A PHASE I CULTURAL RESOURCE SURVEY FOR THE PROPOSED BLACK WARRIOR MINERALS, INC. SEABOARD MINE/P-3937 REVISION R-5, TUSCALOOSA COUNTY, ALABAMA

Prepared by
TerraXplorations, Inc.

Prepared for
PERC Engineering Company, Inc.

TerraXplorations, Inc.
2301 9th Street, Suite 2
Tuscaloosa, AL 35401
www.terraxplorations.com

October 2014

PERC Engineering Company, Inc.
1606 Highway 78 West
Jasper, Alabama 35502

A PHASE I CULTURAL RESOURCE SURVEY FOR THE PROPOSED BLACK WARRIOR MINERALS, INC. SEABOARD MINE/P-3937 REVISION R-5, TUSCALOOSA COUNTY, ALABAMA

BY

Kenny Pearce

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PERC Engineering Company, Inc.
1606 Highway 78 West
Jasper, Alabama 35502

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TerraXplorations, Inc.
2301 9th Street, Suite 2
Tuscaloosa, Alabama 35401
Project No. 2014.177

Principal Investigator
Paul D. Jackson

October 8, 2014

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Introduction

TerraXplorations, Inc. (TerraX) of Tuscaloosa, Alabama was contracted by PERC Engineering Company, Inc. of Jasper, Alabama to conduct a cultural resource survey for the proposed Black Warrior Minerals, Inc. Seaboard Mine/P-3937 Revision R-5 in Tuscaloosa County, Alabama. The Phase I survey was performed on September 30, 2014 by Chris Kerns and Zach Gooch under the supervision of Paul D. Jackson, Principal Investigator. The purpose of this study was to determine if any prehistoric or historic properties exist within the limits of the survey area, and if so, to document and assess each based on the National Register of Historic Places (NRHP) criteria.

The project area, as identified by PERC Engineering Company, is an approximate 29-acre tract located northeast of Peterson and south of State Route 216 in Tuscaloosa County. The Louisville and Nashville Railroad borders a portion of the projects southern boundary. The subject property can be found on the 1974 Lake Nicol, Alabama, USGS 7.5' series topographic quadrangle in the Southwest 1/4 of Section 33, Township 20 South, Range 8 West (Figure 1). Photographs depicting the present state of the land within the project area are provided (Figures 2-5).

Project Area Environment

The project area is located in Tuscaloosa County in the Warrior Basin District of the Cumberland Plateau Physiographic Region near its intersection with the Fall Line Hills District of the East Gulf Coastal Plain Physiographic Region. The survey area is characterized by gentle to steeply sloping ridges dissected by intermittent drainages. A few of these drainages feed small ponds located on the property. Elevations range from 420 to 520 feet (ft.) above mean sea level. Much of the property has been heavily impacted from previous strip mining. In addition, areas located outside of the former strip mine have suffered from dirt road construction and erosion as noted by severely deflated ridges. The project area is primarily covered by planted pine forest interspersed with undergrowth and some hardwoods.

A review of the Web Soil Survey (2014) identified three soil types within the project area including Montevallo-Nauvoo complex (15 to 45 percent slopes), Palmerdale very gravelly loam (6 to 45 percent slopes), and Smithdale fine sandy loam (6 to 15 percent slopes). Montevallo-Nauvoo complex (15 to 45 percent slopes) consists of well drained soils found on the side slopes of ridges. Montevallo soils are created from loamy residuum weathered from shale, while Nauvoo soils are derived from loamy residuum weathered from shale and sandstone. Typical Montevallo soil profiles are comprised of channery loam underlain by very channery silt loam and weathered bedrock. Generally, Nauvoo soil profiles consist of fine sandy loam followed by clay loam, sandy clay loam, and weathered bedrock.

Palmerdale very gravelly loam (6 to 45 percent slopes) is described as somewhat excessively drained soil occurring on the side slopes of ridges. This soil type is formed from gravelly mine spoil or earthy fill derived from sandstone and shale. A typical Palmerdale profile consists of very channery loam over very channery sandy loam.

