

***AN ARCHAEOLOGICAL SURVEY FOR THE
DIALVILLE-OAKLAND WATER SUPPLY CORPORATION
IN CENTRAL CHEROKEE COUNTY, TEXAS***

Antiquities Permit 3213



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***Brazos Valley Research Associates
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AN ARCHAEOLOGICAL SURVEY FOR THE DIALVILLE-OAKLAND WATER SUPPLY
CORPORATION IN CENTRAL CHEROKEE COUNTY, TEXAS

BVRA Project Number 03-25

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ABSTRACT

An archaeological evaluation of four areas in central Cherokee County, Texas was performed by Brazos Valley Research Associates (BVRA) in September 2003 under Texas Antiquities Permit 3213. This project was reviewed by the Texas Historical Commission, Archeology Division. The Federal agency involved with this project is the United States Department of Agriculture, Rural Development. No archaeological sites were found in any of the four areas surveyed. It is, therefore, recommended that the Dialville-Oakland Water Supply Corporation be allowed to proceed with construction as planned with no further archaeological investigations. Copies of this report are on file at the Texas Archeological Research Laboratory; Texas Historical Commission, Archeology Division; Dialville-Oakland Water Supply Corporation in Alto, Texas; and Brazos Valley Research Associates in Bryan, Texas.

ACKNOWLEDGMENTS

BVRA is appreciative of the assistance provided by those whose efforts made this project possible. At the Dialville-Oakland Rural Water Supply Corporation (WSC) in Rusk, Texas I am grateful to the following for their help: M. E. Byers, President; Lacyne Higgins, Secretary; and Randy King, System Operator. At the engineering firm J. F. Fontaine & Associates, Inc. in Palestine, Texas Hollie H. Nowlin is acknowledged for providing maps and other logistical support. Allegra Azulay, Records File Search Assistant at the Texas Archeological Research Laboratory (TARL), is thanked for conducting the records check for previously recorded sites in the project area. Edward P. Baxter (Project Archaeologist) is acknowledged for conducting the shovel testing during the field survey. Debra L. Beene at the Texas Historical Commission, Archeology Division, served as the reviewer for this project. The figures appearing in this report were prepared by Lili Lyddon of LL Technical Services in North Zulch, Texas and Edward P. Baxter.

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INTRODUCTION

BVRA was retained by Dialville-Oakland Water Supply Corporation (WSC) through J. F. Fontaine & Associates, Inc., Consulting Engineers of Palestine, Texas, to conduct a cultural resources survey of four segments of a proposed water line that will service the residents of rural Cherokee County (Figure 1). The four survey areas are depicted on the USGS 7.5' topographic map Rusk dated 1973 (map number 3195-442). Survey areas 1 and 2 are depicted in Figure 2, and survey areas 3 and 4 are depicted in Figure 3.

Improvements to the distribution system will consist of adding approximately 2.2 miles of new water line throughout the existing service. The majority of the line will be installed along state and county roads within rights-of-way where disturbance has occurred due to trenching associated with existing lines. Large trees within paths of pipelines will be avoided where possible by either rerouting around or boring under to prevent damage to the trees. Creek crossings by the proposed water lines will be encased and creek bottoms restored to their original condition.

According to a letter from F. Lawrence Oaks, State Historic Preservation Office, dated August 5, 2003 and signed by William A. Martin, the areas recommended for survey are "open areas" and areas adjacent to "two-track" roads which provide the greatest chance for finding intact cultural resources. Four segments of the project area fit this description on the topographic map. For convenience, these areas are numbered 1-4, and this is how they are referred to in this report.

Area 1: This area is shown on the topographic map as a two-track road that begins at State Highway 84 and runs along the east side of County Road 2106 for distance of .4 mile where it ends at a private residence (Figure 2).

Area 2: This area is shown on the topographic map as a two-track road that begins at the intersection of County Road 1626 and County Road 1627. It runs along the east side of County Road 1627 for a distance of 1.2 miles. At the end of the road the proposed water line route traverses .14 mile across a pasture to Beans Creek and FM 2972 (Figure 2).

Area 3: This area is shown on the topographic map as a cross-country segment (.3 mile) that begins at County Road 1701 and ends at the Saint Louis Southwestern Railroad. It crosses Rogers Creek (Figure 3).

Area 4: This area is shown on the topographic map as a cross-country segment that began at State Highway 347 between county roads 1723 and 1724 (Figure 3) and runs up a steep slope in a northwest direction (.3 mile) until it ends at the site of a proposed well site.

