKLAUS
36B	WILLIAM E. NICKLAUS
37	CLEMENS E. & M. C. GIL
38	WM. & AGNES E. MUT
39	G. ALBERT B. YLESS E
40	MATTIE MAGEE
41	EDWARD J. MEITZ ET
42	JOSEPH J. F. AUGUSTI
43	WILLIAM & AGNES E. MU
44	CLARENCE M. WOLF
45	AVERY & LOUISE JOR
46	JAMES W. BADER ET
47	CLARENCE F. BARTON
48	KATHRYN S. BAYLESS ET
49	CHAS. T. BENTLEY, GUAR
50	WM. T. BRINSON
51A	JOHN H. CARNESKEY ET
52	WALTER R. BAT ET UX
53	CARROLL H. & WILLIAM C. BER
54	HARVEY E. GRAY ET
55	CHARLEY E. GURLEY ET
56	EVERETT D. RICHARDSON
57	JESSE W. KELLER ET
58A	EARL M. BEAR ET U
58B	EARL M. BEAR ET U
59	E. ALBERT & E. T. LAMB
60	JAMES C. & ADA RISN
61	NICHOLAS K. ROBINUS
62	ROBERT W. ROGERS ET
63	DAWSON & MYRTLE SM
64	BEN J. WELCH ET UX
65	RUTHIE WILSON
66	ELIZABETH S. DAVIS ET
67	LOUIS & ALMA J. HARL
68	VANTER & EVELYN IR
69	HOWARD S. KIFFETT
70	SHERTER G. WEATHERFORD
72	BERNARD CASSIDY ET
73	FRANK L. FACEMIRE E
76	MINNIE MARGISON
77	JAMES A. MILLER
78	PEUE ROSE ET UX.
80	DAVID SPURGIN ET U
81A	MARY E. SPURGIN ET
81B	MARY E. SPURGIN ET
82	EDWARD STEARNS ET
83	ENOCH STEVENSON
84	[illegible]
85	[illegible]
86	[illegible]
87	[illegible]
88	[illegible]
89	[illegible]

33	CHARLES G. LOOS ET UX.	30.00	165	CORNELIUS PEAK ET U
34	WM. H. & JAS. H. HUMPHREYS	199.53	167	MAE E. UNDERWOOD ET
35	WM. & AGNES E. MUTH	44.00	171	K. R. & A. R. WILLIAMS
36A	WILLIAM E. NICKLAUS ET UX	18.75	173	GEORGE W. MILES ETA
36B	WILLIAM E. NICKLAUS ET UX	15.00	174-C	BAYLESS CEM. TRUST
37	CLEMENS E. & M. C. GILLES	92.00	180	THEO. COTTON ET UX.
38	WM. & AGNES E. MUTH	119.00	183	MINNIE V. HAMMEL
39	G. ALBERT BAYLESS ET UX	60.00	190	J. CLAUDE ROSE ET UX
40	MATTIE MAGEE	50.00	212	HARRIET DENNY ET VI
41	EDWARD F. MEITZ ET UX	100.00	222	WILBUR S. BENEFIEL E
42	JOSEPH J. F. AUGUSTIN	33.00	228	CHARLES L. & GOLDIE C. GEIS
43	WILLIAM & AGNES E. MUTH	60.00	230	CHARLES E. VESTAL ET U
44	CLARENCE M. WOLF	60.00	235	EDITH J. BOWMAN
45	AVERY & LOUISE JORDAN	20.00	241A	FLORENCE SCHWARTZ ET
46	JAMES W. BAGER ET UX.	70.00	241B	FLORENCE SCHWARTZ ET
47	CLARENCE P. BARTON ET UX	100.00	243	CORNETT F. WOOD ET
48	KATHRYN G. BAYLESS ET VIR.	60.00	244	JOHN WATERS
49	CHAS. T. MONTLEY, GUARDIAN	100.00	246	ALBERT E. GABBARD
50	WM. T. BRENSON	50.00	250	WALTER M. RITCHEY ETA
51A	JOHN H. CURBINSKEY ET UX	60.00	257	CHAS. C. & LILLIAN DENN
51B	WALTER M. DAY ET UX	[illegible]	258	[illegible] FLOOWHITMER ET
52	CARROLL H. & NELLIE C. HENRY	[illegible]	300	[illegible] SOPHIA HOUSEFIE
54	HARVEY E. GRAY ET UX.	[illegible]	308	[illegible] LODGE #458 I.O.
55	CHARLEY E. GURLEY ET UX	60.00	340	[illegible] & VIOLA PAUGH
56	EVERETT D. RICHARDSON ET UX	100.00	375	CHARLES & ELIZABETH P. JONE
57	JESSE W. KELLER ET UX.	86.00	405	SARAH E. PAUGH
58A	EARL M. BEAR ET UX.	40.00	406	SARAH E. PAUGH ET A
58B	EARL M. BEAR ET UX.	60.00	411	OSCAR SMITH ET AL.
59	E. ALBERT & E. T. LAMB	71.53	414	GEO. W. & KATHRYN BAYLE
60	JAMES C. & ADA RISK	40.00	—	
61	NICHOLAS K. ROBINUS	80.00	449	WM. A. & MARG. E. DAUGHER
62	ROBERT W. ROGERS ET UX	70.00	481	MONROE PRESBYTERIAN
63	DAWSON & MYRTLE SMITH	79.00	511	WM. WAHLMAN ETAL.
64	BEN J. WELCH ET UX.	60.00	537	DANIEL & FLORA CHAMBER
65	RUTHIE WILSON	40.00	546	MIAMI MUT. CEM. TEL. CO.
66	ELIZABETH S. DAVIS ET VIR.	160.00	548	GEORGE LYON ET UX.
67	LOUIS & ALMA J. HARLOW	5.00	550C	MONROE TWP. OF JEFF. CO.
68	WALTER & EVELYN IRWIN	[illegible]	568	ANNA DENNY GUARDIAN
69	HOWARD S. MOFFETT	[illegible]	[illegible]	ROBT. O. KENNEDY ETAL
70	CHESTER C. WEATHERFORD ET UX	[illegible]	[illegible]	[illegible] TWP. JEFF. CO., IND
72	BERNARD CASSIDY ET UX.	[illegible]	[illegible]	[illegible] VESTAL
73	FRANK L. FACEMIRE ET UX.	[illegible]	[illegible]	JOHN E. SAMPLE
76	MINNIE MARGISON	[illegible]	[illegible]	JOHN E. SAMPLE
77	JESSE A. MILLER	[illegible]	[illegible]	CHAS. W. DENNY ET U
78	PAUL ROSE ET UX.	[illegible]	[illegible]	CHAS. W. DENNY ET U
80	DAVID SPURGIN ET UX	[illegible]	[illegible]	[illegible] TRUST
81A	MARY E. SPURGIN ET VIR	[illegible]	[illegible]	[illegible] CO. INDIANA
81B	MARY E. SPURGIN ET VIR	[illegible]	[illegible]	[illegible] CHAMBERS
82	EDWARD STEARNS ET UX.	[illegible]	[illegible]	[illegible] KEY ET
83	EUGENE STEVENSON	[illegible]	[illegible]	[illegible]
84	[illegible]	[illegible]	[illegible]	[illegible]
85	[illegible]	[illegible]	[illegible]	[illegible]
86	[illegible]	[illegible]	[illegible]	[illegible]
87	[illegible]	[illegible]	[illegible]	[illegible]
88	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

12

	ACREAGE FEE
EQ	0.50
	2.00
AL	24.01

165	CORNELIUS PEAK ET UX.	70.00
167	MAE E. UNDERWOOD ET VIR.	40.50
171	M. R. & A. R. WILLIAMS	60.00
173	GEORGE W. MILES ETAL.	60.87
174-C	BAYLESS CEM. TRUSTEES	3.75
180	THEO. COTTON ET UX.	200.00
183	MINNIE V. HAMMEL	20.00
190	J. CLAUDE HOSE ET UX.	40.00
218	HARRIET DENNY ET VIR.	0.34
21[illegible]	WILBUR S. BENEFIEL ET UX	20.75
220	CHARLES L. & GOLDIE C. GEISLER	39.50
2[illegible]	CHARLES E. VESTAL ET UX.	194.00
23[illegible]	ERNIE J. BOWMAN	40.00
240	FLORENCE SCHWARTZ ET VIR.	80.00
241	FLORENCE SCHWARTZ ET VIR.	35.00
243	CORNETT F. WOOD ET UX.	25.00
244	JOHN WATERS	80.00
2[illegible]	[illegible] E. GABBARD	160.00
2[illegible]	[illegible] M. RITCHEY ETAL.	80.00
2[illegible]	CHAS. C. & LILLIAN DENNY	20.00
2[illegible]	[illegible] ELDOWHITMER ETAL.	40.00
3[illegible]	[illegible] SOPHIA HOUSEFIELD	30.00
3[illegible]	[illegible] LODGE #458 I.O.O.F.	0.75
340	[illegible] & VIOLA PAUGH	144.00
378	CHARLES & ELIZABETH P. JONES	138.75
400	SARAH E. PAUGH	80.00
408	SARAH E. PAUGH ET AL.	80.00
411	OSCAR SMITH ET AL.	40.00
414	[illegible] KATHRYN BAYLESS	37.00
449	WM. A. & MARG. E. DAUGHERTY	40.00
491	MONROE PRESBYTERIAN CH.	4.15
511	[illegible] WAHLMAN ETAL.	106.00
512	DANIEL & FLORA CHAMBERS	35.00
5[illegible]	RIVERS INT. CEN. TEL. CO.	0.51
542	GEORGE LYON ET UX.	13.50
5[illegible]	MONROE TWP. OF JEFF. CO.	0.13
5[illegible]	ANNE DENNY GUARDIAN	120.00
5[illegible]	ROBT. O. KENNEDY ETAL.	66.75
[illegible]	[illegible] TWP. JEFF. CO. 2ND.	0.50
[illegible]	PRYOR & ZERNA VESTAL	7.00
61[illegible]	JOHN SAMPLE	122.00
61[illegible]	JOHN SAMPLE	100.00
61[illegible]	CHAS. W. DENNY ET UX.	181.33
61[illegible]	CHAS. W. DENNY ET UX	80.66
[illegible]	[illegible] TRUSTEES	4.00
[illegible]	[illegible] CO. MONROE	40.00
[illegible]	[illegible] CHAMBERS	160.00
[illegible]	[illegible] ETAL. ET UX.	80.00
[illegible]	[illegible]	35.00
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

TRACT BOUNDARY

RAILROAD

SECTION CORNER

TOWNSHIP LINE

ROAD

DATE	REVISIONS
29 APR 66	REV. [illegible]
25 AUG 66	REV. [illegible]
12 MAR 87	ADDED TR. 693
15 JUN 87	REVISED TRACT 693

SCALE IN FEET

0 1320' 2640'

0 1/4 1/2

WAR DEPARTMENT, O.
CONSTRUCTION DIVIS

REAL ESTAT
JEFFERSON PROVIN

MILITARY RESERV

RECOMMENDED: Joseph M. Doyle

APPROVED: C. C. [illegible]
LT. COL. CORPS OF ENGINEERS

COMPILED: A.D.W. TRACED: A.D.W. C

DATE	BY	REVISIONS
7-15-44	ADW	Compiled from [illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

DRAWING

ET UX.	[illegible]
D ET VIR.	40.50
MS	60.00
S ETAL.	60.87
RUSTEES	3.75
T UX.	200.00
EL	20.00
ET UX.	40.00
ET VIR.	0.34
FIEL ET UX	20.75
C. GEISLER	39.50
AL ET UX.	194.00
	40.00
RTZ ET VIR.	80.00
RTZ ET VIR.	35.00
OD ET UX.	25.00
	80.00
	160.00
HEY ETAL.	80.00
AN DENNY	2.00
MER ETAL.	40.00
OUSEFIELD	30.00
158 I.C.O.F.	0.75
AUGH	144.00
H P. JONES	138.75
	80.00
ET AL.	80.00
T AL.	40.00
BAYLESS	37.00
DAUGHERTY	40.00
TERIAN CH.	4.15
TAL.	108.00
CHAMBERS	35.00
TEL. CO.	0.51
ET UX.	13.50
JEFF. CO.	0.13
AN	120.00
DY ETAL.	66.75
CO. 2ND.	0.50
VESTAL	7.00
	128.00
	100.00
ET UX.	181.33
ET UX	80.66
TRUSTEES	4.00
	40.00
ERS	160.00
EY ET UX	80.00
	38.00
	[illegible]

TRACT BOUNDARY

RAILROAD

SECTION CORNER

TOWNSHIP LINE

ROAD

DATE	REVISIONS
29 APR 66	REV. ARMY COR. [illegible]
25 AUG 66	REV. [illegible]
12 MAR 67	ADDED TR. 693
15 JUN 67	REVISED TRACT 653

SCALE IN FEET

0 1320' 2640' [illegible] [illegible]

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED: Joseph N Doyle DATE [illegible]

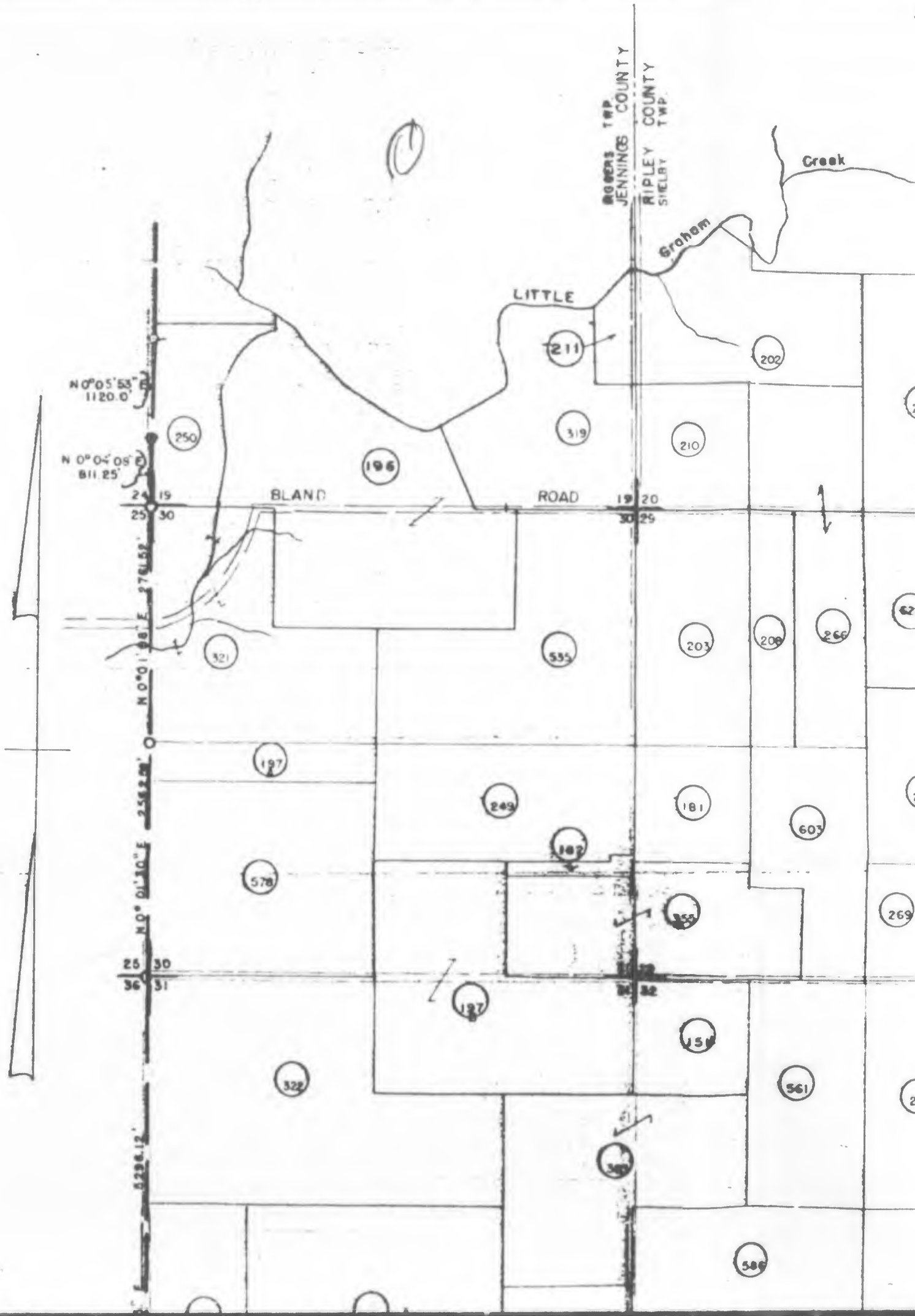
APPROVED: C C Gardner DATE [illegible]
LT. COL. CORPS OF ENGINEERS

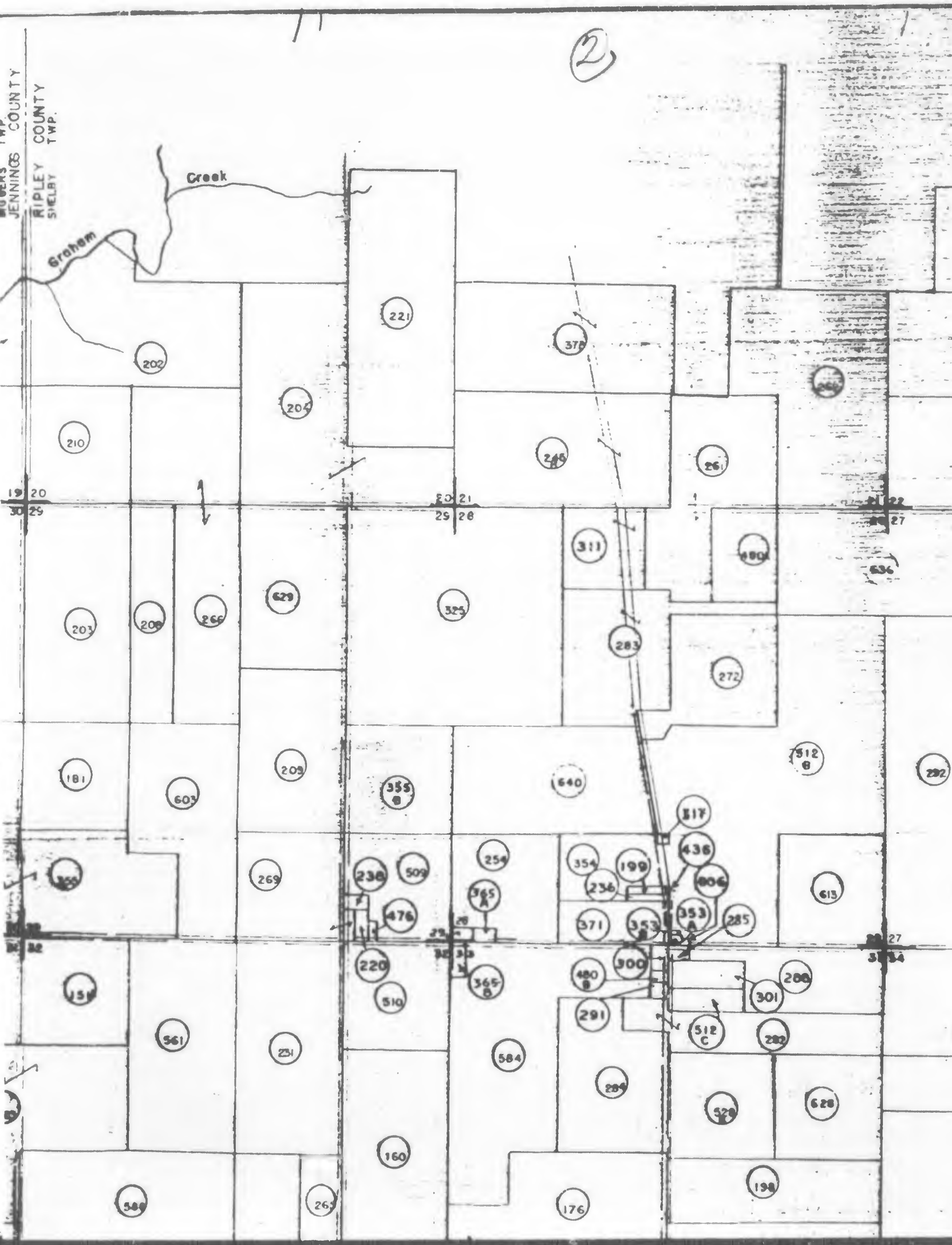
COMPILED: A.D.W. TRACED: A.D.W. CHECKED [illegible]

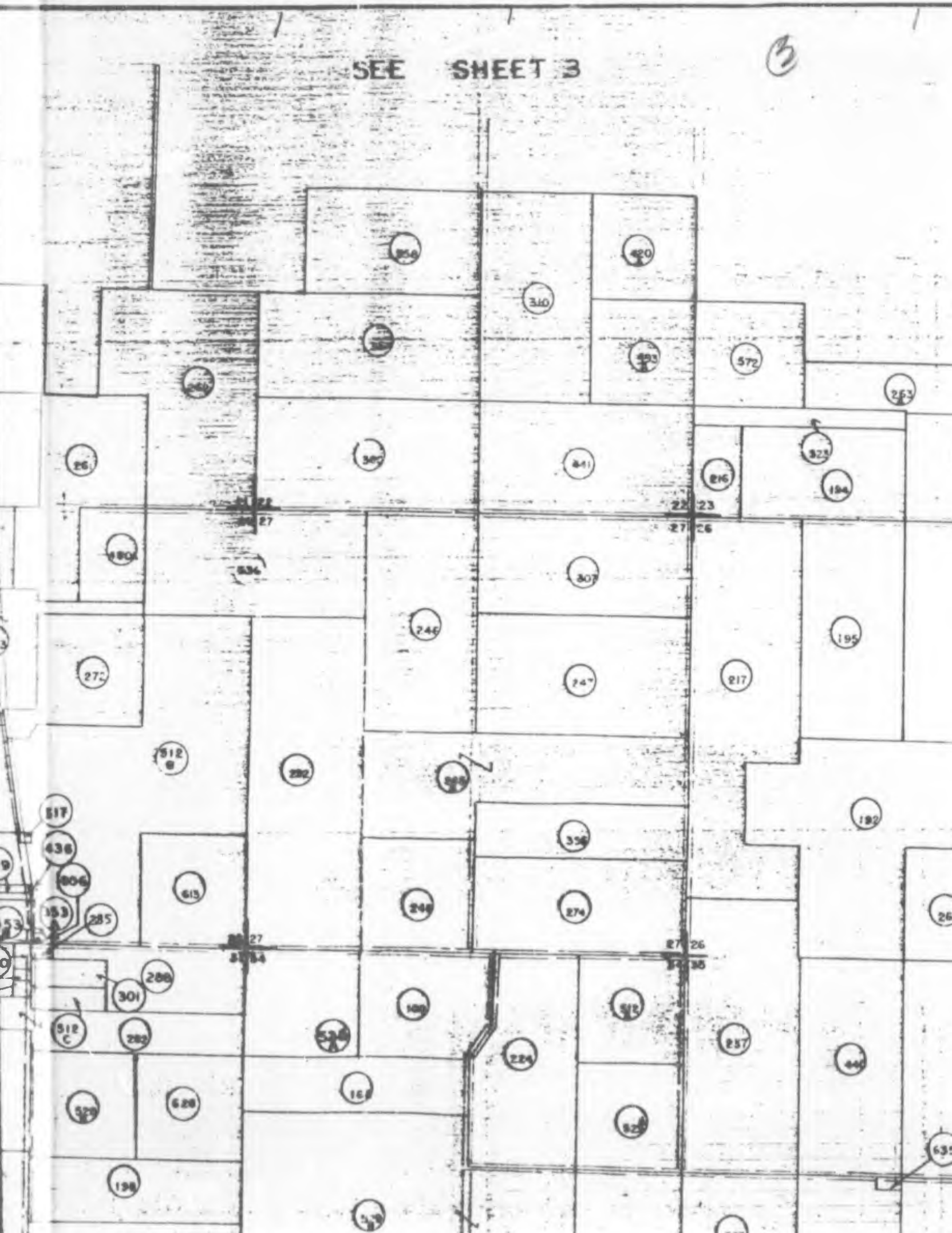
DATE	BY	REVISIONS
7-15-44	ADW	Compiled from [illegible]
		[illegible]
		[illegible]
8-1-46		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]

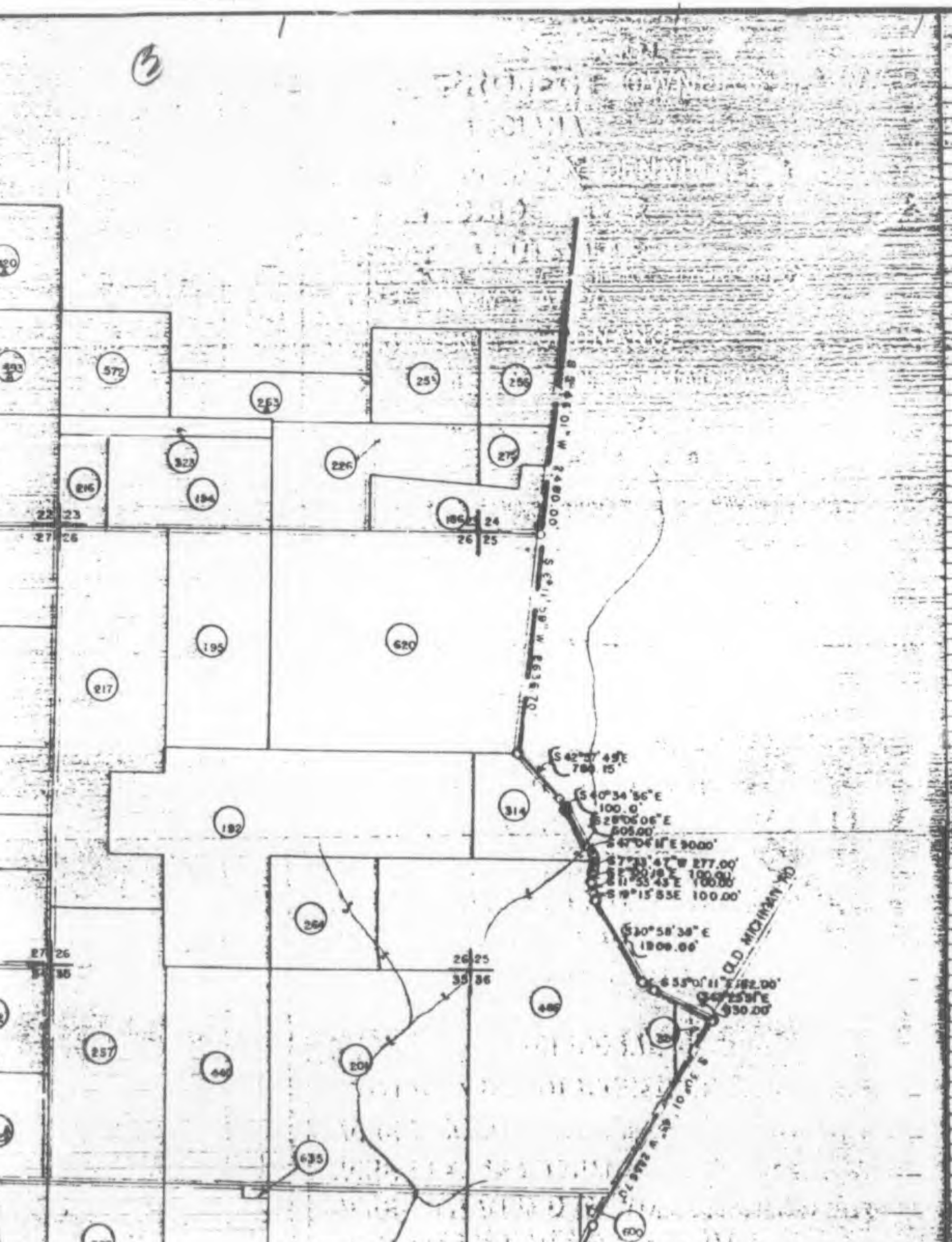
DRAWING [illegible]

(B)


ROGERS TWP
JENNINGS COUNTY
RIPLEY COUNTY
SHELBY TWP
Creek
Graham
LITTLE
BLAND
ROAD
N 0°05'53" E
1120.0'
N 0°04'05" E
811.25'
N 0°01'38" E
N 0° 01'30" E
211
202
250
319
210
196
321
535
203
209
266
197
249
181
603
182
578
269
137
151
322
561
586


2
ROGERS TWP.
JENNINGS COUNTY
RIPLEY COUNTY
SHELBY TWP.
Graham
Creek
19 20
30 29
20 21
29 28
22
27
202
204
210
221
378
246
261
311
680
536
203
208
266
629
325
283
272
181
603
209
355 B
640
512 B
292
317
436
806
613
269
238
509
254
354
199
236
365 A
476
371
353 B
353 A
285
220
510
365 B
300
480 B
288
301
291
512 C
282
561
231
584
284
528
628
160
198
549
265
176


SEE SHEET 3
3
22 23
27 26
27 26
35 36
27
34


S 42°37' 45" E
784.15'
S 40°34' 56" E
100.0'
S 28°06' 06" E
605.00'
S 47°04' 11" E 90.00'
S 19°15' 55" E 100.00'
S 20°58' 38" E
1900.00'
OLD MICHIGAN RD
S 40°25' 31" E
930.00'
572
253
255
256
323
226
216
194
186
24
26
25
22
23
27
26
195
620
217
314
192
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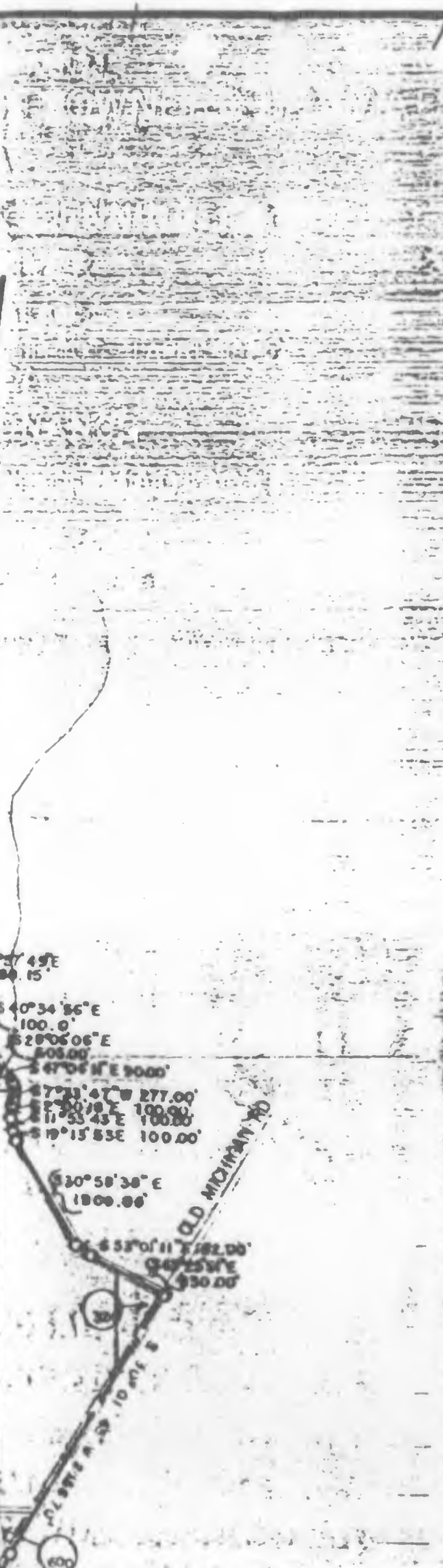
257
440
201
635
600



TRACT NO	VENDOR	ACREAGE FEE
71	MARTHA GERARD ET VIR.	35.00
74	HATTIE B. SILAS A. FERGUSON	26.00
[illegible]	[illegible] ETUX.	3.00
[illegible]	[illegible] WILLIAM [illegible]	60.00
[illegible]	EDWARD [illegible] PRENATT	219.25
[illegible]	GEORGE [illegible] MARTIN ET UX.	40.00
[illegible]	ROSCOE [illegible] ETAL.	219.00
101	FRANCES [illegible]	80.00
[illegible]	ELIZABETH [illegible]	90.00
[illegible]	[illegible]	30.00
104A	MADISON W. LINDSEY ETUX.	40.00
104B	MADISON W. LINDSEY ETUX.	40.00
[illegible]	CHARLES [illegible] BEAR ETUX.	40.00
[illegible]	[illegible] ETUX.	40.00
107	FRANCES [illegible] HAZEL JOYCE	40.00
[illegible]	J. [illegible] [illegible] F. PEARMAN	40.00
[illegible]	J. [illegible] [illegible] F. PEARMAN	79.65
[illegible]	J. F. HEATH ET UX.	80.00
111	J. F. HEATH ET UX.	22.50
112A	EARL [illegible] NELLIE DILK	40.00
112B	EARL [illegible] NELLIE DILK	28.46
113	ARTHUR [illegible] HOUSEFIELD ET UX.	77.50
114	ALONZO [illegible] BERTHA W. McINTIRE	80.00
115	ARTHY MAY McCLURE ET VIR.	80.00
116	MARSTON V. SHEPPARD GUARDIAN	24.00
118	THOMAS [illegible] ALLIE BURTON	40.00
119	SHIRLEY [illegible] AGNES HARSIN	162.00
120	BENJAMIN CONWAY ET UX.	12.50
121A	JOHN E. YAGER ET UX.	40.00
121B	JOHN E. YAGER ET UX.	40.00
122	ROY [illegible] SALLY SMITH	167.50
123	JAMES M. BEAR	80.00
141A	EARL BRINSON ET UX.	40.07
141B	EARL BRINSON ET UX.	53.33
143	NORA BROWN	65.00
144	[illegible] T. & FLORENCE BRUNER	69.75
145	WILLIAM E. CAMPBELL ET UX.	80.00
146	GEORGE R. CHAMBERS	40.00
147	MADISON SAFE DEPOSIT & TRUST CO GUARDIAN	2.00
149	KENNETH W. CONNER ET UX.	160.00
150	GRAHAM COPELAND	38.50
151A	CLARENCE H. & SINA E. DILK	40.00
151B	CLARENCE H. & SINA E. DILK	40.00
152	CLEMENS [illegible] DILK ET UX.	40.00
155	HENRY DILK	76.91
[illegible]	PEARL [illegible] GRAY	78.00
[illegible]	GEORGE [illegible]	45.[illegible]
[illegible]	LINCOLN [illegible] BINTON ESTATE	60.00
[illegible]	[illegible] ROBERT ET VIR.	80.00
[illegible]	ANNA [illegible] ET VIR.	40.00
[illegible]	WILLIAM [illegible] ET UX.	80.00
163A	CHARLES [illegible] ET AL.	80.00
163B	CHARLES [illegible] ET AL.	122.81
164	HARVEY F. PAUGH ET UX.	75.00
[illegible]	GEO. T. & MARY SMART	69.37
[illegible]	LINA M. VALLILEE	40.00
[illegible]	NEIL WESTAL	65.91
170	WILLIAM [illegible] ET UX.	163.38
172A	DORMAN [illegible] ETAL.	84.00
172B	DORMAN [illegible] ETAL.	40.00
[illegible]	[illegible] HARRELL ET UX.	52.00
[illegible]	[illegible] & MICHAEL BUSCH	70.00
177	ALFRED [illegible] ETUX	40.00
178	LINA [illegible] ET VIR.	120.00
179	CLAUDE [illegible] & SARAH M. STETHEN	45.00
181	GUY O. & CLYDA M. MITCHAM	40.00
182	GUY O. & CLYDA M. MITCHAM	5.50
184	EMMA [illegible] ET VIR.	77.50
185	ALMON [illegible] BROWN ETAL	40.00
186	HOWARD & MARIE ANDRESS	31.00
187	LEVI [illegible] JR.	93.50
188	ELIZA STARKE	40.00
189	WILLIAM [illegible]	45.00
191	LOUISE ADAM	75.00
192	SULVER & ETHELN [illegible]	[illegible]

STATE
COUNTY
DIVISION
DISTRICT
FIRST *
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* TO LO
TRA
PENNSY
ROUTES
ROUTE
EAL &

TOTAL
ACRES F
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TOTAL
ACRES S
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ACRES T

VENDOR 4	ACREAGE FEE
EARD ET VIR.	35.00
ALAS A. FERGUSON	26.00
ES ET UX.	3.00
WILLIAMBY	60.00
RENATT	21.825
RTIN ET UX.	40.00
ON ET AL.	219.00
RTER	80.00
RUNIER	80.00
ER	30.00
LINDSEY ET UX.	40.00
NDSEY ET UX.	40.00
BEAR ET UX.	40.00
ET UX.	40.00
MAZEL JOYCE	40.00
F. PEARMAN	40.00
F. PEARMAN	79.65
ET UX.	80.00
ET UX.	22.50
ELLIE DILK	40.00
ELLIE DILK	28.46
DUSEFIELD ET UX.	77.50
BERTHA W. MCINTIRE	80.00
MCCLURE ET VIR.	80.00
SHEPHERD GUARDIAN	24.00
ALLIE BURTON	40.00
AGNES HARSIN	162.00
CONWAY ET UX.	12.50
YAGER ET UX.	40.00
YAGER ET UX.	40.00
ALLY SMITH	107.50
BEAR	80.00
NSON ET UX.	40.07
SON ET UX.	53.33
WN	65.00
ORENCE BRUNER	69.75
CAMPBELL ET UX	80.00
R CHAMBERS	40.00
FE DEPOSIT & TRUST CO GUARDIAN	2.00
W CONNER ET UX	160.00
COPELAND	38.50
H. & SINA E. DILK	40.00
SINA E. DILK	40.00
DILK ET UX.	40.00
LK	76.91
GRAY	78.00
MARSH	45.[illegible]
BINTON ESTATE	60.00
ET VIR.	80.00
ET VIR.	40.00
ET UX.	80.00
MONTER ET AL.	80.00
MONTER ET AL.	122.81
PAUGH ET UX.	75.00
MART SMART	69.37
VALLEE	40.00
AL	65.91
WAHLMAN ET UX.	163.38
VAGER ET AL.	84.00
AGER ET AL.	40.00
MAXWELL ET UX.	52.00
MICHAEL BUSCH	70.00
ET UX	40.00
ET VIR.	120.00
& SARAH M. STETHEN	45.00
CYDA M. MITCHAM	40.00
YDA M. MITCHAM	5.50
FLINT ET VIR.	77.50
BROWN ET AL	40.00
MARIE ANDRESS	31.00
JR.	83.50
ANCE	40.00
AES	45.00
	75.00
ETHEL V. SWINNEY	175.00
& ETHEL WAYNE	[illegible]

(5) FINAL

PROJECT OWNERSHIP MAP

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS, & RIPLEY

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

* TO OMAHA DISTRICT 1 APRIL 1970

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADISON

MILES OF

* TO LOUISVILLE DIST. 31 MAR. 81

TRANSPORTATION FACILITIES

PENNSYLVANIA RAILROAD

ROUTES 7 STATE ROAD

ROUTE 50 & 421 FEDERAL ROAD

EAL & AA TO LOUISVILLE, KY. AIRLINE

ACQUISITION

TOTAL AREA ACQUIRED THIS SHEET 15,144.57

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTERESTS

SEE SHEET FOR TOTALS

DISPOSALS

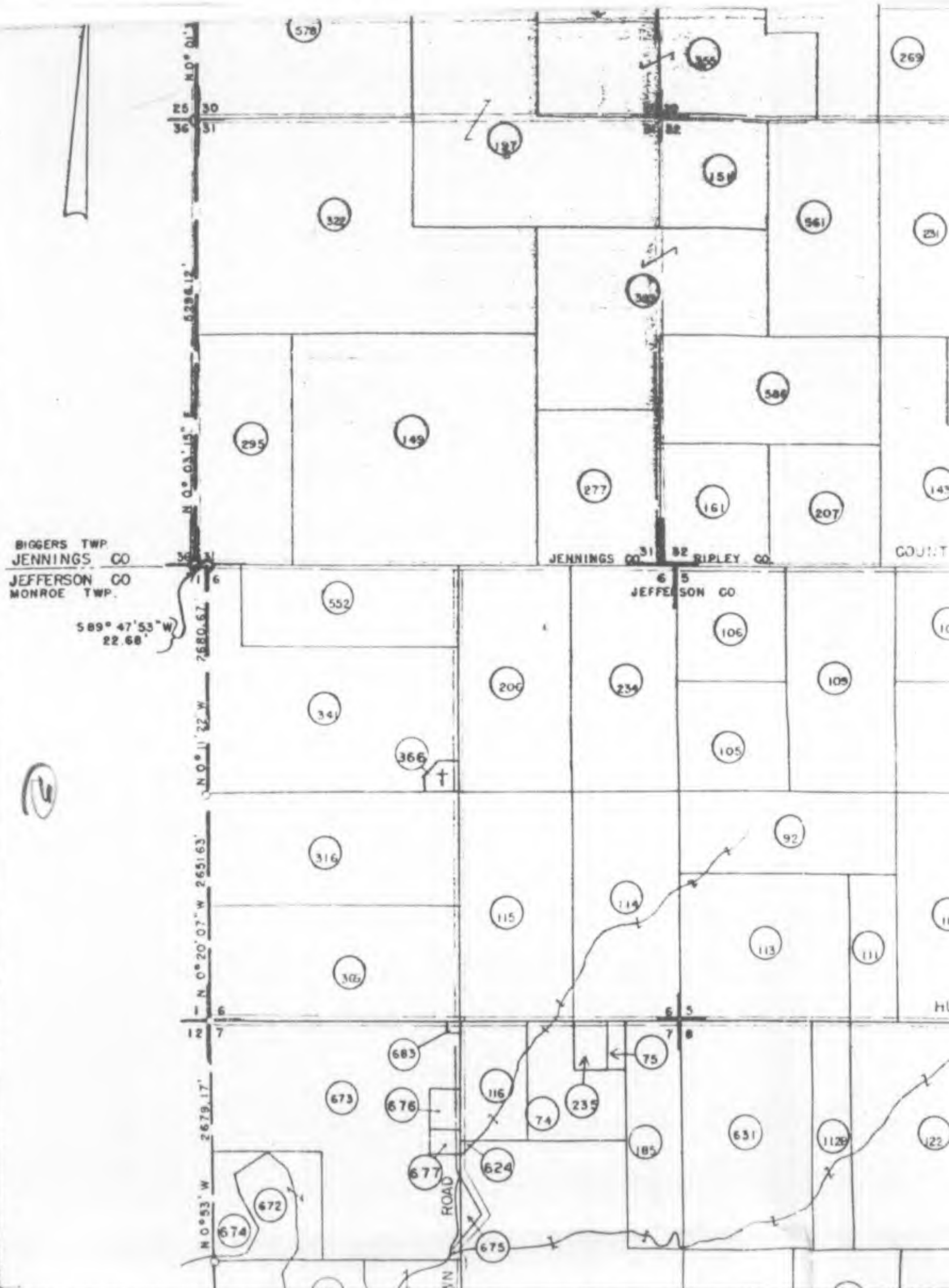
TOTAL AREA DISPOSED OF

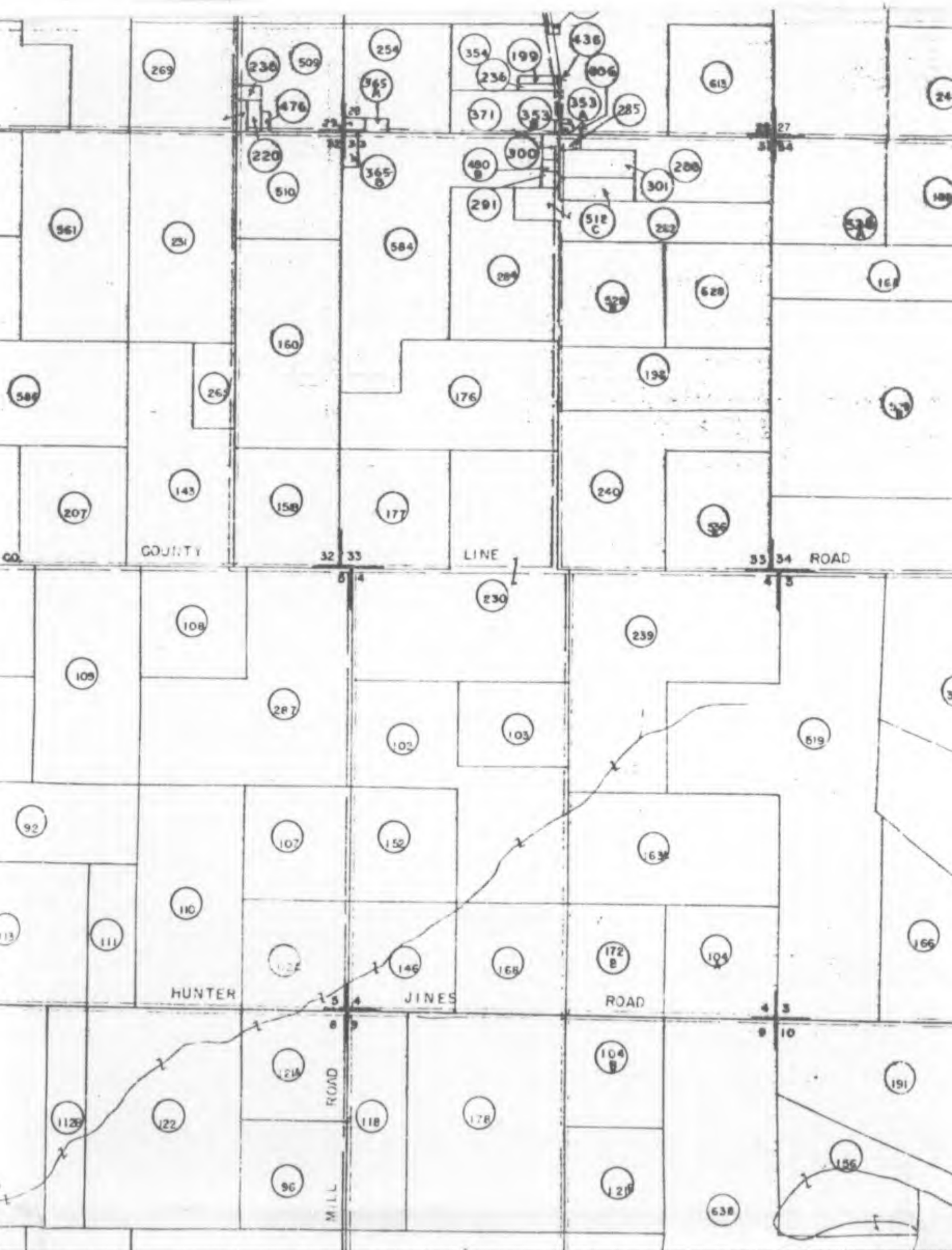
ACRES SOLD

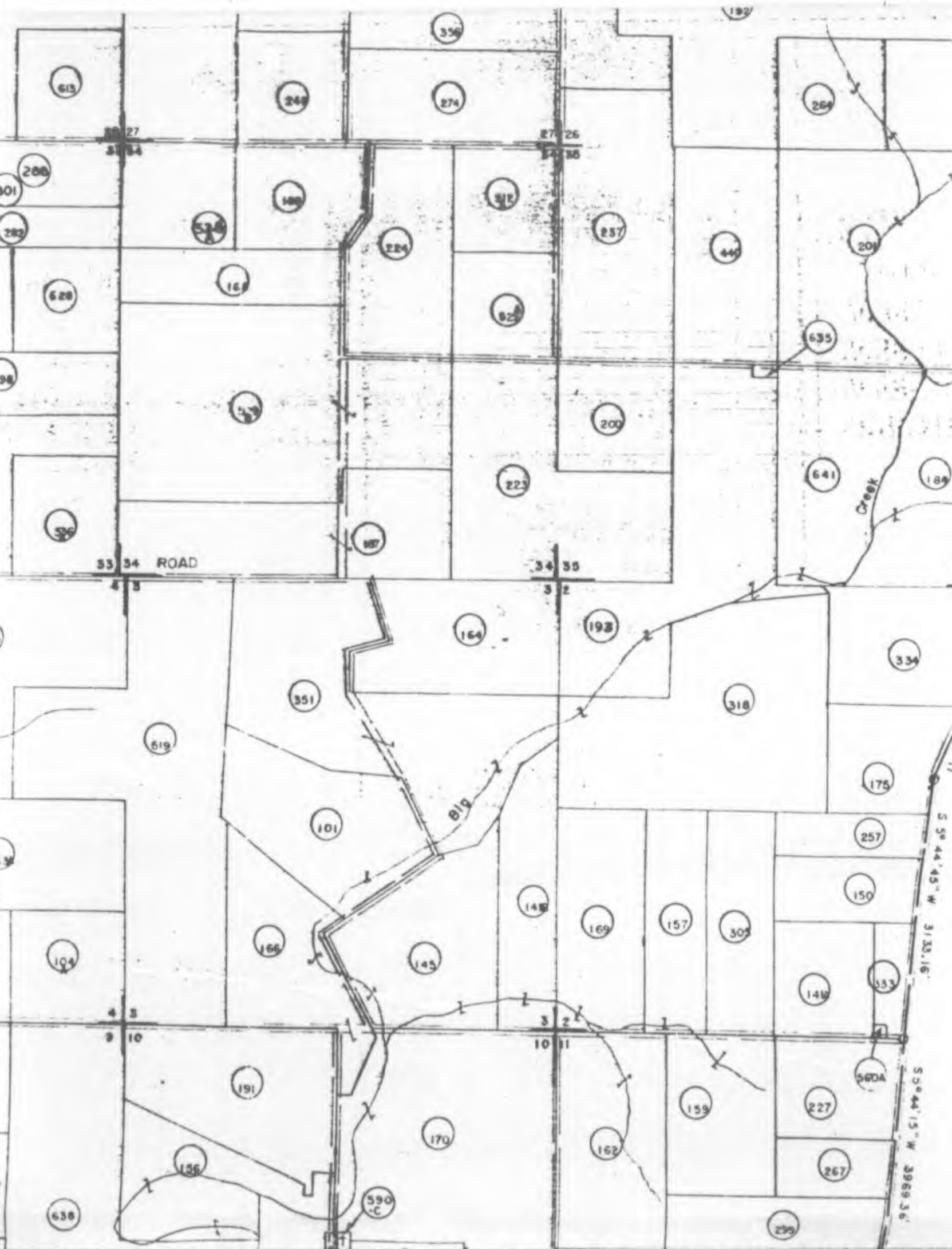
ACRES LEASES TERM

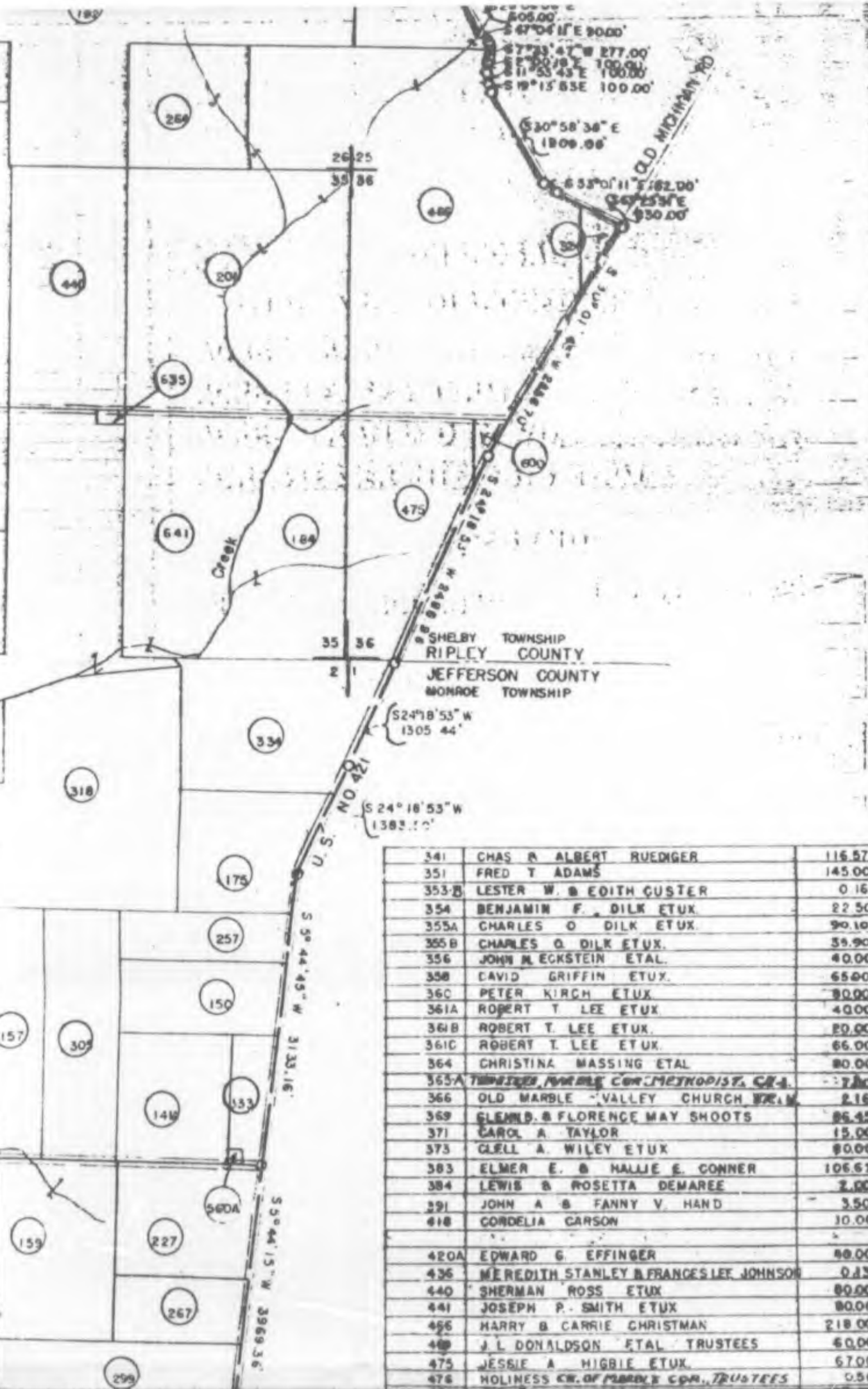
ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM


BIGGERS TWP
JENNINGS CO
JEFFERSON CO
MONROE TWP.
S 89° 47' 53" W
22.68'
JENNINGS CO
RIPLEY CO
JEFFERSON CO
ROAD
N 0° 03' 15" E
5298.12'
N 0° 11' 22" W
2680.67'
N 0° 20' 07" W
2651.63'
N 0° 53' W
2679.17'


COUNTY
LINE
ROAD
HUNTER
JINES
ROAD
MILL
ROAD


ROAD
Big
Creek
S 5° 44'45" W 3133.16'
S 5° 44'15" W 3969.36'
33 34
34 35
27 26
4 3
3 2
9 10
10 11



341	CHAS & ALBERT RUEDIGER	116.57
351	FRED T ADAMS	145.00
353-B	LESTER W. & EDITH CUSTER	0.16
354	BENJAMIN F. & DILK ETUX.	22.50
355A	CHARLES O DILK ETUX.	90.10
355B	CHARLES O. DILK ETUX.	39.90
356	JOHN M ECKSTEIN ETAL.	40.00
358	DAVID GRIFFIN ETUX.	65.00
360	PETER KIRCH ETUX.	80.00
361A	ROBERT T LEE ETUX.	40.00
361B	ROBERT T. LEE ETUX.	20.00
361C	ROBERT T. LEE ETUX.	66.00
364	CHRISTINA MASSING ETAL	80.00
365A	TRUSTEES, MARBLE CHR. METHODIST, CH.	7.80
366	OLD MARBLE VALLEY CHURCH TRS.	2.16
369	CLEMMIE & FLORENCE MAY SHOOTS	86.45
371	CAROL A TAYLOR	15.00
373	CLELL A. WILEY ETUX	80.00
383	ELMER E. & HALLIE E. CONNER	106.67
384	LEWIS & ROSETTA DEMAREE	2.00
391	JOHN A & FANNY V. HAND	3.50
418	CORDELIA CARSON	10.00
420A	EDWARD G. EFFINGER	80.00
436	MEREDITH STANLEY & FRANCES LEE JOHNSON	0.83
440	SHERMAN ROSS ETUX	80.00
441	JOSEPH P. SMITH ETUX	80.00
456	HARRY B CARRIE CHRISTMAN	218.00
469	J. L DONALDSON ETAL TRUSTEES	60.00
475	JESSIE A HIGBIE ETUX.	67.00
476	HOLINESS CH. OF MARBLE CHR. TRUSTEES	0.50