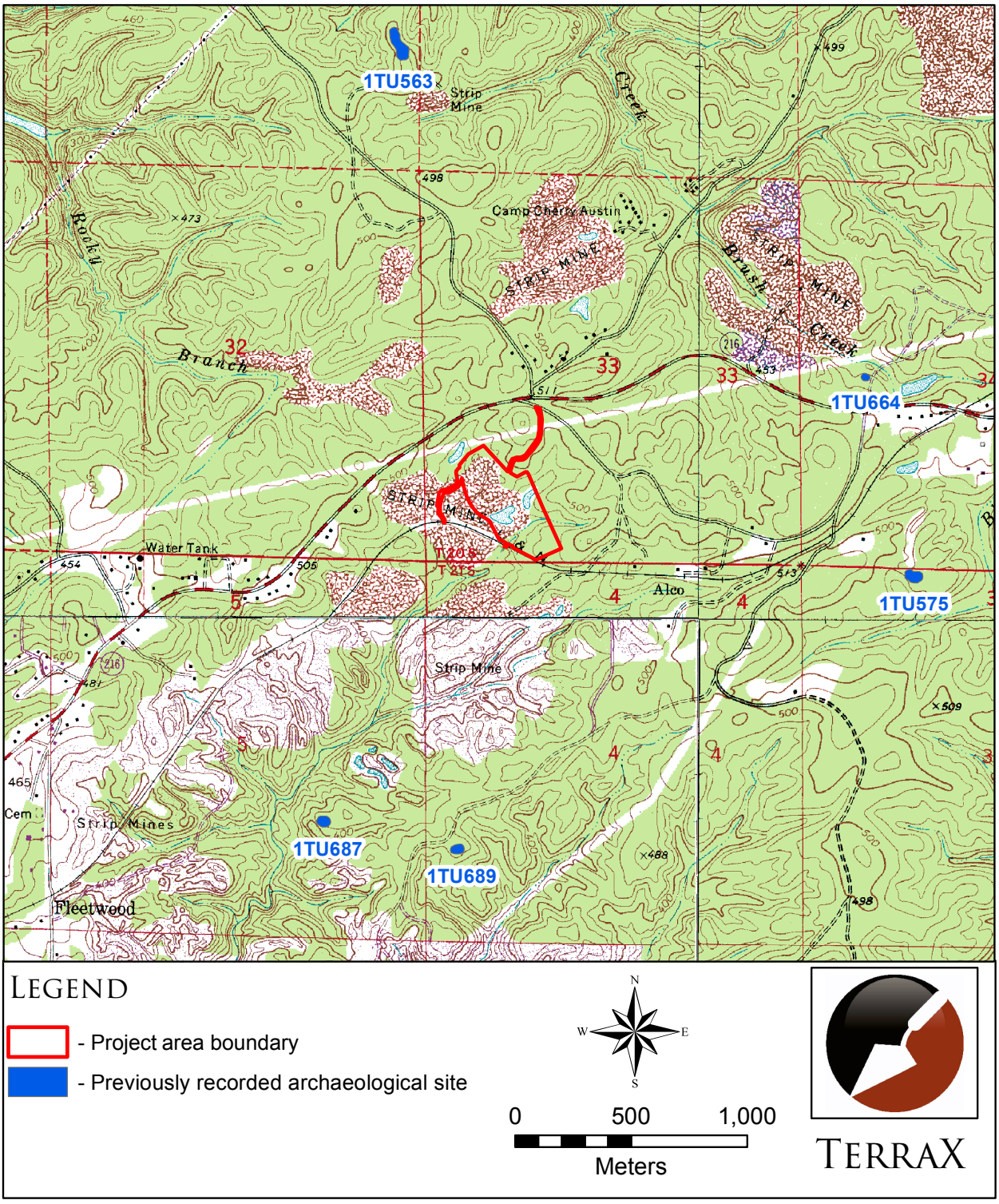

Figure 1. *Map showing the project area and nearby previously recorded archaeological sites (based on the 1974 Lake Nicol, Alabama; the 1974 (photorevised 1983) Brookwood, Alabama; the 1969 (photorevised 1978) Coaling, Alabama; and the 1969 (photorevised 1983) Cottondale, Alabama USGS 7.5' series topographic quadrangles).*

Figure 2. *View of dirt road in northern portion of project area, facing South.*

Figure 3. *View of pond in eastern portion of project area, facing south.*

Figure 4. *View of central portion of project area within old strip mine, facing north.*

Figure 5. *View of southeastern portion project area outside of old strip mine, facing northwest.*

Finally, Smithdale fine sandy loam (6 to 15 percent slopes) is a well-drained soil found on sloping ridges and formed from loamy fluviomarine deposits derived from sedimentary rock. A typical Smithdale profile consists of fine sandy loam underlain by sandy clay loam and sandy loam.

