PHASE II ARCHEOLOGICAL INVESTIGATIONS
AT
SITES 38LA588, 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, 38LA723, 38LA727

HAILE GOLD MINE

LANCASTER COUNTY, SOUTH CAROLINA

July 9, 2012

DRAFT REPORT

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DRAFT REPORT

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MANAGEMENT SUMMARY

Background

During the period of February 15 through May 18, 2012, R.S. Webb & Associates conducted Phase II archeological evaluations at 13 archeological resources with an "unassessed" National Register of Historic Places (NRHP) eligibility status: 38LA588, 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, 38LA723 and 38LA727. Three of these resources (38LA588, 38LA640, and 38LA641) have historic structures or structure remains that required archival/architectural study. All of these sites are located within Haile Gold Mine in Lancaster County, northeast of Kershaw, South Carolina and were identified during previous Phase I cultural resources surveys of future gold mining areas (Adams *et al.* 2011a and b; Webb *et al.* 2012).

The current Phase II study was conducted to comply with the South Carolina Mining Act (Sections 48-20-20 and 48-20-40, South Carolina Code of Laws), the South Carolina Code of Regulations [Chapter 89-120(c)(4)], and the U.S. Army Corps of Engineers (USACE) Clean Water Act with respect to Section 106 of the National Historic Preservation Act [(NHPA) Public Law 89-665; 80 Stat. 915; 16 U.S.C. 470]. In addition, these investigations were performed under a Phase II evaluation plan (dated February 10, 2012) reviewed and approved by the South Carolina State Historic Preservation Office (SHPO).

Project Goals and Methods

The primary goals of this project were to evaluate the significance of the 13 subject archeological resources following NRHP eligibility criteria set forth in 36 CFR 60.4, and to assess the level of integrity each resource retains based on guidance provided in National Register Bulletins and other sources. Following the approved Phase II evaluation plan, archeological deposits at 12 sites were assessed using shovel tests and test units excavated in arbitrary levels (usually 10 centimeters). At sites where historic architecture and/or historic archeological remains were the focus, archival research was conducted, site plans were prepared, house floor plans were drawn, and the structures were photographed. Data analysis included artifact cleaning and analysis, special sample processing (i.e., flotation, radiocarbon dating, faunal analysis), updating state archeological site forms, the processing of site sketch maps and photography, and preparation of artifact inventories for the report. The current report was structured to comply with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (FR 48, No. 190:44728-44737) and the *South Carolina Standards and Guidelines for Archaeological Investigations* (SHPO 2009).

Results

Prehistoric Resources: Prehistoric occupations were identified at 24 individual loci across 12 sites and span the Middle Archaic to Late Woodland periods, with the highest frequency of occupation occurring during the Middle Archaic and the Woodland periods (Table I). Most of the prehistoric occupations evaluated during the current study are quite similar to lithic extraction and reduction facilities previously recorded and well documented on the Haile Gold Mine property. These sites range from small to large lithic workshops or clusters of reduction loci, to temporary stations or camps from which resource extraction forays (e.g, lithic procurement, floral collection, hunting, etc.) were launched.

At six locations Middle Archaic occupations were sampled [38LA589, 38LA600, 38LA605 (Loci 1 and 2), 38LA641, and 38LA727]. For the most part, these occupations appear to be short-term lithic reduction/hunting/processing stations. At 38LA727 Locus 2, the presence of a hearth feature suggests a short-term task camp; a similar camp may have also been present at 38LA641 Locus 1.

There seems to be a general under-representation of Late Archaic resources at Haile Gold Mine. Only ten Late Archaic period resources have been recorded on the Haile Gold Mine property after intensive survey of 5,192 acres, and only two of the 12 sites with prehistoric occupations investigated during the current study indicate Late Archaic use (38LA589 and 38LA654).

Table I Summary of Phase II Evaluation Results and Recommendations

State Site No.	Type	Period	NRHP and Management Recommendations
38LA588	S.B. Faile house complex	Early to late 20th century	Ineligible, no further work.
38LA589	Lithic scatter	Middle and Late Archaic	Ineligible, no further work.
38LA595	Lithic and ceramic scatter	Early to Middle Woodland	Ineligible, no further work.
38LA596	Lithic scatter	Indeterminate prehistoric	Ineligible, no further work.
38LA600 Locus 1 Locus 2	 Lithic and ceramic scatter Lithic and ceramic scatter	 Middle Archaic, Woodland Middle to Late Woodland	 Ineligible, no further work; Ineligible, no further work.
38LA602 Locus 1 Locus 2	 Lithic and ceramic scatter Lithic scatter	 Early to Middle Woodland Indeterminate prehistoric	 Ineligible, no further work; Ineligible, no further work.
38LA605 Locus 1 Locus 2 Locus 3	 Lithic scatter Lithic scatter No cultural materials	 Middle Archaic Middle Archaic	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
38LA622	Lithic scatter	Woodland	Ineligible, no further work.
38LA640 Locus 1 Locus 2-1 **Locus 2-2**	 Lithic scatter; Old Clyburn/Joe Mungo house complex Lithic scatter; House site Lithic scatter; **House site**	 Woodland Late 19th to middle/late 20th century Indeterminate prehistoric Middle 20th century Indeterminate prehistoric **Late 19th to early 20th century**	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; **Eligible, data recovery.**
38LA641 Locus 1 Locus 2 Locus 3 Locus 4 Structure	 Lithic and ceramic scatter; Lithic scatter; Lithic scatter; historic isolate Lithic scatter; Ern Mungo/Clyburn house complex	 Middle Archaic, Woodland Indeterminate prehistoric Indeterminate prehistoric Middle 19th-early 20th century Indeterminate prehistoric Early to middle 20th century	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
38LA654 **Locus 1** Locus 2 Locus 3 Locus 4	 Lithic scatter; **Slave/freedman cabin site** Lithic scatter; Historic artifact scatter Lithic and ceramic scatter; Lithic scatter	 Late Woodland **Middle 19th century** Indeterminate prehistoric 19th century Late Archaic, Woodland Indeterminate prehistoric	 Ineligible, no further work; **Eligible, data recovery;** Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
38LA723	Lithic scatter	Indeterminate prehistoric	Ineligible, no further work.
38LA727 Locus 1 **Locus 2**	 Lithic scatter **Lithic scatter**	 Possibly Woodland or Protohistoric **Middle Archaic**	 No further work; **Eligible, data recovery**.

Woodland components were noted at nine prehistoric loci, six of which produced one or two sherds or a PP/K. At sites 38LA595, 38LA600, and 38LA602 a slightly higher frequency of ceramics and moderate to large relative quantities of lithic debitage suggest that task groups or perhaps even small family units may

have occupied these sites for short periods of time during the Woodland period. Woodland occupations probably reflect foraging stations and/or task camps instead of residential bases. None of the Woodland occupations tested produced the diversity of tools and/or the quantities/varieties of ceramics that might be expected for a residential base.

Historic Resources: Substantial historic archeological deposits were evaluated at 38LA640 and 38LA654. At 38LA640, archeological work at Loci 1 and 2-2 tentatively support the premise that the Old Clyburn-Joe Mungo house was probably moved to Locus 1 prior to 1939, possibly from Locus 2-2. Artifacts from the midden contexts next to the house at Locus 1 indicate a minor middle/late 19th century presence, but these materials are mixed with large quantities of middle 20th century discard. The artifacts and structural remains at Locus 2-2 suggest that this location was probably not occupied after the second decade of the 20th century.

At 38LA654 there is clear evidence of a 19th century domestic site. While not fully confirmed, it appears likely that the feature documented at Locus 1 is a 19th century cellar/sub-floor storage feature. The feature produced redware, early whiteware, kaolin pipe fragments, an ornate buckle, and other items. Datable contents suggest a temporal span of 1820 to 1900, with an average of approximately 1860. This occupation is believed to represent a slave/freedman cabin, most likely associated with Clyburn Plantation.

At sites with historic architectural remains (38LA588, 38LA640, 38LA641), it was determined that all three resources were owned by the Clyburn family and that the property containing these resources had been in the family from at least the 1880s (possibly even the 1840s) until the early 21st century. The S.B. Faile family lived at 38LA588 during the middle to late 20th century. The 19th century house at 38LA640 was originally owned by members of the Clyburn family; it was moved to its current location prior to 1939 and occupied during the early to middle 20th century by the Joe and Ellen Mungo family. The house at 38LA641 was occupied by the Ern Mungo family from the early to middle 20th century, but was owned/used by William U. Clyburn, III or his family, probably after the Mungo family left.

Recommendations

Prehistoric Archeological Resources Recommended Ineligible for the NRHP: Prehistoric occupations were recorded at 12 of the 13 resources assessed. After following the approved Phase II evaluation plan and applying NRHP eligibility Criterion (d) in 36 CFR Part 60.4, it is recommended that prehistoric archeological deposits at the following 11 sites be considered ineligible for the NRHP under Criterion (d) (Table I): 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, and 38LA723.

None of the above sites produced intact prehistoric archeological features/deposits, diverse tool kits, or any other evidence of intermediate to long-term use; each occupation appears to have been transient in nature. These sites produced very few temporal diagnostics or artifacts indicative of activities other than lithic reduction/processing or limited hunting/collecting. Sites similar to these are very common at Haile Gold Mine and are well documented through previous archeological investigations (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). These 11 prehistoric sites are unlikely to significantly advance knowledge of prehistoric lifeways in the study region and no additional archeological work is recommended.

Historic Archeological Resources Recommended Ineligible for the NRHP: The historic archeological deposits assessed at 38LA640 (Loci 1 and 2-1) and 38LA654 (Locus 2) were considered ineligible for the NRHP under Criterion (d) after following the approved Phase II evaluation plan. Midden deposits at 38LA640 Locus 1 contain limited late 19th to early 20th century artifacts, but they are significantly mixed with large quantities of modern artifacts and primarily reflect use of the site since the 1930s. No 19th or early 20th

century features were noted during Phase II excavations at Locus 1, and the various outbuildings/outbuilding remnants and bottle/can dumps at this locus appear to date to the middle 20th century. Locus 2-1 at 38LA640 dates to the 1960s or later and does not appear to have an appreciable pre-1960s historic component. No additional archeological work is recommended for Loci 1 or 2-1 at 38LA640. Information from these locations is unlikely to contribute significant knowledge of or about the 19th or early 20th century rural lifeways of African-Americans in the study region.

At Locus 2, 38LA654, 19th to early 20th century historic artifacts were recovered from the plowzone during Phase II testing. No features or midden deposits were identified during evaluation. On this basis no further archeological work is advised for Locus 2 at 38LA654.

Historic Architectural Resources Recommended Ineligible for the NRHP: Architecture/architectural remains at the Old Clyburn-Joe Mungo house, the Clyburn-Ern Mungo house, and the S.B. Faile house were documented per the Phase II evaluation plan. A chain of title/plat search was performed and interviews were conducted with residents knowledgeable about the occupants of the study area. With the completion of these tasks, and the poor condition of the standing architecture, no additional archival or architectural documentation work is recommended for the above-referenced architectural resources.

Prehistoric Archeological Resource Recommended Eligible for the NRHP: Site 38LA727 Locus 2 produced a prehistoric pit feature/hearth containing a Morrow Mountain projectile point. Charred wood from the feature returned a radiocarbon date of 4,540 BP $\pm$ 30. Per the Phase II evaluation plan, this site meets the conditions for a positive NRHP eligibility recommendation. A clearly defined, radiocarbon-dated feature was documented and there is the potential that the feature will provide a clear point of spatial and functional reference for other Middle Archaic materials in nearby associated deposits. Locus 2 at 38LA727 appears to retain important information about late Middle Archaic lifeways and is considered eligible for the NRHP under Criterion (d). Since preservation does not appear to be an option for 38LA727, data recovery is advised for Locus 2. No additional work is advised for Locus 1 at this site.

Historic Archeological Resources Recommended Eligible for the NRHP: At Locus 2-2 on 38LA640, test excavations exposed structural post features in association with the chimney remnants and hearth of a small 19th to early 20th century domestic structure. Testing also sampled what appears to be an occupational surface/midden below a layer of brick rubble. The findings at Locus 2-2 meet the conditions for a positive NRHP eligibility recommendation per the Phase II evaluation plan. The post features and midden demonstrate that Locus 2-2 has the potential to produce additional archeological features and deposits retaining important data on 19th to early 20th century rural lifeways. On this basis, 38LA640 Locus 2-2 is considered eligible for the NRHP; since preservation is not a feasible option, data recovery is recommended.

Phase II excavations at 38LA654 Locus 1 revealed a well-defined 19th century cellar hole/storage feature that probably represents the remains of a slave/freedman cabin. This feature should allow documentation of the organization of space within and around the cabin. Locus 1 meets the conditions for a positive NRHP eligibility recommendation per the Phase II evaluation plan. The cellar hole demonstrates that Locus 1 has the potential to produce additional archeological features and deposits retaining important data on the lifeways of 19th century African-American slave/freedmen. Site 38LA654 Locus 1 is recommended eligible for the NRHP. Preservation does not appear to be feasible for Locus 1, so data recovery excavations are recommended.

1.0 INTRODUCTION

1.1 Project Background

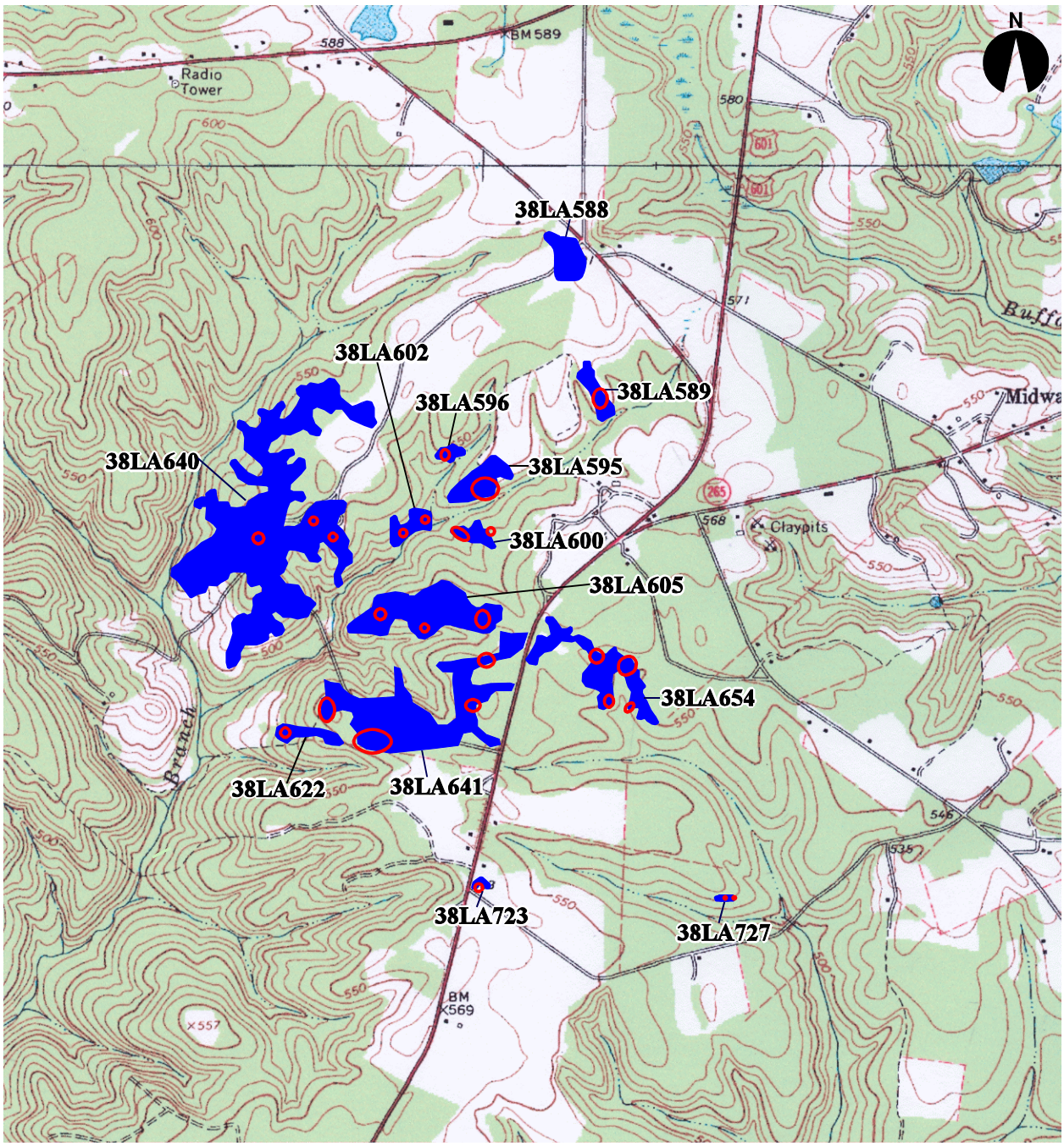
During the period of February 15 through May 18, 2012, R.S. Webb & Associates (RSWA) conducted Phase II archeological evaluations at 13 archeological resources with an "unassessed" National Register of Historic Places (NRHP) eligibility status (38LA588, 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, 38LA723, and 38LA727). Three of these resources (38LA588, 38LA640, and 38LA641) have historic structures or structure remains that required study. All of these sites are located within the Haile Gold Mine Land Holdings in Lancaster County, approximately 5.7 kilometers (km) northeast of Kershaw, South Carolina (Figure 1.1) and were identified during previous Phase I cultural resources surveys of proposed gold mining areas (Adams *et al.* 2011a; Adams *et al.* 2011b; Webb *et al.* 2012).

1.2 Regulatory Basis

The current Phase II study was conducted to comply with the South Carolina Mining Act (Sections 48-20-20 and 48-20-40, South Carolina Code of Laws), the South Carolina Code of Regulations [Chapter 89-120(c)(4)], and the U.S. Army Corps of Engineers (USACE) Clean Water Act with respect to Section 106 of the National Historic Preservation Act [(NHPA) Public Law 89-665; 80 Stat. 915; 16 U.S.C. 470]. In addition, these investigations were performed under a Phase II evaluation plan (dated February 10, 2012) reviewed and approved by the South Carolina State Historic Preservation Office (SHPO).

The South Carolina Mining Act (Section 48-20-20) mandates that no mining may be carried out in South Carolina unless "plans for the mining include reasonable provisions for the protection of the surrounding environment and for the reclamation of the area of land affected by the mining." Applicants must present reclamation plans to the South Carolina Department of Health and Environmental Control's (DHEC) Division of Mining and Solid Waste Management (DMSWM) for approval. The Mining Act (Section 48-20-40) further mandates that reclamation plans must include "proposed methods to limit significant adverse effects on significant cultural or historic sites." The South Carolina SHPO consults with the DMSWM concerning the effects projects requiring mining permits may have on properties listed or eligible for listing on the National Register of Historic Places (NRHP).

The South Carolina Code of Regulations Chapter 89-120(c)(4) authorizes the DHEC to require investigations of cultural and/or historic resources on a proposed mine site. Information gathered during the investigations may be used to "determine provisions which meet the requirements for the protection, relocation, or excavation of significant cultural or historic sites as mining progresses."



Areas Subject to Phase II Evaluation

Map Reference: 7.5 Minute USGS Quadrangles
Kershaw, South Carolina (1969)

Scale
0 610 meters
0 2000 feet

Figure 1.1 Locations of Sites Evaluated During the Current Study

At the federal level, the current Phase II study complies with the USACE Clean Water Act with respect to Section 106 of the NHPA. Under Section 106, the Phase II study was designed to complete the assessment of the cultural resources in order to clearly determine NRHP eligibility. Criteria set in 36 CFR Part 60.4 were used to evaluate the significance of each resource.

Finally, the current study was performed under a Phase II Scope of Work (dated February 10, 2012) prepared for Haile Gold Mine by RSWA in consultation with and the approval of the South Carolina SHPO. The approved Scope of Work is provided in Appendix A. Various elements of the scope have also been incorporated into the Research Design (Section 4.0) and Methodology (Section 5.0) chapters of this report.

1.3 Project Description and Site Locations/Study Areas

Upon obtaining the requisite permits, Haile Gold Mine proposes to excavate, mine, and/or significantly modify portions of the "high priority mining area" outlined in red on Figure 1.2. The 13 archeological resources evaluated during the current Phase II study are located in the northern part of this high priority mining area.

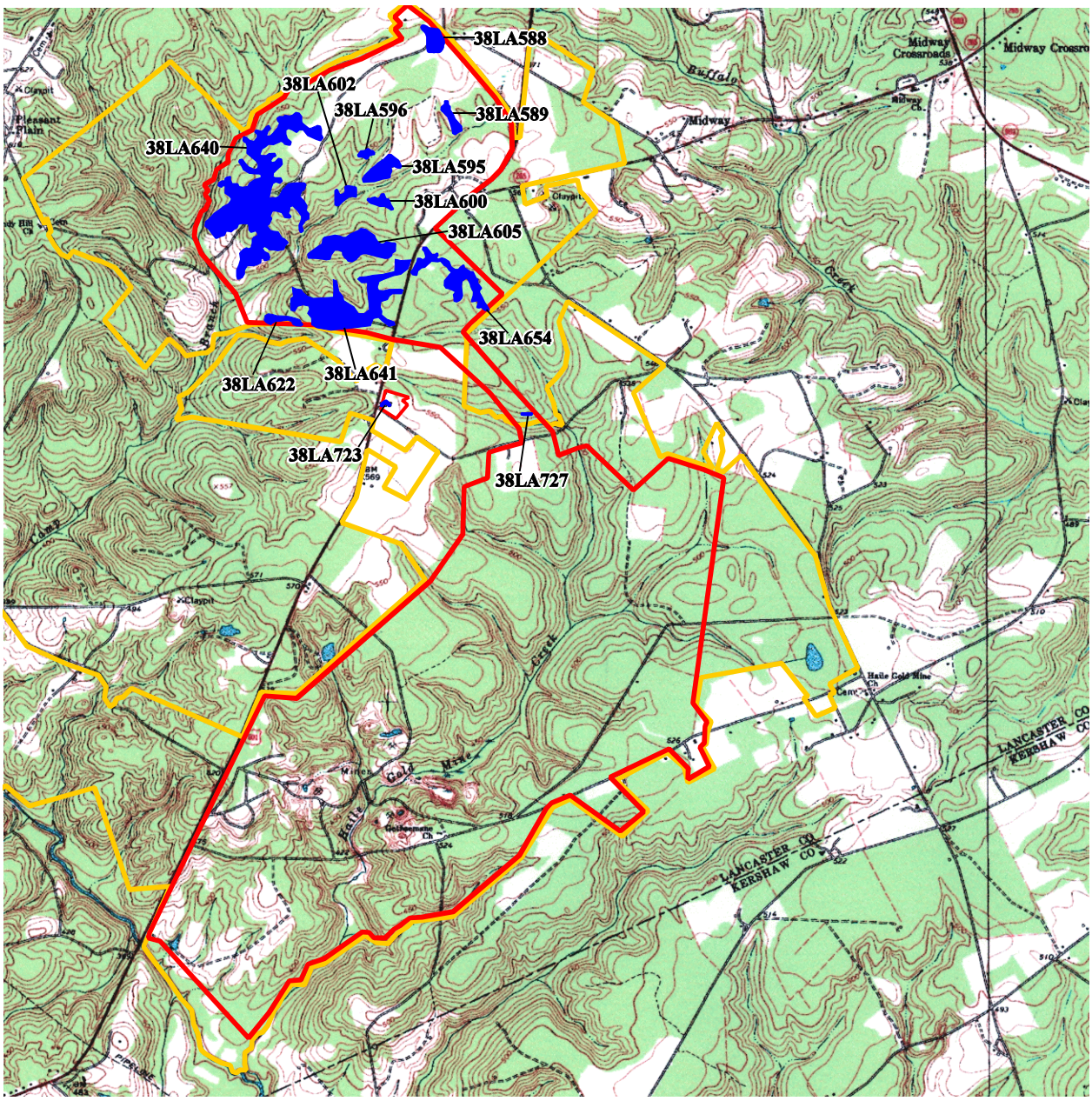
Based on Phase I survey results and consultation with the SHPO, it was determined that Phase II evaluations would focus on specific areas within seven archeological sites (38LA589, 38LA595, 38LA605, 38LA622, 38LA640, 38LA641, and 38LA654), rather than including portions of these sites that appear to already be severely disturbed, marginal, and/or unlikely to retain important archeological deposits. The extent of the areas evaluated at these seven sites are shown on the appropriate site-specific plans.

At 38LA596, 38LA600, 38LA602, 38LA723, and 38LA727, the archeological site boundaries provided in the Phase I survey reports were the basis for determining where Phase II shovel tests and test units would be placed.

The Phase II evaluation at 38LA588 was limited to recordation of house ruins and archival research. No archeological excavation was conducted at this site.

1.4 Scope-of-Services and Project Personnel

As noted, a Scope-of-Work specifically designed for the current Phase II project was prepared and submitted to the SHPO for review (draft and final) and approval (Appendix A). The approved scope-of-work was distributed to the project field directors for implementation during fieldwork. The scope also guided the artifact analysis to insure that RSWA's data could be compared to data from previous investigations. Briefly, archeological deposits at 12 sites were assessed through shovel test (ST) and test unit (TU) excavations. At



Previously Recorded Archeological Site
Haile Gold Mine Property
Area of Potential Effects and High Priority Mining Area

Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 1067 meters
0 3500 feet

Figure 1.2 Area of Potential Effects/High Priority Mining Areas, Showing the Locations of the 13 Tested Archeological Sites

sites where historic architecture and/or historic archeological remains were the focus, archival research was conducted and structure plans were drawn and photographed. Data analysis included artifact cleaning and analysis, special sample processing (i.e., flotation, radiocarbon dating), updating state archeological site forms, the processing of site sketch maps and photography, and preparation of artifact inventories for the report. The report complies with the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (FR 48, No. 190:44728-44737) and the *South Carolina Standards and Guidelines for Archaeological Investigations* (SHPO 2009).

Mr. Robert S. Webb served as Principal Investigator and Ms. Beth Gantt served as Principal Architectural Historian for the project. Archival research and historic structure field documentation was conducted by Neil J. Bowen (Historian). The archeological fieldwork was performed under the direct supervision of Senior Archeologists Mr. David Port, Ms. Stacy Young, and Mr. Jonathan Bloom. They were ably assisted by Project Archeologists Messrs. Ken Pinson, Nathanael Fosaaen, Andrew Hyder, James Thomas, Jeff Lanham, Robert Schultz, Doug Tilley, Bill Berger, and Ms. Beth Akers. Artifacts were processed and analyzed by Mr. Keith McRae. The report was co-authored by Mr. Webb, Mr. Port, Mr. Bloom, and Mr. Bowen. The report was edited for substance by Ms. Gantt, while Ms. Susan Wells and Ms. Wendy Bozarth Finney edited for typography. The authors were supported (GIS, graphics) by the work of Ms. Finney, Ms. Wells and Ms. Jan Parrish-Jordan. Report production was a joint effort of the editorial/graphics team.

1.5 Curation

The Phase II report, supporting data, and artifacts will be curated at the South Carolina Institute of Archeology and Anthropology (SCIAA), University of South Carolina in Columbia. These materials will be temporarily maintained at R.S. Webb & Associates, 2800 Holly Springs Parkway, Suite 200, Holly Springs, Georgia. The final report and associated data are on PC-compatible electronic media.

2.0 ENVIRONMENTAL CONTEXT

2.1 Physiography and Hydrology

The archeological sites under evaluation are located within the Carolina Slate Belt of the Piedmont Physiographic Province near the Fall Line. In this area, the lower Piedmont Plateau interfaces with the Sandhills and Upper Coastal Plain provinces. Elevations in Lancaster County range from approximately 214 meters (m) above mean sea level (AMSL) on ridges in the northeast to 92 m AMSL on Lynches River in the southeast part of the county (Rogers 1973). The study sites are within a region characterized by broad, northeast-southwest trending ridges that are dissected by numerous spring-fed streams and ephemeral drainages. The study sites lie within the Haile Gold Mine Creek watershed; Haile Gold Mine Creek is a tributary of Little Lynches River, which empties into the Pee Dee River above its confluence with the Little Pee Dee River. These waters discharge into the Atlantic Ocean south of Georgetown through Winyah Bay.

2.2 Geology

The Haile Gold Mine property lies within the Carolina Slate Belt. The Carolina Slate Belt was formed during the Paleozoic era and extends from Virginia to Georgia. It is bordered to the northwest by the Charlotte Belt and to the southeast by the Kiokee Belt. The name derives from low grade metamorphism that has given the rocks a slaty cleavage. More specifically, this belt consists of volcanic and sedimentary rocks that were subjected to low temperature/moderate pressure metamorphism referred to as greenschist facies metamorphism. Typical greenschist facies minerals include chlorite, actinolite, and albite (Maher *et al.* 1994; Rogers 2006; Romarco Minerals, Inc. 2011).

Haile Gold Mine is within the Persimmon Fork Formation of the Carolina Slate Belt. The Persimmon Fork Formation contains poorly sorted, poorly stratified, felsic to intermediate crystal lapilli tuffs or volcanogenic derived sediments containing various amounts of quartz, albite, white mica, chlorite, biotite, and carbonates. Minor rock types include vitric tuff, mudstone, wacke, ripple laminated sandstone, mafic tuff, and mafic amygdaloidal flows interlayered with the crystal lapilli tuffs. In this area, the Persimmon Fork Formation contacts the Richtex Formation. The Richtex Formation is a sequence of very thinly bedded siltstone and mudstone, with wacke, quartz arenite, arkose, and conglomerate lenses, and contains quartz, white mica, chlorite, biotite, and carbonates. Gold mineralization is typically found near the contact of the Richtex and Persimmon Fork Formations (Maher *et al.* 1994; Romarco Minerals, Inc. 2011).

Argillite (a mudstone that grades into shale) occupies the central northeastern part of Lancaster County (Kershaw-Lancaster-Tradesville) north of the Sandhills (Rogers 1973). Post-metamorphic basalt/gabbro, granite, rhyolite (flow banded, plain, and porphyritic), and diabase dikes are intrusive to this area (Novick

1978). Metasiltstone and metasandstone also fall into this group. Diabase, quartz, quartzite, rhyolite/dacite, metasiltstone, metasandstone, and other Slate Belt materials were used prehistorically for tool manufacture.

Chert sources also occur in the area. A red to gray fine-grained silicate resembling chert is known to have been used at 38LA355 on the Haile Gold Mine property, and has been found as a minority material at other sites on the property. The presence of cores and a high incidence of cortical and early stage debitage indicate that this material is of local origin (Cable and Price 2009).

Triassic basins containing lacustrine, sedimentary deposits have been reported in the Piedmont of North Carolina. Wheeler and Textoris (1978) reported two types of chert associated with the limestone deposits in these basins: 1) a dense dark gray chert which is medium crystalline chalcedony with a very fine crystalline quartz, which is probably an inorganic precipitate; and 2) a light brown porous chert which has replaced some of the limestone. A prehistoric chert quarry (31LE83) was identified in one of these basins in Lee County, North Carolina (Lautzenheiser *et al.* 1996). Two chert samples were analyzed: the first compares well with the dark gray chert described by Wheeler and Textoris (1978); the second was a mottled white to gray chert composed almost entirely of chalcedony and microcrystalline quartz (Lautzenheiser *et al.* 1996). Triassic basins are present, but much less prominent, in South Carolina.

Metamorphic varieties of "chert" also occur in the Piedmont of central to east-central Georgia (Goad 1979; Ledbetter *et al.* 1981), and possibly extend into the west central South Carolina Piedmont. This lithic material was created during episodes of contact with superheated water that silicified the parent rock material. These cherts are usually limited in extent, and may vary in color from dark reddish-brown, brown, or olive green, to highly mottled and "agate-like".

Soapstone is a metamorphic talc-schist that was utilized for the production of cooking stones, soapstone bowls, atlatl weights, and other items. Use of this material became popular during the latter portion of the Late Archaic, but it may have been used for atlatl weight manufacture as early as the Middle Archaic Stanly Phase (Coe 1964). It was highly valued and traded over long distances. Soapstone outcrops occur sporadically across the Appalachian Mountains, Blue Ridge Mountains, and Piedmont regions of the Southeast. Soapstone outcrops yielding evidence of prehistoric quarrying activities have been recorded in the northwest Piedmont of South Carolina (Ferguson 1980), but none are known to be present at Haile Gold Mine.

Current commercial interest in Lancaster County's mineral production is not limited to gold. Lancaster County is also a source of granite used for crushed stone, weathered slate, common clay (used for brick), and sericite. Sericite is a mica-based clay used for making brick, as a paint extender, and as filler in grouting cement; some is electrical grade.

2.3 Pedology

Eleven of the 13 archeological sites being evaluated are located on Blanton Sand; the remaining sites are on Wagram Sand (NRCS 2009). Both of these soil units are quite common throughout the Haile Gold Mine area.

Blanton series soils (0 to 6 and 6 to 15 percent slopes) formed in sandy marine deposits, and are found on marine terraces on sand hills. They are moderately well drained, nearly level to strongly sloping soils of the Coastal Plain. The surface layer is typically a gray fine sand approximately 23 centimeters (cm) thick. The subsurface layer extends to nearly 150 cm below surface (bs), and consists of layers of light yellowish-brown, very pale brown, and white sand. The subsoil extends to 215 cmbs, and has an upper pale brown sandy loam layer over a light brownish-gray sandy clay loam layer.

Wagram series soils (2 to 6 and 10 to 15 percent slopes) formed in loamy and sandy marine deposits. They are deep, well drained soils on upland ridges of the Coastal Plain. The surface layer is grayish-brown and pale brown loamy sand, 50 to 100 cm thick. The subsoil is friable yellowish-brown sandy clay loam to approximately 152 cmbs.

Observations made during the current Phase II excavations indicate a typical soil column of 10 to 20 cm of sand, loamy sand, or sandy loam (A-horizon) over a 40 to 60 cm eluvial/leaching zone (E-horizon). At most of the sites evaluated, there were no distinct soil color or texture changes in the E-horizon. These observations are similar to those made by Keith *et al.* (2011) at 38LA291 and Patch *et al.* (2011) at 38LA334.

Based on the current findings at 38LA654 (see Section 16.0) and some of the previous results showing what appear to be incongruent radiocarbon dates from juxtaposed features recorded at 30 to 50 cmbs at 38LA334 (Patch *et al.* 2011), there is concern about the vertical extent of post-depositional effects on the prehistoric occupational zones evaluated during the current study. Archeologists working in South Carolina have grappled with this and similar issues for years (e.g., Michie 1990). At 38LA654, a 19th century cellar feature was discovered below a homogeneous deposit bearing historic and prehistoric artifacts and was defined at between 50 and 60 cmbs. While each site was evaluated on an individual basis, this finding called into question the contextual clarity and depositional integrity of prehistoric archeological deposits within 50 cm of the surface at the other sites evaluated.

2.4 Biotic Communities

The sites under study are within the Oak-Pine Forest Region of the upper Atlantic Slope (Braun 1950). It is dominated by upland mesic ridges and slopes, with minor inclusions of creek floodplain environments. The canopy in these well-drained areas may include white oak, blackjack oak, hickories, yellow poplar, sweet

gum, loblolly pine, and shortleaf pine. Common understory species are American holly, cedar, dogwood, red maple, sassafras, sourwood, and saplings of the dominant overstory species (Barry 1980; Schafale and Weakley 1990). Sparkleberry, deerberry, dwarf sumac, poison oak, rosemary, St. Andrew's cross, and sand myrtle are common shrubs (Barry 1980). Herbaceous plant cover may contain beggarweed, bristlegrass, croton, crabgrass, fox glove, greenbrier, jointweed, muscadine, partridge pea, pokeberry, prickly pear cactus, spurge nettle, wild lespedeza, wire grass, and yucca (Barry 1980; Rogers 1973). This mosaic of vegetation provides food and cover for a variety of wildlife, and the fall mast production attracts some species, such as the white-tail deer, in great numbers.

Mammals expected to occur in the uplands include mice, shrews, bats, opossum, raccoon, red and gray foxes, woodchuck, Eastern chipmunk, long-tailed weasel, cottontail rabbit, Eastern spotted and striped skunks, fox and gray squirrels, and white-tailed deer (Burt and Grossenheider 1976). Avian residents include great horned, screech, and barn owls; American kestrel; Cooper's, sharp-shinned, and red-tailed hawks; wild turkey; bobwhite quail; woodpeckers; nuthatches; vireos; cardinal; crow; mockingbird; wood thrush; brown thrasher; and a host of other passerines (Robbins *et al.* 1983). Migratory birds include a variety of species that summer or winter in the area, as well as many transient species that pass through the region on their way to their summer or winter habitats. Reptiles include box turtles, fence lizards, skinks, copperheads, rat snakes, garter snakes, king snakes, and rattlesnakes. Toads are the most common amphibians encountered in upland settings, although some salamanders may be found in moist upland environments as well (Conant 1975; Jensen *et al.* 2008).

Creek floodplain canopies may include American elm, bitternut, black walnut, green ash, red maple, river birch, shagbark hickories, shingle oak, sugarberry, sweet gum, sycamore, and yellow poplar. The understory may contain American holly, box elder, common pawpaw, ironwood, red maple, and southern sugar maple. Shrubs may include aneilema, beaked hazelnut, bur-reed, mountain doghobble, painted buckeye, river cane, sedges, silky dogwood, smartweed, spicebush, spikerush and other rushes, strawberry bush, and wild millet. Various ferns and a host of vines and herbs provide a rich groundcover (Barry 1980; Rogers 1973; Schafale and Weakley 1990).

Floodplain mammals may include raccoon, mink, muskrat, beaver, Eastern cottontail, mice, shrews, and white-tailed deer (Burt and Grossenheider 1976). Avian residents include the barred owl, flycatchers, grey kingbird, red-bellied and pileated woodpecker, prothonotary warbler, red-tailed hawk, red-shouldered hawk, various warblers, and turkey. Migratory birds include a variety of wintering, summering, and transitory species (Robbins *et al.* 1983). Various frogs and toads, salamanders and newts, stinkpot, Eastern mud turtle, common snapper, Eastern box turtle, painted turtles, water snakes, cottonmouth, canebrake rattlesnake, and others, comprise the floodplain herpetofaunal community (Conant 1975; Jensen *et al.* 2008).

Fish common to Piedmont waterways include various suckers, darters, shiners, pickerels, bullhead, channel catfish, sunfish, bass, trout, and perch. Benthic inhabitants include various gastropods, freshwater mussels, and crayfish.

2.5 Climate

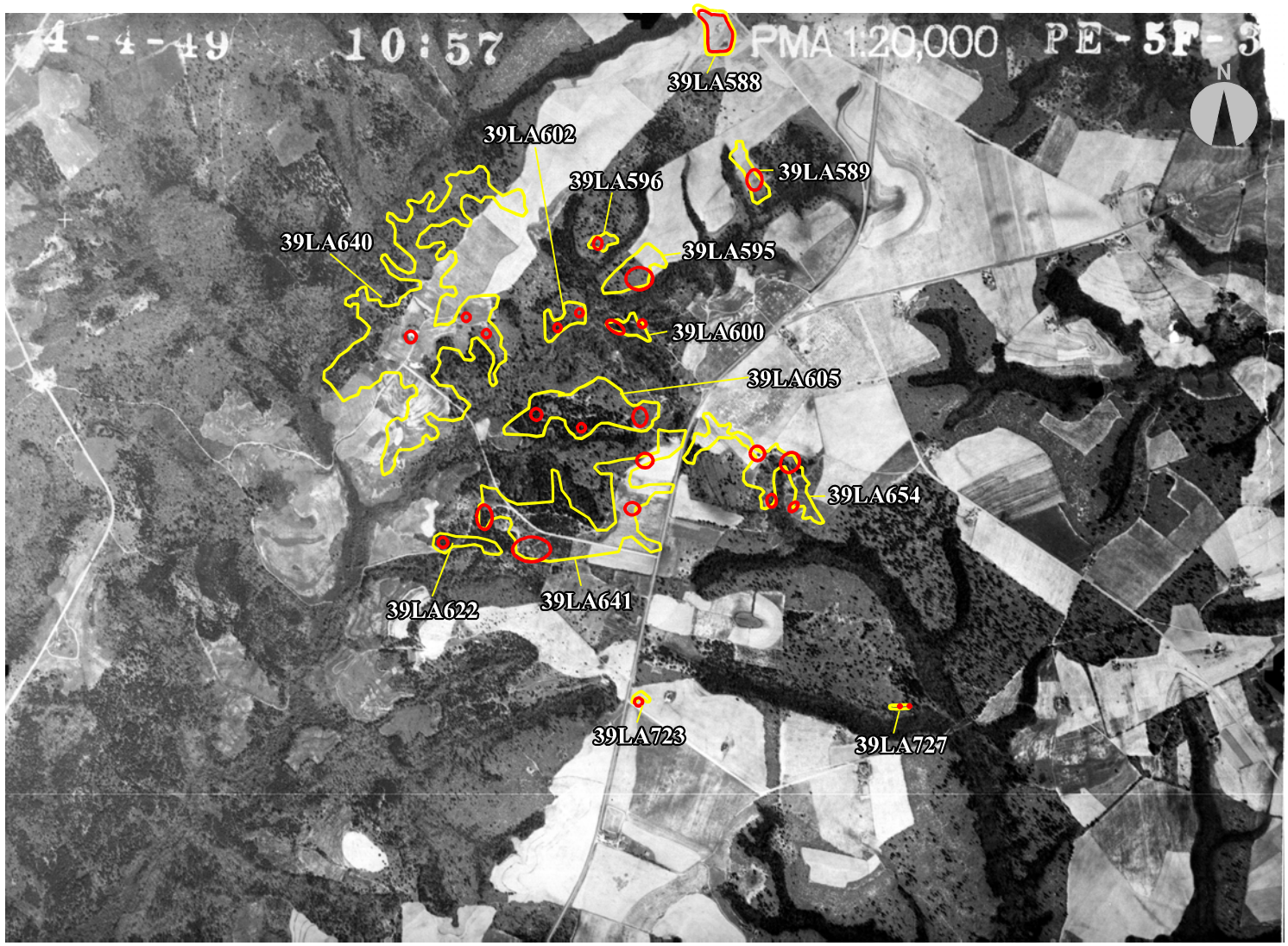
The climate of Lancaster County may be characterized as mild and temperate, with rainfall well distributed throughout the year. Tropical maritime air masses may persist for extended periods in this region. Tornados are rare in Lancaster County, and the county is far enough inland that it escapes severe damage from tropical storms and hurricanes. Temperatures vary from an average low of 31EF in March to an average high of 91EF in July. The average minimum precipitation of 2.6 inches occurs in October, while the average maximum rainfall of 5.9 inches occurs in July. December and January may see more than a half inch of snow.

2.6 Historic Alteration of the Environment

The southern Piedmont is one of the most severely eroded areas in the United States. European settlers began migrating into the South Carolina Piedmont during the middle 18th century. Small areas close to streams were cleared for agricultural plots and timber needs by the 1770s. Agricultural land use spread from alluvial settings to include most upland areas within the next 40 years. By 1860, Lancaster County, although classified as a general or mixed farming area, was intensively farmed for cotton and tobacco, and by 1880, this area was subject to a moderate or high levels of unchecked erosion, largely from abandonment of exhausted agricultural fields (Trimble 1974).

Erosive land use practices decreased during the period of 1880 to 1920, "probably due more to a decline of abandoned land (transition to forest) than to a reduction in cash crop acreages" (Trimble 1974:87). During the next 45 years, the percent of land in forest, woodland, and pasture increased from approximately 67 to 83 percent. By 1935, soil conservation measures were implemented on remaining crop land utilizing farm planning for soil conservation that included both land use and reclamation, as well as technical and financial assistance to farmers implementing conservation measures. Farm management techniques included crop rotation, contour plowing, terracing, deep plowing into subsoil, strip cropping, stubble-mulching, cover crops (i.e., green manuring), and fertilization. By 1967, erosive land use practices were reduced to approximately 7 percent of the acreage in the southern Piedmont (Trimble 1974).

The earliest aerial photographs of the study area available for review were taken in 1949 (Figure 2.1). Nine of the archeological sites are located on smaller, gently sloping landforms or in low-lying areas where cultivation was not being practiced in the 1940s (38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA654, and 38LA727). Two sites were within/surrounded by cultivation (38LA588 and 38LA723), while the two largest sites (38LA640 and 38LA641) were partially cultivated/wooded. Structure complex signatures can be discerned at two of the three study sites with historic architectural remains (38LA640 and 38LA641); no distinct structure signature is present at the location of 38LA588.



Map Reference: Cooper Library Map Room

Scale

0 597 meters

0 1960 feet

Figure 2.1 1949 Aerial Photograph Showing Evaluated Areas

3.0 CULTURAL CONTEXT

3.1 Paleoindian Period

The Paleoindian [12,000 to 10,000 Before Present (BP)] inhabitants of the Carolina Sand Hills lived in an environment of climatic equability without summer and winter temperature extremes, in which tropical and boreal species coexisted. Large herd animals (including now extinct megafauna) were exploited, as were smaller game, fish and plants. Associations between Paleoindians and megafauna in the Southeast have been documented since the late 20th century (Anderson *et al.* 1996). Evidence of this association from Florida includes a speared giant tortoise from Little Salt Springs (Clausen *et al.* 1979) and a projectile point embedded in a *Bison antiquus* skull recovered from the Wascissa River (Webb *et al.* 1984), as well as artifacts manufactured from megafaunal ivory and bone (Anderson *et al.* 1996). Paleoindian artifacts have also been recovered in association with megafaunal species in Tennessee (Barker and Broster 1996). However, the exact relationship between Paleoindians and megafauna in the southeast is still largely unknown. Much of the paleobotanical and paleofaunal evidence suggests that Paleoindian groups in the eastern United States enjoyed a diverse diet. Such a subsistence strategy implies a nomadic, small-band lifestyle.

The most diagnostic artifacts of this period include formalized unifacial scraping and butchering tools, and bifacial, fluted, lanceolate projectile points. Clovis, Suwanee and Simpson lanceolate points predominated during the early part of the period, followed by the later transitional Dalton type (Goodyear 1982). Goodyear (1982) contends that the first large-scale exploitation of the southeast took place during the Dalton horizon. In support of this, Goodyear *et al.* (1989:38) cite a five to 10-fold increase in the frequency of Dalton point locations compared to Paleoindian point locations. Distributional studies (Anderson *et al.* 1990, 1996) have demonstrated that Paleoindian sites cluster near the Fall Line of the Savannah River. Significantly, these occur in areas with abundant lithic resources, specifically the Carolina Slate Belt zone of the lower Piedmont and the Allendale/Brier Creek chert deposits of the upper Coastal Plain.

At the Pasquotank site in northeast North Carolina, fluted points were found in association with endscrapers, limaces, flake gravers, spokeshaves, uniface fragments, a pointed scraper, one piéce esquilleé, and debitage (Daniel *et al.* 2007). Daniel *et al.* (2007) conclude that high quality lithic raw material, tool curation, functional flexibility, and tool recycling are significant aspects of this assemblage which provide insights into the foraging adaptations of the site inhabitants, and may have broader implications for understanding Paleoindian settlement/subsistence in the Southeast.

3.2 Archaic Period

The Archaic period is split into three major subdivisions: 1) Early; 2) Middle; and 3) Late. These divisions are based on the occurrence of specific projectile points and assemblage components that are distinctly associated with particular adaptive strategies.

Early Archaic (10,000 to 8,000 BP): During the Early Archaic period, subsistence/settlement adaptations developed in response to the effects of Early Holocene climate change. One of the most obvious effects would have been the variation of seasonal extremes which would have promoted seasonally available resources. Prehistoric peoples may have scheduled their movements and activities around the availability of these resources.

A possible response to these changes was that Early Archaic projectile points (e.g., Taylor, Big Sandy, Bolen, Kirk/Palmer, and bifurcate types) were more variable in form compared to those made during Paleoindian times. In addition, the Early Archaic toolkit expanded to include not only animal processing tools, but also a wider range of more advanced faunal/floral processing tools including drills, endscrapers, choppers, adzes, and grinding stones (Chapman 1977; Claggett and Cable 1982; Kimball 1993, 1996). The expanded toolkit suggests that Early Archaic peoples were dependent on an array of aggregate and seasonally available foods.

Middle Archaic (8,000 to 5,000 BP): In the Piedmont, the Middle Archaic is believed to represent a period of human dispersion and technological generalization, perhaps in response to climatic changes that left the Piedmont drier and warmer than in earlier times. Middle Archaic peoples are depicted as residentially mobile bands, exploiting a relatively homogeneous Piedmont environment by hunting, collecting, and foraging, an exploitative strategy referred to as "adaptive flexibility" by Blanton and Sassaman (1989). This strategy is believed to be the basis for the dense concentration of the Middle Archaic sites found in the South Carolina Piedmont (Anderson 1996b).

Middle Archaic assemblages are usually quite homogeneous, containing high frequencies of debitage, expedient tools, and relatively few curated tools. Middle Archaic sites are typified by an almost exclusive use of local raw lithic materials. Artifacts typical of the Middle Archaic in this region include Kirk Stemmed, Kanawha, Stanly, Morrow Mountain, Guilford, Brier Creek, Benton, and MALA PP/K types (Anderson *et al.* 1982; Coe 1964, 1995). Coe (1964) and Oliver (1985) suggest that Stanly points are technological derivatives of the Kirk Stemmed type, and show pre-characteristics of the later small Savannah River point. The Guilford and later Halifax points show morphological derivation from Morrow Mountain (Oliver 1985).

Late Archaic (5,000 to 3,000 BP): The Late Archaic was marked by population growth and local adaptation in the Carolina Piedmont. Overall distribution of Late Archaic occupations is similar to that of Middle

Archaic groups. However, Late Archaic settlement patterning in the Piedmont Southeast suggests limited residential mobility, based on carefully planned collecting and hunting schedules timed to coincide with the procurement of certain "critical" resources, both within and beyond territorial boundaries (Sassaman *et al.* 1989, 1990). In general, long-term Late Archaic residential bases are often found on large stream terraces and low upland landforms rather than inter-riverine ridges and knolls (Anderson and Joseph 1988; Sassaman *et al.* 1989, 1990). These residential bases are complemented by specialized extraction sites where specific resources were being procured or hunted. Specialized sites include biotic and lithic procurement stations and camps which were probably located near other resources to maximize productivity.

During the Late Archaic period, the frequency of artifacts related to vegetal processing increases, as does the presence of waste shell at sites along major waterways. This period is characterized by the production of large, broad-blade, stemmed projectile point types (e.g., Savannah River), highly variable medium stemmed point types (e.g., Otarre and Gary), and a wide range of groundstone items. About 3,500 BP, soapstone artifacts began to regularly appear within the domain of groundstone technology. Soapstone was used by Late Archaic peoples to manufacture atlatl weights, bar gorgets, pipes, cooking slabs, and "nutting" stones.

Soapstone was also commonly fashioned into hemispheric, flat-bottomed, conical, and elongated cooking bowls of varying sizes. Truncer (2004, 2006) proposed that soapstone bowls were used primarily for the processing of mast, especially red oak acorn. A detailed analysis of residues adhering to the interior surfaces of soapstone bowl sherds recovered from the Hunter's Home Site in upstate New York suggests that these vessels were used for cooking a broader spectrum of biotic resources (Hart *et al.* 2008). It should be emphasized, however, that the use of soapstone bowls does coincide with increasing interests in horticulture during the Late Archaic, along with the introduction of ceramic technology (i.e., Stallings fiber-tempered pottery followed by Thom's Creek sand-tempered wares).

3.3 Woodland Period

The Woodland Period is traditionally subdivided into early, middle, and late subperiods. These divisions are based on technological changes usually reflected in the evolution of ceramic traditions, accompanied by increases in population and social complexity. Detailed studies of the Woodland Period in north central South Carolina are lacking, therefore much of this discussion is drawn from work in adjacent areas.

Early Woodland (3,000 to 2,300 BP): Early Woodland sites retain many Late Archaic characteristics (Claggett and Cable 1982). Though archaeologists have noted a high incidence of sites with co-occurring Late Archaic point types and Early Woodland ceramics, determinations of continuity or discontinuity between these two cultures awaits further work (Claggett and Cable 1982, Coe 1964, Ward 1983).

Early Woodland sites have been recorded in river floodplain and upland settings. Although data for the eastern South Carolina Piedmont/Sand Hills interface are scanty, the Early Woodland settlement profile for the Southeast indicates a society moving toward residential stability, probably within the confines of more structured political units.

The Early Woodland is represented by Badin Phase and Yadkin Phase ceramic complexes. Badin ceramics are typically tempered with fine sand, and may be cord-marked, fabric-marked, or plain; Yadkin ceramics contain crushed quartz temper, and may be check-stamped, cord-marked, fabric-marked, linear check-stamped, simple-stamped, or plain (Anderson 1996a, Ward and Davis 1999). The chronological relationship of these two ceramic series remains unclear; however, Trinkley (1990) suggests that Badin preceded Yadkin. Projectile points characteristic of this period may include, but are not limited to, small stemmed varieties such as Gypsy, Swannanoa, Coosa, Thelma, and Flint Creek; these types were rapidly replaced by large triangular spear points, such as Badin, Otarre, Gary, Copena, and Yadkin, many of which lasted into the Middle Woodland period (Coe 1964, Ward 1983, Ward and Davis 1999). Anderson (1996a) proposes that Woodland period check-stamped wares should be classified as Deptford.

Early Woodland Deptford ceramics appear to have developed in Georgia (circa 2,800 BP) during the Early Woodland Refuge phase (3,000 to 2,500 BP) and spread north into the Carolinas and south into Florida. Deptford ceramics continued to be made and found on Middle Woodland sites in the Southeast up through about 1,400 BP. Deptford wares occur throughout the Coastal Plain and Fall Line areas of South Carolina and Georgia (Anderson *et al.* 1982; Anderson 1996a). They are characterized by a sandy or gritty paste with larger quartz inclusions (Anderson 1996a). Fabric-impressed, cord-marked, and check-stamped wares identified as Deptford during archeological testing of sites on Haile Gold Mine property (Cable and Price 2009, 2010).

Trinkley *et al.* (1995) advises that ceramics typical of the Early Woodland in the central-to-western Piedmont of South Carolina consist of Dunlap and Swannanoa series wares (similar to the Kellogg Phase of northern Georgia). The Dunlap series is characterized by a coarse sand paste, fabric impressions, and small vessel forms such as cups or jars. Swannanoa ceramics feature heavy crushed quartz temper and are cord-marked or fabric-impressed vessels of medium size, such as conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230).

In Benson's (2006) *Cultural Resources Overview of the Sumter National Forest,* which includes the Enoree Ranger District located in Newberry, Union, Chester, Laurens and Fairfield counties of South Carolina, the discussion of the Early Woodland Dunlap series also found similarities with the Kellogg phase that lasted from 2,800 BP until roughly 2,100 BP, and was evidently marked by the emergence of formal village life along the river bottoms in northwest Georgia and perhaps areas within the South Carolina Piedmont. Some of the northern Georgia, Early to Middle Woodland ceramic sequences are commonly applied in the western-to-central South Carolina Piedmont in the Long Cane Ranger District vicinity. They are also routinely used

to describe assemblages from the central Piedmont, near the Enoree Ranger District, located along the Charlotte Belt and Carolina Slate Belt regions (Benson 2006). The Dunlap series was followed by the Deptford series, which includes simple-stamped, cord-marked and check-stamped wares in the Middle Woodland period and phases. Some fabric-impressed Deptford ceramics might actually be better defined as Dunlap ceramics. In addition, Benson (2006:iv) consulted with both Cable and Anderson, and these authors were acknowledged for their comments focusing upon an interpretive synthesis of the South Carolina Piedmont cultural overviews as well as the previous surveys/archaeological background chapter.

The Cape Fear ceramic sequence used as a Woodland marker in coastal plain South Carolina (and as a ceramic classification in certain Haile Gold Mine reports) is not identified or referenced in the overview for the Sumter National Forest Districts. Similarly in Cable and Price (2009, 2010), the Cape Fear series is not used in their analysis at Haile Gold Mine; rather Wilmington and Deptford ceramic sequences are provided for Early to Middle Woodland periods and phases, while the Camden series is representative of Late Woodland occupations. This report follows the ceramic sequence framework established by Cable and Price (2009, 2010).

Middle Woodland (2,300 to 1,200 BP): In much of the southeastern United States, the Middle Woodland period represents a climax in cultural complexity. Earthen mounds containing elaborately furnished graves appear during the Middle Woodland, indicating the development of a stratified society with clearly defined religious belief systems. Grave goods often include non-local materials, denoting participation in a complex trade network. The Middle Woodland ceremonial complex (referred to historically as the Hopewell tradition) is centered in the Tennessee River Valley of Alabama and Tennessee (DeJarnette 1952; Webb 1939), and extends into Georgia (Jefferies 1976), the highlands of western North Carolina (Keel 1976), Kentucky, and the Ohio River valley (Caldwell and Hall 1977; Walthall 1972).

Middle Woodland occupations were documented during Phase II and Phase III investigations at 38LA355 on the Haile Gold Mine property (Cable and Price 2009; Patch *et al.* 2011). During Phase II work, a cache of late stage bifaces was thought to be blanks for Copena PP/Ks, but this could not be confirmed during data recovery. A Middle Woodland multi-family seasonal settlement was also recorded at 38LA301 and a less extensive occupation was noted at 38LA291 (Cable and Price 2010).

Middle Woodland settlement patterns for the eastern South Carolina and lower North Carolina Piedmont are typically characterized as short-term or seasonal occupations demonstrating residential mobility. These occupations have been recognized by continued use of Yadkin series ceramics and projectile points (Trinkley 1990). Uwharrie ceramics appear in the latter portion of the Middle Woodland and continue into the early Late Woodland. They are tempered with crushed quartz or coarse quartz sand; surface finishes may be plain, simple-stamped, fabric-impressed, cord-marked, or brushed; vessel interiors are typically scraped (Anderson 1996a). Wilmington series ceramics occur late in the Middle Woodland sequence, although an overlap of

surface treatment suggests that the Wilmington series may be contemporaneous with later ceramics in the Deptford series (Cable and Price 2009, 2010). Wilmington wares are characterized by crushed sherds or grog in the paste/temper along with medium to coarse quartz sand. Wilmington wares were recovered during archeological testing of sites on Haile Gold Mine property (Cable and Price 2009, 2010).

Late Woodland (1,200 to 1,000 BP): In the southeastern United States, the Late Woodland period has been described as one of declining Middle Woodland influence and subsequent Mississippian period emergence (Cobb and Nassaney 1991). In the Piedmont of eastern South Carolina and North Carolina, the Late Woodland is a continuation of Uwharrie manifestations first seen during the later Middle Woodland, with the addition of net-impressed surface treatments. The medium-sized Uwharrie Triangular PP/K may indicate the first use of the bow and arrow in the region; smaller triangular points (e.g., Caraway and Clarksville) occur in later Late Woodland assemblages (Ward 1983; Ward and Davis 1999). Randolph points are also seen in the assemblage and were likely fashioned from waste flakes or conserved, broken points from earlier periods. Justice (2002) suggests that the Randolph is perhaps a correlate to the Bradley Spike, a Tennessee derivation, or the Ledbetter Cluster of points (Ledbetter and Pickwick types). The Randolph point was named by Joffre L. Coe (1964) for examples he found in Randolph County, North Carolina. Later at Town Creek, Coe (1995) classified a series of variable, small stemmed points as Randolph.

Uwharrie subsistence focused on combined hunting/foraging and horticultural practices, and the use of large storage pits (Ward and Davis 1999). Based on horticultural interests and access to a diverse resource base, Late Woodland settlements typically occupy floodplain settings associated with larger waterways (Cantley and Kern 1984; Coe 1995; Fitting 1978).

In the vicinity of Camden in Kershaw County, a 2001 study produced evidence that Camden Simple-stamped wares were being produced towards the end of the Late Woodland period. A feature at 38KE264 bearing a Camden Simple-stamped jar provided a Late Woodland radiocarbon date of 1,160 +/- 60 BP (Webb 2001). Camden ceramics (simple-stamped, check-stamped, and incised) were identified in the middle Wateree River valley area (Stuart 1975), and later thought to be temporally similar with Santee wares, which fall into a post-Cape Fear, pre-Pee Dee, Late Woodland context (Anderson *et al.* 1982).

3.4 Late Prehistoric (Mississippian)/Protohistoric

Throughout much of the southeastern United States, classic Mississippian period culture is marked by the appearance of large villages (often palisaded), public architecture/earthworks, development and support of an elite ruling class, and moderate to heavy reliance on maize agriculture (Ferguson 1971). Mississippian societies are often viewed as having hierarchical structure within territorially defined chiefdoms. Central to each chiefdom was a primary ceremonial complex containing one or more temple mounds, which served as the sociopolitical headquarters for an ascribed, elite ruling class (chiefly class/lineage group) (Wright

1984). Minor ceremonial centers, managed by local authorities, villages, hamlets, and individual farmsteads surrounded these primary ceremonial centers and provided the chiefdom's economic base and the operational structure for executing ruling class edicts.

Pee Dee (1,050 to 500 BP): Pee Dee culture spans the Late Prehistoric/Protohistoric period in the central Carolina Piedmont and has its roots in the Late Woodland. How well it correlates with cultural traditions in the project region remains to be seen; however, given the relative proximity of the study area to the Pee Dee heartland, it is worthy of mention. Pee Dee was in part contemporary with the Uwharrie tradition, and it appears these two cultures interacted but were socially and spatially separate entities (Coe 1995). Oliver (1993) divides the Pee Dee culture into three phases, the Teal Phase (ca. 1050 to 800 BP), Town Creek Phase (800 to 600 BP), and Leak Phase (600 to 400 BP); termination of the Leak Phase has been refined by Ward and Davis (1999) to 500 BP. The Leak Phase represents the zenith of the Pee Dee culture, and corresponds with the time of maximum Mississippian expansion elsewhere in the Southeast (Coe 1995). Pee Dee culture is recognized by distinct plain, complicated-stamped, simple-stamped, and cord-marked ceramics, and small triangular or pentagonal projectile points (Coe 1952, 1964).

Emergent and Early Mississippian (850 to 750 BP): Across much of the interior South Carolina, diagnostic ceramics suggesting emergent Mississippian occupations are rare. Based on comparative data from the Upper Savannah River (Hally and Rudolph 1986) and mouth of the Savannah (DePratter 1979), Early Mississippian ceramic types in the vicinity may include Savannah Complicated-stamped, Plain, Burnished Plain, Fine Cord-marked, Check-stamped and occasionally, Corn Cob Impressed. Typically, rims are plain and unmodified (Sassaman *et al.* 1990).

Middle Mississippian (750 to 550 BP): During the early Middle Mississippian period Savannah Check stamping is common, followed by plain, burnished plain and Savannah and Irene Complicated-stamped. Later manifestations include Pee Dee/Irene Complicated-stamped sherds. Rims are modified with rosettes and/or nodes; infrequently, folded or applied rims occur (Sassaman *et al.* 1990).

With the exception of the Town Creek mound complex (31MG2), in North Carolina, the monuments of classic Mississippian period chiefdom society do not appear in this portion of the Piedmont. However, there are mound complexes relatively close to the study area in the upper Coastal Plain. Approximately 30 km south of the study area, in the vicinity of Camden, there are two sites that appear to have Middle Mississippian affiliations; the Adamson Mound complex (38KE11) and the Guernsey Site (38KE14), both just south of Camden (Stuart 1975). Adamson appears to contain both Pee Dee and Savannah Phase occupations. At Guernsey, an interesting ceramic manifestation was recorded that was believed to date to the Middle Mississippian period. The Camden Ceramic Complex (Stuart 1975) at Guernsey is represented by simple-stamped and check-stamped globular and conoidal jars tempered with quartz grit. Incised lines are often applied near the rims of these vessels, over the stamped pattern.

Late Mississippian (540 to 350 BP): This period is poorly represented and understood in the project area, although at least one Late Mississippian to Protohistoric mound complex is known to the south of the project area near Camden, the McDowell/Mulberry Mound (38KE12) (Stuart 1975). At 38KE12, a large variety of ceramics and ceremonial items were recovered, including pipes, engraved shell gorgets, burial urns, and figurine fragments. Ceramic treatments include incised wares similar to Irene Incised and Complicated-stamped wares similar to Lamar, and wares similar to Cherokee Qualla ceramics, and perhaps earlier Pisgah Phase ceramics.

3.5 Contact Period (AD 1520 - 1700)

The first detailed reports on the interior aboriginal population in South Carolina came from the Hernando de Soto expedition in 1540. The expedition traveled through Georgia into the Coastal Plain of South Carolina and then north through the sandhills along the Wateree and Catawba Rivers to the primary town of the Mississippian chiefdom of Cofitachequi (Edgar 1998:22-23). Cofitachequi (Mulberry Mound site) is located along the Wateree River in Kershaw County approximately 16 miles (25 km) southwest of the study area. De Soto and his men enjoyed the hospitality of the Indians for two weeks. In perverse return, de Soto took the queen and a number of her ladies captive to serve as guides, and for protection from native hostilities as they traveled north. Cofitachequi remained a major nation through the late 17th century (Edgar 1998:12). Other Indian groups in the region during the European contact period included Siouan peoples who lived in the area east of the Wateree and Congaree Rivers, the Cherokee to the northwest, and Catawbas to the north.

Twenty-seven years after de Soto, Juan Pardo entered South Carolina and followed the Wateree River valley to the Catawba River valley into North Carolina and established the earliest European settlement in the interior, Fort San Juan. Fort San Juan was established at the native town of Joara; archeological and documentary evidence suggest that the Berry Site (31BK22) in the upper Catawba River basin is the location of Joara (Beck *et al.* 2006). Fort San Juan was manned by 30 men who lived there for about 18 months before the fort was burned in 1568. None of the expeditions of de Soto or Juan Pardo likely entered the Haile Gold Mine vicinity.

Due to Spanish incursions into the interior of the Southeast, the native population was severely decimated by disease. Even during the de Soto expedition, several villages along the route were found depopulated as a result of an epidemic spread from the failed Lucas Vasquez de Ayllon settlement along the South Carolina coast in the 1520s (Edgar 1998:13). It is estimated that nearly half of the Cherokee Nation in the northwest part of the state may have died due to disease transmitted by the Spaniards (Edgar 1998:24).

It was during this time that the Pee Dee culture was replaced by Caraway (1,450 to 1,150 AD), an admixture of Late Prehistoric/Protohistoric Lamar and Siouan cultural traditions (Coe 1964). The Caraway Phase is

known from small triangular (Caraway) points, a distinctive ceramic assemblage, and European trade goods. Caraway ceramics include thin, hard, fine sand-tempered plain, complicated-stamped, simple-stamped, net-impressed, brushed, and corncob-impressed wares; smoothed plain and burnished surface treatments are more common later in the sequence (Coe 1937, 1964, 1995). European trade items may include glass beads, clay pipes, gun flints, iron axes, copper bells, and dark green bottle glass.

3.6 Historic Period

Settlement of the Back-country: Eventually, as settlements became more established along the Atlantic coast, a general movement into the "back-country" was led by a vanguard of traders and trappers seeking valuable animal hides. The Colonial frontier was loosely defined as land more than 50 miles from the Atlantic coast; this threshold area of the state was then known only as "Indian Land". The area that later became Lancaster County was occupied by Catawba and Waxhaw Indians, who formed a political confederacy by about 1700, and developed economic relationships with the Cherokee, other tribes to the west and with the Europeans to the east. European trappers and traders were precursors to permanent settlement, but they were generally independent and transient, as they repeatedly traversed the area that became Lancaster County en route to and from the economic base at Charleston (Chapman 1980).

European traders stirred Colonial and native relations, resulting in the Yamassee War (1715-1716). Though this war was "hot" for only a short period of time, fears of Indian raids were felt for a generation or more afterwards. In order to defend outlying settlements and regulate the fur traders, Fort Moore was built on Beech Island of the Savannah River, near Augusta, beginning in 1715, and it was garrisoned as late as 1766. Other forts were built during this period at present Columbia (Fort Congaree), Savannah (Palachacolas Fort), and Port Royal Sound (Beaufort Fort). Another response to the sporadic raiding of South Carolina settlements was the establishment of a physical "buffer", in the form of the Georgia Colony in 1732 (Groover 2008).

Land on the Colonial frontier attracted little attention from permanent European settlers until the 1740s when land incentives enticed families to relocate there from Pennsylvania and Virginia (Edgar 1998:205). In 1730, a scheme for the orderly settlement of the back-country was devised with eleven 20,000 acre townships located approximately 60 miles inland. The plan called for each settler to have a 50-acre share of the proposed townships per family member, with the Commons House of Assembly providing tools, transportation, and food. Eleven such townships were established between 1731 and 1765, including Orangeburg, Amelia, and Saxe-Gotha Townships near the center of the present state and Fredericksburgh nearer the project region on the Wateree River southeast of present Lancaster County. Many of these back-country townships were overwhelmingly settled by German emigrants, though Germans made up only five percent of the total white population of South Carolina at the end of the Colonial period (Edgar 1998).

There were no such settlement provisions for the influx of Scots-Irish immigrants, who found the Pennsylvania region uninviting and moved south. This latter group disrupted the ideal of orderly frontier settlement and it filled the area along the North-South Carolina border from the project region west to the Savannah River; all the while making claim to Cherokee and North Carolina land and creating general havoc for the planners in Charleston. Other immigrants to the South Carolina frontier included the Irish, who settled at Pine Tree Hill (Camden) and other places. About 4,000 Irish arrived in South Carolina through the auspices of the Bounty Act (1761-1768), which offered profit for merchants and ship captains who delivered Protestants to the colony. No provision, however, was made in the act for the health or well being of those delivered, and the result was similarly egregious to that imposed on victims of the Atlantic slave trade. Whereas the low-country was nearly 80 percent English, the back-country became an "ethnic-stew" to which was also added Welch, French, Swedish, Dutch, Jewish, West Indian, and African influences (Edgar 1998:56-62).

By the eve of the Revolutionary War, the economic and political differences between the back-country and the low-country of South Carolina were focused. The Townshend and other Acts incited the low-country population to war for independence from the British, but back-country residents had a bigger complaint with authorities in Charleston than with the Crown. Residents of the project region were not as eager to break with the British as their more prosperous neighbors. A trip from the project vicinity to Charleston, in order to swear a warrant or file a deed, took about one week by horse and several weeks by wagon (Edgar 1998:205). The years following the French and Indian War (1756-1763) saw unprecedented crime in the back-country with the action of gangs and a proliferation of squatters, poachers and thieves. A group of lead citizens known as the Regulators called for law and order in the form of courts, jails and schools. The provincial government was slow to respond, but created circuit courts and judicial districts in 1769. The new political system transformed settlements into towns at Georgetown, Beaufort, and Camden and it created the Camden Judicial District, of which future Lancaster County was a part. The two wars, however, retarded settlement and civilization in the project region as many residents sought refuge in the more established settlements along the coast due to raids by the Cherokees (Edgar 1998).

The beginning of the end of successful British campaigning in the southern states came in the project region. The fall of Charleston in May 1780 was followed by the surrender of American troops under Andrew Pickens at Ninety-Six and Joseph Kershaw at Camden. British Lord Cornwallis' then set about a campaign of brutality and fear during which back-country churches were burned and the bodies of prominent citizens were exhumed and abused. These events, combined with the merciless slaughter of Colonel Abraham Buford's American cavalry by commander Banastre Tarleton's loyalists troops near Tradesville (Lancaster County) in May 1780, led to a local civil war and to the cry of "Tarleton quarter" (no mercy). Upon the burning of his home near Nelson's Ferry, Thomas Sumter, along with Francis Marion, began to rally the back-county populace. The only bright spot for the Patriots during this period was the defeat of loyalist militia at Hanging Rock in Lancaster County on August 6, 1780. An attempt to dislodge the British at Camden failed on August

15 and 16, and Sumter was defeated at Fishing Creek (Chester County) two days later. Cornwallis' move on Charlotte, North Carolina through the project region, was harassed constantly, and he was forced to withdraw from Charlotte to Winnsboro, South Carolina after occupying the former place less than two weeks. Subsequent major defeats at King's Mountain and Cowpens west of the project region, sealed the fate of the British southern strategy, and final defeat and American independence came less than a year later (Edgar 1998; Power and Brown 1989).

After the Revolution, reprisals against the Tories in the back-country districts, which had the greatest number of loyalists, was often brutal - lynching, killings and banishment were common. Both the low-country and the back-country were in ruins. Homes, farms, and mills had been burned and fields abandoned. It was a difficult recovery for all (Edgar 1998:242-244). There was much social instability especially in the back-country, where along with the diligent settlers, came outlaws and thieves. The loss of the British market was a huge economic blow but it is likely that the low-country felt it more readily than the subsistence oriented back-country. With the relocation of the capitol from Charleston to the centrally located Columbia, and the creation of the state university there, the back-country gained representation and recognition, but the low-country leaders maintained political sway (Edgar 1998).

Establishment of Lancasterville and Lancaster County: In 1785, the Camden Judicial District, roughly the area of land between the Broad/Congaree Rivers (west) and Lynches River (east), north of the fall line boundary between low- and back-country, was divided into several smaller districts including York, Chester, Lancaster, Fairfield, Richland, Claremont, and Clarendon. Lancaster County's present east and west boundaries (the Catawba and Lynches Rivers, respectively) were established by this time, but the north county boundary was not finally established until disputes between North and South Carolina were resolved in 1813. In 1791, Pendleton District was created, northwest of Lancaster District, and included York and Chester Districts. At the same time, Kershaw County was created from the south half of original Lancaster County. Lancaster became a county in 1795, became a District again in 1800, and became a county again in 1868 (Edgar 1998; Power and Brown 1989).

The Lancaster County seat of government was established at Barnettsville in 1791. By 1798, a post office and courthouse were constructed and the town was renamed Lancasterville in 1802. No other incorporated town was established within Lancaster County until after the Civil War. By 1826, Lancasterville consisted of five streets running in each direction and at right angles to one another, and, in addition to the structures mentioned above, it had grown to include a brick academy building (established in 1799), 30 dwelling houses and stores, and 260 residents. A new jail was built in Lancaster in 1825 and a new courthouse was constructed there in 1828; both buildings appear to have been designed by native son Robert Mills. The courthouse was damaged by fire (arson) in 2008 but was rebuilt. The jail and courthouse remain in Lancaster today. An inn was established at a mineral spring in the Hanging Rock vicinity which became a popular tourist destination during the 1850s. The inn was destroyed during the Civil War, but the Heath Spring

community continued to grow there after the war [Lancaster Area Chamber of Commerce (LACC) 2011; Power and Brown 1989].

According to the Mills Atlas, an intricate road system was also well established across Lancaster County by the 1820s (Figure 3.1). The county's population was mostly rural and the only community other than Lancasterville was Kingsbury, at the Catawba River in southwest Lancaster County. Near the south boundary of Lancaster County, the road from present Kershaw town northeast to McManis Ferry on the Lynches River crossed little Lynches Creek near Benjamin Haile's home place. In this vicinity gold was discovered about 1827, leading to the establishment of the most successful gold mining operation east of the Mississippi River. Most early industries in Lancaster County were family enterprises dependent on cultivation and included flour mills and grist mills. However, the 1825 atlas shows no mills on Little Lynches or Flat Creeks, the two major drainage systems in southeast Lancaster County, and it further suggests that the east half of Lancaster County was less developed with fewer roads and settlements.

John C. Calhoun, during his reign over South Carolina politics (1824-1850), generally discouraged the introduction of industry to the state's economy, but his policies encouraged the improvement of infrastructure and railroads (Edgar 1998). Entrepreneurs turned first to canal construction along the major rivers of the state and then to railroad construction to increase the ability to get the goods from the middle and upcountry to Charleston and other market centers. With the exception of the Augusta Canal, the overall canal system had failed by 1840, and the state had already constructed its first railroad in 1833 from Charleston to Hamburg (opposite Augusta) in Edgefield County (Wallace 1951). At the onset of the Civil War (1861), there were eleven railroads linking rural areas of the state to Columbia and/or Charleston, but Lancaster was the only district in the state that did not have railroad access (Edgar 1998:283).

During the antebellum period (1800-1860) cotton production lifted the local economies to great heights. Tobacco, the major cash crop of the 18th century, was replaced with cotton by about 1802, but the markets for the raw material remained largely outside Lancaster County, at Camden and Charleston. Other crops grown in the county included corn, wheat, rye, and oats. The rise of cotton cultivation as an economic endeavor is reflected in population statistics from the period. Total Lancaster County population increased from about 6,000 in 1800, to 10,300 in 1830, and to 11,800 in 1860. In 1800, almost 25 percent of the families in the upcountry and middle country owned slaves, and by 1830 about 40 percent were slave owners. The slave population in Lancaster County increased from 16 percent in 1800 to 40 percent in 1830, but rose only slightly, to 49 percent, by 1860. The latter figure was about on par with surrounding back-country counties, but was still well below the percentage of slaves present in many low-country counties (Edgar 1998, LACC 2011, Power and Brown 1989).

Lancaster County was subjected to the vagaries of General William T. Sherman and his troops following their March to the Sea in Georgia (November-December 1864) and the sacking of Columbia, South Carolina (February 1865). The vanguard of the Union army, Brigadier-general Judson Kilpatrick's 4,000 cavalry

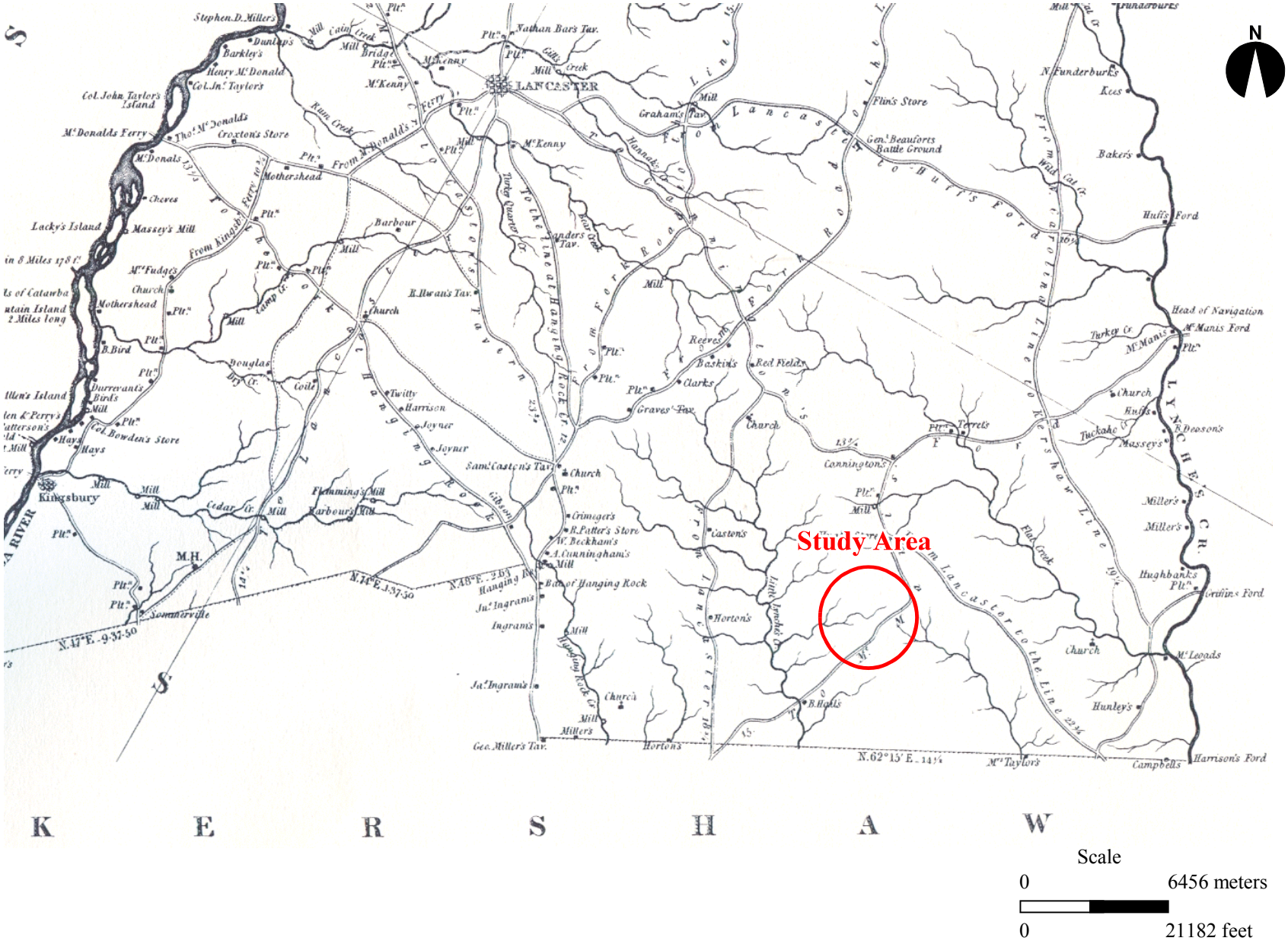


Figure 3.1 1825 Mills Atlas - Lancaster District

troops, arrived at Lancaster town on February 24, 1865 and remained about four days, consuming all that was available in the vicinity. The purpose of his visit was to make way for advancing infantry and to feign an attack on Charlotte, North Carolina. As the infantry columns arrived from the Columbia area, Sherman himself crossed the Catawba River at Rocky Mount, in southwest Lancaster County, on February 23. Because of heavy rains, Sherman and his 20th Army Corps camped "for some days" near the project area, at Hanging Rock (Sherman 1984:288). Kilpatrick moved northwest to Chester, but he was headquartered at "the gold mines" on and about March 1, 1865 (Cornell University Library 2011). Plate 80 in the *Atlas of the Official Records of the Civil War* shows an encampment and troops in the northwest part (Tract A) of the project area (Figure 3.2). Upon leaving the project vicinity, Sherman advanced his troops eastward, crossed the Pee Dee River on or about March 7, and advanced on Fayetteville and Raleigh, North Carolina (Sherman 1984).

The Reconstruction period (1865-1877), or a second phase of the Civil War in South Carolina, was marked by racial animosity and violence, particularly in the upstate region. The period began with a sort of uneasy peace as former owners and former slaves negotiated with one another for an acceptable way to resume economic agricultural activity. The share-cropper or tenant system, whereby an individual rented land and/or seed and equipment in return for a portion of the crop, became widely practiced in the region, but certain social practices, such as children playing together, which was accepted before the war, became unacceptable following emancipation (Edgar 1998).

A new state constitution was mandated by the victorious federal government, but its 1868 drafting convention was largely boycotted by whites. The result was that the convention reflected actual population percentages and laws were passed that gave blacks opportunity for education and equality. In 1870, Joseph H. Rainey of Georgetown, South Carolina was elected and became the first African American sworn into the U.S. House of Representatives. The white response to Republican inroads was to attack Republican party members, local officials, and members of the state's General Assembly; in Abbeville and Kershaw Counties, local officials were murdered. An appeal by Wade Hampton for the "preservation of order" quelled the violence for about 18 months, but from 1870 until the end of Reconstruction in 1877, widespread violence perpetrated by nascent and largely unorganized Ku Klux Klan guerrillas, continued virtually unabated. In October 1871, the writ of habeas corpus was suspended in nine South Carolina counties including Chester, Chesterfield, Fairfield, Lancaster, Laurens, Newberry, Spartanburg, Union, and York. Some 1,300 individuals were charged with crimes and the most prominent instigators of violence fled the state. Trying the cases was a cumbersome process and resulted in only some 300 cases being heard, with fewer than 40 convictions. The Republican ideal was finally abandoned through a political compromise in Washington. Incoming president Rutherford B. Hayes ordered federal military troops out of the state in March 1877 (Edgar 1998:377-406).

With the return of relative political and social stability after Reconstruction, and the arrival of the railroad in the 1880s, Lancaster County population began a steady rise that continued throughout the 20th century and

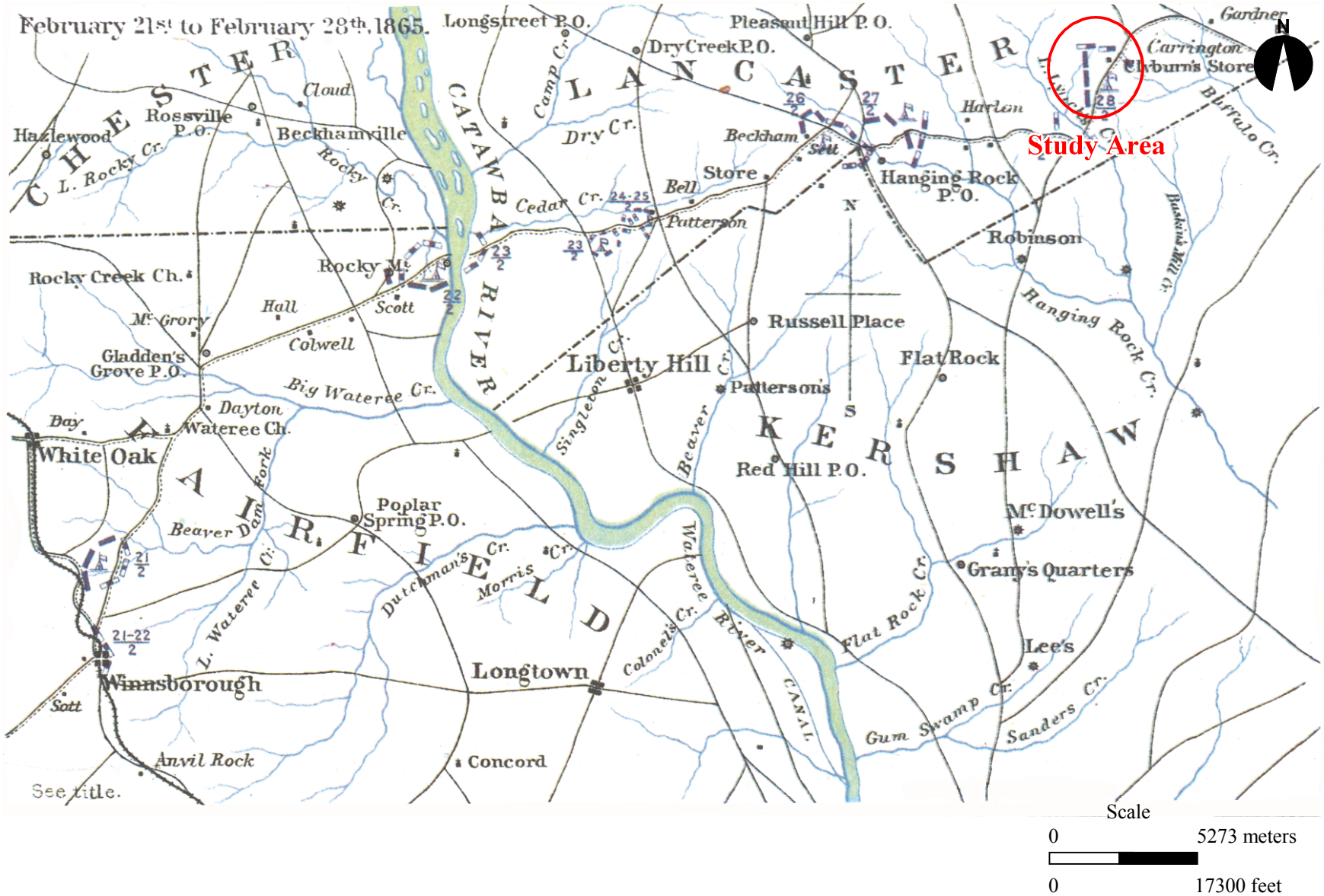


Figure 3.2 Atlas of the Official Records of the Civil War Showing the Area of Tested Sites (Davis *et al.* 1983, Plate 80, No. 5)

into the new millennium. Coincidentally, the belated arrival of railroads to Lancaster County provided outlets for local products, stimulated the creation of new towns, and revitalized existing communities. A rail line from Charlotte, North Carolina, through north Lancaster County to Chester was completed by the Charlotte, Columbia, & Augusta Railroad Company in 1883; the town of Van Wyck in northwest Lancaster County was established on this line in 1887. In 1888, the Charleston, Cincinnati, and Columbia Railroad constructed a line from Rutherforton, North Carolina, through Lancaster town, to Camden. The town of Kershaw, named for Civil War general Joseph B. Kershaw of Camden, began in the project vicinity as Welsh's Station of the latter railroad in 1887. Kershaw town was incorporated and renamed a year later. The town of Heath Springs, near old Hanging Rock mineral springs, also became incorporated after the arrival of the latter railroad (Lewis 2007, Power and Brown 1989).

Cotton continued as the major constituent of the local and regional economy, and agriculture as an economic anchor matured during the period 1880-1920. Textile manufacturing arrived in South Carolina and matured during this same period. An economic boom was started in Lancaster County by Leroy Springs, who first founded a cotton shipping company (Leroy Springs and Company) in the 1880s, and eventually established Springs Mills or Lancaster Cotton Mill in 1895. Springs dominated local business for nearly 50 years and became recognized nationally for his exploits in Lancaster County. His mill had 75,000 spindles, 1,600 looms, produced 1.8 million dollars in products annually, and was the third largest such operation in the state by 1907. The plant employed 1,050 "operatives" and the population of the mill village reached 3,000. The factory was expanded in 1914 and 1923, and it continued operations through the 1930s. A similar operation was established at Kershaw with the aid and direction of Leroy Springs in 1912. That plant suffered more severely the effects of World War I and the boll weevil, but it also continued to produce into the 1930s (Power and Brown 1989).

The region's period of agricultural prosperity continued until overproduction and the loss of overseas markets led to a collapse of cotton and tobacco prices in 1920. Then came the boll weevil infestations and severe drought that cut production by nearly half in the early 1920s. Furthermore, nearly 8 million of the state's 19 million acres of land were depleted and declared "destroyed" in 1934. During the same period, total County population rose from 11,797 (1860) to 28,628 in 1920. Because of the decline in cotton prices and production cutbacks, there was a massive emigration of both black and white farm laborers as "nearly all of the strongest tenant families left the cotton fields" (Edgar 1998:485). During this time the ratio of black to white population percentage remained steady at about 50-50 in Lancaster County. After 1920 overall population continued to rise to 39,352 in 1960, but just more that one-fourth of the county's population was black at the latter date. As of the 2010 census, Lancaster County has a population of 77,767; it is 38 percent urban and 62 percent rural, and African Americans continue to make up 25.8 percent of the population [City-data.com 2011, University of Virginia (UVA) 2004].

Following the Civil War and Reconstruction, the number of farms in Lancaster County nearly tripled from 797 in 1860 to 1,965 in 1880, and the number grew every subsequent decade until the total number of farms reached 6,068 in 1920. However, overproduction, the boll weevil, drought, and overburdened land took their toll and by 1930, there were only 2,778 farms in the county. This number remained relatively steady through the 1960s. Agriculture has never been completely abandoned in Lancaster County and in 2002 there were 637 farms producing wheat (676 acres), soybeans (462 acres), corn (299 acres) and vegetables (42 acres). The number of farms further declined to 573 farms only five years later (City-data.com 2011; USDA 2007; UVA 2004).

Due to general lack of will and an overall lack of resources, the manufacturing sector was slow to arrive in Lancaster County. In 1860 there were only 19 manufacturing establishments recorded, employing 43 individuals. The number hovered around 25 establishments until 1900 when there were 41 such businesses employing 319 people; only five South Carolina counties had fewer such establishments in 1900. The number of manufacturers fluctuated greatly during succeeding decades, but the presence of large textile factories ensured gainful employment for more than 1,400 people. In 1930, the census started recording retail establishments; at that time there were 192 in Lancaster County. The retail sector grew to 264 stores by 1940, when there were also 66 service industry establishments in the county (City-data.com 2011, Edgar 1998, Power and Brown 1989, USDA 2007, UVA 2004).

Other industries that contributed to the Lancaster County economy included the Kershaw Oil Mill (established in 1902), the Lancaster Cotton Oil Company (1907), the Haile Gold Mine (with peak production during the period 1898-1908), and the Ashe Brick Company (1906-present). All told, there were 10,961 people working for pay in Lancaster County at the onset of World War II, but the county lost more of its population during the war (33 percent) than any other South Carolina county, as its citizens went into the armed forces or sought work in mills and defense industries. The trend toward a diversified economy continued following the war and continues at present, as 66 manufacturers account for 32 percent of all jobs, along with 198 service industry establishments (14 percent) and 243 retail stores (12.7 percent) (City-data.com 2011; Edgar 1998; Power and Brown 1989; USDA 2007; UVA 2004).

3.6.1 Overview of Haile Gold Mine

Colonel Benjamin Haile (1768-1842) discovered gold in a branch of Little Lynches Creek in 1827 and in 1828, he shipped the first South Carolina gold to the U.S. Mint in Philadelphia. The 1825 Mills Atlas records the place name of "B. Hail's" near the intersection of Little Lynches Creek and a major road, now Highway 601 (see Figure 3.1). Records at the state archives indicate that Haile was Clerk of Court in Union District in 1802 and that he was granted land there in 1803. He also served as Treasurer of the Upper Division and a Special Commissioner in 1808, and was granted 625 acres on Little Lynches Creek in Kershaw District in 1809. At the latter date, Haile was Commissioner of the Equity Court and Commissioner

of Columbia, charged with examining the reports of previous commissioners. Haile was a State Treasurer in 1826 and he was granted 236.5 additional acres of land in Kershaw District in 1842, the year of his death (SCDAH database search). Increasingly prominent among his peers, Haile was elected to the state legislature and was placed on the Board of Trustees for South Carolina College (now the University of South Carolina). Thus, Haile was situated to take advantage of any opportunity, and he was apparently aware that gold was discovered in nearby Charlotte as early as 1801; however, Haile never actually found the major body of gold located on the Haile Mine property. Rather, he exploited gold deposits within 25 feet of the surface, which was about the limits of mining technology prior to the introduction of late 19th century industrial mining innovations. The major vein, located at depths of at least 200 feet below surface, was not discovered until after his death in 1883 (Nix 2009; Roberts 1989).

By 1837, the Haile Mine included a five-stamp mill, installed by "a Frenchman named Cugnat" that crushed raw ore to expose gold (Pittman 1972:2). Gold fields were discovered in California in 1849 and the Haile Mine was gradually abandoned until the Civil War, when the Confederate government let contracts for gold and other minerals. Following the death of Benjamin Haile, his heirs leased the 1,900 acre property to the Taylor brothers of Charlotte; the Haile's lost possession of the mine about 1866. The Union army visited the mine on its tour between Columbia, South Carolina and Raleigh, North Carolina; they destroyed all working buildings. A Mr. James Eldridge of Camden owned the property until 1880, but it is unknown if successful mining occurred during that period. The early period of mining at the Haile Mine penetrated to a depth of about 25 feet below surface, below which the technology did not exist to make the endeavor profitable (Catawba Regional Planning Council 1976, Nix 2009; Pittman 1972).

A group from New York then acquired the mine and erected a 20-stamp mill, but the operation was not yet successful. The Haile Mine did not reach its potential until after 1887, when Dr. Adolf Thies (1832-1917) was hired. Thies was a German-born engineer with ideas for new methods of extracting gold from raw material (Nix 2009; Pettus n.d.; Pittman 1972). The so-called barrel process was Thies' improvement of the earlier Plattner's and Mears processes of extracting gold from ore. The Thies process combined similar chemicals, chloride of lime and sulphuric acid, with "roasted" raw ore in a 4x6 lead-lined barrel that was turned for about 8 hours. The Thies process was easier and resulted in less exposure of workers to the toxic fumes associated with the earlier processes; however, this process required some electric power and "more than ordinary care and intelligence" to operate (Egleston 1890). Soon a 60-stamp mill and narrow gauge railroad were constructed and the potential of the Haile Mine began to be realized (Pittman 1972). Thies retired in 1904 and left the daily operations to two of his sons. Earnest A. "Captain" Thies (1868-1908) was in charge and present on Monday August 10, 1908 when a tragic boiler explosion destroyed the stamp mill and killed Thies and two other employees. The Golden Age of mining at the Haile Mine went with the explosion, and the property's mortgage was sold to Mr. John T. Stevens at auction in 1911 (Lancaster County Library 2011; Pittman 1972).

The Haile Mine was operated intermittently through World Wars I and II, and the operation appeared robust as late as 1939. The 1939 Lancaster County Highway Map shows the Haile Gold Mine complex and a school under that name (Figure 3.3). In a fifth annual report to investors for the year ending June 30, 1939 it was reported that a second unit of the cyanide plant brought capacity to 350 tons of raw ore per day, and that contemplated renovations to the first unit could bring capacity to 400 tons daily.

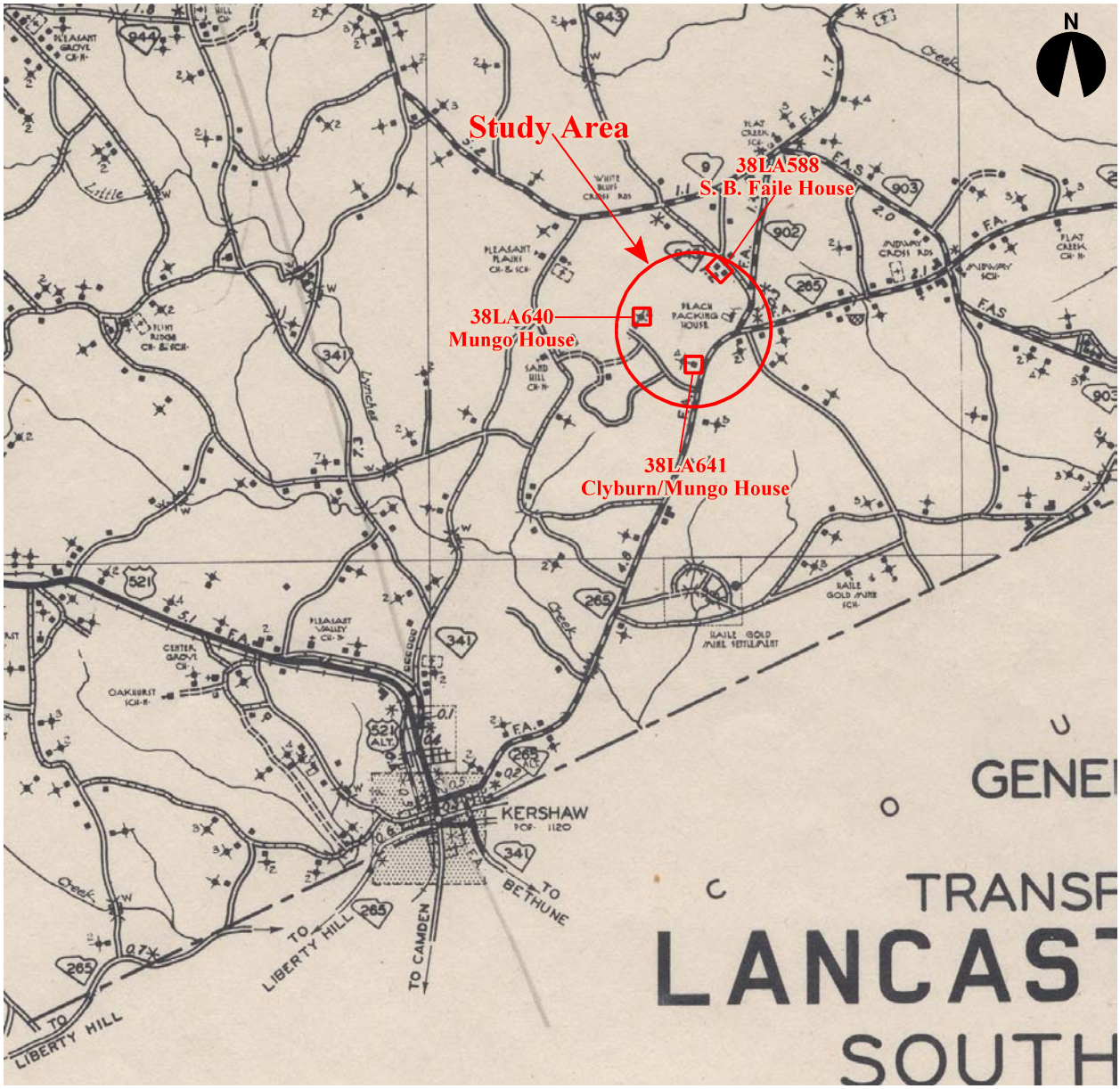
In 1938-39, ore was gained from four deposits, the Beguelin Pit, Red Hill, Chase Hill, and Clyburn, for a total of 84,290 tons with an average $5.54 assay per ton (almost half a million dollars). During the year, 29 shipments of gold and silver bullion were made, totaling $414,228.47, and gold license was continually increased.

Other plant improvements included the switch from gasoline to electric power and installation of a new compressor at Red Hill, several new mill buildings, a new dam, and concrete spillway to replace those washed away in the summer of 1938. Plans were also made to stock pile raw ore to keep the plant running when mining wasn't possible. Delineating at Red Hill and exploration at Clyburn were in progress, and mineral rights to 628 acres of adjoining property were obtained; total acreage at the Haile Mine had reached 3,128 acres. The 1939 report included almost double the gross revenue reported in 1938 (Haile Mines Inc. 1939).

The mine closed in 1942 due to a Presidential order which called for the closure of all gold mines not essential to the war effort. Haile Gold Mine was not reopened until 1985 in response to the rising cost of gold (Pluckhahn and Braley 1993). Piedmont Mining Company mined from 1985 to mid 1991. They entered into a joint Venture with Amax Gold to further explore the site, perform baseline environmental studies and permit an expanded mine. The price of gold fell, however, and plans of an expansion were halted. Kinross Gold acquired the site in 1998 and began reclamation activities which were completed in 1996. Romarco Minerals acquired the site in 1998 and is operating the site under the name Haile Gold Mine, Inc.

3.7 History Surrounding the Faile (38LA588), Mungo (38LA640), and Clyburn/Mungo Houses (38LA641)

During the current study, historic structures/structural remains present on archeological sites 38LA588, 38LA640, and 38LA641 were researched and recorded. All three of these resources are located on a 752-acre tract owned by the Clyburn family up until 2010 when it was purchased by Haile Gold Mine, Inc.. Each of these structures/structure complexes were originally recorded during the survey for the *Lancaster County Historical and Architectural Inventory* completed in 1986, but none were determined eligible for inclusion in the NRHP. Each structure complex is identified by the surname(s) of the family believed to have lived at each location: the Faile House (38LA588), the Mungo House (38LA640), and the Clyburn/Mungo House (38LA641).



Scale

0 2583 meters

0 8475 feet

Figure 3.3 1939 General Highway Map of Lancaster County

3.7.1 Chain of Title and Probate Records

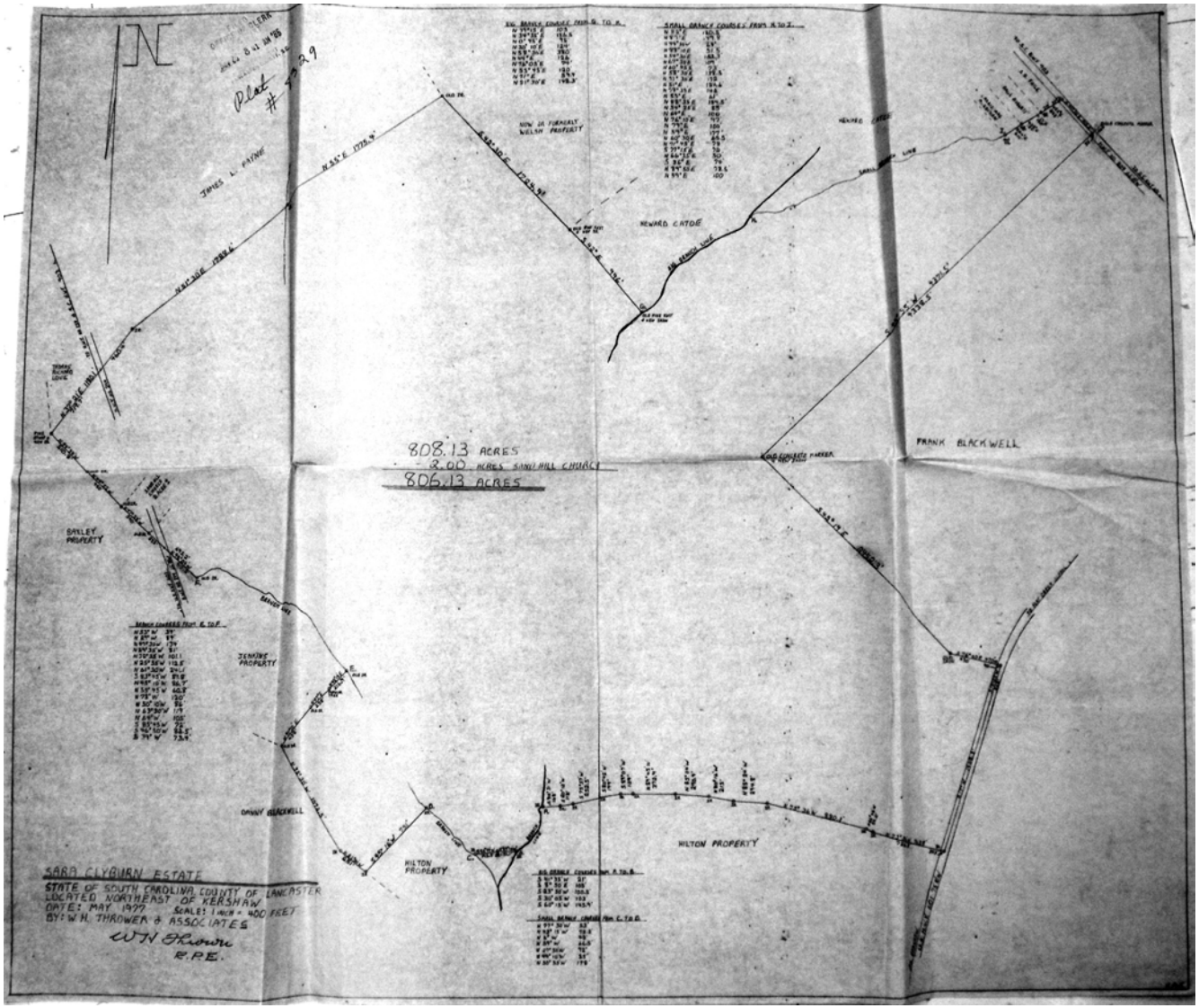
The records of the Lancaster County Clerk of Court show that in 2010 descendants of William U. Clyburn, III sold a 752.31 acre tract of land to Haile Gold Mine, Inc.. A plat showing the transferred tract is very similar to a 1977 plat of the Sara Clyburn Estate, which included 806.13 acres of land (Figures 3.4 and 3.5). Both plats show land that encompasses 38LA588, 38LA640, and 38LA641. Only one structure is detailed on either plat, it being the Clyburn/Mungo House, which was designated as an "old decaying house" in 2010 (Figure 3.5). The following chain of title information traces the consolidation of these properties to an as yet unspecified, pre-1917 date.

In the deed for the 2010 transaction, reference was given to five 1973 deeds which transferred a total of 954.3 acres of land from William U. Clyburn, III and Sara Brewer Clyburn to their children. The five deeds for the project area are part of a series of 10 deeds between the above named parties that included a total of 1,553.3 acres of land. The 1973 deeds, however, simply name part of the same land that was "devised to the grantors by the will of C. Frank Clyburn, who died in 1942". Property descriptions are vague and often include only acreage, township, a list of boundary land owners, and reference to the will of C. Frank Clyburn (1893-1942) (Lancaster County Deed Book C-6:2722-2731).

In 1919, following the death of W.U. Clyburn, Sr., the family heirs appeared at the Lancaster County Court of Common Pleas (Case No. 8368) to facilitate the settlement of an apparent dispute over land ownership. The Court records show that Beckham Hilton Clyburn was the Administrator of the W.U. Clyburn, Sr. estate. William, Sr.'s second wife, Eve May (Croxton) Clyburn, her children, and E.B. Lingle (relationship unknown) were named as defendants, and Beckham H. Clyburn, C. Frank Clyburn, Ada C. Britt, Martha C. Jenkins, and Grace C. Truesdale, along with minor siblings James T., Ruth, Louise, Helen, Catherine, and John C. Clyburn, were named plaintiffs. It was determined by the court that, because William U. Clyburn, Sr. left a large estate composed of many "different and widely scattered tracts" of land with "various and diverse value", that it was in the best interest of the parties involved to sell the land and divide the proceeds among the 12 heirs claiming title. It appears from subsequent records (noted above) that C. Frank Clyburn purchased a great portion of his father's estate at the resulting public auction, though no deeds were located to reflect these transactions. C. Frank's acquisitions appear to include all three historic properties.

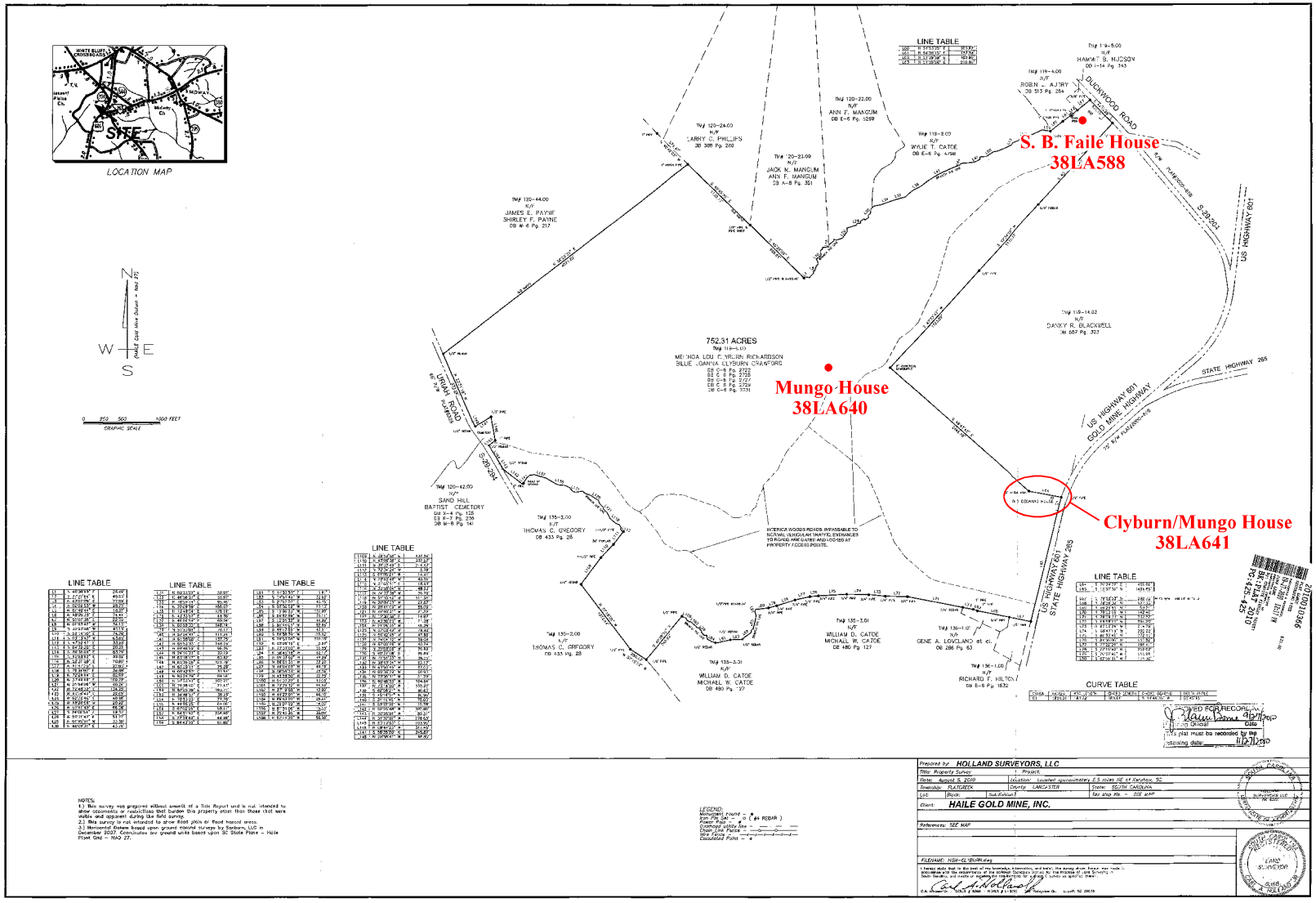
3.7.2 The Clyburn Family and Uriah Plantation

The Clyburn family appears to have been established in Lancaster County at least as early as 1843 when Thomas Lorenzo Clyburn founded the Clyburn Plantation. The plantation property is reported to have included 20,000 acres in the early 1900s, but it was reduced to 1,000 acres by 2011. Thomas Lorenzo passed this plantation to his son William Uriah about 1869 when he was only 12 years old. About 1876, W.U. Clyburn, Sr. built a second plantation house that subsequently became known as Uriah Plantation. The



Map Reference: Lancaster County Clerk of Court, Plat No. 8329

Figure 3.4 1977 Plat of the Sara Clyburn Estate



Map Reference: Lancaster County Clerk of Court, Plat No. 2010:425

Figure 3.5 2010 Plat Showing Site of 38LA588, 38LA640, and 38LA641

second plantation house still stands and is located at 5082 Gold Mine Highway, approximately 1.5 miles south of the Clyburn/Mungo House (SCIWAY.net, LLC 2012).

It is unknown as to how much, if any, of the project area was included within the original Clyburn/Uriah Plantation tract, or even how extensive the original estate was. The 2010 plat, shows that Thomas C. Gregory, the current owner of the Uriah Plantation house property, owns land adjacent (southwest) to the 752.31 acre property sold to Haile Gold Mine, Inc.; this land, however, was previously owned by the Jenkins, Blackwell, and Hilton families according to the 1977 plat of the Sara Clyburn Estate.

The first deed recorded at the Lancaster County Clerk of Court for William U. Clyburn, Sr. was in 1880, and a total of 59 deed transactions were recorded for William before his death in 1917 at 60 years old. The latter fact lends support for the ca. 1900 figure of 20,000 acres of land under control of Uriah Plantation and it may have been during this period (1880 to 1917) that the project area was acquired by W.U. Clyburn Sr. and the Uriah Plantation estate. However, the chain of title cannot be traced further back in time because there is no reference to previous deeds and there are no family names known absolutely to be associated with the properties.

3.7.3 Clyburn Family Political Involvement

William Uriah Clyburn, Sr. was listed as a Lancaster County delegate to the South Carolina House of Representatives in 1885, but the extent of his public service is unknown (South Carolina General Assembly 1885). C. Frank Clyburn was a member of the South Carolina House of Representatives in 1917 where he served on the Agriculture, Banking and Insurance, and Education Committees, and he served at least through 1921, but the total extent of his membership is also unknown. C. Frank Clyburn also served mayor of Kershaw, reportedly from 1919 until his death in 1942 (Ms. Dorothy Gregory, personal communication 2012), and he apparently wielded considerable local political power as his pledge to not run for the U.S. Congress was sought by eventual longtime Fifth District representative James P. Richards in 1940 (Lee 2011). Like his father and grandfather, William Uriah Clyburn III, served as a Lancaster County delegate to the South Carolina House of Representatives for two terms (1956-1959). A number of documents related to his public service were found at the abandoned house at 38LA641 during the Phase II testing.

3.7.4 Additional Research on Clyburn Tract

The Faile, Mungo, and Clyburn/Mongo house complexes are all located within the 752-acre Clyburn tract, which was originally part of the much larger Clyburn holdings believed to have been consolidated by the William Uriah Clyburn (1857 to 1917) during the period of 1880 to 1917 or by his descendants sometime before 1942. Before his death in 1917 William Sr. accumulated as much as 20,000 acres of land in Kershaw and Lancaster Counties (Gregory 2012).

As noted above, there are 59 deed transactions recorded in Lancaster County for William U. Clyburn between the years 1880 and 1917, several of which appear to have passed through family estates and were sold either by descendants or at public auction through court order. Any one of the deed transactions could include any one or all three of the study structures, but the given property descriptions are vague, often including only township, boundary owners, and acreage.

Alternative theories of ownership history are that the Clyburn family inherited the property by marriage, or for any number of other reasons the transfer deed was simply not recorded. Local family names that deed and census record research suggests could potentially be associated with the property are Hilton, Estridge, Montgomery, Truesdale, Horton, Gregory, and Welsh. William U. Clyburn married Queen Alice Hilton of a prominent local family, and it is known that they lived about 1.5 mile south of the Clyburn tract in 1880. Ms. Billie Jo Crawford, the last Clyburn family member to own the property, indicated that her grandfather, Charles Frank Clyburn, grew up "out there" (on the old Clyburn family plantation whose boundaries are unknown), but that he never lived on the Clyburn tract after he became of majority age. Likewise, Ms. Crawford stated that her father, William Uriah Clyburn III, never lived on the Clyburn tract. This assertion is somewhat at odds with the fact that a number of her father's personal papers that were found inside the Clyburn/Mungo house at 38LA641.

Information from three local residents who grew up with knowledge of the study area agree that tenancy was the only form of occupation in the project area of which they were aware (the informants were all school children in the 1960s). The 1939 General Highway Map of Lancaster County indicates a group of four tenant houses in the vicinity of 38LA641, two tenant houses in the vicinity of 38LA640, and two owner-occupied houses in the vicinity of 38LA588 (see Figure 3.3). It appears that African Americans occupied 38LA640 and 38LA641 during middle 20th century, and that a Euro-American family occupied 38LA588 during the same period. Occupancy for the former two sites appears to have ended in the 1960s and they were vacant when they were recorded in 1986. The latter house site was occupied in 1986, but was destroyed by fire sometime afer that date.

According to Ms. Dorothy Gregory, Ms. Sheila Love, and Ms. Billie Jo (Clyburn) Crawford, the house at 38LA640 was last occupied by an African American family, headed by Joseph "Uncle Joe" and Ellen "Aunt Ellie" Mungo, into the1960s. However, no one knew how long the Mungos had lived there. The informants also indicated that multiple Mungo children established "brick" homes in the vicinity of 38LA640. Unfortunately, the informants had no knowledge of the any original builder or any earlier inhabitants of the structures.

Ms. Love, who grew up on the Clyburn tract, referred to Ellen Mungo as "Big Momma Clyburn," suggesting that Ms. Mungo may have been a descendant of Clyburn family slaves. The 1920, 1930, and 1940 census

records indicate that a number of African-American families with the Clyburn surname lived in the Flat Creek township, and it is logical to assume that these individuals were also of Clyburn family slave descent.

Ms. Gregory remembered the S.B. Faile family living in the house at 38LA588, and Ms. Crawford remembered "Ern" Mungo living in the house at 38LA641. Census records show that Joe and Ellen Mungo were married in 1894 and that they lived in the Flat Creek township of Lancaster County during the period 1900 to 1940. In 1900, Joe Mungo was employed as a "gold mine laborer" but he was listed as a farmer in each subsequent census. In 1920, the Mungos had 11 children in their household, including sons named John, Joseph, and Ernest. While the precise location of their household is unknown, they were listed as residing on the Kershaw-Jefferson Road, a portion of which is now the Gold Mine Highway or U.S. Highway 601. Thus, it is possible to assert, but difficult to establish with a degree of certainty, that the Mungos occupied the 38LA640 as early as 1920.

A comparison of the informant recollections, the 1939 Lancaster County Highway Map, and the 1940 census suggests that S.B. Faile, Joe and Ellen Mungo, Ernest Mungo, and others occupied the project area by 1940. Joe and Ellen Mungo lived alone by that time, but four of their daughters lived in Ernest's household nearby. The 1940 census listed 12 individual households between S.B. Faile and Ernest Mungo, including that of Joe and Ellen Mungo; all were farmers and all were tenants. Ben Faile (56) and S.B. Faile (25), possibly father and son, were Euro-American and were immediate neighbors living in the vicinity of the two "owner-occupied" structures on the 1939 map (38LA588). After the Faile households the census listed four Lucas families (all Euro-American), Andrew Webb (Euro-American), Coleman Mungo (African American) (relationship unknown), Frank Mungo (African American) (relationship unknown), J.E. Lucas (Euro-American), Joe and Ellen Mungo (African Americans), Willie Mae Seagars (African American), Johnnie Mungo (African American), and Ernest Mungo (African American). The latter two households are known to be children of Joe and Ellen Mungo. Several additional African American households, all tenant farmers, are listed beyond that of Ernest Mungo in 1940.