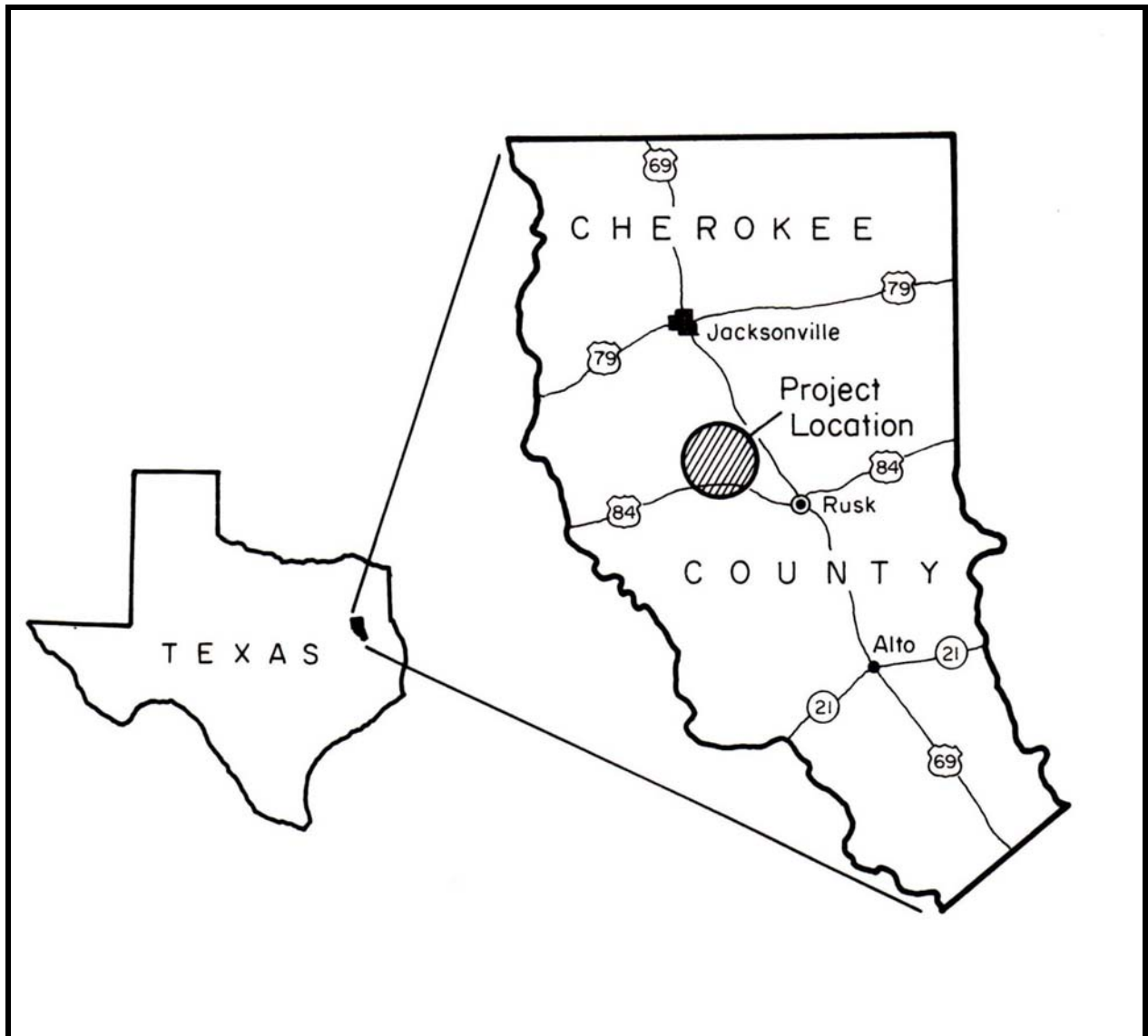


Figure 1. General Location Map

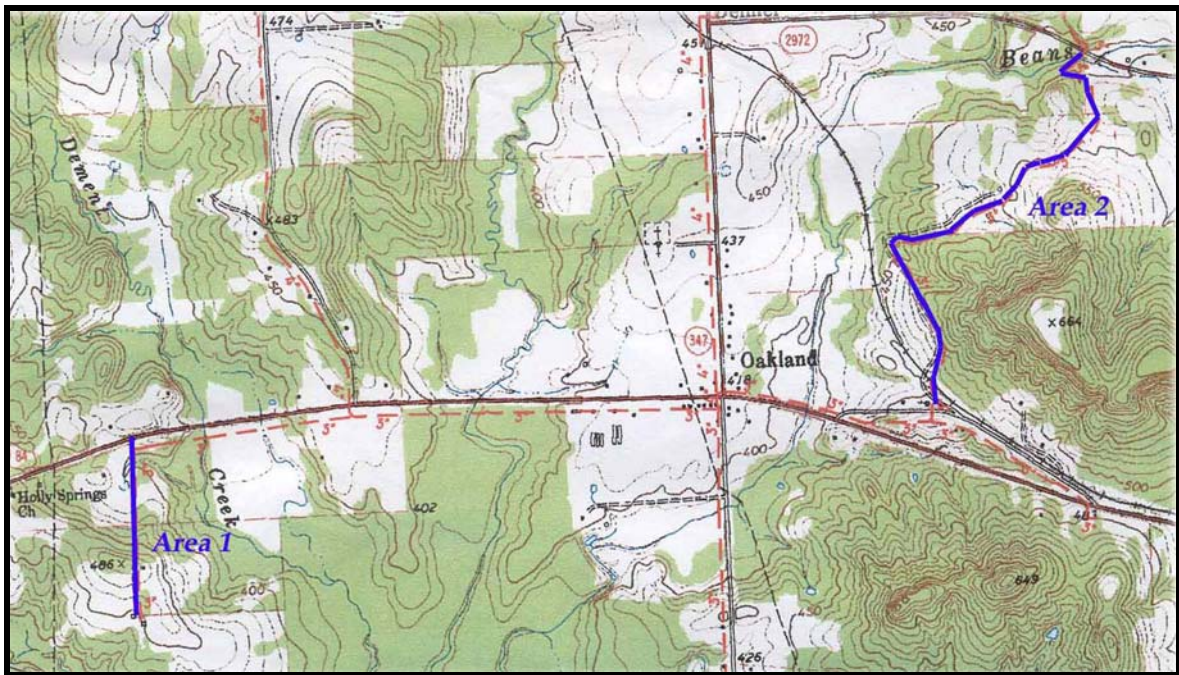


Figure 2. Survey Areas 1 and 2

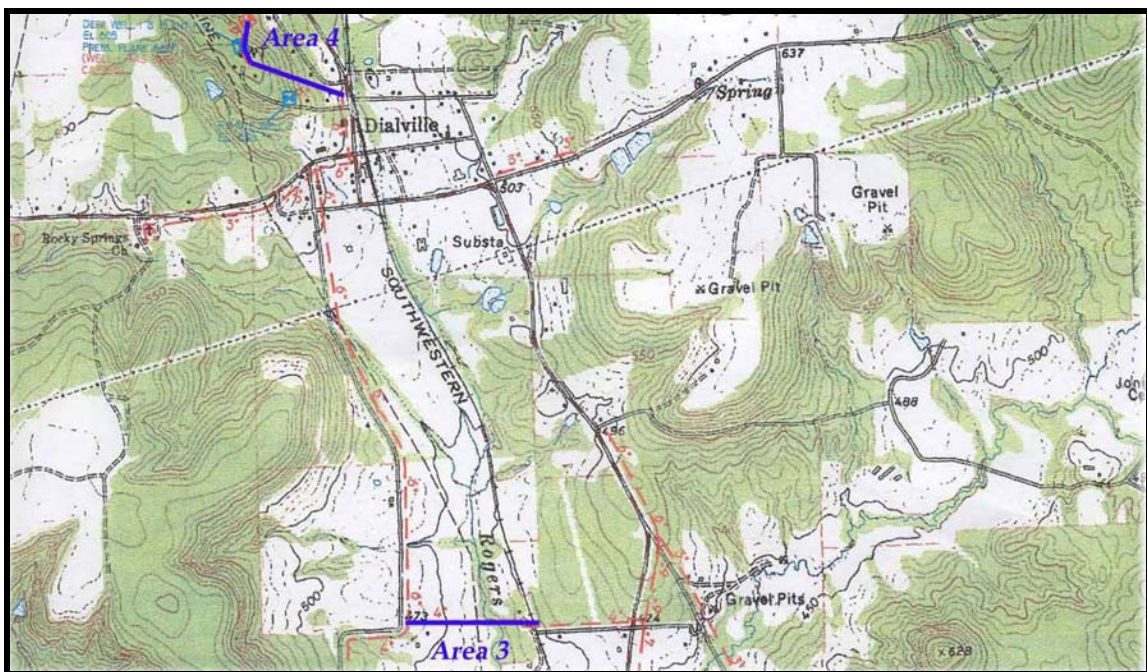


Figure 3. Survey Areas 3 and 4

Overall, Cherokee County is located in Northeast Texas in the Eastern Planning Region, an area known to contain significant archaeological sites. Because of this archaeological potential, a cultural resource study by professional archaeologists was warranted according to Section 106 of the National Historic Preservation Act. The Federal agency involved in this project is the United States Department of Agriculture, Rural Development office.

Since this project is sponsored by the Dialville-Oakland WSC, a political subdivision of the State of Texas, an antiquities permit was required, and Antiquities Permit 3213 was issued to BVRA by the Texas Historical Commission, Archeology Division. The project number assigned by BVRA is 03-25. The field survey was conducted on September 4-5, 2003 by Edward P. Baxter under the supervision of William E. Moore, the Principal Investigator.

ARCHAEOLOGICAL BACKGROUND

Cherokee County is located in Northeast Texas within the Eastern Planning Region as defined by Kenmotsu and Perttula (1993). The following comments are taken from their comprehensive document for this area, and the interested reader is referred to this volume for more detailed information. As of 1993, Cherokee County had less than .037 recorded sites per kilometer, ranking it last in the area (Kenmotsu and Perttula 1993:Figure 2.1.2). The county is described as rural with 0.15 - 0.29 people per square kilometer (Kenmotsu and Perttula 1993:Figure 1.2.3) and a population growth of less than 5% (Kenmotsu and Perttula 1993:Figure 1.2.4). Environmentally, it is situated within the Piney Woods, Mixed Pine-Hardwood Forest area of East Texas. Artificial disturbance in the county consists mainly of lignite mines from the Deep Basin Wilcox formation and reservoirs such as Lake Fork Reservoir. In 1991, the county had a total of 134 recorded archaeological sites, of which 14 were regarded as significant (Kenmotsu and Perttula 1993:Table 2.1.1). At the time of this survey, 352 sites were known to exist in the county (TARL site files).