Literature and Document Search

Before conducting the fieldwork, TerraX performed a literature and document search in order to gather pertinent background information regarding the subject property and its surroundings. This research included inspections of the Alabama State Archaeological Site File (ASASF) (Office of Archaeological Research [OAR] 2014), the National Archaeological Database Bibliography (NADB) (OAR 2014), the Alabama Register of Landmarks and Heritage (ARLH) (Alabama Historical Commission [AHC] 2014), the National Register of Historic Places (NRHP) (National Park Service 2014), the *Directory of Underground Coal Mines in Alabama* (DeJarnette 1986) and the 1911 Tuscaloosa County soil survey map (United States Department of Agriculture 1911).

Alabama State Archaeological Site File: Research of the ASASF identified five previously recorded archaeological sites (1TU563, 1TU575, 1TU664, 1TU687, and 1TU689) within a mile of the project area (see Figure 1). All of these sites lie well outside of the survey area and thus will not be impacted by the proposed mining project. For information on these five sites refer to Table 1.

National Archaeological Database Bibliography: A search of the NADB identified one previous archaeological survey conducted within the current study area and nine other previous archaeological surveys within a mile of the proposed project area. For information on these previous surveys, refer to Table 2.

Alabama Register of Landmarks and Heritage: Examinations of the ARLH showed no listings for any historic properties within or adjacent to the study area.

National Register of Historic Places: The NRHP contained no listings for any historic properties within or adjacent to the study area.

Directory of Underground Coal Mines in Alabama: The coal mine directory listed no mines in Section 33, Township 20 South, Range 8 West.

1911 Tuscaloosa County Soil Survey Map: Inspections of the 1911 soil survey map showed no structures within or adjacent to the project area.

Table 1. Previously Recorded Archaeological Sites Within a One-Mile Radius of the Project Area.					
Site Number	Within Project Area	Location (Section, Township, and Range)	Site Component	NRHP Eligibility	Site Recorder and Date
1TU563	No	Section 29, T20S, R8W	Unknown aboriginal lithic scatter	Undetermined	University of Alabama, 1990
1TU575	No	Section 3, T21S, R8W	Unknown aboriginal lithic scatter	Undetermined	University of Alabama, 1990
1TU664	No	Section 34, T20S, R8W	Unknown aboriginal lithic scatter	Not eligible	University of Alabama, 1995
1TU687	No	Section 5, T21S, R8W	Sparse artifact scatter suggesting a Woodland affiliation	Not eligible	Panamerican Consultants, 1993
1TU689	No	Section 4, T21S, R8W	Unknown aboriginal lithic scatter collocated with a 20th century nonaboriginal artifact scatter	Not eligible	Panamerican Consultants, 1993

Table 2. Previous Archaeological Surveys Conducted Within a One-Mile Radius of the Proposed Project Area.