4.0 RESEARCH DESIGN

4.1 Project Goals

The primary goals of Phase II evaluation were: 1) to provide sufficient information to determine whether or not the subject archeological sites are eligible for the NRHP; and 2) how the proposed mining project might affect sites considered eligible for the NRHP. To accomplish the first goal, each archeological resource was evaluated under NRHP eligibility Criterion (d) using a systematic assessment of the physical attributes of the archeological deposits at each site (Section 4.2). These assessments were carried out within the theoretical framework of the research themes (Section 4.3) and the practical framework of the project Scope-of-Work (Section 4.4) to determine whether or not each site is likely to contribute significant information to the research base for a particular cultural period or periods.

Regarding the assessment of potential project effects on any archeological resources eligible for the NRHP, Haile Gold Mine's current mining plan would have an adverse effect on any of the 13 archeological resources determined by the SHPO to be eligible for the NRHP. In such cases, the goal of determining the appropriate mitigative treatment would have to be accomplished through consultation between the SHPO and Haile Gold Mine.

4.2 Evaluation of Archeological Resource Significance and Integrity

The NRHP eligibility criteria in 36 CFR Part 60.4 were used to evaluate the significance of each site; for archeological resources, Criterion (d) is the most relevant:

> *The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and*
>
> *(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or*
>
> *(b) That are associated with the lives of persons significant in our past; or*
>
> *(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
>
> *(d) That have yielded or may be likely to yield, information important in prehistory or history.*

Glassow (1977) and Little *et al.* (2000) provide additional foundations for assessing site significance and integrity. Glassow divides the physical attributes of a cultural resource into three basic groups: 1) items (artifacts); 2) deposits (strata); and 3) surfaces (living floors; hearths). Glassow views each of these attributes as having five primary properties: 1) variety; 2) quantity; 3) clarity; 4) integrity; and 5) environmental context (Table 4.1). For the current study, artifact density and diversity, assemblage completeness and clarity, and preservation state were used to establish the research potential of each archeological resource.

Table 4.1 Properties of Physical Attributes of Cultural Resources

Property	Definition (Following Glassow 1977)
Variety	Diversity of attributes
Quantity	Density measure
Clarity	Measure of distinguishing temporal or functional components based on the attributes present
Integrity	State of preservation
Environmental Context	Nature of the surroundings of the archeological resources

Little *et al.* (2000), building on Townsend *et al.* (1993), is useful in evaluating both archeological and above-ground resources (i.e., historic structures/complexes, landscapes, etc.) Little *et al.* define seven aspects, or qualities, of integrity. These include location, design, setting, materials, workmanship, feeling, and association (Table 4.2) and each is of differing importance depending on the specific NRHP criteria or criterion under which the resource is being evaluated. For archeological resources being evaluated under Criterion (d), the most important aspects of integrity are usually location, design, materials, and association (Little *et al.* 2000:35-36).

Table 4.2 Aspects, or Qualities, of Integrity for Historic Properties

Aspect/Quality	Definition (Following Little *et al.* 2000)
Location	The place where the historic property was constructed or the place where the historic event occurred.
Design	The combination of elements that create the form, plan, space, structure, and style of a property.
Setting	The physical environment of a historic property, including elements such as topography, open space, viewshed, landscape, vegetation, and artificial features.
Materials	The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
Workmanship	The physical evidence of the labor and skill of a particular culture or people during any given period in history or prehistory.
Feeling	A property's expression of the aesthetic or historic sense of a particular period of time.
Association	The direct link between an important historic event or person and a historic property. Under Criterion (d) this is measured by the strength of the association between data and important research issues.

4.3 Research Themes

Prehistoric Research Issues: Research issues related to prehistoric use of the study area that potentially could be addressed at the Phase II evaluation level included: chronological refinement, site function, organization of space, settlement strategies, subsistence, and exchange/trade.

Chronology

Refinement of cultural chronology is an important research concern in regions with limited temporal control over the archeological landscape, such as north central South Carolina. While the study region can be placed within broader temporal contexts due to work in other parts of South Carolina and in southern North Carolina, temporal control over prehistoric occupations in north central South Carolina is quite limited. Temporal control is also an important issue at the Phase II level of investigation because it allows the archeologist to anticipate material culture and pose more specific research questions.

Site Function/Organization of Space

With the realization that the prehistoric archeological record may retain as little as one to two percent of the material culture originally deposited on an occupational surface, it can be difficult to make meaningful statements about the array of activities that might have taken place. By looking at groups of artifacts that represent products or byproducts, some site activities can be confirmed or implied at the Phase II level of investigation. Table 4.3 provides an inventory of potential site activities based on grouped artifacts and features. Combinations of various site activities imply site function. Generally speaking, a narrow range of activities suggest a special-use or limited-use site, or a site that has been disturbed/dispersed to the extent that the site cannot be characterized otherwise. A broader range of activities imply increasing complexity (and often, longer term occupation by family groups) and/or repeated use of the site.

Table 4.3 Prehistoric Activities, as Defined by Artifact and Feature Types

Activity	Artifact/Feature Group Present
Stone Tool Manufacture	Hammerstones, anvils, hard-stone abraders
Biface Production	Late-stage bifaces, rejected bifaces, bifacial thinning flakes
Stone Tool Maintenance	Reworked tools, retouch and edging flakes
Hunting/Piercing	Projectile points
Butchering/Cutting	Choppers, knives, side-scrapers, shallow-edged flake tools, utilized flakes
Scraping/Hideworking	End-scrapers, steep-edged flake tools, perforators
"Soft Media" Manufacture	Drills, denticulates, gravers, notched flakes, microliths, soft-stone abraders
Plant Processing	Processing slabs, nutting stones, manos
Woodworking	Celts, axes/adzes
Shelter Construction	Large axes/adzes, post features, wall trenches, postmolds, depressed floor features
Collection/Containment	Storage features, utility ceramics
Heat Production/Cooking	Hearths, fire-cracked rock, rock-filled/ash-bearing pits, ceramics, burned wood

Activity	Artifact/Feature Group Present
Subsistence (Direct Indicators)	Carbonized cupules/seeds/pits/nuts, burned/cut/fragmented animal remains
Sleeping	Absence of artifacts within a shelter, interior bench posts
Horticulture/Farming	Grubbing tools, hoes
Adornment/Ceremonial	Gorgets, beads, cut mica, pipes, specialty ceramics, ceremonial blades, copper
Mortuary Activities	Burial pits, human remains, grave goods
Public Activities	Defensive trenches, post palisades, plaza areas, ceremonial structures/earthworks

Assessing the organization of prehistoric space is challenging at the Phase II level. The presence/absence of particular feature types, artifact clusters, distribution of functionally diagnostic artifacts, and the integrity of their spatial relationships were important in gleaning information on the organization of space.

Settlement Strategies

Volumes have been written about hunter-gatherer mobility/settlement strategies (e.g., Bettinger 1991, Binford 1980, Yellen 1977, etc.) and there is no need to recount the various theories posited here. At the Phase II level of investigation group organization can be assessed to some extent by looking how stone tools were maintained (i.e., curated versus expedient), how tool production might have been staged, diversity in the material culture, and the types of features present. If non-local lithic materials and/or ceramics are present, these items may also be helpful in estimating whether site occupants were residentially/highly mobile versus logistically organized or territorially circumscribed.

Subsistence

The current study produced few prehistoric faunal or floral remains, which is fairly typical for archeological sites in sandy environments. To complement the limited direct evidence of subsistence, grouped prehistoric artifact data were used to provide information about food preparation techniques, availability and preference of food types, and modes of collection (i.e., isolated versus aggregate; collecting versus gardening).

Exchange/Trade

No obvious prehistoric exchange/trade items were recovered during the current Phase II study. Given the types of prehistoric sites being investigated, this finding was not unexpected. However, the lack of exchange/trade items has implications regarding how the groups occupying the various study sites may have been organized, as well as site function.

Historic Period Research Issues: Historic period resources were considered within the broad contexts of antebellum slave-based agriculture, reconstruction, and post-bellum wage-based agriculture in upcountry South Carolina. Research issues that potentially could be addressed at the Phase II evaluation level included: temporal span, identity/ethnicity, site type/organization, economy, and subsistence. Most if not all of these issues significantly overlap.

Temporal Span

Gaining an understanding of when a historic archeological site was occupied is essential to place and evaluate it within the proper historic context(s). Establishing temporal control involved conducting archival research, interviews with local residents, and as possible, confirming the chain of title. Dating of archeological materials was important to confirm and supplement the research efforts.

Identity/Ethnicity

An understanding of identity/ethnicity is important in determining which historic contexts are relevant in Phase II evaluation; it was useful in interpreting historic archeological materials at the subject sites. At the Phase II level of investigation identity/ethnicity was addressed through archival research, interviews, and chain of title.

Site Type/Organization

Determining the type of historic site present was critical in evaluating the kinds of information archeologists might expect to recover. During the current study, it was fairly obvious that the historic components at 38LA640 and 38LA654 were of domestic origin rather than something commercial or industrial. At that point the question became what type of domestic site was present. Was this an owner/operator farmstead, a tenant house, or possibly a slave cabin? Was there shift from owner/operator to tenant occupation? Was there a shift from slave to freedman occupancy? Each of these site types usually display different levels of internal organization and recognizing this in the archeological record at the Phase II level can be difficult. This can be complicated by factors such as a lengthy occupational history, disproportionate deposition of material culture over time, Phase II sampling strategies, and survival of surface features. Often, owner/operator farmsteads maintained a series of outbuildings, pens, and surface features (e.g., wells, discard areas, garden plots, etc.) indicative of self-sufficiency. While tenant houses sometimes show similar organization, the level of complexity and "commitment" to the property is usually limited.

Archival research and interviews assisted in estimating the type of domestic site, as did site plans, the distributions/types of artifact and features recorded during Phase II fieldwork. The profiles of relative frequencies of grouped historic artifacts can be a valuable tool in interpreting site type and organization. As feasible given sample sizes, "artifact pattern" analysis [South (1977), Gray (1983) and others] was used to this end.

Subsistence

Analyses of faunal and floral remains are obviously important in understanding the food sources and diet of the occupants. It is also possible to posit something about subsistence habits from food/beverage containers such as jars, bottles, and cans. Subsistence remains can also reflect site economy (e.g., species diversity, wild versus domesticated sources, home processing versus commercial cuts, etc.). They also provide an indication

of preservation and allow the archeologist to assess how studies on floral and faunal remains might be integrated into future research, if determined necessary.

No historic floral materials were recovered from historic archeological deposits during the current study. Faunal remains from 38LA640 were limited but well preserved; food bone from 38LA654 was very limited and exhibits fair to good preservation.

Economy

Site economy is highly correlated with identity/ethnicity, and was approached through archival research, interviews, and to a lesser degree, deed research. Site economy was also measured by the presence/absence of certain artifacts or groups of artifacts that are viewed as general indicators of economic standing. The types of ceramics present, their decoration, the number/type of vessels present, the presence/absence/types of glassware, and the variety of subsistence items (e.g., meat cuts, wild versus domestic species, etc.) can all speak to the economy of the occupants when they are present in interpretable quantities.

Site economy is also reflected in the sources of purchased items, or market access. Were purchases limited to local goods that could not be produced on-site (e.g., kitchenwares, equipment, tools, arms/ammunition, etc.)? Is there evidence that site economy allowed access to non-local markets and items suggesting expenditure of some level of discretionary income (e.g., exotic ceramics/decorative wares, jewelry/ adornments, high frequencies of glass containers reflecting use of non essential foodstuffs, cosmetics, etc.)?

4.4 Practical Evaluation of Resource Significance and Integrity

The following discussion follows the Scope of Work (Appendix A) with some modification due to what was encountered during background research and fieldwork.

4.4.1 Background and Orientation

Assessment of Previous Work on Prehistoric Sites at Haile Gold Mine: During 2009, 2010, and 2011, detailed Phase II evaluations were conducted at 10 prehistoric sites on the Haile Gold Mine property in Lancaster County, South Carolina [38LA291, 38LA301, 38LA307, 38LA334, 38LA336, 38LA355, 38LA361, 38LA371, 38LA378, and 38LA380 (Cable and Price 2009, 2010)]. These efforts included shovel testing large portions of each site on a five-meter (m) grid in 10-centimeter (cm) levels, followed by test unit excavations. This was followed by a detailed analysis of the artifacts (mostly lithics) to identify technological and functional attributes, and when possible, to place them within a temporal framework. The artifact data were graphically displayed to show artifact concentrations by raw material types and other traits.

Subsequently, Phase III data recovery excavations were performed at four of these sites [38LA291, 38LA361 (Keith *et al.* 2011), 38LA334, and 38LA355 (Patch *et al.* 2011)]. This Phase II/III work has enhanced our knowledge of how, when, and why these 10 sites were being used, and it would not have been possible to develop the current Scope of Work without this work having been done. Palmetto Research Institute's Phase II evaluations are quite informative and detailed, and in our estimation, are more akin to creative Phase III efforts (e.g., excavation of numerous 5-m-interval shovel tests across large portions of sites, and the preparation of detailed artifact distribution maps) than Phase II evaluations. New South's Phase III investigations are likewise detailed and informative in exploring ways to extract archeological information from prehistoric quarry/lithic workshops in the study region.

Having recognized the high quality of these previous efforts, there are limitations to what can be accomplished by future work at lithic sites similar to those already investigated. In fact, a critical question at this point is whether or not future Phase III work is warranted at similar sites given the large amount of data already collected, the high level of redundancy in the data, and the high cost of such work in time and effort. Looking back at the work conducted on these 10 sites, there is no evidence of mid- to long-term occupation, such as high frequencies of fire-cracked rock (FCR) and/or ceramics, pit/post features, and/or middens. Furthermore, no faunal remains were detected and only limited floral remains were recovered. The average Phase II sample assemblage from the Haile investigations exhibits (rounded averages) 85.3 percent debitage, 12.1 percent FCR/other rock, 1.2 percent ceramics, and 1.1 percent lithic tools of all kinds. In addition to the very high percentage of non-diagnostic artifacts present at these sites, the effects of reoccupation and post-depositional processes (e.g., drift due to the sandy matrix/aeolian effects, historic disturbances of the last 175 years or more, etc.) have compromised cultural stratigraphy to unknown, varying degrees.

The "temporary" nature of the Haile lithic sites becomes more evident from the data recovery efforts at 38LA291, 38LA361, 38LA334, and 38LA355. Three of these sites, 38LA291, 38LA334, and 38LA355, are quite large (i.e., six to 52 acres). Discrete features were rare: 38LA291 yielded 1 pit and 3 rock clusters; 38LA361 yielded 1 cache pit and 5 rock clusters; 38LA334 produced 2 rock clusters; and 38LA355 produced one distinct, tight chert debitage cluster. A number of larger "artifact clusters" (almost exclusively composed of debitage) were recorded at each site. None of the excavated sites produced faunal remains and only limited floral remains. Nutshell fragments comprised a large fraction of the floral remains; nutshell fragments are very common, even on poorly preserved sites. Furthermore, no midden deposits, evidence of structures, domestic pits, or burials were found.

Data recovery documentation of "occupational clusters" or "artifact clusters" shows that in many instances artifacts within the same cluster spanned three 10-cm excavation levels. It is important to note that the depths of archeological deposits sampled during data recovery only included four levels at 38LA355, and six levels at 38LA334. If it is assumed that each recorded occupational cluster was deposited on a prehistoric working

"surface", then there has been considerable vertical movement of lithic materials over the millennia due to the loose sandy matrix and/or varying degrees of disturbance (human and natural). More direct evidence of mixing/drift is provided in the following example. At 38LA334 radiocarbon dates were obtained from two features 8 m apart in the same block. Feature 1 (30 to 40 cmbs) yielded a date of 4,290 BP, while Feature 2 (30 to 50 cmbs) came back with a date of 2,740 BP. On this basis, it appears that the earlier feature (Feature 1) is bracketed within the same vertical range as the later one (Feature 2). There may be similar issues with two radiocarbon dates from Features 6 and 9 at 38LA291, and possibly with dates from Features 2 (burned tree), 5, and 13 at 38LA361. These possible temporal inconsistencies raise serious concerns about the contextual clarity of the deposits at these sites.

Another complicating factor is the composition of the data recovery assemblages. These four assemblages averaged 99.0 percent debitage and FCR/unmodified rock. Only 115 potentially diagnostic projectile points were recovered from over 130,000 artifacts. Given the lack of clearly sealed contexts (e.g., pits, distinct midden deposits), the limited number of actual diagnostic artifacts, and considering post-formational effects, it is very difficult to confirm associations between diagnostic artifacts and nearby rock clusters or high density debitage areas. Some of the radiocarbon assays are suspicious because of the loose matrix and there is the potential blurring effect of repeated short-term occupation over a long period of time.

Without well-defined features and/or clearly identifiable deposits, it is very difficult to confidently address the research issues that archeologists in the southeastern U.S. typically consider most important, for example: chronology, subsistence, mortuary practices, and organization of domestic, work, and special use areas on an occupational surface (or within an occupational zone). Again through hindsight, a review of the synthetic sections of the data recovery reports suggests that a good part of what was learned about the four documented sites was already known or could be gleaned from the combined Phase I survey and Phase II work conducted.

In summary, given the high quality and intensity of the Phase II and Phase III excavations conducted already, it does not appear that this high level of effort on similar sites on the Haile Gold Mine property will add significantly to the existing knowledge base. Additional work on these scales would likely result in the recovery of highly redundant information primarily related to lithic extraction and reduction, and a very low yield of information from intact and/or sealed archeological contexts that traditionally retain more culture/time-specific data.

It was within the above framework that the 11 sites with prehistoric components were evaluated during the current study.

Historic Period Archeology on Haile Gold Mine: As of 2011, historic period archeology on the Haile Gold Mine property has focused on the development of a gold mining context for the Carolinas (Botwick 2011) and documentation of the Haile Gold Mine Stamp Mill (38LA383) (Botwick and Swanson 2011). No Phase

II or Phase III investigations had been conducted on domestic sites at Haile Gold Mine. Because of this, the merits of historic archeological sites were evaluated on a case-by-case basis.

Since there is often significant accumulation of mass consumables waste on early to middle 20th century (i.e., approximately 1920 to 1960) sites, post-Phase I efforts on these sites are often more productive when oriented toward additional archival research and limited documentation of surface features and standing architecture (if present). Clearly there are exceptions to this, but since the historic occupations on 38LA588 and 38LA641 clearly had an occupational span from the early to middle (or even late-middle) 20th century, no post-Phase I archeological investigations were conducted at these historic sites during the current study. Instead, additional archival research and field documentation was considered appropriate.

It is clear that the historic archeological deposits (and structure) at 38LA640 were probably occupied from the middle 19th century into the middle 20th century. Because of this long temporal span and the potential for the accumulation of features, the historic portion of this site was evaluated under a more traditional Phase II testing program. Since 19th century architecture is present at 38LA640, structures (or their remains) were documented and additional archival research was conducted.

4.4.2 Evaluating Significance and Integrity at Prehistoric Sites

NRHP eligibility recommendations under Criterion (d) were made based on clear physical evidence recorded in the field and through laboratory analysis/interpretation. Physical evidence from fieldwork included the presence/absence of distinct prehistoric cultural features, middens, and/or clear and stratigraphically correct archeological deposits within the same test unit. Other attributes were considered as well, such as the occurrence of rare artifact types, large quantities of certain artifact types (e.g., ceramics, lithic tools), exotic raw materials, presence of animal/food bone or human bone, etc.. Positive eligibility recommendations were not based on general trends observed in Phase II field data such as the simple presence of high concentrations of debitage in one or more sequent levels, trends in the composition of debitage over several excavation levels, or vague temporal subdivisions such as "ceramic versus aceramic". Evaluated sites retaining only general or vague evidence of spatial integrity were recommended ineligible for the NRHP under Criterion (d).

To be recommended eligible for the NRHP, the subject archeological deposits had to show clear physical evidence of integrity, including but not limited to: pit/post features, distinct artifact caches, tightly defined rock clusters, moderate to high concentrations of artifacts indicative of intense residential use (i.e., high frequencies of ceramics, high diversity in lithic tool types, hearth-related burned clay, daub, etc.) and/or well defined midden deposits. That is, the archeological materials and data observed/recorded/collected had to retain the important quality of association. Data from the deposits had to be sufficiently intact and interpretable to allow high-level research issues to be addressed and, therefore, meet NRHP eligibility

Criterion (d) in terms of yielding "information important in prehistory". "High-level research issues" included, but were not limited to: chronological refinement; subsistence habits; site structure (based on features, certain types of site furniture and if present, "artifact cluster" data as supporting evidence); exchange/trade; etc. While there are exceptions to every case, evaluated sites that did not exhibit physical archeological remains as described above were recommended ineligible for the NRHP.

Another important consideration in assessing the significance/integrity of the archeological deposits was the level to which late 19th and 20th century impacts have physically affected the depositional integrity and contextual clarity of the deposits. The effects of cultivation (i.e., plowscarring, soil homogenization due to cultivation, terracing, etc.), heavy equipment scaring/tracking, tree stump removal, grading, and similar 19th to 20th century disturbances were assessed and recorded, as feasible, to support NRHP eligibility recommendations.

Laboratory analysis and interpretation were equally important in making judgements about resource significance and integrity. In addition to achieving identification, artifact analyses were used to assess the potential for extracting information required to address research concerns at each site. Analyses were also designed in such a way that current and previous data sets could be compared to assess, among other things, the level of data set redundancy. Definitions of functionally grouped artifacts recovered during testing were similar to those used during previous investigations at the Haile Gold Mine. This allowed meaningful comparison of percentages of grouped artifacts recovered from the sites being currently tested to the corresponding percentages from the 10 prehistoric sites studied during the previous Phase II/III investigations at Haile Gold Mine. The functional groups included: lithic reduction (debitage, hammerstones, anvils); hot-rock/heat-transfer cooking (FCR, soapstone); ceramic-based cooking/containment, expedient cutting/ scraping/perforating (flake tools), core/biface production (cores, staged bifaces), soft media processing (drills, adzes, axes), formal cutting/scraping/piercing tools (projectile points, knives, scrapers), and vegetal processing stones.

For each tested site, artifact group percentages were calculated and compared with those calculated from data recorded from the previously investigated sites. At prehistoric sites previously investigated at the Phase II level artifact group percentages averaged approximately 85 percent debitage, 13 percent FCR/unmodified rock, one percent ceramics, and one percent all bifaces/lithic tools. If the group percentages from a current Phase II assemblage were similar to the average percentages calculated for previously tested sites, then this was a step toward considering the site ineligible for the NRHP. If in contrast, the subject site produced artifacts indicative of extended residential use/group maintenance, then the site was viewed as having the potential for retaining new and important information that could advance research and make it eligible for the NRHP. While this comparative analysis was a consideration when assessing information potential, depositional integrity and contextual clarity were still key in assessing the eligibility of each site under study.

In summary, to qualify as eligible under Criterion (d), it was necessary to provide a reasonable and evidence-based argument that future data recovery efforts at a site would not result in a data set that is highly redundant of data sets from sites investigated during previous Phase II/III investigations at the Haile Gold Mine. Sites were considered ineligible for NRHP listing if they exhibited one or more debitage clusters, but little or no field evidence of residential/group maintenance activities, such as: pits/posts; high frequencies of FCR and/or ceramics (cooking/containment activity); a diversity of flake tools; soft media tools; woodworking tools; hunting/cutting/piercing tools; and/or vegetal processing stones.

Conversely, sites that exhibited evidence of moderate to intense residential/group maintenance activities (as itemized above), with or without debitage loci, were recommended eligible for the NRHP, provided that: 1) the current relationships among archeological objects, features, and deposits at a site appeared to be interpretable and the cultural stratigraphy had not been significantly compromised (i.e., depositional integrity); and 2) the archeological deposits retained reasonably separable information about who, why, when, and how the site was occupied (i.e., contextual clarity).

4.4.3 Evaluating Significance and Integrity at Historic Sites

For historic period resources, Phase II evaluation under Criterion (d) focused on whether or not the resources being assessed retained the information necessary to address the research issues itemized in Section 4.3. Archival research and interviews were considered key to addressing issues related to who might have occupied the sites, their livelihoods, and ethnicity. These methods were also useful in estimating when historic structures were constructed. Unfortunately, tenancy made identifying the occupants of 38LA588 and 38LA640 difficult. Census records were helpful in this respect; however, these records only show residents at ten-year intervals.

To address the internal structure of the historic occupation, the locations of the domicile, out structures, and surface features (e.g., historic canopy and ornamental vegetation, roads/drive depressions, foundations/ erosional pads, fence posts/lines, etc.) were mapped. Archeological data from shovel tests and test units were used to confirm the presence of discard middens, important depressions or buried features (e.g., wells, building trenches, cellars, etc.). The clarity of site structure was a critical consideration when formulating NRHP eligibility recommendations.

A reasonable degree of depositional integrity and contextual clarity was necessary to assess the value of data pertaining to chronology, site structure/organization, economy, and subsistence. Assessments of integrity and clarity were based on the presence/absence of distinct cultural features (e.g., privy pits, building trenches, cellar pits, posts, wells/cisterns, etc.) and 19th to early 20th century midden/archeological deposits. Because of the high frequency of fencing and cross fencing on historic sites spanning many years, the presence of posts alone was not construed as evidence of integrity or clarity.

While fine-sequence stratification was not expected in historic archeological deposits, general stratification of 19th and 20thcentury archeological materials within the same test unit was viewed as important. Horizontal isolation of early versus late historic discard middens was viewed as contributing significantly to a positive NRHP eligibility recommendation because of the potential for comparing earlier and later occupations. Complete mixing of 19th century and early 20th century archeological materials due to significant post-deposition activity (e.g., house razing, logging, grading, etc.), or mixing of earlier deposits with large quantities of early to late 20th century mass-disposable materials were grounds for a negative NRHP eligibility recommendation.

Historic testing assemblage content also influenced NRHP eligibility recommendations. The occurrence and density of early artifacts, the occurrence/density of artifacts suggesting socio-economic status, and the presence of zooarcheological and/or archeobotanical materials contributed to a positive NRHP eligibility recommendation. Testing assemblages with low to moderate frequencies of common artifacts with broad temporal ranges (e.g., plain whiteware or ironstone, clear bottle glass, nails/nail fragments, isolated brick/ mortar, unidentifiable glass or metal) were viewed as a negative factor during NRHP eligibility evaluation.

To be recommended eligible for the NRHP, historic archeological deposits had to show clear physical evidence of important historic features (e.g., privy, cellar, cistern), horizontally distinct discard areas, generally stratified archeological deposits in the same test unit, and/or moderate to high frequencies of artifacts/ethnobiotic materials that could address the research issues discussed in Section 4.3. Of particular interest were issues relating to site economies, identity/ethnicity, and site structure. Historic archeological occupations lacking the capability to address these or similar research issues were recommended ineligible for the NRHP under Criterion (d).

The level to which middle to late 20th century impacts have affected the archeological deposits played an important role in determining the depositional integrity and contextual clarity, and therefore, the NRHP eligibility of historic archeological deposits. The effects of silviculture, house razing/grading, intensity of modern discard, and similar 20th century disturbances/intrusions, and to a limited degree cultivation, were assessed and recorded when feasible, to support NRHP eligibility recommendations.

Laboratory analysis of historic archeological materials followed the same general principles outlined for the analysis of prehistoric materials, with the understanding that there are no existing data sets for comparison and that such comparisons may not be appropriate.

5.0 METHODS

5.1 Field Methods

Table 5.1 summarizes the Phase II treatment of each site and number of shovel tests and test units excavated. Phase II shovel testing and test unit excavations were carried out at 11 prehistoric sites. Similar excavations were also performed at historic sites with 19th century components (38LA640 and 38LA654). At 38LA641, which contained 20th century standing architecture and a prehistoric component, historical research and field documentation were conducted on the structure, and the prehistoric component was investigated via shovel testing and test unit excavations. For the site with architectural remains (38LA588), historical research and field documentation were conducted, but no archeological excavations.

Table 5.1 Phase II Evaluation Treatments

Site 38LA	Phase II Treatment	Shovel Tests	1x1 m TUs
588	History and site plan	0	0
589	Limited testing of prehistoric component	32	3
595	Limited testing of prehistoric component	50	4
596	Very limited testing of prehistoric component	15	2
600	Limited testing of prehistoric component	62	3
602	Very limited testing of prehistoric component	22	2
605	Testing of prehistoric component	49	4
622	Very limited testing of prehistoric component	14	1
640	History and site plan; testing at two historic loci	66	8
641	History and site plan; testing at prehistoric loci	94	3
654	Testing of prehistoric and historic features and prehistoric loci	82	6
723	Very limited testing of prehistoric component	22	1
727	Very limited testing of prehistoric component	14	2
	Total	**522**	**39**

5.1.1 Treatment of Prehistoric Sites

Close-grid Shovel Testing: All 11 of the prehistoric sites being evaluated were surveyed within the last two years and survey shovel test data were instrumental at that time in formulating the unassessed NRHP eligibility status of each site. Survey shovel testing data (i.e., location and depths of deposits, artifact types/ quantities) and mapping of surface features (lithic concentrations, outcrops, etc.) were used to assist in determining the locations of Phase II shovel tests and test units on each site. As necessary to determine where test units were located, survey shovel test data was complemented by a limited number of Phase II shovel tests. The number of Phase II shovel tests and the intervals at which they were excavated (no less than 5 m and no greater than 15 m) depended on survey shovel test artifact distribution data, density, content,

possible feature presence/absence, and/or depths of archeological deposits. Table 5.1 provides the numbers of Phase II shovel tests excavated at each site.

In most cases, a Phase II-level shovel test was excavated within 50 cm of each proposed test unit location to generally confirm that the area being sampled was likely to be productive. The only exception to this rule was when a specific survey shovel test was confirmed to be the best location to site a test unit due to artifact density, diversity, possible feature, etc., in which case the test unit included the shovel test. Phase II-level shovel tests were 30 cm square and excavated in 10-cm levels to culturally sterile substrate; each shovel test was excavated to at least 50 cmbs. On very rare occasions, shovel test excavations were terminated due to rock refusal. Shovel test soils were screened through 0.64-cm hardware cloth and artifacts from each level were bagged separately. Soil color/texture data were recorded on a form by level for each shovel test. Once data were recorded, shovel tests were backfilled. Shovel test artifact data by level are provided in Appendix B.

Test Unit Excavations: Table 5.1 gives the number of structured test units excavated at each site. As feasible, and based on the available Phase I/II shovel testing data, highly productive locations in various parts of each site were sampled instead of clustering test units in one small portion of the site. A "productive location" was defined as a shovel test exhibiting high artifact density (i.e., at least ten artifacts) and/or diversity, temporally diagnostic artifacts, a possible feature, and/or clearly stratified prehistoric deposits.

Test units measured 1 by 1 m and were excavated in 10-cm levels to culturally sterile substrate (i.e., two sequent sterile levels or three sequent levels with one or two artifacts). Occasionally, a single level in a unit was more or less than 10 cm thick in order to follow natural stratigraphy or accommodate ground slope. In some locations, 1-by-1-m units were expanded in 1-by-1-m lots (i.e., 1-by-2-m unit or 1-by-2-m "L" unit) to explore partially exposed soil features. Test unit soils were screened through 0.64-cm hardware cloth and artifacts bagged by excavation level. At least two adjacent test unit profiles were recorded and photographed; all test units were back filled.

When prehistoric cultural features were encountered, they were fully exposed and excavated. "Cultural features" include soil anomalies that could be cultural, rock clusters, artifact caches, pot breaks, and similar occurrences. Poorly defined/dispersed clusters of debitage commonly found in lithic sites at Haile Gold Mine were not recorded as features. Cultural features were mapped, photographed, bisected (when appropriate), profiled, and samples taken (i.e., flotation, C-14). Upon completion of excavation, the feature was photographed again and recordation augmented as necessary.

Site Plan: Once Phase II excavations were completed, a site plan was prepared, showing the locations of Phase II shovel tests and test units, as well as major site features (e.g., roads, disturbed areas, etc.). Relevant features from the Phase I survey site plan were included such as key shovel tests and site boundaries.

5.1.2 Treatment of Historic Sites

Archival Research: Archival research was conducted for 38LA588, a circa 1915 to 1970 house site; 38LA640, a historic complex dating from about 1850 to 1965; and 38LA641, a circa 1915 to 1970 structure complex. Archival research was also conducted for 38LA654, where a 19th century cellar feature was uncovered during the current study.

Archival research included a chain of title, review of U.S. population and agricultural census records, review of historic and modern aerial photography, and review of 19th and 20th century cartographic resources. County histories were also reviewed, and when family names were shown to be directly associated with the subject property, family histories were reviewed to aid in determining ownership and the relationships among owners.

At 38LA641, personal documents relating to Mr. William U. Clyburn were recovered and catalogued for curation. A sample of the more pertinent documents were scanned and discussed as part of the documentation and history of the Clyburn house.

Interviews: RSWA conducted phone interviews with three long-time residents of the study area: Ms. Sheila Love, Ms. Dorothy Gregory, and Ms. Billie Jo Crawford. These individuals were helpful in addressing tenant occupancy of 38LA588, 38LA640, and 38LA641 from the 1940s until about 1970.

Close-rid Shovel Testing and Test Unit Excavations: Table 5.1 summarizes the number of shovel tests and test units excavated at 38LA640 and 38LA654. On the latter site, three of the six test units were dedicated to sampling the historic cellar feature.

As on prehistoric sites, Phase I survey locational information and shovel test data were used in concert with Phase II shovel testing to locate test units for historic archeological deposits. The same Phase II field methods and approaches described for the prehistoric sites were applied to historic components at 38LA640 and 38LA654.

One exception was made to the methodological approach to feature excavation at the cellar hole on 38LA654. Instead of excavating the entire cellar, this feature was sectioned and only the portion of the cellar feature within a 1-by-2-m area was excavated. The reason for this was that upon bisection, it was clear that the feature was not a natural anomaly or recent disturbance but a historic flat-bottomed rectanguloid feature possibly greater than 4 m^2 in size. Furthermore, since we were anticipating a prehistoric feature when this area was tested, no archival research had been conducted for the property where 38LA654 is located. On this basis, a decision was made in the field to excavate what is believed to be approximately half of the feature and to attempt to identify the occupants responsible for the feature through additional archival research.

Site and Structure Plans: An overall site plan was prepared showing the locations of structures/structure remains, historic surface features/major disturbances (e.g., roads/trails, structure pads, wells, depressions, ornamental vegetation stands, historic trees, modern prospecting areas, etc.), and the locations of Phase II shovel tests and test units. In addition to preparing the site plan, floor plans were prepared for the standing structures at 38LA640 and 38LA641. Each structure was documented through representative exterior and interior black and white photography. Photography was keyed to each floor plan.

5.2 Laboratory Methods

Upon arrival at the laboratory, field bags were checked-in and staged for analysis. Following the identification and cataloging of the artifacts, artifact tables were generated and site plans/drawings were transcribed for the report.

5.2.1 Prehistoric Lithic Analysis

Beyond identification, the lithic analysis was designed to allow comparison of lithics from the current Phase II study with those recovered during previous Phase II/III studies. This does not mean that current and previous lithic analyses were identical. Rather, the intention was to allow comparison between lithic artifacts grouped into similar functional categories (e.g., lithic reduction, biface core manufacture, expedient tools, etc.). In addition, there was a need to evaluate the level of redundancy in the Phase II lithic assemblages compared to those recovered during previous investigations.

Chipped lithic artifacts were sorted by raw material type using the *Dictionary of Geological Terms* (American Geological Institute 1976) and through consultation with Mr. James Berry, Chief Geologist at Haile Gold Mine with extensive experience in lithic identification. Lithics were then classified by technological features based on Kooyman (2000) and Whittaker (1999), and then classified in accordance with a generalized lithic reduction model presented by Collins (1975). As considered necessary, lithic artifacts were subject to examination under magnification to determine the presence of striations, microflaking, and polishing that might be correlated with prehistoric use-wear (Vaughan 1985).

As needed, published typologies (e.g., Cambron and Hulse 1983; Justice (1987); Powell (1990); Whatley 2002, etc.) and regional/large-tract studies were consulted to identify diagnostic projectile points (e.g., Anderson *et al.*(1982); Coe 1964, 1995; Sassaman *et al.* 1990; etc.). Previous Phase II/III studies on lithics sites at Haile Gold Mine were also reviewed (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). Table 5.2 provides definitions for lithic artifacts and raw material types encountered during the current study. Table 5.3, modified from Cable and Price (2010:Table 8), gives the general sequence of diagnostic projectile points applicable to the Haile Gold Mine region.

Table 5.2 Lithic Artifact and Material Type Definitions

LITHIC REDUCTION

Flake: Lithic artifact with recognizable ventral (interior) and dorsal (exterior) surfaces having a visible point of impact at one end. Flakes are generally broader on the proximal (impact) end and have either tapered or parallel sides. Depending on the stage of reduction, flakes may exhibit cortex and/or flake scars on the dorsal surface. Other characteristics such as striking platform remnants, lipped surfaces underneath the striking platform, and diffuse or pronounced bulbs of percussion can be used to identify a specific flake's mode of reduction. Qualifiers, such as *reduction* and *thinning*, are used to categorize flakes based on technological characteristics.

> **Thinning Flake:** A flake usually produced during the later stages of biface reduction. This type of flake is relatively thin and flat to slightly curved in longitudinal cross-section. Edges are usually feathered. Dorsal flake scars are common. The platform often retains a portion of the biface margin and a lip is common on the ventral surface at the platform. Although retaining a slight lip, the platform may be quite small. The bulb of percussion is diffuse.
>
> **Reduction Flake:** A flake produced during the early stages of biface and core reduction. This type of flake is relatively thick and often curved in longitudinal cross-section. Platforms are typically large and single-faceted without any lip on the ventral surface. The bulb of percussion is usually pronounced.

Flake Fragment: The general features are the same as those of a flake. Flake fragments lack evidence of a striking platform or the crushed remnant of a platform.

Shatter: An angular, blocky lithic artifact with no side or edge indicating the point of impact.

CORE/BIFACE MANUFACTURE

Core: A core is a nodule or tabular/angular block bearing one or more flake scars. These artifacts often display a prepared striking platform. An *exhausted core* has become too small to produce suitable flakes for tool manufacture.

Biface: A flake or core reduced by percussion on all margins/edges, that has been shaped by the removal of flakes from both faces. Bifaces were divided into early stage (crude, thick, generally large flake scars) and late stage (refined, thin, generally small flake scars). Bifaces may be modified into a variety of tools with general or specific functions (bifacial tools).

> **Early Stage Biface:** A crude, thick biface with generally large flake scars and uneven margins.
>
> **Late Stage Biface:** A thinned biface with generally small flake scars and even margins. Though thinned, these artifacts exhibit none of the features characteristic of the PP/K or formal tool (e.g., stems, notches, finely retouched margins). This category includes preforms.

Biface Fragment: A partial biface that is too small or fragmented to be assigned to a specific type.

Hammerstone: A hand held, battered quartz cobble used to reduce and shape lithic materials into their desired form.

EXPEDIENT TOOLS

Flake Tool: A flake or flake fragment that exhibits intentional retouch or damage due to use on one or more margins/edges. Flake tools have modified edges but often retain original characteristics of the parent flake. These items are expedient in nature and generally should not be functionally classified beyond the *cutting*, *scraping* or *piercing* level, based on edge wear and damage. Cutting tools include unifacially and bifacially flaked expedient tools with shallow edge angles. Scraping tools include flakes with unifacially flaked edges and steep edge angles. Expedient piercing tools, or perforators, exhibit styli that are often shaped through pressure flaking. These tools usually show damage to the stylus tip (e.g., rotational, crushing). Flake tools that contain multi-functional working edges are termed *composite* tools.

FORMAL TOOLS

Projectile Point/Knife (PP/K): A finished biface that is generally symmetrical and tapers to a piercing or cutting blade and has a prepared base for hafting. Stems, corner notches, side notches, side or basal indentations, and concave bases are all hafting attributes. This category includes proximal fragments with hafting attributes identifiable as established projectile point/knife types. Projectile point types encountered during the current study include:

> **Stanly**: This PP/K is medium sized with wide shoulders on a triangular blade. The stem is squared with a notch at the base.

Morrow Mountain: Generally, these are medium to large projectile points with triangular blades, rounded to tapered shoulders, contracting stems, and rounded bases; they date to the Middle Archaic period. Smaller examples, though not as common, do exist. Coe (1964) described broad-bladed (Morrow Mountain I) and lanceolate (Morrow Mountain II) forms. Coe (1964) also described a small point superficially similar to Morrow Mountain believed date to Protohistoric times. These Protohistoric Randolph projectile points may sometimes be confused with smaller Morrow Mountain variants. Coe (1964) notes that the Randolph point can be discriminated from Morrow Mountain based on the former being crudely flaked and usually being manufactured from a flake or scavanged PP/K.

Early-Middle Woodland Stemmed: These are small stemmed projectile points that may be derivative of larger Late Archaic stemmed types. With triangular blades, these PP/K's have straight to expanding stems with straight to slightly incurvate bases. Shoulders are somewhat horizontal and expanding.

Late Woodland/Mississippian Triangular: These small points can include types like Pee Dee or Caraway. Overall, they have the form of an isosceles triangle. Bases can be straight to incurvate, and blades occasionally exhibit serrations.

PP/K Fragment: A distal, medial, or proximal fragment of a finished biface that cannot be specifically assigned to an established point/knife type.

Scraper with Stylus: A formal scraping tool with intentional flaking to produce a specific shape and a generally steep unifacial working edge along with a stylus or styli for piercing or perforating. The scraping edge may be located on the distal end of the tool (endscraper) or along one side (sidescraper) with stylus or styli adjacent to the scraping edge. Scrapers are sometimes manufactured on failed PP/Ks.

Triangular Biface: A medium to large finished biface that fits no triangular projectile point type. These bifaces are often associated with Middle Archaic assemblages.

Knife: An elongated, bifacially worked artifact that appears to be complete, but has no distinct hafting area beyond an obvious proximal end with blades and distal end suitable for cutting.

FOOD PROCESSING
Processing Stone: A large flat stone used to grind and process food. This often leaves a smooth and concave surface after long term use.

COOKING
Fire-Cracked Rock (FCR): Tabular stones or cobbles with angular fractures and often, cortical discolorations; fractures are presumed to be the result of exposure to high heat and/or rapid changes in temperature; there is no evidence of intentional cultural modification (polishing or flake removal).

OTHER
Cracked Rock: Tabular stones with incipient, angular fractures with no obvious discolorations typically associated with exposure to heat. There is no evidence of intentional cultural modification. The function of "cracked" rock is unknown. Much of the cracked rock examined during the current analysis appears to have geologic, patinated/weathered surfaces. Furthermore, similar cracked rock is often found during survey in non-archeological contexts. While this material is included in the inventory, it is viewed as "unmodified."

RAW MATERIAL TYPES (American Geological Institute 1976)
Chert: A siliceous, cryptocrystalline mineral (primarily quartz) formed during sedimentary or through aqueous precipitation and pressure; the following varieties were used by prehistoric peoples in the project vicinity: A percentage of the chert appears to be similar to the following definition for local/"Piedmont" chert.

Local/"Piedmont" Chert: Sedimentary forms are associated with limestone deposits in the Triassic basins of the North and South Carolina Piedmont. May be dark gray, medium crystalline chalcedony with very fine crystalline quartz, a light brown porous chert (Wheeler and Textoris 1978), or a mottled white to gray chert composed almost entirely of chalcedony and microcrystalline quartz (Lautzenheiser *et al.* 1996). Metamorphic forms are referred to as "agate", "cryptocrystalline metasediment", and "jasperoid" by Goad (1979). Metamorphic varieties were probably not sedimentary, but formed by means of silicification of parent rock resulting from contact with super-heated water (Ledbetter *et al.* 1981); as with most metamorphism, exposure time and intensity determine the end product. It is highly siliceous, not fossiliferous; colors vary but are most commonly dark red-brown, brown, olive green, or highly mottled and "agate"-like; often heat-altered.

Quartz: A common tectosilicate found free and with numerous other minerals in the Piedmont. Piedmont specimens range from crystal, to clear/milky fine-grained, to opaque/white coarse-grained. Quartz was readily available in the project vicinity from outcrops, float field environments, and as stream outwash cobbles.

"Rhyolite": A highly variable extrusive volcanic rock that weathers quickly; light to dark gray, with a coarse-grained to nearly cryptocrystalline structure; local forms include flow banded, plain, and porphyritic. It is the chemical equivalent of granite, but having cooled faster, is composed of smaller crystals. Most of the rock called "rhyolite" by archeologists working on Haile Gold Mine is probably not rhyolite, due to low alkali feldspar content and other attributes (Le Maitre *et al.* 1989). According to hard-rock geologists familiar with local lithology (Messrs. James Berry and Ken Gillian, personal communication, 2012), most if not all of the "rhyolite" used by prehistoric groups falls into the following categories: metasiltstone or metasandstone (defined below). At Haile Gold Mine these materials may have been procured from outcrop/dike, sill, float field, and stream bed environments.

Metasiltstone: A metamorphosed, very fine grade consolidated clastic rock composed predominantly of particles of silt grade. This raw material exhibits a variability dictated by the clastic rocks it is composed of. These materials are readily available in the project area.

Metasandstone: A metamorphosed clastic sediment composed predominantly of quartz grains, these grains being the size of sand. These examples have a more consistent makeup and exhibit more patination and weathering than metasiltstone. Metasandstone is also easily procured at Haile Gold Mine.

Metavolcanic Rock: A Piedmont volcanic rock that has been altered by heat, pressure, and/or chemicals; the degree of alteration depends on the intensity and the length of time exposed to the altering forces; therefore, these rocks have highly variable textures, colors, and compositions; may have been procured from Fall Line area, or as outwash cobbles along waterways.

Diabase: Diabase (or dolerite), a variety of gabbro, is composed principally of labradorite and augite, with smaller quantities of olivine and magnetite. Diabase has a tightly interlaced microscopic crystal structure that is responsible for the rock's toughness and high crushing strength. These attributes made it ideal for the manufacture of axes, adzes, choppers, and hammerstones. Diabase was available from isolated dikes across the Piedmont. It can also be found as out-wash in local streams.

Table 5.3 Diagnostic Projectile Point Sequence for the Study Region

Temporal Period	Point Type Recovered
Protohistoric/Historic (400-285 BP)	Caraway, Hillsboro, Randolph
Mississippian (1,100-400 BP)	Mississippian Small Triangular (Pee Dee Serrated, Pee Dee Triangular, Caraway)
Woodland (3,000-1,100 BP)	Pee Dee Pentagonal Yadkin Thelma-like
Late Archaic (5,000-3,000 BP)	Otarre, Gary/Mack Stemmed Savannah River Stemmed (small) Savannah River Stemmed (large)
Middle Archaic (8,000-4,500 BP)	Brier Creek/Benton/MALA Guilford Morrow Mountain (Morrow Mountain "I" and "II") Stanly Kirk Stemmed (Kirk Stemmed)
Early Archaic (9,900-8,000 BP)	Bifurcates (St. Albans, MacCorkle, LeCroy) Kirk/Palmer corner-notched Taylor corner-notched
Paleoindian 11,500-9,900 BP)	Dalton, Hardaway Dalton Simpson, Suwannee, Quad, Clovis

5.2.2 Prehistoric Ceramic Analysis

Prehistoric ceramics were inspected to determine surface treatment, tempering agent and vessel morphology (if possible). These data were used to place ceramics into a temporal and/or functional framework whenever possible. Published sources consulted to identify diagnostic ceramic design motifs included: Anderson (1996a); Anderson *et al.* (1982); DePratter (1991); Sassaman (1993); Sassaman *et al.* (1990); Southerlin *et al.* (2001); Trinkley (1990), and Williams and Thompson (1999). Surface treatments and tempering agents encountered during the current study are defined in Tables 5.4 and 5.5.

Table 5.4 Prehistoric Ceramic Surface Treatments

Plain: No intentional modifications to the surface observed. Plain surfaces can be roughly smoothed or smoothed. Roughly smoothed surfaces can appear on wares dating to all ceramic-bearing periods. Finely smoothed surface wares tend to be later, typically dating to the Late Prehistoric or Protohistoric periods.

Fabric-impressed: The surface pattern resulting from application of a fabric-wrapped or basket-wrapped paddle to damp clay. This assemblage included Wilmington grog-tempered along with Dunlap and Deptford sand/grit tempered ceramics.

Cord-marked: This pattern was made through application of a cord-wrapped paddle to the vessel surface. Cord impressions vary in cord twist (s or z twists), cord size (fine, intermediate, or coarse), and spacing between cords. Some cord-marked wares exhibit wiped surfaces. Wilmington and Deptford cord-marked sherds were recovered.

Simple-Stamped: Surface treatment created by the application of a carved or incised paddle; paddle channels are parallel to slightly sub-parallel and may even cross over on poorly carved paddles. Grooves range from shallow and broad to fine and deep. Over-stamping often occurs. Deptford is the lone representative sample in this collection.

Unknown/Eroded Decorated: A poorly defined pattern can be seen on an eroded surface but cannot be defined.

Eroded: Surface treatment could not be determined due to severe weathering of the sherd's surfaces.

Residual: Sherd less than 0.64 cm in diameter with no clear indication of surface treatment.

Table 5.5 Prehistoric Ceramic Tempering Agents

Sand: Silicate particles defined as very fine sand (0.06 to 0.13 mm in diameter), fine sand (0.13 to 0.25 mm), medium sand (0.25 to 0.50 mm), coarse sand (0.50 to 1.00 mm), or very coarse sand (1.00 to 2.00 mm). Sand was a commonly used tempering agent throughout the Woodland and Mississippian periods.

Grog: Ceramics that are tempered with small (0.5 to 4.0 mm) blocky pieces of aplastic (hardened or fired) clay. Occasionally larger (up to 10 mm) pieces are noted.

Regional research has resulted in the identification of consistently occurring ceramic types that are culturally and temporally diagnostic. These artifacts can be sorted by temper, paste and surface treatment into categories that are useful in determining the cultural period during which a site was occupied. Ceramic types found in the Haile Gold Mine region and their temporal associations are presented in Table 5.6. Much of this information is drawn primarily from Cable and Price (2010), which was adapted from Anderson *et al.* (1982) and Cable (1994, 2002). It has been modified here to include ceramic types found during the current study that were not included in the previous sequence.

Table 5.6 Prehistoric Ceramic Sequence for the Study Region

Temporal Period	Ceramic Type Recovered
Protohistoric/Historic (400-285 BP)	Ashley (complicated stamp) Mississippian Plain
Mississippian (1,100-400 BP)	Jeremy/Pee Dee (simple stamp, complicated stamp) Santee (simple stamp) Mississippian Plain
Late Woodland (1,500-1,100 BP)	Santee and Camden (simple stamp) Cape Fear (fabric impressed) Wilmington (fabric-impressed)
Middle Woodland (2,200-1,500 BP)	Cape Fear (check stamp, linear check stamp, fabric impressed) Wilmington (fabric impressed) Dunlap (fabric impressed) Deptford (plain, check stamp, linear check stamp, fabric impressed, cord marked, simple stamp)
Early Woodland(3,000-2,200 BP)	Deptford (plain, check stamp, linear check-stamp) Refuge (plain, incised, dentate stamped)
Late Archaic (3,500-3,000 BP)	Thoms Creek (plain, punctate, pinched) Stallings Island (plain, simple stamp, drag and jab punctate, punctate)

5.2.3 Historic Artifact Analysis

Historic artifacts were categorized by material/type and temporal affiliation using published typologies and sources on ceramics, glass, metal, and composite materials. Ceramics were examined to identify glazing and paste properties, surface design and treatment, vessel morphology, and manufacturing markings. Ceramic types were classified following Kowalsky and Kowalsky (1999), Miller (1980), Gray (1983), Garrow (1982), Noel-Hume (1970), and others. Historic ceramics recovered during the current study are defined in Table 5.7.

Table 5.7 Historic Ceramic Types

Whiteware: A soft, nearly-impermeable, refined earthenware with a clear to slightly blue tinted glaze; use was wide ranging including table and kitchen wares and chamber wares. In popular use during the late 19th- 20th century. Typical decorations like blue and green-edged, blue and mulberry transfer-print, sponged, banded, and decal represent the majority, along with a minority of more recent green-glazed and red transfer-printed wares.

Ironstone: A hard, impermeable, refined earthenware with clear, slightly yellow or gray glazes; used for the same range of items as whiteware. In use from the middle 19th to 20th century. Although sometimes decorated, only plain examples were observed in this collection.

Porcelain: A hard, completely vitrified ceramic with a high silicate content; fired at higher temperatures than stoneware or earthenware. In popular use from 16th century -present. All were undecorated except a purple lustre exterior glazed cup or bowl.

Redware: A soft, porous, unrefined earthenware with red paste; used for 19th and 20th century kitchen and utilitarian wares. Often lead-glazed. This collection included only lead-glazed examples.

Buff-bodied earthenware: These wares are composed of clays that are fired at temperatures much lower than white ware or stoneware and can be somewhat porous. Often lead-glazed, this collection consists of interior glazing only.

Refined earthenware: Made of better clays with more expenditure on preparation for firing and subsequent decoration. Blue-glazed examples represent the totality of this collection.

Semi-Vitreous: A hard, impermeable refined earthenware with a clear glaze and white paste; similar to soft-paste porcelain in hardness, but not as dense; used for tablewares and kitchenwares. In popular use during mid 19th -early 20th century. A banded example is all that is recorded for this type.

Stoneware: A thick, impermeable, hard-bodied ceramic exhibiting salt glaze, Albany or Bristol slip glaze and gray to buff paste color; in the study area, used in the manufacture of utilitarian storage vessels. In use from late 17th -early 20th century. This collection included all of the above glazes, along with some burnt beyond recognition.

Glass was inspected for color, thickness, form, and surface treatments such as etchings, inscriptions and manufacturing markings. McKearin and McKearin (1941; 1978), Toulouse (1971), Munsey (1970), and Miller and Sullivan (1982) were primary sources for the identification and temporal placement of glass artifacts. Metal and materials of other compositions were examined for material type, form and function (Noel-Hume 1970; Nelson 1968, Wells 1998).

Artifacts were classified into functional/activity groups. South's (1977) classification system is commonly used for the analysis of historic sites, but the artifact types are most relevant to sites occupied before 1850. In view of the increasing abundance and variety of artifacts on later 19th and early 20th century sites, Gray (1983) proposed a revised system to categorize these more diverse assemblages. Since the assemblages contain historic artifacts ranging from the 18th to 20th centuries, Gray's system is used. The categories of classification system and examples of artifact types relevant to the current study are outlined in Table 5.8.

Table 5.8 Historic Artifact Groupings

KITCHEN/SUBSISTENCE: Includes ceramics, food/condiment bottle/can containers, container lids/closures, implements and utensils, table glass, and food remains.

ARCHITECTURAL/STRUCTURAL: Includes window glass, nails and other construction hardware, brick, mortar and other building materials, and utility-related hardware.

FURNISHING/APPLIANCE: Includes articles associated with the enhancement of the building environment not used in building construction. Stove parts, lamp glass, bedsprings, and casters make up the majority of this group.

WEAPONRY: Includes shells/cartridges, gun parts, non-kitchen-related knives, and military hardware. Twelve-gauge shotgun shells; 0.22, 0.32 and 0.38-caliber brass shells; and a lead bullet comprise this group.

CLOTHING/ADORNMENT: Includes objects associated with clothing or adornment, such as buttons and beads. Shoe parts, numerous and various buttons, fasteners, buckles, beads, and zippers are included in this grouping.

ACTIVITIES: Includes objects related to entertainment, toys, or tools not associated with agriculture. Includes glass marbles, pencils, batteries, and a metal file.

TRANSPORTATION: Includes rail, automotive, boat, and horse/harness-related objects. A lone spark plug and an inner tube patch or scrap are included in this category.

AGRICULTURE: Includes implements used for farming or land clearing. Large and small scale agriculture/gardening equipment are represented in this category.

PERSONAL: Hygiene; medicine bottles/jars; smoking/tobacco items; jewelry; coins; false teeth. A tax token, a coin, smoking /tobacco products, smoking pipes, razor, comb, and toothpaste tubes are items in this group.

MISCELLANEOUS: Includes materials that do not clearly fall into the other categories and those objects that are too fragmentary or deteriorated to be identified. The vast majority in this grouping are unidentifiable metal fragments.

5.2.4 Ethnobiotic Analyses

Ethnobotanical materials were limited to flotation residues from two prehistoric pit features. Carbonized floral remains were sampled for nuts, seeds, and wood. Materials were sorted, quantified, and identified by genus.

Zooarcheological materials were primarily limited to small calcine bone fragments (historic and possibly prehistoric) and butchered bone or waste bone from historic domesticated mammals. Because of the fragmentary nature of the prehistoric faunal materials, bone fragments were quantified and sorted by treatment (i.e., burned, unburned), animal size (i.e., small, medium, large) and skeletal element (i.e., long bone, cranial, rib, tooth, etc.). In addition to the above, faunal remains from historic contexts were identified when possible by genus/species and by cut using butchering charts for the appropriate species.

6.0 SITE 38LA588

6.1 Previous Work

Site 38LA588 was recorded as a early to late 20th century farm complex on a broad ridge just northwest of a major dirt road terminating at State Road S-29-204 to the northeast (Adams *et al.* 2011a). The site also has a prehistoric lithic component, but the component of interest was the historic one. In 1986, a historic structure was recorded at this location (No. U/57/0959) and dated to circa 1915. The house apparently burned sometime after 1986. Today this house and related historic activities are marked by the presence of a chimney fall with associated foundations/piers, an "outhouse" about 30 m west of the foundations, sheet metal/house debris and a bottle/can dump. Additional debris, a well and possibly a second "outhouse" are located approximately 70 m south of the house complex. It is unclear if this locality is directly associated with the above referenced complex.

Seven of the 40 survey shovel tests excavated at 38LA588 were positive for historic artifacts. Artifacts included whiteware (plain, n=3; transfer-print, n=1), canning seals (n=2), 20th century bottle glass (n=18), wire nails (n=2), one brick fragment, one modern glass marble, and unidentifiable metal (n=2). Artifacts were collected primarily from 0 to 20 cmbs.

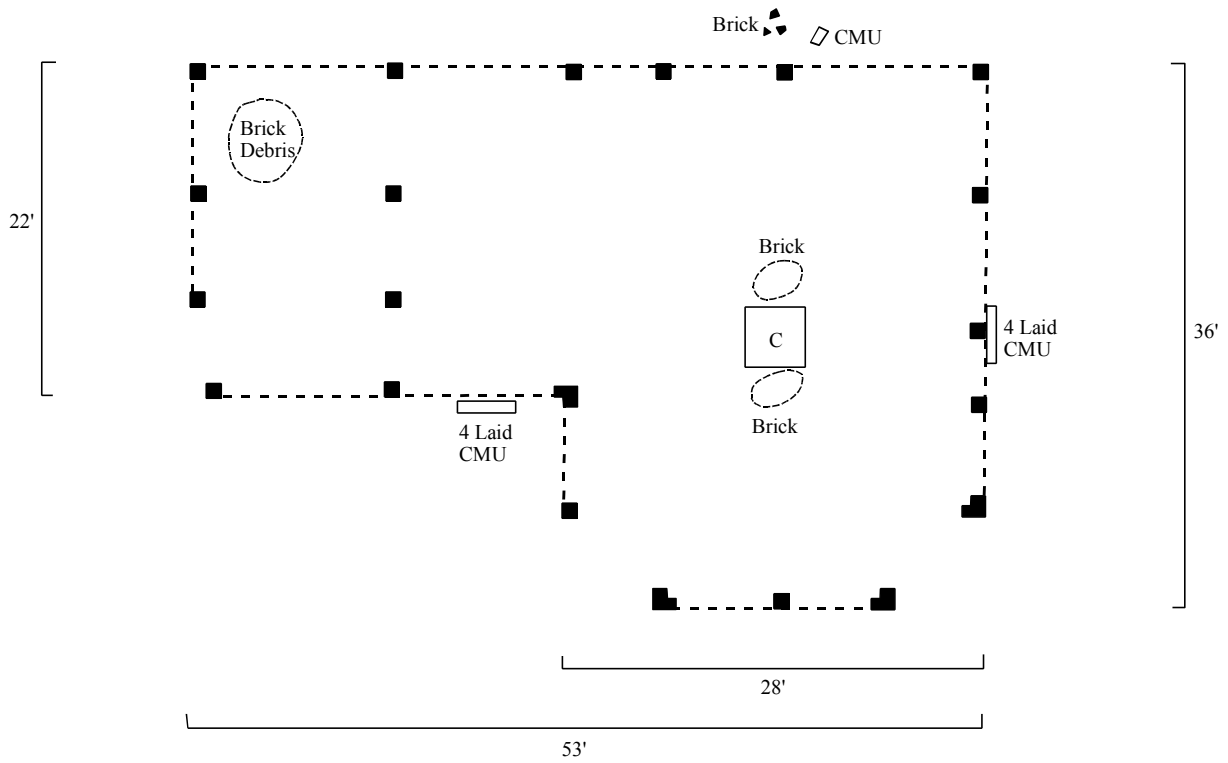
This site was recorded as being disturbed by logging and it was noted that the house was not only burned but razed. Though disturbed, the site was considered worthy of archival research and further field evaluation to better understand "rural historic lifeways" including site layout, occupant ethnicity, economy and social status (Adams *et al.* 2011a:33, 40).

6.2 Current Archival Research

Chain of title research indicates that the site of 38LA588 may have been acquired by William Uriah Clyburn, Sr. during the period 1880-1917 and it remained in the possession of his descendants until 2010 (see Section 3.7). According to Ms. Dorothy Gregory, Ms. Sheila Love, and Ms. Billie Jo (Clyburn) Crawford the house at 38LA588 was occupied by Euro-American tenants in the 1960s. The S.B. Faile family is said to have lived in the house before they built their own home nearby in the 1970s. The informants had no knowledge of the house's original builder or any of its earlier or subsequent inhabitants.

6.3 Physical Remains of the Structural Complex

The structural complex remains at 38LA588 include the remnants of the burned house, a small pole shed, a dog run, and a possible outhouse pit (Figures 6.1, 6.2, and 6.3). The house remains consist of intact brick piers with several spans of *in situ* burned/decomposing sill plates and floor joists, a partially standing



Faile House Remains

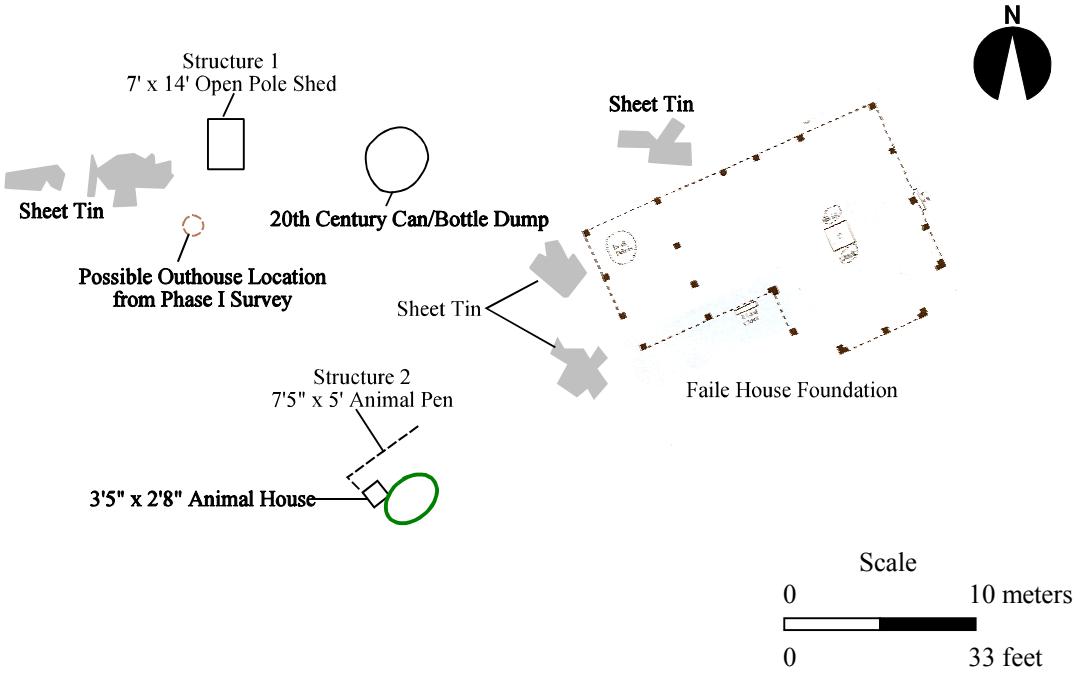


Figure 6.1 Site 38LA588 Plan Map

View of Structural Remains, Looking Northwest

View of Structural Remains, Looking East

Figure 6.2 Selected Views of 38LA588

View of Pole Shed, Looking Southeast

View of Animal Pen, Looking East

Figure 6.3 Selected Views of 38LA588

chimney, and strewn metal roofing. The house footprint measures 16 by 11 m east-west. According to the 1986 historic structure form, the house was built about 1915 and survey photographs suggest that the house was occupied in 1986 (Figure 6.4). The house had an ell-shaped plan that may have been original rather than an addition. It was oriented northeast-southwest and it may have been a duplex-type house, as there were two front facade entrances flanked by windows (i.e., four bay plan)(Figure 6.1). The structure was three bays or rooms deep, one story high, and was set on a brick pier foundation. It had a hipped roof covered with metal, a one-story east-front shed porch roof, and one main central corbeled chimney. Field observations suggest that the rearmost bay or room of the house also had a brick chimney, possibly for kitchen use.

A small, open pole shed (Figure 6.1, Structure 1; Figure 6.3 - top) measuring 4 by 2 m north-south is located approximately 17 m west of the house foundation; its function is unknown. A 20th century bottle/can dump was noted between the house site and this pole structure, 12 m from the house. A second outstructure is located 13 m west-southwest of the house and appears to have been a dog run (2 by 1.5 m northeast-southwest) with a small enclosed shelter (1 by 0.5 m northwest-southeast) (Figure 6.1, Structure 2; Figure 6.3, bottom). Structures 1 and 2 are both in very poor condition, probably dating from the middle 20th century. According to the Phase I survey sketch, a possible outhouse was recorded south of Structure 1 and about 17 m from the house. No outhouse structure was observed at that location; however, there is a depression in this vicinity that may have been interpreted as an outhouse pit (i.e., privy pit).

6.4 Interpretations

According to the 1986 structure form, the house at 38LA588 was constructed circa 1915 and it is believed from the structure form photograph, that the house may have been occupied in 1986. Local informants stated that the S.B. Faile family lived in the house from at least the 1960s until the 1970s, when they built their own home. They were of Euro-American descent and characterized as farmers, which can be interpreted as having a lower-middle to middle class economic status. The 1939 Lancaster County highway map symbolizes two houses in the vicinity of 38LA588 as “owner-operator” structures as opposed to tenant houses (see Figure 3.3). By the time the Faile family occupied 38LA588, the Clyburns had put these house(s) into tenancy.

The layout of the Faile House structure complex is typical of a small early to middle 20th century tenant farming operation. The domicile floor plan reflects a three-bay house with an ell and photography suggests that perhaps early in its history, the house may have been occupied as a duplex. In terms of organization, solid waste disposal typically occurred at a convenient distance from the house, but not within the yard area. The can/bottle dump is 12 m from the “back door” side of the house. The dog run (Structure 2) was located at a similar convenient distance from the house (13 m). Structure 1 and the possible outhouse depression were both located approximately 17 m from the house, which is still convenient but a little further removed, perhaps, in the case of the possible outhouse pit, for sanitation purposes.

Figure 6.4 Photograph of House at Time of 1986 Structural Survey

6.5 Recommendations

Per the Phase II evaluation plan, archival research and recordation have adequately documented the remains of the Faile House complex. No additional architectural or archeological work is recommended for 38LA588.

7.0 SITE 38LA589

7.1 Previous Work

Site 38LA589 was recorded as an Early to Middle Archaic camp located on a ridge nose overlooking the headwaters of Camp Creek (Adams *et al.* 2011a). Ten positive and 19 negative shovel tests were excavated during the survey. Two widely separated areas of artifacts were identified: one at the northwest end of the site, the other at the southeast end. These areas may represent two discrete activity loci or possibly independent occupations. The area at the southeastern end of the site bordering the wetland had been graded/disturbed and artifacts were collected from spoil piles and graded surfaces. Diagnostic artifacts (PP/Ks) collected from the surfaces in this portion of the site include one Palmer Corner-notched, one Morrow Mountain, one Guilford Lanceolate, and one possible fragment of a Savannah River point.

In all, 44 artifacts were collected during survey, five from the northwest locus and 39 from the southeast locus. This sample assemblage includes 35 pieces of debitage (quartz, n=18; rhyolite, n=14; silicate, n=3), quartz bifaces (n=2), one quartz core fragment, three quartz projectile point fragments, and three PP/Ks (one quartz Guilford PP/K, one quartz Morrow Mountain I PP/K, and one rhyolite Palmer Corner-notched fragment). Artifacts were collected from 20 to 70 cmbs in the ten positive survey shovel tests, the highest frequencies of which occurred at shovel test T-11/16. Due to the recovery of diagnostic artifacts and the presence of sub-plowzone deposits, the site was viewed as having the potential to "shed light on transition from Early to Middle Archaic technologies and lifeways" (Adams *et al.* 2011a:40).

7.2 Phase II Excavations

7.2.1 Close-grid Shovel Testing and Surface Collections

Close-Grid Shovel Testing: As the artifact yield in the northwest locus was low, Phase II testing efforts were focused on the southeast portion of the site. Thirty-one close-grid shovel tests were excavated, of which 24 were positive (Figure 7.1). Fifty-one artifacts were recovered from the positive shovel tests (Tables 7.1 and 7.2). This inventory consists of lithic debitage (n=50) and a Morrow Mountain PP/K (n=1). Artifacts were recovered from Levels 1 through 4 (0 to 40 cmbs). The plowzone (Levels 1 and 2) produced roughly half (n=25) of the total. Levels 3 and 4 produced 18 and eight artifacts, respectively. These data indicate that the site deposits have been heavily disturbed by historic land use practices.

The Phase II shovel test artifact density distribution (Figure 7.2) shows that the highest artifact density within the study locus occurred at shovel test N330/E440 (n=8), in a heavily disturbed/graded area. None of the remaining 23 positive shovel tests yielded more than four artifacts.

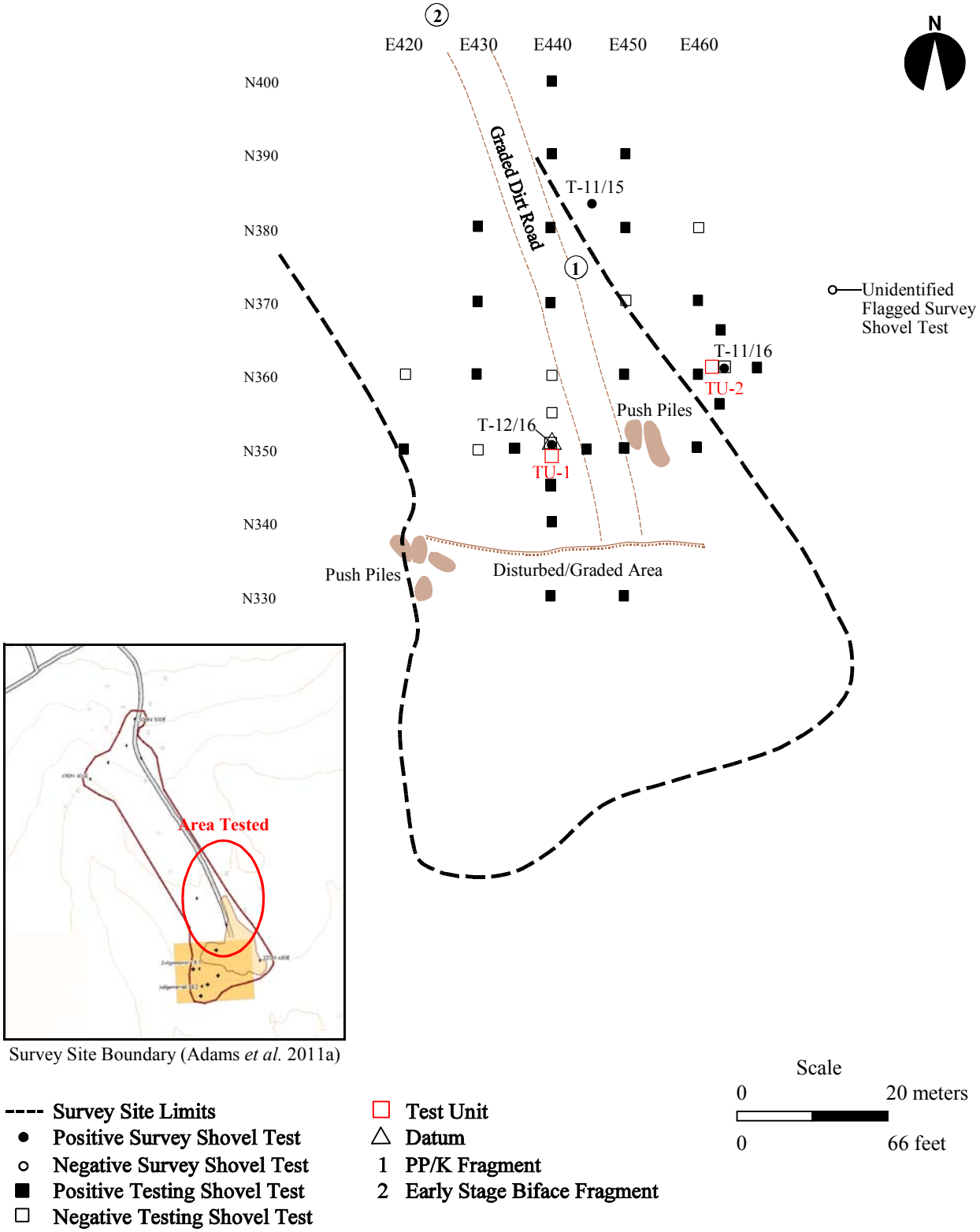


Figure 7.1 Site 38LA589, Plan Map

Table 7.1 38LA589 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	340	370	370	380	380	390	400	350	360	360	360	370	380	390	330	330	345	350	356	361	366	350	350	350	375	406	
East Coordinate	440	430	440	430	440	440	440	445	430	450	460	460	450	450	440	450	440	435	463	468	463	420	450	460	443	424	**Total**
Surface Collection (SC)																									SC	SC	
Lithic Reduction																											
Thinning flake, quartz	1																			1				1			**3**
metasiltstone																1				1		3					**5**
chert																							1				**1**
Reduction flake, quartz	1							1		1	1				1				1								**6**
metasiltstone							1	1																			**2**
metasandstone					1																						**1**
Flake fragment, quartz	1	1	2	1	3	2		1	1		1	1				7	2			1	2	1					**27**
clear quartz	1																										**1**
metasiltstone																	1										**1**
metavolcanic													1	1													**2**
Shatter, quartz		1																									**1**
Core/Biface Manufacture																											
Early stage biface, quartz																									1		**1**
Formal Tools																											**1**
PP/K, Morrow Mountain, quartz																		1								1	**1**
PP/K fragment, quartz																											
Total	**4**	**2**	**2**	**1**	**4**	**2**	**1**	**3**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**8**	**3**	**1**	**1**	**3**	**2**	**4**	**1**	**1**	**1**	**1**	**53**

Table 7.2 38LA589 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	340	370	370	380	380	390	400	350	360	360	360	370	380	390	330	330	345	350	356	361	366	350	350	350	
East Coordinate	440	430	440	430	440	440	440	445	430	450	460	460	450	450	440	450	440	435	463	468	463	420	450	460	**Total**
Excavation Level																									
Level 1 (0-10 cm)		1		1	2	1		1		1		1				3		1	1	1					**14**
Level 2 (10-20 cm)			1		1	1					1				1	3	1			1	1				**11**
Level 3 (20-30 cm)	4		1					2	1				1	1		2					1	3	1	1	**18**
Level 4 (30-40 cm)		1			1		1				1						2			1		1			**8**
Total	**4**	**2**	**2**	**1**	**4**	**2**	**1**	**3**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**8**	**3**	**1**	**1**	**3**	**2**	**4**	**1**	**1**	**51**

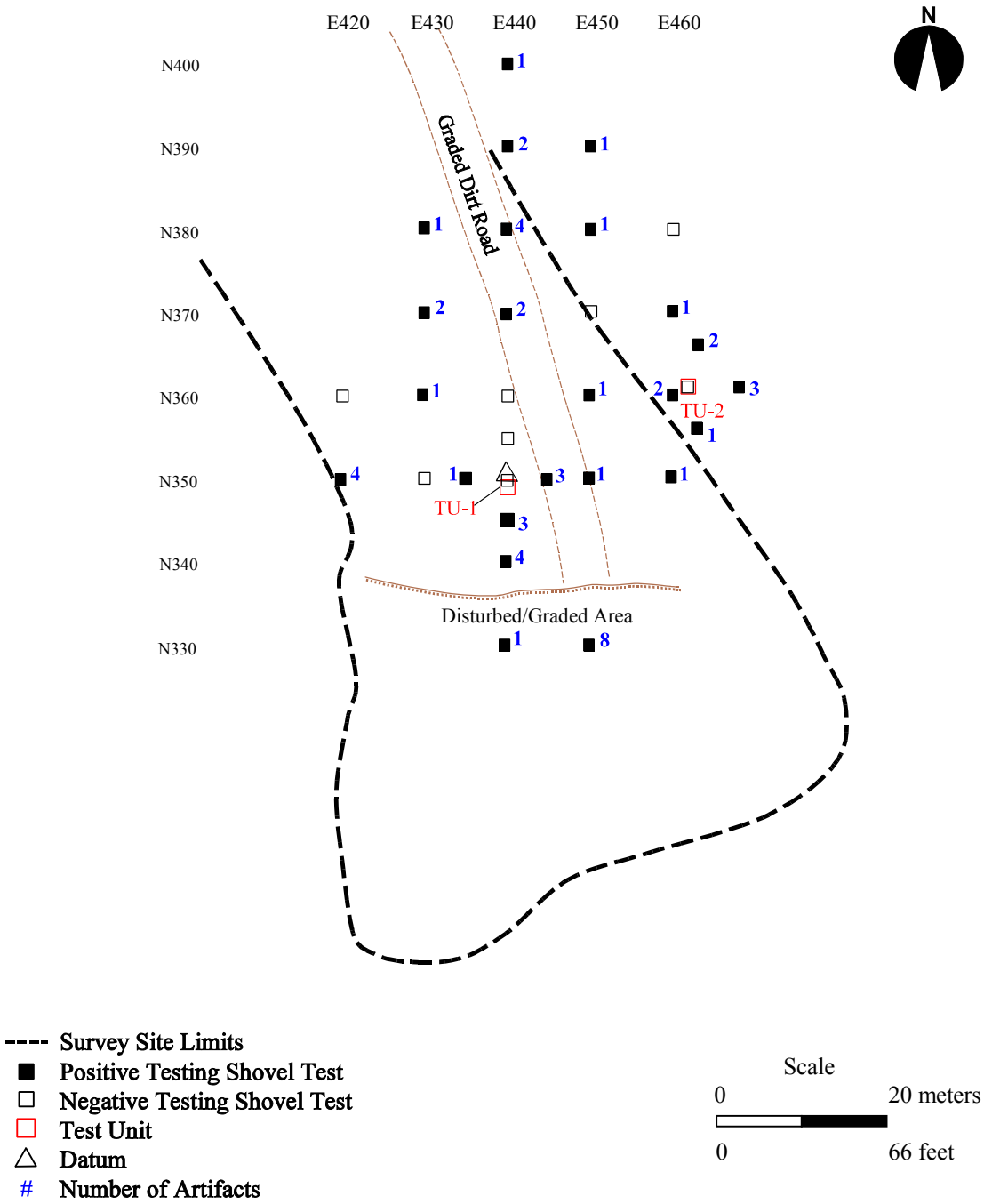


Figure 7.2 Site 38LA589, Density Map

Surface Collections: In addition to the cultural materials taken from shovel tests, two artifacts, one quartz PP/K fragment and one quartz early stage biface fragment, were collected from the surface of a graded dirt road traversing the site area (Figure 7.1; Table 7.1).

7.2.2 Test Unit Excavations

Two 1-by-1-m test units (TU) were excavated at 38LA589 (Figures 7.1 and 7.2 ; TU-1 and TU-2). Based on Phase II and survey shovel test data, it was decided that test units would be placed to sample an area where a survey shovel test indicated higher artifact yields (T-11/16). A second unit would be excavated to sample site deposits in a relatively undisturbed area of the site in the vicinity of survey shovel test T-12/16. TU-1 was used to evaluate the area of survey shovel test T-12/16, while TU-2 was placed adjacent to survey shovel test T-11/16.

7.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in five arbitrary 10-cm levels (Levels 1 through 5). The unit datum was established 10 cm above surface in the southeast corner. Unit excavation was terminated at a depth of 58 to 60 cm below datum (bd).

TU-1 revealed three soil strata (Strata A, B, and C; Figure 7.3). Stratum A was a very dark gray (10YR 3/1) loamy sand overlying brown (10YR 5/3) wet loamy sand (Stratum B), that graded into yellowish-brown (10YR 5/4) wet clayey sand subsoil. Stratum A was contained in Levels 1 and 2. Stratum B was encountered at 28 cmbd and was present in Levels 3, 4, and the top 2 cm of Level 5. The subsoil (Stratum C) appeared at 50 cmbd and was sampled by Level 5. No features, midden, or other intact deposits were encountered in TU-1.

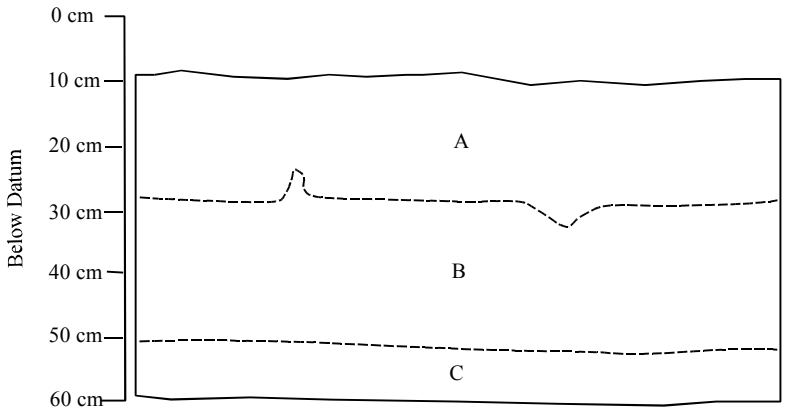
Artifacts: Four artifacts were recovered from TU-1 (Table7.3); three from Level 2 (base of plowzone), and one from Level 3 (top of Stratum B). This assemblage consists of quartz debitage (n=3) and one metasiltstone scraper with a stylus.

Table 7.3 38LA589 Test Unit 1 Artifacts

Test Unit (TU)	1	1	
Level	2	3	
Bag Number	39	40	**Total**
Lithic Reduction			
Reduction flake, quartz		1	**1**
Flake fragment, quartz	2		**2**
Formal Tools			
Scraper w/stylus, metasiltstone	1		**1**
Total	**3**	**1**	**4**

7.2.2.2 Test Unit 2

Level Excavation and Soil Stratification: TU-2 was excavated in five arbitrary 10-cm levels (Levels 1 through 5). The unit datum was established 10 cm above the surface in the southeast corner. Unit excavation was terminated at a depth of 60 cmbd.



A - 10YR 3/1 Very dark gray loamy sand
B - 10YR 5/3 Brown, wet, loamy sand
C - 10YR 5/4 Yellowish-brown, wet clay sand

Scale

0 30 cm

Figure 7.3 Site 38LA589, Test Unit 1, West Profile

TU-2 sampled three soil strata (Figure 7.4; Strata A, B, and C). Stratum A was a very dark gray (10YR 3/1) loamy sand resting unconformably on Stratum B, a brown (10YR 5/3) wet loamy sand that graded into Stratum C, a yellowish-brown (10YR 5/4) wet clayey sand subsoil. Stratum A was present in Levels 1 and 2, and the top two to three cm of Level 3. Stratum B first appeared at approximately 32 cmbd in the northeast quadrant, and was removed in Levels 3, 4, and 5. Stratum C was encountered at 58 cmbd across the unit floor. Due to water seepage in Level 5, two small sump holes were excavated into the floor to facilitate completion of the unit.

Artifacts: Six artifacts, all quartz flake fragments, were recovered from TU-2 (Table 7.4). These items derive from the base of Stratum A (Level 2) and the Strata A/B interface (Level 3).

Table 7.4 38LA589 TU-2 Artifacts

Test Unit (TU)	2	2	
Level	2	3	
Bag Number	41	42	**Total**
Lithic Reduction			
Flake Fragment, quartz	4	2	**6**
Total	**4**	**2**	**6**

7.3 Analysis

Artifact density at 38LA589 is low. Sixty-three artifacts were recovered during Phase II testing: 51 from the 32 above Phase II shovel tests, ten from the two test units, and two surface finds. This collection is comprised of lithic debitage (n=59; 93.6 percent), cores/bifaces (n=1; 1.6 percent), and formal tools (n=3; 4.8 percent).

The debitage is dominated by flake fragments (n=39; 66.1 percent), followed by reduction flakes (n=10; 16.9 percent), thinning flakes (n=9; 15.3 percent), and shatter (n=1; 1.7 percent). The thinning and reduction flakes occur at parity at low frequencies, with a higher percentage of flake fragments. The high frequency of flake fragments is quite common in lithic assemblages dominated by quartz, as this one is, although secondary use of other raw materials was also noted. Quartz was the dominant raw material (n=50; 79.4 percent), followed by metasiltstone (n=9; 14.3 percent), metavolcanic (n=2; 3.2 percent), meta-sandstone (n=1; 1.6 percent), and chert (n=1; 1.6 percent).

Staged biface production is evident from the presence of a single quartz early stage biface. Formal tool production is indicated by a quartz Morrow Mountain PP/K, a quartz PP/K fragment, and a metasiltstone scraper with a stylus (Figure 7.5). Considering the various levels of complexity observed in Piedmont archeological site assemblages, artifact diversity at 38LA589 is considered to be low to moderate.

Morrow Mountain PP/K,Quartz, Level 1, Shovel Test N350/E435

Scraper with Stylus, Metasiltstone Test Unit 1, Level 1

(Actual Size)

Figure 7.5 Site 38LA589, Selected Artifacts

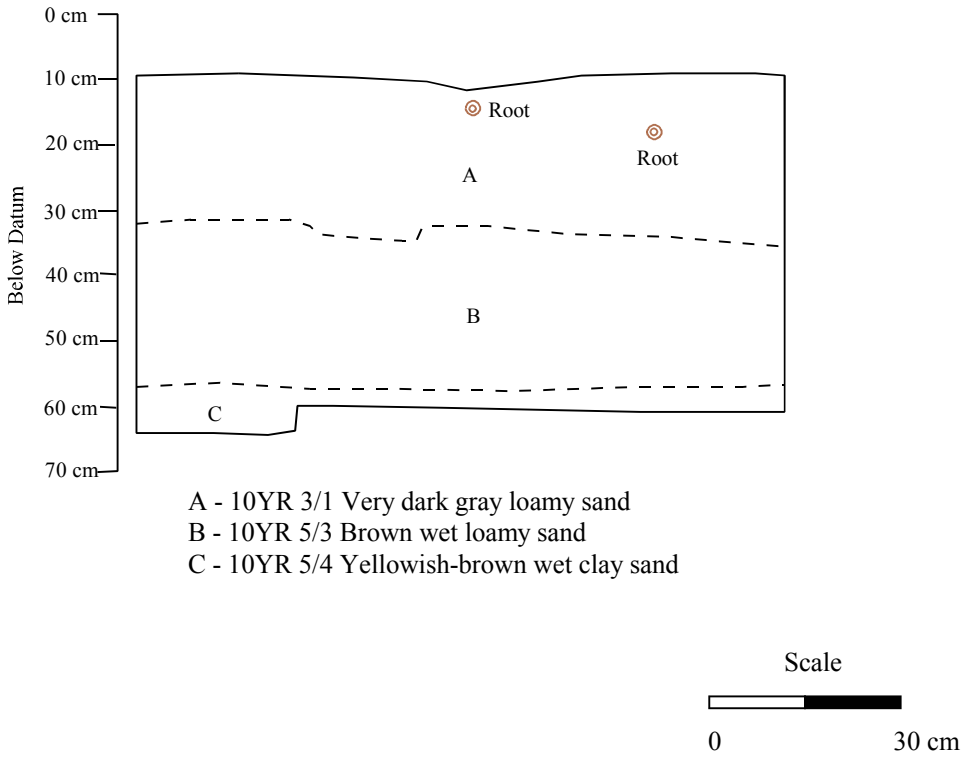


Figure 7.4 Site 38LA589, Test Unit 2, East Profile

7.4 Interpretations

Reviewing the research issues for prehistoric occupations, survey and testing investigations at 38LA589 indicate a chronology spanning the Early Archaic (Palmer), Middle Archaic (Morrow Mountain, Guilford), and possibly into the Late Archaic (Savannah River) periods based on the recovery of diagnostic PP/Ks. In terms of site function, it appears that 38LA589 was repeatedly used during the Archaic period and that lithic reduction, core/biface production, formal tool repair/replacement, hide scraping/perforating, and hunting/cutting/ piercing activities took place at this site over as much as six millennia. The low artifact density and low to moderate diversity suggest use as a series of temporary hunting/processing stations and/or task camps, although there is no evidence of group maintenance activities (e.g., FCR or cooking features). The current study provides no direct evidence of subsistence habits, only the indirect evidence of faunal procurement and processing. The various lithic materials recovered from 38LA589 appear to be of local origin and the diagnostic PP/Ks are fairly common to the study region, so there is no direct evidence of territorial range/ mobility or trade/exchange for the groups occupying the site.

7.5 Recommendations

During Phase II shovel testing and test unit excavations, 38LA589 produced no physical evidence of intact archeological features, discrete artifact clusters, or distinct midden deposits. Artifact analysis revealed that 93.6 percent of the sample assemblage is debitage, followed by 4.8 percent formal tools, and 1.6 percent cores/bifaces. Lithic sites with similar artifact profiles and context are well documented at Haile Gold Mine. Furthermore, 43 of the 51 artifacts recovered during Phase II shovel testing and all of the test unit artifacts were recovered from within 30 cm of the surface. This suggests that the contextual clarity and depositional integrity of the cultural deposits have been severely compromised by harsh 19th and 20th century land use practices. This is supported by the fact that 1949 aerial photography shows that the southeastern part of the site was cleared, possibly in pasture, at least during the late 1940s. The above, coupled with the low artifact density and low to moderate artifact diversity, make it unlikely that 38LA589 retains significant archeological information that will advance Archaic period research in the study region. Based on the above justifications, 38LA589 is recommended ineligible for the NRHP under Criterion (d) and no additional archeological work is advised.

8.0 SITE 38LA595

8.1 Previous Work

Site 38LA595 was recorded during the Phase I survey as an Early to Middle Woodland prehistoric camp situated on a ridge nose overlooking the tributaries of Camp Branch (Adams *et al.* 2011a). Fifteen negative and 16 positive survey shovel tests were excavated; surface collections were made from exposed areas across the site.

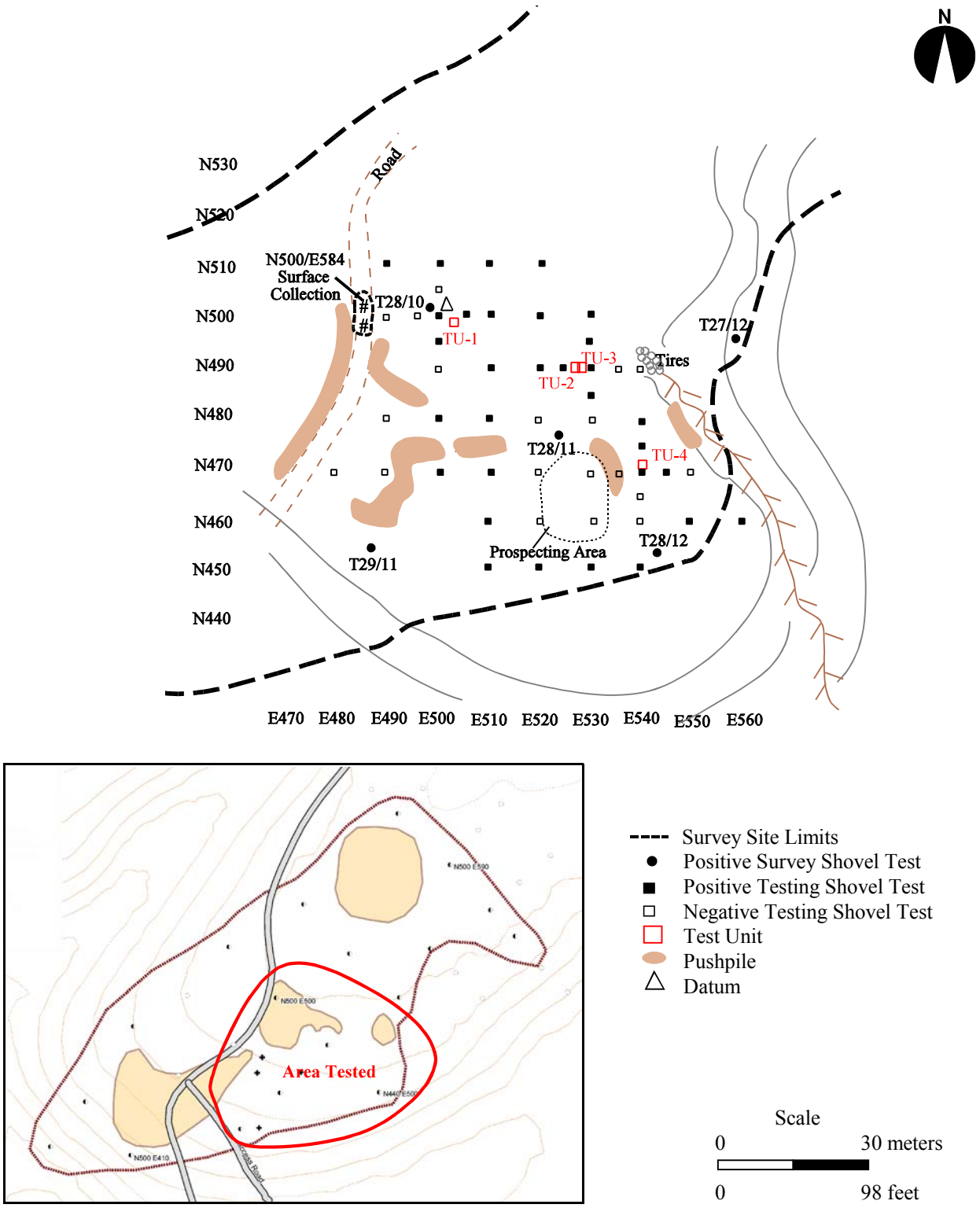
A total of 58 artifacts were recovered from shovel testing (n=51) and surface collections (n=7). The survey inventory included 44 pieces of debitage (quartz, n=26; smoky quartz, n=1; rhyolite, n=17), one quartz biface fragment, one quartz drill fragment, one quartz PP/K fragment, one rhyolite PP/K fragment, one metavolcanic unidentifiable tool fragment, and ceramics (Cape Fear Fabric Impressed, n=5; Deptford Cord- marked sherd, n=1; eroded, n=1; residual, n=2).

The lithic tools were recovered from various surface locations adjacent to disturbed areas. The shovel tests produced artifacts from 0 to 100 cmbs, but most yielded five or fewer artifacts. One survey shovel test at N500/E500 (T-28/10) contained 12 rhyolite and 5 quartz flake fragments between 20 and 100 cmbs, suggesting horizontal integrity. The five Cape Fear Fabric Impressed sherds were found in one shovel test (N470/E500; T-28/11) between 0 to 50 cmbs. Since pockets of the site contained "seemingly good physical integrity and the presence of diagnostic artifacts," Phase II evaluation was recommended for 38LA595 under the theme of Ceramic Prehistory (Adams *et al.* 2011a:33, 52).

8.2 Phase II Excavations

8.2.1 Close-grid Shovel Testing and Surface Collections

Close-grid Shovel Testing: Based on the survey data, Phase II efforts concentrated on the south central part of 38LA595 where diagnostics and high artifact densities had been recorded. Fifty Phase II shovel tests were excavated of which 31 were positive (Figure 8.1). One hundred and fifty-two artifacts were recovered from the positive shovel tests (Tables 8.1 and 8.2). The shovel test assemblage includes 119 pieces of lithic debitage, one metasiltstone core, one metasiltstone biface fragment, one quartz FCR, 18 quartz cobbles, and 12 prehistoric sherds (Deptford Fabric Impressed, n=1; Deptford Cord-marked, n=3; eroded, n=6; and residual, n=2). Artifacts were found in Levels 1 though 7 (0 to 70 cmbs). Artifact modes occurred in Levels 3 (n=51) and 5 (n=48), which produced over 65 percent of the total shovel test inventory. Moderate volumes of artifacts were noted in Levels 2 (n=20) and 4 (n=16), and comprised approximately 24 percent of the total Phase II shovel test assemblage.



Site Boundary From New South Survey (Adams *et al.* 2011a)

Figure 8.1 Site 38LA595, Site Plan

Table 8.1 38LA595 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	450	450	450	450	460	460	460	470	470	470	470	475	480	480	480	485	490
East Coordinate	510	520	530	540	510	550	560	500	510	540	545	540	500	510	540	530	500
Surface Collection (SC)																	
Lithic Reduction																	
Thinning flake, quartz																	
metasiltstone					1	2		4			3						
metasandstone								2									
metavolcanic												1					
Reduction flake, quartz					1												
metasiltstone											2						
metasandstone	1													1			
metavolcanic				1								3			1		
Flake fragment, quartz	1			1	4		1	2		1		2	3	1	3	1	3
metasiltstone						1		7			3				1		
metasandstone						1		5									
metavolcanic												2					
Core/Biface Manufacture																	
Core, metasiltstone									1								
Biface fragment, metasiltstone	1																
Cooking/Containment																	
Ceramic, plain																	
Dunlap fabric impressed																	
Deptford fabric impressed		1															
cord-marked										1		1					
eroded			1							3	1						
residual												2					
FCR, quartz																	
quartz cobble					2										5		
Total	**3**	**1**	**1**	**2**	**8**	**4**	**1**	**20**	**1**	**5**	**9**	**11**	**3**	**2**	**10**	**1**	**3**

North Coordinate	490	490	490	495	495	500	500	500	500	500	510	510	510	510	500	
East Coordinate	510	525	530	500	530	500	505	510	520	530	490	500	510	520	484	
Surface Collection (SC)															SC	**Total**
Lithic Reduction																
Thinning flake, quartz														2		**2**
metasiltstone					1	1						1				**13**
metasandstone			1													**3**
metavolcanic																**1**
Reduction flake, quartz				1												**2**
metasiltstone																**2**
metasandstone			7													**9**
metavolcanic																**5**
Flake fragment, quartz	2	1	2	6			1	4	1		2		1	1		**44**
metasiltstone						3				1						**16**
metasandstone			13								1					**20**
metavolcanic																**2**
Core/Biface Manufacture																
Core, metasiltstone																**1**
Biface fragment, metasiltstone																**1**
Cooking/Containment																
Ceramic, plain															2	**2**
Dunlap fabric impressed															1	**1**
Deptford fabric impressed																**1**
cord-marked		1														**3**
eroded	1														2	**8**
residual sherd															4	**6**
FCR, quartz									1							**1**
quartz cobble								11								**18**
Total	**3**	**2**	**23**	**7**	**1**	**4**	**1**	**15**	**2**	**1**	**3**	**1**	**1**	**3**	**9**	**161**

Table 8.2 38LA595 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	450	450	450	450	460	460	460	470	470	470	470	475	480	480	480
East Coordinate	510	520	530	540	510	550	560	500	510	540	545	540	500	510	540
Excavation Level															
Level 1 (0-10 cm)			1			1		1	1						
Level 2 (10-20 cm)	2			2		3				3	1				3
Level 3 (20-30 cm)	1	1			5		1	18			5				
Level 4 (30-40 cm)					3			1		2	3				
Level 5 (40-50 cm)												8	3		7
Level 6 (50-60 cm)												3		1	
Level 7 (60-70 cm)														1	
Total	**3**	**1**	**1**	**2**	**8**	**4**	**1**	**20**	**1**	**5**	**9**	**11**	**3**	**2**	**10**

North Coordinate	485	490	490	490	495	495	500	500	500	500	500	510	510	510	510	
East Coordinate	530	510	530	525	500	530	500	505	510	520	530	490	500	510	520	**Total**
Excavation Level																
Level 1 (0-10 cm)					1											**5**
Level 2 (10-20 cm)				1	1								1		3	**20**
Level 3 (20-30 cm)	1		8	1	3		4	1		1		1				**51**
Level 4 (30-40 cm)			3		1	1				1		1				**16**
Level 5 (40-50 cm)		1	8		3				15		1	1		1		**48**
Level 6 (50-60 cm)		2	2		1											**9**
Level 7 (60-70 cm)			2													**3**
Total	**1**	**3**	**23**	**2**	**10**	**1**	**4**	**1**	**15**	**2**	**1**	**3**	**1**	**1**	**3**	**152**

Phase II artifact density distribution (Figure 8.2) shows that six shovel tests produced 10 to 23 items: N490/E530 (n=23), N470/E500 (n=20), and N500/E510 (n=15), N475/E540 (n=11), N480/E540 (n=10), and N495/E500 (n=10). With the exception of N470/E500 located adjacent to a pushpile in the west part of the study area, the high-yield shovel tests were in the east section of the study area. Artifact-bearing soils tended to be deeper in this area as well. The remaining shovel tests produced between 1 and 9 artifacts with over 63 percent (n=19) of the 30 positive tests yielding 3 or fewer artifacts.

Surface Collections: Nine prehistoric ceramics were recovered in the vicinity of grid station N500/E584; these artifacts were found on the surface of the dirt road that runs northeast-southwest through the site (Figures 8.1 and 8.2). The sherds include plain (n=2), Dunlap Fabric Impressed (n=1), eroded (n=2), and residual (n=4).

8.2.2 Test Unit Excavations

Four 1-by-1 m units were excavated at 38LA595 (Figures 8.1 and 8.2; TU-1, TU-2, TU-3, and TU-4). Based on Phase II and survey shovel test data, the units were placed to sample areas of high artifact density coupled with deeper artifact bearing strata. TU-1 was bracketed by survey and Phase II shovel tests which produced between 10 to 17 artifacts per test (survey shovel test T-28/10, N495/E500, and N500/E510). Artifacts were

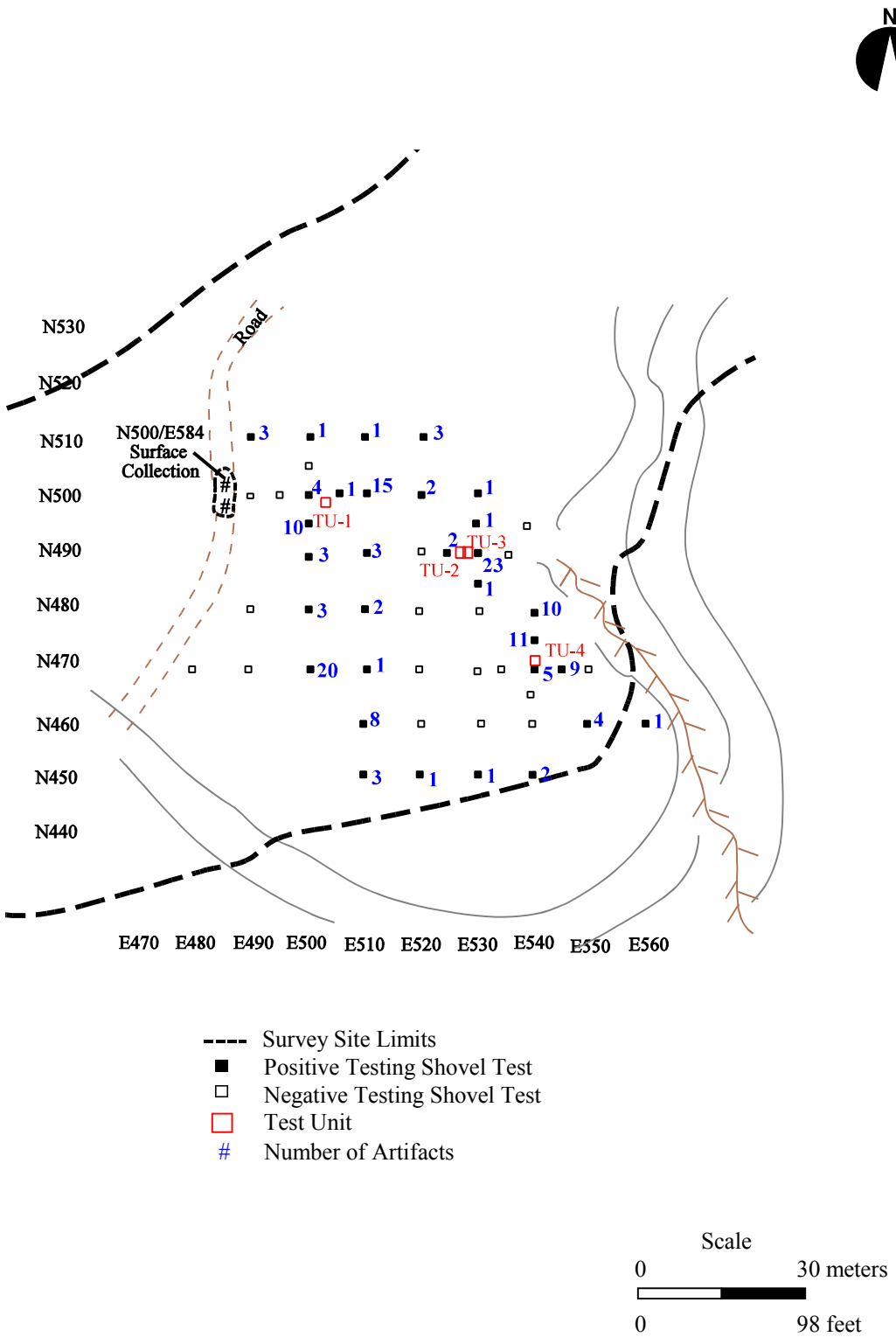


Figure 8.2 Site 38LA595, Density Map

recovered between 0 to 60 cmbs in these shovel tests. TU-2 and TU-3 were placed just west of N490/E530 which had produced 23 artifacts from 20 to 70 cmbs. TU-4 was located north of N470/E540, a shovel test yielding Deptford ceramics, and south of N475/E540 which produced 11 pieces of lithic debitage between 40 and 60 cmbs.

8.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in eight 10-cm arbitrary levels (Levels 1 through 8). The unit datum was established 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 80 cmbd. In general, strata within TU-1 sloped slightly from north to south. TU-1 contained three soil strata (Figure 8.3; Strata A through C). Stratum A is a dark grayish brown (10YR 4/2) loamy sand that overlies Stratum B, a light yellowish-brown (10YR 6/4) loamy sand. Stratum C consists of strong brown (7.5YR 4/6) sandy loam. Stratum A was present in Levels 1 and 2, with Stratum B appearing at 14 cmbd in the northwest portion of the unit. Stratum C became evident at 68 cmbd throughout the unit. No midden, features, or other intact deposits were revealed from the excavation of TU-1.

Artifacts: A total of 29 artifacts was recovered from TU-1 (Table 8.3). Levels 1, 7, and 8 (Stratum A, lower Stratum B, and Stratum C, respectively) were sterile. In Stratum B, artifact density increased in Level 3 (n=11), peaked in Level 4 (n=13), and then decreased. The TU-1 inventory consists entirely of lithic debitage, namely quartz and metasedimentary materials (metasandstone and metasiltstone) with quartz being the slightly more dominate raw material (n=16; 55 percent).

Table 8.3 38LA595 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	1	
Level	2	3	4	5	6	
Bag Number	61	62	63	64	65	**Total**
Lithic Reduction						
Thinning flake, quartz		1			1	**2**
metasandstone		3				**3**
Flake fragment, quartz		5	6	3		**14**
metasiltstone			6			**6**
metasandstone	1	2	1			**4**
Total	**1**	**11**	**13**	**3**	**1**	**29**

8.2.2.2 Test Units 2 and 3

Level Excavation and Soil Stratification: TU-2 was placed approximately 1.0 m west of high artifact density shovel test N490/E530. Since artifact recovery was low in TU-2 (n=26), it was decided to extend the unit east (TU-3) to immediately abut the high yield shovel test. TU-2 was excavated in eight 10-cm arbitrary levels (Levels 1 through 8). Unit excavation was terminated at a depth of 80 cmbd. TU-3 was excavated in six 10-cm arbitrary levels (Levels 1 through 6) to a depth of 60 cmbs (the base of a second sterile level). Datum elevation was taken at 10 cm above ground surface in the northeast corner of TU-2.

TU-2 exposed three soil strata (Figure 8.4; Strata A through C). Stratum A is a dark grayish-brown (10YR 4/2) loamy sand that overlies Stratum B, a light yellowish-brown (10YR 6/4) loamy sand. Stratum C consists

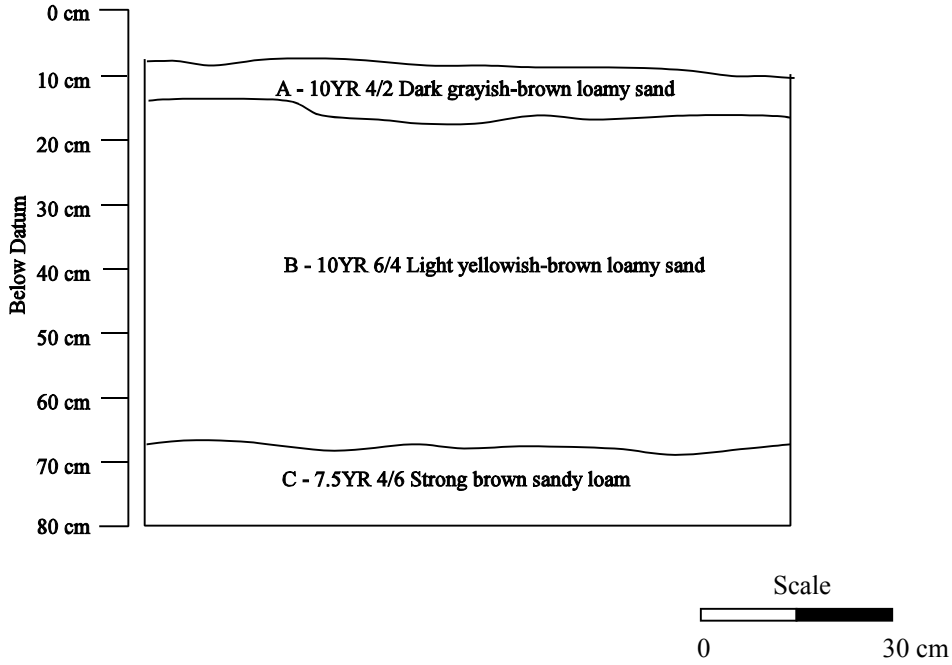


Figure 8.3 38LA595, Test Unit 1, North Profile

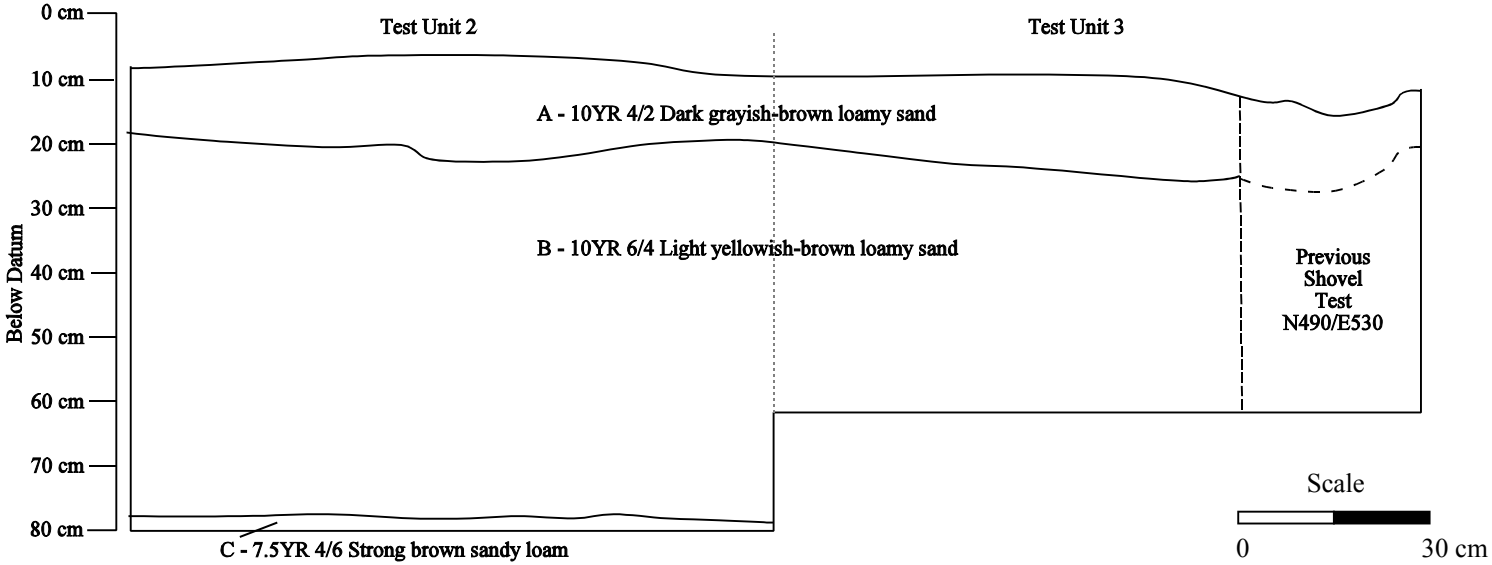


Figure 8.4 38LA595, Test Units 2 and 3, North Profile

of strong brown (7.5YR 4/6) sandy loam. TU-3 contained only the upper two of these strata. Stratum A was present in Levels 1 and 2. Stratum B (Levels 3 through top of 8) first appeared at18 to 22 cmbd, sloping from the northwest corner to the center of the unit. In TU-2, Stratum C (bottom of Level 8) appeared across the unit floor at 78 cmbd.

Artifacts: A total of 54 artifacts was recovered from TU-2 (n=26) and TU-3 (n=28) (Tables 8.4 and 8.5). In TU-2 and TU-3, artifact density was highest in Level 4 (n=13 and n=20, respectively), near the mid- point of Stratum B. The units' inventories are comprised of lithic debitage (n=52, 96.2 percent), cores/bifaces (n=1, 1.9 percent), and cooking/ containment items (n=1, 1.9 percent). The majority of the debitage is composed of metasedimentary materials (n=38; 73.0 percent); the remaining 14 pieces (17.0 percent) of debitage and the core are quartz. While no diagnostic artifacts were recovered from either TU-2 or TU-3, the eroded, nondescript ceramic recovered from TU-3, Level 3, can probably be attributed to Woodland occupation.

Table 8.4 38LA595 TU-2 Artifacts

Test Unit (TU)	2	2	2	2	
Level	3	4	5	6	
Bag Number	67	68	69	70	**Total**
Lithic Reduction					
Thinning flake, quartz		2			**2**
metasiltstone		1			**1**
metasandstone		1	4		**5**
Reduction flake, metasandstone	1	1			**2**
Flake fragment, quartz		2	1	3	**6**
metasandstone	2	6	1		**9**
Core/Biface Manufacture					
Core, quartz	1				**1**
Total	**4**	**13**	**6**	**3**	**26**

Table 8.5 38LA595 TU-3 Artifacts

Test Unit (TU)	3	3	
Level	3	4	
Bag Number	71	72	**Total**
Lithic Reduction			
Thinning flake, quartz		1	**1**
metasandstone		7	**7**
Reduction flake, metasandstone	1		**1**
Flake fragment, quartz	1	4	**5**
metasandstone	5	8	**13**
Cooking/Containment			
Ceramic, unknown/eroded decorated	1		**1**
Total	**8**	**20**	**28**

8.2.2.3 Test Unit 4

Level Excavation and Soil Stratification: TU-4 was excavated in six 10-cm arbitrary levels (Levels 1 through 6). The unit datum was set at 10 cm above ground surface in the northeast corner. Unit excavation was terminated at a depth of 60 cmbd. TU-4 sampled three similar soil strata (Figure 8.5; Strata A through C). Stratum A is a dark grayish brown (10YR 4/2) loamy sand that overlies Stratum B, a light yellowish-brown (10YR 6/4) loamy sand. Stratum C consists of strong brown (7.5YR 4/6) sandy loam. Stratum A was present in Level 1, with Stratum B appearing between 8 and 12 cmbd in the west half of TU-4. Stratum C appeared at 56 cmbd in Level 6 throughout.

Artifacts: Only 12 artifacts were recovered from TU-4 (Table 8.6). Artifact density peaked in Level 2 (top of Stratum B), then decreased. The artifact inventory consists of cooking/containment (n=11, 91.6 percent) and metasandstone debitage (n=1, 8.4 percent) artifacts. Of the nine ceramics identified in Level 2, one

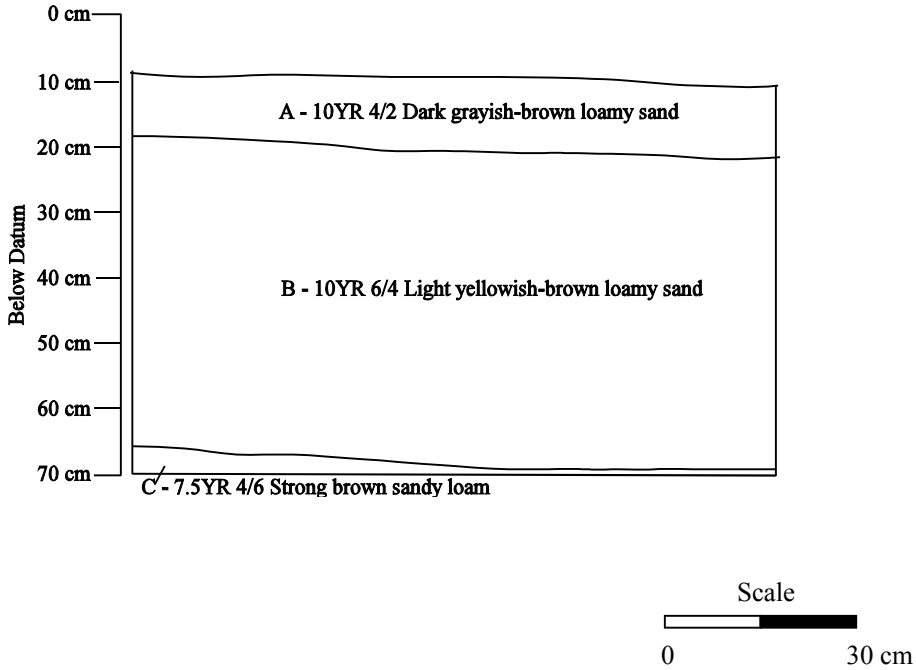


Figure 8.5 38LA595, Test Unit 4, North Profile

diagnostic artifact was recovered; a Deptford Fabric-impressed sherd (Level 2) suggests a Middle Woodland occupation intermixed in the plowzone disturbance.

Table 8.6 38LA595 TU-4 Artifacts

Test Unit (TU)	4	4	4	
Level	2	3	4	
Bag Number	73	74	75	**Total**
Lithic Reduction				
Flake fragment, metasandstone		1		**1**
Cooking/Containment				
Ceramic, plain	5	1		**6**
Deptford Fabric Impressed	1			**1**
eroded	1			**1**
residual sherd	2		1	**3**
Total	**9**	**2**	**1**	**12**

8.3 Analysis

A total of 256 prehistoric artifacts were recovered during Phase II testing at 38LA595: 95 from the four test units, 152 from shovel tests, and nine from a surface collection. The artifact sample is comprised of lithic debitage (n=201, 78.5 percent), cooking/containment artifacts [ceramics (n=33) and FCR (n=1), overall 13.3 percent], cores/bifaces (n=3, 1.2 percent), and unworked cobbles (n=18, 7.0 percent). The lithic assemblage (n=232) including the FCR and unworked cobbles is composed primarily of quartz (n=107, 46.1 percent) followed by metasandstone (n=77, 33.2 percent), metasiltstone (n=40, 17.3 percent), and metavolcanic (n=8, 3.4 percent).

