A Phase I Cultural Resources Reconnaissance of the Proposed Shannon Mine #2 near Black Diamond, Jefferson County, Alabama

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MAY 2011

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ALABAMA
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May 13, 2011

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OAR PROJECT NUMBER: 11-148

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TABLE OF CONTENTS

CONTENT PAGE

Table of Contents i
List of Figures i
Introduction 1
Environmental Setting 1
Literature and Document Search 4
Field Methods 4
Laboratory Methods and Collection Curation 7
Conclusions and Recommendations 12
References Cited 12

LIST OF FIGURES

FIGURES PAGE

Figure 1. Location of the survey area 2
Figure 2. Soil map of the survey area 3
Figure 3. Previous surveys conducted within the survey area and shovel test locations 5
Figure 4. Shovel test in the survey area 6
Figure 5. View to southeast of steeply sloped survey area along transmission line 7
Figure 6. Typical steep slopes within the survey area 8
Figure 7. Access road along transmission line, view to east 8
Figure 8. Planted pines in western portion of survey area 9
Figure 9. Pushpiles in the survey area 9
Figure 10. Subsoil at the ground surface 10
Figure 11. Eroded ridge crest with exposed subsoil at ground surface 10
Figure 12. Typical erosion on slopes 11
Figure 13. Typical erosion on slopes 11

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Introduction

The University of Alabama, Office of Archaeological Research (OAR) was contracted by Shannon, LLC to perform a cultural resources reconnaissance survey of the proposed ±383 acre Shannon Mine #2 in Jefferson County, Alabama. Kareen L. Hawsey (Cultural Resources Technician), assisted by Daryll R. Berryman (Cultural Resources Assistant) conducted the survey on May 9-10, 2011 to locate and identify any archaeological sites or historic standing structures. The Principal Investigator for the survey is Eugene M. Futato, Deputy Director of OAR.

The research design of the Phase I survey is to locate and identify any archaeological sites or historic standing structures within the survey boundaries, assess their archaeological significance and provide recommendations with regard to guidelines set forth by the *National Register of Historic Places*.

The survey area is an approximate 383 acre (155 ha) irregularly shaped tract located in Sections 27, 28, 32 and 33, T19S, R5W of the USGS 7.5' McCalla, Alabama topographic quadrangle (Figure 1). The survey area lies to the west of Little Blue Creek, northwest of Rock Mountain, east of Black Diamond, and just southeast of the Shannon Mine, which is currently active. The area is currently covered in mixed hardwoods, pines, and secondary growth. The topography of the survey area consists of narrow ridge crests which slope steeply to narrow intermittent drainages.

Environmental Setting

The survey area is located in the Warrior Basin District of the Cumberland Plateau physiographic section. The State of Alabama Geological Survey (Sapp and Emplaincourt 1975) characterizes the Warrior Basin District as a "synclinal submaturely to maturely dissected sandstone and shale plateau of moderate relief."

Soil information has been derived from the United States Department of Agriculture's Natural Resources Conservation Service website (SSS 2008). It indicates that the following two soil mapping units are found in the survey area (Figure 2):