180	ANNA M
181	ANNA B
182	THOMAS
183A	CHARLES
183B	CHARLES
184	HARVEY
186	GEO. T &
188	LINA M.
189	MERL WES
190	WILLIAM
172A	DORMAN
172B	DORMAN
175	TURNER
176	LAURA
177	ALFRED
178	LINA
179	CLAUDE
181	GUY O. &
182	GUY O &
184	EMMA F.
185	ALMON
186	HOWARD
187	LEVI CUS
188	ELIZA
189	WILLIAM
191	LOUISE
192	CULVER &
193	STEPHEN
194	HELEN
195	MICHAEL
196	MARTIN
197A	FRANCIS L.
197B	FRANCIS L.
198	CHAS. E.
199	TILLIE
200	RUFUS G.
201	THOMAS
202	SIMEON
203	THOMAS
204	JAMES B
206	CLYDE &
207	CLYDE &
208	FLOYD
209	JOHN C.
210	JAMES
211	SIMEON
216	MATHEW
217	WILLIAM
220	ABRAHAM
221	LOUIS J.
223	LAURA
224	JOSEPH
226	JOSEPH
227	WILL J.
230	MARY
231	WILLIAM
232	WILLIAM
234	JAMES W.
235	JAMES
236	LANDERS
237	FRANK J
238	M. C.
239	ELIZABETH
240	JOHN R.
242	JOS &
245A	FRED YAG
245B	FRED YAG
246	LUCIAN
247	REGINA
248	MARTIN
249	INEZ M.
250	FRANCIS
253	FRED
254	HARRY B
255	FRED
257	REBECCA
263	FREDERIC
264	JOHN G
265	GEORGE
266	ERNEST

	[illegible]	[illegible]	[illegible]
	160	ANNA B. ROBERT ET VIR.	80.00
	161	ANNA B. ROBERT ET VIR.	40.00
	162	THOMAS DR. BUTLER ET UX.	80.00
	163A	CHARLES L. BUNIER ET AL	80.00
	163B	CHARLES L. BUNIER ET AL.	122.81
	164	HARVEY F. PAUGH ET UX.	75.00
	165	GEO. T. & MARY SMART	69.37
	166	LINA M. VALLILEE	40.00
	168	NEIL WESTAL	65.91
	170	WILLIAM WAHLMAN ET UX.	163.36
	172A	DORMAN YAGER ET AL.	84.00
	172B	DORMAN YAGER ET AL.	40.00
	175	[illegible] MADDELL ET UX.	52.00
	176	LAURA [illegible] & MICHAEL BUSCH	70.00
	177	ALFRED [illegible] ETUX	40.00
	178	LINA ADAMS ET VIR.	120.00
	179	CLAUDE N. & SARAH M. STETHEN	45.00
	181	GUY O. & CLYDA M. MITCHAM	40.00
	182	GUY O. & CLYDA M. MITCHAM	5.50
	184	EMMA F. FLINT ET VIR.	77.50
	185	ALMON T. BROWN ET AL	40.00
	186	HOWARD & MARIE ANDRESS	31.00
	187	LEVI CUSTER JR.	93.50
	188	ELIZA STARKE	40.00
	189	WILLIAM KAES	45.00
	190	LOUISE ADAM	75.00
	192	CULVER & ETHEL V. SWINNEY	175.00
	193	STEPHEN W. & ETHEL BAYNE	126.19
	194	HELEN KIEFER ET VIR.	51.30
	195	MICHAEL F. KIEFER ET UX.	80.00
	196	MARTIN C. BLAND	151.00
	197A	FRANCIS L. & WM. J. BLAND	30.00
	197B	FRANCIS L. & WM. J. BLAND	120.00
	198	CHAS. E. & FLORENCE M. BEDWELL	50.00
	199	TILLIE MANNING RANDALL ET VIR	0.87
	200	RUFUS G. JACKSON	40.00
	201	THOMAS B. OPAL HAMILTON	160.00
	202	SIMEON SHELDON ET UX.	90.00
	203	THOMAS B. GORE ET UX.	80.00
	204	JAMES B. ANNA MAE FORTNER	100.00
	206	CLYDE & GENEVA JOHNSTON	80.00
	207	CLYDE & GENEVA JOHNSTON	40.00
	208	FLOYD MACK ET UX.	35.00
	209	JOHN C. ROBERTS ET UX.	55.00
	210	JAMES McKENZIE ET UX.	40.00
	211	SIMEON SHELDON ET UX.	10.00
	216	MATHEW STARKE ET UX.	15.00
	217	WILLIAM BAURLEY ET UX.	124.50
	220	ABRAHAM C. VAN ANTWERP ET UX.	1.50
116.57	221	LOUIS J. & CATHERINE HILL	100.00
145.00	223	LAURA HENDERSON	124.00
0.16	224	JOSEPH H. & MARY STARKE	75.00
22.50	226	JOSEPH F. ADAM ET UX.	63.56
90.10	227	WILL J. & EMMA W. GELVIN	47.00
55.90	230	MARY ADAM	120.00
40.00	231	WILLIAM J. & FRANCIS L. BLAND	80.00
65.00	232	WILLIAM C. BRINSON ET UX.	54.50
80.00	234	JAMES W. & BESSIE HEARNE	80.00
40.00	235	JAMES A. & MILDRED F. JINES	7.00
20.00	236	LANDERS JOHNSON ET UX	1.00
66.00	237	FRANK J. LINDAUER	100.00
80.00	238	M. C. MANNING	1.13
2.80	239	ELIZABETH C. BUSCH	120.00
2.16	240	JOHN R. REED ET UX.	70.00
85.45	242	JOS. & HELEN E. STEVENSON	2.00
15.00	245A	FRED YAGER & MATILDA I. YAGER	93.33
80.00	245B	FRED YAGER & MATILDA I. YAGER	80.00
106.67	246	LUCIAN A. KIDWELL ET UX.	80.00
2.00	247	REGINA ECKSTEIN ET AL.	80.00
3.50	248	MARTIN OSHIER ET UX.	40.00
10.00	249	INEZ M. LINGO	79.50
	250	FRANCIS H. HALL ET UX	53.00
40.00	253	FRED FLINT ET UX.	40.00
0.23	254	HARRY & HAZEL DANNECKER	38.00
80.00	256	FRED FLINT ET UX.	25.00
80.00	257	REBECCA JANE COPELAND	20.00
218.00	263A	FREDERICK KOCHER ET UX	40.00
40.00	264	JOHN G. MEISBERGER ET UX.	41.56
67.00	265	GEORGE WILLOUGHBY	15.00
0.50	266	ERNEST R. & NELLIE MAY JESSIE	85.00

TOTAL AREA ACQUIRED

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTERESTS

DISPOSALS

TOTAL AREA DISPOSED OF

ACRES SOLD

ACRES LEASES TERM

ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM

LEGEND

PROJECT BOUNDARY

TRACT BOUNDARY

SECTION CORNER

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS
2-19-65	REV. ARMY COM. (GO NO. 4 DATED 2-19

SCALE

0 1320' 2640'

0 1/4 1/2

WAR DEPARTMENT, O

CONSTRUCTION DIVIS

[illegible]	[illegible]
[illegible] ETVIR.	80.00
[illegible] ETVIR.	40.00
[illegible] ETUX.	80.00
[illegible] ETAL	80.00
[illegible] ETAL.	122.81
[illegible] PAUGH ET UX.	75.00
[illegible] SMART	69.37
[illegible] LEE	40.00
[illegible]	65.91
[illegible] ETUX.	163.38
[illegible] ETAL.	84.00
[illegible] ETAL.	40.00
[illegible] ETUX.	52.00
[illegible] MICHAEL BUSCH	70.00
[illegible] ETUX	40.00
[illegible] ETVIR.	120.00
[illegible] SARAH M. STETHEN	45.00
[illegible] CLYDA M. MITCHAM	40.00
[illegible] M. MITCHAM	5.50
[illegible] FLINT ETVIR.	77.50
[illegible] BROWN ETAL	40.00
[illegible] MARIE ANDRESS	31.00
[illegible] JR.	91.50
[illegible] ARKE	40.00
[illegible] KAES	45.00
[illegible]	75.00
[illegible] ETHEL V. SWINNEY	175.00
[illegible] & ETHEL BAYNE	126.19
[illegible] FER ET VIR.	51.30
[illegible] KIEFER ETUX.	80.00
[illegible] BLAND	151.00
[illegible] WM. J. BLAND	30.00
[illegible] WM. J. BLAND	120.00
[illegible] FLORENCE M. BEDWELL	50.00
[illegible] NING RANDALL ETVIR.	0.87
[illegible] JACKSON	40.00
[illegible] OPAL HAMILTON	160.00
[illegible] HELDON ETUX.	90.00
[illegible] GORE ETUX.	80.00
[illegible] ANNA MAE FORTNER	100.00
[illegible] NEVA JOHNSTON	80.00
[illegible] NEVA JOHNSTON	40.00
[illegible] K ETUX.	35.00
[illegible] ROBERTS ETUX.	55.00
[illegible] ENZIE ETUX.	40.00
[illegible] ELDON ETUX.	10.00
[illegible] TARKE ETUX.	15.00
[illegible] AURLEY ETUX.	124.50
[illegible] VAN ANTWERP ETUX.	1.50
[illegible] CATHERINE HILL	100.00
[illegible] DERSON	124.00
[illegible] & MARY STARKE	75.00
[illegible] ADAM ETUX.	63.56
[illegible] EMMA W GELVIN	47.00
[illegible]	120.00
[illegible] FRANCIS L. BLAND	80.00
[illegible] BRINSON ETUX.	54.50
[illegible] BESSIE HEARNE	80.00
[illegible] & MILDRED F. JINES	7.00
[illegible] OHNSON ETUX	1.00
[illegible] LINDAUER	100.00
[illegible] NG	1.13
[illegible] C BUSCH	120.00
[illegible] ED ETUX.	70.00
[illegible] EN E STEVENSON	2.00
[illegible] & MATILDA I. YAGER	93.33
[illegible] & MATILDA I. YAGER	80.00
[illegible] KIDWELL ETUX.	80.00
[illegible] STEIN ETAL	80.00
[illegible] HIER ETUX.	40.00
[illegible]	79.50
[illegible] HALL ETUX.	53.00
[illegible] ETUX.	40.00
[illegible] ZEL DANNECKER	38.00
[illegible] ETUX.	25.00
[illegible] ANE COPELAND	20.00
[illegible] KOCHER ETUX	40.00
[illegible] ISBERGER ETUX	41.56
[illegible] LLOUGHBY	15.00
[illegible] NELLIE MAY JESSIE	85.00

TOTAL AREA ACQUIRED 15,144.57

SEE SHEET FOR TOTALS

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTERESTS

DISPOSALS

TOTAL AREA DISPOSED OF

ACRES SOLD

ACRES LEASES TERM

ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM

LEGEND

PROJECT BOUNDARY — N 89° 50' W 5314.69'

TRACT BOUNDARY

SECTION CORNER — 6 5 / 7 8 — 3 2 / 6 5

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
2-19-65	REV. ARMY COM. (GO NO. 4 DATED 2-19-65	G.J.A

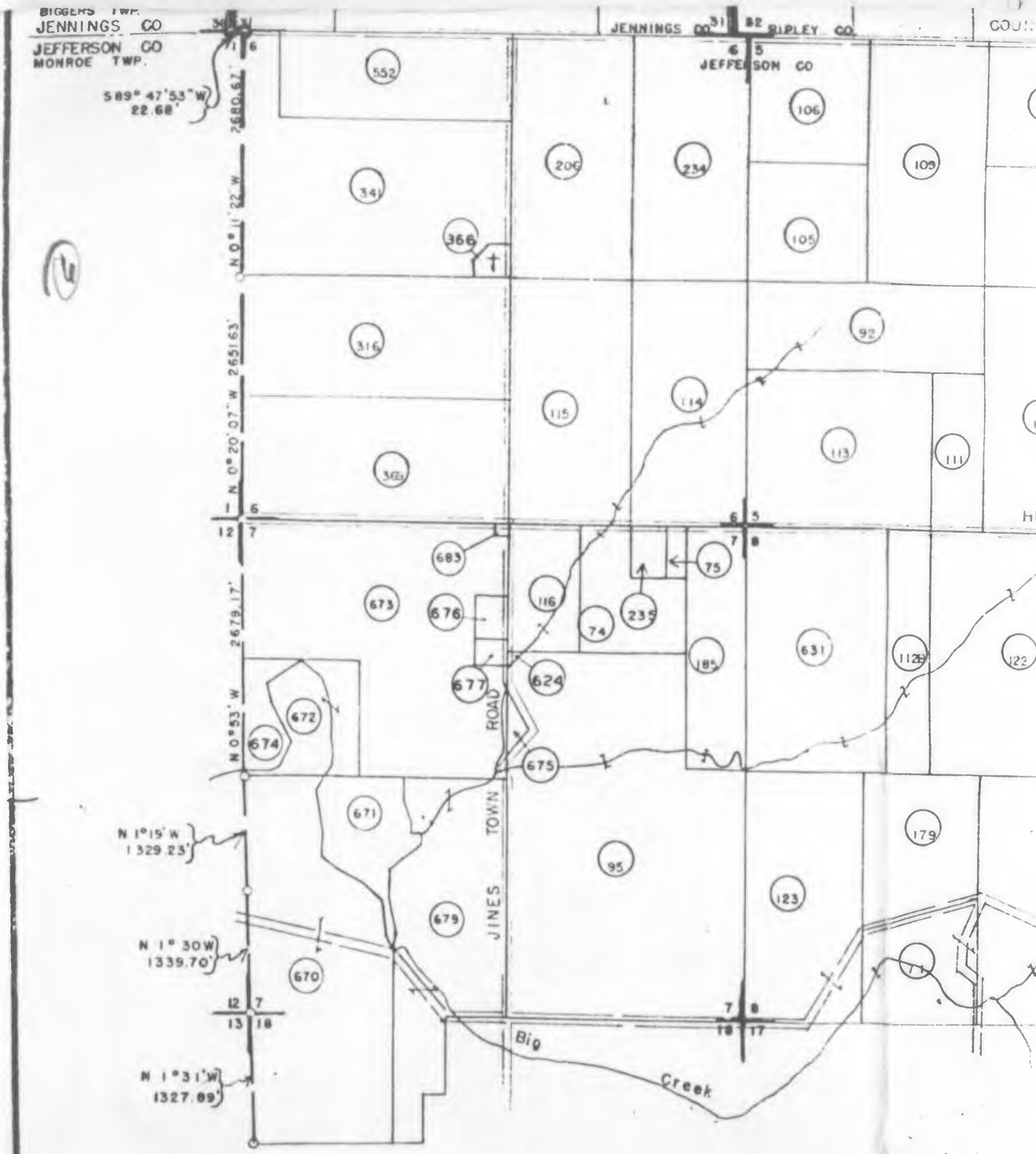
SCALE

0 — 1320' — 2640' — 3690' — 5280'

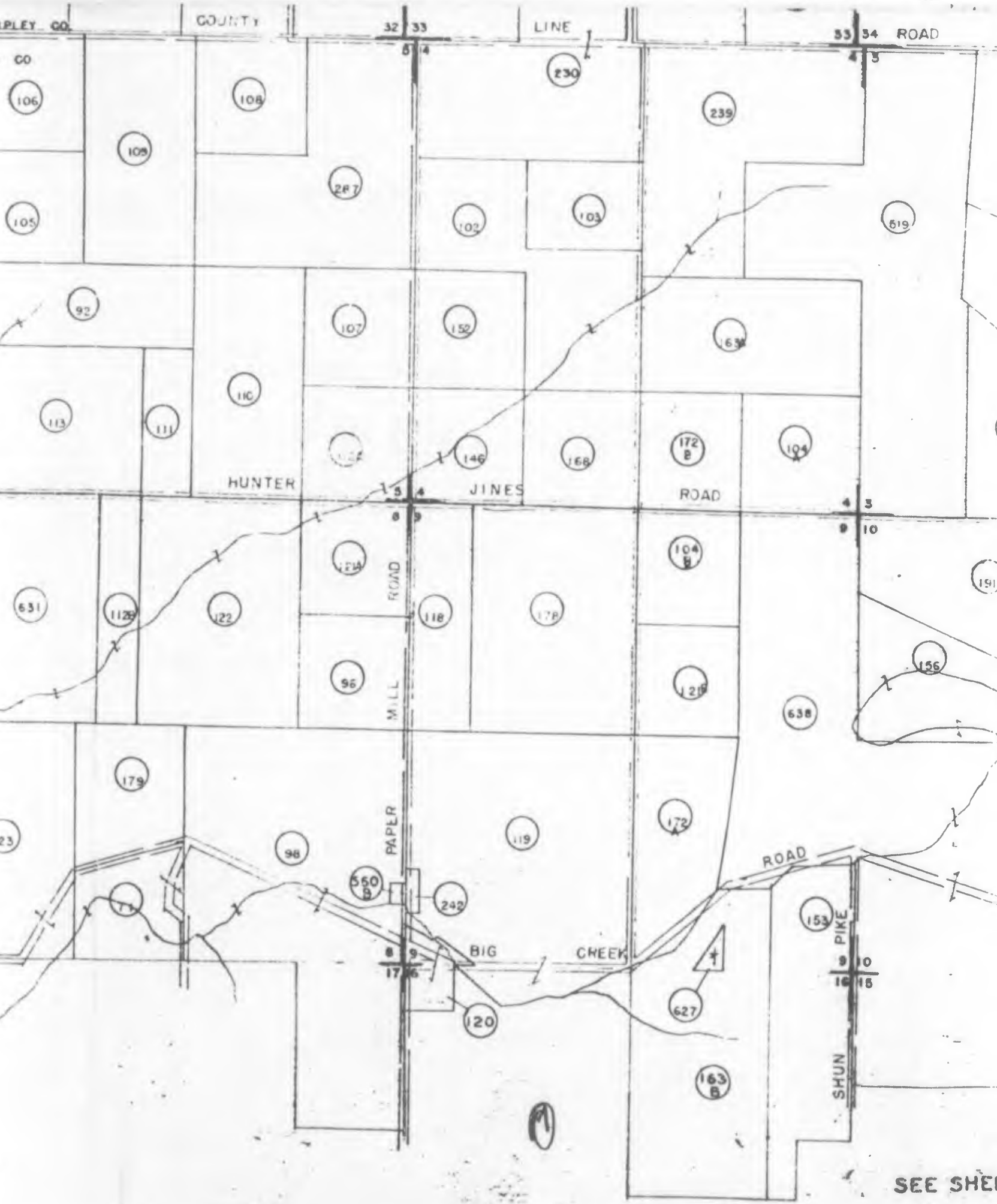
0 — 1/4 — 1/2 — 3/4 — 1 MILE

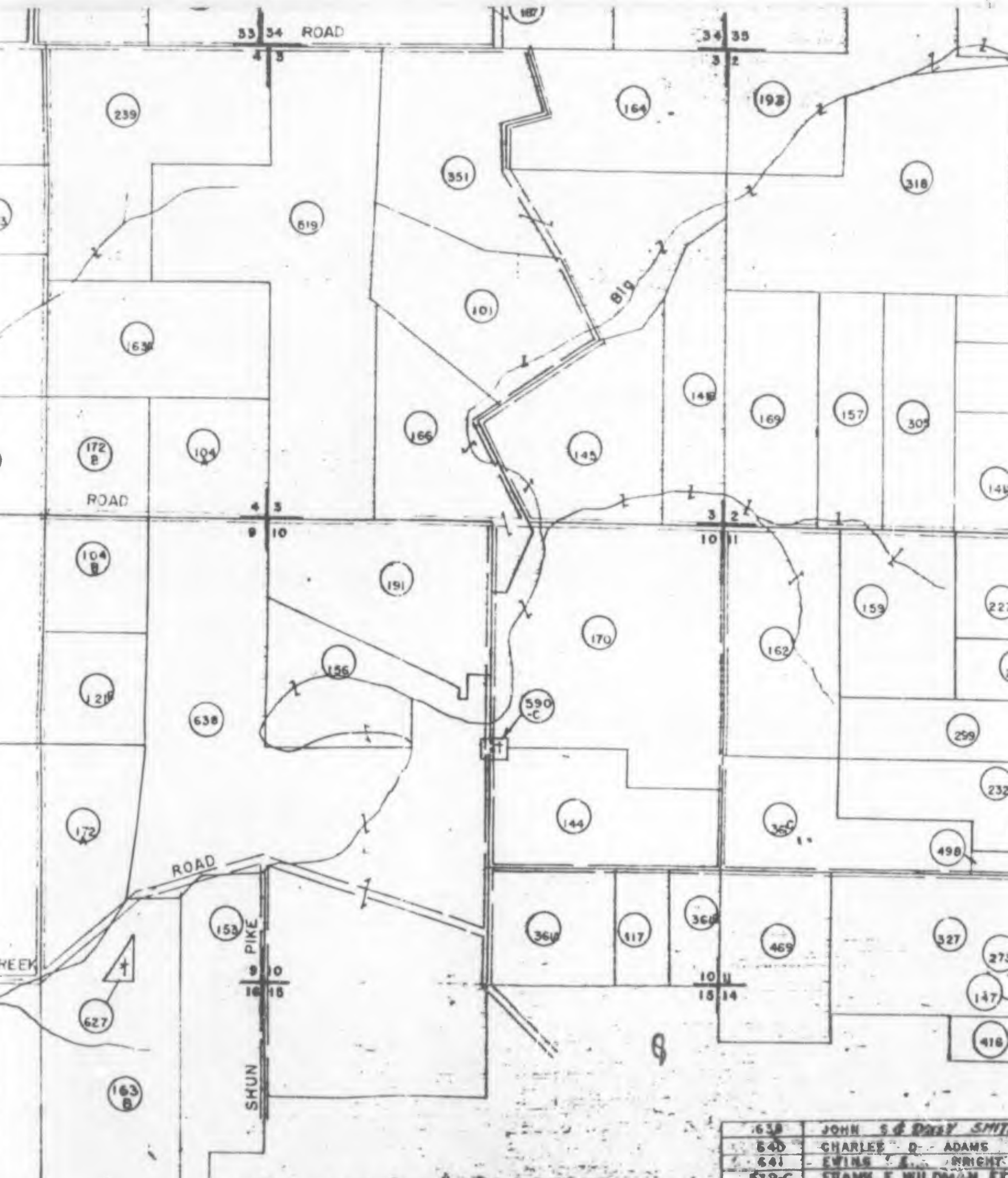
WAR DEPARTMENT, O.C.E.

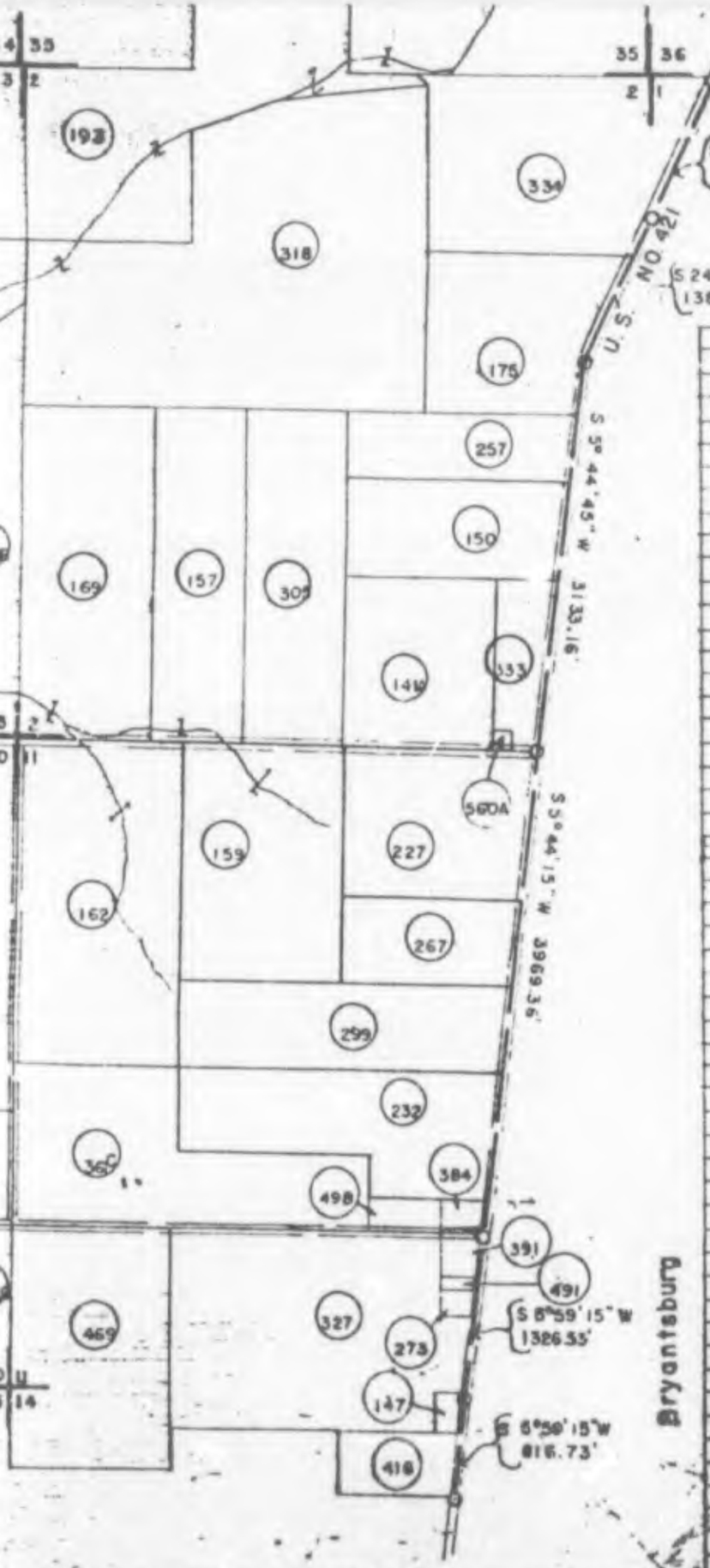
CONSTRUCTION DIVISION



TRACT NO.	VENDOR	ACRES FEE
670	LEONARD L. CARDINAL ET UX	138.00
671	BESSIE H. BROWN ET VIR.	26.40
672	HUNTER JINES	26.00
673	SADIE B JAUNITA JINES	128.34
674	GLEN B. & FLORENCE M. SHOOTS	11.25
675	BERTHA N. CHAMBERS ET VIR.	1.00
676	EDWARD & OLIVER MCHENRY	4.25
		5.50


PLEY CO.
COUNTY
LINE
ROAD
CO
HUNTER
JINES
ROAD
MILL
ROAD
PAPER
ROAD
BIG
CREEK
PIKE
SHUN
SEE SHEET 1


ROAD
ROAD
ROAD
PIKE
SHUN
CREEK
SEE SHEET 1 FOR VICINITY MAP
& SHEET INDEX
638 JOHN S & DAISY SMIT
640 CHARLES D. ADAMS
641 EWING E. WRIGHT
512-C FRANK E. WILDMAN ET
353A LESTER W. & EDITH CU
TRUSTEE FOR MARBLE COR. MET
JOHN ECH ET UX.
JAMES ADAM ET UX.
MONROE TWP. OF JEFF
TWP. OF JEFF
ADAMS ET



341	CHAS & ALBERT RUEDIGER	116.57
351	FRED T ADAMS	145.00
353-B	LESTER W. & EDITH CUSTER	0.16
354	BENJAMIN F. DILK ETUX.	22.50
355A	CHARLES O DILK ETUX	90.10
355B	CHARLES O. DILK ETUX.	39.90
356	JOHN M. ECKSTEIN ETAL.	40.00
358	DAVID GRIFFIN ETUX.	65.00
360	PETER KIRCH ETUX.	80.00
361A	ROBERT T. LEE ETUX	40.00
361B	ROBERT T. LEE ETUX.	20.00
361C	ROBERT T. LEE ETUX.	66.00
364	CHRISTINA MASSING ETAL	80.00
365A	TRUSTEES MARBLE COR. METHODIST CH.	7.00
366	OLD MARBLE VALLEY CHURCH	2.16
369	GLENN B. & FLORENCE MAY SHOOTS	86.45
371	CAROL A TAYLOR	15.00
373	OLELL A. WILEY ETUX	80.00
383	ELMER E. & HALLIE E. CONNER	106.67
384	LEWIS & ROSETTA DEMAREE	2.00
391	JOHN A & FANNY V. HAND	3.50
418	CORDELIA CARSON	10.00
420A	EDWARD G. EFFINGER	40.00
436	MEREDITH STANLEY & FRANCES LEE JOHNSON	0.13
440	SHERMAN ROSS ETUX	80.00
441	JOSEPH P. SMITH ETUX	80.00
466	HARRY & CARRIE CHRISTMAN	218.00
469	J. L. DONALDSON ETAL TRUSTEES	60.00
475	JESSIE A HIGBIE ETUX.	67.00
476	HOLINESS CH. OF MARBLE COR., TRUSTEES	0.50
480A	THOS. MEISBERGER ETAL.	22.00
480B	THOMAS MEISBERGER ET AL.	1.00
491	JOHN H. CUMMISKEY ETUX.	0.75
493A	JOHN EFFINGER	40.00
498	SHELA GILTNER	3.00
502	LEWIS J THOMAS ETUX.	36.25
510	RUSSELL E VAN ANTWERP ETUX	40.00
512A	FRANK F. WILDMAN ETUX.	40.00
512B	FRANK F. WILDMAN ETUX.	165.30
519	THOMAS GRAHAM & CO. INC.	200.00
528A	WILL W. & SABINA R. McCOY	80.00
528B	WILL W. & SABINA R. McCOY	40.00
529A	NICHOLAS P. NAUERT ETUX	40.00
529B	NICHOLAS P. NAUERT ETUX.	187.55
535	AETNA LIFE INSURANCE CO.	120.00
536A	HENRY BULTMAN JR. ETUX.	40.00
562	WILLARD & BELLE MARCHBANKS	56.00
564	LEWIS SHEETS	80.00
[illegible]	THOMAS H. DAY ETUX.	30.00
[illegible]	EDWARD ET AL PEARL NEID	154.80
[illegible]	GEORGE C. [illegible] ETAL	105.00
[illegible]	ELMER T. [illegible] ETUX.	80.00
[illegible]	SMART CEMETERY TRUSTEES	[illegible]
[illegible]	EDNA [illegible] ETAL	[illegible]
[illegible]	VICTOR OLDREE ETUX.	[illegible]
[illegible]	ANNA A. SULLENDER ETAL	[illegible]
[illegible]	ELIZABETH [illegible] THOMAS	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

638	JOHN S & [illegible] SMITH	378.00
640	CHARLES D. ADAMS	75.00
641	ERNS [illegible] WRIGHT	75.00
512-C	FRANK F. WILDMAN ET UX	8.00
353-A	LESTER W. & EDITH CUSTER	0.16
[illegible]	TRUSTEES MARBLE COR. METHODIST CH.	3.00
[illegible]	JOHN EDN ETUX	20.00
[illegible]	JAMES ADAM ETUX.	1.50
[illegible]	MONROE TWP. OF JEFFERSON CO.	[illegible]
[illegible]	[illegible] OF JEFFERSON CO.	[illegible]
[illegible]	[illegible] ADAMS ETUX	[illegible]

TOWNSHIP
COUNTY
SON COUNTY
TOWNSHIP

HAS & ALBERT RUEDIGER	116.57
RED T ADAMS	145.00
ESTER W. & EDITH CUSTER	0.16
ENJAMIN F. DILK ETUX.	22.50
HARLES O DILK ETUX.	90.10
HARLES O. DILK ETUX.	39.90
OHN H. ECKSTEIN ETAL.	40.00
AVID GRIFFIN ETUX.	65.00
ETER KIRCH ETUX.	80.00
OBERT T LEE ETUX.	40.00
OBERT T. LEE ETUX.	20.00
OBERT T. LEE ETUX.	66.00
HRISTINA MASSING ETAL	80.00
PETERS MARBLE COR. METHODIST. CH.	[illegible]
LD MARBLE VALLEY CHURCH [illegible]	2.16
LENN B & FLORENCE MAY SHOOTS	86.45
AROL A TAYLOR	15.00
ELL A. WILEY ETUX	80.00
LMER E. & HALLIE E. CONNER	106.67
EWIS & ROSETTA DEMAREE	2.00
OHN A & FANNY V. HAND	3.50
ORDELIA CARSON	10.00
DWARD G. EFFINGER	40.00
EREDITH STANLEY & FRANCES LEE JOHNSON	0.13
HERMAN ROSS ETUX	80.00
OSEPH P. SMITH ETUX	80.00
ARRY & CARRIE CHRISTMAN	218.00
L DONALDSON ETAL TRUSTEES	60.00
ESSIE A HIGBIE ETUX.	67.00
OLINESS CH. OF MARBLE COR., TRUSTEES	0.50
HOS. MEISBERGER ETAL.	22.00
HOMAS MEISBERGER ETAL.	1.00
OHN H. CUMMISKEY ETUX.	0.75
OHN EFFINGER	40.00
HELA GILTNER	3.00
EWIS J. THOMAS ETUX.	36.25
USSELL E VAN ANTWERP ETUX	40.00
RANK F. WILDMAN ETUX.	40.00
RANK F. WILDMAN ETUX.	165.10
HOMAS GRAHAM & CO. INC.	200.00
ILL W & SABINA R. McCOY	[illegible]
ILL W & SABINA R. McCOY	40.00
ICHOLAS P. NAUERT ETUX	40.00
ICHOLAS P. NAUERT ETUX.	107.63
ETNA LIFE INSURANCE CO.	120.00
ENRY BULTMAN JR. ETUX.	40.00
ILLARD & BELLE MARCHBANKS	84.00
EWIS SHEETS	80.00
HOMAS [illegible] MAY ETUX.	80.00
DWARD [illegible] & PEARL NEID	[illegible]
EORGE C. [illegible] ETAL	[illegible]
LMER T. [illegible] ETUX.	[illegible]
MART CEMETERY TRUSTEES	[illegible]
DNA [illegible] ETAL	[illegible]
ICTOR [illegible] ETUX.	[illegible]
NNA [illegible]	[illegible]
LIZAB [illegible]	[illegible]
ABLE [illegible]	[illegible]
HARLE [illegible]	[illegible]
[illegible]	[illegible]

200	RUFUS G. JACKSON	40.00
201	THOMAS & OPAL HAMILTON	160.00
202	SIMEON SHELDON ETUX.	90.00
203	THOMAS B. GORE ETUX.	80.00
204	JAMES & ANNA MAE FORTNER	100.00
206	CLYDE & GENEVA JOHNSTON	80.00
207	CLYDE & GENEVA JOHNSTON	40.00
208	FLOYD MACK ETUX.	35.00
209	JOHN C. ROBERTS ETUX.	55.00
210	JAMES McKENZIE ETUX.	40.00
211	SIMEON SHELDON ETUX.	10.00
216	MATHEW STARKE ETUX.	15.00
217	WILLIAM BAURLEY ETUX.	124.50
220	ABRAHAM C. VAN ANTWERP ETUX.	1.50
221	LOUIS J. & CATHERINE HILL	100.00
223	LAURA HENDERSON	124.00
224	JOSEPH H. & MARY STARKE	75.00
226	JOSEPH F. ADAM ETUX.	63.56
227	WILL J. & EMMA W. CELVIN	47.00
230	MARY ADAM	120.00
231	WILLIAM J. & FRANCIS L. BLAND	80.00
232	WILLIAM C. BRINSON ETUX.	54.50
234	JAMES W. & BESSIE HEARNE	80.00
235	JAMES A. & MILDRED F. JINES	7.00
236	LANDERS JOHNSON ETUX	1.00
237	FRANK J. LINDAUER	100.00
238	M. C. MANNING	1.13
239	ELIZABETH C. BUSCH	120.00
240	JOHN R. REED ETUX.	70.00
242	JOS. & HELEN E. STEVENSON	2.00
245A	FRED YAGER & MATILDA I. YAGER	93.33
245B	FRED YAGER & MATILDA I. YAGER	80.00
246	LUCIAN A. KIDWELL ETUX.	80.00
247	REGINA ECKSTEIN ETAL.	80.00
248	MARTIN OSHIER ETUX.	40.00
249	INEZ M. LINGO	79.50
250	FRANCIS H. HALL ETUX	53.00
253	FRED FLINT ETUX.	40.00
254	HARRY & HAZEL DANNECKER	38.00
256	FRED FLINT ETUX.	25.00
257	REBECCA JANE COPELAND	20.00
263B	FREDERICK KOCHER ETUX	40.00
264	JOHN G. MEISBERGER ETUX.	41.56
265	GEORGE WILLOUGHBY	15.00
266	ERNEST R. & NELLIE MAY JESSIE	65.00
267	PERRY E. ANDRESS	21.50
269	MINNIE ANDERSON ET VIR.	41.50
272	WM & MARTHA COMBS	43.00
273	LESTER W. CUSTER ETUX.	1.75
274	WM BAURLEY JR. ETUX.	66.67
275	LAURA KEIFFER ET VIR.	20.00
277	CLARENCE SAMMONS ETAL	53.33
282	W. W. LOSEY ETUX	36.50
283	ED REA ETUX.	52.00
284	HARLEY M. & BURDELLA PERRY	55.00
285	WILLIE J. STARK ETUX.	1.00
287	DAN'L B. & MARY B. SCHOOLCRAFT	120.00
288	INA I. & ARTHUR DILK	34.00
291	ELIZABETH BRANDON	1.00
292	PETER W. YAGER	120.00
295	JAMES W. MORRIS ETUX.	80.00
[illegible]	MARTIN BROWN ETUX.	41.00
301	ELIZABETH J. ANDERSON	7.00
305	HERBERT & MYRTLE COPELAND	80.00
307	MATT L. ECKSTEIN ETUX.	60.00
310	OTTO REIBEL	80.00
311	FRED SCHWARTZ	22.15
314	LAWRENCE [illegible] ETAL	30.00
[illegible]	LEO H. & HULDA S. [illegible]	[illegible]
[illegible]	WM. E. CRIPE	[illegible]
[illegible]	LESTER W. CUSTER ETAL	[illegible]
[illegible]	RUTH A. LEWIS	[illegible]
[illegible]	EDWARD MORGAN	[illegible]
[illegible]	MABEL OGDEN ET VIR.	[illegible]
[illegible]	ROBERT A. [illegible]	[illegible]
[illegible]	[illegible]	[illegible]

TRACT B

SECTION

TWP. & C

ROAD

DATE	
2-19-65	REV. AR

0

0

JEFFER

RECOMMEND

APPROVED:

COMPILED A

DATE	BY	
7-15-44	ADW	Co
[illegible]	[illegible]	Or
[illegible]	[illegible]	A
[illegible]-44	RKY	Ch
[illegible]	D.A	Du

SHEETS: 2

JACKSON	40.00
OPAL HAMILTON	160.00
ELDON ETUX.	90.00
GORE ETUX.	80.00
NNA MAE FORTNER	100.00
EVA JOHNSTON	80.00
EVA JOHNSTON	40.00
ETUX.	35.00
OBERTS ETUX.	55.00
ENZIE ETUX.	40.00
LDON ETUX.	10.00
TARKE ETUX.	15.00
URLEY ETUX.	124.50
VAN ANTWERP ETUX.	1.50
CATHERINE HILL	100.00
DERSON	124.00
& MARY STARKE	75.00
ADAM ETUX.	63.56
MMA W. GELVIN	47.00
	120.00
FRANCIS L. BLAND	80.00
BRINSON ETUX.	54.50
BESSIE HEARNE	80.00
& MILDRED F. JINES	7.00
HNSON ETUX	1.00
NDAUER	100.00
G	1.13
C. BUSCH	120.00
ED ETUX.	70.00
N E STEVENSON	2.00
& MATILDA I. YAGER	93.33
& MATILDA I. YAGER	80.00
KIDWELL ETUX.	80.00
TEIN ETAL	80.00
IER ETUX.	40.00
	79.50
HALL ETUX	53.00
ETUX.	40.00
EL DANNECKER	36.00
TUX.	25.00
NE CC LAND	20.00
KOCHER ETUX	40.00
SBERGER ETUX.	41.56
LOUGHBY	15.00
NELLIE MAY JESSIE	85.00
ESS	21.50
DERSON ET VIR.	41.50
A COMBS	43.00
CUSTER ETUX.	1.75
JR. ETUX.	66.67
ER ET VIR.	20.00
SAMMONS ETAL	53.33
ETUX	36.50
X.	52.00
& BURDELLA PERRY	55.00
STARK ETUX.	1.00
MARY B. SCHOOLCRAFT	120.00
THUR DILK	34.00
BRANDON	1.00
AGER	120.00
MORRIS ETUX.	80.00
WN ETUX.	41.00
ANDERSON	7.00
MYRTLE COPELAND	5.00
KSTEIN ETUX.	80.00
EL	80.00
TZ	22.15
EPHRIED ETAL	30.00
LDA S. BEAR	8.00
E	0.50
CUSTER ETAL	[illegible]
WIS	[illegible]
GAN	[illegible]
EN ET VIR.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

TRACT BOUNDARY

SECTION CORNER — 6 | 5 / 7 | 8 — 3 | 2 / 6 | 5

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
2-19-65	REV. ARMY COM. (GO NO. 4 DATED 2-19-65	G.J.A

— SCALE —

0 — 1320' — 2640' — 3960' — 5280'

0 — 1/4 — 1/2 — 3/4 — 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

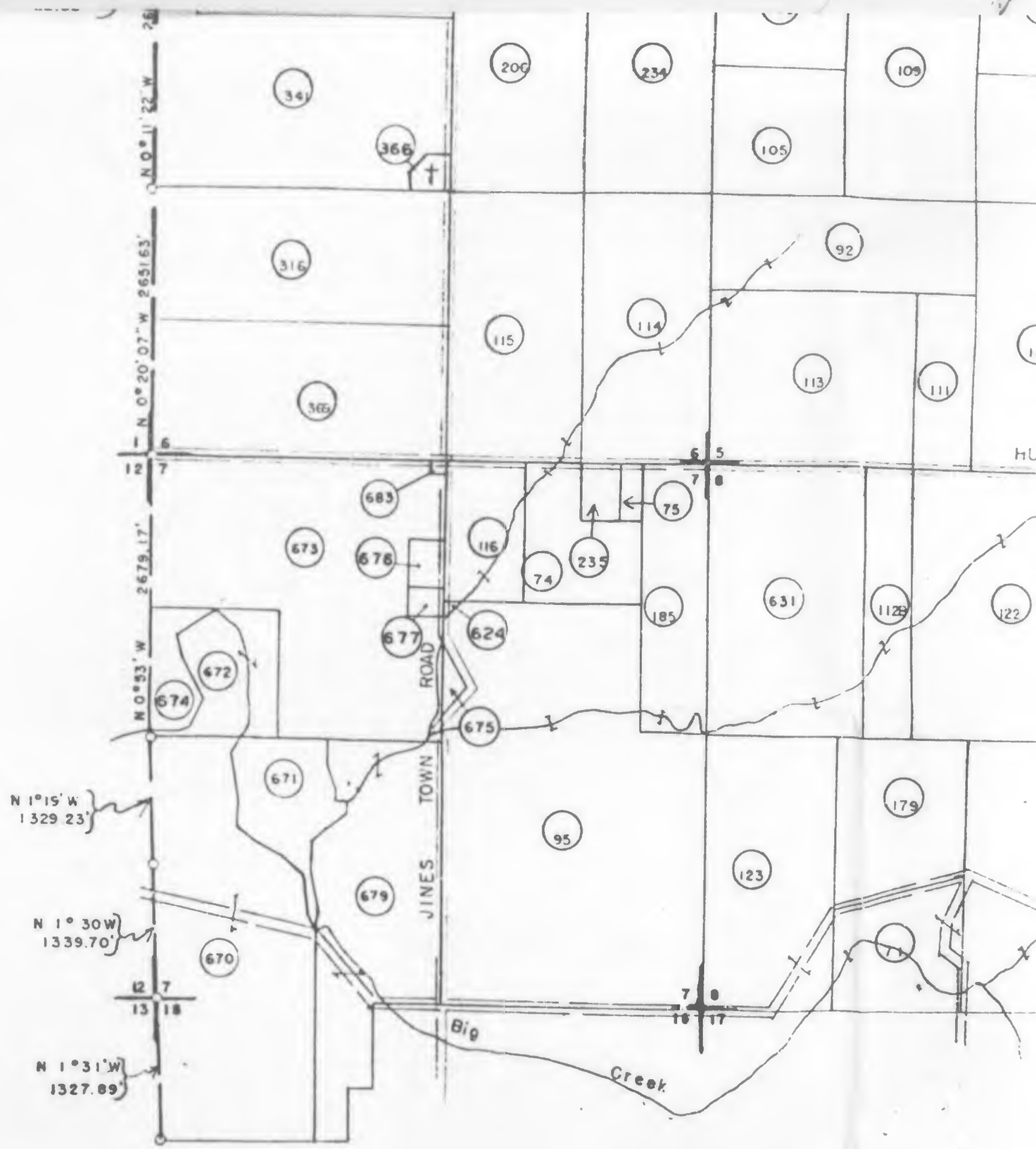
RECOMMENDED: Joseph N. Doyle DATE 7-15-44

APPROVED: C. C. Crocker DATE 4-30-46
COL. CORPS OF ENGINEERS

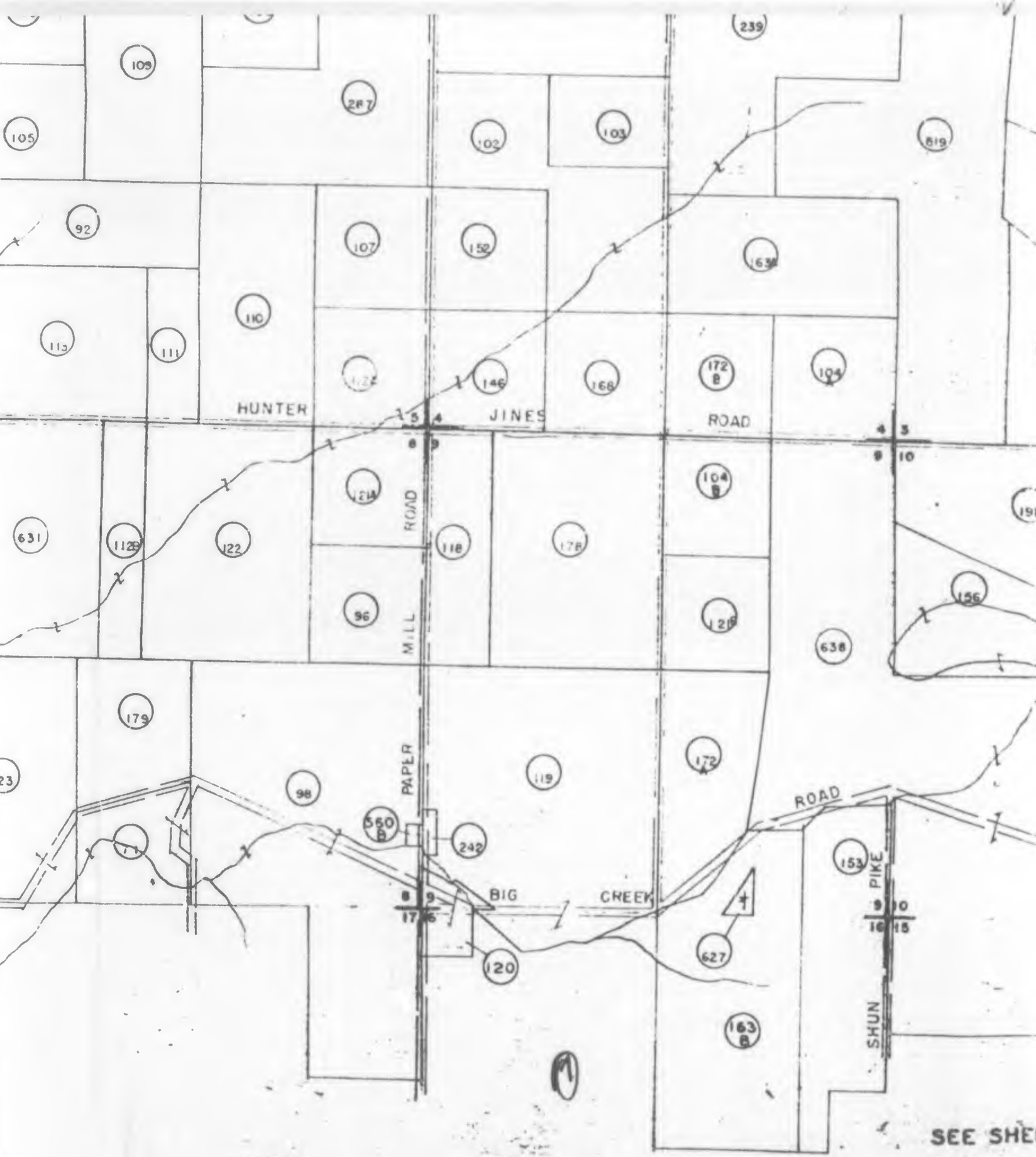
COMPILED: A.D.W. TRACED: A.D.W. CHECKED: [illegible]

DATE	BY	REVISIONS
7-15-44	ADW	Compiled from Quartermaster Corps map dated [illegible]
[illegible]	[illegible]	Ordnance East boundary survey 10-30-42 [illegible]
[illegible]	[illegible]	Additional map dated [illegible]
[illegible]	RKW	Changed OP 1458 [illegible] OP 153 [illegible]
[illegible]	J.A	DUE TO FINAL [illegible]

SHEETS 2 OF 5



TRACT NO.	VENDOR	ACRES FEE
670	LEONARD L. CARDINAL ET UX	138.00
671	BESSIE H. BROWN ET VIR.	26.40
672	HUNTER JINES	26.00
673	SADIE & JAUNITA JINES	128.34
674	GLEN B. & FLORENCE M. SHOOTS	11.25
675	BERTHA N. CHAMBERS ET VIR.	1.00
676	EDWARD & OLIVER McHENRY	4.25
677	OLLIE WILSON ET VIR.	2.50
679	ARTHUR E. IRWIN ET UX.	76.00
683	TRUSTEES OF MONROE TWP.	0.80


HUNTER
JINES
ROAD
MILL
ROAD
PAPER
ROAD
BIG
CREEK
PIKE
SHUN
SEE SHEET 1
SEE SHE

639	JOHN S & DOLLY SMITH
640	CHARLES D. ADAMS
641	EWING E. WRIGHT
512-S	FRANK E. WILDMAN ET UX
353-A	LESTER W. & EDITH CUSTER
354-B	TRUSTEE FOR MARBLE COR. METHODIST CH.
117	JOHN SOH ET UX
506	JAMES ADAM ET UX

341	CHAS & ALBERT RUEDIGER	116.57
351	FRED T ADAMS	145.00
353-B	LESTER W. & EDITH CUSTER	0.16
354	BENJAMIN F. DILK ETUX.	22.50
355A	CHARLES O DILK ETUX.	90.10
355 B	CHARLES O. DILK ETUX.	59.90
356	JOHN M. ECKSTEIN ETAL.	40.00
358	DAVID GRIFFIN ETUX.	65.00
360	PETER KIRCH ETUX.	80.00
361A	ROBERT T. LEE ETUX.	40.00
361B	ROBERT T. LEE ETUX.	20.00
361C	ROBERT T. LEE ETUX.	66.00
364	CHRISTINA MASSING ETAL	80.00
365A	TRUSTEES, MARBLE COR. METHODIST, CH.	[illegible]
366	OLD MARBLE VALLEY CHURCH [illegible]	2.16
369	GLENN B. & FLORENCE MAY SHOOTS	86.45
371	CARO. A. TAYLOR	15.00
373	CLELL A. WILEY ETUX	80.00
383	ELMER E. & HALLIE E. CONNER	105.67
384	LEWIS & ROSETTA DEMAREE	2.00
391	JOHN A & FANNY V. HAND	3.50
418	CORDELIA CARSON	10.00
420A	EDWARD G. EFFINGER	40.00
435	MEREDITH STANLEY & FRANCES LEE JOHNSON	0.13
440	SHERMAN ROSS ETUX	80.00
441	JOSEPH P. SMITH ETUX	80.00
466	HARRY & CARRIE CHRISTMAN	218.00
469	J. L. DONALDSON ETAL TRUSTEES	60.00
475	JESSIE A HIGBIE ETUX.	67.00
476	HOLINESS CH. OF MARBLE COR., TRUSTEES	0.50
480A	THOS. MEISBERGER ETAL.	22.00
480B	THOMAS MEISBERGER ET AL.	1.00
491	JOHN H. CUMMISKEY ETUX.	0.75
493A	JOHN EFFINGER	40.00
498	SHELA GILTNER	3.00
509	LEWIS J THOMAS ETUX.	36.25
510	RUSSELL E VAN ANTWERP ETUX	40.00
512A	FRANK F. WILDMAN ETUX.	40.00
512B	FRANK F. WILDMAN ETUX.	165.30
519	THOMAS GRAHAM & CO. INC.	200.00
528A	WILL W. & SABINA R. McCOY	[illegible]
528B	WILL W. & SABINA R. McCOY	40.00
529A	NICHOLAS P. NAUERT ETUX.	40.00
529B	NICHOLAS P. NAUERT. ETUX.	107.[illegible]
535	AETNA LIFE INSURANCE CO.	120.00
536A	HENRY BULTMAN JR. ETUX.	40.00
552	WILLARD & BELLE MARSCHBANKS	96.00
561	LEWIS SHEETS	80.00
[illegible]	THOMAS [illegible] MAY ETUX.	[illegible]
[illegible]	EDWARD [illegible] PEARL NEID	[illegible]
[illegible]	GEORGE C. [illegible] ETAL	105.00
[illegible]	ELMER T. [illegible] ETUX.	80.00
[illegible]	SMART CEMETERY TRUSTEES	[illegible]
[illegible]	EDNA SIEP ETAL.	[illegible]
[illegible]	VICTOR OLAREN ETUX.	[illegible]
[illegible]	ANNA A. SULLENDER [illegible]	[illegible]
[illegible]	ELIZABETH [illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

JOHN S.& DAISY SMITH	378.00
CHARLES D. ADAMS	73.00
EWING [illegible] WRIGHT	75.00
FRANK F. WILDMAN ET UX	[illegible]
LESTER W. & EDITH CUSTER	[illegible]
TRUSTEES [illegible] MARBLE COR. METHODIST CH.	[illegible]
JOHN [illegible] ETUX.	20.00
JAMES ADAM ETUX.	[illegible]
MONROE TWP. OF JEFFERSON CO.	[illegible]
MONROE TWP. OF JEFFERSON CO.	[illegible]
[illegible] ADAMS ETUX	[illegible]
JOHN P. [illegible] & ROSE [illegible]	[illegible]

206	CLYDE
207	CLYDE
208	FLOYD
209	JOHN
210	JAMES
211	SIMEON
216	MATHE
217	WILLIA
220	ABRAHA
221	LOUIS
223	LAURA
224	JOSEPH
226	JOSEP
227	WILL
230	MARY
231	WILLIA
232	WILLIA
234	JAMES
235	JAMES
236	LANDE
237	FRANK
238	M. C.
239	ELIZAB
240	JOHN
242	JOS. B
245A	FRED
245B	FRED
246	LUCIAN
247	REGIN
248	MARTIN
249	INEZ M
250	FRANC
253	FRED
254	HARRY
255	FRED
257	REBEC
263A	FREDE
264	JOHN
265	GEORG
266	ERNES
267	PERRY
269	MINNI
272	WM B
273	LESTE
274	WM
275	LAURA
277	CLARE
282	W. W.
283	ED R
284	HARLE
285	WILLI
287	DAN'L
288	INA I
291	ELIZA
292	PETER
295	JAMES
299	MARTI
301	ELIZA
305	HERBE
307	MATT
310	OTTO
311	FRED
314	LAWRE
316	LEO
317	WM.
318	LESTE
319	RUTH
321	EDWA
[illegible]	MABE
[illegible]	ROBE
[illegible]	LEONA
[illegible]	GROVE
[illegible]	MARY
[illegible]	[illegible]
[illegible]	[illegible]

BERT RUEDIGER	116.67
AMS	145.00
EDITH CUSTER	0.16
F. DILK ETUX.	22.50
DILK ETUX.	90.10
DILK ETUX.	59.90
TEIN ETAL.	40.00
FFIN ETUX.	65.00
CH ETUX.	80.00
LEE ETUX.	40.00
LEE ETUX.	20.00
LEE ETUX.	66.00
MASSING ETAL	80.00
COR. METHODIST CH.	[illegible]
VALLEY CHURCH	2.16
LORENCE MAY SHOOTS	85.45
AYLOR	15.00
VILEY ETUX	80.00
& HALLIE E. CONNER	106.67
ROSETTA DEMAREE	2.00
FANNY V. HAND	3.50
ARSON	10.00
EFFINGER	40.00
TANLEY & FRANCES LEE JOHNSON	0.13
OSS ETUX	80.00
SMITH ETUX	80.00
RRIE CHRISTMAN	218.00
SON ETAL TRUSTEES	60.00
HIGBIE ETUX.	67.00
OF MARBLE COR., TRUSTEES	0.50
EISBERGER ETAL.	22.00
EISBERGER ETAL.	1.00
MMISKEY ETUX.	0.75
IGER	40.00
NER	3.00
HOMAS ETUX.	36.25
VAN ANTWERP ETUX	40.00
WILDMAN ETUX.	40.00
WILDMAN ETUX.	165.10
RAHAM & CO. INC.	200.00
SABINA R. McCOY	[illegible]
SABINA R. McCOY	40.00
P. NAUERT ETUX.	40.00
P. NAUERT ETUX.	[illegible]
E INSURANCE CO.	120.00
LTMAN JR. ETUX.	40.00
BELLE MARCHBANKS	[illegible]
EERS	80.00
AY ETUX.	40.00
PEARL WEID	[illegible]
[illegible] ETAL	105.00
[illegible] ETUX.	80.00
[illegible] TRUSTEES	[illegible]
ETAL.	[illegible]
[illegible]	[illegible]

206	CLYDE & GENEVA JOHNSTON	80.00
207	CLYDE & GENEVA JOHNSTON	40.00
208	FLOYD MACK ETUX.	35.00
209	JOHN C. ROBERTS ETUX.	55.00
210	JAMES McKENZIE ETUX.	40.00
211	SIMEON SHELDON ETUX.	10.00
216	MATHEW STARKE ETUX.	15.00
217	WILLIAM BAURLEY ETUX.	124.50
220	ABRAHAM C. VAN ANTWERP ETUX.	1.50
221	LOUIS J. & CATHERINE HILL	100.00
223	LAURA HENDERSON	124.00
224	JOSEPH H. & MARY STARKE	75.00
226	JOSEPH F. ADAM ETUX.	63.56
227	WILL J. & EMMA W. GELVIN	47.00
230	MARY ADAM	120.00
231	WILLIAM J. & FRANCIS L. BLAND	80.00
232	WILLIAM C. BRINSON ETUX.	54.50
234	JAMES W. & BESSIE HEARNE	80.00
235	JAMES A. & MILDRED F. JINES	7.00
236	LANDERS JOHNSON ETUX	1.00
237	FRANK J LINDAUER	100.00
238	M. C. MANNING	1.13
239	ELIZABETH C. BUSCH	120.00
240	JOHN R. REED ETUX.	70.00
242	JOS & HELEN E STEVENSON	2.00
245A	FRED YAGER & MATILDA I. YAGER	93.33
245B	FRED YAGER & MATILDA I. YAGER	80.00
246	LUCIAN A KIDWELL ETUX.	80.00
247	REGINA ECKSTEIN ETAL.	80.00
248	MARTIN OSHIER ETUX.	40.00
249	INEZ M. LINGO	79.50
250	FRANCIS H. HALL ETUX.	53.00
253	FRED FLINT ETUX.	40.00
254	HARRY & HAZEL DANNECKER	38.00
256	FRED FLINT ETUX.	25.00
257	REBECCA JANE COPELAND	20.00
263A	FREDERICK KOCHER ETUX	40.00
264	JOHN G MEISBERGER ETUX.	41.56
265	GEORGE WILLOUGHBY	15.00
266	ERNEST R & NELLIE MAY JESSIE	85.00
267	PERRY E. ANDRESS	21.50
269	MINNIE ANDERSON ET VIR.	41.50
272	WM & MARTHA COMBS	43.00
273	LESTER W. CUSTER ETUX.	1.75
274	WM BAURLEY JR. ETUX.	66.67
275	LAURA KEIFFER ET VIR.	20.00
277	CLARENCE SAMMONS ETAL	53.33
282	W.W. LOSEY ETUX	36.50
283	ED REA ETUX.	52.00
284	HARLEY M. & BURDELLA PERRY	55.00
285	WILLIE J STARK ETUX.	1.00
287	DANL B & MARY B. SCHOOLCRAFT	120.00
288	INA I & ARTHUR DILK	34.00
291	ELIZABETH BRANDON	1.00
292	PETER W YAGER	120.00
295	JAMES W. MORRIS ETUX.	80.00
299	MARTIN BROWN ETUX.	41.00
301	ELIZABETH J. ANDERSON	7.00
306	HERBERT & MYRTLE COPELAND	80.00
307	MATT L. ECKSTEIN ETUX.	80.00
310	OTTO REIBEL	80.00
311	FRED SCHWARTZ	22.15
314	LAWRENCE SHEPHERD ETAL	30.00
[illegible]	LEO H & HULDA E. DEAL	[illegible]
[illegible]	WM. E. CRIPE	0.50
[illegible]	LESTER W. CUSTER ETAL	[illegible]
[illegible]	RUTH A. LEWIS	[illegible]
[illegible]	EDWARD MORGAN	[illegible]
[illegible]	MABEL OGDEN ET VIR	[illegible]
[illegible]	ROBERT [illegible]	[illegible]
[illegible]	[illegible]	[illegible]

SECTION COR

TWP. & COUNT

ROAD

DATE	
2-19-65	REV. ARMY COM.