The lithic debitage is dominated by flake fragments (n=140, 69.7 percent), followed by thinning flakes (n=40, 19.9 percent), and reduction flakes (n=21, 10.4 percent). This pattern of debris is fairly consistent across the shovel testing data and the excavation levels in TU-1, 2, and 3; TU-4 produced only one flake. Core/biface production is indicated by quartz (n=1) and metasiltstone (n=1) cores, and a metasiltstone biface fragment.

Under cooking/containment, 33 prehistoric ceramics were recovered during the Phase II investigations and include Deptford [Fabric impressed (n=2, 6.1 percent); Cord-marked (n=3, 9.1 percent)], Dunlap Fabric-impressed (n=1, 3.0 percent), plain (n=8, 24.3), unknown decorated (n=1, 3.0 percent), eroded (n=9, 27.3 percent), and residual (n=9, 27.3 percent) wares (Figure 8.6). Different sorting criteria allowed for the discrimination between the Deptford and Dunlap Fabric-impressed wares (DePratter 1976). Given the variations in paste,

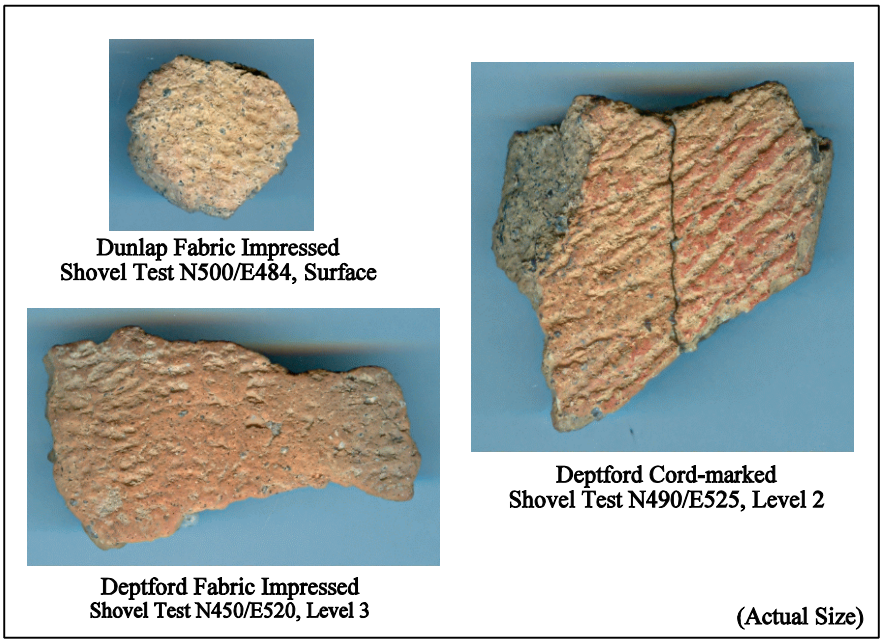


Figure 8.6 Site 38LA595, Selected Artifacts

temper, and firing in these two ceramic series, it appears that the majority of the sherds (n=30) fall within the Deptford series; the remaining sherds (n=3) were classified as Dunlap. This suggests a temporal span of Early to Middle Woodland.

Shovel testing and surface collection data identified four loose, low density clusters of ceramics at 38LA595. The low density of these clusters was confirmed in TU-4, which sampled the cluster near Phase II shovel test N470/E540. Light ceramic clusters such as these are very common in the Coastal Plain and Sandhills regions and may relate to biotic extraction by small task groups. Cable and Cantley (2005) suggest that sherd clusters may represent plant gathering and processing stations occupied by female task groups. They further suggest that such occupations may have been repeatedly used by the same or related social units. They speculate that the sherds might have been cached and recycled for various domestic usages. Whatever their function, the loose sherd clusters found at 38LA595 imply short term, possibly repeated, use of the site during the Early to Middle Woodland periods.

8.4 Interpretations

Survey and testing investigations at 38LA595 indicate occupations ranging from the Early Woodland to Middle Woodland periods based on the presence of Dunlap and Deptford series ceramics; prior investigations (Adams *et al.* 2011a) produced Cape Fear Fabric Impressed and Deptford Cord-marked wares, suggesting a Middle to Late Woodland time span. Current and previous investigations demonstrate that lithic reduction and core/biface production, hunting/piercing/cutting, soft media drilling, and ceramic cooking/ containment activities were carried out at 38LA595. The low to moderate artifact diversity, coupled with the low overall artifact density (i.e., only 95 artifacts from four test units) suggest one or more short term hunting/collection stations and/or camps. It is possible that a household unit may have occupied the site for a short time; however, no features, distinct artifact clusters, distinct archeological midden deposits, or other archeological cues of intermediate to long term occupation were encountered during Phase II evaluation. Direct evidence for subsistence is lacking; general, indirect evidence includes hunting/faunal processing (PP/Ks) and possibly floral collection and cooking (ceramics). No exotic lithic materials or PP/Ks were found that might suggest physical trade or technological exchange. The presence of three Early Woodland Dunlap series sherds could be an indication of influence from the west (i.e. North Georgia). Dunlap wares are a hallmark of the Kellogg phase, which is centered in the north Georgia Piedmont. However, DePratter (1976) notes that this series is also found in South Carolina from the Piedmont to just below the Fall Line, and no cultural markers typical of Kellogg were found at 38LA595.

8.5 Recommendations

While the archeological deposits at 38LA595 extended from 50 to 70 cmbs in five locations based on Phase II shovel testing, the materials recovered from these depths only comprise 7.9 percent (n=12) of the total

shovel test inventory (n=152). The majority of the materials were confined to the upper 40 cm of the deposits (60.5 percent; n=92). Forty-eight items were collected from Level 5, but 11 of these were unmodified stone; excluding these items, 24.3 percent of the artifacts were recovered from 4 to 50 cmbs. Collectively, the four test unit excavations showed that cultural materials were primarily confined to the upper 40 cm (86.5 percent; n=83). Furthermore, as noted above, no intact features or distinct cultural deposits/middens indicative of extended use were observed. Finally, artifact density was surprisingly low in all four test units, ranging from 12 to 29 artifacts. In TU-1, 2, and 3, 81 of the 83 artifacts recovered were debitage items. Only in TU-4 was this pattern different: 11 of the 12 artifacts were ceramics, all of which are probably Deptford.

The extent to which 19th and 20th century land use practices have damaged the site is not clear; however, aerial photography of the site vicinity clearly shows a portion of the site under cultivation at least as early as 1949. On this basis and due to the sandy site matrix, it is likely that at least the upper 30 to 40 cm of the deposits have been significantly impacted by cultivation and possibly other historic land use practices. Thus the contextual clarity and depositional integrity of a significant portion of the archeological deposits have likely been compromised. Combined with the lack of intact features and overall low artifact density and low to moderate artifact diversity, it appears unlikely that 38LA595 retains additional significant archeological information that would advance knowledge on Early to Middle Woodland lifeways or ceramic prehistory. Site 38LA595 is recommended ineligible for the NRHP under Criterion (d), and no additional archeological work is considered necessary.

9.0 SITE 38LA596

9.1 Previous Work

Site 38LA596 was recorded as an non-diagnostic lithic scatter on a ridge nose overlooking a tributary of Camp Branch (Adams *et al.* 2011a). Twenty-nine shovel tests were excavated, seven of which were positive. Forty-three artifacts were recovered from just below the ground surface to 110 cmbs. The survey inventory consisted of 42 pieces of debitage (quartz, n=41; rhyolite, n=1) and one quartz flake tool. The majority of these (n=36) were recovered from a single shovel test (T-28/5), suggesting that the site had retained some degree of horizontal and depositional integrity. The site was interpreted as a small lithic reduction/resource extraction camp, and additional work was recommended to determine if the site was eligible for the NRHP under the theme of "Archaic lifeways" (Adams *et al.* 2011a:33, 52).

9.2 Phase II Excavations

9.2.1 Close-grid Shovel Testing

Fifteen shovel tests were excavated during Phase II testing at 38LA596, of which seven were positive (Figure 9.1). Twenty-eight artifacts were recovered from the seven positive shovel tests (Tables 9.1 and 9.2). These items are comprised entirely of lithic debitage, including flake fragments (n=21), reduction flakes (n=4), and thinning flakes (n=3). Artifacts were recovered from Levels 3 through 7. The artifact mode was in Level 6 (n=8), closely followed by Levels 3 (n=6) and 5 (n=7). Level 4 produced four artifacts, and Level 7 yielded three artifacts.

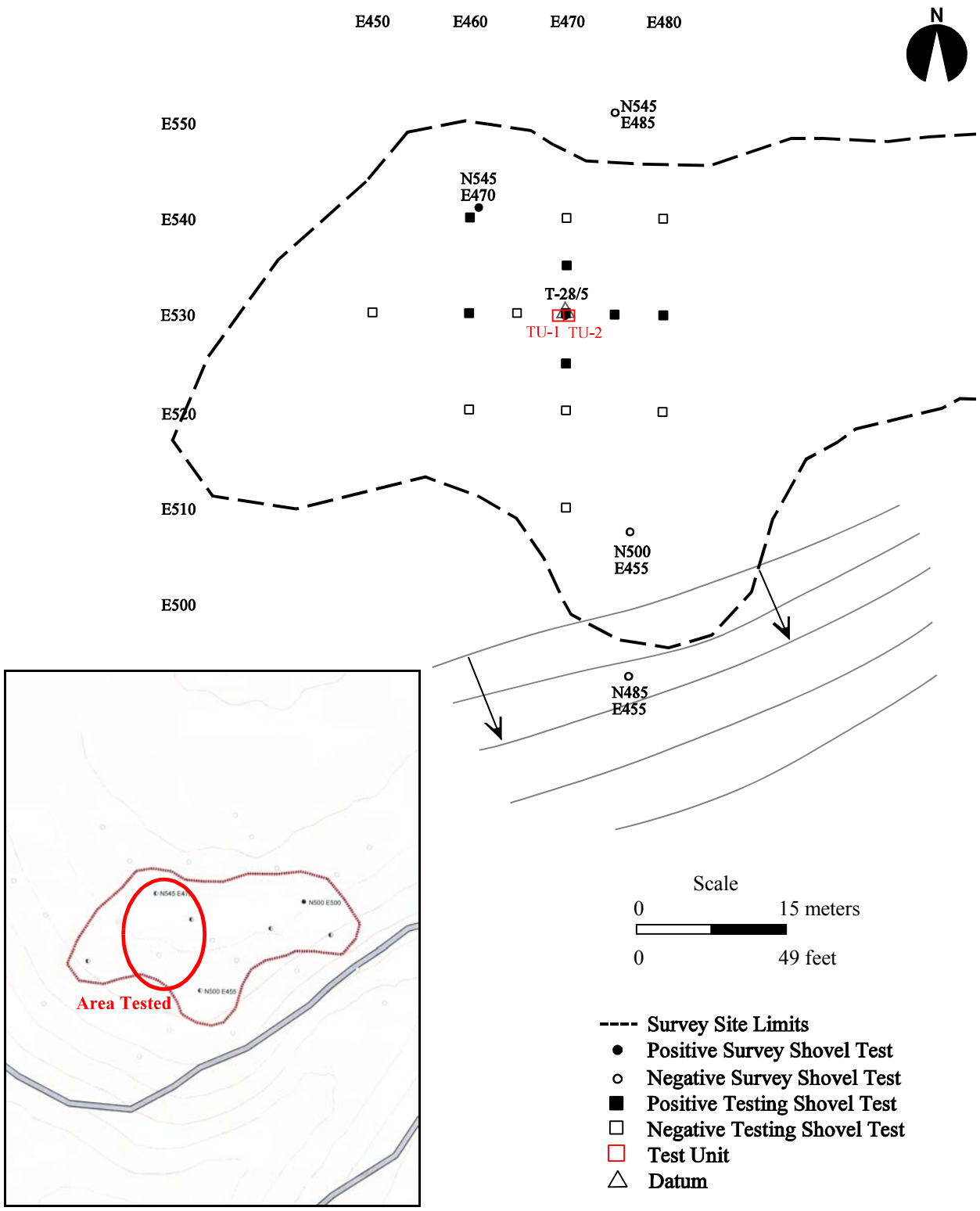
Table 9.1 38LA596 Artifact Inventory, Close-grid Shovel Tests

North Coordinates	530	525	530	530	530	535	540	
East Coordinates	460	470	470	475	480	470	460	**Total**
Lithic Reduction								
Thinning flake, quartz	1							**1**
metasiltstone			1			1		**2**
Reduction flake, quartz	3		1					**4**
Flake fragment, quartz	1	1	16	1	1		1	**21**
Total	**5**	**1**	**18**	**1**	**1**	**1**	**1**	**28**

Table 9.2 38LA596 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinates	530	525	530	530	530	535	540	
East Coordinates	460	470	470	475	480	470	460	**Total**
Excavation Level								
Level 1 (0-10 cm)								
Level 2 (10-20 cm)								
Level 3 (20-30 cm)	4					1	1	**6**
Level 4 (30-40 cm)	1	1	2					**4**
Level 5 (40-50 cm)			6	1				**7**
Level 6 (50-60 cm)			7		1			**8**
Level 7 (60-0 cm)			3					**3**
Total	**5**	**1**	**18**	**1**	**1**	**1**	**1**	**28**

The Phase II shovel test artifact density distribution (Figure 9.2) shows one shovel test (N530/E470) producing 18 pieces of debitage, with a second shovel test (N530/E460) containing five artifacts. The remaining five shovel tests yielded one piece of debitage each.



Survey Site Boundary (Adams et al. 2011a)

Figure 9.1 Site 39LA596, Plan Map

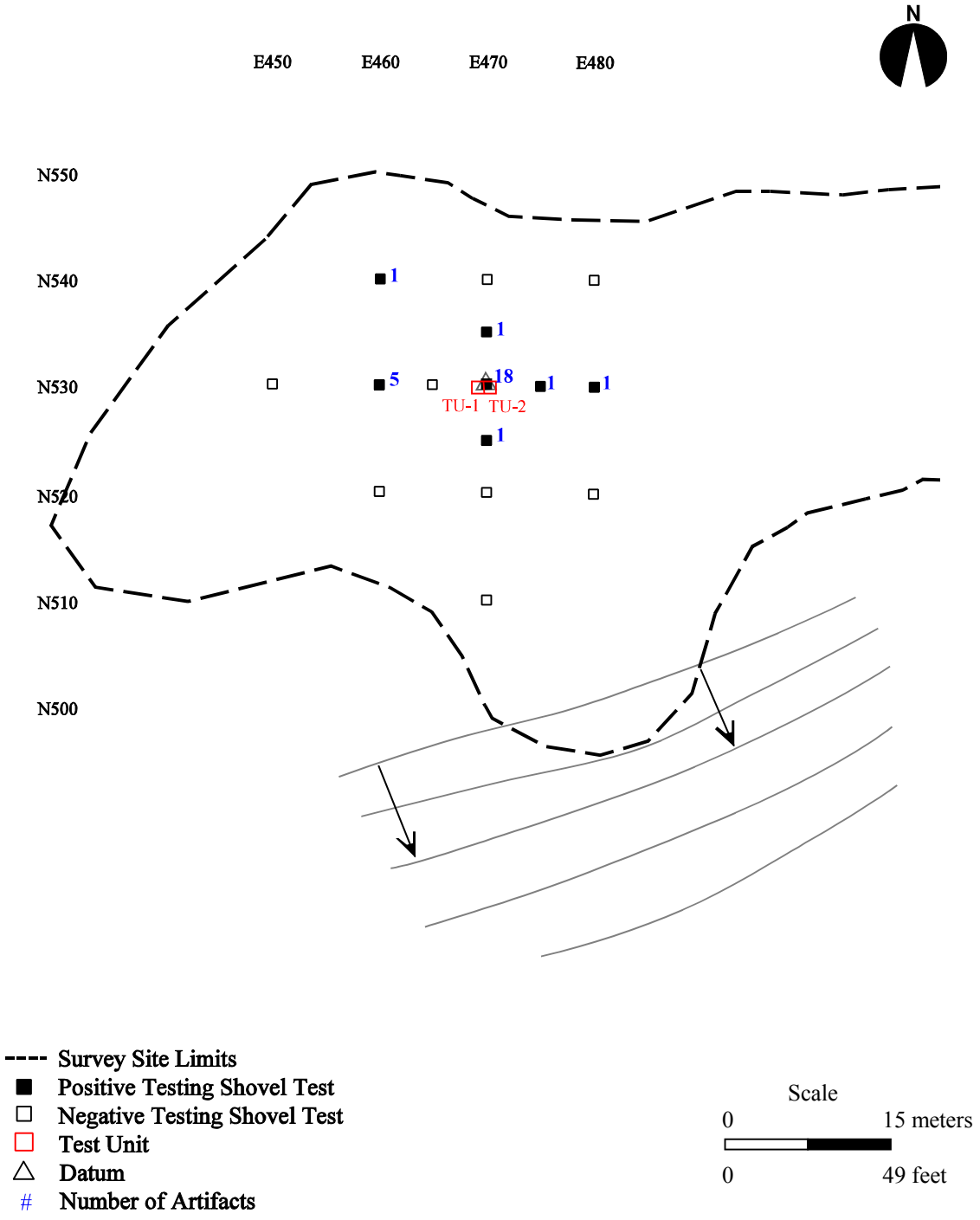


Figure 9.2 Site 39LA596, Density Map

9.2.2 Test Unit Excavations

Two 1-by-1 m test units were excavated at 38LA596 (Figures 9.1 and 9.2; TU-1 and TU-2). Test units were placed to sample the area of the site where survey and Phase II shovel testing indicated high artifact density. TU-1 was placed on the west side of survey shovel test T-28/5 and Phase II shovel test N530/E470 . After TU-1 was completed, a decision was made to extend excavations to the east (TU-2) to encompass survey shovel test T-28/5.

9.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in 10 arbitrary 10-cm levels (Levels 1 through 10); Level 10 is more than 10-cm thick as a result of vigorous cleaning of the unit floor. The unit datum was established 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 110 cmbd. Three soil strata were encountered in TU-1 (Figure 9.3; Strata A, B, and C). Stratum A was a dark gray (10YR 4/1) loamy sand that laid unconformably over Stratum B, a yellowish-brown (10YR 5/4) loamy sand, that graded into the dark yellowish-brown (10YR 4/4) clayey loamy sand subsoil (Stratum C). Stratum A was present in Level 1 into the upper part of Level 3. Stratum B appeared at 22 cmbd, and was present in Levels 2 through 7. Stratum C first appeared at 80 cmbd and continued through Levels 8, 9, and 10.

Artifacts: A total of 920 artifacts was recovered from TU-1 (Table 9.3), all of which is quartz. Level 1 deposits were least productive, yielding only two artifacts. The artifact content increased in Levels 2-4 to the mode in Levels 5 and 6. The artifact yield decreased sharply in Levels 7 and 8; Levels 9 and 10 were sterile. The TU-1 inventory consists of quartz debitage (n=915; 99.5 percent), cores/bifaces (n=4; 0.4 percent), and formal tools (n=1; 0.1 percent).

Table 9.3 38LA596 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	1	1	1	1	
Level	1	2	3	4	5	6	7	8	
Bag Number	8	9	10	11	12	13	14	15	**Total**
Lithic Reduction									
Thinning flake, quartz			6	5	10	10	7		**38**
Reduction flake, quartz			8	12	9	10	5		**44**
Flake fragment, quartz	2	21	82	130	269	259	61	9	**833**
Core/Biface Manufacture									
Core, quartz					2				**2**
Early stage biface, quartz						1			**1**
Biface fragment, quartz					1				**1**
Formal Tools									
Triangular Biface, quartz							1		**1**
Total	**2**	**21**	**96**	**147**	**291**	**280**	**74**	**9**	**920**

9.2.2.2 Test Unit 2

Level Excavation and Soil Stratification: TU-2 was excavated in ten arbitrary 10-cm levels (Levels 1 through 10). The TU-1 datum was also used as the datum for TU-2. Unit excavation was terminated at a depth of

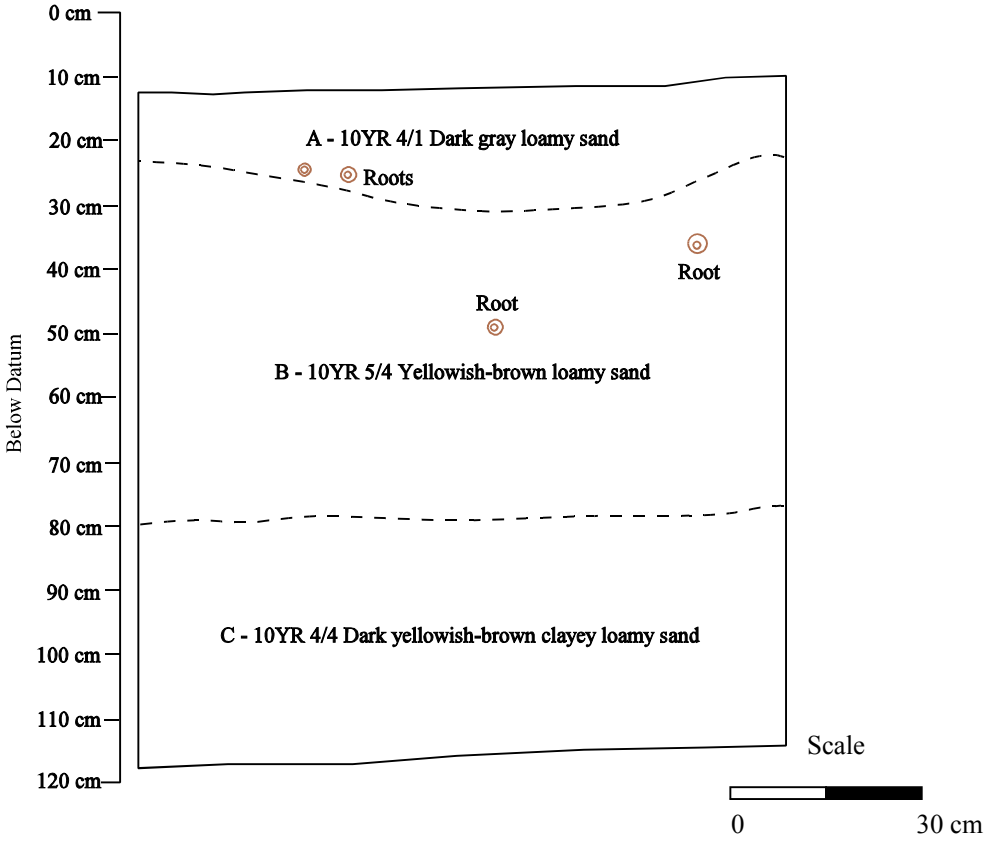


Figure 9.3 Site 38LA596, Test Unit 1, North Profile

110 cmbd. TU-2 exposed three soil strata (Figure 9.4; Strata A, B, and C). Stratum A was a dark gray (10YR 4/1) loamy sand that rested unconformably over Stratum B, a yellowish-brown (10YR 5/4) loamy sand, that graded into the dark yellowish-brown (10YR 4/4) clayey loamy sand subsoil (Stratum C). Stratum A was present in Level 1 and the upper portions of Level 2. Stratum B appeared at 20 cmbd, and was present in Levels 2 through 6 and the upper portion of Level 7. Stratum C first appeared at 72 cmbd in Level 7, and continued through Levels 8, 9, and 10.

Artifacts:: TU-2 produced 176 artifacts, all lithic debitage (Table 9.4). As with TU-1, Level 1 was the least productive, yielding only three artifacts. The artifact yield increased in the subsequent levels to the mode in Levels 4 and 5, then decreased sharply in Levels 6, 7, and 8; Levels 9 and 10 were sterile. The TU-2 artifact inventory is composed of flake fragments (n=172; 97.7 percent) and reduction flakes (n=4; 2.3 percent). Quartz was the dominant raw material (n=173; 98.3 percent), complemented by metasandstone (n=2; 1.1 percent) and metasiltstone (n=1; 0.6 percent).

Table 9.4 38LA596 TU-2 Artifacts

Test Unit (TU)	2	2	2	2	2	2	2	2	
Level	1	2	3	4	5	6	7	8	
Bag Number	16	17	18	19	20	21	22	23	**Total**
Lithic Reduction									
Reduction flake, quartz			3		1				**4**
Flake fragment, quartz	3	14	21	46	56	21	5	3	**169**
metasiltstone		1							**1**
metasandstone			1					1	**2**
Total	**3**	**15**	**25**	**46**	**57**	**21**	**5**	**4**	**176**

9.3 Analysis

A total of 1,124 prehistoric artifacts was recovered during Phase II testing at 38LA596: 1,096 derive from the two test units and 28 were recovered during shovel testing. The artifact sample is comprised of lithic debitage (n=1,119; 99.6 percent), cores/bifaces (n=4, 0.4 percent), and formal tools (n=1, 0.1 percent). The assemblage is almost exclusively quartz, with only five artifacts (debitage) made of other materials (metasiltstone, n=3; metasandstone, n=2).

The debitage is dominated by flake fragments (n=1,026; 91.6 percent), followed by reduction flakes (n=52; 4.7 percent), and thinning flakes (n=41; 3.7 percent). No thinning flakes were recovered from TU-2. The number of thinning (n=41; 3.7 percent) and reduction (n=52; 4.7 percent) flakes are comparable and suggest early to late stage bifacial tool production. The high percentage of flake fragments is typical of quartz-dominated assemblages. The lack of shatter in the testing inventory suggests that extraction, early quality sorting of raw materials, and initial reduction probably did not occur at 38LA596. Instead, staged biface production is evident from the presence of randomly flaked cores (n=2), an early stage biface, and a biface fragment. None of these artifacts are diagnostic, however the formal tool, a triangular biface (Figure 9.5), is similar to those found in a sealed Middle Archaic Morrow Mountain context in Cherokee County, Georgia (Webb 1998).

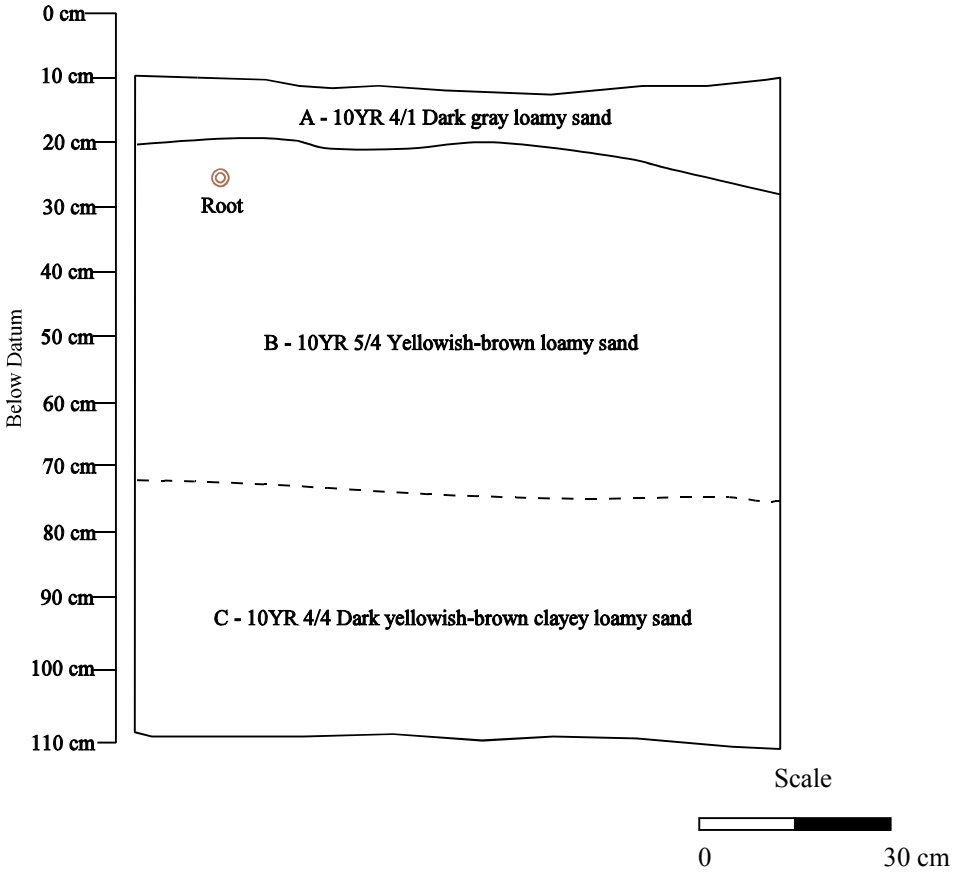


Figure 9.4 Site 38LA596, Test Unit 2, East Profile

Artifact density and diversity was greatest in TU-1. In fact, TU-1 produced 83.1 percent of the overall site assemblage, all of the cores, bifaces, and the formal tool. TU-2, an eastern extension of TU-1, contributed only 15.9 percent of the site assemblage, all of which was debitage. In TU-1, artifact density was greatest in Levels 5 and 6, accounting for 62.1 percent of all artifacts recovered from the unit. In TU-2, the artifacts from Levels 4 and 5 account for 58.5 percent of all artifacts from the unit.

Triangular Biface, Quartz
Test Unit 1, Level 7
(Actual Size)

Figure 9.5 Site 38LA596, Selected Artifact

9.4 Interpretations

In reference to the research issues for prehistoric occupations, the lack of ceramics, predominance of quartz, and the recovery of a triangular bifacial tool similar to those found on Middle Archaic sites in Georgia, are suggestive of a Middle Archaic occupation. Lacking diagnostic projectile points, the temporal affiliation cannot be stated with certainty. Regarding site function, survey and testing investigations revealed that 38LA596 was intensively used, perhaps over a relatively short time frame. The limited horizontal extent of the cultural deposits may be indicative of a low number of occupational episodes. Site activities include the reduction of high quality raw quartz, quartz cores and/or early stage bifaces; there is also evidence of limited cutting/piercing activity. No artifacts, features, or midden deposits indicating group maintenance activities (e.g., FCR, cooking features, etc.) were detected. Archeological work at 38LA596 yielded no evidence for subsistence habits. There is no direct evidence for territorial range/mobility or exchange networks for the groups that occupied this site. Quartz is readily available locally and while the few pieces of metasandstone and metasiltstone debitage may be the result of tool curation, these materials could also be found locally.

9.5 Recommendations

Phase II investigations at 38LA596 produced no physical evidence of intact archeological features, discrete artifact clusters, or distinct midden deposits. This site produced 99.5 percent debitage, 0.4 percent cores/ bifaces, and 0.1 percent formal tools, nearly all of which are quartz. Thus, artifact density is high and diversity is quite low. Previous testing and data recovery projects conducted at Haile Gold Mine (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011) have documented lithic sites with characteristics very similar to 38LA596. Fairly distinct artifact modes occur between 40 to 60 cmbs at 38LA596, but given the homogenous nature of the testing assemblage (i.e., 99.6 percent debitage and over 99 percent quartz) the degree of contextual clarity and depositional integrity is unknown, as is the depth and degree of post-formational disturbance to the occupational zone. Considering the above justifications and the types of information already collected from 38LA596 and similar sites in the area, it is unlikely that 38LA596 retains archeological information that will advance Archaic period research in the study region. Site 38LA596 is recommended ineligible for the NRHP under Criterion (d) and no further archeological work is warranted.

10.0 SITE 38LA600

10.1 Previous Work

Site 38LA600 was recorded as a Woodland prehistoric camp situated on a ridge side slope overlooking tributaries of Camp Branch (Adams *et al.* 2011a). Twenty-two negative and 15 positive survey shovel tests were excavated. Artifacts were recovered from 0 to 60 cmbs, with ceramics being identified from 20 to 40 cmbs and lithics found to 60 cmbs. Fifty-seven artifacts were produced from the shovel testing, including 46 pieces of debitage (quartz, n=35; rhyolite, n=11), one quartz biface fragment, one rhyolite PP/K fragment, and nine sand-tempered ceramics (plain, n=4; eroded, decorated, n=4; eroded, n=1).

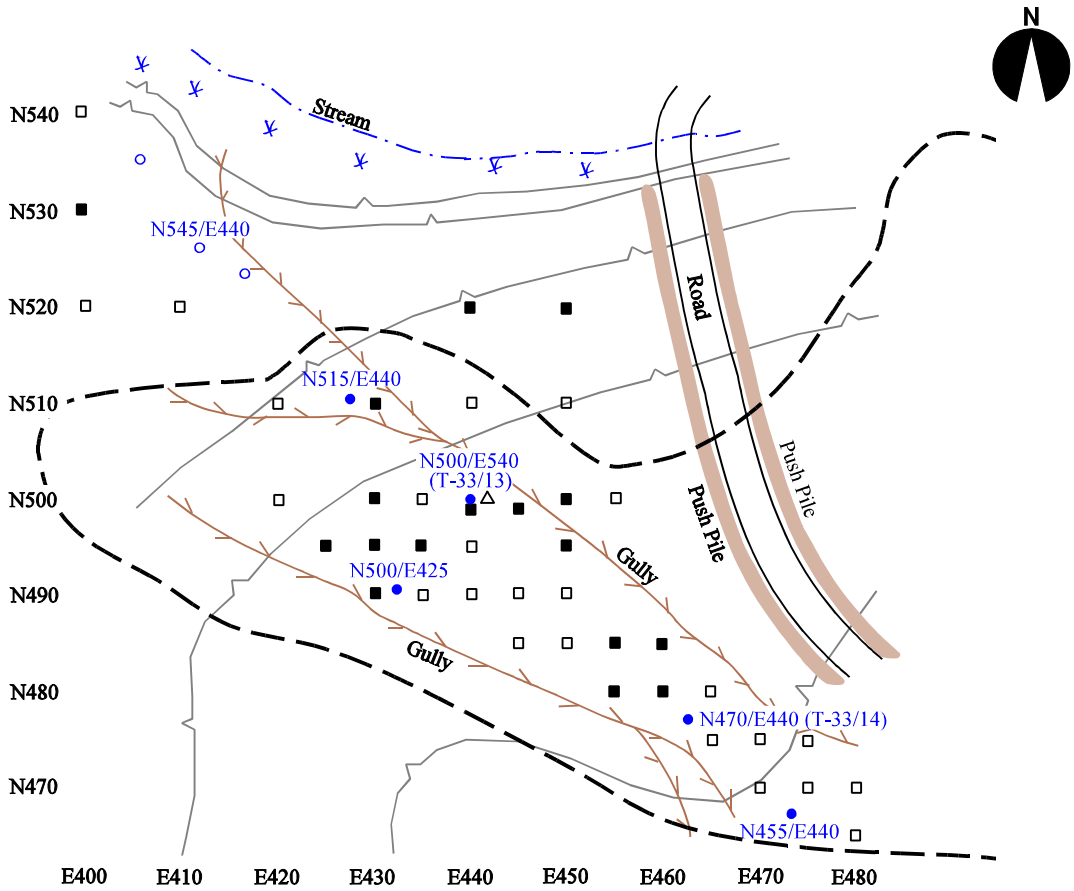
Clusters of shovel tests in the west part of the site produced a minor concentration of quartz debitage (n=8) at N500/E440 (T-33/13), a rhyolite PP/K fragment at N500/E425, and quartz debitage (n=4) and a plain sand-tempered sherd at shovel test N470/ E440 (T-33/14). In the northeast section of the site, survey shovel test N440/E485 (15 m east of T-32/16) contained nine artifacts between 20 and 40 cmbs, including eight sand-tempered ceramics (plain, n=3; eroded, decorated, n=4; eroded, n=1) and one quartz flake fragment. Since sections of the site contained "an intact layer below the plowzone that could yield features and significant data about Woodland camps," 38LA600 was recommended for additional testing to clearly determine eligibility for the NRHP under the theme of ceramic prehistory (Adams *et al.* 2011a:60).

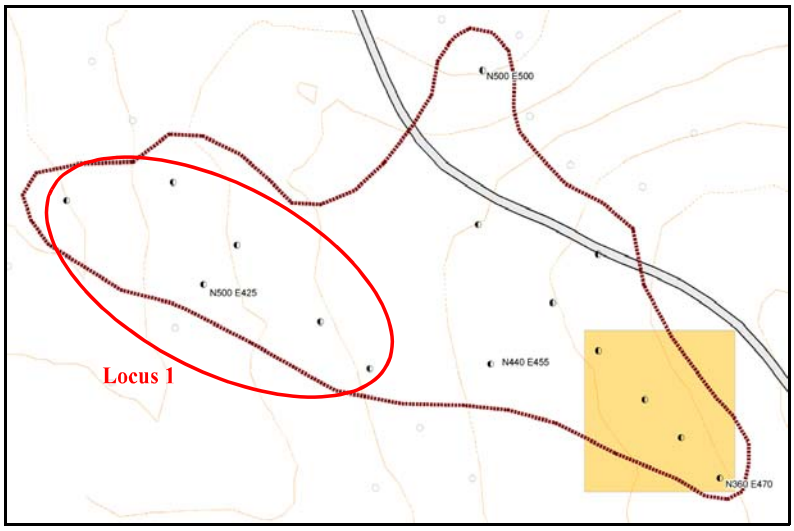
10.2 Phase II Excavations

The two areas that produced moderate artifact densities and indicated potentially intact deposits during the survey were investigated as two loci (Loci 1 and 2) during the Phase II efforts. Locus 1 is in the west part of the site and survey shovel test N500/E540 (T-33/13) was used as datum. Locus 2 is in the northeast part of the site; survey shovel test N440/E485 is near the center of this locus. Sixty-two shovel tests and two 1-by-1-m test units were excavated at 38LA600. Due to the distance between these loci (approximately 60 m), testing results are discussed individually.

10.2.1 Locus 1 Close-Grid Shovel Testing

Shovel testing revealed that Locus 1 has been severely impacted by two erosional gullies and logging activities (Figure 10.1). The Phase II shovel testing extended north beyond the mapped survey site limits because provenience information in the Phase I survey artifact inventory indicated positive shovel tests in this area. During the Phase II data analysis it was determined that these grid locations were recorded incorrectly on the inventory (i.e. mapped shovel test N530/E410 was recorded as N560/E510 in the Pahse I inventory, which is north of the site boundary). Positive Phase II tests were recorded north of the survey boundary, which brings the site limits north to the creek.





Survey Site Boundary (Adams *et al.* 2011a)

Scale

0 20 meters

0 66 feet

- Survey Site Limits
- Positive Survey Shovel Test
- Negative Survey Shovel Test
- Positive Testing Shovel Test
- Negative Testing Shovel Test
- Datum

Figure 10.1 Site 38LA600 Plan Map, Locus 1

Forty shovel tests were excavated at Locus 1 during the Phase II investigations; 18 of these were positive and 22 were negative (Figure 10.1). Sixty artifacts were recovered from the positive shovel tests. The inventory includes 56 pieces of lithic debitage (quartz, n=26; metasiltstone, n=18; metasandstone, n=12), one quartz core, one quartz early stage biface, one Stanly metasandstone PP/K, and a plain sand-tempered sherd (Table 10.1). Artifacts were recovered between 0 to 40 cmbs. Level 3 (20 to 30 cmbs) was the mode for artifact recovery (n=24), closely followed by Level 2 (n=20). Levels 2 and 3 combined produced 73.3 percent (n=44) of the shovel test artifact inventory (Table 10.2).

The Phase II shovel test artifact density map (Figure 10.2) shows that shovel test N500/E450 yielded the highest number of artifacts (n=16) for the locus. This shovel test was located in a heavily disturbed area adjacent to an erosional gully disturbance.

Although one Phase II shovel test produced 16 pieces of debitage, observations made during the close-grid shovel testing indicate a high level of early to middle 20th century erosion and gullying have severely compromised the integrity of Locus 1. Aerial photography from 1949 shows an opening in the vicinity of 38LA600 with lines of trees traversing the opening. These tree lines correlate well with the locations of the gullies observed on site during the Phase II evaluation. In support of this observation, the vertical distribution of shovel test artifacts varied between 0 and 40 cmbs with only two of 18 positive shovel tests (or11.1 percent) possibly having sub-plowzone contexts (i.e. 30 to 40 cmbs) that contained only seven pieces of debitage. Fourteen tests (77.8 percent) had three or fewer artifacts. In general, Locus 1 exhibits low artifact density and diversity, and produced one diagnostic, the Middle Archaic Stanly PP/K. This area appears to be very typical of a lithic reduction locus (93.3 percent debitage) complemented by limited biface production and possibly tool repair activities. For these reasons and since the focus of the investigation suggested by Adams *et al.* 2011a was to investigate the Woodland deposits at the site, no test units were excavated at Locus 1.

10.2.2 Locus 2 Close-Grid Shovel Testing

Observations during the Phase II efforts indicated changes to the landscape since the 2011 Phase I survey was conducted and the site sketch prepared. The road cut shown on the 2011 survey map appears to have been improved, as evidenced by new pushpiles adjacent to the road and the cutting of roadside drainage ditches. A scatter of non-diagnostic lithics was noted along the road, but not collected. Based on the Phase I survey flags recorded during the Phase II fieldwork and locational information on the survey artifact inventory, the positive Phase I shovel tests at Locus 2 appear to be north of the dirt road cut rather than south of it as indicated on the survey map (Figure 10.3).

Twenty-two shovel tests were excavated at Locus 2, 16 negative and six positive. The positive shovel tests produced 12 artifacts: quartz debitage (milky white, n=3 and clear quartz, n=1), five grog-tempered ceramics

Table 10.1 38LA600 Locus 1 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	480	480	485	485	490	490	495	495	495	495	500	500	500	500	510	520	520	530	
East Coordinate	455	460	455	460	430	450	425	430	435	450	430	440	445	450	430	440	450	400	**Total**
Lithic Reduction																			
Thinning Flake, metasiltstone								1				4		6	1				**12**
metasandstone					1						2			2					**5**
Reduction flake, quartz						1												1	**2**
metasiltstone															1				**1**
metasandstone									1	1				2					**4**
Flake fragment, quartz	2	2	1	1		4	1		2			5	2			1	1	2	**24**
metasiltstone						1								3	1				**5**
metasandstone														3					**3**
Core/Biface Manufacture																			
Core, quartz									1										**1**
Early stage biface, quartz						1													**1**
Formal Tools																			
PP/K, Stanley, metasandstone									1										**1**
Cooking/Containment																			
Ceramic, plain	1																		**1**
Total	**3**	**2**	**1**	**1**	**1**	**7**	**1**	**1**	**5**	**1**	**2**	**9**	**2**	**16**	**3**	**1**	**1**	**3**	**60**

Table 10.2 38LA600 Locus 1, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	480	480	485	485	490	490	495	495	495	495	500	500	500	500	510	520	520	530	
East Coordinate	455	460	455	460	430	450	425	430	435	450	430	440	445	450	430	440	450	400	**Total**
Excavation Level																			
Level 1 (0-10 cm)	2		1			1			1		2					1		1	**9**
Level 2 (10-20 cm)	1			1	1	1	1	1		1		1		7	3		1	1	**20**
Level 3 (20-30 cm)		2				5			4			3	2	7				1	**24**
Level 4 (30-40 cm)												5		2					**7**
Total	**3**	**2**	**1**	**1**	**1**	**7**	**1**	**1**	**5**	**1**	**2**	**9**	**2**	**16**	**3**	**1**	**1**	**3**	**60**

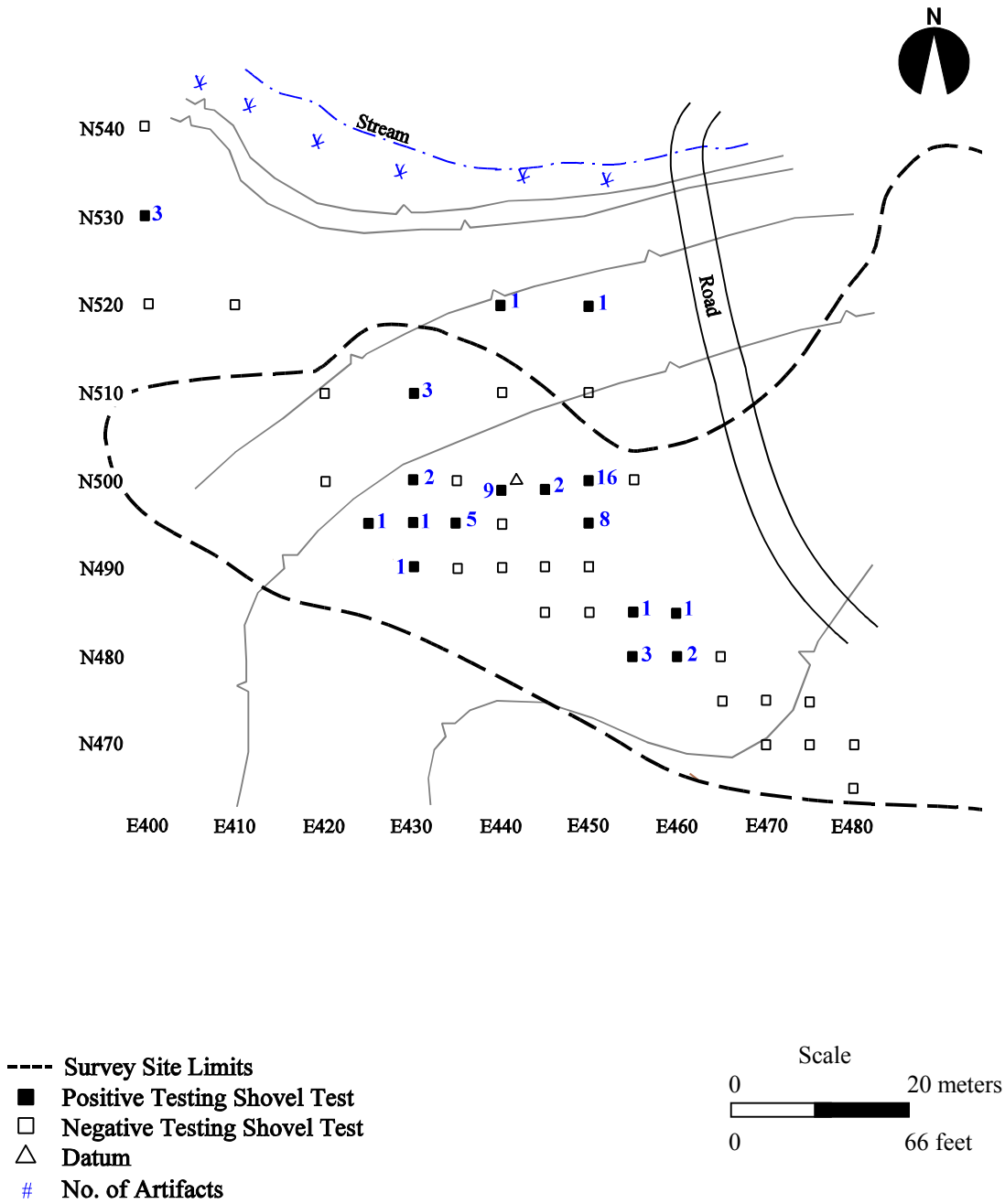
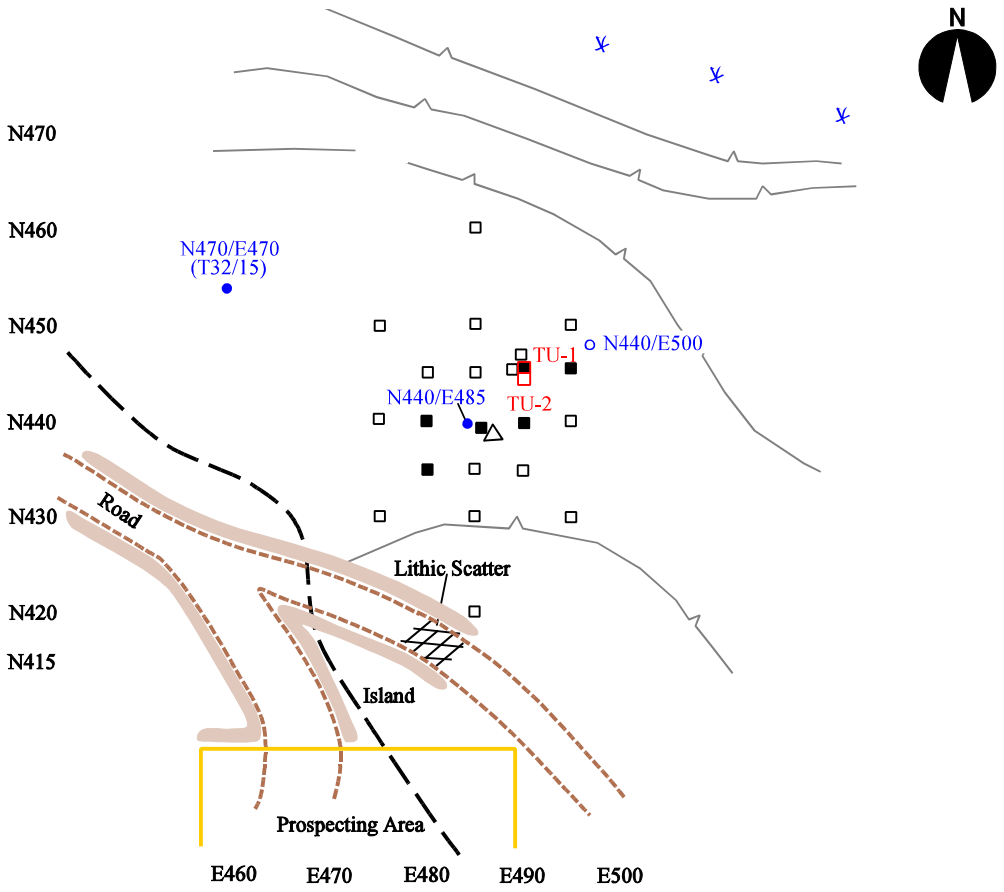
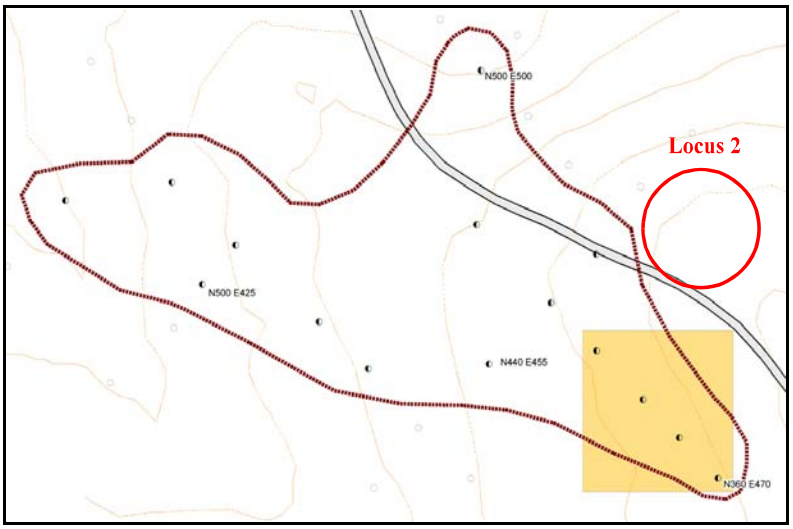


Figure 10.2 Site 38LA600 Density Map, Locus 1





Survey Site Boundary (Adams *et al.* 2011a)

Scale

0 20 meters

0 66 feet

Survey Site Limits
Positive Survey Shovel Test
Negative Survey Shovel Test
Positive Testing Shovel Test
Negative Testing Shovel Test
Test Unit

Figure 10.3 Site 38LA600 Plan Map, Locus 2

(Wilmington cord-marked, n=1; Wilmington fabric-impressed, n=4), and three sand-tempered sherds (eroded, n=2; residual, n=1) (Table 10.3). Artifacts were recovered between 10 to 30 cmbs with Level 2 (10 to 20 cmbs) yielding eight of the 12 artifacts in the inventory (Table 10.4).

Table 10.3 38LA600 Locus 2 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	435	440	440	440	445	446	
East Coordinate	480	485	480	495	490	495.5	**Total**
Lithic Reduction							
Flake fragment, quartz	2		1				**3**
clear quartz				1			**1**
Cooking/Containment							
Ceramic, Wilmington cord-marked					1		**1**
loosely woven fabric-impressed					4		**4**
residual						1	**1**
eroded		2					**2**
Total	**2**	**2**	**1**	**1**	**5**	**1**	**12**

Table 10.4 38LA600 Locus 2 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	435	440	440	440	445	446	
East Coordinate	480	480	485	495	490	495.5	**Total**
Excavation Level							
Level 1 (0-10 cm)			2			1	**3**
Level 2 (10-20 cm)	2	1			5		**8**
Level 3 (20-30 cm)				1			**1**
Total	**2**	**1**	**2**	**1**	**5**	**1**	**12**

Artifact recovery was low across Locus 2 (Figure 10.4). The highest yield (n=5) was at N445/E490; both the Wilmington cord-marked and fabric-impressed sherds were recovered from this test.

10.2.3 Locus 2 Test Unit Excavations

Two, 1-by-1-m test units were excavated at Locus 2 (Figures 10.3 and 10.4). TU-1 was placed over shovel test N445/E490 to sample the ceramic-bearing deposits at that location. Given the frequency of ceramics in TU-1, the unit was expanded southward into a second 1-by-1-m unit, TU-2.

10.2.3.1 Test Units 1 and 2

Level Excavation and Soil Stratification: Excavation of TU-1 and TU-2 followed the northward slope of the landform. At the lower end of the slope, four 10-cm levels (Levels 1 through 4) were removed from TU-1 while TU-2 was excavated in five 10-cm levels (1 through 5). The unit datum was established 10 cm above surface in the northeast corner of TU-1. Unit excavation was terminated at a depth of 50 cmbd across the two units. TU-1 contained three soil strata (Figure 10.5; Strata A, B, and C). Only Strata A and B were revealed in TU-2. Stratum A is a dark grayish-brown (10YR 4/2) loamy sand that overlies Stratum B, a yellowish-brown (10YR 5/6) loamy sand. Stratum C, a brownish-yellow (10YR6/6) loamy sand with pebbles, was recorded at the base of the excavation in TU-1, but was not seen in TU-2. Stratum A was present in Level 1; Stratum B (Levels 2 through 5) appeared at 15 cmbd in the southeast part of TU-2 and 22 cmbd in the northeast corner of TU-1. Stratum C was encountered at approximately 49 cmbd in TU-1.

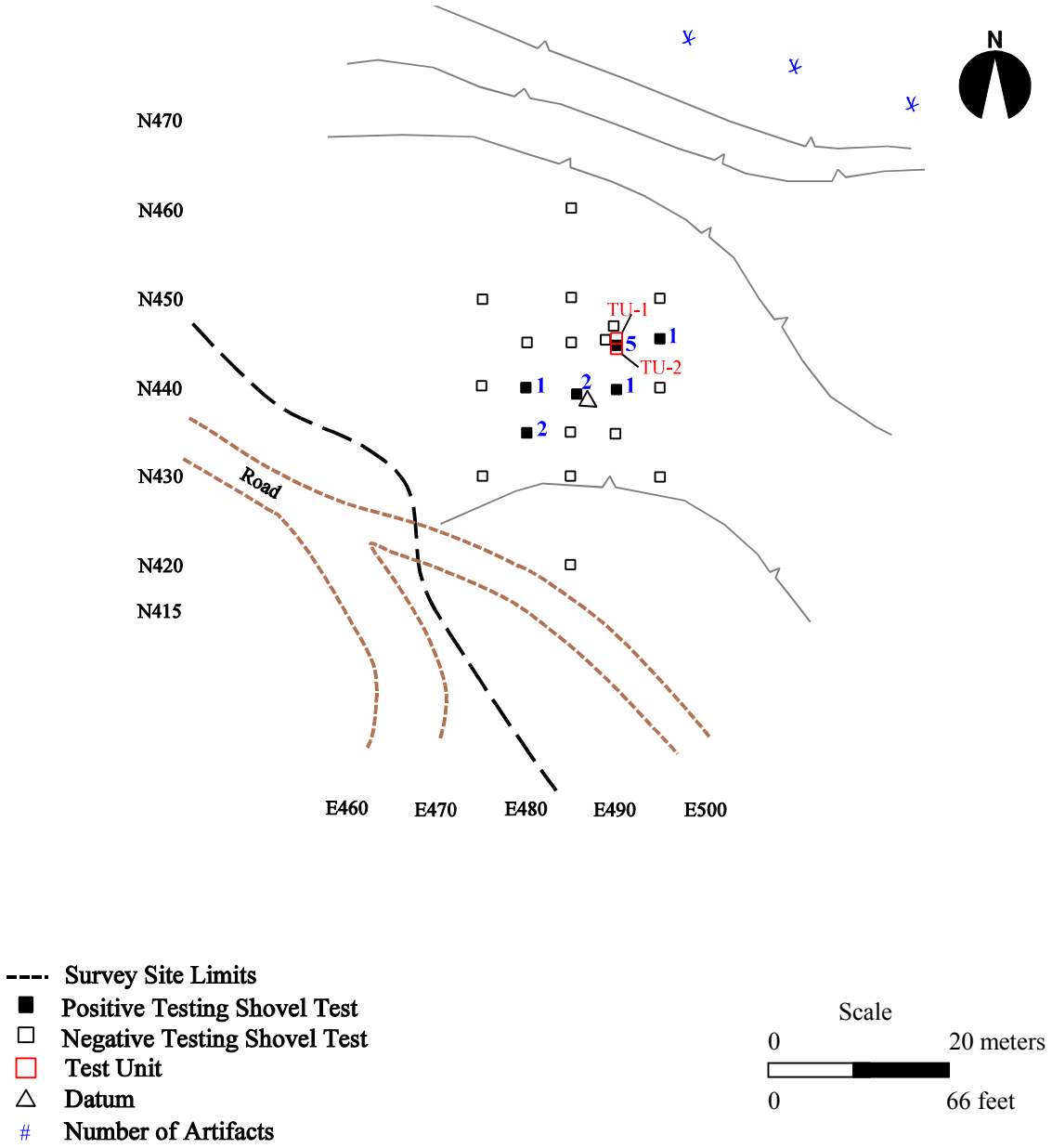
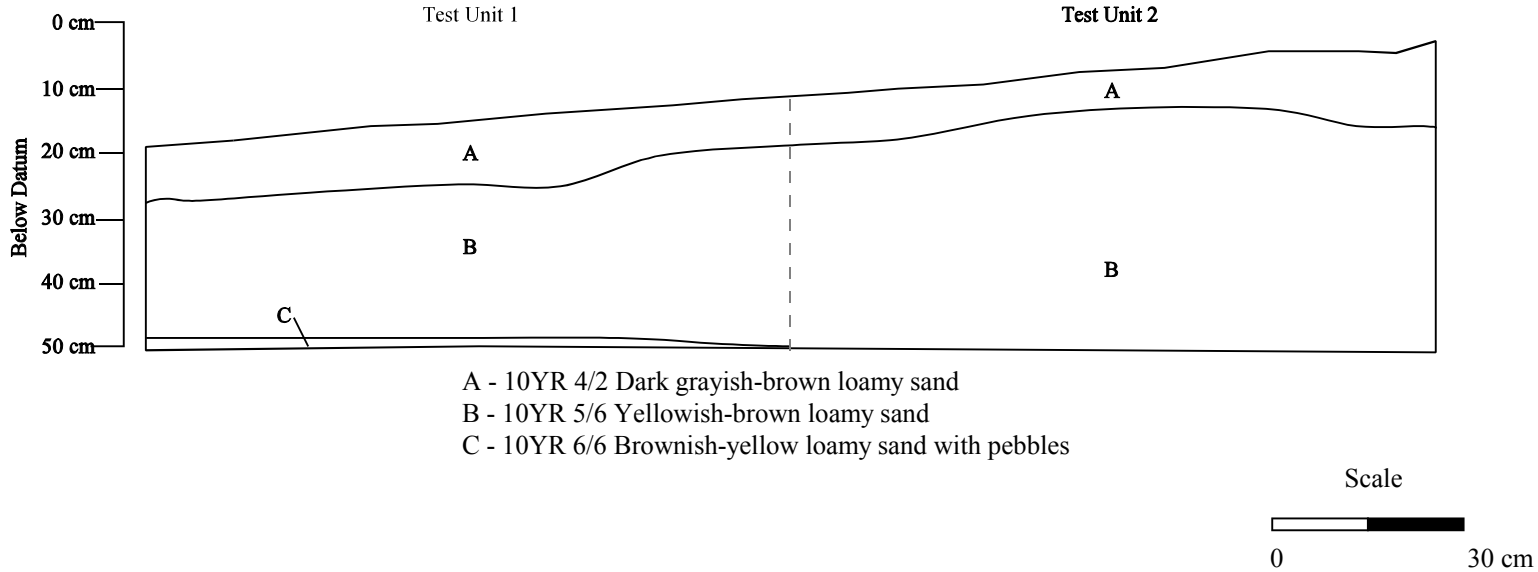


Figure 10.4 Site 38LA600 Density Map, Locus 2



A - 10YR 4/2 Dark grayish-brown loamy sand
B - 10YR 5/6 Yellowish-brown loamy sand
C - 10YR 6/6 Brownish-yellow loamy sand with pebbles

Figure 10.5 Site 38LA600, Test Units 1 and 2, East Profile

Artifacts: Seventy-five artifacts were recovered from TU-1 (n=58) and TU-2 (n=17) (Tables 10.5 and 10.6). Artifact density peaked in Level 3 (n=39) in TU-1 and in Level 2 (n=10) in TU-2. Level 1 was sterile in both units and Levels 4 and 5 were sterile in TU-2. Three Wilmington cord-marked rim sherds from the same vessel (mended) were piece plotted at 25 cmbd (top of Level 3) in TU-2. The TU-1 and TU-2 inventory consists almost entirely of grog-tempered Wilmington ceramics (n=71; 94.7 percent). The remaining artifacts include a Deptford simple-stamped sherd and three pieces of debitage (metasandstone reduction flake, n=1; quartz flake fragments, n=2). The 71 Wilmington ceramics are identified as cord-marked (body sherds, n=31; decorated rim, n=7), fabric-impressed (decorated rim, n=1), loosely woven fabric-impressed (body sherds, n=11; decorated rim, n=1), unknown/eroded decorated (n=6), eroded (n=7), and residual (n=7).

Table 10.5 38LA600 TU-1 Artifacts

Test Unit (TU)	1	1	1	
Level	2	3	4	
Bag Number	40	41	42	**Total**
Lithic Reduction				
Reduction flake, metasandstone		1		**1**
Flake fragment, quartz	1			**1**
Cooking/Containment				
Ceramic, Wilmington cord-marked	5	18		**23**
cord-marked w/decorated rim	2	2		**4**
fabric-impressed w/decorated rim			1	**1**
loosely woven fabric-impressed	5	6		**11**
loosely woven fabric-impressed w/decorated rim	1			**1**
unknown/eroded decorated		4		**4**
eroded		7		**7**
residual	4			**4**
Deptford simple-stamped		1		**1**
Total	**18**	**39**	**1**	**58**

Table 10.6 38LA600 TU-2 Artifacts

Test Unit (TU)	2	2	2	
Level	2	3*	3	
Bag Number	43	44	45	**Total**
Lithic Reduction				
Flake fragment, quartz	1			**1**
Cooking/Containment				
Ceramic, Wilmington cord-marked	4		4	**8**
cord-marked w/decorated rim		3		**3**
unknown/eroded decorated	2			**2**
residual	3			**3**
Total	**10**	**3**	**4**	**17**

* Piece Plot at 25 cmbd

10.3 Analysis

Phase II testing at 38LA600 yielded a total of 147 prehistoric artifacts: 75 from the two test units and 72 from shovel testing. Locus 1 produced lithics almost exclusively (lithics, n=59; ceramics, n=1), while at Locus 2, ceramics dominated the inventory (ceramics, n=80; lithics, n=7). The overall site artifact sample is comprised of ceramics (n=81, 55.1 percent), lithic debitage (n=63, 42.8 percent), cores/bifaces (n=2, 1.4 percent), and formal tools (n=1, 0.7 percent). The lithic assemblage is composed of quartz (n=34, 51.5 percent), metasiltstone (n=18, 27.3 percent), and metasandstone (n=14, 21.2 percent).

The debitage is dominated by flake fragments (n=38, 60.3 percent), followed by thinning flakes (n=17, 27.0 percent) and reduction flakes (n=8, 12.7 percent). While less dramatic at 38LA600, the high flake fragment to thinning flake to reduction flake ratio has been seen repeatedly on other quartz-dominated lithic assemblages at Haile Gold Mine. One quartz core and one quartz early stage biface were found in Locus 1,

along with a Middle Archaic metasandstone Stanly PP/K (Figure 10.6). The PP/K was found between 20 to 30 cmbs.

The majority of the ceramics (n=77, 95.1 percent) recovered during Phase II are Wilmington series grog-tempered wares, specifically those exhibiting cord-marked (n=39), fabric-impressed (n=1), and loosely woven, fabric-impressed (n=16) surface treatments (Figure 10.6). Unknown decorated/eroded (n=6), eroded (n=7), and residual (n=8) grog-tempered sherds account for the remainder of the Wilmington ceramics. The balance of the site's ceramic assemblage includes Deptford simple-stamped (n=1) (Figure 10.6), plain (n=1), and eroded (n=2) sand-tempered sherds. Anderson *et al.* (1982:271-5) describe the Wilmington series as being partially contemporary to and somewhat later than the Deptford series in the Middle Woodland period. What distinguishes the Wilmington series from Deptford is the crushed sherd/grog tempering along with medium to coarse quartz sand inclusions (Cable and Price 2009:42). All but one of the 81 ceramics were taken from Levels 2 or 3 (10 to 30 cmbs) of the shovel tests or test units.

Based on surface treatments and vessel curvature, four Wilmington vessels and one Deptford vessel are represented at 39LA600. Based on sherd profiles/shape and thickness, the Wilmington vessels were probably straight-walled jars. Vessel morphology could not be estimated for the Deptford vessel.

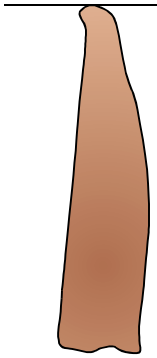
10.4 Interpretations

In terms of chronology, 38LA600 was occupied during the Middle Archaic and Woodland periods. A Middle Archaic Stanly PP/K and a plain sand-tempered sherd were recovered from Locus 1, indicating a Middle Archaic presence and an occupation during an unknown Woodland period. Locus 2 was occupied during the Middle to Late Woodland period (Wilmington phase). The Deptford simple-stamped sherd, along with the other sand-tempered sherds, may mark a minor Middle Woodland occupation or be part of the Wilmington component.

Based on the current findings, Locus 1 appears to have functioned as a series of short-term lithic reduction stations or hunting camps where lithic reduction, core/biface manufacture, hunting/cutting/piercing, and minor ceramic cooking/containment activities took place during at least two occupational episodes. In sharp contrast, Locus 2 exhibits very little evidence of lithic reduction or tool manufacture/use/repair. Instead, ceramics representing cooking/containment activities make up 92 percent of the Phase II locus inventory, followed only by lithic reduction materials. Furthermore, the Wilmington vessels from Locus 2 seem to be straight-walled jars in the same diameter range; no smaller vessels or other vessel shapes appear to be present. Besides the ceramics, Locus 2 lacks evidence of domestic/residential use (e.g., features, midden deposits, lithic cutting, perforating, soft media modification, and/or woodworking tools, variability in ceramic size/shape, etc.). This suggests that Locus 2 might have served as a series of short-term biotic collection stations, or perhaps locations where nut fats (or other biomass) were rendered/processed in a transient

PP/K "Stanley" Metasandstone
Locus 1, Shovel Test
N495/E435, Level 3

Early Stage Biface, Locus 1
Shovel Test N490/E450, Level 3



Profile

Wilmington Cord-marked with Decorated Rim, Locus 2, Test Unit 2, Level 3

Wilmington Fabric
Impressed with
Decorated Rim,
Locus 2, Test Unit 1
Level 4

Wilmington Loosely Woven Fabric
Impressed with Decorated Rim, Locus 2
Test Unit 1, Level 2

Deptford Simple Stamped
Locus 2, Test Unit 1, Level 3

(Artifacts Actual Size)

Figure 10.6 Site 38LA600, Selected Artifacts

manner during aggregate nut or patch-crop collection periods. If such stations were repeatedly used, as would be expected during the Middle to Late Woodland, then the accumulation of the fragmentary remains of three or four vessels scattered over a 20-m area along the ridge crest at Locus 2 might be expected. Besides the possibility that Locus 2 may have served as a biotic collection station or something similar, 38LA600 provided no information on subsistence habits. No evidence of exchange/trade was uncovered at the site; the raw lithic materials, the diagnostic PP/K, and the ceramics recovered are fairly typical for the study region.

10.5 Recommendations

The Phase II excavations at 38LA600 yielded no indications of intact archeological features, discrete artifact clusters or midden deposits typical of intermediate to long term domestic occupation. The artifact profile at Locus 1 exhibits 98.3 percent debitage and 1.7 percent ceramics. Such occupations are well documented on the Haile Gold Mine property at the Phase I, II and III levels. In contrast, Locus 2 produced 92.0 percent ceramics and 8.0 percent lithic debitage; while such occupations are not common on the Haile Gold Mine property, they are fairly common on the Coastal Plain. Locus 2 is viewed as a repeatedly used, short term biotic collection station as opposed to a residential base. Because of this, it appears unlikely that Locus 2 retains additional significant information beyond that collected during the Phase I/II investigations.

Clearly, both Loci 1 and 2 have been severely impacted by harsh 19th and 20th century land use practices. Large gullies traverse Locus 1 and 88.3 percent of the artifacts were recovered from the upper 30 cm of the locus deposits. While Locus 2 did not exhibit gullies, it has been severely impacted by similar harsh land use practices and erosion. More extreme than at Locus 1, 98.9 percent of the artifacts from Locus 2 were confined to the upper 30 cm of the deposits. This strongly suggests that the contextual clarity and depositional integrity of the archeological deposits at Loci 1 and 2 are significantly compromised. Coupled with overall low artifact density and diversity, it is unlikely that 38LA600 retains archeological data that would advance research on prehistoric ceramics beyond the point reached as a result of Phase II testing. Site 38LA600 is recommended ineligible for the NRHP under Criterion (d) and no additional work is considered necessary.

11.0 SITE 38LA602

11.1 Previous Work

During the Phase I survey, 38LA602 was characterized as a non-diagnostic lithic scatter located on a side slope adjacent to a tributary of Camp Branch (Adams *et al.* 2011a). The site deposits were damaged by a series of linear depressions interpreted as old fire lines or drainage ditches. Fourteen negative and 16 positive shovel tests were excavated.

A total of 147 artifacts were recovered during the survey, including 137 pieces of debitage (quartz, n=116; rhyolite, n=20; silicate, n=1), one quartz biface fragment, quartz flake tools (n=8), and one quartz PP/K fragment. Soil profiles and artifact proveniences indicated potential archeological deposits to 70 cmbs. One artifact concentration of 81 quartz flakes was recorded at shovel test N500/E425 in the western part of the site, indicating a lithic reduction activity area. No diagnostic artifacts were recovered, but the survey artifact inventory indicated that lithic reduction, biface and formal tool production, and the manufacture and use of flake tools occurred at 38LA602. The availability of quartz cobbles from a nearby streambed (i.e., raw material source) and the high density of quartz debitage on site prompted a recommendation for Phase II evaluation under the theme of "lithic reduction/extraction" (Adams *et al.* 2011a:33). The site was viewed as possibly being able to address research questions regarding lithic extraction and perhaps other types of resource utilization.

11.2 Phase II Excavations

Phase II efforts focused on two localities: a lithic scatter in the eastern portion of the site (Locus 1), and a lithic extraction/reduction area in the western portion of the site (Locus 2) (Figure 11.1). Twenty-two shovel tests and two test units were excavated at 38LA602. Due to the distance between these loci (approximately 80 m), testing results are discussed by individual locus.

11.2.1 Locus 1 Close-grid Shovel Testing

Ten shovel tests were excavated at Locus 1, all of which were positive. These shovel tests produced 168 artifacts composed of debitage (n=143), cores/bifaces (n=3), expedient tools (n=1), ceramics (n=3), cracked rock (n=17), and a metavolcanic manuport (Tables 11.1 and 11.2). Artifacts were recovered from Levels 1 through 6 (0 to 60 cmbs). Level 3 (20 to 30 cmbs) was the mode for artifact recovery (n=53), followed by Level 2 (n=42) and Level 4 (n=36). Together, Levels 2, 3, and 4 produced 78.0 percent (n=131) of the shovel test artifact sample. The density map of artifacts across Phase II shovel tests shows that six of the ten shovel tests yielded artifact concentrations varying from 13 to 43 artifacts (Figure 11.2).

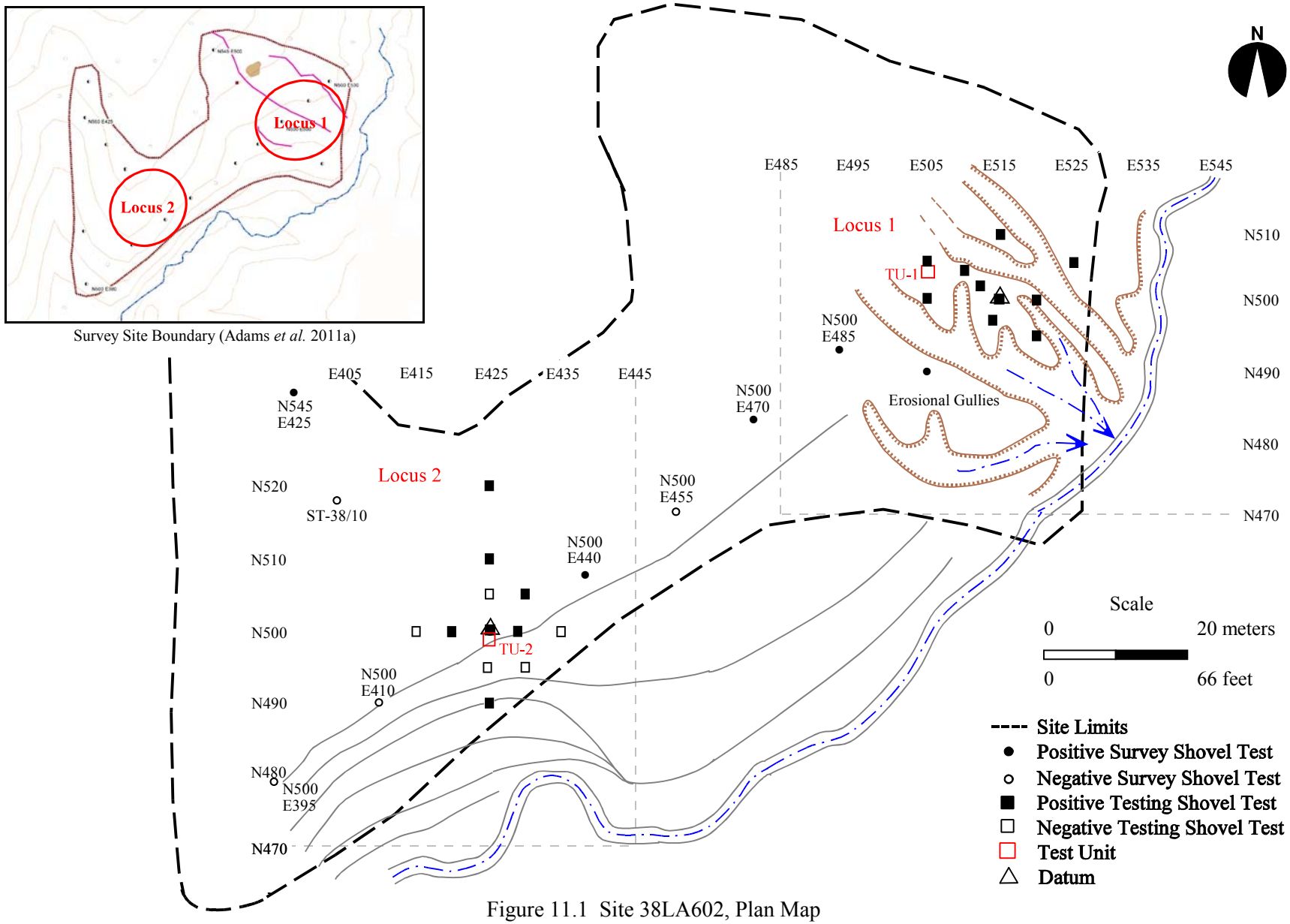


Figure 11.1 Site 38LA602, Plan Map

Table 11.1 38LA602 Locus 1 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	495	497	500	500	500	502	505	504	505	510	
East Coordinate	520	514	505	515	520	512	505	510	525	515	**Total**
Lithic Reduction											
Thinning flake, metasiltstone		2	5			1	6				**14**
metasandstone		2				1					**3**
Reduction flake, quartz	3					1	2	4	1	2	**13**
metasiltstone			1			1					**2**
metasandstone		6	3		2	1					**12**
Flake fragment, quartz	6		4	2		12	26	9	11	2	**72**
metasiltstone		2	1			6	6				**15**
metasandstone		1	9				1	1			**12**
Core/Biface Manufacture											
Biface fragment, quartz			1				1				**2**
metasiltstone			1								**1**
Expedient Tools											
Flake Scraping Tool, quartz			1								**1**
Cooking/Containment											
Ceramic, Deptford cord-marked								1			**1**
eroded							1			1	**2**
Miscellaneous											
Cracked Rock, quartz			12					1	2	1	**16**
diabase										1	**1**
Manuport, metavolcanic					1						**1**
Total	**9**	**13**	**38**	**2**	**3**	**23**	**43**	**16**	**14**	**7**	**168**

Table 11.2 38LA602 Locus 1, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	495	497	500	500	500	502	505	504	505	510	
East Coordinate	520	514	505	515	520	512	505	510	525	515	**Total**
Excavation Level											
Level 1 (0-10 cm)	3		3				3	7		3	**19**
Level 2 (10-20 cm)			12			6	5	6	12	1	**42**
Level 3 (20-30 cm)	6	10	7		2	8	14	2	2	2	**53**
Level 4 (30-40 cm)		3	10	1	1	9	10	1		1	**36**
Level 5 (40-50 cm)			5	1			11				**17**
Level 6 (50-60 cm)			1								**1**
Total	**9**	**13**	**38**	**2**	**3**	**23**	**43**	**16**	**14**	**7**	**168**

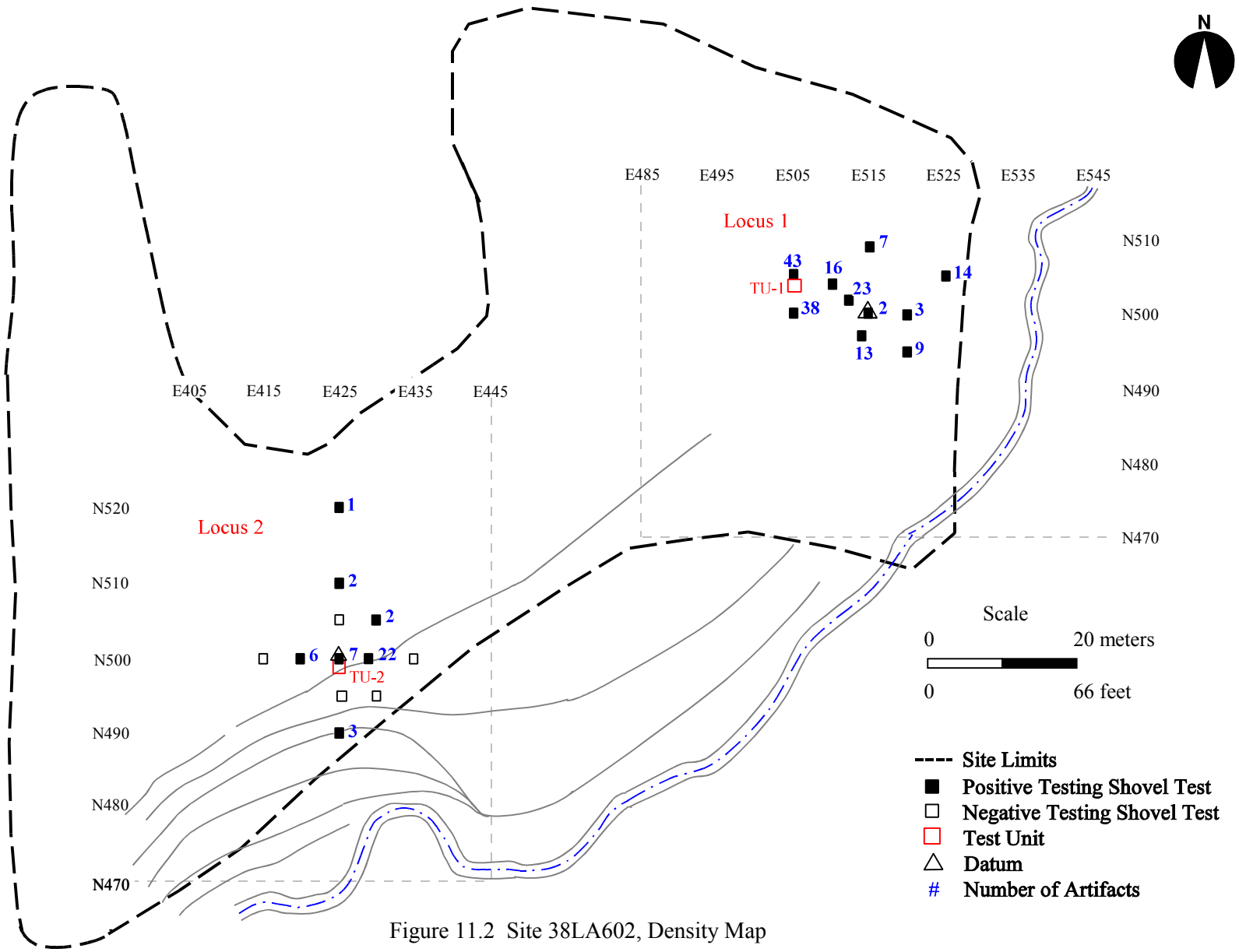


Figure 11.2 Site 38LA602, Density Map

11.2.2 Locus 1 Test Unit Excavations

One test unit, TU-1, was excavated at 38LA602, Locus 1 (Figures 11.1 and 11.2; TU-1). This unit was placed on the south side of shovel test N505/E505 to investigate a locality with high artifact density and moderate artifact diversity.

11.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in nine arbitrary 10-cm levels (Levels 1 through 9). The unit datum was established 10 cm above surface in the northwest corner. TU-1 was terminated at 100 cmbd. TU-1 revealed three soil strata at Locus 1 (Figure 11.3; Strata A, B, and C). Stratum A consisted of very dark gray (10YR 3/1) loamy sand resting on Stratum B, a brown (10YR 4/3) loamy coarse sand. Stratum C consisted of light yellowish-brown (10YR 6/4) loamy coarse sand. Stratum A was confined to Level 1 and the top half of Level 2. Stratum B appeared at 25 cmbd and was present in the bottom half of Level 2 and in Level 3. Stratum C was observed at 40 cmbd (base of Level 3) and extended to the base of Level 9.

Artifacts: TU-1 produced 307 artifacts (Table 11.3). The inventory is comprised of lithic debitage (n=179; 58.3 percent), biface fragments (n=3; 1.0 percent), an expedient flake scraping tool (n=1; 0.3 percent), a small, stemmed PP/K (n=1; 0.3 percent), ceramics (n=10; 3.3 percent), and cracked rock (n=113; 36.8 percent). The artifact mode occurred in Level 4 (n=88; 28.7 percent), followed by Level 2 (n=77; 25.1 percent), and Level 3 (n=76; 24.8 percent). Together, Levels 2, 3, and 4 produced 78.5 percent (n=241) of the TU-1 assemblage. Level 5 (n=40) and Level 6 (n=8) produced 15.6 percent of the cultural materials, and Levels 7 and 8 were sterile.

Table 11.3 38LA602 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	1	1	
Level	1	2	3	4	5	6	
Bag Number	39	40	41	42	43	44	**Total**
Lithic Reduction							
Thinning flake, quartz			1				**1**
metasiltstone		2	1	4		1	**8**
metasandstone			2				**2**
Reduction flake, quartz	1	4		3			**8**
metasiltstone		1	3	2			**6**
metasandstone		2		1			**3**
chert			1				**1**
Flake fragment, quartz	7	52	27	20	28	7	**141**
metasiltstone		2	2	2			**6**
metasandstone				1			**1**
chert		1	1				**2**
Core/Biface Manufacture							
Biface fragment, quartz	1		2				**3**
Expedient Tools							
Flake Scraping Tool, chert				1			**1**
Formal Tools							
PP/K, small stemmed, clear quartz			1				**1**
Cooking/Containment							
Ceramic, plain		1					**1**
Deptford Cord-marked			3				**3**
unknown/eroded decorated	1						**1**
eroded			2	1			**3**
residual sherd		2					**2**
Miscellaneous							
Cracked Rock, quartz	8	10	30	53	12		**113**
Total	**18**	**77**	**76**	**88**	**40**	**8**	**307**

11.2.3 Locus 2 Close-grid Shovel Testing

Twelve shovel tests were excavated at Locus 2, seven of which were positive. Recovered artifacts (n=43) consist of quartz flake

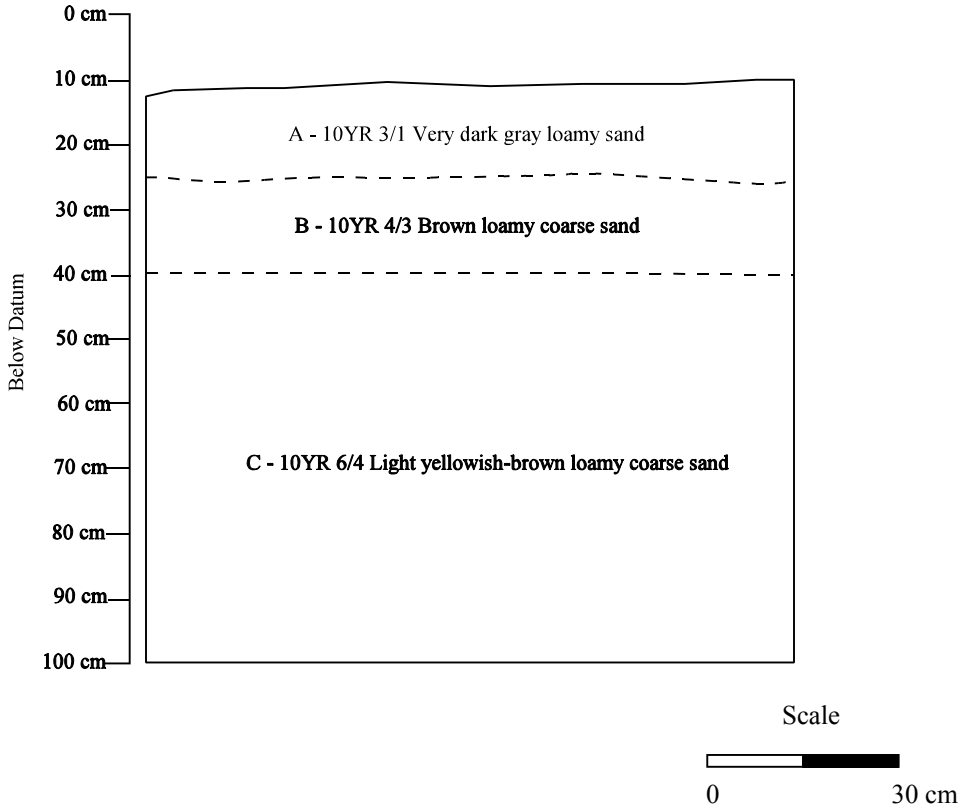


Figure 11.3 Site 38LA602, Test Unit 1, West Profile

fragments (n=42) and one quartz reduction flake (Tables 11.4 and 11.5). Artifacts were primarily confined to the upper 10 cm (n=35) of the sampled deposits. One shovel test, N500/E429, yielded 22 quartz flake fragments. High artifact density, low artifact diversity, and focus on a single raw material (i.e., quartz) is in agreement with the survey observation that this area was a quartz reduction locus.

Table 11.4 38LA602, Locus 2 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	490	500	500	500	505	510	520	
East Coordinate	425	420	425	429	430	425	425	**Total**
Lithic Reduction								
Reduction flake, quartz					1			**1**
Flake fragment, quartz	3	5	7	22	1	2	1	**41**
clear quartz		1						**1**
Total	**3**	**6**	**7**	**22**	**2**	**2**	**1**	**43**

Table 11.5 38LA602, Locus 2 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	490	500	500	500	505	510	520	
East Coordinate	425	420	425	429	430	425	425	**Total**
Excavation Level								
Level 1 (0-10 cm)	3	6	1	22	1	2		**35**
Level 2 (10-20 cm)			3		1		1	**5**
Level 3 (20-30 cm)			3					**3**
Total	**3**	**6**	**7**	**22**	**2**	**2**	**1**	**43**

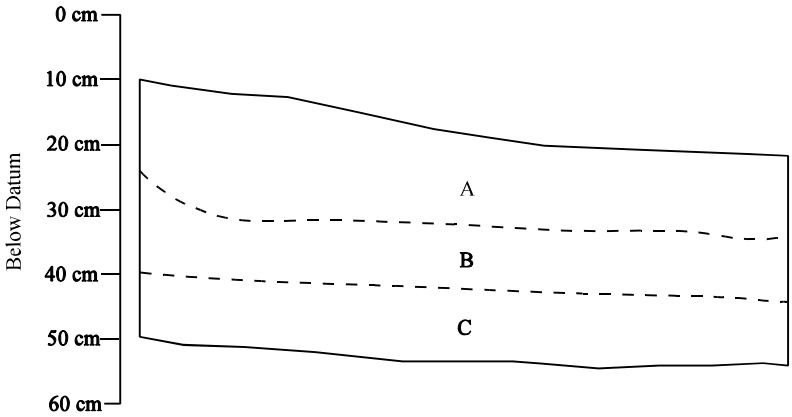
11.2.4 Locus 2 Test Unit Excavations

TU-2 was excavated at 38LA602, Locus 2 (Figures 11.1 and 11.2). The unit was situated on the upper edge of a slope on the south side of survey shovel test N500/E425. This survey shovel test produced 81 lithic artifacts and 109 pieces of cracked rock. Phase II shovel test N500/E425 was placed within 50 cm of survey shovel test N500/E425 and only produced seven lithics. Because the highest artifact yield during Phase II shovel testing was only 22 lithics at shovel test station N500/E429 four meters away, it was decided to place TU-2 near the much more productive survey shovel test.

11.2.4.1 Test Unit 2

Level Excavation and Soil Stratification: TU-2 was excavated in four arbitrary 10-cm levels (Levels 1 through 4). Level 4 was a partial level excavated into compact, sterile subsoil with concentrations of unmodified rock. The unit datum was located 10 cm above surface in the northwest corner. The excavation methodology for TU-2 had to be modified to accommodate the slope. The excavation levels corresponded to the angle of the slope; for example, Level 1 was excavated to 10 cmbs at each corner of the unit. The unit was terminated at 40 cmbs (50 cmbd) in the northwest corner, and 30 cmbs (54 cmbd) in the southeast corner.

Three soil strata were exposed in TU-2 (Figure 11.4; Strata A, B, and C). Stratum A consisted of black (10YR 2/1) silty loam with quartz gravel and rocks, overlying Stratum B, a light yellowish-brown (10YR 6/4) loamy silt with quartz gravel and rock. Stratum C was a yellowish-brown (10YR 6/4) clay silt subsoil with quartz gravel and rock. Stratum A was removed in Level 1 and also occurred in the top 2-3 cm of Level 2. Stratum B was present in Levels 2 and 3. Stratum C appeared at 40 cmbd in the northwest corner of the unit and was present across the floor of the unit at termination. A concentration of natural quartz was



A - 10YR 2/1 Black silty loam with quartz gravel
B - 10YR 6/4 Light yellowish-brown loamy silt
C - 10YR 6/4 Yellowish-brown clay silt

Scale

0 30 cm

Figure 11.4 Site 38LA602, Test Unit 2, North Profile

recorded in the eastern portion of the unit floor (Figure 11.4). This material exhibited no signs of cultural modification (e.g., flake scars, heat spalls, discoloration possibly due to heat, etc.) and was discarded in the field.

Artifacts: TU-2 produced 106 artifacts (Table 11.6). Quartz flake fragments (n=102; 96.2 percent) were the dominant artifact type, complemented by cracked rock (n=4; 3.8 percent). This inventory is indicative of light to moderate quartz reduction activity. The unit artifact mode occurred in Level 2 (n=53; 50.0 percent), followed closely by Level 1 (n=44; 41.5 percent). The yield from Level 3 was limited (n=9; 8.5 percent), and Level 4 was sterile. No features, artifact clusters, middens, or quartz bedrock that might have been quarried were detected in TU-2.

Table 11.6 38LA602 TU-2 Artifacts

Test Unit (TU)	2	2	2	
Level	1	2	3	
Bag Number	47	48	49	**Total**
Lithic Reduction				
Flake fragment, quartz	40	53	9	**102**
Miscellaneous				
Cracked Rock, quartz	4			**4**
Total	**44**	**53**	**9**	**106**

11.3 Analysis

Site-wide Inventory: A total of 624 prehistoric artifacts was recovered during Phase II testing at 38LA602: 413 from the two test units, and 211 from shovel testing. The artifact sample is comprised of lithic debitage (n=458, 73.4 percent), biface fragments (n=6, 1.0 percent), expedient tools (n=2; 0.3 percent), formal tools (n=1, 0.2 percent), ceramics (n=13; 2.1 percent), cracked rock (n=134, 21.5 percent) and one manuport (0.2 percent). A discussion of these materials by activity locus is provided below.

Locus 1: Shovel testing and unit excavation at Locus 1 produced 76.1 percent (n=475) of the site inventory. These items include lithic debitage (n=322; 67.8 percent); biface fragments (n=6; 1.3 percent); expedient flake scraping tools (n=2; 0.4 percent); a small, stemmed PP/K (n=1; 0.2 percent); ceramics (n=13; 2.7 percent); cracked rock (n=130; 27.4 percent); and one manuport (0.2 percent). The debitage is dominated by flake fragments (n=249; 77.3 percent), followed by reduction flakes (n=45; 14.0 percent) and thinning flakes (n=28; 8.7 percent). Four types of raw material were used for tool manufacture: quartz (n=242; 73.1 percent), metasiltstone (n=52; 15.7 percent), metasandstone (n=33; 10.0 percent), and chert (n=4; 1.2 percent). Core fragments were made of quartz (n=5) and metasiltstone (n=1). Expedient flake scraping tools were made of quartz (n=1) and chert (n=1). The single formal tool recovered from the site is a small, stemmed PP/K made of clear quartz (Figure 11.5).

The haft element of the PP/K consists of a small, squared, basally thinned, straight-sided stem with a straight to slightly convex basal edge. The extreme distal end exhibits an impact fracture, and one shoulder is damaged. The point is 31.4 mm long, 19.6 mm wide, and 7.7 mm thick; it weighs 3.5 gm. The restored length is estimated at 34.0 mm and the restored width is estimated at 23.0 mm. This point type could not be found in projectile point typologies; however, a similar point was reported by Caldwell (1957) from a post-

Kellogg context (Feature 21) at the Kellogg site (9CK62) in the Georgia Piedmont. The point is illustrated in Ledbetter *et al.* (2009:47, Figure 20, center of bottom row). Measurements taken from the illustration indicate it is approximately 24 mm long by 16 mm wide, slightly smaller than the point from 38LA602.

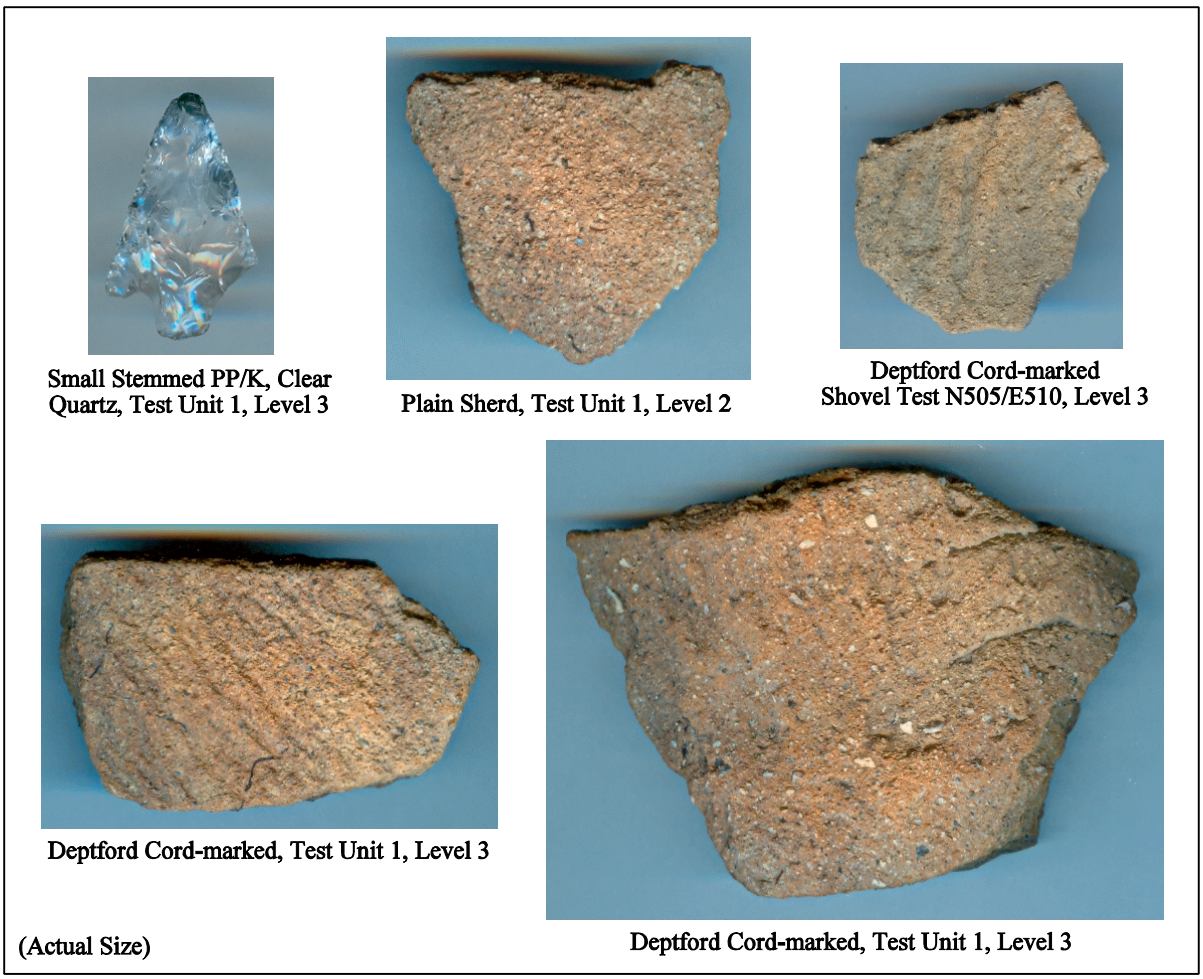


Figure 11.5 Site 38LA602, Locus 1, Selected Artifacts

The "post-Kellogg" phase was proposed to be a transitional phase between the Early Woodland Kellogg phase and the Middle Woodland Cartersville phase. It was defined by the occurrence of Cartersville Check-stamped ceramics with Dunlap Fabric-impressed wares. More recently, the combination of these pottery types is attributed in most instances to the incidental mixing of deposits from superimposed occupations (Wood and Bowen 1995); the post-Kellogg phase is now incorporated into the Middle Woodland Cartersville phase (Garrow 2009). The Cartersville phase is essentially a Piedmont adaptation of the Deptford culture of the Coastal Plain. On this basis, it is feasible that this point type was in use during the late Early Woodland and/or Middle Woodland periods in the Piedmont of Georgia, South Carolina, and possibly North Carolina.

The 13 sand-tempered ceramics recovered from Locus 1 include eroded (n=5; 38.4 percent), Deptford Cord-marked (n=4; n=30.8 percent), unknown/eroded decorated (n=1; 7.7 percent), plain (n=1; 7.7 percent), and residual (n=2; 15.4 percent). Figure 11.5 illustrates some of the diagnostic ceramics. In South Carolina, Deptford Cord-marked pottery is typically found along the Edisto and Savannah River drainages below the Fall Line (Anderson 1996). Its presence here indicates a late Early Woodland or Middle Woodland occupation of the site; this association is consistent with the small, stemmed PP/K.

Locus 1 also contained 130 pieces of cracked rock (quartz, n=129; diabase, n=1) and one metavolcanic rock considered to be a manuport. Manuports are typically viewed as items transported by humans to a location for some purpose, but they lack indications of cultural use or modification. As noted in Table 5.2, the function of the "cracked" rock at 38LA602 (and other sites in the area) is unknown. These are blocky, angularly fractured pieces of quartz with no clear evidence of a cultural function (e.g., hot rock cooking). Most of these rocks appear to have geologic, patinated/weathered surfaces versus those that may have been created through heat alteration during the last seven to eight millennia. Furthermore, similar cracked rock is often found during survey in non-archeological contexts. While this material is included in the inventory, it is viewed as "unmodified."

Locus 2: Shovel testing and unit excavation at Locus 2 provided 23.1 percent (n=149) of the Phase II site assemblage. These materials consisted of quartz debitage (n=145; 97.3 percent) and cracked quartz rock (n=4; 2.7 percent). The debitage is consistent with a lithic reduction station. As noted above, the function of the cracked rock is unknown, but it lacks evidence of use/cultural modification.

11.4 Interpretations

Survey and testing investigations revealed two discrete activity loci at 38LA602. A late Early Woodland or Middle Woodland Deptford phase association was determined for Locus 1 based on the recovery of Deptford Cord-marked ceramics. Locus 2 failed to produce diagnostic artifacts but was undoubtedly used prehistorically. In terms of site function, Locus 1 appears to have served as a temporary task camp. Camp tasks included lithic reduction, biface/flake tool manufacture, light faunal processing/hide scraping, and ceramic-based cooking/containment. Additionally, the recovery of a PP/K with an impact fracture indicates that hunting forays were probably conducted from the site. Locus 2 was used for early stage quartz reduction. Presumably, suitable quartz was procured from a nearby stream, which also served as a source of water. Direct evidence of anything more than a temporary occupation is absent; no features, midden deposits, or array of tools indicative of intermediate or long-term use were recorded. Evidence of subsistence is also lacking. No exotic lithic materials, or non-local ceramics or PP/Ks were recovered during testing, so there are no means of assessing trade/exchange for the groups occupying 38LA602.

11.5 Recommendations

At Locus 1, archeological deposits were completely contained within the upper 60 cm of the soil profile; however, 86.1 percent of the recovered materials were confined to the upper 40 cm of the deposits. This portion of the site has been heavily impacted by harsh historic land use practices and severe erosion, and aerial photography from 1949 shows the site in an open, possibly pastured, setting. Wide, deeply cutting, erosional gullies have severely dissected the landform at Locus 1. These disturbances have compromised the contextual clarity, and depositional integrity of the cultural deposits in this portion of the site. Compared to other locations evaluated during the current study, Locus 1 exhibits moderate artifact diversity. However, there is no evidence of intact features or potential features (in shovel tests), midden deposits, artifact clusters, or similar indications of intermediate or long-term occupation. Furthermore, the artifact profile for Locus 1 exhibits 95.2 percent debitage and cracked rock, followed by biface fragments (1.3 percent), expedient flake scraping tools (0.4 percent), a PP/K (0.2 percent), ceramics (2.7 percent), and the manuport (0.2 percent). At Haile Gold Mine, archeological occupations with similar content have been well documented through previous Phase II or Phase III studies.

Cultural materials at Locus 2 were completely confined to the upper 30 cm of the soil profile, with 91.9 percent of the recovered materials contained within Levels 1 and 2. No intact archeological features, middens, artifact clusters, or other manifestations of intermediate to long-term use were observed during the current study. Like Locus 1, Locus 2 has been significantly impacted by harsh historic land use practices. Since nearly all of the archeological deposits are confined to disturbed surficial soils, the contextual clarity and depositional integrity of the archeological deposits in the western portion of the site have been severely disturbed. The artifact profile for Locus 2 exhibits 97.3 percent debitage and 2.7 percent cracked rock, resulting in very low artifact diversity. Lithic reduction areas such as Locus 2 are quite common in the Haile Gold Mine area and are well documented at the Phase I level, and to some extent at the Phase II level.

Phase II investigations at 38LA602 demonstrate that both loci have been heavily disturbed and lack the depositional integrity and contextual clarity necessary to provide additional significant archeological information on Early to Middle Woodland period lifeways in the Haile Gold Mine area. The information gathered during the current study adequately documents this resource. Given the above justifications, 38LA602 is considered ineligible for the NRHP under Criterion (d) and no additional archeological work is recommended.

12.0 SITE 38LA605

12.1 Previous Work

Site 38LA605 was recorded as both a Woodland period and a pre-ceramic prehistoric occupation situated along a ridge above the confluence of a spring-fed stream and tributary of Camp Branch (Adams *et al.* 2011a:66). Forty-four positive and 83 negative shovel tests were excavated over the ridge. Most of the positive shovel tests produced low artifact counts; however, high to moderate densities of artifacts were observed in three areas. In the west part of the site near the ridge end, shovel test N800/E290 (T-79/6) contained 19 quartz flake fragments; seven quartz shatter; five quartz unmodified, natural stone (discarded); and one rhyolite flake between 20 and 60 cmbs; this suggested horizontal integrity. Shovel test N640/E305 (T-74/5) in the south central part of the site produced 40 quartz flake fragments between 20 and 50 cmbs. At the east end of the site, shovel tests in the area north of N500/E500 (T-39/20) revealed a light, but varied artifact scatter including quartz (n=16), rhyolite (n=13), and chert (n=2) debitage; a quartz biface; two quartz PP/Ks; and ceramics (n=3). Though this locus is adjacent to a prospecting area, artifact-bearing soils ranged from 15 to 120 cmbs.

A total of 193 lithic and ceramic artifacts were recovered during the survey, with ceramics being identified from 20 to 40 cmbs and lithics found up to 120 cmbs. The survey artifact sample includes 182 pieces of debitage (quartz, n=146; rhyolite, n=32; silicate, n=4), one quartz biface fragment, two quartz PP/K fragments, and coarse sand-tempered ceramics (rim, n=1; eroded, n=4; residual, n=3). One of the PP/K fragments was identified as a small triangular point possibly dating to the Late Woodland period. Given the apparent evidence of discrete ceramic and lithic deposits, coupled with high artifact counts (particularly on the ridge crest), 38LA605 was recommended for additional work to determine eligibility for the NRHP under the multiple properties theme of "ceramic prehistory and Archaic lifeways" (Adams *et al.* 2011a:33, 66).

12.2 Phase II Excavations

The three areas exhibiting high to moderate survey artifact density were investigated as three loci during the current Phase II efforts. Locus 1 is in the west part of the site around survey shovel test N800/E290 (T-79/6). Locus 2 is in the south central part of the site around survey shovel test N640/E305 (T-74/5). Locus 3 is at the east end of the site; survey shovel test N500/E500 (T-39/20) is at the south end of this locus. In all, 49 Phase II shovel tests and four 1-by-1-m units were excavated at 38LA605. Due to the distances between these loci (approximately 100 m between Loci 1 and 2, and 200 m between Loci 2 and 3), testing results are discussed by individual locus.

12.2.1 Locus 1 Close-grid Shovel Testing

Fifteen shovel tests were excavated at Locus 1: 14 were positive, one was negative (Figure 12.1). A large prospecting area not shown on the survey map is located south of Locus 1. Phase II shovel tests produced 147 artifacts consisting of 144 pieces of debitage (quartz, n=128; metasiltstone, n=15; metasandstone, n=1), one quartz Morrow Mountain PP/K, one metasiltstone PP/K fragment, and one quartz FCR (Table 12.1). Artifacts were recovered from Levels 1 though 6 (0 to 60 cmbs) (Table 12.2). Level 4 (30 to 40 cmbs) was the mode (n=52), followed by Level 3 (n=36) and Level 5 (n=34). In combination, Levels 3 through 5 yielded 83 percent (n=122) of the artifacts in the shovel test inventory.

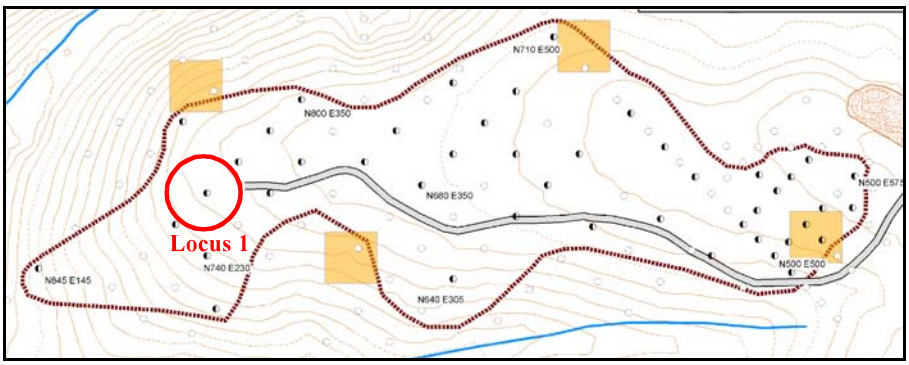
Table 12.1 38LA605 Locus 1, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	790	790	790	795	800	800	800	800	800	800	805	805	810	810	
East Coordinate	280	290	300	290	280	285	290	295	300	305	290	300	290	300	**Total**
Lithic Reduction															
Thinning flake, quartz	2				2			1							**5**
metasiltstone				12											**12**
metasandstone								1							**1**
Reduction flake, quartz						1		1							**2**
Flake fragment, quartz		1	1	2	17	7	10	65	1	2	3	1	1	10	**121**
metasiltstone				3											**3**
Formal Tools															
PP/K, Morrow Mountain, quartz								1							**1**
PP/K fragment, metasiltstone				1											**1**
Cooking/Containment															
FCR, quartz cobble								1							**1**
Total	**2**	**1**	**1**	**18**	**19**	**8**	**10**	**70**	**1**	**2**	**3**	**1**	**1**	**10**	**147**

Table 12.2 38LA605 Locus 1 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	790	790	790	795	800	800	800	800	800	800	805	805	810	810	
East Coordinate	280	290	300	290	280	285	290	295	300	305	290	300	290	300	**Total**
Excavation Level															
Level 1 (0-10 cm)				2				2			1				**5**
Level 2 (10-20 cm)	2	1		8	4				1	2			1		**19**
Level 3 (20-30 cm)				4	12		6	12			1	1			**36**
Level 4 (30-40 cm)			1	4	3	5	4	29			1			5	**52**
Level 5 (40-50 cm)						3		27						4	**34**
Level 6 (50-60 cm)														1	**1**
Total	**2**	**1**	**1**	**18**	**19**	**8**	**10**	**70**	**1**	**2**	**3**	**1**	**1**	**10**	**147**

The Phase II shovel test artifact density distribution map (Figure 12.2) shows three high density locations: N800/E295 (n=70), N800/E280 (n=19), and N795/E290 (n=18). All of these locations contained high frequencies of debitage, mostly quartz. At N795/E290, most of the debitage was metasiltstone (n=15) along with a metasiltstone PP/K fragment. In addition to the quartz debitage at shovel test N800/E295, a quartz Morrow Mountain PP/K and one FCR were recovered.



Site Boundary From New South Survey (Adams *et al.* 2011a)

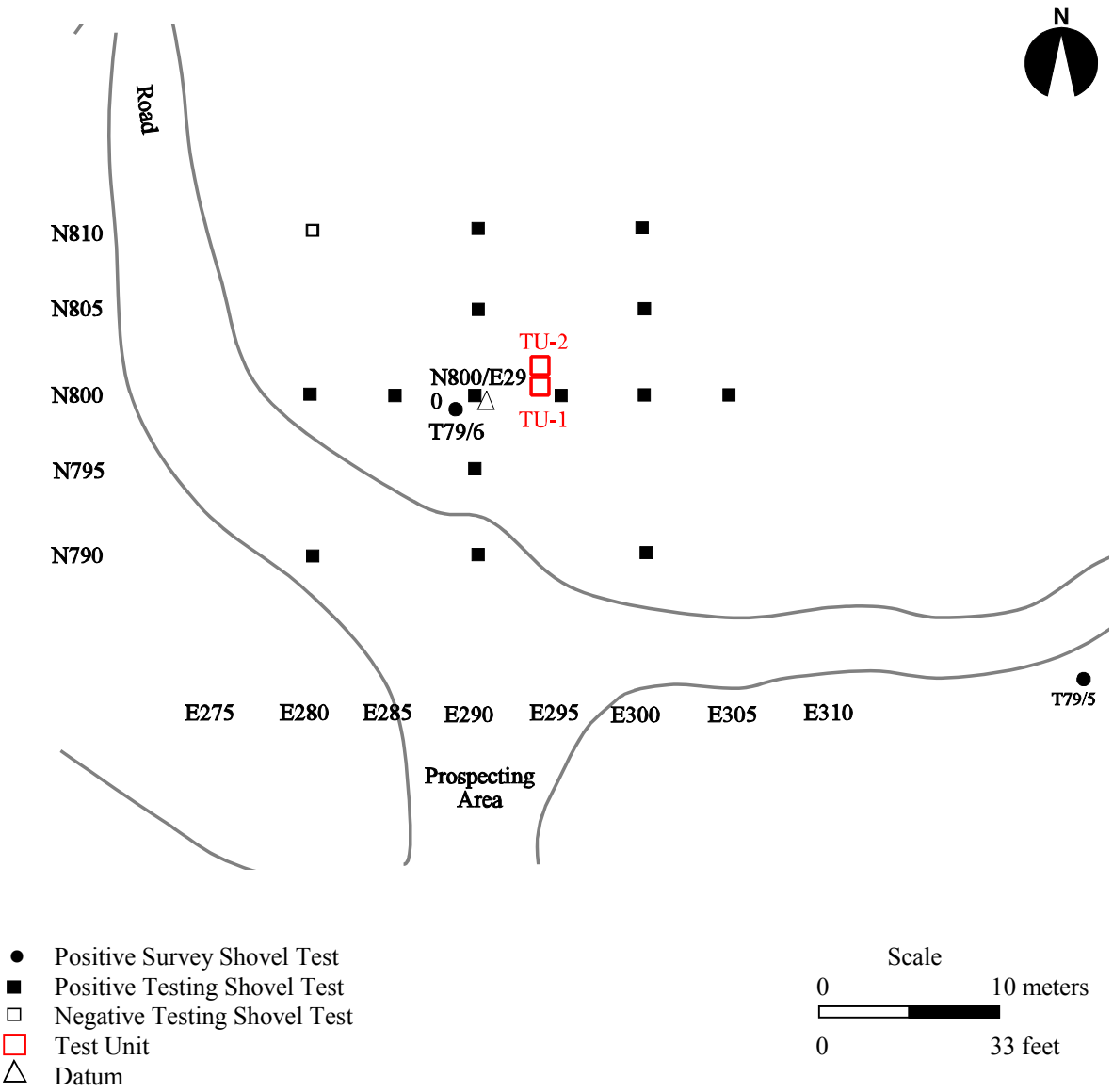
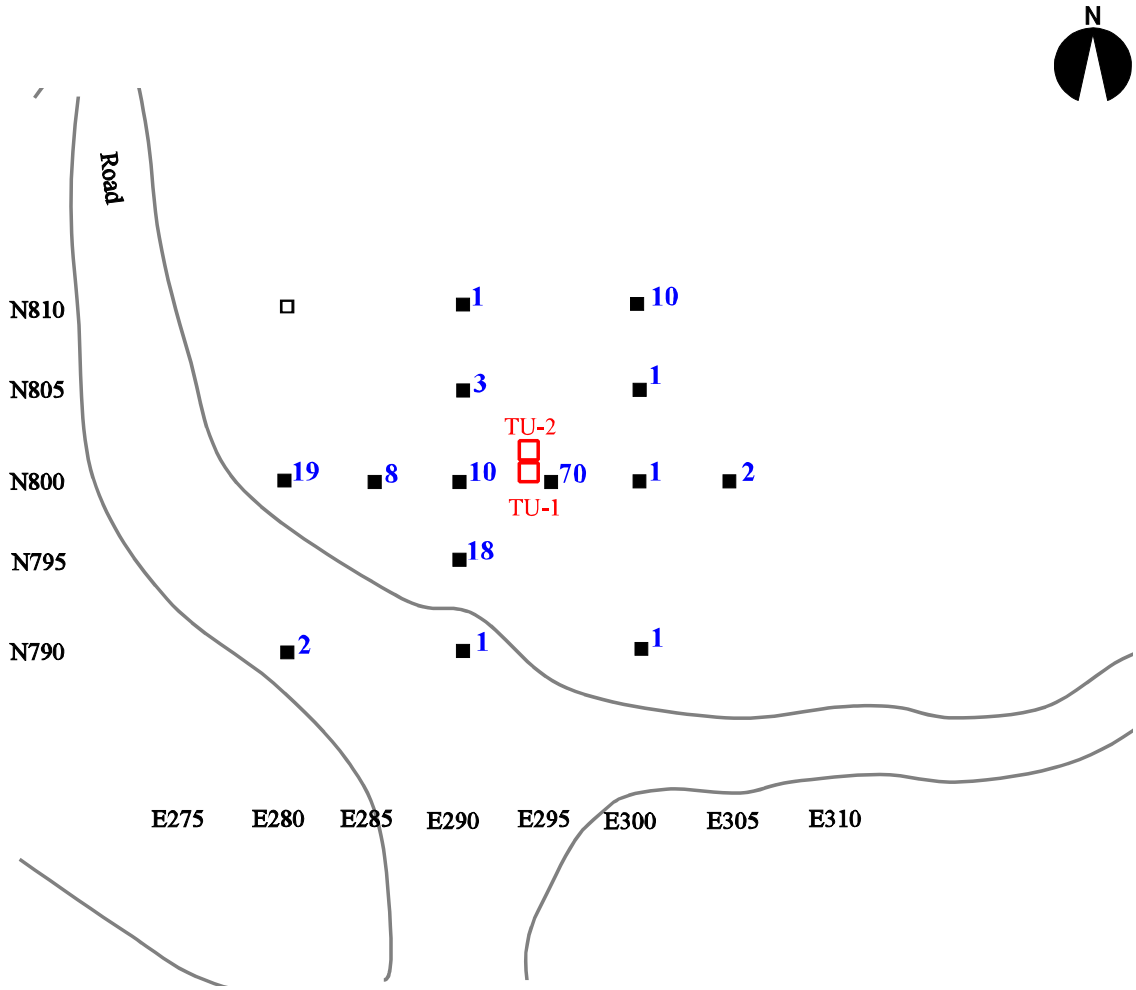


Figure 12.1 Site 38LA605 Locus 1, Site Plan



Positive Testing Shovel Test
Negative Testing Shovel Test
Test Unit
Number of Artifacts

Scale
0 10 meters
0 33 feet

Figure 12.2 Site 38LA605 Locus 1, Density Map

12.2.2 Locus 1 Test Unit Excavations

Two 1-by-1-m test units were excavated at Locus 1 (Figure 12.1; Test Units 1 and 2). The southeast corner of TU-1 was placed approximately 1 m west of Phase II shovel test N800/E295, which not only yielded 68 pieces of debitage, but also the Morrow Mountain PP/K and the FCR. TU-1 was extended north with TU-2 to further investigate the possibility of artifact-bearing deposits at this location.