NADB Number	Within Proposed Project Area	Location (Section, Township, and Range)	Report Title/Results	Reference
4050347	Yes (a portion of the survey falls within the current project area)	Sections 29, 32, and 33, T20S, R8W; Sections 4, 5, 8, 17, and 20, T21S, R8W	An Archaeological Survey of Sixteen Proposed Exploratory Methane Gas Wells and Access Road Transects Northwest of Coaling, Tuscaloosa County, Alabama. The Phase I survey identified two archaeological sites (1TU563 and 1TU564). Site 1TU563 lies within a mile of the project area.	University of Alabama (Oliphant 1990b)
4050349	No	Sections 28 and 33, T20S, R8W; Sections 3, 15, 16, and 29, T21S, R7W; and Sections 4, 8, and 15, T21S, R8W	An Archaeological and Historical Survey of Sixteen Exploratory Methane Gas Wells and Proposed Access Roads near Brookwood, Tuscaloosa County, Alabama. The survey led to the discovery of a single unknown aboriginal isolated find.	University of Alabama (Patterson 1990)
4050391	No	Sections 28, 29, 31, 32, and 33, T20S, R8W; Sections 2 and 16, T21S, R8W	An Archaeological Survey of Nineteen Proposed Exploratory Methane Gas Wells and Access Road Transects East of Peterson, Tuscaloosa County, Alabama. The investigation resulted in the identification of two prehistoric sites (1TU573 and 1TU574), both of which lie more than a mile from the current study area.	University of Alabama (Oliphant 1990a)
4050399	No	Survey area begins in Section 15, T21S, R8W, and ends in Section 20, T20S, R8W	A Reconnaissance Level Archaeological Survey for the Proposed Taurus Exploration Water Discharge Line in Eastern Tuscaloosa County, Alabama. The Phase I study discovered a single archaeological site, 1TU575. This site lies within a mile of the current study area and consists of an unknown aboriginal lithic scatter.	University of Alabama (Hollis 1990)
4050530	No	Section 32, T20S, R8W; Sections 4, 5, 9, 10, 16, and 17, T21S, R8W	A Cultural Resources Survey of the Proposed Cedar Cove No. 5 and Cedar Cove No. 6 Pipeline in Tuscaloosa County, Alabama. No cultural resources were found.	University of Alabama (Shaw 1991)

Table 2. Previous Archaeological Surveys Conducted Within a One-Mile Radius of the Proposed Project Area (Cont.).

NADB Number	Within Proposed Project Area	Location (Section, Township, and Range)	Report Title/Results	Reference
4051516	No	Sections 34, 35, and 36, T20S, R8W	An Archaeological Reconnaissance Survey of Fifteen Proposed Methane Gas Wells and Associated Road Transects for the Taurus North Hurricane Creek Project, AFE #TC0192. The Phase I survey identified two archaeological sites (1TU663 and 1TU664). Site 1TU664 lies within a mile of the current study area and consists of an unknown aboriginal lithic scatter.	University of Alabama (Gilliland 1992)
4057379	No	Sections 4, 5, 8, and 9, T21S, R8W	A Cultural Resource Survey of the Proposed Drummond Company, Inc. Peterson Mine, Tuscaloosa County, Alabama. The Phase I study revisited Site 1TU564 and discovered four new archaeological sites (1TU686 - 1TU689). Sites 1TU687 and 1TU689 lie within a mile of the current project. Site 1TU687 represents a Woodland occupation and Site 1TU689 contains unknown aboriginal and 20th century nonaboriginal components.	Panamerican Consultants (Hartzell 1993)
4062160	No	Section 33, T20S, R8W	A Phase I Cultural Resource Survey of the Peterson Water System Tank Site Tuscaloosa County, Alabama. No cultural resources were found.	Panamerican Consultants (Smith 1999)
4063572	No	Sections 33 and 34, T20S, R8W	A Phase I Cultural Resources Assessment of the Proposed Widening of a Segment of SR-216 near Brookwood, Tuscaloosa County, Alabama. No archaeological sites were discovered; however, two historic structures were documented.	MRS Consultants (Ryba 2001)
4073048	No	Sections 32 and 33, T20S, R8W	A Phase I Cultural Resource Assessment for the Proposed Cherry Austin Mine in Tuscaloosa County, Alabama. The survey led to the identification of two unknown aboriginal isolated finds.	PE LaMoreaux & Associates (Lolley 2009)

Field Methods

The Phase I survey was guided by procedural standards created by the Alabama Council of Professional Archaeologists in concurrence with the Alabama Historical Commission's (2002) specifications as outlined in the Policy for Archaeological Surveying and Testing in Alabama. Land coverage requirements were achieved by walking and visually inspecting the entire survey area. Any exposed surfaces were carefully examined for cultural material. For areas determined to have a low probability of containing archaeological deposits, such as areas disturbed from previous strip mining and areas with steep slopes, pedestrian walkover was the primary method of survey. For medium to high probability areas, systematic subsurface testing was employed. Typically, subsurface testing is performed judgmentally or along 30-m interval transects comprised of shovel tests spaced 30 m apart. Standard shovel tests consist of 30 centimeter (cm) diameter cylindrical holes excavated to the top of the sterile subsoil layer. Soils from each test are screened through 1/4-inch (0.64 cm) hardware cloth for the purpose of recovering any cultural material that may exist at that location. When cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to TerraX's laboratory.

