STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

August 7, 2008

Harry O. Holstein, Ph.D.
JSU McClellan Center
100 Gamecock Drive
Anniston, Alabama 36205

Re: AHC 02-0446
Cultural Resource Assessment
Glade Processing Preparation Plant
Jackson County, Alabama

Dear ~~Dr. Holstein:~~ Harry:

Upon review of the cultural resource assessment submitted by your office, we have determined that project activities will have no adverse effect on cultural resources eligible for or listed on the National Register of Historic Places. Therefore, we concur with the proposed project activities.

However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. These include but are not limited to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are postholes, building foundations, trash pits and even human burials. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your efforts on this project. Should you have any please contact Greg Rhinehart at (334) 230-2662. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/AMH/GCR/gcr

# A PHASE I CULTURAL RESOURCE SURVEY OF THE GLADE PROCESSING PREPARATION PLANT REVISION R-5 LOCATED IN JACKSON COUNTY, ALABAMA

by

Rebecca Turley Ridley, MA, RPA

Jacksonville State University
Archaeological Resource Laboratory
100 Gamecock Drive
Anniston, Alabama 36205

Phone: (256)782-5600
FAX: (256)782-8314

Principal Investigator
Harry O. Holstein, Ph.D.

Rebecca Turley Ridley, RPA, MA
Co-Principal Investigator

Submitted to:

**HEATH FRANKS**
**ENVIRONMENTAL SCIENTIST**
**PERC ENGINEERING CO., INC.**

July 2008

## ABSTRACT

On July 7, 2008 the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL) conducted a Phase I cultural resource survey of approximately 58 acres in Jackson County, Alabama. The survey was performed under an agreement with PERC Engineering Co., Inc. to aid in ADEM regulatory compliance prior to the implementation of the Glade Processing Plant. Fifty-two shovel tests and 31 walkover inspections were implemented to determine whether cultural resources exist within the survey area. No evidence of cultural resources was encountered; therefore, we recommend that the project area be cleared from a cultural resources standpoint.

## CONTENTS



## LIST OF FIGURES



## LIST OF TABLES

# A PHASE I CULTURAL RESOURCE SURVEY OF THE GLADE PROCESSING PREPARATION PLANT REVISION LOCATED IN JACKSON COUNTY, ALABAMA

On July 7, 2008 a Phase I archaeological field investigation was conducted by the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL), under contract with PERC Engineering Co., Inc., of Jasper, Alabama (hereinafter referred to as PERC). The purpose of the survey was to locate and record cultural resources that would be threatened within the 2008 Glade Processing Area/Plant Revision so that the client can meet the necessary criteria for an Alabama Department of Environmental Management (ADEM) permit. A similar survey was conducted nearby in October, 2007. Locations for both the previous survey and the current survey are provided in Figure 1.

Harry O. Holstein, Ph.D. served as the Principal Investigator, while Rebecca Turley Ridley, MA, RPA served as the Co-Principal and Project Director for the current study. All fieldwork was conducted by Sean Williamon (Crew Chief), Timothy Hobgood, and Lori Ann Ray (student worker). Maps were compiled by Sean Williamon and Rebecca Turley Ridley, who served also as the Geographic Information Systems (GIS) manager for the project.

The current study began with a background literature and document search that provided archaeologists with historic maps, information on previously recorded archaeological sites and regional cultures, as well as other data pertinent to conducting the field-survey portion of this investigation. Results of this research are detailed below, followed by a brief environmental overview presented in context with the archaeological study. Field methodology and results for the current survey are discussed following the environmental overview. Details regarding laboratory methodology and curation procedures follow next. Finally, the work discussed herein is summarized and recommended actions are detailed. To aid in the review/evaluation of this study, and to provide detailed information to future researchers, a shovel-test roster is included as *Appendix A*.

## BACKGROUND

Prior to beginning fieldwork, a series of data searches were conducted. The background reconnaissance included reviews of the Alabama State Site Files (ASSF), the National Register of Historic Places (NRHP), the Alabama Register of Historic Places, the Bureau of Land Management General Land Office (BLM-GLO) database, available historic maps, and any pertinent archaeological reports.

Whenever possible, historic maps were georeferenced to modern-day USGS 7.5 Minute Topographic Quadrangles and ESRI Satellite

Imagery. Historic maps utilized during the current study include the 1911 Jackson County, Alabama Soil Survey Map (http://alabamamaps.ua.edu/historicalmaps/soilsurvey/alabama.html) and the 1954 Jackson County, Alabama Soil Survey Map (Swenson *et al.* 1954).

Based on historic map research, no historic structures were present in the survey area. Furthermore, searches to the NRHP and the Alabama Register of Historic Places indicate that there are no listed historic or prehistoric entities within the current survey area. The following are detailed results for the remainder of the background research.

### *Previously Recorded Archaeological Sites*

Background research revealed five recorded archaeological sites within one mile of the boundaries of the survey area (Figure 2). All of these sites fell well outside the boundaries of the current project, and were originally recorded in 1991 as Native American rock shelter sites by DuVall and Associates of Franklin, TN. In 1994, the Alabama Museum of Natural History, Division of Archaeology (DOA) conducted an evaluation of numerous sites (including 1JA904, 1JA935, 1JA936, 1JA937, and 1JA938) for the Tennessee Valley Authority (Shaw 1994). Results of these evaluations are provided in Table 1. Again, none of these sites will be impacted by any of the proposed PERC activities.

### *Landowner Research*

Queries to the BLM-GLO CD produced four listings for historic property owners within Section 24, Township 3 South, Range 9 East. Information on these land titles is provided in Table 2. Brief internet searches were conducted for each landowner to help determine whether they played significant roles in history. No information was found for any of the landowners.

## ENVIRONMENTAL SETTING

The survey area is located within the Sand Mountain district of the Cumberland Plateau physiographic region (Figure 3). Sapp and Emplaincourt (1975) describe this region as a submaturely dissected sandstone and shale synclinal plateau of moderate relief. The current terrain of the project area is relatively flat. Elevations within the project area varied from 1300 feet to 1345 feet above mean sea level.

The project area was denuded of timber within the last few years, so vegetation consists of secondary scrub growth and soils are somewhat eroded. There is a first order stream, Big Glade Branch, running along the southeastern boundary of the project area that flows into Coon Gulf Falls to the southwest of the project area, which then empties into Flat Rock Creek (see Figure 1).