12.2.2.1 Test Units 1 and 2

Level Excavation and Soil Stratification: TU-1 and 2 were excavated in eight 10-cm arbitrary levels (Levels 1 through 8). The unit datum was established 10 cm above surface in the northeast corner of TU-1. Unit excavation was terminated at a depth of 90 cmbd. TU-1 and 2 contained three soil strata (Figure 12.3; Strata A through C). Stratum A is a brown (10YR 4/3) sandy loam that overlies Stratum B, a light yellowish-brown (10YR 6/4) sandy loam. Stratum C consists of yellowish-brown (10YR 4/6) sandy loam. In general, strata within TU-1 were uniform and level without variation in the terrain. Stratum A was present in Level 1, with Stratum B appearing at 16 cmbd in the lower part of Level 1 in the northwest portion of TU-1 and extending into Level 8. Stratum C became evident at 86 cmbd across the floors of both units and was removed in the lower part of Level 8.

Unmodified Cracked Quartz Concentration: A concentration of unmodified cracked quartz was exposed and recorded at 45 cmbd in mid-Level 4 of TU-1 (Figure 12.4); this concentration extended into the top 2-3 cm of Level 5. It is important to stress that numerous smaller pieces of unmodified quartz were removed from the levels above and below this concentration. The cracked quartz was most concentrated in an area of 45 by 28 cm northwest-southeast in the northeast quadrant of TU-1. No soil discolorations or other anomalies were observed in association with the rock concentration. This is a good example of the non-cultural cracked quartz clusters that are quite common across the study region.

Artifacts: A total of 235 artifacts was recovered from TU-1 (n=125) and TU-2 (n=110) (Tables 12.3 and 12.4). With the exception of quartz (n=3) and metasandstone (n=1) early stage bifaces (1.7 percent) and one quartz biface fragment (0.4 percent), the test unit inventory consists of quartz (n=224) and metasiltstone (n=6) debitage (n=230; 97.9 percent). Artifact density increased in Level 2 (TU-1, n=19; TU-2, n=33), peaked in Level 3 (TU-1, n=41; TU-2, n=48), and then decreased in Levels 5 and 6. Levels 7 and 8 were sterile.

Table 12.3 38LA605 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	1	1	
Level	1	2	3	4	5	6	
Bag Number	48	49	50	51	52	53	**Total**
Lithic Reduction							
Thinning Flake, metasiltstone			1				**1**
Reduction Flake, quartz		2	10	3	4	2	**21**
metasiltstone			1				**1**
Flake Fragment, quartz	4	16	29	12	25	12	**98**
metasiltstone		1					**1**
Early stage biface, quartz					3		**3**
Total	**4**	**19**	**41**	**15**	**32**	**14**	**125**

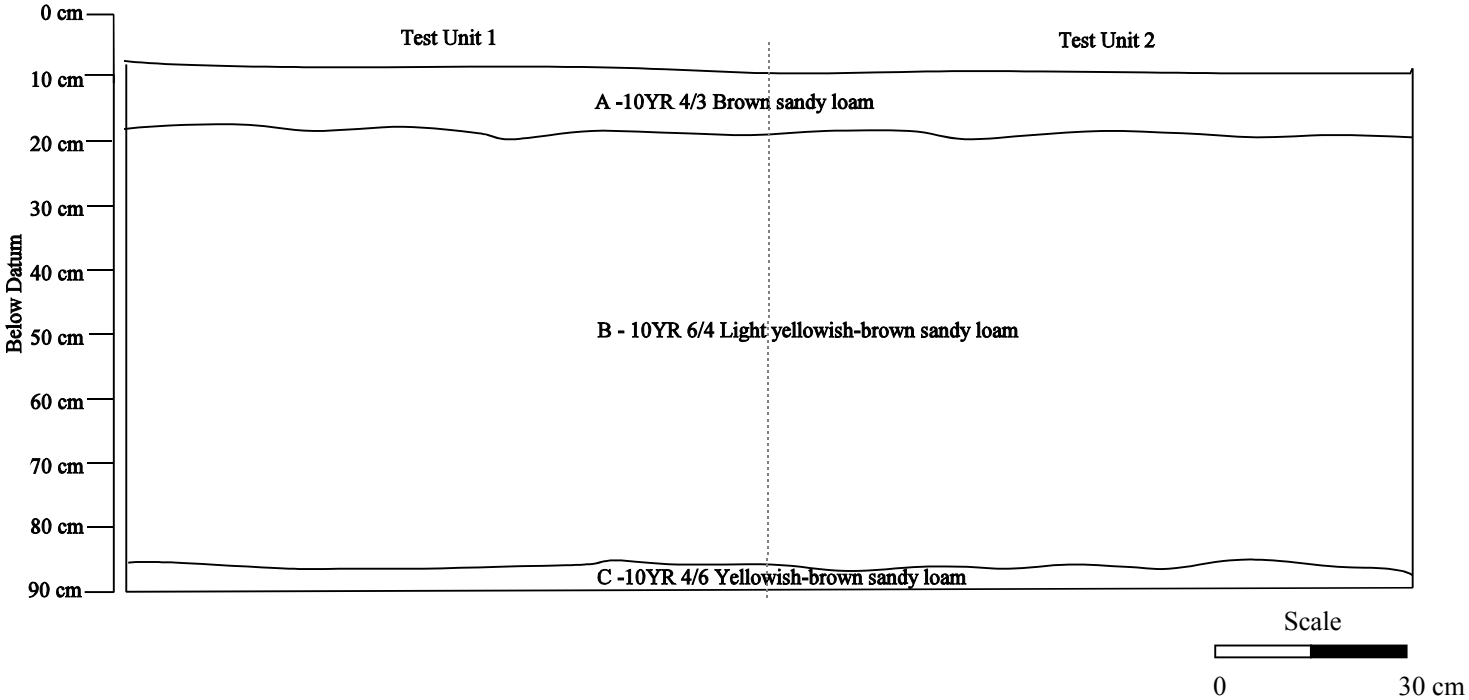
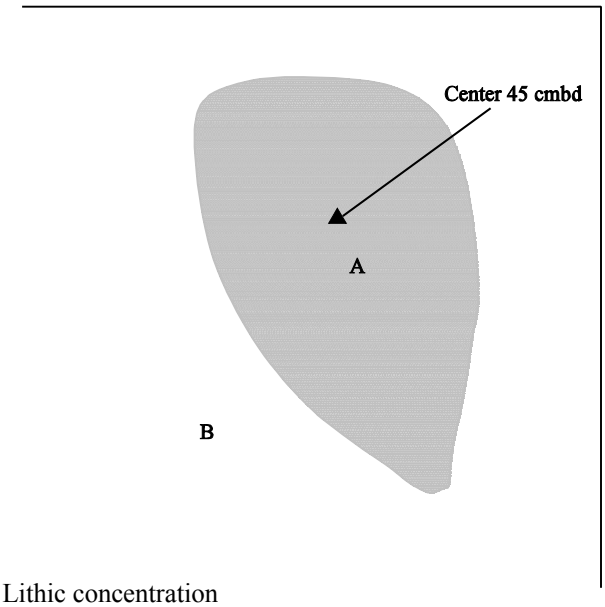


Figure 12.3 Site 38LA605, Test Units 1 and 2, West Profiles



A - Lithic concentration
B - Level Matrix: 10YR 6/4 Light yellowish-brown sandy loam

Scale

0 20 cm

Figure 12.4 Site 38LA605, Test Unit 1, Lithic Concentration, Plan View

Table 12.4 38LA605 TU-2 Artifacts

Test Unit (TU)	2	2	2	2	2	
Level	1	2	3	4	5	
Bag Number	54	55	56	57	58	**Total**
Lithic Reduction						
Thinning flake, quartz		2	2			**4**
metasiltstone	1	1				**2**
metasandstone			1			**1**
Reduction flake, quartz		2	7	4	1	**14**
Flake fragment, quartz	6	28	37	10	5	**86**
metasiltstone				1		**1**
Early stage biface, metasandstone			1			**1**
Biface fragment, quartz				1		**1**
Total	**7**	**33**	**48**	**16**	**6**	**110**

12.2.3 Locus 2 Close-Grid Shovel Testing

Eight positive and six negative shovel tests were excavated at Locus 2 (Figure 12.5). Shovel testing produced 89 pieces of quartz debitage, one quartz late stage biface, one quartz PP/K fragment, and one metasandstone Morrow Mountain PP/K (Table 12.5). Artifacts were recovered from Levels 1 though 5 (0 to 50 cmbs) (Table 12.6), with the artifact mode occurring in Level 3 (n=37), followed by Level 2 (n=26) and Level 4 (n=19). Together, Levels 2 through 4 yielded 89 percent (n=82) of the Phase II shovel test artifact inventory.

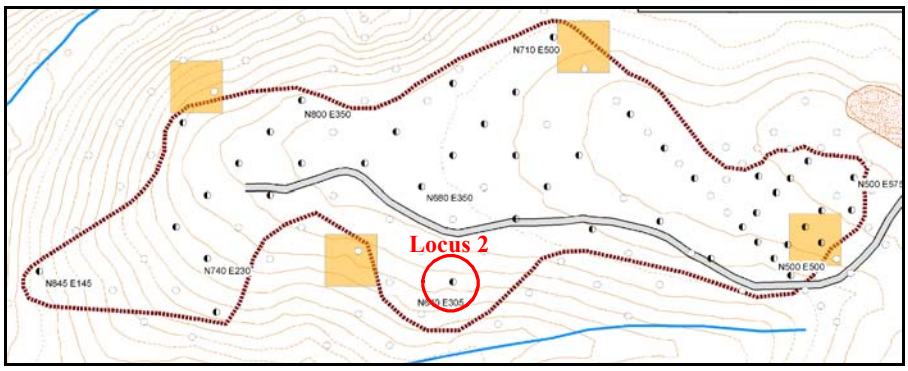
Table 12.5 38LA605 Locus 2, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	635	635	640	640	640	640	640	645	
East Coordinate	295	305	295	300	305	310	315	295	**Total**
Lithic Reduction									
Thinning flake, quartz		5	1						**6**
Reduction flake, quartz	3	8	3						**14**
Flake fragment, quartz	4	21	30	1	11			1	**68**
Shatter, quartz						1			**1**
Core/Biface Manufacture									
Late Stage Biface, quartz		1							**1**
Formal Tools									
PP/K, Morrow Mountain, metasandstone							1		**1**
PP/K Fragment, quartz		1							**1**
Total	**7**	**36**	**34**	**1**	**11**	**1**	**1**	**1**	**92**

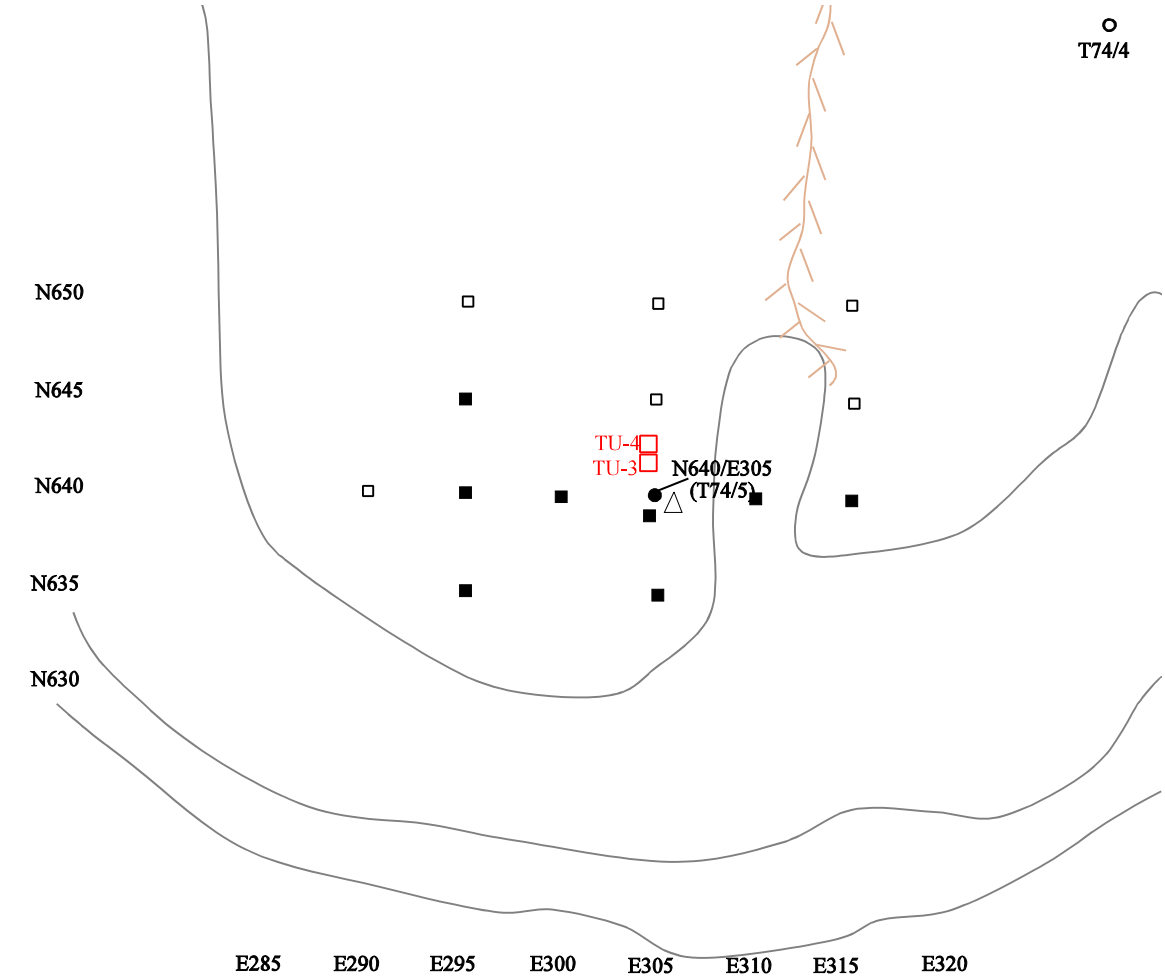
Table 12.6 38LA605 Locus 2, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	635	635	640	640	640	640	640	645	
East Coordinate	295	305	295	300	305	310	315	295	**Total**
Excavation Level									
Level 1 (0-10 cm)			4		2	1			**7**
Level 2 (10-20 cm)			20		5		1		**26**
Level 3 (20-30 cm)	5	23	4	1	4				**37**
Level 4 (30-40 cm)	2	13	3					1	**19**
Level 5 (40-50 cm)			3						**3**
Total	**7**	**36**	**34**	**1**	**11**	**1**	**1**	**1**	**92**

The Phase II shovel test artifact density distribution map (Figure 12.6) shows high artifact concentrations at shovel tests N635/E305 (n=36) and N640/E295 (n=34), almost all of which was debitage. Shovel test N635/E305 also contained a late stage biface and a PP/K fragment. The Morrow Mountain PP/K was isolated in shovel test N640/E315.



Site Boundary From New South Survey (Adams *et al.* 2011a)



- ● Positive Survey Shovel Test
- ■ Positive Testing Shovel Test
- □ Negative Testing Shovel Test
- □ Test Unit
- △ Datum

Scale

0 — 10 meters

0 — 33 feet

Figure 12.5 Site 38LA605 Locus 2, Site Plan

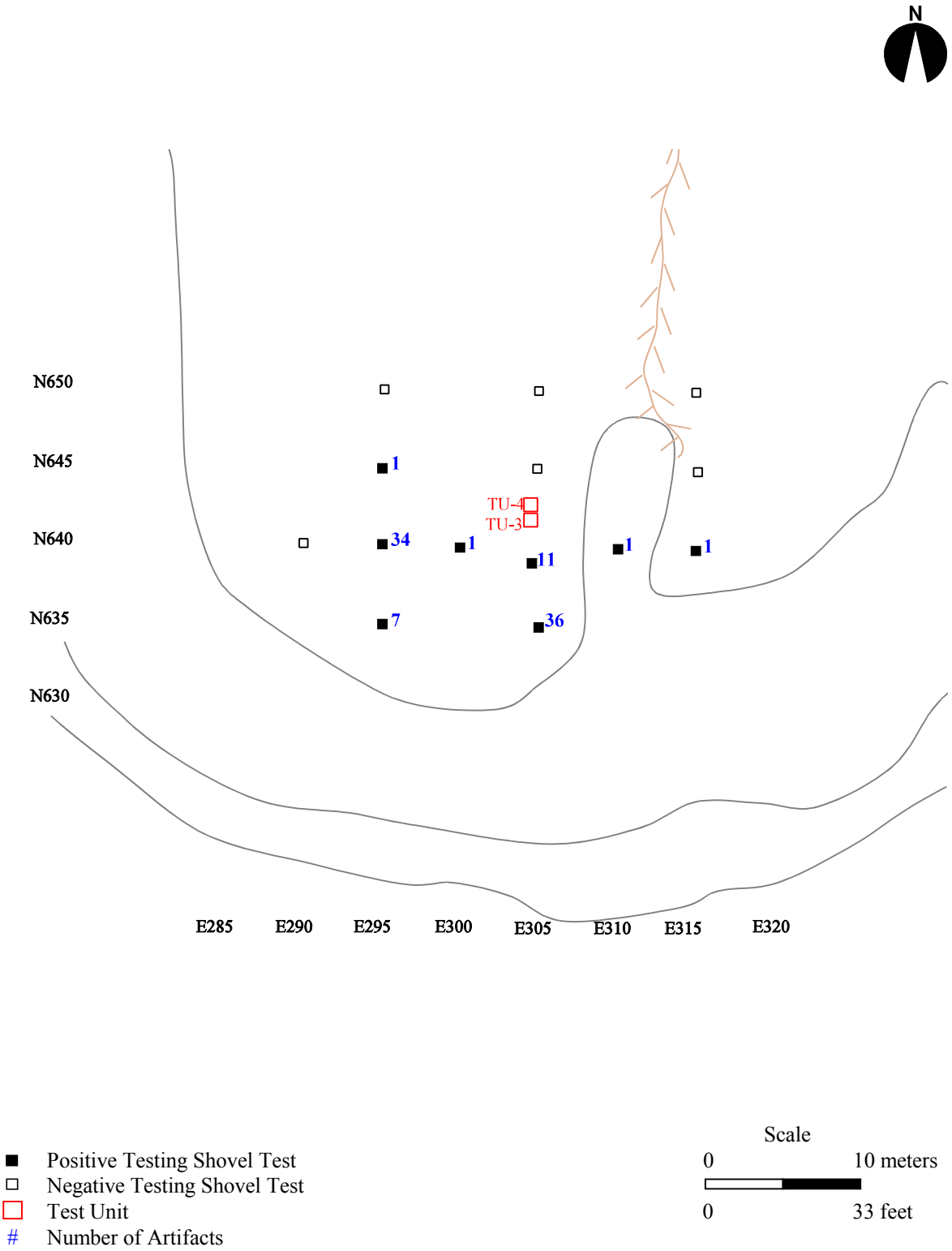


Figure 12.6 Site 38LA605 Locus 2, Density Map

12.2.4 Locus 2 Test Unit Excavations

Two 1-by-1-m test units were excavated at Locus 2 (Figure 12.5; Test Units 3 and 4). TU-3 was placed on a small ridge spur approximately 1 m north of survey shovel test N640/E305, which produced 40 pieces of debitage at 20 to 50 cmbs. This unit was extended north as TU-4 to further investigate the artifact bearing deposits exposed in TU-3.

12.2.4.1 Test Units 3 and 4

Level Excavation and Soil Stratification: TU-3 and 4 were excavated in eight 10-cm arbitrary levels (Levels 1 through 8). Datum elevation was taken at 10 cm above ground surface in the northeast corner of TU-3. Unit excavations were terminated at a depth of 85 cmbd. The units exposed three southward-sloping soil strata (Figure 12.7; Strata A, B and C). Stratum A is a brown (10YR 4/3) sandy loam that overlies Stratum B, a light yellowish-brown (10YR 6/4) sandy loam. Stratum C consists of yellowish-brown (10YR 4/6) sandy loam. Stratum A was present in Level 1 and at the top of Level 2. Stratum B first appeared at approximately 14 cmbd and was excavated in Levels 2 through 7. Stratum C appeared at 68 to 88 cmbd and was removed in Level 8.

Table 12.7 38LA605 TU-3 Artifacts

Test Unit (TU)	3	3	3	3	3	3	
Level	1	2	3	4	5	6	
Bag Number	59	60	61	62	63	64	**Total**
Lithic Reduction							
Thinning Flake, quartz		3	14	6			**23**
Reduction Flake, quartz	3	18	65	32	2		**120**
Flake Fragment, quartz	11	62	241	183	10	1	**508**
Shatter, quartz		3		3			**6**
Core/Biface Manufacture							
Core, quartz	1						**1**
Early stage biface, quartz			4	1			**5**
Biface Fragment, quartz			3				**3**
Total	**15**	**86**	**327**	**225**	**12**	**1**	**666**

Artifacts: A total of 1,956 artifacts was recovered from TU-3 (n=666) and TU-4 (n=1,290) (Tables 12.7 and 12.8). Artifact density increased in Level 2 (TU-3, n=86; TU-4, n=23), peaked in Level 3 for TU-3 (n=327), and in Level 4 for TU-4 (n=673), and then decreased in Levels 5 and 6. Levels 7 and 8 were sterile. The test units' inventory consists of quartz debitage (n=1,942; 99.3 percent), quartz bifaces (n=13, 0.6 percent), and one quartz core (0.1 percent).

Table 12.8 38LA605 TU-4 Artifacts

Test Unit (TU)	4	4	4	4	4	4	
Level	1	2	3	4	5	6	
Bag Number	65	66	67	68	69	70	**Total**
Lithic Reduction							
Thinning flake, quartz			9	29			**38**
Reduction flake, quartz	6	8	72	115	10	2	**213**
Flake fragment, quartz	8	15	426	523	44	11	**1027**
Shatter, quartz			3	3	1		**7**
Core/Biface Manufacture							**0**
Early stage biface, quartz			2				**2**
Biface fragment, quartz				3			**3**
Total	**14**	**23**	**512**	**673**	**55**	**13**	**1290**

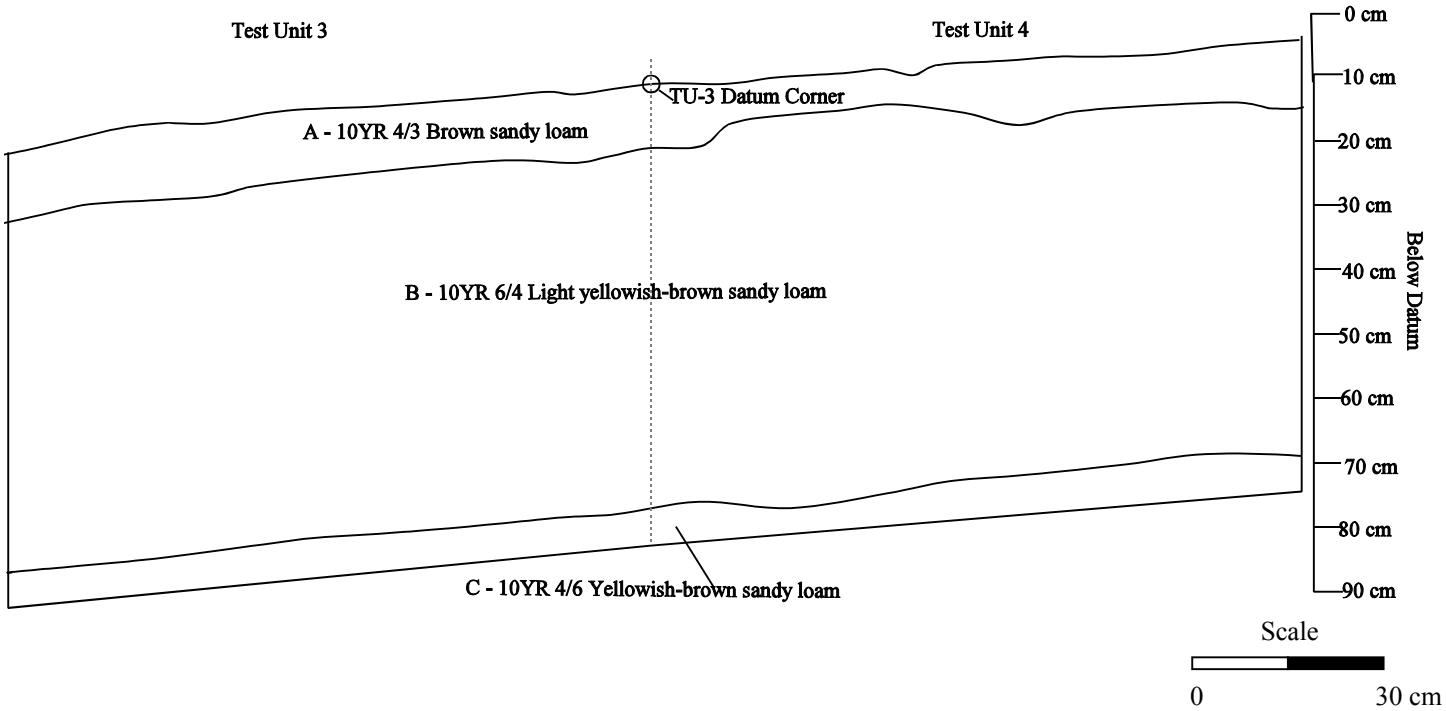


Figure 12.7 Site 38LA605, Test Units 3 and 4, West Profiles

12.2.5 Locus 3 Close-Grid Shovel Testing

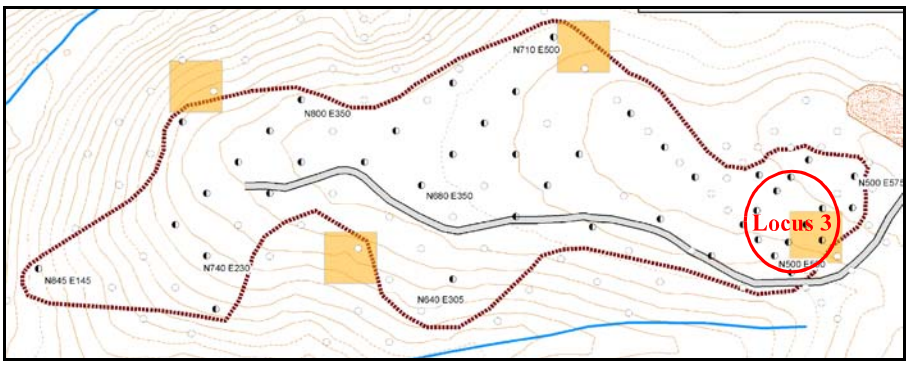
Twenty-one negative shovel tests were excavated at 10-m intervals at Locus 3, covering approximately 60 by 60 m (Figure 12.8). This location was found to be severely disturbed; linear pushpiles ran north-south and there was a prospecting area at the north end of the locus. Because of the severe disturbance and the lack of a single positive Phase II shovel test, no test units were excavated at Locus 3.

12.3 Analysis

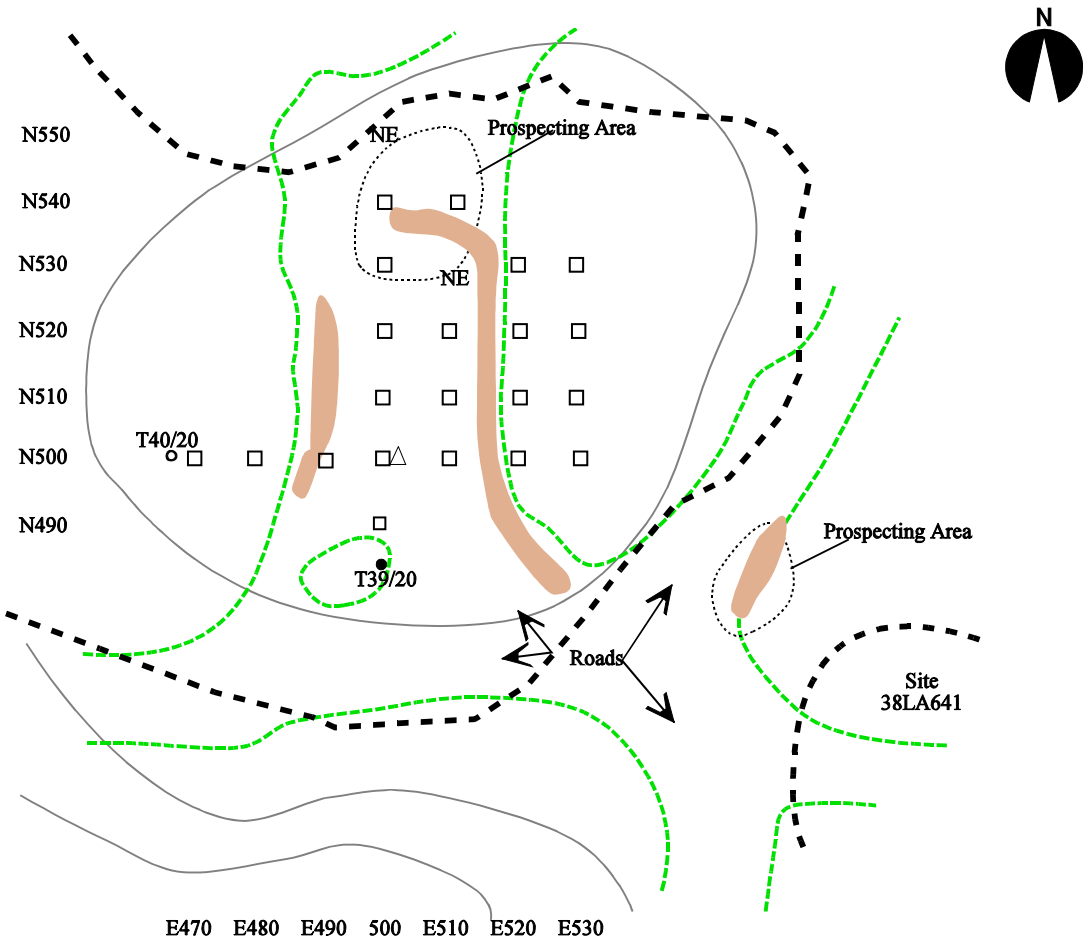
A total of 2,430 lithic artifacts were recovered during Phase II testing at 38LA605 from two of three loci investigated: 2,191 from the four 1-by-1-m TUs and 239 from shovel testing. No prehistoric ceramics were recovered. Locus 1 yielded a total of 382 artifacts, and at Locus 2, 2,048 were collected. No artifacts were found during Phase II at Locus 3. The artifact inventory consists of lithic debitage (n=2,430, 99.0 percent), cores/bifaces (n=20, 0.8 percent), formal tools (n=4, 0.2 percent) and FCR (n=1, 0.04 percent). The assemblage is primarily composed of quartz (n=2,405, 99.0 percent) with minor occurrences of metasiltstone (n=21, 0.8 percent) and metasandstone (n=4, 0.2 percent).

The debitage is comprised of flake fragments (n=1,913; 80.0 percent), followed by reduction flakes (n=371; 15.5 percent), then thinning flakes (n=93; 3.9 percent), and shatter (n=14, 0.6 percent). This pattern was consistently observed in the shovel testing and test unit data from 38LA605 and is repeatedly seen in the quartz-dominated assemblages at Haile Gold Mine. Due to the brittle nature of quartz, there is a very high frequency of flake fragments, limited identifiable reduction flakes, and even fewer identifiable thinning flakes. This pattern was observed in all four test units at 38LA605.

One core, 11 early stage bifaces, one late stage biface, and seven biface fragments were recovered from 38LA605. All are quartz with the exception of one metasandstone early stage biface (Figure 12.9). Seventy-five percent (n=15) of the core/bifaces were found at Locus 2. Two PP/Ks and two PP/K fragments were recovered during Phase II testing (Figure 12.9). This includes one quartz Morrow Mountain PP/K and one metasiltstone PP/K fragment from Locus 1 at 20 to 40 cmbs. At Locus 2, shovel testing produced one metasandstone Morrow Mountain PP/K from 10 to 20 cmbs and a quartz PP/K fragment from 30 to 40 cmbs. During Phase II investigations, these were the only diagnostics recovered from 39LA605 and indicate occupation during at least the Middle Archaic period. During the Phase I survey, Adams *et al.* (2011a) identified a small triangular Late Woodland PP/K; eight sand-tempered sherds were also recovered and indicate Woodland period occupation.



Site Boundary From New South Survey (Adams *et al.* 2011a)



Site Limits
Negative Testing Shovel Test
Positive Survey Shovel Test
Negative Survey Shovel Test
Pushpile
Tree Line
Datum

Scale
0 30 meters
0 98 feet

Figure 12.8 Site 38LA605 Locus 3, Site Plan

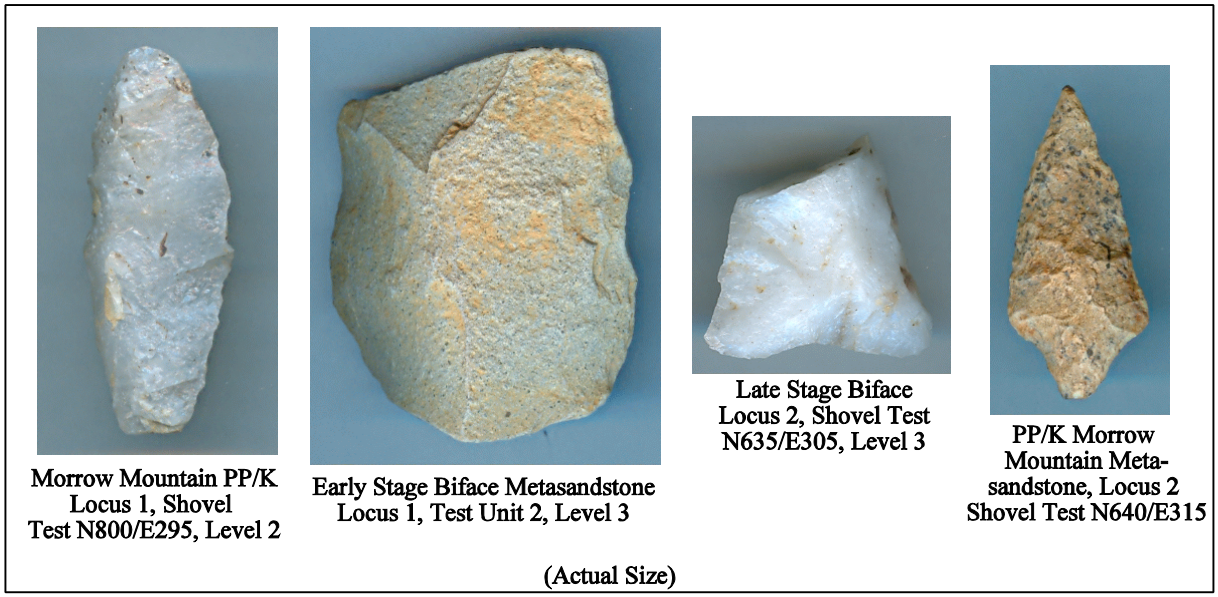


Figure 12.9 Site 38LA605, Selected Artifacts

12.4 Interpretations

Phase II investigations focused on three activity loci at 38LA605, two of which, Loci 1 and 2, produced prehistoric lithic artifacts. Locus 3 produced no artifacts, possibly due to the high level of disturbance. Phase II data indicate that Loci 1 and 2 were occupied during at least the Middle Archaic Morrow Mountain phase. Phase I data indicate a Late Woodland presence (Adams *et al.* 2011a:66); based on the Phase I artifact inventory, this occupation appears to have been in the middle to eastern part of the site, part of which was in the vicinity of Locus 3. In terms of site function, Loci 1 and 2 both appear to have functioned as a series of temporary stations or task camps centered around the reduction of quartz, although at Locus 1 it appears that limited amounts of metasandstone were also reduced. The primary difference between Loci 1 and 2 was the degree of use/reoccupation, with Locus 2 appearing to be more intensively used. The most archeologically visible activities were intensive early stage reduction of quartz, complemented by core/biface manufacture. Otherwise, there is limited evidence of cutting/piecing related to hunting and/or faunal processing in the form of PP/Ks, and very limited evidence of hot-rock cooking in the form of one piece of clearly identifiable FCR.

The reduction loci at 38LA605 and at several other sites evaluated during the current study are similar to what Daniel (1998:139) describes as "expedient quarries." Such sites were largely responsible for the production of cores, early stage bifaces, and flakes, and served as intermittent sources of raw quartz for groups traversing the expansive lower Piedmont and upper Coastal Plain regions. Such sites fit well within the Middle Archaic settlement strategy of dispersion throughout Piedmont (and Sandhills) inter-riverine areas. As is seen repeatedly at these types of sites, there is no direct evidence of intermediate or long-term

use such as features, midden deposits, or even tools often associated with domestic activities. Evidence of subsistence is also lacking. No exotic lithic materials, PP/Ks, or ceramics with extra-region implications were recovered during testing, so it was not possible to assess trade/exchange for the groups occupying 38LA605.

12.5 Recommendations

Since no archeological materials were found at Locus 3, justifying NRHP recommendations will focus on the data from Loci 1 and 2. Archeological deposits at Locus 1 were contained entirely within the upper 60 cm of the soil profile; 77.2 percent of the recovered materials were within the upper 40 cm of the deposits. At Locus 2, 95.9 percent of the cultural materials were taken from within 40 cm of the surface. These portions of 38LA605 have been impacted by clearing, cultivation, possibly silviculture, and moderate to severe erosion. Aerial photography from 1949 shows Loci 1 and 2 in an area dominated by pine forest. Considering the age of the existing vegetation, this area has been subjected to at least one timbering cycle in the last 60 years. Given the sandy matrix at both loci, the above disturbances have compromised the contextual clarity, and depositional integrity of the cultural deposits in these portions of the site. The degree of the disturbance is unclear because there is no way to assess cultural stratigraphy based on the high frequency of debitage and the recovery of only two diagnostic artifacts, both from the same time period (i.e., Middle Archaic). More importantly, there is no evidence of intact features or potential features (in shovel tests), midden deposits, artifact clusters, or similar indications of intermediate or long-term occupation. Furthermore, 99.0 percent of the artifacts from Loci 1 and 2 are debitage, mostly flake fragments. Cores/bifaces, formal tools, and FCR constitute only one percent of the Phase II assemblage. Similar sites at Haile Gold Mine are common and are well documented through previous Phase I, Phase II and/or Phase III studies.

Phase II investigations at 38LA605 suggest that both loci have been disturbed to some unknown extent. More importantly, the testing assemblage is almost exclusively debitage, making it very difficult to identify separate occupational episodes and thus rendering depositional integrity and contextual clarity poor at Loci 1 and 2. It is unlikely that additional work at 39LA605 will provide additional significant archeological information on Middle Archaic or Woodland period lifeways or lithic processing/reduction strategies. The information gathered during the Phase I survey and the current study adequately documents this resource. For the above reasons, 38LA605 is recommended ineligible for the NRHP under Criterion (d) and no further archeological work is warranted.

13.0 SITE 38LA622

13.1 Previous Work

During the Phase I survey, 38LA622 was identified as a quartz quarry with a Woodland component situated along a ridge side slope overlooking two drainages that feed Camp Branch (Adams *et al.* 2011a:89). Nineteen negative and 15 positive survey shovel tests were excavated over the portion of the side slope within the survey limits. Adams *et al.* noted that the site was not delineated to the south because this part of the site was beyond the project area; site boundaries were recorded as 250 by 70 m. Site 38LA622 is adjacent to the western edge of 38LA641, being separated by approximately 40 m.

Soil profiles and artifact proveniences at 38LA622 indicated potential archeological deposits at depths varying from 0 to 95 cmbs, with surface debris from quarrying being found near a large quartz outcrop. Artifacts recovered during the survey included 73 quartz flakes, nine pieces of quartz shatter, two rhyolite flakes, one quartz flake tool, and one Piedmont silicate PP/K identified as a possible Woodland Spike PP/K. The PP/K was located in the eastern part of the site at shovel test N470/E710. Shovel test N500/E500 (T-179/3), the site datum, contained 21 quartz flake fragments, one quartz shatter, and one quartz flake tool. Collectively, these artifacts indicated that lithic reduction/processing, formal tool manufacturing, and general quarrying and extraction activities occurred at 38LA622.

Disturbances to the site consisted of land clearing activities (i.e., logging, grading, and push piling) and related erosion. However, agricultural activities (e.g., cultivation) were evident and horizontal integrity/ distribution was viewed as intact.

The Phase I survey report stated that: "It is possible that elements and activity areas from quarrying can be distinguished. The outcrop has been recognized and it is possible that an area of ore dressing and lithic reduction will be identified through additional work" (Adams *et al.* 2011a:89). Phase II testing was recommended for 38LA622 to determine if the site was eligible for the NRHP under the theme of lithic extraction/reduction.

13.2 Phase II Excavations

13.2.1 Close-grid Shovel Testing

Fourteen shovel tests were excavated during the current study at 38LA622 to determine areas with high artifact density and/or diversity (Figure 13.1). Eleven shovel tests were positive and produced 576 quartz artifacts including lithic debitage (n=564), cores (n=3), bifaces (early stage n=1; late stage n=1), and one biface fragment (Table 13.1). The milky white, opaque quartz debitage consists of flake fragments

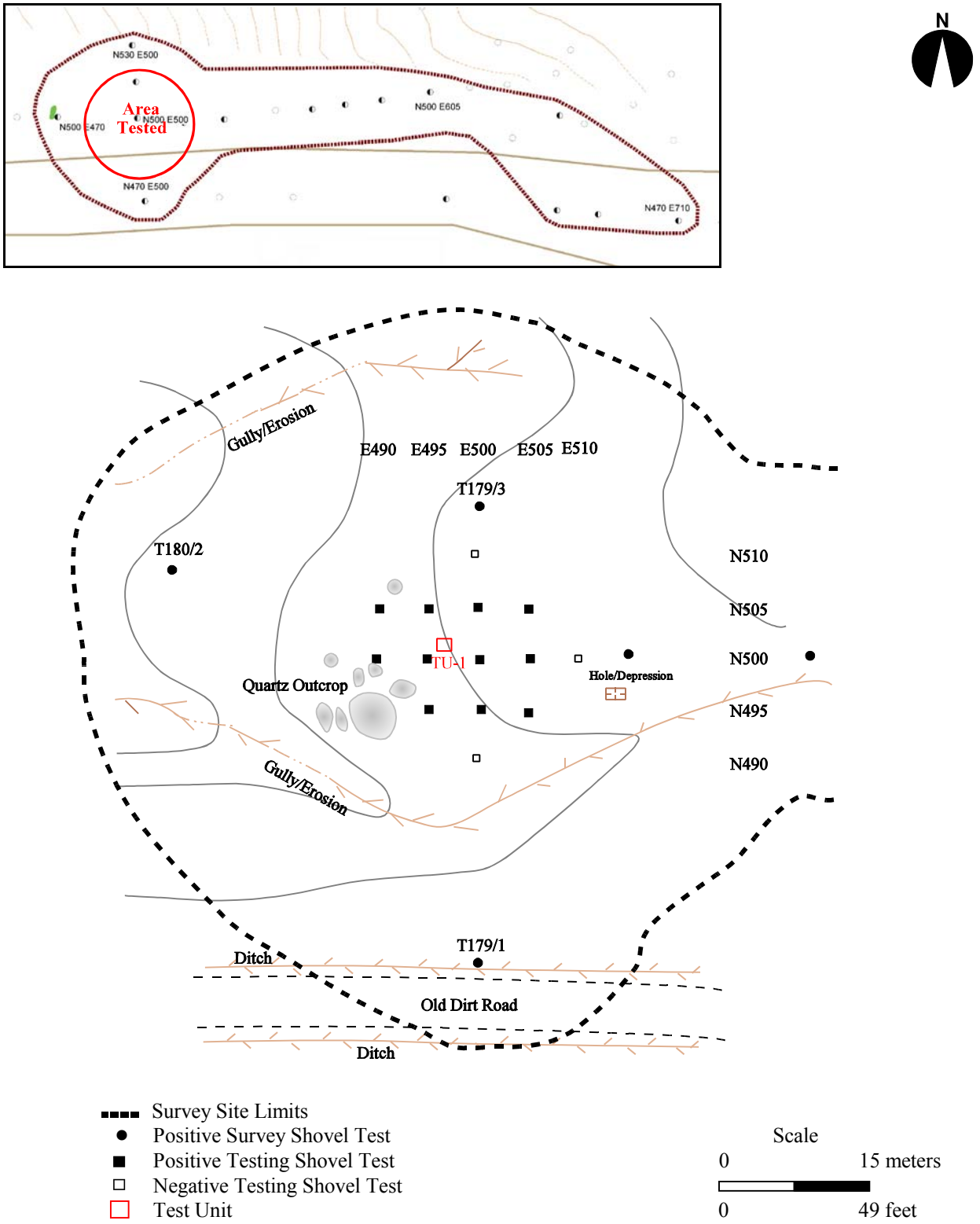


Figure 13.1 Site 38LA622, Site Plan

(n=518), reduction flakes (n=44), and thinning flakes (n=2). Artifacts were recovered from Levels 1, 2, and 3, with the mode being in Level 2 (n=231), followed by Level 1 (n=209) and Level 3 (n=136) (Table 13.2).

Table 13.1 38LA622 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	495	495	495	500	500	500	500	505	505	505	505	
East Coordinate	495	500	505	490	495	500	505	490	495	500	505	**Total**
Lithic Reduction												
Thinning flake, quartz		1	1									**2**
Reduction flake, quartz	4	12	5	4	4	7	3	1		3	1	**44**
Flake fragment, quartz	48	80	54	27	165	55	13	4	24	32	16	**518**
Shatter, quartz	4				2							**6**
Core/Biface Manufacture												
Core, quartz			1		1			1				**3**
Early stage biface, quartz					1							**1**
Late stage biface, quartz					1							**1**
Biface fragment, quartz					1							**1**
Total	**56**	**93**	**61**	**31**	**175**	**62**	**16**	**6**	**24**	**35**	**17**	**576**

The shovel test artifact density map (Figure 13.2) illustrates that ten of the 11 positive Phase II shovel tests yielded more than 15 artifacts. Shovel test N500/E495 held 175 lithics, including two bifaces and the biface fragment. More than 50 artifacts were taken from shovel tests N495/E495 (n=56), N495/E500 (n=93), N495/E505 (n=61), and N500/E500 (n=62). Eight shovel tests contained only debitage.

Table 13.2 38LA622 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

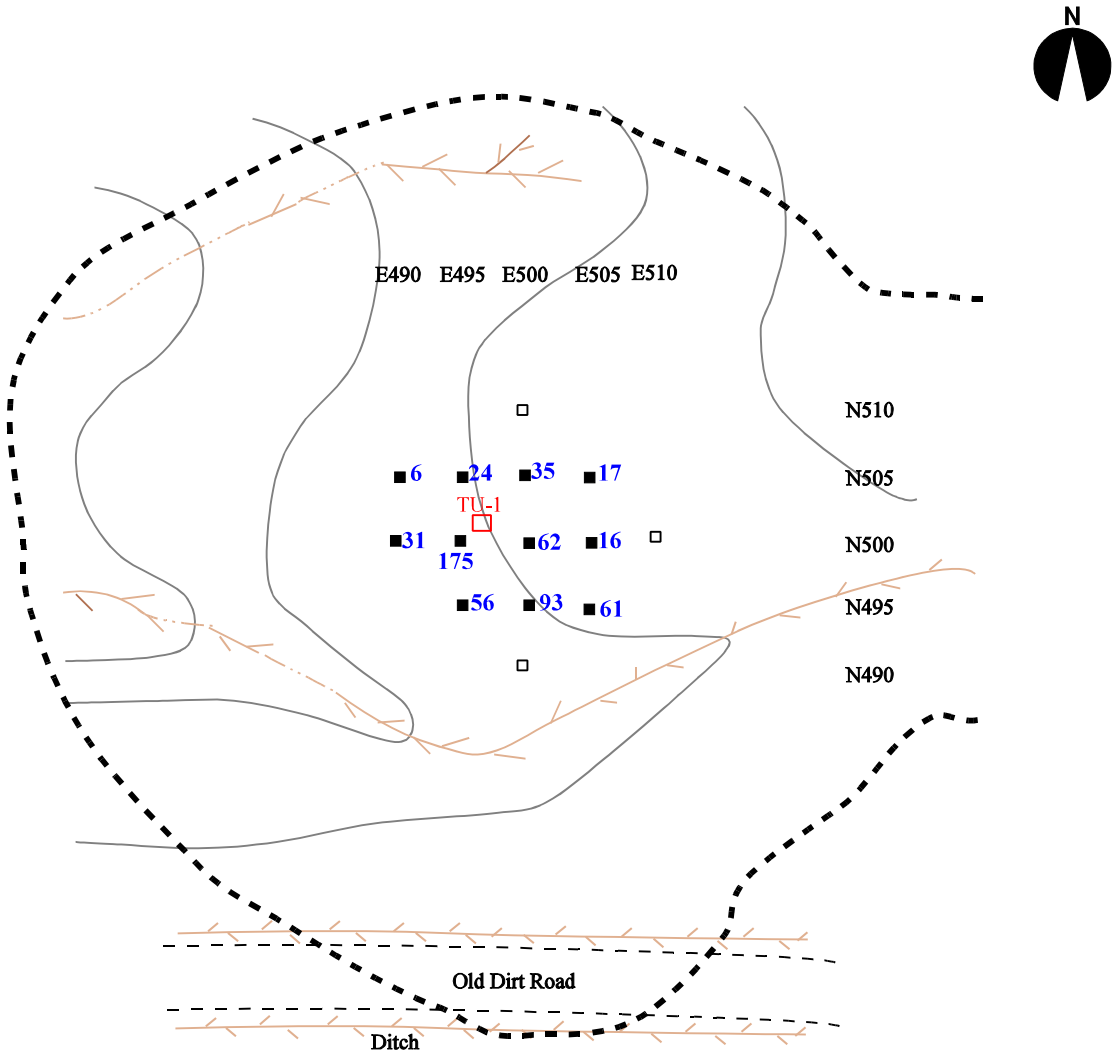
N Coordinate	495	495	495	500	500	500	500	505	505	505	505	
E Coordinate	495	500	505	490	495	500	505	490	495	500	505	**Total**
Excavation Level												
Level 1 (0-10 cm)	29	36	15	14	38	23	13	3	11	17	10	**209**
Level 2 (10-20 cm)	27	34	7	15	84	29	3	3	7	15	7	**231**
Level 3 (20-30 cm)		23	39	2	53	10			6	3		**136**
Total	**56**	**93**	**61**	**31**	**175**	**62**	**16**	**6**	**24**	**35**	**17**	**576**

13.2.2 Test Unit Excavations

One 1-by-1-m test unit, TU-1, was excavated at N501/E497 (Figures 13.1 and 13.2) to sample the area adjacent to shovel test N500/E495. This shovel test had the highest artifact density and diversity in the area of study.

13.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in three 10-cm arbitrary levels (Levels 1 through 3). The unit datum was established 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 30 cmbd. In general, the two soil strata encountered in TU-1 sloped slightly from east to west (Figure 13.3; Strata A and B). Stratum A is a dark grayish-brown (10YR 4/2) sandy loam that overlies Stratum B, a light yellowish-brown (10YR 6/4) clay silt loam. Large amounts of naturally occurring, non-cultural, quartz cobbles/debris were removed from both strata. Stratum A occurred in Levels 1 and 2, with Stratum B appearing at 18 cmbd in the northeast portion of the unit. Stratum B continued to the base of Level 3, where large, non-cultural quartz cobbles and quartz debris were encountered.



Survey Site Limits
Positive Testing Shovel Test
Negative Testing Shovel Test
Test Unit
Number of Artifacts

Scale
0 15 meters
0 49 feet

Figure 13.2 Site 38LA622, Density Map

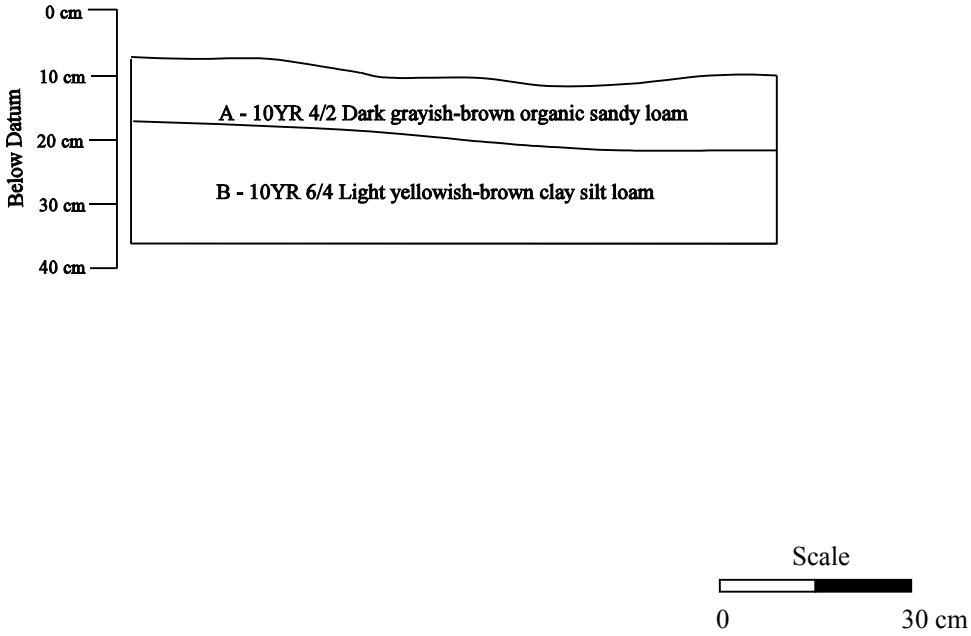


Figure 13.3 Site 38LA622, Test Unit 1, East Profile

Artifacts: A total of 352 quartz artifacts was recovered from TU-1 (Table 13.3). Artifact density was moderate to high in Level 1 (n=159) and peaked in Level 2 (n=193). Level 3 was sterile. The TU-1 inventory consists of lithic debitage (n=343, 97.4 percent), quartz cores (n=8, 2.3 percent), and one early stage biface (0.3 percent). Reduction activities are represented by flake fragments (n=309), reduction flakes (n=30), shatter (n=3), and one thinning flake. The vertical distribution of artifact types across Levels 1 and 2 is similar.

Table 13.3 38LA622 TU-1 Artifacts

Test Unit (TU)	1	1	
Level	1	2	
Bag Number	27	28	**Total**
Lithic Reduction			
Thinning flake, quartz		1	**1**
Reduction flake, quartz	13	17	**30**
Flake fragment, quartz	141	168	**309**
Shatter, quartz		3	**3**
Core/Biface Manufacture			
Core, quartz	5	3	**8**
Early stage biface, quartz		1	**1**
Total	**159**	**193**	**352**

13.2.3 Analysis

Phase II testing at 38LA622 produced 928 prehistoric artifacts: 352 from the test unit and 576 from shovel testing. The artifact sample is comprised of lithic debitage (n=913, 98.4 percent) and cores/bifaces (n=15, 1.6 percent).

The debitage is dominated by flake fragments (n=827, 90.6 percent), followed by reduction flakes (n=74, 8.1 percent), quartz shatter (n=9, 0.01 percent), and thinning flakes (n=3, 0.003 percent). This artifact profile is fairly consistent across the shovel testing and excavation levels data and is commonly observed near quartz extraction locations. The high volume of flake fragments and low number of identifiable reduction flakes can be attributed to the overall brittle nature of the targeted quartz, as well as the presence of numerous natural fracture planes in this material. The limited amount of shatter recovered suggests that TU-1 was not located on an extraction locus. The near absence of thinning flakes confirms that activities at this location were oriented toward mass reduction, not thinning/refinement.

Cores (n=11), early stage bifaces (n=2), a late stage biface, and a biface fragment were the only non-debitage items recovered from 38LA622. Since these items were not transported from the site at the time of manufacture, they are presumed to have been rejected due to flaws or failure. These items, and the lack of refined/finished bifaces, implicate the study area as a lithic workshop focused primarily on early stage reduction and core/biface manufacture.

13.4 Interpretations

The temporal affiliation of the western portion of 38LA622 could not be resolved through Phase II evaluation efforts. During the Phase I survey a Woodland Spike PP/K was recovered from the eastern end of the site, but that location is more than 100 m away from the study area and can not be directly linked to the quartz extraction/reduction area. In terms of site function, the current investigation confirms that early stage reduction and core/biface manufacture were important site activities that probably centered around the quartz

outcrop west of TU-1 and perhaps the larger pieces/clusters of raw quartz scattered across the western part of 38LA622. Extraction loci and the attendant workshop areas, such as the one at 38LA622, were often repeatedly used, over millennia in some cases. The fact that no evidence of group maintenance activities (i.e., features, middens, FCR, ceramics, etc.) was recorded during Phase I/II efforts tends to argue for short term use, perhaps as a brief stopover location to replenish lithic supplies. Archeological investigations at 38LA622 provided no evidence of subsistence habits. Since the lithic assemblage is composed entirely of quartz, and no diagnostic lithics or ceramics were recovered, territorial range and/or exchange/trade could not be addressed.

13.5 Recommendations

Phase II investigations at 38LA622 yielded no physical evidence of intact archeological features or distinct cultural deposits, such as midden. The current study did confirm that the western end of 38LA622 was an extraction point for quartz and that the area adjacent to the extraction point was the site of intensive early stage lithic reduction. Lacking diagnostic artifacts, the span of prehistoric use is unknown. As is typical of quartz extraction/early stage reduction loci, the sample assemblage is almost exclusively lithic debitage (98.4 percent), complemented by a limited number of rejected cores/bifaces (1.6 percent). Similar quartz extraction/reduction sites have been recently investigated on the Haile Gold Mine property and are well documented at 38LA334 and 38LA355 (Patch *et al.* 2011). It does not appear that additional work at 38LA622 would add significantly to the existing knowledge base.

The degree to which 38LA622 has been disturbed by 19th and 20th century land use practices is unknown; however, artifacts at the west end of 38LA622 are confined to the upper 20 cm of the deposits and would have been affected by almost any ground disturbing activities in the area. Because of their rocky nature, extraction loci and the immediate surrounding areas are often avoided for cultivation, but this does not preclude them from being logged and clear cut. Aerial photography from 1949 shows the western end of 38LA622 within an area of mixed pine/hardwoods, just east of a plowed field. Given the age of existing forest vegetation, at least one or two timbering cycles have probably occurred in this area since 1949. Couple the above potential impacts with the unknown level of reoccupation of the extraction locus, and contextual clarity and depositional integrity become highly suspect.

Considering the above justifications, it is unlikely that additional excavations at 38LA622 would significantly advance knowledge of prehistoric lithic extraction/reduction activities. Site 38LA622 is considered ineligible for the NRHP under Criterion (d), and no further archeological work is recommended.

14.0 SITE 38LA640 (OLD CLYBURN-JOE MUNGO HOUSE)

14.1 Previous Work

During the Phase I survey, 38LA640 was recorded as a large lithic site with a minor Woodland ceramic component. Two historic loci dating from the middle-to-late 19th into middle 20th century were also included in the site boundaries. The entire site occupies a broad ridge wrapped around several springheads, which empty into the tributaries of Camp Branch to the west (Adams *et al.* 2011a). One hundred negative and 161 positive survey shovel tests were excavated. There were gaps between the positive tests over this 1,200-by 590-m site; however, lithic debitage was noted on the surface, connecting the areas of positive shovel tests.

A total of 728 prehistoric artifacts were recovered. The prehistoric artifact inventory includes 695 pieces of debitage (quartz, n=634; metavolcanic, n=61), two quartz utilized flakes, one quartz uniface, five quartz cores, quartz (n=1) and metavolcanic (n=2) bifaces, one quartz hammerstone, one unidentified metavolcanic tool, 14 pieces of FCR, and six ceramics (eroded decorated, n=2; plain coarse sand-tempered, n=3; residual, n=1). Most of the prehistoric artifacts from shovel tests were found between 50 to 60 cmbs; however, lithics were also noted on the surface in various locations. Adams *et al.* (2011:120, 126) observed the site area to have been disturbed by pine plantation activities to depths of about 40 cmbs, and that while the prehistoric component is extensive, "the overall condition of the prehistoric component is poor and we believe there are other sites containing much better integrity and research potential."

The two historic loci at 38LA640 were considered by Adams *et al.* (2011a:126) to have the potential to retain significant archeological data. Locus 1, near the center of the site and east and west of a dirt road, has a standing structure complex composed of a previously recorded house and outbuildings. The house was identified as Resource U/57/960 during the 1986 historic resources survey of Lancaster County (Preservation Consultants 1986). According to the initial survey form, the structure, built circa 1850 in the Greek Revival style, was T-shaped with a cross gable roof and a front facing gable projecting over a one-story porch. The house was "reportedly moved from 1/10 mile away, the old Clyburn residence" and the condition was given as "ruins". The house was evaluated as needing additional research to determine possible NRHP eligibility.

During the Phase I survey, Adams *et al.* (2011a:120) noted that the house was "badly deteriorated". The house was described as a lateral-gabled rectangular structure supported by both stone and wood piers. A single, large brick chimney was centrally placed in what would have been the rear roof elevation. There was a west-facing rear ell and a shed porch covering three bays of the front east facade had collapsed by the time of the Phase I survey. The complex included a shed about 30 m southwest of the house and the remains of a circa 1930s barn across the road and approximately 100 m to the northeast. Several small, collapsed, lean-to sheds were observed in the area of the barn.

The survey shovel test assemblage from Locus 1 totaled 69 artifacts. These were comprised of kitchen-related artifacts [bottle glass (clear, n=20; amethyst, n=1; amber, n=2; light blue, n=1; burned, n=2), tableware glass (tumbler, n=3; bowl, n=3; plate, n=7), ironstone (plain, n=3; molded, n=1), whiteware (plain, n=2), and a metal jar lid]; architectural artifacts (window glass, n=10; wire nails, n=4; one iron spike, one fence staple, and one unidentifiable fastener), personal/clothing materials (one brass grommet and one bone button) and four pieces of unidentifiable iron. Although the date of the house was given as circa 1850, these artifacts indicated occupancy from the late 19th to mid 20th centuries.

According to the Phase I survey map, Locus 2 is located approximately 250 m east of Locus 1 in the northeast appendage of the site. No standing structures were present, but a number of features were observed on the surface: a chimney pile, remnant outbuildings, old pipes, and roofing tin, among other architectural/ structural components. The chimney contained modern brick and cement mortar. Shovel tests produced 46 artifacts, including: cut nails (n=13); wire nails (n=15); plain ironstone with a maker's mark "Mellor, Taylor & Co." circa 1880-1904 (n=1); clear container glass (n=6); plain whiteware (n=1); unidentifiable porcelain (n=2); green glazed refined earthenware (n=1); non-electrical wire (n=1); large, indeterminate mammal bones (n=5); and a corroded, unidentified iron object (Adams *et al*. 2011a:123).

Survey findings noted that disturbances to the site as a whole consisted of land clearing activities (logging, grading, and push piling), road installation, two prospecting/mining activity areas, agriculture (plowing and cultivation), pine plantation, and related erosion, which had impacted the top 20-40 cm of the site except in areas adjacent to the remnant structures. Adams *et al.* (2011a:126) believed that the presence of older buildings, building remains, and other features could indicate the historic settlement layout, organization of space, and possibly answer research questions regarding the changes from a plantation to tenancy agrarian economic system. The prehistoric component of the site was considered ineligible for the NRHP, but archival research and Phase II testing were recommended for the two historic loci to determine NRHP eligibility status under the theme of rural historic lifeways (Adams *et al.* 2011a:34).

14.2 Archival Research

Chain of title research indicates that the land containing 38LA640 may have been acquired by William Uriah Clyburn, Sr. during the period 1880-1917 and it remained in the possession of his descendants until 2010 (see full chain of title description in Section 3.7.1). According to Ms. Dorothy Gregory, Ms. Sheila Love, and Ms. Billie Joanna (Clyburn) Crawford the house at 38LA640, Locus 1 was occupied by African American tenants in the 1960s. Census data indicates that Joe and Ellen Mungo lived there by at least 1940, but possibly as early as 1920. According to the census, they were married in 1894 and lived in the Flat Creek township (i.e., the project vicinity) throughout the period of 1900 to1940. In 1920 they had 11 children, and by 1940 at least two of their sons had established their own residences near or possibly within the project area.

Ms. Love, who was raised in the project area, referred to the Mungos as "Uncle Joe" Mungo and "Big Mama Clyburn", while the 1986 Lancaster County structure survey cited their house as "the old Clyborn (*sic.*) residence". The original survey form also noted that the house had been moved from a tenth of a mile away. If this is correct, this would mean that the original location of the house could still be within the boundaries of 38LA640, perhaps at Locus 2-2, which is adjacent to the primary transportation route (now known as "Enchantment Drive") through 38LA640.

While there is no concrete evidence confirming that the Clyburns were the original builders or occupants of the house at Locus 1, it is obvious, given its size and style, that the structure was originally constructed by/for an owner/operator, not for tenancy. For this reason and others discussed in the following sections, the house is hereafter referred to as the Old Clyburn-Joe Mungo House.

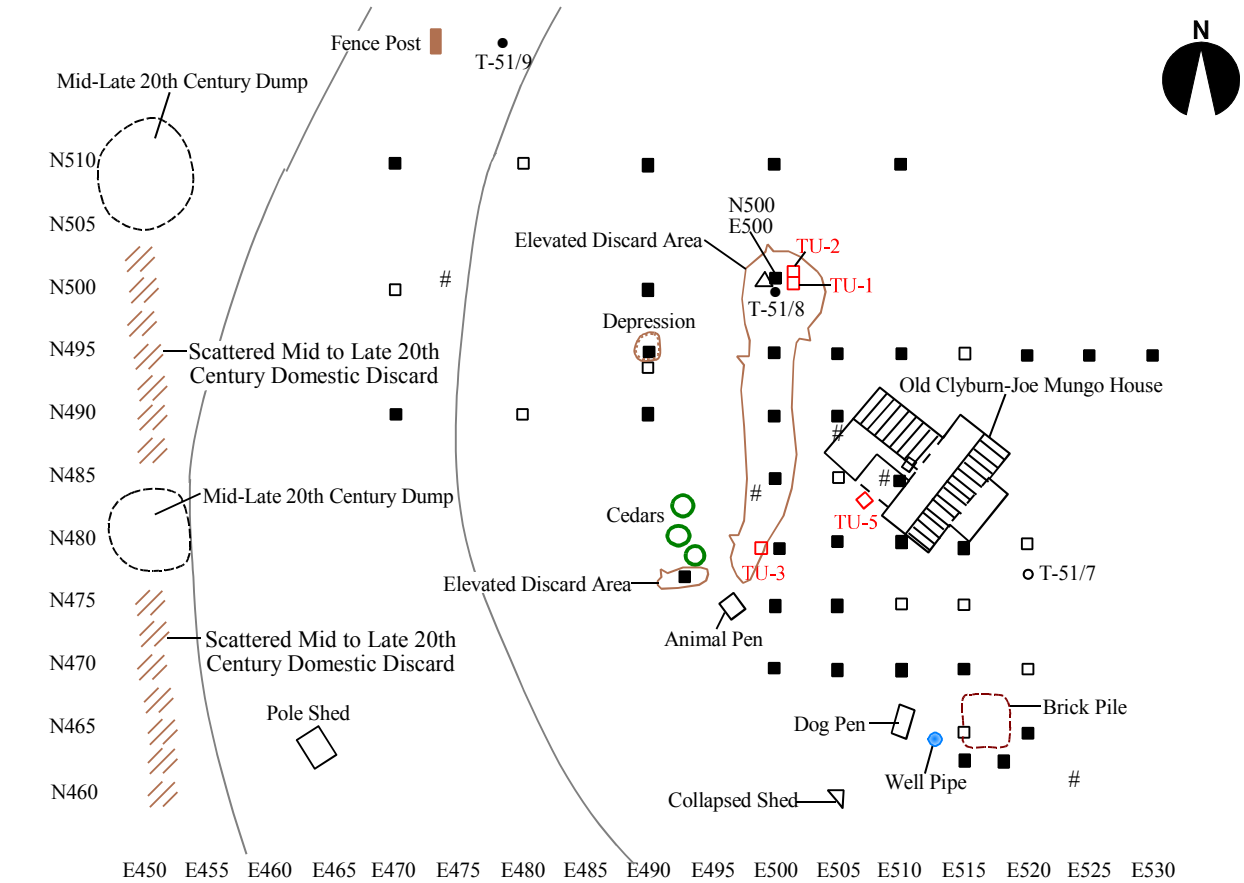
14.3 Layout of the Old Clyburn-Joe Mungo Structural Complex

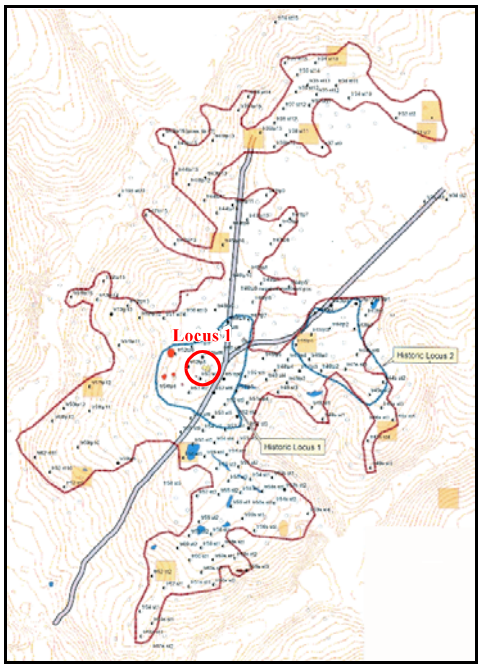
The Old Clyburn-Joe Mungo house complex includes the domicile and series of attendant outbuildings and surface features (Figure 14.1). The house, which was reportedly moved to this location, is oriented northeast-southwest. Outbuildings or outbuilding remnants related to the house include: an exposed pipe, presumably a drilled well, 15 m south of the house; a rectangular pile of brick, possibly a structure remnant, just east of the well and about 12 m south of the house; a dog pen approximately 12 m south of the house; one small animal pen about 12 m southwest of the house; a collapsed shed 20 m south-southwest of the house; and a pole shed 45 m southwest from the house. Three fairly distinct discard/dumping areas are present; the most prominent of these is a linear elevated discard midden 28 m long, north-south, approximately 4 m west of the house. A smaller elevated midden area is present about 15 m west of the house south of three cedar trees. The third discard area is a linear series of 20th century bottle/can dumps (with two concentrations) about 55 m west of the house.

Crepe myrtle, yucca, and cedars constitute the ornamental vegetation surrounding the house. Some of the ornamentals may be 50 years old, but none of the trees approach that age.

14.4 Architectural Evaluation of the Old Clyburn-Joe Mungo House

The architectural evaluation of the Old Clyburn-Joe Mungo House confirmed much of the information of the earlier surveys. The house at 38LA640 Locus 1 is a one-story frame structure with a "T"-shaped plan and Greek Revival style elements; the facade faces southeast (Figures 14.1 through 14.7). The front part of the house has one main room flanked by two smaller ones, and has two windows on either side of a centrally placed door. The rear part of the T may have been an early addition or constructed at the same time as the front; the materials and method construction appear to be the same. There is one small addition off the northwest side of the building's rear. The area between this addition and the front of the house was an





Survey Site Boundary (Adams *et al.* 2011a)

Scale

0 15 meters

0 49 feet

- Site Limits
- Positive Survey Shovel Test
- Negative Survey Shovel Test
- Positive Testing Shovel Test
- Negative Testing Shovel Test
- # Surface Collection
- Test Unit
- Datum

Figure 14.1 Site 38LA640, Plan Map, Locus 1

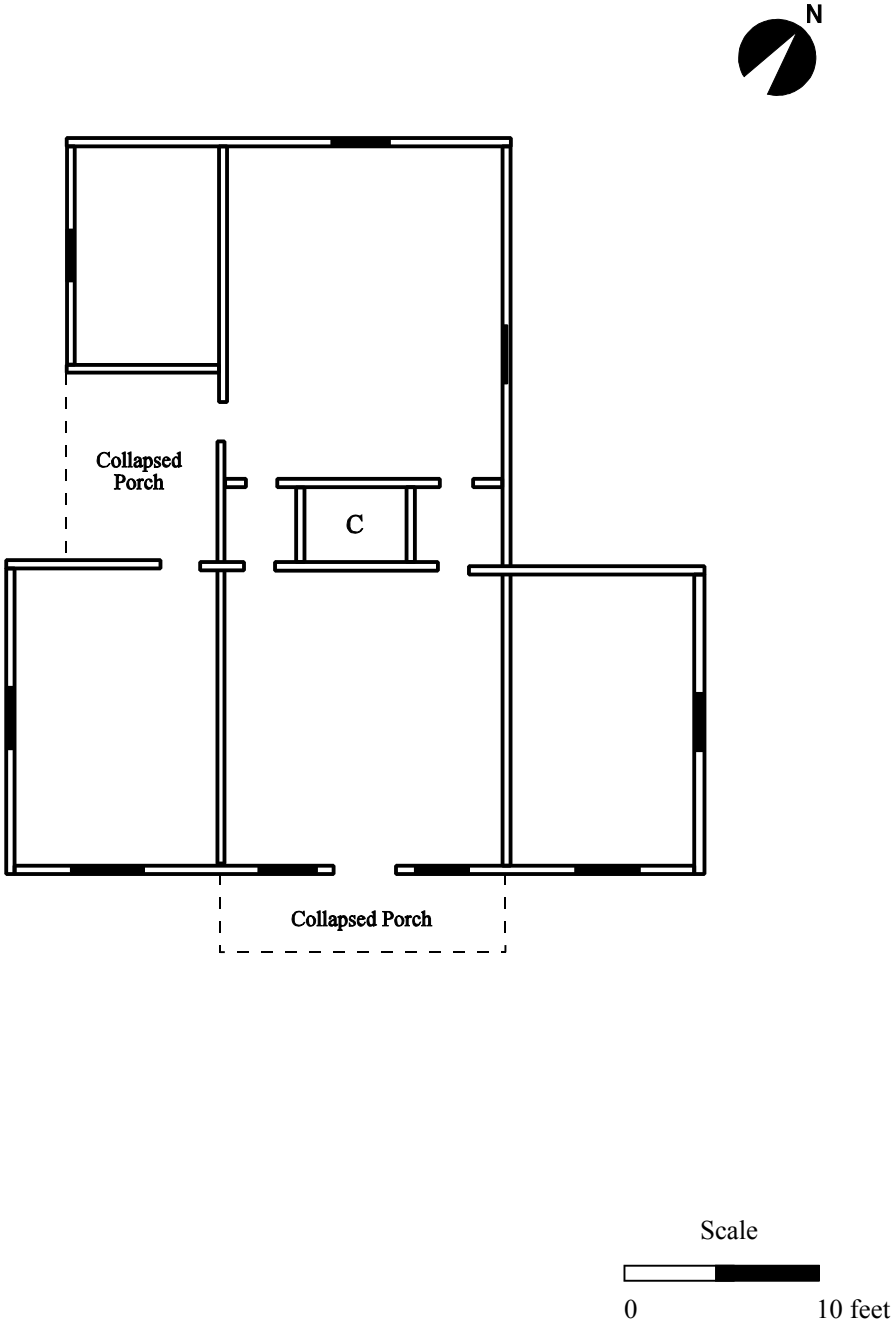


Figure 14.2 Old Clyburn-Joe Mungo House, 38LA640

Oblique of Facade and Southeast Side, Looking North

Rear and Southwest Side, Looking East

Figure 14.3 Selected Views of Old Clyburn-Joe Mungo House, 38LA640

Oblique Rear and Northeast Side, Looking South

Oblique of Facade and Northeast Side, Looking West

Figure 14.4 Selected Views of Old Clyburn-Joe Mungo House, 38LA640

Detail View Looking Southwest Across Front Facade Showing Collapsed Porch

Looking Northeast
Note: Gable Returns (Greek Revival Element) and
Combination Wood and Stone Piers

Figure 14.5 Selected Views of Old Clyburn-Joe Mungo House, 38LA640

View of Dog Pen, Looking North

View of Single Animal Pen, Looking West

Figure 14.6 Selected Views of Animal Pens, Old Clyburn-Joe Mungo House Complex, 38LA640

View of Pole-Type Shed, Looking Southeast

Figure 14.7 Selected View of Pole-Type Shed, Old Clyburn-Joe Mungo House Complex, 38LA640

enclosed porch that has collapsed. There is a single central brick chimney. The house is clad in weatherboard that is falling away in areas. According to the survey structure form and photographs, the structure had a cross-gabled roof system and a full height extended entrance pediment over the porch that has since collapsed. The structure form also indicated that the house had 6/6 windows. While most of the wood frame and sashes remain, all of the glass and many of the muntins are no longer present.

A comparison of architectural survey photographs taken in during the 1986 and 2011 surveys with the recent evaluation photographs suggest that the deterioration of the house at 38LA640 has accelerated (Figure s 14.3 and 14.8). The front porch has fallen from the body of the structure and the main roof has collapsed. A comment on the piers supporting the house is appropriate here, given the notation on the original structure form that the house was moved to this location. The existing piers are dry-laid stacked stone, some of which are precariously stacked. Several piers include cut wood blocks (see Figure 14.5-bottom). None of the existing piers appear to be original construction (particularly those containing the wood sections). This, along with the lack of any historic canopy vegetation, hint that the house may have been moved to this location.

The existing outbuildings in the vicinity of the house are sheet metal enclosures or pole structures. These are nondescript animal pens or pole-supported open shelters (Figures 14.6 and 14.7).

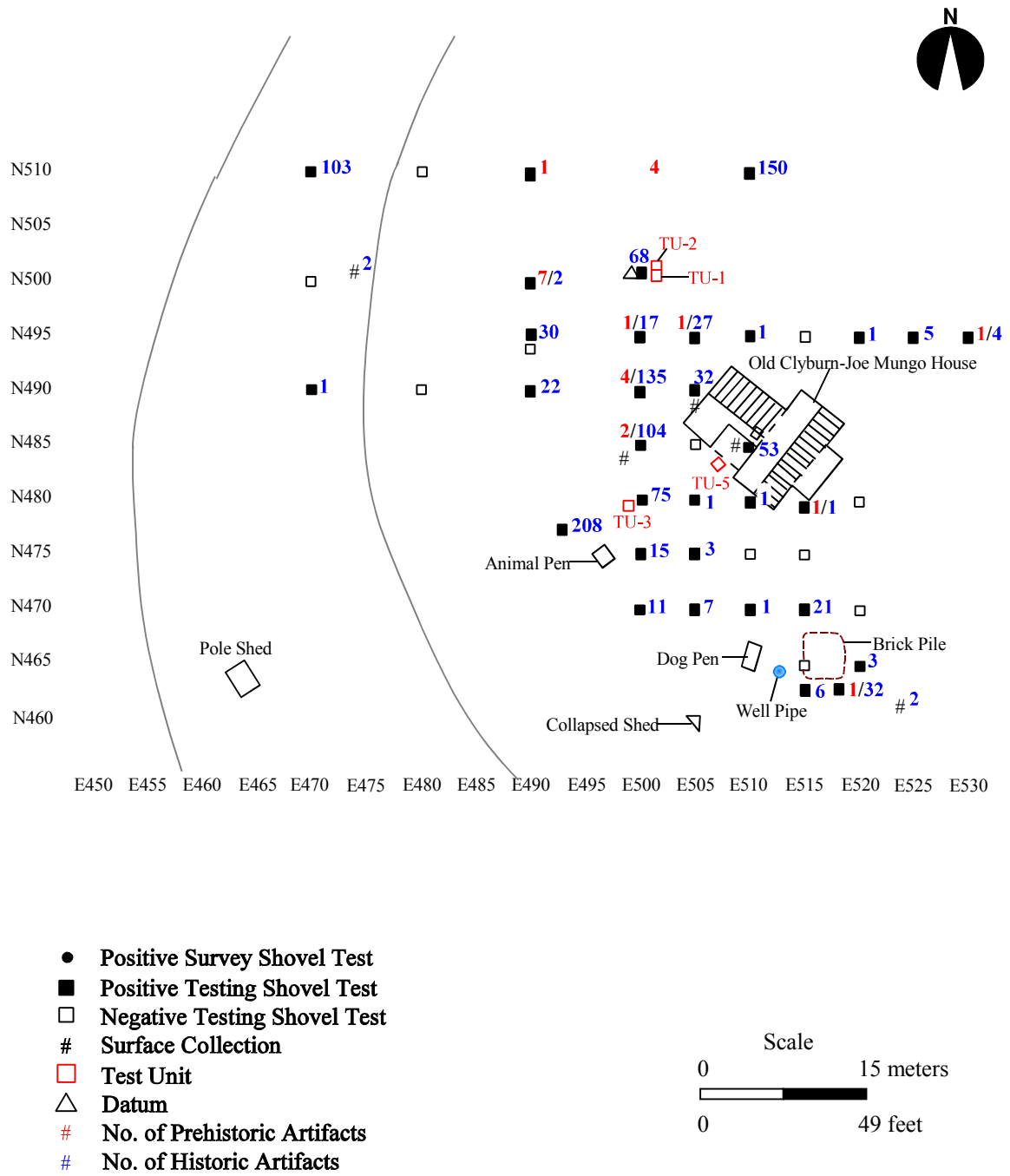
14.5 Phase II Excavations

The two historic loci identified during the survey were revisited during the Phase II work. At Locus 1 the Phase II efforts focused on the area around the Old Clyburn-Joe Mungo house. The survey grid was reestablished using T-51/8 (N500/E500). Two areas were investigated at Locus 2. The datum for the first area (assigned Locus 2-1) was the recorded chimney fall at survey shovel test T-45/0 (N445/E580). The second (Locus 2-2) was a second chimney fall/house site identified during Phase II investigations adjacent to the primary road through 38LA640, Enchantment Drive. The chimney fall at Locus 2-2 is approximately 5 m east of T-46/4 (N500/E500). The survey grid for Locus 2 was also reestablished during the Phase II work and covered both areas of the locus.

14.5.1 Locus 1 Close-grid Shovel Testing and Surface Collections

Close-grid Shovel Testing: Forty-four shovel tests were excavated at Locus 1 around the Old Clyburn-Joe Mungo House. Thirty-three shovel tests were positive and 11 were negative (Figures 14.1 and 14.9). A total of 1,163 artifacts (23 prehistoric and 1,140 historic) was recovered from the positive shovel tests in Locus 1 (Table 14.1). The prehistoric assemblage includes 22 pieces of lithic debitage (quartz, n=18; metasiltstone, n=4) and one prehistoric eroded sherd.

Figure 14.8 View of Old Clyburn-Joe Mungo House from 1986 Historic Resources Survey



- ● Positive Survey Shovel Test
- ■ Positive Testing Shovel Test
- □ Negative Testing Shovel Test
- # Surface Collection
- □ Test Unit
- △ Datum
- # No. of Prehistoric Artifacts
- # No. of Historic Artifacts

Scale

0 15 meters

0 49 feet

Figure 14.9 Site 38LA640, Density Map, Locus 1

Table 14.1 38LA640 Locus 1, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	462	463	465	470	470	470	470	475	475	477	480	480	480	480	485	485	490	490
East Coordinate	518	515	520	500	505	510	515	500	505	493	500	505	510	515	500	510	470	490
Surface Collection (SC)																		
PREHISTORIC																		
Lithic Reduction																		
Thinning flake, metasiltstone																		
Reduction flake, quartz														1				
Flake fragment, quartz	1														2			
metasiltstone																		
Cooking/Containment																		
Ceramic, eroded																		
Prehistoric Total	**1**													**1**	**2**			
HISTORIC																		
Kitchen/Subsistence																		
Whiteware, plain		2		1						3	3				4			
blue edged		1																
green edged																		
blue transfer print		1																
red transfer print										1								
banded															1			
decal											1							
Ironstone, plain					1													
Stoneware, Albany slip																		
Refined Earthenware, blue glazed										1								
Semivitreous, banded																		
Hard paste porcelain, purple lustre															1			
Bottle glass, clear	23		2	4				1	2	22	25		1	1	32	14		
clear, machine made	1						20	1			1				1	3		
amber					1			1			3				3			
aqua					1				1						1			
green											1							
light green		1									1							
cobalt blue										1								
white opaque																		
Canning jar seal, white opaque																		
Bottle Cap, iron										1								
"Crown"										3								
Can, tin								1		1	4				6	6		
Table glass, clear																		
green opaque																		
forest green																		
Aluminum Foil															1			
Faunal, bone										3	2							
Architectural/Structural																		
Nail, cut										41	3	1			6	1		
wire				3				3		86	4				6	10	1	
uid																6		
Screw, iron										1								
Bolt, iron											1							
Nut and bolt, iron	1																	
Washer, iron											1							
Brick fragment, machine made				1				1			3				1			
uid					1			2			7				5			
Mortar															4			
Roofing shingle								4		1						9		
Insulation liner																		20
Hinge, iron											1							

North Coordinate	462	463	465	470	470	470	470	475	475	477	480	480	480	480	485	485	490	490
East Coordinate	518	515	520	500	505	510	515	500	505	493	500	505	510	515	500	510	470	490
Surface Collection (SC)																		
Architectural/Structural																		
Tape, electrical																		
Wire, iron										2								
Bead chain, brass																		1
Window glass	7	1	1	2	2	1				9	7				23			1
Furnishings/Appliances																		
Lamp glass										1					2			
Spring, iron										1								
Weaponry																		
Shotgun shell, 12 gauge																		
Shell, brass 38 cal.										1								
brass 32 cal.																		
brass 22 cal.										1	2				1			
Clothing/Adornment																		
Shoe, heel and sole, rubber										1								
sole, rubber										1								
heel, rubber										3						1		
Button, iron															1			
brass										2								
bone																		
shell										1								
plastic																1		
Buckle, iron											1							
brass										1								
Snap, brass										1								
Clasp, brass															1			
Grommet, brass										3								
Safety pin, brass															1			
Zipper										3								
Cloth							1											
Activities																		
Marble, glass											1							
Transportation																		
Spark plug					1													
Inner Tube, rubber																		
Agricultural																		
Mechanical housing																		
Miscellaneous																		
"D" Ring, iron															1			
"O" Ring, iron										1	1							
Unidentifiable, iron										3	1					1		
brass										1								
lead															1			
aluminum										1								
beveled											1							
plastic										2								
plastic tube																1		
rubber										4								
Shell								1							1			
Historic Total	**32**	**6**	**3**	**11**	**7**	**1**	**21**	**15**	**3**	**208**	**75**	**1**	**1**	**1**	**104**	**53**	**1**	**22**
GRAND TOTAL	**33**	**6**	**3**	**11**	**7**	**1**	**21**	**15**	**3**	**208**	**75**	**1**	**1**	**2**	**106**	**53**	**1**	**22**

Table 14.1 continued

Shovel Test Coordinates, N	490	490	495	495	495	495	495	495	496	500	500	510	510	510	510	462	501	
Shovel Test Coordinates, E	500	505	500	505	510	520	525	530	490	490	500	470	490	500	510	524	474	**Total**
Surface Collection (SC)																SC	SC	
PREHISTORIC																		
Lithic Reduction																		
Thinning flake, metasiltstone										1								**1**
Reduction flake, quartz										1			1					**3**
Flake fragment, quartz	4		1	1						3				3				**15**
metasiltstone								1		2								**3**
Cooking/Containment																		
Ceramic, eroded														1				**1**
Prehistoric Total	**4**		**1**	**1**				**1**		**7**			**1**	**4**				**23**
HISTORIC																		
Kitchen/Subsistence																		
Whiteware, plain	1			1			1		1		5							**22**
blue edged																		**1**
green edged				1														**1**
blue transfer print																		**1**
red transfer print																		**1**
banded																		**1**
decal	1																1	**3**
Ironstone, plain																		**1**
Stoneware, Albany slip									1									**1**
Refined Earthenware, blue glazed																		**1**
Semivitreous, banded																1		**1**
Hard paste porcelain, purple lustre																		**1**
Bottle glass, clear	38	8	5	11			1		1		6	90			1			**288**
clear, machine made											1	4					1	**33**
amber	6																	**14**
aqua																		**3**
green				1														**2**
light green							1											**3**
cobalt blue																		**1**
white opaque	1																	**1**
Canning jar seal, white opaque		1		1														**2**
Bottle Cap, iron																		**1**
"Crown"				1								1						**5**
Can, tin	15								2		4	1						**40**
Table glass, clear									1		9							**10**
green opaque												6						**6**
forest green											15	1						**16**
Aluminum Foil																		**1**
Faunal, bone	4								7									**16**
Architectural/Structural																		
Nail, cut	6	3					1			1	2							**65**
wire	15	1	1						2	1	4				3			**140**
uid																		**6**
Screw, iron																		**1**
Bolt, iron																		**1**
Nut and bolt, iron																		**1**
Washer, iron																		**1**
Brick fragment, machine made					1		1		1		1							**10**
uid	25	1	4						2		3							**50**
Mortar									1									**5**
Roofing shingle											3				146			**163**
Insulation liner																		**20**
Hinge, iron						1												**2**

Shovel Test Coordinates, N	490	490	495	495	495	495	495	495	496	500	500	510	510	510	510	462	501	
Shovel Test Coordinates, E	500	505	500	505	510	520	525	530	490	490	500	470	490	500	510	524	474	**Total**
Surface Collection (SC)																SC	SC	
Architectural/Structural																		
Tape, electrical	2																	**2**
Wire, iron	1	1																**4**
Bead chain, brass																		**1**
Window glass	15	17	6	10				4	3		13							**122**
Furnishings/Appliances																		
Lamp glass																		**3**
Spring, iron																		**1**
Weaponry																		
Shotgun shell, 12 gauge																1		**1**
Shell, brass 38 cal.																		**1**
brass 32 cal.	1																	**1**
brass 22 cal.				1														**5**
Clothing/Adornment																		
Shoe, heel and sole, rubber																		**1**
sole, rubber																		**1**
heel, rubber																		**4**
Button, iron																		**1**
brass																		**2**
bone											1							**1**
shell																		**1**
plastic																		**1**
Buckle, iron																		**1**
brass																		**1**
Snap, brass																		**1**
Clasp, brass																		**1**
Grommet, brass																		**3**
Safety pin, brass																		**1**
Zipper																		**3**
Cloth			1															**2**
Activities																		
Marble, glass																		**1**
Transportation																		
Spark plug																		**1**
Inner Tube, rubber									1									**1**
Agricultural																		
Mechanical housing											1							**1**
Miscellaneous																		
"D" Ring, iron																		**1**
"O" Ring, iron																		**2**
Unidentifiable, iron	2																	**7**
brass																		**1**
lead																		**1**
aluminum	1																	**2**
beveled																		**1**
plastic	1								7									**10**
plastic tube																		**1**
rubber																		**4**
Shell																		**2**
Historic Total	**135**	**32**	**17**	**27**	**1**	**1**	**5**	**4**	**30**	**2**	**68**	**103**			**150**	**2**	**2**	**1144**
GRAND TOTAL	**139**	**32**	**18**	**28**	**1**	**1**	**5**	**5**	**30**	**9**	**68**	**103**	**1**	**4**	**150**	**2**	**2**	**1167**

The historic assemblage consists of artifacts in the following categories: kitchen/subsistence (artifacts, n=458; bone, n=16), architectural/structural (n=594), furnishing/appliances (n=4), weaponry (n=1), clothing/adornment (n=25), activities (n=1), transportation (n=2), agricultural (n=1), and miscellaneous (n=32). The kitchen/subsistence items include: 27 whiteware sherds (plain, n=22; blue -edged, n=1; green-edged, n=1; blue transfer-print, n=1, red transfer-print, n=1; banded, n=1), one plain ironstone, one Albany slip stoneware, one blue-glazed refined earthenware, one purple luster hard-paste porcelain, 344 bottle glass fragments (clear, n=288; machine-made clear, n=32; amber, n=14; aqua, n=3; green, n=2; light green, n=3; cobalt blue, n=1; white opaque, n=1), white opaque canning jar seals (n=2), two metal bottle caps (iron, n=1; "crown", n=1), 15 tin can fragments, 32 table glass fragments (clear, n=10; green opaque, n=6; forest green, n=16), and one aluminum foil fragment.

The architectural/structural items are comprised of 211 nails (cut, n=65; wire, n=140; unidentifiable, n=6), four other fasteners (iron screw, n=1; iron bolt, n=1; iron nut and bolt, n=1; iron washer, n=1), 60 brick fragments (machine-made, n=10; unidentifiable, n=50), five mortar fragments, 163 roofing shingles, 20 pieces of insulation liner, two hinges, two pieces of electrical tape, four pieces of iron wire, one brass bead chain, and 122 fragments of window glass.

The furnishings/appliance category is represented by three fragments of lamp glass and one iron spring. Weaponry artifacts include seven brass shells (38 caliber, n=1; 32 caliber, n=1; 22 caliber, n=5). The clothing/ adornment category is comprised of six shoe parts (rubber heel and sole, n=1; rubber sole, n=1; rubber heel, n=4), six buttons (iron, n=1; brass, n=2; bone, n=1; shell, n=1; plastic, n=1), two buckles (iron, n=1; brass, n=1), one brass snap, one brass clasp, three brass grommets, one brass safety pin, three zipper fragments, and two pieces of cloth. A glass marble is the single representation of the activities category, while transportation items include one spark plug and one rubber inner tube. A mechanical housing was assigned to the agricultural category. Miscellaneous materials include 14 pieces of metal (iron, n=10; brass, n=1; lead, n=1; aluminum, n=2), one beveled glass fragment, 11 pieces of plastic, four pieces of rubber, and two shell fragments.

Prehistoric and historic artifact distributions from the shovel tests were calculated separately (Tables 14.2 and 14.3). Low frequencies of prehistoric artifacts were recovered from Levels 1 through 3 with the mode being Level 1 (n=9), followed closely by Level 3 (n=8) (Table 14.2). The Phase II artifact density distribution map shows very limited prehistoric artifact clustering at shovel tests N500/E490 (n=7) and N510/E500 (n=4) (Figure 14.9).

Levels 1 through 7 produced historic artifacts; the mode was in Level 1 (n=667) which yielded over 58.5 percent of the total historic artifact inventory from the shovel tests (Table 14.3). Historic artifact density decreased dramatically through Levels 2 (n=264) and 3 (n=100); Levels 4 through 7 accounted for only 9.6 percent of the historic artifacts recovered. The historic artifact density distribution map shows that more than

50 historic artifacts were recorded from shovel tests at eight locations (Figure 14.9): N510/E470 (n=103), N510/E510 (n=150), N490/E500 (n=135), N500/E500 (n=68), N480/E500 (n=74), N485/E500 (n=104), N485/E510 (n=53) (positioned under the side porch entrance), and N477/E493 (n=208).

Table 14.2 38LA640 Locus 1, Prehistoric Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

Shovel Test Coordinates, N	462	480	485	490	495	495	495	500	510	510	
Shovel Test Coordinates, E	518	515	500	500	500	510	530	490	490	500	**Total**
Excavation Level											
Level 1 (0-10 cm)	1	1	1	2	1	1			1	1	**9**
Level 2 (10-20 cm)			1	2						3	**6**
Level 3 (20-30 cm)							1	7			**8**
Total	**1**	**1**	**2**	**4**	**1**	**1**	**1**	**7**	**1**	**4**	**23**

Table 14.3 38LA640 Locus 1, Historic Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	462	463	465	470	470	470	470	475	475	477	480	480	480	480	485	485
East Coordinate	518	515	520	500	505	510	515	500	505	493	500	505	510	515	500	510
Excavation Level																
Level 1 (0-10 cm)	32	2	1	11	7	1	6	3	3	50	43	1	1	1	57	38
Level 2 (10-20 cm)			2				15	7		28	25				23	15
Level 3 (20-30 cm)								3		41	6				18	
Level 4 (30-40 cm)								2		54	1				6	
Level 5 (40-50 cm)		4								22						
Level 6 (50-60 cm)										13						
Level 7 (60-70 cm)																
Total	32	6	3	11	7	1	21	15	3	208	75	1	1	1	104	53

Shovel Test Coordinates, N	490	490	490	490	495	495	495	495	495	495	496	500	500	510	510	
Shovel Test Coordinates, E	470	490	500	505	500	505	510	520	525	530	490	490	500	470	510	**Total**
Excavation Level																
Level 1 (0-10 cm)		22	69	8	10	27	1	1	2	4	12		43	61	150	667
Level 2 (10-20 cm)	1		47	20	7				3		12		17	42		264
Level 3 (20-30 cm)			18	4								2	8			100
Level 4 (30-40 cm)			1								4					68
Level 5 (40-50 cm)																26
Level 6 (50-60 cm)											1					14
Level 7 (60-70 cm)											1					1
Total	1	22	135	32	17	27	1	1	5	4	30	2	68	103	150	1140

It was decided that no structured excavation units would be placed over a number of shovel tests with high artifact yields because of the high percentage of early to middle 20th century artifacts (i.e., clear bottle glass, wire nails, shingle scraps, etc.). Examples include the shovel tests with the highest artifact yields: N477/E493 and N485/E510.

Shovel test N477/E493 yielded 208 artifacts and was located adjacent to a stand of cedar trees and positioned on a small elevated mound. This shovel test featured eight homogenous levels of 7.5YR 5/6 reddish-yellow sandy loam and appears to have been primarily a 20th century discard area. Shovel test artifacts included a wide variety of items dominated by bottle glass (n=23), nails (cut, n=41; wire, n=86), clothing items (n=16), and miscellaneous (n=15) materials. A green plastic produce container was found at Level 5 along with a red transfer-print whiteware sherd. Artifacts were recovered from 0 to 60 cmbs with 20th century materials

scattered throughout. No test unit was placed at this location because it appears to have been a preferred discard area during the early to middle 20th century.

The second most productive shovel test was N510/E510 (n=150). No structured testing was conducted here because 146 of the 150 artifacts are scraps of roofing shingles. This area appears to have been a dumping area for building debris.

Surface Collections: Four historic artifacts were recovered from the surface of Locus 1 during the Phase II investigations. These were tied to the grid coordinates, but were not included in the artifact density distribution. The surface materials consist of one banded semivitreous sherd and one 12-gauge shotgun shell from N462/E524, and one decal whiteware sherd and one clear machine-made bottle glass fragment from N501/E474.

14.5.2 Locus 1 Test Unit Excavations

Four 1-by-1-m test units were excavated at Locus 1 (Figures 14.1 and 14.9; TU-1, 2, 3, and 5). The four units were placed to sample historic artifact concentrations that also displayed artifact diversity and the potential for depositional integrity based on Phase II shovel testing.

TU-1 and its expansion, TU-2, were positioned to sample the north end of a north-to-south, elevated discard midden adjacent to survey shovel test T-51/8 and Phase II shovel test N500/E500. The high density (n=68) and diverse concentration of artifacts in the Phase II shovel test suggested that the rise is part of a discard midden containing domestic and architectural artifacts. These two units are discussed together. TU-3 was positioned near the south end of the north-to-south discard midden adjacent to Phase II shovel test N480/E500. This shovel test yielded a high and diverse concentration of 74 historic artifacts. An important goal of testing in this midden was to estimate the temporal span of discard behavior in this area.

TU-5 was positioned along the central southwestern elevation of the Old Clyburn-Joe Mungo house, adjacent to a collapsed, enclosed side porch and positive Phase II shovel test (N485/E510), which yielded a diverse concentration of artifacts (n=44). The unit's placement was to analyze refuse disposal, specifically house sweepings, as well as assess any architectural components of the adjacent porch. The limited materials collected may suggest that the enclosed porch contained an extension and stairs to the surface level, and possibly a prepared surface below (either a swept pathway or prepared dirt walkway).

14.5.2.1 Test Units 1 and 2

Level Excavation and Soil Stratification: TU-1 and 2 were excavated in six 10-cm arbitrary levels (Levels 1 through 6) with shovel test N500/E500 located 1.5 m west of TU-1's northeast corner. The unit datum was

established 10 cm above surface. Unit excavation was terminated at a depth of 70 cmbd. Both units contained two soil strata (Figure 14.10; Strata A and B). Stratum A is a dark grayish-brown (10YR 4/2) sandy loam that overlies Stratum B, a light yellowish-brown (10YR 6/4) sandy loam. In general, strata within TU-1 and TU-2 matched those of surrounding close-interval shovel tests on the elevated area/midden. Stratum A was present in Level 1 through the upper part of Level 4, with Stratum B revealed in the lower part of Level 4 between 45 to 50 cmbd across the two units.

Artifacts: A total of 859 artifacts was recovered from TU-1 (n=518) and TU-2 (n=341) (Table 14.4). Level 6 was sterile in both units; historic artifact density was highest in the upper two levels (TU-1, n=440; TU-2, n=256),then decreased in Level 3 (TU-1, n=63; TU-2, n=66). Level 5 yielded no historic artifacts, instead an increase in prehistoric lithics was observed in TU-2 at this level. The test unit inventory consists of lithic debitage (n=15) and a variety of historic materials (n=844).

Table 14.4 38LA640 Locus 1, Test Units 1 and 2 Artifact Inventory

Test Unit	1	1	1	1	1	1	2	2	2	2	2	2	
Level	1	2	3	4	5		1	2	3	4	5		**Grand**
Bag Number	60	61	62	63	64	**Total**	65	66	67	68	69	**Total**	**Total**
PREHISTORIC													
Lithic Reduction													
Thinning flake, metasiltstone				2		***2***							**2**
Reduction flake, quartz				1	1	***2***			1		1	***2***	**4**
metasiltstone											1	***1***	**1**
metasandstone											2	***2***	**2**
Flake fragment, quartz			1			***1***			2		3	***5***	**6**
Prehistoric Total			**1**	**3**	**1**	***5***			**3**		**7**	***10***	**15**
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain	19	15	1			***35***	5	10	7			***22***	**57**
polychrome								1				***1***	**1**
decal								1				***1***	**1**
Stoneware, Bristol slip								1				***1***	**1**
Hard Paste Porcelain, plain									1	2		***3***	**3**
Bottle glass, clear	23	12	9	1		***45***	20	60	10	1		***91***	**136**
clear, machine made	1	2				***3***		3	3			***6***	**9**
amber	2	1				***3***	1	2				***3***	**6**
aqua		1				***1***							**1**
aqua, machine made							2					***2***	**2**
green	1	1				***2***							**2**
green, machine made	1					***1***							**1**
light green				1		***1***				1		***1***	**2**
solarized	1	1				***2***			1			***1***	**3**
white opaque	1					***1***							**1**
Canning jar seal, white opaque			1			***1***							**1**
Canning jar lid, zinc									2			***2***	**2**
Bottle cap, "Crown"									1			***1***	**1**
Cap strainer, brass								1				***1***	**1**
Can, tin	20	25	5			***50***	7	20	4	2		***33***	**83**

Test Unit	1	1	1	1	1	1	2	2	2	2	2	2	
Level	1	2	3	4	5		1	2	3	4	5		**Grand**
Bag Number	60	61	62	63	64	**Total**	65	66	67	68	69	**Total**	**Total**
Kitchen/Subsistence													
Table glass, white opaque	1					***1***							**1**
Faunal, Bone		1	1			***2***	1	1	1			***3***	**5**
Tooth		1				***1***							**1**
Architectural/Structural													
Nail, cut	4	3	14	4		***25***	4	1	4	4		***13***	**38**
wire	4	4	2			***10***	8	7	2			***17***	**27**
unidentifiable	2					***2***							**2**
Bolt, iron									1			***1***	**1**
Coupling, iron									1			***1***	**1**
Brick fragment, machine made	6	17				***23***	3	10	1			***14***	**37**
unidentifiable	6	6	4			***16***	9	4	5			***18***	**34**
Mortar		2				***2***			1			***1***	**3**
Roofing shingle		10		1		***11***		3				***3***	**14**
Roofing tin								20				***20***	**20**
Wire, iron		2				***2***							**2**
Window glass	126	110	19	1		***256***	12	21	17			***50***	**306**
Furnishings/Appliances													
Stove part, iron								1				***1***	**1**
Figurine, porcelain								1				***1***	**1**
Lamp glass				2		***2***		5				***5***	**7**
Plate, brass									1			***1***	**1**
Weaponry													
Shell, brass 32 cal.										1		***1***	**1**
Clothing/Adornment													
Shoe, sole, rubber		1				***1***							**1**
heel, rubber	1					***1***		1				***1***	**2**
Button, porcelain										1		***1***	**1**
iron				1		***1***		1				***1***	**2**
Grommet/Eyelet, brass							1					***1***	**1**
Safety pin, brass		1				***1***							**1**
Bead, glass								1				***1***	**1**
Personal													
Token, aluminum								1				***1***	**1**
Single-edge Razor, aluminum								1				***1***	**1**
Tooth paste tube, aluminum	1					***1***							**1**
Activities													
Battery Rod		1				***1***							**1**
Marble, glass								1				***1***	**1**
Pencil Finial, brass							1					***1***	**1**
Agricultural													
Hand-held Garden Hoe, iron	1					***1***							**1**
Miscellaneous													
Unidentifiable, iron	1		1			***2***		3				***3***	**5**
white metal		1				***1***							**1**
rubber			5			***5***							**5**
Historic Total	**222**	**218**	**62**	**11**		***513***	**74**	**182**	**63**	**12**		***331***	**844**
GRAND TOTAL	**222**	**218**	**63**	**14**	**1**	***518***	**74**	**182**	**66**	**12**	**7**	***341***	**859**

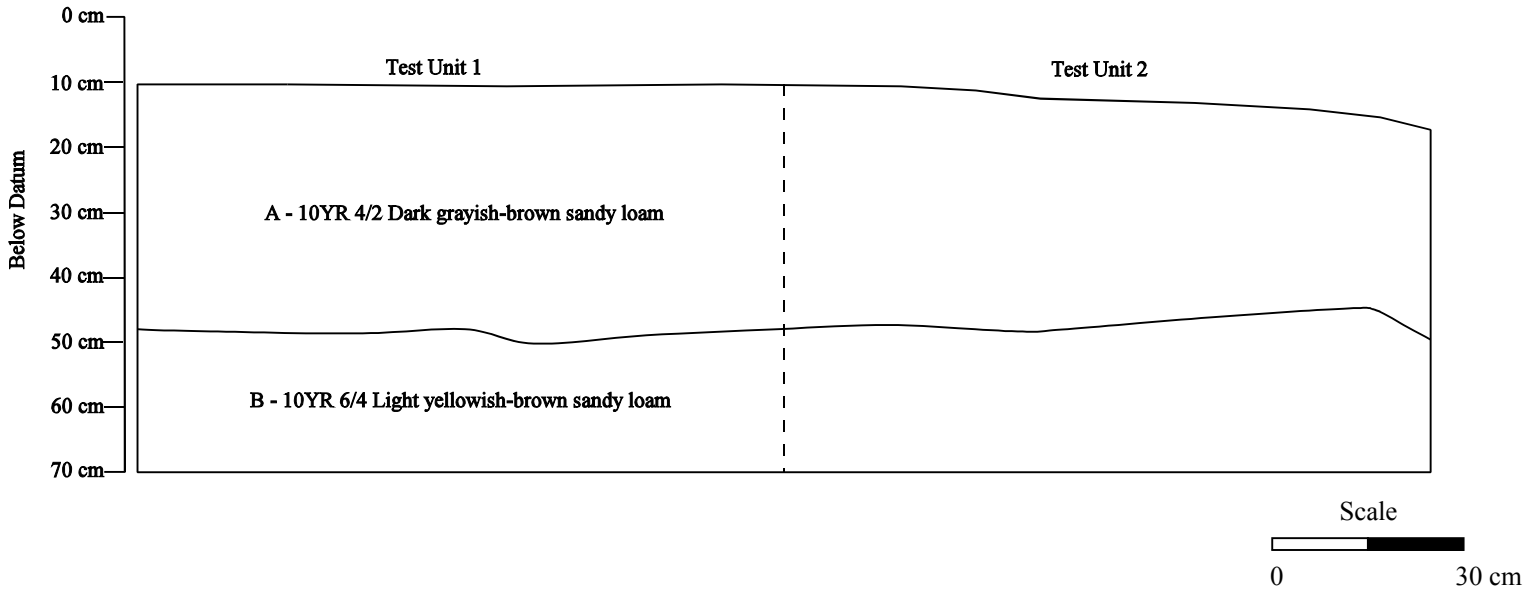


Figure 14.10 Site 38LA640, Test Units 1 and 2, West Profile

The debitage is composed of quartz (n=10), metasiltstone (n=3), and metasandstone (n=2). Reduction flakes (n=7) are most common, followed by flake fragments (n=6) and thinning flakes (n=2).

Historic artifacts were predominantly architectural/structural items (n=485; 57.5 percent), mostly window glass (n=306; 36.3 percent). Of this amount, the majority of the window glass originated from TU-1 (n=256). The dense concentration of window glass might suggest the exterior edge of a former structure. Concentrations could also be interpreted as a work space/area in the yard, or one of several historic dumping loci stretching across the landscape. Other architectural materials (from both test units) consist of nails (cut n=38; wire n=27), machine-made and unidentifiable brick fragments (n=71), mortar (n=3), roofing shingles (n=14), and roofing tin (n=20).

Other artifact classes represented in TU-1 and 2 include kitchen/subsistence materials (n=321; 38.0 percent). This class includes ceramics [plain (n=57), polychrome (n=1), and decal (n=1) whiteware; Bristol slip stoneware (n=1); plain hard-paste porcelain (n=3)], bottle glass [clear (n=136), clear machine made (n=9), amber (n=6), aqua (n=1), aqua machine-made (n=2), green (n=2), green machine-made (n=1), light green (n=2), solarized (n=3)], white opaque/milk glass (n=1), white opaque glass canning jar seal (n=1), zinc canning jar lid (n=2), crown bottle cap (n=1), brass cap strainer (n=1), tin can fragments (n=83), and white opaque table glass (n=1). Faunal remains (n=6; 0.7 percent) include one tooth and bones (n=5).

Furnishing/appliances numbered 10 items (1.2 percent) and include an iron stove part, a porcelain figurine, lamp glass (n=7), and a brass plate. The weaponry group (n=1; 0.1 percent) consists of a brass .32 caliber shell casing. The clothing/adornment class (n=9; 1.1 percent) included a rubber shoe sole, rubber shoe heels (n=2), a porcelain button, iron buttons (n=2), a brass grommet/eyelet, a brass safety pin, and a green glass bead. Personal items (n=3; 0.4 percent) include an aluminum Missouri Sales Tax token, an aluminum single edge razor, and an aluminum toothpaste tube. Activities class (n=3; 0.4 percent) includes a battery rod, one glass marble, and a brass pencil finial. The agricultural group item (n=1, 0.1 percent) was identified as a garden hoe part. The miscellaneous/unidentifiable iron class totaled 11 (1.3 percent) and contained unidentifiable iron (n=5), unidentifiable white metal (n=1), and unidentifiable rubber (n=5).

14.5.2.2 Test Unit 3

Level Excavation and Soil Stratification: TU-3 was excavated in five 10-cm arbitrary levels (Levels 1 through 5) with Phase II shovel test N480/E500 located 0.5 m east of the northeast corner of TU-3. The unit datum was established 10 cm above surface and excavation was terminated at a depth of 60 cmbd. The unit contained three soil strata (Figure 14.11; Strata A, B, and C). Stratum A is a black (7.5YR 2.5/1) sandy loam overlying Stratum B, a compact, dark grayish-brown (10YR 4/2) sandy loam. Stratum C is a light yellowish-brown (10YR 6/4) sandy loam. In general, strata within TU-3 matched those of surrounding close-interval shovel tests in the elevated discard area, but with thicker A and B strata. Stratum A was

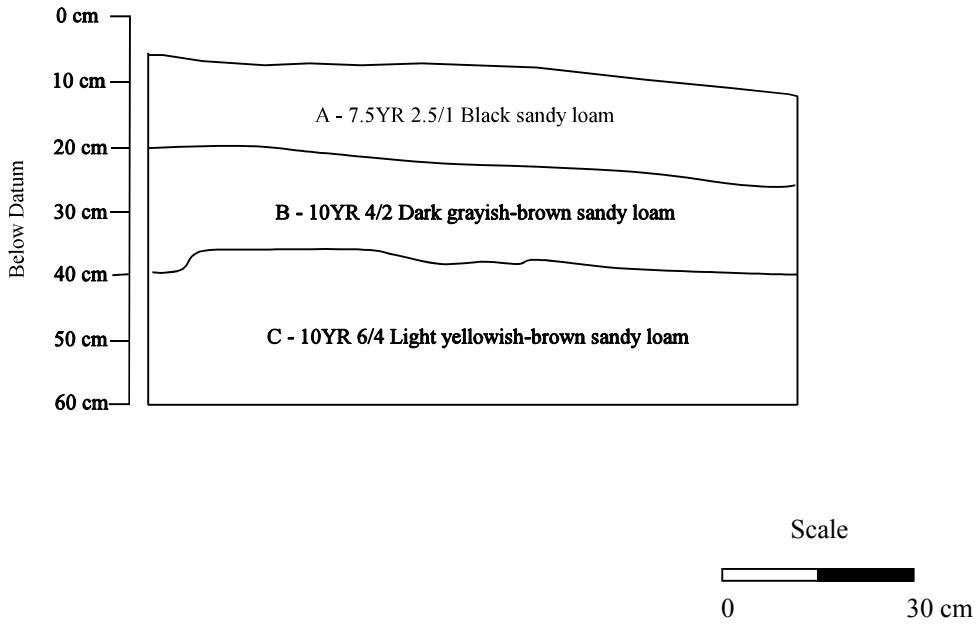


Figure 14.11 Site 38LA640, Test Unit 3, North Profile

present in Levels 1 and 2, extending to 25 cmbd in the east part of the unit. Stratum B appeared first at the top of Level 2 and continued to 40 cmbd. Stratum C was exposed near the bottom of Level 3 and extended to the base of the excavation.

Artifacts: A total of 421 artifacts was recovered from TU-3 (Table 14.5). Artifacts consist of quartz debitage (n=4) and historic materials (n=417). The debitage includes two reduction flakes and two flake fragments.

Table 14.5 38LA640 Locus 1, TU-3 Artifacts

Test Unit (TU)	3	3	3	
Level	1	2	3	
Bag Number	70	71	72	**Total**
PREHISTORIC				
Lithic Reduction				
Reduction flake, quartz		2		**2**
Flake fragment, quartz		2		**2**
Prehistoric Total		**4**		**4**
HISTORIC				
Kitchen/Subsistence				
Whiteware, plain	5	1		**6**
red and green sponged		1		**1**
green glazed	1			**1**
Ironstone, plain			1	**1**
Stoneware, salt glazed		1		**1**
unglazed/burnt		1		**1**
Bottle glass, clear	47	89	9	**145**
clear, machine made	2	4		**6**
amber	3	5		**8**
aqua	3	1		**4**
green		1		**1**
light green	1			**1**
olive green	1			**1**
solarized		2		**2**
white opaque		1		**1**
white opaque, machine made	1			**1**
Canning jar seal, white opaque		1		**1**
Bottle cap, iron		1		**1**
plastic	1			**1**
"Crown"	2		1	**3**
Can, tin	5	20		**25**
Table glass, depression, salmon		1		**1**
White opaque	1			**1**
Faunal, Bone		2	2	**4**
Tooth		2		**2**
Architectural/Structural				
Nail, cut	10	14	4	**28**
wire	29	23	9	**61**

Test Unit (TU)	3	3	3	
Level	1	2	3	
Bag Number	70	71	72	**Total**
unidentifiable	1	1		**2**
Washer, iron	1			**1**
Coupling, iron	1			**1**
Brick fragment, hand made				
machine made	1			**1**
Roofing shingle		1		**1**
Wire, copper		1		**1**
iron		1		**1**
Copper Wire, rubber insulated				
Electrical tape				
Electrical connector, brass	1			**1**
Window glass	31	43	5	**79**
Furnishings/Appliances				
Lamp glass	2		1	**3**
Pressure cap, water heater, iron	1			**1**
Weaponry				
Shell, brass 38 cal.		1		**1**
brass 22 cal.		1		**1**
Clothing/Adornment				
Button, shell		1		**1**
glass	1			**1**
Snap, brass	2	1		**3**
Strap adjuster, stainless steel		1		**1**
Personal				
Comb, plastic	1			**1**
Miscellaneous				
"O" Ring, iron	1			**1**
Strap/Band, iron	1			**1**
Unidentifiable, iron		1		**1**
lead		1		**1**
plastic	1			**1**
cellophane	1			**1**
Shell		1		**1**
Historic Total	**159**	**226**	**32**	**417**
GRAND TOTAL	**159**	**230**	**32**	**421**

Over half of the historic artifacts are assigned to the kitchen/subsistence category (n=214; 51.3 percent), of which clear bottle glass fragments (n=151; 70.5 percent) constitute the majority. Other bottle glass includes amber (n=8), aqua (n=4), green (n=1), light green (n=1), olive green (n=1), solarized (n=2), and white opaque (milk) (n=2). Historic ceramics in the category consist of plain (n=6), red and green sponged (n=1), and green-glazed whiteware (n=1); plain ironstone (n=1); and stoneware (salt-glazed ironstone, n=1; unglazed/ burnt, n=1). Other kitchen artifacts included one milk glass canning jar seal, bottle caps (iron, n=1; plastic, n=1; crown, n=3), tin can fragments (n=25), and table glass (salmon-colored Depression, n=1; milk, n=1). Faunal remains (n=6; 1.4 percent) consist of bone fragments (n=4) and teeth (n=2). As food bone, these are considered part of the kitchen/subsistence group but have been calculated separately.

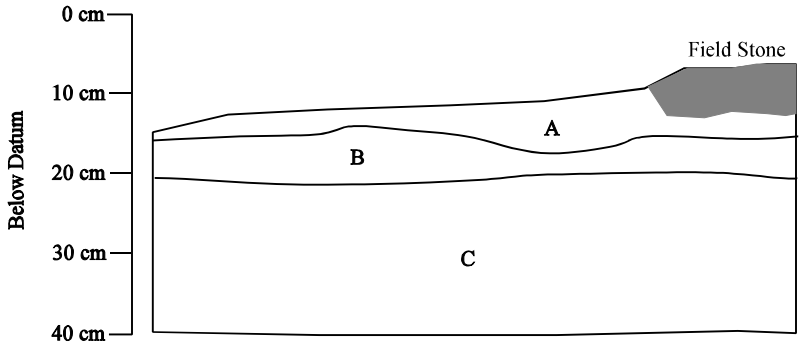
The architectural/structural artifacts (n=177; 42.4 percent of the historic total) include window glass (n=79) and nails (wire, n=61; cut nails, n=28; unidentifiable nails, n=2). Other architectural artifacts collected are a machine-made brick, a roofing shingle, one iron washer, an iron coupling, copper wire (n=1), iron wire (n=1), and a brass electrical connector. Because TU-3 is within a discard zone, these materials probably represent piled building debris instead of the in-place remains of a structure.

Other artifact groups represented in the unit assemblage include furnishing/appliances (n=4; 1.0 percent), represented by an iron pressure cap and three lamp glass fragments; weaponry (n=2; 0.5 percent) consisting of two brass shells (.38 and .22 caliber); clothing/adornment (n=6; 1.4 percent) including buttons (shell, n=1; glass, n=1), stainless steel strap adjuster (n=1), and brass snaps (n=3); personal (n=1; 0.3 percent), a plastic comb; and miscellaneous/unidentifiable items (n=7; 1.7 percent) which includes iron (n=3), lead (n=1), plastic (n=1), cellophane (n=1), and shell (n=1).

14.5.2.3 Test Unit 5

Level Excavation and Soil Stratification: TU-5 was excavated in one natural and two 10-cm arbitrary levels (Levels 1 through 3). The unit datum was established 10 cm above surface in the northeast corner, and excavation was terminated at a depth of 40 cmbd. Because of large roots and disarticulated foundation stones, Level 1 was excavated as a natural level to 20 cmbd. The unit contained three soil strata (Figure 14.12; Strata A, B, and C). Stratum A is a dark grayish-brown (10YR4/2) loamy sand overlying Stratum B, a thin, compact, strong brown (7.5YR 5/6) loamy sand. Stratum C is a yellowish-brown (10YR 5/6) loamy sand. In general, strata within TU-5 matched those of surrounding close-interval shovel tests adjacent to the house. All of the surrounding shovel tests showed a compact, strong brown (7.5YR 5/6) loamy sand horizon. Stratum A was present in Level 1 to a depth of 17 cmbd. Stratum B continued to 20 cmbd in the majority of the unit, while Stratum C was present from 20 cmbd to the base of the excavation.