One of the major problems regarding our understanding of the archaeology of Northeast Texas lies in the lack of data for sites with isolable Paleoindian or Archaic components. "Despite the existence of a potentially rich data base, the body of useful information on these time periods is small" (Kenmotsu and Perttula 1993:70). The authors credit this to the fact that most early materials have been found mixed with later components. When found, they are difficult to interpret because of limited absolute dating; poorly defined artifact chronologies; limited preservation of economic data such as faunal and botanical remains, and the typically low density nature of the cultural remains. No sites with isolable Paleoindian or Archaic components have been reported for Cherokee County as recently as 1993 (Kenmotsu and Perttula 1993:Table 2.3.1). One site (41CE261) attributed to the Hunter-Gatherer period (prior to sedentism) has been identified in Cherokee County (Kenmotsu and Perttula 1993:Table 2.3.2). Site 41CE261 is listed as a possible Archaic site containing faunal remains and a probable midden. One of the problems with these early sites is that they usually contain only lithic artifacts; rarely, some sites have yielded hardwood nutshells and burned rock concentrations. "The scarcity of remains other than lithic artifacts is due mostly to the relatively great age of these deposits and the poor preservation of organic remains and nondurable features" (Kenmotsu and Perttula 1993:75). The minimum criterion for significance of these sites is the presence of non-artifactual data such as cultural features and faunal and botanical remains and diagnostic projectile points that allow confident chronological assessments.

Following the hunter-gatherer period (circa 500 B.C.), the emergence of sedentism arrived in Northeast Texas and lasted until A.D. 1000. Sedentism is defined by Kenmotsu and Perttula (1993:97) as "cultural systems where all or part of the population resides at the same location for all or most of the year." Until recently, very little research had been directed toward the emergence of sedentism in Northeast Texas. Factors that are believed to have been causal in terms of this change include population growth, territorial constriction, environmental change, technological innovation, modifications in social organization, and/or changes in subsistence strategies (Kenmotsu and Perttula 1993:97).

During this time a major technological innovation, the emergence of pottery and the bow and arrow, appeared. Sites dating to this period are often referred to as Early Ceramic. The George C. Davis site (41CE19) is one of the major sites of this period in Cherokee County to be excavated.

The next period is referred to as the development of agriculture in Northeast Texas before A.D. 1600. Study questions for this period should focus on the processes that influenced the development of agriculture in Northeast Texas among prehistoric Caddoan populations with agriculture defined here as a maize-based economy as described in Fritz (1990). Major sites of this period include Caddoan archaeological sites, particularly habitation locales with associated burials and burial furniture (usually pottery). More than 4700 prehistoric archaeological sites have been recorded in both the Northeast Texas region and adjoining counties where associations exist with the Caddoan archaeological tradition (Kenmotsu and Perttula 1993:124).

Approximately 80% of the significant sites in this region are prehistoric Caddoan sites which were occupied sometime between A.D. 800 and A.D. 1600. These sites include multiple and single mound centers; cemeteries; habitation sites such as villages, hamlets, and farmsteads; and possible extractive/processing locations. Most of these sites, unfortunately, are on private land and are not protected from vandalism. Between 5 and 9 important Formative-Middle Caddoan sites were known to exist in Cherokee County as of 1993 (Kenmotsu and Perttula 1993:Figure 2.5.1). The number of important Late Caddoan Period sites as of 1993 for Cherokee County is, however, greater at 30 (Kenmotsu and Perttula 1993:Figure 2.5.2). In 1993, 39 Caddoan Period archaeological sites with excellent faunal and floral preservation were known to exist. Although only five are in Cherokee County (Kenmotsu and Perttula 1993:Figure 2.5.3), no county in Northeast Texas had a higher number at that time. Cemeteries and burial mounds are common throughout Northeast Texas, and these archeological phenomena are viewed as extremely significant research data sets because of the bioarchaeological, cultural, and sociopolitical information relevant to the development of agriculture encoded in the mortuary practices, associated grave goods, and pathologies/infections preserved in the skeletal remains (Kenmotsu and Perttula 1993:127).

In 1993, 21 archaeological sites in Cherokee County had produced human remains (Kenmotsu and Perttula 1993:Figure 2.5.5); two single mound sites and one multiple mound site are recorded in the county (Kenmotsu and Perttula 1993:Figure 2.5.6).

Fifty-three Critical Resource Zones have been defined in the Northeast Texas region for sites that are relevant to the research on the development of agriculture prior to A.D. 1600. Five of these zones are in Cherokee County (Kenmotsu and Perttula 1993:Figure 2.5.7). One of these zones is in the southeast portion of the county not far from the current project area.

The final archaeological period is that of European contact with native Indian groups, especially the historic Caddo (circa A.D. 1685 - A.D. 1859). The infusion of material goods and cultural traits brought to the area by the Europeans changed forever the lifeways of the native Caddoan peoples. At least 89-90 Caddoan sites of this period are known in Northeast Texas. In Cherokee County, six sites have produced historic materials in association with native Indian artifacts (Kenmotsu and Perttula 1993:152). These include brass bells and European gunflints (41CE6), glass beads and brass tinkler (41CE12), majolica pottery (41CE19), glass beads (41CE20), 18th century gun found on the surface (41CE48), and glass beads (41CE293). Two Critical Resource Zones have been identified for Historic Contact Period sites in Cherokee County. These are Killough Creek and Bowles Creek (Kenmotsu and Perttula 1993:Table 2.6.2). The major historic Indian groups in Cherokee County in the early 18th Century were probably the Hasinai (Kenmotsu and Perttula 1993:Figure 2.6.6).