### *Soils*

The soils for the project area consist of the Crossville series, the Hartsells series, and stony land (Figure 4). The most predominant type is the Hartsells fine sandy loam, undulating shallow phase (2 to 5 % slopes) (Hfm). This soil type has a 2 to 5 percent slope and occurs in association with

***Table 1. Previously recorded archaeological sites within one mile of the project area (ASSF, accessed July 2008 and Shaw 1994).***

| Site | National Registry | Site Name | Ethnic | Period | Phase | Stage |
|---|---|---|---|---|---|---|
| 1Ja904 | Not Applicable | Rock Shelter 23-14 | Not a Site | Unidentified | Unidentified | Unidentified |
| 1Ja935 | Potentially Eligible | Rock Shelter 50-1 | Native American | Unidentified | Unidentified | Unidentified |
| 1Ja936 | Potentially Eligible | Rock Shelter 50-2 | Native American | Unidentified | Unidentified | Unidentified |
| 1Ja937 | Undetermined | Rock Shelter 51-1 | Native American* | Unidentified | Unidentified | Unidentified |
| 1Ja938 | Undetermined | Rock Shelter 51-2 | Native American* | Unidentified | Unidentified | Unidentified |

***site was originally recorded as aboriginal; DOA evaluations failed to yield artifacts***

***Table 2. Results of BLM records search for historic landowners in Section 24/ Township 3S/Range 9E.***

| Property Owner | Section/Township/Range | Section Area | Sign Date | Acres |
|---|---|---|---|---|
| ASHE, CINCIE B. | 24/3S/9E | NWSW | 1888/10/29 | 159.7 |
| | 24/3S/9E | W½NW | 1888/10/29 | 0 |
| | 24/3S/9E | NWNE | 1888/10/29 | 0 |
| | 24/3S/9E | E½SE | 1888/10/29 | 159.7 |
| | 24/3S/9E | E½NE | 1888/10/29 | 0 |
| STEEL, ISAAC | 24/3S/9E | NENW | 1848/04/10 | 39.92 |
| STEEL, LEVI | 24/3S/9E | SENW | 1890/05/21 | 159.7 |
| | 24/3S/9E | NESW | 1890/05/21 | 0 |
| | 24/3S/9E | NWSE | 1890/05/21 | 0 |
| | 24/3S/9E | SWNE | 1890/05/21 | 0 |
| WELDEN, ALEXANDER K. | 24/3S/9E | S½SW | 1892/06/30 | 0 |
| | 24/3S/9E | SWSE | 1892/06/30 | 119.77 |

Crossville and other Hartsells soils, chiefly on the north end of Sand Mountain. The parent material is weathered sandstone. This Hartsells phase is relatively shallow before bedrock is encountered. A typical soil profile is a 7 inch layer of brownish-gray fine sandy loam. The B horizon delves from 7 to 24 inches (18 to 61 cm) and is a light brown to brownish-yellow fine sandy clay. Bedrock is encountered at 24 inches (Swenson *et al.* 1954:101).

Hartsells fine sandy loam, rolling shallow phase (5 to 10% slopes) (Hfg) also was encountered in the project area. This phase occurs on narrow ridgetops and moderately strong slopes on sandstone plateaus. Its parent material is weathered sandstone. The soil profile is similar to Hfm, but is somewhat shallower with bedrock being encountered between 18 and 26 inches (46 and 66 cm) below the surface.

Crossville loam, undulating phase (Co) has a 2 to 5 percent slope and occupies gently sloping uplands and upland depressions. Surface drainage for this soil is generally good, but internal drainage