Artifacts: Forty-six artifacts were recovered from TU-5 (Table 14.6). Artifacts consist of prehistoric lithics (n=3) and historic materials (n=43). Prehistoric artifacts include one quartz, early stage biface and quartz



A - 10YR 4/2 Dark grayish-brown loamy sand with heavy root disturbance
B - 7.5YR 5/6 Strong brown loamy sand possible prepared surface
C - 10YR 5/6 Yellowish-brown loamy sand

Scale

0 30 cm

Figure 14.12 Site 38LA640, Test Unit 5, North Profile

flake fragments (n=2). These artifacts were recovered from Level 3.

Over half of the historic artifacts are assigned to the architectural/structural group (n=23; 53.5 percent) and include window glass (n=7), nails (wire, n=11; cut, n=2; unidentifiable, n=1), one unidentifiable brick fragment, and one iron washer. The kitchen/ subsistence group (n=15; 34.9 percent) contains clear bottle glass (n=14) and one fragment of white, opaque (milk) glass. One maxillary bone fragment with an intact molar (2.3 percent of the historic total) from a pig is considered a food byproduct.

Other artifact classes represented in the TU-5 assemblage include activities (n=2; 4.6 percent) represented by an iron file and a glass marble; agricultural (n=1; 2.3 percent); an iron garden trowel; and miscellaneous/unidentifiable iron (n=1; 2.3 percent), an iron cap/cover. Of the 43 historic artifacts retrieved from TU-5, 42 came from Levels 1 and 2.

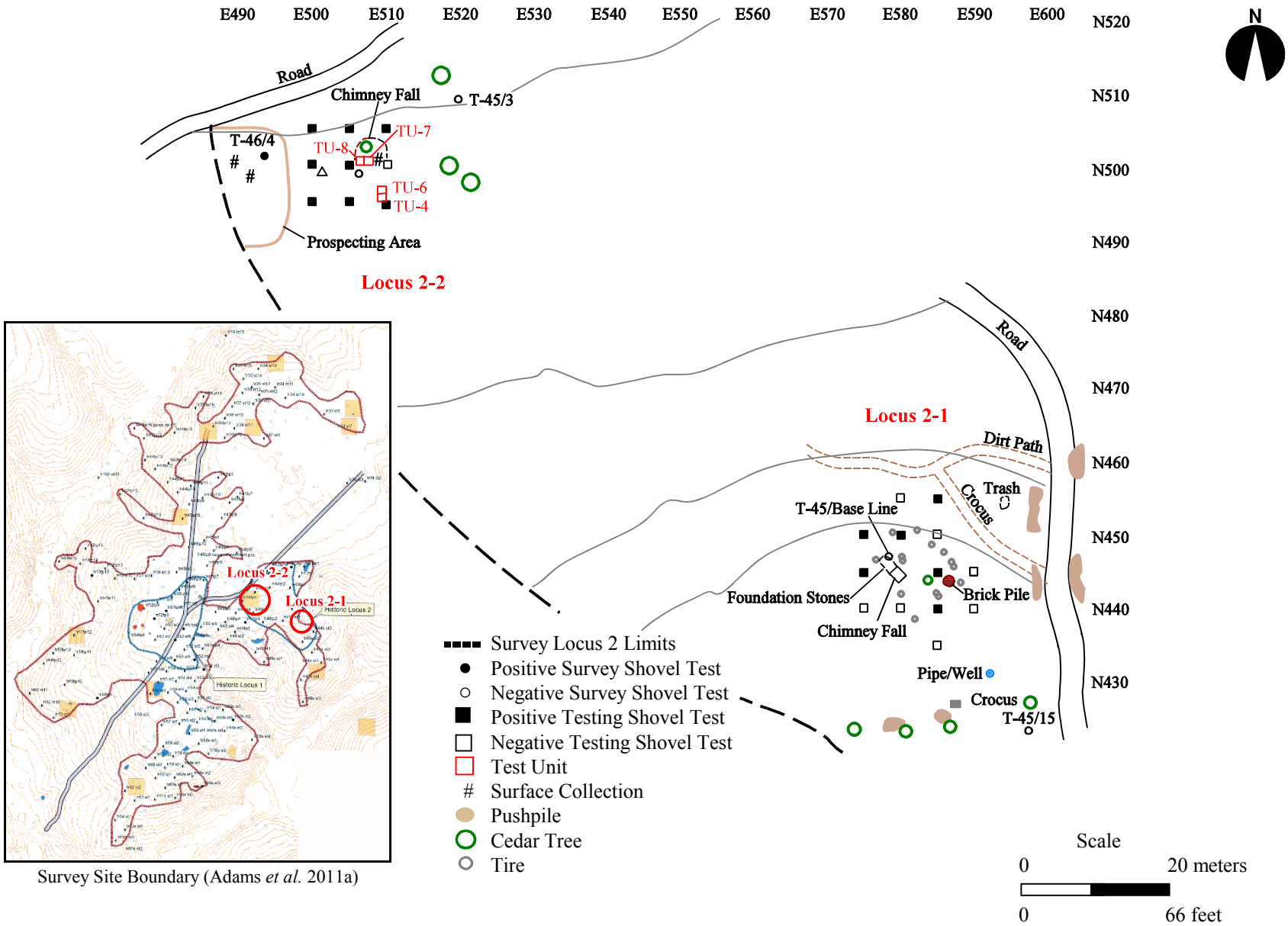
Table 14.6 38LA640 Locus 1, TU-5 Artifacts

Test Unit	5	5	5	
Level	1	2	3	
Bag Number	113	114	115	**Total**
PREHISTORIC				
Lithic Reduction				
Flake fragment, quartz			2	**2**
Core/Biface Manufacture				
Early Stage Biface, quartz			1	**1**
Prehistoric Total			3	**3**
HISTORIC				
Kitchen/Subsistence				
Bottle glass, clear	13	1		**14**
white opaque	1			**1**
Faunal, Maxilla fragment (pig)	1			**1**
Architectural/Structural				
Nail, cut	1		1	**2**
wire	9	2		**11**
unidentifiable		1		**1**
Washer, iron	1			**1**
Brick fragment, unidentifiable		1		**1**
Window glass	7			**7**
Activities				
File, iron	1			**1**
Marble, glass	1			**1**
Agricultural				
Garden trowel, iron		1		**1**
Miscellaneous				
Unidentifiable cap/cover, iron		1		**1**
Historic Total	**35**	**7**	**1**	**43**
GRAND TOTAL	**35**	**7**	**4**	**46**

14.5.3 Loci 2-1 and 2-2 Close-grid Shovel Testing and Surface Collections

Background: Locus 2 includes the areas of two chimney falls (Figure 14.13). The first area, designated here as Locus 2-1, was identified by Adams *et al.* (2011a:126) as containing a modern brick chimney fall and associated structural debris (Figure 14.14). The second chimney fall, called Locus 2-2, was located during the Phase II efforts. This chimney fall is approximately 15 m west of survey shovel test T-45/3 which produced 10 historic artifacts, consisting of cut and wire nails and 19th century ceramics. The Locus 2-2 chimney fall is located 90 m northwest of Locus 2-1 and contains an extant field stone hearth foundation, older historic brick, and some handmade brick. Due to the distance between the two areas, they will be discussed separately as Loci 2-1 and 2-2.

Locus 2-1: Thirteen shovel tests were excavated, with six yielding a total of 46 artifacts (four prehistoric and 42 historic) (Figure 14.15; Table 14.7). The prehistoric materials consist of quartz lithic debitage (n=4) made up of a thinning flake, one reduction flake, and flake fragments (n=2). Historic artifacts include bottle glass



Survey Site Boundary (Adams *et al.* 2011a)

Figure 14.13 Site 38LA640 Plan Map, Locus 2

Brick Chimney Pile and Stones, Facing Northwest

Discard Area with Tires, Facing South

Figure 14.14 Selected Views of 38LA640, Locus 2-1

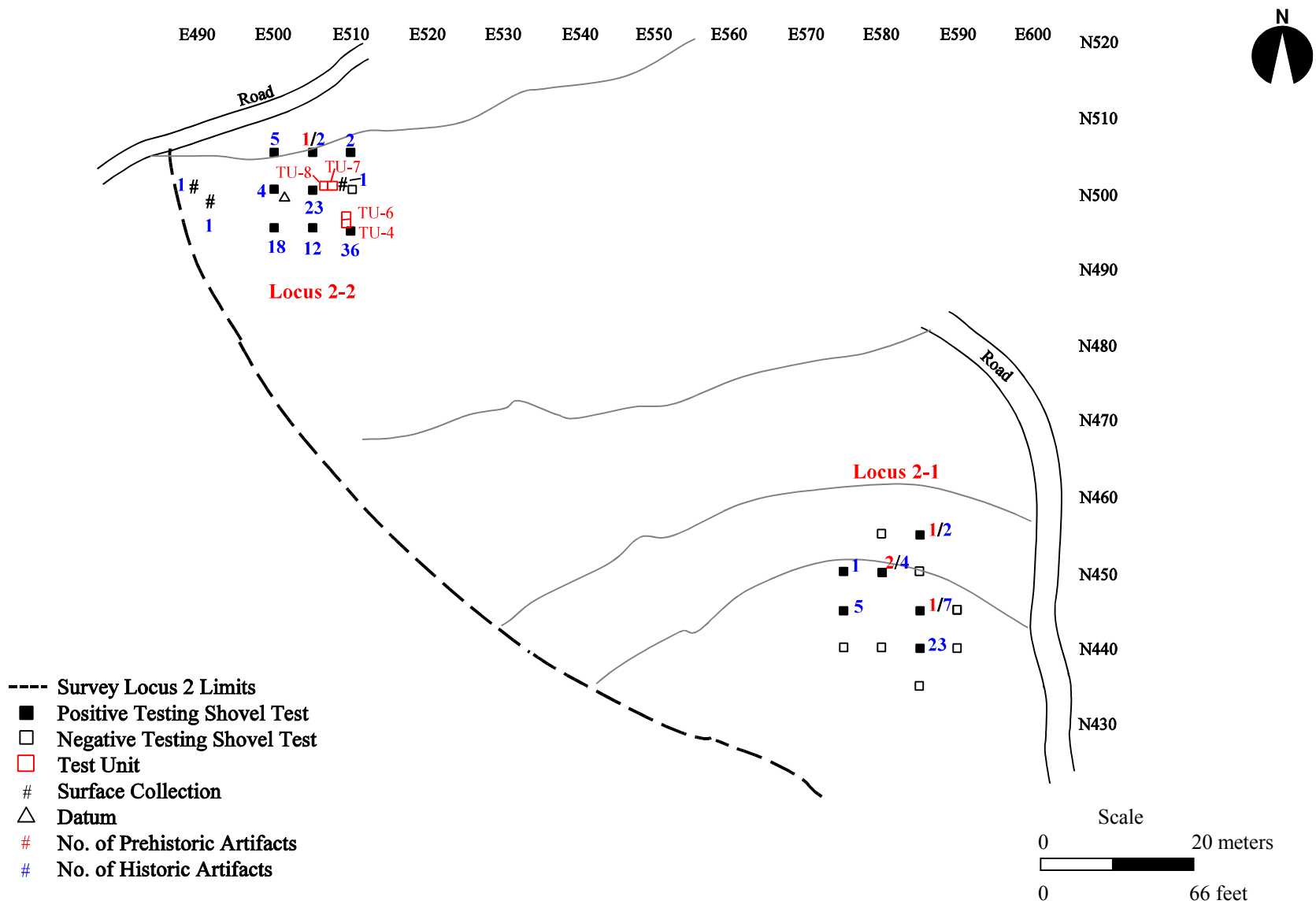


Figure 14.15 Site 38LA640 Density Map, Locus 2

(n=12), tin can fragments (n=16), wire nails (n=6), and iron screw, an iron bolt, iron washers (n=2), one iron hinge, one piece of window glass, a caster, and one piece of unidentifiable white metal.

Table 14.7 38LA640 Locus 2-1, Artifact Inventory, Close-grid Shovel Tests

North Coordinates	440	445	445	450	450	455	
East Coordinates	585	575	585	575	580	585	**Total**
PREHISTORIC							
Lithic Reduction							
Thinning flake, quartz					1		**1**
Reduction flake, quartz					1		**1**
Flake fragment, quartz			1			1	**2**
Prehistoric Total			**1**		**2**	**1**	**4**
HISTORIC							
Kitchen/Subsistence							
Bottle glass, clear	7						**7**
green		5					**5**
Can, tin	9		7				**16**
Architectural/Structural							
Nail, wire				1	4	1	**6**
Screw, iron	1						**1**
Bolt, iron	1						**1**
Washer, iron	2						**2**
Hinge, iron	1						**1**
Window glass						1	**1**
Furnishings/Appliances							
Caster	1						**1**
Miscellaneous							
Unidentifiable, white metal	1						**1**
Historic Total	**23**	**5**	**7**	**1**	**4**	**2**	**42**
GRAND TOTAL	**23**	**5**	**8**	**1**	**6**	**3**	**46**

Shovel test artifacts were found only in the plowzone and at the plowzone-subsoil interface. Prehistoric artifacts were recovered from Level 2 only, while historic artifacts were found in Levels 1 and 2 with the highest density in Level 1 (Tables 14.8 and 14.9). The artifact density map shows clustering of middle 20th century domestic and architectural materials at shovel test N440/E485 (n=23) (Figure 14.15). No other concentrations of artifacts were noted.

Table 14.8 38LA640 Locus 2-1 Prehistoric Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinates	445	450	455	
East Coordinates	585	580	585	**Total**
Excavation Levels				
Level 1 (0-10 cm)				
Level 2 (10-20 cm)	1	2	1	**4**
Total	**1**	**2**	**1**	**4**

Foundation stones were observed and recorded east and southeast of the chimney fall, forming a small ell-shaped outline. Historic ornamental vegetation in this area includes yellow crocuses and cedars. Other structural features on the landscape include the remnant of a chicken coop, two 50-gallon drums, three trash dumps consisting of glass bottles and tin cans, a collection of tires, enamel wash tubs, an exposed pipe/drilled well, bed springs, and the hood and steel bumper of a 1960s Chevy. Pushpiles line the road to the east along the southern boundary of the Locus 2-1 house site.

Table 14.9 38LA640 Locus 2-1 Historic Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinates	440	445	445	450	450	455	
East Coordinates	585	575	585	575	580	585	**Total**
Excavation Levels							
Level 1 (0-10 cm)	23		4		4		**31**
Level 2 (10-20 cm)		5	3	1		2	**11**
Total	**23**	**5**	**7**	**1**	**4**	**2**	**42**

The shovel test artifact sample and the debris across the landscape indicate a middle to late 20th century occupation. Ms. Love and Ms. Crawford both stated that several of Joe and Ellen Mungo's sons built small houses on the property in the middle 20th century. Ms. Crawford also noted that the houses had been moved to other locations outside the study tract. Locus 2-1 may be the original location of one of these

houses All artifacts were recovered from the upper 20 cmbs and no intact or potential cultural features were identified during the shovel test excavations. Because of the recent/modern nature of the materials recovered and observed, no test units were excavated at Locus 2-1.

Locus 2-2: At Locus 2 , artifacts were recovered through close-grid shovel testing and surface collections in exposed areas around the second chimney fall (Figure 14.16).

Close-grid Shovel Testing: Nine shovel tests were excavated with eight yielding a total of 103 artifacts: one prehistoric, 102 historic (Figure 14.16; Table 14.10). The prehistoric item is a metasandstone flake fragment taken from 20 to 30 cmbs (Table 14.11).

Table 14.10 38LA640 Locus 2-2, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	495	495	495	500	500	505	505	505	498	500	501.5	
East Coordinate	500	505	510	500	505	500	505	510	492	490	508	
Surface Collection (SC)									SC	SC	SC	**Total**
PREHISTORIC												
Lithic Reduction												
Flake fragment, metasandstone							1					**1**
Prehistoric Total							1					**1**
HISTORIC												
Kitchen/Subsistence												
Whiteware, plain	2	1	3									**6**
blue edged			1									**1**
mulberry transfer print			1									**1**
decal			1									**1**
Stoneware, Albany slip									1			**1**
Bottle glass, clear	1	2	4		6	1						**14**
amber			1									**1**
light green			1									**1**
cobalt blue, machine made										1		**1**
solarized	3		6									**9**
white opaque, machine made	1											**1**
Canning jar seal, white opaque	1											**1**
Canning jar lid, zinc	1											**1**
Can, tin					2							**2**
Architectural/Structural												
Nail, cut	2		2		1	1	1					**7**
Washer, machine made			2		3							**5**
unidentifiable	2	1		4	5							**12**
Mortar					4							**4**
Window glass	4	8	12			2		1				**27**
Clothing/Adornment												
Button, rubber					2							**2**
Personal												
Snuff can lid, tin	1											**1**

Chimney Fall, Facing North

Figure 14.16 Selected View of 38LA640, Locus 2-2

Table 14.10 continued

North Coordinate	495	495	495	500	500	505	505	505	498	500	501.5	
East Coordinate	500	505	510	500	505	500	505	510	492	490	508	
Surface Collection (SC)									SC	SC	SC	**Total**
Activities												
Marble, glass							1					**1**
Agricultural												
Plow share, iron											1	**1**
Miscellaneous												
Unidentifiable, iron			2			1		1				**4**
Historic Total	**18**	**12**	**36**	**4**	**23**	**5**	**2**	**2**	**1**	**1**	**1**	**105**
GRAND TOTAL	**18**	**12**	**36**	**4**	**23**	**5**	**3**	**2**	**1**	**1**	**1**	**106**

Table 14.11 38LA640 Locus 2-2, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinates	495	495	495	500	500	505	505	505	
East Coordinates	500	505	510	500	505	500	505	510	**Total**
Excavation Level									
Level 1 (0-10 cm)	9	5	4	4	18		1	2	**43**
Level 2 (10-20 cm)	6	4	13		4	5			**32**
Level 3 (20-30 cm)	3	3	9				1/1		**1/16**
Level 4 (30-40 cm)			10						**10**
Level 5 (40-50 cm)					1				**1**
Total	**18**	**12**	**36**	**4**	**23**	**5**	**1/1**	**2**	**1/102**

Prehistoric Artifacts/Historic Artifacts

Historic artifacts include kitchen/ subsistence and kitchen activities-related artifacts (n=39; 38.2 percent), architectural/ structural (n=55; 53.9 percent), personal (n=1; 1.0 percent), clothing/adornment (n=2; 2.0 percent), activities (n= 1; 1.0 percent), and miscellaneous/unidentifiable iron (n=4; 3.9 percent). Specifically, the kitchen/subsistence group artifacts include whiteware (plain, n=6; blue-edged, n=1; mulberry transfer print, n=1; decal, n=1), bottle glass (clear, n=14; amber, n=1; light green, n=1; solarized, n=9), one white opaque (milk) glass canning jar seal, one zinc canning jar lid, and tin can fragments (n=2). Architectural/structural artifacts consist of cut nails (n=7), machine-made washers (n=5), unidentifiable washers (n=12), mortar samples (n=4), and window glass (n=27). The clothing group consists of two plastic button fragments, while the personal item is a tin snuff can lid (n=1). A glass marble represents the activities group and unidentifiable iron (n=4) constitutes the miscellaneous group.

Levels 1 (n=43) and 2 (n=32) produced 73.5 percent of the shovel test artifacts (Table 14.11); five of the eight positive shovel tests yielded historic artifacts at 10 to 20 cmbs. The shovel test artifact density distribution map shows concentrations of historic artifacts at shovel tests N495/E500 (n=18), N495/E505 (n=12), N495/E510 (n=36), and N500/E505 (n=23). At shovel test location N495/E510, a rectangular, dark grayish-brown soil discoloration within the yellowish-brown sand matrix was observed in Level 4. This rectangular feature continued to 60 cmbs and did not have the loose organic content typical of a historic tree root. Thirty-six artifacts were recovered from Levels 1 through 4 at this shovel test station. In Level 4 within the discolored area the following items were recovered: whiteware (plain, n=1; blue-edged, n=1; mulberry transfer-print, n=1; decal, n=1), solarized bottle glass (n=2), a cut nail, and window glass (n=3). These artifacts date from the mid to late 19th century.

Surface Collections: Three historic artifacts were collected from the surface of Locus 2-2. These include one Albany slip stoneware sherd, one cobalt blue bottle glass fragment, and one iron plowshare.

14.5.4 Locus 2-2 Test Unit Excavations

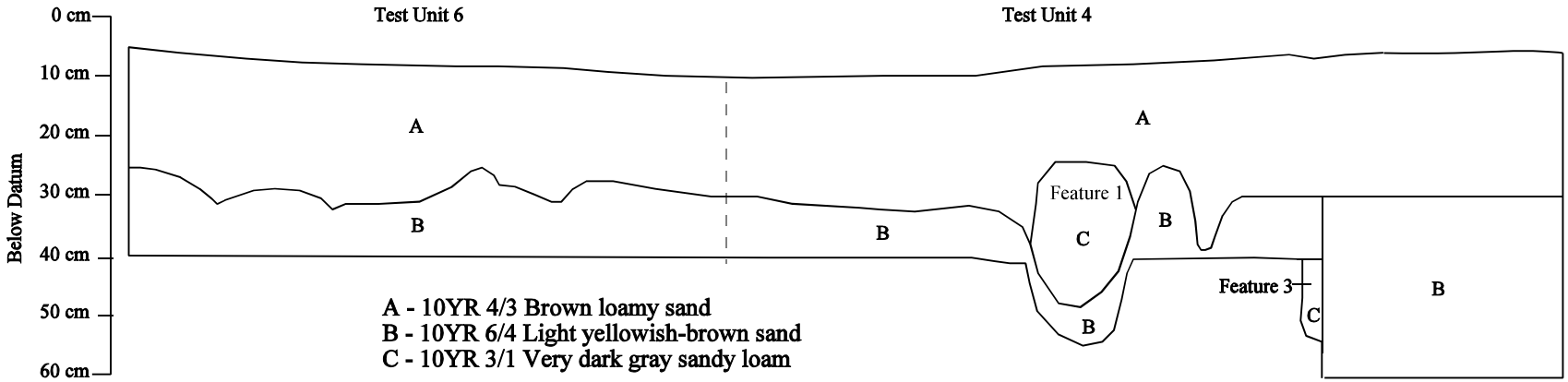
Four 1-by-1-m test units were excavated at Locus 2-2 to sample areas of the site where shovel testing data indicated high artifact density/diversity, and at one location a structural feature (Figures 14.13 and 14.15; TU-4, TU-6, TU-7, and TU-8). TU-4 and 6 were positioned near Phase II shovel test N495/E510, which contained a possible post feature at 40 cmbs and 19th century kitchen and architectural materials. TU-7 and TU-8 were placed south and west of the southwest corner of the brick hearth to search for additional structural features and to sample the presumed interior of the structure.

14.5.4.1 Test Units 4 and 6 (Features 1, 2 and 3)

Level/Feature Excavation and Soil Stratification: TU-4 was placed north of shovel test N495/E510 and exposed two historic post features. The southeast corner of the unit was expanded southward (50 by 50 cm) to encompass the possible feature encountered during shovel testing. In addition, TU-4 was expanded northward 1.0 m, creating TU-6. The testing datum was established at the northeast corner of TU-4, 10 cm above surface. The units were excavated in one partial and three complete arbitrary 10-cm levels. Excavations in TU-4 and TU-6 were terminated at 40 cmbd.

The TU-4 and TU-6 soil matrix exhibited two soil strata (Figure 14.17; Strata A and B). Stratum A is a brown (10YR4/3) loamy sand overlying Stratum B, a light yellowish-brown (10YR 6/4) loamy sand. Soils in the post features were identified as Stratum C, a very dark gray (10YR 3/1) sandy loam. In general, strata within TU-4 and TU-6 matched those of surrounding close-interval shovel tests. Stratum A was present in Levels 1 and 2 extending to 32 cmbd in some areas. Stratum B was first observed in Level 2 and continued to 40 cmbd where unit matrix excavation was terminated.

Feature 1: Feature 1 was identified as a historic post hole located along the east wall of TU-4. The feature was first noted at 25 cmbd as a very dark gray (10YR 3/1) sandy loam and was excavated to 50 cmbd; the profile shows feature fill extending to 45 cmbd (Figures 14.17 and 14.18). In plan view the feature is about 25 cm north-south and extends from the unit wall 20 cm. The east profile shows a rounded base with generally straight sides. An irregular mound and dip of the unit matrix (Statum B) is visible in the profile south of the feature and shows the post hole excavation technique The upper 5 cm of feature fill (25 and 30 cmbd) yielded 12 artifacts consisting of plain whiteware (n=1), machine-made brick fragments (n=2), unidentifiable brick (n=5), and window glass (n=4).



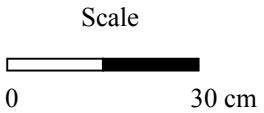
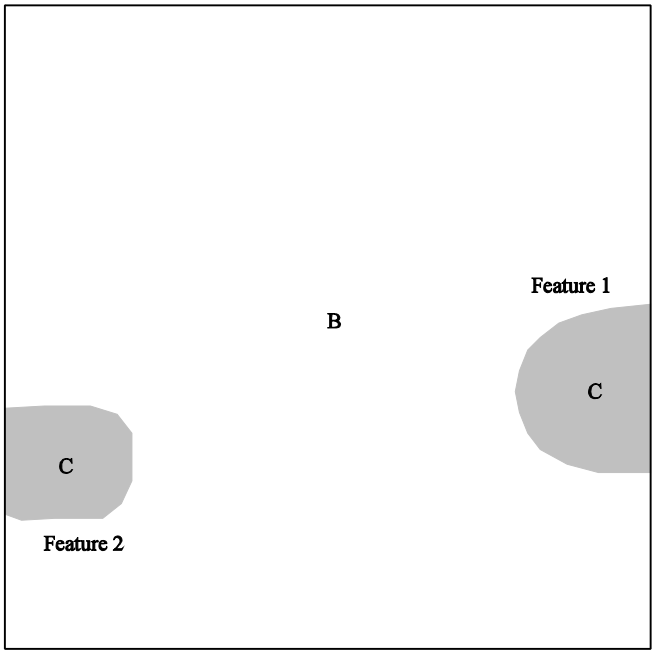


Figure 14.17 Site 38LA640, Test Units 4 and 6, East Profile



B - Matrix - 10YR 6/4 Light yellowish-brown sandy loam
C - 10YR 3/1 Very dark gray sandy loam with minor root disturbance

Scale

Figure 14.18 Site 38LA640, Test Unit 4, Features 1 and 2

Feature 2: Feature 2 was a rectangular discoloration of very dark gray (10YR 3/1) sandy loam that was first observed at 28 cmbd along the west wall of TU-4 (Figure 14.18). Dimensions were 18 cm north-south and the stain extends east from the unit wall 20 cm. The feature was excavated to 47 cmbd. No artifacts were recovered. Based on its rectangular form and opening/closing elevations compared to Feature 1, Feature 2 was determined to be a historic post hole.

Feature 3: Feature 3 was the possible post hole identified in shovel test N495/E510 (Figure 14.19). When the southeast corner of TU-4 was extended to encompass this shovel test, a distinct area of black (10YR 2/1) sandy loam was identified at 27 cmbd and excavated to 55 cmbd. The feature was rectangular, measuring 40 cm northeast-southwest by 20 cm. The feature appears to encompass the hole excavated for a large post or beam. Six artifacts were recovered from feature fill at 30 and 40 cmbd: plain whiteware (n=1), clear (n=1) and blue (n=1) bottle glass, unidentifiable brick (n=1), window glass (n=1), and bone (n=1).

Artifacts: A total of 213 artifacts was recovered from TU-4, TU-6, and Features 1 and 3 (Table 14.12); Feature 2 was sterile. Artifacts consist of lithic debitage (n=3) and historic materials (n=210). Prehistoric artifacts include quartz flake fragments (n=3) retrieved from TU-4, Levels 2 (n=2) and 3 (n=1).

Over half of the historic artifacts are in the kitchen/subsistence group (n=109; 51.9 percent) which includes whiteware (plain, n=17; decal, n=3), plain ironstone (n=9), Albany slip stoneware (n=2), bottle glass (clear, n=23; amber bottle, n=8; aqua, n=9; light green, n=6; solarized, n=11; white opaque, n=1), milk glass canning jar seals (n=2), and tin can fragments (n=14). One butchered bone fragment (0.5 percent), presumably from a cut of meat, was also recovered. Architectural/structural artifacts (n=93; 44.3 percent) consist of nails (cut, n=14; wire, n=7), iron screw (n=1), semi-vitreous tile (n=1), brick (machine made, n=2; unidentifiable, n=21), mortar (n=7), and window glass (n=40). The weaponry group is represented by a single brass 0.38 caliber shell casing (0.5 percent) and the clothing/adornment group by one brass grommet/eyelet (0.5 percent). Unidentifiable iron (n=2) and plastic (n=3) constitute the miscellaneous artifact class (n=5; 2.3 percent).

14.4.4.2 Test Units 7 and 8 (Features 4 and 5)

Level/Feature Excavation, and Soil Stratification: TU-7 and TU-8 form a 1 by 2 m unit, but were excavated separately. The units shared the datum established at TU-7's northeast corner, 10 cm above surface. Both units were excavated in an initial partial level to flatten the unit surface at the top of Level 2, followed by excavation of three arbitrary 10-cm levels. Unit matrix excavation was terminated at 70 cmbd, while the excavations of features extended to 92 to 101 cmbd. The unit matrix contained two soil strata (Figure 14.20; Strata A and B) with the feature soils marked separately. Stratum A is a very dark gray (10YR 3/1) loamy sand overlying Stratum B, a light yellowish-brown (10YR 6/4) loamy sand. Feature soils identified as Strata C and D loamy sand are discussed below. In general, strata within TU-7 and TU-8 matched those of

B - 10YR 6/4 Light yellowish-brown sandy loam
D - 10YR 2/1 Black sandy loam

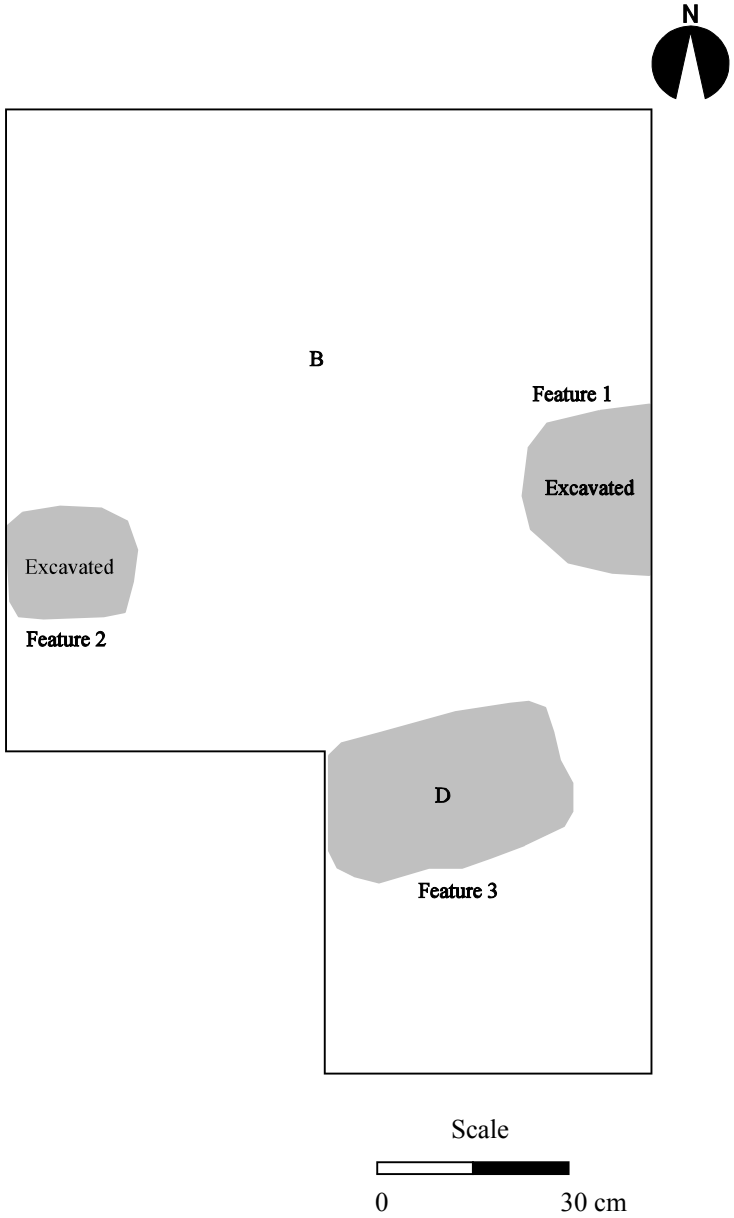


Figure 14.19 Site 38LA640, Test Unit 4, Feature 3 Plan View

Table 14.12 38LA640 Locus 2, TU-4 and TU-6 Artifacts

Test Unit (TU)	4	4	4	4	4	4	6	6	6	
Level	1	2	3	2	3		1	2		
Feature				1	3					**GRAND**
Bag Number	116	117	118	119	120	**Total**	121	122	**Total**	**TOTAL**
PREHISTORIC										
Lithic Reduction										
Flake fragment, quartz		2	1			***3***				**3**
Prehistoric Total		**2**	**1**			***3***				**3**
HISTORIC										
Kitchen/Subsistence										
Whiteware, plain	3	4		1	1	***9***	6	4	***10***	**19**
decal		1				***1***	2		***2***	**3**
Ironstone, plain	1	7				***8***		1	***1***	**9**
Stoneware, Albany slip		2				***2***				**2**
Bottle glass, clear	4	5	2		1	***12***	8	4	***12***	**24**
amber		2				***2***	5	1	***6***	**8**
aqua	2	2				***4***	2	1	***3***	**7**
aqua, machine made							2		***2***	**2**
light green		3				***3***	2	1	***3***	**6**
blue					1	***1***				**1**
solarized	1	3				***4***	3	4	***7***	**11**
white opaque	1					***1***				**1**
Canning jar seal, white opaque	2					***2***				**2**
Can, tin	4	3	1			***8***	6		***6***	**14**
Bone					1	***1***				**1**
Architectural/Structural										
Nail, cut	3	2	1			***6***	8		***8***	**14**
wire							7		***7***	**7**
Screw, iron							1		***1***	**1**
Tile, semivitreous							1		***1***	**1**
Brick fragment, hand made										
machine made				2		***2***				**2**
unidentifiable		1	4	5	1	***11***	10		***10***	**21**
Mortar	3					***3***	4		***4***	**7**
Window glass	7	10	1	4	1	***23***	13	4	***17***	**40**
Weaponry										
Shell, brass 38 cal.							1		***1***	**1**
Clothing/Adornment										
Grommet/Eyelet, brass							1		***1***	**1**
Miscellaneous										
Unidentifiable, iron	2					***2***				**2**
plastic		3				***3***				**3**
Historic Total	**33**	**48**	**9**	**12**	**6**	***108***	**82**	**20**	***102***	**210**
GRAND TOTAL	**33**	**50**	**10**	**12**	**6**	***111***	**82**	**20**	***102***	**213**

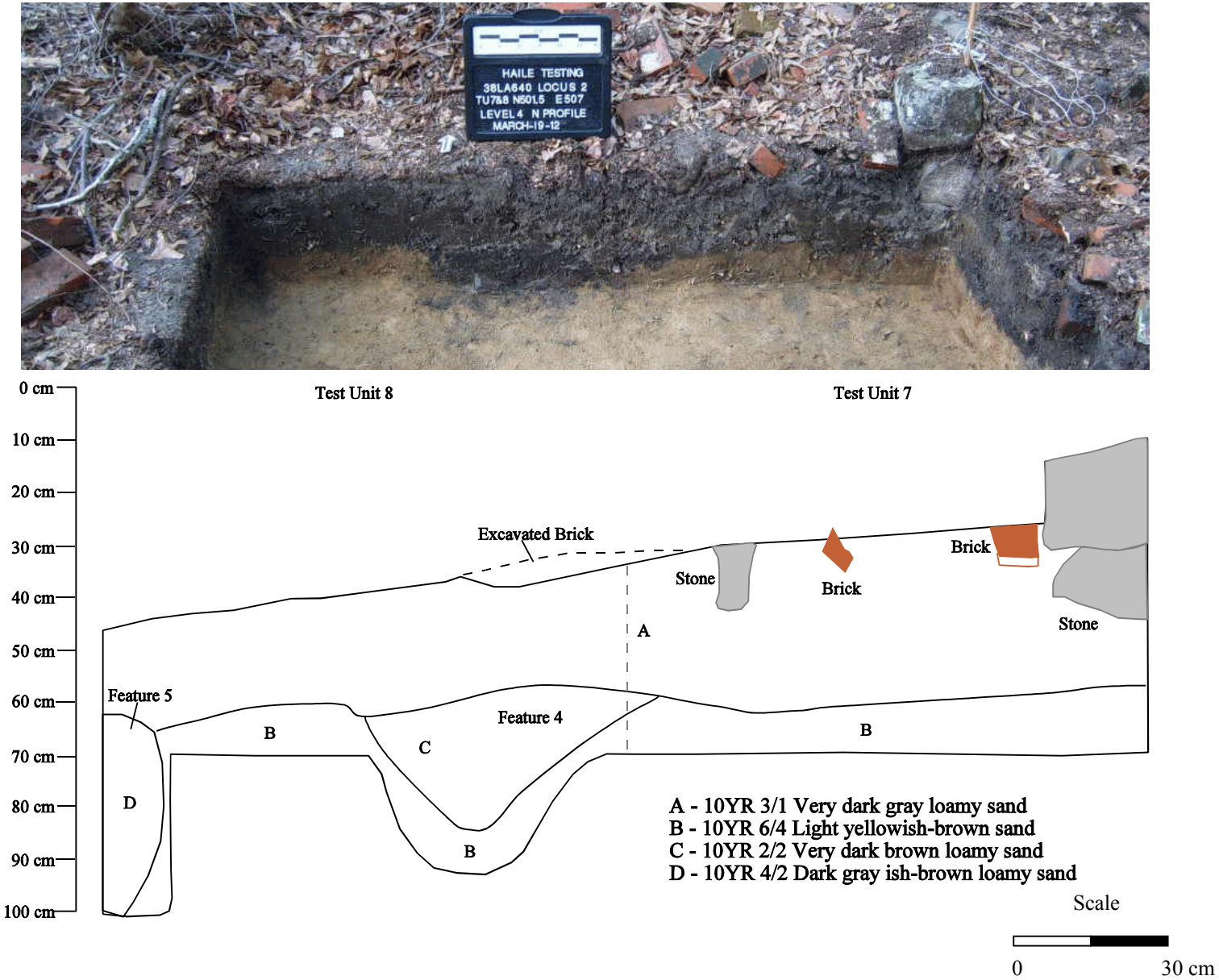


Figure 14.20 Site 38LA640, Test Units 7 and 8, North Profile

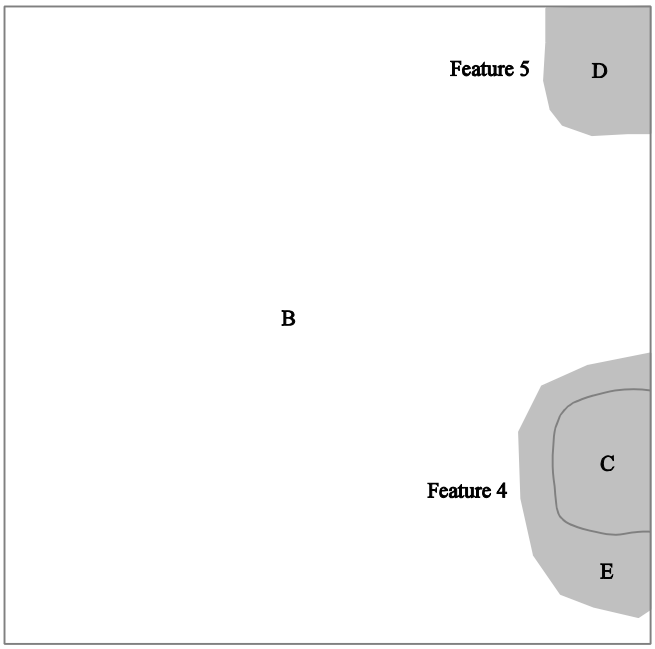
surrounding close-interval shovel tests. Stratum A was present in Levels 1 through 3 extending to 63 cmbd in some areas closest to the features, with Stratum B appearing in some areas at 55 cmbd and continuing to the floor of the units at 70 cmbd.

Feature 4: Feature 4 was identified as a post hole located along the north wall of TU-8 (Figures 14.20 and 14.21). The feature was first noted at 55 cmbd as a rounded stain of very dark brown (10YR 2/2) loamy sand with an outside ring of brown (10YR 4/3) loamy sand. The feature was excavated to 83 cmbd. Excavation continued into the matrix (Stratum B) to a depth of 92 cmbd. In plan view the interior of the feature is about 20 cm north-south, with the exterior ring, it is about 54 cmbd. The feature extends about 20 cm south from the north wall of the unit. The north profile shows a convex base with widely angled sides. This configuration may be related to the excavation of a larger hole for insertion of the post. Four unidentifiable brick fragments were recovered from the feature.

Feature 5: Feature 5 is a second possible post hole situated in the northwest corner of TU-8 (Figures 14.20 and 14.21). At about 63 cmbd the feature was recognized as a roughly rectangular discoloration of dark grayish-brown (10YR 4/2) loamy sand; it was excavated to 101 cmbd. The visible plan of Feature 5 measures 20 by 16 cm. In profile, it appears to be broad at the top with a tapered base. No artifacts were found in the feature fill.

Artifacts: A total of 190 artifacts was recovered from TU-7, TU-8, and Feature 4 (Table 14.13). Feature 5 was sterile. Artifacts consist of lithic debitage (n=1) and historic items (n=189). The prehistoric artifact is a metasandstone reduction flake (n=1) retrieved from TU-8, Level 4.

As would be expected in or immediately adjacent to the structure, architectural/structural artifacts (n=120; 63.5 percent) comprise the majority of the historic inventory. This group includes nails (cut, n=22; wire, n=5; unidentifiable, n=23), bricks (machine-made, n=5; unidentifiable, n=4), mortar samples (n=2), and window glass (n=59). The kitchen/subsistence artifacts (n=54; 28.6 percent) consist of plain whiteware (n=4), bottle glass (clear, n=20; amber, n=3, aqua, n=9; light green, n=4; cobalt blue, n=1; solarized, n=2), milk glass canning jar seal (n=5), and tin can fragments (n=6). One bone (0.5 percent) is included as a subsistence item. Furnishing/appliances totaled two items (1.1 percent) and consisted of iron stove housing and venting parts. The weaponry group (n=4; 2.1 percent) is represented by one spent lead bullet, brass .22 caliber shell casings (n=2), and a 12-gauge shotgun shell. The clothing/adornment group is comprised of three items (1.6 percent), one rubber shoe heel, one porcelain button, and one brass button cap. Personal items (n=1; 0.5 percent) consist of a 1916 "wheat penny" retrieved from TU-7, Level 2, below the dispersed surface brick and surrounding chimney fall radius. Miscellaneous items (n=4; 2.2 percent) include an unidentifiable brass cap and unidentifiable iron (n=3).



B - 10YR 6/4 Light yellowish-brown sand
C - 10YR 2/2 Very dark brown loamy sand
D - 10YR 4/2 Dark grayish-brown loamy sand
E - 10YR 4/3 Brown loamy sand

Scale

Figure 14.21 Site 38LA640, Test Unit 8, Features 4 and 5

Table 14.13 38LA640 Locus 2, TU-7 and TU-8 Artifacts

Test Unit (TU)	7	7	7	7		8	8	8	8	8		
Level	1	2	3	4		1	2	3	4	4		
Feature										4		**GRAND**
Bag Number	125	126	127	128	**Total**	129	130	131	132	133	**Total**	**TOTAL**
PREHISTORIC												
Lithic Reduction												
Reduction flake, metasandstone									1		***1***	**1**
Prehistoric Total									**1**		***1***	**1**
HISTORIC												
Kitchen/Subsistence												
Whiteware, plain		1			***1***	1	1		1		***3***	**4**
Bottle glass, clear		3	3	1	***7***	2	3	8			***13***	**20**
amber		2			***2***		1				***1***	**3**
aqua		1	1		***2***		1	4	2		***7***	**9**
light green						2	2				***4***	**4**
cobalt blue						1					***1***	**1**
solarized		1			***1***	1					***1***	**2**
Canning jar seal, white opaque		1			***1***	2	2				***4***	**5**
Can, tin		1			***1***		5				***5***	**6**
Bone							1				***1***	**1**
Architectural/Structural												
Nail, cut		2	10	1	***13***	3	2	3	1		***9***	**22**
wire		2			***2***	1	1	1			***3***	**5**
unidentifiable		4			***4***		10	9			***19***	**23**
Brick fragment, machine made		1		1	***2***		3				***3***	**5**
unidentifiable										4	***4***	**4**
Mortar						1			1		***2***	**2**
Window glass		10	8	4	***22***	18	16	2	1		***37***	**59**
Furnishings/Appliances												
Stove housing, iron								1			***1***	**1**
Stove vent, iron						1					***1***	**1**
Weaponry												
Spent Bullet, lead							1				***1***	**1**
Shotgun Shell, 12 guage							1				***1***	**1**
Shell, 22 cal., brass									2		***2***	**2**
Clothing/Adornment												
Shoe, heel, rubber	1				***1***							**1**
Button, porcelain			1		***1***							**1**
Button cap, brass		1			***1***							**1**
Personal												
Wheat penny, 1916		1			***1***							**1**
Miscellaneous												
Unidentifiable cap, brass						1					***1***	**1**
Unidentifiable, iron				1	***1***		1	1			***2***	**3**
Historic Total	**1**	**31**	**23**	**8**	***63***	**34**	**51**	**29**	**8**	**4**	***126***	**189**
GRAND TOTAL	**1**	**31**	**23**	**8**	***63***	**34**	**51**	**29**	**9**	**4**	***127***	**190**

14.6 Analysis

Site Artifact Inventory: A total of 3,049 artifacts [prehistoric (n=54) and historic (n=2,995)] was recovered during Phase II testing at 38LA640. Combining the three investigated loci, the eight test unit excavations yielded 1,720 artifacts; while 47 positive Phase II shovel tests produced 1,322 artifacts, and surface collections contributed seven artifacts. Since the three loci evaluated at 38LA641 are distinct historic occupation areas, each locus is discussed separately.

Locus 1: Locus 1 produced 2,494 artifacts, of which 1,327 artifacts came from the four test units; 1,167 were recovered from the surface and 33 positive shovel tests. The Locus 1 assemblage includes 45 prehistoric and 2,449 historic artifacts.

Prehistoric materials consist of lithic debitage (n=43; 95.6 percent), one early stage biface (2.2 percent), and one eroded sand-tempered sherd (2.2 percent). The debitage is represented by flake fragments (n=27; 62.8 percent), reduction flakes (n=13; 30.2 percent), and thinning flakes (n=3; 7.0 percent). The debitage is primarily composed of quartz (n=34; 79.1 percent) with limited amounts of metasiltstone (n=7; 16.3 percent) and metasandstone (n=2, 4.6 percent). The early stage biface is quartz. Based on tempering and sherds from other locations in the study area, the eroded sherd is tentatively assigned to the Woodland period.

Over half of the Locus 1 historic artifacts are in the architectural/structural group (n=1,279; 52.2 percent), followed by the kitchen/ subsistence group including food remains (bone and teeth) (n=1,035; 42.3 percent). Other groups represented include clothing/ adornment (n=40; 1.6 percent), furnishing/ appliances (n=18; 0.7 percent), weaponry (n=11; 0.5 percent), activities (n=6 or 0.25 percent), personal (n=4; 0.2 percent), transportation (n=2; 0.1 percent), agricultural (n=3; 0.15 percent), and miscellaneous/ unidentifiable materials (n=51; 2.0 percent).

The architectural/structural group (Table 14.14) is dominated by window glass (514;

Table 14.14 38LA640 Locus 1, Architectural/Structural Group

Artifact Type	Number	Percentage
Nails	*383*	*29.9*
Nail, cut	133	34.7 (of nails)
wire	239	62.4 (of nails)
unidentifiable	11	2.9 (of nails)
Other Fasteners and Hardware	*11*	*0.9*
Screw, iron	1	
Bolt, iron	2	
Nut and bolt, iron	1	
Washer, iron	3	
Coupling, iron	2	
Hinge, iron	2	
Construction Materials	*371*	*29.0*
Brick fragment, machine-made	48	
unidentifiable	85	
Mortar	8	
Roofing shingles	178	
Roofing tin	20	
Insulation liner	20	
Tape, electrical	2	
Electrical connector, brass	1	
Bead chain, brass	1	
Wire, iron	7	
copper	1	
Window Glass	*514*	*40.2*
Total	**1,279**	**100**
Historic Total	**2,449**	**52.2***

* Percentage of Historic Total

40.2 percent) and nails (n=383; n=29.9 percent). Of the nails, most are wire (n=239; 62.4 percent), followed by cut (n=133; 34.7 percent), and unidentifiable (n=11; 2.9 percent). Other fasteners and hardware (n=11; 0.9 percent) are not well represented. Bricks (n=133) and roofing shingles (n=178) comprise the bulk of construction materials (n=371; 29.0 percent). Other types of construction materials indicate that the house at Locus 1 had electricity and was insulated.

The window glass and nails are useful in dating the structural remains at Locus 1. Window glass recovered from Phase II shovel tests and test units located within the elevated discard area at Locus 1 (shovel tests, n=122; TU-1/2/3, n=385) was used to obtain general age estimates of structure construction/renovation via an estimated date for window glass manufacture. Due to small sample size (n=7), window glass found in TU-5 (west of the standing house) was not used. Window glass was measured for thickness (in millimeters) and the following quadratic regression equation developed by Webb was used to calculate a mean window glass manufacturing date (Elliott and Webb 1992:193):

> $Y = 1855.85 - 43.26X + 23.372X^2$ ($F = 464.3$, $P = 0.000$; t-value on quadratic term = 6.735, $P = 0.003$); X = mean window glass thickness; Y = estimated window glass manufacture date)

This non-linear regression formula was used instead of a linear design because, as the two-tailed t-value above indicates, window glass thickness changed in a statistically significant non-linear manner over time.

At Locus 1, the locus-wide shovel test sample resulted in a mean window glass manufacture date of 1870.9. The mean manufacturing date from TU-1 and 2, which sampled the northern part of the discard midden adjacent to the house is 1880.0. The corresponding date from TU-3 at the southern end of the midden is 1877.5.

The overall site ratio of cut nails (n=133) to wire nails (n=239) is 1:1.8. According to Cabak and Inkrot (1997:75), predominately wire nails is a diagnostic marker for the 1900-1924 occupation period. At TU-5, two cut and 11 wire nails were recovered or a ratio of 1:5.5. This argues for occupation into the 1930s or may relate to a later modification.

Within the kitchen/subsistence group (Table 14.15), bottle glass (n=693; 67.0 percent) was the most frequently recovered artifact. Most of the bottle glass is clear (n=631) and while only 48 pieces could definitively be considered machine made, the majority are likely of modern manufacture. Based on what can be discerned of morphology, many of the glass fragments come from jars. Low counts of colored bottle/jar glass (amber, aqua, green, light green, olive green, cobalt blue, solarized, and white opaque/milk glass) are also represented. Bottle/jar closures (n=19; 1.8 percent) include white opaque canning jar seals, zinc jar lids, bottle caps, and a cap strainer. Ceramics (n=109) make up 10.5 percent of the group. Seventy-eight percent (n=85) of the ceramics are plain whiteware. Small amounts of decorated whiteware, ironstone, stoneware,

semi-vitreous, refined blue-glazed earthernware, and hard-paste porcelain comprise the remainder of the ceramics. Table glass (n=35; 3.4 percent) includes clear, white opaque, green opaque, forest green, and salmon-colored Depression glass fragments. Other kitchen/subsistence items (n=149; 14.4 percent) are composed primarily of tin can fragments.

Overall, the ceramics and bottle and table glass suggest an early-middle 20th century occupation, with minor representation of the late 19th -early 20th century. The manufacture/popular use dates for plain and decorated whiteware range from 1820 to 1950 (Cabak and Inkrot 1997; Gantt *et al.* 1996; Miller 2000; Samford 1997). Represented in the inventory are plain (1820-1900), blue-edged (1840-1860), banded (1830-1900), blue transfer-print (1830-1860), and decal (1900-1950) whitewares. One ironstone sherd with a bow-and-arrow maker's mark denoting "Stone China" from Geo. S. Harker & Co., has a date range of circa 1890-1900 (Kowalsky and Kowalsky 1999). While the conventional end-date for historic plain and banded whitewares may be

Table 14.15 38LA640 Locus 1, Kitchen/Subsistence Group

Artifact Type	Number	Percentage
Ceramics	*109*	*10.5*
Whiteware, plain	85	78 (of ceramics)
Whiteware, decorated (total)	12	11 (of ceramics)
blue edged	1	
green edged	1	
blue transfer print	1	
red transfer print	1	
banded	1	
decal	4	
polychrome	1	
red and green sponged	1	
green glazed	1	
Other ceramics	12	11 (of ceramics)
Ironstone, plain	2	
Stoneware, Albany slip	1	
Bristol Slip	1	
salt glazed	1	
unglazed/burnt	1	
Refined earthernware, blue glazed	1	
Semi vitreous, banded	1	
Hard paste porcelain, plain	3	
purple luster	1	
Bottle Glass	*693*	*67*
Bottle glass, clear	583	
clear, machine made	48	
amber	28	
aqua	8	
aqua, machine made	2	
green	5	
green, machine made	1	
light green	6	
olive green	1	
cobalt blue	1	
solarized	5	
white opaque (milk)	4	
white opaque, machine made	1	
Bottle/Jar Closures	*19*	*1.8*
Canning jar seal, white opaque machine made	4	
Canning jar lid, zinc	2	
Bottle cap, iron	2	
"Crown"	9	
plastic	1	
Cap strainer, brass	1	
Table Glass	*35*	*3.4*
Table glass, clear	10	
white opaque	2	
green opaque	6	
forest green	16	
Depression glass, salmon	1	
Other Items	*149*	*14.4*
Can, tin	148	
Aluminum foil	1	
Faunal	*30*	2.9
Bone	26	
Tooth	4	
Total	1,035	
Historic Total	**2,449**	**42.3***

*Percentage of Historic Total

1900, similar wares were produced well into the 20th century. The banded whiteware and the majority of the plain whiteware from Locus 1 probably fall into this late manufacturing period. Similarly, the other decorated whiteware (i.e., green edged, red transfer-print, polychrome, red and green sponged, and green glazed) from this locus appear to be of early to mid 20th century manufacture, based on the application of the design and the colors used. Figure 14.22 shows a selection of the ceramics found at Locus 1.

Kitchen glass from Locus 1 includes low counts of solarized (1880-1915), white opaque (1870-present), and Depression glass (1920-1940) (Cabak and Inkrot 1997; Miller 2000). However, as stated previously the large amount of clear glass in the assemblage appears to be primarily of modern manufacture based on clarity and manufacture marks.

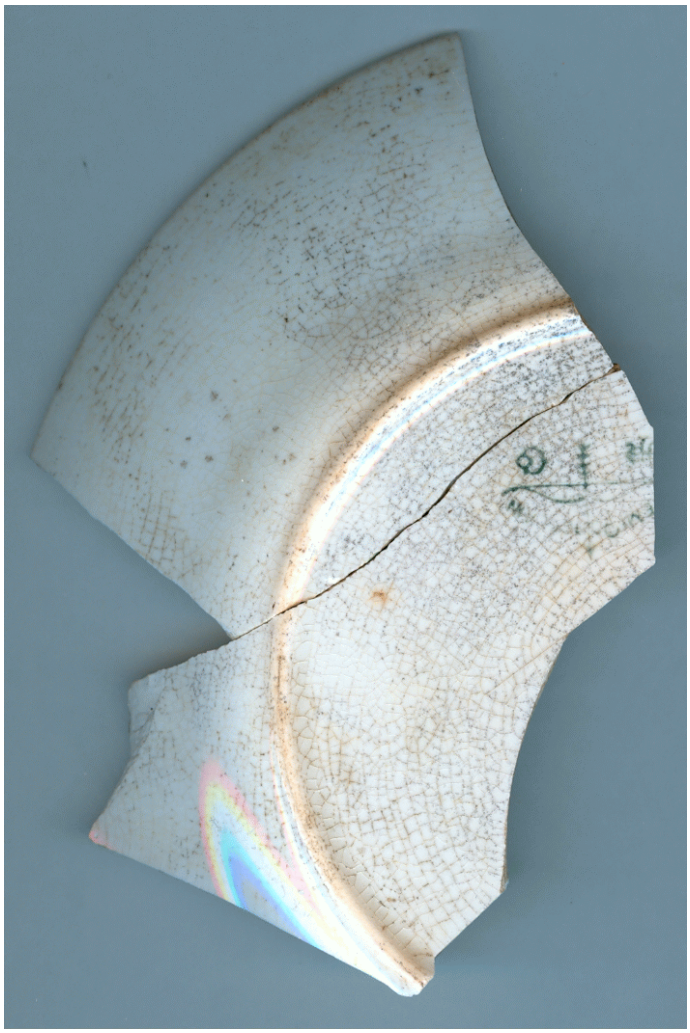
Faunal remains at Locus 1 were well preserved (Tables 14.16 and 14.17). The assemblage consists of pig/cf. pig (n=10; 37.0 percent), raccoon (n=1; 3.7 percent), indeterminate large mammal (n=11; 40.7 percent), indeterminate medium/large mammal (n=1; 3.7 percent), indeterminate medium mammal (n=1; 3.7 percent), indeterminate small/medium mammal (n=1; 3.7 percent), indeterminate small mammal (n=1; 3.7 percent), and indeterminate fish (n=1;3.7 percent). Eleven of the elements (40.7 percent) were unmodified, eight (n=29.6 percent) were calcined, three (11.1 percent) were charred, and five (18.5 percent) exhibited sawed aspects as a result of butchering practices. Three (11.1 percent) elements

Table 14.16 38LA640 Locus 1, Summary of Faunal Identifications

Taxa	
Mammalia	**Total**
Sus scrofa, pig	7
cf. *Sus scrofa*, pig	3
Procyon lotor, raccoon	1
Indeterminate large mammal	11
Indeterminate medium/large mammal	1
Indeterminate medium mammal	1
Indeterminate small/medium mammal	1
Indeterminate small mammal	1
Mammalia Total	**26**
Pisces	
Indeterminate fish	1
Pisces Total	**1**

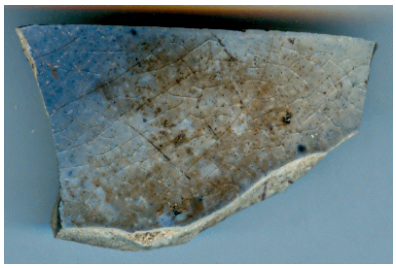
Table 14.17 38LA640 Locus 1, Summary of Modifications to Vertebrate Faunal Remains

Taxa					Carnivore
Mammalia	**Unmodified**	**Calcined**	**Charred**	**Butchered**	**Gnawed**
Sus scrofa, pig	5	1	1	1	
cf. *Sus scrofa*, pig				3	1
Procyon lotor, raccoon		1			
Indeterminate large mammal	4	3	2	1	2
Indeterminate medium/large mammal	1				
Indeterminate medium mammal		1			
Indeterminate small/medium mammal	1				
Indeterminate small mammal		1			
Total Mammalia	**11**	**7**	**3**	**5**	**3**
Pisces					
Indeterminate fish		1			
Total Pisces		**1**			
Grand Total	**11**	**8**	**3**	**5**	**3**

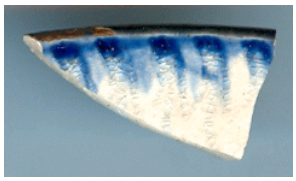


Plain Whiteware, Marker's Mark "Stone China" Ca. 1890-1900
Test Unit 1, Level 2

Red Transfer Print Whiteware
Shovel Test N/477/E493, Level 5

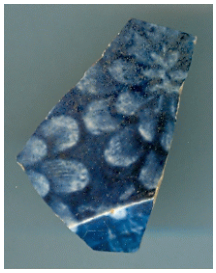


Blue-glazed Refined Earthenware
Shovel Test N477/E493, Level 5

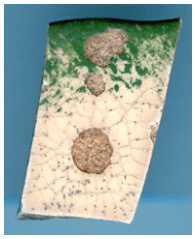


Blue Edged Whiteware
Shovel Test N463/E515,
Level 5

Pig Distal Rib Fragment, Sawed and Gnawed
Shovel Test N477/E493, Level 4



Blue Transfer Print
Whiteware, Shovel
Test N463/E515,
Level 5



Green Edged Whiteware
Shovel Test N495/E505
Level 1

(Artifacts Actual Size)

Figure 14.22 Site 38LA640, Locus 1, Selected Kitchen/Subsistance Artifacts

revealed evidence of carnivore gnawing, indicating that these bones made their way to the surface and were probably commandeered by or given to dogs. On pig bones, sawed elements include three rib sections and one proximal aspect of a tibia. Overlapping modifications were evident for some of the specimens examined such as butchering and gnawing. Figure 14.22 shows one of the pig rib fragments.

The clothing/adornment group from Locus 1 includes rubber shoe parts, buttons, buckles, other types of fasteners, cloth pieces, and a bead (Table 14.18). Buttons (n=11; 27.5 percent of group total) and other fasteners (n=16) were most commonly found. A box-frame belt buckle was recovered; such buckles have a 20th century military origin and they have been common retail items since at least the 1950s. Both early 20th century (bone, shell, porcelain, and glass) and later (plastic) buttons are represented. The glass bead from TU-2 in the elevated midden area is similar in appearance/manufacture to Russian or Bohemian faceted beads made during the later 19th and early 20th centuries (Dubin 1987; Picard and Picard 1989). All of the facet joints are rounded from wear and the joints on one end are almost completely worn smooth. The wear suggests long term use as personal adornment. Figure 14.23 illustrates some of the clothing/adornment and personal items found at Locus 1.

Table 14.18 38LA640 Locus 1, Clothing/ Adornment and Personal Groups

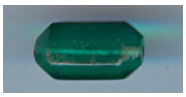
Artifact Type	Number	Percentage
Shoes	*9*	*22.5*
Heel and sole, rubber	1	
Sole, rubber	2	
Heel, rubber	6	
Buttons	*11*	*27.5*
iron	3	
brass	2	
bone	1	
shell	2	
porcelain	1	
glass	1	
plastic	1	
Buckles	*2*	*5.0*
iron	1	
brass	1	
Other Fasteners	*15*	*37.5*
Snap, brass	4	
Clasp, brass	1	
Grommet/eyelet, brass	4	
Safety pin, brass	2	
Zipper	3	
Strap adjuster, stainless steel	1	
Other	*3*	*7.5*
Cloth	2	
Glass bead	1	
Total	**40**	**100**
Historic Total	**2,449**	**1.6***
Personal		
Token, aluminum	1	
Razor, aluminum single-edge	1	
Toothpaste tube, aluminum	1	
Comb, plastic	1	
Total	**4**	
Historic Total	**2,449**	**.2***

*Percentage of Historic Total

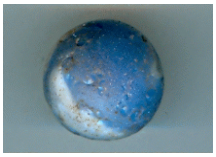
Recovery of personal items (Table 14.18) was rare and consists of only four items: an aluminum token, a razor, a toothpaste tube, and a plastic comb. The token which was recovered from TU-2 is a Missouri sales tax token, which dates from approximately August 1935 to December 1961 (Malehorn and Davenport 1993). An interesting fact is that Kansas was the first state to suspend the token usage in July 1939, while Missouri was the last state to repeal the use of sales tax tokens in December 1961.

Missouri Tax Token Ca.
1935-1961, Test Unit 2
Level 2

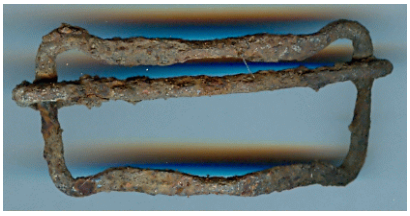
Razor , Shovel Test N477/E493, Level 1



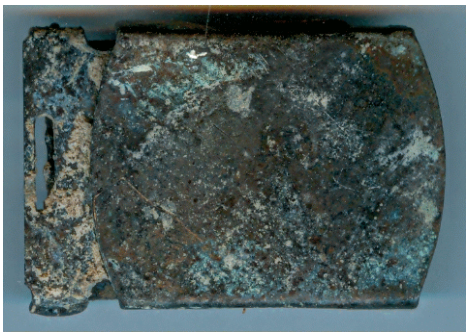
Glass Bead
Test Unit 2, Level 2



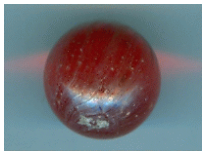
Glass Marble
Test Unit 2, Level 2



Iron Buckle, Shovel Test N480/E500
Level 4



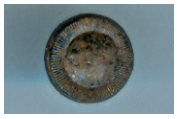
Brass Buckle, Shovel Test N477/E493, Level 4



Glass Marble
Shovel Test N480/E500
Level 1

Brass Button
Shovel Test N477/E493
Level 3

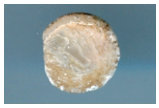
Adjacent to Test Units 1 and 2



Glass Button
Test Unit 3
Level 1

Bone Button
Shovel Test N500/E500

Iron Button
Test Unit 2, Level 2



Shell Button
Test Unit 3
Level 2

(Artifacts Actual Size)

Figure 14.23 Site 38LA640, Locus 1, Clothing/Personal/Activities Class Artifacts

The balance of the historic assemblage from Locus 1 is comprised of miscellaneous items and low counts/percentages of the furnishings/ appliances, weaponry, activities, transportation, and agricultural groups (Table 14.19). In the furnishings group, lamp glass (n=13) is indicative of late 19th/early 20th century occupation. The production of cheap kerosene and the attending mass production of lamps and lamp chimneys started in 1859 (Miller 2000). This is countered by a pressure cap which appears to be from a middle 20th century hot water heater. Both were found in TU-3, Level 1. Little else can be discerned from remaining artifacts in the other groups other than function and material.

Table 14.19 38LA640 Locus 1, All Other Groups

Artifact Type	Number	Percentage
Furnishings/Appliances	*18*	*0.7**
Lamp glass	13	
Spring, iron	1	
Stove part, iron	1	
Figurine, porcelain	1	
Plate, brass	1	
Pressure cap, iron	1	
Weaponry	*11*	*0.5**
Shotgun shell, 12-gauge	1	
Shell, brass, .38 caliber	2	
.32 caliber	2	
.22 caliber	6	
Activities	*6*	*0.2**
Marble, glass	3	
Battery rod	1	
Pencil finial, brass	1	
File, iron	1	
Transportation	*2*	*0.1**
Spark plug	1	
Inner tube, rubber	1	
Agricultural	*3*	*0.1**
Garden hoe, iron	1	
Mechanical housing	1	
Garden trowel, iron	1	
Miscellaneous	*51*	*2.1**
"D" ring, iron	1	
"O" ring, iron	3	
Cap/cover, iron	1	
Strap/band, iron	1	
Unidentifiable, iron	13	
brass	1	
lead	2	
aluminum	2	
white metal	1	
beveled glass	1	
plastic	11	
plastic tube	1	
rubber	9	
cellophane	1	
Shell	3	
Total	**87**	
Historic Total	**2,449**	**3.7***

*Percentage of Historic Total

Locus 2-1: Forty-six artifacts were recovered from the six positive Phase II shovel tests at Locus 2-1, the area of the chimney fall recorded during the Phase I survey. No test units were excavated here. The Locus 2-1 assemblage includes four prehistoric and 42 historic artifacts.

The prehistoric inventory is exclusively lithic debitage. The debitage is represented by two flake fragments, one reduction flake, and one thinning flake. All of the debitage is quartz. Based on these nondiagnostic artifacts, Locus 2-1 was occupied during an indeterminate prehistoric period.

The historic assemblage includes kitchen/ subsistence (n=28; 66.6 percent), architectural/ structural (n=12; 28.6 percent); furnishings/ appliances (n=1; 2.4 percent), and miscellaneous (n=1; 2.4 percent) artifacts (Table 14.20). The kitchen/subsistence artifacts include clear and green bottle glass and tin can fragments. The architectural/structural group is composed of wire nails, other fasteners, a hinge, and window glass. A caster and a white metal fragment represent the furnishings/appliances and miscellaneous groups, respectively.

Combined with the presence of the chimney fall, the Phase II artifacts suggest a short-lived middle 20th century occupation.

Table 14.20 38LA640 Locus 2-1, All Groups

Artifact Type	Number	Percentage
Kitchen/Subsistence	*28*	*66.6*
Bottle glass, clear	7	
green	5	
Can, tin	16	
Architectural/Structural	*12*	*28.6*
Nail, wire	6	
Screw, iron	1	
Bolt, iron	1	
Washer, iron	2	
Hinge, iron	1	
Window glass	1	
Furnishings/Appliances	*1*	*2.4*
Caster	1	
Miscellaneous	*1*	*2.4*
Unidentifiable, white metal	1	
Total	**28**	**100**

Locus 2-2: Locus 2-2, the area of the chimney fall recorded during the Phase II efforts, produced a total of 509 artifacts. Four hundred and three came from the four test units and 106 were recovered from the surface and eight positive shovel tests. The Locus 2-2 assemblage consists of five prehistoric and 504 historic artifacts.

All the prehistoric artifacts are lithic debitage including four flake fragments and one reduction flake. The debitage is composed of quartz (n=3) and metasandstone (n=2). These few artifacts indicate a minor indeterminate prehistoric presence at Locus 2-2.

Historic artifact groups represented at Locus 2-2 are: architectural/structural (n=268; 53.2 percent), kitchen/subsistence including food bone (n=206; 40.9 percent), furnishings/appliances (n=2; 0.4 percent), weaponry (n=5; 1.0 percent), clothing/adornment (n=6; 1.2 percent), personal (n=2; 0.4 percent), activities (n=1; 0.2 percent), agricultural (n=1;0.2 percent), and miscellaneous (n=13; 2.5 percent).

Window glass (n=126; 47.0 percent) and nails (n=78; 29.1 percent) form the majority of the architectural/ structural group (Table 14.21). Over half of the nails are cut (n=43; 55.1 percent) with 12 being wire (15.4 percent) and 23 (29.5 percent) being unidentifiable. Other fasteners (n=18; 6.7 percent) consist primarily of washers and one screw. Construction materials (n=46; 17.2 percent) include brick fragments, mortar, and semi-vitreous tile fragments.

Table 14.21 38LA640 Locus 2-2, Architectural/Structural Group

Artifact Type	Number	Percentage
Nails	*78*	*29.1*
Nail, cut	43	
wire	12	
unidentifiable	23	
Other Fasteners	*18*	*6.7*
Washer, machine made	5	
unidentifiable	12	
Screw, iron	1	
Construction Materials	*46*	*17.2*
Brick fragment, machine made	7	
unidentifiable	25	
Mortar	13	
Tile, semivitreous	1	
Window Glass	*126*	*47.0*
Total	**268**	**100**
Historic Total	**504**	**53.2***

*Percentage of Historic Total

As seen with Locus 1 window glass and nails can be used to date the structural remains using non-linear regression (Elliott and Webb 1992). A locus-wide window glass date was not obtained from Locus 2-2, due to small sample size (n=27) and modern

contamination. From a sample of 99 fragments, the window glass manufacturing date from TU-4/6/7/8 is 1870.0. The high ratio of cut to wire nails (3.6:1) support a late 19th century construction date based on Cabak and Inkrot's (1997:75, Table 5.7) diagnostic marker table.

The kitchen/subsistence group (Table 14.22) is comprised of bottle glass (n=126; 61.2 percent), ceramics (n=47; 22.8 percent), bottle/jar closures (n=9; 4.4 percent), other containers (n=22; 10.7 percent - all tin can fragments) and two bone fragments (1.0 percent). The majority of the bottle glass is clear (n=58), but there is a significant amount of amber (n=16), aqua (n=18), light green (n=11), and solarized (n=22) bottle glass. Blue, cobalt blue, and white opaque bottle glass were recovered in small amounts. Bottle/jar closures include white opaque canning jar seal fragments (n=8) and a zinc jar lids. Sixty-one percent (n=29) of the 47 ceramics from Locus 2-2 are plain whiteware. Decorated whiteware (n=6), plain ironstone (n=9), and Albany slip stoneware (n=3) comprise the balance of the kitchen ceramics.

Table 14.22 38LA640 Locus 2-2, Kitchen/Subsistence Group

Artifact Type	Number	Percentage
Ceramics	*47*	*22.8*
Whiteware, plain	29	61.7 (of ceramics)
Whiteware, decorated (total)	6	12.8 (of ceramics)
blue edged	1	
mulberry transfer print	1	
decal	4	
Ironstone, plain	9	19.1 (of ceramics)
Stoneware, Albany slip	3	6.4 (of ceramics)
Bottle Glass	*126*	*61.1*
Bottle glass, clear	58	
amber	12	
aqua	16	
aqua, machine made	2	
light green	11	
blue	1	
cobalt blue, machine made	1	
solarized	22	
white opaque (milk)	1	
white opaque, machine made	1	
Bottle/Jar Closures	*9*	*4.4*
Canning jar seal, white opaque	8	
Canning jar lid, zinc	1	
Other Containers	*22*	*10.7*
Can, tin	22	
Faunal	*2*	*1.0*
Bone	2	
Total	**206**	**100**
Historic Total	**504**	**40.9***

* Percentage of Historic Total

Most of the ceramics and bottle glass are indicators of a late 19th/early 20th century occupation. As noted during the discussion for Locus 1, the manufacture/popular use dates for plain and decorated whiteware range from 1820 to 1950 (Cabak and Inkrot 1997; Gantt *et al.* 1996; Miller 2000; Samford 1997). The Locus 2-2 inventory has plain (1820-1900), blue-edged (1840-1860), mulberry transfer-print (1814-1867), and decal (1900-1950) whitewares. The blue-edged and mulberry transfer print were recovered from the post feature designated Feature 3 during unit excavation. Unlike Locus 1, most of the plain whiteware from Locus 2-2 does not have the appearance of the more lustrous, denser middle 20th century whiteware seen at Locus 1. Plain ironstone (1842-1930) and Albany slip stoneware (late 19th to 1910) fit well with a late 19th/early 20th century occupation. The presence of relatively high numbers (compared to Locus 1) of solarized, light green, and aqua bottle glass is also a marker of this time period (Cabak and Inkrot 1997; Miller 2000). Some of the clear glass at Locus 2-2 may be modern

discard, but like the whiteware, most have the appearance of earlier manufacture that would coincide with the colored glass.

Two bone fragments are included in the kitchen/subsistence group. One is a burned fragment of a large unidentifiable mammal bone from TU-4. The second is the unmodified right ulna of a gray squirrel (*Sciurus cf. carolinensis*) from TU-8. Both could have been food items.

The remainder of the historic assemblage from Locus 2-2 are low counts/percentages of the furnishings/appliances, weaponry, clothing/ adornment, personal, and miscellaneous groups (Table 14.23). With the exception of one piece of plastic in the miscellaneous group, the artifacts within these groups fit within a late 19th/early 20th century occupation. One diagnostic is worth noting: a 1916 wheat penny found in TU-7, Level 2, adjacent to the chimney fall. This is a clear indication of the earlier occupation of Locus 2-2 as compared to Locus 2-1. Figure 14.24 illustrates the penny and other selected artifacts from Locus 2-2.

Table 14.23 38LA640 Locus 2-2, All Other Groups

Artifact Type	Number	Percentage
Furnishings/Appliances	*2*	*6.7*
Stove housing, iron	1	
vent, iron	1	
Weaponry	*5*	*16.7*
Shell, brass 38 cal.	1	
brass, 22 cal.	2	
Shotgun shell, 12 gauge	1	
Spent bullet, lead	1	
Clothing/Adornment	*6*	*20.0*
Shoe, heel, rubber	1	
Button, porcelain	1	
rubber	2	
Button cap, brass	1	
Grommet/eyelet, brass	1	
Personal	*2*	*6.7*
Snuff can lid, tin	1	
Wheat penny, 1916	1	
Activities	*1*	*3.3*
Marble, glass	1	
Agricultural	*1*	*3.3*
Plowshare, iron	1	
Miscellaneous	*13*	*43.3*
Unidentifiable cap, brass	1	
Unidentifiable iron	9	
plastic	3	
Total	**30**	**100**
Historic Total	**504**	**6.0***

* Percentage of Historic Total

14.7 Interpretations

Prehistoric Occupations: Minor prehistoric components were recorded at Loci 1, 2-1, and 2-2. Due to distance, Locus 1 will be discussed separately from Loci 2-1 and 2-2.

Locus 1: At Locus 1, an early stage biface and an eroded sand tempered sherd were recovered along with lithic debitage. The sherd is assigned generally to the Woodland period. The artifacts suggest the location of a short-term station or camp where early to middle-stage lithic reduction (primarily quartz), biface manufacturing, and minor cooking/containment occurred. No prehistoric features, middens, tools associated with domestic activities, or other indications of intermediate to long-term occupation were noted.

Loci 2-1 and 2-2: Low counts of primarily quartz debitage were recovered from Loci 2-1 and 2-2. These artifacts suggest only brief episodes of early to middle stage lithic reduction at each locus during an indeterminate period of prehistory.

Historic Occupations: Major historic components were evident at Loci 1, 2-1, and 2-2. While physically separated, archival research and testing results indicate that these loci are probably associated with each other and therefore, they are discussed together.

Figure 14.24 Site 38LA640, Locus 2-2, Selected Artifacts

According to local informants, the house at 38LA640 Locus 1 was last occupied by African American tenants, Joe and Ellen Mungo, from the early middle 20th century until the 1960s. The Mungos were farmers and the layout of the structure complex at Locus 1 reflects the core of the farmstead with a well, animal pens, and other out structures within 12 to 20 m of the house. The Mungos had 11 children, which helps account for the extensive middle 20th century bottle/can dump west of the house. The large household probably also explains the high frequency of mass-produced jar/bottle glass in the Phase II assemblage, as well as the relatively high frequency of modest, kitchen-related ceramics and limited amounts of table glass. The high occupancy is also reflected in the relatively high diversity of items recovered. Considering the large size of the Mungo family and the composition of the Phase II assemblage, the Mungos probably fell into the lower-middle economic stratum of the middle 20th century African American community.

The 1986 survey form reported that the Mungo's house was originally "the old Clyborn (sic.) residence," which had been moved from one-tenth of a mile away. While the house could have been moved from any location within one-tenth of a mile of Locus 1, the only location at that distance confirmed through archeological work to be a historic domestic site is Locus 2-2, 0.093 mile northeast of Locus 1. Review of the 1939 Lancaster County Highway Map shows a structure symbol at Locus 1, but no such symbol at Locus 2-2. Similarly, the 1949 aerial photograph of the area shows a house site/vegetation signature at Locus 1, but only mature vegetation at Locus 2-2. Based on existing information, Locus 2-2 appears to be the most likely candidate for the original location of the old Clyburn residence. More speculative evidence for this can be seen by comparing Phase II artifacts from Loci 1 and 2-1. The window glass date from Locus 2-2 is 1870.0 and 1870.9 to 1880.0 at Locus 1. As the original site of the house, the earlier window glass date at

Locus 2-2 would be expected. The 1870-1880 date range at Locus 1 makes sense considering that some loss of historic window glass would be expected over time at the relocation site, perhaps even as a result of relocation. In addition, the temporal spans for other datable artifacts indicate a very strong 1940s to 1960s component at Locus 1, with very few artifacts clearly datable to the 19th or early 20th century. In contrast, artifacts from Locus 2-2 reflect occupation from the late 19th to early 20th century. It is reasonably clear from the archeological findings that the occupations at Locus 1 and 2-2 probably do not overlap.

While Locus 2-1 did not produce significant archeological information, it is interesting from the standpoint of the Mungo family's occupation of 38LA640. Informant interviews revealed that several of Joe and Ellen Mungo's sons built small homes at, or in the vicinity of, 38LA640 in the 1960s, and that these houses were later moved to other locations. Locus 2-1 may be the original location of one of those houses. The chimney indicates a domestic site and surface debris/artifacts date its use to the 1960s or 1970s. Phase II kitchen-related artifacts include bottle glass and tin can scraps, but no service ceramics or table glass. Automotive parts and discarded tires are also present. This is a common artifact/discard pattern observed on middle to late 20th century rural, male-dominated domestic sites. No structural debris (except the chimney base) was observed at Locus 2-1, which is in line with the house being relocated.

14.8 Recommendations

Prehistoric Occupations: Most of the prehistoric artifacts from the loci at 38LA640 were recovered from historically impacted deposits within 40 cm of the surface. In addition, artifact density and diversity were low. Also, prehistoric archeological deposits exhibit no evidence of intact features, distinct midden deposits, clearly defined artifact clusters, artifacts related to domestic activities, or other proof of intermediate to long-term occupation. Given the above justifications, it is unlikely that the prehistoric components at 38LA640 retain additional information that would enhance knowledge on prehistoric lifeways in the study region. The prehistoric occupations evaluated at 38LA640 are recommended ineligible for the NRHP under Criterion (d) and no further archeological work is considered necessary.

Historic Archeological Occupations: Regarding Locus 1, Phase II testing sampled midden deposits and other localities around the Old Clyburn-Joe Mungo house to determine the potential for 19th to early 20th century features and deposits. While the Locus 1 middens contain a few obvious 19th to early 20th century artifacts, they are significantly mixed with modern artifacts and primarily reflect the Mungo family's mid-20th century occupation of Locus 1 after the Old Clyburn house was moved to this location. Because of this, contextual clarity and depositional integrity are lacking for the limited late 19th to early 20th deposits at Locus 1. After the excavation of four test units and 44 shovel tests, no 19th or early 20th century features were noted during Phase II excavations at Locus 1. Furthermore, the various outbuildings/outbuilding remnants and bottle/can dumps at this locus appear to date no earlier than the middle 20th century.

Locus 2-1 clearly dates to the 1960s or later and does not appear to have an appreciable pre-1960s historic component. Materials observed and collected from Locus 2-1 during Phase II investigations appear to marginally meet the 50-year age qualification for archeological sites.

Historic archeological deposits at Loci 1 and 2-1 are unlikely to contribute significant knowledge of or about the 19th or early 20th century rural lifeways of African-Americans in the study region. After following the approved Phase II evaluation plan, Loci 1 and 2-1 are considered ineligible for the NRHP under Criterion (d) and no additional archeological work is recommended.

At Locus 2-2, test excavations exposed structural posts in association with chimney remnants and the hearth of a small 19th to early 20th century domestic structure. Testing also exposed and sampled what appears to be an occupational surface/midden below the surface brick rubble. The findings at Locus 2-2 meet the conditions for a positive NRHP eligibility recommendation per the Phase II evaluation plan. The post features and midden show that Locus 2-2 has the potential to produce additional archeological features and deposits retaining important data on 19th to early 20th century rural lifeways. Locus 2-2 is considered eligible for the NRHP and since preservation does not appear to be a viable option, data recovery is recommended. Data recovery should focus on a 15-m area around the chimney fall and consider topics such as temporal span, site structure/house plan, ethnicity, social status, and subsistence.

Historic Architecture (Old Clyburn-Joe Mungo House): Per the Phase II evaluation plan, archival research and recordation have adequately documented the remains of the Old Clyburn-Joe Mungo house. No additional architectural or archeological work is recommended for this historic resource.

15.0 SITE 38LA641 (CLYBURN-ERN MUNGO HOUSE)

15.1 Previous Work

Site 38LA641 was identified during the Phase I survey (Adams *et al.* 2011a:128) as a large Archaic and Woodland period site situated on a broad ridge wrapped around several springheads, which empty into the tributaries of Camp Branch to the west. In addition, the site features a historic artifact scatter and an extant early 20th century house, recorded during the 1986 architectural survey as Resource No. U/57/0951. Two hundred and twenty-nine negative and 77 positive survey shovel tests were excavated during the Phase I survey. Site boundaries were recorded as 700 by 450 m in size, but the site southern limits of the site were not delineated because they extended beyond the project area.

Soil profiles and prehistoric artifact proveniences indicated potential archeological deposits at depths from 0 to 100 cmbs, with ceramics being identified in the upper 30 cmbs and lithics typically found to depths of 80 cmbs. Several clusters of prehistoric artifacts were identified overlooking four springheads that wrapped around the ridge formation to the northeast. Ceramics included two very coarse sand-tempered eroded sherds, two eroded/decorated sand-tempered sherds, one eroded/decorated sand granule sherd, and five residual sherds. One sherd was tentatively identified as Cape Fear Cord-marked. Lithics included 261 quartz flakes, 39 pieces of quartz shatter, one quartz flake tool, one tested quartz cobble, three cores, one quartz uniface, 42 metavolcanic flakes, and one sandstone core. The highest frequency of lithics occurred in the southwest corner of the site, adjacent to the quarry/reduction locus recorded at 38LA622.

Adams *et al.* (2011a:128) noted that "ceramics were concentrated in the southeastern portion of the site between TR156 ST4 and ST6, as well as the southwestern part of the site near Transect 170 ST 2 and ST 3 and TR 172 ST 1. One sherd, as well as the Woodland Spike, was found in the southwest cluster." It appears however, that the provenience of the Woodland Spike PP/K and survey shovel test T-172/ST1 are actually located within the eastern boundaries of 38LA622.

Overall, the survey specimen catalog indicated that lithic reduction, tool manufacturing, and cooking/ containment activities occurred at 38LA641. Disturbances to the site consisted of land clearing activities related to logging, grading, push piling, dirt road installation, prospecting/mining, cultivation, and related erosion. The latter was believed to have impacted the top 20 to 30 cm of the site archeological deposits. Areas with concentrations of prehistoric ceramics and lithics were believed to have retained horizontal integrity and on that basis, Phase II testing was recommended for the prehistoric component at 38LA641 to determine if the site is eligible for the NRHP under the themes of ceramic prehistory and/or Archaic lifeways. Locations of interest were "areas where relatively consistent positive shovel tests for prehistoric remains occur. This would include the east side of the site adjacent to the springhead and the western two-fifths of the site" (Adams *et al.* 2011a:134).

The historic component at 38LA641 appears to center around the "Clyburn" house. It was given this name because the personal papers of William U. Clyburn, III were found in the house during the Phase I survey, and it was located on what was previously his property. There is no statement that this was Clyburn's home, but that he probably owned it. The house was recorded during the 1986 Lancaster County historic resources survey (Preservation Consultants 1986) and was believed to have been constructed around 1915. The Phase I survey report described the structure as an ell cottage with hipped roofing, and standing on brick piers. The front facade was stated to have two doorways under a hipped porch roof. Two brick chimneys were noted.

Historic artifacts were recovered from various parts of the site and included ironstone (n=5), a piece of alkaline glazed stoneware, whiteware (n=10), glass (n=21), a canning seal, a metal lid, brick fragments (n=2), window glass (n=2), cut nails (n=6), unidentified nail fragments (n=2), a cufflink stud, and a piece of corroded metal. The area including and surrounding the Clyburn house was viewed as requiring additional work to assess the NRHP eligiblity status of the historic component at 38LA641 under rural historic lifeways (Adams *et al.* 2011a:134).

15.2 Archival Research

As with 38LA588 and 38LA640, chain of title research indicates that the land containing 38LA641 may have been acquired by William Uriah Clyburn, Sr. during the period 1880-1917 and it remained in the possession of his descendants until 2010 (see full chain of title description in Section 3.7.1). According to Ms. Dorothy Gregory, Ms. Sheila Love, and Ms. Billie Jo (Clyburn) Crawford the house at 38LA641 was occupied by African-American tenants, specifically a child, or the children of, Joe and Ellen Mungo, in the 1960s. Ms. Crawford remembered "Ern" Mungo living at 38LA641 when she was a young adult and she stated that no member of her family, the William U. Clyburn, III family, ever lived there. In confirmation of this, Ms. Love indicated that Joe and Ellen Mungo's "children" lived in the house. The 1940 census shows that Ernest Mungo, his wife, a young son named Roosevelt, and four of his sisters lived in a household in Flat Creek Township, the same district as Joe and Ellen Mungo. Home for that household in 1940 may have been 38LA641.

A 1938 aerial photograph of the study vicinity shows a structure at or near the location of the subject house. The 1939 Lancaster County highway map shows a cluster of four tenant structures at this location. The "tenant" classification of this group of structures on the 1939 map tends to support the contention that the Ern Mungo family may have been a tenant at this location by 1940. The other three tenant structures may have been occupied by Ern's sisters.

15.3 Documents Recovered from the Clyburn/Ern Mungo House

Based on interviews and census records, it appears that the Ern Mungo family occupied the house at 38LA641 from as early as 1940 into the 1960s. Somewhat contrary to this is the fact that personal papers

of William U. Clyburn, III (Figure 15.1) were found in the house during the Phase I survey and reviewed/cataloged during the Phase II evaluation. Perhaps the Clyburns used the house for storage of some business venture after the Mungo family vacated the house. Whatever the case, the papers provide insight into the middle 20th century life of this prominent property owner.

Most of the recovered documents date to the period 1942-1960 and they fall into three general categories: Mr. Clyburn's lines of work; his personal life and interests; and his political/legislative activities as a member of the South Carolina House of Representatives (1956-1959). The papers appear to reflect dependence on the use of rural delivery postal service in conducting trade within any of the above fields of involvement.

According to his obituary, William U. Clyburn, III died on January 26, 2007 in Columbia, South Carolina. He was the son of the late Honorable Charles Frank and Sara Clyburn. He graduated from Staunton Military Academy in Virginia and served in the Army Air Corps as a flight instructor in San Antonio, Texas and Sumter, South Carolina. He was also the former owner/operator of the Kershaw Ford Motor Company and was a Shriner. From 1948 to 1961, Mr. Clyburn served in the South Carolina House of Representatives (Appropriations Committee). He was a bird hunter and collected guns, knives, and motorcycles. William Clyburn was an avid pilot and member of QB, a national organization of pilots who logged many flight hours. In fact, his obituary closed with the quote "Taxi it on in, Daddy, you are at your destination" (*The State* 2007).

A number of documents reflected William Clyburn's personal interests. He served as 1st Lieutenant, Army Air Force, in World War II; he was a pilot and flight instructor. Mess hall receipts and processed personal checks indicate that Clyburn was assigned to Camp Wheeler, Georgia and Fort Jackson, South Carolina in 1942; he was then stationed at Gowan Field (Boise, Idaho) in 1943; and later at Spence Field (Moultrie, Georgia) in 1945. There is also blank letterhead from Turner Field (Atlanta, Georgia), but the date and term of any service there is unknown. The documents give no indication of the service in San Antonio, Texas described in his obituary. Also, the papers provide no details of Clyburn's membership in the QB (Quiet Birdmen) club, a secretive group of male aviators founded in 1921. Other members of the QB club were James Doolittle, Robert G. Fowler, Charles Lindburgh, Wiley Post, Eddie Rickenbacker, Roscoe Turner, and Ernst Udet (Wikimedia Foundation 2012). Among the documents is a July 1955 letter from the U.S. Department of Commerce stating that Clyburn was certified to have logged 3046:38 hours of solo flight time.

After the war, Mr. Clyburn took correspondence courses in elementary aeronautical engineering and he served as foreman on a Lancaster County Grand Jury (1952). He was a member of the Shriners, a ham radio operator, and a member of the Civil Air Patrol. Mr. Clyburn corresponded extensively requesting information about hunting dogs and their breeding, duck calls and the art of calling, the muzzle-loaded rifle, the national parks, and camping equipment. Mr. Clyburn is known to have hunted squirrel, fox, and duck,

Figure 15.1 One of a Series of Photographs of William Uriah “Bill” Clyburn, III (1921-2007)

and he apparently attended the 18th annual World's Championship Duck Calling Contest in Stuttgart, Arkansas; the official program for that event is present in the recovered documents. Clyburn was a member of the National Muzzle Loading Rifle Association and he purchased parts for the construction of his own long-rifle. Mr. Clyburn's papers also reflect an interest in the Shriners, the Boy Scouts of America, and motorcycles. The papers also indicate that Clyburn was in hospital for an unknown illness in 1955.

Professionally, William U. Clyburn III assumed the operation of the Kershaw Motor Company, his father's automobile dealership (C. Frank Clyburn passed away in 1942) after World War II. In addition, Mr. Clyburn turned his personal interests, such as flying and hunting, into successful business operations. He established a crop dusting business and a kennel operation in the immediate post-war years, and eventually became affiliated to an unknown degree with the City Gun Shop and the Planter's Implement Company in Kershaw. Clyburn maintained at least two separate business letterheads. They read: "W.U. (Bill) Clyburn, Kershaw, S.C." followed by either "Farmer" or "Efficient Airplane Crop Dusting."

Clyburn consistently referred to his dusting business as a small one, but he advertised his service widely, through both newspaper advertisement and business postcards; examples of both were found in the Clyburn papers (Figure 15.2). Many of the recovered papers show correspondence regarding his interest in converting various plane types to crop dusters and they show that he bought, sold, and traded planes regularly. He also corresponded widely with dusters in Texas, Maryland, Louisiana, Arkansas, and Arizona, and with the U.S. Department of Agriculture in Washington, D.C. In a December 1947 letter, Clyburn stated that he was prepared to expand his dusting operation into the state of Florida and he advertised nationally for additional duster pilots. In response to his advertisement for pilots in Trade-A-Plane Magazine, letters of interest came to him from California, Michigan, Illinois, Massachusetts, New Jersey, Texas, Wisconsin, Missouri, Georgia, North Carolina, and Wisconsin, but it is unknown if any of these correspondents were hired by Clyburn's Dusters, Inc.

Many of the photographs and photographic negatives included in Clyburn's papers are of various airplanes types. These were likely either photographs of his own planes or those of others he was interested in purchasing (Figure 15.3). Another large percentage of photographs are of various hunting dogs (Figure 15.4). As Clyburn Dusters, Inc. traded planes, Clyburn Kennels appears to have regularly bought and sold hunting dogs. Clyburn also shipped some dogs out of state for training, possibly his personal dogs. A January 1952 letter expressed his anxiety over the return of one dog because hunting season was fast approaching. Many of the photographs show the dogs with an individual holding their chin and tail up, as if displaying them for prospective buyers. The papers include several pedigree charts for Walker hounds, but also include correspondence regarding border collies and other breeds. Lineage charts for pedigreed Walker hound dogs named "Jean Hayter," "National Champion," "Flying Stride," and "Young Dog" were found among the recovered documents.

Dear Sir:

As you know, the boll weevil is a pest to count on in every season of cotton farming. However, recent improvements in the cotton poisons have proven that the weevil and other pests CAN BE CONTROLLED.

Our business is applying these poisons by airplane. We have had many satisfied customers in the past, and this alone gives us great pleasure in serving you. Our pilots are experienced and take pride in backing our guaranttee that every job must be satisfactory or it is free.

We wish to say that this is a home town boy, not migratory, and will always be right here at home the year round to help you. We are after a good job, not the money then to move on just when you need us.

Thanking you very much, call us or ask your county agent.

CLYBURN'S DUSTERS, INC.

Phone 158 or 181 **(Bill Clyburn)** **Kershaw, S. C.**

Mailed Advertisement

ATTENTION, FARMERS!

A modern Airplane Dusting Service with experienced personnel is now available to all farmers in this area.

We have had much experience in this section with the weevil and other pests.

We invite you to ask your neighbor about our work.

GUARANTEE A COMPLETE COVERAGE

OR NO CHARGE

CLYBURN'S DUSTERS, Inc.

(Bill Clyburn)

Contact us, Kershaw, S. C.

Ask your County Agent about this service and boll weevil control.

Pageland Journal 21 May 48

Clipped Copy of a Newspaper Ad for Clyburn's Dusters, Inc.
(Pageland Journal, 21 May 1948)

Figure 15.2 Advertisements for Crop Dusting Business

Figure 15.3 Photograph Negative Showing One of William Clyburn's Crop Dusting Planes

Figure 15.4 Photograph Negative Showing a Person, Possibly William Clyburn, in the Midst of Several Walker Hounds

Receipts from the Hotel Chisca show that William U. Clyburn and his wife spent the better part of February and March 1948 in Memphis, Tennessee. A letter dated March 26, 1948 indicates that Clyburn attended Murdoch's Exclusive Cotton Classing and Buying School in Memphis. In the letter, he mentioned that he enjoyed the school and that he could now "rub shoulders with the best with a little practical experience". Mr. Clyburn also forwarded cotton samples that he thought were mis-classed, but the extent to which Clyburn applied his cotton classing knowledge is unknown.

In a 1955 letter, Mr. Clyburn indicated that the City Gun Shop was recently put into business. This venue offered Clyburn another opportunity to transfer personal interest in guns and knives into potential profit. Likewise, Clyburn was involved with the Planter's Implement Company, but the extent of his involvement, or with whom he was involved, in either of these enterprises is unknown.

Regarding his political career, W.U. Clyburn was elected to the South Carolina House of Representatives in 1956. In a June 20, 1956 letter to Sheriff Coyd Williams, drafted during the run up to election, Clyburn pledged his opposition to the establishment of a rural (sic.) police force. Upon election, Clyburn served on the Agriculture and Conservation Committee and the Military, Public, and Municipal Affairs Committee (Figure 15.5). Also upon election, Mr. Clyburn received letters of congratulation from other elected officials, including the Commissioner of the South Carolina Department of Agriculture (William L. Harrison) and the Chairman of the South Carolina Employment Security Commission (Ed. H. Tatum), and others.

Clyburn was reelected for a second two-year term in 1958; campaign materials for both elections were found among the papers recovered (Figure 15.6) as well as correspondence from the Clerk of the House (Figure 15.7). What appear to be drafts of certain legislation were also found among the papers: one for the creation of the Lancaster County Commission for Higher Education; one to modify the assessment of property tax in Lancaster County; and one to notify adjacent property owners when timber is sold on a property. These documents could have been drafted by Clyburn, but the fate of these measures is unknown. Several Western Union telegrams expressed the support of his constituents and/or neighbors for the Moore Report, Commission, or Act, which was aimed at raising pay for teachers among other things (Figure 15.8). It is unknown if William U. Clyburn ran for additional terms in office, but his obituary stated that he served through 1961.

15.4 Layout of the Structural Complex

The structural complex at 38LA641 is limited to the Clyburn-Ern Mungo house, a dilapidated outhouse and a well (Figures 15.9 and 15.10). There is an abandoned truck at the location of what appears to have been a pole vehicle shed; the shed collapsed long ago. As noted earlier, the 1939 Lancaster County highway map indicates that four tenant structures were in the vicinity of this house, but the configuration of the structures was not shown. The house is oriented northeast-southwest, with the outhouse on the north side of the house

STANDING COMMITTEES

of the

House of Representatives

STATE OF SOUTH CAROLINA

93rd General Assembly

First Session Beginning January 13, 1959

Corrected to February 3, 1959

Compiled by
Inez Watson, Clerk of the House

COMMITTEE ASSIGNMENTS OF THE HOUSE OF REPRESENTATIVES

Ackerman, Clyde O.
Agriculture and Conservation

Addis, J. Dawson
Education and Public Works

Allen, Charles G.
Ways and Means

Altman, J. Eugene
Agriculture and Conservation, *1st V.-Chm.*

Amick, A. D.
Ways and Means

Andrews, Raymond M.
Agriculture and Conservation
Military, Public and Municipal Affairs

Arthur, James M.
Judiciary

Atkinson, T. Carroll, Jr.
Agriculture and Conservation
Labor, Commerce and Industry

Aycock, R. J.
Interstate Cooperation
Ways and Means, *1st V.-Chm.*

Baker, Arthur C.
Education and Public Works

Baldwin, Frank E., Jr.
Labor, Commerce and Industry
Ways and Means

Bell, Lloyd B.
Ways and Means

Bell, Roddey LeHew
Education and Public Works
Military, Public and Municipal Affairs

Belser, Clinch Heyward
Education and Public Works

Benjamin, S. Horace
Ways and Means

Branham, Lester P., Sr.
Agriculture and Conservation

Breazeale, Harold D.
Education and Public Works
Labor, Commerce and Industry

Bridges, Justin A.
Education and Public Works
Military, Public and Municipal Affairs

Cabell, Nathaniel W.
Interstate Cooperation, *V.-Chm.*
Military, Public and Municipal Affairs

Campsen, George E., Jr.
Labor, Commerce and Industry, *Secy.*

Carter, J. Robert, Jr.
Education and Public Works
Labor, Commerce and Industry

Carter, Rex L.
Rules

Clinkscales, W. N.
Ways and Means

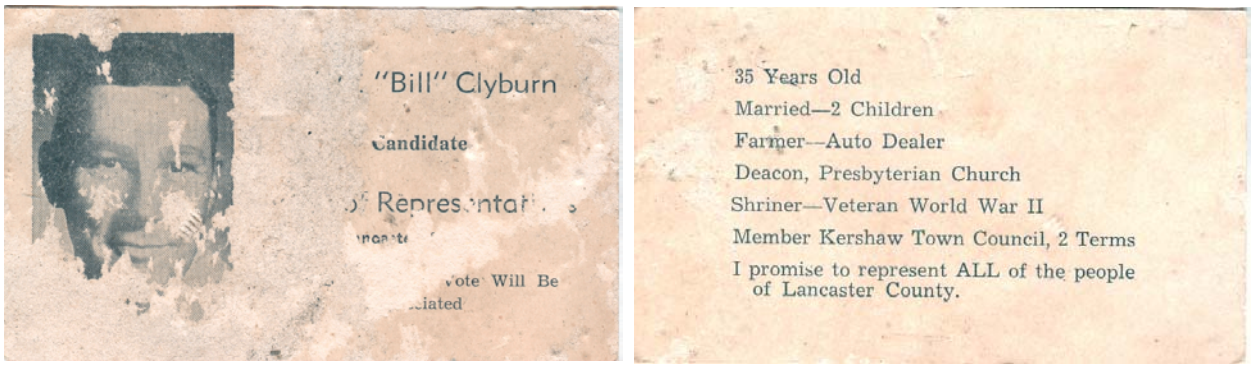
Clyburn, William U.
Agriculture and Conservation
Military, Public and Municipal Affairs

Collins, Purvis W.
Education and Public Works

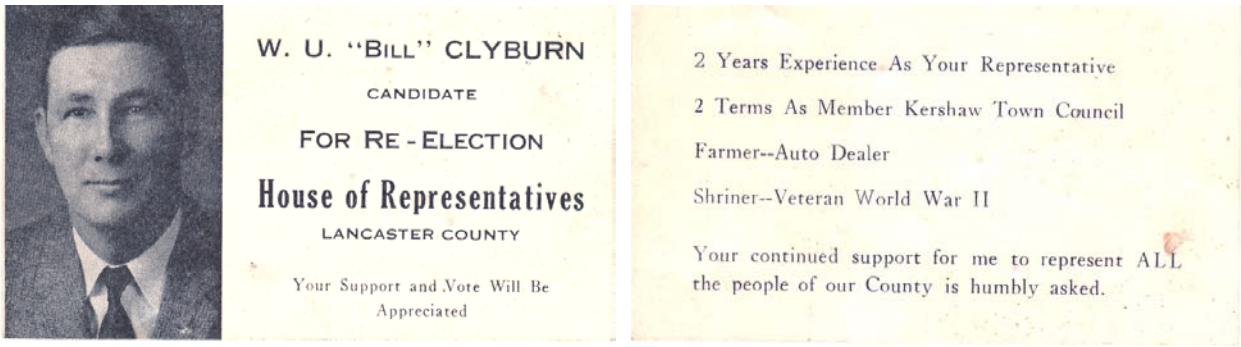
Cook, D. Carl
Judiciary

Cushman, Edward C., Jr.
Education and Public Works, *Chm.*
Rules

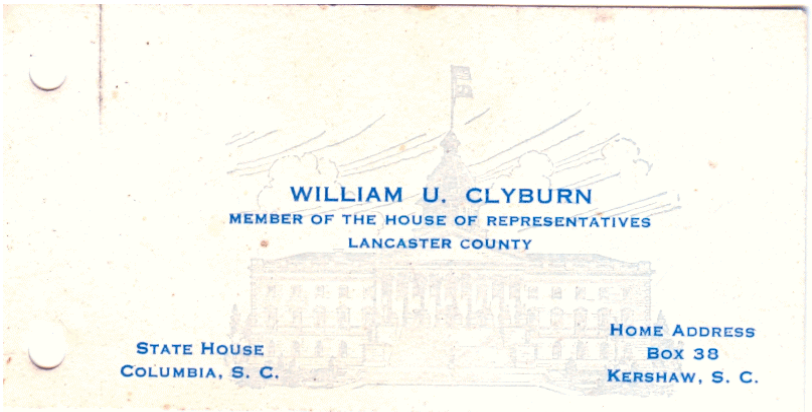
Figure 15.5 1959 House of Representatives Committee Booklet



Campaign Card - 1956



Campaign Card - 1958



Business Card

Figure 15.6 South Carolina State House of Representatives Campaign Materials and Business Card

HOUSE OF REPRESENTATIVES

State of South Carolina

OFFICE OF THE CLERK — STATE HOUSE

COLUMBIA

INEZ WATSON
CLERK OF THE HOUSE

P. O. Box 1344
April 14, 1959

IMPORTANT INFORMATION - PLEASE READ!

TO ALL MEMBERS OF THE GENERAL ASSEMBLY

LADIES AND GENTLEMEN:

Pasted below is a sample of the gummed label used on the inside cover of the 1959 Legislative Manuals, which have been mailed to Schools in your County.

In past years Manuals were sent to the Junior and Senior High Schools and letters to the school administrators were written requesting them to place these Manuals in their libraries for use of students and classroom civic teachers. This year we have also sent to each Elementary School Library two copies of the Manual with the same request.

For use of the individual students in making scrapbooks, etc., and to answer many of the other requests, we have had printed in pamphlet form "South Carolina State Symbols and Emblems", and I will be glad to supply you with some of these should you desire them.

The above information, I hope, will assist you in answering some of the many requests that you receive.

Yours sincerely,

Inez Watson

Inez Watson
Clerk of the House

This book is sent you with the compliments of your Lancaster County Legislative Delegation:

Senator
W. BRUCE WILLIAMS

Representatives
RODDEY L. BELL
WILLIAM U. CLYBURN

Figure 15.7 1959 Letter from the Clerk of The South Carolina House of Representatives Showing William Clyburn as a Member

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

SAB214 (15).

1957 FEB 14 PM 12 11

A CAA025 PD=KERSHAW SOCAR 14 1113AME=
THE HONORABLE W U CLYBURN=
MEMBER OF THE HOUSE OF RAPRESENTATIVES
COLUMBIA SOCAR=

THE FLAT CREEK FACULTY APPRECIATES YOUR SUPPORT OF THE MOORE REPORT. WE ARE CONFIDENT YOU WILL CONTINUE TO SUPPORT LEGISLATION BENEFICIAL TO THE EDUCATION OF OUR CHILDREN=

J L WERTZ, NELL CLYBURN, R F BANKS, MARJORIE KENNINGTON FAILE, VERA C HILTON, W C MARSHALL, CHRISTINE MUNGO ROBERTS, EHRLENE S WERTZ, HELEN S HARTMAN, DWANE A MORRISON, KERMIT FAILE,

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

1957 FEB 14 PM 12 11

MORRIS MCDOWELL, JR., JOHN B FAILE,
MARGARET MOBLEY, ETHEL R RALEY,
NANNIE WILLIAMS PLYLER, DORIS S SEEGARS,
REBEKAH CATOE BANKS, KATIE GARDNER TRUESDALE,
AND ESTER C JENKINS=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Figure 15.8 One of Several Telegrams Expressing Support from Constituents/Neighbors

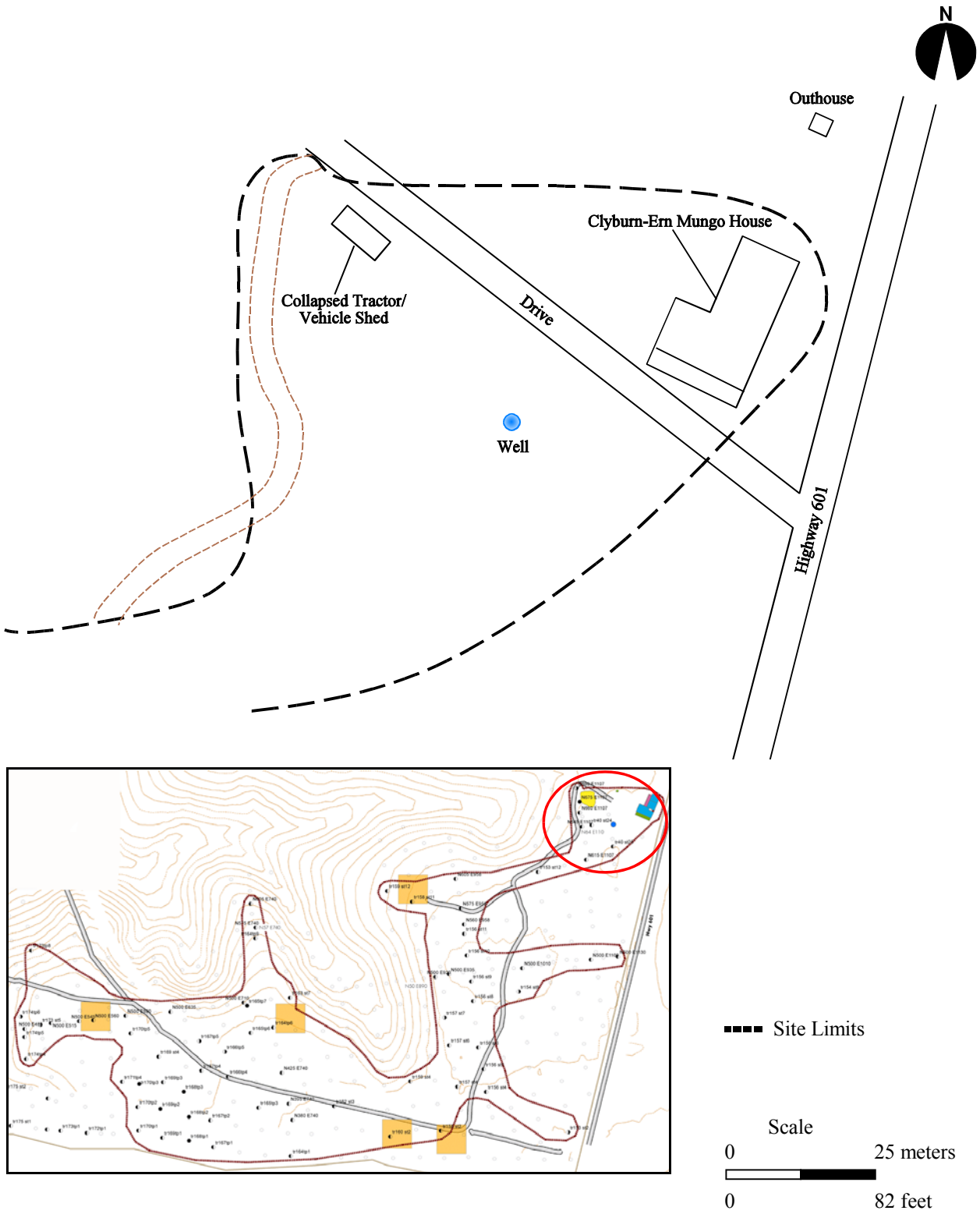


Figure 15.9 Plan of Clyburn-Ern Mungo House Complex

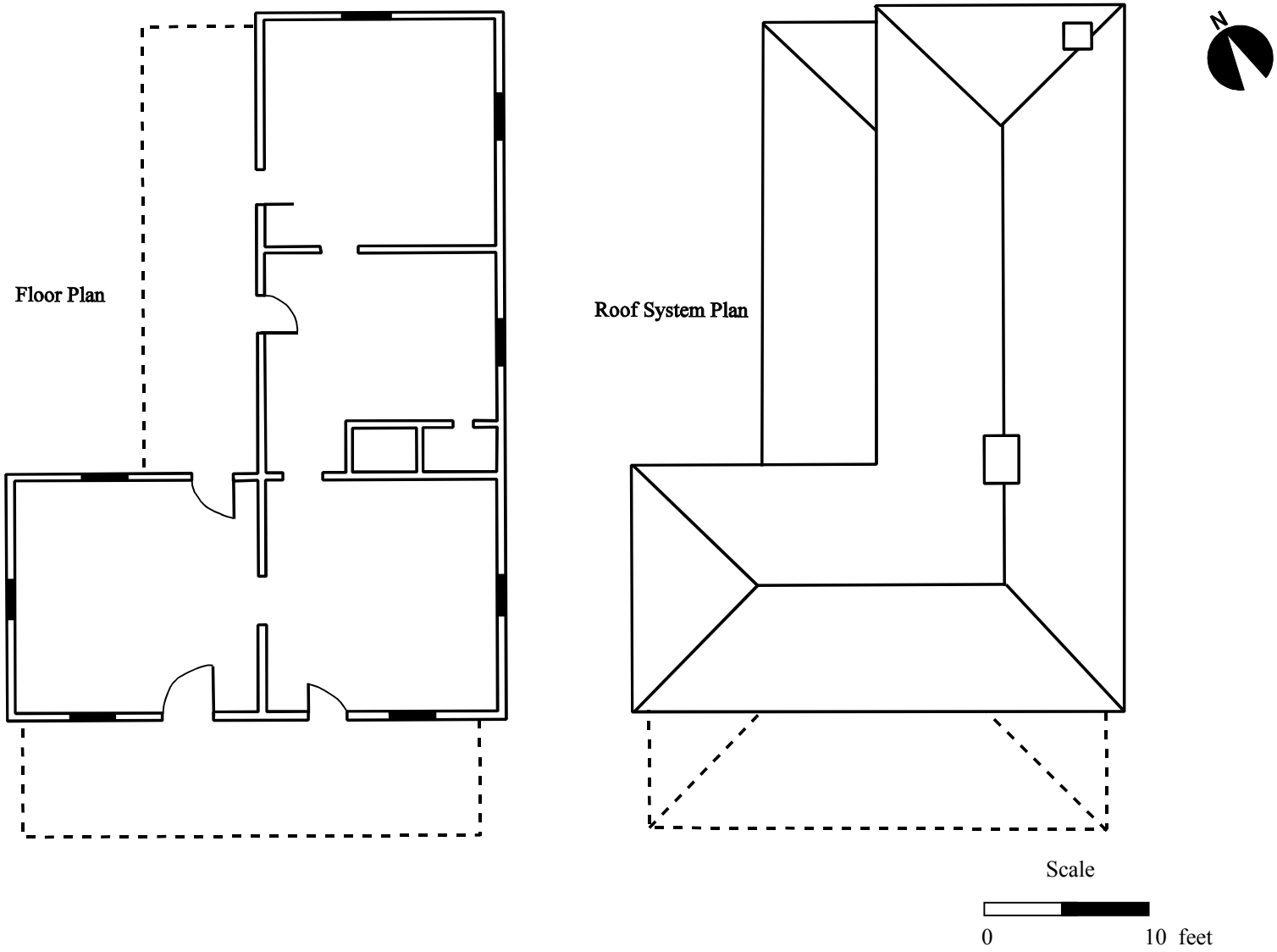


Figure 15.10 Clyburn-Ern Mungo House Plan

approximately 25 m away, and the well about 30 m to the southwest. The collapsed vehicle shed is about 45 m west of the house and association with the house complex is marginal.

15.5 Architectural Evaluation

The domicile at 38LA641 is a one-story braced or balloon-framed structure oriented east-west. The structure has an "L"-shaped plan and is set on a brick pier foundation (Figures 15.9 through 15.13). Each pier sits on a small, poured-concrete pad. The house's fenestration is four bays wide on the east-front facade (including a pair of central doorways) and three bays deep. The structure is wrapped in wood lap siding. The sill plates appear to have been machine hewn, windows are double-hung 6/6, and the structure has vertical four-panel doors. The house has an intersecting, hipped metal roof with a central brick corbeled chimney and a west-rear stepped brick kitchen flue (Figure 15.12). The east wing of the house is two rooms wide and there are two rooms in the western part of the "L". Each room has independent doorway access, with no single room completely segregated from an adjacent one. Access to the two rooms in the western section of the "L" is gained by doorways located at the south side porch. No access is gained from either the north or west sides of the house.

Regarding the interior of the structure, flooring is of pine tongue and groove planks, as are the walls. The ceilings are pine board and batten. The walls of the rear-most room (kitchen) appear to have been white-washed, as do the walls on either side of the central chimney where a mantel may have once been present (Figure 15.14). A domestic coal or wood burning stove made by the Malleable Steel Range Manufacturing Company of South Bend, Indiana (now known as Southbend Range) remains in the west-rear room (the smallest in the house). The company began operations in 1898 and their domestic stove production ceased in 1941 (Mission Restaurant Supply 2012).

In terms of utilities, the house has no interior plumbing or sanitation facilities; a deteriorating outhouse stands northeast of the house (Figure 15.13). In the northeast room of the house there is a two-breaker electrical panel (15 and 20-amp service) mounted in the north wall (Figure 15.15) which serviced light receptacles in the northeast, southeast, and central rooms of the house. Wiring is fabric, possibly asbestos-covered and is in-wall with no external electrical conduits or other evidence of retro fitting. If the wiring dates to the construction of the house, then the house would probably date no earlier than 1936, when rural electrification began in the study region. It is also possible that service was obtained through one of the small private electric companies in operation by the 1930s.

The Clyburn-Ern Mungo house is in poor to fair condition; the east-front porch has fallen away; some sections of exterior siding material are missing. This structure is very similar in plan and roof design to the house at the Faile house (38LA588). Together they may be representative of early to middle 20th century rural house construction in Lancaster County. The 1986 structure survey form (Figure 15.16) gives a circa 1915.

Contextual View, Looking North

Contextual View, Looking East

Figure 15.11 Selected Views of Clyburn-Ern Mungo House, 38LA641

View of North Side and West Rear, Looking South

Facade, Looking West

Figure 15.12 Selected Views of Clyburn-Ern Mungo House, 38LA641

Detail View of Foundation Looking Northwest Across Facade

View of Outhouse, Looking East

Figure 15.13 Selected Views of Clyburn-Ern Mungo House, 38LA641

Interior View of Central Chimney, Looking East

Interior View of Northeast Room Looking Northeast Toward Front Porch

Figure 15.14 Selected Views of Clyburn-Ern Mungo House, 38LA641

Interior View of Northeast Room Showing 2-Port Electrical Breaker (Center) and Board and Batten Ceiling

Figure 15.15 Selected View of Clyburn-Ern Mungo House, 38LA641

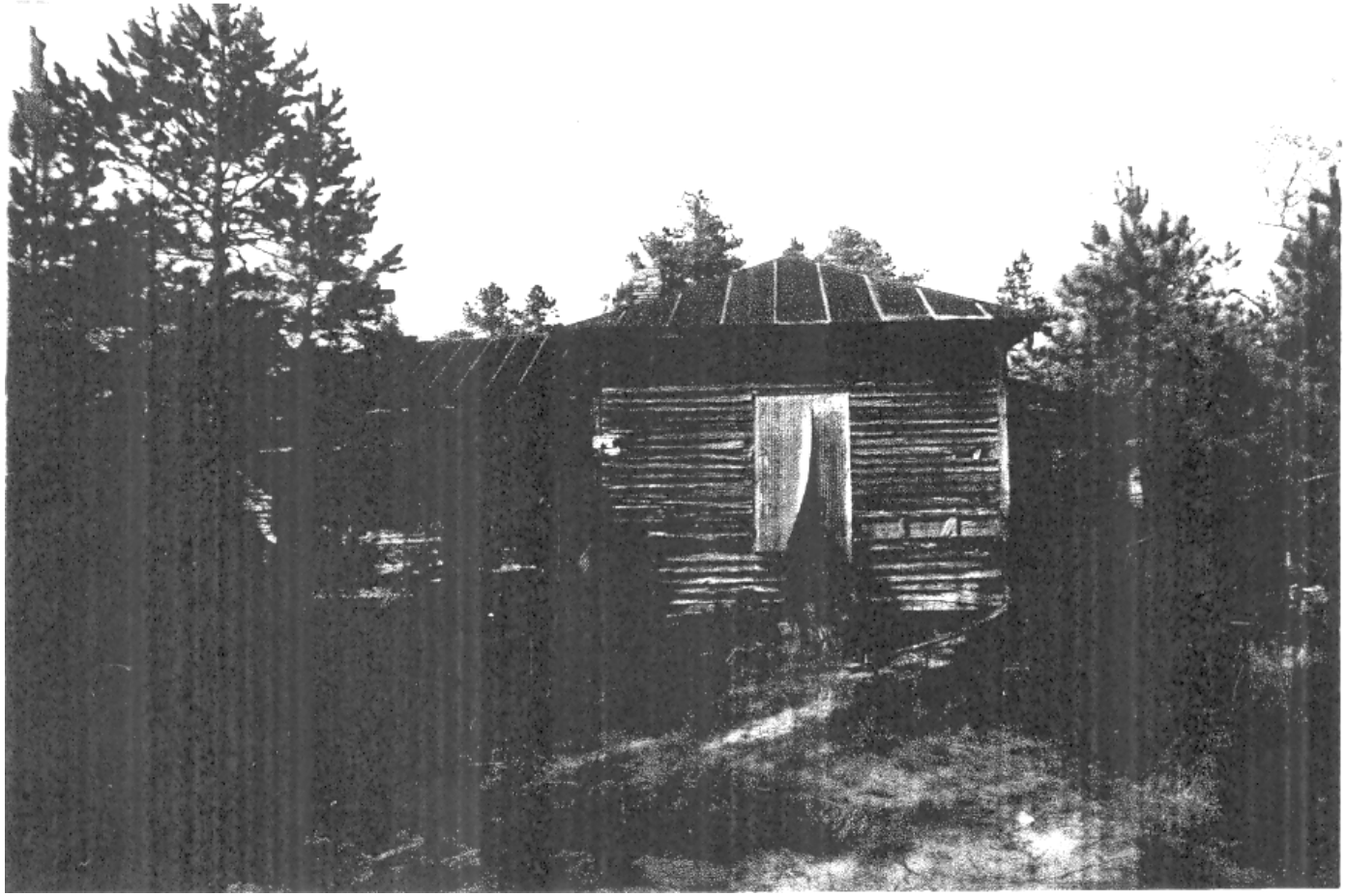


Figure 15.16 View of Clyburn-Ern Mungo House from 1986 Historic Resources Survey

construction date, but as noted above, if the electrical wiring was original construction, then a 1930s construction date may be more likely.