No previous investigations have been conducted in close proximity to the current project area. The most recent work was a water line survey of 59.44 miles approximately five miles east of the current project area (Moore 2003). No previously unrecorded sites were found.

METHODS

Prior to entering the field, a records check for previously recorded sites in or near the project area was conducted by Allegra Azulay at TARL, the state repository for site records. No previously recorded archaeological sites were found to be within or near the four survey areas. In addition, relevant reports were checked in order to become familiar with the kinds of sites known to occur in the area. According to the engineering firm, J. F. Fontaine & Associates, Inc., the majority of the water line will be placed in disturbed rights-of-way of county and state roads. Four segments (areas 1-4), however, will traverse cross-country or parallel unimproved, dirt roads. Because of the potential of these areas to contain archaeological sites in an undisturbed context, the Texas Historical Commission recommended a professional archaeologist examine these four areas.

The four segments were examined through shovel testing and surface inspection. All excavated dirt was screened using 1/4" hardware cloth, and a shovel test log was kept (Appendix I). The approximate location of each test appears on the topographic maps in Appendix II. In all, 23 shovel tests were excavated to basal clay. Prior to the field survey, the Principal Investigator reviewed the topographic maps in an attempt to identify high probability areas for survey. Also, the Principal Investigator visited the project area with the Project archaeologist in order to help determine the best places for shovel testing within the four areas selected by the Texas Historical Commission. The Project Archaeologist excavated all shovel tests. Images of the project area were taken with a digital camera, notes were taken regarding disturbance in the four areas, and GPS plottings were taken of shovel test locations for more accurate recording on the topographic maps.

RESULTS AND RECOMMENDATIONS

A check of the site records at TARL revealed no sites within 1/2 kilometer of the four areas surveyed for this project. No archaeological sites or negative surveys were found as a result of the current project area. The survey areas were found in the field to be different than represented on the outdated topographic map. Area 1 was found to be a paved road, not a two-track road. The two-track road at Area 2 was found to be longer than depicted on the topographic map, making the cross-country shorter than originally thought. The route in Area 3 was found to be along an eroded area that resembled an old road depression. At Area 4, the top of the hill (site of the proposed well) had been cleared and the connecting access road had already been constructed. Overall, not one of the four survey areas contain deep sandy soils adjacent to streams, the major criterion for archaeological sites in East Texas. The 23 shovel tests were dug through thin strata of sand and into basal clay at depths between 10 and 40 cm. Ten of the tests encountered clay at the surface, and all were terminated at 10 cm or less. It is recommended that Dialville-Oakland WSC be allowed to proceed with construction as planned without further consultation by the Texas Historical Commission.

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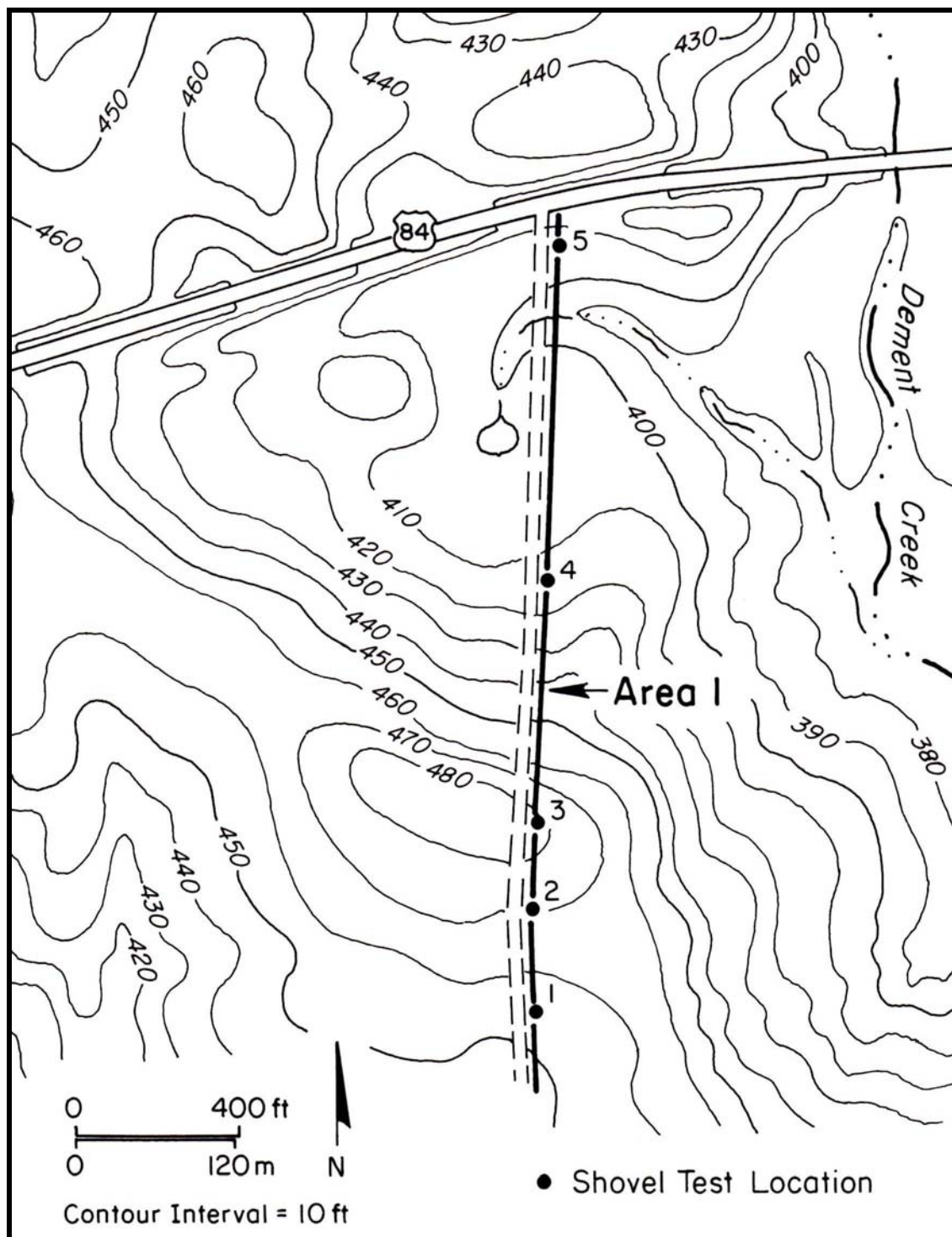
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APPENDIX I: SHOVEL TEST LOG