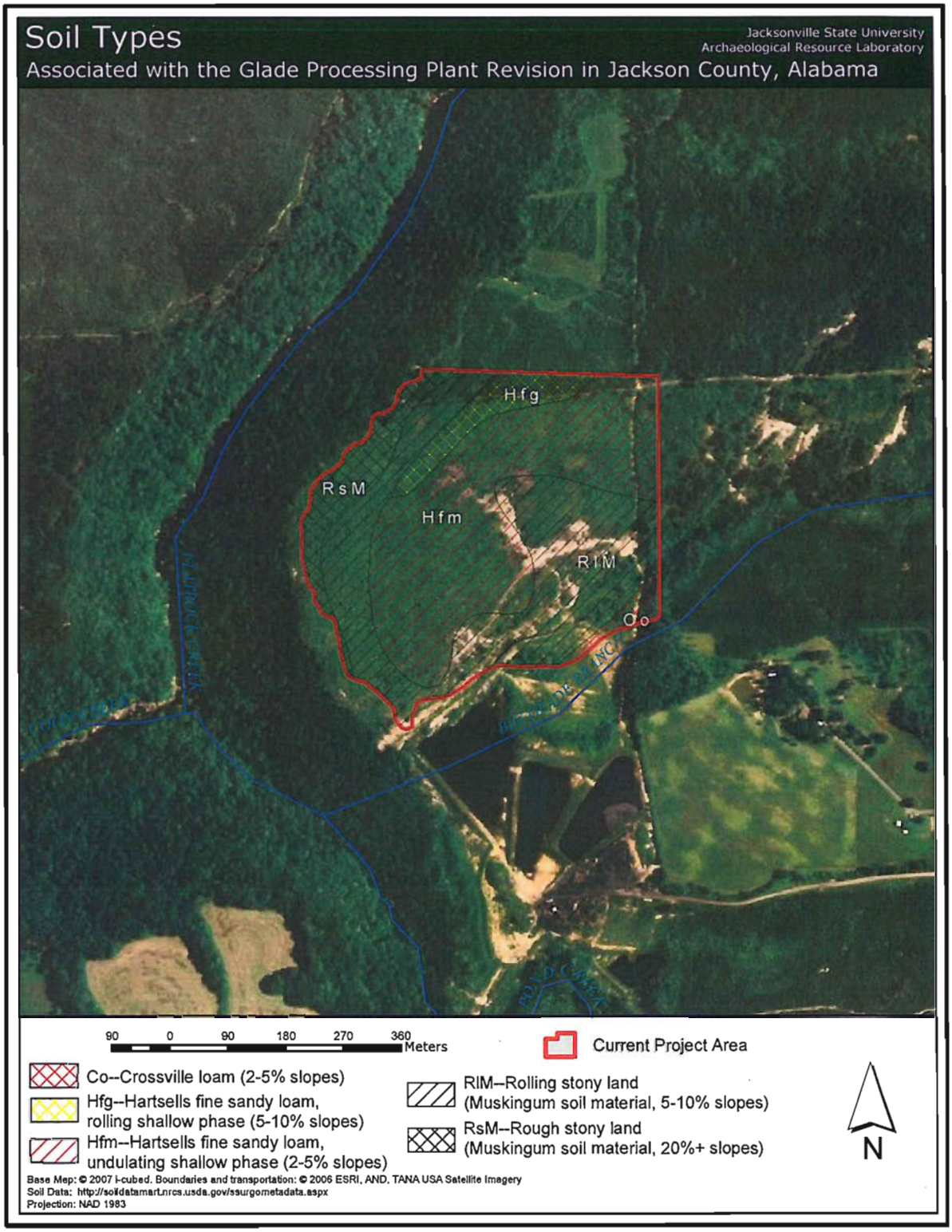


***Figure 4.*** *Soil types associated with the current project area.*

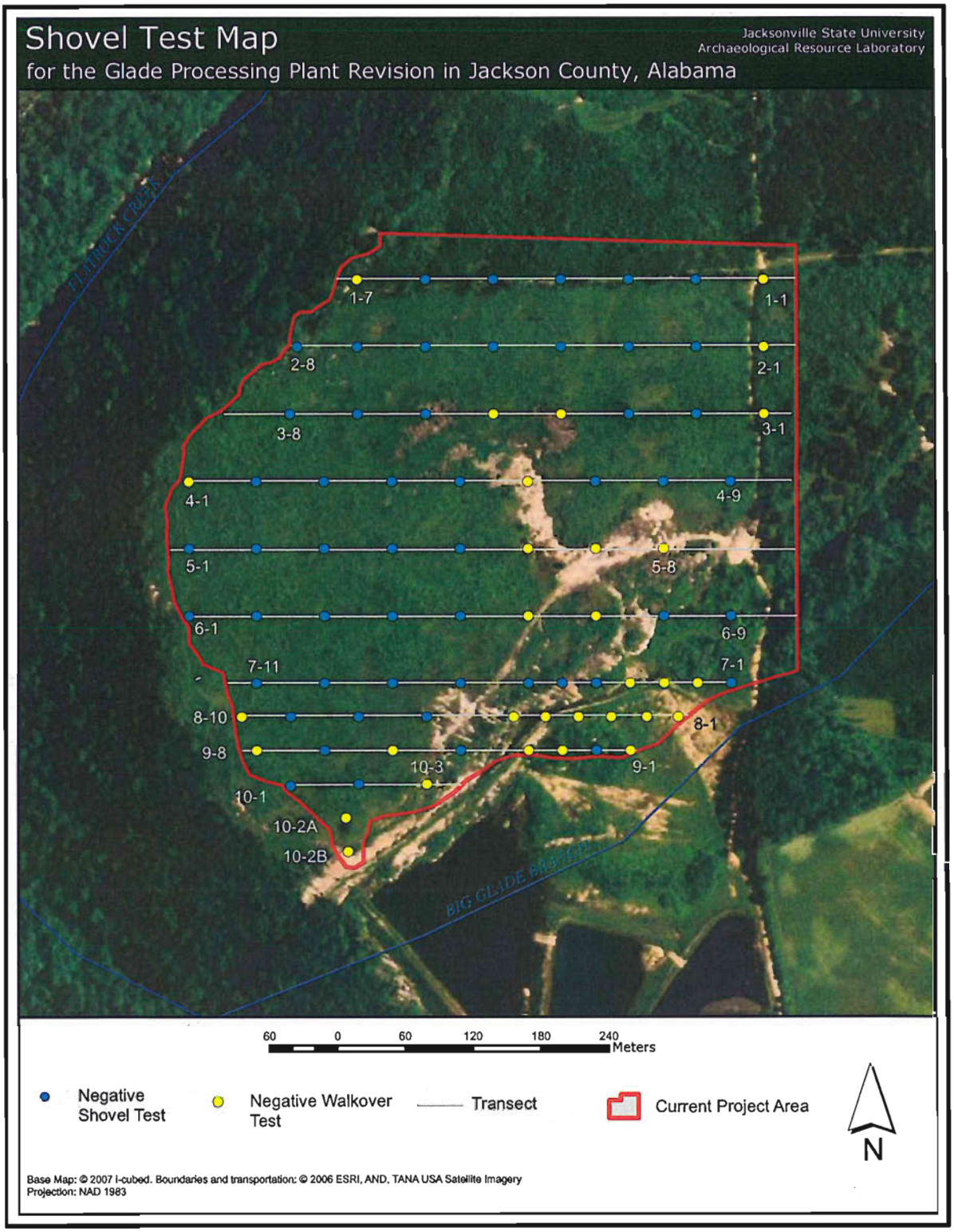


***Figure 5.*** *Map of test locations within the current project area.*

### *General Visual Inspection*

General visual inspections were used to supplement other survey methods. These include walking areas of slope to investigate for rock shelters, terraces, or other landforms that would have been suitable locations for past cultural activities. In addition, areas with exposed surface soils (roads/ erosional areas) also were visually inspected for artifacts.

## FINDINGS

The current cultural resource survey was conducted in accordance with the guidelines published by the Alabama Historical Commission (AHC). Shovel testing and pedestrian reconnaissance were the methods employed to complete the evaluation of the project area (*Appendix A*). The project area has suffered from disturbance resulting from past grading activities, timber harvesting activities, and erosion in both manmade and natural drainages (see Figures 6). Fifty-two shovel tests were excavated at various locations within the survey areas, while the remaining 31 tests consisted of walkover inspections (see Figure 5). None of these tests produced evidence of cultural resources.

## LABORATORY METHODS AND CURATION

All materials were transported to JSU-ARL facilities. No artifacts were recovered during the current survey; therefore, curation material are limited to field paperwork and photographs. Standard procedures were used:

1) All collections (documentation) have been packed in acid-free archival quality boxes, 15"-x-12"-x-10", with each box properly labeled front and back. No box exceeds a weight of thirty (30) pounds.

2) Originals and one (1) photocopy of all field and laboratory notes, drawings, and photographs accompany the collection. All of these items have been packaged separately from the artifacts. All photographs, negatives, and other photographic materials have been placed in archival quality sleeves. Any digital photographs are provided on electronic media, and include high-resolution printed contact sheets, along with a photograph log. All field and laboratory documentation is on acid-free paper, and if necessary placed in acid-free folders. No metal paper clips or staples have been used and any electronically stored data is accompanied by hard copies. All electronically stored data has been labeled clearly as to what types of software, operating system, disk density, and computer type are necessary for accessing contents.

3) All of the project materials will be stored at JSU-ARL facilities.

## SUMMARY AND RECOMMENDATIONS

On July 7, 2008 the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL) conducted a Phase I cultural resource survey of approximately 58 acres in Jackson County, Alabama. The survey was performed under an agreement with PERC to aid in ADEM regulatory compliance prior to the implementation of the Glade Processing Plant. Fifty-two shovel tests and 31 walkover inspections were implemented to determine whether cultural resources exist within the survey area. No evidence of cultural resources was encountered; therefore, we recommend that the project area be cleared from a cultural resources standpoint.