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WAR

CON

RE

JEFFERSO

MILITA

RECOMMENDED:

APPROVED:

COL. C

COMPILED ADW T

DATE	BY	
7-15-44	ADW	Compiled from
[illegible]	[illegible]	Ordnance Eng
[illegible]	[illegible]	Addition
11-10-44	RKW	[illegible]
[illegible]	D.A	DUE TO

SHEETS: 2 OF

VA JOHNSTON	80.00
VA JOHNSTON	40.00
ETUX.	35.00
BERTS ETUX.	55.00
NZIE ETUX.	40.00
DON ETUX.	10.00
ARKE ETUX.	15.00
RLEY ETUX.	124.50
VAN ANTWERP ETUX.	1.50
CATHERINE HILL	100.00
ERSON	124.00
MARY STARKE	75.00
DAM ETUX.	63.56
MA W. GELVIN	47.00
	120.00
FRANCIS L. BLAND	80.00
BRINSON ETUX.	54.50
BESSIE HEARNE	80.00
MILDRED F. JINES	7.00
HNSON ETUX	1.00
NDAUER	100.00
G	1.13
C BUSCH	120.00
D ETUX.	70.00
N E STEVENSON	2.00
& MATILDA I. YAGER	93.33
& MATILDA I. YAGER	80.00
KIDWELL ETUX.	80.00
TEIN ETAL	80.00
IER ETUX.	40.00
	79.50
HALL ETUX.	53.00
ETUX.	40.00
EL DANNECKER	38.00
ETUX.	25.00
NE COPELAND	20.00
KOCHER ETUX	40.00
SBERGER ETUX.	41.56
LOUGHBY	15.00
NELLIE MAY JESSIE	85.00
ESS	21.50
DERSON ET VIR.	41.50
A COMBS	43.00
CUSTER ETUX.	1.75
JR. ETUX.	66.67
FER ET VIR.	20.00
SAMMONS ETAL	53.33
ETUX	36.50
X.	52.00
& BURDELLA PERRY	55.00
STARK ETUX.	1.00
MARY B. SCHOOLCRAFT	120.00
RTHUR DILK	34.00
BRANDON	100
YAGER	120.00
MORRIS ETUX.	80.00
WN ETUX.	41.00
ANDERSON	7.00
MYRTLE COPELAND	80.00
CKSTEIN ET UX.	80.00
EL	80.00
RTZ	22.15
[illegible]	30.00
HULDA S. BEAR	80.00
PE	0.50
CUSTER ETAL	[illegible]
EWIS	[illegible]
ORGAN	[illegible]
DEN ET VIR	[illegible]

SECTION CORNER

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
2-19-65	REV. ARMY COM. (GO NO. 4 DATED 2-19-65	G.J.A

— SCALE —

0 1320' 2640' 3690' 5280'

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED: Joseph N. Doyle DATE [illegible]

APPROVED: [illegible] DATE 4-30-[illegible]
COL. CORPS OF ENGINEERS

COMPILED: A.D.W. TRACED: A.D.W. CHECKED: [illegible]

DATE	BY	REVISIONS
7-15-44	ADW	Compiled from Quartermaster Corps map [illegible]
[illegible]	[illegible]	Ordnance Engr. boundary survey 10-30-42 [illegible]
[illegible]	[illegible]	Additional map [illegible]
[illegible]	RKW	[illegible]
[illegible]	J.A	DUE TO [illegible]

SHTS. 2 OF 5

CT	VENDOR	ACREAGE
506A	ANNA L. & AUSTIN G. PERKINS	130.00
506B	ANNA L. & AUSTIN G. PERKINS	56.00
507	JOHN T. SURBER	57.10
515A	LOWELL COOPER	40.00
515B	LOWELL COOPER	255.86
522	AMBROSE H. HEHMAN	81.87
526	EDMOND KREMER.	149.25
532	EDISON H. STARKE ET UX.	17.50
536B	HENRY BULTMAN, JR. ET UX.	40.00
539	EMMA EBEL ET AL.	14.00
543	SHELBY GRIGSBY	80.00
545	ARTHUR HALLETT ET UX.	40.00
546	ARTHUR HALLETT ET UX.	75.30
562	GEORGIA A. SPEARS .	30.00
563	EDISON STARK ET UX.	273.63
565	CHALLIS WEED ET VIR.	148.26
577	GRAMAR INVESTMENT CO. INC.	25.90
579	LAWRENCE P. KIRCH ET UX.	188.15

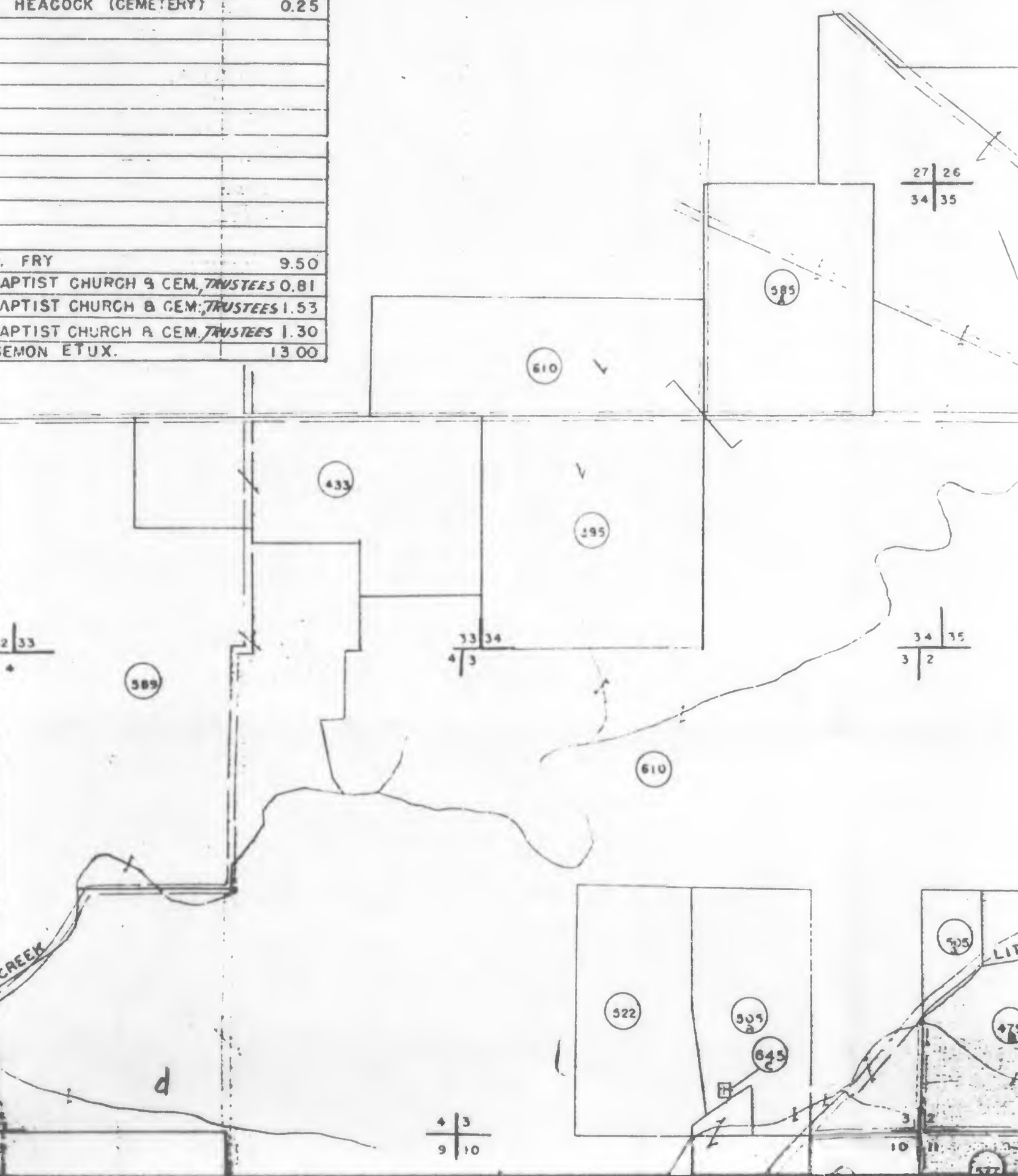
TRACT	VENDOR	ACRE
585A	WM. P. TAYLOR ET UX.	12
588A	EARL E. SAUER ET UX.	
588B	EARL E. SAUER ET UX.	
589	EVERETT SHUNK ET UX.	55
596	CHARLES DEMAREE ET UX.	
599	MATT L. KIEFFER, GUARDIAN	
604A	KATE RICHARDSON ET AL	2
604B	KATE RICHARDSON ET AL.	
610	FIFTH-THIRD UNION TRUST CO.	23
615	EVA M. KING ET AL.	2
616	WALTER MATHEWS ET UX.	
619	JOSEPH E. RITTER, BISHOP	
622	FED. LAND BANK OF LOUISVILLE	1
623	FED LAND BANK OF LOUISVILLE	
637	RIPLEY COUNTY BANK	1
639	EDWARD C. SMITH	
642	EWING E. WRIGHT	
643	IDA KUNTZLER ET AL.	

VENDOR	ACREAGE
WM. P. NAYLOR ETUX.	120.00
EARL E. SAUER ET UX.	30.59
EARL E. SAUER ETUX.	51.00
EVERETT SHUNK ET UX.	555.78
CHARLES DEMAREE ETUX.	27.00
MATT L. KIEFFER, GUARDIAN	90.00
KATE RICHARDSON ETAL	233.98
KATE RICHARDSON ETAL	82.03
FIFTH-THIRD UNION TRUST CO.	2391.27
EVA M. KING ET AL	297.35
WALTER MATHEWS ET UX.	82.00
JOSEPH E. RITTER, *BISHOP*	8.00
FED. LAND BANK OF LOUISVILLE	139.00
FED LAND BANK OF LOUISVILLE	86.36
RIPLEY COUNTY BANK	120.00
EDWARD C. SMITH	63.00
EWING E. WRIGHT	90.00
IDA KUNTZLER ETAL.	12.00

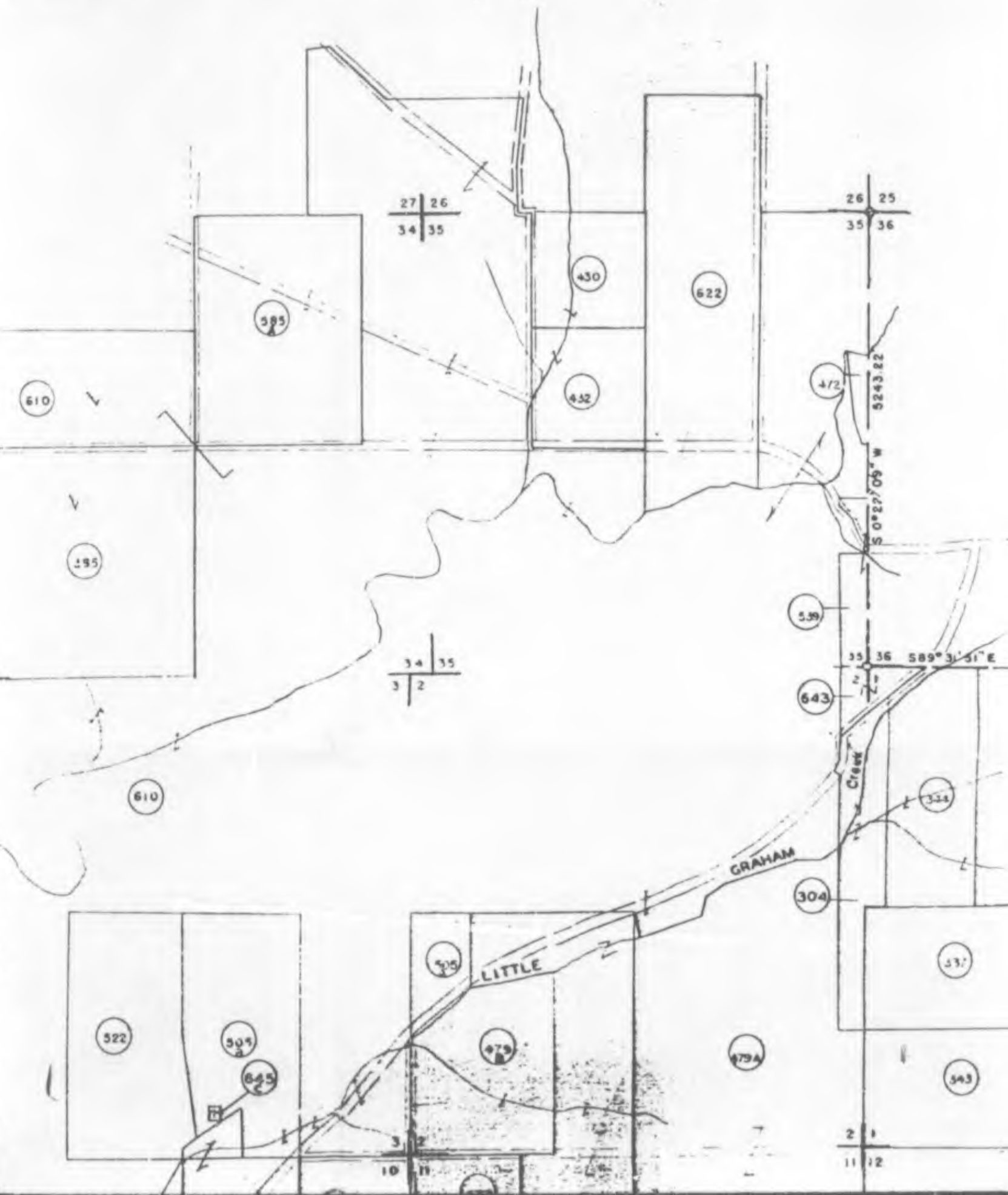
TRACT	VENDOR	ACREAGE
645-C	JOHN COLE HEIRS (CEMETERY)	0.25
646-C	MITCHEL BROWN ETAL (CEMETERY)	0.21
647-C	RONNIE HEADCOCK (CEMETERY)	0.25
425	HANNA L. FRY	9.50
488A	BETHEL BAPTIST CHURCH & CEM., *TRUSTEES*	0.81
488B	BETHEL BAPTIST CHURCH & CEM., *TRUSTEES*	1.53
488C	BETHEL BAPTIST CHURCH & CEM., *TRUSTEES*	1.30
368B	FINLEY SEMON ETUX.	13.00

SHEET 4

VENDOR	ACREAGE
OLE HEIRS (CEMETERY)	0.25
BROWN ETAL (CEMETERY)	0.21
HEACOCK (CEMETERY)	0.25
. FRY	9.50
APTIST CHURCH & CEM., TRUSTEES	0.81
APTIST CHURCH & CEM., TRUSTEES	1.53
APTIST CHURCH & CEM. TRUSTEES	1.30
EMON ETUX.	13.00



SHEET 4


27 26
34 35
26 25
35 36
430
622
585
610
432
412
5243.22
S 0°27'09" W
285
539
35 36 S89°31'51"E
34 35
3 2
643
610
Creek
324
GRAHAM
304
LITTLE
505
337
522
505
645
479
479A
543
3 2
10 11
2 1
11 12

TRACT	VENDOR
205	THOS. W. & EFFIE D. JESS
213	LENA M. NAUERT REGENOLD
214	GEORGE MEISBERGER E
215	LOUIS J. REINHARDT
218	ELDEN WYNE
219	ELDEN WYNE
225	SAM & ERNEST SULLIV
251	HALDANE HUGHES ET U
252	GEORGE GEIGERICH E
256	EDGAR B & DELANA E. JORDA
258	ROY & CLARA L. HANDLO
259	GEO. & CYNTHIA ANN S
260	CLARENCE G. MILLER
263B	FREDERICK KOCHER E
270	CHAS. L. PERKINS ET A
271	MARY ELIZABETH KIRK
276	KATE McDONALD
278	WM. SCHONFELT ET UX.
279	HORATIO S. SHADDAY E
280	JESSE C. SHADDAY ET UX
281	WM. E. MATHEWS ET
286	ROY C. MATZ
290	GOBEL BOWLING ET AL.
293	RUSSELL ESTELL ET UX.
294	EARL & DOROTHY WILSON
296	JOHN S. & EVA WALKE
302	ALBERT BAKIUS ESTA
303	HARVEY O. & BERTHA C
304	MAUD DAVIS COMBS ET
306	FRANCIS P. DOLAN
309	KATIE M. KREMER
312A	JULIA SHADDAY
312B	JULIA SHADDAY
313	RAYMOND J. SHADDAY E
315	HOMER SULLENDER ET UX
320A	ADAM MEISBERGER E
320B	ADAM MEISBERGER E
320C	ADAM MEISBERGER E
326A	EVERETT BOSWELL E
326B	EVERETT BOSWELL E
328	CARL FRANCIS EFFINGE
329	PETER GLAUBER ET U
330	CLARENCE HALL ET
331A	MARY B. HAYDEN
331B	MARY B. HAYDEN
335	TIMOTHY MEISBERGER
337	B. MARTIN GUEDELHOEFER
338	ALEXANDER MILLER ET
339A	LOUIS C. NEILL ET UX
339B	LOUIS C. NEILL ET UX
342	GEO. D. ROBERTSON ET
343	GRACE ROBINSON ET
344	JOSEPH M. SMITH

TRACT	VENDOR (4)	ACREAGE FEE
205	THOS. W. & EFFIE D. JESSIE	88.00
213	LENA M. NAUERT REGENOLD ET VIR.	70.00
214	GEORGE MEISBERGER ET UX.	110.00
215	LOUIS J. REINHARDT ET UX.	10.00
218	ELDEN WYNE	97.00
219	ELDEN WYNE	90.00
225	SAM & ERNEST SULLIVAN	58.25
251	HALDANE HUGHES ET UX.	4.00
252	GEORGE GEIGERICH ET UX.	74.78
256	EDGAR B & DELANA E. JORDAN	165.35
258	ROY & CLARA L. HANDLON	85.00
259	GEO & CYNTHIA ANN SWARTZ	40.00
260	CLARENCE G. MILLER ET UX.	130.00
263B	FREDERICK KOCHER ET UX.	40.00
270	CHAS. L. PERKINS ET AL.	103.37
271	MARY ELIZABETH KIRK ET VIR.	49.00
276	KATE McDONALD	106.11
278	WM. SCHONFELT ET UX.	72.34
279	HORATIO S. SHADDAY ET UX.	11.25
280	JESSE C. SHADDAY ET UX.	11.19
281	WM. E. MATHEWS ET UX.	40.32
286	ROY C. MATZ	90.00
290	GOBEL BOWLING ET AL.	3.00
293	RUSSELL ESTELL ET UX.	0.43
294	EARL & DOROTHY WILSON	46.28
296	JOHN S. & EVA WALKER	41.00
302	ALBERT BAKIUS ESTATE	40.00
303	HARVEY O. & BERTHA C. BYOUS	72.00
304	MAUD DAVIS COMBS ET VIR.	77.87
306	FRANCIS P. DOLAN	161.60
309	KATIE M. KREMER	4.00
312A	JULIA SHADDAY	16.50
312B	JULIA SHADDAY	40.00
313	RAYMOND J. SHADDAY ET UX.	40.00
315	HOMER SULLENDER ET UX.	80.00
320A	ADAM MEISBERGER ET UX.	25.80
320B	ADAM MEISBERGER ET UX.	60.00
320C	ADAM MEISBERGER ET UX.	3.00
326A	EVERETT BOSWELL ET UX.	80.00
326B	EVERETT BOSWELL ET UX.	121.00
328	CARL FRANCIS EFFINGER	80.00
329	PETER GLAUBER ET UX.	85.00
330	CLARENCE HALL ET UX.	71.68
331A	MARY B. HAYDEN	96.00
331B	MARY B. HAYDEN	62.00
335	TIMOTHY MEISBERGER ET AL.	87.80
337	B. MARTIN GUEDELHOEFER, COMM.	72.97
338	ALEXANDER MILLER ET UX.	109.00
339A	LOUIS C. NEILL ET UX.	17.10
339B	LOUIS C. NEILL ET UX.	109.75
342	GEO. D. ROBERTSON ET UX.	200.00
343	GRACE ROBINSON ET VIR.	71.00
344	JOSEPH M. SMITH	70.60

(5) FINAL

PROJECT OWNER

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

TO OMAHA DISTRICT 1 APRIL 1970

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADIS

MILES OF

TO LOUISVILLE DIST. 31 MAR. 82

TRANSPORTATION FA

PENNSYLVANIA

ROUTES 7

ROUTE 50 & 421 F

EAL & AA TO LOUISVILLE, K

ACQUISITION

TOTAL ACRES ACQUIRED (THIS S

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST

DISPOSALS

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERM

ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TER

(4)	ACREAGE FEE
JESSIE	88.00
OLD ET VIR.	70.00
R ET UX.	110.00
DT ET UX.	10.00
	97.00
	90.00
LLIVAN	58.25
ET UX.	4.00
ET UX.	74.78
RDAN	165.35
DLON	85.00
SWARTZ	40.00
R ET UX.	130.00
ET UX.	40.00
AL.	103.37
RK ET VIR.	49.00
	106.11
UX.	72.34
Y ET UX.	11.25
T UX	11.19
ET UX.	40.32
	90.00
L.	3.00
T UX	0.43
SON	46.28
ALKER	41.00
ESTATE	40.00
A C BYOUS	72.00
ET VIR.	77.87
	161.60
	4.00
	16.50
	40.00
Y ET UX.	40.00
ET UX.	80.00
ET UX.	25.80
ET UX.	60.00
ET UX.	3.00
ET UX.	80.00
ET UX.	121.00
INGER	80.00
T UX.	85.00
ET UX.	71.68
	96.00
	62.00
ER ET AL.	87.80
FER, COMM.	72.97
ET UX.	109.00
UX.	17.10
UX	109.75
ET UX.	200.00
ET VIR.	71.00
	70.60

(6) FINAL

PROJECT OWNERSHIP MAP

(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS & RIPLEY

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

TO OMAHA DISTRICT 1 APRIL 1970

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADISON

MILES OF

TO LOUISVILLE DIST. 31 MAR. 82

TRANSPORTATION FACILITIES

PENNSYLVANIA RAILROAD

ROUTES 7 STATE ROAD

ROUTE 50 & 421 FEDERAL ROAD

EAL & AA TO LOUISVILLE, KY. AIRLINE

ACQUISITION

TOTAL ACRES ACQUIRED (THIS SHEET) 14685.92

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST

SEE SHEET 1 FOR TOTALS

DISPOSALS

TOTAL ACRES DISPOSED OF

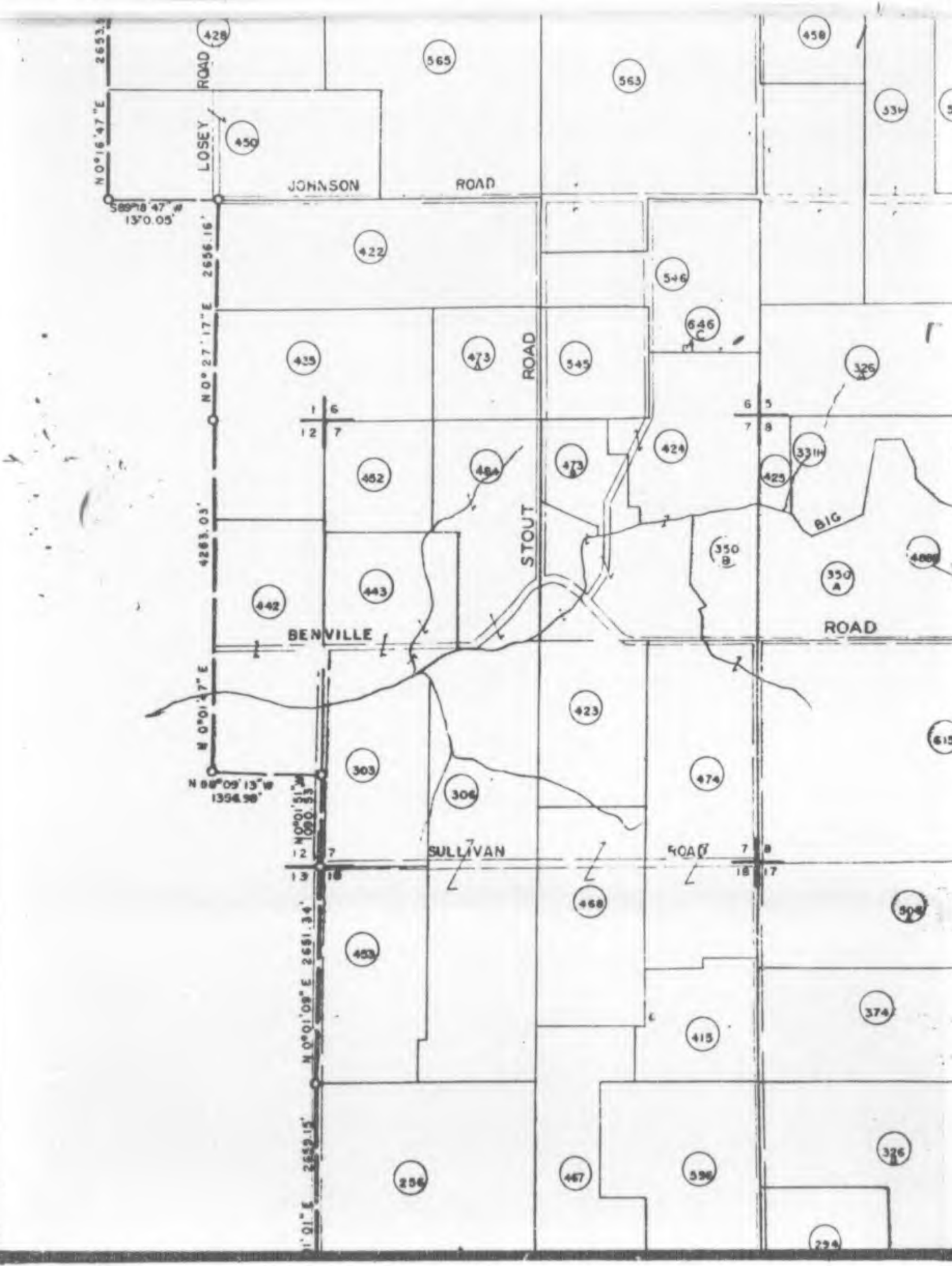
ACRES SOLD

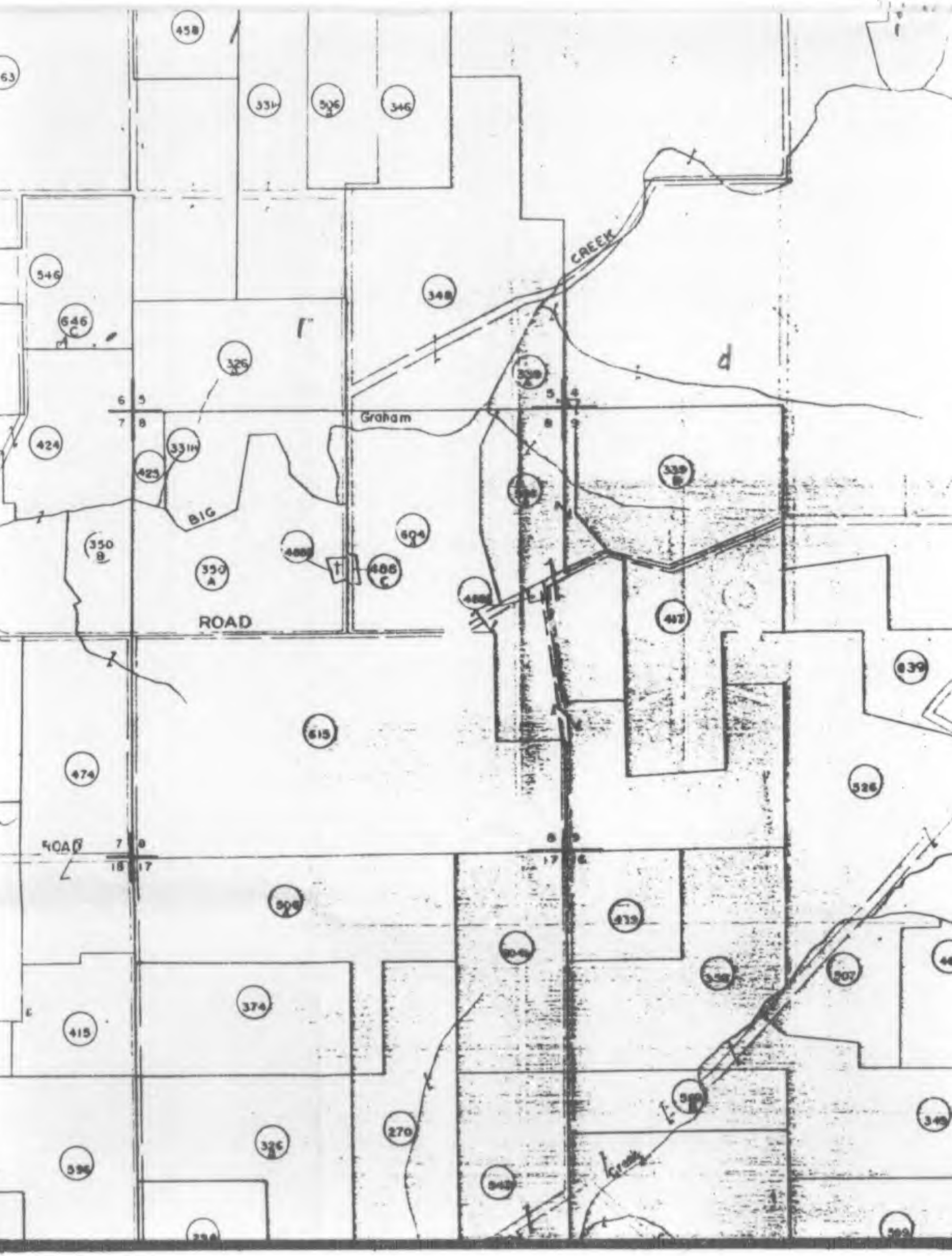
ACRES LEASES TERM

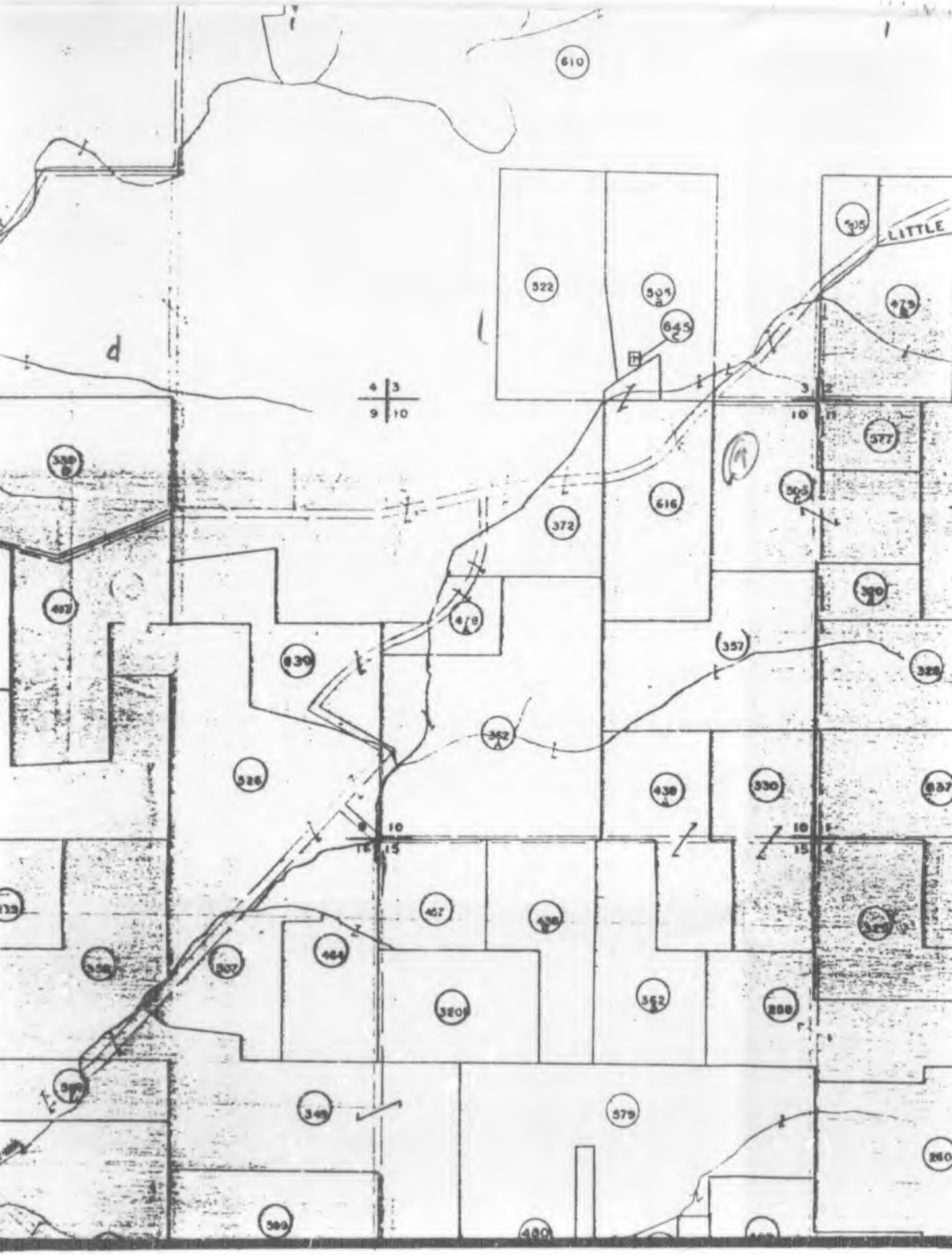
ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM

(11)


LOSEY ROAD
JOHNSON ROAD
STOUT ROAD
BENVILLE ROAD
SULLIVAN ROAD
BIG
N 0°16'47"E 2653.9
S89°18'47"W 1370.05'
N 0°27'17"E 2656.16'
4283.03'
N 0°01'47"E
N 88°09'13"W 1354.98'
N 0°01'51"E 1000.53
N 0°01'09"E 2651.34'
2652.15'
428
565
563
458
334
450
422
546
646
435
473
545
326
462
484
473
424
331H
425
442
443
350 B
350 A
423
303
306
474
468
453
415
374
256
467
536
326
224


CREEK
Graham
BIG
ROAD
ROAD


610
522
504
645
505
LITTLE
473
4 3
9 10
3 2
10 11
377
339
616
505
372
402
419
390
357
328
830
362
326
438
330
837
10
16 15
10
15
462
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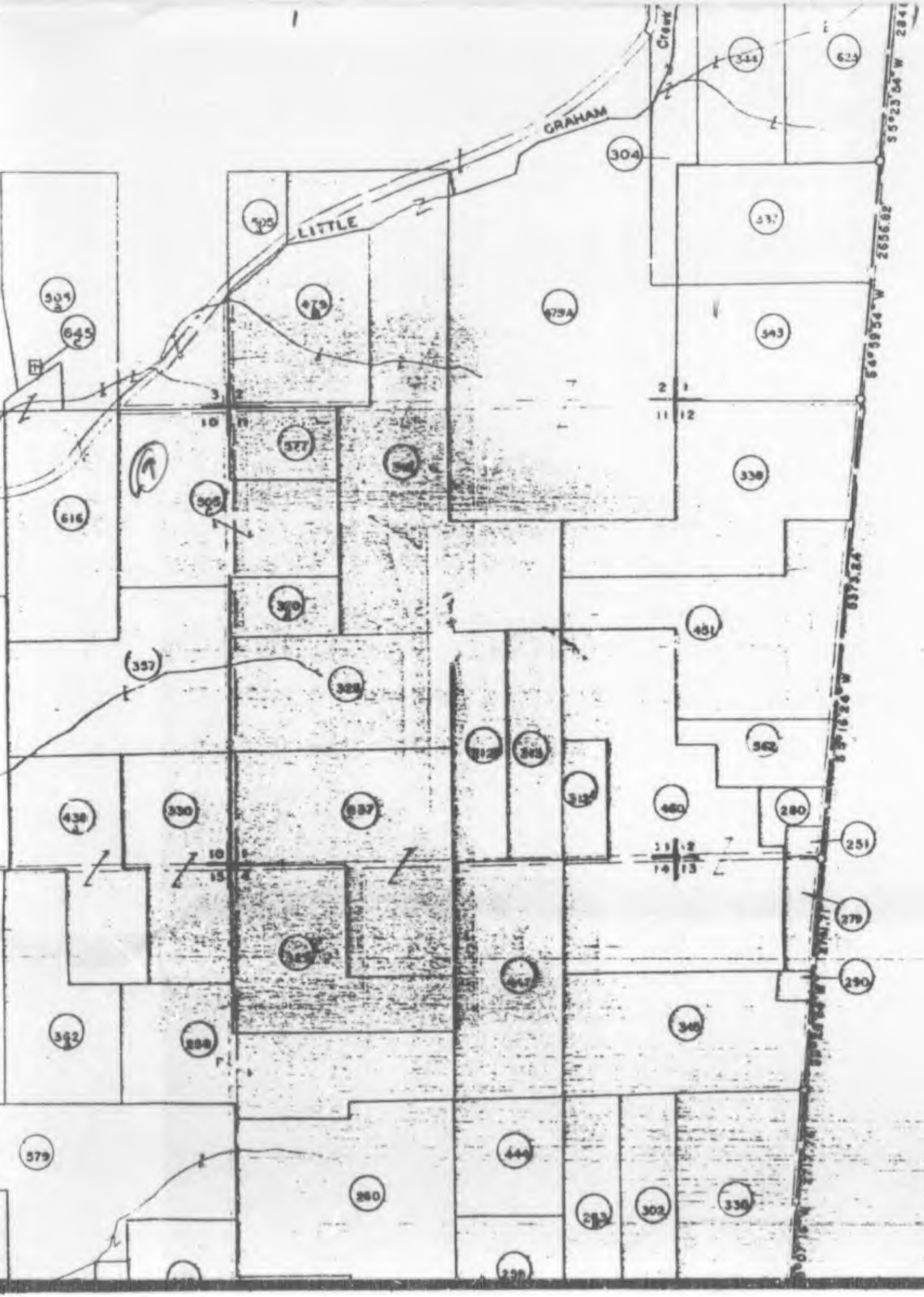
464
307
320
352
288
349
579
280
389
400


GRAHAM
LITTLE
Creek
S 5°23'34" W
2656.62
S 89°59'54" W
S 89°59'54" W
2841
304
344
624
343
338
479A
479
505
645
616
377
360
357
321
451
562
280
251
279
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460
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579
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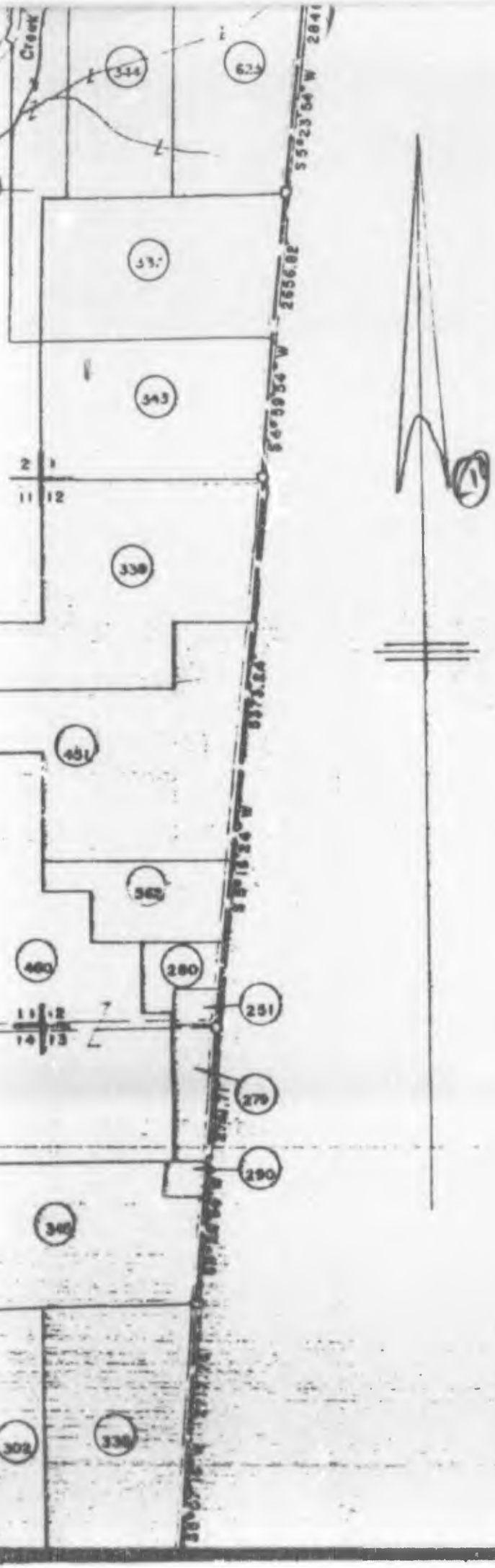
302
336
230



315	HOMER SULLENDER ET UX.	80.00
320A	ADAM MEISBERGER ET UX.	25.30
320B	ADAM MEISBERGER ET UX.	60.00
320C	ADAM MEISBERGER ET UX.	3.00
326A	EVERETT BOSWELL ET UX.	80.00
326B	EVERETT BOSWELL ET UX.	121.00
328	CARL FRANCIS EFFINGER	80.00
329	PETER GLAUBER ET UX.	85.00
330	CLARENCE HALL ET UX.	71.68
331A	MARY B. HAYDEN	96.00
331B	MARY B. HAYDEN	62.00
335	TIMOTHY MEISBERGER ET AL.	87.80
337	B. MARTIN GUEDELHOEFER, COMM.	72.97
338	ALEXANDER MILLER ET UX.	109.00
339A	LOUIS C. NEILL ET UX.	17.10
339B	LOUIS C. NEILL ET UX.	109.75
342	GEO. D. ROBERTSON ET UX.	200.00
343	GRACE ROBINSON ET VIR.	71.00
344	JOSEPH M. SMITH	70.60
345	CHARLES WM. WAGNER ET UX.	86.00
346	GOLDY B. & CLAUDE WILLIAMS	56.00
348	KING WILSON ET UX.	170.61
349	JOHN G. MEISBERGER ET UX.	152.50
350A	JAMES A. & ELIZABETH FRY	98.71
352	BURR COUCH ET UX.	92.95
357	FELIX FERMAN ET UX.	100.49
359	MARIE HANSEL ET VIR.	20.00
362A	BENJAMIN F. LEMEN ET UX.	161.85
362B	BENJAMIN F. LEMEN ET UX.	60.00
363	THOS. P. MEISBERGER ET AL.	10.00
367	ROBERT A. REIBEL ET UX.	40.00
368A	FINLEY SEMON ET UX.	56.50
370	CLARA STEARNS	10.00
372	WILLIAM WILDEY	45.74
374	JAMES F. WRIGHT ET UX.	80.00
385	JOHN GLAUBER JR. ET UX.	160.00
415	EDWARD BEATTY ET UX.	44.00
417	CYRUS CAMPBELL	80.25
420B	EDWARD G. EFFINGER	48.00
422	FRANK G. ETTER ET UX.	124.44
423	GEORGE G. FRY	60.00
424	HANNA L. FRY	133.00
427	JOHN HANSEL ET UX.	3.00
428	MOLLIE O. HARP	80.00
430	ISAAC HARRELL	40.00
432	JOHN J. HARRELL ET UX.	40.00
433	VIRGIL & BARBARA O. HUELSON	145.00
435	EDITH JOHNSON	115.00
438A	STELLA A. MEISBERGER	72.00
438B	STELLA A. MEISBERGER	60.00
439	EVERETT D. RICHARDSON ET UX.	34.42
442	ELIZABETH L. STOUT	94.50
443	GILBERT & LAWRENCE STOUT	63.09
444	JOHN E. TEBELMAN	40.00
450	IDA M. LOSEY ET AL.	101.62
451	GEORGIA A. SPEARS	117.00

	HOMER SULLENDER ET UX.	80.00
A	ADAM MEISBERGER ET UX.	25.80
B	ADAM MEISBERGER ET UX.	60.00
C	ADAM MEISBERGER ET UX.	3.00
A	EVERETT BOSWELL ET UX.	80.00
B	EVERETT BOSWELL ET UX.	121.00
	CARL FRANCIS EFFINGER	80.00
	PETER GLAUBER ET UX.	85.00
	CLARENCE HALL ET UX.	71.68
A	MARY B. HAYDEN	96.00
B	MARY B. HAYDEN	62.00
	TIMOTHY MEISBERGER ET AL.	87.80
	B. MARTIN GUEDELHOEFER, COMM.	72.97
	ALEXANDER MILLER ET UX.	109.00
A	LOUIS C. NEILL ET UX.	17.10
B	LOUIS C. NEILL ET UX.	109.75
2	GEO. D. ROBERTSON ET UX.	200.00
	GRACE ROBINSON ET VIR.	71.00
4	JOSEPH M. SMITH	70.60
5	CHARLES WM. WAGNER ET UX.	86.00
6	GOLDY B. & CLAUDE WILLIAMS	56.00
8	KING WILSON ET UX.	170.61
9	JOHN G. MEISBERGER ET UX.	152.50
0A	JAMES A. & ELIZABETH FRY	98.71
2	BURB COUCH ET UX.	92.95
7	FELIX FERMAN ET UX.	100.49
9	MARIE HANSEL ET VIR.	20.00
2A	BENJAMIN F. LEMEN ET UX.	161.85
2B	BENJAMIN F. LEMEN ET UX.	60.00
3	THOS. P. MEISBERGER ET AL.	10.00
7	ROBERT A. REIBEL ET UX.	40.00
8A	FINLEY SEMON ET UX.	58.50
0	CLARA STEARNS	10.00
2	WILLIAM WILDEY	45.74
4	JAMES F. WRIGHT ET UX.	80.00
5	JOHN GLAUBER JR. ET UX.	160.00
5	EDWARD BEATTY ET UX.	44.00
7	CYRUS CAMPBELL	80.25
20B	EDWARD G. EFFINGER	48.00
22	FRANK C. ETTER ET UX.	124.44
23	GEORGE G. FRY	60.00
24	HANNA L. FRY	133.00
27	JOHN HANSEL ET UX.	3.00
28	MOLLIE O. HARE	80.00
30	ISAAC HARRELL	40.00
32	JOHN J. HARRELL ET UX.	40.00
33	VIRGIL & BARBARA O. HUELSON	145.00
35	EDITH JOHNSON	112.00
38A	STELLA A. MEISBERGER	72.00
38B	STELLA A. MEISBERGER	60.00
39	EVERETT D. RICHARDSON ET UX.	54.42
42	ELIZABETH L. STOUT	94.50
43	GILBERT & LAWRENCE STOUT	63.09
44	JOHN M. TEBELMAN	40.00
50	IDA M. LOSEY ET AL.	101.62
51	GEORGIA A. SPEARS	117.00

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST

SEE SHEET 1 FOR TOTALS

DISPOSALS

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERM

ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM

LEGEND

PROJECT BOUNDARY — N89° 50' W 9373.24'

TRACT BOUNDARY — 27

SECTION CORNER — 2 1 11 12

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS
29 APR 68	REV. ARMY COM. (OC. NO. 4 DATED 2-19-68)

SCALE

0 1/4 1/2 3/4 1

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

UX.	80.00
ET UX.	25.80
ET UX.	60.00
ET UX.	3.00
ET UX.	80.00
ET UX.	121.00
GER	80.00
UX.	85.00
UX.	71.68
	96.00
	62.00
ET AL.	87.80
ER,COMM.	72.97
ET UX.	109.00
UX.	17.10
UX.	109.75
ET UX.	200.00
T VIR.	71.00
	70.60
ET UX.	86.00
WILLIAMS	56.00
.	170.61
R ET UX.	152.50
FRY	98.71
.	92.95
UX.	100.49
IR.	20.00
ET UX.	161.05
ET UX.	60.00
ET AL.	10.00
T UX.	40.00
.	56.50
	10.00
	45.74
UX.	80.00
ET UX.	160.00
ET UX.	44.00
	60.25
	48.00
UX.	124.44
	60.00
	135.00
UX.	3.00
	80.00
	40.00
ET UX.	40.00
MUELSON	145.00
	115.00
RGER	72.00
RGER	80.00
OSON ET UX.	54.42
	94.50
E STOUT	63.09
	40.00
AL.	101.62
	117.00

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST

SEE SHEET 1 FOR TOTALS

DISPOSALS

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERM

ACRES TRANSF'D BY W.D.

ACRES LESSER INTERESTS TERM

LEGEND

PROJECT BOUNDARY

TRACT BOUNDARY

SECTION CORNER

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
29 APR 66	REV. ARMY COM. (OC. NO. 4. DATED. 2-19-66)	G.J.A.