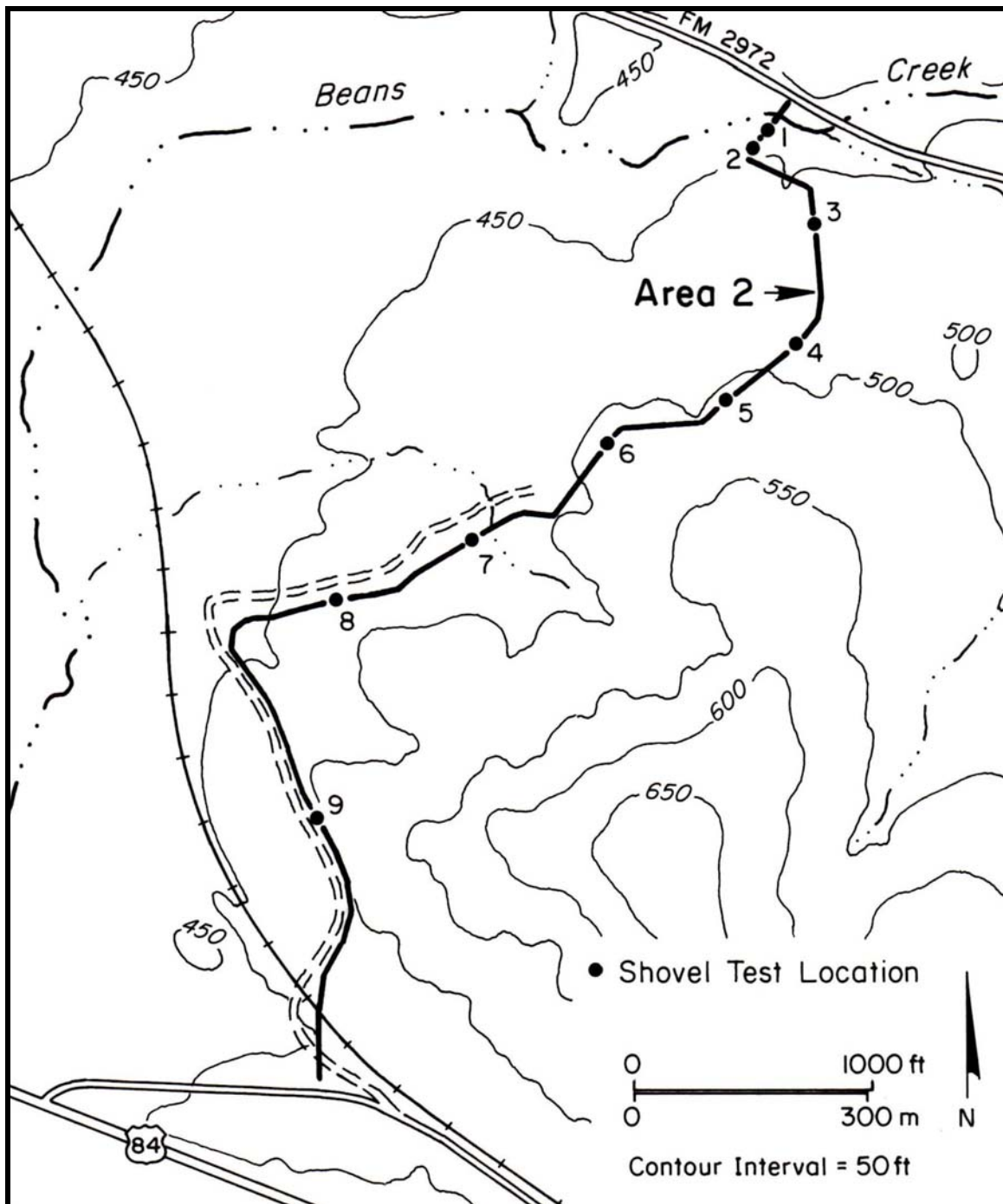
Test	Area	Depth	Description
01	1	40 cm	dug through sand and clay in a ditch; surface visibility 50%; sterile
02	1	30 cm	dug through sand and clay in a ditch; surface visibility 50%; sterile
03	1	20 cm	dug through sand and clay in a cutbank/ditch; surface visibility 80%; sterile
04	1	20 cm	dug through sand and clay in a cutbank/ditch; surface visibility 50%; sterile
05	1	20 cm	dug through sand and clay in a ditch; surface visibility 30%; sterile
01	2	30 cm	dug through sand and clay in a pasture; surface visibility 20%; sterile
02	2	30 cm	dug through sand and clay in a pasture; surface visibility 20%; sterile
03	2	10 cm	dug through clay in a road ditch; surface visibility 70%; sterile
04	2	10 cm	dug through clay in a road ditch; surface visibility 70%; sterile
05	2	10 cm	dug through clay in a road ditch; surface visibility 80%; sterile
06	2	20 cm	dug through sand and clay in a road ditch; surface visibility 60%; sterile
07	2	20 cm	dug through sand and clay in a road ditch; surface visibility 60%; sterile
08	2	10 cm	dug through clay in a road ditch; surface visibility 70%; sterile