# APPENDIX A
# SHOVEL-TEST ROSTER

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR01 ST01* | not excavated | | Disturbance; road bed |
| *TR01 ST02* | negative | Stratum I: 0-10 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 10-20 cmbs; 2.5YR 5/4; sandy clay | |
| *TR01 ST03* | negative | Stratum I: 0-5 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 5-15 cmbs; 2.5YR 5/4; sandy clay | |
| *TR01 ST04* | negative | Stratum I: 0-10 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 10-20 cmbs; 2.5YR 5/4; sandy clay | |
| *TR01 ST05* | negative | Stratum I: 0-5 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 5-15 cmbs; 2.5YR 5/4; sandy clay | |
| *TR01 ST06* | negative | Stratum I: 0-10 cmbs; 2.5YR 5/4; sandy clay | Subsoil at surface |
| *TR01 ST07* | not excavated | | Entire area is exposed bedrock or bedrock with 1-3 cm of decaying leaves covering it |
| *TR02 ST01* | not excavated | | Road |
| *TR02 ST02* | negative | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR02 ST03* | negative | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR02 ST04* | negative | Stratum I: 0-10 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 10-20 cmbs; 7.5YR 6/4; clay | |
| *TR02 ST05* | negative | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR02 ST06* | negative | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR04 ST05* | negative | | Subsoil at surface |
| | | Stratum I: 0-10 cmbs; 10YR 5/8; clay | |
| *TR04 ST06* | not excavated | | Exposed bedrock |
| *TR04 ST07* | negative | | |
| | | Stratum I: 0-10 cmbs; 10YR 4/2; clay loam | |
| | | Stratum II: 10-20 cmbs; 7.5YR 4/4; clay | |
| *TR04 ST08* | negative | | |
| | | Stratum I: 0-5 cmbs; 10YR 4/2; clay loam | mottled with 2.5Y 6/6 |
| | | Stratum II: 5-20 cmbs; 2.5Y 6/6; clay | |
| *TR04 ST09* | negative | | Subsoil at surface |
| | | Stratum I: 0-10 cmbs; 2.5Y 6/6; clay | |
| *TR05 ST01* | negative | | Subsoil at surface |
| | | Stratum I: 0-10 cmbs; 7.5YR 6/4; clay | |
| *TR05 ST02* | negative | | |
| | | Stratum I: 0-10 cmbs; 7.5YR 4/3; sandy loam | |
| | | Stratum II: 10-20 cmbs; 7.5YR 6/4; clay | |
| *TR05 ST03* | negative | | Subsoil at surface |
| | | Stratum I: 0-10 cmbs; 7.5YR 6/4; clay | |
| *TR05 ST04* | negative | | |
| | | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam | |
| | | Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR05 ST05* | negative | | |
| | | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam | |
| | | Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR05 ST06* | not excavated | | Exposed bedrock |
| *TR05 ST07* | not excavated | | Thin layer of soil over bedrock |
| *TR05 ST08* | not excavated | | Disturbance; road; drainage |
| *TR06 ST01* | negative | | |
| | | Stratum I: 0-5 cmbs; 2.5YR 4/2; sandy loam | |
| | | Stratum II: 5-15 cmbs; 2.5YR 5/4; sandy clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR07 ST08* | negative | Stratum I: 0-10 cmbs; 2.5YR 5/4; sandy clay | Subsoil at surface |
| *TR07 ST09* | negative | Stratum I: 0-10 cmbs; 2.5YR 5/4; sandy clay | Subsoil at surface |
| *TR07 ST10* | negative | Stratum I: 0-5 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 5-15 cmbs; 2.5YR 5/4; sandy clay | |
| *TR07 ST11* | negative | Stratum I: 0-10 cmbs; 2.5YR 4/2; sandy loam<br>Stratum II: 10-20 cmbs; 2.5YR 5/4; sandy clay | |
| *TR08 ST01* | not excavated | | Borrow pit |
| *TR08 ST02* | not excavated | | Exposed bedrock |
| *TR08 ST03* | not excavated | | Exposed bedrock |
| *TR08 ST04* | not excavated | | Exposed bedrock |
| *TR08 ST05* | not excavated | | Exposed bedrock |
| *TR08 ST06* | not excavated | | Exposed bedrock |
| *TR08 ST07* | negative | Stratum I: 0-10 cmbs; 7.5YR 6/4; clay | Subsoil at surface |
| *TR08 ST08* | negative | Stratum I: 0-10 cmbs; 7.5YR 6/4; clay | Subsoil at surface |
| *TR08 ST09* | negative | Stratum I: 0-5 cmbs; 7.5YR 4/3; sandy loam<br>Stratum II: 5-15 cmbs; 7.5YR 6/4; clay | |
| *TR08 ST10* | not excavated | | Road |
| *TR10 ST01* | negative | Stratum I: 0-5 cmbs; 10YR 4/2; clay loam | Encountered bedrock at 5 cmbs |
| *TR10 ST02* | negative | Stratum I: 0-15 cmbs; 10YR 2/1; clay | Subsoil at surface |

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

COLONEL (RET.) JOHN A. NEUBAUER
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

November 14, 2007

Mr. Randall C. Johnson
Surface Mining Commission
P. O. Box 2390
Jasper, AL 35502-2390

Re: AHC 02-0446
P-3829
Glade Preparation Plant
Jackson County, AL

Dear Mr. Johnson:

Upon review of the above referenced project, the Alabama Historical Commission has determined that we previously concurred. We continue to concur with project activities. However, should the scope of work change, further consultation with our office will be necessary.

Should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicated disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. **This stipulation shall be placed on the construction plans to insure contractors are aware of it.**

We appreciate your commitment to helping us preserve Alabama's non-renewable resources. Should you have any questions, the point of contact for this matter is Amanda Hill at 334-230-2692. Please have the AHC tracking number referenced above available and include it with any correspondence.

Sincerely,

Elizabeth Ann Brown

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

# A PHASE I CULTURAL RESOURCE SURVEY OF THE PERC ENGINEERING/GLADE PROCESSING PREPARATION PLANT LOCATED IN JACKSON COUNTY, ALABAMA

by

Marcus S. Ridley

Jacksonville State University
Archaeological Resource Laboratory

Principal Investigator
Marcus S. Ridley

Submitted to PERC Engineering Co., Inc.
October 2007

## ABSTRACT

On October 22, 2007 the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL) conducted a Phase I cultural resource survey for the PERC Engineering Co., Inc., of Jasper, Alabama. The survey area, approximately 23 acres, is located near Flat Rock, in Jackson County, Alabama. The survey area was overlaid with a 30-meter grid and 87 shovel-test investigations were conducted. Neither the excavated shovel tests nor the surface observations were positive for any prehistoric or historic cultural materials. Although there are buildings within the vicinity of the survey, none meet any of the eligibility criteria for inclusion into the National Register of Historic Places (NRHP). Therefore, it is the recommendation of the staff of the JSU-ARL that PERC Engineering Co., Inc. be allowed to proceed with its ground-disturbing activities.

## CONTENTS



## LIST OF FIGURES

# A PHASE I CULTURAL RESOURCE SURVEY OF THE PERC ENGINEERING/GLADE PROCESSING PREPARATION PLANT LOCATED IN JACKSON COUNTY, ALABAMA

## INTRODUCTION

On October 22, 2007 a Phase I archaeological field investigation was conducted by the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL), under contract with PERC Engineering Co., Inc., of Jasper, Alabama. The purpose of the survey was to locate and record cultural resources that would be threatened within the Glade Processing Area/Plant so that the client can meet the necessary criteria for an Alabama Department of Environmental Management (ADEM) permit.

Sean Williamon and Dallas Ray conducted the fieldwork under the direction of Principal Investigator, Marcus S. Ridley. The project area, consisting of approximately 23 acres, is located in Section 30, Township 3 South, Range 9 East, on the USGS Ider and Flat Rock, Alabama 7.5 Minute Series Topographic Quadrangles in Jackson County, Alabama (Figure 1).

## BACKGROUND RESEARCH

A background search was conducted of the National Register of Historic Places (NRHP), Alabama's Historic African American Places (AHAAP) (http://www.preserveala.org/pdf/afaplace.pdf), and the Alabama State Site Files (ASSF) to determine if previously recorded cultural resources were within one mile of the project area. The Bureau of Land Management (BLM) General Land Office (GLO) Land Patent CD was used to document the original landowners of structures within the right-of-way over 50 years old.

The NRHP contained nine listings of structures or buildings in Jackson County, but none of these were within one mile of the project area. The AHAAP did not contain any listings of structures in Jackson County. Although several sites are listed by the ASSF within the vicinity of the project area, no sites are within one mile of the project area . The BLM-GLO Land Patent CD listed no landowners in association with the survey area.

## ENVIRONMENTAL SETTING

The survey area is located within the Sand Mountain district of the Cumberland Plateau physiographic region (Figure 3). Sapp and Emplaincourt (1975) describe this region as a submaturely dissected sandstone and shale synclinal plateau of moderate relief. The current terrain of the project area is relatively flat. Elevations within the project area varied from 1345 feet to 1375 feet above mean sea level.