SCALE

0 1320' 2640' 3960' 5280'

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION


STOUT ROAD
BENVILLE ROAD
SULLIVAN ROAD
McDONALD ROAD
BIG
Little
N 0° 27'
4263.03'
N 0°01'47" E
N 88°09'13" W
1356.98'
N 0°01'51" E
1080.
N 0°01'09" E 2681.34'
N 0°01'01" E 2652.15'
N 0°01'01" E
3350.39'
N 0°01'43" E
1
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425
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331H
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350 B
350 A
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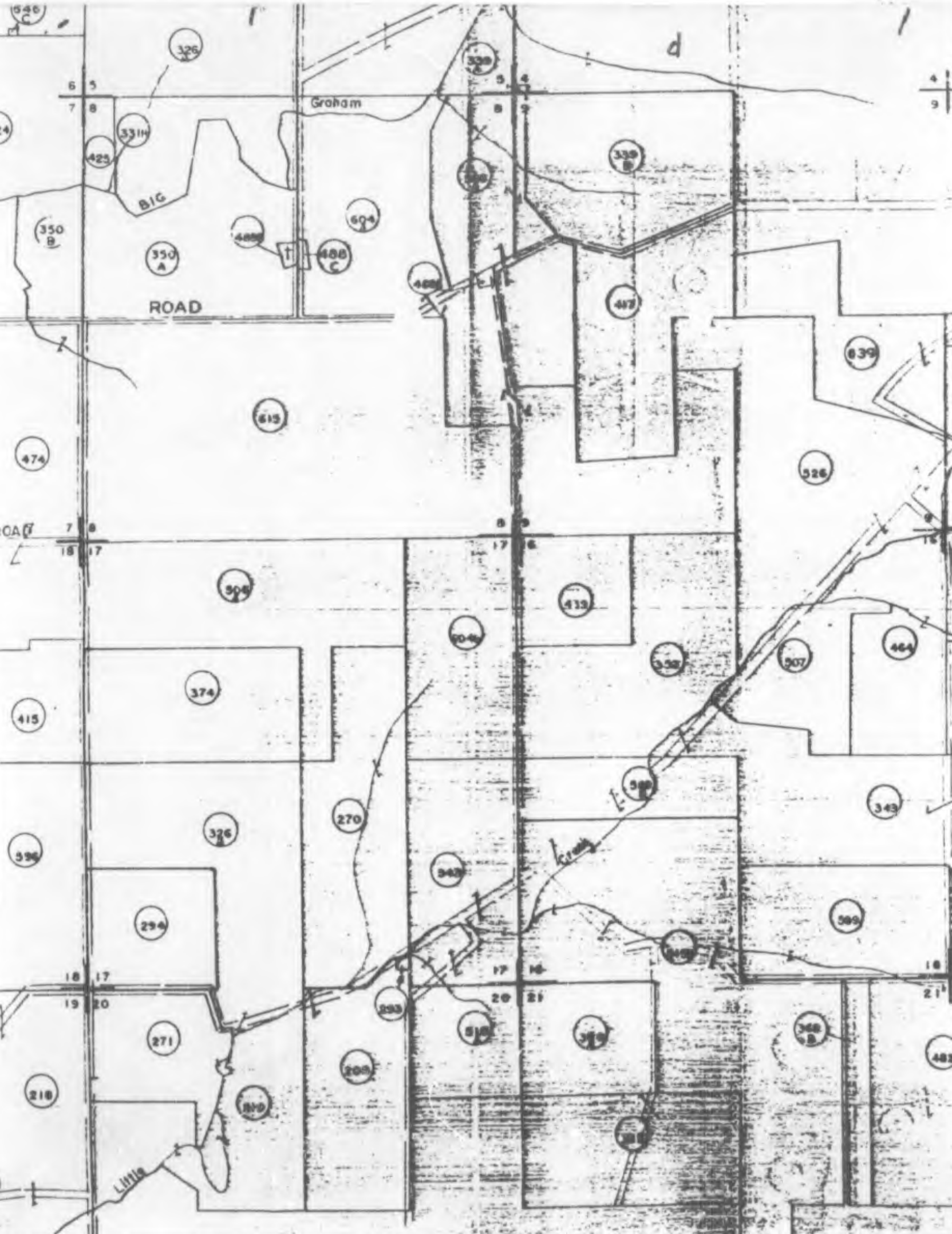
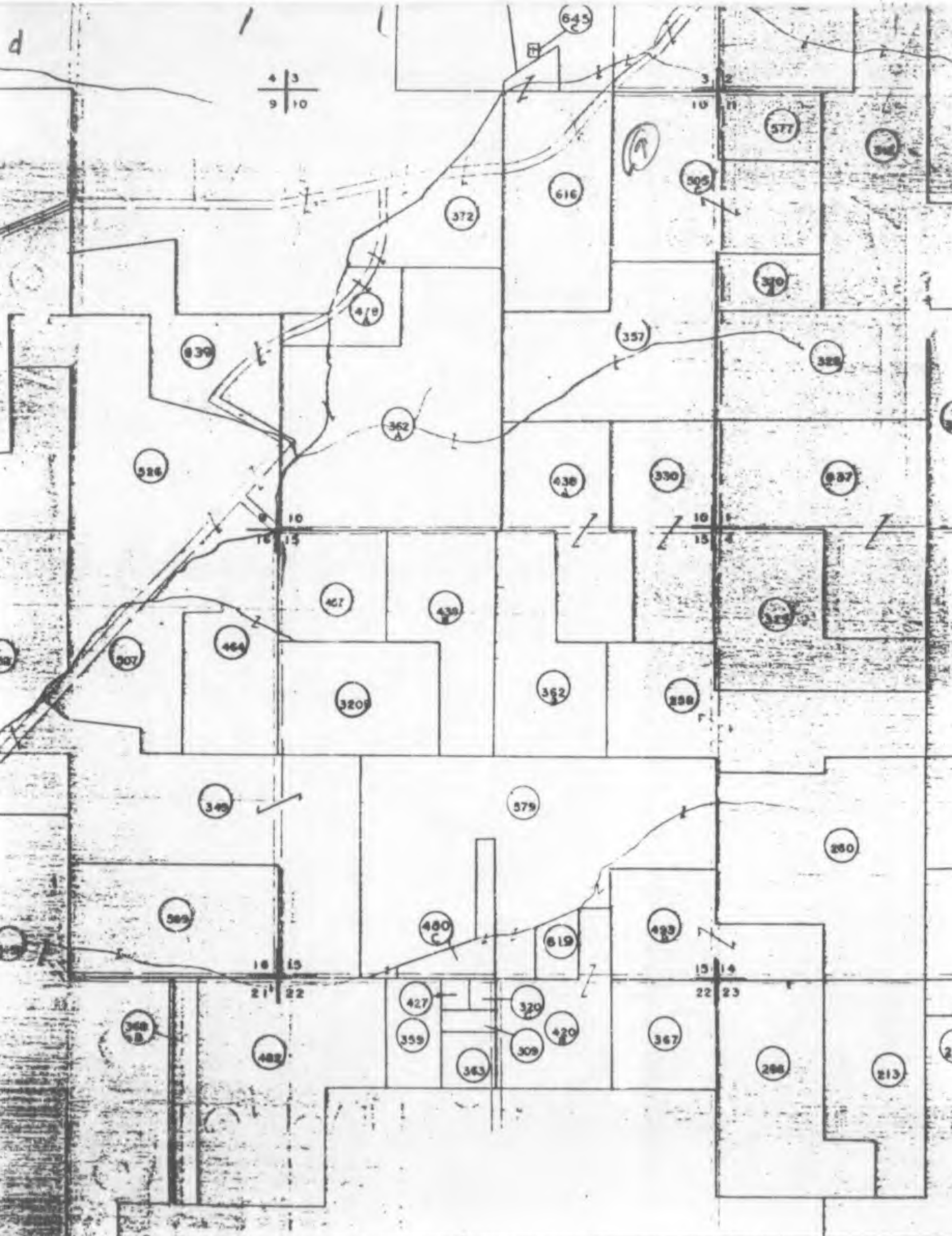

Graham
BIG
ROAD
Little


645
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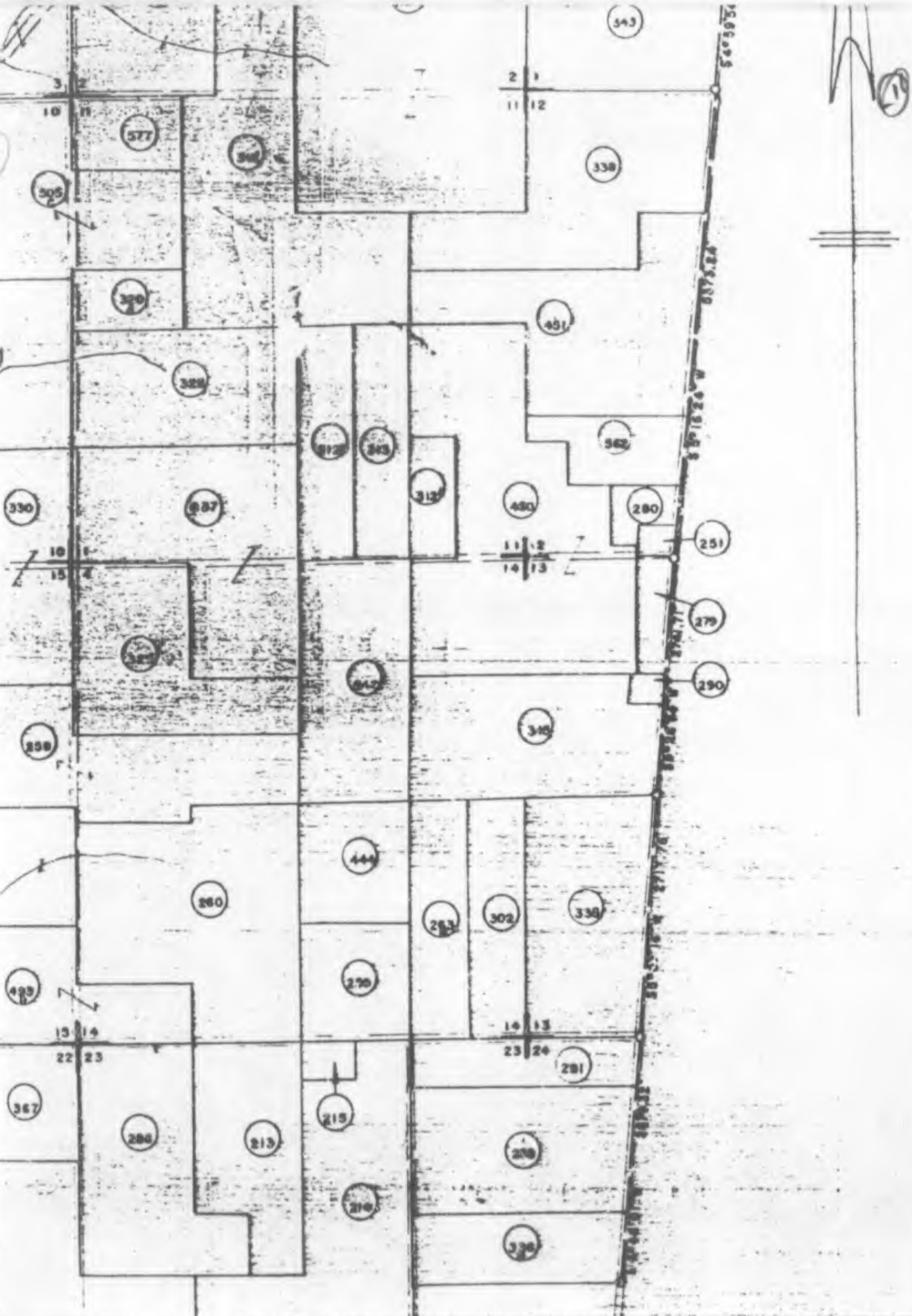

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338	ALEXANDER MILLER ET UX.	109.00
339A	LOUIS G. NEILL ET UX.	17.10
339B	LOUIS G. NEILL ET UX.	109.75
342	GEO. D. ROBERTSON ET UX.	200.00
343	GRACE ROBINSON ET VIR.	71.00
344	JOSEPH M. SMITH	70.60
345	CHARLES WM. WAGNER ET UX.	86.00
346	GOLDY B. & CLAUDE WILLIAMS	56.00
348	KING WILSON ET UX.	170.61
349	JOHN G. MEISBERGER ET UX.	152.50
350A	JAMES A. & ELIZABETH FRY	98.71
352	BURB COUCH ET UX.	92.95
357	FELIX FERMAN ET UX.	100.49
359	MARIE HANSEL ET VIR.	20.00
362A	BENJAMIN F. LEMEN ET UX.	161.85
362B	BENJAMIN F. LEMEN ET UX.	60.00
363	THOS. P. WEISBERGER ET AL.	10.00
367	ROBERT A. REIBEL ET UX.	40.00
368A	FINLEY SEMON ET UX.	56.50
370	CLARA STEARNS	10.00
372	WILLIAM WILDEY	45.74
374	JAMES F. WRIGHT ET UX.	80.00
385	JOHN GLAUBER JR. ET UX.	160.00
415	EDWARD BEATTY ET UX.	44.00
417	CYRUS CAMPBELL	80.25
420B	EDWARD G. EFFINGER	48.00
422	FRANK G. ETTER ET UX.	124.44
423	GEORGE G. FRY	80.00
424	HANNA L. FRY	133.00
427	JOHN HANSEL ET UX.	3.00
428	MOLLIE O. HARE	80.00
430	ISAAC HARRELL	40.00
432	JOHN J. HARRELL ET UX.	40.00
433	VIRGIL & BARBARA O. HUELSON	145.00
435	EDITH JOHNSON	115.00
438A	STELLA A. MEISBERGER	72.00
438B	STELLA A. MEISBERGER	80.00
439	EVERETT D. RICHARDSON ET UX.	54.42
442	ELIZABETH L. STOUT	94.50
443	GILBERT & LAWRENCE STOUT	63.09
444	JOHN E. TEDELMAN	40.00
450	IDA M. LOSEY ET AL.	101.62
451	GEORGIA A. SPEARS	117.00
452	ORA A. & EDITH PERKINS	42.50
453	JOHN SULLIVAN	81.60
457	WILMA F. LEHMAN	40.00
458	GEORGE E. FRY ET AL.	40.00
460	GEORGE WAGNER ET UX.	189.00
464	GRIFFIN & HARLEY LEHMAN	94.25
467	J. FRANKLIN & BESSIE B. SULLIVAN	120.00
468	BONNIE O. FOX ET VIR.	80.00
472	ADDIE DELAY	3.40
473A	HERBERT & ALICE HANS	42.40
473B	HERBERT & ALICE HANS	23.50
474	JAMES C. & WILMA M. HASTINGS	119.00
478A	EMERSON S. & MARY J. MATHEWS	28.00
[illegible]	CHARLES [illegible]	257.00

ACRES SOLD
ACRES LEAS
ACRES TRAN
ACRES LESS

PROJECT BO

TRACT BOUN

SECTION CO

TWP. & CO

ROAD

DATE	
29 APR 66	REV. ARMY

JEFFERS

RECOMMENDED

APPROVED:

ET UX.	109.00
UX.	17.10
UX.	109.75
ET UX.	200.00
T VIR.	71.00
	70.60
ET UX.	86.00
WILLIAMS	6.00
L.	1[illegible] 61
R ET UX.	1[illegible] 0
FRY	98.71
	92.95
UX.	100.49
IR.	20.00
ET UX.	161.85
ET UX.	60.00
ET AL.	10.00
T UX.	40.00
K.	58.50
	10.00
	45.74
UX.	80.00
ET UX.	160.00
ET UX.	44.00
	80.25
	48.00
UX.	124.44
	60.00
	135.00
UX.	3.00
	80.00
	40.00
ET UX.	40.00
HUELSON	145.00
	115.00
GER	72.00
GER	60.00
SON ET UX.	34.42
	94.50
STOUT	63.09
	40.00
RL.	101.62
	117.00
ERKINS	42.50
	81.60
	40.00
L.	40.00
UX.	169.00
EHMAN	34.25
SULLIVAN	120.00
VIR.	80.00
	3.40
ANS	42.42
ANS	23.50
M. HASTINGS	119.00
J. MATHEW	28.00
	257.00

ACRES SOLD.....

ACRES LEASES TERM.....

ACRES TRANSF'D BY W.D.....

ACRES LESSER INTERESTS TERM.....

LEGEND

PROJECT BOUNDARY..... N89° 50' W 5373.24' S74° 24'

TRACT BOUNDARY..... 27

SECTION CORNER..... 2 1 11 12 31 32 6 5

TWP. & COUNTY LINE.....

ROAD.....

DATE	REVISIONS	BY
29 APR 65	REV. ARMY COM. (SC. NO. 4 DATED 2-19-65)	G.J.A.

SCALE

0 1320' 2640' 3960' 5280'

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

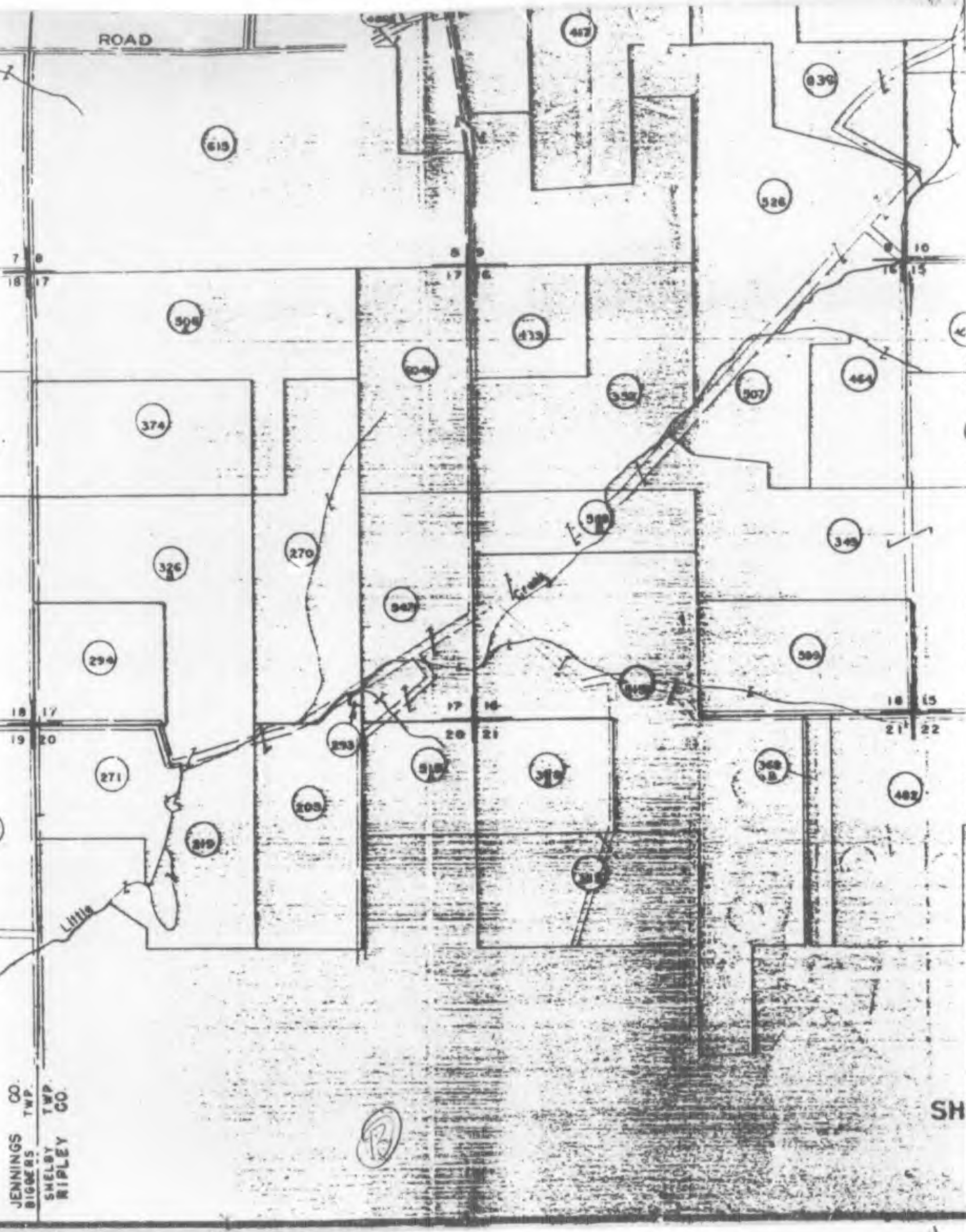
REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED: [illegible] DATE 7-15-44

APPROVED: [illegible] DATE 4-30-46
LT. COL. CORPS OF ENGINEERS

JENNINGS CO.
BIGGERS TWP.
SHELBY TWP
RIPLEY CO.


ROAD
615
417
839
526
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374
326
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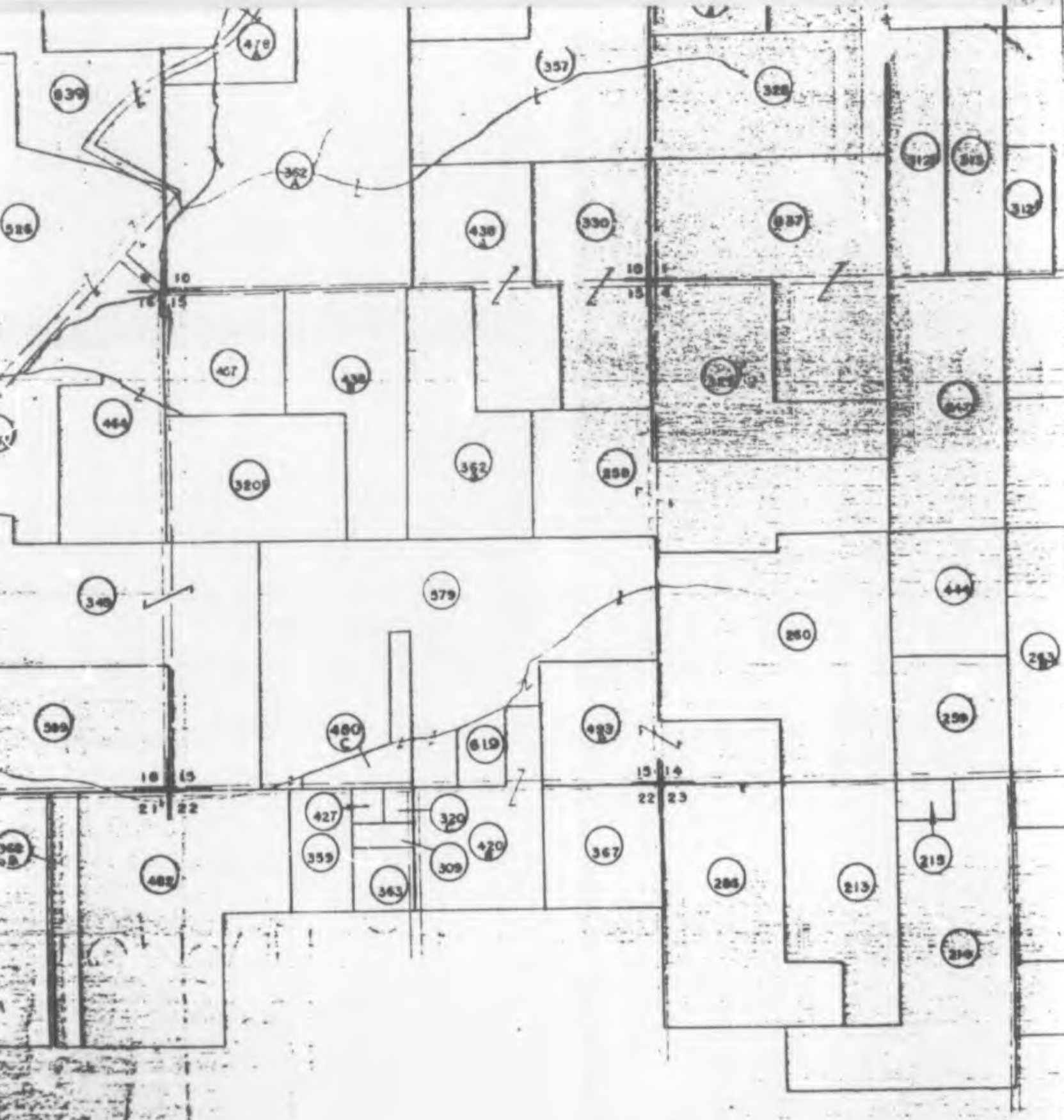
Little
JENNINGS CO.
BIGGERS TWP.
SHELBY TWP.
RIPLEY CO.
SH


357
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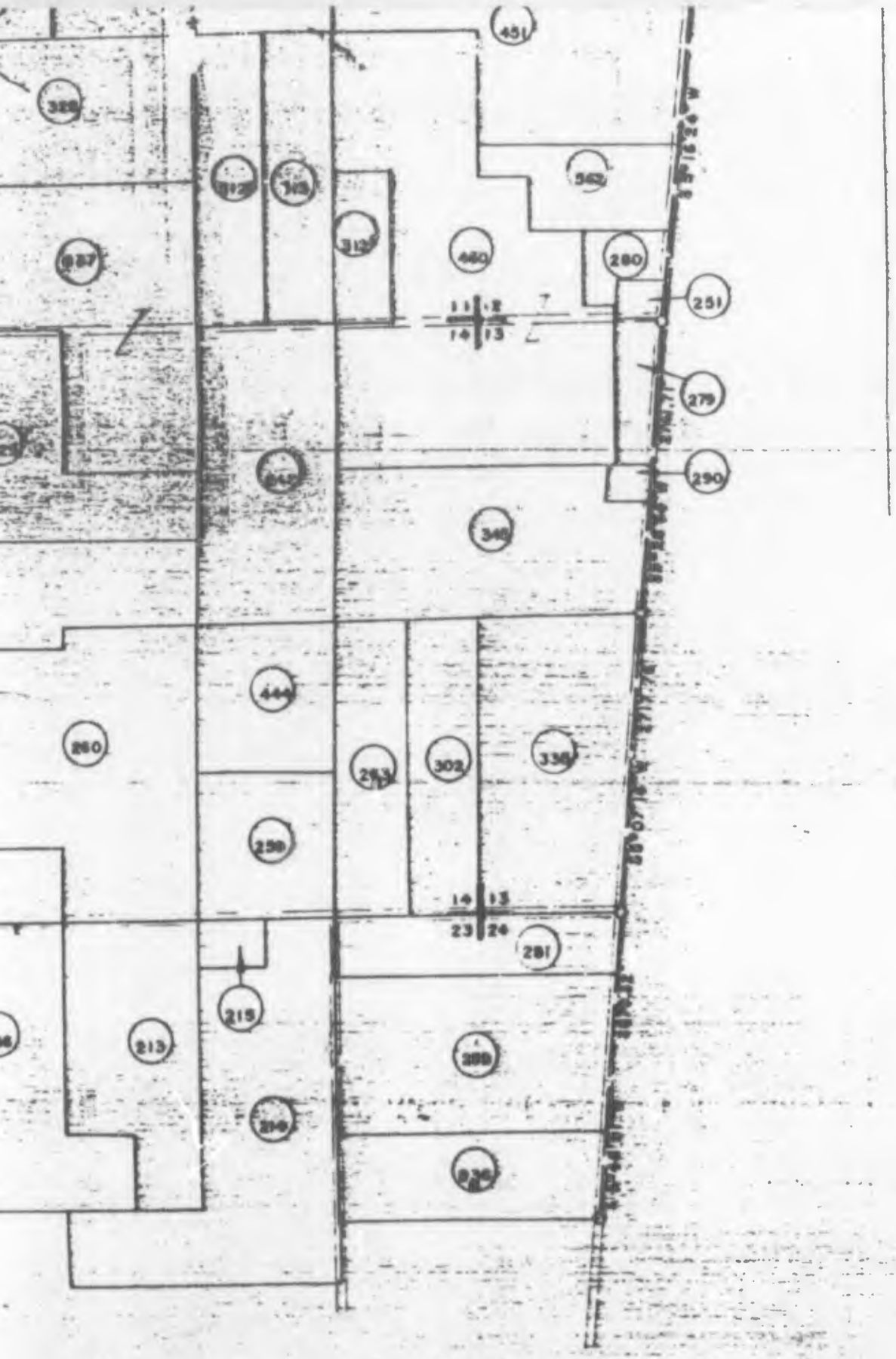
SHEET 2



NOTE
FOR VICINITY MAP AND STATE INDEX SEE SHEET NO. 1

359	MARIE HAR
362A	BENJAMIN
362B	BENJAMIN
363	THOS. P. W
367	ROBERT A.
368A	FINLEY SE
370	CLARA ST
372	WILLIAM W
374	JAMES F. W
385	JOHN GLAU
415	EDWARD E
417	CYRUS C
420B	EDWARD G.
422	FRANK G
423	GEORGE G.
424	HANNA L
427	JOHN HAN
428	MOLLIE O.
430	ISAAC HAR
432	JOHN J. H
433	VIRGIL & BA
435	EDITH JO
438A	STELLA A
438B	STELLA A.
439	EVERETT D
442	ELIZABETH
443	GILBERT B
444	JOHN H.
450	IDA M. LO
451	GEORGIA A
452	ORA A. B
453	JOHN SULL
457	WILMA F. LE
458	GEORGE E.
460	GEORGE W
464	GRIFFIN B
467	J. FRANKLIN
468	BONNIE C
472	ADDIE DE
473A	HERBERT
473B	HERBERT
474	JAMES C.
478A	EMERSON S
479A	CHARLES
479B	CHARLES
480C	THOS MEIS
482	RIPLEY GO
484	ROBERT S
493B	JOHN [illegible]
501	CALLIE H
505A	CLARA B.
505B	CLARA B.
505C	CLARA B.
505D	[illegible] JR.

359	MARIE HANSEL ET VIR.	20.00
362A	BENJAMIN F. LEMEN ET UX.	161.85
362B	BENJAMIN F. LEMEN ET UX.	60.00
363	THOS. P. MEISBERGER ET AL.	10.00
367	ROBERT A. REIBEL ET UX.	40.00
368A	FINLEY SEMON ET UX.	58.50
370	CLARA STEARNS	10.00
372	WILLIAM WILDEY	45.74
374	JAMES F. WRIGHT ET UX.	80.00
385	JOHN GLAUBER JR. ET UX.	160.00
415	EDWARD BEATTY ET UX.	44.00
417	CYRUS CAMPBELL	80.25
420B	EDWARD G. EFFINGER	48.00
422	FRANK C. ETTEN ET UX.	124.44
423	GEORGE G. FRY	40.00
424	HANNA L. FRY	135.00
427	JOHN HANSEL ET UX.	3.00
428	MOLLIE O. HARE	80.00
430	ISAAC HARRELL	40.00
432	JOHN J. HARRELL ET UX.	40.00
433	VIRGIL & BARBARA O. HUELSON	145.00
435	EDITH JOHNSON	115.00
438A	STELLA A. MEISBERGER	72.00
438B	STELLA A. MEISBERGER	60.00
439	EVERETT D. RICHARDSON ET UX.	54.42
442	ELIZABETH L. STOUT	94.50
443	GILBERT & LAWRENCE STOUT	63.09
444	JOHN M. TEBELMAN	40.00
450	IDA M. LOSEY ET AL.	101.62
451	GEORGIA A. SPEARS	117.00
452	ORA A. & EDITH PERKINS	42.50
453	JOHN SULLIVAN	81.60
457	WILMA F. LEHMAN	40.00
458	GEORGE E. FRY ET AL.	40.00
460	GEORGE WAGNER ET UX.	169.00
464	GRIFFIN & HARLEY LEHMAN	34.25
467	J. FRANKLIN & BESSIE M. SULLIVAN	120.00
468	BONNIE O. FOX ET VIR.	80.00
472	ADDIE DELAY	3.40
473A	HERBERT & ALICE HANS	42.42
473B	HERBERT & ALICE HANS	23.50
474	JAMES C. & WILMA M. HASTINGS	119.00
478A	EMERSON S. & MARY J. MATHEWS	28.00
479A	CHARLES MATZ	257.00
479B	CHARLES MATZ	56.00
480C	THOS. MEISBERGER ET AL.	14.00
482	RIPLEY COUNTY BANK	120.50
484	ROBERT STOUT ET UX.	91.83
493B	JOHN EFFINGER	80.00
501	CALLIE HAMILTON ET VIR.	246.00
508A	CLARA B. MATZ	[illegible]
505B	CLARA B. MATZ	[illegible]
505C	CLARA B. MATZ	[illegible]
350A	[illegible]	[illegible]

TRACT BOUNDARY

SECTION CORNER

TWP. & COUNTY LI

ROAD

DATE	REVIS
29 APR 68	REV. ARMY COM. (80) NO. 4

SC

0 1/4

WAR DEPAR
CONSTRUCT

REAL
JEFFERSON PR

MILITARY

RECOMMENDED:

APPROVED:
LT. COL. CORPS OF

COMPILED: A.E.W. TRAC

DATE	BY	REVI
7-19-44	AEW	[illegible]
		[illegible]
9-15-45	NAS	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

TATE

(8)

R.	20.00
ET UX.	161.85
ET UX.	60.00
ET AL.	10.00
UX.	40.00
	56.50
	10.00
	45.74
X.	80.00
ET UX.	160.00
UX.	44.00
	80.25
	48.00
UX.	124.44
	60.00
	135.00
X.	3.00
	80.00
	40.00
T UX.	40.00
UELSON	145.00
	115.00
ER	72.00
ER	60.00
ON ET UX.	54.42
	94.50
STOUT	63.09
	40.00
.	101.62
	117.00
KINS	42.50
	81.60
	40.00
	40.00
UX.	169.00
MAN	34.25
SULLIVAN	120.00
N	80.00
	3.40
S	42.48
S	23.50
HASTINGS	119.00
MATHEW	28.00
	257.00
	68.00
AL	14.00
	120.50
X.	91.80
	60.00
VIR.	240.00
	18.42

TRACT BOUNDARY

SECTION CORNER

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
29 APR 65	REV. ARMY COM. (MC NO. 4 DATED 2-19-65)	G.J.A.

SCALE

0 1320' 2640' 3960' 5280'

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED: Joseph M. Boyle DATE 7-15-44

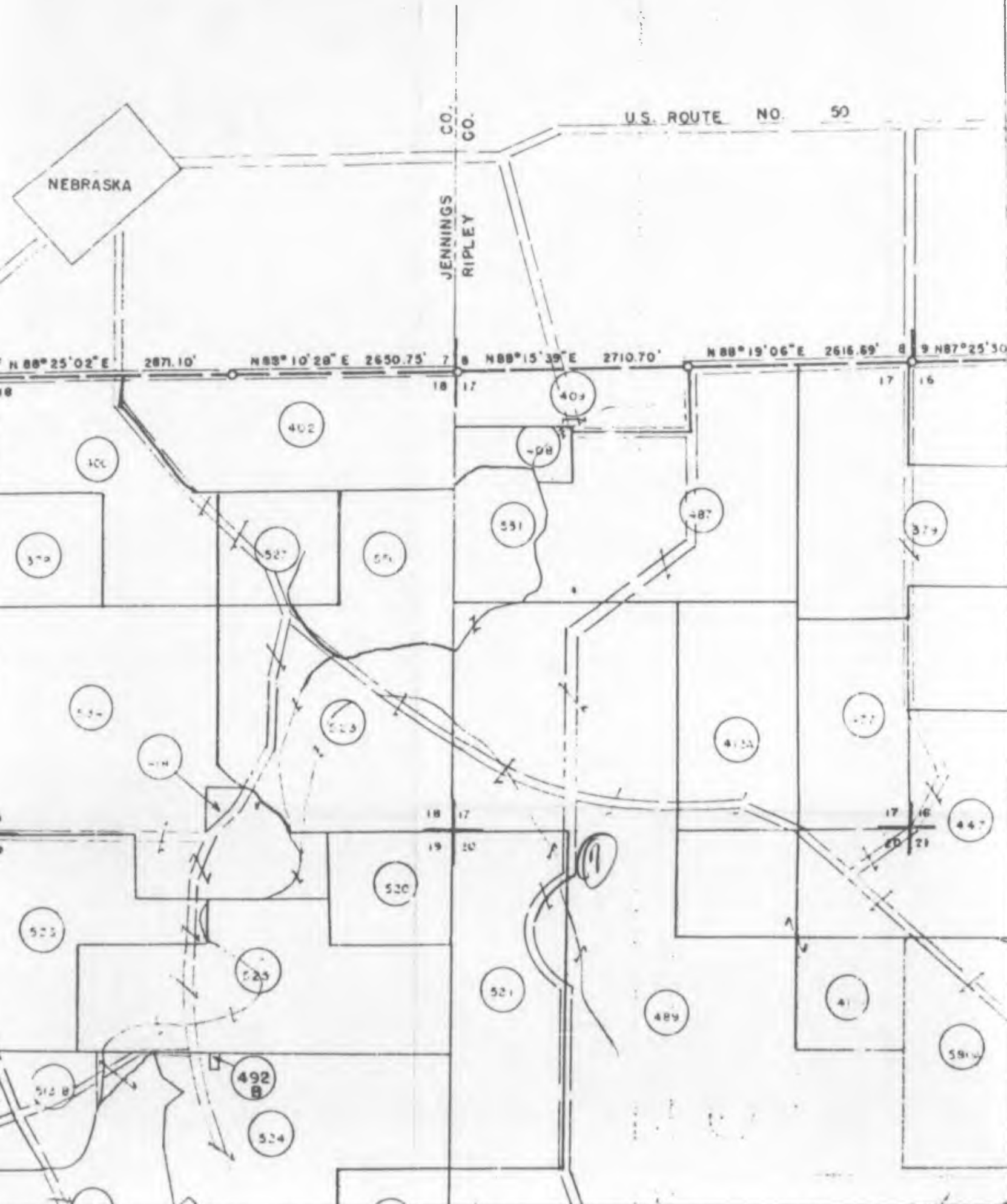
APPROVED: C. E. Gottschalk DATE 4-30-46
LT. COL. CORPS OF ENGINEERS

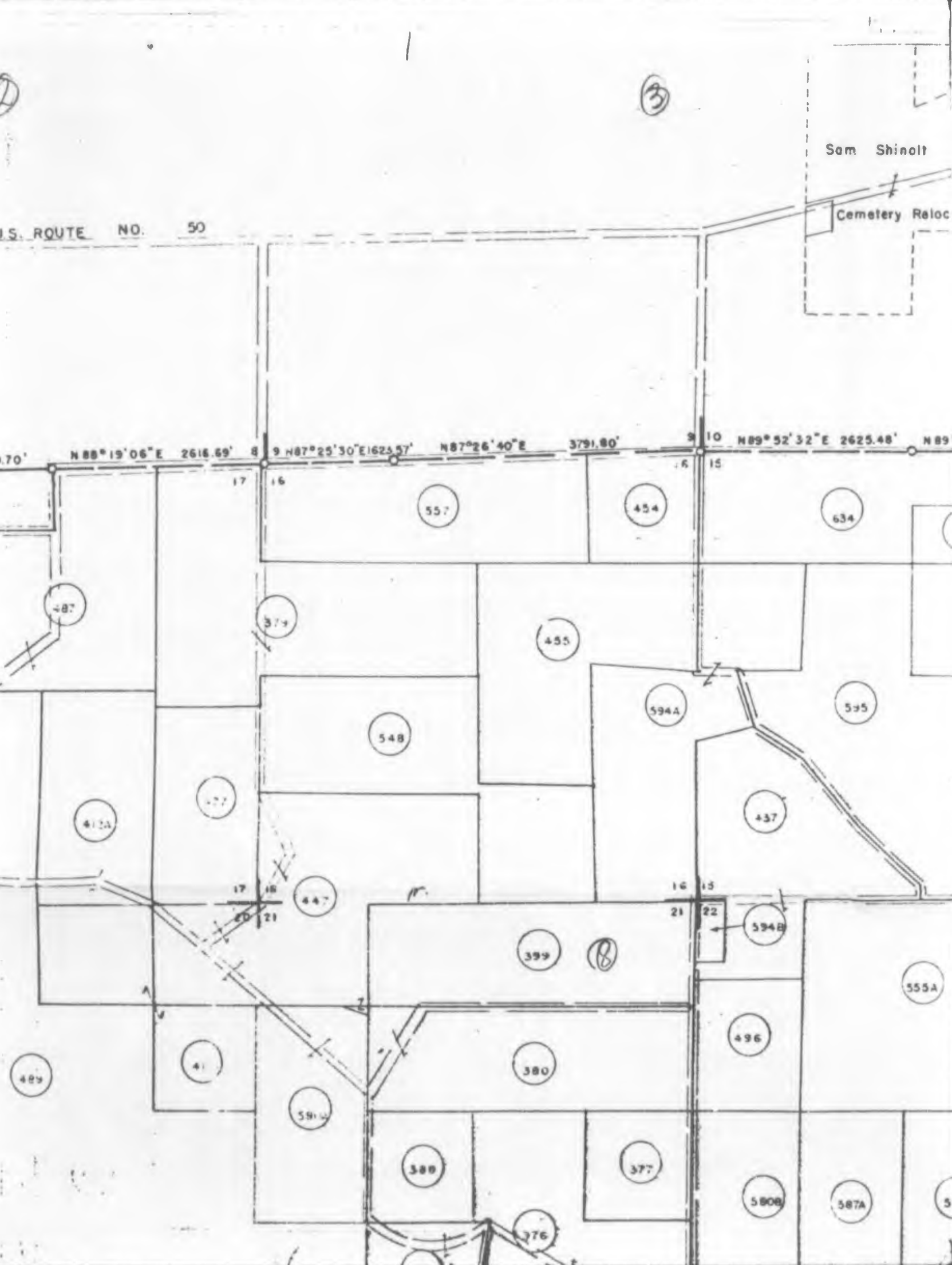
COMPILED: A.B.W. TRACE: A.W. CHECKED: J.H.D.

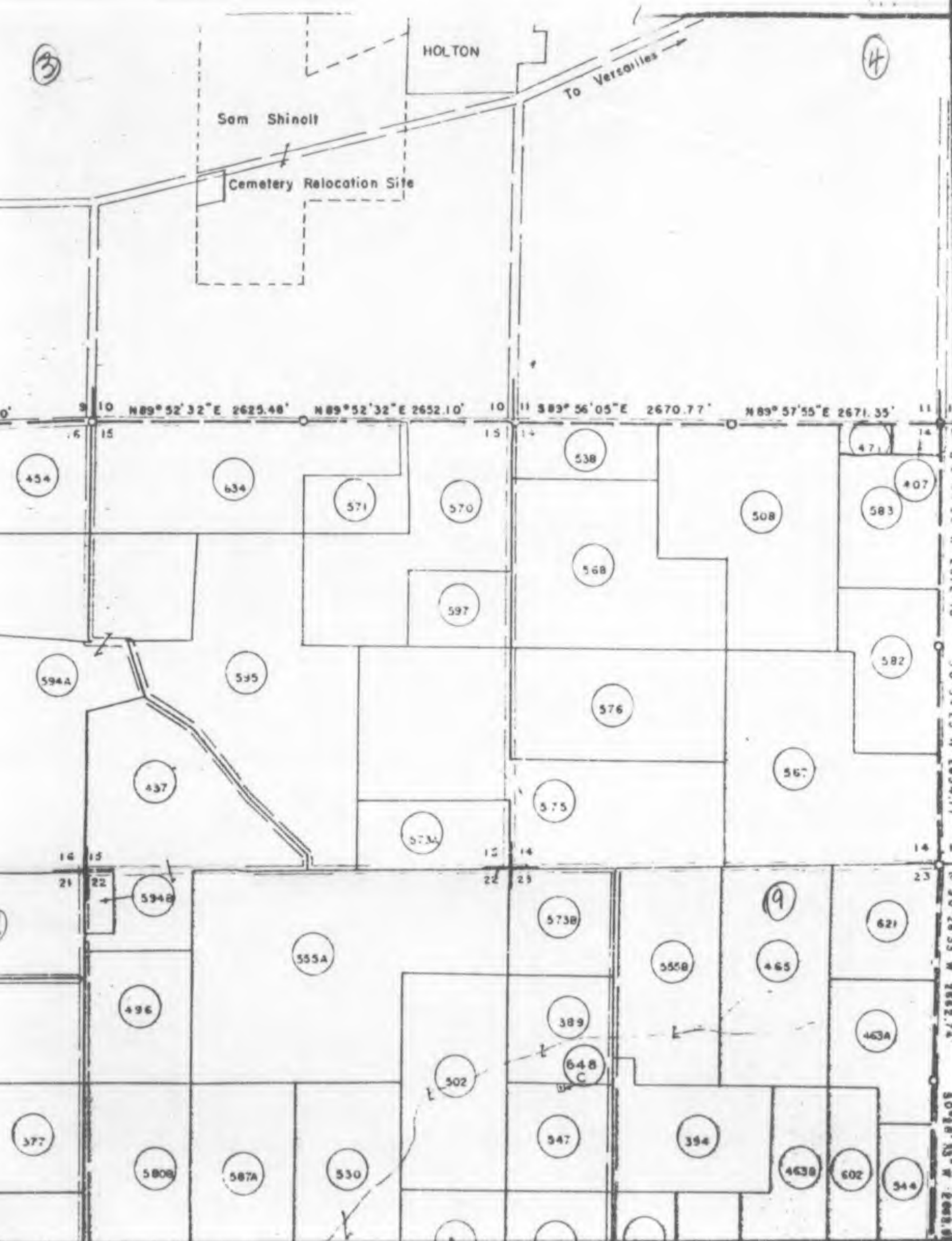
DATE	BY	REVISIONS	APPROVED
7-8-44	ADW		
9-4-45	HAB		

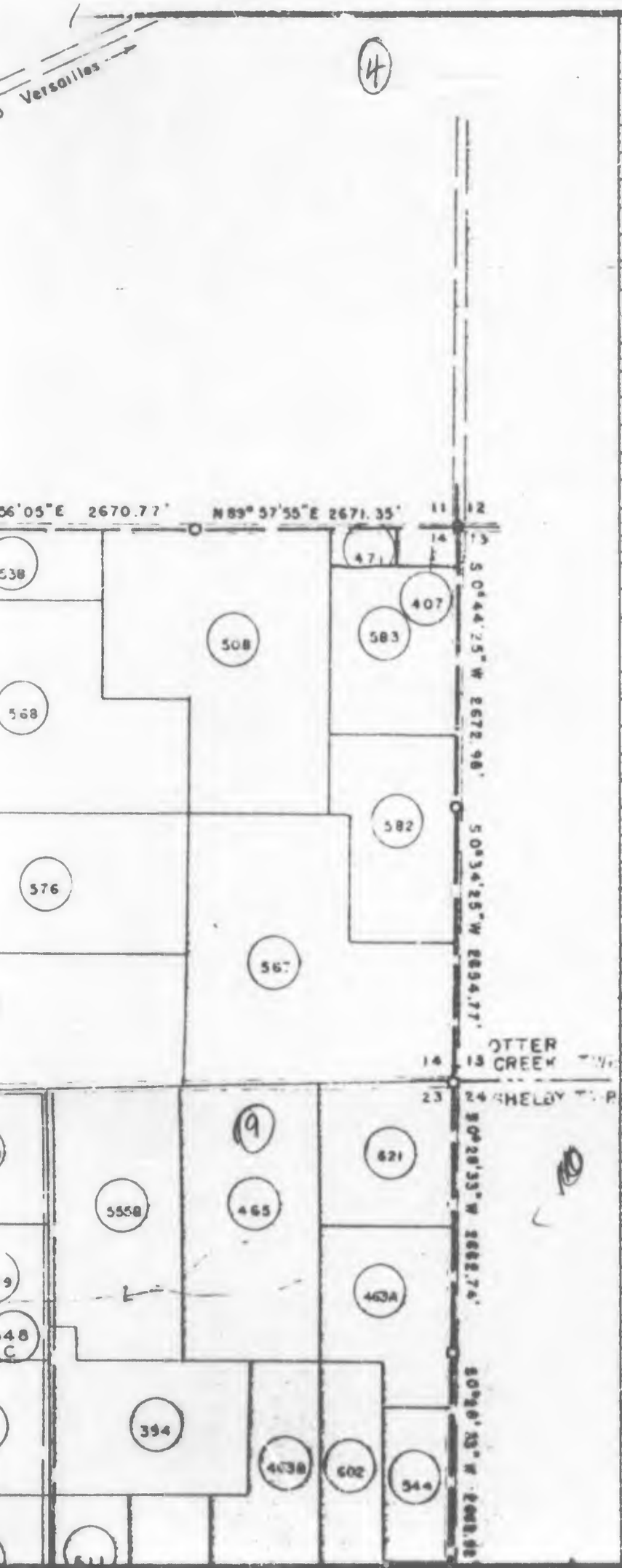
17


NEBRASKA
To North Vernon
N 56° 25' 02" E
2871.10'
N 88° 10' 28" E
S 88° 56' 34" E
5428.60'
N 0° 37' 51" E
527.525'
ROAD
NEBRASKA
3339.92'
402
531
493
574
548
564B
513 B
492 B
524


NEBRASKA
U.S. ROUTE NO. 50
JENNINGS CO.
RIPLEY CO.
N 88° 25' 02" E
2871.10'
N 88° 10' 28" E
2650.75'
N 88° 15' 39" E
2710.70'
N 88° 19' 06" E
2616.69'
N 87° 25' 30
402
551
487
379
520
521
489
524
492 B


Sam Shinolt
Cemetery Reloc
U.S. ROUTE NO. 50
N 88° 19' 06" E 2616.69'
N 87° 25' 30" E 1623.57'
N 87° 26' 40" E 3791.80'
N 89° 52' 32" E 2625.48'
557
454
634
487
374
455
594A
595
548
437
447
594B
399
555A
496
380
489
388
377
587B
587A
376


3
4
HOLTON
To Versailles
Sam Shinolt
Cemetery Relocation Site
N89°52'32"E 2625.48'
N89°52'32"E 2652.10'
S83°56'05"E 2670.77'
N89°57'55"E 2671.35'
454
634
571
570
538
508
583
407
568
597
594A
595
582
576
437
567
575
573A
594B
573B
621
555A
555B
465
496
389
463A
648 C
302
377
580B
587A
530
347
394
463B
602
344
9



TRACT NO.	VENDOR	ACR F
332	BERNHARD J. HEMMELGARN ET UX.	
347 A	AUDREY MAY & ALBERT J. WILSON	
347 B	AUDREY MAY & ALBERT J. WILSON	
376	NATHAN BUCHANAN ET AL.	1
377	NATHAN BUCHANAN	
378	ARTHUR & ELLA BOHNER	
379	HOWARD BROWN	1
380	HERSCHEL F. CASE ET UX.	1
381	*MARGARET RUTH* CASE ET *VIR*	
382	CHARLES E. MATTHEWS ET UX.	1
386	CARL ENGELHARDT ETAL.	
387	OMER T. ELLES ET UX.	
388	NOTRE B. EDENS	
389	GROVER C. FOX ET UX.	
390	CLARENCE HALLGARTH	
392	ERNEST HANNAH ET AL.	1
393	WILFORD & CLAYTON HARRELL	
394	ISAAC HARRELL	
395	JOHN J. HARRELL ETUX.	
397	MARTHA HUELSON	1
398	RAY SMITH HUELSON ET UX.	
399	EVERETT KINDER ET UX.	1
400	JOHN & NORA LANE	1
401	JOHN L. MATZ	1
402	VANESSA MELSON	1
403	LUTHER M. MORGAN ET UX.	
404	FRANK H. MOORE ET UX.	1
407	MARGARET PENCE ET VIR.	
408	DAILY H. RENFRO ET UX.	
409	FREDERIC M. RENFRO ET UX	
410	MINNIE G. & WILLIAM M. RHOADES	
412A	FLORA W. STRUBEN ET VIR.	
412B	FLORA W. STRUBEN ET VIR.	
413	RAMON DUDLEY ETAL	
416	ETTA BOSWELL ET VIR.	
419	FLORA M. DUDLEY	
421	OMER & AURLETT ELLES	
426	WILLIAM & ADELAIDE HANNAH	
429	IRWIN HARRELL	
431	JOHN J. HARRELL ET AL.	
434	STELLA E. JEFFRIES ET VIR.	
437	ROY & FLORENCE LITTELL	
445	JOHN RODDY ET UX.	
446	ALEX EDWARDS ET UX.	
447	JOHN GROSKINSKY	1
448	CLARENCE E. BAKER ET AL.	
454	PHILIP E. SHAW ET UX.	
455	FOREST A. SCOTT ET UX	
456	EMERSON MATHEWS ET UX.	
459	FRANK ARMAND ET UX.	
461A	SAMUEL H. KIDD	
461B	SAMUEL H. KIDD	
462	EARL P. FORRESTER ET UX.	

TRACT NO.	VENDOR	ACREAGE FEE
332	BERNHARD J. HEMMELGARN ET UX.	66.00
347 A	AUDREY MAY & ALBERT J. WILSON	80.00
347 B	AUDREY MAY & ALBERT J. WILSON	80.00
376	NATHAN BUCHANAN ET AL.	115.00
377	NATHAN BUCHANAN	40.00
378	ARTHUR & ELLA BOHNER	43.00
379	HOWARD BROWN	172.00
380	HERSCHEL F. CASE ET UX.	120.00
381	MARGARET RUTH CASE ET VIR	80.00
382	CHARLES E. MATTHEWS ET UX.	103.00
386	CARL ENGELHARDT ETAL.	50.00
387	OMER T. ELLES ET UX.	54.50
388	NOTRE B. EDENS	40.00
389	GROVER C. FOX ET UX.	40.00
390	CLARENCE HALLGARTH	20.00
392	ERNEST HANNAH ET AL.	189.00
393	WILFORD & CLAYTON HARRELL	79.50
394	ISAAC HARRELL	62.00
395	JOHN J. HARRELL ET UX.	1.00
397	MARTHA HUELSON	124.27
398	RAY SMITH HUELSON ET UX.	55.00
399	EVERETT KINDER ET UX.	120.00
400	JOHN & NORA LANE	100.00
401	JOHN L. MATZ	120.00
402	VANESSA MELSON	109.49
403	LUTHER M. MORGAN ET UX.	46.00
404	FRANK H. MOORE ET UX.	103.25
407	MARGARET PENCE ET VIR.	6.00
408	DAILY H. RENFRO ET UX.	22.00
409	FREDERIC M. RENFRO ET UX	35.00
410	MINNIE G. & WILLIAM M. RHOADES	40.00
412A	FLORA W. STRUBEN ET VIR.	80.00
412B	FLORA W. STRUBEN ET VIR.	80.00
413	RAMON DUDLEY ETAL	40.00
416	ETTA BOSWELL ET VIR.	41.00
419	FLORA M. DUDLEY	35.00
421	OMER & AURLETT ELLES	40.00
426	WILLIAM & ADELAIDE HANNAH	120.00
429	IRWIN HARRELL	97.04
431	JOHN J. HARRELL ET AL.	40.00
434	STELLA E. JEFFRIES ET VIR.	19.00
437	ROY & FLORENCE LITTELL	111.60
445	JOHN RODDY ET UX.	80.00
446	ALEX EDWARDS ET UX.	1.50
447	JOHN GROSKINSKY	160.75
448	CLARENCE E. BAKER ET AL.	23.50
454	PHILIP E. SHAW ET UX.	40.00
455	FOREST A. SCOTT ET UX	110.00
456	EMERSON MATHEWS ET UX.	40.00
459	FRANK ARMAND ET UX.	143.00
461A	SAMUEL H. KIDD	40.00
461B	SAMUEL H. KIDD	18.00

FINAL

PROJECT OWNE

(TYPE OF MAPI

STATE INDIANA

COUNTY JEFFERSON, JENNIN

DIVISION OHIO RIVER

DISTRICT LOUISVILLE

*TO OMAHA DISTRICT ON

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MA

MILES OF

*TO LOUISVILLE DIST. 31 MAR

TRANSPORTATION

PENNSYLVANIA

ROUTES 7

ROUTE 50 & 421

EAL & AA TO LOUISVILLE,

ACQUISITION

TOTAL ACRES ACQUIRED

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D

ACRES LESSER INTERESTS

DISPOSALS

TOTAL ACRES DISPOSED O

ACRES SOLD

ACRES LEASES TERMINATE

ACRES TRANSF'D BY W.D.