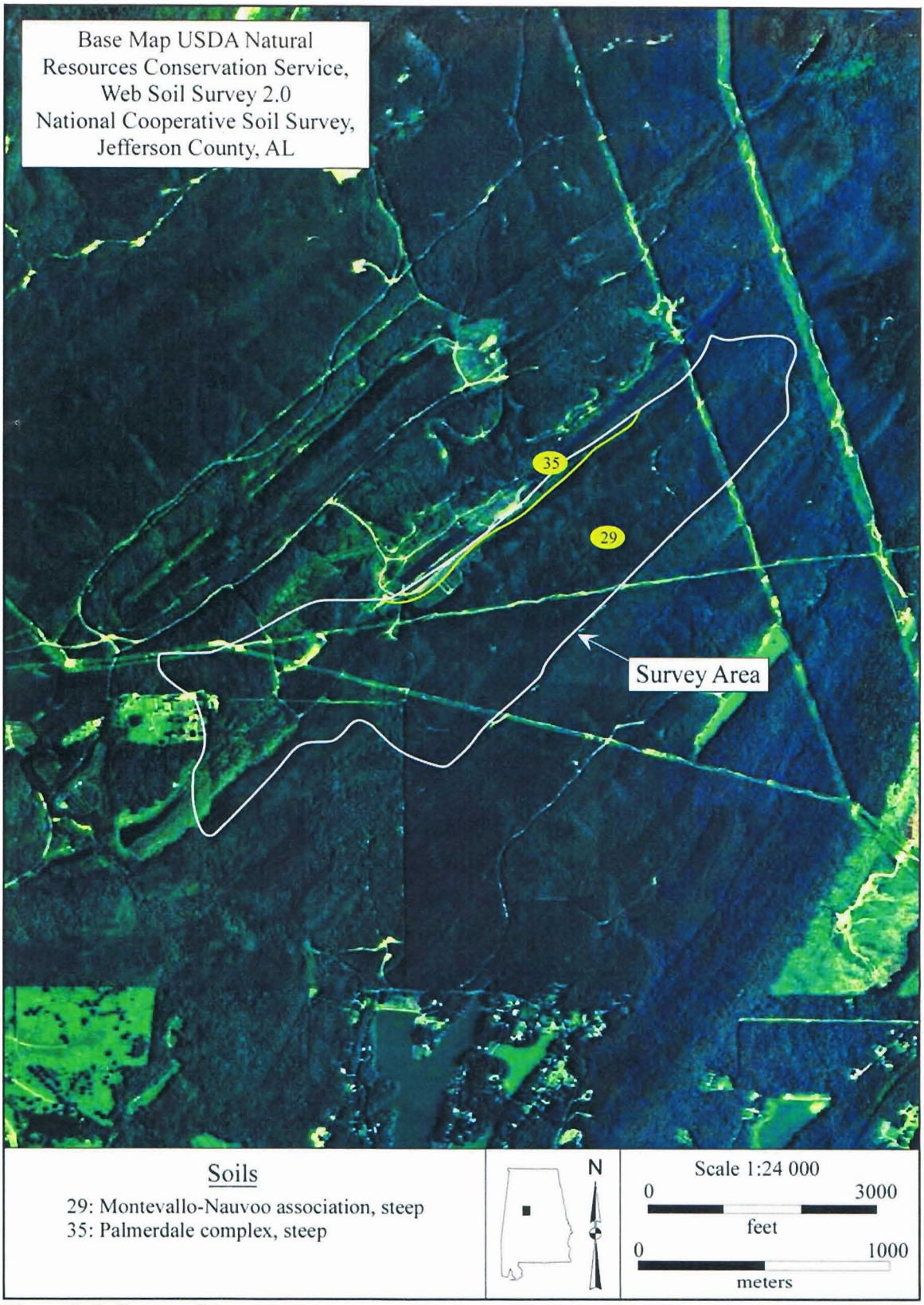

Figure 2. Soil map of the survey area.

Montevallo-Nauvoo association, steep: These well-drained soils are found on ridgetops and steep side slopes ranging from 6 to 55 percent. Parent material is residuum formed from shale, siltstone, and sandstone. Typical soil profiles consist of 6 inches of very dark gray shaly silt loam to dark grayish brown fine sandy loam underlain by yellowish brown shaly silt loam or fine sandy loam subsoil. The hazard of erosion is extremely high, making these soils unsuitable for most crops and for both urban and industrial use. Extensive surface and deep mining of coal occur in within these areas.

Palmerdale complex, steep: This soil complex consists of steep, somewhat excessively drained soils on surface mining piles. Slopes range from 15 to 60 percent. Soils are typically more than 60 inches thick and are made up of dark gray very shaly silt loam. Erosion hazard is high due to steep slopes, and it is only suitable for forest, although these soils are difficult to reclaim.

Literature and Document Search

The literature and document search included an inspection of the Alabama State Site File (ASSF) for previously listed archaeological sites within the general area of the project. There are no sites listed within the survey area and sixteen sites within a one mile radius of the survey area. The National Register of Historic Places (NRHP) and related supplements, including the Alabama Tapestry of Historic Places and the Alabama Register of Landmarks and Heritage, list no properties within or near the survey area. The 1908 Jefferson County, Alabama soil map shows no structures within the survey area. Finally, the National Archaeological Database Bibliography (NADB), housed at OAR, shows that two surveys have been conducted within the proposed project area. The Black Diamond Coal Company contracted Eddie Morgan (1985) to conduct a survey of the Oswayo #5 Mine, which encompasses approximately 100 acres of the westernmost portion of the present survey area (Figure 3). No cultural resources were located during the investigations. Jeffery Meyer (1990) conducted a survey of a strip mine impact area located to the northwest of the present survey area and encompassing a small strip of the westernmost survey area (Figure 3). Four sites, none of which are located within the present survey area, were located and added to the ASSF at that time.