The project area was denuded of timber within the last few years, so vegetation is sparse and soils are somewhat eroded (Figure 4). There

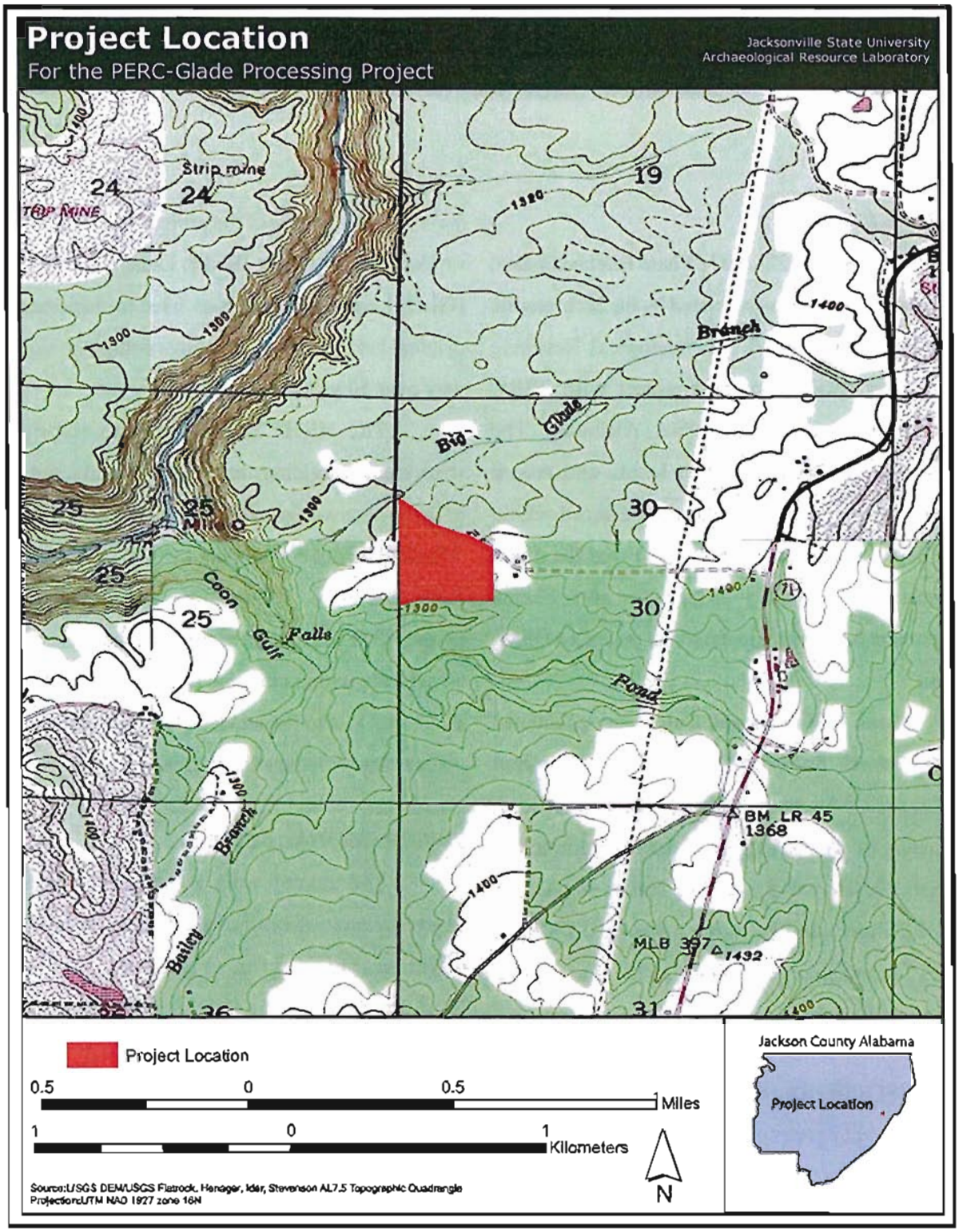


***Figure 1.*** *Project location map. Base map USGS Flat Rock, Alabama 7.5 Minute Series Topographic Quandrangle.*

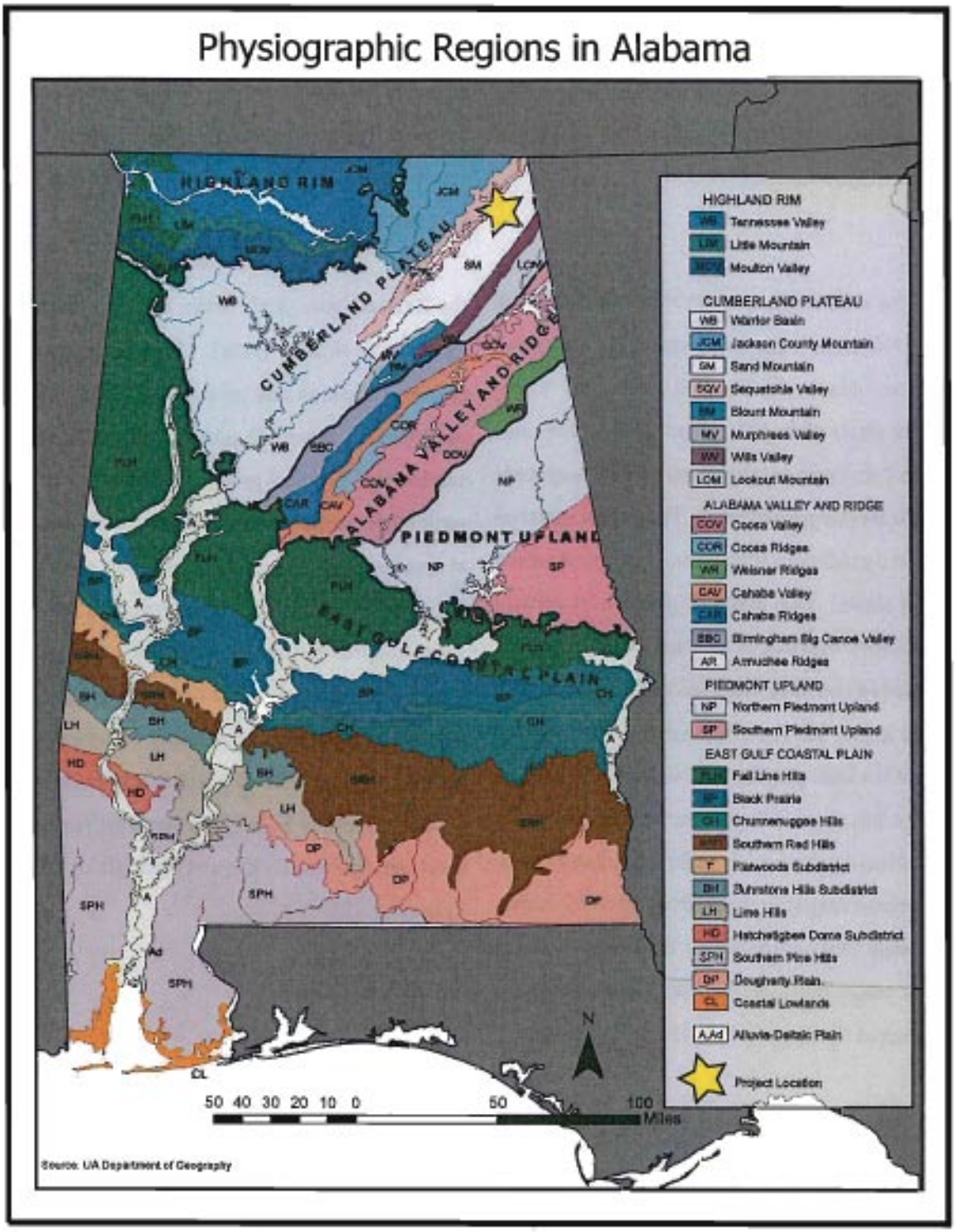


***Figure 2.*** *Physiographic Regions in Alabama.*

is a first order stream, Big Glade Branch, running along the northwestern boundary of the project area that flows into Coon Gulf Falls to the southwest of the project area, which then empties into Flat Rock Creek (see Figure 1).