	ACREAGE FEE
N ET UX.	66.00
WILSON	80.00
WILSON	80.00
AL.	115.00
	40.00
ER	43.00
	172.00
UX.	120.00
VIR	80.00
ET UX.	103.00
.	50.00
.	54.50
	40.00
X.	40.00
	40.00
	189.00
ARRELL	79.50
	62.00
X.	1.00
	124.27
T UX.	55.00
UX.	120.00
	100.00
	120.00
	109.49
ET UX.	46.00
X	103.25
VIR.	6.00
UX.	22.00
UX	35.00
HOADES	40.00
T VIR.	80.00
T VIR.	80.00
	40.00
R.	41.00
	35.00
LES	40.00
HANNAH	120.00
	97.04
L.	40.00
T VIR.	19.00
LL	111.60
	80.00
.	1.50
	160.75
AL.	23.50
X.	40.00
X	110.00
UX.	40.00
	143.00
	40.00
	18.00

(15)

FINAL
PROJECT OWNERSHIP MAP
(TYPE OF MAP)

STATE INDIANA

COUNTY JEFFERSON, JENNINGS & RIPLEY

DIVISION OHIO RIVER

DISTRICT LOUISVILLE
*TO OMAHA DISTRICT ON 1 APRIL 1970

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADISON

MILES OF

*TO LOUISVILLE DIST. 31 MAR. 82

TRANSPORTATION FACILITIES

PENNSYLVANIA RAILROAD

ROUTES 7 STATE ROAD

ROUTE 50 & 421 FEDERAL ROAD

EAL & AA TO LOUISVILLE, KY. AIRLINE

ACQUISITION

TOTAL ACRES ACQUIRED (THIS SHEET) 12,352.43

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTERESTS

SEE SHEET FOR TOTALS

DISPOSALS

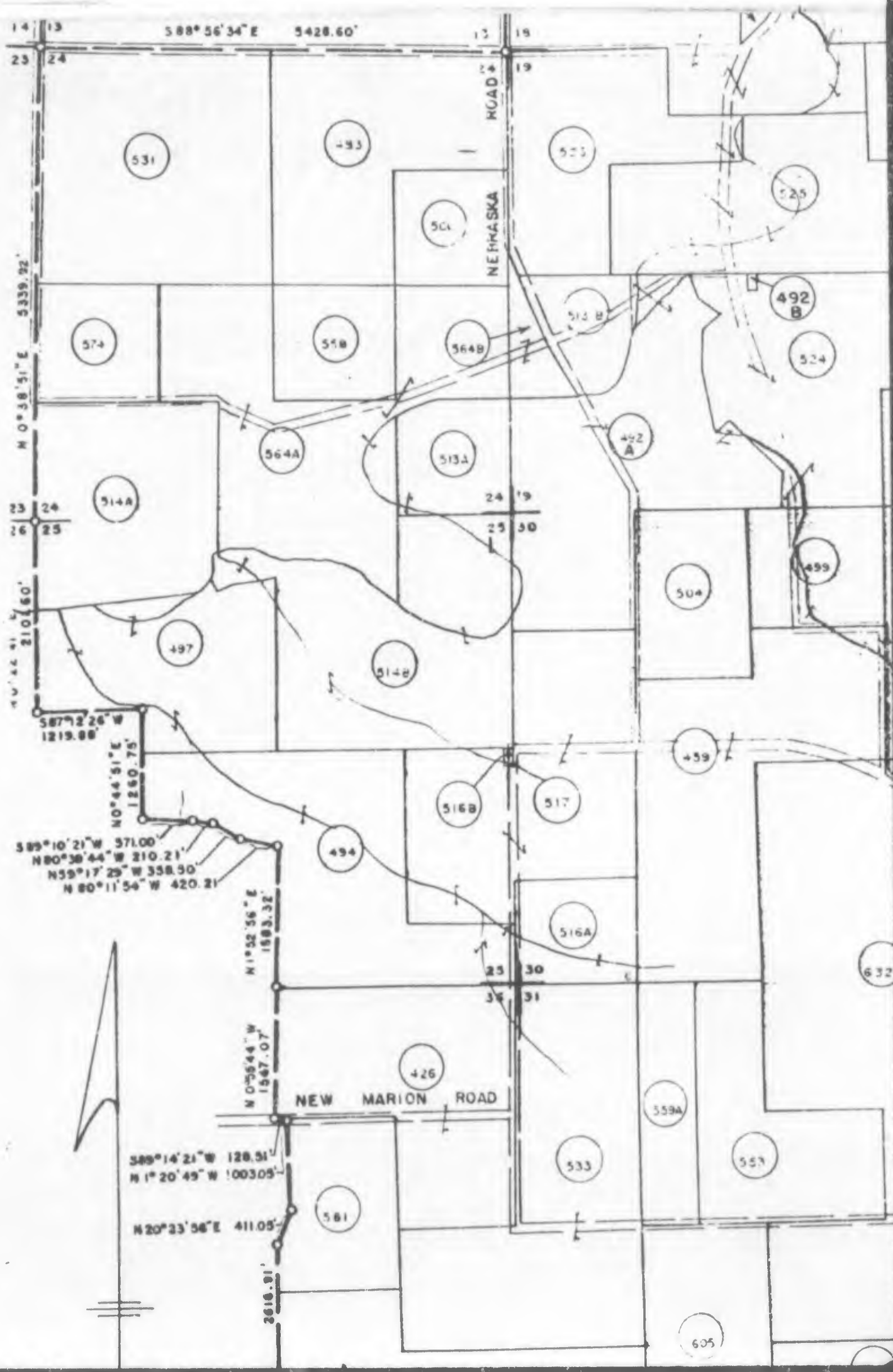
TOTAL ACRES DISPOSED OF

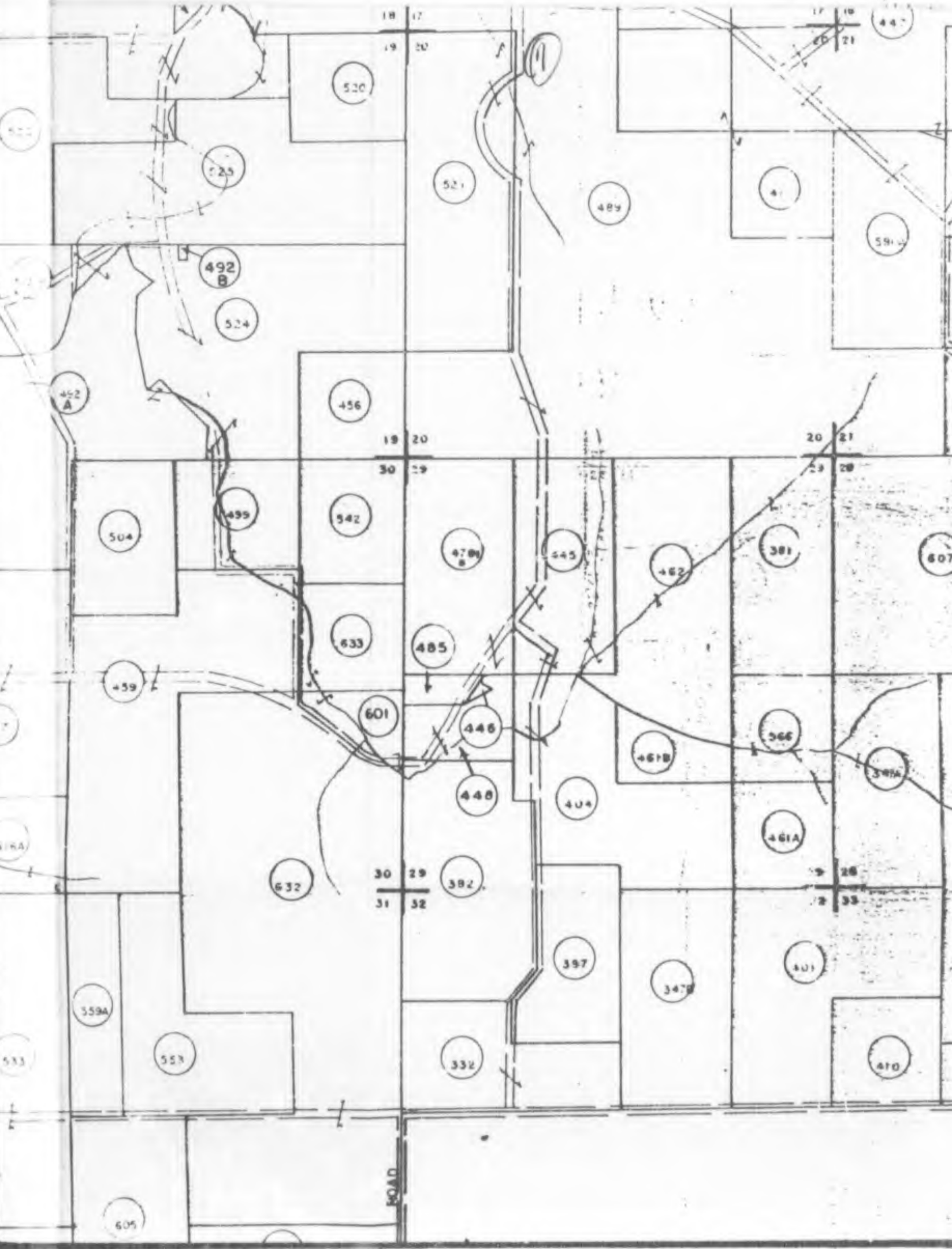
ACRES SOLD

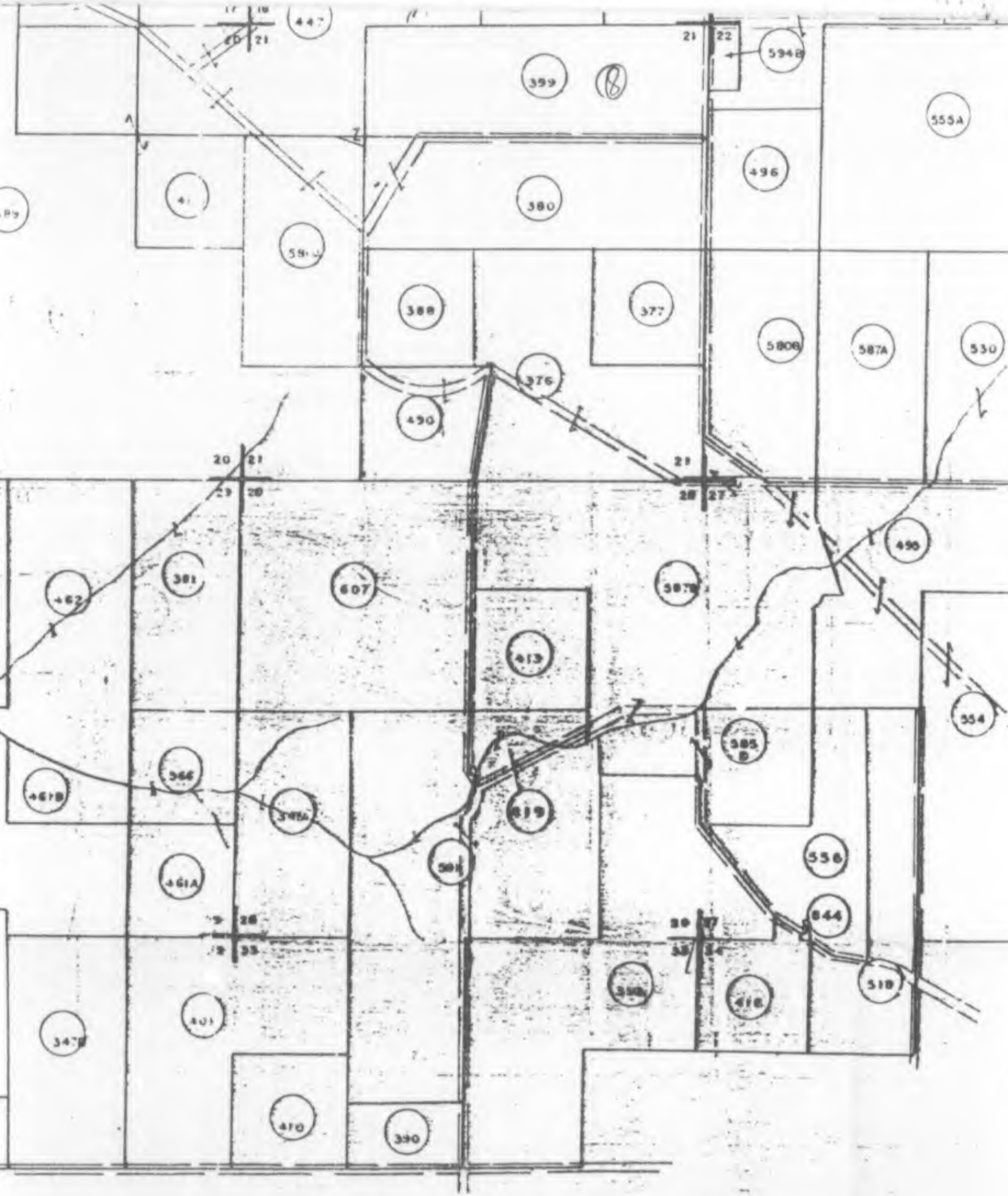
ACRES LEASES TERMINATED

ACRES TRANSF'D BY W.D.

(1)

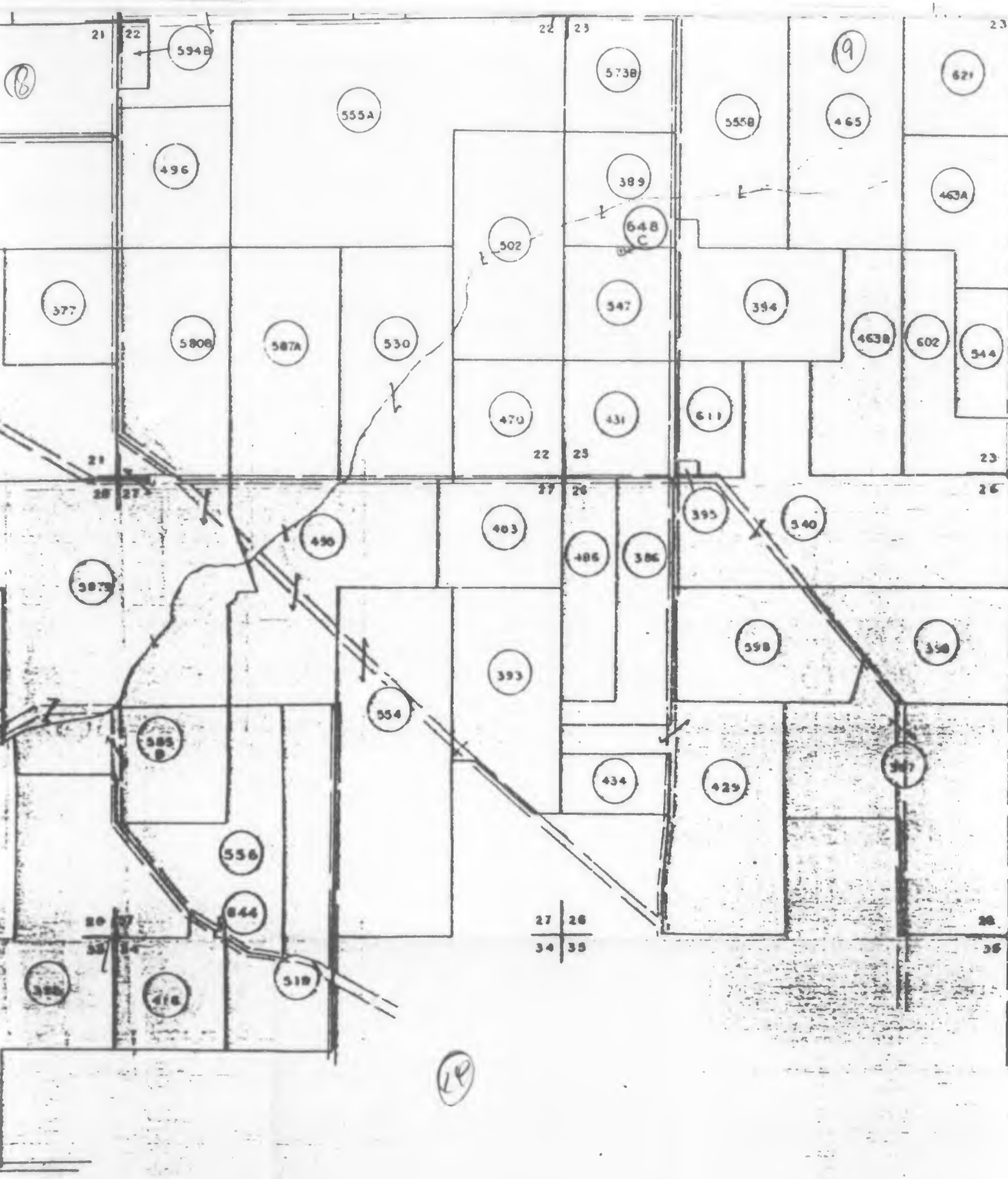

S 88° 56' 34" E 5428.60'
NEBRASKA ROAD
N 0° 38' 51" E 5339.92'
S 87° 12' 26" W 1219.88'
N 0° 44' 51" E 1260.75'
S 89° 10' 21" W 571.00'
N 80° 38' 44" W 210.21'
N 59° 17' 29" W 358.50'
N 80° 11' 54" W 420.21'
N 1° 52' 56" E 1583.32'
N 0° 56' 44" W 1567.07'
NEW MARION ROAD
S 89° 14' 21" W 128.51'
N 1° 20' 49" W 1003.05'
N 20° 23' 58" E 411.05'
2616.91'
531
493
523
525
504
574
558
564B
513B
492 B
524
564A
513A
492 A
514A
499
504
497
514B
459
516B
517
494
516A
632
426
559A
533
553
561
605


520
521
489
492 B
524
456
492 A
504
499
542
445
462
381
607
633
485
459
601
446
366
461B
448
404
461A
632
392
397
401
347B
559A
553
332
410
605
ROAD

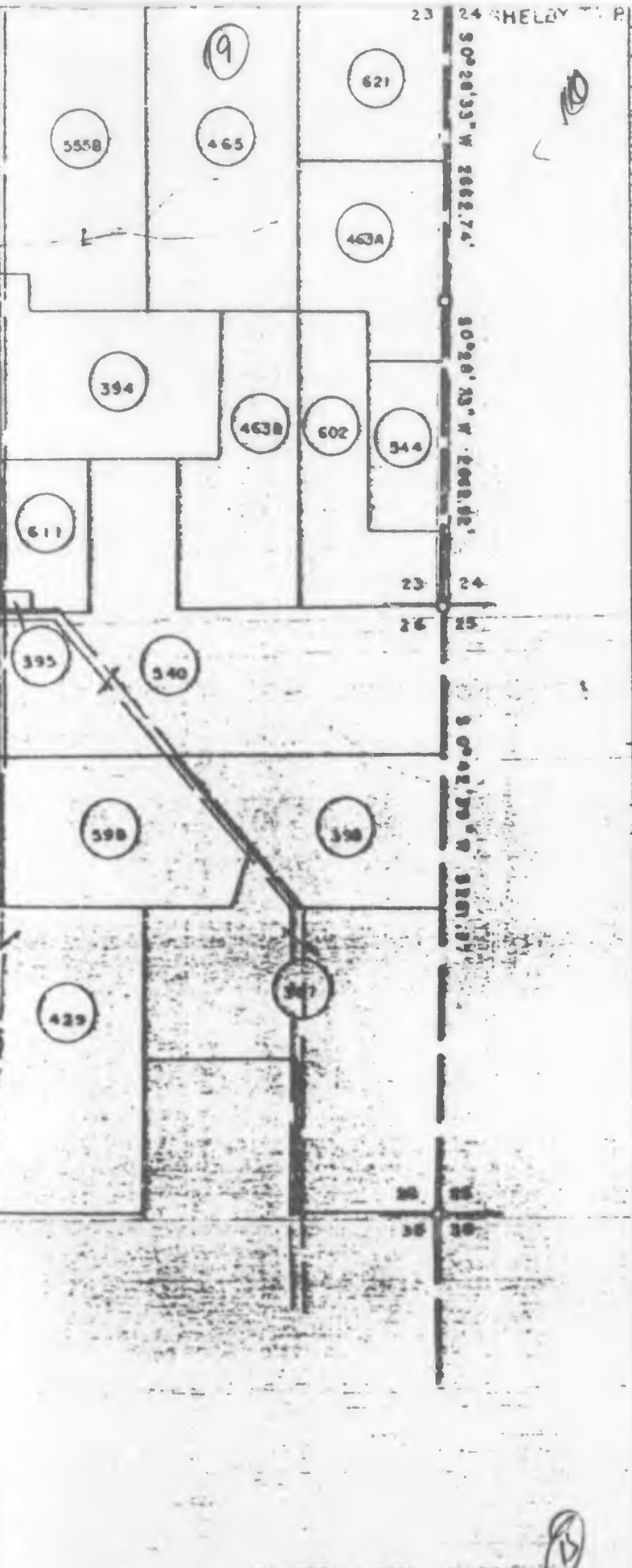


TRACT NO.

VENDOR



TRACT NO.	VENDOR	ACREAGE	TRACT NO.	VENDOR



419	FLORA M. DUDLEY	35.0
421	OMER & AURLETT ELLES	40.0
426	WILLIAM & ADELAIDE HANNAH	120.0
429	IRWIN HARRELL	97.0
431	JOHN J. HARRELL ET AL.	40.0
434	STELLA E. JEFFRIES ET VIR.	19.0
437	ROY & FLORENCE LITTELL	111.6
445	JOHN RODDY ET UX.	80.0
446	ALEX EDWARDS ET UX.	1.5
447	JOHN GROSKINSKY	160.7
448	CLARENCE E. BAKER ET AL.	23.5
454	PHILIP E. SHAW ET UX.	40.0
455	FOREST A. SCOTT ET UX	110.0
456	EMERSON MATHEWS ET UX.	40.0
459	FRANK ARMAND ET UX.	143.0
461A	SAMUEL H. KIDD	40.0
461B	SAMUEL H. KIDD	18.0
462	EARL P. FORRESTER ET UX.	105.0
463A	FRED J. HUELSEN JR. ET UX.	49.2
463B	FRED J. HUELSEN JR. ET UX.	49.2
465	HENRY H. SHAW ET UX.	80.0
470	SARAH E. BROWNING ET VIR.	40.0
471	LUELLA MURDOCK, CRULO ET VIR.	6.0
477	WM. LIENEHOOP, ET AL.	70.0
478B	EMERSON S. & MARY J. MATHEWS	80.0
483	GEO. W. & MARY A. ROSEBROCK	120.0
485	HENRY VOELKEL ET UX.	7.0
486	HAROLD WHITAKER ET UX.	40.0
487	NANCY GRAHAM MOORE ET AL.	152.8
489	NICHOLAS BRUNNER	600.0
490	HOWARD L. BUCHANAN ET UX.	45.0
492-A	ASA W. & SARAH J. EDWARDS	150.0
494	CORNELIUS FITZGERALD ET UX.	125.0
495	DITMER FREUDENSTEIN ET UX	109.9
496	SUSIE FREUDENSTEIN ET VIR.	50.0
497	RUTH GADD ET VIR.	96.0
499	WM. G. & DOROTHY GRIFFIN	40.5
500	JAMES H. GRINSTEAD ET UX.	40.0
502	LANCE IREDALE	80.0
503	JAMES A. & PEARL A. JACKSON	107.5
504	LEONARD E. MACK ET UX.	60.
508	FRANK & LOLA TARTER	108.
513A	CLARENCE BLEDSOE	40.0
513B	CLARENCE BLEDSOE	30.0
514A	MILTON CARTER ET AL.	107.
514B	MILTON CARTER ET AL.	145.
516A	ALVIN W. FITZGERALD ET AL.	40.0
516B	ALVIN W. FITZGERALD ET AL.	0.5
517	JOHN FITZGERALD	145.5
518	CHARLES S. FURLOW ET UX.	77.
520	SYLVANNUS G. HARDESTY ET UX.	40.0
521	SYLVANNUS G. HARDESTY ET UX.	120.0
523	EMIL & MARY E. HUELSEN	130.5
524	ARLIE H. JESTER ET UX.	138.0
525	LANDON M. KIBLER ET UX.	138.
527	ANNA LEHIGH	40.0
530	NOBLE J. SHEPHERD ET UX.	80.
531	CHARLES [illegible] ET UX.	160.

	VENDOR	ACREAGE

FLORA M. DUDLEY	35.00
OMER & AURLETT ELLES	40.00
WILLIAM & ADELAIDE HANNAH	120.00
IRWIN HARRELL	97.04
JOHN J. HARRELL ET AL.	40.00
STELLA E. JEFFRIES ET VIR.	19.00
ROY & FLORENCE LITTELL	111.60
JOHN RODDY ET UX.	80.00
ALEX EDWARDS ET UX.	1.50
JOHN GROSKINSKY	160.75
CLARENCE E. BAKER ET AL.	23.50
PHILIP E. SHAW ET UX.	40.00
FOREST A. SCOTT ET UX	110.00
EMERSON MATHEWS ET UX.	40.00
FRANK ARMAND ET UX.	143.00
SAMUEL H. KIDD	40.00
SAMUEL H. KIDD	18.00
EARL P. FORRESTER ET UX.	105.00
FRED J. HUELSEN JR. ET UX.	49.25
FRED J. HUELSEN JR. ET UX.	49.20
HENRY H. SHAW ET UX.	80.00
SARAH E. BROWNING ET VIR.	40.00
LUELLA MURDOCK, CRULO ET VIR.	6.00
WM. LIENEHOOP, ET AL.	70.00
EMERSON & MARY J. MATHEWS	80.00
GEO. W. & MARY A. ROSEBROCK	120.00
HENRY VOELKEL ET UX.	7.00
HAROLD WHITAKER ET UX.	40.00
NANCY GRAHAM MOORE ET AL.	152.88
NICHOLAS BRUNNER	600.00
HOWARD L. BUCHANAN ET UX.	45.00
ASA W. & SARAH J. EDWARDS	150.00
CORNELIUS FITZGERALD ET UX.	125.00
DITMER FREUDENSTEIN ET UX.	109.92
SUSIE FREUDENSTEIN ET VIR.	50.00
RUTH GADD ET VIR.	96.01
WM. G. & DOROTHY GRIFFIN	40.50
JAMES H. GRINSTEAD ET UX.	40.00
LANCE IREDALE	80.00
JAMES A. & PEARL A. JACKSON	107.50
LEONARD E. MACK ET UX.	60.00
FRANK & LOLA TARTER	108.47
CLARENCE BLEDSOE	40.00
CLARENCE BLEDSOE	30.00
MILTON CARTER ET AL.	107.00
MILTON CARTER ET AL.	145.00
ALVIN W. FITZGERALD ET AL.	40.00
ALVIN W. FITZGERALD ET AL.	0.50
JOHN FITZGERALD	145.50
CHARLES S. FURLOW ET UX.	77.63
SYLVANNUS G. HARDESTY ET UX.	40.00
SYLVANNUS G. HARDESTY ET UX.	120.00
EMIL & MARY E. HUELSEN	130.00
ARLIE K. JESTER ET UX.	138.00
LANDON M. KIBLER ET UX.	138.00
ANNA LEHIGH	40.00
NOBLE J. SHEPHERD ET UX.	80.00
CHARLES CUMBERWORTH ET UX.	160.00

ACRES FEE
ACRES LEASED TO W.D.
ACRES TRANSFERRED TO W.D.
ACRES LESSER INTERESTS

SEE SHEET FOR TOTAL

DISPOSALS

TOTAL ACRES DISPOSED OF
ACRES SOLD
ACRES LEASES TERMINATED
ACRES TRANSF'D BY W.D.
ACRES LESSER INTEREST TERM.

LEGEND

PROJECT BOUNDARY — N 88° 50' 30" W 52.91

TRACT BOUNDARY — 12

SECTION CORNER — 22 | 23 / 27 | 26

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS
29 APR 66	REV. ARMY COM. (GO NO. 4 DATED 2-19-65)

SCALE

0 — 1320' — 2640' — 3960' — 5

0 — 1/4 — 1/2 — 3/4

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE

	35.00
LLES	40.00
HANNAH	120.00
	97.04
AL.	40.00
ET VIR.	19.00
ELL	111.60
	80.00
X.	1.50
	160.75
T AL.	23.50
UX.	40.00
UX	110.00
ET UX.	40.00
X.	143.00
	40.00
	18.00
T UX.	105.00
T UX.	49.25
T UX.	49.20
X.	80.00
T VIR.	40.00
ULO ET VIR.	6.00
L.	70.00
THEWS	80.00
EBROCK	120.00
UX.	7.00
UX.	40.00
ET AL.	152.88
	600.00
ET VIR.	45.00
EDWARDS	150.00
D ET UX.	125.00
ET UX.	109.92
ET VIR.	50.00
R.	96.01
IFFIN	40.50
T UX.	40.00
	80.00
JACKSON	107.50
ET UX.	60.00
ER	108.47
	40.00
	30.00
AL.	107.00
AL.	145.00
D ET AL.	40.00
D ET AL.	0.50
	145.50
ET UX.	77.63
TY ET UX.	40.00
TY ET UX.	120.00
LSEN	130.00
UX.	138.00
ET UX.	138.00
	40.00
ET UX.	80.00
ET UX.	160.00

ACRES FEE _____ SEE SHEET 1 FOR TOTALS

ACRES LEASED TO W.D. _____

ACRES TRANSFERRED TO W.D. _____

ACRES LESSER INTERESTS _____

(11)

DISPOSALS

TOTAL ACRES DISPOSED OF _____

ACRES SOLD _____

ACRES LEASES TERMINATED _____

ACRES TRANSF'D BY W.D. _____

ACRES LESSER INTEREST TERM.

LEGEND

PROJECT BOUNDARY _____ N 88° 50' 30" W 3281.1'

TRACT BOUNDARY _____ (12)

SECTION CORNER _____ 22 | 23 / 27 | 26 — 36 | 31 / 1 | 6

TWP. & COUNTY LINE _____

ROAD _____

DATE	REVISIONS	BY
29 APR 66	REV. ARMY COM. 160 NO. 4 DATED 2-19-66	E.J.A.

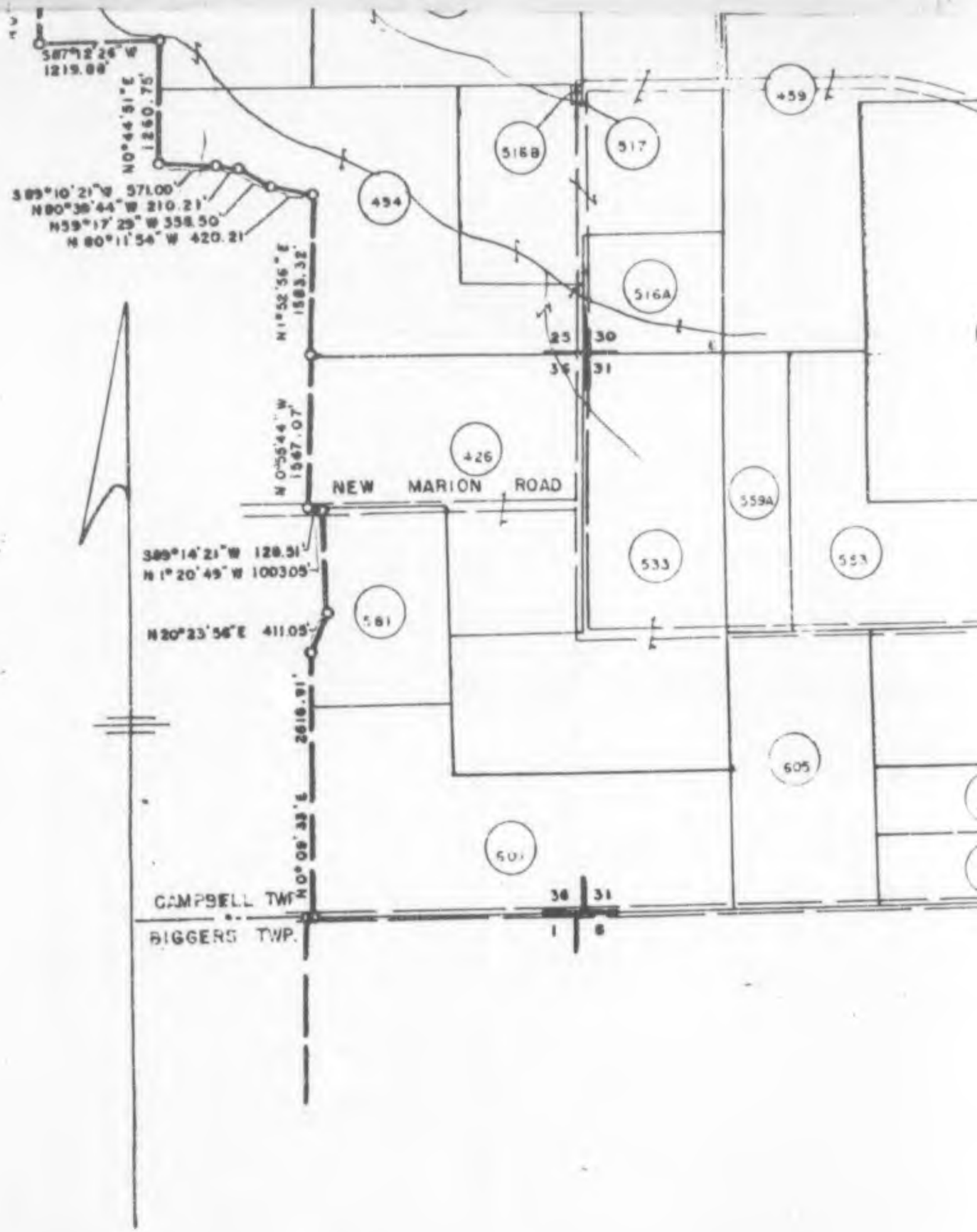
SCALE

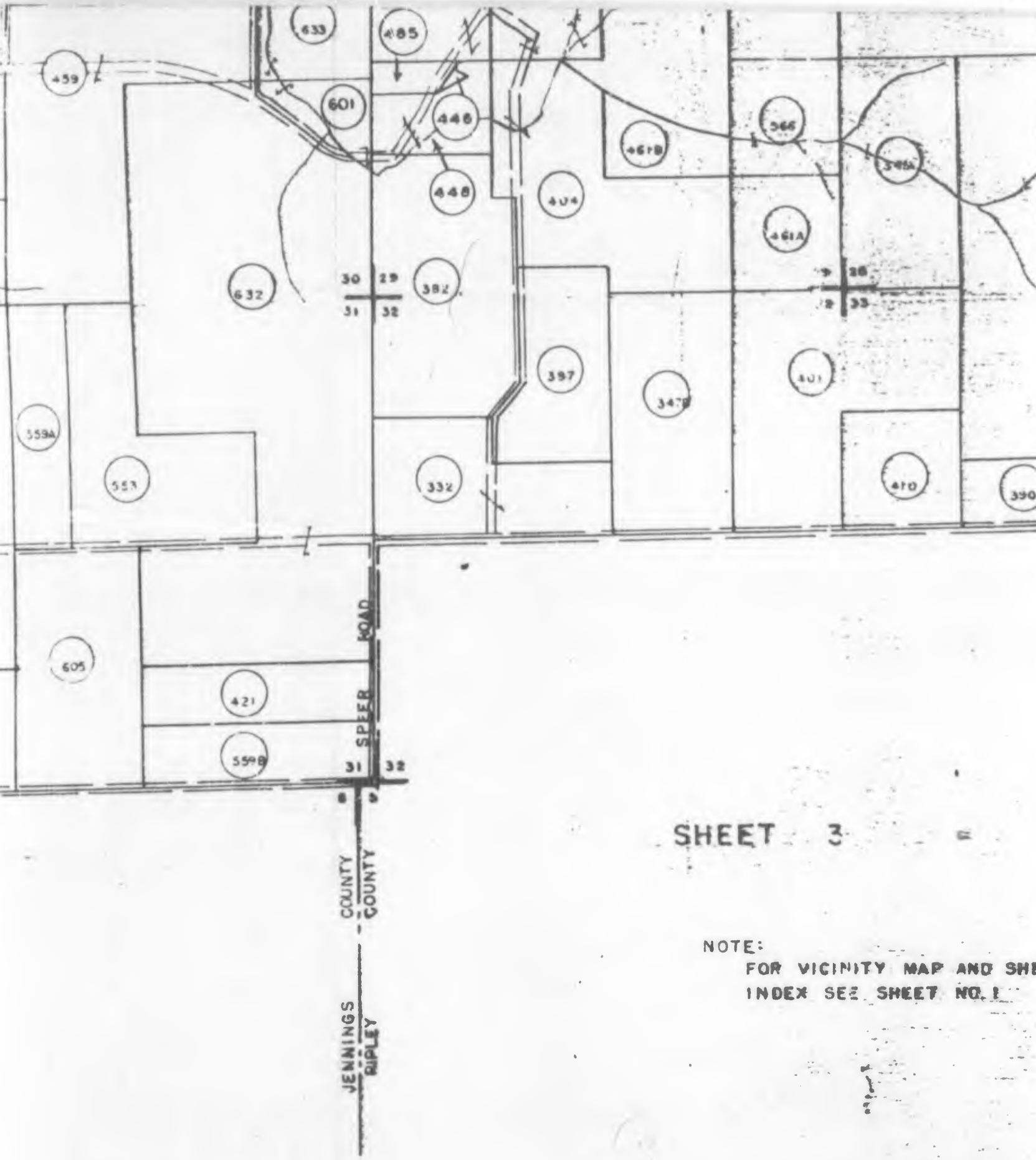
0 — 1320' — 2640' — 3960' — 5280'

0 — 1/4 — 1/2 — 3/4 — 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

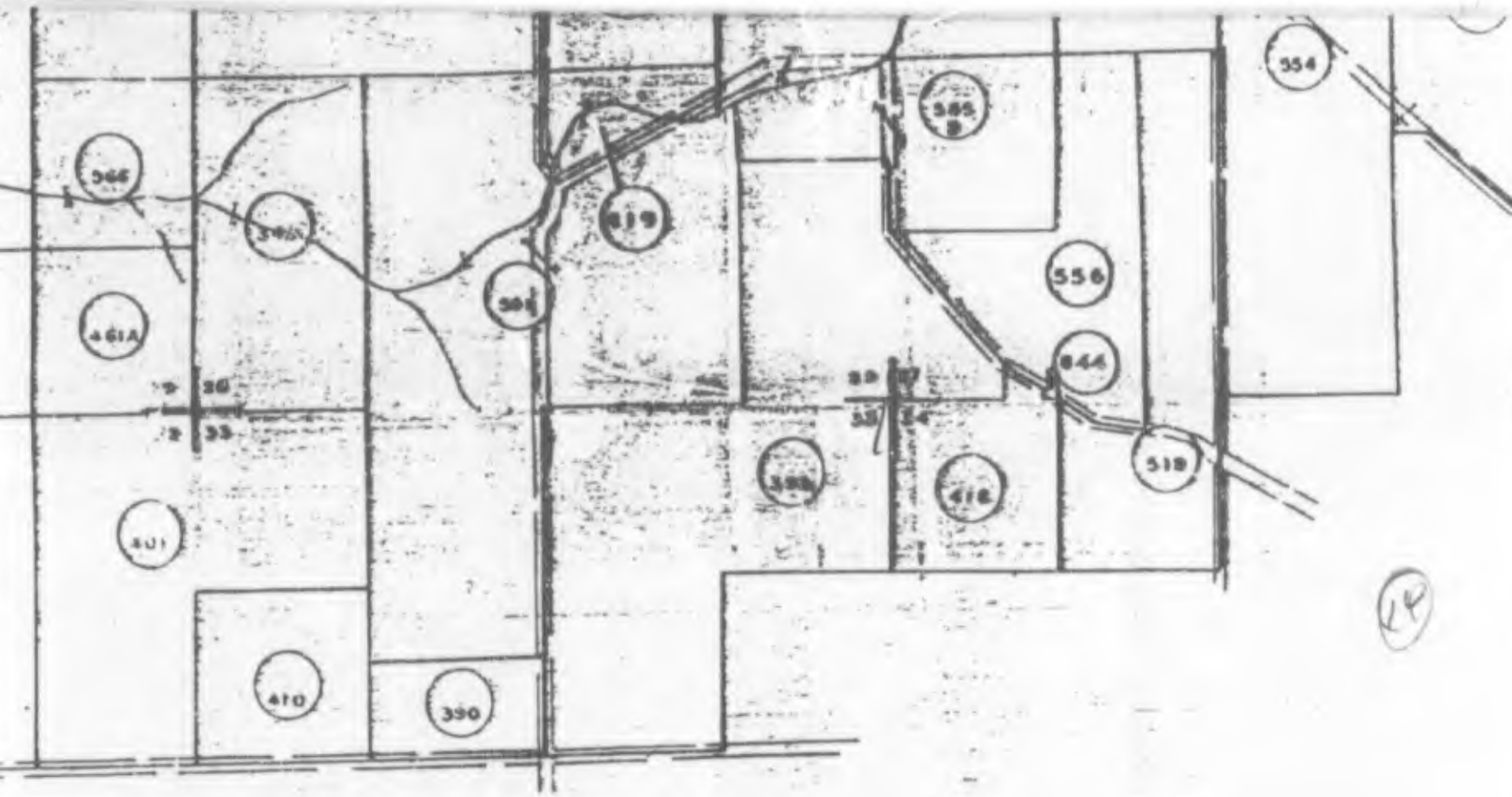
REAL ESTATE


S87°12'26"W
1219.88'
N0°44'51"E
1260.75'
S89°10'21"W 571.00'
N80°38'44"W 210.21'
N59°17'29"W 358.50'
N 80°11'54"W 420.21'
N1°52'36"E
1583.32'
N0°56'44"W
1567.07'
S89°14'21"W 128.51'
N1°20'49"W 1003.05'
N20°23'56"E 411.05'
2616.91'
N0°08'33"E
CAMPBELL TWP.
BIGGERS TWP.
NEW MARION ROAD
454
516B
517
459
516A
426
559A
533
553
581
605
501
25
30
36
31
36
31
1
6



SHEET 3

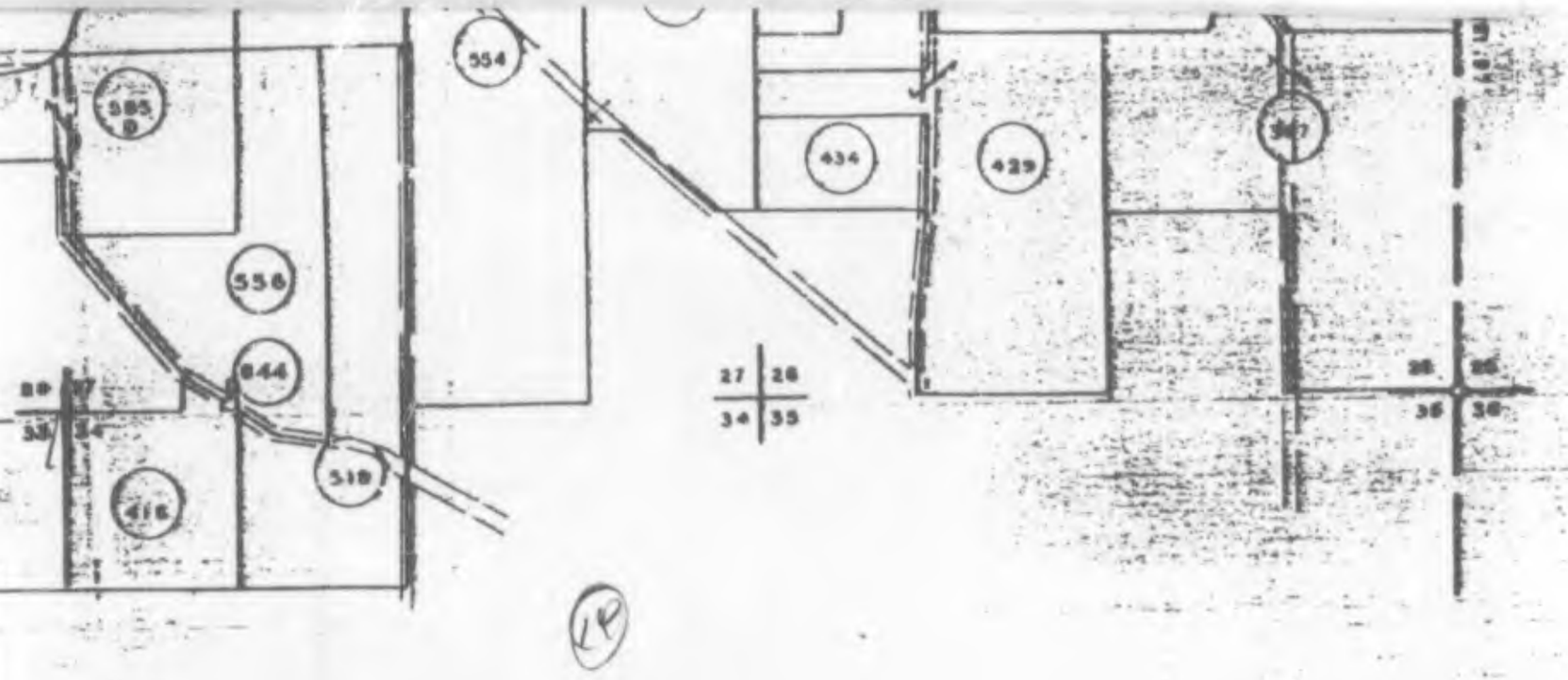
NOTE:
FOR VICINITY MAP AND SHE
INDEX SEE SHEET NO. 1



EET 3

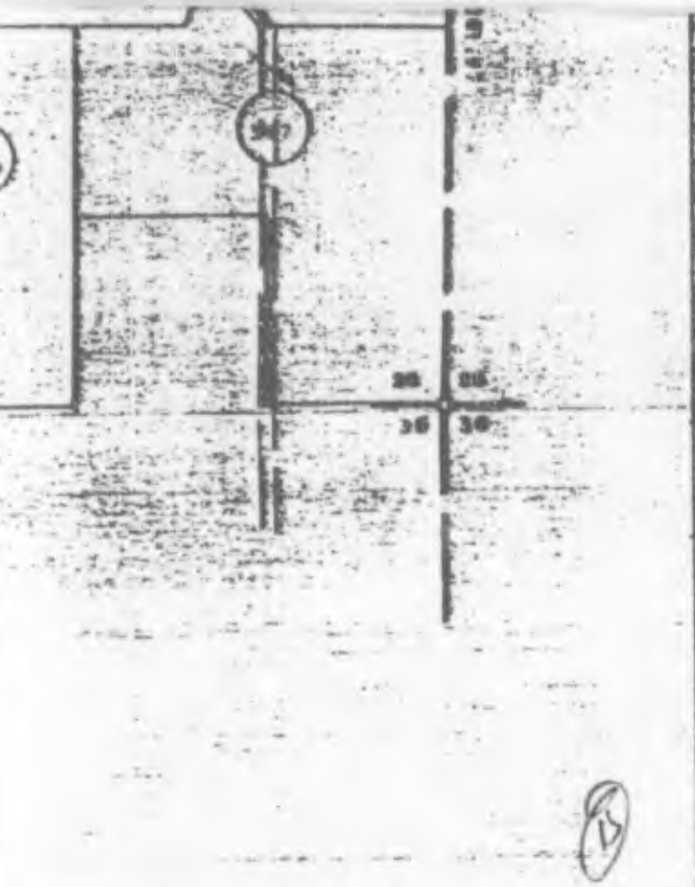
OTE:
FOR VICINITY MAP AND SHEET
INDEX SEE SHEET NO. 1

TRACT NO.	VENDOR	ACREA
595	ULRICH BRUNNER	14
597	CLIFFORD F. FOX ET AL.	2
598	WILL P. GASTNER ET UX.	5
601	CHAS. MATTHEWS ET AL.	2
602	JOSEPH MORGAN ET UX.	5
605	WILLARD & NETTIE SPEER	9
607	WM. M. TANNER ET AL.	16
609	WM. J. WELCH ET UX.	14
611	JOHN N. GALLAGHER	2
618	OTTER CREEK BAPTIST CHURCH & CEM. TR.	
621	[illegible] & [illegible] CATHERINE N. MURRAY	4
632	[illegible] & ANDERSON ET AL.	33
633	[illegible] WORLSKY	4
634	[illegible] PIGGETT ET UX.	9
604	[illegible] SCH. DIST. MILLEY CO.	
647-C	[illegible] HARRIET HILL (CEMETERY)	
493-B	[illegible] & SARAH [illegible] EDWARDS	



NO.	VENDOR	ACREAGE
595	ULRICH BRUNNER	144.50
597	CLIFFORD F. FOX ET AL.	29.00
598	WILL P. GASTNER ET UX.	59.98
601	CHAS. MATTHEWS ET AL.	25.00
602	JOSEPH MORGAN ET UX.	51.00
605	WILLARD & HETTIE SPEER	92.00
607	[illegible] M. TURNER ET AL.	160.00
609	WM. J. WELCH ET UX.	144.86
611	JOHN H. GALLAGHER	23.21
613	OTTER CREEK BAPTIST CHURCH & CEM. TR.	6.00
615	[illegible] & CATHERINE M. MURRAY	40.00
633	[illegible] ANDERSON ET AL.	332.00
633	[illegible]	40.00
634	[illegible] ET UX.	99.00
644	[illegible]	0.36
644	[illegible] (CEMETERY)	0.04
493	[illegible] EDWARDS	0.25

TRACT NO.	VENDOR	ACR
566	WILLIAM WILSON	
567	ORA E. BLAIR	
568	ROY G. BLAIR ET UX.	
570	DANIEL G. BRUNNER ET UX.	
571	EDWARD W. & RUTH A. BRUNNER	
573A	ANNA M. FLICK	
573B	ANNA M. FLICK	
574	HENRY & BLANCHE FLICK	
575	LOUISE FLICK ET AL.	
576	FRED FLICK ET UX.	
580A	JOHN MICHAEL KOELMEL	
580B	JOHN MICHAEL KOELMEL	
581	FOREST C. & BARBARA MANNING	
582	FRANK H. MILLER ET UX.	
583	LAWRENCE MILLER	
585B	WM. P. NAYLOR ET UX.	
587A	ANDREW RUEF	
587B	ANDREW RUEF	
591	BRAD J. YATER ET UX.	
594A	LEONARD K. BISHOP ET UX.	
594B	LEONARD K. BISHOP ET UX.	



VENDOR	ACREAGE
LLIAM WILSON	40.00
RA E. BLAIR	130.00
Y G. BLAIR ET UX.	102.00
NIEL D. BRUNNER ET UX.	92.00
WARD W. & RUTH A. BRUNNER	22.00
NNA M. FLICK	45.00
NNA M. FLICK	40.00
ENRY & BLANCHE FLICK	40.00
UISE FLICK ET AL.	155.00
ED FLICK ET UX.	80.00
HN MICHAEL KOELMEL	75.25
HN MICHAEL KOELMEL	78.00
REST C. & BARBARA MANKING	69.00
ANK N. MILLER ET UX.	50.00
WRENCE MILLER	40.00
M. P. NAYLOR ETUX.	59.13
NDREW RUEF	50.00
NDREW RUEF	217.00
RAD J. YATER ET UX.	195.00
DWARD K. BISHOP ET UX.	132.33
ECHARD K. BISHOP ET UX.	6.00

490	HOWARD L. BUCHANAN ET UX.	45.00
492A	ASA W. & SARAH J. EDWARDS	150.00
494	CORNELIUS FITZGERALD ET UX.	125.00
495	DITMER FREUDENSTEIN ET UX.	109.92
496	SUSIE FREUDENSTEIN ET VIR.	50.00
497	RUTH GADD ET VIR.	96.01
499	WM. G. & DOROTHY GRIFFIN	40.50
500	JAMES H. GRINSTEAD ET UX.	40.00
502	LANCE IREDALE	80.00
503	JAMES A. & PEARL A. JACKSON	107.50
504	LEONARD E. MACK ET UX.	60.00
508	FRANK & LOLA TARTER	108.47
513A	CLARENCE BLEDSOE	40.00
513B	CLARENCE BLEDSOE	30.00
514A	MILTON CARTER ET AL.	107.00
514B	MILTON CARTER ET AL.	145.00
516A	ALVIN W. FITZGERALD ET AL.	40.00
516B	ALVIN W. FITZGERALD ET AL.	0.50
517	JOHN FITZGERALD	145.50
518	CHARLES S. FURLOW ET UX.	77.63
520	SYLVANNUS G. HARDESTY ET UX.	40.00
521	SYLVANNUS G. HARDESTY ET UX.	120.00
523	EMIL & MARY E. HUELSEN	130.00
524	ARLIE H. JESTER ET UX.	138.00
525	LANDON M. KIBLER ET UX.	138.00
527	ANNA LEHIGH	40.00
530	NOBLE J. SHEPHERD ET UX.	80.00
531	CHARLES CUMBERWORTH ETUX.	160.00
533	DORIS KOELMEL ET VIR.	175.55
534	AETNA LIFE INSURANCE CO.	198.00
538	ROBERT N. CONNELLEY ET UX.	32.00
540	JOHN M. EBERLEIN	147.22
542	R. J. FUSHELBERGER ET UX.	40.00
546	GEORGE GUTZWILLER ET UX.	20.00
547	JOHN J. HARRELL ET UX.	39.96
548	FRED A. KNOSE ET UX.	130.00
550	CARL MCGRACKEN ET UX.	65.00
551	CARL MCGRACKEN ET UX.	30.12
553	ERNEST L. MATHEWS ET UX.	87.30
554	G. K. MONTGOMERY ET AL.	120.00
556A	HARRY & LOUISA MORRIS	200.00
556B	HARRY & LOUISA MORRIS	78.00
556	PERRY NAYLOR ET UX.	62.30
557	PHILIP H. PETTUSSOR ET UX.	123.33
558	HARRY E. & HELEN A. PFISTER	40.00
559A	DALLAS SCHOFIELD ETUX.	43.00
559B	DALLAS SCHOFIELD ET UX.	40.00
564A	EDGAR TAYLOR ET UX.	155.00
564B	EDGAR TAYLOR ET UX.	10.00

OWARD L. BUCHANAN ET UX.	45.00
SA W. & SARAH J. EDWARDS	150.00
ORNELIUS FITZGERALD ET UX.	125.00
MER FREUDENSTEIN ET UX.	109.92
USHE FREUDENSTEIN ET VIR.	50.00
UTH GADD ET VIR.	96.01
VE G. & DOROTHY GRIFFIN	40.50
AMES H. GRINSTEAD ET UX.	40.00
ANCE IREDALE	80.00
AMES A. & PEARL A. JACKSON	107.50
EONARD E. MACK ET UX.	60.00
RANK & LOLA TARTER	108.47
LARENCE BLEDSOE	40.00
LARENCE BLEDSOE	30.00
ILTON CARTER ET AL.	107.00
ILTON CARTER ET AL.	145.00
LVIN W. FITZGERALD ET AL.	40.00
ALVIN W. FITZGERALD ET AL.	0.50
OHN FITZGERALD	145.50
HARLES S. FURLOW ET UX.	77.63
YLVANUS G. HARDESTY ET UX.	40.00
YLVANUS G. HARDESTY ET UX.	120.00
EMIL & MARY E. HUELSEN	130.00
ARLIE H. JESTER ET UX.	138.00
ANDON M. KIBLER ET UX.	138.00
ANNA LEHIGH	40.00
OBLE J. SHEPHERD ET UX.	80.00
HARLES CUMBERWORTH ET UX.	160.00
ORIS KOELMEL ET VIR.	175.55
ETNA LIFE INSURANCE CO.	198.00
OBERT N. CONNELLEY ET UX.	32.00
OHN M. EBERLEIN	147.22
P. J. FUSHELBERGER ET UX.	40.00
EORGE GUTZWILLER ET UX.	20.00
OHN J. HARRELL ET UX.	39.96
RED A. KNOSE ET UX.	130.00
ARL MCCRACKEN ET UX.	65.00
ARL MCCRACKEN ET UX.	30.12
[illegible] MATHEWS ET UX.	87.30
[illegible] MONTGOMERY ET AL.	120.00
ARRY & LOUISA MORRIS	200.00
ARRY & LOUISA MORRIS	78.00
ERRY TAYLOR ET UX.	62.30
[illegible] ET UX.	123.33
ARRY [illegible] & PFISTER	40.00
[illegible] ET UX.	43.00
[illegible] ET UX.	40.00
[illegible] ET UX.	158.00
[illegible]	10.00

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS
29 APR 66	REV. ARMY COM. (GO NO. 4 DATED 2-19-65)

— SCALE —

0 1320' 2640' 3960' 5280'

0 1/4 1/2 3/4 1 M

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROU

MILITARY RESERVATION

RECOMMENDED: Joseph N. Doyle DATE 7-

APPROVED: [illegible] DATE 4-3

LT. COL. CORPS OF ENGINEERS

COMPILED: ADW TRACED: ADW CHECKED: JND

DATE	BY	REVISIONS	APP
7-15-44	ADW	Compiled from Quartermaster Corps map dtd. 3-20-41	
		& Ordnance Engr. boundary survey 10-30-42	
9-4-45	NAS	CHANGES IN NOMENCLATURE	
11-25-47	CEC	DUE TO FINAL AUDIT	
6-1-55	D.P	" " " "	

SHEETS 4 OF 5 DRAWING NO. [illegible]

ETUX.	45.00
EDWARDS	150.00
LD ET UX.	125.00
ET UX.	109.92
ET VIR.	50.00
R.	96.01
IFFIN	40.50
T UX.	40.00
	80.00
JACKSON	107.50
T UX.	60.00
ER	108.47
	40.00
	30.00
AL.	107.00
AL.	145.00
D ET AL.	40.00
D ET AL.	0.50
	145.50
ET UX.	77.63
TY ET UX.	40.00
TY ET UX.	120.00
LSEN	130.00
UX.	132.00
T UX.	138.00
	40.00
ET UX.	80.00
TH ETUX.	160.00
VIR.	175.55
E CO.	198.00
Y ET UX.	32.00
	147.22
UX.	40.00
ET UX.	20.00
UX.	39.96
UX.	130.00
T UX.	65.00
UX.	30.12
ET UX.	87.30
AL.	120.00
	200.00
	78.00
UX.	62.30
ET UX.	123.33
PFISTER	40.00
ETUX.	43.00
ET UX.	40.00
	158.00
	10.00

TWP. & COUNTY LINE

ROAD

DATE	REVISIONS	BY
29 APR 66	REV. ARMY COM. (60 NO. 4 DATED 2-19-65)	G.J.A.