The field investigation included the placement of 13 shovel test transects within the project area outside of the previously disturbed strip mine areas, which were visually inspected (Figure 6). A total of 80 shovel tests were attempted along these 13 transects during this project. Of these tests, 78 were culturally sterile and two were not excavated due to previous mining disturbance.

Laboratory Methods and Collection Curation

All cultural materials recovered during field projects are delivered to TerraX's laboratory in Tuscaloosa, Alabama for processing. Here, materials are sorted by provenience, cleaned, and analyzed. Along with the cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at the Office of Archaeological Research, Erskine Ramsay Curation Facility, University of Alabama Museums, Moundville, Alabama. A copy of the curation agreement can be found in Appendix A. No cultural material was recovered during this project.

Archaeological Survey Results

Both subsurface and surface examinations were conducted within the project area. A total of 80 shovel tests were attempted along 13 transects placed outside of the previously disturbed strip mine area. Of these tests, 78 produced negative results and two were not excavated due to previous mining disturbance. All of the excavated tests exposed deflated soils with many of these tests encountering clay subsoil at the surface. In areas where topsoil did occur, typical soil profiles consisted of 3 to 20 cm of grayish brown to yellowish brown sandy loam underlain by strong brown to yellowish brown sandy clay to clay subsoil containing heavy gravel. Visual examinations were conducted of the entire survey area paying close attention to areas of exposed surfaces; however, other than some modern trash, no cultural material was observed.