## SOILS

The soils for the project area, consist of five different soil complexes (see Figure 3). The most predominant one is the Hartsell fine sandy loam, undulating phase (2 to 5 % slopes) (Hfu). This soil type has a 2 to 5 percent slope and occupies uplands in the high sandstone plateaus. The parent material is weathered sandstone or conglomerate interspersed with acid shale. This Hartsell phase is relatively shallow before bedrock is encountered. A typical soil profile is a two-inch O horizon of brownish-gray fine sandy loam. The Ap horizon extends from 2 to 9 inches and is a light grayish-yellow friable fine sandy loam. The B horizon delves from 9 to 30 inches and is a light brown to brownish-yellow fine sandy clay. The C horizon ranges in depth from 30 to 45 inches and is a pale yellow fine sandy clay loam mottled with gray and reddish-brown clay. The R horizon is encountered at depths below 45 inches (Swenson 1954:97).

The second soil type, Hartsell fine sandy loam, rolling phase (5 to 10% slopes) (Hfo), occurs on Sand Mountain and the Cumberland Plateau. The soil profile is similar to the Hfu phase (Swenson. 1954:73-74).

The third soil type is the Muskingum stony fine sandy loam, hilly phase (10 to 20% slopes) (Msl). This soil phase is encountered on sandstone plateaus and above rock escarpments, as well as along intermittent drainageways jutting into plateaus. It originates from weathered sandstone intermixed with weathered shale. This soil type is shallow to bedrock (Swenson 1954:125).

The fourth most encountered soil type is the Hartsells fine sandy loam, rolling shallow phase (5 to 10% slopes) (Hfg). This phase occurs on narrow ridgetops and moderately strong slopes on sandstone plateaus. Its parent material is weathered sandstone. The soil profile is similar to Hfu but is somewhat shallower with bedrock being encountered at approximately 30 inches below the surface.

The least predominant soil type is Crossville loam, undulating phase (Co). This soil type has a 2 to 5 percent slope and occupies gently sloping uplands and upland depressions. Surface drainage for this soil is generally good, but internal drainage is poor. Depth to bedrock is variable, ranging from less than eight inches to more than 30 (20 to 76+ cm) (Swenson 1954:54-55).

## FIELD METHODS

The physical survey consisted of the excavation of shovel tests on a 30-meter grid, using transect lines, as well as surface inspection along drainages and other areas where surface visibility existed. No shovel tests were excavated in areas of standing water, drainages, exposed subsoil, and surface mining. In areas unsuitable to dig, an extensive visual inspection was performed and was designated as a walkover test. Any exclusion

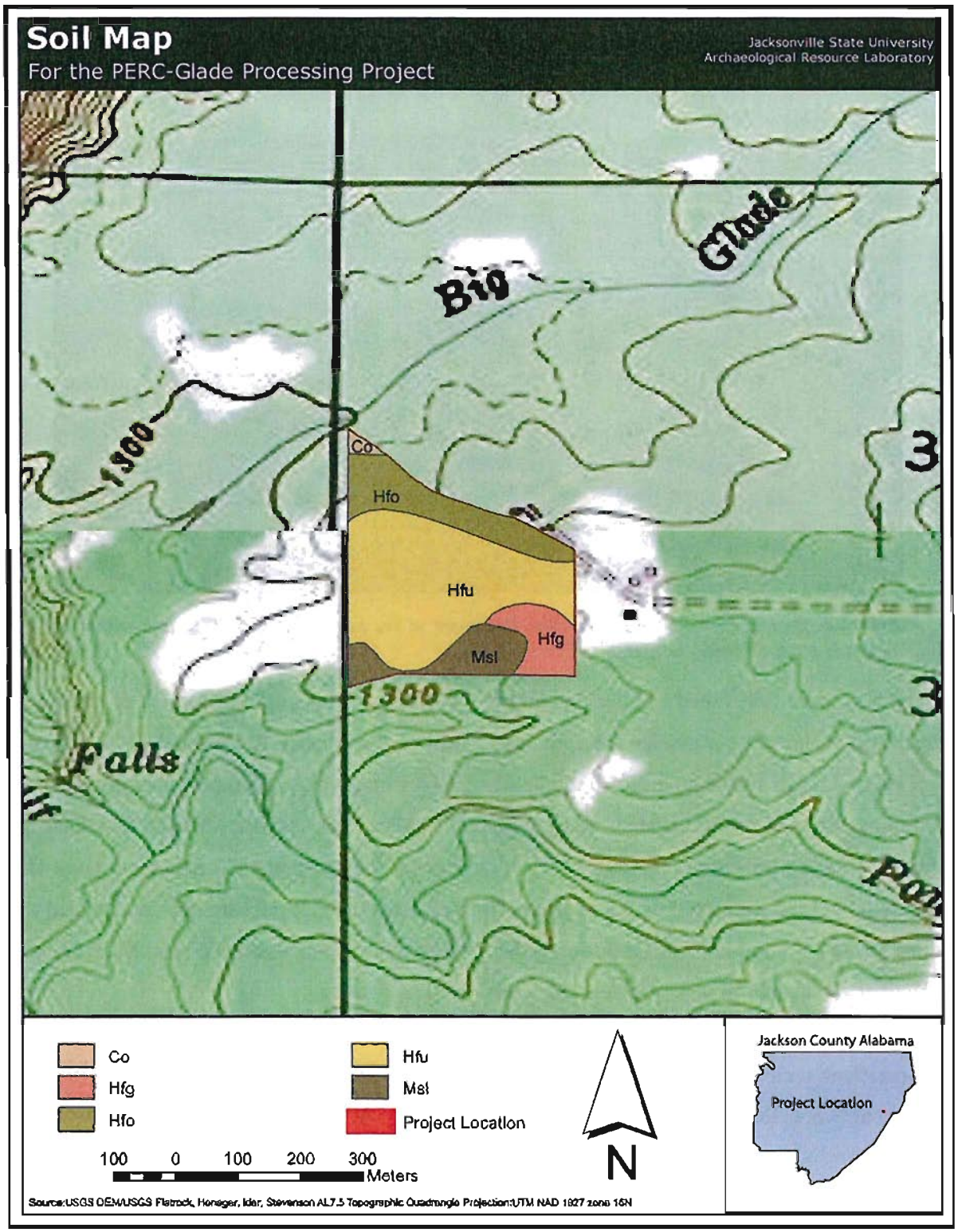


***Figure 3.*** *Soil map for the PERC-Glade Processing Plant. Map constructed from 1946 [photorevised 1974] Ider and Flat Rock, Alabama USGS 7.5 Minute Series Topographic Quadrangles.*

***Figure 4.*** *Project area. Note mechanical equipment at the periphery of project area within a currently stripped area, view west.*

of shovel tests were fully noted and justified in the survey record. A shovel-test roster has been provided in *Appendix A*. This roster includes stratigraphic descriptions for each test excavated, along with justifications for any tests not excavated.