— SCALE —

0 1320' 2640' 3960' 5280'

0 1/4 1/2 3/4 1 MILE

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED: Joseph N. Doyle DATE 7-15-44

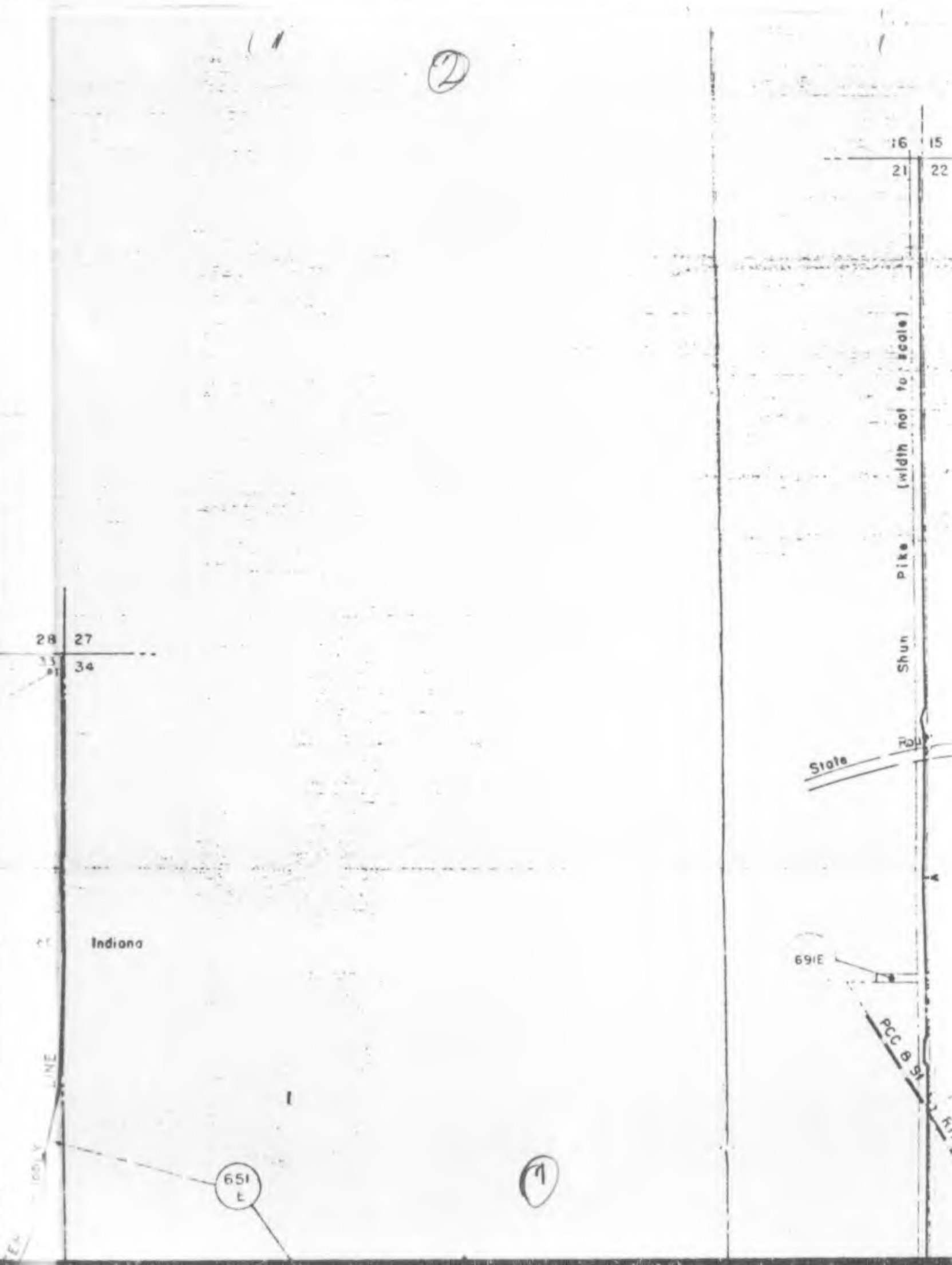
APPROVED: [signature] DATE 4-30-46
LT. COL. CORPS OF ENGINEERS

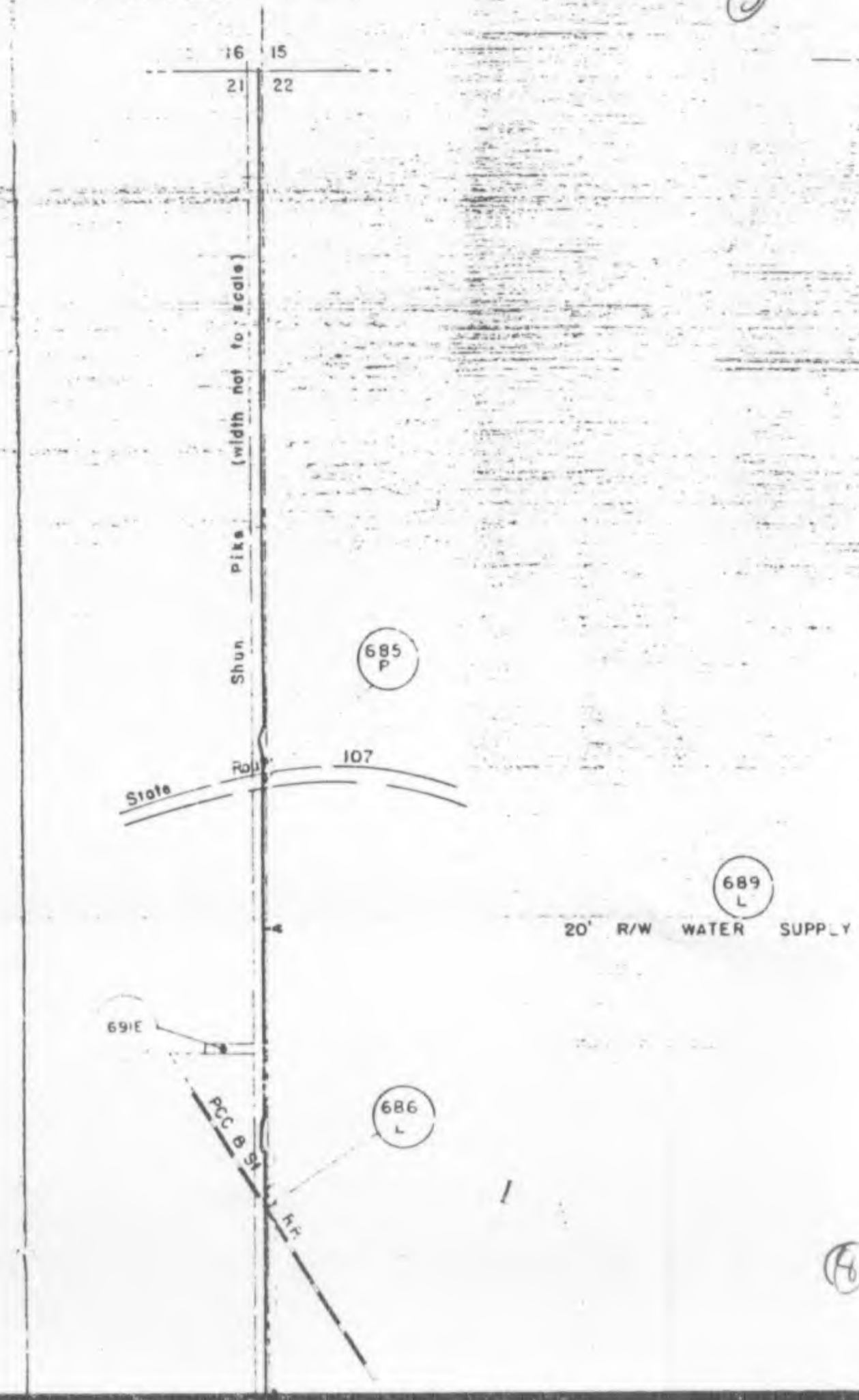
COMPILED: ADW TRACED: ADW CHECKED: JND

DATE	BY	REVISIONS	APPROVED
7-15-44	ADW	Compiled from Quartermaster Corps map dtd. 3-20-41	
		& Ordnance Engr. boundary survey 10-30-42	
9-4-45	MAS	CHANGES IN NOMENCLATURE	
11-25-47	CEC	DUE TO FINAL AUDIT	
4-1-55	D.P.	" " " "	

SHEET 4 OF 5 DRAWING NO. [illegible]


28
27
33
34
692E
State of Indiana
LINE
SUPPLY
651
E


16
15
21
22
(width not to scale)
Pike
Shun
State
Rou
28
27
33
34
Indiana
691E
PCC & St
651
E


16
15
21
22
Shun Pike (width not to scale)
685
P
State Rd.
107
689
L
20' R/W WATER SUPPLY
691E
686
L
PCC @ St
H.P.

JEFFERSON PROVING GROUND

South boundary 4 3 Jefferson Proving Ground

County Road 9 10

TRACT NO	LAND
625E	CLARENCE & E
649	MADISON CHAU
649A-E	MADISON CHAU
649B-E	MADISON CHA
651E	TRUSTEES MAD
652E	MARY S. & CH
653E	MONTGOMERY-
685P	STATE HIGHWA
686L	PENN. R R. CO
687P	STATE HIGHWA
688P	STATE HIGHWA
689L	JEFFERSON CO
690E	LARRY SPANN
691E	MADISON CONS
692E	STATE OF INDI

(4)

689 L

20' R/W WATER SUPPLY LINE

(width not to scale)

SON PROVING GROUND

4 3 Jefferson Proving Ground (4)

d 9 10

TRACT REGISTER

TRACT NO	LAND OWNER	ACREAGE FEE	ACREAGE EASM'T	ACREAGE OTHER	REMARKS
625E	CLARENCE & ELIZABETH S OTTER		0 08		
649	MADISON CHAUTAUQUA CORP.	19			
649A-E	MADISON CHAUTAUQUA CORP.		0 01		
649B-E	MADISON CHAUTAUQUA CORP		0 07		
651E	TRUSTEES MADISON STATE HOSP.		3 22		
652E	MARY S. & CHAS. LEMEN		0 08		
653E	MONTGOMERY & PARKER CORP.		0 67		
685P	STATE HIGHWAY COMM. OF IND			NO AREA	
686L	PENN. R. R. CO.			NO AREA	
687P	STATE HIGHWAY COMM. OF IND.			NO AREA	
688P	STATE HIGHWAY COMM. OF IND.			NO AREA	
689L	JEFFERSON COUNTY IND			NO AREA	
690E	LARRY SPANN ET UX		0 12		UTILITY EASEMEN
691E	MADISON CONSOLIDATED SCHOOLS		0 12		UTILITY EASEMEN
692E	STATE OF INDIANA		0 12		UTILITY EASEMEN

(4)

(width not to scale)

(9)

RACT REGISTER

	ACREAGE			REMARKS
	FEE	EASM'T	OTHER	
OTTER		0 08		
RP.	1 19			
RP.		0 01		
RP		0 07		
HOSP.		3 22		
		0 08		
ORP.		0 67		
IND			NO AREA	
			NO AREA	
IND.			NO AREA	
IND.			NO AREA	
			NO AREA	
		0 12		UTILITY EASEMENT
CHOOLS		0 12		UTILITY EASEMENT
		0 12		UTILITY EASEMENT

(9)

FINAL
PROJECT OWNERSHIP

STATE INDIANA

COUNTY JEFFERSON

DIVISION OHIO RIVER

DISTRICT LOUISVILLE
TO OMAHA DISTRICT ON
FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MAD

MILES ... OF ...
TO LOUISVILLE DIST. 31 MAR. 82

— TRANSPORTATION F

PENNSYLVANIA

ROUTES 7

ROUTE 50 & 421

E.AL. & AA TO LOUISVILLE

— ACQUISITION —

TOTAL ACRES ACQUIRED (

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D

ACRES LESSER INTEREST { EA LIC PE

— DISPOSALS —

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERMINATE

ACRES TRANSF'D. BY W.D.

ACRES LESSER INTERESTS TE

FINAL
PROJECT OWNERSHIP MAP

STATE INDIANA

COUNTY JEFFERSON

DIVISION OHIO RIVER

DISTRICT LOUISVILLE
TO OMAHA DISTRICT ON 1 APRIL 1970

FIRST ARMY AREA

USING AGENCY ORDNANCE

5 MILES NORTH OF MADISON

MILES ... OF

TO LOUISVILLE DIST. 31 MAR. 82

REMARKS

UTILITY EASEMENT
UTILITY EASEMENT
UTILITY EASEMENT

— TRANSPORTATION FACILITIES —

PENNSYLVANIA	RAILROAD
ROUTES 7	STATE ROAD
ROUTE 50 & 421	FEDERAL ROAD
E.A.L. & AA TO LOUISVILLE, KY.	AIRLINE

— ACQUISITION —

TOTAL ACRES ACQUIRED (THIS SHEET) 5.32

ACRES FEE 1.19

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST { EASEMENTS (.) 4.13 / LICENSES (3) NO AREA / PERMITS (3) NO AREA

— DISPOSALS —

SEE SHEET 1 FOR TOTALS

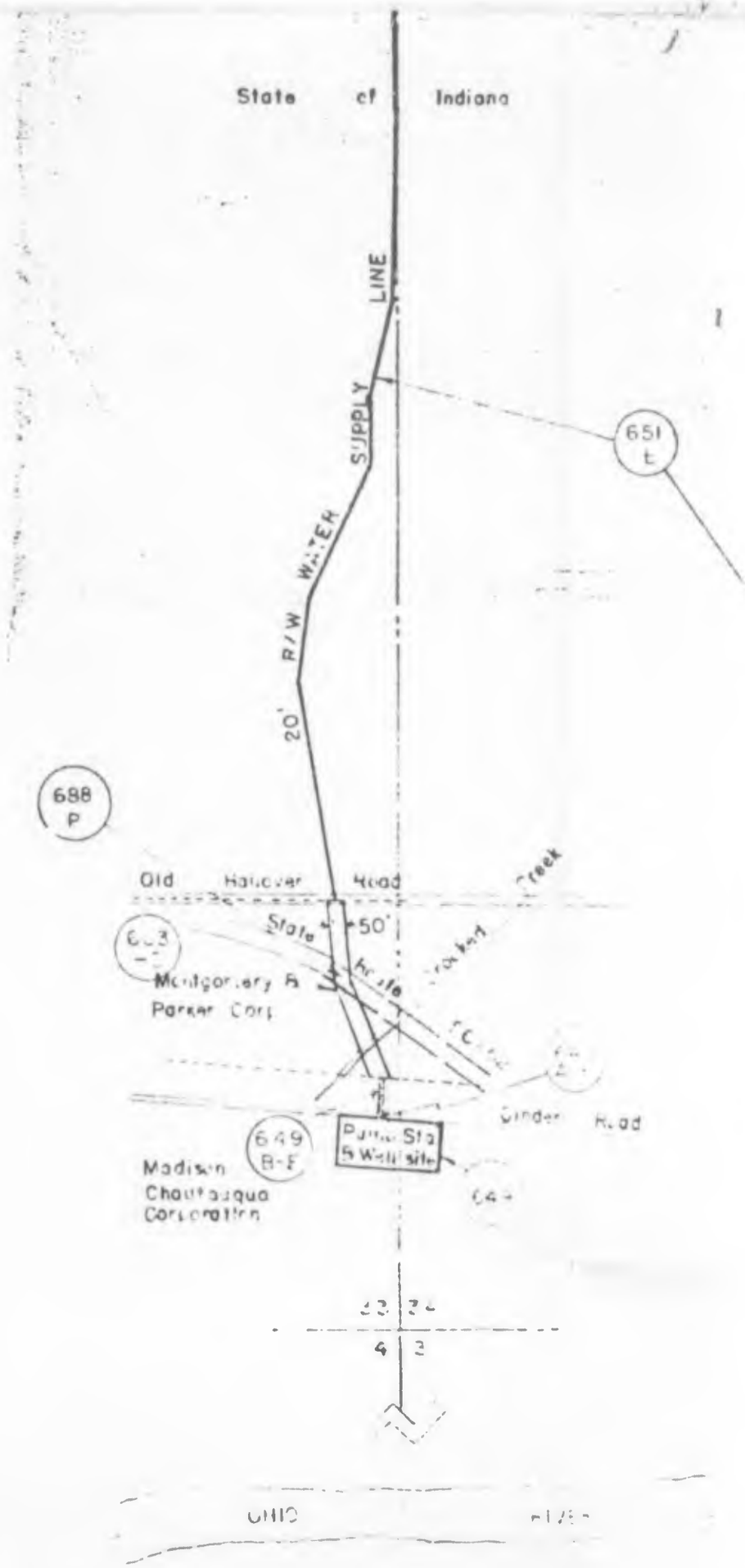
TOTAL ACRES DISPOSED OF

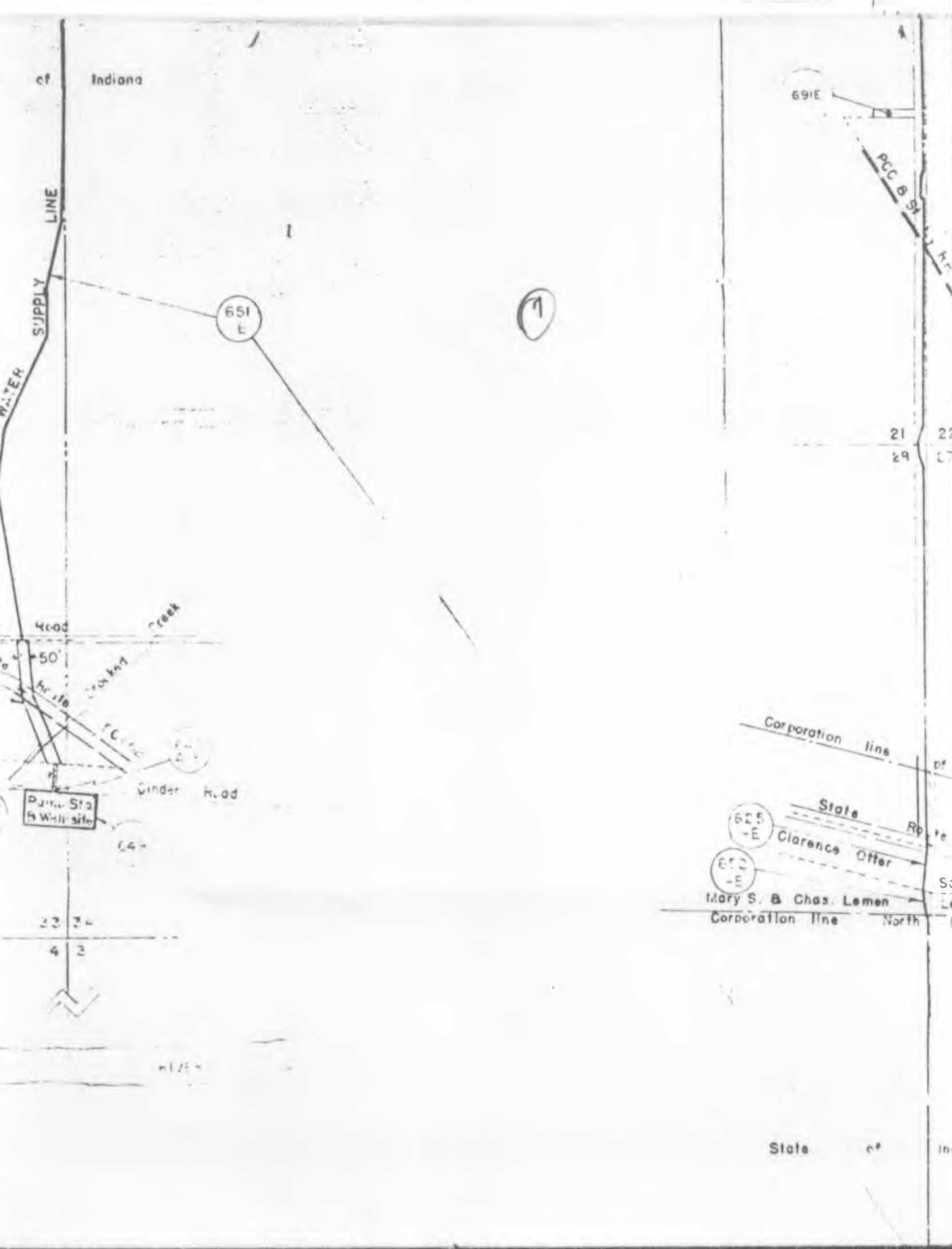
ACRES SOLD

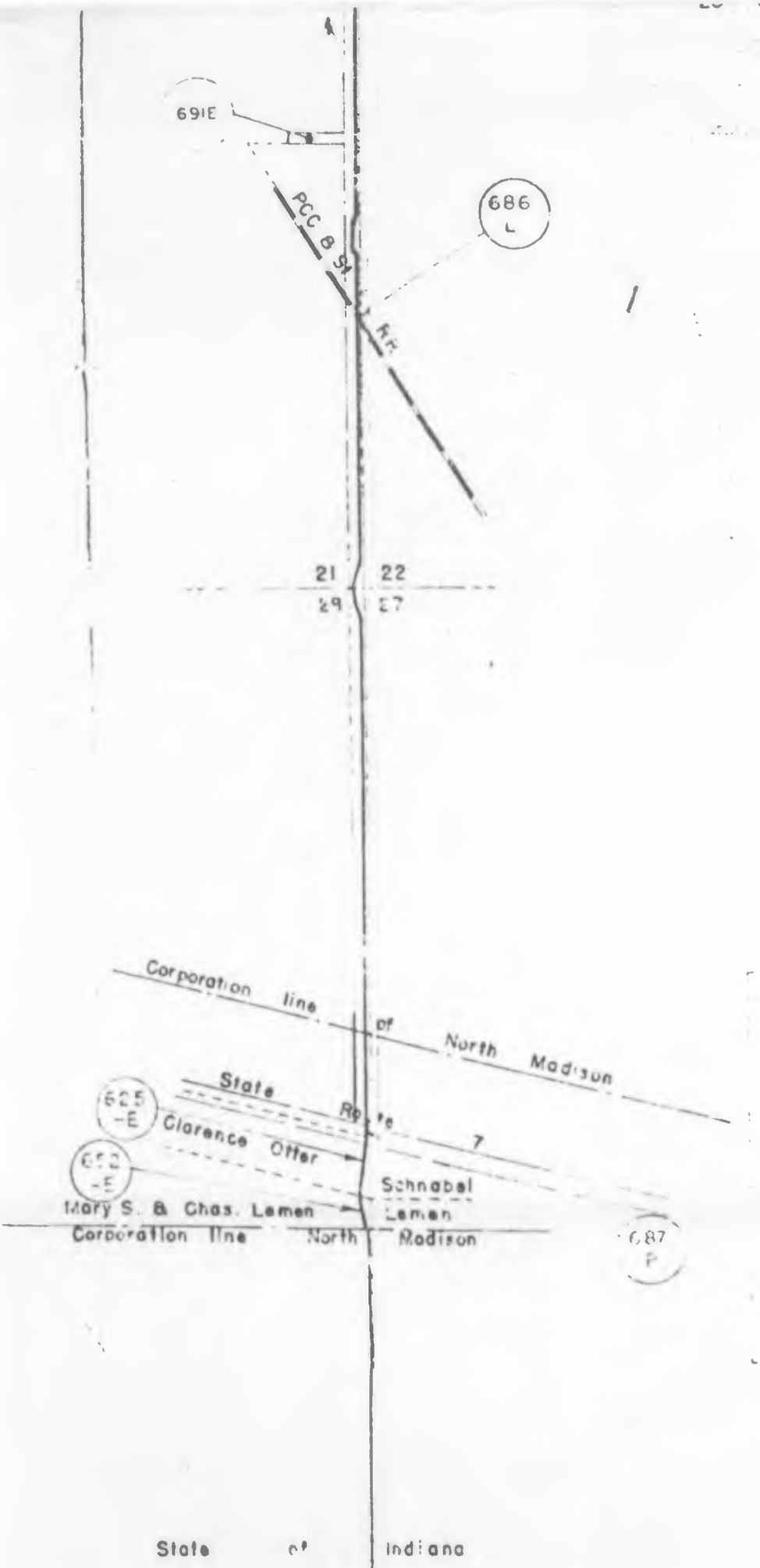
ACRES LEASES TERMINATED

ACRES TRANSF'D. BY W.D.

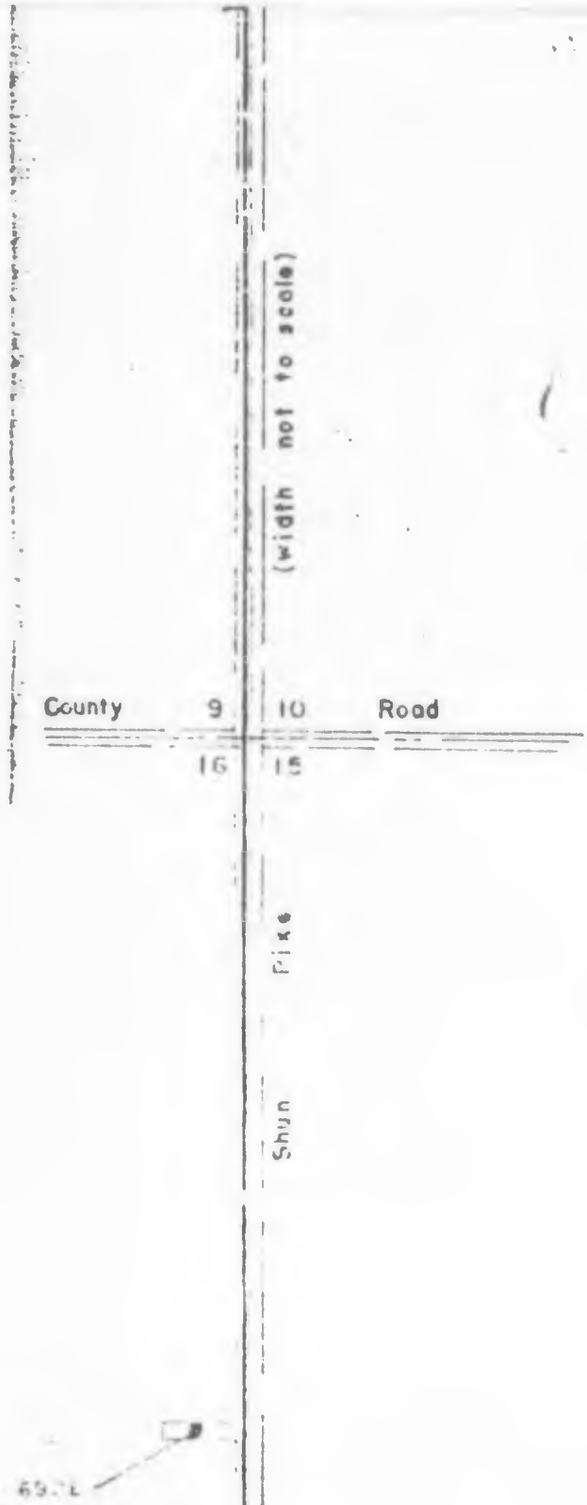
ACRES LESSER INTERESTS TERM.


State of Indiana
LINE
SUPPLY
WATER
R/W
20'
651
t
688
P
Old Hallover Road
Creek
State
50'
Montgomery &
Parker Corp
Sinder Road
649
B-E
Madison
Chautauqua
Corporation
4
3
OHIO


of Indiana
LINE
SUPPLY
WATER
651
E
691E
PCC & St
21
29
Road
Creek
50'
Cinder Road
Pump Sta
& Well site
Corporation line
State
Clarence Otter
Mary S. & Chas. Lemen
Corporation line
North
State


691E
PCC & St
686
L
RR
21
22
29
27
Corporation line of North Madison
State Route 7
625
-E
Clarence Otter
652
-E
Schnabel
Mary S. & Chas. Lamen
Lamen
Corporation line North Madison
687
P
State of Indiana

(8)



(width not to scale)

10 Road

15

Pike

Shun

(9)

MICROFILMED DATE AUDIT APPROVED | DATE | REVISIONS | BY

APPROVED REV. ARMY FORM 5 OCT 1 15 651 GJA

NO ADDED HLM

ACRES FEE

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST { EASEMENTS (6) 4.13 / LICENSES (3) NO AREA / PERMITS (3) - NO AREA

— DISPOSALS —

SEE SHEET 1 FOR TOTALS

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERMINATED

ACRES TRANSF'D. BY W.D.

ACRES LESSER INTERESTS TERM.

— LEGEND —

R/W WATER LINE

SECTION LINE & CORNER (16 15 / 21 22)

ROAD

RAILROAD

RIVER OR CREEK

PROPERTY LINE

CORP. LINE N. MADISON

J.P.G. BOUNDARY

— SCALE —

500' 0 500' 1000' 1500'

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE

REVISIONS BY

GJA

ACRES LEASED TO W.D.

ACRES TRANSFERRED TO W.D.

ACRES LESSER INTEREST { EASEMENTS (6) 4.15 / LICENSES (3) NO AREA / PERMITS (3) NO AREA

DISPOSALS

SEE SHEET 1 FOR TOTALS

TOTAL ACRES DISPOSED OF

ACRES SOLD

ACRES LEASES TERMINATED

ACRES TRANSF'D. BY W.D.

ACRES LESSER INTERESTS TERM.

LEGEND

R/W WATER LINE

SECTION LINE & CORNER (16 15 / 21 22)

ROAD

RAILROAD

RIVER OR CREEK

PROPERTY LINE

CORP. LINE N. MADISON

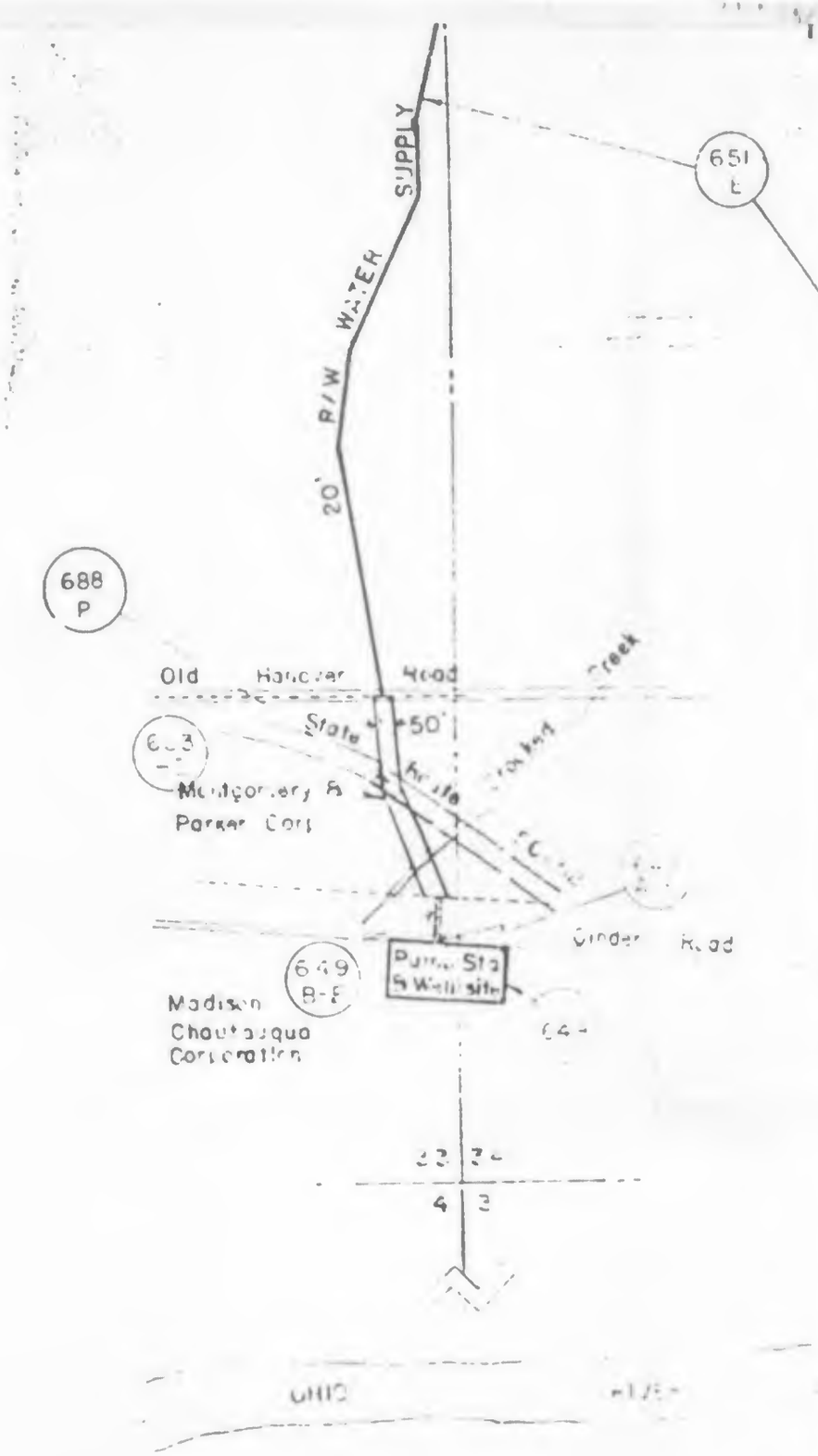
J.P.G. BOUNDARY

SCALE

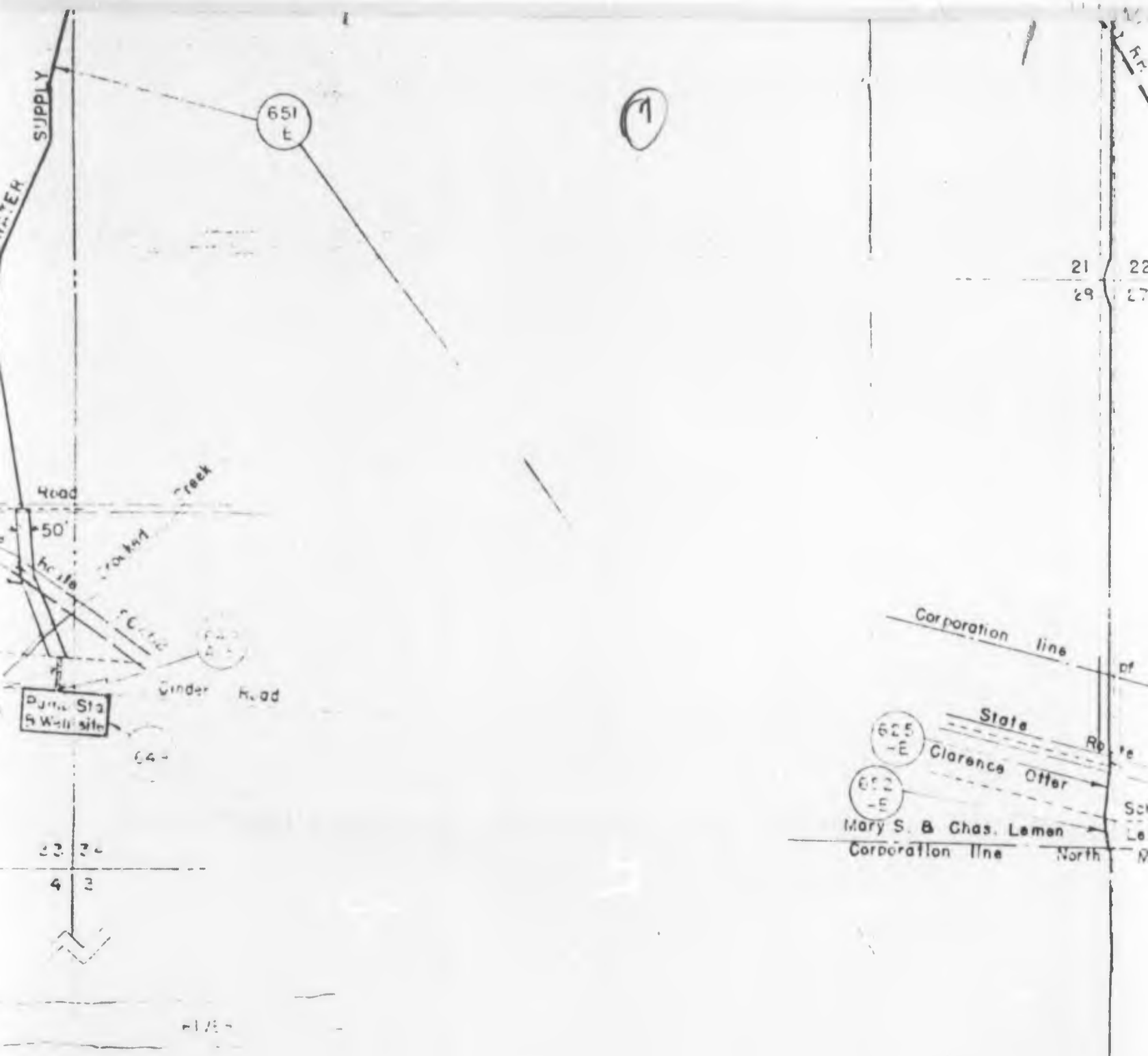
500' 0 500' 1000' 1500'

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

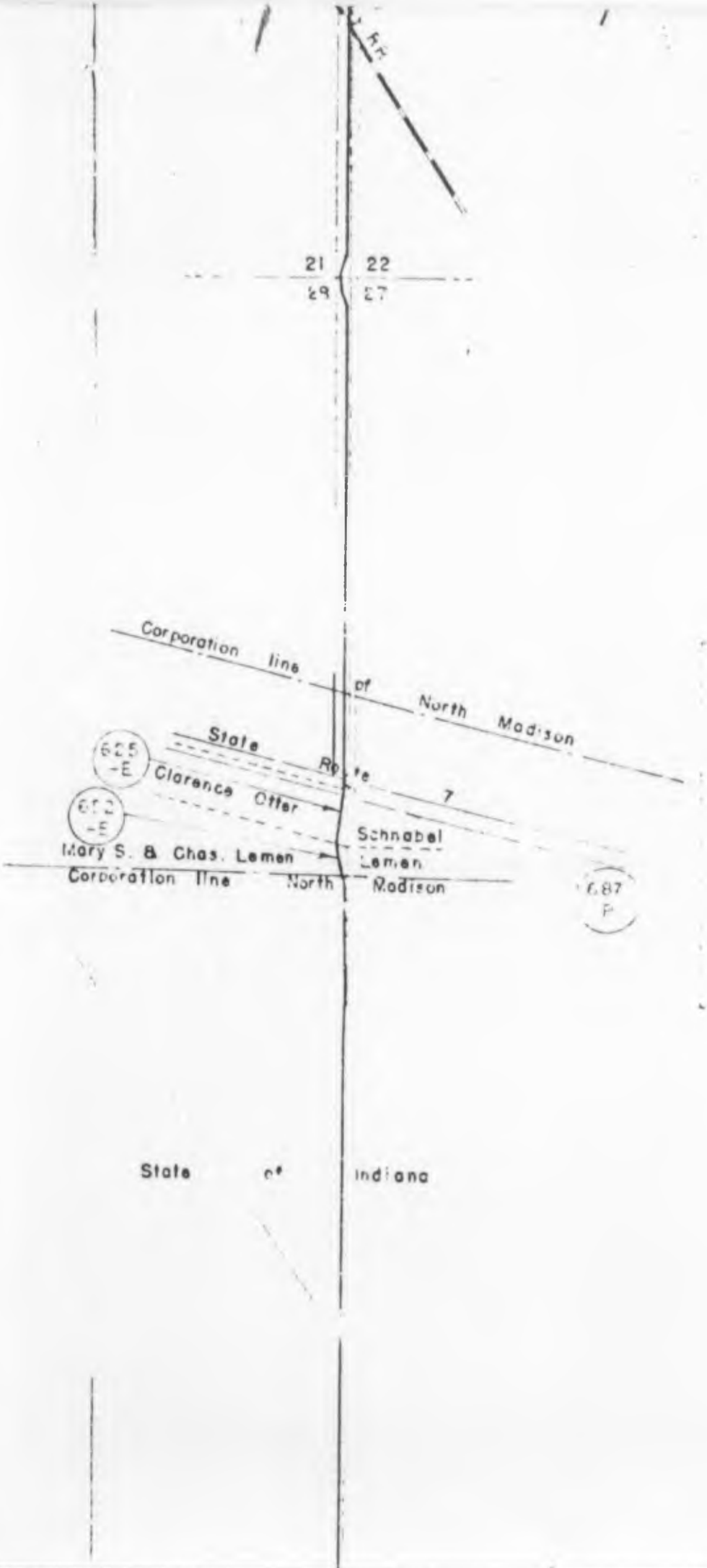
REAL ESTATE



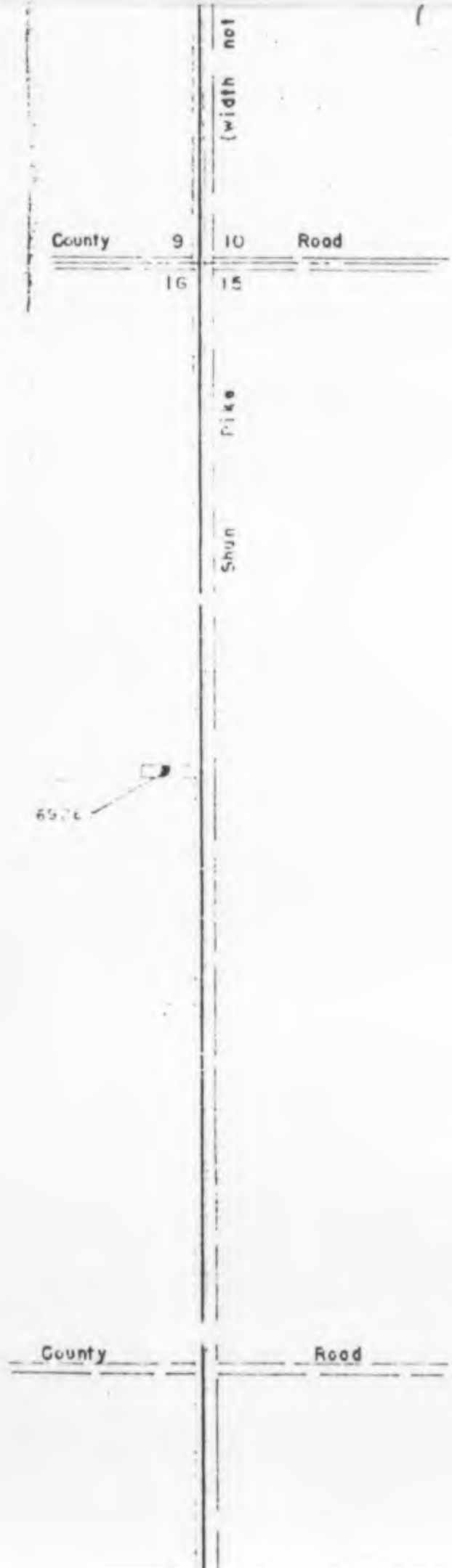
JEFFERSO
MADISON
T4N,



JEFFERSON COUNTY
MADISON TOWNSHIP
T4N, R10E


21
22
28
27
Corporation line of North Madison
State Route 7
625 -E
Clarence Otter
622 -E
Schnabel
Mary S. & Chas. Lemen
Lemen
Corporation line North Madison
6.87 P
State of Indiana

(6)



(9)

Road

ACI
ACI
ACI
ACI

R/W
SE.
ROA
RAI
RIV
PRO
COR
J. P

MICROFILMED | DATE AUDIT APPROVED | DATE | REVISIONS | BY

(SUPERSEDES REV. ARMY FORM 60 [illegible] 2-15-60) | GJA
[illegible] TRACTS [illegible] ADDED | HCM

Road

REC

ACRES SOLD

ACRES LEASES TERMINATED (10)

ACRES TRANSF'D. BY W.D.

ACRES LESSER INTERESTS TERM.

LEGEND

R/W WATER LINE

SECTION LINE & CORNER (16 15 / 21 22)

ROAD

RAILROAD

RIVER OR CREEK

PROPERTY LINE

CORP. LINE N. MADISON

J.P.G. BOUNDARY

SCALE

500' 0 500' 1000' 1500'

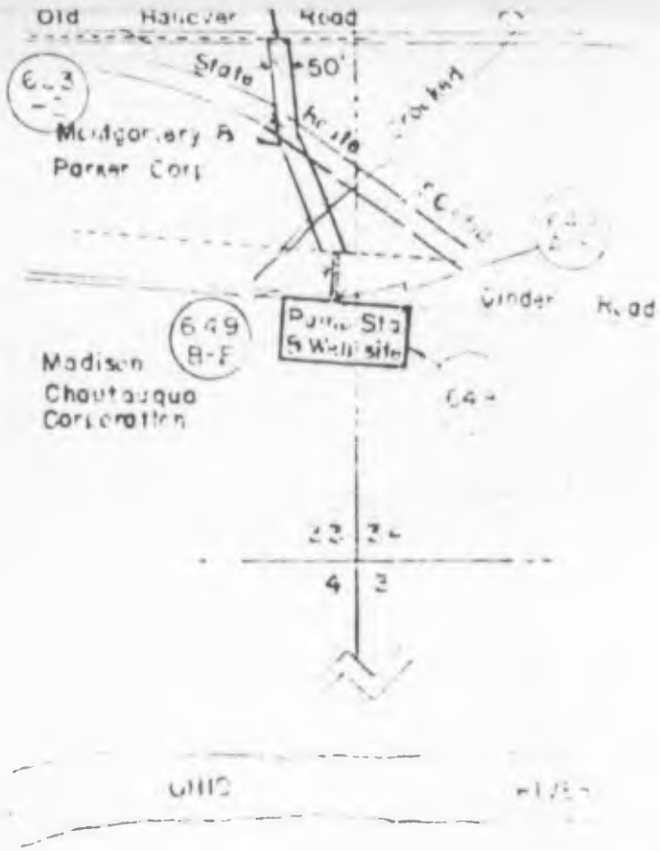
WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
WATER SUPPLY LINE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED Joseph N. Doyle DATE 7-15-44

APPROVED C. C. Fletcher DATE 4-30-46


Old Hanover Road
State
50'
Montgomery Ft
Porter Corp
Cinder Road
649
B-F
Madison
Chautauqua
Corporation
Pump Sta
& Well site
22 24
4 2

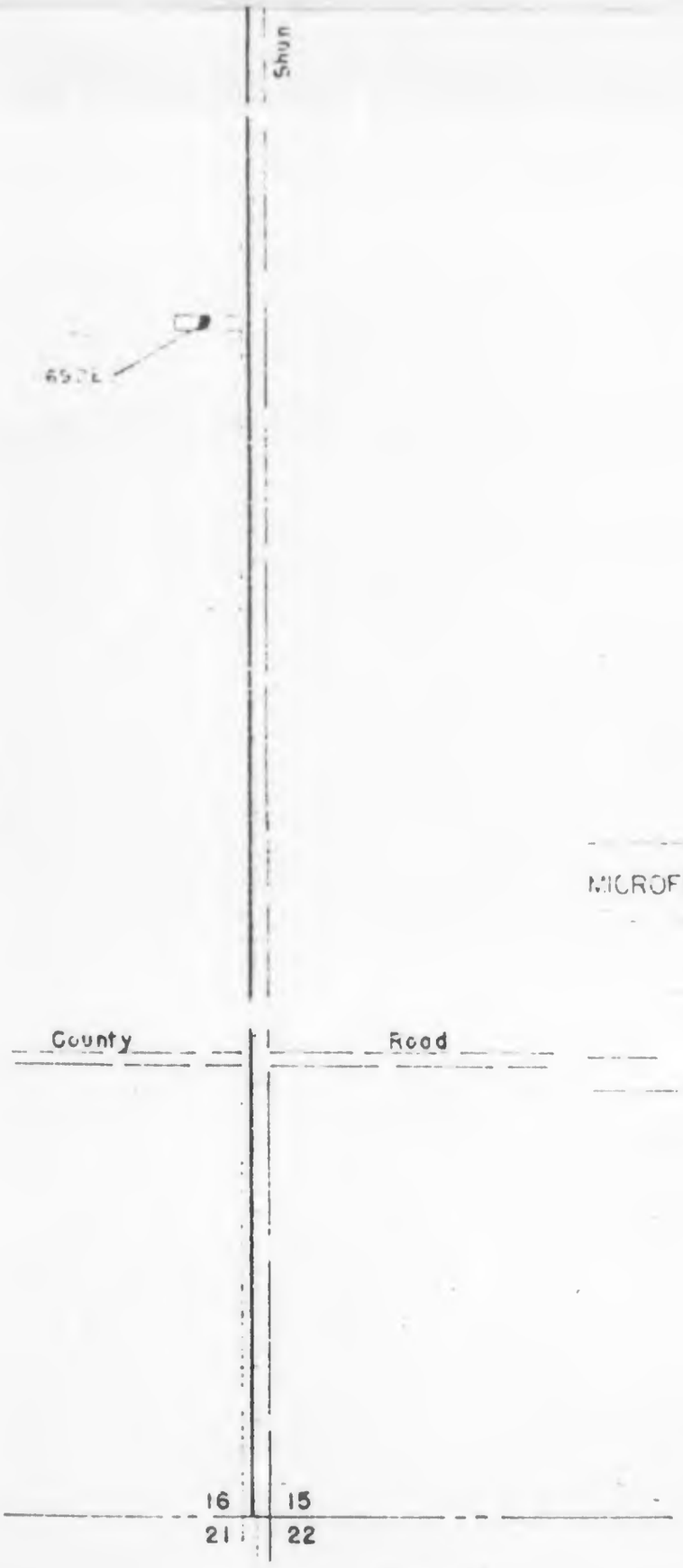
JEFFERSON COUNTY
MADISON TOWNSHIP
T4N, R10E

(12)

(12)


Corporation line of North Madison
State Route 7
625 -E
Clarence Otter
672 -E
Schnabel
ary S. & Chas. Lemen
Lemen
Corporation line North Madison
687 P
State of Indiana
13
28
27
33
34

14



NO

MICROFILMED DATE AUDIT APPROVED

DATE REVISIONS BY

GJA

Road

NOTE

FOR VICINITY MAP AND SHEET INDEX SEE SHEET NO. 1

15

16

ROAD

RAILROAD

RIVER OR CREEK

PROPERTY LINE

CORP. LINE N. MADISON

J.P.G. BOUNDARY

— SCALE —

500' 0 500' 1000' 1500'

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE
WATER SUPPLY LINE
JEFFERSON PROVING GROUND

MILITARY RESERVATION

RECOMMENDED Joseph N. Doyle DATE 7-15-44

APPROVED C. C. Fletcher DATE 4-30-46
LT. COL. CORPS OF ENGINEERS

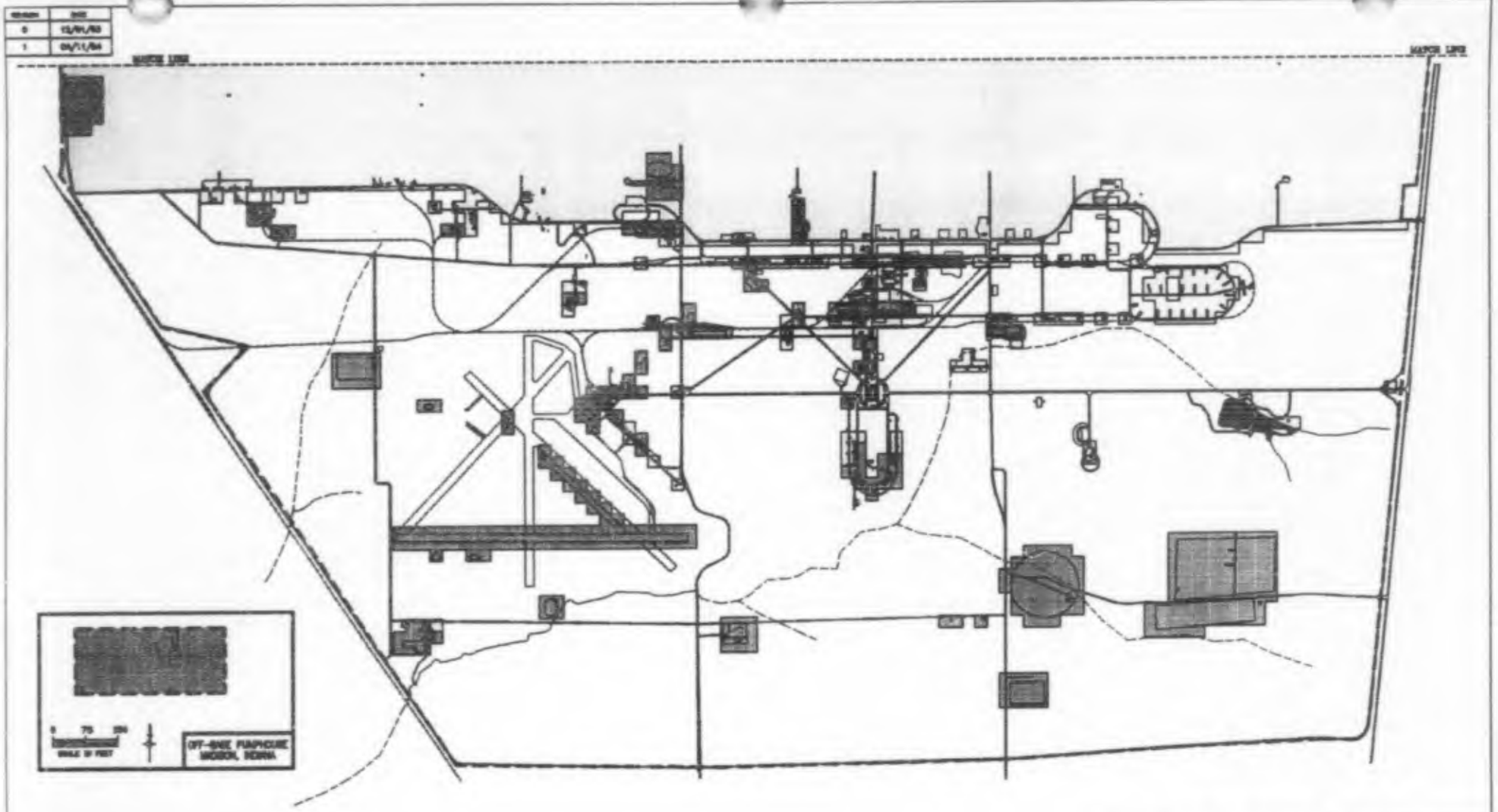
COMPILED A.D.W. TRACED A.D.W. CHECKED J.N.D.