15.6 Phase II Excavations

Four concentrations of prehistoric artifacts identified during the Phase I survey were investigated during the Phase II fieldwork. Locus 1 was located in the southwest part of the site along survey Transect 170; the Locus 1 datum was established at shovel test T-170/2 (N420/E550). The datum at Locus 2 was established at survey shovel test T-173/5 (N500/E500). Locus 3 was centered on survey shovel test T-156/8 (N460/E955), while Locus 4 was set at survey shovel test T-153/12 (N610/E1055). In total, 97 Phase II shovel tests and four 1-by-1 m units were excavated at 38LA641. Due to the distances between these loci (125 to 300 m between the various loci), testing results are discussed by individual locus.

15.6.1 Locus 1 Close-grid Shovel Testing

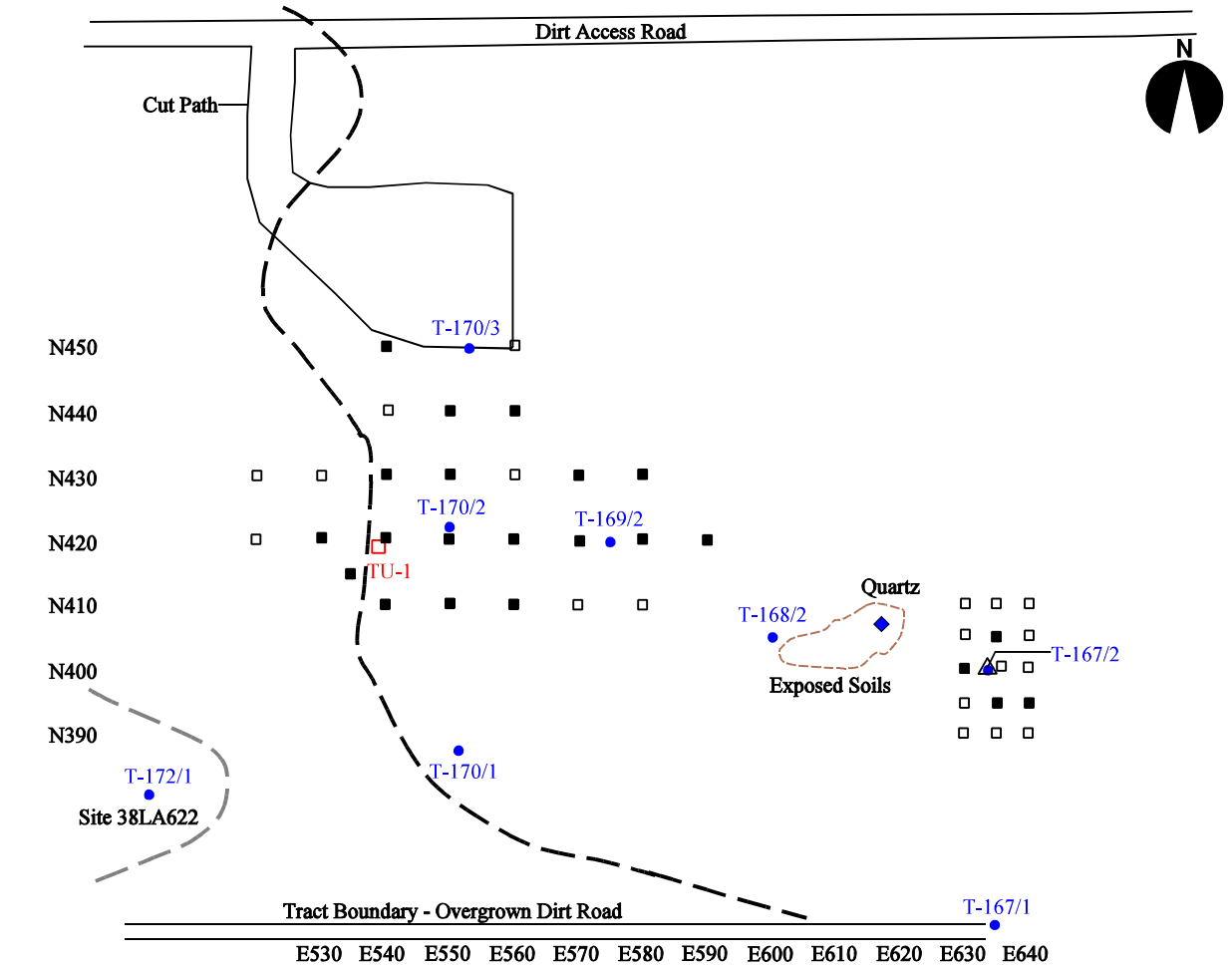
Forty-two shovel tests were excavated at Locus 1; 22 shovel tests were positive, 19 were negative (Figures 15.17 and 15.18). A total of 108 artifacts was recovered from the positive Phase II shovel tests in Locus 1 including 103 pieces of lithic debitage (metasandstone, n=59; quartz, n=35; metasiltstone, n=6; metavolcanic, n=1; chert, n=1; diabase, n=1), FCR (n=3), a quartz cobble, and one residual sherd (Table 15.1). Locus 1 at 38LA641 exhibited the broadest spectrum of raw lithic materials of any of the locations investigated during the Phase II evaluations. Artifacts were recovered from Levels 1 though 7 (0 to 70 cmbs) (Table 15.2), with the mode occuring Level 3 (n=41), followed by Level 4 (n=33) and Level 5 (n=13). Together Levels 3 through 5 produced 80.6 percent (n=87) of the artifacts recovered during Phase II shovel testing at Locus 1. The Phase II shovel testing artifact density distribution map (Figure 15.18) shows one high-density location at shovel test station N420/E540. The majority of the artifacts from this location was metasandstone debitage (n=48); this was also the location of a piece of FCR. These materials were found at depths of 20 and 40 cmbs,

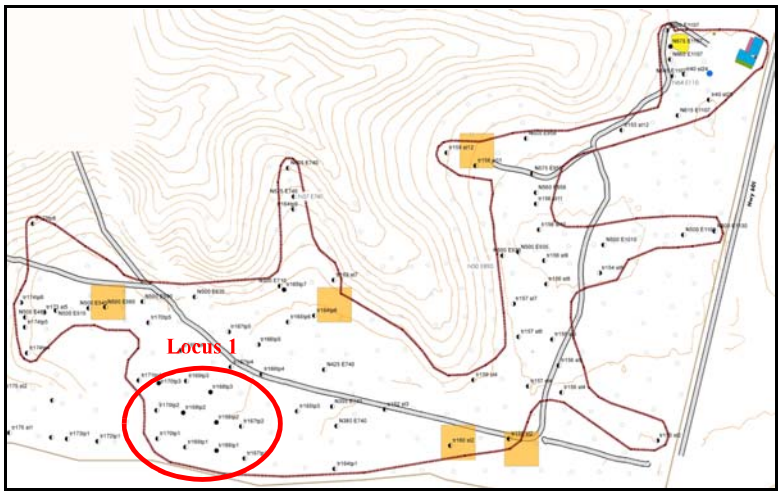
15.6.2 Locus 1 Test Unit Excavations

One 1-by-1-m test unit was excavated at Locus 1 (Figure 15.19; TU-1). TU-1 was placed near Phase II shovel test N420/E540 to investigate the high frequency of debitage sampled during shovel testing.

15.6.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in eight 10-cm arbitrary levels (Levels 1 through 8), with shovel test N420/E540 located 50 cm from the northeast corner. The unit datum was established at the surface in the northeast corner. Unit excavation was terminated at a depth of 80 cmbd.





Site Survey Boundary (Adams *et al.* 2011a)

Scale

0 30 meters

0 98 feet

---- Survey Site Limits

● Positive Survey Shovel Test

■ Positive Testing Shovel Test

□ Negative Testing Shovel Test

□ Test Unit

△ Datum

Figure 15.17 Site 38LA641 Plan Map, Locus 1

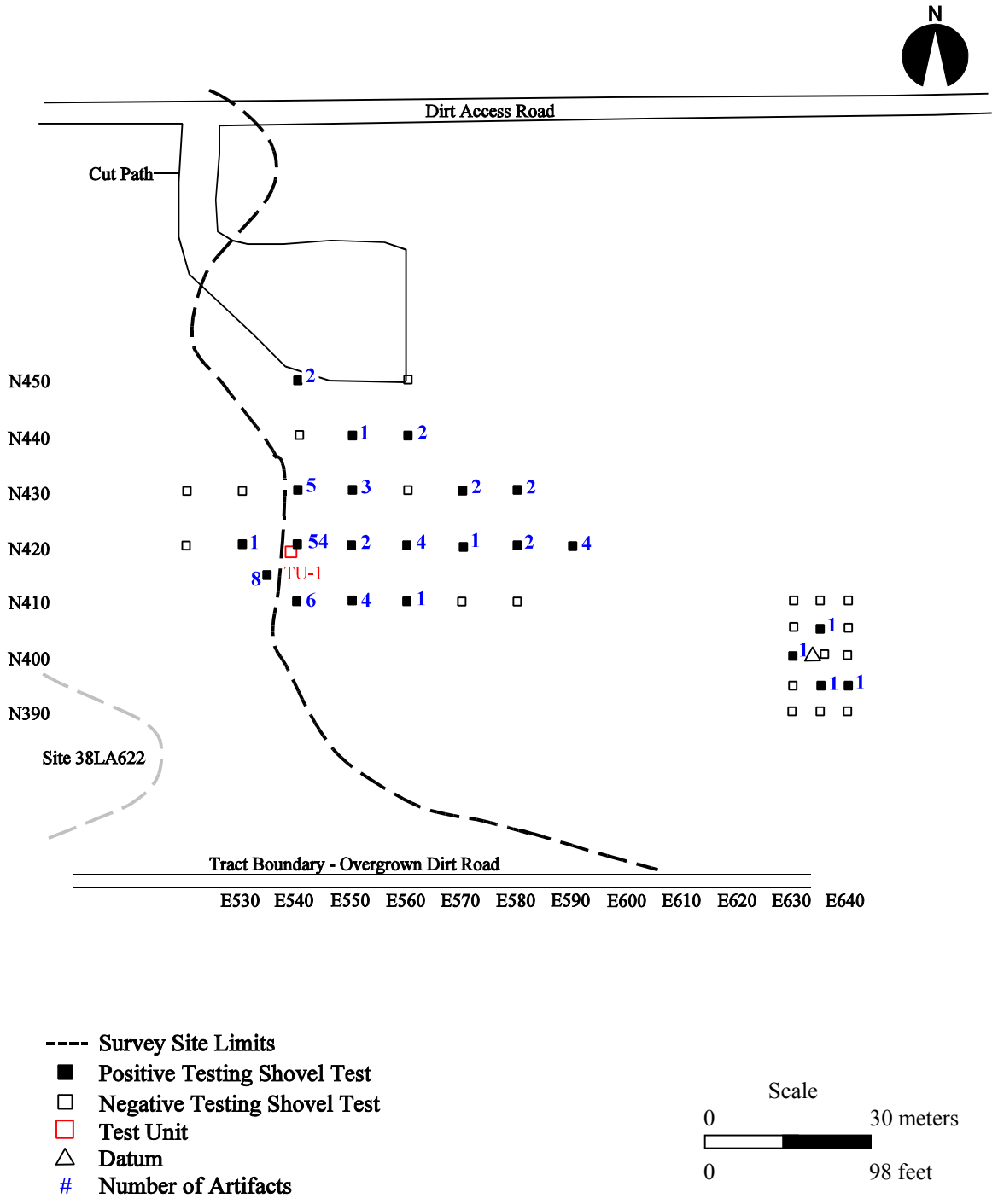


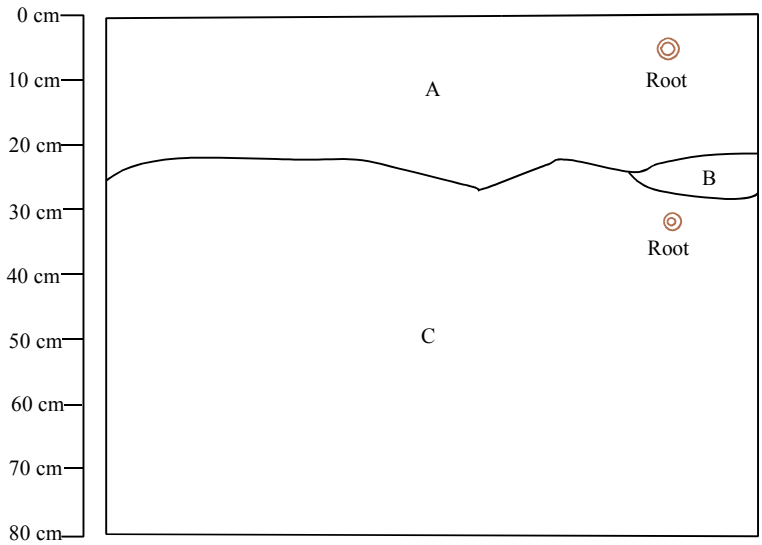
Figure 15.18 Site 38LA641 Density Map, Locus 1

Table 15.1 38LA641 Locus 1, Artifact Inventory Close-grid Shovel Tests

North Coordinate	395	395	400	405	410	410	410.15	415	420	420	420	420	420	420	420	430	430	430	430	440	440	450	
East Coordinate	635	640	630	635	540	550	560.93	535	530	540	550	560	570	580	590	540	550	570	580	550	560	540	**Total**
Lithic Reduction																							
Thinning flake, quartz																						2	**2**
metasiltstone			1									1											**2**
metasandstone								1								1							**2**
chert					1																		**1**
diabase																			1				**1**
Reduction flake, quartz					2																		**2**
metasandstone								2		10							1						**13**
metavolcanic																1							**1**
Flake fragment, quartz	1			1	1	4	1	3	1	5	2	1	1		2	2	2	2			2		**31**
metasiltstone												1			1	1				1			**4**
metasandstone					1			1		38		1		2	1								**44**
Cooking/Containment																							
Ceramic, eroded								1															**1**
FCR, quartz		1			1					1													**3**
quartz cobble																			1				**1**
Total	**1**	**1**	**1**	**1**	**6**	**4**	**1**	**8**	**1**	**54**	**2**	**4**	**1**	**2**	**4**	**5**	**3**	**2**	**2**	**1**	**2**	**2**	**108**

Table 15.2 38LA641 Locus 1, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	395	395	400	405	410	410	410.15	415	420	420	420	420	420	420	420	430	430	430	430	440	440	450	
East Coordinate	635	640	630	635	540	550	560.93	535	530	540	550	560	570	580	590	540	550	570	580	550	560	540	**Total**
Excavation Level																							
Level 1 (0-10 cm)								4															**4**
Level 2 (10-20 cm)						1		3				2				1							**7**
Level 3 (20-30 cm)		1			4			1	1	28	1	1				2	2						**41**
Level 4 (30-40 cm)			1	1	1					26						1				1		2	**33**
Level 5 (40-50 cm)	1				1	1					1			2	1		1	2	1		2		**13**
Level 6 (50-60 cm)						1						1	1		2	1			1				**7**
Level 7 (60-70 cm)						1	1	1							1								**3**
Total	**1**	**1**	**1**	**1**	**6**	**4**	**1**	**8**	**1**	**54**	**2**	**4**	**1**	**2**	**4**	**5**	**3**	**2**	**2**	**1**	**2**	**2**	**108**



A - 10YR 4/2 Dark grayish-brown sandy loam
B - 10YR 4/4 Dark yellowish-brown sandy loam
C - 10YR 5/4 Yellowish-brown sandy loam

Scale

0 30 cm

Figure 15.19 Site 38LA641, Test Unit 1, North Profile

TU-1 exposed three soil strata (Figure 15.19; Strata A, B and C). Stratum A is a dark grayish-brown (10YR 4/2) sandy loam that overlies Stratum B, a minor lens of dark yellowish-brown (10YR 4/4) sandy loam. Stratum C consists of yellowish-brown (10YR 5/4) sandy loam. In general, strata within TU-1 matched those of surrounding close-interval shovel tests. Stratum A was present in Levels and 2 and the upper 3 to 5 cm of Level 3. Stratum B appeared at 22 cmbd in the northeast portion of the unit. Stratum C became evident at 22 cmbd throughout the unit.

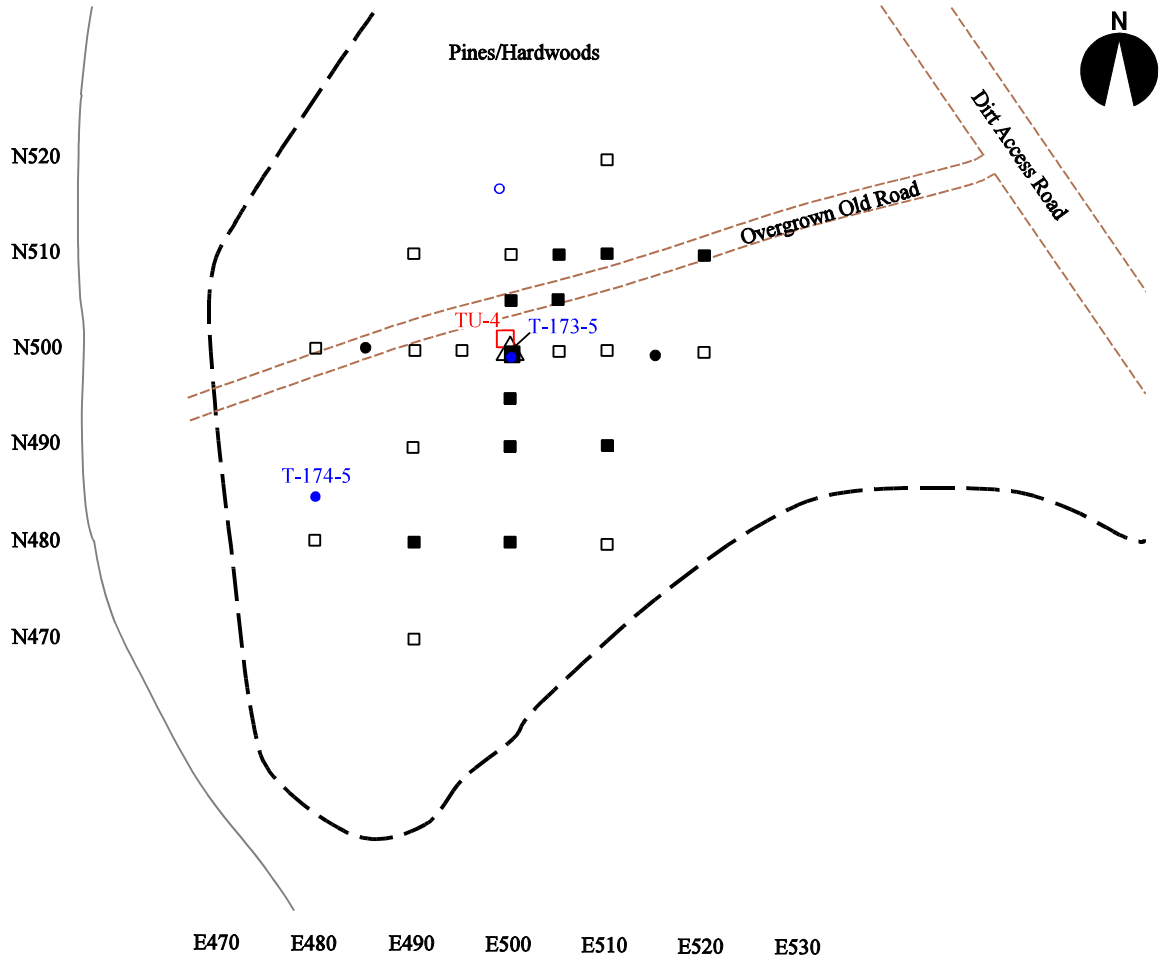
Artifacts: A total of 1,143 prehistoric artifacts was recovered from TU-1 (Table 15.3). The unit inventory consists of debitage (n=1,120; 98.0 percent), bifaces (n=5; 0.4 percent), a Morrow Mountain PP/K (0.1 percent), FCR (n=12; 1.1 percent), quartz cobbles (n=4; 0.4 percent), and one unidentified burned nut fragment (0.1 percent). The debitage is composed of quartz (n=150), metasandstone (n=969), and diabase (n=1). Lithic reduction activities are represented by thinning flakes (n=48), reduction flakes (n=162), and flake fragments (n=910). Unit artifact density increased in Level 3 (n=202), peaked in Level 4 (n=525), and then decreased in Level 5 (n=313) and Level 6 (n=97). Levels 7 and 8 were sterile. The eight pieces of FCR were recovered from Levels 4 and 5, as was the Morrow Mountain PP/K. Bifaces were found in Levels 4 (n=2) and 5 (n=3).

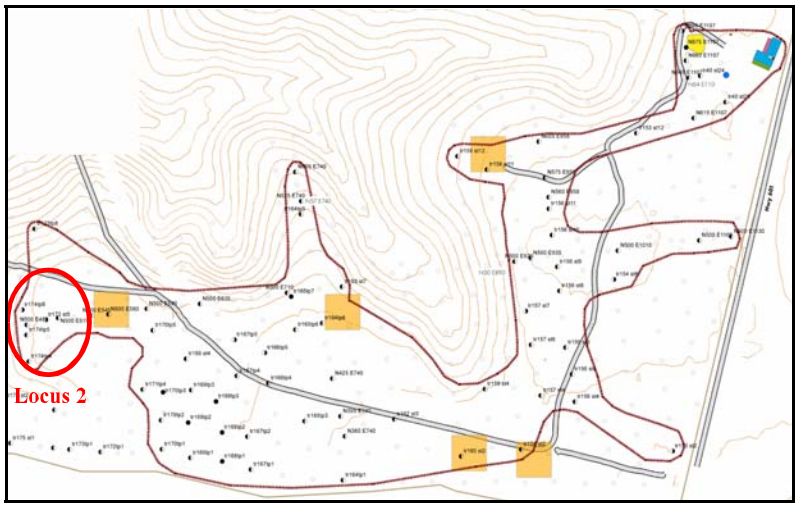
Table 15.3 38LA641 Locus 1, TU-1 Artifacts

Test Unit (TU)	1	1	1	1	1	1	
Level	1	2	3	4	5	6	
Bag Number	101	102	103/104	105-107	108/109	110	**Total**
Lithic Reduction							
Thinning flake, quartz	2			2	1	2	**7**
metasandstone			4	12	21	4	**41**
Reduction flake, quartz			1	1	5	1	**8**
metasandstone			25	86	35	8	**154**
Flake fragment, quartz		4	28	47	39	17	**135**
metasandstone			140	366	203	65	**774**
diabase				1			**1**
Core/Biface Manufacture							
Early Stage Biface, quartz					2		**2**
metasandstone				2			**2**
Biface fragment, metasandstone					1		**1**
Formal Tools							
PP/K, quartz-Morrow Mountain					1		**1**
Cooking/Containment							
FCR, quartz			4	8			**12**
quartz cobble					4		**4**
Flora/Fauna							
Nut fragment, burnt					1		**1**
Total	**2**	**4**	**202**	**525**	**313**	**97**	**1143**

15.6.3 Locus 2 Close-grid Shovel Testing

Eleven positive and 13 negative shovel tests were excavated at Locus 2 (Figure 15.20). A total of 283 artifacts was recovered from shovel tests, including 278 pieces of debitage (quartz, n=266; metasandstone, n=9; metasiltsone, n=2; metavolcanic, n=1), one quartz core, early stage bifaces (metasandstone, n=2; quartz, n=1), and one quartz cobble (Table 15.4). Artifacts were taken from Levels 1 though 8 (0 to 80 cmbs) (Table 15.5). Level 3 (30 to 40 cmbs) was the mode (n=80), followed by Levels 4 (n=74), 5 (n=62) and 2 (n=34).





Site Survey Boundary (Adams *et al.* 2011a)

Scale

0 20 meters

0 66 feet

- Survey Site Limits
- Positive Survey Shovel Test
- Negative Survey Shovel Test
- Positive Testing Shovel Test
- Negative Testing Shovel Test
- Test Unit
- Datum

Figure 15.20 38LA641 Plan Map, Locus 2

Table 15.4 38LA641 Locus 2, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	480	480	490	490	495	500	505	505	510	510	510	
East Coordinate	490	500	500	510	500	500	500	505	505	510	520	**Total**
Lithic Reduction												
Thinning flake, metasiltstone							1					**1**
quartz						5						**5**
Reduction flake, quartz						26	1					**27**
metasandstone					1							**1**
metavolcanic			1									**1**
Flake fragment, quartz	2	2	7	3	5	209	1	2			3	**234**
metasiltstone									1			**1**
metasandstone	5				3							**8**
Core/Biface Manufacture												
Core, quartz										1		**1**
Early Stage Biface, metasandstone							1				1	**2**
quartz						1						**1**
Cooking/Containment												
FCR, quartz cobble							1					**1**
Total	**7**	**2**	**8**	**3**	**9**	**241**	**5**	**2**	**1**	**1**	**4**	**283**

Levels 2 through 5 produced 88.3 percent (n=250) of the artifacts in the shovel test inventory. The Phase II shovel test artifact density distribution map (Figure 15.21) shows a single high concentration of artifacts at shovel test station N500/E500 (n=241) that accounts for 85.2 percent of the artifacts recovered during shovel testing at Locus 2. All but one of the artifacts from shovel test N500/E500 were quartz debitage, the other item was a quartz core.

Table 15.5 38LA641 Locus 2, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

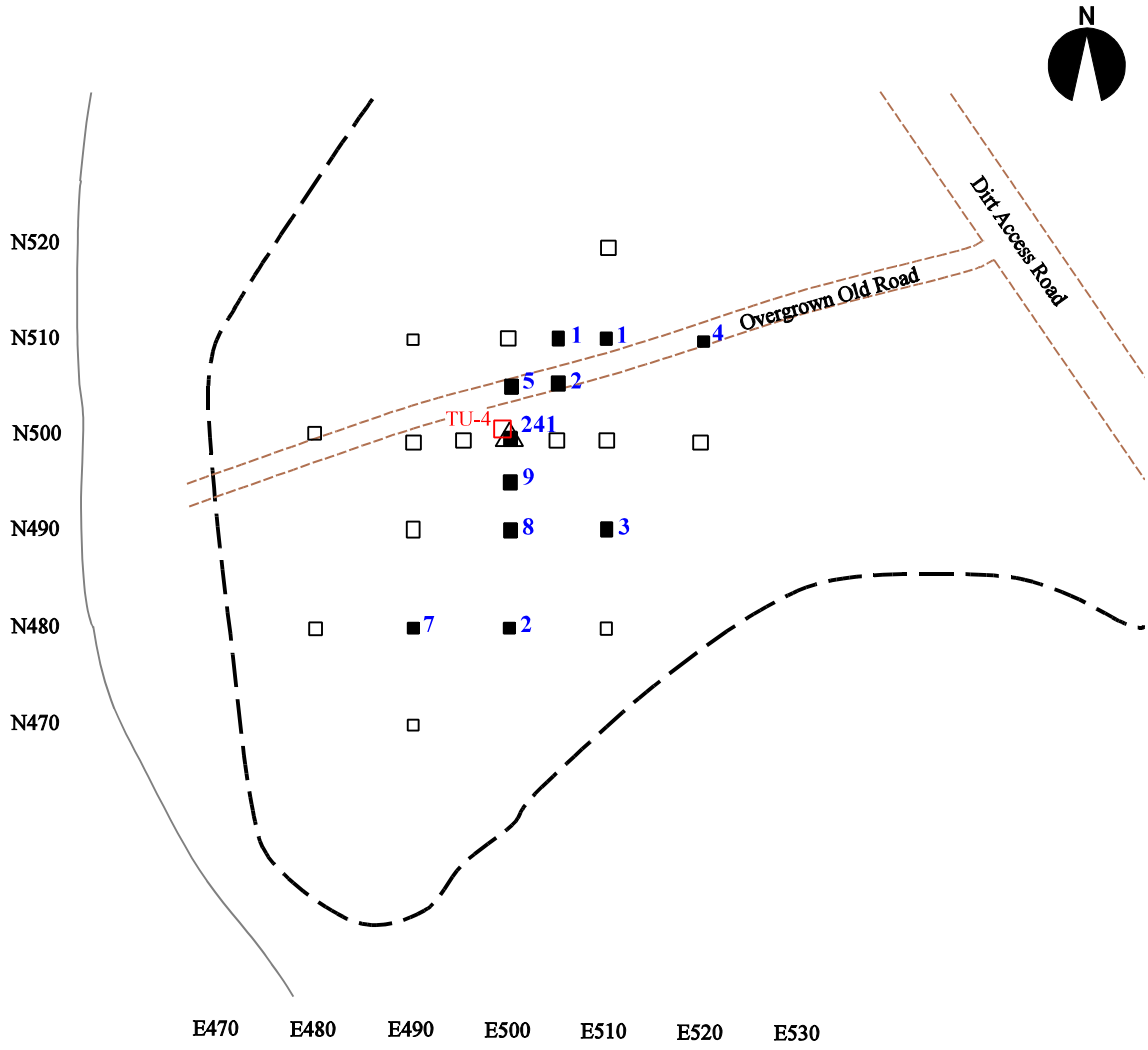
North Coordinate	480	480	490	490	495	500	505	505	510	510	510	
East Coordinate	490	500	500	510	500	500	500	505	505	510	520	**Total**
Excavation Level												
Level 1 (0-10 cm)			2		3	1	1					**7**
Level 2 (10-20 cm)						29	3	2				**34**
Level 3 (20-30 cm)	1		6		5	68						**80**
Level 4 (30-40 cm)	5			3	1	65						**74**
Level 5 (40-50 cm)	1	2				56			1		2	**62**
Level 6 (50-60 cm)						17					2	**19**
Level 7 (60-70 cm)						5				1		**6**
Level 8 (70-80 cm)							1					**1**
Total	**7**	**2**	**8**	**3**	**9**	**241**	**5**	**2**	**1**	**1**	**4**	**283**

15.6.4 Locus 2 Test Unit Excavation

One 1-by-1-m test unit was excavated at Locus 2 (Figures 15.22; TU-4). TU-4 was placed near Phase I shovel test T-173/5 and Phase II shovel test N500/E500, where 53 and 241 piece of quartz debitage were respectively found at 10 and 80 cmbs.

15.6.4.1 Test Unit 4

Level Excavations and Soil Stratification: TU-4 was excavated in eight 10-cm arbitrary levels (Levels 1 through 8). The unit datum was established 10 cm above ground surface in the northeast corner. Unit



Survey Site Limits
Positive Testing Shovel Test
Negative Testing Shovel Test
Datum
Test Unit
Number of Artifacts

Scale
0 20 meters
0 66 feet

Figure 15.21 38LA641 Density Map, Locus 2

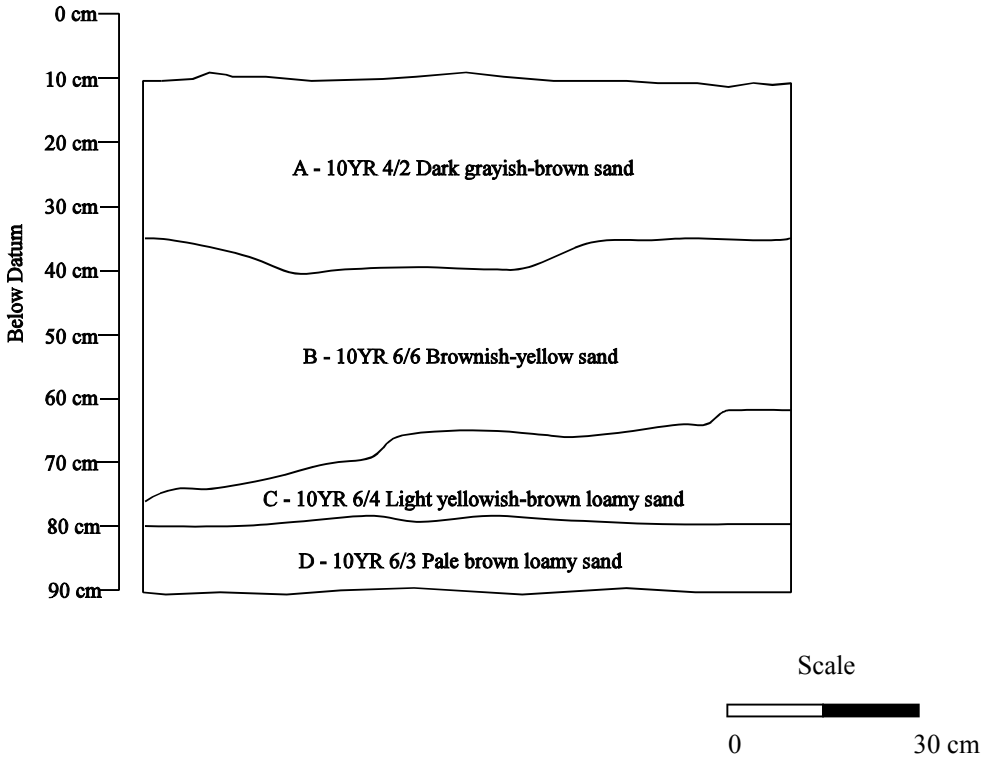


Figure 15.22 Site 38LA641, Test Unit 4, North Profile

excavation was terminated at a depth of 90 cmbd. TU-4 exhibited four soil strata (Figure 15.22; Strata A, B, C, and D). Stratum A is a dark grayish-brown (10YR 4/2) sandy loam that overlies Stratum B, a brownish-yellow (10YR 6/6) sand. Stratum C consists of light yellowish-brown (10 YR 6/4) loamy sand that transitions into Stratum D, a pale brown (10YR 6/3) loamy sand. Stratum A was recorded in Levels 1, 2 and the upper 5 to 8 cm of Level 3. Stratum B first appeared at approximately 30 cmbd and showed undulations suggesting surficial disturbance. Stratum C first appeared at 60 cmbd and transitioned into Stratum D at 78 cmbd.

Artifacts: TU-4 produced 556 prehistoric artifacts (Table 15.6) including debitage (n=552; 99.3 percent) and cores/bifaces (n=4 0.7 percent). The debitage (quartz, n=551; metavolcanic, n=1) consists of thinning flakes (n=3), reduction flakes (n=41), flake fragments (n=507), and shatter (n=1). Artifact density increased from Level 1 (n=1) to 2 (n=31), peaked in Level 3 (n=298), then decreased in Levels 4 (n=183), 5 (n=34) and 6 (n=9). Levels 1, 7 and 8 were sterile. The metavolcanic core and two bifaces, one quartz and one metavolcanic, were recovered from the mode in Level 3. No diagnostics were recovered from TU-4.

Table 15.6 38LA641 Locus 2, TU-4 Artifacts

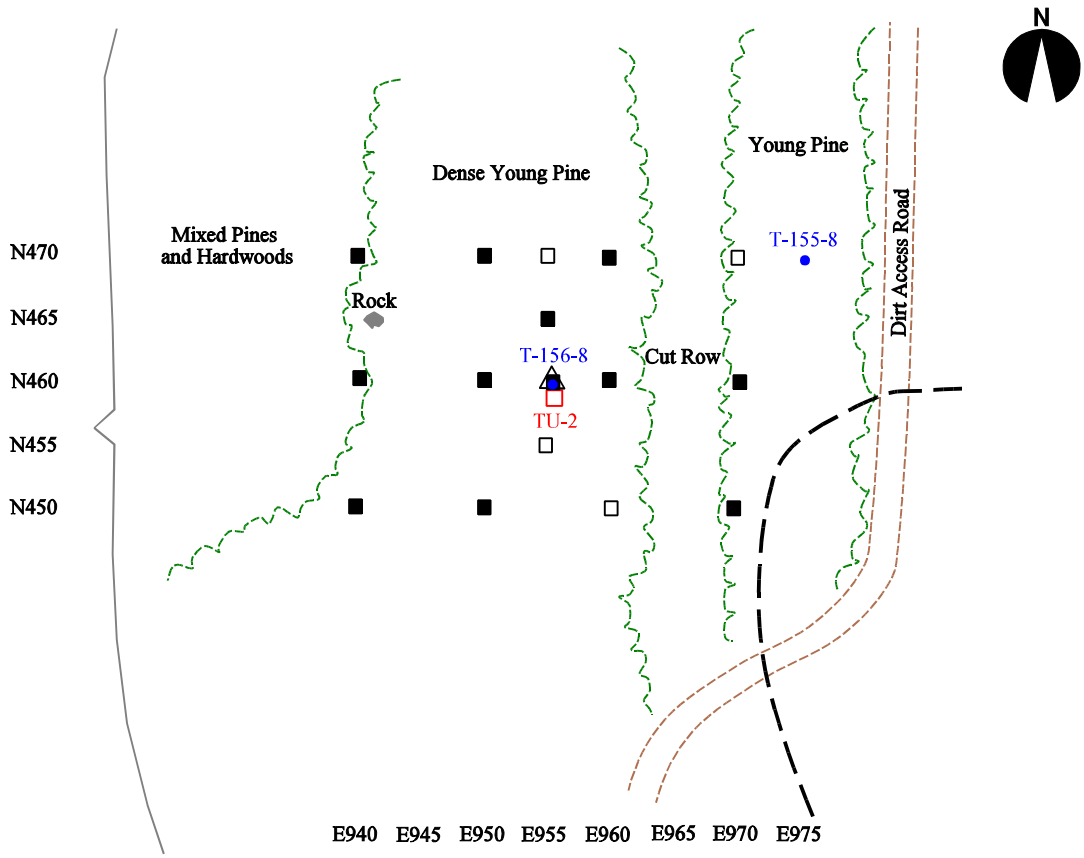
Test Unit	4	4	4	4	4	4	
Level	1	2	3	4	5	6	
Bag Number	11	12	13-16	17-20	21	22	**Total**
Lithic Reduction							
Thinning flake, quartz			2		1		**3**
Reduction flake, quartz		1	23	12	3	1	**40**
metavolcanic			1				**1**
Flake fragment, quartz	1	29	268	171	30	8	**507**
Shatter, quartz			1				**1**
Core/Biface Manufacture							
Core, metavolcanic			1				**1**
Early Stage Biface, quartz		1	1				**2**
metavolcanic			1				**1**
Total	**1**	**31**	**298**	**183**	**34**	**9**	**556**

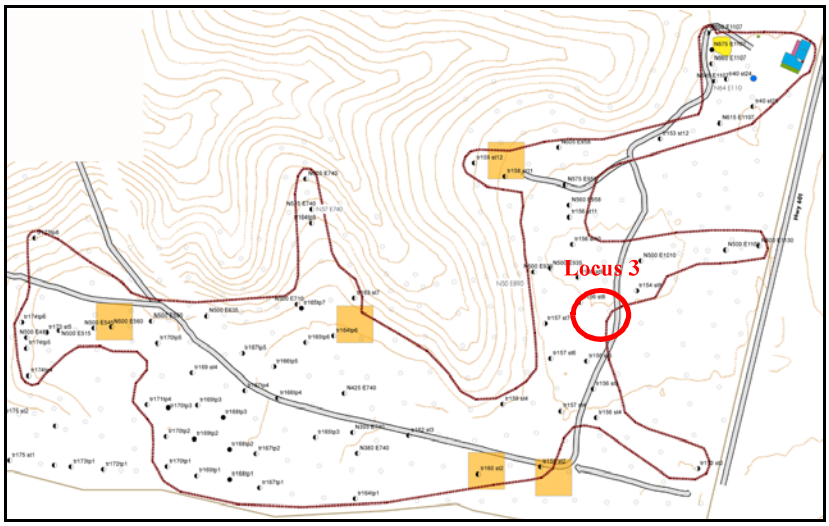
15.6.5 Locus 3 Close-grid Shovel Testing

Twelve positive and four negative shovel tests were excavated at Locus 3 (Figures 15.23 and 15.24), producing 21 prehistoric artifacts. This includes 19 pieces of debitage (quartz, n=18; metasiltstone, n=1), one quartz biface fragment, and one piece of FCR (Table 15.7). Artifacts were scattered across Levels 2 though 8 (10 to 80 cmbs) (Table 15.8) with co-modes in sequent Levels 5 (n=5), 6 (n=5), and 7 (n=5). The Phase II shovel test artifact density distribution map (Figure 15.24) displays no concentrations of artifacts at Locus 3.

15.6.6 Locus 3 Test Unit Excavation

One 1-by-1-m test unit, TU-2, was excavated at Locus 3 (Figures 15.25; TU-2). Given the low artifact yields at Locus 3 during Phase II shovel testing, TU-2 was placed near survey shovel test T-156/8 where 23 quartz





Site Survey Boundary (Adams *et al.* 2011a)

Scale

0 15 meters

0 49 feet

- Survey Site Limits
- Positive Survey Shovel Test
- Positive Testing Shovel Test
- Negative Testing Shovel Test
- Test Unit
- Datum

Figure 15.23 Site 38LA641 Plan Map, Locus 3

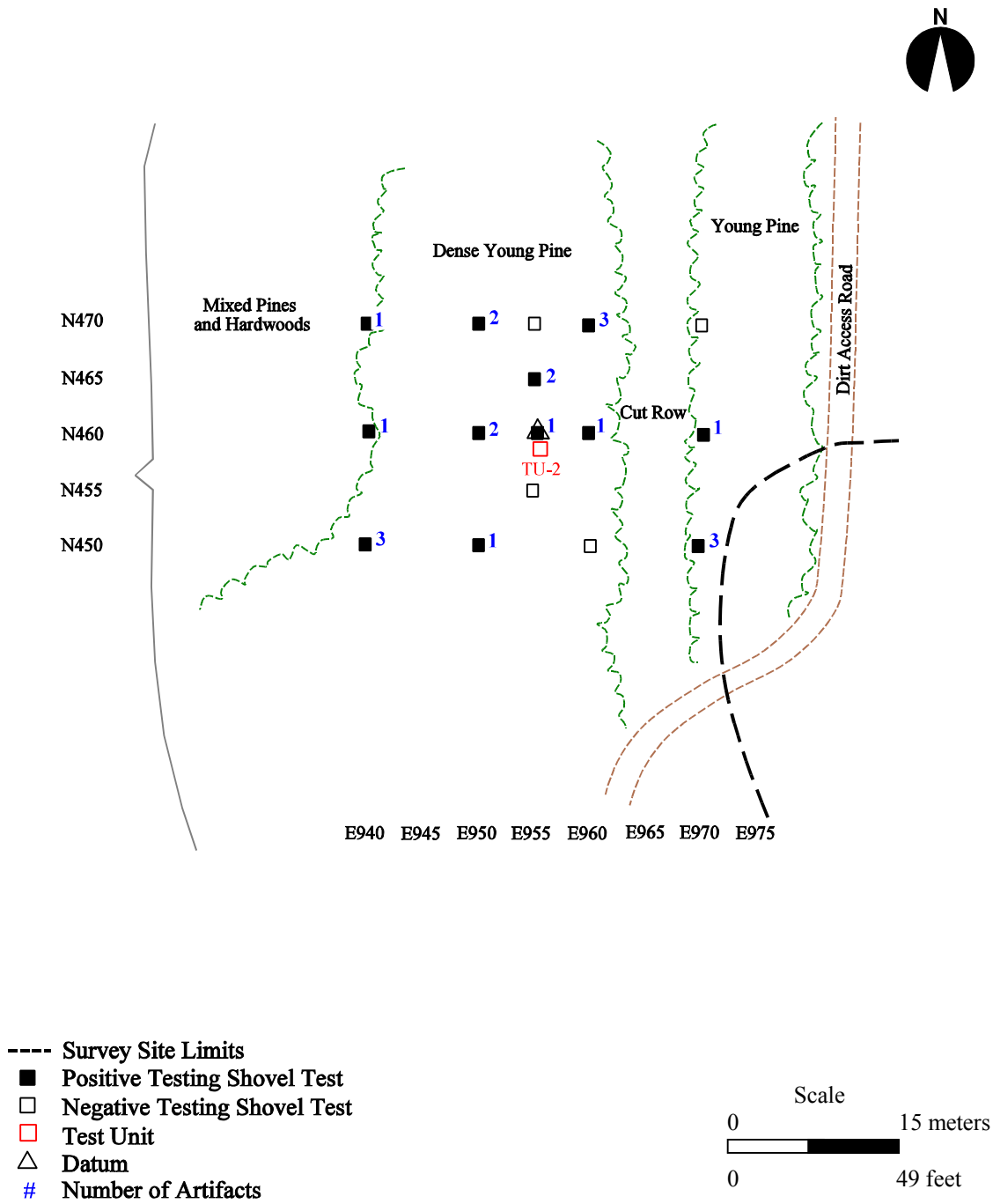


Figure 15.24 Site 38LA641 Density Map, Locus 3

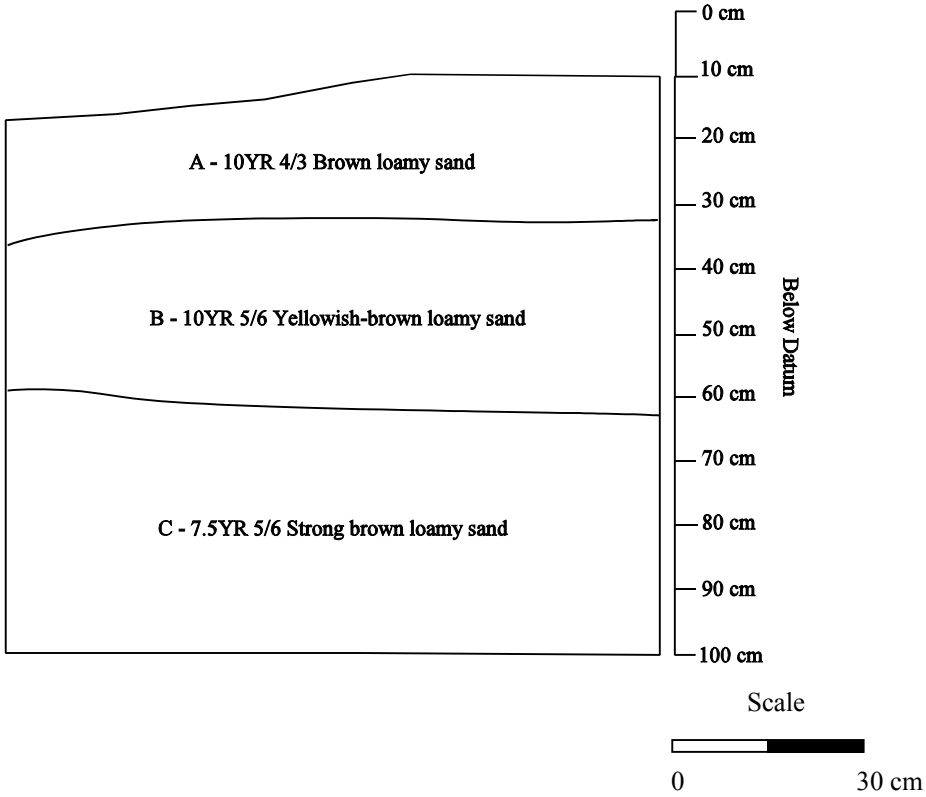


Figure 15.25 Site 38LA641, Test Unit 2, North Profile

Table 15.7 38LA641 Locus 3, Artifact Inventory Close-grid Shovel Tests

North Coordinates	450	450	450	450	450	460	460	460	460	460	460	465	470	470	470	
East Coordinates	940	940	950	970	970	940	950	950	955	960	970	955	944	950	960	**Total**
Lithic Reduction																
Thinning flake, quartz											1	1				**2**
metasiltstone												1				**1**
Reduction flake, quartz	1					1				1			1		1	**5**
Flake fragment, quartz		2	1	1	2			1	1					1	2	**11**
Core/Biface Manufacture																
Biface fragment, quartz							1									**1**
Cooking/Containment																
FCR, quartz														1		**1**
Total	**1**	**2**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**2**	**3**	**21**

flake fragments, one quartz core and two quartz shatter were recovered between 40 and 80 cmbs. Only one quartz flake fragment was recovered from the Phase II shovel test at this location (N460/E955).

Table 15.8 38LA641, Locus 3, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	450	450	450	460	460	460	460	460	465	470	470	470	
East Coordinate	940	950	970	940	950	955	960	970	955	940	950	960	**Total**
Excavation Level													
Level 1 (0-10 cm)													
Level 2 (10-20 cm)										1			**1**
Level 3 (20-30 cm)					1								**1**
Level 4 (30-40 cm)	1												**1**
Level 5 (40-50 cm)		1	2		1	1							**5**
Level 6 (50-60 cm)			1	1								3	**5**
Level 7 (60-70 cm)								1	2		2		**5**
Level 8 (70-80 cm)	2						1						**3**
Total	**3**	**1**	**3**	**1**	**2**	**1**	**1**	**1**	**2**	**1**	**2**	**3**	**21**

15.6.6.1 Test Unit 2

Level Excavations and Soil Stratification: TU-2 was excavated in nine 10-cm arbitrary levels (Levels 1 through 9), with the unit datum being established at 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 100 cmbd. In general, strata within TU-2 matched those of the surrounding close-interval shovel tests. This test unit contained three soil strata (Figure 15.25; Strata A, B, and C). Stratum A is a grayish-brown (10YR 4/3) loamy sand that overlies Stratum B, a yellowish-brown (10YR 5/6) loamy sand. Stratum C consists of strong brown (7.5YR 5/6) loamy sand. Stratum A was noted in Levels 1 and 2 and in the upper half of Level 3. Stratum B appeared at 34 cmbd in the northeastern portion of the unit. Stratum C became evident at 60 cmbd in the northwestern part of the unit.

Table 15.9 38LA641 Locus 3, TU-2 Artifacts

Test Unit (TU)	2	2	2	2	2	
Level	2	5	6	7	8	
Bag Number	111	112	113	114	115	**Total**
PREHISTORIC						
Lithic Reduction						
Reduction Flake, quartz		1				**1**
Flake Fragment, quartz	2		2	2	1	**7**
Prehistoric Total	**2**	**1**	**2**	**2**	**1**	**8**
HISTORIC						
Kitchen/Subsistence						
Whiteware, polychrome	1					**1**
Historic Total	**1**					**1**
GRAND TOTAL	**3**	**1**	**2**	**2**	**1**	**9**

Artifacts: Artifact yield (Table 15.9) was very low in TU-2, producing only eight prehistoric and one historic

artifacts. In fact, Levels 1, 3, 4, and 9 were sterile and no more than three artifacts were recovered from a single level. Prehistoric artifacts consist entirely of quartz lithic debitage [one reduction flake and flake fragments (n=7)]. One historic artifact was found in Level 2, a piece of 19th century polychrome whiteware.

15.6.7 Locus 4 Close-grid Shovel Testing

Nine positive and six negative shovel tests were excavated at Locus 4 (Figures 15.26 and 15.27). The positive tests yielded 32 prehistoric artifacts, all of which are debitage (quartz, n=29; metasiltstone, n=2; metavolcanic, n=1) (Table 15.10). Artifacts were recovered from Levels 3 though 9 (20 to 90 cmbs) (Table 15.11); the artifact mode is in Level 6 (n=18), followed by Level 5 (n=8); 81.3 percent of the artifacts were from these two levels. The Phase II shovel test artifact density distribution map (Figure 15.27) shows minor concentrations of debitage at shovel tests N610/E1055 (n=9) and N615/E1060 (n=7).

Table 15.10 38LA641 Locus 4, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	600	610	610	610	615
East Coordinate	1060	1050	1055	1060	1050
Lithic Reduction					
Thinning flake, quartz					1
metasiltstone				1	
Reduction flake, quartz			1		
metavolcanic				1	
Flake fragment, quartz	1	3	8	3	1
metasandstone					
Shatter, quartz					1
Total	**1**	**3**	**9**	**5**	**3**

North Coordinate	610	615	615	620	620	
East Coordinate	1070	1055	1060	1060	1060	**Total**
Lithic Reduction						
Thinning flake, quartz			1	1		**3**
metasiltstone						**1**
Reduction flake, quartz	1		2			**4**
metavolcanic						**1**
Flake fragment, quartz			4		1	**21**
metasandstone		1				**1**
Shatter, quartz						**1**
Total	**1**	**1**	**7**	**1**	**1**	**32**

15.6.8 Locus 4 Test Unit Excavation

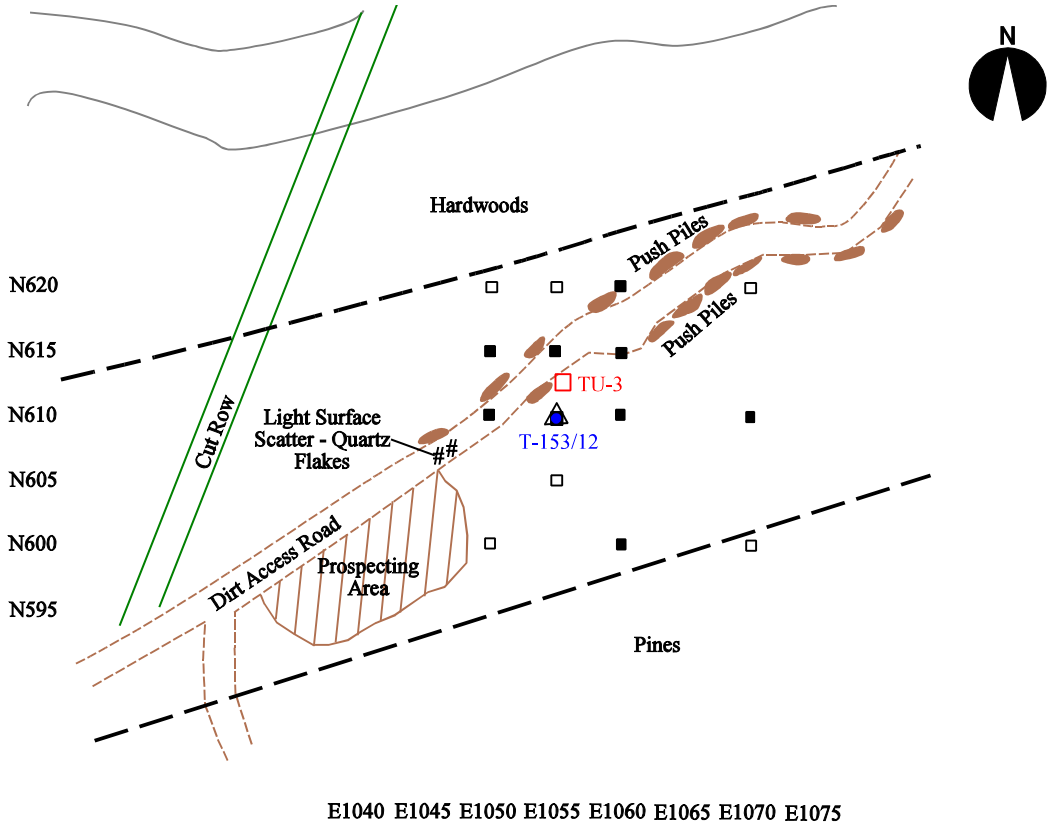
A 1-by-1-m test unit was placed north of survey shovel test T-153/12 and Phase II test N610/E1055. The survey shovel test produced 33 quartz flake fragments between 25 and 100 cmbs, while the Phase II shovel test contained nine pieces of quartz debitage at 40 to 60 cmbs.

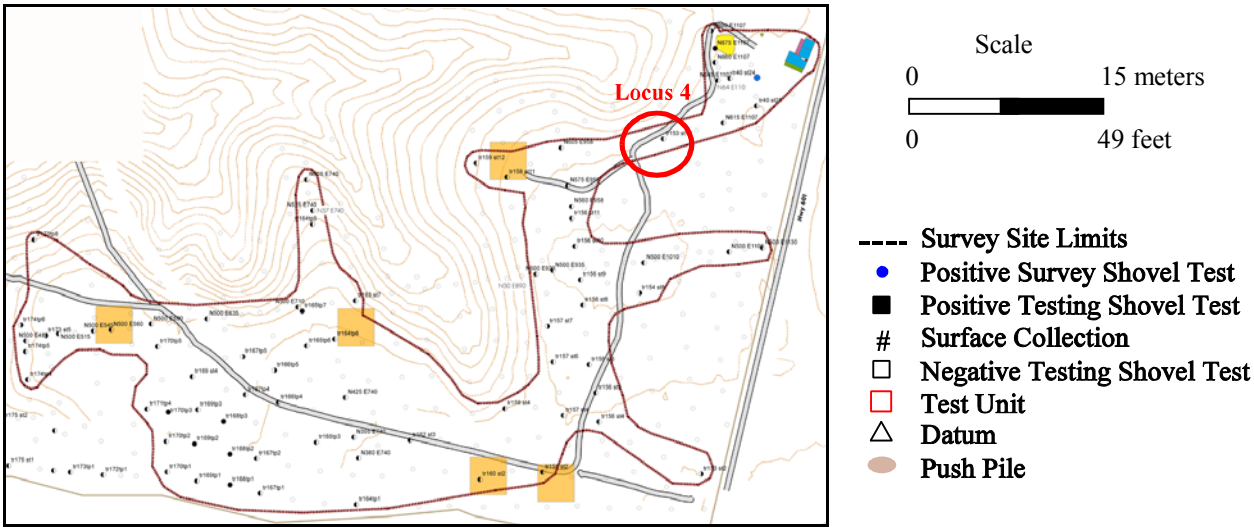
Table 15.11 38LA641 Locus 4, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	600	610	610	610	610	615	615	615	620	
East Coordinate	1060	1050	1055	1060	1070	1050	1055	1060	1060	**Total**
Excavation Level										
Level 3 (20-30 cm)				1				1		**2**
Level 4 (30-40 cm)						1				**1**
Level 5 (40-50 cm)			2	1	1			4		**8**
Level 6 (50-60 cm)	1	3	7	3		2		1	1	**18**
Level 7 (60-70 cm)							1	1		**2**
Level 9 (80-90 cm)									1	**1**
Total	**1**	**3**	**9**	**5**	**1**	**3**	**1**	**7**	**2**	**32**

15.6.8.1 Test Unit 3

Level Excavations and Soil Stratification: TU-3 was





Site Survey Boundary (Adams *et al.* 2011a)

Figure 15.26 Site 38LA641 Plan Map, Locus 4

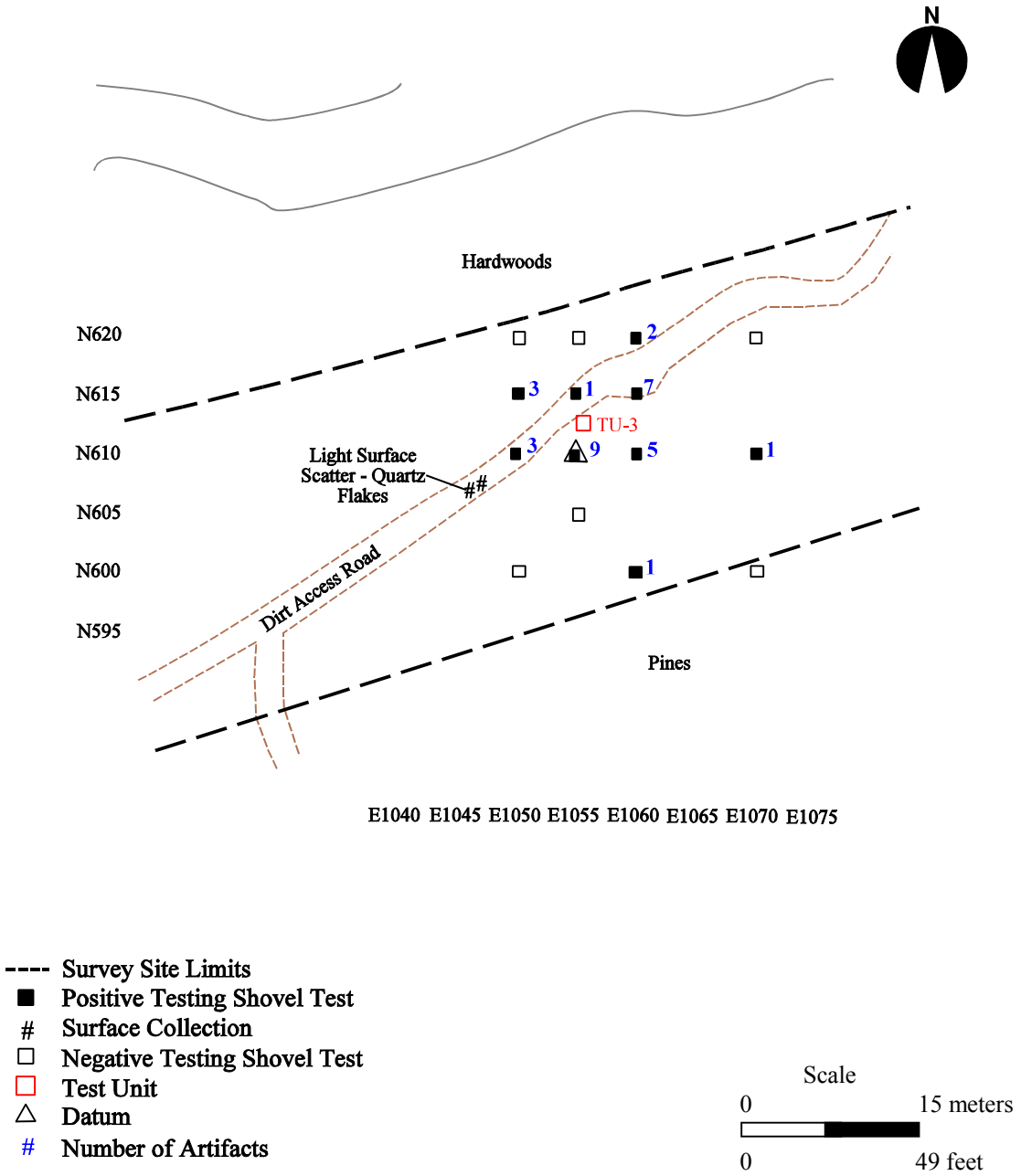


Figure 15.27 Site 38LA641 Density Map, Locus 4

excavated in one partial and nine 10-cm arbitrary levels (Levels 1 through 10). The unit datum was set at ground surface in the northeast corner of the unit. Because of irregularities on the surface of TU-3, Level 1 was a partial level used to even the unit surface for subsequent excavations; Levels 2 though 10 were 10-cm levels. Unit excavation was terminated at a depth of 100 cmbd. TU-3 contained three soil strata (Figure 15.28; Strata A, B and C). Stratum A is a very dark grayish-brown (10YR 3/2) sand that overlies Stratum B, a yellowish-brown (10YR 5/6) loamy sand. Stratum C is a yellowish-brown (10 YR5/8) loamy sand. Stratum A was present in Levels 1 and 2, and in the upper 2 to 6 cm of Level 3. Stratum B first appeared at 22 cmbd and continues into Level 9; a large tree stump was recorded in this level in the eastern part of the unit. Stratum C appeared at 82 cmbd and was present at the base of Level 10 when unit excavation was terminated.

Table 15.12 38LA641 Locus 4, TU-3 Artifacts

Test Unit (TU)	3	3	3	3	3	3	3	
Level	2	3	4	5	6	7	8	
Bag Number	116	117/118	119	120	121	122	123	**Total**
Lithic Reduction								
Thinning flake, quartz					2			**2**
metasandstone		1	4	1	2	2	1	**11**
Reduction flake, quartz				5				**5**
metasiltstone		1						**1**
metasandstone				2	2	1		**5**
Flake fragment, quartz	2	1	14	28	27	15		**87**
metasandstone	1	1	6	7	7	5		**27**
Core/Biface Manufacture								
Core, quartz				1				**1**
Hammerstone, quartz cobble				1				**1**
Total	**3**	**4**	**24**	**45**	**40**	**23**	**1**	**140**

Artifacts: One hundred and forty artifacts were recovered from TU-3 (Table 15.12), including debitage (n=138; 98.6 percent), a core (0.7 percent), and a hammerstone (0.7 percent). The debitage (quartz, n=94; metasandstone, n=43; metasiltstone, n=1) consists of thinning flakes (n=13), reduction flakes (n=11), and flake fragments (n=114). Artifact density was low through Level 3 (n=7), increased in Level 4 (n=24), peaked in Levels 4 (n=45) and 5 (n=40), then declined in Levels 7 (n=23) and 8 (n=1). Levels 1, 9 and 10 were sterile. No diagnostic artifacts were recovered from TU-3, but the core and hammerstone were both recovered from Level 5, the mode for debitage.

15.7 Analysis

Site Artifact Inventory: One historic and 2,292 prehistoric artifacts were recovered during Phase II testing at 38LA641. The four test unit excavations produced 1,848 artifacts; while 54 of the 97 Phase II shovel tests excavated at the site yielded 444 artifacts. Since the four loci evaluated at 38LA641 were separated by more than 100 m in some cases, each locus is discussed separately.

Locus 1: A sample of 1,251 prehistoric artifacts was recovered from Locus 1. This inventory is comprised of lithic debitage (n=1,224; 97.8 percent), FCR/cobbles (n=20; 1.6 percent), cores/bifaces (n=5; 0.4 percent), one PP/K (0.1 percent), one sherd (0.1 percent), and one unidentifiable burned nut fragment (0.1 percent).

Ground surface does not slope, but appears to due to angle of photograph

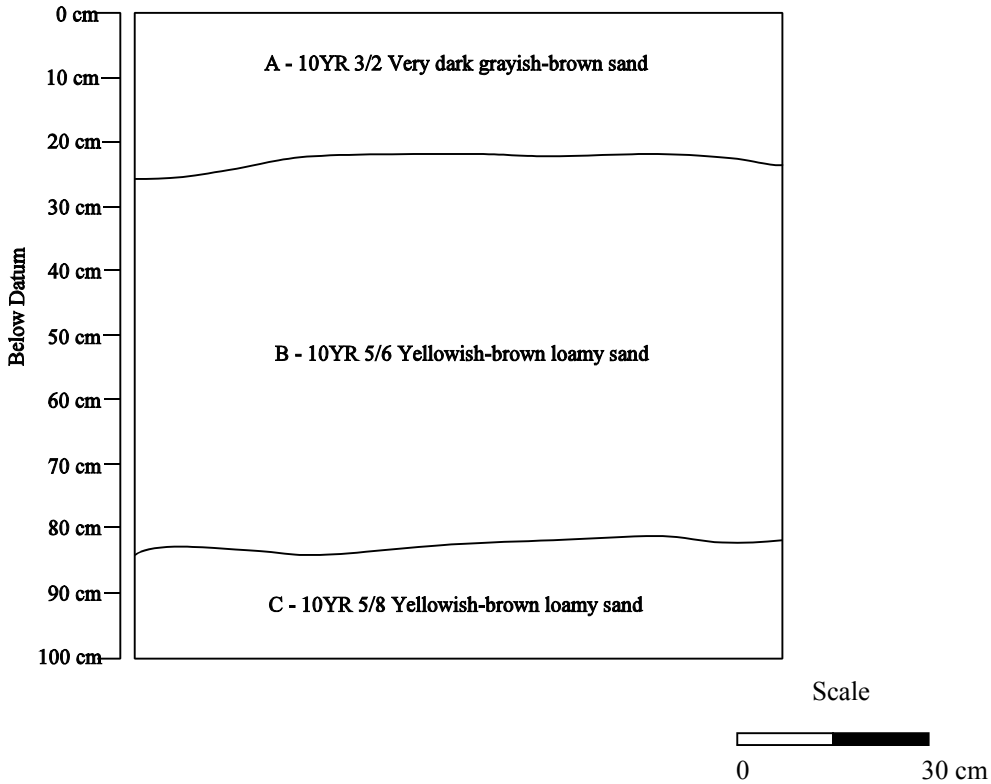


Figure 15.28 Site 38LA641, Test Unit 3, North Profile

The debitage includes flake fragments (n=989; 80.8 percent), followed by reduction flakes (n=178; 14.5 percent) and thinning flakes (n=56; 4.6 percent). The debitage is dominated by metasandstone (n=1028; 84.0 percent) followed by quartz (n=187; 15.3 percent), metasiltstone (n=6; 0.5 percent), metavolcanic (n=1; 0.1 percent), chert (n=1; 0.1 percent), and diabase (n=1; 0.1 percent). As with many of the reduction loci investigated, much of the activity at Locus 1 appears to have been geared toward the early stages of metasandstone reduction. Comparatively few metasandstone thinning flakes are present, and three biface rejects/failures of this material were found coeval with metasandstone debitage in Levels 4 and 5.

The bifaces from Locus 1 are unfinished/rejected products and included four early stage bifaces (quartz, n=2; metasandstone, n=2) and one metasandstone biface fragment. The PP/K from Locus 1 is a quartz Middle Archaic Morrow Mountain knife with an exaggerated, slightly serrated, asymmetrical blade and contracting stem (Figure 15.29).

FCR (n=15) and a small number of quartz cobbles (n=5) were viewed as evidence, or in the case of the cobbles, potential evidence of hot-rock cooking activities. The FCR from TU-1 was confined to Levels 3 (n=4) and 4 (n=8), while the quartz cobbles (n=4) were found in underlying Level 5. These rocks were not clustered and may represent the remains of a disturbed rock hearth or a FCR discard plume. The unidentified burned nut fragment was also recorded in Level 5.

A single eroded sand-tempered sherd was found during Phase II shovel testing at Locus 1. This sherd probably dates to the Woodland period.

Locus 2: A total of 839 prehistoric artifacts was taken from Locus 2 during the Phase II investigations. This includes lithic debitage (n=830; 98.9 percent), cores/bifaces (n=8; 1.0 percent), and FCR (n=1; (0.1 percent). The debitage is made up of flake fragments (n=750; 90.4 percent), followed by reduction flakes (n=70; 8.4 percent) and thinning flakes (n=9; 10.8 percent). Raw materials include quartz (n=817; 98.4 percent), metasandstone (n=9; 1.1 percent), metasiltstone (n=2; 0.2 percent), and metavolcanics (n=2; 0.2 percent). The Locus 2 artifact profile is very similar to other quartz reduction centers at Haile Gold Mine where activities were oriented toward the early stages of reduction. Compared to quartz flake fragments, thinning flakes are virtually absent which as stated earlier, may speak to the brittle nature of the quartz.

Lithic products from Locus 2 include randomly flaked cores (quartz, n=1; metavolcanic, n=1) and early stage bifaces (quartz, n=3; metasandstone, n=2; metavolcanic, n=1). The presence of metavolcanic and metasandstone reduction products in the near-absence of metavolcanic and metasandstone debitage suggests that these items may have been transported to Locus 2 from another reduction site, or that Phase II sampling did not pick up the associated reduction areas.

Locus 3: Excavations at Locus 3 generated 30 artifacts, one of which is a historic polychrome whiteware sherd. The prehistoric artifacts include debitage (n=27; 93.1 percent) a quartz biface fragment (3.4 percent),

Early Stage Bifaces/Fragments, Metasandstone
Locus 1, Test Unit 1, Level 4

Early Stage Biface
Fragment, Locus 1
Test Unit 1, Level 5

Early Stage Biface
Fragment, Locus 1
Test Unit 1, Level 5

PP/K Morrow Mountain
Knife, Locus 1, Test Unit 1
Level 5

Early Stage Biface, Locus 2, Shovel
Test N500/E500, Level 3

Early Stage Biface,
Metasandstone, Locus 2,
Shovel Test N510/E520,
Level 5

(Artifacts Actual Size)

Early Stage Biface, Metavolcanic, Locus 2, Test Unit 4, Level 3

Figure 15.29 Site 38LA641, Selected Artifacts

and a piece of quartz FCR (3.4 percent). The debitage was composed of flake fragments (n=18; 66.7 percent), reduction flakes (n=6; 22.2 percent) and thinning flakes (n=2; 7.4 percent). Quartz (n=26; 96.3 percent) and metasiltstone (n=1; 3.7 percent) were the raw materials utilized. The quartz biface fragment was the only reduction product recovered during Phase II investigations at this location. Like many other quartz reduction loci at Haile Gold Mine, Locus 3 appears to have been a early to middle stage reduction locus.

Locus 4: Locus 4 yielded 172 prehistoric artifacts consisting of lithic debitage (n=170; 98.8 percent), a quartz core (0.6 percent) and a quartz hammerstone (0.6 percent). The debitage is mostly flake fragments (n=136; 80.0 percent), followed by roughly equal frequencies of thinning flakes (n=17; 10.0 percent) and reduction flakes (n=16; 9.4 percent). Raw materials include quartz (n=123; 72.4 percent), metasandstone (n=44; 25.9 percent), metasiltstone (n=2; 1.2 percent) and metavolcanic rock (n=1; 0.6 percent). The quartz cobble hammerstone indicates that hard-hammer percussion was one technique used to trim down and roughly shape these materials during the early to middle stages of the reduction process. The randomly flaked quartz core was the only reduction product detected at Locus 4. As with the other loci at 38LA641, Locus 4 is typical of the numerous lithic reduction stations recorded across the Haile Gold Mine property.

15.8 Interpretations

Prehistoric Occupations: Phase II investigations at 38LA641 centered on four prehistoric activity loci that appear to have functioned in a similar manner. Phase II information reveals that Locus 1 was occupied during at least the Middle Archaic Morrow Mountain phase and, at some point, briefly during the Woodland period. No diagnostic artifacts were recovered from Loci 2, 3, or 4 during Phase II testing. Based on widely scattered ceramics (n=11) recovered from Phase I shovel tests, Adams *et al.* (2011a:128) posit a possible Middle to Late Woodland occupation, but none of these materials are concentrated in any part of the site.

With minor variations, site activities are essentially the same for the four loci investigated at 38LA641. Early to middle stage lithic reduction is the most archeologically visible activity. At Loci 2, 3, and 4, quartz was the material of primary interest, while at Locus 1, metasandstone reduction was the focus. Reduction products were present in the form of randomly flaked cores, early stage bifaces, and biface fragments; these items probably represent failed or rejected products. At Locus 4 a cobble hammerstone confirms what is fairly obvious: hard-hammer percussion was a means (if not the primary means) of reducing the materials at this and other similar localities. At Locus 1, there is limited evidence of animal processing (Morrow Mountain knife) and hot-rock cooking (FCR). A single sherd from this locus suggests limited cooking or collection activities during a later Woodland occupation.

Regarding site function, all four of the loci investigated at 38LA641 strongly suggest that this site, like so many other prehistoric lithic resources recorded in the Haile Gold Mine region, represents a series of

temporary stations or task camps centered around the reduction of desired lithic resources, in this case quartz and metasandstone. The intensity of reduction activities appears to have been greatest in the vicinity of Locus 1 where, based on the recovery of the FCR and the Morrow Mountain knife, a temporary Middle Archaic camp was sampled. Locus 2 appears to have been occupied at a similar intensity as Locus 1 during an unknown prehistoric period. The one piece of FCR recovered from Locus 2 suggests a short-term camp environment as well. Activities at Loci 3 and 4 appear to have been more transient in nature than at Loci 1 and 2. Artifacts from these two locations suggest function as day-use stations where very expedient lithic reduction occurred.

As mentioned elsewhere, the reduction loci at 38LA641 and at many other sites in the study region appear to be on a broad continuum of lithic exploitation sites with "expedient quarries" (Daniel 1998:139) at the extraction point of the continuum and biface reduction/refinement loci and the other end. Such sites were part of a loose network that intermittently supplied raw materials for groups traversing the lower Piedmont and upper Coastal Plain regions. A Middle Archaic presence at 38LA641 fits well within the overall Middle Archaic settlement strategy of dispersion throughout Piedmont (and Sandhills) inter-riverine areas. As has been seen repeatedly at these types of sites, there is no direct evidence at 38LA641 of intermediate or long-term use such as features, midden deposits, or tools often associated with domestic activities.

The recovery of the burned nut fragment from Locus 1 confirms the well-known fact that aggregate nuts were heavily exploited by Archaic period groups, in this case possibly Middle Archaic groups. This may have occurred in the fall months when such mast crops were most plentiful. No exotic lithic materials, PP/Ks, or ceramics with extra-region implications were recovered during testing, so it was not possible to assess trade/exchange for the groups occupying 38LA641.

Historic Occupation (Clyburn/Ern Mungo House): The 1986 structure form for the Clyburn/Ern Mungo house suggests a construction date of circa 1915; it is possible that the construction may have been in the 1930s, if the wiring in the house is original. According to Ms. Billie Jo (Clyburn) Crawford, formerly owner of the subject tract, Ern Mungo, son of Joe and Ellen Mungo, all of African-American descent, lived in this house. Archival data confirm that Mungo resided in the Flat Creek Township with his family and four sisters in 1940, possibly, if not likely, on the subject property. The Ern Mungo family lived in the subject house as tenants until the 1960s. The 1939 Lancaster County highway map shows a cluster of four “tenant” houses at the location of the Ern Mungo/Clyburn house. Ern Mungo was listed in the 1940 census as a farmer, which can be generally interpreted as being of upper-low or lower-middle economic status.

The full layout of the Clyburn/Ern Mungo house complex could not be discerned during the current study because only one standing structure, an outhouse, and a well are present and appear to associated with the domicile. It is known that three other tenant houses were on-site in 1939, but none of these were observed during the current study. As might be expected, the outhouse was located beyond the yard area, approximately 25 m northeast of the house. At 30 m away, the well is not necessarily at a “convenient”

distance from the house for daily use; however, this location may have been a compromise that took into consideration the distances from all four tenant structures originally present. The floor plan of the Clyburn/Ern Mungo house reflects an access pattern indicating that as many as four rooms in the house could have been accessed and occupied independently. While the arrangement of co-residence is unknown, the 1940 census notes that Ern Mungo had a family and four of his sisters in his household.

15.9 Recommendations

Prehistoric Occupations: The depths of the prehistoric archeological deposits at Loci 1, 2, 3, and 4 range from the surface to 90 cmbs. Within those deposits, 68.3 percent of the cultural materials are captured within the upper 40 cm of the sampled matrices and 89.3 percent are within 50 cmbs; 8.6 percent of the artifacts at 50 to 60 cmbs, with 2.1 percent at depths greater than 60 cmbs. Scattered FCR in TU-1, Levels 3 and 4 may indicate the presence of a disturbed FCR cluster at Locus 1; however, no intact features or potential features (in shovel tests), midden deposits, artifact clusters, tools/objects related to domestic activities, or similar indications of intermediate or long-term occupation were detected in these deposits.

Aerial photography from 1949 shows Locus 1 in a partially open, scrub-like setting and Locus 2 in what was probably a pine forest; Loci 3 and 4 were under cultivation at that time. The age of the existing canopy vegetation at Loci 1 and 2 suggests that this area has probably gone through at least one timbering cycle in the last 60 years. Loci 3 and 4 appear to have reforested naturally as opposed to being planted with pines. Considering the sandy matrices at the various loci, along with the above disturbances, the contextual clarity and depositional integrity of the cultural deposits in these areas have been compromised to varying degrees. We would suggest that at least the upper 40 cm of the deposits have been severely impacts by historic land-use practices. More importantly, the artifact profiles from each locus at 38LA641 exhibit high frequencies of debitage (93.1 to 98.9 percent) complemented mostly by early to middle stage reduction products and very few temporally diagnostic artifacts. This is an assemblage profile that has been observed repeatedly on lithic sites at Haile Gold Mine and such sites are well documented through previous Phase I, Phase II and/or Phase III studies.

Because of the questionable depositional integrity and contextual clarity, lack of features/deposits, and near absence of diagnostic artifacts, it is doubtful that 38LA641 retains significant archeological information on ceramic prehistory, Archaic period lifeways, or lithic processing/reduction strategies. The information gathered during the Phase I survey and the current study adequately documents this resource. On this basis, 38LA641 is recommended ineligible for the NRHP under Criterion (d) and no further archeological work is consudered necessary.

Historic Occupation (Clyburn-Ern Mungo House): Per the Phase II evaluation plan, archival research and recordation have adequately documented the of the remains of the Clyburn-Ern Mungo house. No additional architectural or archeological work is recommended for this historic resource.

16.0 Site 38LA654

16.1 Previous Work

Site 38LA654 was identified during the Phase I survey as a large Late Archaic period site with evidence of historic dumping; the site was found on a terrace wrapping around an unnamed tributary of Haile Gold Mine Creek (Adams *et al.* 2011b:32). The site is quite large, measuring approximately 575 by 375 m. One hundred and fourteen negative and 75 positive survey shovel tests were excavated. Disturbances to the site included land clearing activities (i.e., logging, grading, and push piling), dirt road installation/maintenance, agriculture (cultivation), and related erosion. Impacts were viewed as extending to depths of 20 to 30 cmbs.

Overall, 38LA654 yielded 359 prehistoric artifacts: 358 lithics and one residual sherd. The lithics included flakes/flake fragments (n=227), shatter (n=95), cores (n=2), a uniface, a biface, unknown PP/Ks (n=3), a Savannah River PP/K, and FCR (n=28). Survey shovel test profiles and artifact proveniences indicated potential prehistoric archeological deposits at depths from 0 to 115 cmbs, with lithics typically found to depths of 90 cmbs.

Historic artifacts were also identified at the site, but in lower frequencies than prehistoric materials. Historic artifacts collected from surfaces included fragments of a milk bottle, one Knox bottle, two plain ironstone sherds, two porcelain sherds, and four white-bodied earthenware sherds. These artifacts were collected adjacent to and along the eastern "old road" identified on the New South site sketch; this area was reported to have seen "several episodes of historic dumping through the years" (Adams *et al.* 2011b:32).

Adams *et al.* (2011b:36) identified a number of areas considered to have "the greatest potential to address important [prehistoric] research questions," two of which contained possible features. The two possible features included a possible hearth at survey shovel test T-334/11 (N440/E500) and a possible cooking pit/earth oven sampled in shovel test N350/E545. Other shovel test localities considered worthy of further evaluation included T-329/17, N500/E500, T-336/10, "the lobe south of" T-333/7, and N605/E485. Phase II evaluation was recommended for 38LA654 to determine if the site is eligible for the NRHP under the themes of "Late Archaic period lifeways" and "Archaic/Woodland transition at the Sandhills/Piedmont interface" (Adams *et al.* 2011b:36). The NRHP eligibility status of the historic component at 38LA654 was not addressed by Adams *et al.* (2011b), possibly because of the recent and surficial nature of the materials observed during the survey.

16.2 Phase II Excavations

Four loci were investigated during Phase II fieldwork based on the Phase I survey shovel test artifact inventory and the detection of two possible features during survey shovel testing. Locus 1 was set in the

center of the site to determine the nature/origin of a rock cluster feature sampled by survey shovel test N440/E500. Locus 2, located about 100 m east of Locus 1, focused on the area surrounding survey shovel test N350/E545 where a possible pit feature was encountered. Locus 3 was located on a southern protrusion of the site adjacent to survey shovel test T-331/8 (N325/E415), which contained 16 pieces of debitage. Locus 4, in the southeastern part of the site, sampled the area adjacent to Phase II shovel test N605/E490, which yielded 35 pieces of debitage. All together, 80 Phase II shovel tests were excavated and the equivalent of six 1-by-1-m test units were excavated at 38LA654. The findings at each locus are discussed below.

16.2.1 Locus 1 Close-grid Shovel Testing

Seventeen Phase II shovel tests were excavated at Locus 1, centered around survey shovel test T-334/11 (N440/E500) where a possible rock cluster feature was identified during the survey. Five shovel tests were positive, 12 were negative (Figures 16.1 and 16.2). Fifteen pieces of quartz (n=8) and metasandstone (n=7) lithic debitage were recovered from Locus 1 (Table 16.1). Artifacts were recovered from Levels 4, 5, 6, and 8, with the mode being in Level 4 (n=7) (Table 16.2). The Phase II shovel test artifact density distribution map shows very limited artifact clustering at shovel tests N430/E510 (n=6) and N440/E490 (n=4).

Table 16.1 38LA654 Locus 1, Artifact Inventory, Close-grid Shovel Test

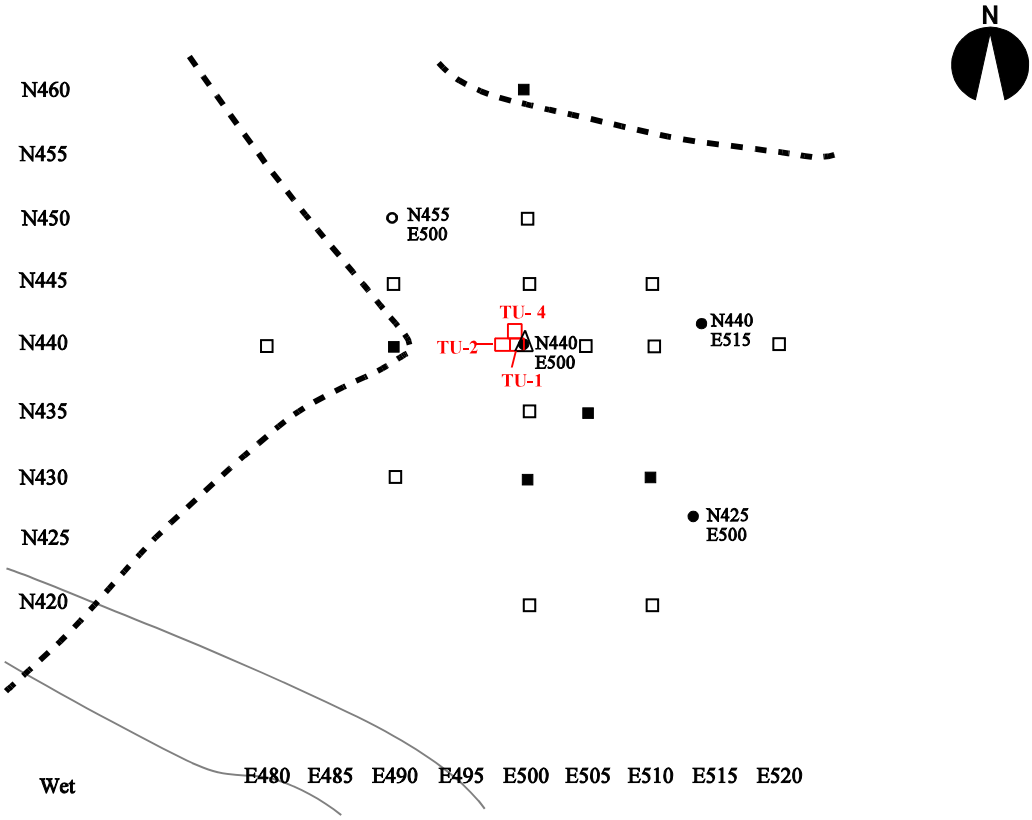
North Coordinates	430	430	435	440	460	
East Coordinates	500	510	505	490	500	**Total**
Lithic Reduction						
Thinning flake, metasandstone					1	**1**
Reduction flake, metasiltstone		1				**1**
Flake fragment, quartz		1	3	4		**8**
metasandstone	1	4				**5**
Total	**1**	**6**	**3**	**4**	**1**	**15**

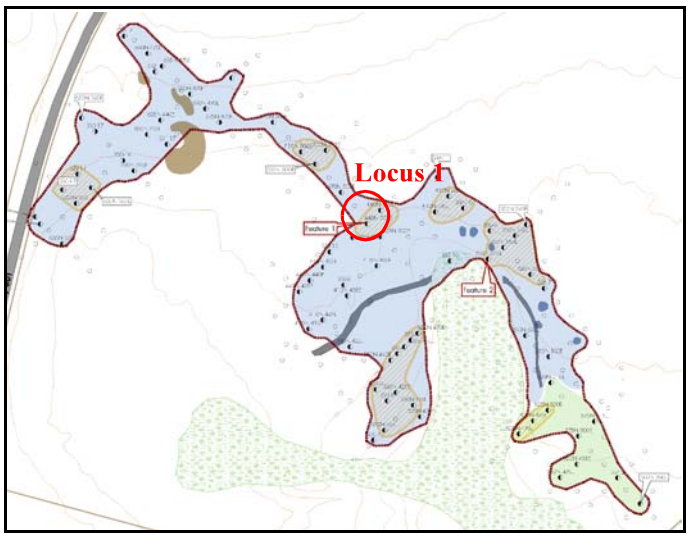
Table 16.2 38LA654 Locus 1, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinates	430	430	435	440	460	
East Coordinates	500	510	505	490	500	**Total**
Excavation Level						
Level 1 (0-10 cm)						
Level 2 (10-20 cm)						
Level 3 (20-30 cm)						
Level 4 (30-40 cm)		1	1	4	1	**7**
Level 5 (40-50 cm)		1				**1**
Level 6 (50-60 cm)	1	4				**5**
Level 7 (60-70 cm)						
Level 8 (70-80 cm)			2			**2**
Total	**1**	**6**	**3**	**4**	**1**	**15**

16.2.2 Locus 1 Test Unit Excavations

According to Adams *et al.* (2011b:32), a possible prehistoric feature was encountered at survey shovel test T-334/11 (N440/E500), which exposed a flat rock at 35 cmbs, underlain by two FCR between 40 and 45 cmbs. A dark mottled stain was identified at 56 cmbs. Additional FCR was collected between 38 and 45 cmbs. To evaluate this feature, TU-1, a 1 by 1-m unit, was positioned to encompass survey shovel test T-334/11. As a better understanding of the feature was gained, TU-1 was expanded in 1- m lots to the west (TU-2) and to the north (TU-4) (Figures 16.1 and 16.2).





Site Boundary From New South Survey (Adams *et al.* 2011b)

- Site Limits
- Positive Survey Shovel Test
- Positive Testing Shovel Test
- Negative Survey Shovel Test
- Negative Testing Shovel Test
- Test Unit
- Datum

Scale

0 15 meters

0 49 feet

Figure 16.1 Site 38LA654, Locus 1, Site Plan

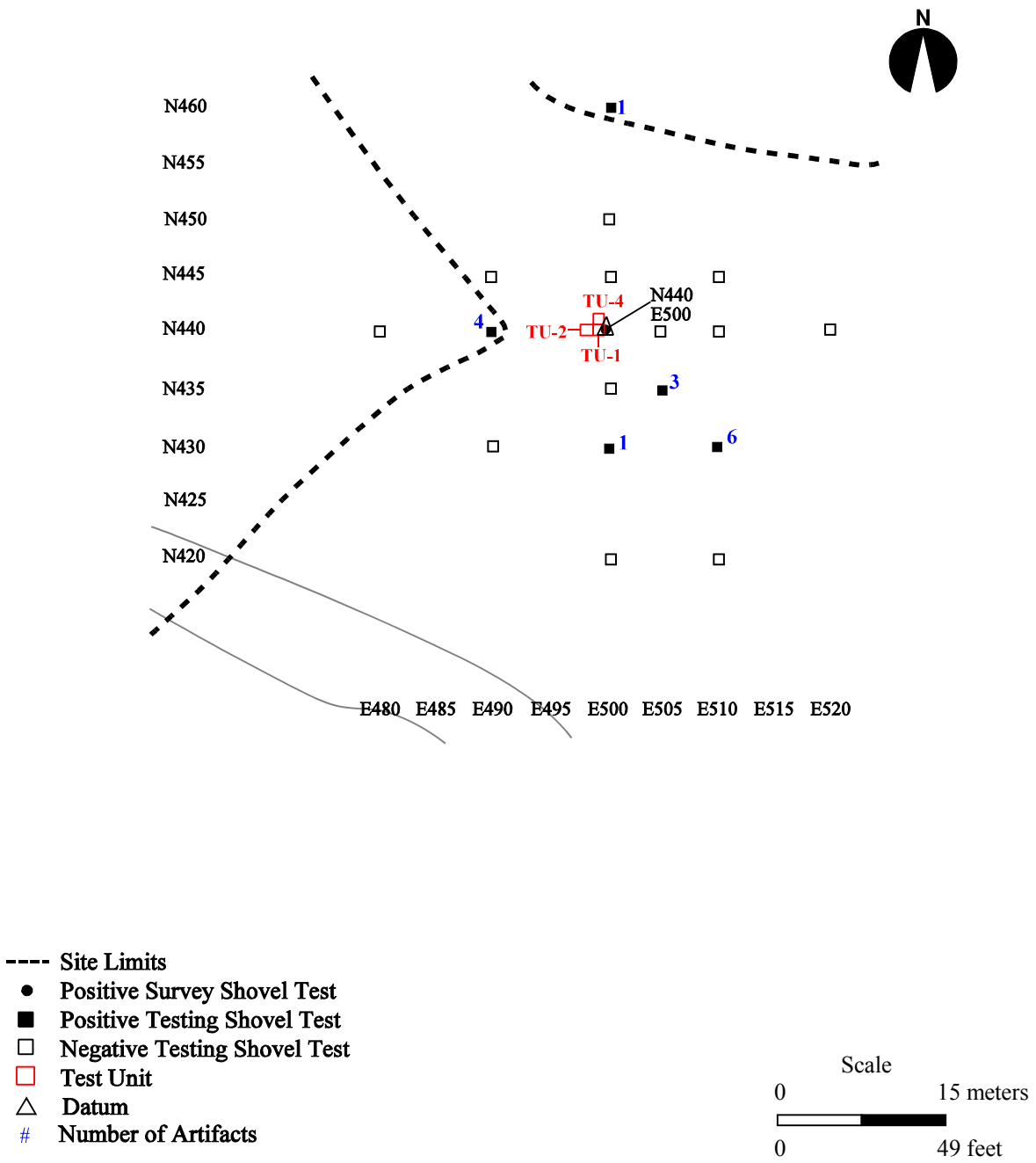


Figure 16.2 Site 38LA654 Locus 1, Density Map

16.2.2.1 Test Units 1, 2, and 4 (Feature 1)

Level Excavation and Soil Stratification: The unit matrix was excavated in ten 10-cm arbitrary levels in TU-1 and TU-2 (Levels 1 through 10), and six 10-cm arbitrary levels in TU-4 (Levels 1 through 6); the datum was set at 10 cm above surface at the northeast corner of TU-1. When Feature 1 was fully exposed at approximately 60 cmbd, level matrix excavations ceased and feature fill was excavated separately (60 to 98 cmbd). Feature fill was removed from TU-1 and TU-2 so that an east-west feature profile could be obtained. Levels 7 through 10 were then removed in TU-1 and TU-2 to evaluate the unit matrix around and below Feature 1. Considering that the feature's large size, morphology, and cultural origin were established during the excavation of TU-1 and TU-2, and that Levels 7 through 10 were sterile in these units, the portion of Feature 1 extending into TU-4 was not excavated. Thus, unit level excavations in TU-4 were terminated with the completion of Level 6.

Test unit excavations revealed three soil strata in the unit matrix (Figures 16.3 and 16.4; Strata A, B, and E); soils recorded within Feature 1 (Strata C and D) are discussed below. Stratum A is a very dark grayish-brown (10YR 3/2) loamy sand extending to 65 cmbd overlying Stratum B, a yellowish-brown (10YR 5/6) mottled sand. Sterile subsoil was identified as Stratum E, a dark yellowish-brown (10YR 4/6) sand. Stratum A was present in Levels 1 through 5, while Stratum B appeared in Level 5 and continued in some areas into Level 6. Stratum E was exposed in Level 6 and continued to the base of Level 10. As noted above, Feature 1 was clearly delineated at the base of Level 5 (60 cmbd).

Feature 1: During TU-1 excavation, the dark mottled soils and clustered rocks recorded during the Phase I survey were encountered at approximately 50 cm cmbd, along with several other rocks with a tentative east-west alignment. Leaving the rocks in place, TU-1 was expanded to the west and north and excavated to a depth of 60 cmbd, where the portion of the feature within the excavation was clearly defined (Figures 16.5 and 16.6). While defining the feature boundaries, historic artifacts began to appear in the feature fill and it became evident that what was originally thought to be a prehistoric rock cluster was apparently of historic origin with a linear arrangement of rocks on top of it. This was further supported by the fact that unidentifiable metal and cut nails were recovered from beneath the aligned rocks.

The portion of Feature 1 within TU-1 and TU-2 was excavated and the feature profile exposed two distinct soils (see Figures 16.3 and 16.4; Strata C and D). Stratum C is the primary feature fill and is composed of a brown (10YR 5/3) sand mottled with yellowish-brown (10YR 5/6) loamy sand (Stratum B matrix). Below Stratum B and within Stratum C, pockets of heavily mottled, very dark brown (10YR 2/2) sand (Stratum D) were observed. Stratum E subsoil was recorded at the edges of the feature fill. The western part of the feature profile also shows a depression at the top of Stratum C where Stratum B soils apparently filled in the upper portion of the feature after it ceased to function.

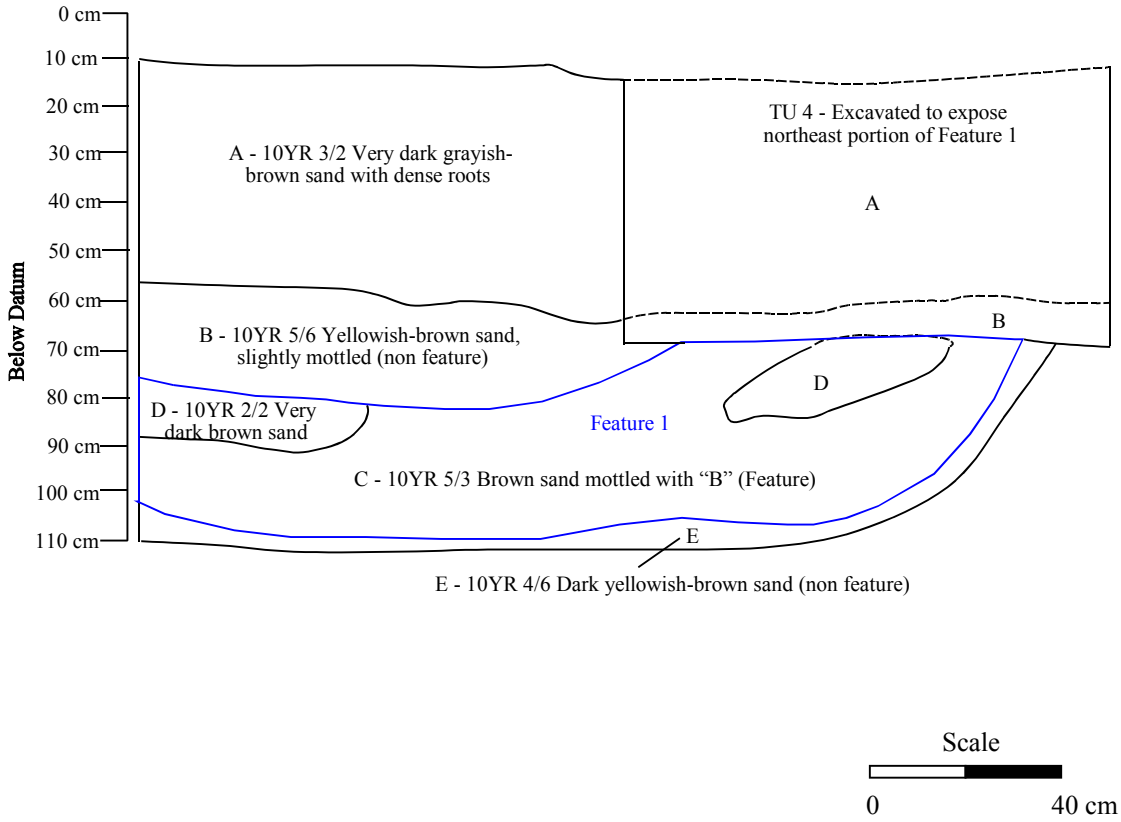


Figure 16.3 Site 38LA654, Locus 1, Test Units 1, 2, and 4, Feature 1 North Profile

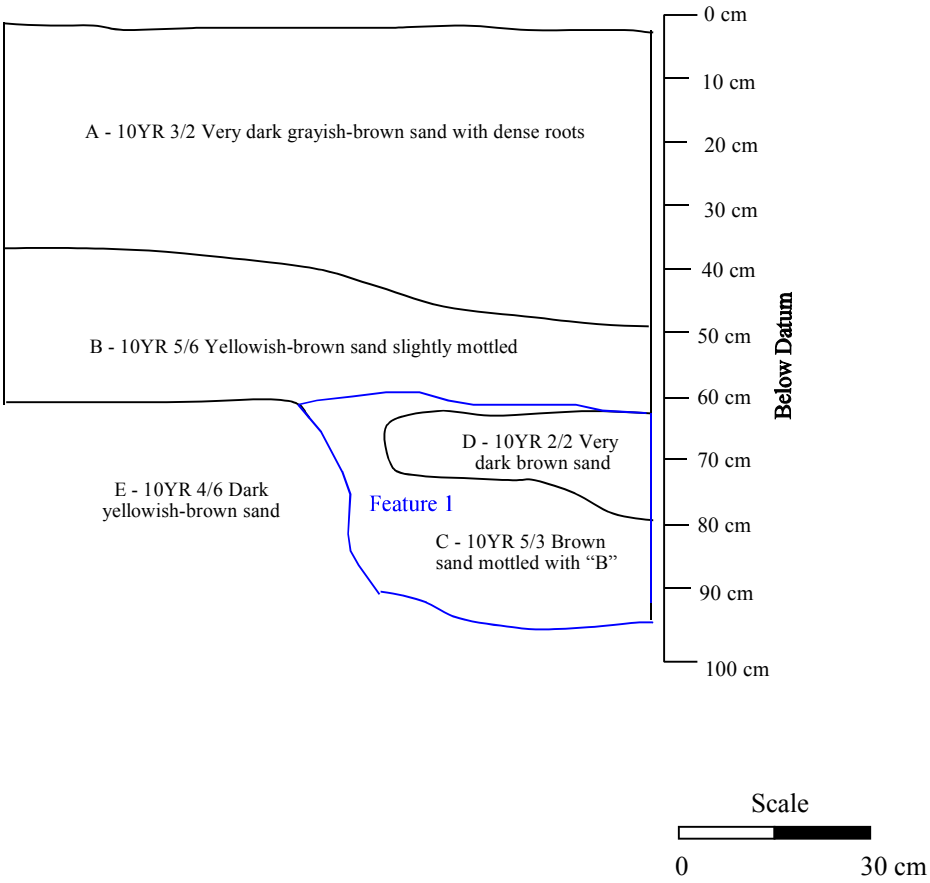
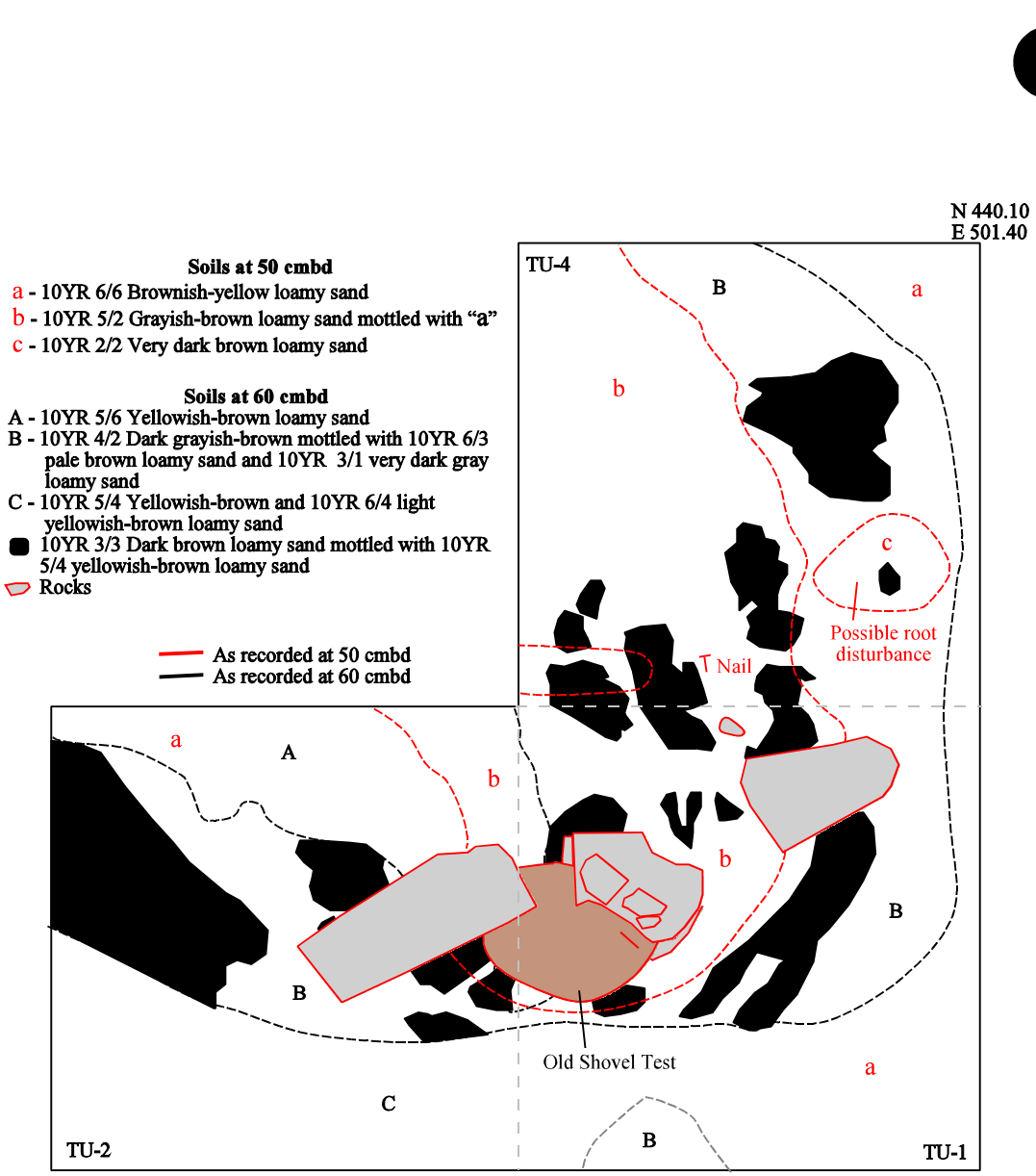


Figure 16.4 Site 38LA654, Locus 1, Test Unit 2, West Profile

Feature 1, Base of Level 5

Feature 1, Base of Level 6

Figure 16.5 Site 38LA654, Locus 1, Test Units 1, 2, and 4, Feature 1 Plan View, Base of Levels 5 and 6



Feature 1 at 50 and 60 cmbd

Scale

0 40 cm

Figure 16.6 Site 38LA654, Locus 1, Test Units 1, 2 and 4, Feature 1 Composite Plan View

Regarding morphology, Feature 1 is 38 cm deep, 210 cm northeast-southwest, and at least 200 cm northwest-southeast. Based on the eastern two-thirds of the profile, the feature walls slope sharply inward to a flat bottom, creating a trough-like profile (see Figures 16.3 and 16.4). It appears that the pit floor along the western edge of the profile may be turning upward to form the western feature wall. This profile suggests a shallow cellar hole or some sort of sub-floor storage feature.

Artifacts: Ninety-three artifacts were recovered from TU-1 (n=56), TU-2 (n=24) and TU-4 (n=13) level and feature excavations; this includes 28 prehistoric and 65 historic items (Table 16.3). Forty-seven of these artifacts were taken from Feature 1. The remaining 46 artifacts were recovered from the unit matrix, Levels 1 through 6; Levels 7 though 10 were sterile. Artifact modes in the unit matrix were quite obvious. For prehistoric artifacts, unit level density peaked in Level 5 (n=11); for historic items, a distinct mode was observed in TU-1, Level 4 (n=17).

For the unit matrix, prehistoric artifacts (n=22) include debitage (n=20; 90.1 percent of the prehistoric total), one core, and one small triangular PP/K. The debitage is composed of quartz (n=13), metasiltstone (n=4), and metasandstone (n=3). The core and PP/K are both quartz. The PP/K probably dates to the Late Woodland period.

Historic artifacts from the unit matrix (n=24) consist primarily of kitchen/subsistence materials (n=17; 70.8 percent) which includes 15 tin can fragments and two plain whiteware sherds. The remainder of the historic inventory from the matrix are cut nails (n=3), clay pipe fragments (n=3), and one piece of unidentifiable iron. It is interesting to note that the tin can fragments were taken from TU-1, Level 4 within 10 to 15 cm of the top of Feature 1.

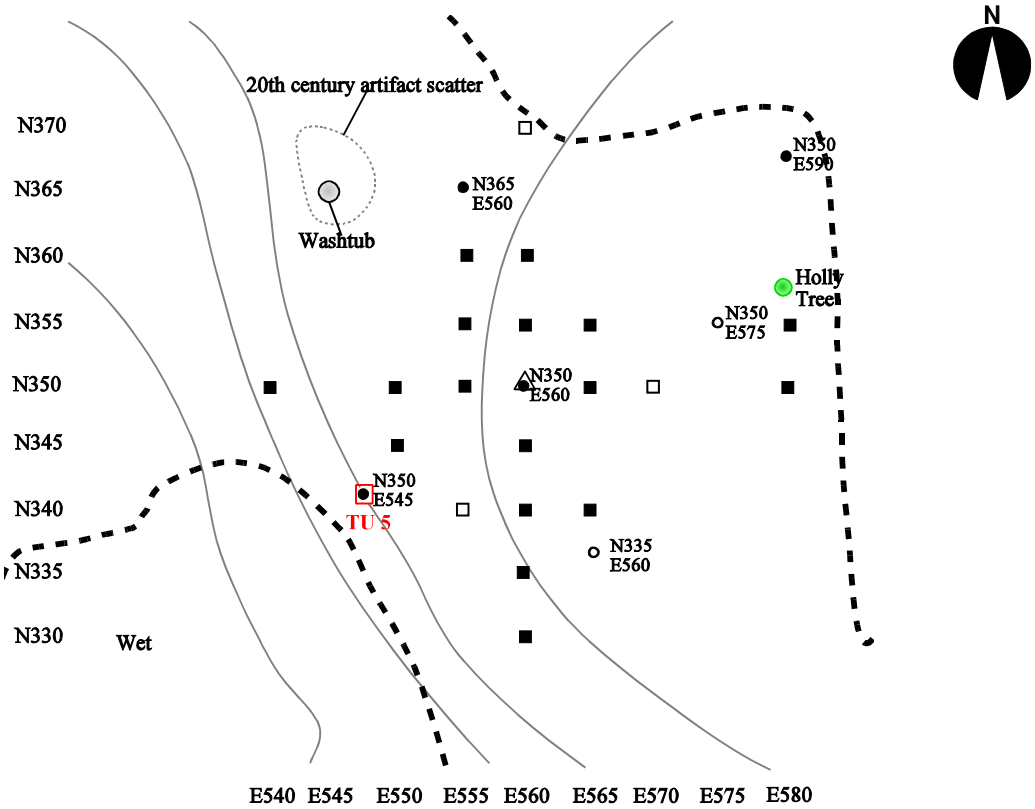
Intrusive prehistoric artifacts from Feature 1 (n=6) include quartz (n=5) and metasiltone (n=1) debitage. A total of 41 historic artifacts were recovered from the feature. Over half are kitchen/subsistence items (n=24; 58.5 percent) and include plain (n=15), blue-edged (n=1), green-edged (n=2), and blue transfer-print (n=5) whiteware sherds and one bone-handled fork. The remainder of the historic inventory from the feature is comprised of nails (cut, n=2; unidentified, n=3), a brass buckle, a white metal button, a clay pipe fragment, and unidentifiable iron fragments (n=9). The ceramics, cut nails, clothing items, and pipe fragment suggest a 19th century date for the feature.

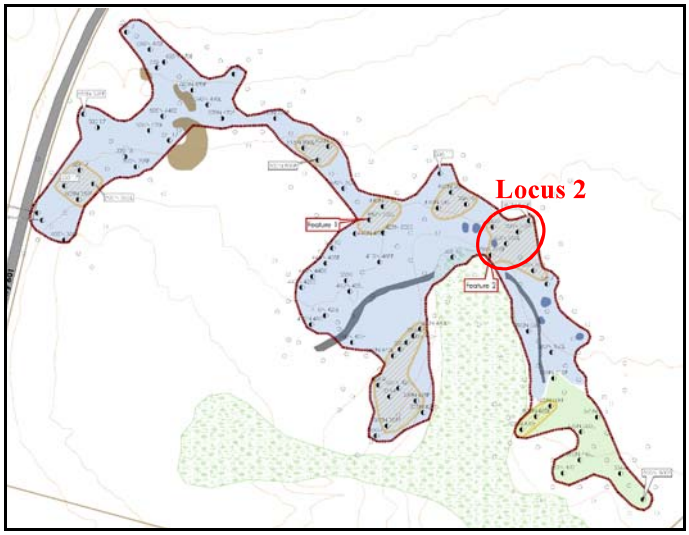
16.2.3 Locus 2 Close-grid Shovel Testing

Twenty shovel tests were excavated at Locus 2 during the Phase II investigations (Figures 16.7 and 16.8). Shovel tests were positioned around survey shovel test N350/E545 to explore a possible feature at that location and to sample the surrounding area. Seventeen positive shovel tests produced 114 pieces of debitage (quartz, n=100; metasandstone, n=3; metasiltstone, n=8; metavolcanic, n=2; and chert, n=1) and one quartz

Table 16.3 38LA654 Locus 1, TU-1, TU-2, and TU-4 Artifacts

Test Unit (TU)	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	4	4	4	4	4	4	
Level	1	2	4	5	6			1	3	4	5	5	6			3	4	5	6	6/E		
Feature					1	1						1		1								**GRAND**
Bag Number	71	72	73	74	81	83	*Total*	68	69	70	75	77	80	82	***Total***	78	84	85	86	87	***Total***	**TOTAL**
PREHISTORIC																						
Lithic Reduction																						
Thinning flake, quartz								1							***1***							**1**
metasiltstone				1			***1***			1			1		***2***							**3**
Reduction flake, metasiltstone														1	***1***							**1**
metasandstone				1			***1***		1						***1***							**2**
Flake fragment, quartz	1	2		1		3	*7*				2	1		1	***4***			5		1	***6***	**17**
metasiltstone													1		***1***							**1**
metasandstone											1				***1***							**1**
Core/Biface Manufacture																						
Core, quartz																				1	***1***	**1**
PP/K, small triangular, quartz																	1				***1***	**1**
Prehistoric Total	**1**	**2**		**3**		**3**	*9*	**1**	**1**	**1**	**3**	**1**	**2**	**2**	*11*		**1**	**5**		**2**	*8*	**28**
HISTORIC																						
Kitchen/Subsistence																						
Whiteware, plain						13	***13***					1		1	***2***	1			1		***2***	**17**
blue edged						1	***1***															**1**
green edged														2	***2***							**2**
blue transfer print						2	***2***							3	***3***							**5**
Can, tin			15				***15***															**15**
Fork, iron w/bone handle						1	***1***															**1**
Architectural/Structural																						
Nail, cut		1	1			2	***4***												1		***1***	**5**
unidentifiable						3	***3***															**3**
Clothing/Adornment																						
Buckle, brass														1	***1***							**1**
Button, white metal						1	***1***															**1**
Personal																						
Ball clay pipe fragment, bowl				1	1		***2***															**2**
Clay pipe fragment, bowl																		1	1		***2***	**2**
Miscellaneous																						
Unidentifiable, iron			1		4		***5***							5	***5***							**10**
Historic Total		**1**	**17**	**1**	**5**	**23**	*47*					**1**		**12**	*13*	**1**		**1**	**3**		*5*	**65**
GRAND TOTAL	**1**	**3**	**17**	**4**	**5**	**26**	*56*	**1**	**1**	**1**	**3**	**2**	**2**	**14**	*24*	**1**	**1**	**6**	**3**	**2**	*13*	**93**





Site Boundary From New South Survey (Adams *et al.* 2011b)

Site Limits
Positive Survey Shovel Test
Positive Testing Shovel Test
Negative Survey Shovel Test
Negative Testing Shovel Test
Test Unit
Datum

Scale
0 15 meters
0 49 feet

Figure 16.7 Site 38LA654, Locus 2, Site Plan

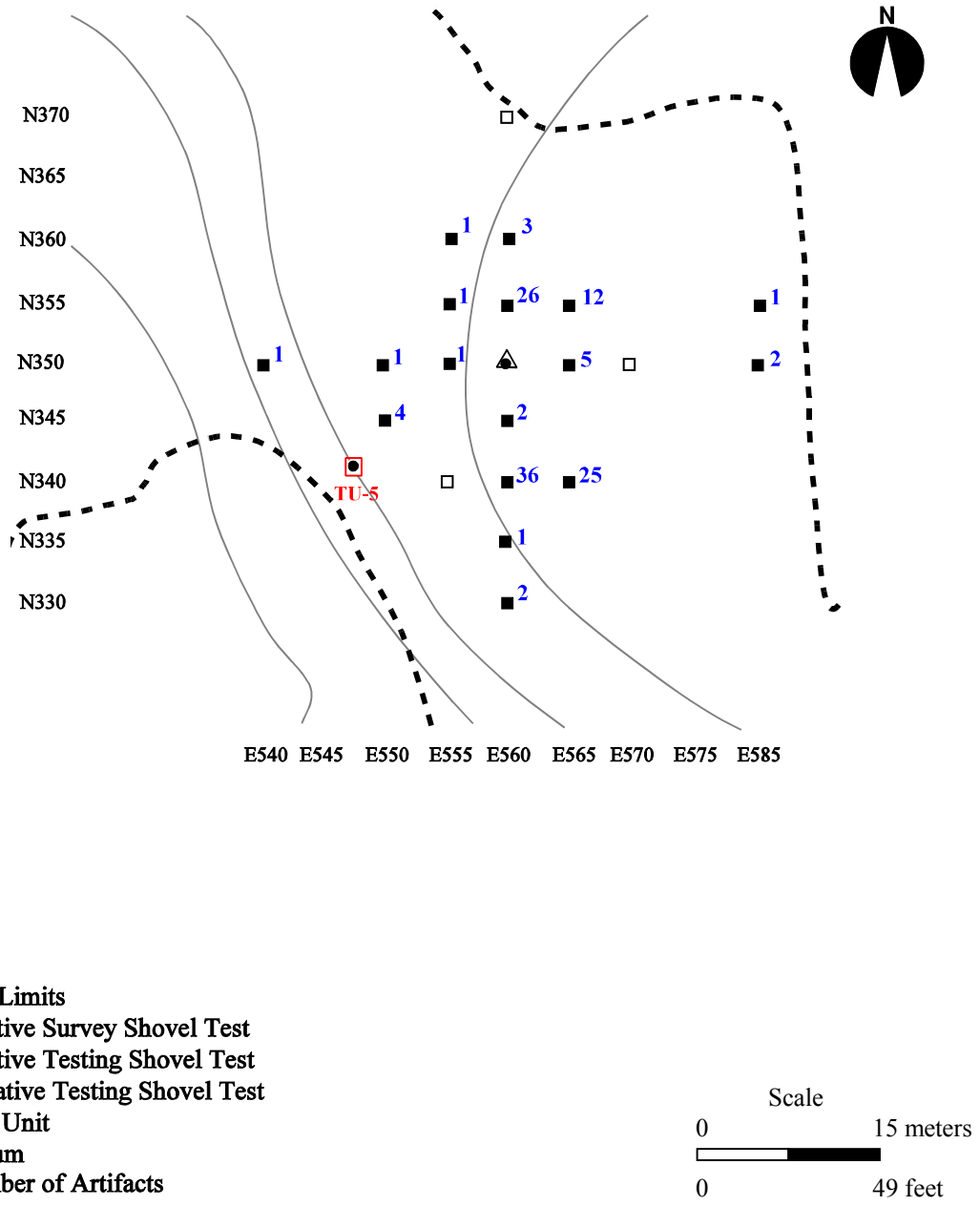


Figure 16.8 Site 38LA654 Locus 2, Density Map

core (Table 16.4). Sixteen historic artifacts were recovered consisting of kitchen/subsistence items (n=15) and a cut nail (Table 16.4). The kitchen/subsistence artifacts are whiteware [plain (n=2), blue-edged (n=1)], lead-glazed redware (n=2), lead-glazed, buff-bodied earthenware (n=6), and bottle glass [clear (n=1), olive green (n=3)]. Most, if not all, of these materials date to the 19th century.