A shovel test consisted of the excavation of a hole 30 cm (11.8 in.) in diameter that extended to a depth at which subsoil or sterile deposits were encountered. All sediments removed from shovel-test excavations were screened through 6.35-mm (0.25-in.) hardware cloth mesh to ensure consistent artifact recovery. Soil profiles were recorded in terms of soil color and texture by recognizable strata.

Prior to beginning excavations in the survey area, visual assessments of the proposed right-of-way were conducted by the field supervisor, Sean Williamon. This initial inspection revealed a great deal of disturbance in the western portion of the project area, which is depicted as a strip mine on the USGS Flat Rock and Ider, Alabama 7.5 Minute Series Topographic Quadrangle (see Figures 1 and 4). The remainder of the project area has been logged within the last few years, thus surface soils are deflated as well as disturbed.

## ARCHAEOLOGICAL SURVEY RESULTS

The physical survey consisted of 9 transects and visual walkover of the project area (Figure 5). A total of 87 shovel-test investigations were conducted along with the visual inspection of the project area for above-ground features such as stone piles or foundations. Of the tests conducted, 77 were

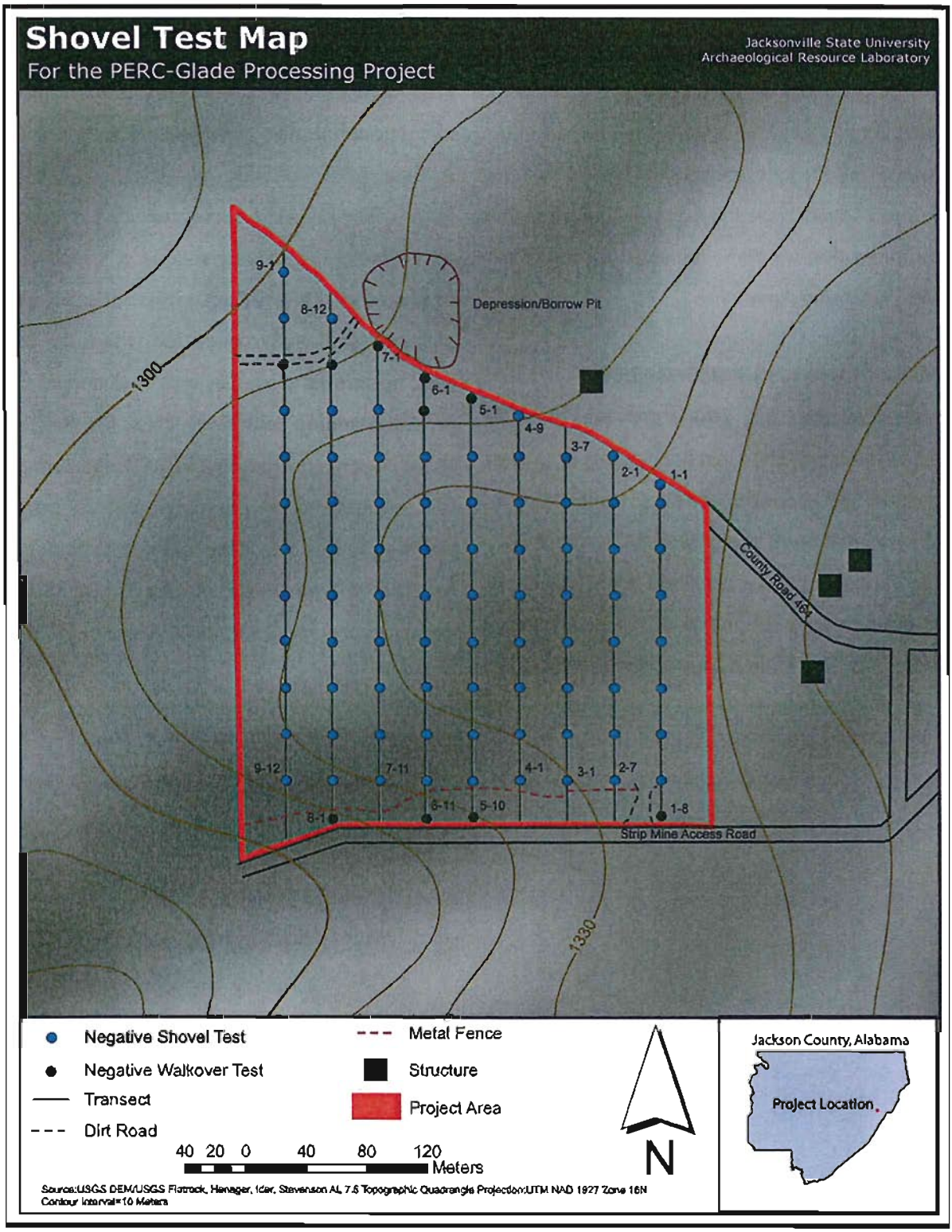


***Figure 5.*** *Shovel-test map for the PERC-Glade Processing Plant. Map constructed from 1946 [photorevised 1974] Ider and Flat Rock, Alabama USGS 7.5 Minute Series Topographic Quadrangles.*

excavated and classified as negative shovel tests (Figure 6), while 10 were visual inspections only and were classified as walkover tests. None of the investigations yielded evidence of cultural activities. A limited viewshed inspection of the area surrounding the project boundaries revealed no historic structures or buildings that would be impacted by the PERC-Glade Processing Area.

## SUMMARY AND RECOMMENDATIONS

On October 22, 2007, the Jacksonville State University (JSU) Archaeological Resource Laboratory (ARL) conducted a Phase I archaeological field investigation of the proposed 23 acre PERC-Glade Processing Area near Flat Rock, Alabama. The investigation included an archaeological, historic background, and limited historic viewshed assessment of the project area. The survey work, which was conducted under contract with PERC Engineering Co., Inc., was performed in advance of proposed mining operations so as to aid in the securement of an ADEM permit.

The JSU-ARL survey included investigation of 87 shovel-test locations, none of which yielded evidence of cultural activities. Based on the archaeological study conducted within the project area, no cultural resources will be disturbed by the proposed mining activities. Thus, the staff of the JSU-ARL recommends that PERC Engineering Co., Inc., be allowed to commence with its proposed activities in this area. Paperwork and photographs related to this survey will be stored at the JSU-ARL repository facility in Anniston, Alabama.

***Figure 6.*** *Plan view of Shovel-Test Tr 6-4.*

## REFERENCES

Galbraith, J.M.
2004 Proposed Changes to Soil Taxonomy that May Affect Mine Soil Classification. Paper presented at the 2004 National Meeting of the American Society of Mining and Reclamation and The 25th West Virgina Surface Mine Drainage Task Force, April 18-24, 2004. Published by ASMR, 3134 Montevasta Rd., Lexington, Kentucky 40502.

Sapp, C. Daniel, and Jacques Emplaincourt
1975 *Physiographic Regions of Alabama.* State of Alabama Geological Survey Map 168.

Swenson, G. A.
1954 *Soil Survey of Jackson County, Alabama.* U.S. Department of Agriculture Soil Conservation Service, Washington, D.C.