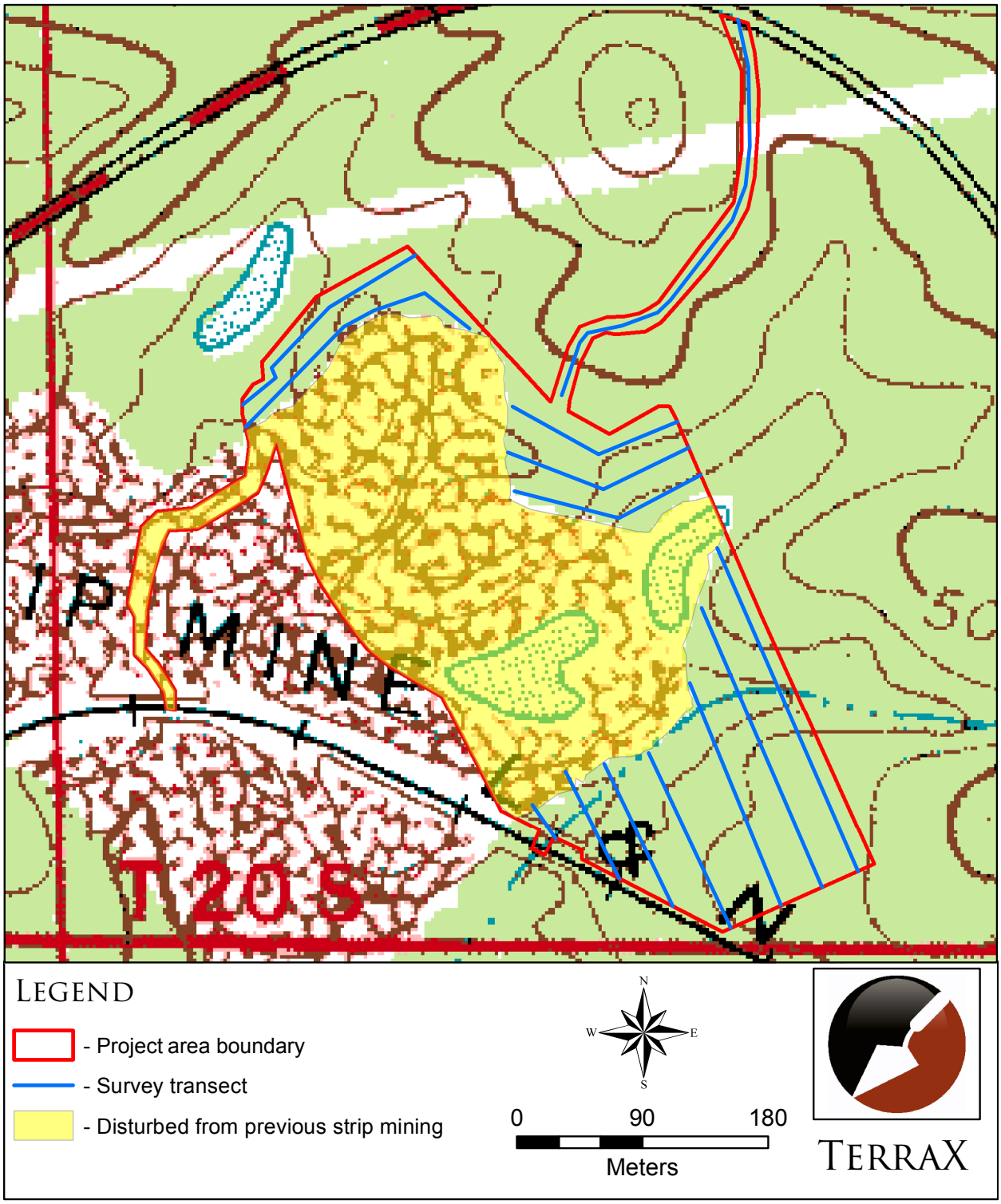

Figure 6. *Map showing the project area boundary, shovel test transects, and previously disturbed strip mining area (based on the 1974 Lake Nicol, Alabama, USGS 7.5' series topographic quadrangle).*

Conclusions and Recommendations

TerraX, under contract with PERC Engineering Company, performed the Phase I cultural resource survey for the proposed Black Warrior Minerals, Inc. Seaboard Mine/P-3937 Revision R-5 in Tuscaloosa County, Alabama, in compliance with federal and state regulations. The Phase I survey was performed on September 30, 2014 by Chris Kerns and Zach Gooch under the supervision of Paul D. Jackson, Principal Investigator. The archaeological investigation of the subject property failed to locate any prehistoric or historic resources and found the land to be significantly disturbed from previous strip mining and erosion. Based on the findings of this investigation, TerraX recommends the subject property be cleared in regards to cultural resource concerns and that the proposed mining project be allowed to proceed.

Kenny Pearce
Staff Archaeologist

Paul D. Jackson
Principal Investigator

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Web Soil Survey
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Appendix A
Curation Letter

University of Alabama Museums
Office of Archaeological Research

THE UNIVERSITY OF
ALABAMA
MUSEUMS

June 5, 2013

Paul Jackson
TerraXplorations
3523 18th Avenue NE
Tuscaloosa AL 35406

Dear Paul:

As per your request, this letter is to confirm our standing agreement with you to provide curation services to TerraXplorations on an as-needed basis. As you know, we are recognized by a variety of Federal agencies as a repository meeting the standards in 36 CFR Part 79 and have formal agreements to provide curation under these guidelines to agencies such as the National Park Service, U.S. Fish and Wildlife Service, U.S. Soil Conservation Service, U.S. Army Corps of Engineers, Tennessee Valley Authority, National Forest Service, etc.

Please be advised that once a year we must be notified of all reports in which we were named as the repository. Project collections must be submitted within one calendar year of completion. Small projects may be compiled for periodic submission. The AHC survey policy specifies which materials must be curated (Administrative Code of Alabama, Chapter 460-X-9). Renewal of this agreement is contingent upon compliance.

We appreciate this opportunity to be of assistance and look forward to working with you in the future.

Sincerely,

Eugene Futato

Eugene M. Futato RPA
Deputy Director

13075 Moundville
Archaeological Park
Moundville, Alabama 35474
(205) 371-2266
FAX (205) 371-2494