Test	Area	Depth	Description
09	2	10 cm	dug through clay in a road ditch; surface visibility 70%; sterile
01	3	30 cm	dug through sand and clay in a pasture/old road depression; surface visibility 40% sterile
02	3	10 cm	dug through clay in a pasture/old road depression; surface visibility 30%; sterile
03	3	30 cm	dug through sand and clay in a posture/old road depression; surface visibility 30%; sterile
04	3	40 cm	dug through sand and clay in a pasture by creek; surface visibility 30%; sterile
05	3	50 cm	dug through sand and clay in a wooded area; surface visibility 20%; sterile
01	4	10 cm	dug through clay in a cleared area; surface visibility 20%; sterile
02	4	10 cm	dug through clay in a grassy area; surface visibility 10%; sterile
03	4	10 cm	dug through clay in a grassy area; surface visibility 10%; sterile
04	4	10 cm	dug through clay in a grassy area; surface visibility 10%; sterile

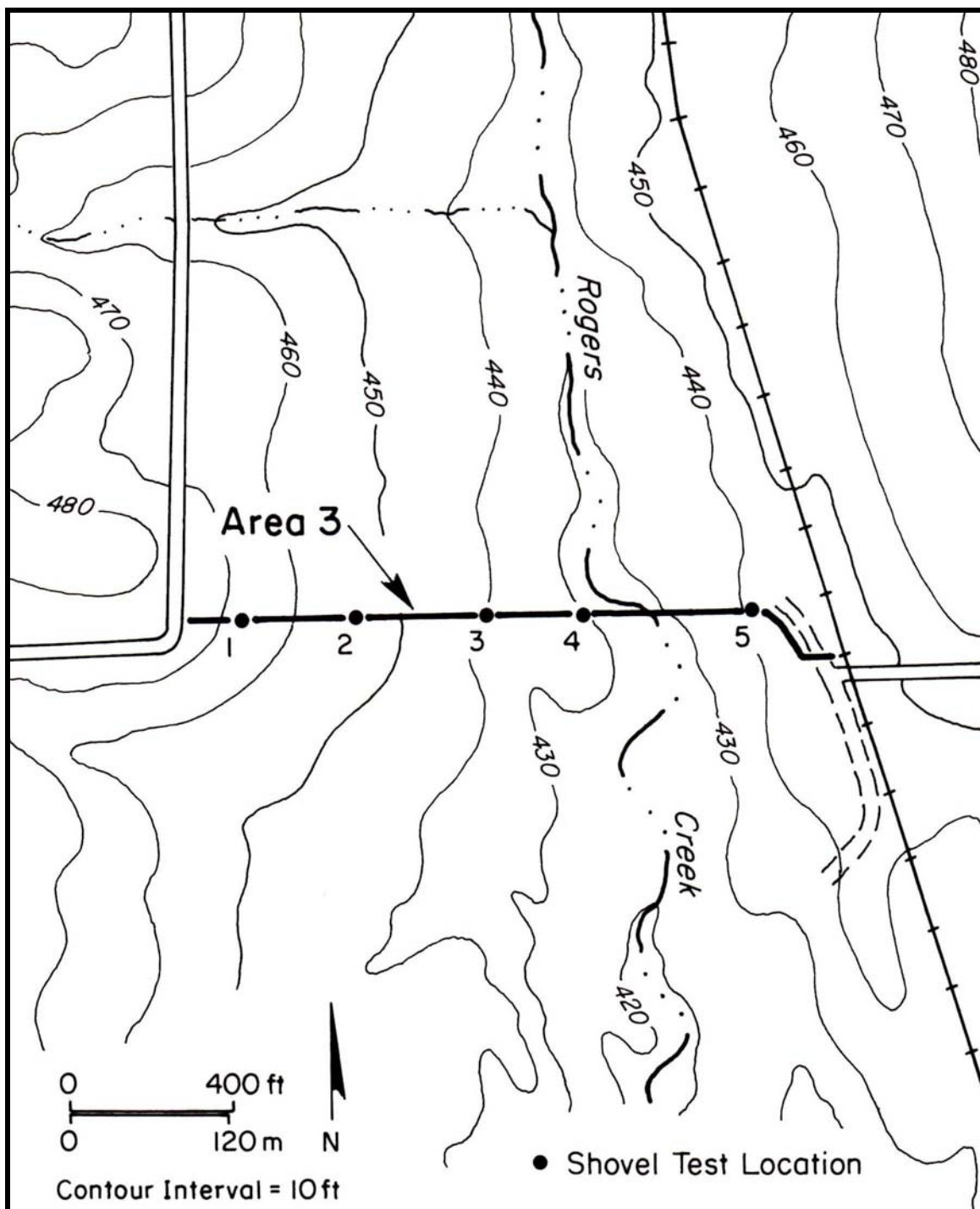
APPENDIX II
SHOVEL TEST LOCATIONS



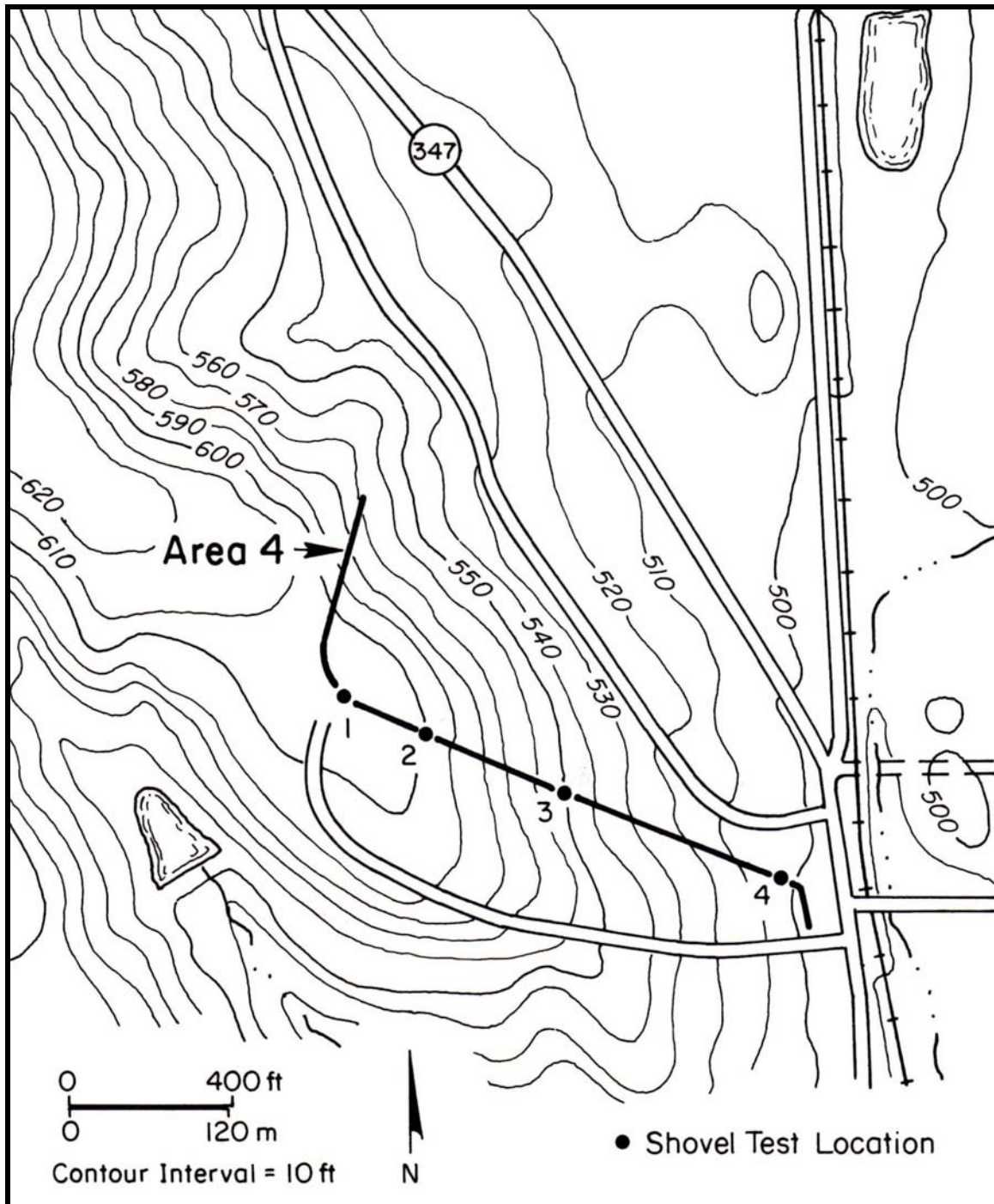
Area 1. Shovel Test Locations



Area 2. Shovel Test Locations



Area 3. Shovel Test Locations



Area 4. Shovel Test Locations