# APPENDIX A
# SHOVEL-TEST ROSTER

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR01 ST01* | negative | Stratum I: 0-10 cmbs; 10YR 6/3; silty clay<br>Stratum II: 10-20 cmbs; 10YR 6/6; clay | Transect begins at west boundary |
| *TR01 ST02* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-25 cmbs; 10YR 6/6; clay | |
| *TR01 ST03* | negative | Stratum I: 0-30 cmbs; 10YR 6/3; silty clay<br>Stratum II: 30-35 cmbs; 10YR 6/6; clay | |
| *TR01 ST04* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR01 ST05* | negative | Stratum I: 0-30 cmbs; 10YR 6/3; silty clay<br>Stratum II: 30-35 cmbs; 10YR 6/6; clay | |
| *TR01 ST06* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR01 ST07* | not excavated | | Disturbed |
| *TR01 ST08* | not excavated | | Roadside; disturbed; transect ends at south boundary road |
| *TR02 ST01* | negative | Stratum I: 0-10 cmbs; 2.5YR 4/2; loam<br>Stratum II: 10-20 cmbs; 10YR 7/2; clay | Transect begins at north boundary |
| *TR02 ST02* | negative | Stratum I: 0-20 cmbs; 10YR 7/2; clay | Subsoil at surface |
| *TR02 ST03* | negative | Stratum I: 0-25 cmbs; 2.5YR 4/2; loam<br>Stratum II: 25-30 cmbs; 2.5YR 6/8; clay | |
| *TR02 ST04* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR02 ST05* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |
| *TR02 ST06* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |
| *TR02 ST07* | negative | | Transect ends at south boundary fence |
| | | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST01* | negative | | Transect begins at south boundary fence |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST02* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST03* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST04* | negative | | Subsoil st surface |
| | | Stratum I: 0-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST05* | negative | | |
| | | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST06* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-25 cmbs; 2.5YR 6/8; clay | |
| *TR03 ST07* | negative | | Transect ends; subsoil at surface |
| | | Stratum I: 0-10 cmbs; 7.5YR 6/4; clay | |
| *TR04 ST01* | negative | | Transect begins at south boundary fence; approximately 30 m north of south boundary road |
| | | Stratum I: 0-25 cmbs; 10YR 6/3; silty clay | |
| | | Stratum II: 25-30 cmbs; 10YR 6/6; clay | |
| *TR04 ST02* | negative | | |
| | | Stratum I: 0-25 cmbs; 10YR 6/3; silty clay | |
| | | Stratum II: 25-30 cmbs; 10YR 6/6; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR04 ST03* | negative | Stratum I: 0-25 cmbs; 10YR 6/3; silty clay<br>Stratum II: 25-30 cmbs; 10YR 6/6; clay | |
| *TR04 ST04* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR04 ST05* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR04 ST06* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR04 ST07* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR04 ST08* | negative | Stratum I: 0-10 cmbs; 10YR 6/3; silty clay<br>Stratum II: 10-15 cmbs; 10YR 6/6; clay | |
| *TR04 ST09* | not excavated | | Disturbed; transect ends at south boundary fence |
| *TR05 ST01* | not excavated | | Disturbed; transect begins at north boundary |
| *TR05 ST02* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR05 ST03* | negative | Stratum I: 0-30 cmbs; 10YR 6/3; silty clay<br>Stratum II: 30-35 cmbs; 10YR 6/6; clay | |
| *TR05 ST04* | negative | Stratum I: 0-25 cmbs; 10YR 6/3; silty clay<br>Stratum II: 25-30 cmbs; 10YR 6/6; clay | |
| *TR05 ST05* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-25 cmbs; 10YR 6/6; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR05 ST06* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR05 ST07* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR05 ST08* | negative | Stratum I: 0-25 cmbs; 10YR 6/3; silty clay<br>Stratum II: 25-30 cmbs; 10YR 6/6; clay | |
| *TR05 ST09* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR05 ST10* | not excavated | | Road; transect ends at north boundary road |
| *TR06 ST01* | not excavated | | Disturbed; transect begins at north boundary |
| *TR06 ST02* | negative | Stratum I: 0-15 cmbs; 2.5YR 6/8; clay | Subsoil at surface |
| *TR06 ST03* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-20 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST04* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST05* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST06* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST07* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR06 ST08* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST09* | negative | Stratum I: 0-15 cmbs; 2.5YR 4/2; loam<br>Stratum II: 15-25 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST10* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR06 ST11* | not excavated | | Disturbed; transect ends at road |
| *TR07 ST01* | not excavated | | Slope; road; disturbed; transect begins |
| *TR07 ST02* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-35 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST03* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST04* | negative | Stratum I: 0-25 cmbs; 2.5YR 4/2; loam<br>Stratum II: 25-35 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST05* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST06* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST07* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST08* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR07 ST09* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST10* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR07 ST11* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | Approximately 30 m from end of transect at south boundary road |
| *TR08 ST01* | not excavated | | Road; transect begins at south boundary road |
| *TR08 ST02* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR08 ST03* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR08 ST04* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR08 ST05* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR08 ST06* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR08 ST07* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR08 ST08* | negative | Stratum I: 0-10 cmbs; 10YR 6/6; clay | Subsoil at surface |
| *TR08 ST09* | negative | Stratum I: 0-10 cmbs; 10YR 6/3; silty clay<br>Stratum II: 10-15 cmbs; 10YR 6/6; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR08 ST10* | negative | Stratum I: 0-10 cmbs; 10YR 6/6; clay | Subsoil at surface |
| *TR08 ST11* | not excavated | | Road |
| *TR08 ST12* | negative | Stratum I: 0-20 cmbs; 10YR 6/1; clay loam<br>Stratum II: 20-30 cmbs; 10YR 5/8; clay | Transect ends at north boundary |
| *TR09 ST01* | negative | Stratum I: 0-20 cmbs; 10YR 6/1; clay loam<br>Stratum II: 20-30 cmbs; 10YR 6/8; clay | Transect begins at north boundary |
| *TR09 ST02* | negative | Stratum I: 0-15 cmbs; 10YR 6/1; clay loam<br>Stratum II: 15-20 cmbs; 10YR 6/8; clay | |
| *TR09 ST03* | not excavated | | Road |
| *TR09 ST04* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR09 ST05* | negative | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay<br>Stratum II: 15-20 cmbs; 10YR 6/6; clay | |
| *TR09 ST06* | negative | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay<br>Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR09 ST07* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR09 ST08* | negative | Stratum I: 0-35 cmbs; 2.5YR 4/2; loam<br>Stratum II: 35-40 cmbs; 2.5YR 6/8; clay | |
| *TR09 ST09* | negative | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam<br>Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |

| *Shovel Test* | *Status* | *Stratum* | *General Comments* |
|---|---|---|---|
| *TR09 ST10* | negative | | |
| | | Stratum I: 0-20 cmbs; 2.5YR 4/2; loam | |
| | | Stratum II: 20-30 cmbs; 2.5YR 6/8; clay | |
| *TR09 ST11* | negative | | |
| | | Stratum I: 0-20 cmbs; 10YR 6/3; silty clay | |
| | | Stratum II: 20-25 cmbs; 10YR 6/6; clay | |
| *TR09 ST12* | negative | | Approximately 20 m from end of transect at north boundary road |
| | | Stratum I: 0-15 cmbs; 10YR 6/3; silty clay | |
| | | Stratum II: 15-20 cmbs; 10YR 6/6; clay | |