DATE	BY	REVISIONS	APPROVED
7-15-44	A.D.W.	Compiled from Russ & Harrison maps	
		8012-916 thru 8012-925 dated 11-1-41	Joseph N. Doyle
9-4-45	NAS	CHANGE IN NOMENCLATURE	
11-25-47	CEC	DUE TO FINAL AUDIT	
6-1-55	D.P.	" " " "	

SHEETS 5 OF 5 DRAWING NO. PE-LOU 134-6

SHEET 1

FIGURE 5-3A
SUMMARY CERFA MAP, SOUTH OF FIRING LINE AND OFF-BASE PUMPHOUSE, JEFFERSON PROVING GROUND, MADISON, INDIANA



BRAC Property Boundary

CERFA Parcel

CERFA Parcel with Qualifiers

CERFA Disqualified Parcel

CERFA Excluded Parcel

0 2000

SCALE IN FEET

N

The Earth Technology Corporation

1420 KING STREET SUITE 400, ALEXANDRIA, VIRGINIA 22314

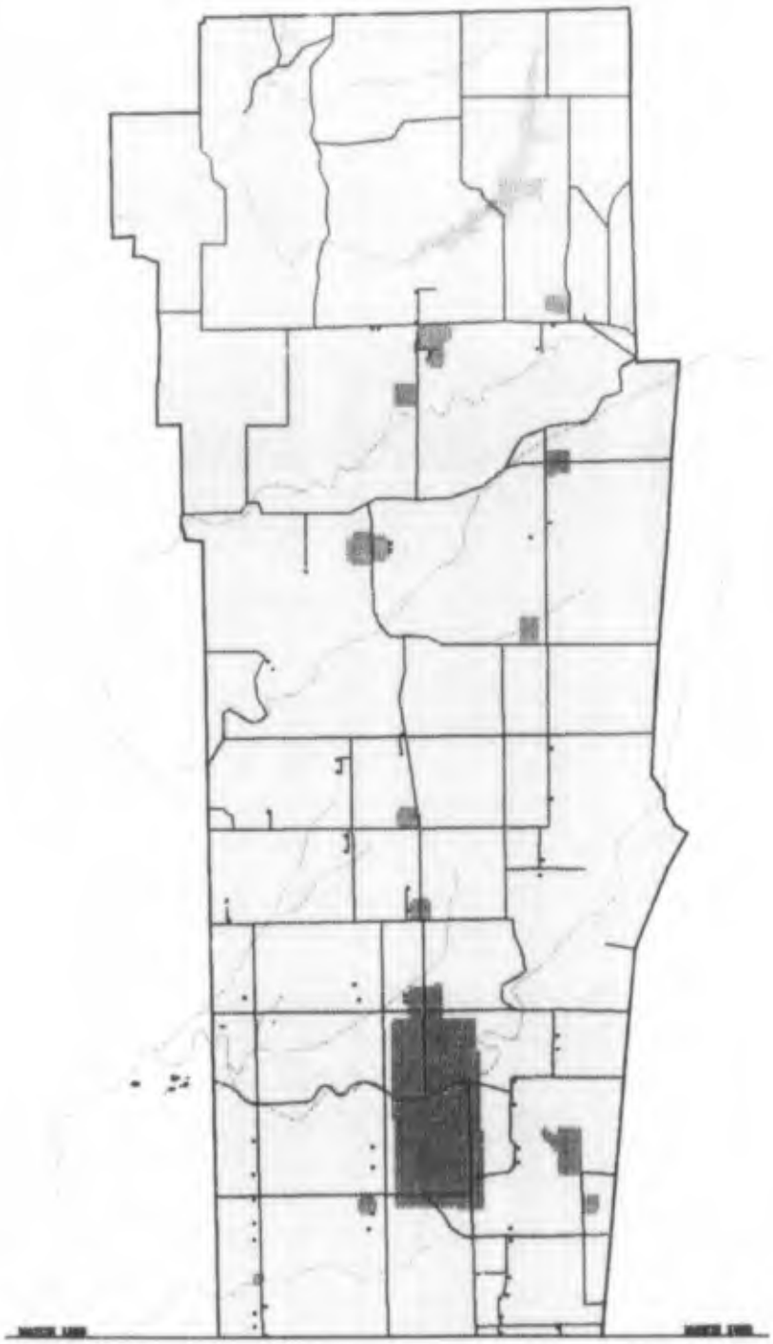
FIGURE 5-3A
SUMMARY CERFA MAP
SOUTH OF THE FIRING LINE
AND OFF-BASE PUMPHOUSE
MADISON, INDIANA

DRAWN BY: MTM, JGC	DESIGNED BY: N/A	
CHECKED BY: JK	APPROVED BY: BY	DATE: 04/11/94
TETC PROJECT NUMBER 931077-08	DRAWING NUMBER SHEET 1 OF 2	REV. NO. 1

Sources: CERFA Investigation, April 1994

FIGURE 5-3B
SUMMARY CERFA MAP, NORTH OF FIRING LINE, JEFFERSON PROVING GROUND, MADISON, INDIANA

REVISION	DATE
0	12/01/93
1	04/06/94



BRAC Property Boundary

CERFA Parcel

CERFA Parcel with Qualifiers

CERFA Disqualified Parcel

CERFA Ex ded Parcel

2500 0 2500 5000 7500

SCALE IN FEET

SEE FIGURE 5-3A

The Earth Technology Corporation

1420 KING STREET SUITE 600, ALEXANDRIA, VIRGINIA 22314

FIGURE 5-3B
SUMMARY CERFA MAP
NORTH OF FIRING LINE
JEFFERSON PROVING GROUND
MADISON, INDIANA

DRAWN BY: MTM, JGC	DESIGNED BY: N/A	
CHECKED BY: JK	APPROVED BY: BY	DATE: 04/06/94
TETC PROJECT NUMBER 931977-08	DRAWING NUMBER SHEET 2 OF 2	REV. NO. 1

Source: CERFA Investigation, April 1994

APPENDIX A

REFERENCE LIST FOR JEFFERSON PROVING GROUND

APPENDIX A
REFERENCE LIST FOR JEFFERSON PROVING GROUND

Document	Date	Source
1. Installation Assessment Relook Program, Working Document, Jefferson Proving Ground, Madison, Indiana (Aerial Photographs), Environmental Protection Agency	September 1989	AEC
2. Update of the Initial Installation Assessment of Jefferson Proving Ground, U.S. Army Toxic and Hazardous Material Agency	January 1988	OER
3. Solid Waste Management Survey No. 38-26-0334-90 Jefferson Proving Ground, Madison, Indiana, U.S. Army Environmental Hygiene Agency	August 7-11, 1989	OER
4. Enhanced Preliminary Assessment Report: Jefferson Proving Ground, Madison, Indiana, U.S. Army Toxic and Hazardous Material Agency	March 1990	USAEC
5. Ground Water Consultation No. 38-26-KQ80-92 Evaluation of Solid Waste Management Units Jefferson Proving Ground, Madison, Indiana, U.S. Army Environmental Hygiene Agency	June 15-18, 1992	USAEC
6. Letter Report of Site Specific Sampling & Analysis Program Results, Site Specific Sampling and Analysis, Jefferson Proving Ground, Madison, Indiana, U.S. Army Toxic and Hazardous Material Agency	August 1992	USAEC
7. Volume I, Final Technical Plan Jefferson Proving Ground, South of the Firing Line, Madison, Indiana, U.S. Army Toxic and Hazardous Material Agency	September 1992	USAEC
8. Volume II, Remedial Investigation/Feasibility Study Sampling Design Plan, Jefferson Proving Ground, South of the Firing Line, Madison, Indiana, U.S. Army Toxic and Hazardous Material Agency	September 1992	USAEC
9. Wastewater Management Study No. 32-24-HR29-92 Verification Stream Sampling and Regulatory Analysis, Jefferson Proving Ground, Madison, Indiana, U.S. Army Environmental Hygiene Agency	July 7-11, 1992	OER
10. Master Environmental Plan, Jefferson Proving Ground, U.S. Army Toxic and Hazardous Material Agency	November 1990	USAEC
11. U.S. Environmental Protection Agency-330/2-90-019, Environmental Audit, U.S. Environmental Protection Agency	April 1990	IDEM
12. Draft Resource Conservation and Recovery Act Facility Assessment, Jefferson Proving Ground, U.S. Environmental Protection Agency Region 5	February 1992	OER
13. Preliminary Site Inspection Report for Jefferson Proving Ground, U.S. Army Toxic and Hazardous Material Agency	October 1992	USAEC
14. Volume I, Draft Final Addenda to Remedial Investigation/Feasibility Study Technical Plan, U.S. Army Environmental Center	January 1993	USAEC
15. Cleanup and Reuse Options, Mason & Hanger, Battelle and ARS	1992	USAEC
16. Real Estate Transfer Register		USAEC
17. Real Estate Tract Map		USAEC
18. Installation Action Plan for Jefferson Proving Ground, U.S. Army Environmental Center	March 1993	USAEC
19. Installation Facts Sheet	April 1993	USAEC

APPENDIX A
REFERENCE LIST FOR JEFFERSON PROVING GROUND

Document	Date	Source
20. Preliminary Review/Visual Site Inspection Report, A.T. Kearney, Inc.	February 1992	USAEC
21. Volume II, Draft Final Addendum to Remedial Investigation/Feasibility Study - Technical Plan, U.S. Army Toxic and Hazardous Material Agency	January 1993	USAEC
22. Spill Prevention, Control, and Countermeasure Plan, Jefferson Proving Ground	November 1992	OER
23. Building Information Schedule for Jefferson Proving Ground	August 1992	OER
24. Environmental Risk Information & Imaging Services Report, Jefferson Proving Ground, Environmental Risk Information and Imaging Services	August 1993	ERIIS
25. Comprehensive Asbestos Survey, Jefferson Proving Ground, Madison, Indiana, U.S. Army Toxic and Hazardous Material Agency	1993	OER
26. Radon Monitoring Results for the U.S. Army Radon Reduction Program, Jefferson Proving Ground, Vail Research and Technology	April 1993	OER
27. Radon Gas Background Level Measurement, Jefferson Proving Ground	November 1988	OER
28. Final Environmental Impact Statement, Closure of Jefferson Proving Ground, Indiana and Realignment to Yuma Proving Ground, Arizona, U.S. Army Corps of Engineers	September 1991	USAEC
29. Preliminary Site Inspection Report for Jefferson Proving Ground (Revised), U.S. Army Environmental Center	August 1993	USAEC
30. Installation Spill Contingency Plan	December 1992	OER
31. Final Summary Report of Field Screening at Jefferson Proving Ground	August 6, 1993	OER
32. Underground Petroleum Storage Tank Survey	June 25, 1993	OER
33. Installation Pest Management Plan, Jefferson Proving Ground	September 1991	OER
34. Annual Inventory of Hazardous Chemicals and Materials or Material Safety Data Sheet Listing	January 12, 1993	OEHL
35. Installation Polychlorinated Biphenyl Inventory	September 15, 1993	OER
36. Waste Analysis Plan	September 17, 1993	OER
37. Hazardous Waste Minimization Plan for U.S. Army, Jefferson Proving Ground	February 21, 1992	OER
38. Community Environmental Response Facilitation Act Site Visit and Interviews	October 1993	OER
39. Hazardous Waste Management Compliance Evaluation Inspection Report	December 29, 1992	IDEM
40. Hazardous Waste Management Compliance Evaluation Inspection Report	April 5, 1993	IDEM
41. Resource Conservation and Recovery Act Inspection Report, U.S. Environmental Protection Agency	August 16, 1989	IDEM
42. Indiana Environmental Emergency Response Team, Final Incident Reports (6)	1987-1993	IDEM

APPENDIX A
REFERENCE LIST FOR JEFFERSON PROVING GROUND

Document	Date	Source
43. Jefferson Proving Ground Spill Report	May 20, 1993	IDEM
44. U.S. Army Jefferson Proving Ground Closure Update	1991	Jefferson Proving Ground
45. Treatment, Storage, and Disposal-Resource Conservation and Recovery Act Inspection Reports (3)	1990-1993	IDEM
46. Compliance Evaluation Inspection, Jefferson Proving Ground, Final Referral Package	July 31, 1991	IDEM
47. Aboveground Storage Tank Inventory	February 20, 1994	
48. Building 154 Test Pit Excavation and Sampling, U.S. Army Corps of Engineers	February 4, 1994	OER
49. U.S. Army Environmental Hygiene Agency records pertaining to radioactive materials use on CERFA investigation.	March 23, 1994	USAEC

Key:

OER	=	Office of Environmental Response
USAEC	=	U.S. Army Environmental Center
IDEM	=	Indiana Department of Environmental Management
ERIIS	=	Environmental Risk Information and Imaging Services
OEHL	=	Occupational and Environmental Health Laboratory

APPENDIX B

ERIIS DATA BASE SEARCH REPORT

ENVIRONMENTAL RISK INFORMATION & IMAGING SERVICES REPORT

PERTAINING TO:

JEFFERSON PROVING GROUND
INDIANA

ON BEHALF OF:

THE EARTH TECHNOLOGY
1420 KING STREET
SUITE 600
ALEXANDRIA, VA 22314

PREPARED ON:

AUGUST 23, 1993

ERIIS REPORT NUMBER:

28670

ERIIS DISCLAIMER

The information contained in this report has been obtained from publicly available sources and other secondary sources of information produced by entities other than Environmental Risk Information & Imaging Services (ERIIS). Although great care has been taken by ERIIS in compiling and checking the information contained in this report to insure that it is current and accurate, ERIIS disclaims any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence or otherwise, and for any consequences arising therefrom. The data provided hereunder neither purports to be nor constitutes legal or medical advice. It is further understood that ERIIS MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OF MERCHANTABILITY, NOR ANY SUCH REPRESENTATIONS OR WARRANTIES TO BE IMPLIED WITH RESPECT TO THE DATA FURNISHED, AND ERIIS ASSUMES NO RESPONSIBILITY WITH RESPECT TO CUSTOMER'S, ITS EMPLOYEES', CLIENTS', OR CUSTOMERS' USE THEREOF. ERIIS SHALL NOT BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES RESULTING, IN WHOLE OR IN PART, FROM CUSTOMER'S USE OF THE DATA. Liability on the part of the Environmental Risk Information & Imaging Services (ERIIS) is limited to the monetary value paid for this report. The report is valid only for the geographical parameters specified on the cover page of this report, and any alteration or deviation from this description will require a new report. This report does not constitute a legal opinion.

ERIIS Report Overview

The ERIIS Report consists of five (5) basic sections:

* Digital Custom Plotted Map
* Database Records
* Statistical Profile
* Sanborn Fire Insurance Map(s)
* Topographical Map

Digital Custom Map

Each site-specific Digital Custom Map is plotted using U.S. Census TIGER Files. The cross in the center of the map represents the study site. The red circle represents the study radius, usually one mile. Reported federal/state hazardous waste and toxic chemical sites are plotted on the map and are easily distinguished by different symbols.

Statistical Profile

The Statistical Profile is an at-a-glance numeric summary of the data included in the ERIIS Report.

Database Records

This section presents detailed federal and state database information for each site within the study radius. Sites are easily located on the digital map by using the number in the MAP ID column of the report.

Note: Many of the sites reported in federal/state databases cannot be plotted due to inaccurate or incomplete addresses (e.g., PO Box number, street name with no number). Still, they are potentially within the study radius. ERIIS reports these sites using progressively broader search criteria to ensure that all potentially relevant hazardous sites are included. All zip codes within and intersected by the study radius are searched, as well as records that simply report the relevant city or county. Where applicable, federal and state database information is further subdivided.

Sanborn Fire Insurance Maps

ERIIS has assembled a collection of Historical Sanborn Fire Insurance Maps covering 14,000 cities and towns. In some cases, however, the ERIIS Report will include a notice that no maps were found. This notice should serve as evidence of due diligence.

Topographic Map

ERIIS provides a topographic map with each report which accurately depicts the natural and man-made features of the land. The shape and elevation of the terrain are represented by contour lines and specific features, such as roads, towns, and vegetation, are portrayed by map symbols and colors. Standard topographic maps are produced at a 1:24,000 scale, or one inch represents 2000 feet.

ENVIRONMENTAL RISK INFORMATION & IMAGING SERVICES

RADIUS REPORT

REPORT NUMBER: 28670

STATE: IN

ZIP CODES SEARCHED: 47265 47245 47231 47250 47023 47262

DATABASE	RADIUS (MILES)	RADIUS REPORTED SITES					NOT RADIUS REPORTED		TOTAL SITES
		Property	Property-1/16	1/16-1/2	1/2-1	TOTAL	ZIP CODE	CITY/COUNTY	
NPL						0	0	0	0
CERCLIS						0	9	0	9
TRI						0	3	0	3
RCRIS_TS						0	2	0	2
RCRIS_LG						0	1	0	1
RCRIS_SG						0	8	0	8
DOCKET						0	1	0	1
ERNS						0	0	0	0
FINDS						0	91	0	91
NUCLEAR						0	0	0	0
OPENDUMP						0	0	0	0
UST						0	64	0	64
SWF						0	1	1	2
						0	180	1	181

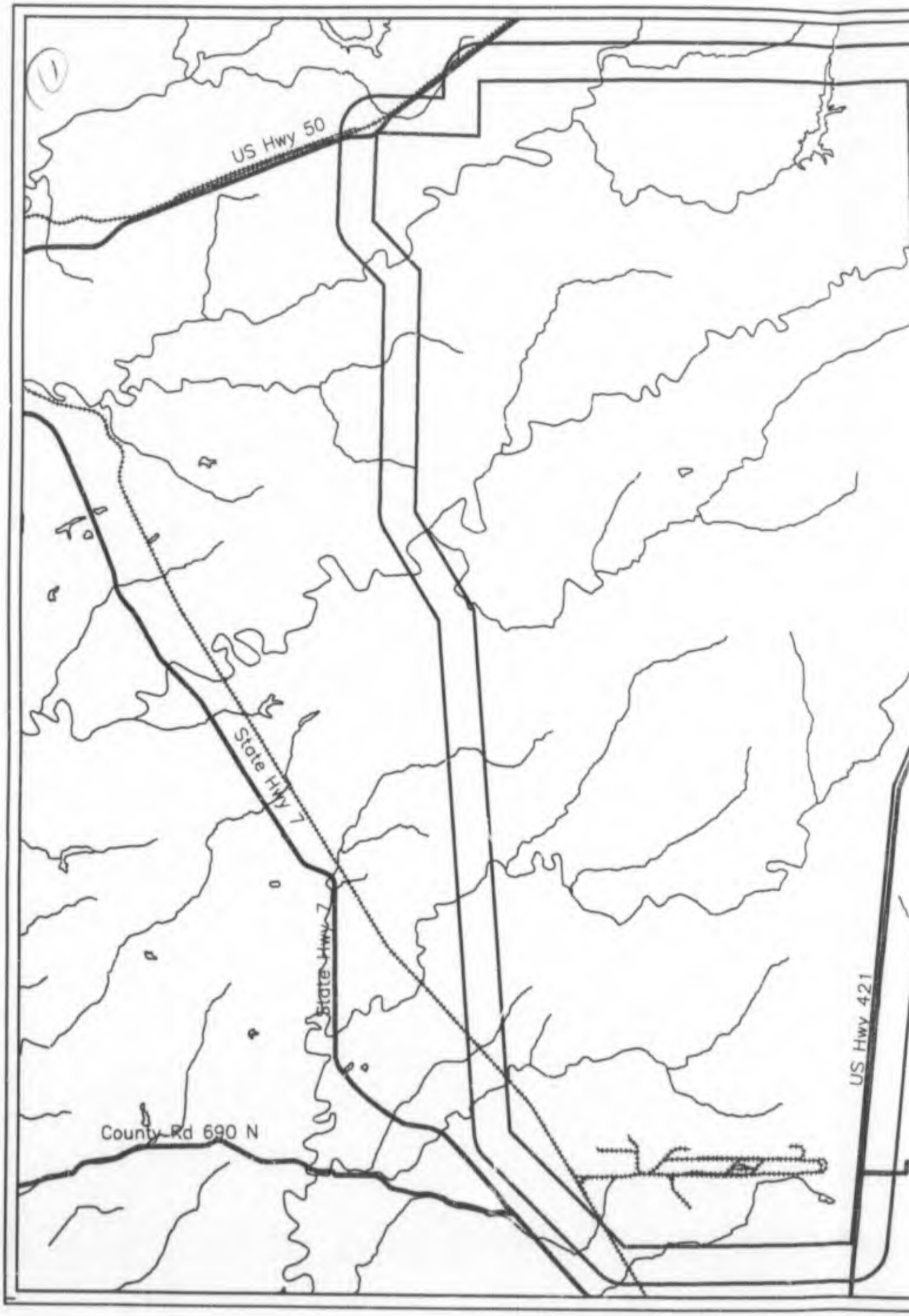
Selection of PROPERTY records requires an accurate street address in the ERIIS job order.

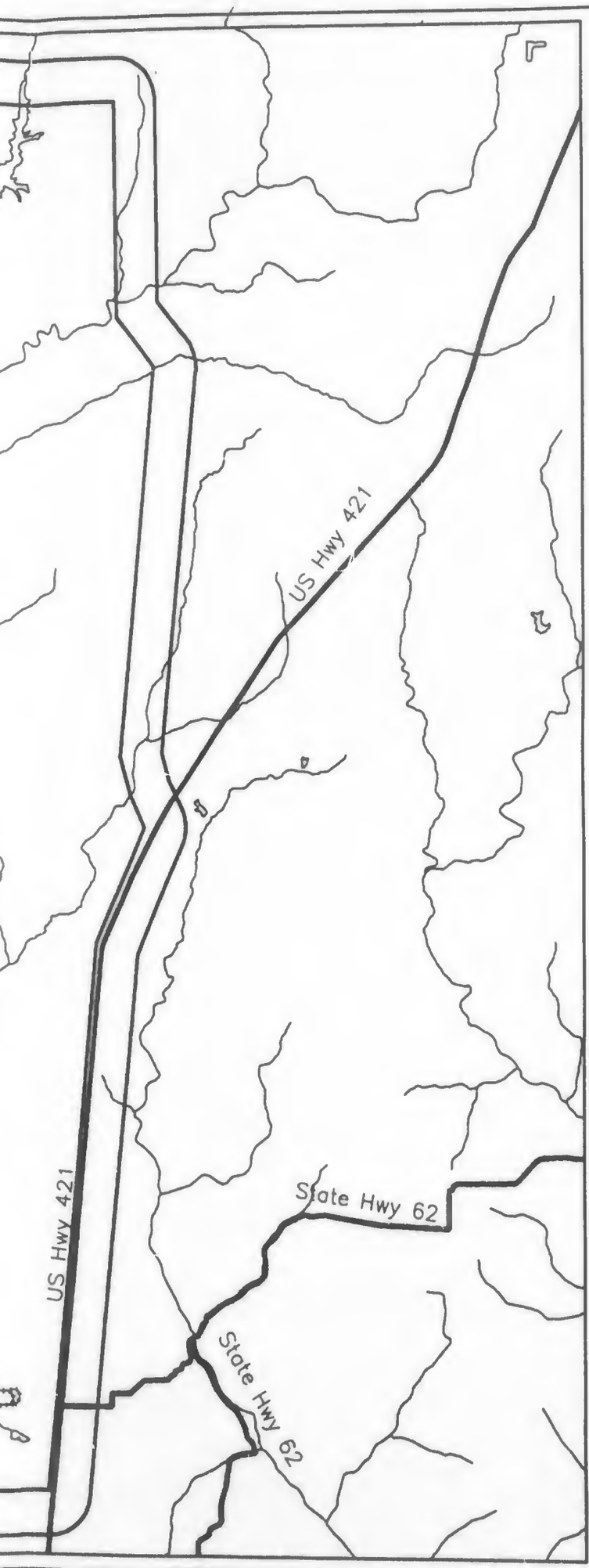
ZIP CODE and CITY/COUNTY sites are not radius reportable due to insufficient and/or inaccurate addresses reported by federal/state agency. These sites are reported within the study site zip code(s) and/or city/county and may be within the study site radius. These sites require further investigation to accurately assess proximity to the study site.

A blank radius count indicates that the database was not searched by this radius per client instructions.

NR in a radius or zip code count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.

State data in paper format is sorted using the most specific secondary search criteria available (zip code, city, or county).


US Hwy 50
State Hwy 7
State Hwy 7
US Hwy 421
County Rd 690 N



ERIIS
1421 Prince Street, Ste 330
Alexandria, VA 22314
(703)836-0402 (800)989-0402
FAX: (703)836-0468

SITE INFORMATION

Jefferson Proving Ground
Jefferson, Jennings,
& Ripley Counties, IN
Job Number: 28670
Map Plotted: Aug 23, 1993

MAP LEGEND

- Jefferson Proving Ground
- 1/2 Mile Buffer
- Hydrography
- Railroads
- Highways
- CERCLIS 0 Sites
- NPL 0 Sites
- RCRIS_LG 0 Sites
- RCRIS_SG 0 Sites
- RCRIS_TS 0 Sites
- SWF 0 Sites
- TRI 0 Sites
- UST 0 Sites

Miles

0 2 4

APPENDIX C

REGULATORY COMMENTS TO DRAFT JEFFERSON PROVING GROUND CERFA REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

March 11, 1994

Commander
U.S. Army Environmental Center
ATTN: Mr. Ken Quirk, CETHA-BC-C
Base Closure Division, Building #4480
Aberdeen Proving Ground, MD 21010-5401

Dear Mr. Quirk:

Re: Review of the Draft Community Environmental Response Facilitation Act (CERFA) Report for Jefferson Proving Ground, Indiana

Staff of the Indiana Department of Environmental Management (IDEM) have reviewed the above named document. Our review generated the following comments.

SPECIFIC COMMENTS

Page 1-3, 2nd Star, D CERFA Disqualified Parcel:

The HR and HS label should be listed as "Hazardous Substance Release/Disposal" and "Hazardous Substance Storage".

Page 1-4, Figure 1-2:

A figure showing roads north of the firing line should also be included.

Page 1-6, 2nd Paragraph:

The inclusion of a topographical map would be useful.

Page 1-6, Last Paragraph:

When will the exact acreage of wetlands be determined? Has the COE been involved in the delineation of the wetlands?

Page 1-7, Figure 1-3:

Recommend adding the firing line to this map.

Page 1-8, Section 1.3.2:

A generalized map of the bedrock topography would be helpful.

Page 1-8, Section 1.3.3, 1st Paragraph:

"Reported" is used twice in this paragraph. Reported by whom or what source? When "reported" is used the references should be cited.

Please cite the references used for groundwater yields.

Page 1-8, Section 1.3.3, 2nd Paragraph:

Are there any regional studies of the area which could give an indication of the groundwater flow gradients, hydraulic properties, etc.?

The lack of a geological/hydrogeological evaluation throughout the vast majority of the facility concerns IDEM. The presence of a karst surface, combined with possible bedrock fractures provide the opportunity for solution conduits to be present that could facilitate the migration of contaminants.

Page 1-9, 1st Paragraph:

Please include a generalized water table map for these areas.

Page 1-9, 2nd Paragraph:

Reported by what source?

The probability of direct and rapid interconnection between surface water and groundwater could enhance migration of contaminants at the facility.

Page 1-9, Section 1.3.4, 2nd Paragraph:

Approximately how many residents are on private wells?

Page 2-2, Table 2-1, Sewage Treatment Plant:

Does the SWMU include the sludge drying beds and the sewer lines? When was the plant built?

Page 2-2, Table 2-1, Landfill:

Photographic labs use a number of inorganic metal and organic materials in the developing process. These include metals such as silver, platinum, osmium, and mercury. Additionally, organics such as phenolics, phenol, cyanide dyes, dimethyl-para-phenylenediamines, indophenol, indoaniline, isphorone, hydrazine and hydroquinone maybe present. It is inadequate to limit analysis to silver and lead.

Page 2-2, Table 2-1, UXO Contamination:

"The area south of the firing line potentially contains significant amounts of UXO." The characterization of the majority of the site south of the firing line as a CERFA Parcel is incorrect. This area should be classified as a CERFA Parcel with Qualifiers due to the possibility of UXO. With the potential of UXO anywhere on the base, no area of JPG should be characterized as a CERFA Parcel.

Page 2-3, Table 2-1, UXO Contamination:

UXO Contamination is also listed on Page 2-2. Same concern as previous comment.

Page 2-3, Table 2-1, Garor Mine Burn Area:

Was any of the wood treated? Polynuclear Aromatic Hydrocarbons (PAHs) should be considered as a suspected contaminant.

Are there any suspected contaminants from plastic burned at this area?

Page 2-3, Table 2-1, Photographic Laboratory:

Same concern as previous comment regarding photographic labs.

Has the possibility of a leaky sanitary sewage system been addressed? Has the possible issue of contaminant migration through the storm sewer system from sources such as photographic labs, maintenance shops, and POL accumulation areas been investigated?

Page 2-9, Section 2.1.9, 2nd Sentence:

Is an RI/FS north of the firing line actually going to occur? If so, approximately when will the initiation of the RI/FS begin?
An RI/FS needs to be completed north of the firing line before transfer of property.

Page 2-12, Radioactive Materials:

This section mentions the use of depleted uranium in tank ammunition. Depleted uranium is also used in many air to ground cannons, such as the airborne anti-tank cannon on A-10 airplanes. Has this type of ammunition ever been used on the air to ground ranges? This possibility needs to be investigated.

Page 2-13, Section 2.3:

Discuss and summarize any new information obtained through the interviews.

Page 2-14, Table 2-2:

The "Indiana Department of Environmental Protection" should be corrected to read the "Indiana Department of Environmental Management".

Page 2-15, 3rd Bullet:

Did this inspection include the sludge drying beds and the sewer lines?

Page 2-16, 1st Bullet:

A lead exposure risk assessment for buildings constructed before 1978 was conducted by JPG personnel. The results of this study should be stated in this section.

Page 3-1, Section 3.0:

A map similar to the CERFA Parcel identification map needs to be included to identify the locations of the facilities, disposal areas, storage areas, etc.

Page 3-3, Table 3-1:

This title should also include "Petroleum Storage".

Page 3-6, Section 3.1.2, 3rd Paragraph:

What evidence suggests the waste methylene chloride/polyurethane filler was disposed between the railroad tracks just south of the Disposal Area Behind Building 211? Has any sampling taken place in this area?

Page 3-7, Section 3.1.3, Weapons Maintenance Activities:

Was another solvent used before the citrus solvent? Please explain the past practices for this area.

Page 3-7, Section 3.1.4, Electronics Parts Cleaning Activities:

Has this process been used since 1941?

Page 3-9, Section 3.1.6, 3rd Paragraph:

When was the upgrade completed? Has there been any groundwater monitoring in areas near the sewer lines? This could be a source of contamination, especially since infiltration was noted during times of precipitation.

Page 3-10, Section 3.1.7, 2nd Paragraph:

This paragraph mentions asbestos as the only special waste disposed of in the Gate 19 Landfill. Numerous special waste disposal permits have been granted to JPG. A list of each of the special waste disposal permits should be included to give a more accurate account of the wastes disposed of in this landfill.

Page 3-10, Section 3.2, 1st Bullet:

"In the Field Screening conducted in May 1993, no significant contamination was detected; therefore, no further action was recommended for the former USTs." This is a vague description lacking specific concentrations. Specific sample results and locations should be stated or referenced.

Page 3-11, 1st Bullet:

Has the possible issue of contamination migration through the sewage system been investigated?

Page 4-1, Section 4.1, 5th Paragraph:

If the Army is deferring an RI/FS in the area north of the firing line pending more definitive reuse planning, then how can the status of this area be "No Further Action" before the RI/FS has begun.

Please explain the justification for the Enhanced PA report's major recommendation that no part of JPG should be released without a UXO sweep and removal? Will a UXO sweep be done in the southern area as part of the RI/FS? When will the northern area be considered?

This paragraph states Sites 24 and 25 were not mapped since available information indicated that no CERFA storage, disposal or release activities had occurred. Page 4-20 states facility representatives indicated that ordnance may have been disposed of in nearby ponds. This statement should classify these two sites as CERFA Disqualified.

This paragraph is confusing and needs to be rewritten.

Page 4-13, Section 4.1.1:

What is the status (RI/FS or NFA) of JPG-49, 57, 58, and 62? Does the NFA action apply to all of these?

Page 4-15:

Please include more information or a reference to another section for the status of JPG-55 and 56.

What is the status of JPG-59, 60, and 61?

Page 4-16:

Please give the status of JPG-64 and 65.

Page 4-17:

Please give the status of JPG-77.

Page 4-18:

It is stated that "No Further Action" is planned for JPG-86-90 based on RFA. The data used to make this determination should be included with the justification for "No Further Action". Please give the status of JPG-92 and 98.

Page 4-19:

Please give the status of JPG-103. Will the Enhanced PA report's recommendation that no part of JPG be released without a UXO sweep and removal be followed at JPG-103?

Page 4-19, Section 4.1.2:

The AREEs described here do not discuss the status of the units stated in Table 4-1? More information needs to be included in this section.

Page 4-20, JPG-32; 2nd Sentence:

"Present" should be "Percent". Are there future investigations anticipated for this area?

Page 4-21, Section 4.2.1, 2nd Paragraph:

What are the future plans for the site described in this paragraph? Further investigation is needed.

Page 4-22, SWMUs:

Again, how can the status of an area be "No Further Action" before the RI/FS has been initiated.

Page 4-25, Section 4.3, 2nd Paragraph:

It should be stated that these two drinking water wells are on property owned by JPG.

Page 4-26, Section 4.4.2:

A lead exposure risk assessment for buildings constructed before 1978 was conducted by JPG personnel and should be included in this section.

Page 4-27, Section 4.4.6, 3rd Paragraph:

Again, the characterization of the majority of the site south of the firing line as a CERFA Parcel is inaccurate. This paragraph reiterates the potential for UXO south of the firing line.

Page 5-2, Figure 5-1a:

How was the size of the parcels determined? It appears that a unit was identified and a 10 acre grid surrounding the unit was used as a buffer zone to delineate the parcel. Give a justification for how the parcels were determined.

For parcels 21 and 24, both surrounding Krueger Lake, why was the lake partially included? Has any investigation of the water or sediment quality of the lake been completed?

GENERAL COMMENTS

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 procedures with respect to contamination assessment, cleanup and regulatory agency notification/concurrence for federal facility closures. The primary CERFA objective is to expeditiously identify property offering the greatest opportunity for immediate reuse and redevelopment. The report identifies real property where no CERCLA regulated hazardous substances or petroleum products were stored, released, or disposed.

This document presents a comprehensive investigation for non-CERFA Parcels that preclude immediate reuse and redevelopment. However, the document does not indicate that adequate characterization has been performed to determine that off-site migration has not occurred or will not occur from the CERFA Disqualified Parcels. Conclusions are drawn from general information where specific data is not stated or referenced. IDEM would like specific data in order to concur or not concur with the rational used for potential contaminant migration.

It is impossible to concur that CERFA Parcels are free from contamination without specific knowledge of the delineation of the contaminant plumes related to CERFA Disqualified Parcels. A figure illustrating the potential source of groundwater contamination should be prepared and should include characterization of potential contaminants of concern to the fullest extent possible. Will the Army retain liability for future use of a potentially contaminated aquifer? Possible contamination needs to be identified so that proper deed restrictions regarding aquifer restrictions can be made on CERFA Parcels. The definition of a CERFA Parcel includes "no evidence of being threatened by migration of such contamination."

Based on the comments presented in this letter, IDEM cannot concur with the CERFA Report as it is currently presented.

Thank you for the opportunity to review the draft CERFA Report. We look forward to further discussion of these comments. If you have any further questions please contact me at (317) 233-6425.

Sincerely,

John J. Manley Jr.

John J. Manley, Project Manager
DoD Environmental Restoration Program
Office of Environmental Response

JJM:pm
cc: Karen Mason-Smith, U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

March 10, 1994

Major Ronald Light
Department of the Army
U.S. Army Environmental Center
Base Closure Division
Beal Road, Building #4480
Aberdeen Proving Ground, Maryland 21010

Dear Major Light:

Subject: Technical Review Comments on the Draft Community Environmental Response Facilitation Act (CERFA) for Jefferson Proving Ground, Madison, Indiana

The enclosed technical review comments are provided based on a general review of the subject document dated December 1, 1993, which was received by this office of the United States Environmental Protection Agency (U.S. EPA) on December 10, 1993.

As a partner and key member to the Base Realignment and Closure (BRAC) Cleanup Team or BCT for Fort Benjamin Harrison, in accordance with President Clinton's Five - Point Plan/Initiative to accelerate base closure cleanup, U.S. EPA would like to thank you for the opportunity to review this draft CERFA Report.

U.S. EPA would also like to thank you for the opportunity to provide our comments and concerns to the Indiana Department of Environmental Management (IDEM) in an effort of technical support and advice. If you should have any questions or comments, please feel free to contact me at (312) 886-6150.

Sincerely yours,

Karen L. Mason-Smith

Karen L. Mason-Smith, Project Manager
IL/IN Remedial Response Branch

Enclosures
cc: Richard Blume-Weaver, FBH BEC
Ken Tindall, EPA
John Manley, IDEM
Elmer Shannon, EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 COMMENTS

US ARMY JEFFERSON PROVING GROUND
Draft Community Environmental Response Facilitation Act
(CERFA) Report for Jefferson Proving Ground, Madison, Indiana

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The following is a summary of the review comments on the Draft CERFA Report for U.S. Army Jefferson Proving Ground (JPG). We have the following comments:

Technical Comments -- FBH Draft CERFA Report

1. General Comment -- There are several data gaps north of the firing line. The last paragraph on page 4-1 states that "The north area has widespread UXO contamination and localized depleted uranium contamination. Therefore, the status of all sites north of the firing line is identified in Table 4-1 as "No Further Action: (NFA). This does not necessarily mean that contamination does not exist. An RI/FS will be performed in the impact area prior to releasing that area from control."

2. General Comment -- The last paragraph on page 4-1 states that, "Also, three of the these identified sites (Sites 24, 25, and 26) were not mapped in this report since available information indicated that no CERFA storage, disposal or release activities had occurred." Table 4-1 indicates that Site 25 contaminants are unknown. How could it be determined that there was no CERFA storage, disposal or release if the contents of the landfill are unknown? Figures depicting the locations of all of these landfills will eventually be required.

   Page 4-20 gives brief descriptions of these same three areas. JPG-24 & JPG-25 descriptions indicate that ordnance may have been disposed of in nearby ponds. The description for JPG-26 does not in any way describe the contents of the landfill. It simply says "This unit is located north of the firing line and no response action is planned at this time."

   Since all three of these sites are landfills, at the minimum RCRA Subpart D (Solid Waste) may require closure actions which will require parcel restrictions (regulation of this may have been delegated to the State), though page 4-20 seems to indicate that UXO may be involved.

3. Page 4-27, Section 4.4.6 -- The second paragraph of Section 4.4.6 on page 4-27 states, ".... Thus, UXO is not restricted to impact areas, and may be found anywhere north of the firing line." Figure 5-1B shows that all of the area north of the firing line is considered CERFA qualified. Until the above referenced statement in Comment #1 concerning the

performance of an RI/FS, for the north of the firing line area, prior to releasing an area from control is adhered to and the current data gaps will be addressed, I cannot concur with Figure 5-1b's map illustration of "CERFA Parcel with Qualifier(s)".

4. General Comment -- In looking over the Final Summary Report of Field Screening at Jefferson Proving Ground, Madison, Indiana (August 6, 1993) we have the following concerns:

a). Building 279, Site 12. It is agreed that bedrock wells are needed. There is a concern related to sampling. The second paragraph of Section 3.5.2 mentions that, previously, MW15 was found to contain TCE, but this does not seem to have been sampled for in the probe holes (It would also have been helpful to know at what levels the contaminants in MW15 were found, for comparison purposes. If the "TVOC" levels reported in Table 6 for PH02 reflect TCE (as results from MW15 may suggest) then there is some concern for the formation of a DNAPL (Dense Non-Aqueous Phase Liquid), as the TVOC levels are slightly above 1% of TCE's solubility in water. There is no way to evaluate this with the current data, so the need for bedrock wells is great. The sampling of these wells for volatiles including TCE may address the issue.

There is also some concern on the location of the probe holes at Site 12. No information was given in this section on the direction of groundwater flow (obtained from the MW wells in this area), but if the flow direction is to the west or northwest, then the location of the probeholes would result in a data gap incapable of detecting a contaminant plume. This could probably be handled by reviewing ground water elevation data from the MW wells; unfortunately this data was not provided.

b). Building 202, Site 18. The ground water sample and ground water duplicate at PH-04 show total VOC contamination at 145-156 ppb at a depth of 9'-12'. This has a probability of being of regulatory concern, especially since the statement is made that, "Because of the non-detection of fuel-related VOCs in or around the excavation pit, no additional probeholes were deemed necessary at this site." Soil sample results from PH-04 show TVOC concentrations similar to those for PH-02 and PH-03, suggesting that PH-04 is not the source of the ground water contamination. Thus we have a groundwater plume of non-fuel related VOCs (i.e. probably solvents) which has an unknown source area and an unknown extent. This warrants further investigation prior to allowing this area of land, and any adjacent upgradient parcels to be transferred.

c). Building 305, Site 20. The data here may be sufficient when presented with the data obtained from soil borings A, B, C, & D. Please present the data from these borings to confirm.

d). Building 216, Site 23. There are no truly downgradient sampling locations, based on the regional southwesterly trend. There is also only one probehole sampling location. Shallow soils (2.5'-4' deep) show 42 ppm 1,1,1 TCA, as well as hundreds of parts per billion of other contaminants. Was there a clay unit some where in the 2.5'-4' range that prevented further downward movement of these contaminants? If so, then this may be believable. Otherwise, there may be some problems. There are certain inherit dangers on making a wide sweeping conclusion based on data from one location. I am certain that the gravel lining from the pit would not stop contaminant migration, even in the unsaturated zone (i.e. above the water table).

e). Building 103, Site 36. The last paragraph on page 117 states that PH-01 showed no VOCs; this is only half-true; the duplicate from this location showed 4 ppb TVOC. No ground water sampling was conducted in the suggested downgradient direction. Also, why do probeholes PH-03 and PH-04, which should be upgradient of the spill area, show groundwater contamination that is equal to or slightly higher than the PH-02 location (which is within the boundary of the spill)? This may not be too serious a problem, but there is some oddity in the location of the sampling points (i.e. why put them upgradient?), and the results of samples from those locations (i.e. upgradient wells show low levels of contamination; this may suggest a high level of dispersion; unfortunately, I do not have enough information to make any kind of informed judgement on this).

f). Building 118, Site 37. There are obviously data gaps in this area. Probehole PH-05 shows BTEX contamination about 5 times higher in groundwater than in soil. This suggests one of two things: either this is not the main source area (though it may be nearby), or this is the source area and most of the contamination has migrated into the groundwater. There are no probeholes in the suggested downgradient direction from PH05, so there is no way to determine the extent of any contaminant plume which may exist.

5. General Comment -- The CERFA report seems to agree with our position stated above in Comment #4a, regarding Building 279 (Site 12). The last paragraph on page 4-11 states that, "...Soil samples did not full(y) (as a minor comment, this is a typo) characterize the extent of contamination at the pits but did suggest that it may be migrating to the groundwater pathways. The RI/FS relating to the three disposal sites is being conducted."

This area (Site 12, Building 279) may require some limited soil remediation (after additional sampling), as infiltrating rain water could cause this contamination to enter the groundwater, where it would be much more difficult to remove. As this appears to be one of the three foot by three foot solvent pits, it would not take a lot to clean this potential continuing source area up.

6. Section 3.1.6. Facility Support Sanitary Sewer System -- The potential exists for past contamination of soil and ground water via the sanitary sewer system. The third paragraph on page 3-9 of the CERFA report states that the sewer system was constructed of vitrified clay pipe in 1941, and that problems with infiltration were noted in the 1970's. The first paragraph on this page states that Silver (prior to 1967) and Cyanide used in the photograph processing lab were discharged to the sanitary sewer system. If water was infiltrating into the pipe (for silver this would have had to occur prior to 1967), it could also have exited the pipe. Was any sampling or soil removal done when the old clay pipe was replaced with PVC? Is it known where the infiltration into the Sewer System occurred? Did it occur at specific locations (i.e. joints) or along the whole length of the pipe? This may warrant further investigation.

7. General Comment -- As a minor comment, the second to the last sentence on page 4-13 of the CERFA document should refer to JPG-27, 28, 29 not "...(JPG-27, 29, 29)".

8. Draft CERFA Document, page 4-19, JPG-18 (last paragraph) -- As a suggestion, Ground Penetrating Radar may be able to determine the location of the second grenade disposal well.

9. Draft CERFA Document, Section 4.4.4, page 4-26 -- It is unclear if March 1984 was the date that depleted uranium was first used, or if this is the oldest existing record which documents the amount of depleted uranium used. I suspect that March 1984 marked the first use of depleted uranium, as page 2-12 implies that this was when NRC License No. SUB 1435 allowed them to begin usage; however, it is possible that this license merely replaced a previously existing license. Please clarify this. If depleted uranium was used before this, please supply a best estimate of how long prior to this it was used. Also, if depleted uranium was used prior to this, is it reasonable to assume that usage rate was roughly the same? (I am trying to get an estimate of how much material might still be out there.)

10. General Comment -- Draft CERFA Document, Table 5-1 is confusing. For example Parcel #1 is shown as 1D-/X/HR with the Map 5-1 coordinates of 1,21. However, there is another portion of Parcel #1 which is north of the firing line and does not show up on Map 5-1, and which has not been categorized as disqualified. The northern part has been lumped in with the part of Parcel #1 that is located south of the firing line, even though these portions of Parcel #1 are not contiguous and are not classified the same. There should probably be separate entries for these sub-parcels, as well as the flexibility of indicating what map the sub-parcel is shown on.

11. General Comment -- One area that requires additional investigation that may not be currently under consideration is the VOC plume discovered at Building 202, Site 18.

In summary, it is clear that further work needs to be done on parcels both north and south of the firing line. The facility seems to be aware of this, as evidenced by numerous references to future or on going RIs. In conclusion, based on the above comments in this letter, USEPA cannot concur with the CERFA Report as it is currently presented.

Responses to Indiana Department of Environmental Management (IDEM) comments:

See Comment RE: Page 1-3, 2nd Star, D CERFA Disqualified Parcel at Attachment 1
Response: Concur. HR and HS labels have been listed as "Hazardous Substance Release/Disposal" and "Hazardous Substance Storage."

See Comment RE: Page 1-4, Figure 1-2
Response: Concur. Roads north of the firing line are included on the CERFA Map, Figure 5-1B.

See Comment RE: Page 1-6, 2nd Paragraph
Response: While it would be useful, the inclusion of a topographic map is beyond the scope of this CERFA Report. The text description of the general topography is sufficient for the purposes of the CERFA report.

See Comment RE: Page 1-6, Last Paragraph
Response: Concur. The most current estimate of wetlands acreage is 6,470 based on the National Wetlands Inventory Map and the Gap Analysis performed by Indiana State University. The Corps of Engineers was not involved in this delineation.

See Comment RE: Page 1-7, Figure 1-3
Response: Concur. The firing line has been added to Figure 1-3.

See Comment RE: Page 1-8, Section 1.3.2
Response: While it would be useful, the inclusion of a bedrock topography map is beyond the scope of the CERFA report. The geological desription in the text and reference documents is sufficient for the purposes of the CERFA report.

See Comment RE: Page 1-8, Section 1.3.3, 1st Paragraph
Response: Concur. The sources of information used will be cited.

See Comment RE: Page 1-8, Section 1.3.3, 2nd Paragraph
Response: Concur.
-There are some existing reports that discuss the hydrogeology of the region. They include the following:

Hartke, E. J., 1989. Geology of Jefferson Proving Ground, Indiana Department of Natural Resources.

Greeman, Theodore K., 1981. Lineaments and Fracture Traces, Jennings County and Jefferson Proving Ground, Indiana, U.S. Geological Survey, Open File Report 81-1120, Indianapolis, Indiana.

Plan of Study for the Ohio/Indiana Carbonate-Bedrock and

Glacial Aquifer System, U.S. Geological Survey, Open File Report 90-151.

- For the purpose of CERFA, the requested reports would be relevant only if they indicated known geologic/hydrogeologic features through which known disposals or releases have contaminated adjacent property. The above-referenced reports do not provide this information and therefore are not relevent to CERFA, but are provided for the reviewers information. A more detailed hydrogeological analysis will be available in the upcoming remedial investigation report.

- The Army acknowledges the IDEM's concern regarding a hydrogeological evaluation throughout the facility. The statement has been taken into consideration, but does not affect the CERFA parcel designations and does not warrant any change to the report.

See Comment RE: Page 1-9, 1st paragraph

Response: A generalized water table map is not available for the subject areas and would not contribute to the validity of the subject statements. Localized groundwater levels in the vicinity of building 279 and the Gate 19 Lanfill are available in an existing document (Remedial Investigation at Jefferson Proving Ground, Technical Report A011, June 1989, ESE). This report will be added to the reference list. The CERFA report is intended to reference existing documentation regarding hazardous substances and petroleum products at the facility and will not re-present technical data and technical figures.

See Comment RE: Page 1-9, 2nd Paragraph

Response:

-The reference will be cited in the Report.

-The Army acknowledges the IDEM's statement regarding the interconnection between surface water and groundwater. The Army interprets the statement to mean that the CERFA process should consider potential contaminant migration when designating parcels. To address this concern, the Army conducted a review of available contaminant and environmental investigation information. An analysis was conducted to address this concern. Where records indicated contaminant migration through groundwater or surface water, the affected parcels were disqualified. In addition, for JPG, the Army used 1 acre grids to designate (disqualified) parcels. If a known source area or contaminated zone was located in a 1 acre grid block, the entire 1 acre grid block is considered disqualified. Therefore, in most cases, the disqualified parcel includes a buffer around the known source areas or contaminated zones. The Army considers this approach to designating disqualified parcels to be very conservative.

See Comment RE: Page 1-9, Section 1.3.4, 2nd Paragraph

Response: To fit the updated CERFA Report format, the "Receptors" section has been deleted. However, information regarding neighboring residents and drinking water supply will be provided in the upcoming remedial investigation report.

See Comment RE: Page 2-2, Table 2-1, Sewage Treatment Plant:
Response:

-This table has been deleted to conform to the updated CERFA Report format. Both the sludge drying beds and the sewer lines are referenced as JPG-45 and JPG-55, respectively, in the text discussion of the Sewage Treatment Plant (JPG-93) in Chapter 4. The subject disqualified parcel (30D) is intended to encompass JPG-45 and JPG-93. There is no knowledge of a release of hazardous substance or petroleum product from the sewer system to the soil/groundwater and the system was upgraded in 1987-88. The Army has determined that the sanitary sewer system does not meet the criteria for a CERFA disqualified parcel.

-The plant became active in 1941; this fact will be incorporated into the above-mentioned discussion.

See Comment RE: Page 2-2, Table 2-1, Landfill:
Response: This table has been deleted to conform to the updated CERFA Report format. Samples taken from this area are being analyzed for VOCs, SVOCs, and metals in the on-going RI/FS. Therefore the referenced potential contaminants will be addressed. Regardless of the specific contaminants, the parcel which contains the landfill will remain a CERFA disqualified parcel.

See Comment RE: Page 2-2, Table 2-1, UXO Contamination:
Response: This table has been deleted to conform to the updated CERFA Report format. It is the Army's position that UXO are not hazardous substances when located in areas where their presence is indicative of their intended use, or treatment as part of a range clearance operation, i.e., ranges and impact areas. The Army has, assuming there are no other disqualifying conditions, qualified these areas as CERFA Parcels with Qualifiers. If UXO are found or known to be in areas that suggest a disposal (other than open burning/open detonation conducted on ranges as part of range clearance or training operations), then these areas have been characterized as CERFA Disqualified Parcels. The EnPA's statement regarding the general presence of UXO (south of the firing line) was based on limited information and does not accurately reflect the Army's current understanding with respect to UXO south of the firing line at JPG. Areas south of the firing line that are suspected of UXO presence are being addressed in the on-going RI/FS and are depicted in the CERFA map. Areas suspected of UXO (south of the firing line) were identified in the RI from file research, interviews, aerial photos, etc. The RI has not uncovered UXO at any of the suspected areas (south of the firing line). However, since the

results are not yet officially documented in an RI report, the parcels suspected of possible UXO presence and will remain under the same parcel classification with respect to UXO.

See Comment RE: Page 2-3, Table 2-1, UXO Contamination:
Response: Please see previous response.

See Comment RE: Page 2-3, Table 2-1, Gator Mine Burn Area:
Response: The wood used was not treated. PAHs are not a suspected contaminant.

See Comment RE: Page 2-3, Table 2-1, Photographic Laboratory:
Response:

-See response to comment regarding Page 2-2, Table 2-1, Sewage Treatment Plant.

-There is no knowledge of a release of hazardous substance or petroleum product from the sanitary sewer pipeline to the soil/groundwater and the system was upgraded in 1987-88. The Army's position is that the sanitary sewer system does not meet the criteria for a CERFA disqualified parcel.

-Available information has been evaluated regarding releases to the environment, to include potential releases through the storm sewer. No known or suspected releases to/from the storm sewers have been identified. The Army's position is that the storm sewer system does not meet the criteria for a CERFA disqualified parcel.

See Comment RE: Page 2-9, Section 2.1.9, 2nd sentence:
Response: The U.S. Army is currently deferring a remedial investigation of the area north of the firing line pending more definitive reuse planning and also due to physical hazards associated with UXO and the ongoing test firing mission at JPG. The timeframe for an environmental investigation is dependent on regulatory requirements, the level of safety that may be attained for an investigation, and the UXO technology available to eliminate potential hazards. The Army is unaware of any statutory requirement to complete a RI/FS prior to transfer of property which is not listed on the NPL. The subject questions do not affect the CERFA process and do not require any changes to the report.

See Comment RE: Page 2-12, Radioactive Materials:
Response: Only DU which has been fired from ground sources has been tested at JPG. An air gunnery range does exist at JPG in the northern area (JPG-71), but there has never been use of DU in these activities.

See Comment RE: Page 2-13, Section 2.3:
Response: When information was obtained from interviewees, it is noted in Chapter 4 as the source of information. Section 2.3

will only describe the interview process.

See Comment RE: Page 2-14, Table 2-2:
Response: Concur. The subject change has been corrected.

See Comment RE: Page 2-15, 3rd Bullet:
Response: This section has been modified to conform to the final CERFA Report format. "Wastewater Treatment and Discharge" is incorporated under "Hazardous Substance Release or Disposal." The new section describes inspection methods and states "The records search and JPG personnel interviews were used to identify areas of release. Larger disposal areas were also reviewed during the windshield survey and helicopter flyover." The plant and drying bed were included in these inspections, however, the sewer lines were not inspected.

See Comment RE: Page 2-16, 1st Bullet:
Response: Concur. The results of the lead exposure risk assessment has been incorporated into the final CERFA Report.

See Comment RE: Page 3-1, Section 3.0
Response: Concur. The CERFA Map has been updated to include building numbers and larger areas.

See Comment RE: Page 3-3, Table 3-1
Response: Concur. The title now includes "Petroleum Storage."

See Comment RE: Page 3-6, Section 3.1.2, 3rd Paragraph
Response: The evidence of possible disposal was obtained from the USEPA's Environmental Audit of JPG. This reference has now been included in the subject discussion. Sampling in this area (JPG-09) is being conducted in the on-going RI/FS.

See Comment RE: Page 3-7, Section 3.1.3, Weapons Maintenance Activities
Response: Concur. The subject paragraph now includes the following information: that its use has continued since 1941; that the citrus solvent replaced Stoddard Solvent; and that the Bldg. 227 Former Storage Pad has fallen into disrepair and was replaced by the Accumulation Shed.

See Comment RE: Page 3-7, Section 3.1.4, Electronics Parts Cleaning Activities
Response: Concur. The use of this building and the process began approximately five years ago. The text will be modified accordingly.

See Comment RE: Page 3-9, Section 3.1.6, 3rd Paragraph
Response: The upgrade was performed during the 1987-88 timeframe. No groundwater monitoring activities have occurred to investigate the sewer lines. See previous response to comment regarding Page 2-2, Table 2-1, Sewage Treatment Plant.

See Comment RE: Page 3-10, Section 3.1.7, 2nd Paragraph
Response: The sentence in question has been changed as follows. "The Gate 19 Landfill has also been temporarily permitted to receive asbestos waste at various times within the last decade. It also received sludge from the Sewage Treatment Plant under a special permit from April 1993 to September 1993. Tree limbs and other..." The revised sentence reflects information that was obtained for the purpose of CERFA parcelization. The important point with respect to CERFA is that the subject parcel (in which the Gate 19 Landfill is located) will remain a CERFA Disqualified Parcel.

See Comment RE: Page 3-10, Section 3.2, 1st Bullet
Response: Specific sample results need not be presented in the CERFA report for the subject sites. For the purpose of CERFA, the fact that petroleum was stored or released at the subject sites is sufficient to disqualify the parcel. All releases or storage of petroleum products meeting CERFA disqualified criteria and identified in the Field Screening report will be identified in the CERFA report as disqualified parcels.

See Comment RE: Page 3-11, 1st Bullet
Response: See previous response to comment regarding Page 2-2, Table 2-1, Sewage Treatment Plant.

See Comment RE: Page 4-1, Section 4.1, 5th Paragraph
Response:
The U.S. Army is currently deferring a remedial investigation of the area north of the firing line pending more definitive reuse planning and also due to physical hazards associated with UXO and the ongoing test firing mission at JPG. Therefore the current status of the RI for the area north of the firing line will be changed to 'To Be Determined.' The text of the subject paragraph has been changed accordingly.

-The EnPA's recommendation for a UXO sweep of all JPG properties prior to release was premature and based on limited information and does not accurately reflect the Army's position with respect to potential UXO at JPG. Areas south of the firing line that are suspected of UXO presence are being addressed in the on-going RI/FS and are depicted in the CERFA map. Areas suspected of UXO were identified in the RI from file research, interviews, aerial photos, etc. The RI has not uncovered UXO at any of the suspected areas (south of the firing line). However, since the results are not yet officially documented in an RI report, the parcels suspected of possible UXO presence will remain in the CERFA report. Regarding "when will the northern area be considered?", see response to comment regarding page 2-9, section 2.1.9, 2nd sentence. For clarification of parcel designations the purpose of CERFA, see response to comment regarding page 2-2, Table 2-1, UXO Contamination.

-Sites JPG-24 and JPG-25 are mapped in the revised report. These sites will be disqualified for the possible disposal of unexploded ordnance nearby. The subject paragraph will be revised.

See Comment RE: Page 4-13, Section 4.1.1
Response: Concur. The current status of the subject area will be included in the CERFA Report.

See Comment RE: Page 4-15
Response: Concur.
- Site information and current status of the two subject areas will be included in the CERFA Report.

- The status of these subject sites will be included in the CERFA Report.

See Comment RE: Page 4-16
Response: Concur.
- JPG-64 is currently being studied in the RI/FS. This information will be included in the CERFA Report.

- The current status of JPG-65 will be added to the text.

See Comment RE: Page 4-17
Response: JPG-77 is covered by an NRC license and will be managed by JPG in accordance with the NRC license requirements.