Prehistoric artifacts were recovered from Levels 1 through 7, with the mode being in Level 4 (n=49); a smaller peak in artifact density occurred in Level 6 (n=25) (Table 16.5). Historic artifacts occurred in Levels 1, 2, 3, and 5, with no apparent mode and all but one artifact confined to the upper 30 cm of the locus deposits (Table 16.6). Phase II shovel test artifact density mapping shows three locations where prehistoric artifact yields exceeded 20 artifacts: N340/E560 (n=35), N340/E565 (n=25), and N355/E560 (n=22). No more than four historic artifacts were recovered from any given shovel test at Locus 2 (Figure 16.8).

Table 16.5 38LA654 Locus 2, Prehistoric Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	330	335	340	340	345	345	350	350	350	355	355	355	355	360	360	
East Coordinate	560	560	560	565	550	560	555	565	580	555	560	565	580	555	560	**Total**
Excavation Level																
Level 1 (0-10 cm)											6				2	**8**
Level 2 (10-20 cm)			3	1				2	1	1		3		1		**12**
Level 3 (20-30 cm)												3		1		**4**
Level 4 (30-40 cm)			20	11		2	1		1		8	2		3	1	**49**
Level 5 (40-50 cm)	1		12		2							1				**16**
Level 6 (50-60 cm)				13							8	2	1	1		**25**
Level 7 (60-70 cm)		1														**1**
Total	**1**	**1**	**35**	**25**	**2**	**2**	**1**	**2**	**2**	**1**	**22**	**11**	**1**	**6**	**3**	**115**

Table 16.6 38LA654 Locus 2, Historic Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	330	340	345	350	350	350	355	355	360	
East Coordinate	560	560	550	540	550	565	560	565	555	**Total**
Excavation Level										
Level 1 (0-10 cm)							4			**4**
Level 2 (10-20 cm)		1	2		1	1		1		**6**
Level 3 (20-30 cm)				1		2			2	**5**
Level 4 (30-40 cm)										
Level 5 (40-50 cm)	1									**1**
Total	**1**	**1**	**2**	**1**	**1**	**3**	**4**	**1**	**2**	**16**

16.2.4 Locus 2 Test Unit Excavation

Adams *et al.* (2011b:36) identified a possible prehistoric pit at survey shovel test N350/E545. At 40 and 54 cmbs, quartz debitage (n=2), FCR (n=13), and charcoal were collected; these materials were underlain by burned yellowish-red sandy clay. To determine the nature of this feature, TU-5, a 1-by-1-m unit, was placed over the survey shovel test (Figures 16.7 and 16.8).

Table 16.4 38LA654 Locus 2, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	330	335	340	340	345	345	350	350	350	350	350	355	355	355	355	360	360	
East Coordinate	560	560	560	565	550	560	540	550	555	565	580	555	560	565	580	555	560	**Total**
PREHISTORIC																		
Lithic Reduction																		
Thinning Flake, quartz			2										1					**3**
metasandstone																	1	**1**
Reduction Flake, quartz		1		3		2												**6**
metasiltstone														1				**1**
metavolcanic																1		**1**
Flake Fragment, quartz	1		32	22	1					2		1	21	5		3	2	**90**
metasiltstone			1								2			2	1	1		**7**
metasandstone														2				**2**
chert					1													**1**
metavolcanic																1		**1**
Shatter, quartz														1				**1**
Core/Biface Manufacture																		
Core, quartz									1									**1**
Prehistoric Total	**1**	**1**	**35**	**25**	**2**	**2**			**1**	**2**	**2**	**1**	**22**	**11**	**1**	**6**	**3**	**115**
HISTORIC																		
Kitchen/Subsistence																		
Whiteware, plain													2					**2**
blue edged														1				**1**
Redware, lead glazed			1													1		**2**
Buff bodied earthenware, lead glazed	1				1		1	1					1			1		**6**
Bottle Glass, clear										1								**1**
olive green										2			1					**3**
Architectural/Structural																		
Nail, cut					1													**1**
Historic Total	**1**		**1**		**2**		**1**	**1**		**3**			**4**	**1**		**2**		**16**
GRAND TOTAL	**2**	**1**	**36**	**25**	**4**	**2**	**1**	**1**	**1**	**5**	**2**	**1**	**26**	**12**	**1**	**8**	**3**	**131**

16.2.4.1 Test Unit 5 (Feature 2)

Level Excavation and Soil Stratification: TU-5 was excavated in five 10-cm arbitrary levels (Levels 1 through 5), with survey shovel test N350/E545 located along the central north wall of the 1-by-1-m unit. The unit datum was established at 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 60 cmbd. Four soil strata were encountered during unit excavation (Figure 16.9; Strata A through D). Stratum A is a dark grayish-brown (10YR 4/3) sand overlying Stratum B, a brownish-yellow (10YR 6/8) sand. Stratum C consists of the possible feature soil, and is composed of a yellowish-brown (10YR 5/8) clay mottled with yellowish-red (7.5YR 5/6) clay. This overlies Stratum D subsoil, a yellowish-brown (10YR 5/8) clay with concretions.

Stratum A extends to 30 cmbd (Levels 1 and 2). Stratum B was found in Level 3 and the upper part of Level 4 (approximately 43 cmbd). Stratum D subsoil was first encountered at about 43 cmbd and continued to the base of Level 5. Interestingly, Stratum C, the same material recorded during the survey in the possible feature, was mapped in the west unit profile outside the feature context coeval with Stratum D. Furthermore, both Strata C and D appear to have been truncated at about 43 cmbd. The Feature 2 anomaly was observed/mapped at the base of Level 3 (40 cmbd) (Figure 16.10).

Historic artifacts do not occur below Level 2 (30 cmbd) in TU-5; those recovered indicate a 19th century occupation. The truncation of Strata C and D at about 43 cmbd is quite typical of historic cultivation. It appears logical that there is a portion of a buried 19th century plowzone (Stratum B) in the vicinity of Locus 2 below a modern plowzone (Stratum A) that has impacted the 19th century materials left in Levels 1 and 2. This may possibly explain the origin of Feature 2.

Feature 2: The limits of this soil anomaly were vaguely outlined at 40 cmbd, which corresponds reasonably well with the base of the buried plowzone (Stratum B). Lacking distinct boundaries, the feature (and unit) were bisected (Figure 16.10). The feature profile suggests a small irregular depression filled with the mottled Stratum C soil with overlying pockets of Stratum B filling low areas (Figure 16.11). Because of the mottled, undulating nature of the Feature 2 fill and because the Stratum C material occurs in profile beside undisturbed subsoil, it is believed that Feature 2 is a result of early historic clearing activities (e.g., stumping) or perhaps represents a filled erosional feature. No artifacts were recovered from the feature, so the origin of this anomaly could not be discerned; however, it does not appear to be an intentional cultural construct.

Artifacts: TU-5 produced 82 artifacts including 62 lithics and 20 historic artifacts (Table 16.7). Prehistoric artifacts were recovered from Levels 1 through 4 but were mostly confined to Levels 1 (n=18), 2 (n=17), and 3 (n=21). Historic materials were generally restricted to Levels 1 (n=9) and 2 (n=10), with only one item in Level 3. While there is some variation in artifact density, no obvious modes were present. Along with

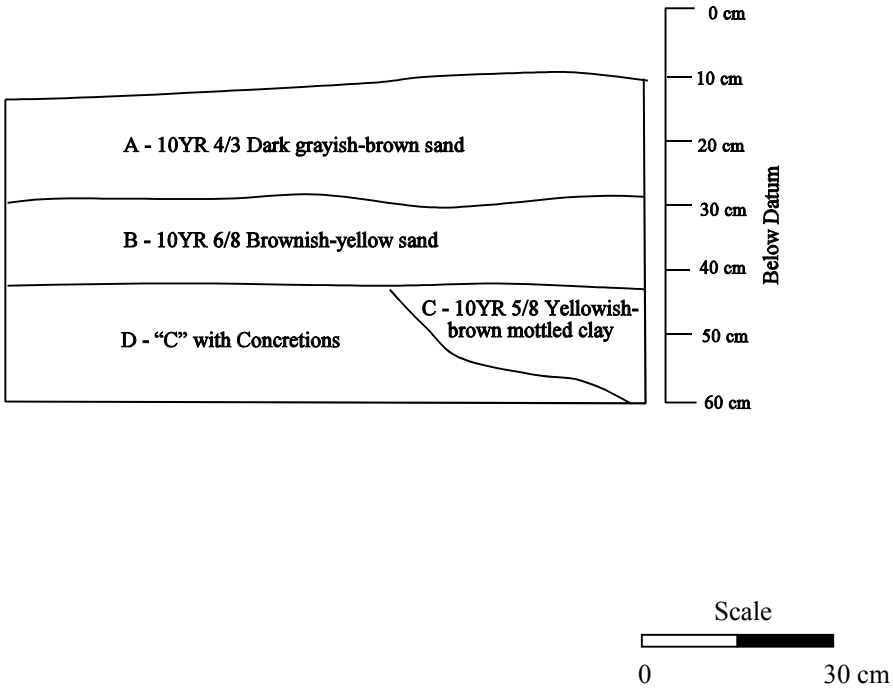


Figure 16.9 Site 38LA654, Locus 2, Test Unit 5, West Profile

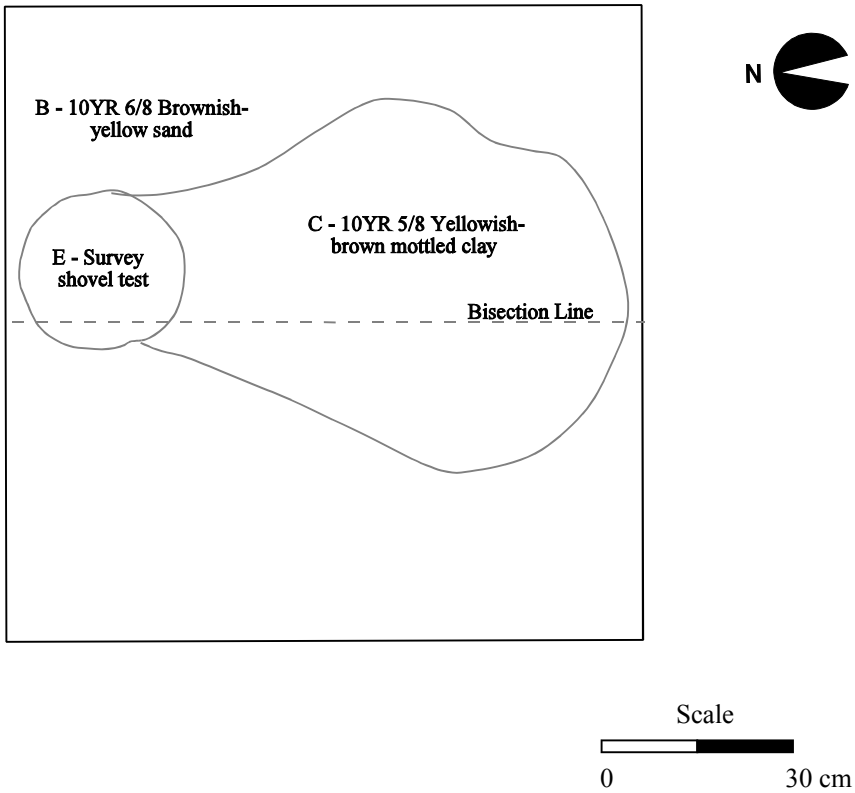
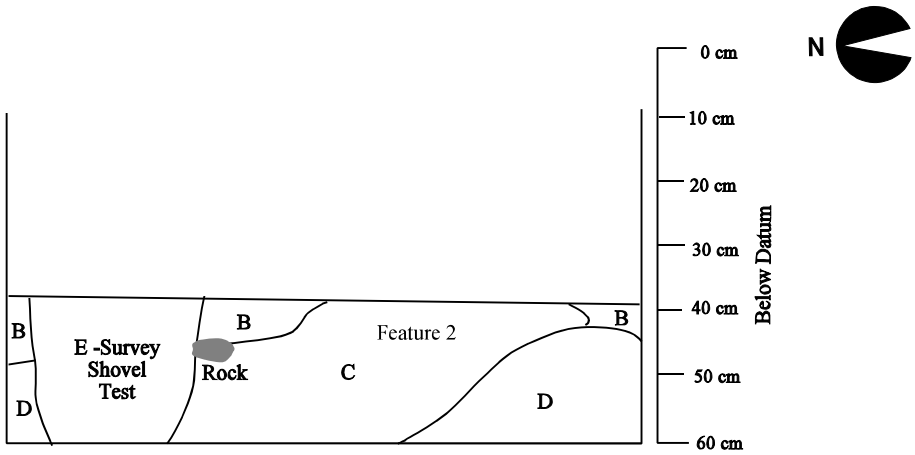


Figure 16.10 Site 38LA654, Locus 2, Test Unit 5 Extension, Feature 2 Plan View, Base of Level 3



B - 10YR 6/8 Brownish-yellow sand
C - 10YR 5/8 Yellowish-brown sand
D - "C" with concretions

Scale

0 30 cm

Figure 16.11 Site 38LA654, Locus 2, Test Unit 5 Extension, Feature 2 East Profile

the soil stratification discussed above, the lack of artifact modes in Levels 1 through 3 strongly suggests a plowzone context.

Table 16.7 38LA654 Locus 2, TU-5 Artifacts

Test Unit (TU)	5	5	5	5	
Level	1	2	3	4	
Bag Number	89	90	91	92	**Total**
PREHISTORIC					
Lithic Reduction					
Thinning flake, quartz	2			1	**3**
Reduction flake, quartz	2		1		**3**
Flake fragment, quartz	14	17	20	5	**56**
Prehistoric Total	**18**	**17**	**21**	**6**	**62**
HISTORIC					
Kitchen/Subsistence					
Whiteware, plain	2	1			**3**
blue edged	1				**1**
mulberry transfer print		1			**1**
banded		1			**1**
Redware, lead glazed	2	3			**5**
Buff bodied earthenware, lead glazed	1	1			**2**
light green	1				**1**
Bone	1	3	1		**5**
Weaponry					
Shell, brass 32 cal.	1				**1**
Historic Total	**9**	**10**	**1**		**20**
GRAND TOTAL	**27**	**27**	**22**	**6**	**82**

Prehistoric materials from TU-5 consist of quartz debitage (n=62), namely thinning flakes (n=3), reduction flakes (n=3), and flake fragments (n=56). Historic artifacts are comprised primarily of kitchen/ subsistence items (n=19; 95 percent): plain (n=3), blue-edged (n=1), mulberry transfer-print (n=1), and banded (n=1) whiteware; lead-glazed redware (n=5); lead glazed, buff-bodied earthenware (n=2); light green bottle glass (n=1); and food bone (n=5). A brass .32 caliber shell casing completes the TU-5 historic artifact inventory. The ceramics all have a strong 19th century affiliation. Of the five bone fragments, four were from Levels 1 and 2. The bone fragments were identified as calcined, and from an indeterminate medium to large mammal.

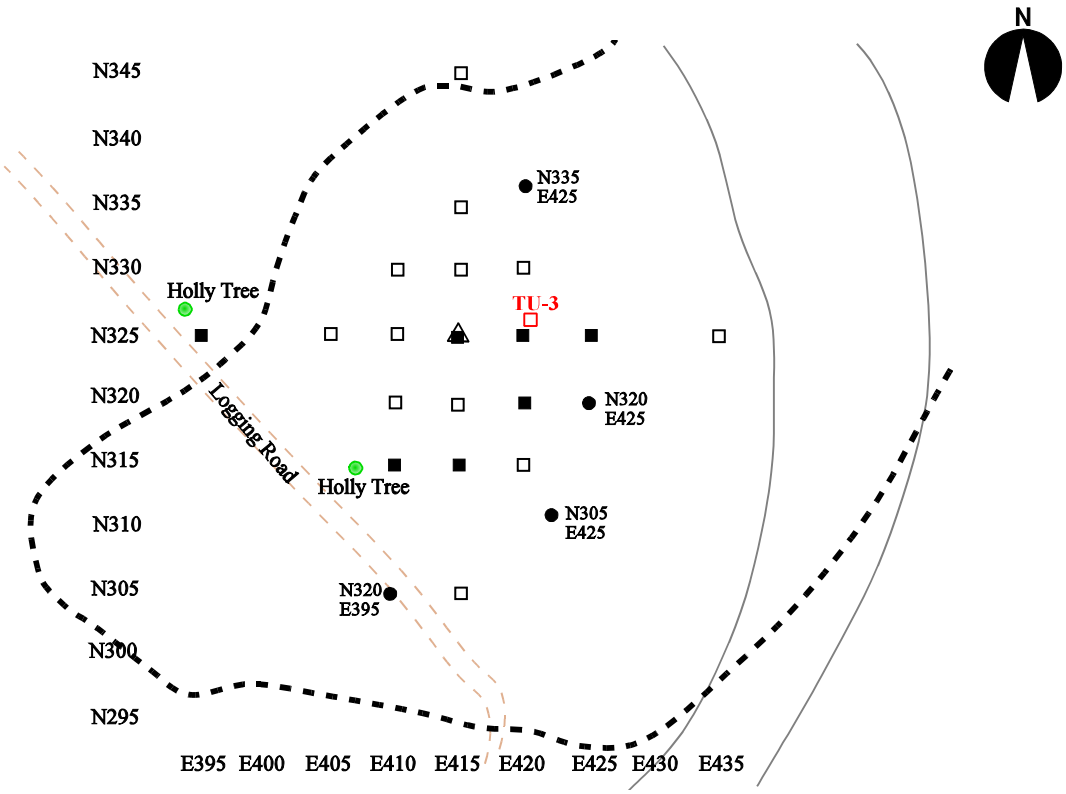
16.2.5 Locus 3 Close-grid Shovel Testing

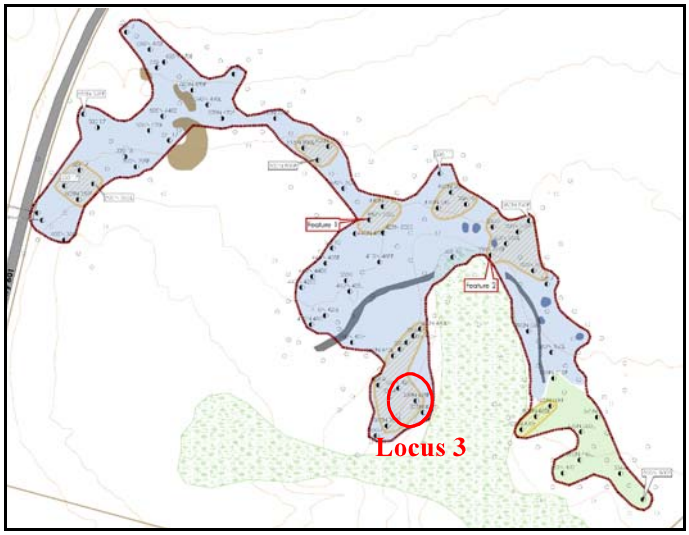
Nineteen Phase II shovel tests, 12 negative and seven positive, were excavated at Locus 3 (Figures 16.12 and 16.13). The decision to evaluate Locus 3 was based on the nature and content of survey shovel test T-331/8 (N325/E415) where 16 pieces of lithic debitage were recovered at depths of 20 and 60 cmbs. The seven positive Phase II shovel tests yielded 36 pieces of lithic debitage (quartz, n=14; metasiltstone, n=7; and metasandstone, n=15) and one eroded sherd from the surface to 80 cmbs. The debitage consisted of flake fragments (n=22), reduction flakes (n=11), and thinning flakes (n=3) (Table 16.8).

Table 16.8 38LA654 Locus 3, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	315	315	320	325	325	325	325	
East Coordinate	410	415	420	395	415	420	425	**Total**
Lithic Reduction								
Thinning flake, quartz						1		**1**
metasiltstone	1					1		**2**
Reduction flake, quartz					3			**3**
metasiltstone						2		**2**
metasandstone						4	2	**6**
Flake fragment, quartz				1	8	1		**10**
metasiltstone	2						1	**3**
metasandstone			1			2	6	**9**
Cooking/Containment								
Ceramic, eroded		1						**1**
Total	**3**	**1**	**1**	**1**	**11**	**11**	**9**	**37**

Artifacts were recovered from Levels 1 through 6, and Level 8; the mode occurred





Site Boundary From New South Survey (Adams *et al.* 2011b)

---- Site Limits
● Positive Survey Shovel Test
■ Positive Testing Shovel Test
□ Negative Testing Shovel Test
□ Test Unit
△ Datum

Scale
0 15 meters
0 49 feet

Figure 16.12 Site 38LA654, Locus 3, Site Plan

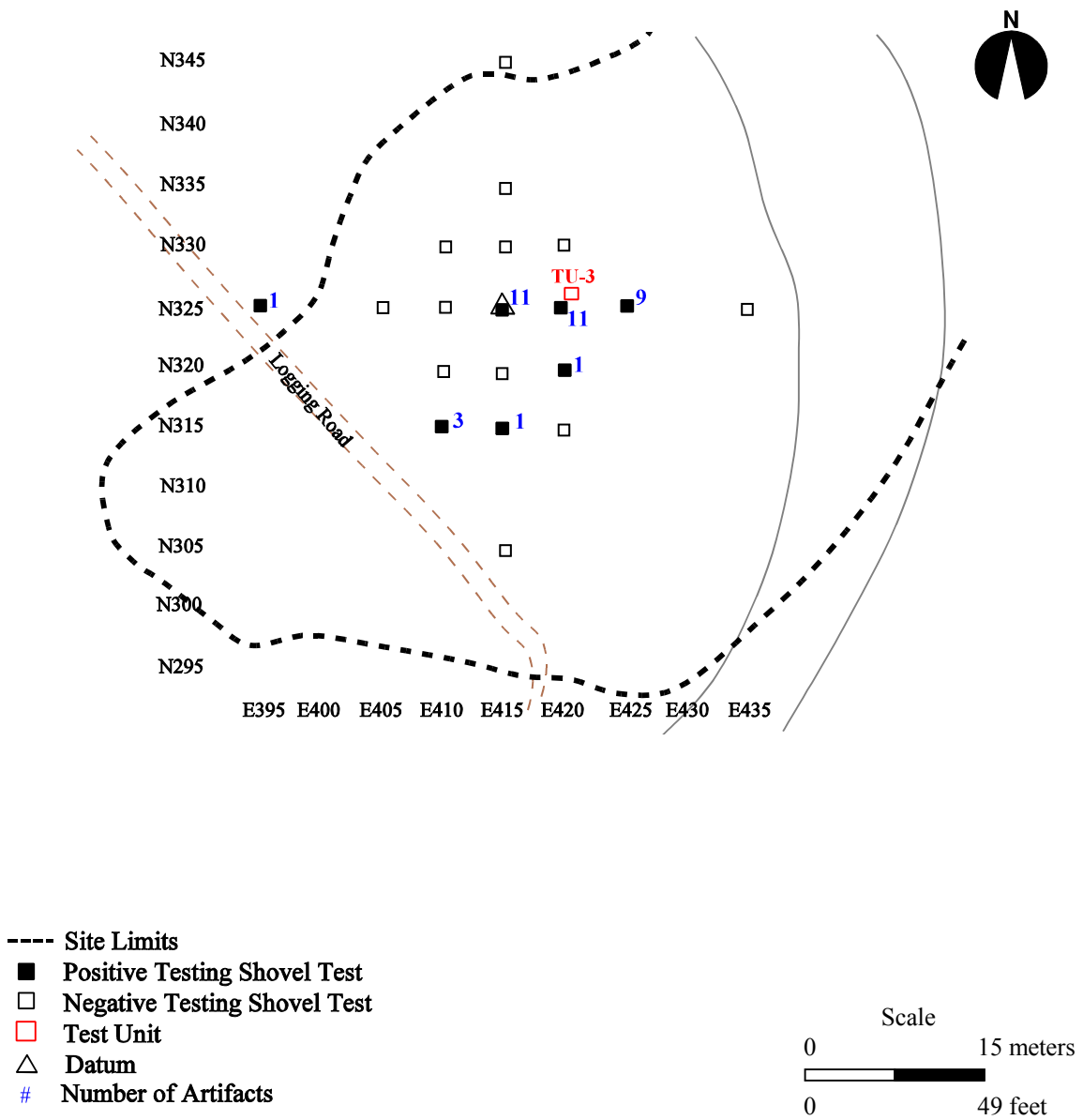


Figure 16.13 Site 38LA654 Locus 3, Density Map

in Level 8 (n=10), followed by Level 1 (n=7) (Table 16.9). Artifact density in the other levels did not exceed five. Phase II shovel test artifact density mapping shows no locations where prehistoric artifact yields exceeded 15 items. The highest yields were observed at shovel tests N325/E415 (n=11), N325/E420 (n=11), and N325/E425 (n=9) (Figure 16.13).

Table 16.9 38LA654 Locus 3, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	315	315	320	325	325	325	325	
East Coordinate	410	415	420	395	415	420	425	**Total**
Excavation Level								
Level 1 (0-10 cm)							7	**7**
Level 2 (1-20 cm)					1	3		**4**
Level 3 (20-30 cm)		1				4		**5**
Level 4 (30-40 cm)			1			2	2	**5**
Level 5 (40-50 cm)	2					2		**4**
Level 6 (50-60 cm)					10			**10**
Level 7 (60-70 cm)								
Level 8 (70-80 cm)	1			1				**2**
Total	**3**	**1**	**1**	**1**	**11**	**11**	**9**	**37**

16.2.6 Locus 3 Test Unit Excavation

TU-3 was established northeast of Phase II shovel test N325/E420 to investigate the location with the broadest array of raw materials and debitage types (Figures 16.12 and 16.13). This unit was also relatively close to survey shovel test N325/E415 which produced 16 pieces of debitage.

16.2.6.1 Test Unit 3

Level Excavation and Soil Stratification: TU-3 was excavated in eight 10-cm arbitrary levels (Levels 1 through 8). The unit datum was established 10 cm above surface in the northwest corner. Unit excavation was terminated at a depth of 90 cmbd. Excavations at TU-3 exposed four soil strata (Figure 16.14; Strata A through D). Stratum A is a grayish-brown (10YR 5/2) loamy sand overlying Stratum B, a brownish-yellow (10YR 6/6) loamy sand. Stratum C consists of yellowish-brown (10YR 5/6) sand, that overlies a light yellowish-brown (10YR 6/4) sand, Stratum D. Stratum A was contained within Level 1 and the uppermost portion of Level 2. Stratum B extended from Level 2 into Level 4, while Stratum C was encountered in Level 4 and observed to the base of the excavation in Level 8. Stratum D was found in the eastern part of the unit in Levels 7 and 8.

Table 16.10 38LA654 Locus 3, TU-3 Artifacts

Test Unit (TU)	3	3	3	3	
Level	1	2	3	4	
Bag Number	63	64	65	66	**Total**
Lithic Reduction					
Thinning flake, quartz				1	**1**
metasiltstone		6	6	1	**13**
metasandstone	4	12	13	7	**36**
Reduction flake, quartz			1		**1**
metasiltstone		2			**2**
metasandstone	6	27	32		**65**
Flake fragment, quartz	1		4	2	**7**
metasiltstone	3	2	3	5	**13**
metasandstone	3	30	37	8	**78**
Formal Tool					
PP/K Fragment, metasandstone	1				**1**
Total	**18**	**79**	**96**	**24**	**217**

Artifacts: A total of 217 prehistoric artifacts was recovered from TU-3 (Table 16.10). Artifacts were confined to Levels 1 through 4; Levels 5 through 9 were sterile. Artifact density increased in Levels 1 (n=18) and 2 (n=79), peaked in Level 3 (n=96), then declined in Level 4 (n=24). This density profile, along with the soil stratification observed in Levels 1 through 4, suggests a plowzone context for

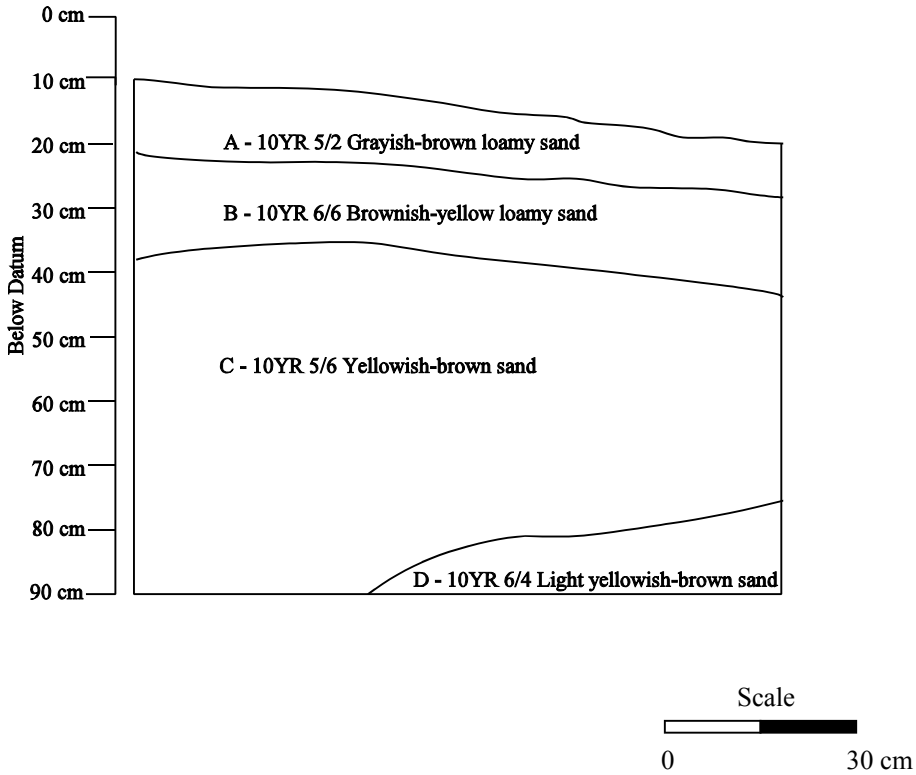


Figure 16.14 Site 38LA654, Locus 3, Test Unit 3, North Profile

Levels 1 and 2 and at least the upper part of Level 3. With the exception of one metasandstone PP/K fragment (a distal end), the artifact inventory is almost exclusively (99.5 percent) debitage (flake fragments, n=98; reduction flakes, n=68; thinning flakes, n=50). The most frequently used raw material in the debitage is metasandstone (n=179; 82.9 percent), followed by metasiltstone (n=28; 13.0 percent), and quartz (n=9; 4.1 percent).

16.2.7 Locus 4 Close-grid Shovel Testing

Locus 4 was centered on survey shovel test T333/4 (N605/E490), which yielded 15 rhyolite flake fragments at 20 and 80 cmbs. Phase II shovel testing resulted in the excavation of seven positive and 17 negative shovel tests (Figures 16.15 and 16.16). A total of 45 prehistoric artifacts was recovered from the positive shovel tests, including 44 pieces of lithic debitage and one metasiltstone knife between 30 and 60 cmbs (Table 16.11). The debitage is composed of metasiltstone (n=36) and quartz (n=8) and include flake fragments (n=28), reduction flakes (n=13), and thinning flakes (n=3).

Table 16.11 38LA654 Locus 4, Artifact Inventory, Close-grid Shovel Tests

North Coordinate	595	600	605	605	605	610	610	
East Coordinate	485	480	475	490	495	485	490	**Total**
Lithic Reduction								
Thinning flake, metasiltstone				3				**3**
Reduction flake, quartz						1		**1**
metasiltstone				12				**12**
Flake fragment, quartz		1	1			4	1	**7**
metasiltstone	1			20				**21**
Core/Biface Manufacture								
Knife, metasiltstone					1			**1**
Total	**1**	**1**	**1**	**35**	**1**	**5**	**1**	**45**

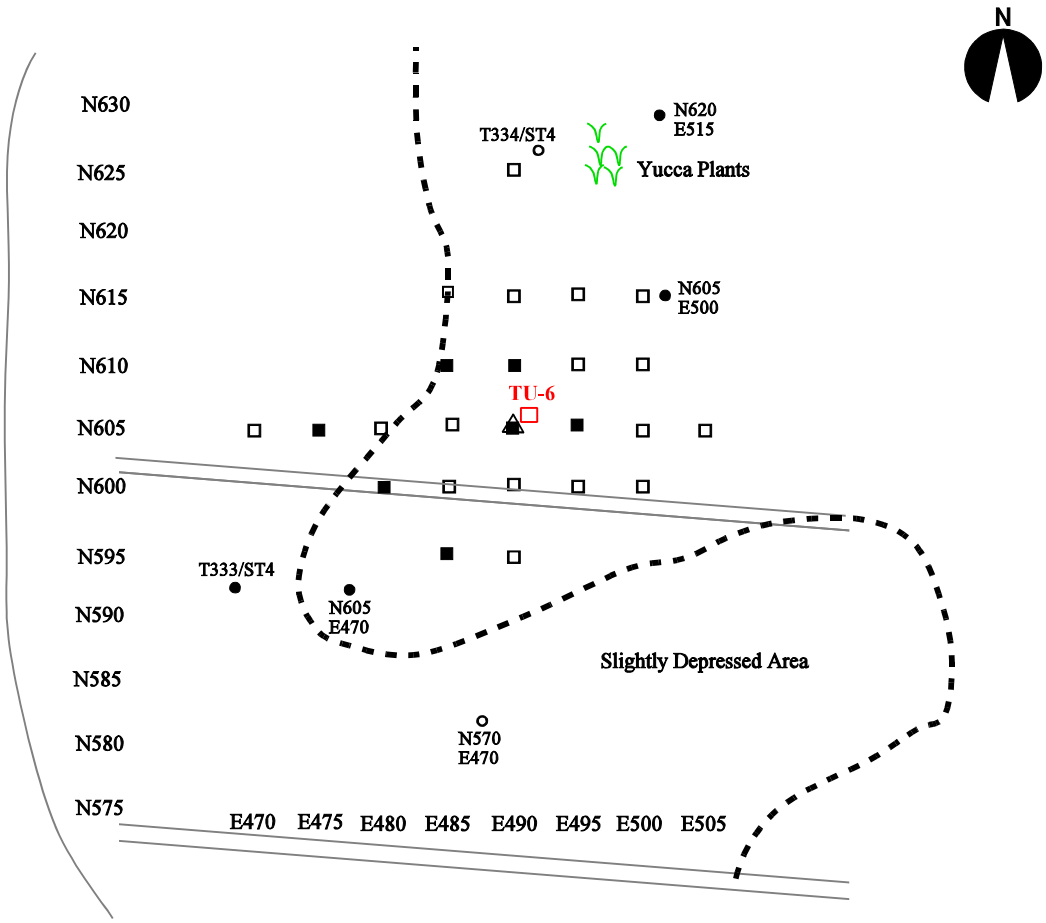
Artifacts were found in Levels 3 through 6, with the mode in Level 4 (n=18) and a smaller peak in Level 6 (n=10) (Table 16.12). Levels 1and 2 were sterile. The Phase II shovel test artifact density map shows one location where density was greater than five artifacts (Figure 16.16). Shovel test N605/E490 produced 35 piece of metasiltstone debitage from Levels 3 through 6.

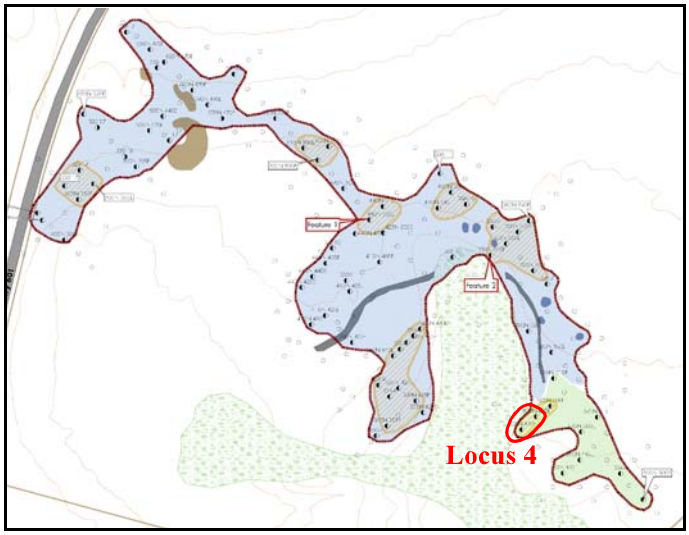
Table 16.12 38LA654 Locus 4, Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	595	600	605	605	610	610	605	
East Coordinate	485	480	475	490	485	490	495	**Total**
Excavation Level								
Level 1 (0-10 cm)								
Level 2 (10-20 cm)								
Level 3 (20-30 cm)	1		1	5		1	1	**9**
Level 4 (30-40 cm)				14	4			**18**
Level 5 (40-50 cm)		1		6	1			**8**
Level 6 (50-60 cm)				10				**10**
Total	**1**	**1**	**1**	**35**	**5**	**1**	**1**	**45**

16.2.8 Locus 4 Test Unit Excavations

TU-6 was set up 10 cm north of the Phase I and Phase II shovel tests excavated at station N605/E490 (Figures 16.15 and 16.16). The unit was established here to investigate the metasiltstone debitage concentration. Another consideration was to avoid an old dirt road cut, which bisects Locus 4 and has had a negative impact on the integrity of the locus.





Site Boundary From New South Survey (Adams *et al.* 2011b)

Survey Site Limits
Positive Survey Shovel Test
Positive Testing Shovel Test
Negative Survey Shovel Test
Negative Testing Shovel Test
Test Unit
Datum

Scale
0 15 meters
0 49 feet

Figure 16.15 Site 38LA654, Locus 4, Site Plan

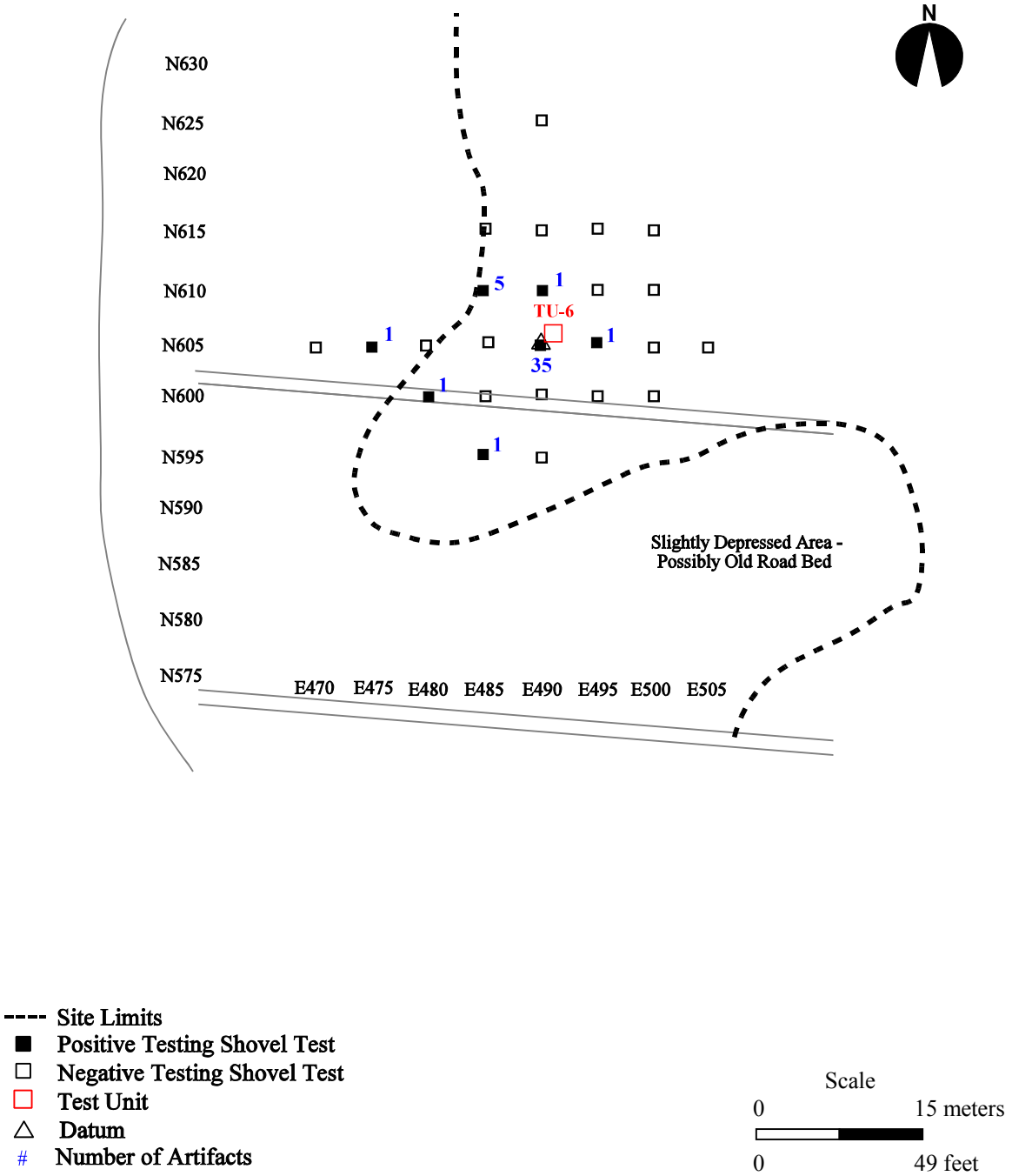


Figure 16.16 Site 38LA654 Locus 4, Density Map

16.2.8.1 Test Unit 6

Level Excavation and Soil Stratification: TU-6 was excavated in seven 10-cm arbitrary levels (Levels 1 through 7). Datum elevation was established at 10 cm above ground surface in the northeast corner. Unit excavation was terminated at a depth of 80 cmbd. TU-6 contained three soil strata (Figure 16.17; Strata A, B, and C). Stratum A is a dark grayish-brown (10YR 5/2) sandy loam that overlies Stratum B, a brownish-yellow (10YR 6/6) sandy loam. Stratum C consists of light yellowish-brown (10YR 6/4) sandy loam. Stratum A was present in Levels 1 and 2 with intrusion into the upper part of Level 3. Stratum B first appeared near the base of Level 2 and showed undulations possibly related to nearby dirt road grading activities. Stratum C was observed at the base of Level 5 (60 cmbd) and continued to the base of the excavation.

Artifacts: Despite being within 10 cm of two high-yield shovel tests, TU-6 produced only 31 artifacts (Table 16.13). Levels 1, 2, 6 and 7 were sterile, so artifacts were confined to Levels 3, 4, and 5. Artifact density increased from seven in Level 3, to the mode in Level 4 (n=19), then decreased in Level 5 (n=5). The unit inventory is comprised entirely of lithic debitage (flake fragments, n=20; reduction flakes, n=9; thinning flakes, n=2) manufactured from metasiltstone (n=29) and quartz (n=2).

Table 16.13 38LA654 Locus 4, TU-6 Artifacts

Test Unit	6	6	6	
Level	3	4	5	
Bag Number	42	43	44	**Total**
Lithic Reduction				
Thinning flake, metasiltstone	1	1		**2**
Reduction flake, metasiltstone	2	6	1	**9**
Flake fragment, quartz		2		**2**
metasiltstone	4	10	4	**18**
Total	**7**	**19**	**5**	**31**

16.3 Analysis

Site Artifact Inventory: A total of 651 prehistoric (n=555) and historic (n=96) artifacts was recovered during Phase II testing at 38LA654. Across the four loci investigated, the six test units produced 423 artifacts, while the 36 positive shovel tests contained 228 artifacts. Because the loci investigated at 38LA654 are at distances greater than many independent sites often are, each locus is discussed separately.

Locus 1: One hundred and eight artifacts were recovered from Locus 1: 43 are prehistoric, 65 are historic. Prehistoric materials consist of lithic debitage (n=41, 95.3 percent), cores/bifaces (n=1, 2.3 percent), and one formal tool (2.3 percent). The debitage is represented by flake fragments (n=32; 78.0 percent), thinning flakes (n=5; 12.2 percent), and reduction flakes (n=4; 9.8 percent). Debitage is dominated by quartz (n=26, 63.4 percent) with limited amounts of metasandstone (n=9, 22.0 percent) and metasiltstone (n= 6, 14.6 percent) present. One quartz core and one small, triangular quartz PP/K were also collected during the investigation at Locus 1. The PP/K from Locus 1 is fairly typical of what was likely used for arrows from

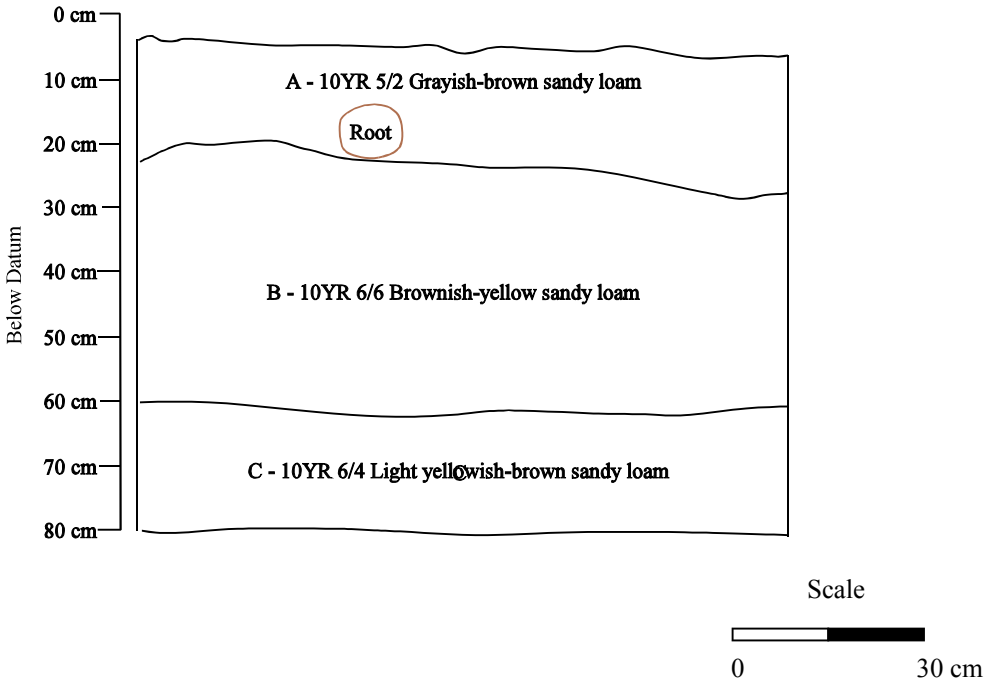


Figure 16.17 Site 38LA654, Test Unit 6, North Profile

the Late Woodland into the Late Prehistoric/Mississippian period (Figure 16.18). Such points fall broadly within the Late Woodland Triangular type (Sassaman *et al.* 1990; Whatley 2001).

PP/K Small Triangular
Late Woodland
Locus 1, Test Unit 4
Level 4 (Actual Size)

Figure 16.18 Site 38LA654, Selected Prehistoric Artifact

Historic artifacts were found exclusively in the test unit excavated at Locus 1 and specifically from the cellar/storage feature (Feature 1) or from immediately around/above it. Kitchen-related ceramics make up 38.5 percent (n=25) of the historic inventory, while other kitchen-related items (i.e., tin can fragments, n=15; iron fork, n=1) comprise 24.6 percent of the assemblage. These artifacts are complemented by architectural/structural materials (n=8, 12.3 percent), items of personal/clothing/adornment (one buckle and one white metal button; 3.1 percent), tobacco pipes (bowl fragments, n=2; stem fragments, n=2; 6.2 percent), and miscellaneous/unidentified iron (n=10, 15.4 percent). Figure 16.19 illustrates a selection of the historic artifacts from Locus 1.

Datable ceramics from Feature 1 indicate a middle 19th century use. Represented in the assemblage are plain, blue-edged, green-edged, and blue transfer-print whiteware with a collective manufacture date from 1820 to 1900 and mean ceramic date of 1860 (Gantt *et al.* 1996; Miller 2000; Samford 1997). The cut nails, kaolin pipe fragments, and bone-handled fork from the unit matrix and feature excavations also support 19th century use.

Locus 2: Two hundred and thirteen artifacts were taken from Locus 2; this includes 177 prehistoric and 36 historic artifacts. Prehistoric materials consist of debitage (n=176, 99.4 percent of the prehistoric items) and a core (0.6 percent). The debitage is composed of quartz (n=162; 92.0 percent), metasiltstone (n=8; 4.5 percent), metasandstone (n=3; 1.7 percent), metavolcanic (n=1; 0.6 percent) and chert (n=1; 0.6 percent); the core is made of quartz (Figure 16.20 - upper left hand corner). The debitage includes thinning flakes (n=7; 4.0 percent), reduction flakes (n=11; 6.3 percent), flake fragments (n=157; 89.2 percent), and shatter (n=1; 0.5 percent).

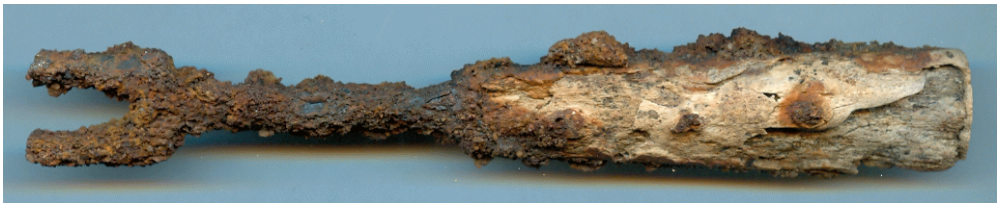
Historic artifacts were confined to Levels 1, 2, and 3 in the shovel tests, and to Levels 1 and 2 in TU-5. The artifacts are mostly kitchen/subsistence items: ceramics (n=25; 69.4 percent), bottle glass (n=4; 11.1 percent), and burned bone fragments (n=6; 16.7 percent). The burned bone fragments were assigned to the historic assemblage because they were mostly commingled with the historic materials in TU-5. Minimal amounts of architectural/structural (n=1; 3.2 percent) and weaponry (n=1; 3.2 percent) group items were also recovered from Locus 2.

The historic ceramics from Locus 2 all indicate manufacture dates in the 19th century (Samford 1997; Gantt *et al.* 1996; Miller 2000). Represented in the inventory are plain (1820-1900), blue edged (1840-1860),

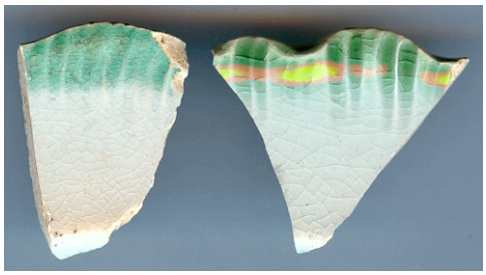
Clay Pipe,Test Unit 4
Level 6

Ball Clay Pipe Bowl
Test Unit 1, Level 5

Ball Clay Pipe Bowl
Test Unit 1, Level 6

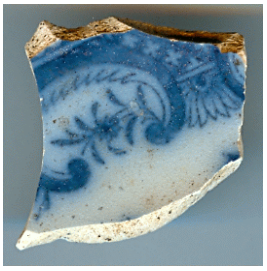


Iron Fork with Bone Handle, Test Unit 1 Feature 1



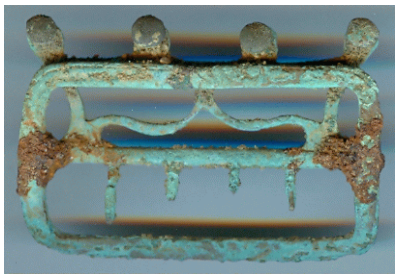
Green Edged Whiteware, Test Unit 2, Feature 1

Blue Transfer Print Whiteware
Test Unit 1, Feature 1

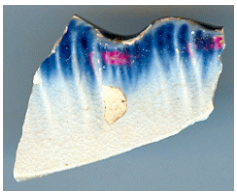


Blue Transfer Print Whiteware
Test Unit 2, Feature 1

White Metal Button
Test Unit 1, Feature 1



Brass Buckle, Test Unit 2, Feature 1



Blue Edged Whiteware
Test Unit 1, Feature 1

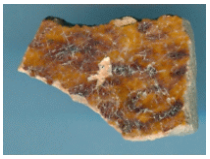
(Artifacts Actual Size)

Figure 16.19 Site 38LA654, Locus 1, Selected Historic Artifacts

Locus 2

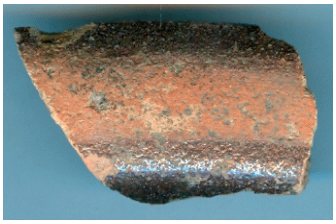
Core, Shovel Test N350/E555, Level 4

Buff Bodied Earthenware
Lead-glazed Interior,
Shovel Test N330/E560,
Level 5

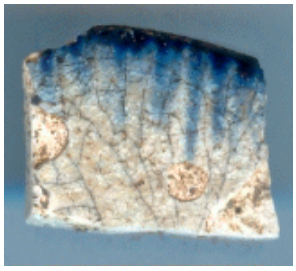


Buff Bodied Earthenware
(Exterior), Shovel Test
N350/E540, Level 3

Redware with Interior Lead Glaze
Test Unit 5, Level 2



Redware, Lead-glazed
Test Unit 5, Level 1



Blue-edged Whiteware
Test Unit 5, Level 1

Mulberry Transfer
Print Whiteware
Test Unit 5, Level 2

Locus 3

PP/K Fragment
Metasandstone
Test Unit 3, Level 1

Eroded Sherd, Shovel Test N315/E415, Level 3

Locus 4

Knife, Metasiltstone
Shovel Test N605/E495,
Level 3

(Artifacts Actual Size)

Figure 16.20 Site 38LA654, Loci 2, 3 and 4, Selected Artifacts

banded (1830-1900), and mulberry transfer printed (1814-1867) whitewares. The additional presence of lead-glazed redwares suggests an early to middle 19th century use period. The olive green glass and the cut nail imply 19th century use as well. Figure 16.20 (top) shows a selection of ceramics from Locus 2.

Locus 3: Excavations at Locus 3 yielded 254 prehistoric artifacts, which included almost entirely lithic debitage (n=252, 99.6 percent), one metasandstone PP/K fragment, and one eroded sand-tempered sherd (Figure 16.20). The dominant raw lithic material of the debitage is metasandstone (n=194; 77.0 percent), followed by metasiltstone (n=35; 13.9 percent) and quartz (n=23; 9.1 percent). The debitage from Locus 3 is comprised of flake fragments (n=120; 47.6 percent), reduction flakes (n=79; 31.3 percent), and thinning flakes (n=53; 21.1 percent). The sand-tempered sherd suggests Woodland Period use of Locus 3. In addition, based on the visible morphology, the PP/K fragment is tentatively assigned to the Woodland Period.

Locus 4: Locus 4 produced 76 prehistoric artifacts, 75 of which (98.7 percent) are debitage and one is a metasiltstone knife (1.3 percent) (Figure 16.20). The most commonly used raw material was metasiltstone (n=66; 86.8 percent), complemented by quartz (n=10; 13.2 percent). The debitage is made up of flake fragments (n=48; 64.0 percent), reduction flakes (n=22; 29.3 percent), and thinning flakes (n=5; 6.7 percent).

16.4 Interpretations

Prehistoric Occupations: Prehistoric groups occupied all four loci investigated. Because of the distances between loci, they are discussed as independent prehistoric occupations.

Locus 1: At Locus 1, a small triangular PP/K was recovered during testing and indicates occupation during at least the Late Woodland period. Locus 1 appears to have functioned as a station or camp where early to middle stage lithic reduction (primarily quartz) and core manufacturing occurred. The presence of the quartz core (a randomly flaked core) suggests the staged production of bifacial tools, including PP/Ks. This technique was commonly used during the Archaic period and during the early part of the Woodland period. Small triangular PP/Ks, such as the one recovered from Locus 1, were typically manufactured from flakes so it is quite likely that lithic reduction at Locus 1 was not restricted to the Late Woodland period. No prehistoric features, middens, tools associated with domestic activities, or other indications of intermediate to long-term occupation were detected during Phase II testing. Likewise, there is no evidence of group subsistence. Locus 1 produced no exotic lithic materials or diagnostic artifacts that provided information on territorial limits or trade/exchange.

Locus 2: The prehistoric occupation sampled at Locus 2 was similar in nature to that documented at Locus 1, except that no diagnostic artifacts were recovered to assist in dating the occupation. Quartz early to middle stage lithic reduction and core production were the most notable activities. However, it is worth noting that small quantities of metasandstone, metasiltstone, metavolcanic, and chert were also being reduced at Locus

2. This variety in exploited raw materials is greater than that observed at most other locations investigated during the current study. No prehistoric features, middens, tools related to domestic activities, or other indications of intermediate to long-term occupation were detected at Locus 2. Five burned bone fragments were recovered from TU-5 Levels 1, 2, and 3, but these materials appear to be related to the 19th century occupation on the area. So, there is no clear evidence of prehistoric subsistence habits. While all of the raw lithics recovered from Locus 2 are locally available and provide no direct evidence of group mobility/territorial range, the greater variety in materials at this location could point to more intensive use of the lithic resources available within a circumscribed territory/range. Data from Locus 2 provided no proof of trade/exchange.

Locus 3: One PP/K fragment and one eroded sand-tempered sherd were recovered from Locus 3 during Phase II investigations, suggesting use of the area during the Woodland Period. In addition, a Savannah River PP/K was found during the Phase I survey, indicating a Late Archaic presence. Early to middle stage lithic reduction was the most common discernible activity, followed by later stage bifacial thinning and minor formal tool manufacture/use and cooking/containment activities. Based on high artifact density and low artifact diversity, the lithic reduction activities appear to have been fairly intense over a short period of time. Unlike Loci 1 and 2 where quartz was the preferred raw material, metasandstone was the primary focus of exploitation at Locus 3, followed by metasiltstone. This focus on reducing metamorphosed lithics may account for the higher frequency of complete/identifiable flakes (especially thinning flakes) in the artifact inventory. These materials are not as brittle as quartz, which tends to create a higher frequency of flake fragments during reduction. No prehistoric features, middens, tools related to domestic activities, or other signs of intermediate to long-term occupation were recorded at Locus 3. Likewise, there is no evidence of prehistoric subsistence habits. Raw materials observed at Locus 3 are locally available and provide no evidence of group mobility/territorial range, or trade/exchange.

Locus 4: Locus 4 produced no temporal diagnostics, so cultural affiliation could not be determined. The high frequency of flake fragments, followed by reduction flakes suggests that early to middle stage lithic reduction was the most archeologically visible activity that occurred at this location. The recovery of a knife indicates limited cutting/piercing/faunal processing occurred here as well. Given the overall low artifact density and diversity at Locus 4, this appears to have been a short-term occupation. Unlike the other reduction loci studied at 38LA654, metasiltstone was the material being most heavily exploited at Locus 4; the knife was manufactured from this material. As at the other three loci, no prehistoric features, middens, tools typical of domestic activities, or other signs of intermediate to long-term occupation were noted at Locus 4. There was no evidence of prehistoric subsistence habits, or expressions of group mobility/ territorial range or trade/exchange.

Historic Occupations: Historic occupations were evident at Loci 1 and 2. Though these two loci appear to have similar 19th century temporal spans, they are approximately 110 m apart and are discussed separately.

Locus 1: The small sample of ceramics recovered from Feature 1, the cellar/storage feature documented at Locus 1, precludes the calculation of a ceramic date, but a temporal range of about 1820 to 1870 appears reasonable. The presence of ball clay pipes and cut nails tend to support a middle to late 19th century occupation. Identification of Feature 1 as a cellar or some sort of sub-floor storage feature indicates domestic use of Locus 1. This is strongly supported by the occurrence of other kitchen-related items, as well as the presence of architectural, clothing-related, and personal items. The cellar feature also implies that the domestic activity at Locus 1 was slave-related. Such cellars are well known from slave cabins in the south and mid-Atlantic regions (e.g., Samford 1994; Singleton 1985; Young 1997). These features were typically placed in front of the hearth, in alignment with the structure, and help provide a point of reference in terms of the spatial organization within the slave cabin, as well as its orientation. No subsistence remains were recovered from Feature 1; however, the retrieval of the brass buckle, a coat button, and the bone-handled fork suggest that Feature 1 may have been used to store important personal items as well as foodstuffs. The temporal range of the ceramics from Feature 1 suggests that the structure at Locus 1 could have been occupied before and after emancipation. Based on the identification of Feature 1 and its contents, it appears that the economy at Locus 1 was slave-, and perhaps later, freedman-based.

Locus 2: The small sample of datable ceramics from Locus 2 indicates a 19th century temporal span that could very well correspond to that of Locus 1. The presence of the ceramics, bottle glass, subsistence bone, and a cut nail indicate domestic use of Locus 2. Unlike Locus 1, no intact historic period features or deposits were detected at Locus 2 and in fact, it appears that the historic deposits at Locus 2 are confined to the plowzone. Five small burned bone fragments demonstrate only that the occupants consumed a medium to large mammal. Little can be surmised about occupant identity/ethnicity or economy.

16.5 Recommendations

Prehistoric Occupations: At the various loci, prehistoric artifacts were recovered from depths of up to 80 cmbs; however, there is compelling evidence that at least the upper 60 cm of the deposits at Loci 1 and 2 have been significantly disturbed by 19th and 20th century land use practices. This level of historic disturbance could not be confirmed at Loci 3 and 4. Regardless of the level of disturbance, prehistoric archeological deposits at Loci 1, 2, 3, and 4 exhibit no evidence of intact features, distinct midden deposits, clearly defined artifact clusters, artifacts related to domestic activities, or other proof of intermediate to long term occupation. Furthermore, debitage comprised 92 to 99 percent of the prehistoric artifacts recovered from each locus. Such occupations have been well documented at Haile Gold Mine through the various Phase I, II, and III archeological studies. Given the above justifications, it is unlikely that 38LA654 retains additional information that will enhance knowledge on Late Archaic period lifeways or the transition between the Archaic and Woodland periods in the study region. The prehistoric occupations investigated at 38LA654 are recommended ineligible for the NRHP under Criterion (d) and no further archeological work is considered necessary.

Historic Occupations: The recordation of a well-defined 19th century cellar/storage feature at Locus 1 demonstrates that historic archeological deposits in this area have the potential to produce additional significant archeological data on the lifeways of African American slaves and/or freedmen, presumably associated with the Clyburn family plantation holdings. The presence of this feature implies that data may be present on the spatial organization of the slave cabin and perhaps the area around the cabin. There is also the potential that Locus 1 retains important information on subsistence habits and household economy. For these reasons, the historic occupation at Locus 1 of 38LA654 is recommended eligible for the NRHP under Criterion (d). Since avoidance is not feasible for this site under Haile Gold Mine's mining plan, Phase III data recovery excavations are advised. These excavations should focus on a 10-m area surrounding Feature 1 at Locus 1.

At Locus 2, the historic archeological deposits are almost exclusively confined to the upper 30 cm of the deposits, with the majority of the artifacts (80.6 percent) confined to the upper 20 cm. While the artifacts at Locus 2 appear to be contemporaneous with those at Locus 1, the Locus 2 materials are likely confined to the plowzone. Since no features or midden deposits were found during Phase II investigations at Locus 2 and historic artifact density is low, it is unlikely that additional work at Locus 2 would increase knowledge on 19th century settlement and use of the study region. The historic deposits at Locus 2 are considered ineligible for the NRHP under Criterion (d) and no additional work is recommended.

17.0 SITE 38LA723

17.1 Previous Work

Site 38LA723 was recorded as a non-diagnostic lithic scatter on a broad, level ridge, northeast of the Snowy Owl Road and U.S. 601 intersection (Gantt and Bloom 2012). Nine negative and four positive survey shovel tests were excavated. One shovel test in the southwest corner of the site (T-1/1) contained one rhyolite and 15 quartz flake fragments between 30 and 75 cmbs. Although the shovel test was adjacent to a ditch paralleling U.S. 601, the soil profile did not reflect disturbance from ditch excavation (i.e., no mixing/ mottling). The remaining three positive shovel tests contained one to three artifacts each. Since shovel test T-1/1 had a high artifact yield in an apparently undisturbed context, Phase II testing was recommended for 38LA723 to clearly assess NRHP eligibility under Criterion (d) (Gantt and Bloom 2012:58).

17.2 Phase II Excavations

17.2.1 Close-grid Shovel Testing

Twenty-two Phase II shovel tests were excavated at 38LA723 to identify and investigate areas with high artifact counts in conjunction with possible intact deposits; six shovel tests were positive and 16 were negative (Figure 17.1). Forty-six pieces of debitage were recovered from the positive shovel tests, including quartz (n=1) and metasandstone (n=2) thinning flakes, quartz reduction flakes (n=4), and quartz flake fragments (n=39) (Table 17.1). The artifacts were found between 10 to 50 cmbs (Table 17.2). The artifact mode was in Level 3 (n=41), with all other levels producing one to three artifacts.

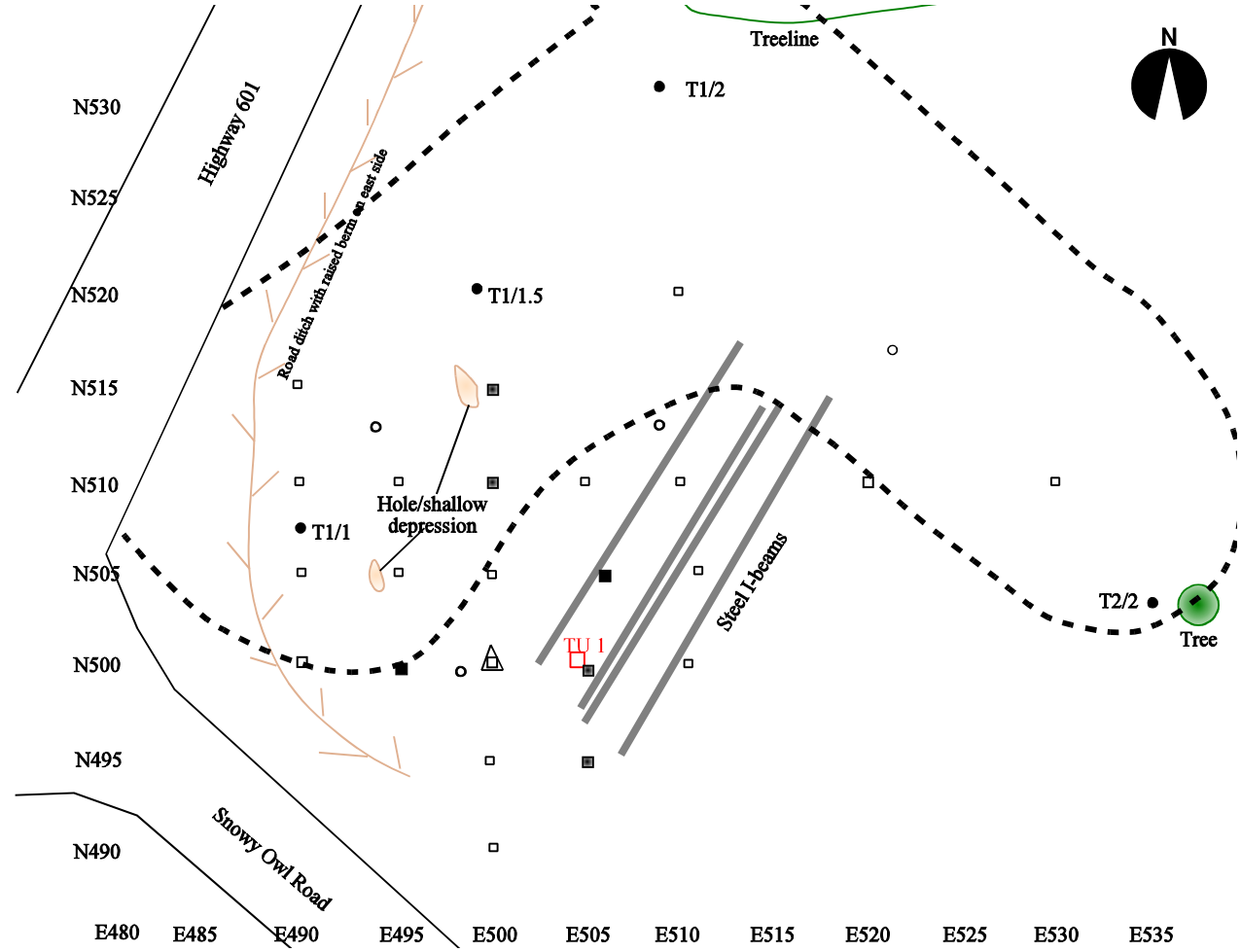
Table 17.1 38LA723 Artifact Inventory, Close-grid Shovel Tests

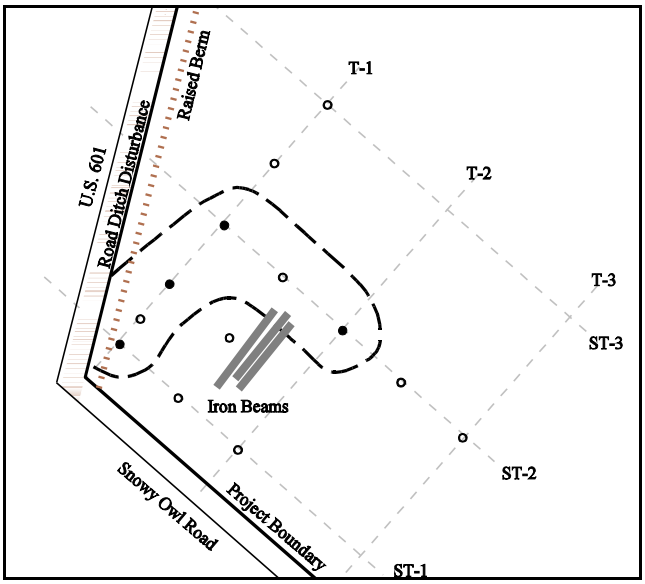
North Coordinates	495	500	500	505	510	515	
East Coordinates	505	495	505	505	500	500	**Total**
Lithic Reduction							
Thinning flake, quartz			1				**1**
metasandstone						2	**2**
Reduction flake, quartz			4				**4**
Flake fragment, quartz	1	1	35	1	1		**39**
Total	**1**	**1**	**40**	**1**	**1**	**2**	**46**

The shovel test artifact density distribution map shows a single high-density area at shovel test N500/E505 (n=40) (Figure 17.2). This density level was more than double that of the high-density survey shovel test (n=16). All artifacts from shovel test N500/E505 were recovered from Level 3 (30 to 40 cmbs). The remaining five shovel tests produced one or two artifacts.

Table 17.2 38LA723 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	495	500	500	505	510	515	
East Coordinate	505	495	505	505	500	500	**Total**
Excavation Level							
Level 1 (0-10 cm)							
Level 2 (10-20 cm)	1						**1**
Level 3 (20-30 cm)		1	40				**41**
Level 4 (30-40 cm)				1			**1**
Level 5 (40-50 cm)					1	2	**3**
Total	**1**	**1**	**40**	**1**	**1**	**2**	**46**





Site Boundary From R.S. Webb & Associates Survey
(Gantt and Bloom 2012)

Survey Site Limits
Positive Survey Shovel Test
Positive Testing Shovel Test
Negative Survey Shovel Test
Negative Testing Shovel Test
Test Unit
Datum

Scale
0 10 meters
0 33 feet

Figure 17.1 Site 38LA723, Site Plan

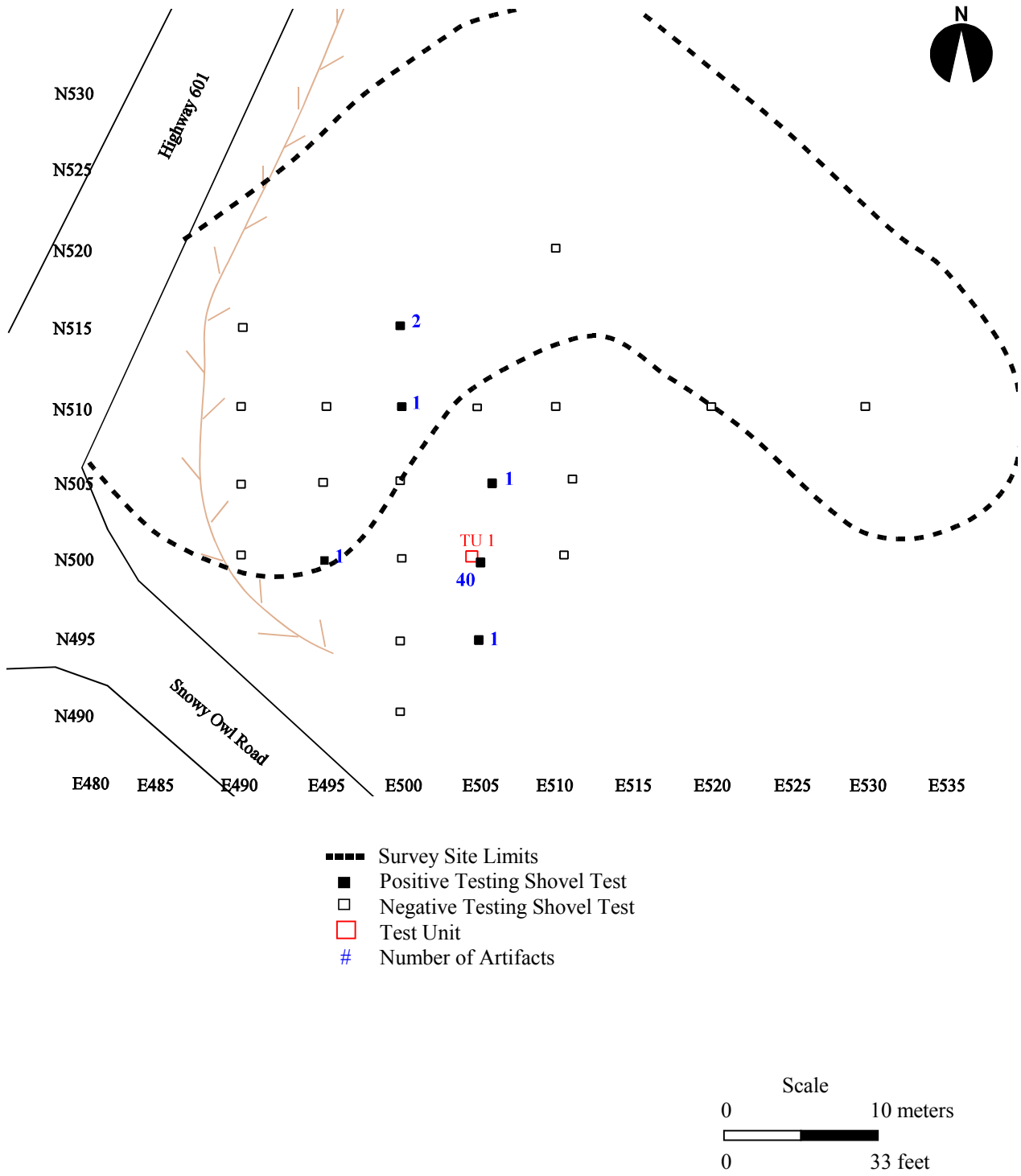


Figure 17.2 Site 38LA723, Density Map

17.2.2 Test Unit Excavation

One 1-by-1-m test unit was excavated at 38LA723 (Figures 17.1 and 17.2; TU-1) to sample the area of the highest artifact density. The southeast corner of the unit was placed adjacent to shovel test N500/E505.

17.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in nine 10-cm arbitrary levels (Levels 1 through 9). The unit datum was established 10 cm above surface in the northeast corner. Unit excavation was terminated at a depth of 88 cmbd. TU-1 revealed three soil strata (Figure 17.3; Strata A through C). Stratum A is a dark grayish-brown (10YR 4/2) loamy sand that overlies Stratum B, a yellowish-brown (10YR 5/6) loamy sand. Stratum C consists of strong brown (7.5YR 5/6) sandy loam. In general, the upper strata within TU-1 sloped in the northeast corner, probably as the result of a deep plow scar. Stratum A was present in Levels 1 through 3, with Stratum B appearing as high in the profile as 22 cmbd in the northwest portion of the unit, but furrowing to a depth of 32 cmbd in the northeast corner. Stratum C became evident at 68 cmbd throughout the unit.

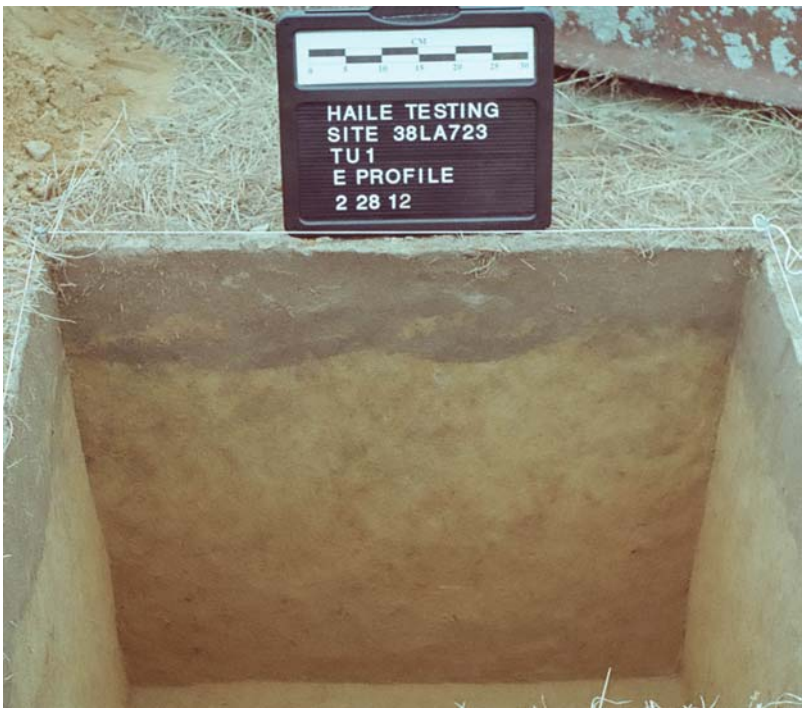
Artifacts: Nineteen artifacts were recovered from TU-1 (Table 17.3). Artifacts were found in Levels 3 (n=6), 4 (n=7), 5 (n=3), and 6 (n=3); Levels 1, 2, and 7 through 9 were sterile. The TU-1 inventory consists entirely of quartz lithic debitage represented by thinning flakes (n=2, 10.5 percent), reduction flakes (n=4, 21.1 percent), and flake fragments (n=13, 68.4 percent).

Table 17.3 38LA723 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	
Level	3	4	5	6	
Bag Number	12	13	14	15	**Total**
Lithic Reduction					
Thinning flake, quartz	1		1		**2**
Reduction flake, quartz	2	1		1	**4**
Flake fragment, quartz	3	6	2	2	**13**
Total	**6**	**7**	**3**	**3**	**19**

17.3 Analysis

A total of 65 prehistoric artifacts was recovered during Phase II testing at 38LA723: 19 from the test unit and 46 from shovel testing. The artifact sample is comprised entirely of lithic debitage. Quartz was the dominant raw material utilized (n=64, 98.5 percent), followed by metasandstone (n=1, 1.5 percent). Flake fragments totaled 52 (80.0 percent), followed by reduction flakes (n=8, 12.3 percent), then thinning flakes (n=5, 7.7 percent). The thinning and reduction flakes occur at parity in low frequencies, with a much higher percentage of flake fragments. The high frequency of flake fragments is quite common in lithic assemblages dominated by quartz, as this one is, although secondary use of another raw material is indicated in the recovered assemblage. Considering the various levels of complexity observed in Piedmont archeological site assemblages, artifact diversity at 38LA723 is considered low.



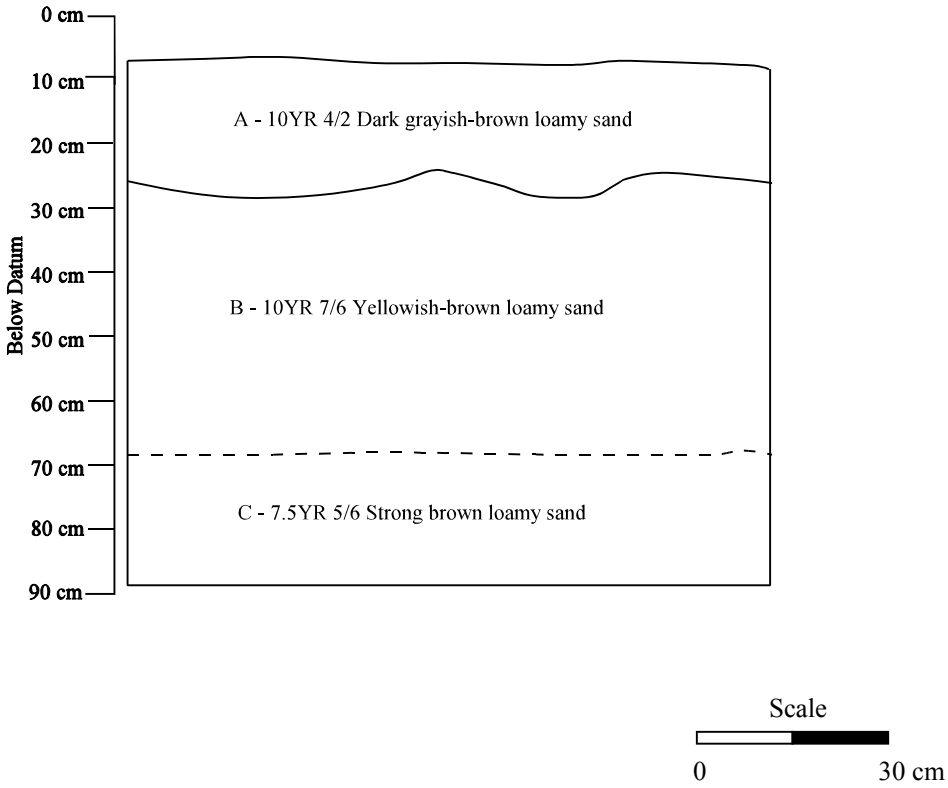


Figure 17.3 Site 38LA723, Test Unit 1, East Profile

17.4 Interpretations

No diagnostic artifacts were collected during the Phase I/II investigations at 38LA723, so the span of occupation is unknown. In terms of site function, all that can be said is that quartz reduction is the only activity that is archeologically visible. No intact features, deposits, or artifacts indicative of group maintenance were noted. Considering the low to moderate artifact density and low artifact diversity, short term/transient use is apparent. Because of this, Phase II work produced no evidence of subsistence habits, or territorial range/exchange.

17.5 Recommendations

No intact features or intact archeological deposits/midden were detected during the Phase I/II investigations at 38LA723. Phase II evaluation demonstrated that the site has been significantly disturbed by cultivation/ bedding activities and that 91.3 percent of the artifacts were recovered from the upper 30 cm of the cultural deposits. This finding is supported by the fact that 38LA723 was in a well-established cultivated field on aerial photography dating to 1949. The lack of depositional integrity and contextual clarity, along with the low artifact diversity, strongly suggests that 38LA723 is unlikely to retain significant archeological information on Archaic period lifeways. Therefore, 38LA723 is recommended ineligible for the NRHP under Criterion (d), and no additional archeological work is advised.

18.0 SITE 38LA727

18.1 Previous Work

Site 38LA727 was recorded as a non-diagnostic lithic scatter near the edge of a ridge overlooking a floodplain (Gantt and Bloom 2012). Four positive and 15 negative shovel tests were excavated. Thirty-seven artifacts, all lithic debitage (quartz, n=24; rhyolite, n=13), were collected from the site. Two artifact concentrations (Loci 1 and 2) were noted, indicating a spatial separation by raw material. Locus 1 was a concentration (n=13) of metavolcanic debitage detected in the eastern portion of the site at shovel test T-14.5/11, from 0 to 65 cmbs. Locus 2 consisted of a scatter of quartz debitage (n=24) in the western portion of the site, with a concentration of 15 artifacts at T-13.5/11 extending from 0 to 70 cmbs. Based on these findings, it was believed that the site could retain additional significant archeological information; however, the survey data was not adequate to allow a clear NRHP eligibility recommendation under Criterion (d) to be formulated. As a result, the site was recommended for Phase II evaluation (Gantt and Bloom 2012).

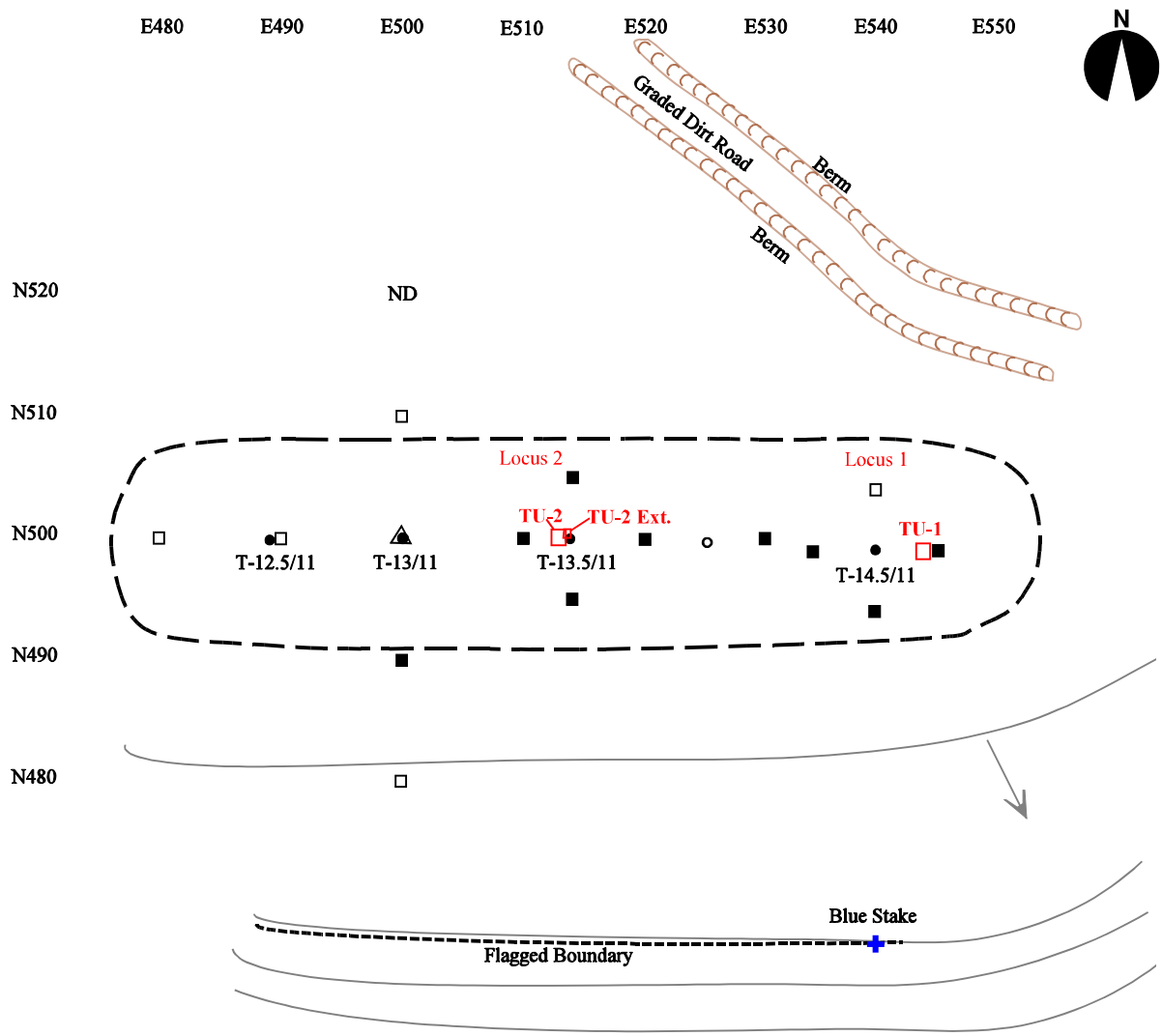
18.2 Phase II Excavations

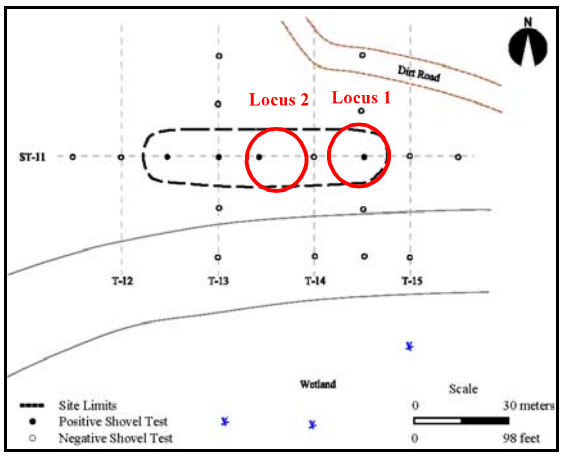
18.2.1 Close-grid Shovel Testing

Loci 1 and 2 were approximately 30 m apart. Due to an unknown degree of horizontal blending of these deposits, or overlap of activity areas, the shovel test data could not be satisfactorily separated by individual locus. Fourteen close-grid shovel tests were excavated during testing (Figure 18.1). Nine of these were positive and five were negative. Forty-two artifacts were recovered from the positive shovel tests (Tables 18.1 and 18.2). This inventory is comprised of lithic debitage (n=41) and a fragment of a diabase food processing stone (n=1). No artifacts were recovered from the plowzone (Levels 1 and 2). Levels 3 and 4 (20 to 40 cmbs) were the most productive, yielding 69.0 percent (n=29) of the artifacts recovered; vertical displacement to 60 cmbs was evinced in Levels 5 and 6 (n=13;

Table 18.1 38LA727 Artifact Inventory, Close-grid Shovel Tests

North Coordinate	500	500	490	500	494	499	499	495	505	
East Coordinate	530	510	500	520	539	544	534	514	514	**Total**
Lithic Reduction										
Thinning Flake, metasiltstone						2				**2**
Reduction Flake, quartz	1			1						**2**
metasiltstone						1	2			**3**
Flake Fragment, quartz	6	5	2	1		2	5	1	1	**23**
metasiltstone						6		1		**7**
metasandstone									1	**1**
cobble quartz		1								**1**
diabase					1					**1**
Shatter, quartz				1						**1**
Food Processing										
Processing Stone, diabase								1		**1**
Total	**7**	**6**	**2**	**3**	**1**	**11**	**7**	**3**	**2**	**42**





Survey Site Boundary (Gantt et al. 2012)

Scale

0 15 meters

0 49 feet

- ---- Survey Site Limits
- ● Positive Survey Shovel Test
- ○ Negative Survey Shovel Test
- ■ Positive Testing Shovel Test
- □ Negative Testing Shovel Test
- □ Test Unit
- △ Datum

Figure 18.1 Site 38LA727, Plan Map

31.0 percent). Phase II shovel test artifact density mapping shows that only one shovel test, N499/E534, produced more than 10 artifacts (n=11), all debitage, mostly of metasiltstone (Figure 18.2).

Table 18.2 38LA727 Artifact Distribution by 10-cm Level, Close-grid Shovel Tests

North Coordinate	500	500	490	500	494	499	499	495	505	
East Coordinate	530	510	500	520	539	544	534	514	514	**Total**
Excavation Level										
Level 1 (0 - 10 cm)										
Level 2 (10 - 20 cm)										
Level 3 (20 - 30 cm)	2	3				4	2	1[a]		**12**
Level 4 (30 - 40 cm)	2	3	1		1	5	2	2	1	**17**
Level 5 (40 - 50 cm)	2		1	3		1	2			**9**
Level 6 (50 - 60 cm)	1					1	1		1	**4**
Total	**7**	**6**	**2**	**3**	**1**	**11**	**7**	**3**	**2**	**42**

a - Food processing stone, diabase

18.2.2 Test Unit Excavations

Two 1-by-1-m test units were excavated at 38LA727 (Figures 18.1 and 18.2; TU-1 and TU-2). Units were used to evaluate the two activity loci, and were located where shovel testing indicated high artifact density. TU-1 was placed on the west side of shovel test N499/E544 to evaluate Locus 1, and TU-2 was placed on the west side of survey shovel test T-13.5/11 to investigate Locus 2. A 50-by-50-cm unit extension off of TU-2 was necessary to expose a potential feature.

18.2.2.1 Test Unit 1

Level Excavation and Soil Stratification: TU-1 was excavated in seven arbitrary 10-cm levels (Levels 1 through 7). The unit datum was established 10 cm above surface in the southeast corner. Unit excavation was terminated at a depth of 78 to 80 cmbd. TU-1 exposed four soil strata (Strata A through D; Figure 18.3). The unit was capped by a very dark gray (10YR 3/1) loamy sand (Stratum A), overlying a transitional zone heavily mixed from bioturbation (Stratum B). It was composed of brown (10YR 5/3) loamy sand mixed with the very dark gray (10YR 3/1) loamy sand of Stratum A. Stratum C was a brown/pale brown (10YR 5.5/3) loamy sand that graded into the brown (7.5YR 5/4) clayey loamy sand subsoil (Stratum D). Stratum A was present in Levels 1 and 2 and extended into Level 3. Stratum B was present at the base of Level 2, in Level 3, and the top 2-3 cm of Level 4. Stratum C was contained in Levels 4, 5, 6, and the top 2 cm of Level 7. Stratum D was sampled by Level 7. One possible feature (Feature 1) was recorded in TU-1.

Feature 1: Identified at the base of Level 3, Feature 1 was a small cluster of four pieces of quartz cracked rock measuring 32 cm northwest-southeast by 14 cm northeast-southwest, with a thickness of 5 cm (Figure 18.4). There was no soil discoloration within the rock cluster. One piece of quartz shatter was recovered from the fill between the rocks. A small area of dark yellowish-brown (10YR 4/4) loamy sand adjacent to the rock cluster was the result of bioturbation. The cracked rocks lack evidence of cultural modification and exhibit geologic patination (as opposed to surface weathering over the last six or eight thousand years). These rocks do not appear to have been burned, or show characteristics of FCR cooking discard, nor do they exhibit flake scars indicative of prehistoric material testing or reduction. Whether this rock occurred

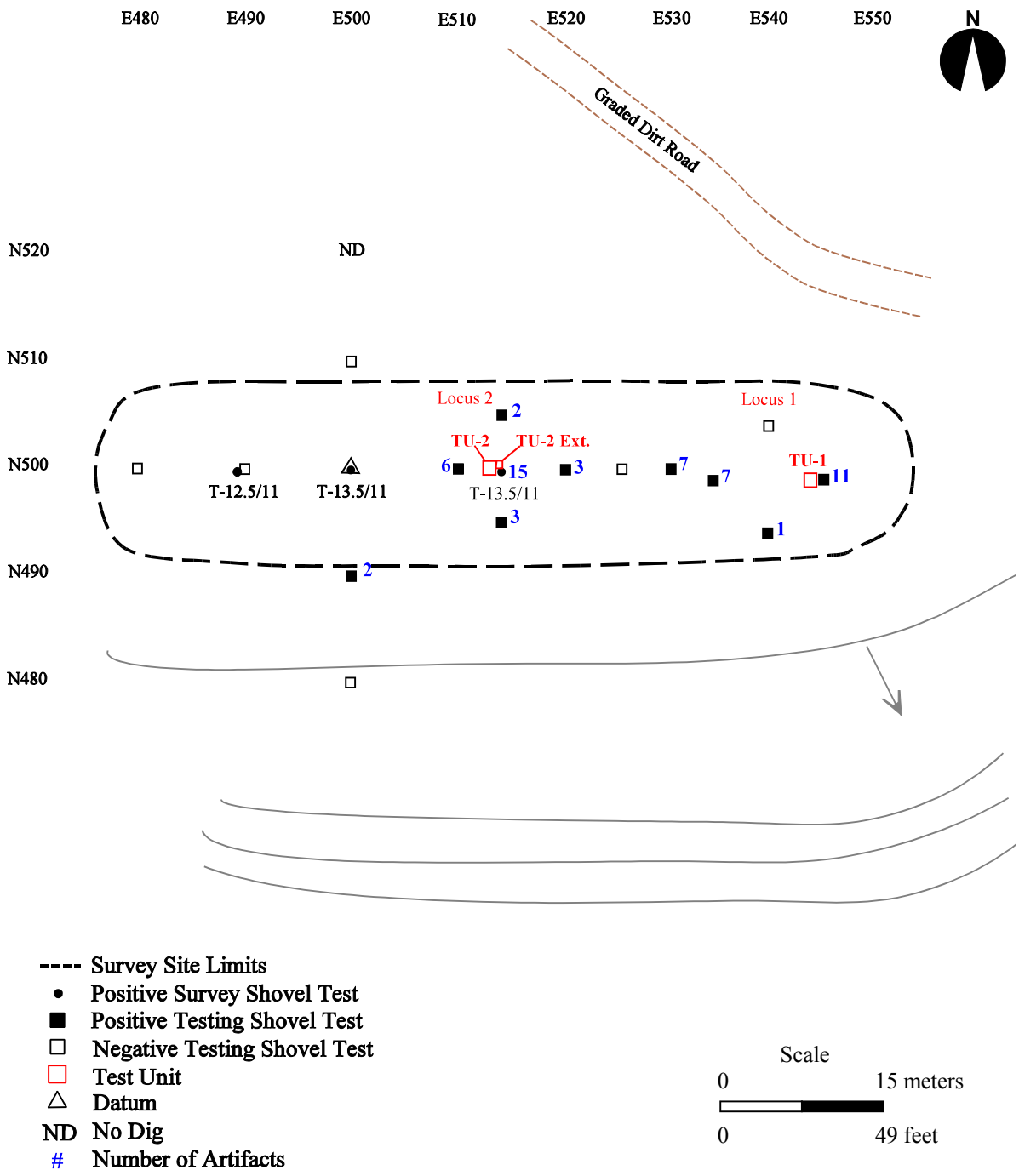
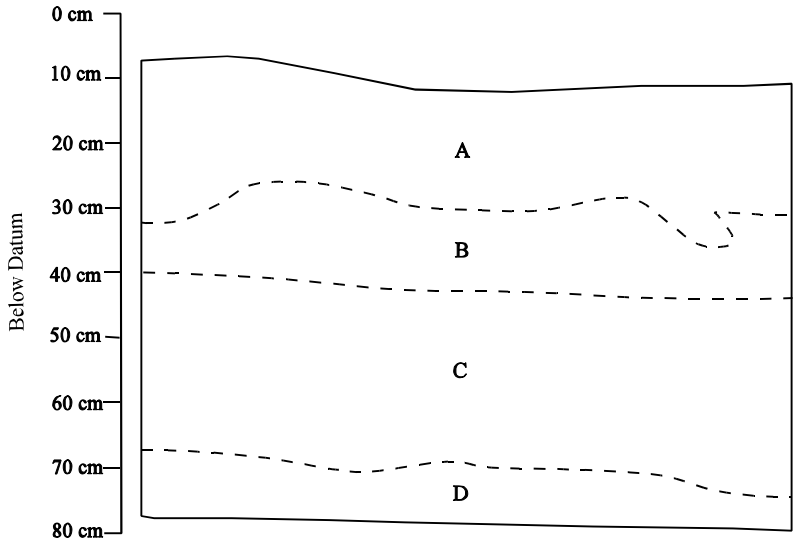


Figure 18.2 Site 38LA727, Density Map

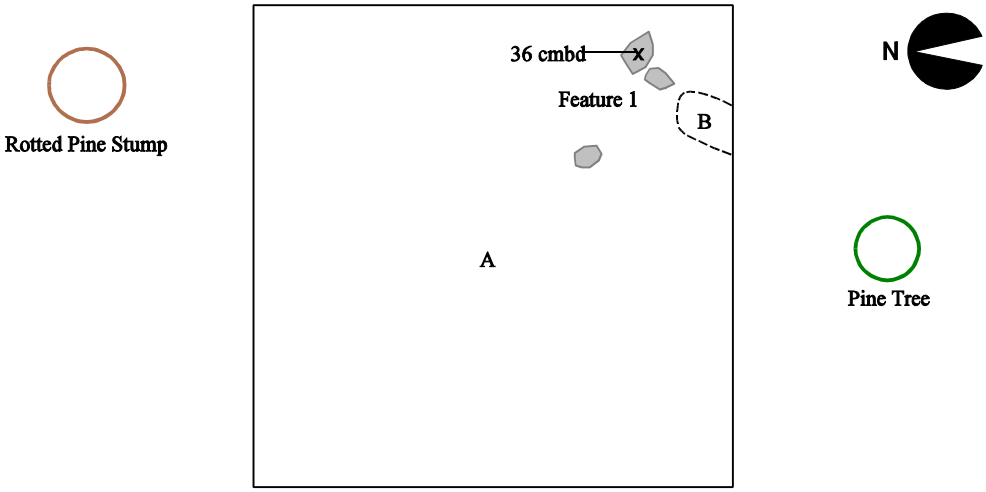


A - 10YR 3/1 Very dark gray loamy sand plowzone
B - 10YR 5/3 Brown loamy sand (dominant), mixed with "A"
C - 10YR 5.5/3 Brown/pale brown loamy sand
D - 7.5YR 5/4 Brown clayey loamy sand subsoil

Scale

0 30 cm

Figure 18.3 Site 38LA727, Test Unit 1, East Profile



A - 10YR 5/4 Yellowish-brown loamy sand mixed with "B"
B - 10YR 4/4 Dark Yellowish-brown loamy sand (bioturbation)

Scale

0 40 cm

Figure 18.4 Site 38LA727, Test Unit 1, Base of Level 3, Feature 1

naturally as float material in the soil, or relates to a particular activity performed at the site is undetermined. While cracked rock is often recorded on archeological sites in the study region, it is also commonly found in Phase I survey shovel tests where no archeological materials are present.

Artifacts: A total of 115 artifacts were recovered from the TU-1 level excavations (Table 18.3). Artifacts were recovered from Levels 2 through 5; Levels 1, 6, and 7 were sterile. Artifact density was low (n=15; 13.0 percent) in Level 2 (Stratum A), peaked in Level 3 (Stratum B) (n=65; 56.5 percent), decreased by nearly half (n=30; 26.1 percent) in Level 4 (Strata B/C), and was minimal (n=5; 4.4 percent) in Level 5 (Stratum C). Artifacts consist of lithic debitage (n=113; 98.2 percent), a biface fragment (n=1; 0.9 percent), and a small, stemmed PP/K (n=1; 0.9 percent). Raw materials include metasiltstone (n=93; 80.9 percent), metasandstone (n=13; 11.3 percent), and quartz (n=9; 7.8 percent).

Table 18.3 38LA727 TU-1 Artifacts

Test Unit (TU)	1	1	1	1	
Level	2	3	4	5	
Bag Number	19	20	21	22	**Total**
Lithic Reduction					
Thinning flake, quartz	1				**1**
metasiltstone	2	24	9	3	**38**
metasandstone		4	1		**5**
Reduction flake, quartz		6			**6**
metasiltstone	4	6	4		**14**
metasandstone		1	1		**2**
Flake fragment, quartz	2				**2**
metasiltstone	5	17	15	2	**39**
metasandstone	1	5			**6**
Core/Biface Manufacture					
Biface fragment, metasiltstone		1			**1**
Formal Tools					
PP/K, small stemmed, metasiltstone		1			**1**
Total	**15**	**65**	**30**	**5**	**115**

18.2.2.2 Test Unit 2

Level Excavation and Soil Stratification: TU-2 was excavated in eight arbitrary 10-cm levels (Levels 1 through 8). The unit datum was established 10 cm above surface in the southeast corner. Unit excavation was terminated at a depth of 90 cmbd. TU-2 cut through three soil strata (Strata A, B, and C) (Figure 18.5). The unit was capped by a very dark grayish-brown (10YR 3/2) loamy sand (Stratum A). Stratum B was a yellowish-brown (10YR 5/4) loamy sand that graded into Stratum C, a brown (7.5YR 4/4) clayey loamy sand subsoil. Stratum A was contained within Levels 1 and 2. Stratum B appeared at approximately 18 cmbs, and continued into Levels 3 through 6. The subsoil (Stratum C) was exposed in Levels 7 and 8. One feature (Feature 2) was detected in Test Unit 2.

<u>Feature 2 and Test Unit 2 Extension</u>: Feature 2 was identified at the base of Level 8 in the northeast corner of the unit as a very dark grayish-brown (10YR 3/2) soil anomaly, approximately 25 cm north-south by 10 cm east-west, that extended into the east profile wall (Figure 18.6). It produced a Morrow Mountain II PP/K at 89 cmbd. To expose this feature, a 50-by-50-cm unit extension, TU-2E, was established on the east side of TU-2, contiguous with the northeast quadrant. The southeast corner of TU-2E overlapped survey shovel test T-13.5/11. Care was taken to maintain excavation levels consistent with those in TU-2.

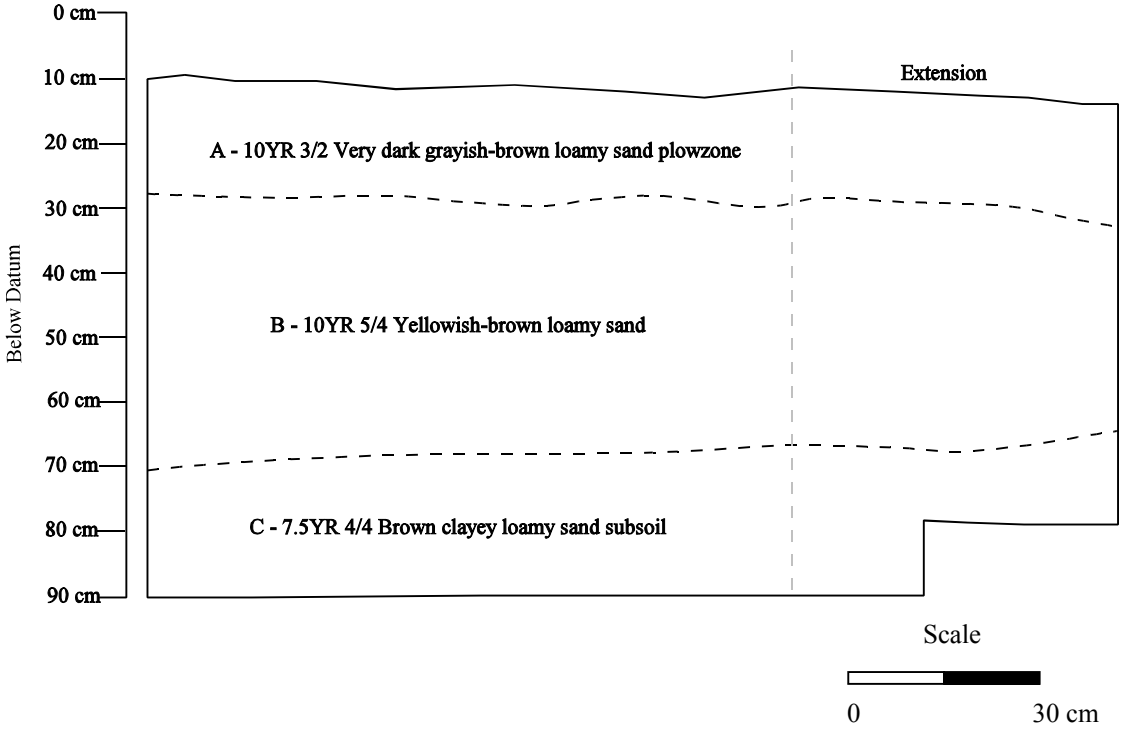
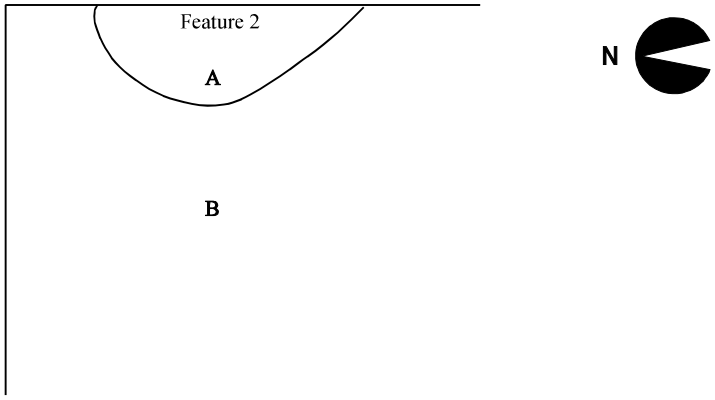


Figure 18.5 Site 38LA727, Test Unit 2 and Extension, North Profile



A - Feature 2: 10YR 3/2 Very dark grayish-brown loamy sand mixed with 7.5YR 4/4 brown loamy sand and charcoal flecks
B - Level Matrix: 7.5YR 4/4 Brown loamy sand

Scale

0 20 cm

Figure 18.6 Site 38LA727, Test Unit 2, Base of Level 8, Feature 2

A small area (10 cm by 4 cm, north-south) of very dark grayish-brown (10YR 3/2) loamy sand with charcoal was detected in the central portion of the unit extension near the base of Level 4 at 47 cmbd. This dark discoloration persisted through Levels 5 and 6. At the base of Level 6 (69 cmbd), a larger feature began to manifest as an area of brown (7.5YR 4/4) loamy sand with some diffuse darker soil and charcoal flecks, measuring approximately 30 cm in diameter. Excavation of TU-2E was terminated at the base of Level 6.

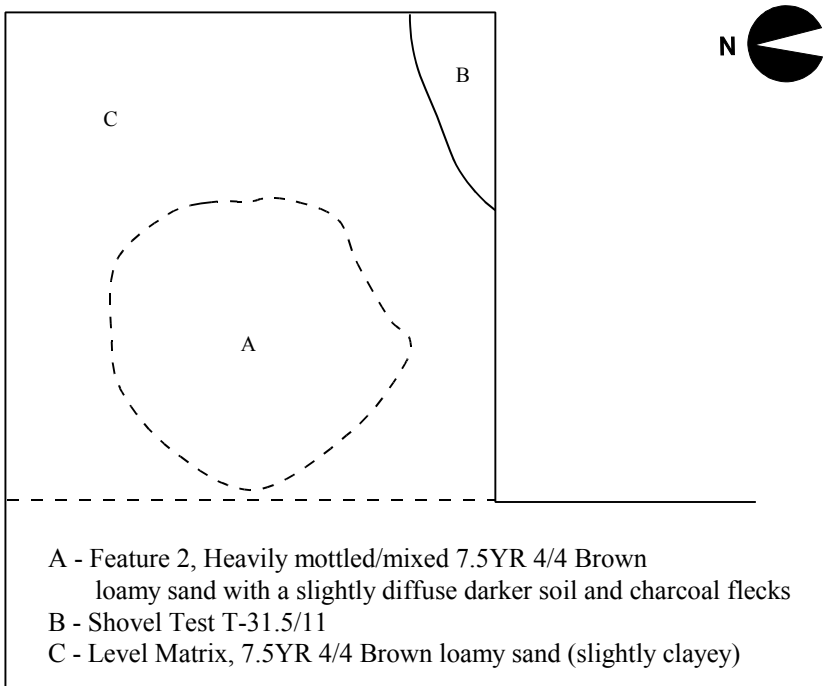
Troweling one more cm clearly defined the plan of Feature 2 at 70 cmbd in TU-2E (Figure 18.7). It was sub-circular in outline, measuring approximately 50 cm in diameter and contained an irregularly shaped central area (E^1) of dark brown (10YR 3/3) loamy sand mottled with brown (7.5YR 4/4) clayey loamy sand, with charcoal, that was approximately 36 cm east-west by 36 cm north-south, roughly surrounded by a 5-8-cm-wide halo (E^2) of a yellowish-red (5YR 4/6) loamy sand with inclusions of red (2.5YR 4/8) baked clayey loamy sand. The extreme north and south edges of E^2 extended into the north and south profile walls. At this point, Feature 2 appeared well-preserved, somewhat irregular, and was thought to be a burned tree root.

Feature 2 was bisected along the north-south axis; the west half was excavated and the soil processed through 0.64-cm screen. Figure 18.8 shows Feature 2 partially excavated; the upper surface is 70 cmbd; the lower surface is 89 cmbd. A photograph of the east profile of Feature 2 is presented in Figure 18.9, alongside a sketch that places the profile against the east profile of TU-2E to illustrate a complete soil profile. No burned roots penetrated the feature walls and there was no obvious tap root.

Feature 2 extended vertically 56 cm from the point where it was clearly defined (70 cmbd) to the base of the feature (126 cmbd). The bottom of the feature was flat to convex, and the sides were straight to slightly convex, although the north side appears to have buckled slightly inward (towards the center of the feature). Figure 18.10 illustrates the feature after excavation. Two areas of dense charcoal, measuring approximately 6 to 8 cm in diameter, were noted during excavation of the upper 10 cm of Feature 2. They protruded into the fire-reddened perimeter of the feature, but did not extend beyond it. One was in the northeast portion of the feature, and one was in the southwest portion. Charcoal was found throughout the pit fill, but was more concentrated at the bottom of the pit.

Feature 2 yielded 30 artifacts, including 25 quartz flake fragments, four quartz reduction flakes, and a large quartz Morrow Mountain II PP/K. This dates the feature contents to the Middle Archaic period.

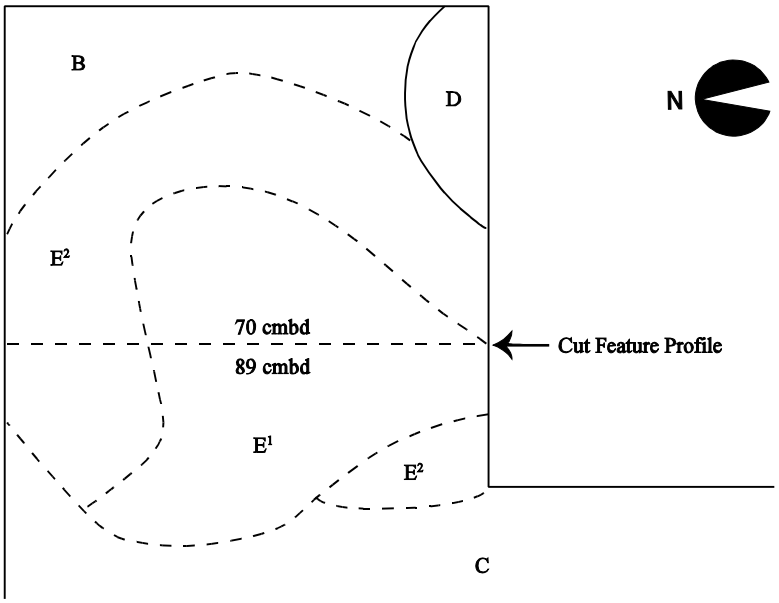
A 1.0-liter flotation sample was taken from the lower central portion of the feature (between 100 and 114 cmbd in E^1) and a 363.8-gram soil sample was collected from the fire-reddened soil (E^2); all other fill was processed through 0.64-cm screen. Charcoal (180.4 gm) was also recovered. A 50-gm sample of charcoal was submitted to BETA Analytic Inc. for standard radiocarbon dating; the remainder was submitted to Leslie Branch-Raymer to be sampled for ethnobotanical analysis. The analyzed sample contained 15.2 gm (n=110 charcoal fragments), an 8.4 percent sample of the submitted material. Of the 110 fragments analyzed, 95.5 percent (n=105) were identified as pine (*Pinus* sp.) and 4.5 percent (n=5) were unidentifiable (Appendix C).



Scale

0 20 cm

Figure 18.7 Site 38LA727, Test Unit 2 Extension, Feature 2 Plan View, Base of Level 6

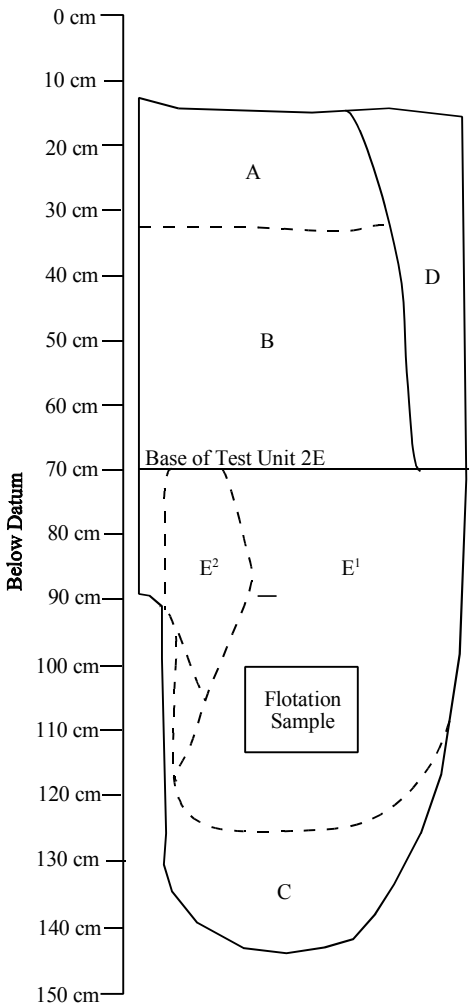


B - Test Unit 2E, 70 cmbd, 10YR 5/4 Yellowish-brown loamy sand
C - Test Unit 2, 89 cmbd, 7.5YR 4/4 Brown clayey loamy sand subsoil
D - Shovel T-31.5/11
E^1 - Feature 2: 10YR 3/3 Dark brown loamy sand mottled with 7.5YR 4/4 brown slightly clayey loamy sand with charcoal
E^2 - Feature 2: 5YR 4/6 Yellow-red loamy sand with inclusions of 2.5YR 4/8 red burned clayey loamy sand

Scale

0 20 cm

Figure 18.8 Site 38LA727, Test Unit 2 and Extension, Feature 2 Plan View, Partially Excavated

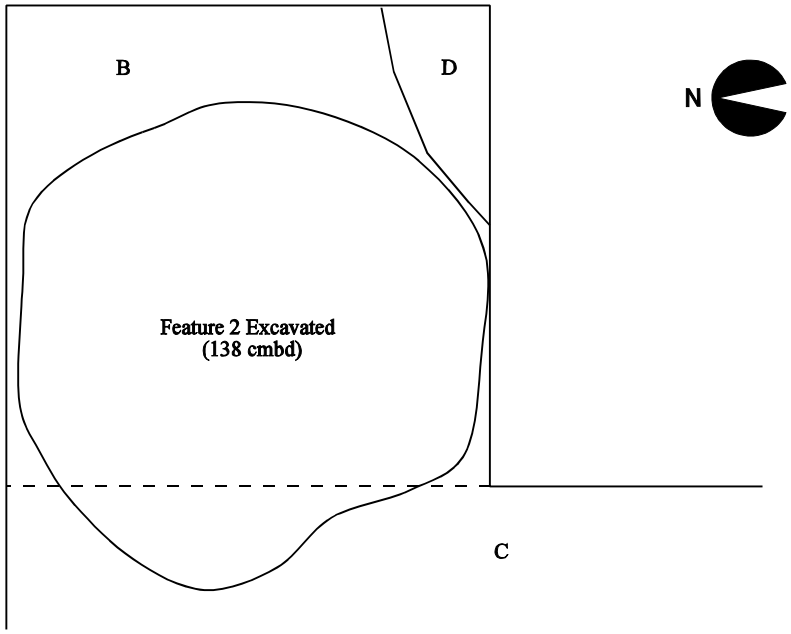


A - 10YR 3/2 Dark grayish-brown loamy sand (plowzone)
B - 10YR 5/4 Yellowish-brown loamy sand (cultural horizon matrix)
C - 7.5YR 4/4 Brown slightly clayey loamy sand (subsoil)
D - Survey Shovel Test T-13.5/11
E^1 - 10YR 3/3 Dark brown loamy sand mixed with 7.5YR 4/4 brown slightly clayey loamy sand with charcoal (central/excavated hearth portion of feature 2)
E^2 - 5YR 4/6 Yellowish-red loamy sand and 2.5YR 4/8 red burned clayey loamy sand
— - Morrow Mountain PP/K

Scale

0 30 cm

Figure 18.9 Site 38LA727, Test Unit 2, Feature 2, East Profile



B - 10YR 5/4 Yellowish-brown loamy sand (cultural horizon matrix)
C - 7.5YR 4/4 Brown slightly clayey loamy sand (subsoil)
D - Survey Shovel Test T-13.5/11

Scale

0 20 cm

Figure 18.10 Site 38LA727, Test Unit 2 Extension, Feature 2 Excavated, Plan View

The charcoal sample submitted to BETA Analytic provided a conventional radiocarbon age of 4,540 +/- 30 BP (Beta-319050). The two-sigma calibrated results (95 percent probability) were acquired from four intercept points yielding four date ranges: Cal BP 5,310 to 5,260; Cal BP 5,250 to 5,230; Cal BP 5,230 to 5,210; and Cal BP 5,190 to 5,050 (Appendix D). This means that the wood burned during one of these four date ranges (i.e., sometime between Cal BP 5,310 and 5,050), placing Feature 2 in the late Middle Archaic or at the transition between the Middle and Late Archaic periods.