Field Methods

Field investigations consisted of a pedestrian walkover employing visual inspection of exposed surface areas and subsurface shovel testing, consisting of the excavation of 57 shovel tests (Figure 3). Investigations were conducted by a two-person crew. As required in the state of Alabama, shovel tests had a minimum diameter of 30 cm and were excavated to sterile subsoil (Figure 4). All excavated soils were screened through 6 mm (¼ in) mesh screen in an effort to locate cultural materials. Soil profiles were recorded in each shovel test noting soil colors, soil textures and depths of soil texture/color changes.

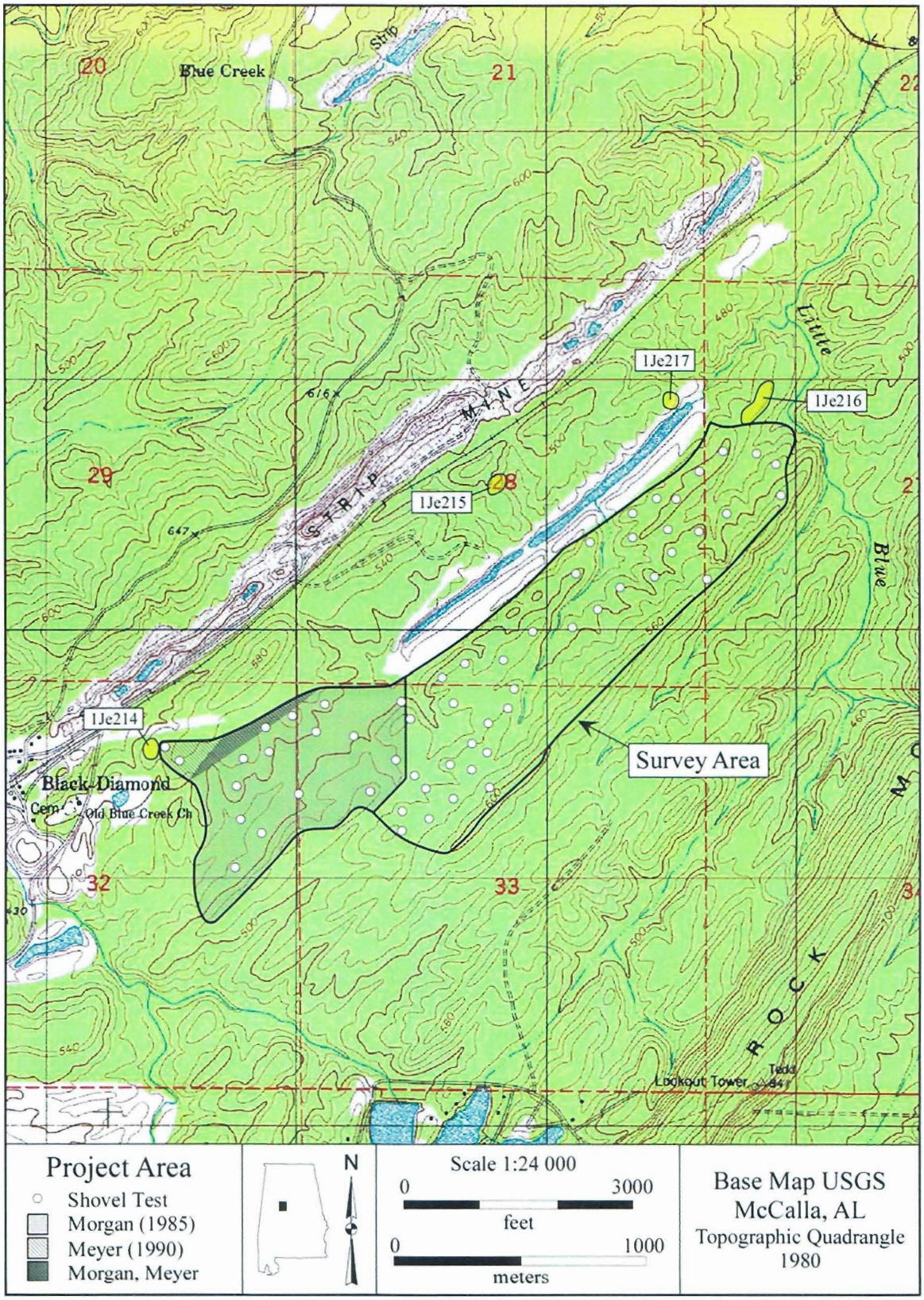

Figure 3. Previous surveys conducted within the survey area and shovel test locations.

Figure 4. Shovel test in the survey area.

Where soil was visible at the surface, initial investigations consisted of ground surface inspection. The locations included bare soil exposures along natural slopes, drainages, road surfaces, trails, and erosional surfaces. However, most land within the survey boundary had limited surface visibility.

Where visibility of the soil surface was limited, shovel tests were excavated at 30 m intervals in those areas with a high probability of containing archaeological sites. Such high probability areas were very limited in extent and consisted of landforms with relatively level settings (areas of <10% slope) and those settings showing an absence of disturbance from erosion that has removed soil surface horizons. Lower probability areas were sampled at greater intervals ranging from 60 m to 100 m. Slopes greater than 20% were only visually inspected. Steep terrain is evident in the majority of the survey area. Shovel test intervals in these areas exceeded the 60 m spacing and in some cases was curtailed altogether due to lack of surface soil horizons. Frequently inundated, lowlying, and wet areas with hydric soils were not shovel tested, but were walked over and examined for cultural materials.

The topography of the survey area is made up of narrow ridge crests and their accompanying steep side slopes (Figures 5-6). Unimproved roads along transmission lines and ridge crests provide access throughout the survey area (Figure 7). Portions of the survey area are planted in pine (Figure 8), and portions are covered in hardwoods and secondary growth. Extensive furrowing and pushpiles in the survey area indicate previous soil disturbances, which likely include timber harvesting (Figure 9). These areas were considered to have low probability of containing archaeological sites due to evident soil disturbances. Very little topsoil remains in the survey area due to extensive erosion, both on ridge crests (Figures 10-11) and on side slopes (Figures 12-13).