See Comment RE: Page 4-18
Response:
- The references to the RFA have been changed to "Groundwater Consultation No. 38-26-KQ80-92 (AEHA), Evaluation of Solid Waste Management Units, Jefferson Proving Ground, Madison, IN, 15-18 June 92." This document was prepared by the Army Environmental Hygiene Agency in coordination with the USEPA. The text will reflect this information.

- Asbestos (JPG-92) is addressed by JPG through the use of an Asbestos Management Plan in accordance with State and Federal regulations. This will be included in the text.

-JPG-98 will be remediated by the Corps of Engineers in coordination with IDEM. This information will be included in the CERFA Report.

See Comment RE: Page 4-19
The on-going RI/FS includes the investigation of areas (south of the firing line) where the presence of UXO is suspected and includes JPG-103. UXO will be investigated at the subject site.

See Comment RE: Page 4-19, Section 4.1.2
Response: Regarding AREEs north of the firing line, please see

the response to the comment from page 4-1, Section 4.1, 5th Paragraph.

See Comment RE: Page 4-20, JPG-32, 2nd Sentence
Response: "Present" has been changed to "percent." The preparation of the DU Decommissioning Plan is underway and being managed by TECOM. Additionally, the DU operations are regulated under a license from NRC.

See Comment RE: Page 4-21, 2nd Paragraph
Response: The subject site was inaccurately depicted as having a known oil sheen. During the October 1993 visit, no such sheen was observed. The supposed oil sheen was reported to be observed by Roy Williams (JPG Environmental Office) during a previous visit to the subject pond. The sheen may have been due to decaying organic matter in the pond, an occurance that is often observed in shallow ponds at JPG. Additional investigation of the pond may be necessary. For the purpose of CERFA, the pond will be designated as a CERFA disqualified parcel due to possible petroleum release.

See Comment RE: Page 4-22, SWMUs
Response: See response to comment regarding Page 4-1, Section 4.1, 5th paragraph.

See Comment RE: Page 4-25, Section 4.3, 2nd Paragraph
Response: Concur. The off-base pumphouse is now included as JPG-76 and included in the site descriptions of previously identified AREEs. Clarification will be made as to the ownership of the property.

See Comment RE: Page 4-26, Section 4.4.2
Response: Concur. The results of the lead exposure risk assessment will be included in this section.

See Comment RE: Page 4-27, Section 4.4.6, 3rd Paragraph
Response: Only limited areas are suspected of UXO presence south of the firing line. These areas are being investigated in the on-going RI/FS. See response to comment page 4-1. The text will be changed to reflect this response.

See Comment RE: Page 5-2, Fig 5-1a
Response:

- The standard minimum parcel size was set by the Army at one acre to facilitate mapping and for consistency. The JPG CERFA map was originally based on 10 acre grids, but has been changed to 1 acre grids to be consistent with all other Army CERFA reports.

- These parcels (21 and 24) incorrectly include parts of Krueger Lake. The inclusion of parts of Kruger Lake came as a result of asbestos in buildings adjacent to the lake. There is

no suspect lake contamination.

See GENERAL COMMENTS:

Response:

-Regarding Paragraph 2 of the subject comment in which the reviewer would like specific data to determine boundaries of contaminant migration: Specific data on all suspect and known releases is not available at this time for evaluation, as environmental investigations are not completed. Sampling to meet the requirements of CERFA was not undertaken by the Army due to the short timeframe for CERFA compliance. Therefore, in order to meet the requirements of CERFA, some level of professional judgment is necessary to evaluate the subject properties for CERFA parcel designation. In the case of Jefferson Proving Ground, existing data/reports (i.e., Final Summary Report of Field Screening at JPG, 6 Aug 93) have given the Army no reason to believe that contaminants have migrated great distances from the source areas through environmental media (i.e., soil, groundwater, etc). The bottom line is that the CERFA reporting requirements must be accomplished with existing information from each site at the present time. References for existing information will be provided, when applicable in the subject documet. The Army has made a good faith effort to interpret and meet the requirements of CERFA with the resources available.

-IDEM has not concurred with the CERFA report due to the lack of specific data/knowledge regarding contaminant migration. It is important to re-emphasize that CERFA requires identification of uncontaminated property based on the seven step protocol specified in CERCLA 120 (h) (4) (A). The rationale for IDEM non-concurrence is based on a premise that is beyond the scope of CERFA, as interpreted by the Army. The Army believes that it has conducted the designation of "uncontaminated" parcels in accordance with the CERFA process. The Army does not believe it was Congress's intent to eliminate parcels which could be designated as "uncontaminated" based on supposition. Therefore, in the absence of information to the contrary, the Army has not "disqualified" parcels from being designated as "uncontaminated."

-IDEM concurrence with the Army's interpretations in the CERFA report would not relieve the Army of its statutory obligations with regard to CERCLA. Upon lease/transfer of the property, deed restrictions will be based on existing environmental data. If the Army's characterization of these parcels is subsequently found to have been inaccurate, the Federal government, in accordance with the specific provisions of CERCLA 120 (h) (3) (B) (ii), will be required to conduct necessary remedial actions.

-It is requested that IDEM, being the lead regulatory agency, review the revised CERFA report for concurrence with all parcels identified in Table 5-1 and Figures 5-1a and b as CERFA Parcels

or CERFA Qualified Parcels.

Responses to USEPA, Region 5 comments forwarded by IDEM:

See Comment 1 (See Attachment 1):
Response: See response to IDEM comment regarding Page 4-1, Section 4.1, 5th Paragraph.

See Comment 2:
Response: Regarding JPG-24 and 25, the best available information indicates that the contents of the sites are solid wastes (household garbage) generated from the Old Timbers Lodge (RFA). Additionally, potential UXO are located in the vicinity of the sites. Due to the possible disposal of UXO in the area of JPG 24 and 25, the sites will be designated as CERFA disqualified parcels. JPG-26 was reportedly used for approximately two years for the disposal of trash and construction debris (EnPA) with no indication of hazardous substance disposal. Although there is no indication of disposal of hazardous substances at JPG 24, 25, and 26, a conservative approach will be taken for CERFA and the sites will be designated as CERFA disqualified parcels for possible releases of hazardous substances present in solid wastes disposed at the sites.

The comment regarding closure actions will be taken into consideration but is not relavent to the purpose of this report.

See Comment 3:
Response:

-It is the Army's position that UXO are not hazardous substances when located in areas where their presence is indicative of their intended use, or treatment as part of a range clearance operation, i.e., ranges and impact areas. The Army has, assuming there are no other disqualifying conditions, qualified these areas as CERFA Parcels with Qualifiers. If UXO are found or known to be in areas that suggest a disposal (other than open burning/open detonation conducted on ranges as part of range clearance or training operations), then these areas have been characterized as CERFA Disqualified Parcels.

-SWMUs and AOCs located north of the firing line have been identified by the EPA in RCRA Facility Assessment (RFA) and by the Army. The subject comment regarding "all of the area north of the firing line is considered CERFA qualified" is inaccurate because the area north of the firing line includes CERFA Disqualified parcels as well as Qualified parcels. The subject SWMUs and AOCs which meet CERFA disqualified criteria have been presented in the CERFA map of the north area.

-The investgation north of firing line has been deferred for

reasons identified in previous comment responses. Refer to response to previous comment regarding Page 2-9, Section 2.1.9, 2nd sentence.

The reviewer has indicated non-concurrence with Figure 5-1b due to non-adherence to the reviewers comment #1 and the current data gaps (assumed to mean the absence of complete detailed data for all JPG environmental concerns). It is important to re-emphasize that CERFA requires identification of uncontaminated property based on the seven step protocol specified in CERCLA 120 (h) (4) (A). The rationale for the reviewers non-concurrence is based on a premise that is beyond the scope of CERFA, as interpreted by the Army. The Army believes that it has conducted the designation of "uncontaminated" parcels in accordance with the CERFA process. The Army does not believe it was Congress's intent to eliminate parcels which could be designated as "uncontaminated" based entirely on supposition. Therefore, in the absence of reasonable information to the contrary, the Army has not "disqualified" parcels from being designated as "uncontaminated."

See Comment 4:
Response: The Army interprets your comment to mean that you are concerned that the subject sites are not being included in the CERFA report as disqualified parcels. The sites referenced in the subject comment will be properly addressed as CERFA disqualified parcels due to possible or known releases of petroleum or hazardous substances.

See Comment 5:
Response: The subject comment will be taken into consideration. However, remediation of the subject site will be addressed as deemed necessary in the ongoing CERCLA RI/FS process and is not relevent to the purpose of CERFA.

See Comment 6:
Response: Limited information is available regarding the condition of the old sanitary sewer piping. It is believed that no soil was removed during the upgrade construction and no sampling was conducted. The Army does not view the sanitary sewer as a CERFA disqualified parcel. See response to comment regarding Page 2-2, Table 2-1, Sewage Treatment Plant.

See Comment 7:
Response: Concur. The subject typo has been corrected.

See Comment 8:
Response: The subject sentence has been corrected. The suggestion for the use of Ground Penetrating Radar will be considered.

See Comment 9:

Response: A Nuclear Regulatory Commission (NRC) license was obtained for the first time on 31 December 1983 and the first Depleted Uranium (DU) test firing occurred on 14 March 1984.

See Comment 10:
Response: The CERFA parcel numbering system has been revised to eliminate any confusion.

See Comment 11:
Response: See response to comment 4 above.

APPENDIX D

DETAILED DATA BASE, JEFFERSON PROVING GROUND, MADISON, INDIANA

JEFFERSON PROVING GROUND
CERFA CATEGORY MATRIX

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 1	Y	Y						Y		
Building 10	Y	Y								
Building 100	Y	Y								
Building 101	Y	Y								
Building 102	Y	Y								
Building 103	Y	Y					Y	Y		
Building 104	Y	Y								
Building 105	Y	Y					P	Y		Y
Building 106	Y	Y								
Building 107	Y	Y								
Building 108	Y	Y								Y
Building 108A	Y	Y				P				Y
Building 11	Y	Y						Y		
Building 110	Y	Y								
Building 111	Y	Y								
Building 112	Y	Y								
Building 113	Y	Y								
Building 114	Y	Y								
Building 115	Y	Y								Y
Building 116	Y	Y								
Building 117	Y	Y								
Building 118	Y	Y					P	Y		
Building 119	Y	Y								
Building 12	Y	Y						Y		
Building 121	Y	Y								
Building 122	Y	Y				Y				
Building 123	Y	Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 125	Y	Y						Y		
Building 126		Y								
Building 127	Y	Y					Y			
Building 128		Y								
Building 129	Y	Y								
Building 13	Y	Y								
Building 130	Y	Y								
Building 131	Y	Y								
Building 132	Y	Y								
Building 133	Y	Y								
Building 136	Y	Y							P	Y
Building 137	Y	Y								
Building 138	Y	Y								
Building 139	Y	Y								
Building 14	Y	Y								
Building 140		Y								
Building 141	Y	Y								
Building 143	Y	Y								
Building 144	Y	Y								
Building 145C		Y								
Building 145N		Y								
Building 145S		Y								
Building 146	Y	Y								
Building 147	Y	P								
Building 148	Y	Y		Y						
Building 149	Y	Y					Y			
Building 15	Y	Y						Y		
Building 150	Y	Y								
Building 152	Y	Y								
Building 154	Y	Y					Y	Y		
Building 156	Y	Y								
Building 157	Y									
Building 16	Y	Y						Y		

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 162	Y	Y								
Building 167	Y	Y								
Building 168	Y	P								
Building 169	Y	Y								
Building 17	Y	Y						Y		
Building 170		P								
Building 171		P								
Building 173		P								
Building 175		P								
Building 177	Y	Y						Y	Y	Y
Building 179	Y	Y								
Building 18		Y								
Building 181		P								
Building 183		P								
Building 185	Y	Y							P	Y
Building 186	Y	Y					P	Y		Y
Building 187		P								
Building 188	Y	Y								
Building 189	Y	Y						Y		
Building 19	Y	Y								
Building 190	Y	Y								
Building 191	Y									
Building 192		Y								
Building 194	Y	Y								
Building 196		Y								
Building 197	Y	Y								
Building 198	Y	Y								
Building 2	Y	Y								
Building 20	Y	Y						Y		
Building 201	Y	Y								
Building 202	Y	Y								
Building 203	Y	Y								
Building 204	Y	Y								Y

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 205	Y	Y								
Building 206	Y	Y								
Building 208	Y	Y						Y		Y
Building 21	Y	Y						Y		
Building 210	Y	Y								
Building 211	Y	Y					Y	Y		Y
Building 212	Y	Y								
Building 213	Y	Y								
Building 214	Y	Y								
Building 215	Y	Y								
Building 216	Y	Y					P			
Building 217	Y	Y								
Building 218	Y	Y								
Building 219	Y	Y								
Building 220	Y	Y								
Building 221	Y	Y								
Building 222	Y	Y								
Building 223	Y	Y								
Building 224		Y								
Building 225		Y								
Building 226	Y	Y								
Building 227	Y	Y					Y	Y		Y
Building 228	Y	Y								
Building 229	Y	Y								
Building 23	Y	Y						Y		
Building 230		P								
Building 231	Y	Y								
Building 232	Y	Y								
Building 233	Y	Y								
Building 236	Y	Y						Y		
Building 237	Y	Y								
Building 238	Y	Y								
Building 239	Y	Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 240		Y								
Building 241	Y	Y								
Building 242	Y	Y								
Building 243	Y	Y								
Building 244		Y								
Building 245		Y								
Building 246		Y								
Building 247		Y								
Building 248		Y								
Building 249		Y								
Building 25	Y	Y								
Building 250	Y	Y								
Building 251		Y								
Building 253		Y								
Building 254		Y								
Building 255	Y	Y								
Building 256		Y								
Building 257	Y	Y								
Building 258		Y								
Building 259	Y	Y					Y			
Building 260	Y	Y								
Building 261	Y	Y								
Building 262	Y	Y								
Building 263	Y	Y								
Building 264	Y	Y								
Building 265	Y	Y					Y			
Building 266	Y	Y					Y			
Building 267	Y	Y								
Building 268		Y								
Building 269		Y								
Building 270		Y								
Building 272		Y								
Building 273	Y	Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 274	Y	P								
Building 275	Y	Y								
Building 276		Y								
Building 277	Y	Y								
Building 278		Y								
Building 279	Y	Y							Y	Y
Building 280	Y	Y								
Building 281	Y	Y					Y		P	
Building 282		Y								
Building 283	Y	Y								
Building 284	Y	Y								
Building 285	Y	Y								
Building 286		Y								
Building 287	Y	Y								
Building 287A	Y									
Building 288	Y	Y								
Building 289	Y	Y								
Building 290		Y								
Building 291	Y	Y					Y			
Building 292		Y								
Building 293	Y	Y								
Building 295	Y	Y							P	
Building 296	Y	Y								
Building 297	Y	Y								
Building 298		Y								
Building 299	Y	Y								
Building 3	Y	Y						Y		
Building 300	Y	Y								
Building 301	Y	Y						Y		Y
Building 302	Y	Y								
Building 303	Y	P					Y			
Building 304		Y								
Building 305	Y	Y				Y		Y		Y

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 307	Y	Y								
Building 309	Y	Y								
Building 310	Y	Y					Y			
Building 311	Y	Y								
Building 312	Y	Y								
Building 313	Y	Y						Y		
Building 314		Y								
Building 320	Y	Y								
Building 321	Y	Y								
Building 322	Y	Y						Y		
Building 323		Y								
Building 324	Y	Y								
Building 325	Y	Y						Y		Y
Building 327		Y								
Building 329	Y	Y								
Building 33	Y	Y						Y		
Building 331	Y	Y								
Building 333	Y	Y						Y	P	
Building 37	Y	Y								
Building 4	Y	Y						Y		
Building 400		Y								
Building 401		Y								
Building 402		Y								
Building 403	Y	Y								
Building 404		Y								
Building 406		Y								
Building 408		Y								
Building 410		Y								
Building 412		Y								
Building 413		Y								
Building 414		Y								
Building 415		Y								
Building 416		Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 417		Y								
Building 418		Y								
Building 420		Y								
Building 421		Y								
Building 430		Y								
Building 431		Y								
Building 436		Y								
Building 437		Y								
Building 439		Y								
Building 441		Y								
Building 443		Y								
Building 45	Y	Y								
Building 450		Y								
Building 453		Y								
Building 459		Y								
Building 46	Y	Y								
Building 460		Y								
Building 461		Y								
Building 462		Y								
Building 463		Y								
Building 464		Y								
Building 465		Y								
Building 466		Y								
Building 467		Y								
Building 469		Y								
Building 47	Y	Y								
Building 470		Y								
Building 471		Y								
Building 472		Y								
Building 473		Y								
Building 479		Y								
Building 48	Y	Y								
Building 481		Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 484		Y								
Building 485		Y								
Building 488		Y						Y		
Building 489		Y								
Building 49	Y	Y								
Building 490		Y								
Building 491		Y								
Building 493		Y								
Building 5	Y	Y								
Building 501		Y		Y						
Building 502	Y	Y								
Building 504	Y	Y								
Building 506	Y	Y								Y
Building 508	Y	Y								
Building 510	Y	Y								
Building 512	Y	Y								
Building 514	Y	Y								
Building 516	Y	Y								
Building 520	Y	Y								
Building 526		Y								
Building 528	Y	Y								
Building 530	Y	Y						Y		
Building 532		Y								
Building 534	Y	Y								Y
Building 542	Y	Y								
Building 550	Y	Y								
Building 551	Y	Y								
Building 552	Y	Y								
Building 553	Y	Y								
Building 558		Y								
Building 559		Y								
Building 560		Y								
Building 561		Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 562		Y								
Building 563		Y								
Building 564		Y								
Building 565		Y								
Building 566		Y								
Building 567		Y								
Building 568		Y								
Building 569		Y								
Building 570		Y								
Building 571		Y		Y						
Building 572		Y		Y						
Building 574		P								
Building 575		Y								
Building 576		Y								
Building 577		Y								
Building 596		P								
Building 597		P								
Building 598		P								
Building 599		Y								
Building 6	Y	Y								
Building 60	Y	P								Y
Building 600	Y	Y								
Building 601		Y								
Building 602	Y	Y					Y	Y	Y	
Building 603	Y	Y								
Building 604		Y								
Building 605		Y								
Building 607	Y	Y								
Building 608		Y								
Building 609	Y	Y								
Building 61	Y	P								
Building 610	Y	Y		Y						
Building 611	Y	Y		Y						

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 612	Y	Y								
Building 613	Y	Y								
Building 614	Y	Y								
Building 615	Y	Y								
Building 616	Y	Y								
Building 617	Y	Y					Y		Y	
Building 618	Y	Y								
Building 619	Y	Y								
Building 62	Y	P								
Building 620	Y	Y								
Building 621	Y	Y								
Building 622	Y	Y								
Building 623		Y								
Building 624		Y								
Building 625		Y								
Building 626		Y								
Building 627		Y								
Building 628	Y	Y								
Building 63	Y	P								
Building 630		Y								
Building 631		Y								
Building 64	Y	P								
Building 65	Y	P								
Building 650		Y								
Building 652		Y								
Building 654		Y								
Building 656		Y								
Building 658		Y								
Building 660		Y								
Building 662		Y								
Building 664		Y								
Building 666		Y								
Building 668		Y								

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Building 67	Y	P								
Building 670		Y								
Building 672		Y								
Building 674		Y								
Building 68	Y	P								
Building 69	Y	P								
Building 7	Y	Y						Y		
Building 70	Y	P								
Building 700	Y	Y								
Building 702	Y	Y								
Building 704		Y								
Building 706	Y	Y								
Building 708	Y	Y								
Building 71	Y	P								
Building 711								Y		
Building 714								Y		
Building 72	Y	P								
Building 73	Y	P								
Building 74	Y	P								
Building 8	Y	Y						Y		
Building 800		Y								
Building 89	Y	Y								
Building 9	Y	Y								
Air gunnery accumulation area										Y
Potential ammunition dump (RR and Tokyo)					P				P	
Aircraft Gunnery range									P	
Burn area (Gate 19)									P	
Burn area (Engineer & Papermill)									P	
Burn area (Gator Z)									P	
Burn area (J & Cottrell)									P	
Burn area (Shun Pike)									P	

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Ruptured line of bushhog at Bridge No. 1							Y			
Abandoned cistern disposal									P	
Concrete vault at airport							Y	Y		
Disposal area (Behind 211)									P	
Ammunition demilitarization area 1									P	
Ammunition demilitarization area 2									P	
Disposal area (Gator Z)					P				P	
Ordnance disposal area (C & Morgan)									P	
Possible hazardous waste disposal (Papermill)									P	
Sulfur Disposal area									P	
Detonation area (Shank Farm)									P	
Defense Reutilitazation & Marketing Office storage								Y		Y
Depleted Uranium range				P					Y	
Abandoned grenade diposal well									P	
East-west runway test area									P	
Fire training pit							Y		Y	
Flare test site 1									P	
Flare test site 2									P	
Impoundment wast of airport							P			
Landfill (Gate 19)									Y	
Landfill (Northeast 4.5 Mortar Impact Range)									P	
Landfill (South OF 4.5 Mortar Impact Range)									P	
Abandoned landfills									P	
Little Otter Dam Landfill									P	
Landfill (Engineer & Papermill)									Y	
Portable magazine				Y						
Mine test area (Gator Z)									P	
Northern firing range					P					

LOCATION	CERFA PARCEL WITH QUALIFIERS CATEGORIES						CERFA DISQUALIFIED CATEGORIES			
	ASBESTOS	LEAD	RADON	RADIO-NUCLIDES	UNEXPLODED ORDNANCE	PCBs STORAGE	PETROLEUM RELEASE	PETROLEUM STORAGE	HAZARDOUS SUBSTANCE RELEASE	HAZARDOUS SUBSTANCE STORAGE
Burn area South of new incinerator (Bldg 333)									P	
Potential well or tank (Artillery & Infantry)								P		
PCP wood storage pile at airport									P	Y
Sewage sludge application area									P	
Storage tanks used for air bomb targets									P	
Possible mine test area					P				P	
Inactive macadam test pond									P	
Inactive munitions test pond									P	
Airport Unexploded Ordnance					P				P	
Unexploded Ordnance South of firing line area 1					P				P	
Unexploded Ordnance South of firing line area 2					P				P	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 427

ASBESTOS-CONTAINING MATERIAL

LOCATION	STATUS	LOCATION COMMENTS	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 1	Y			25
Building 10	Y			25
Building 100	Y			25
Building 101	Y			25
Building 102	Y			25
Building 103	Y			25
Building 104	Y			25
Building 105	Y			25
Building 106	Y			25
Building 107	Y			25
Building 108	Y			25
Building 108A	Y			25
Building 11	Y			25
Building 110	Y			25
Building 111	Y			25
Building 112	Y			25
Building 113	Y			25
Building 114	Y			25
Building 115	Y			25
Building 116	Y			25
Building 117	Y			25
Building 118	Y			25
Building 119	Y			25
Building 12	Y			25
Building 121	Y			25
Building 122	Y			25
Building 123	Y			25
Building 125	Y			25
Building 127	Y			25
Building 129	Y			25
Building 13	Y			25
Building 130	Y			25
Building 131	Y			25
Building 132	Y			25
Building 133	Y			25
Building 136	Y			25
Building 137	Y			25
Building 138	Y			25
Building 139	Y			25
Building 14	Y			25
Building 141	Y			25
Building 143	Y			25
Building 144	Y			25
Building 146	Y			25
Building 147	Y			25
Building 148	Y			25
Building 149	Y			25
Building 15	Y			25
Building 150	Y			25

LOCATION	STATUS	LOCATION COMMENTS	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 152	Y			25
Building 154	Y			25
Building 156	Y			25
Building 157	Y			25
Building 16	Y			25
Building 162	Y			25
Building 167	Y			25
Building 168	Y			25
Building 169	Y			25
Building 17	Y			25
Building 177	Y			25
Building 179	Y			25
Building 185	Y			25
Building 186	Y			25
Building 188	Y			25
Building 189	Y			25
Building 19	Y			25
Building 190	Y			25
Building 191	Y			25
Building 194	Y			25
Building 197	Y			25
Building 198	Y			25
Building 2	Y			25
Building 20	Y			25
Building 201	Y			25
Building 202	Y			25
Building 203	Y			25
Building 204	Y			25
Building 205	Y			25
Building 206	Y			25
Building 208	Y			25
Building 21	Y			25
Building 210	Y			25
Building 211	Y			25
Building 212	Y			25
Building 213	Y			25
Building 214	Y			25
Building 215	Y			25
Building 216	Y			25
Building 217	Y			25
Building 218	Y			25
Building 219	Y			25
Building 220	Y			25
Building 221	Y			25
Building 222	Y			25
Building 223	Y			25
Building 226	Y			25
Building 227	Y			25
Building 228	Y			25
Building 229	Y			25
Building 23	Y			25
Building 231	Y			25
Building 232	Y			25
Building 233	Y			25
Building 236	Y			25
Building 237	Y			25

LOCATION	STATUS	LOCATION COMMENTS	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 238	Y			25
Building 239	Y			25
uilding 241	Y			25
Building 242	Y			25
Building 243	Y			25
Building 25	Y			25
Building 250	Y			25
Building 255	Y			25
Building 257	Y			25
Building 259	Y			25
Building 260	Y			25
Building 261	Y			25
Building 262	Y			25
Building 263	Y			25
Building 264	Y			25
Building 265	Y			25
Building 266	Y			25
Building 267	Y			25
Building 273	Y			25
Building 274	Y			25
Building 275	Y			25
Building 277	Y			25
Building 279	Y			25
Building 280	Y			25
Building 281	Y			25
Building 283	Y			25
Building 284	Y			25
Building 285	Y			25
uilding 287	Y			25
Building 287A	Y			25
Building 288	Y			25
Building 289	Y			25
Building 291	Y			25
Building 293	Y			25
Building 295	Y			25
Building 296	Y			25
Building 297	Y			25
Building 299	Y			25
Building 3	Y			25
Building 300	Y			25
Building 301	Y			25
Building 302	Y			25
Building 303	Y			25
Building 305	Y			25
Building 307	Y			25
Building 309	Y			25
Building 310	Y			25
Building 311	Y			25
Building 312	Y			25
Building 313	Y			25
Building 320	Y			25
Building 321	Y			25
Building 322	Y			25
uilding 324	Y			25
Building 325	Y			25
Building 329	Y			25

LOCATION	STATUS	LOCATION COMMENTS	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 33	Y			25
Building 331	Y			25
Building 333	Y			25
Building 37	Y			25
Building 4	Y			25
Building 403	Y			25
Building 45	Y			25
Building 46	Y			25
Building 47	Y			25
Building 48	Y			25
Building 49	Y			25
Building 5	Y			25
Building 502	Y			25
Building 504	Y			25
Building 506	Y			25
Building 508	Y			25
Building 510	Y			25
Building 512	Y			25
Building 514	Y			25
Building 516	Y			25
Building 520	Y			25
Building 528	Y			25
Building 530	Y			25
Building 534	Y			25
Building 542	Y			25
Building 550	Y			25
Building 551	Y			25
Building 552	Y			25
Building 553	Y			25
Building 6	Y			25
Building 60	Y			25
Building 600	Y			25
Building 602	Y			25
Building 603	Y			25
Building 607	Y			25
Building 609	Y			25
Building 61	Y			25
Building 610	Y			25
Building 611	Y			25
Building 612	Y			25
Building 613	Y			25
Building 614	Y			25
Building 615	Y			25
Building 616	Y			25
Building 617	Y			25
Building 618	Y			25
Building 619	Y			25
Building 62	Y			25
Building 620	Y			25
Building 621	Y			25
Building 622	Y			25
Building 628	Y			25
Building 63	Y			25
Building 64	Y			25
Building 65	Y			25
Building 67	Y			25

LOCATION	STATUS	LOCATION COMMENTS	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 68	Y			25
Building 69	Y			25
ilding 7	Y			25
Building 70	Y			25
Building 700	Y			25
Building 702	Y			25
Building 706	Y			25
Building 708	Y			25
Building 71	Y			25
Building 72	Y			25
Building 73	Y			25
Building 74	Y			25
Building 8	Y			25
Building 89	Y			25
Building 9	Y			25

STATUS=Y - ASBESTOS CONTAINING MATERIAL PRESENT
STATUS=P- POSSIBLE ASBESTOS CONTAINING MATERIAL PRESENT

Records printed: 232

LEAD-BASED PAINT

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 1	Y		1941		23
Building 10	Y		1941		23
Building 100	Y		1941		23
Building 101	Y		1941		23
Building 102	Y		1941		23
Building 103	Y		1941		23
Building 104	Y		1941		23
Building 105	Y		1941		23
Building 106	Y		1941		23
Building 107	Y		1941		23
Building 108	Y		1941		23
Building 108A	Y		1953		23
Building 11	Y		1941		23
Building 110	Y		1954		23
Building 111	Y		1941		23
Building 112	Y		1941		23
Building 113	Y		1941		23
Building 114	Y		1942		23
Building 115	Y		1941		23
Building 116	Y		1943		23
Building 117	Y		1941		23
Building 118	Y		1941		23
Building 119	Y		1941		23
Building 12	Y		1941		23
Building 121	Y		1941		23
Building 122	Y		1954		23
Building 123	Y		1941		23
Building 125	Y		1941		23
Building 126	Y		1955		23
Building 127	Y		1941		23
Building 128	Y		1952		23
Building 129	Y		1941		23
Building 13	Y		1941		23
Building 130	Y		1972		23
Building 131	Y		1941		23
Building 132	Y		1955		23
Building 133	Y		1941		23
Building 136	Y		1952		23
Building 137	Y		1972		23
Building 138	Y		1952		23
Building 139	Y		1941		23
Building 14	Y		1941		23
Building 140	Y		1972		23
Building 141	Y		1941		23
Building 143	Y		1941		23
Building 144	Y		1954		23
Building 145C	Y		1952		23
Building 145N	Y		1952		23
Building 145S	Y		1941		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 146	Y		1952		23
Building 147	P				25
Building 148	Y		1953		23
Building 149	Y		1941		23
Building 15	Y		1941		23
Building 150	Y		1941		23
Building 152	Y		1941		23
Building 154	Y		1941		23
Building 156	Y		1954		23
Building 16	Y		1941		23
Building 162	Y		1954		23
Building 167	Y		1941		23
Building 168	P				25
Building 169	Y		1944		23
Building 17	Y		1941		23
Building 170	P				25
Building 171	P				25
Building 173	P				25
Building 175	P				25
Building 177	Y		1941		23
Building 179	Y		1941		23
Building 18	Y		1941		23
Building 181	P				25
Building 183	P				25
Building 185	Y		1941		23
Building 186	Y		1953		23
Building 187	P				25
Building 188	Y		1968		23
Building 189	Y		1953		23
Building 19	Y		1941		23
Building 190	Y		1941		23
Building 192	Y		1941		23
Building 194	Y		1953		23
Building 196	Y		1966		23
Building 197	Y		1941		23
Building 198	Y		1941		23
Building 2	Y		1941		23
Building 20	Y		1941		23
Building 201	Y		1941		23
Building 202	Y		1941		23
Building 203	Y		1941		23
Building 204	Y		1941		23
Building 205	Y		1941		23
Building 206	Y		1941		23
Building 208	Y		1954		23
Building 21	Y		1941		23
Building 210	Y		1941		23
Building 211	Y		1954		23
Building 212	Y		1941		23
Building 213	Y		1941		23
Building 214	Y		1941		23
Building 215	Y		1954		23
Building 216	Y		1941		23
Building 217	Y		1941		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
uilding 218	Y		1941		23
Building 219	Y		1941		23
Building 220	Y		1941		23
Building 221	Y		1941		23
Building 222	Y		1941		23
Building 223	Y		1941		23
Building 224	Y		1941		23
Building 225	Y		1941		23
Building 226	Y		1941		23
Building 227	Y		1941		23
Building 228	Y		1941		23
Building 229	Y		1941		23
Building 23	Y		1941		23
Building 230	P				25
Building 231	Y		1941		23
Building 232	Y		1941		23
Building 233	Y		1941		23
Building 236	Y		1943		23
Building 237	Y		1941		23
Building 238	Y		1953		23
Building 239	Y		1952		23
Building 240	Y		1944		23
Building 241	Y		1945		23
Building 242	Y		1944		23
Building 243	Y		1946		23
Building 244	Y		1953		23
uilding 245	Y		1953		23
Building 246	Y		1953		23
Building 247	Y		1953		23
Building 248	Y		1953		23
Building 249	Y		1954		23
Building 25	Y		1941		23
Building 250	Y		1942		23
Building 251	Y		1954		23
Building 253	Y		1954		23
Building 254	Y		1954		23
Building 255	Y		1954		23
Building 256	Y		1954		23
Building 257	Y		1944		23
Building 258	Y		1954		23
Building 259	Y		1942		23
Building 260	Y		1941		23
Building 261	Y		1941		23
Building 262	Y		1941		23
Building 263	Y		1941		23
Building 264	Y		1941		23
Building 265	Y		1941		23
Building 266	Y		1941		23
Building 267	Y		1941		23
Building 268	Y		1941		23
uilding 269	Y		1941		23
uilding 270	Y		1941		23
Building 272	Y		1941		23
Building 273	Y		1942		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 274	P				25
Building 275	Y		1942		23
Building 276	Y		1941		23
Building 277	Y		1942		23
Building 278	Y		1941		23
Building 279	Y		1942		23
Building 280	Y		1942		23
Building 281	Y		1942		23
Building 282	Y		1942		23
Building 283	Y		1942		23
Building 284	Y		1942		23
Building 285	Y		1942		23
Building 286	Y		1942		23
Building 287	Y		1942		23
Building 288	Y		1943		23
Building 289	Y		1943		23
Building 290	Y		1943		23
Building 291	Y		1942		23
Building 292	Y		1943		23
Building 293	Y		1942		23
Building 295	Y		1943		23
Building 296	Y		1942		23
Building 297	Y		1942		23
Building 298	Y		1954		23
Building 299	Y		1942		23
Building 3	Y		1941		23
Building 300	Y		1942		23
Building 301	Y		1941		23
Building 302	Y		1941		23
Building 303	P				25
Building 304	Y		1953		23
Building 305	Y		1943		23
Building 307	Y		1941		23
Building 309	Y		1941		23
Building 310	Y		1941		23
Building 311	Y		1941		23
Building 312	Y		1941		23
Building 313	Y		1951		23
Building 314	Y		1944		23
Building 320	Y		1941		23
Building 321	Y		1941		23
Building 322	Y		1941		23
Building 323	Y		1941		23
Building 324	Y		1941		23
Building 325	Y		1954		23
Building 327	Y		1954		23
Building 329	Y		1954		23
Building 33	Y		1941		23
Building 331	Y		1954		23
Building 333	Y		1973		23
Building 37	Y		1942		23
Building 4	Y		1941		23
Building 400	Y		1941		23
Building 401	Y		1941		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 402	Y		1953		23
Building 403	Y		1941		23
Building 404	Y		1953		23
Building 406	Y		1953		23
Building 408	Y		1953		23
Building 410	Y		1941		23
Building 412	Y		1951		23
Building 413	Y		1951		23
Building 414	Y		1951		23
Building 415	Y		1951		23
Building 416	Y		1951		23
Building 417	Y		1955		23
Building 418	Y		1955		23
Building 420	Y		1941		23
Building 421	Y		1941		23
Building 430	Y		1941		23
Building 431	Y		1941		23
Building 436	Y		1951		23
Building 437	Y		1951		23
Building 439	Y		1951		23
Building 441	Y		1941		23
Building 443	Y		1941		23
Building 45	Y		1941		23
Building 450	Y		1941		23
Building 453	Y		1941		23
Building 459	Y		1954		23
Building 46	Y		1941		23
Building 460	Y		1951		23
Building 461	Y		1941		23
Building 462	Y		1953		23
Building 463	Y		1941		23
Building 464	Y		1951		23
Building 465	Y		1951		23
Building 466	Y		1951		23
Building 467	Y		1954		23
Building 469	Y		1954		23
Building 47	Y		1941		23
Building 470	Y		1941		23
Building 471	Y		1941		23
Building 472	Y		1953		23
Building 473	Y		1941		23
Building 479	Y		1941		23
Building 48	Y		1941		23
Building 481	Y		1941		23
Building 484	Y		1941		23
Building 485	Y		1941		23
Building 488	Y		1945		23
Building 489	Y		1944		23
Building 49	Y		1941		23
Building 490	Y		1966		23
Building 491	Y		1953		23
Building 493	Y		1953		23
Building 5	Y		1941		23
Building 501	Y		1943		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 502	Y		1941		23
Building 504	Y		1941		23
Building 506	Y		1941		23
Building 508	Y		1941		23
Building 510	Y		1941		23
Building 512	Y		1941		23
Building 514	Y		1941		23
Building 516	Y		1941		23
Building 520	Y		1941		23
Building 526	Y		1945		23
Building 528	Y		1952		23
Building 530	Y		1952		23
Building 532	Y		1952		23
Building 534	Y		1952		23
Building 542	Y		1953		23
Building 550	Y		1952		23
Building 551	Y		1952		23
Building 552	Y		1952		23
Building 553	Y		1952		23
Building 558	Y		1953		23
Building 559	Y		1953		23
Building 560	Y		1952		23
Building 561	Y		1952		23
Building 562	Y		1952		23
Building 563	Y		1952		23
Building 564	Y		1952		23
Building 565	Y		1952		23
Building 566	Y		1953		23
Building 567	Y		1953		23
Building 568	Y		1953		23
Building 569	Y		1953		23
Building 570	Y		1953		23
Building 571	Y		1953		23
Building 572	Y		1953		23
	P				25
Building 575	Y		1953		23
Building 576	Y		1953		23
Building 577	Y		1953		23
Building 596	P				25
Building 597	P				25
Building 598	P				25
Building 599	Y		1953		23
Building 6	Y		1941		23
Building 60	P				25
Building 600	Y		1952		23
Building 601	Y		1952		23
Building 602	Y		1952		23
Building 603	Y		1952		23
Building 604	Y		1952		23
Building 605	Y		1952		23
Building 607	Y		1953		23
Building 608	Y		1954		23
Building 609	Y		1953		23
Building 61	P				25

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 610	Y		1952		23
Building 611	Y		1952		23
Building 612	Y		1952		23
Building 613	Y		1952		23
Building 614	Y		1952		23
Building 615	Y		1952		23
Building 616	Y		1952		23
Building 617	Y		1952		23
Building 618	Y		1952		23
Building 619	Y		1952		23
Building 62	P				25
Building 620	Y		1952		23
Building 621	Y		1952		23
Building 622	Y		1952		23
Building 623	Y		1953		23
Building 624	Y		1953		23
Building 625	Y		1953		23
Building 626	Y		1953		23
Building 627	Y		1953		23
Building 628	Y		1953		23
Building 63	P				25
Building 630	Y		1954		23
Building 631	Y		1954		23
Building 64	P				25
Building 65	P				25
Building 650	Y		1954		23
Building 652	Y		1953		23
Building 654	Y		1953		23
Building 656	Y		1953		23
Building 658	Y		1953		23
Building 660	Y		1953		23
Building 662	Y		1953		23
Building 664	Y		1954		23
Building 666	Y		1953		23
Building 668	Y		1953		23
Building 67	P				25
Building 670	Y		1953		23
Building 672	Y		1953		23
Building 674	Y		1953		23
Building 68	P				25
Building 69	P				25
Building 7	Y		1941		23
Building 70	P				25
Building 700	Y		1954		23
Building 702	Y		1954		23
Building 704	Y		1954		23
Building 706	Y		1954		23
Building 708	Y		1954		23
Building 71	P				25
Building 72	P				25
Building 73	P				25
Building 74	P				25
Building 8	Y		1941		23
Building 800	Y		1954		23

LOCATION	STATUS	LOCATION COMMENTS	YEAR BUILT	REMEDIATION OR MITIGATION	APPENDIX A REFERENCE(S)
Building 89	Y		1966		23
Building 9	Y		1941		23

STATUS=Y - LEAD-BASED PAINT PRESENT
STATUS=P - POSSIBLE LEAD-BASED PAINT PRESENT

Records printed: 375

PCBs

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE START	DATE INACTIVATED	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 108A	P	Former PCB storage area	Transformers	PCB Contaminated Dielectic Fluid				12	
Building 122	Y	PCB storage area	Transformers	PCB Contaminated Dielectic Fluid				38	
Building 305	Y	Temp. hazardous waste storage	Transformers	PCB Contaminated Dielectic Fluid				12	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 3

UNEXPLODED ORDNANCE

LOCATION	STATUS	LOC CMTS	SUBSTANCE	REM OR MIT	REFERENCE
Potential ammunition dump (RR and Tokyo)	P	Potential ammunition dump	Ammunition		12
Disposal area (Gator Z)	P	Potential mines at Gator Z	Residual explosives, lithium		12
Northern firing range	P	Northern firing range	Unexploded Ordnance		12
Possible mine test area	P	Potential mine test area	Unexploded Ordnance		18
Airport Unexploded Ordnance	P	Airport Unexploded Ordnance	Unexploded Ordnance		18
Unexploded Ordnance South of firing line area 1	P	Potential UXO in south area 1	Unexploded Ordnance		4, 10
Unexploded Ordnance South of firing line area 2	P	Potential UXO in south area 2	Unexploded Ordnance		4, 10

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 0

RADIONUCLIDES

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	DATE STARTED	DATE INACTIVATED	APPENDIX A REFERENCE	REMEDIATION OR MITIGATION
Building 148	Y	Storehouse		Depleted Uranium			38d	
Building 501	Y	X-ray shielding		Depleted Uranium			38d	
Building 571	Y	Igloo Storage		Depleted Uranium			38d	
Building 572	Y	Igloo Storage		Depleted Uranium			38d	
Building 610	Y	Ammo Quality Facility		Depleted Uranium	1986		18	
Building 611	Y	Ammo Quality Facility		Depleted Uranium	1986		18	
Depleted Uranium range	P	Depleted Uranium Range	GW	Depleted Uranium	1984		4, 12	
Portable magazine	Y	Portable Magazine		Depleted Uranium			18	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 8

PETROLEUM RELEASE

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE RELEASE	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 103	Y	Oil spill	S	Heating Oil No. 2	300 gal	1988	12, 31	Fully recovered
Building 105	P	Locomotive maintenance pit	S	POL			18	
Building 118	P	Gas station USTs	GW	POL			31	
Building 127	Y	Former UST	S	POL			31	
Building 149	Y	Former UST	S	POL			31	
Building 154	Y	Former USTs	S	POL			38	Soil Excavated
Building 186	P	Floor drain & wash rack	GW	POL			12	
Building 211	Y	UST	SW	Fuel Oil No. 2		1993	42	
Building 216	P	Locomotive maintenance pit	GW	POL, solvent, other			12	
Building 227	Y	Former UST	S	TPH	1 gal	1990	42	Soil excavated
Building 259	Y	Discharge/fill pipe	S	POL			18	
Building 265	Y	Former UST	S	POL			31	
Building 266	Y	Former UST	S	POL			31	
Building 281	Y	Former UST	S	Fuel Oil No. 2			31	Partially remediated
Building 291	Y	Former UST	S	POL			31	
Building 303	Y	Former UST	S	POL			31	
Building 310	Y	Former UST	S	POL			31	
Building 602	Y	UST & soil staging area	GW/SW	Fuel Oil No. 6		1990	31, 12	Partially remediated
Building 617	Y	3 Former USTs	GW	Fuel Oil			31	
Ruptured line of bushhog at Bridge No. 1	Y	Ruptured line of bushhog	S/SW	Hydrolic oil	30 gal	1993	43	Contaminant containerized
Concrete vault at airport	Y	Concrete vault at airport	GW	Fuel Oil			31	
Fire training pit	Y	Fire training pit	GW	Metal, PCB, POL		1970s to 1980s	31	
	P	Impoundment west of airport	SW	POL			1, 38k	

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE RELEASE	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 23

PETROLEUM STORAGE

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE INACTIVATED	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 1	Y	Bldg 1	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 103	Y	Tank #103.1	UST	Fuel Oil No. 2	25,000 gal		32, 38	
Building 103	Y	Tank #103.2	UST	Diesel Fuel	550 gal		32, 38	
Building 103	Y	Tank #103.3	UST	Fuel Oil No. 2	25,000 gal		32, 38	
Building 103	Y	Tank #103.4	UST	Fuel Oil No. 2	25,000 gal		32, 38	
Building 103	Y	Tank #103.5	UST	Fuel Oil No. 2	25,000 gal		32, 38	
Building 105	Y	Temporary storage area	Containers	Hydraulic & machine oils	55 gal		4, 22	
Building 11	Y	Bldg 11	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 118	Y	Tank #118.1	UST	Diesel Fuel	12,000 gal		32, 38	
Building 118	Y	Tank #118.2	UST	Fuel Oil No. 2	25,000 gal	1993	32, 38	Out of service 6/10/93
Building 118	Y	Tank #118.3	UST	Unleaded gas	12,000 gal		32, 38	
Building 118	Y	Tank #118.4	UST	Unleaded gas	12,000 gal		32, 38	
Building 12	Y	Bldg 12	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 125	Y	Bldg 125	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 15	Y	Bldg 15	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 154	Y	Tank #154.1	UST	Diesel Fuel	300 gal		18, 31	Removed
Building 154	Y	Tank #154.2	UST	Gasoline	300 gal		18, 31	Removed
Building 154	Y	Tank #154.3	UST	Fuel Oil No. 2	300 gal		18, 31	Removed
Building 16	Y	Bldg 16	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 17	Y	Bldg 17	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 177	Y	Bldg 177	UST	Fuel Oil No. 2	300 gal	1993	32, 38	Out of service 6/2/93
Building 186	Y	Bldg 186	UST	Used motor oil	1,000 gal		32, 38	
Building 189	Y	Bldg 189	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 20	Y	Bldg 20	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 208	Y	Bldg 208	AGT	Fuel Oil No. 2	275 gal		47	
Building 21	Y	Bldg 21	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 211	Y	Bldg 211	UST	Fuel Oil No. 2	500 gal	1993	32, 38	Removed
Building 211	Y	Bldg 211	AGT	Fuel Oil No. 2	500 gal		47	
Building 227	Y	Weapons maintenance shop	Containers	Waste oil			4	
Building 23	Y	Bldg 23	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 236	Y	Bldg 236	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 3	Y	Bldg 3	UST	Fuel Oil No. 2	500 gal		32, 38	

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE INACTIVATED	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 301	Y	Hangar waste storage area	Containers	Diesel & fuel oil			12	
Building 305	Y	Temporary Hazardous Waste storage area	Containers	Waste oil			4, 12, 22,	
Building 313	Y	Bldg 313	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 322	Y	Bldg 322	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 322	Y	Bldg 322	AGT	Fuel Oil No. 1	275 gal		47	
Building 325	Y	Bldg 325	UST	Fuel Oil No. 2	2,000 gal		32, 38	
Building 33	Y	Bldg 33	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 333	Y	Bldg 333	UST	Fuel Oil No. 2	10,000 gal		32, 38	
Building 4	Y	Bldg 4	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 488	Y	Bldg 488	UST	Fuel Oil No. 2	1,000 gal		32, 38	Out of service, date unk
Building 488	Y	Bldg 488	AGT	Fuel Oil No. 2	500 gal		47	
Building 488	Y	Bldg 488	AGT	Fuel Oil No. 2	275 gal		47	
Building 530	Y	Bldg 530	UST	Fuel Oil No. 2	4,000 gal		32, 38	
Building 602	Y	Bldg 602	UST	Fuel Oil No. 2	25,000 gal	1993	32, 38	Out of service 7/8/93
Building 7	Y	Bldg 7	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 711	Y	Bldg 711	UST	Fuel Oil No. 2	500 gal		32, 38	
Building 714	Y	Bldg 714	UST	Fuel Oil No. 2	1,000 gal		32, 38	
Building 8	Y	Bldg 8	UST	Fuel Oil No. 2	500 gal		32, 38	
Concrete vault at airport	Y	Concrete vault at airport	UST	Fuel oil			31	
Defense Reutilitazation & Marketing Office storage	Y	Defense Reutilization and Marketing Office storage area	Containers	POL		1980	12	
Potential well or tank (Artillery & Infantry)	P	Potential well or tank	UST	Unknown POL			18	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 53

HAZARDOUS SUBSTANCE RELEASE

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE RELEASE	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 136	P	Sand blasting area	GW	Lead		1941 to present	12	
Building 177	Y	Sewage Treatment Plant	SW	Cyanide, silver		1941 to 1978	12	Cyanides no longer used
Building 185	P	Inactive incinerator	GW	Inert material, metals		1941 to 1978	12	
Building 279	Y	Solvent pit	GW	Solvents		1970 to 1978	31	
Building 281	P	Indoor firing range	Interior	Lead oxide			18	
Building 295	P	Indoor firing range	Interior	Lead oxide			18	
Building 333	P	New incinerator (Bldg 333)	GW	Ash, inert material		1978 to present	12	
Building 602	Y	Solvent pit	GW	Solvents		1970 to 1978	31	
Building 617	Y	Solvent pit	GW	Solvents		1970 to 1978	31	
Potential ammunition dump (RR and Tokyo)	P	Potential ammunition dump		Explosive residues, heavy metals			12	
Aircraft Gunnery range	P	Aircraft target range	GW/SW	Explosive residues, herbicides		1976 to present	12	
Burn area (Gate 19)	P	Burn area (Gate 19)	GW	Heavy metals, TCE		1950s to 1970s	12	
Burn area (Engineer & Papermill)	P	Burn area (Engineer & Papermill)	GW/SW	Explosive residues, lead		mid 1970s	12	
Burn area (Gator Z)	P	Burn area (Gator Z)	GW	Ash, metals, other		1985 to present	12	
Burn area (J & Cottrell)	P	Burn area (J & Cottrell)	GW	Explosive residues, heavy metals		1940s to 1980	12	
Burn area (Shun Pike)	P	Burn area (Shun Pike)	GW/SW	Herbicides, heavy metals, expl residues		1950s to present	12, 31	
Abandoned cistern disposal	P	Abandoned cistern disposal	GW	Heavy metals		1957	12	
Disposal area (Behind 211)	P	Disposal area (Behind 211)	GW	Barium, metals, methylene chloride			12	

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE RELEASE	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Ammunition demilitarization area 1	P	Ammunition demilitarzation area 1	GW	Explosive residues		1945 to 1950	12	
Ammunition demilitarization area 2	P	Ammunition demilitarzation area 2	GW	Explosive residues		1945 to 1950	12	
Disposal area (Gator Z)	P	Disposal area (Gator Z)	GW	Explosive residues		1970s	12	
Ordnance disposal area (C & Morgan)	P	Ordnance disposal area (C & Morgan)		Explosive residues, heavy metals		1940s to 1960s	12	
Possible hazardous waste disposal (Papermill)	P	Possible Hazardous Waste disposal		Unknown		1940s to 1960s	12	
Sulfur Disposal area	P	Sulfur Disposal area	GW	Sulfur			31	
Detonation area (Shank Farm)	P	Detonation area (Shank Farm)	GW/SS	Explosive residues, heavy metals		1950s to present	12	
Depleted Uranium range	Y	Depleted Uranium range	GW	Explosive residues		1984 to present	6, 12	
Abandoned grenade diposal well	P	Abandoned grenade diposal well	GW	Explosive residues, heavy metals			12	
East-west runway test area	P	East-west runway test area	GW	Explosive residues			12	
Fire training pit	Y	Fire training pit	S	Acetone, hexane		1970s to 1980s	31	
Flare test site 1	P	Flare test site		Metals, explosive residues, phosphorous			18	
Flare test site 2	P	Flare test site		Metals, explosive residues, phosphorous			18	
Landfill (Gate 19)	Y	Landfill (Gate 19)	GW	Acetone, mercury, methylene chloride		1970s to present	6	
Landfill (Northeast 4.5 Mortar Impact Range)	P	Landfill (NE of 4.5 MIR)		Unknown				
Landfill (South OF 4.5 Mortar Impact Range)	P	Landfill (S of 4.5 MIR)	GW	Explosive residues, heavy metals		1960 to 1980	12	
Abandoned landfills	P	Landfills (abandoned)		Explosive residues, heavy metals		1950s to 1980	12	

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE RELEASE	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Little Otter Dam Landfill	P	Landfill (Litter Otter Dam)		Solid wastes			4	
Landfill (Engineer & Papermill)	Y	Landfill (Engineer & Papermill)	GW	Hazardous Waste refuse, metals, VOCs		1941 to 1970s	12, 31	
Mine test area (Gator Z)	P	Mine test area (Gator Z)	GW/SW	Explosive residues, heavy metals		1985 to present		
Burn area South of new incinerator (Bldg 333)	P	Burn area (S of new incinerator)	GW	Heavy metals			18	
PCP wood storage pile at airport	P	PCP wood storage pile	GW	Dioxin, PCP			12	
Sewage sludge application area	P	Sewage sludge application area	GW	Cyanide, silver		1941 to 1980	12	
Storage tanks used for air bomb targets	P	Air bombed storage tanks	GW/SW	Unknown			12	
Possible mine test area	P	Possible mine test area		Explosive residues, heavy metals			18	
Inactive macadam test pond	P	Inactive macadam test pond	S	Explosive residues, heavy metals		1950s to 1970s	12	
Inactive munitions test pond	P	Inactive munitions test pond	GW	Explosive residues, heavy metals		1950s	12	
Airport Unexploded Ordnance	P	Airport explosive ordnance		Explosive residues, heavy metals			18	
Unexploded Ordnance South of firing line area 1	P	UXO South of firing line area 1		Explosive residues, heavy metals			4	
Unexploded Ordnance South of firing line area 2	P	UXO South of firing line area 2		Explosive residues, heavy metals			4	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 48

HAZARDOUS SUBSTANCE STORAGE

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE START	DATE INACTIVATED	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 105	Y	Metal workshop	Containers	Solvent, lead		1940s	1980s	12	
Building 108	Y	Engineering, Housing & Logistics	Containers	Ammonia	25 gal			22	
Building 108A	Y	Storage	Containers	Acid, TCE, POL, other	700 gal			22	
Building 115	Y	Former photographic lab	Containers	Developers, fixers, cyanide		1941	1970	18	
Building 136	Y	Painting workshop	Containers	Lacquer, paint, thinner, waste sand	200 gal	1940s		12, 22	
Building 177	Y	Sewage Treatment Plant	Containers	Chlorine gas cylinders, lab waste	180 to 900 lbs	1941		12, 22	
Building 185	Y	Inactive Incinerator	Containers	Chlorine gas cylinders				12	
Building 186	Y	Equipment & vehicle maintenance	Containers	Solvent, POL	1,200 gal			4, 12, 22	
Building 204	Y	Insecticide/Herbicide storage	Containers	Pesticides				18	
Building 208	Y	Photography lab	Containers	Acetic acid, developers, fixers	125 gal	1970		18	
Building 211	Y	Ammunition processing workshop	Containers	Barium sulfate, icocyanates, POL	9,000 lbs			12, 22	
Building 227	Y	Weapons maintenance workshop	Containers	POL, solvent	460 gal	1941	1990	4, 12, 22	
Building 279	Y	Former chemical storage	Containers	Cyanide	110 gal	1979	1980	4, 12	
Building 301	Y	Hangar waste storage area	Containers	Contaminated soil, POL, XXCC, STB				12	
Building 305	Y	Hazaedous Waste temporary storage	Containers	Asb., PCB, solvent, org. chem waste		1980		4, 12, 22	
Building 325	Y	Former X-Ray development lab	Containers	Developers, fixers, cyanide		1965	1977	18	

LOCATION	STATUS	LOCATION COMMENTS	TYPE	SUBSTANCE	QUANTITY	DATE START	DATE INACTIVATED	APPENDIX A REFERENCE(S)	REMEDIATION OR MITIGATION
Building 325	Y	Scrap fuse accumulation area	Piles	Unknown				12	
Building 506	Y	Degreasing operations	Containers	TCE	110 gal			12, 22	
Building 534	Y	Scrap property accumulation area	Piles	Unknown				12	
Building 600	Y	Scrap property accum & stor shed	Piles	Unknown				12	
Air gunnery accumulation area	Y	Air gunnery accumulation area	Containers	Scrap steel slugs, reactive wasie	55 gal			12	
Defense Reutilitazation & Marketing Office storage	Y	Def Reutilization & Mkt Off storage	Containers	Lead-acid batteries, PCB, POL		1940s		12	
PCP wood storage pile at airport	Y	PCP wood storage pile	Piles	Dioxin, PCP		1975		12, 29	

STATUS=Y - SUBSTANCE PRESENT
STATUS=P - POSSIBLE SUBSTANCE PRESENT

Records printed: 23

[illegible]	STATUS	LOCATION COMMENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	APPENDIX A [illegible]	REMEDIATION OBLIGATION
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					

END