Laboratory Methods and Collection Curation

All photographs, field notes, maps, and documentation pertinent to the survey will be curated at the Erskine Ramsay Archaeological Repository located at Moundville Archaeological Park. This repository meets Department of the Interior curation standards as defined under 36 CFR Part 79 and required by Chapter 460- x -9 of the Administrative Code of Alabama.

Figure 5. View to southeast of steeply sloped survey area along transmission line.

Figure 6. Typical steep slopes within the survey area.

Figure 7. Access road along transmission line, view to east.

Figure 8. Planted pines in western portion of survey area.

Figure 9. Pushpiles in the survey area.

Figure 10. Subsoil at the ground surface.

Figure 11. Eroded ridge crest with exposed subsoil at ground surface.

Figure 12. Typical erosion on slopes.

Figure 13. Typical erosion on slopes.

Conclusions and Recommendations

The University of Alabama, Office of Archaeological Research conducted a Phase I cultural resources survey of the proposed ±383 acre Shannon Mine #2 in Jefferson County, Alabama. As stated in the introduction, the cultural resources survey focused on locating and identifying any archaeological sites or historic standing structures within the survey boundaries, assessing their archaeological significance, and providing recommendations with regard to guidelines set forth by the *National Register of Historic Places*.

Because of its proximity to water resources including Blue Creek and Little Blue Creek, the plentiful food resources this land would have provided, and desirability of ridgetop land, some portions of the survey area likely would have been ideal for prehistoric and historic occupation. However, because the desirable ridgetop land in the survey area has been impacted by road building, ground disturbing activities, and erosion, and because the majority of the survey area is steeply sloped, the likelihood that intact cultural resources exist in the area is extremely low. As a result of the survey, no prehistoric or historic cultural resources were located within the survey area. Therefore, this office recommends a finding of 'no properties' for the survey area.

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2008 Official Soil Series Descriptions. Electronic document, http://soils.usda.gov/technical/classification/osd/index., accessed May 6, 2011.