Given feature morphology, wood content, artifacts, and the radiocarbon date, it is possible that Feature 2 is a Middle Archaic cooking pit (E^1) surrounded by a halo of burned/oxidized subsoil (E^2). However, the narrow diameter of the feature and its somewhat irregular (buckled) shape, still suggest a burned stump. Perhaps Feature 2 is a pine stump/taproot that was intentionally burned for fuel as a source of heat for cooking and/or related group maintenance activities. Unburned lateral roots that once protruded beyond the fired perimeter of the feature may have long since disintegrated into the permeable, acidic matrix, while the burned clayey sand subsoil (E^2) provided a partial barrier to the elements, protecting the integrity of the interior of this feature.

Such features have been reported elsewhere. Webb *et al.* (1994) exposed the surfaces of 15 burned stumps or tap roots on a sealed Late Archaic occupational surface at 9SP21 in the lower Georgia Piedmont. A number of these roots were associated with clusters of FCR, but interestingly, there was no overlap of the rock clusters and burned stumps/roots. A charcoal sample obtained from one of these burned roots yielded a conventional radiocarbon date of 3,950 +/- 60 BP consistent with the Late Archaic occupation. The site also produced a Savannah River PP/K. At 9SP89, a burned tree root was found covered with a cluster of FCR that included a soapstone bowl fragment (Bloom *et al.* 2005). A charcoal sample obtained from that feature yielded a conventional radiocarbon date of 3,580 +/- 70 BP (Cal BP 4,080 to 3,690). This site also produced a Savannah River PP/K. Another such feature was reported in the upper Georgia Piedmont at 9CK1073 and returned a radiocarbon date of 4,330 +/- 60 BP (Webb 2009). It too contained FCR and was in the middle of a Late Archaic camp. The above examples strongly suggest that at least some of the burned tree roots associated with Late Archaic occupational surfaces were utilized as hearths/cooking features, a feature type we call the "stump hearth." With the radiocarbon date from Feature 2 at 38LA727, it appears that this behavior extended back into at least the latter part of the Middle Archaic period.

Similar features may be present in the Haile Gold Mine region. During data recovery at 38LA291, Feature 6 was thought to be the remains of a burned tree (Keith *et al.* 2011). Ethnobotanical analysis identified only pine. A charcoal and resin sample yielded a two-sigma calibrated radiocarbon date of BP 4,250 to 3,980, consistent with a Late Archaic occupation. Seven pieces of lithic debitage and 9.8 gm of FCR were recovered from the feature fill (Keith *et al.* 2011). A similar feature (Feature 2) was investigated during data

recovery at 38LA361 (Keith *et al.* 2011). Feature 2 produced nine pieces of lithic debitage and one unmodified stone; it contained only pine charcoal, and provided a Late Archaic two-sigma calibrated radiocarbon date of BP 3,320 to 3,290 and BP 3,270 to 3,030. Feature 2 was interpreted as a burned tree stain (Keith *et al.* 2011).

It is worth noting that if Feature 2 at 38LA727 was used as a stump hearth, then the selection of a pine stump for this purpose would have been quite appropriate. Due to the high concentration of resins, pine heartwood (i.e., "fatwood") is very resilient and heartwood left by old growth trees could have been visible on the forest landscape for years. Heartwood ignites very quickly (even under adverse weather conditions) and has a high BTU output per unit of weight. In a confined underground environment such as a pine stump, a smoldering heat source could have been used for an extended period of time.

Another dimension to the stump hearth as a feature type is its possible implications regarding group organization. The stump hearth may be viewed as an expedient alternative to more conventional cooking pits/hearths, and could have been an attractive option to prehistoric groups rapidly traversing a region. Archeologists may be able to use this feature type to assist in interpreting settlement strategies. Finally, the stump hearth may provide evidence of group maintenance features that is so often lacking on lithic sites in the study region. Such features could provide functional anchors on occupational surfaces that are critical to understanding how space was organized.

Regardless of whether Feature 2 represents a stump hearth or a prepared cooking/heating feature, its presence and state of preservation at 38LA727 are significant. This feature and how the space around it was organized by site occupants, may contribute to our understanding of how Middle to Late Archaic groups were using the study region.

Artifacts: A total of 104 artifacts was recovered from Levels 2 through 7 of TU-2 (Table 18.4). Levels 1 and 8 were sterile. Artifact density was low in Levels 2 (n=6) and 3 (n=14), which produced only 19.2 percent of the total; the mode of artifact recovery was in Levels 4 (n=38) and 5 (n=33), together yielding 68.3 percent of the unit collection. The frequency of recovery dramatically declined in Levels 6 (n=7) and 7 (n=6), which yielded 12.5 percent of the total.

Table 18.4 38LA727 TU-2 and TU-2 Extension Artifacts

Test Unit (TU)	2	2	2	2	2	2	2	2E	2E	2E	2E	2E	2E	2E		
Level	2	3	4	5	6	7		2	3	4	5	6	7	8		**GRAND**
Bag Number	28	29	30	31	32	33	***Total***	35	36	37	38	39	40	34	***Total***	**TOTAL**
Lithic Reduction																
Thinning flake, quartz		2	4	4		1	***11***			3	1				***4***	**15**
metasiltstone			1				***1***						1		***1***	**2**
Reduction flake, quartz		2	4				***6***		1		2	3			***6***	**12**
Flake fragment, quartz	6	10	29	29	7	5	***86***	2	5	25	44	23	1	1	***101***	**187**
metasiltstone												1			***1***	**1**
Shatter, quartz												2			***2***	**2**
Total	**6**	**14**	**38**	**33**	**7**	**6**	***104***	**2**	**6**	**28**	**47**	**29**	**2**	**1**	***115***	**219**

Volumetrically, the 50-by-50-cm TU-2E produced more than four times as many artifacts as the 1-by-1-m TU-2 (Table 18.4). The mode was in Level 5 (n=47; 40.9 percent), followed by Levels 6 (n=29; 25.2 percent) and 4 (n=28; 24.3 percent). Together, Levels 4, 5, and 6 produced 90.4 percent (n=104) of the TU-2E inventory. Excavation of TU-2E was terminated at the base of Level 6 once Feature 2 was defined, and little remained of the unit extension following feature removal. However, during feature excavation, portions of the surrounding matrix in Levels 7 and 8 were screened, yielding additional artifacts in Level 7. As noted above, Feature 2 yielded 30 artifacts including 25 quartz flake fragments, four quartz reduction flakes, and the quartz Morrow Mountain II PP/K. The PP/K appears to have been modified into a drill.

Together, TU-2, TU-2E, and Feature 2 produced 249 artifacts. The collection is composed of lithic debitage, including flake fragments (n=213; 85.5 percent), thinning flakes (n=17; 6.8 percent), reduction flakes (n=16; 6.4 percent), shatter (n=2; 0.8 percent), and one quartz Morrow Mountain II PP/K (0.4 percent). Quartz (n=246; 98.8 percent) was the dominant raw material, with minor representation of metasiltstone (n=3; 1.2 percent).

18.3 Analysis

Site-wide Inventory: A total of 406 prehistoric artifacts were recovered during Phase II testing at 38LA727: 364 from the two test units and TU-2E (including Feature 2), and 42 from shovel testing. The four pieces of cracked rock from Feature 1 are not included in this total, as they do not appear to be used or culturally modified. The artifact sample is comprised of lithic debitage (n=402, 99.1 percent), cores/bifaces (n=1, 0.2 percent), formal tools (n=2, 0.5 percent), and miscellaneous (n=1, 0.2 percent) items. The collected assemblage derives from two discrete activity areas: Locus 1, at the east end of the site, sampled by five shovel tests and TU-1; and Locus 2 in the western portion of the site, sampled by nine shovel tests, TU-2, and TU-2E.

Locus 1: The debitage from TU-1 is composed of flake fragments (n=47; 41.6 percent), thinning flakes (n=44; 38.9 percent), and reduction flakes (n=22; 19.5 percent). A thinning flake to reduction flake ratio of 2:1 suggests that late stage reduction and tool manufacture from small packages of raw material was probably conducted at this location. This interpretation is supported by the recovery of a biface fragment and a PP/K made from metasiltstone, the dominant raw material (Figure 18.11). Based on these findings, this location is thought to represent a short-term camp and possible hunting station.

The small, stemmed PP/K measures 34.8 millimeters (mm) long, 20.8 mm wide at the shoulders, 7.4 mm thick, and weighs 3.4 gm. The haft consists of a slightly expanded stem with a thinned, straight base. Blade edges are straight and straight/incurvate. In general appearance, it seems to fit within the range of variation in both size and workmanship for the Randolph Stemmed points illustrated by Coe in the Town Creek report (Coe 1995:206). Coe (1995:193) notes:

> Historic-period projectile points (Randolph, Hillsboro, Caraway) in the upper part of the Town Creek Mound could be attributed to later intrusions, along with discarded snuff tins and abandoned iron plow parts.

Interestingly, many of the points in this illustration do not match his type description or illustrations in the *Formative Cultures of the Carolina Piedmont* (Coe 1964:48-50). In this earlier work, these points are described as "crude miniature versions of the old Morrow Mountain II type," exhibiting crude workmanship; they were narrow, thick, and with roughly tapered stems. Also in this volume, Coe (1964:49-50) provided an historical context for the development of the Randolph point:

> The aboriginal cultures of the Piedmont disintegrated rapidly after A.D. 1700, and within a decade, as the gun replaced the bow and arrow, the craft of stone working declined. Between 1725 and 1800, however, there were still a large number of Indians in the Piedmont living in small destitute bands. As a result of their inability to continue to supply themselves with adequate guns and ammunition, they found it necessary to return to the bow and arrow for hunting and exhibition. While some of these people probably continued to manufacture traditional triangular points, at least one group achieved a different result, and this point type has been called the Randolph Stemmed.

Small Stemmed PPK, Metasiltstone, Locus 1, Test Unit 1, Level 2

Morrow Mountain II PP/K, Quartz, Locus 2,Test Unit 2, Feature 2, West Half, 89 cmbd

Biface Fragment, Metasiltstone Test Unit 1, Level 3

(Actual Size)

Processing Stone, Diabase, Locus 2, Shovel Test N595/E514, Level 3

Figure 18.11 Site 38LA727, Selected Artifacts

Ward and Davis (1999) note that the historic context assigned to this point by Coe (1964) has never been verified archeologically, and suggest a possible affiliation with the Haw River phase component at the Guthrie Site. The Haw River phase (A.D. 1000 to 1400) is a Late Woodland culture of the north central Piedmont of North Carolina (Ward and Davis 1999). Settlements are typically small scattered hamlets or dispersed households on ridges and knolls overlooking the narrow floodplains of secondary streams. Ceramics include large, conical jars with straight or slightly constricted necks; they are typically undecorated or net-impressed (Ward and Davis 1999). The lip, lip/rim,

and neck may be decorated with parallel incised lines, brushed bands, fingernail impressions, punctations, and notches. The Haw River series is comparable to the Dan River series in the Piedmont of central North Carolina and southern Virginia (Eastman 1996). In his *Cultural Resources Overview of the Sumter National Forest*, Benson (2006) notes that a variety of small tapered or irregular stemmed points were in use throughout the Woodland period in South Carolina. The ambiguity of Woodland point types extends to the Geogia Piedmont as well. Garrow (2009) notes that Early Woodland projectile points are less well understood than the ceramics. Similarly, the early Middle Woodland component at Hickory Log (9CK5) produced 56 unclassified medium/small stemmed points along with Yadkin, Baker's Creek, Copena/Nolichucky, and Bradly Spike points (Garrow 2009).

While conducting cultural resources management projects during his tenure at the University of North Carolina, Coe recovered the occasional Randolph point. During *An Archaeological Survey of the North Carolina Zoological Park* (Coe and Trinkley 1977), site Rd 230 produced a Randolph point, a nutting stone, and a fabric-impressed sherd with crushed quartz temper, and was considered to be a possible Woodland campsite; it was recommended for further testing. Around this same time, during *An Archaeological Evaluation of the Falls of the Neuse Reservoir* (Ward and Coe n.d.), site Wa34 yielded a Guilford PP/K, a Randolph point, and five eroded sherds with sand temper and quartz inclusions. The site was heavily disturbed, but thought to have been "visited from the Middle Archaic up to the Historic period" (Ward and Coe n.d.:52). In 1974, Wilson and Coe conducted excavations within the New Hope Reservoir (Wilson and Coe 1976). Level 8B at site Ch 29 produced 81 flakes, one utilized flake, one Randolph point, and three pieces of daub. "The presence of the late Historic - Randolph point at this depth was surprising since Level 8B was over one foot below the plowzone" (Wilson and Coe 1976:22). Based on this limited literature review, it appears that the context of at least some of the small stemmed points referred to as Randolph came into question, and that some may be of Woodland origin.

No ceramics were recovered from 38LA727 Locus 1, but this is not unusual for a short-term task-specific location for a ceramic-making culture. Whether the projectile point recovered from TU-1 is a well-made 18th century Randolph variant or an as yet un-typed Woodland point remains speculative. Either way, small stemmed points are rare at Haile Gold Mine, and have only been recovered in a few instances (e.g., Adams *et al.* 2011a; Cable and Price 2010; Webb *et al.* 2012).

Locus 2: Locus 2 contains a possible hearth, or a burned tree root utilized as a hearth, with a quartz Morrow Mountain PP/K, a fragment of a diabase food processing stone recovered from a shovel test 5 m south of the hearth, and an abundance of quartz debitage. The artifacts from TU-2 and TU-2E are dominated by small quartz flake fragments, suggesting reduction of pre-formed packages of raw material.

Morrow Mountain PP/Ks vary from small to large, and have a contracting or rounded stem. The blade shapes are generally triangular, with variable blade edges and cross-sections. Serration and/or beveling is occasionally seen. Manufacture was by direct percussion and subsequent pressure flaking, and these points exhibit high variability in the quality of workmanship. Originally, Coe (1964) categorized Morrow Mountain

into Types "I" and "II". Type I has a broad, short triangular blade with a short rounded or pointed stem. Type II has a narrow long blade, distinct shoulders, and a long rounded or pointed stem. Coe (1964) implied that Type II was in use longer, and slightly later, than Type I.

During a re-analysis of the Lowder's Ferry material (Drye 1998), it was noted that Morrow Mountain II PP/Ks were found in stratigraphic context with Guilford Lanceolates and Savannah River points. The morphological similarities between Morrow Mountain II and Guilford types (and their variants), and between Guilford and Savannah River points (and their variants), suggested cultural continuity between these forms and the gradual evolution of a single Archaic point-making tradition (Drye 1998). Ward and Davis (1999) also acknowledge that stylistic similarities between these PP/Ks point to cultural continuity. Cable and Cantley (2005a, 2005b, as discussed in Cable and Price 2010) argue that variations of the Guilford Lanceolate (from rounded base to straight/concave base) represent an Archaic period technological continuum from the Morrow Mountain I PP/K to Brier Creek and Savannah River forms, where the rounded-based Guilfords are earlier and more similar to Morrow Mountain forms, and the flat and concave-based Guilfords more closely resemble Brier Creek and Savannah River points.

The Morrow Mountain PP/K recovered from Feature 2 compares well with the Morrow Mountain II type found at Doerschuk (Coe 1964), Lowder's Ferry (Drye 1998), Haile Gold Mine (e.g., Patch *et al.* 2011), and elsewhere in the Piedmont (Figure 18.11). The point has well-defined shoulders and the narrow blade has been reshaped/resharpened into a drill; the distal end is broken along an incipient fracture. Selected measurements are as follows: length, 56.4 mm; width, 32.0 mm; thickness, 15.3 mm; stem length, 16.1 mm; and weight, 17.2 gm.

The food processing stone has one worn/smooth surface that is slightly concave and indicative of grinding (Figure 18.11). Grinding stones such as this were typically used for processing seeds and/or nuts. Seeds are available in late spring and early fall, while nut mast is abundant in the fall. However, no seeds or nut fragments were present in the flotation sample or in charcoal collected from the feature.

18.4 Interpretations

Site 38LA727 consists of two discrete activity loci. Locus 1 appears to have been a limited activity location where lithic reduction and biface/tool manufacture were conducted utilizing locally available metasiltstone during either the Woodland or early Historic periods. The site deposits were essentially contained in the upper 40 cm of the soil profile, with the highest artifact yield in Levels 2 and 3. A light scatter of cracked quartz rock at the base of Level 3 was recorded as Feature 1, but origin and function are unknown. It is likely that these upper levels of the site are disturbed from historic agricultural and silvicultural activities.

Locus 2 was a short-term camp utilized towards the end of the Middle Archaic Morrow Mountain phase during the Middle Archaic/Late Archaic transition. Activities at Locus 2 included lithic reduction, tool manufacture (and likely the retooling of implements), soft media processing, nut/seed processing, and cooking. Cooking activities are represented by an intact hearth that yielded a Morrow Mountain II PP/K and a conventional radiocarbon date of 4,540 +/- 30 BP, with a two-sigma range of 5,310 to 5,050 BP. This is a late date for the Morrow Mountain phase and supports the extended use of Morrow Mountain II points in the Carolina Piedmont suggested by Coe (1964). It would also suggest contemporaneity of Morrow Mountain II and Guilford cultures towards the end of the Middle Archaic. This date implies that these cultures were likely coeval with early manifestations of the Late Archaic Savannah River culture, as suggested by work at Lowder's Ferry, where Morrow Mountain II points and Savannah River PP/Ks were minority types within a predominantly Guilford horizon (Drye 1998). Similarly at Doerschuk, Coe (1964) noted a minority of Morrow Mountain II and Guilford points within a predominantly Savannah River horizon (Zone V). Although such inclusions are often attributed to bioturbation or to the cultural mixing of deposits, the radiocarbon date acquired from Feature 2 documents a late presence of the Morrow Mountain II culture in the upper Piedmont of South Carolina.

Stratigraphically, cultural materials at Locus 2 were contained for the most part within the top 60 cm of deposits, with Levels 4, 5, and 6 being the most productive. Feature 2 was clearly defined at the base of Level 6 (70 cmbd), and extended to 124 cmbd. No biotic residues indicating subsistence practices were recovered from either locus. Likewise, no exotic lithic materials were recovered that indicate territorial ranges or exchange networks for the groups that occupied the site.

18.5 Recommendations

Survey and testing investigations demonstrate that the archeological deposits at 38LA727 Locus 2 retain horizontal and vertical integrity, and contextual clarity. This may in part be due to the fact that the site is along the edge of a wetland setting that was not significantly disturbed during the 19th and early 20th centuries; 1949 aerial photography of the area shows the site to be heavily wooded at that time. At Locus 2 an intact hearth feature was recorded and confirmed through radio assay to date to the Middle Archaic period. The presence of the hearth feature and associated archeological materials demonstrates that 38LA727 Locus 2 has the capacity to yield significant additional information about Middle Archaic Morrow Mountain phase lifeways; the site may also contribute to a better understanding of the Middle Archaic/Late Archaic transition in the upper Piedmont of South Carolina. On this basis, 38LA727 Locus 2 is recommended eligible for the NRHP under Criterion (d) and no additional work is advised for Locus 1. Since avoidance is not feasible for this site under Haile Gold Mine's mining plan, Phase III data recovery excavations are advised. These excavations should focus on the area surrounding Feature 2 at Locus 2.

19.0 SUMMARY AND RECOMMENDATIONS

19.1 Summary of Findings and Recommendations

Table 19.1 summarizes the results of the Phase II evaluations at 38LA588, 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, 38LA723, and 38LA727.

Table 19.1 Summary of Phase II Evaluation Results and Recommendations

CH*	State Site No.	Type	Period	NRHP and Management Recommendations
6	38LA588	S.B. Faile house complex	Early to late 20th century	Ineligible, no further work.
7	38LA589	Lithic scatter	Middle and Late Archaic	Ineligible, no further work.
8	38LA595	Lithic and ceramic scatter	Early to Middle Woodland	Ineligible, no further work.
9	38LA596	Lithic scatter	Indeterminate prehistoric	Ineligible, no further work.
10	38LA600 Locus 1 Locus 2	 Lithic and ceramic scatter Lithic and ceramic scatter	 Middle Archaic, Woodland Middle to Late Woodland	 Ineligible, no further work; Ineligible, no further work.
11	38LA602 Locus 1 Locus 2	 Lithic and ceramic scatter Lithic scatter	 Early to Middle Woodland Indeterminate prehistoric	 Ineligible, no further work; Ineligible, no further work.
12	38LA605 Locus 1 Locus 2 Locus 3	 Lithic scatter Lithic scatter No cultural materials	 Middle Archaic Middle Archaic	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
13	38LA622	Lithic scatter	Woodland	Ineligible, no further work.
14	38LA640 Locus 1 Locus 2-1 **Locus 2-2**	 Lithic scatter; Old Clyburn/Joe Mungo house complex Lithic scatter; House site Lithic scatter **House site**	 Woodland Late 19th to middle/late 20th century Indeterminate prehistoric Middle 20th century Indeterminate prehistoric **Late 19th to early 20th century**	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; **Eligible, data recovery.**
15	38LA641 Locus 1 Locus 2 Locus 3 Locus 4 Structure	 Lithic and ceramic scatter; Lithic scatter; Lithic scatter; Historic isolate Lithic scatter; Ern Mungo/Clyburn house complex	 Middle Archaic, Woodland Indeterminate prehistoric Indeterminate prehistoric Middle 19th-early 20th century Indeterminate prehistoric Early to middle 20th century	 Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
16	38LA654 **Locus 1** Locus 2 Locus 3 Locus 4	 Lithic scatter; **Slave/freedman cabin site** Lithic scatter; Historic artifact scatter Lithic and ceramic scatter; Lithic scatter	 Late Woodland **Middle 19th century** Indeterminate prehistoric 19th century Late Archaic, Woodland Indeterminate prehistoric	 Ineligible, no further work; **Eligible, data recovery;** Ineligible, no further work; Ineligible, no further work; Ineligible, no further work; Ineligible, no further work.
17	38LA723	Lithic scatter	Indeterminate prehistoric	Ineligible, no further work.
18	38LA727 Locus 1 **Locus 2**	 Lithic scatter **Lithic scatter**	 Possibly Woodland or Protohistoric **Middle Archaic**	 No further work; **Eligible, data recovery**.

*Chapter Number in report

19.2 Discussion of the Prehistoric Archeological Findings

Chronology: Based on Phase II evaluation results, prehistoric occupations/activity areas were identified at 24 prehistoric loci across 12 sites (Table 19.1). Eleven lithic scatters could not be assigned to a specific cultural period. Temporal diagnostics were found at 13 loci and indicate a span of occupation from the Middle Archaic to Late Woodland periods. Woodland (n=9) and Middle Archaic (n=6) period occupations are the most common datable components, followed by the Late Archaic (n=2). Middle Archaic occupations were recognized by Morrow Mountain (n=5) and Stanly (n=1) components. Dunlap, Deptford, and Wilmington series ceramics, and a triangle PP/K marked Early to Middle (n=2) Middle to Late (n=1) and Late Woodland (n=1) occupations. Unassignable Woodland ceramics were found at five prehistoric loci.

Lithic Scatters and Prehistoric Settlement/Use: Most of the prehistoric occupations evaluated during the current study are quite similar to lithic extraction and reduction facilities previously recorded and well documented on the Haile Gold Mine property. These sites range from small to large lithic workshops or clusters of reduction loci, to temporary stations or camps from which resource extraction forays (e.g, lithic procurement, floral collection, hunting, etc.) were launched. The lithic reduction loci recorded and evaluated during the current study are just one manufacturing stage ahead of Daniel's (1998:139) "expedient quarries." After extraction, these loci were largely responsible for the staged production of cores, early stage bifaces, and flakes for tools. They are a common, but essential, part of understanding how raw quartz and, to a lesser extent, metasandstone and metasiltstone, were extracted and used by groups traversing the lower Piedmont and upper Coastal Plain regions. Such sites fit well within the Middle Archaic generalized settlement strategy of dispersion throughout Piedmont (and Sandhills) inter-riverine areas. They also fit well within Brooks and Hanson's (1987) Woodland tributary settlement model positing seasonal dispersion and exploitation of upland tributary settings by small household units and task-oriented sub-household groups. Assuming that territories became more restricted during the course of the Woodland period, these quarry/reduction loci might have become increasingly important and therefore, repeatedly visited.

As was seen repeatedly at the prehistoric sites evaluated under the current study as well as during previous studies, most of the prehistoric sites exhibit no direct evidence of intermediate or long-term use such as features, midden deposits, or even tools often associated with domestic activities. Again, this appears to conform with how prehistoric groups are believed to have been exploiting the study region over time. Early Archaic and Middle Archaic groups may have been operating under a fairly wide-ranging foraging strategy (Anderson 1996a and b; Anderson and Hanson 1988; Sassaman *et al.* 1990). While Woodland groups may have been foraging the study region, they may have been bound by smaller territories, necessitating repeated use of quarry/reduction loci such as those recorded across the Haile Gold Mine property.

Middle Archaic Use: At six prehistoric loci Middle Archaic occupations were sampled [38LA589, 38LA600, 38LA605 (Loci 1 and 2), 38LA641, and 38LA727]. For the most part these occupations appear to be short-

term lithic reduction/hunting/processing stations. At 38LA727, the presence of what is believed to be an expedient hearth feature, along with a small processing stone, suggests a short-term camp. A similar camp may have been present at 38LA641, based on the presence of scattered FCR. The higher archeological visibility of Middle Archaic occupations at the study sites compared to those from other Archaic temporal periods is in keeping with the adaptive flexibility model posited by Blanton and Sassaman (1989): Middle Archaic settlement, most often represented by Morrow Mountain PP/Ks, was diffuse and highly mobile; it was marked by small, technologically simple artifact scatters located on a wide range of landforms.

Limited Nature of Late Archaic Settlement/Use: Based on previous survey work at Haile Gold Mine (Adams *et al.* 2011a and b; Gantt and Bloom 2012; Pluckhahn and Braley 1993; Webb *et al.* 2012), Early and Middle Archaic occupations in the study region are fairly well represented. However, there seems to be a general under-representation of Late Archaic resources at Haile Gold Mine. Only ten Late Archaic period resources have been recorded on the Haile Gold Mine property after intensive survey of 5,192 acres, and only two of the 12 sites with prehistoric occupations investigated during the current study indicate Late Archaic use (38LA589 and 38LA654). Since lithic diagnostics are often the only means by which archeologists recognize Archaic period resources and there was such a florescence of activity during the Late Archaic in the southeastern U.S., it is curious that Late Archaic presence on Haile Gold Mine is not more archeologically evident. Clearly, Late Archaic groups used the lithic resources in the Haile Gold Mine region, but the use does not appear to be proportional to the level of populational infilling that might be expected for the region. To some extent this may have had to do with how Late Archaic groups procured raw lithic materials and the nature of the project area, which is primarily composed of upland settings incised by low order streams and spring feeds.

Sassaman *et al.* (1990:312) state that along the Savannah River, Late Archaic groups spent spring and summer at aggregation bases on or near the main river valley, and the fall-winter period along upland tributaries. Biface production took place at riverine sites and at sites on the terraces of larger adjacent tributaries. It is logical to assume that raw lithic procurement was embedded in the spring-summer settlement strategy. This may have included direct acquisition through extraction or acquisition through exchange during aggregation events. Sassaman *et al.* (1990) go on to say that data from upland sites indicate that biface production did not occur during the fall-winter dispersals into the upper tributary regions. This procurement "programming" may aid in explaining why relatively few Late Archaic occupations have been recorded in the Haile Gold Mine region, particularly at quarry/reduction loci such as those evaluated during the current study.

Woodland Settlement/Use: Evidence of Woodland period occupation in the form of ceramics or PP/Ks was found at nine prehistoric loci [38LA595, 38LA600 (Loci 1 and 2), 38LA602, 38LA622, 38LA640 (Locus 1), 38LA641, and 38LA654 (Loci 1 and 3)]. At six of these sites, the Woodland presence is marked by one or two sherds or a PP/K, suggesting very transient resource exploitation. At three sites (38LA595, 38LA600

and 38LA602) slightly higher frequencies of ceramics and moderate to large relative quantities of lithic debitage suggest that task groups or perhaps even small family units may have occupied these sites for short periods of time. These findings would be in general agreement with Brooks and Hanson's (1987) Woodland settlement model. These sites are located within the Camp Branch watershed, which is a significant tributary to Little Lynches River. In terms of the above model, these Woodland occupations probably reflect foraging stations and/or task camps along Camp Branch instead of residential bases. None of the evaluated sites with Woodland occupations produced the diversity of tools and/or the quantities/varieties of ceramics that might be expected for a residential base.

The "Stump Hearth" as a Feature Type: Of the 24 prehistoric loci investigated, only Locus 2 at 38LA727 produced any type of prehistoric "pit" feature. The pit at 38LA727, or stump hearth feature, dates to the late Middle Archaic period (4,540 BP) and appears to represent cultural modification of a natural feature – a pine stump. This feature type has been documented at several Late Archaic sites in the Georgia Piedmont and it is possible that two such features were recorded (and radiocarbon dated) during excavations at 38LA291 (3,760 BP) and 38LA361 (2,980 BP) on the Haile Gold Mine property (Cable and Price 2011; Keith *et al.* 2012). Wood from these features indicates the use of pine or that they were pine tap roots.

As a feature type, the stump hearth may have implications regarding group organization. We view the stump hearth as an expedient alternative to more conventional cooking pits/hearths that might have been an attractive option to small prehistoric groups rapidly traversing an area. Furthermore, the stump hearth may provide evidence of focused group maintenance activities that is so often lacking on lithic sites in the study region. If such features are confirmed as functional anchors on occupational surfaces, then they could be key to understanding how space on these surfaces was organized.

Not every burned stump on an archeological site is a stump hearth and great care should be taken in interpreting them as such. Burned stumps on prehistoric occupational horizons could be the result of prehistoric clearing activities, game driving, etc. When context is unclear, historic burned stumps could be misinterpreted as stump hearths. Late Archaic stump hearths exhibit the physical remains of a burned tap root or the conical shape of a tap root with charred wood, and are often surrounded by a fired clay halo (depending on soil type). The stump hearths recorded to date are pine and they appear within buried occupational surfaces; that is, they show no evidence of being truncated by historic land-disturbing activities. They are associated with FCR and where soapstone is accessible, a single soapstone sherd is often found within or near these features. Finally, stump hearths have been radiocarbon dated to the Late Archaic period (3,580 to 4,330 BP), until now.

The fact that the feature at 38LA727 points to late Middle Archaic use of such features conforms to how Middle Archaic groups are thought to have exploited the uplands of the lower Piedmont and Sandhills regions. With the prevalence of pine in the upper South Carolina Coastal Plain by the end of the Middle

Archaic period (Watts *et al.* 1996; Watts 1980), pine stumps would have been quite visible on the Sandhills landscape 4,500 years ago. Documented use of this expedient feature type during the Middle Archaic also suggests continuity for its use during the subsequent Late Archaic period.

19.3 Discussion of Historic Architectural and Archeological Findings

Architecture: The historic architecture at 38LA640 and 38LA641, architectural remnants at 38LA588, and the historic archeological remains at 38LA654 are linked to Clyburn family ownership of the tract within which all of these resources are located. The Clyburn family has been established in Lancaster County since at least 1843, when Thomas Clyburn founded Clyburn Plantation; the plantation was reported to have included 20,000 acres in the early 1900s. A second plantation house, known as Uriah Plantation, was built by William U. Clyburn, Sr. around 1876. It is not known how much of the study area was part of the original Clyburn/Uriah Plantation tract, but the second plantation house still stands approximately 1.5 miles south of the Old Clyburn-Joe Mungo House at 38LA640. A 1986 historic structure survey form for the Old Clyburn-Joe Mungo house refers to it as the "old Clyborn residence." The house was reportedly constructed in the 1850s and was said to have been moved "one-tenth of a mile" to its current location at 38LA640. This strongly suggests that this house and the other historic sites evaluated were located within the early holdings of the Clyburn family.

Architecturally, the higher style elements of the 19th-century Old Clyburn-Joe Mungo house separate it from the other two properties investigated for architecture or architectural remains. In its original 19th-century context, the Old Clyburn-Joe Mungo house clearly reflected the higher social status of a planter or owner. Based on statements made by informants, sometime prior to the 1960s the Old Clyburn house passed from ownership into tenancy and became Joe and Ellen Mungo's home. Historic maps and aerial photography indicate that the Old Clyburn-Joe Mungo house had been moved to its current site at 38LA640 Locus 1 by 1939. It is interesting to note that by 1939, there are no structure signatures/symbols on historic aerial photographs or maps at the site of Locus 2-2, where the old Clyburn residence is believed to have been originally located. The age of the outbuildings and archeological data from middens/dumping areas at the current house location support relocation during this early to middle 20th century time frame.

In contrast to the Old Clyburn-Joe Mungo house, the Clyburn-Ern Mungo and S.B. Faile house complexes exhibit a modest, vernacular style typical of early 20th century rural owner/operator farmsteads, or in some cases, tenant houses. The floor plans for the Clyburn-Ern Mungo house and the S.B. Faile house are similar and may reflect the work of the same craftsmen. The presence of multiple entrances on the front facade of both houses suggests independent access typical of a tenant duplex (NOTE: The Faile house burned down sometime after 1986; structural features were determined from photographs). The Faile house does not appear to have always been a tenant structure. The 1939 Lancaster County highway map indicates that the S.B. Faile house was an "owner/ operator" structure at that time, while the four structures at the Clyburn-Ern

Mungo house vicinity were noted to be "tenant" houses. Also of interest is the fact that the personal papers of W.U. Clyburn, III were found in the Clyburn-Ern Mungo house, suggesting that perhaps after the Mungo family moved out, the house was used by Clyburn for one of his businesses or for storage.

In summary, there is an evolution of domicile structure use on the Clyburn tract very typical in the rural south. This happened in two ways on the Clyburn tract. In one case, a former owner's higher-style 19th century house was passed into the hands of African-American tenant farmers who apparently had very close, probably multi-generational, ties to the land and the Clyburn family. Ellen Mungo's maiden name was Clyburn, so these ties could have very well extended back to the days of slavery. A potentially interesting turning point in the use life of the Old Clyburn/Joe Mungo house was its relocation. While there is no concrete evidence in this particular case, moving the house from the "old Clyburn residence" or "home place" site to another location may have had cultural, social, and/or personal significance for the Mungo and the Clyburn families.

The evolution of the Faile and Ern Mungo residences began in the early 20th century and is somewhat different from the Old Clyburn-Joe Mungo house. The Faile house was reported to be an owner/operator structure in 1939 that was believed to have been constructed around 1915, suggesting that sometime after 20 years of owner occupation, the house moved into tenancy and stayed there until the Faile family moved out in the 1970s (or perhaps even the 1980s). In contrast, the Ern Mungo house appears to have been destined for tenancy from the beginning. This house and three others in the vicinity were noted as tenant structures in 1939. This corresponds well with 1940 census data placing Ern Mungo's family and sisters in the study area by 1940. This house appears to have been occupied by the same family from the 1930s until the 1960s or 1970s. Thereafter, it evolved into storage, or perhaps a location for one of William Clyburn's business endeavors.

Archeology: Substantial historic archeological deposits were evaluated at 38LA640 and 38LA654. At 38LA640, archeological work at Loci 1 and 2 tentatively support the premise that the Old Clyburn-Joe Mungo house had been moved to Locus 1 by the late 1930s, possibly from Locus 2-2, which is one-tenth of a mile to the northeast (i.e., the distance the house was reported moved on the 1986 structure survey form). Window glass obtained from the midden contexts next to the house at Locus 1 yielded a window glass manufacturing date range of approximately 1870 to 1880; however, very few 19th century artifacts were recovered. Window glass from test units at Locus 2-2 indicates a glass manufacture date of 1870, along with a small number of middle to late 19th century ceramics. It is believed that window glass in the midden at Locus 1 may have originated from the Old Cyburn house once it was relocated there.

Locus 2-1 at 38LA640 produced little in the way of historic materials; in fact most of the materials recovered and observed suggest occupation during the 1960s or later. Informants stated that several of Joe Mungo's

sons built small houses in the vicinity during the middle 20th century which were subsequently moved to other locations outside the current study area. Locus 2-1 may be one of these original house locations.

At 38LA654 there is clear evidence of a 19th century domestic site. While not fully confirmed, it appears likely that the feature documented at Locus 1 is a 19th century cellar/sub-floor storage feature. The feature produced redware, early whiteware, kaolin pipe fragments, and an ornate buckle, among other items. Datable contents suggest a temporal span of 1820 to 1900, with an average of approximately 1860. Such cellar features are quite in line with our understanding of how space was organized in 19th century slave/freedman structures, in this case probably on Clyburn Plantation. Typically these cellars were centrally located within slave/freedman cabins near the hearth and can be very useful in orienting the archeological remains of slave structures.

19.4 Summary of Management Recommendations

Prehistoric Archeological Resources Recommended Ineligible for the NRHP: Prehistoric occupations were recorded at 12 of the 13 resources assessed. After following the approved Phase II evaluation plan and applying NRHP eligibility Criterion (d) in 36 CFR Part 60.4, it is recommended that prehistoric archeological deposits at the following 11 sites be considered ineligible for the NRHP under Criterion (d) (Table 19.1): 38LA589, 38LA595, 38LA596, 38LA600, 38LA602, 38LA605, 38LA622, 38LA640, 38LA641, 38LA654, and 38LA723.

At 10 of the ineligible prehistoric sites [38LA589, 38LA596, 38LA600 (Locus 1), 38LA602 (Locus 2), 38LA605, 38LA622, 38LA640, 38LA641, 38LA564, and 38LA723] lithic debitage (and occasionally cracked rock) comprised over 90 percent of the prehistoric materials recovered. These sites produced very few temporal diagnostics or artifacts indicative of activities other than lithic reduction/processing or limited hunting/collecting. Sites similar to these are very common at Haile Gold Mine and are well documented through previous archeological investigations (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011).

To some extent, historic disturbances (e.g., cultivation, silviculture, gullies/erosion) contributed to a loss of depositional integrity/contextual clarity at each prehistoric occupation evaluated; however, these disturbances were most significant at seven locations (38LA589, 38LA595, 38LA600, 38LA602, 38LA622, 38LA654, and 38LA723). High percentages of the archeological deposits at these sites were confined to the upper 30 to 40 cmbs.

Phase II excavations at 38LA595, 38LA600 (Locus 2), and 38LA602 (Locus 1) yielded light to moderate quantities of Woodland ceramics, along with low to high frequencies of lithic debitage. Compared to other recorded prehistoric occupations in the area, such sites are uncommon. However, the three ceramic scatters

evaluated appear to have been severely compromised by historic disturbances, are primarily confined to the plowzone, exhibit low ceramic density, and/or exhibit low artifact diversity. Overall, none of these sites produced a diversity of cultural materials suggestive of intermediate or long-term domestic use.

Finally, none of the 11 sites with prehistoric components recommended ineligible for the NRHP produced intact archeological features/deposits, diverse tool kits, or any other evidence of intermediate to long-term use; each occupation appears to have been transient in nature. This, coupled with high level of redundancy in the Phase II assemblages and the high levels of distrubance, indicates that these 11 prehistoric sites are unlikely to significantly advance knowledge of prehistoric lifeways in the study region.

No additional archeological work is recommended for the above referenced 11 prehistoric sites.

Historic Archeological Resources Recommended Ineligible for the NRHP: The historic archeological deposits assessed at 38LA640 (Loci 1 and 2-1) and 38LA654 (Locus 2) were considered ineligible for the NRHP under Criterion (d) after following the approved Phase II evaluation plan. While the midden deposits at 38LA640 Locus 1 contain limited 19th to early 20th century artifacts, they are significantly mixed with modern artifacts and primarily reflect the Joe and Ellen Mungo family's occupation of Locus 1 after the Old Clyburn house was moved to this location in 1930s. No 19th or early 20th century features were noted during Phase II excavations at Locus 1, and the various outbuildings/outbuilding remnants and bottle/can dumps at this locus appear to date to the middle 20th century.

Locus 2-1 at 38LA640 dates to the 1960s or later and does not appear to have an appreciable pre-1960s historic component. Materials observed and collected from Locus 2-1 during Phase II investigations appear to marginally meet the 50-year age qualification for archeological sites.

No additional archeological work is recommended for Loci 1 or 2-1 at 38LA640. Supplemental information from these locations is unlikely to contribute significant knowledge of or about the 19th or early 20th century rural lifeways of African-Americans in the study region.

At Locus 2, 38LA654, 19th to early 20th century historic artifacts were recovered from the plowzone during Phase II testing. Moreover, no features or midden deposits were identified during evaluation. On this basis no further archeological work is advised for Locus 2 at 38LA654. This locus is unlikely to retain important information about 19th or early 20th century rural lifeways in the study region.

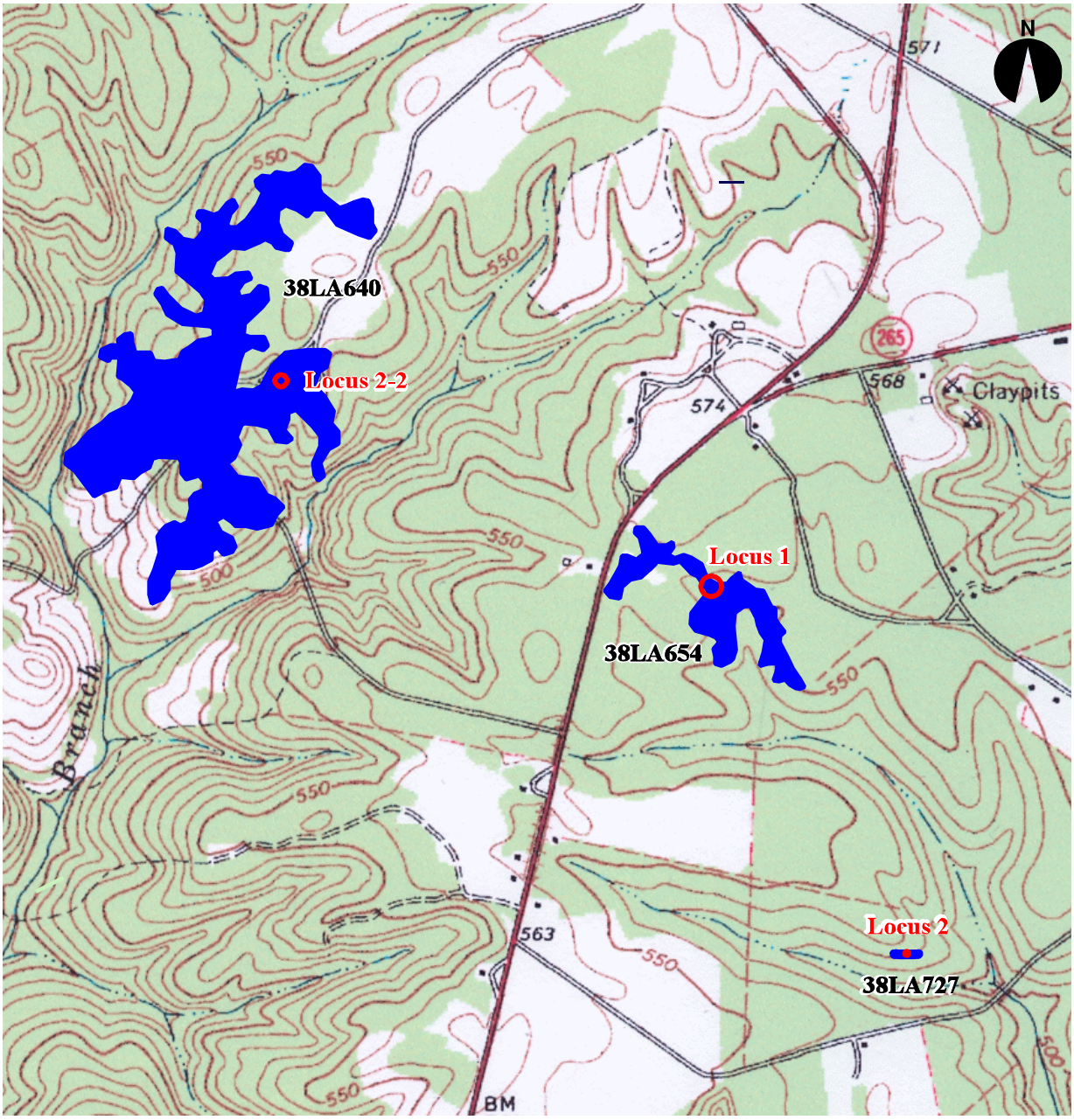
Historic Architectural Resources Recommended Ineligible for the NRHP: Architecture/architectural remains at the Old Clyburn-Joe Mungo house, the Clyburn-Ern Mungo house, and the S.B. Faile house were documented per the Phase II evaluation plan. A chain of title/plat search was performed and interviews were conducted with residents knowledgeable about the occupants of study area. With the completion of these

tasks, and the poor condition of the standing architecture, no additional archival or architectural documentation work is recommended for the above-referenced architectural resources.

Prehistoric Archeological Resource Recommended Eligible for the NRHP: Site 38LA727 Locus 2 produced a prehistoric pit feature/stump hearth containing a Morrow Mountain projectile point (Figure 19.1). Charred wood from the feature returned a radiocarbon date of 4,540 BP $\pm$ 30. A processing slab was also found in the vicinity of the feature. Per the Phase II evaluation plan, this site meets the conditions for a positive NRHP eligibility recommendation. A clearly defined, radiocarbon-dated feature was documented and there is the potential that the feature will provide a clear point of spatial and functional reference for other Middle Archaic materials in nearby associated deposits. Site 38LA727 appears to retain important information about late-Middle Archaic lifeways and is considered eligible for the NRHP under Criterion (d). Since preservation does not appear to be an option for 38LA727, data recovery is advised. Data recovery should focus on Locus 2; no additional work is warranted at Locus 1. Future work at Locus 2 should concentrate on documenting Middle Archaic use of space and material culture around the pit/hearth feature. Given the late radiocarbon date obtained, consideration should also be given to documenting the transition between the Middle and Late Archaic periods.

Historic Archeological Resources Recommended Eligible for the NRHP: At Locus 2-2 on 38LA640, test excavations exposed structural post features in association with chimney remnants and the hearth of a small 19th to early 20th century domestic structure (Figure 19.1). Testing also sampled what appears to be an occupational surface/midden below the surface brick rubble. The findings at Locus 2-2 meet the conditions for a positive NRHP eligibility recommendation per the Phase II evaluation plan. The post features and midden demonstrate that Locus 2-2 has the potential to produce additional archeological features and deposits retaining important data on 19th to early 20th century rural lifeways. On this basis, 38LA640 Locus 2-2 is considered eligible for the NRHP; since preservation is not a feasible option, data recovery is recommended. Data recovery should consider topics such as temporal span, site structure/house plan, ethnicity, social status, and subsistence.

Test excavations at 38LA654, Locus 1 revealed a well-defined 19th century cellar hole/storage feature that probably represents the remains of a slave/freedman cabin (Figure 19.1). This feature should allow documentation of the organization of space within and around the cabin. Phase II excavations show that Locus 1 meets the conditions for a positive NRHP eligibility recommendation per the Phase II evaluation plan. The cellar hole demonstrates that Locus 1 has the potential to produce additional archeological features and deposits retaining important data on the lifeways of 19th century African-American slave/freedmen. Site 38LA654, Locus 1 is recommended eligible for the NRHP. Preservation does not appear to be feasible for Locus 1, so data recovery excavations are recommended. Data recovery efforts should weigh the following topics: chronology, plantation affiliation (presumably Clyburn Plantation), site structure (i.e., cabin and surrounding features/structures), organization of space within and immediately around the cabin (as provenienced by the cellar/storage feature), slave versus freedman status, and subsistence.



Areas Recommended for Phase III Data Recovery

Map Reference: 7.5 Minute USGS Quadrangles
Kershaw, South Carolina (1969)

Scale
0 411 meters
0 1350 feet

Figure 19.1 Locations of Archeological Resources Recommended Eligible for the NRHP

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APPENDIX A - PHASE II TESTING SCOPE-OF-WORK

SCOPE OF WORK
PHASE II EVALUATION OF 13 ARCHEOLOGICAL SITES IN HIGH PRIORITY AREAS AT HAILE GOLD MINE
LANCASTER COUNTY, SOUTH CAROLINA
February 10, 2012

Background

Assessment of Previous Work on Prehistoric Sites at Haile Gold Mine: During 2009, 2010, and 2011, high-level Phase II evaluations were conducted at 10 prehistoric sites on the Haile Gold Mine property in Lancaster County, South Carolina [38LA291, 38LA301, 38LA307, 38LA334, 38LA336, 38LA355, 38LA361, 38LA371, 38LA378, and 38LA380 (Cable and Price 2009, 2010)]. These efforts included shovel testing large portions of each site on a five meter (m) in 10-centimeter (cm) levels, followed by test unit excavations. This was followed by a detailed analysis of the artifacts (mostly lithics) to identify technological and functional attributes, and when possible, to place them within a temporal framework. The artifact data were graphically displayed to show artifact concentrations by raw material types and other traits.

Subsequently, Phase III data recovery excavations were performed at four of these sites [38LA291, 38LA361 (Keith *et al.* 2011), 38LA334, and 38LA355 (Patch *et al.* 2011)]. Clearly, Phase II/III work has enhanced our knowledge of how, when, and why these 10 sites were being used, and it would not be possible to develop the following Scope of Work without this work having been done. Palmetto Research Institute's Phase II evaluations are quite informative and detailed, and in our estimation, are more akin to creative Phase III efforts (e.g., excavation of numerous 5-m-interval shovel tests across large portions of sites, and the preparation of detailed artifact distribution maps) than Phase II evaluations. New South's Phase III investigations are likewise detailed and informative in exploring ways to extract archeological information from prehistoric quarry/lithic workshops in the study region.

Having recognized the high quality of these efforts, there are limitations to what can be accomplished by future work at lithic sites similar to those investigated. In fact, a critical question at this point is whether or not future Phase III work is warranted at similar sites given the large amount of data already collected, the high level of redundancy in the data, and the high cost of such work in time and effort. Looking back at the work conducted on these 10 sites, there is no evidence of mid- to long-term occupation, such as high frequencies of fire-cracked rock (FCR) (more than 20 percent) and/or ceramics (10 percent or more), pit/post features, and/or middens. Furthermore, no faunal remains were detected and only limited floral remains were recovered. The average Phase II sample assemblage from the Haile investigations exhibits (rounded averages) 85.3 percent debitage, 12.1 percent FCR/rock, 1.2 percent ceramics, and 1.1 percent lithic tools of all kinds. In addition to the very high percent of non-diagnostic artifacts present at these sites, the effects of reoccupation and post-depositional processes (e.g., drift due to the sandy matrix/aeolian effects, historic disturbances of the last 175 years or more, etc.) have compromised cultural stratigraphy to unknown, varying degrees.

The "temporary" nature of the Haile lithic sites becomes more evident from the data recovery efforts at 38LA291, 38LA361, 38LA334, and 38LA355. Three of these sites, 38LA291, 38LA334, and 38LA355, are quite large (i.e., six to 52 acres). Discrete features were rare: site 38LA291 yielded 1 pit and 3 rock clusters; 38LA361 yielded 1 cache pit and 5 rock clusters; 38LA334 produced 2 rock

clusters; 38LA355 produced one distinct, tight chert debitage cluster. A number of larger "artifact clusters" (almost exclusively composed of debitage) were also recorded at each site. None of the excavated sites produced faunal remains and only limited floral remains. Nut shell fragments comprised a large fraction of the floral remains; nut shell fragments are very common, even on poorly preserved sites. Furthermore, no midden deposits, evidence of structures, domestic pits, or burials were found.

Data recovery documentation of "occupational clusters" or "artifact clusters" shows that in many instances artifacts within the same cluster spanned three 10-centimeter (cm) excavation levels. It is important to note that the depths of archeological deposits sampled during data recovery only included four levels at 38LA355, and six levels at 38LA334. If it is assumed that each recorded occupational cluster was deposited on a prehistoric working "surface", then there has been considerable vertical movement of lithic materials over the millennia due to the loose sandy matrix and/or varying degrees of disturbance (human and natural). More direct evidence of mixing/drift is provided in the following example. At 38LA334 radiocarbon dates were obtained from two features eight meters (m) apart in the same block. Feature 1 [30 to 40 cm below surface (bs)] yielded a date of 4,290 Before Present (BP), while Feature 2 (30 to 50 cmbs) came back with a date of 2,740 BP. On this basis, it appears that the earlier feature (Feature 1) is bracketed within the vertical range of the later one (Feature 2). There may be similar issues with two radiocarbon dates from Features 6 and 9 at 38LA291, and possibly with dates from Features 2 (burned tree), 5, and 13 at 38LA361. These possible temporal inconsistencies raise serious concerns about the contextual clarity of the deposits at these sites.

Another complicating factor is the composition of the data recovery assemblages. These four assemblages averaged 99.0 percent debitage and FCR/unmodified rock. Only 115 potentially diagnostic projectile points were recovered from approximately 130,700 artifacts. Given the lack of clearly sealed contexts (e.g., pits, distinct midden deposits), the limited number of actual diagnostic artifacts, and considering post-formational effects, it is very difficult to confirm associations between diagnostic artifacts and nearby rock clusters or high density debitage areas. Some of the radiocarbon assays are suspicious because of the loose matrix and there is the potential blurring effect of repeated short-term occupation over a long period of time.

Without well defined features and/or clearly identifiable deposits, it is very difficult to confidently address the research issues that archeologists in the southeastern U.S. typically consider most important; for example: chronology, subsistence, mortuary practices, and organization of domestic, work, and special use areas on an occupational surface (or within an occupational zone). Again through hindsight, a review of the synthetic sections of the data recovery reports suggests that a good part of what was learned about the four documented sites was already known or could be gleaned from the combined Phase I survey and Phase II work conducted.

In summary, given the high quality and intensity of the Phase II and Phase III excavations conducted already, it does not appear that this high level of effort on similar sites on the Haile Gold Mine property will add significantly to the existing knowledge base. Additional work on these scales would likely result in the recovery of highly redundant information primarily related to lithic extraction and reduction, and a very low yield of information from intact and/or sealed archeological contexts that traditionally retain more culture/time-specific data.

Historic Sites: As of 2011, historic period archeology on the Haile Gold Mine property has focused on the development of a gold mining context for the Carolinas (Botwick 2011) and documentation of the Haile Gold Mine Stamp Mill (38LA383) (Botwick and Swanson 2011). No Phase II or Phase III investigations have been conducted on domestic sites at Haile Gold Mine. Because of this, the merit of historic archeological sites should be evaluated on a case-by-case basis.

As a general rule it is recommended that if post-Phase I work is required on early to middle 20th century domestic sites, it will be primarily oriented toward additional archival research and limited documentation of surface features and standing architecture (if present). If there are cases where standing early to middle 20th century architecture meets National Register of Historic Places (NRHP) criteria, then relocation should be considered as an option. Future archeological investigations should be very limited.

If there is reason to believe that historic archeological sites classified as unassessed were occupied during the 19th century (or perhaps earlier), then such sites should be evaluated under a standard archival and archeological testing program. If 19th century architecture is present, then a structure/ property assessment would be necessary, with the possibility of structure relocation if feasible.

Proposed Phase II Assessment Plan

There are 13 archeological sites within the highest priority mining areas at Haile Gold Mine that have an "unassessed" NRHP eligibility status as determined by previous survey work at the site (Table 1; Figure 1). Eleven of the 13 sites have unassessed prehistoric components (primarily lithics) that need to be evaluated; three have historic components requiring evaluation. "Highest priority areas" are defined as mining tracts scheduled for excavation as soon as the permits are received by Haile Gold Mine, currently anticipated to be near the end of 2012. These highest priority areas are equivalent to the "Area of Potential Effects" (APE). The 13 unassessed archeological sites are confined to the northern part of the APE (Figure 1).

Table 1 Unassessed Archeological Sites Within Haile Gold Mine's High Priority Areas

Site 38LA	Culture/Temporal Span	Phase II Treatment	Approx. STs*	1x1 m TUs*
588	Circa 1915-1990	history/plans	0	0
589	Early to Middle Archaic	limited testing	20	2
595	Early to Middle Woodland	limited testing	30	3
596	Unknown Lithic	very limited testing	10	1
600	Woodland	limited testing	30	3
602	Unknown Lithic	very limited testing	20	2
605	Archaic/Late Woodland	testing	40	4
622	Unknown Lithic	very limited testing	10	1
640	Unknown Lithic/circa 1850-1965	history/plans; test 2 historic areas	40	4
641	Archaic/Woodland/circa 1915-1990	history/plans; prehistoric test units	40	4
654	Late Archaic/Woodland/ 20th century	test 2 prehistoric features and loci	40	4
723	Unknown Lithic	very limited testing	10	1
727	Unknown Lithic	very limited testing	10	1
		Total	**300**	**30**

* These are approximations; the actual number of shovel tests/test units may vary based on survey shovel test data.

Lithic Sites: The South Carolina State Historic Preservation Office (SCSHPO) guidelines are fairly general in terms of Phase II testing methods. Given this leeway, the high quality of testing/data recovery work previously conducted, and a reasonable understanding of what is expected from lithic sites on the Haile Gold Mine property, more traditional methods are recommended for future Phase II work. The following methodological approach is recommended for the 11 prehistoric lithic sites within the high priority areas at Haile Gold Mine:

1) All 11 of the prehistoric sites to be evaluated were surveyed within the last two years and survey shovel test data were instrumental in formulating the unassessed status. Survey shovel testing data (i.e., location, depths of deposits, artifact types/ quantities) and mapping of surface features (lithic concentrations, outcrops, etc.) should be used to assist in determining the locations of additional shovel tests and test units on each site. As necessary to determine where test units should be located, survey shovel test data should be complemented by a limited number of Phase II shovel tests. The number of Phase II shovel tests and the intervals at which they will be excavated (no less than 5 m and no greater than 15 m) will depend on survey shovel test artifact distribution, density, content, possible feature presence/absence, and/or depths of archeological deposits. Table 1 provides approximate numbers of additional shovel tests anticipated for each site.

At least one Phase II-level shovel test will be excavated within 50 cm of each proposed test unit location to generally confirm that the area being sampled is likely to be productive. Phase II-level shovel tests will be 30-cm square and excavated in 10 cm levels to culturally sterile substrate or hard-mass refusal; each shovel test will be excavated to at least 30 cmbs unless refusal occurs. Shovel test soils will be screened through 0.64-cm hardware cloth and artifacts from each level bagged separately. Soil color/texture data will be recorded by level for each shovel test. Shovel tests will be back filled.

2) Table 1 gives the approximate number of structured test units anticipated at each site. As feasible, and based on the available Phase I/II shovel testing data, highly productive locations in various parts of each site will be sampled instead of clustering test units in one small portion of the site. Based on experience, a "productive location" is defined as a shovel test exhibiting high artifact density (i.e., at least ten artifacts) and/or diversity, temporally diagnostic artifacts, a distinct midden deposit, a possible feature, and/or clearly stratified prehistoric deposits. Other circumstances may warrant test unit-level investigation, such as the recovery of very rare artifacts or highly exotic raw materials; however, clear justification should be provided in such circumstances.

Test units will measure 1 by 1 m and be excavated in 10-cm levels to culturally sterile substrate (i.e., two sequent sterile levels, three levels with two or less artifacts, bedrock refusal, etc.). Test unit soils will be screened through 0.64-cm hardware cloth and artifacts bagged by excavation level. At least two adjacent test unit profiles will be recorded and photographed. Test units will be back filled.
If distinct cultural features are encountered, they will be fully exposed and

excavated. "Distinct cultural features" include soil anomalies that could be cultural, rock clusters, artifact caches, pot breaks, and similar occurrences. They do not include the clusters of debitage commonly found in lithic sites at Haile Gold Mine.

3) Once Phase II excavations are complete, a site plan will be prepared, showing the locations of Phase II shovel tests and test units, as well as major site features (e.g., rock outcrops, the extent of surface artifact scatters, roads, modern prospecting areas, etc.). Phase I survey site maps will be used as base maps, if feasible.

4) National Register eligibility recommendations under Criterion (d) will be based on the presence/absence of distinct cultural features, middens, and/or clear and stratigraphically correct archeological deposits within the same test unit; other attributes may apply as well, such as the occurrence of rare artifact types, large quantities of certain artifact types (e.g., ceramics, lithic tools), exotic raw materials, presence of animal/food bone or human bone, etc.. Positive eligibility recommendations will not be based on general trends observed in Phase II field data such as the simple presence of high concentrations of debitage in one or more sequent levels, trends in the composition of debitage over several excavation levels, or vague temporal subdivisions such as "ceramic versus a-ceramic". Evaluated sites retaining only general or vague evidence of spatial integrity will be recommended ineligible for the NRHP under Criterion (d).

A positive NRHP eligibility recommendation must be clearly justified with physical evidence, such as but not limited to, pit/post features, distinct artifact caches, tightly defined rock clusters, moderate to high concentrations of artifacts indicative of intense residential use (i.e., high frequencies of ceramics, high diversity in lithic tool types, hearth-related burned clay, daub, etc.) and/or well defined midden deposits. That is, the archeological materials recorded must have the capability to address high-level research issues and therefore, meet NRHP eligibility Criterion (d) in terms of yielding "information important in prehistory". High-level research issues include but are not be limited to: chronological refinement; subsistence habits; site structure based on features, certain types of site furniture and if present, "artifact cluster" data as supporting evidence; exchange/trade, etc. While there are exceptions to every case, evaluated sites that do not exhibit physical archeological remains as described above will be recommended ineligible for the NRHP.

A positive eligibility recommendation will be justified further by comparing data from the current investigations to data recovered during the previous Phase II and Phase III investigations at the Haile Gold Mine. To qualify as eligible for NRHP listing under Criterion (d), the investigators must provide a reasonable and evidence-based argument that future data recovery efforts at a site will not result in a data set that is highly redundant of data sets from sites investigated during previous Phase II/III investigations at the Haile Gold Mine. Sites will be considered ineligible for NRHP listing if they exhibit one or more debitage clusters, but little or no field evidence of residential/group maintenance activities such as: pits/posts; high frequencies of FCR and/or ceramics (cooking/containment activity); a diversity of

flake tools; soft media tools; woodworking tools; hunting/cutting/piercing tools; and/or vegetal processing stones. Conversely, sites that exhibit evidence of moderate to intense residential/ group maintenance activities (as itemized above), with or without debitage loci, may be recommended eligible for the NRHP, provided that:

a) the current relationships among archeological objects, features, and deposits at a site are interpretable and do not exhibit compromised cultural stratigraphy (i.e., depositional integrity); and

b) the archeological deposits can provide reasonably separable information about who, why, when, and how the site was occupied (i.e., contextual clarity).

Finally, the level of 19th and 20th century impact to archeological deposits may play an important role in determining the depositional integrity and contextual clarity, and therefore, the NRHP eligibility of the sites being evaluated. The effects of cultivation (i.e., plow-scarring, soil homogenization due to cultivation), heavy equipment scars/ tracking, tree stumping, grading, and similar 19th to 20th century disturbances will be assessed and recorded, as feasible, to support negative NRHP eligibility recommendations.

5) Archeological laboratory procedures should be scaled to assess the research potential at each site and to provide the justification required to support NRHP eligibility recommendations. For example, lithic analysis should allow a reasonable level of comparison between current and previously recovered data sets, along with an evaluation of data set redundancy. Definitions of functionally grouped artifacts recovered during testing will be similar to those used during previous investigations at the Haile Gold Mine. This will allow meaningful comparison of percentages of grouped artifacts recovered from the sites being tested, to the corresponding percentages from the 10 prehistoric sites studied during the previous Phase II/III investigations at Haile. The functional groups include but may not be limited to: lithic reduction (debitage, hammerstones, anvils); hot-rock/heat-transfer cooking (FCR, soapstone); ceramic-based cooking/containment, expedient cutting/scraping/ perforating (flake tools), core/biface production (cores, staged bifaces), soft media processing (drills, adzes, axes), formal cutting/scraping/piercing tools (projectile points, knives, scrapers), and vegetal processing stones.

For each tested site, artifact group percentages will be compared with those obtained from the previously investigated sites. If the group percentages are highly similar to those calculated for previously investigated sites [i.e., approximately 85 percent debitage, 13 percent FCR/unmodified rock, one percent ceramics, and one percent all bifaces/lithic tools], then this will be a step toward considering the site ineligible for the NRHP. If in contrast, the site produces artifacts indicative of extended residential use/group maintenance then the site will be viewed as having the potential for retaining new and unique information that could make it eligible for the NRHP. Again, depositional integrity and contextual clarity will be key in assessing the eligibility of any given site.

Feature analysis will include standard artifact frequency and morphology information, as well as interpretations. In addition, ethnobiotic materials from features will be evaluated to assess the research potential of faunal and floral materials. This not only includes the potential to address subsistence and seasonality issues, but also the security of the feature context and the potential for ethnobiotic materials to produce reliable radiocarbon dates.

In summary, Phase II field and laboratory data from each site should answer the following questions:

a) Is it likely that new and important archeological data can be extracted through data recovery?

b) Have the research issues relevant to this site already been addressed at the ten sites previously investigated at the Phase II/III levels?

6) Project artifacts and documentation will be prepared for curation following South Carolina Institute of Archaeology and Anthropology standards.

7) Reporting will follow SCSHPO reporting guidelines.

Previous Work on Historic Sites at Haile Gold Mine: Unassessed historic sites include one historic complex dating from about 1850 to 1965 (38LA640), a circa 1915 to 1990 structure complex (38LA641), and a circa 1915 to 1990 house site (38LA588) (Table 1). The following Phase II methodology is recommended for the 38LA640 structure complex:

1) At minimum, archival research should include a chain of title, review of U.S. population and agricultural census records, review of historic and modern aerial photography, and review of 19th and 20th century cartographic resources. County histories will also be reviewed, and when family names are known to be directly associated with the subject property, family histories, and/or genealogies will be reviewed to aid in determining ownership and the relationships among owners. If documents related to possible occupants are found within the house at 38LA640, information from these documents will be incorporated into the site history.

2) As on prehistoric sites, survey shovel test data will be used in concert with survey maps, as needed, to locate test units and Phase II shovel tests. The same Phase II shovel testing methods and evaluation techniques described for the prehistoric sites apply to 38LA640, with the exception that Phase II shovel tests will be terminated upon excavation of two levels sterile for historic artifacts. No more than 40 Phase II shovel tests are anticipated (Table 1).

3) Test units will be excavated following the same methods and approaches described for prehistoric sites except with emphasis on the historic component. It is anticipated that four test units will be needed (Table 1).

4) Once Phase II shovel testing and test unit excavations are completed, an overall site plan will be prepared showing the locations of structures/structure remains, historic surface features/major disturbances (e.g., roads/trails, structure pads, wells, depressions, ornamental vegetation stands, historic trees, modern prospecting areas, etc.), and the locations of Phase II shovel tests and test units. If feasible, the survey-level site map will be used as a base map.

5) In addition to preparing the site plan, floor plans will be prepared for each standing structure. Each structure will be documented through representative exterior and interior black and white photography. Photography will be keyed to each floor plan.

6) NRHP eligibility recommendations under Criterion (d) will be considered within the broad contexts of late antebellum slave-based agriculture, reconstruction, and post-bellum wage-based agriculture in upcountry South Carolina. Understanding that current knowledge of 38LA640 is based on Phase I survey data alone, Phase II evaluation will focus on addressing the following questions, or determining if it is feasible to address such questions:

> a) What was the temporal span of 38LA640, and which contexts provide appropriate the framework for future work, if the site is determined eligible for the NRHP?
> b) Which persons or families occupied the house at 38LA640?
> c) What were the occupations and socio-economic standings of the occupants?
> d) What were the ethnicities of the occupants? Is there evidence that the site was occupied by slaves or freed-people?
> e) How was space structured within the site?
> f) Can 38LA640 address issues regarding the shift from a slave-based to wage-based economy?
> g) What were the subsistence habits of the occupants and what markets did they access?

Archival research will be key in determining who might have occupied 38LA640, their livelihoods, and ethnicity. It may also aid in determining when the house at the site was constructed. If this was, or became, a tenant property, determining the occupants may be difficult. Census records can be helpful in this respect; however, these records would only show residents at ten-year intervals. Learning the identity of the occupants is not critical, but not knowing can significantly limit the extent to which the above research issues can be addressed.

To address the internal structure of the historic occupation, the locations of the structure, barn, and other surface features (e.g., historic canopy and ornamental vegetation, roads/drives depressions, foundations/erosional pads, fence posts/lines, etc.) will be mapped. These data will be complemented by archeological data from shovel tests and test units to support or confirm. Archeological data can confirm the presence of discard middens, important depressions or buried features such as wells, building trenches, drip lines, privies and cellars. The clarity of site structure will be a critical consideration when formulating NRHP eligibility recommendations.

A reasonable degree of depositional integrity and contextual clarity will be necessary at 38LA640 to assess the value of data pertaining to chronology, socio-economic status, subsistence, and market access. Assessments of integrity and clarity will be based on the presence/absence of distinct cultural features (e.g., privy pits, building trenches, cellar pits, posts, wells/cisterns, etc.) and 19th to early 20th century midden/archeological deposits. Because of the high frequency of fencing and cross fencing on historic sites spanning many years, the presence of posts alone will not be construed as evidence of integrity or clarity.

While fine-sequence stratification is not expected at 38LA640, general stratification of 19th and 20thcentury archeological materials within the same test unit is desirable. Isolation of early versus late historic discard (horizontally) middens would contribute significantly to a positive NRHP eligibility recommendation because of the potential for comparing earlier and later occupations. Complete mixing of 19th century and early 20th century archeological materials due to significant post-deposition activity (e.g., house razing, logging, grading, etc.), or mixing of earlier deposits with large quantities of early to late 20th century mass-disposable materials will be grounds for a negative NRHP eligibility recommendation.

Testing assemblage content will also influence NRHP eligibility recommendations. The occurrence and density of early artifacts, the occurrence/density of artifacts suggesting socio-economic status, and the presence of zooarcheological and/or archeobotanical materials will contribute to a positive NRHP eligibility recommendation. Testing assemblages with low to moderate frequencies of common artifacts with broad temporal ranges (e.g., plain whiteware or ironstone, clear bottle glass, nails/nail fragments, isolated brick/mortar, unidentifiable glass or metal) will be viewed as a negative factor during NRHP eligibility evaluation.

A positive NRHP eligibility recommendation must be clearly justified with physical evidence, such as but not limited to, important historic features (e.g., privy, cellar, cistern), horizontally distinct discard areas, generally stratified archeological deposits in the same test unit, moderate to high frequencies of artifacts/ethnobiotic materials that can address the research issues posited above. Of particular interest are issues relating to the transition between slave- and wage-based economies, ethnicity, site structure, and socio-economy. Sites lacking the capability to address these or similar research issues will be recommended ineligible for the NRHP under Criterion (d). The level to which middle to late 20th century impacts have affected the

archeological deposits will play an important role in determining the depositional integrity and contextual clarity, and therefore, the NRHP eligibility of 38LA640. The effects of silviculture, grading, and similar 20th century disturbances will be assessed and recorded, as feasible, to support negative NRHP eligibility recommendations.

7) Archeological laboratory procedures will follow the same general principles outlined for the analysis of prehistoric materials, with the understanding that there are no existing data sets for comparison and that such comparisons may not be appropriate.

8) Project artifacts and documentation will be prepared for curation following South Carolina Institute of Archaeology and Anthropology standards.

9) Reporting will follow SCSHPO reporting guidelines.

For the two circa 1915 to 1990 resources (38LA588 and 38LA641) (Table 1), the following approach is recommended:

1) Archival research will be conducted at the same level as described for 38LA640, realizing that the review of U.S. population and agricultural census records will be limited. At the Clyburn house (38LA641), documents/papers present within the house will be reviewed and relevant information incorporated into the history of the property. Such documents/papers are not expected to be present at 38LA588 because no structures are present.

2) An overall site plan will be prepared for each site in the same manner described for the 38LA640 structure complex.

3) A floor plan will be prepared for each standing structure at 38LA641. This will follow the same procedure described for the 38LA640 structure complex.

4) Since work at 38LA588 and 38LA641 will be limited to archival research, mapping, and photography, the goal is to address these resources within a contextual framework spanning about 1915 to 1960. This would include the World War I, pre-Depression, Great Depression, World War II and post-War eras. If feasible, discussion topics will include the following:

a) Ownership of the two properties;
a) The periods of historic occupation;
b) The persons/families who lived at these two sites;
c) Livelihoods and economies of the occupants; and
d) Ethnicity of the occupants.

Once archival research, mapping, and photography are complete, it is not anticipated

that additional historical research or documentation will be necessary at 38LA588 or 38LA641. If however, it is determined through archival research that either of these resources are associated with events that have made a significant contribution to the broad patterns of history in the region or state [NRHP eligibility Criterion (a)], or are associated with the lives of persons significant in regional or state history [NRHP eligibility Criterion (b)], then it is conceivable that one or both of these historic sites may be considered eligible for the NRHP. While this appears to be very unlikely, it warrants mention as a possibility.

5) Reporting will follow SCSHPO reporting guidelines.

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APPENDIX B - SHOVEL TEST ARTIFACT INVENTORY DATA BY LEVEL

HGM Testing Raw Data Table

Site Number 38LA	589	589	589	589	589	589	589	589	589	589	589	589	589	589
Shovel Test Coordinates, N/E	375/443	406/424	340/440	370/430	370/430	370/440	370/440	380/430	380/440	380/440	380/440	390/440	390/440	400/440
Level	Surface	Surface	3	1	4	2	3	1	1	2	4	1	2	4
Shovel Test Artifact Depth (cm)			20-30	0-10	40-50	16-20	20-22	0-10	0-10	10-20	40-50	0-10	10-20	30-40
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	15
PREHISTORIC														
Lithic Reduction														
Thinning Flake, quartz			1											
metasiltstone														
chert														
Reduction Flake, quartz			1											
metasiltstone														1
metasandstone											1			
Flake Fragment, quartz			1		1	1	1	1	2	1		1	1	
clear quartz			1											
metasiltstone														
metavolcanic														
Shatter, quartz				1										
Core/Biface Manufacture														
Early Stage Biface, quartz		1												
Formal Tools														
PP/K, quartz-Morrow Mountain														
PP/K Fragment, quartz	1													
Prehistoric Total	1	1	4	1	1	1	1	1	2	1	1	1	1	1
GRAND TOTAL	**1**	**1**	**4**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**1**

Site Number 38LA	589	589	589	589	589	589	589	589	589	589	589	589	589	589
Shovel Test Coordinates, N/E	350/445	350/445	360/430	360/450	360/460	360/460	370/460	380/450	390/450	330/440	330/450	330/450	330/450	345/440
Level	1	3	3	1	2	4	1	3	3	2	1	2	3	2
Shovel Test Artifact Depth (cm)	0-10	20-30	20-30	0-10	10-20	30-40	0-10	20-30	20-30	10-20	0-10	10-20	20-30	10-20
Bag Number	16	17	18	19	21	22	23	24	25	26	27	28	29	30
PREHISTORIC														
Lithic Reduction														
Thinning Flake, quartz														
metasiltstone											1			
chert														
Reduction Flake, quartz		1		1	1					1				
metasiltstone	1													
metasandstone														
Flake Fragment, quartz		1	1			1	1				2	3	2	1
clear quartz														
metasiltstone														
metavolcanic								1	1					
Shatter, quartz														
Core/Biface Manufacture														
Early Stage Biface, quartz														
Formal Tools														
PP/K, quartz-Morrow Mountain														
PP/K Fragment, quartz														
Prehistoric Total	1	2	1	1	1	1	1	1	1	1	3	3	2	1
GRAND TOTAL	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**3**	**2**	**1**

Site Number 38LA	589	589	589	589	589	589	589	589	589	589	589	589	
Shovel Test Coordinates, N/E	345/440	350/435	356/436	361/468	361/468	361/468	366/463	366/463	350/420	350/420	350/450	350/460	
Level	4	1	1	1	2	4	2	3	3	4	3	3	
Shovel Test Artifact Depth (cm)	30-40	0-10	0-10	0-10	10-20	30-40	10-20	20-25	20-30	30-40	20-30	20-30	
Bag Number	31	32	33	34	35	36	37	38	43	44	45	46	**Total**
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz				1								1	**3**
metasiltstone						1			2	1			**5**
chert											1		**1**
Reduction Flake, quartz			1										**6**
metasiltstone													**2**
metasandstone													**1**
Flake Fragment, quartz	1				1		1	1	1				**27**
clear quartz													**1**
metasiltstone	1												**1**
metavolcanic													**2**
Shatter, quartz													**1**
Core/Biface Manufacture													
Early Stage Biface, quartz													**1**
Formal Tools													
PP/K, quartz-Morrow Mountain		1											**1**
PP/K Fragment, quartz													**1**
Prehistoric Total	2	1	1	1	1	1	1	1	3	1	1	1	**53**
GRAND TOTAL	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**53**

Site Number 38LA	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595
Shovel Test Coordinates, N/E	450/510	450/510	450/520	450/530	450/540	460/510	460/510	460/550	460/550	460/560	470/500	470/500	470/500	470/510	470/540
Level	2	3	3	1	2	3	4	1	2	3	Surface	3	4	1	2
Shovel Test Artifact Depth (cm)	10-20	20-30	20-25	0-10	10-20	20-30	30-40	0-10	10-19	10-30		20-30	30-35	0-10	10-20
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PREHISTORIC															
Lithic Reduction															
Thinning Flake, quartz															
clear quartz															
metasiltstone						1			2			4			
metasandstone												2			
metavolcanic															
Reduction Flake, quartz						1									
metasiltstone															
metasandstone		1													
metavolcanic					1										
Flake Fragment, quartz	1				1	3	1			1		2			
metasiltstone								1			1	5	1		
metasandstone									1			5			
metavolcanic															
Core/Biface Manufacture															
Core, metasiltstone														1	
Biface Fragment, metasiltstone	1														
Cooking/Containment															
Ceramic, plain															
Dunlap fabric-impressed															
Deptford fabric-impressed			1												
Deptford cord-marked															1
eroded				1											2
residual sherd															
FCR, quartz															
quartz cobble							2								
Prehistoric Total	2	1	1	1	2	5	3	1	3	1	1	18	1	1	3
GRAND TOTAL	**2**	**1**	**1**	**1**	**2**	**5**	**3**	**1**	**3**	**1**	**1**	**18**	**1**	**1**	**3**

Site Number 38LA	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595
Shovel Test Coordinates, N/E	470/540	480/500	480/510	480/510	480/540	480/540	490/510	490/510	490/530	490/530	490/530	490/530	490/530	495/500	495/500
Level	4	5	6	7	2	5	5	6	3	4	5	6	7	2	5
Shovel Test Artifact Depth (cm)	30-40	40-50	50-60	60-70	15-20	40-50	40-50	50-60	20-30	30-40	40-50	50-60	60-70	10-20	40-50
Bag Number	16	17	18	19	20	21	22	23	24	25	26	27	28	30	31
PREHISTORIC															
Lithic Reduction															
Thinning Flake, quartz															
clear quartz															
metasiltstone															
metasandstone													1		
metavolcanic															
Reduction Flake, quartz															
metasiltstone															
metasandstone			1						3	2	2				
metavolcanic					1										
Flake Fragment, quartz	1	3		1	1	2		2	1	1				1	3
metasiltstone					1										
metasandstone									4		6	2	1		
metavolcanic															
Core/Biface Manufacture															
Core, metasiltstone															
Biface Fragment, metasiltstone															
Cooking/Containment															
Ceramic, plain															
Dunlap fabric-impressed															
Deptford fabric-impressed															
Deptford cord-marked															
eroded	1						1								
residual sherd															
FCR, quartz															
quartz cobble						5									
Prehistoric Total	2	3	1	1	3	7	1	2	8	3	8	2	2	1	3
GRAND TOTAL	**2**	**3**	**1**	**1**	**3**	**7**	**1**	**2**	**8**	**3**	**8**	**2**	**2**	**1**	**3**

Site Number 38LA	595	595	595	595	595	595	595	595	595	595	595	595	595	595	595
Shovel Test Coordinates, N/E	495/500	500/500	500/510	500/520	500/520	510/490	510/490	510/490	510/500	500/484	500/530	470/545	470/545	470/545	475/540
Level	6	3	5	3	4	3	4	5	2	Surface	5	2	3	4	5
Shovel Test Artifact Depth (cm)	50-60	20-30	40-50	20-30	30-40	20-30	30-40	40-50	10-20		40-45	10-20	20-30	30-40	40-50
Bag Number	32	33	34	35	36	38	39	40	41	42	44	45	46	47	48
PREHISTORIC															
Lithic Reduction															
Thinning Flake, quartz															
clear quartz															
metasiltstone		1							1				3		
metasandstone															
metavolcanic															
Reduction Flake, quartz	1														
metasiltstone												1	1		
metasandstone															
metavolcanic															3
Flake Fragment, quartz			4		1		1	1							2
metasiltstone		3									1		1	2	
metasandstone						1									
metavolcanic															
Core/Biface Manufacture															
Core, metasiltstone															
Biface Fragment, metasiltstone															
Cooking/Containment															
Ceramic, plain										2					
Dunlap fabric-impressed										1					
Deptford fabric-impressed															
Deptford cord-marked															1
eroded										2				1	
residual sherd										4					2
FCR, quartz				1											
quartz cobble			11												
Prehistoric Total	1	4	15	1	1	1	1	1	1	9	1	1	5	3	8
GRAND TOTAL	**1**	**4**	**15**	**1**	**1**	**1**	**1**	**1**	**1**	**9**	**1**	**1**	**5**	**3**	**8**

Site Number 38LA	595	595	595	595	595	595	595	595	595	595	595	
Shovel Test Coordinates, N/E	475/540	485/530	490/525	490/525	495/500	490/500	495/500	495/530	500/505	510/510	510/520	
Level	6	3	2	3	1	3	4	4	3	5	2	
Shovel Test Artifact Depth (cm)	50-60	20-30	20-30	30-40	5-10	20-30	30-40	30-40	20-30	45-50	10-20	
Bag Number	49	50	52	53	54	55	56	57	58	59	60	**Total**
PREHISTORIC												
Lithic Reduction												
Thinning Flake, quartz											2	**2**
clear quartz												
metasiltstone								1				**13**
metasandstone												**3**
metavolcanic	1											**1**
Reduction Flake, quartz												**2**
metasiltstone												**2**
metasandstone												**9**
metavolcanic												**5**
Flake Fragment, quartz		1		1	1	3	1		1	1	1	**44**
metasiltstone												**16**
metasandstone												**20**
metavolcanic	2											**2**
Core/Biface Manufacture												
Core, metasiltstone												**1**
Biface Fragment, metasiltstone												**1**
Cooking/Containment												
Ceramic, plain												**2**
Dunlap fabric-impressed												**1**
Deptford fabric-impressed												**1**
Deptford cord-marked			1									**3**
eroded												**8**
residual sherd												**6**
FCR, quartz												**1**
quartz cobble												**18**
Prehistoric Total	3	1	1	1	1	3	1	1	1	1	3	**161**
GRAND TOTAL	**3**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**3**	**161**

Site Number 38LA	596	596	596	596	596	596	596	596	596	596	596	
Shovel Test Coordinates, N/E	530/460	530/460	525/470	530/475	530/480	535/470	540/460	530/470	530/470	530/470	530/470	
Level	3	4	4	5	6	3	3	4	5	6	7	
Shovel Test Artifact Depth (cm)	20-30	30-40	30-40	40-50	50-60	20-30	20-30	30-40	40-50	50-60	60-70	
Bag Number	1	2	3	4	5	6	7	26	27	28	29	**Total**
PREHISTORIC												
Lithic Reduction												
Thinning Flake, quartz	1											**1**
metasiltstone						1			1			**2**
Reduction Flake, quartz	2	1								1		**4**
Flake Fragment, quartz	1		1	1	1		1	2	5	6	3	**21**
Prehistoric Total	4	1	1	1	1	1	1	2	6	7	3	**28**
GRAND TOTAL	**4**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**6**	**7**	**3**	**28**

Site Number 38LA	600	600	600	600	600	600	600	600	600	600	600	600
Shovel Test Coordinates, N/E	490/430	490/450	490/540	490/450	500/430	500/440	500/400	500/440	500/445	500/540	500/450	500/450
Level	2	1	2	3	1	2	3	4	3	2	3	4
Shovel Test Artifact Depth (cm)	20-30	5-10	15	20-25	5-10	10-20	20-30	30-40	20-30	10-20	20-30	30-40
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12
PREHISTORIC												
Lithic Reduction												
Thinning Flake, metasiltstone							3	1		3	2	1
metasandstone	1				2					2		
Reduction Flake, quartz				1								
metasiltstone												
metasandstone											2	
Flake Fragment, quartz			1	3		1		4	2			
clear quartz												
metasiltstone		1									2	1
metasandstone										2	1	
Core/Biface Manufacture												
Core, quartz												
Early Stage Biface, quartz				1								
Formal Tools												
PP/K, metasandstone-Stanley												
Cooking/Containment												
Ceramic, plain												
Wilmington cord marked												
Wilmington loosely woven fabric impressed												
Wilmington residual												
eroded												
Prehistoric Total	1	1	1	5	2	1	3	5	2	7	7	2
GRAND TOTAL	**1**	**1**	**1**	**5**	**2**	**1**	**3**	**5**	**2**	**7**	**7**	**2**

Site Number 38LA	600	600	600	600	600	600	600	600	600	600	600	600
Shovel Test Coordinates, N/E	510/430	520/440	520/450	480/455	480/455	480/460	485/4552	485/460	495/450	495/435	495/435	495/425
Level	2	1	2	1	2	3	1	2	2	1	3	2
Shovel Test Artifact Depth (cm)	10-20	0-10	10-20	3-10	10-20	20-30	5-10	10-20	10-20	5-10	20-30	10-20
Bag Number	13	15	16	18	19	20	21	22	23	24	25	27
PREHISTORIC												
Lithic Reduction												
Thinning Flake, metasiltstone	1											
metasandstone												
Reduction Flake, quartz												
metasiltstone	1											
metasandstone									1		1	
Flake Fragment, quartz		1	1	2		2	1	1		1	1	1
clear quartz												
metasiltstone	1											
metasandstone												
Core/Biface Manufacture												
Core, quartz											1	
Early Stage Biface, quartz												
Formal Tools												
PP/K, metasandstone-Stanley											1	
Cooking/Containment												
Ceramic, plain					1							
Wilmington cord marked												
Wilmington loosely woven fabric impressed												
Wilmington residual												
eroded												
Prehistoric Total	3	1	1	2	1	2	1	1	1	1	4	1
GRAND TOTAL	**3**	**1**	**1**	**2**	**1**	**2**	**1**	**1**	**1**	**1**	**4**	**1**

Site Number 38LA	600	600	600	600	600	600	600	600	600	600	
Shovel Test Coordinates, N/E	495/430	435/480	440/485	440/495	440/480	445/490	446/495.5	530/400	530/400	530/400	
Level	2	2	1	3	2	2	1	1	2	3	
Shovel Test Artifact Depth (cm)	10-20	10-20	2-5	20-30	10-20	10-20	25-10	0-10	10-20	20-30	
Bag Number	28	30	32	33	36	38	39	45	46	47	**Total**
PREHISTORIC											
Lithic Reduction											
Thinning Flake, metasiltstone	1										**12**
metasandstone											**5**
Reduction Flake, quartz								1			**2**
metasiltstone											**1**
metasandstone											**4**
Flake Fragment, quartz		2			1				1	1	**27**
clear quartz				1							**1**
metasiltstone											**5**
metasandstone											**3**
Core/Biface Manufacture											
Core, quartz											**1**
Early Stage Biface, quartz											**1**
Formal Tools											
PP/K, metasandstone-Stanley											**1**
Cooking/Containment											
Ceramic, plain											**1**
Wilmington cord marked						1					**1**
Wilmington loosely woven fabric impressed						4					**4**
Wilmington residual							1				**1**
eroded			2								**2**
Prehistoric Total	1	2	2	1	1	5	1	1	1	1	**72**
GRAND TOTAL	**1**	**2**	**2**	**1**	**1**	**5**	**1**	**1**	**1**	**1**	**72**

Site Number 38LA	602	602	602	602	602	602	602	602	602	602	602	602	602	602	602
Shovel Test Coordinates, N/E	490/425	495/520	495/520	497/514	497/514	500/460	500/429	500/505	500/505	500/505	500/505	500/505	500/505	500/520	500/520
Level	1	1	3	3	4	1	1	1	2	3	4	5	6	3	4
Shovel Test Artifact Depth (cm)	0-10	0-10	20-30	20-30	30-40	0-10	0-10	0-10	10-20	20-30	30-40	40-50	50-60	20-30	30-40
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PREHISTORIC															
Lithic Reduction															
Thinning Flake, metasiltstone				2				2	2		1				
metasandstone				2											
Reduction Flake, quartz			3												
metasiltstone									1						
metasandstone				3	3				3					2	
Flake Fragment, quartz	3	3	3			5	22		1	2		1			
clear quartz						1									
metasiltstone				2					1						
metasandstone				1						2	5	1	1		
Core/Biface Manufacture															
Biface Fragment, quartz								1							
metasiltstone										1					
Expedient Tools															
Flake Tool, quartz-scraping											1				
Cooking/Containment															
Ceramic, plain															
Ceramics, Deptford cord-marked															
eroded															
Cracked Rock, quartz									4	2	3	3			
diabase															
Manuport, metavolcanic															1
Prehistoric Total	3	3	6	10	3	6	22	3	12	7	10	5	1	2	1
GRAND TOTAL	**3**	**3**	**6**	**10**	**3**	**6**	**22**	**3**	**12**	**7**	**10**	**5**	**1**	**2**	**1**

Site Number 38LA	602	602	602	602	602	602	602	602	602	602	602	602	602	602	602
Shovel Test Coordinates, N/E	502/512	502/512	502/512	505/430	505/430	505/505	505/505	505/505	505/505	505/505	505/510	505/510	505/510	505/510	505/525
Level	2	3	4	1	2	1	2	3	4	5	1	2	3	4	2
Shovel Test Artifact Depth (cm)	10-20	20-30	30-40	0-10	10-20	0-10	10-20	20-30	30-40	40-50	0-10	10-20	20-30	30-40	10-20
Bag Number	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PREHISTORIC															
Lithic Reduction															
Thinning Flake, metasiltstone			1					2	3	1					
metasandstone		1													
Reduction Flake, quartz	1			1				2			1	3			
metasiltstone	1														
metasandstone			1												
Flake Fragment, quartz	4	4	4		1	2	5	4	5	10	4	3	1	1	10
clear quartz															
metasiltstone		3	3					5	1						
metasandstone									1		1				
Core/Biface Manufacture															
Biface Fragment, quartz						1									
metasiltstone															
Expedient Tools															
Flake Tool, quartz-scraping															
Cooking/Containment															
Ceramic, plain															
Ceramics, Deptford cord-marked													1		
eroded								1							
Cracked Rock, quartz											1				2
diabase															
Manuport, metavolcanic															
Prehistoric Total	6	8	9	1	1	3	5	14	10	11	7	6	2	1	12
GRAND TOTAL	**6**	**8**	**9**	**1**	**1**	**3**	**5**	**14**	**10**	**11**	**7**	**6**	**2**	**1**	**12**

Site Number 38LA	602	602	602	602	602	602	602	602	602	602	602	602	
Shovel Test Coordinates, N/E	505/525	510/425	510/515	510/515	510/515	510/515	520/425	500/425	500/425	500/425	500/515	500/515	
Level	3	1	1	2	3	4	2	1	2	3	4	5	
Shovel Test Artifact Depth (cm)	20-30	0-10	0-10	10-20	20-30	30-40	10-20	0-10	10-20	20-30	30-40	40-50	
Bag Number	31	32	33	34	35	36	38	30	31	32	33	34	**Total**
PREHISTORIC													
Lithic Reduction													
Thinning Flake, metasiltstone													**14**
metasandstone													**3**
Reduction Flake, quartz	1		1			1							**14**
metasiltstone													**2**
metasandstone													**12**
Flake Fragment, quartz	1	2	2				1	1	3	3	1	1	**113**
clear quartz													**1**
metasiltstone													**15**
metasandstone													**12**
Core/Biface Manufacture													
Biface Fragment, quartz													**2**
metasiltstone													**1**
Expedient Tools													
Flake Tool, quartz-scraping													**1**
Cooking/Containment													
Ceramic, plain													
Ceramics, Deptford cord-marked													**1**
eroded				1									**2**
Cracked Rock, quartz					1								**16**
diabase					1								**1**
Manuport, metavolcanic													**1**
Prehistoric Total	2	2	3	1	2	1	1	1	3	3	1	1	**211**
GRAND TOTAL	**2**	**2**	**3**	**1**	**2**	**1**	**1**	**1**	**3**	**3**	**1**	**1**	**211**

Site Number 38LA	605	605	605	605	605	605	605	605	605	605	605	605	605	605	605	605
Shovel Test Coordinates, N/E	790/280	795/290	795/290	795/290	795/290	790/300	800/280	800/280	800/280	800/285	800/285	800/290	800/290	790/290	800/295	800/295
Level	2	1	2	3	4	4	2	3	4	4	5	3	4	2	1	3
Shovel Test Artifact Depth (cm)	10-20	0-10	10-20	20-30	30-40	33	10-20	20-30	30-40	30-40	40-50	20-30	30-40	10-20	5-10	20-30
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17
PREHISTORIC																
Lithic Reduction																
Thinning Flake, quartz	2							2								
metasiltstone			6	4	2											
metasandstone																
Reduction Flake, quartz										1						
Flake Fragment, quartz		1	1			1	4	10	3	4	3	6	4	1	2	11
metasiltstone		1	1		1											
Shatter, quartz																
Core/Biface Manufacture																
Late Stage Biface, quartz																
Formal Tools																
PP/K, quartz-Morrow Mountain																1
PP/K, metasandstone-small stemmed																
PP/K Fragment, quartz																
metasiltstone					1											
FCR, quartz cobble																
Prehistoric Total	2	2	8	4	4	1	4	12	3	5	3	6	4	1	2	12
GRAND TOTAL	**2**	**2**	**8**	**4**	**4**	**1**	**4**	**12**	**3**	**5**	**3**	**6**	**4**	**1**	**2**	**12**

Site Number 38LA	605	605	605	605	605	605	605	605	605	605	605	605	605	605	605	605
Shovel Test Coordinates, N/E	800/295	800/295	802/300	805/290	805/290	805/290	800/305	805/300	810/290	810/300	810/300	810/300	635/295	635/295	635/305	635/305
Level	4	5	2	1	3	4	2	3	2	4	5	6	3	4	3	4
Shovel Test Artifact Depth (cm)	30-40	40-50	10-20	5-10	20-30	30-40	10-20	20-30	10-20	34-40	40-50	50-60	20-30	30-40	20-30	30-40
Bag Number	18	19	20	21	22	23	24	25	28	29	30	31	32	33	34	35
PREHISTORIC																
Lithic Reduction																
Thinning Flake, quartz	1														5	
metasiltstone																
metasandstone	1															
Reduction Flake, quartz		1											2	1	4	4
Flake Fragment, quartz	27	25	1	1	1	1	2	1	1	5	4	1	3	1	13	8
metasiltstone																
Shatter, quartz																
Core/Biface Manufacture																
Late Stage Biface, quartz															1	
Formal Tools																
PP/K, quartz-Morrow Mountain																
PP/K, metasandstone-small stemmed																
PP/K Fragment, quartz																1
metasiltstone																
FCR, quartz cobble		1														
Prehistoric Total	29	27	1	1	1	1	2	1	1	5	4	1	5	2	23	13
GRAND TOTAL	**29**	**27**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**5**	**4**	**1**	**5**	**2**	**23**	**13**

Site Number 38LA	605	605	605	605	605	605	605	605	605	605	605	605	
Shovel Test Coordinates, N/E	640/295	640/295	640/295	640/295	640/295	640/300	640/305	640/305	640/305	640/310	645/295	640/315	
Level	1	2	3	4	5	3	1	2	3	1	4	2	
Shovel Test Artifact Depth (cm)	5-10	10-20	20-30	30-40	40-50	20-30	0-10	10-20	20-30	0-10	30-40	10-20	
Bag Number	36	37	38	39	40	41	42	43	44	45	46	47	**Total**
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz		1											**11**
metasiltstone													**12**
metasandstone													**1**
Reduction Flake, quartz		1	1	1									**16**
Flake Fragment, quartz	4	18	3	2	3	1	2	5	4		1		**189**
metasiltstone													**3**
Shatter, quartz										1			**1**
Core/Biface Manufacture													
Late Stage Biface, quartz													**1**
Formal Tools													
PP/K, quartz-Morrow Mountain													**1**
PP/K, metasandstone-small stemmed												1	**1**
PP/K Fragment, quartz													**1**
metasiltstone													**1**
FCR, quartz cobble													**1**
Prehistoric Total	4	20	4	3	3	1	2	5	4	1	1	1	**239**
GRAND TOTAL	**4**	**20**	**4**	**3**	**3**	**1**	**2**	**5**	**4**	**1**	**1**	**1**	**239**

Site Number 38LA	622	622	622	622	622	622	622	622	622	622	622	622	622	622	622	622	622
Shovel Test Coordinates, N/E	500/495	500/495	500/495	505/495	505/495	505/495	505/500	505/500	505/500	505/505	505/505	500/505	500/505	495/505	495/505	495/505	495/500
Level	1	2	3	1	2	3	1	2	3	1	2	1	2	1	2	3	1
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	0-10	10-20	20-30	0-10	10-20	20-25	0-10	10-20	5-10	10-15	5-10	10-20	20-30	0-10
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz															1		
Reduction Flake, quartz		2	2				2	1			1	3		1		4	6
Flake Fragment, quartz	37	77	51	11	7	6	15	14	3	10	6	10	3	13	6	35	30
Shatter, quartz		2															
Core/Biface Manufacture																	
Core, quartz	1													1			
Early Stage Biface, quartz		1															
Late Stage Biface, quartz		1															
Biface Fragment, quartz		1															
Prehistoric Total	38	84	53	11	7	6	17	15	3	10	7	13	3	15	7	39	36
GRAND TOTAL	**38**	**84**	**53**	**11**	**7**	**6**	**17**	**15**	**3**	**10**	**7**	**13**	**3**	**15**	**7**	**39**	**36**

Site Number 38LA	622	622	622	622	622	622	622	622	622	622	622	622	
Shovel Test Coordinates, N/E	495/500	495/500	495/495	495/495	500/490	500/490	500/490	505/490	505/490	500/500	500/500	500/500	
Level	2	3	1	2	1	2	3	1	2	1	2	3	
Shovel Test Artifact Depth (cm)	10-20	20-30	0-10	10-20	0-10	10-20	20-25	0-10	10-20	0-10	10-20	20-25	
Bag Number	18	19	20	21	22	23	24	25	26	1	2	3	**Total**
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz		1											**2**
Reduction Flake, quartz	4	2	1	3	1	2	1		1	2	3	2	**44**
Flake Fragment, quartz	30	20	25	23	13	13	1	2	2	21	26	8	**518**
Shatter, quartz			3	1									**6**
Core/Biface Manufacture													
Core, quartz								1					**3**
Early Stage Biface, quartz													**1**
Late Stage Biface, quartz													**1**
Biface Fragment, quartz													**1**
Prehistoric Total	34	23	29	27	14	15	2	3	3	23	29	10	**576**
GRAND TOTAL	**34**	**23**	**29**	**27**	**14**	**15**	**2**	**3**	**3**	**23**	**29**	**10**	**576**

HGM Testing Raw Data Table

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	500/500	500/500	500/500	495/500	495/500	495/505	495/510	495/520	495/525	495/525	495/530	495/530	490/470
Level	1	2	3	1	2	1	1	1	1	2	1	3	2
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	0-10	10-20	0-10	0-5	5-10	0-10	10-20	0-10	20-30	10-15
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone													
Reduction Flake, quartz													
Flake Fragment, quartz				1		1							
metasiltstone												1	
metasandstone													
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total				*1*		*1*						*1*	
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain		4	1			1				1			
blue edged													
green edged						1							
blue transfer print													
red transfer print													
mulberry transfer print													
banded													
decal													
Ironstone, plain													
Stoneware, Albany slip													
Refined Earthenware, blue glazed													
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear	3	3		2	3	11				1			
clear, machine made	1												
amber													
aqua													
green						1							
light green									1				
cobalt blue													
cobalt blue, machine made													
solarized													
white opaque													
white opaque, machine made													
Canning Jar Seal, white opaque						1							
Canning Jar Lid, zinc													
Bottle Cap, iron													
Crown Bottle Cap						1							
Tin Can	4												
Table Glass, clear	8		1										
green opaque													
forest green	15												
Aluminum Foil													
Architectural/Structural													
Nail, cut		1	1							1			
wire	1	2	1	1									1
uid													
Screw, iron													
Bolt, iron													
Nut and bolt, iron													
Washer, iron													
Brick Fragment, machine-made	1						1		1				
uid	2		1	2	2								
Mortar													
Roofing shingle	1	2											
Insulation Liner													
Hinge, iron								1					
Electrical Tape													
Iron Wire													
Bead Chain, brass													
Window Glass	6	4	3	5	1	10					4		
Furnishings/Appliances													
Lamp Glass													
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	500/500	500/500	500/500	495/500	495/500	495/505	495/510	495/520	495/525	495/525	495/530	495/530	490/470
Level	1	2	3	1	2	1	1	1	1	2	1	3	2
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	0-10	10-20	0-10	0-5	5-10	0-10	10-20	0-10	20-30	10-15
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Caster													
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.													
Shell, brass 32 cal.													
Shell, brass 22 cal.						1							
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber													
Button, iron													
Button, brass													
Button, bone		1											
Button, shell													
Button, plastic													
Buckle, iron													
Buckle, brass													
Snap, brass													
Clasp, brass													
Grommet/Eyelet, brass													
Safty Pin, brass													
Zipper													
Cloth					1								
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass													
Transportation													
Spark Plug													
Rubber Inner Tube													
Agricultural													
Mechanical housing	1												
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron													
UID Iron													
UID Brass													
UID Lead													
UID Aluminum													
UID White Metal													
UID Beveled Glass													
UID Plastic													
UID Plastic Tube													
UID Rubber													
Bone													
Shell													
Historic Total	*43*	*17*	*8*	*10*	*7*	*27*	*1*	*1*	*2*	*3*	*4*		*1*
GRAND TOTAL	**43**	**17**	**8**	**11**	**7**	**28**	**1**	**1**	**2**	**3**	**4**	**1**	**1**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	490/490	490/500	490/500	490/500	490/500	490/505	490/505	490/505	485/500	485/500	485/500	485/500	480/500
Level	1	1	2	3	4	1	2	3	1	2	3	4	Surface
Shovel Test Artifact Depth (cm)	0-10	0-10	10-20	20-30	30-40	0-10	10-20	20-30	0-10	10-20	20-30	30-40	
Bag Number	14	15	16	17	18	19	20	21	22	23	24	25	26
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone													
Reduction Flake, quartz													
Flake Fragment, quartz		2	2						1	1			
metasiltstone													
metasandstone													
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total		*2*	*2*						*1*	*1*			
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain		1							3	1			
blue edged													
green edged													
blue transfer print													
red transfer print													
mulberry transfer print													
banded												1	
decal		1											
Ironstone, plain													
Stoneware, Albany slip													
Refined Earthenware, blue glazed													
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre									1				
Bottle Glass, clear		16	14	7	1	3	4	1	17	8	5	2	
clear, machine made									1				1
amber		1	2	3					1	2			
aqua												1	
green													
light green													
cobalt blue													
cobalt blue, machine made													
solarized													
white opaque		1											
white opaque, machine made													
Canning Jar Seal, white opaque						1							
Canning Jar Lid, zinc													
Bottle Cap, iron													
Crown Bottle Cap													
Tin Can		15							6				
Table Glass, clear													
green opaque													
forest green													
Aluminum Foil									1				
Architectural/Structural													
Nail, cut		2	4				3		2	1	3		
wire		5	10				1		4	1	1		
uid													
Screw, iron													
Bolt, iron													
Nut and bolt, iron													
Washer, iron													
Brick Fragment, machine-made											1		
uid		7	12	6		1			3	1	1		
Mortar									1	1	2		
Roofing shingle													
Insulation Liner	20												
Hinge, iron													
Electrical Tape		2											
Iron Wire		1						1					
Bead Chain, brass	1												
Window Glass	1	11	3	1		3	12	2	14	5	2	2	
Furnishings/Appliances													
Lamp Glass											2		
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	490/490	490/500	490/500	490/500	490/500	490/505	490/505	490/505	485/500	485/500	485/500	485/500	480/500
Level	1	1	2	3	4	1	2	3	1	2	3	4	Surface
Shovel Test Artifact Depth (cm)	0-10	0-10	10-20	20-30	30-40	0-10	10-20	20-30	0-10	10-20	20-30	30-40	
Bag Number	14	15	16	17	18	19	20	21	22	23	24	25	26
Caster													
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.													
Shell, brass 32 cal.		1											
Shell, brass 22 cal.											1		
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber													
Button, iron										1			
Button, brass													
Button, bone													
Button, shell													
Button, plastic													
Buckle, iron													
Buckle, brass													
Snap, brass													
Clasp, brass									1				
Grommet/Eyelet, brass													
Safty Pin, brass										1			
Zipper													
Cloth													
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass													
Transportation													
Spark Plug													
Rubber Inner Tube													
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron									1				
"O" Ring, iron													
UID Iron		2											
UID Brass													
UID Lead										1			
UID Aluminum			1										
UID White Metal													
UID Beveled Glass													
UID Plastic		1											
UID Plastic Tube													
UID Rubber													
Bone		2	1	1									
Shell									1				
Historic Total	*22*	*69*	*47*	*18*	*1*	*8*	*20*	*4*	*57*	*23*	*18*	*6*	*1*
GRAND TOTAL	**22**	**71**	**49**	**18**	**1**	**8**	**20**	**4**	**58**	**24**	**18**	**6**	**1**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	480/500	480/500	480/500	480/500	480/505	480/510	480/515	475/500	475/500	475/500	475/500	475/505	470/500
Level	1	2	3	4	1	1	1	1	2	3	4	1	1
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	30-40	0-10	0-10	0-10	0-10	10-20	20-30	30-40	0-10	0-10
Bag Number	27	28	29	30	31	32	33	34	35	36	37	38	39
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone													
Reduction Flake, quartz							1						
Flake Fragment, quartz													
metasiltstone													
metasandstone													
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total							*1*						
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain	1	1	1										1
blue edged													
green edged													
blue transfer print													
red transfer print													
mulberry transfer print													
banded													
decal		1											
Ironstone, plain													
Stoneware, Albany slip													
Refined Earthenware, blue glazed													
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear	15	8	2			1	1				1	2	4
clear, machine made									1				
amber	3									1			
aqua												1	
green		1											
light green			1										
cobalt blue													
cobalt blue, machine made													
solarized													
white opaque													
white opaque, machine made													
Canning Jar Seal, white opaque													
Canning Jar Lid, zinc													
Bottle Cap, iron													
Crown Bottle Cap													
Tin Can	4									1			
Table Glass, clear													
green opaque													
forest green													
Aluminum Foil													
Architectural/Structural													
Nail, cut	2	1			1								
wire	1	3						1	1	1			3
uid													
Screw, iron													
Bolt, iron	1												
Nut and bolt, iron													
Washer, iron	1												
Brick Fragment, machine-made		3						1					1
uid	7								2				
Mortar													
Roofing shingle								1	3				
Insulation Liner													
Hinge, iron		1											
Electrical Tape													
Iron Wire													
Bead Chain, brass													
Window Glass	4	3											2
Furnishings/Appliances													
Lamp Glass													
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	480/500	480/500	480/500	480/500	480/505	480/510	480/515	475/500	475/500	475/500	475/500	475/505	470/500
Level	1	2	3	4	1	1	1	1	2	3	4	1	1
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	30-40	0-10	0-10	0-10	0-10	10-20	20-30	30-40	0-10	0-10
Bag Number	27	28	29	30	31	32	33	34	35	36	37	38	39
Caster													
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.													
Shell, brass 32 cal.													
Shell, brass 22 cal.	1	1											
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber													
Button, iron													
Button, brass													
Button, bone													
Button, shell													
Button, plastic													
Buckle, iron				1									
Buckle, brass													
Snap, brass													
Clasp, brass													
Grommet/Eyelet, brass													
Safty Pin, brass													
Zipper													
Cloth													
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass	1												
Transportation													
Spark Plug													
Rubber Inner Tube													
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron	1												
UID Iron			1										
UID Brass													
UID Lead													
UID Aluminum													
UID White Metal													
UID Beveled Glass		1											
UID Plastic													
UID Plastic Tube													
UID Rubber													
Bone		1	1										
Shell											1		
Historic Total	*42*	*25*	*6*	*1*	*1*	*1*	*1*	*3*	*7*	*3*	*2*	*3*	*11*
GRAND TOTAL	**42**	**25**	**6**	**1**	**1**	**1**	**2**	**3**	**7**	**3**	**2**	**3**	**11**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	470/505	470/510	470/515	470/515	465/520	465/520	510/470	510/470	485/510	485/510	485/510	510/510	510/490
Level	1	1	1	2	1	2	1	2	Surface	1	2	1	2
Shovel Test Artifact Depth (cm)	0-10	5-10	0-10	10-20	0-10	10-20	0-10	10-20		0-10	10-20	0-10	15-20
Bag Number	40	41	42	43	44	45	46	47	48	49	50	51	52
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone													
Reduction Flake, quartz													1
Flake Fragment, quartz													
metasiltstone													
metasandstone													
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total													*1*
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain													
blue edged													
green edged													
blue transfer print													
red transfer print													
mulberry transfer print													
banded													
decal													
Ironstone, plain	1												
Stoneware, Albany slip													
Refined Earthenware, blue glazed													
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear						2	50	40	1	7	6	1	
clear, machine made			6	14			4		3				
amber	1												
aqua	1												
green													
light green													
cobalt blue													
cobalt blue, machine made													
solarized													
white opaque													
white opaque, machine made													
Canning Jar Seal, white opaque													
Canning Jar Lid, zinc													
Bottle Cap, iron													
Crown Bottle Cap							1						
Tin Can							1			6			
Table Glass, clear													
green opaque							4	2					
forest green							1						
Aluminum Foil													
Architectural/Structural													
Nail, cut										1			
wire										7	3	3	
uid											6		
Screw, iron													
Bolt, iron													
Nut and bolt, iron													
Washer, iron													
Brick Fragment, machine-made													
uid	1												
Mortar													
Roofing shingle									3	6		146	
Insulation Liner													
Hinge, iron													
Electrical Tape													
Iron Wire													
Bead Chain, brass													
Window Glass	2	1			1								
Furnishings/Appliances													
Lamp Glass													
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	470/505	470/510	470/515	470/515	465/520	465/520	510/470	510/470	485/510	485/510	485/510	510/510	510/490
Level	1	1	1	2	1	2	1	2	Surface	1	2	1	2
Shovel Test Artifact Depth (cm)	0-10	5-10	0-10	10-20	0-10	10-20	0-10	10-20		0-10	10-20	0-10	15-20
Bag Number	40	41	42	43	44	45	46	47	48	49	50	51	52
Caster													
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.													
Shell, brass 32 cal.													
Shell, brass 22 cal.													
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber									1				
Button, iron													
Button, brass													
Button, bone													
Button, shell													
Button, plastic										1			
Buckle, iron													
Buckle, brass													
Snap, brass													
Clasp, brass													
Grommet/Eyelet, brass													
Safty Pin, brass													
Zipper													
Cloth				1									
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass													
Transportation													
Spark Plug	1												
Rubber Inner Tube													
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron													
UID Iron									1				
UID Brass													
UID Lead													
UID Aluminum													
UID White Metal													
UID Beveled Glass													
UID Plastic													
UID Plastic Tube										1			
UID Rubber													
Bone													
Shell													
Historic Total	*7*	*1*	*6*	*15*	*1*	*2*	*61*	*42*	*9*	*29*	*15*	*150*	
GRAND TOTAL	**7**	**1**	**6**	**15**	**1**	**2**	**61**	**42**	**9**	**29**	**15**	**150**	**1**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	510/500	510/500	500/490	463/515	463/515	462/524	501/474	462/518	496/490	496/490	496/490	496/490	496/490
Level	1	2	3	1	5	Surface	Surface	1	1	2	4	6	7
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	0-10	40-50			0-10	0-10	10-20	30-40	50-60	60-70
Bag Number	53	54	55	56	57	59	73	74	75	76	77	78	79
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone			1										
Reduction Flake, quartz			1										
Flake Fragment, quartz		3	3					1					
metasiltstone			2										
metasandstone													
Cooking/Containment													
Ceramic, eroded	1												
Prehistoric Total	*1*	*3*	*7*					*1*					
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain					2								1
blue edged					1								
green edged													
blue transfer print					1								
red transfer print													
mulberry transfer print													
banded													
decal							1						
Ironstone, plain													
Stoneware, Albany slip											1		
Refined Earthenware, blue glazed													
Semivitreous, banded						1							
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear								23		1			
clear, machine made							1	1					
amber													
aqua													
green													
light green				1									
cobalt blue													
cobalt blue, machine made													
solarized													
white opaque													
white opaque, machine made													
Canning Jar Seal, white opaque													
Canning Jar Lid, zinc													
Bottle Cap, iron													
Crown Bottle Cap													
Tin Can									2				
Table Glass, clear												1	
green opaque													
forest green													
Aluminum Foil													
Architectural/Structural													
Nail, cut			1										
wire			1						1		1		
uid													
Screw, iron													
Bolt, iron													
Nut and bolt, iron								1					
Washer, iron													
Brick Fragment, machine-made										1			
uid									2				
Mortar									1				
Roofing shingle													
Insulation Liner													
Hinge, iron													
Electrical Tape													
Iron Wire													
Bead Chain, brass													
Window Glass				1				7	1	2			
Furnishings/Appliances													
Lamp Glass													
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	1	1	1	1	1	1	1
Shovel Test Coordinates, N/E	510/500	510/500	500/490	463/515	463/515	462/524	501/474	462/518	496/490	496/490	496/490	496/490	496/490
Level	1	2	3	1	5	Surface	Surface	1	1	2	4	6	7
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	0-10	40-50			0-10	0-10	10-20	30-40	50-60	60-70
Bag Number	53	54	55	56	57	59	73	74	75	76	77	78	79
Caster													
Weaponry													
Shotgun Shell, 12 guage						1							
Shell, brass 38 cal.													
Shell, brass 32 cal.													
Shell, brass 22 cal.													
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber													
Button, iron													
Button, brass													
Button, bone													
Button, shell													
Button, plastic													
Buckle, iron													
Buckle, brass													
Snap, brass													
Clasp, brass													
Grommet/Eyelet, brass													
Safty Pin, brass													
Zipper													
Cloth													
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass													
Transportation													
Spark Plug													
Rubber Inner Tube									1				
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron													
UID Iron													
UID Brass													
UID Lead													
UID Aluminum													
UID White Metal													
UID Beveled Glass													
UID Plastic									2	5			
UID Plastic Tube													
UID Rubber													
Bone									2	3	2		
Shell													
Historic Total			*2*	*2*	*4*	*2*	*2*	*32*	*12*	*12*	*4*	*1*	*1*
GRAND TOTAL	**1**	**3**	**9**	**2**	**4**	**2**	**2**	**33**	**12**	**12**	**4**	**1**	**1**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	2	2	2	2	2	2	2
Shovel Test Coordinates, N/E	477/493	477/493	477/493	477/493	477/493	477/493	445/575	445/585	445/585	450/575	450/580	450/580	455/585
Level	1	2	3	4	5	6	2	1	2	2	1	2	2
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	30-40	40-50	50-60	10-20	0-10	10-20	15-20	0-15	15-30	10-20
Bag Number	80	81	82	83	84	85	86	87	88	89	90	91	92
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz												1	
metasiltstone													
Reduction Flake, quartz												1	
Flake Fragment, quartz									1				1
metasiltstone													
metasandstone													
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total									*1*			*2*	*1*
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain				3									
blue edged													
green edged													
blue transfer print													
red transfer print					1								
mulberry transfer print													
banded													
decal													
Ironstone, plain													
Stoneware, Albany slip													
Refined Earthenware, blue glazed					1								
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear	2		1	13	4	2							
clear, machine made													
amber													
aqua													
green							5						
light green													
cobalt blue	1												
cobalt blue, machine made													
solarized													
white opaque													
white opaque, machine made													
Canning Jar Seal, white opaque													
Canning Jar Lid, zinc													
Bottle Cap, iron						1							
Crown Bottle Cap	1		1	1									
Tin Can	1							4	3				
Table Glass, clear													
green opaque													
forest green													
Aluminum Foil													
Architectural/Structural													
Nail, cut	12	2	15	2	9	1							
wire	24	18	14	26		4				1	4		1
uid													
Screw, iron	1												
Bolt, iron													
Nut and bolt, iron													
Washer, iron													
Brick Fragment, machine-made													
uid													
Mortar													
Roofing shingle				1									
Insulation Liner													
Hinge, iron													
Electrical Tape													
Iron Wire				2									
Bead Chain, brass													
Window Glass	1		1	2	2	3							1
Furnishings/Appliances													
Lamp Glass			1										
Spring, iron				1									

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	1	1	1	1	1	1	2	2	2	2	2	2	2
Shovel Test Coordinates, N/E	477/493	477/493	477/493	477/493	477/493	477/493	445/575	445/585	445/585	450/575	450/580	450/580	455/585
Level	1	2	3	4	5	6	2	1	2	2	1	2	2
Shovel Test Artifact Depth (cm)	0-10	10-20	20-30	30-40	40-50	50-60	10-20	0-10	10-20	15-20	0-15	15-30	10-20
Bag Number	80	81	82	83	84	85	86	87	88	89	90	91	92
Caster													
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.					1								
Shell, brass 32 cal.													
Shell, brass 22 cal.				1									
Clothing/Adornment													
Shoe Heel and Sole, rubber		1											
Shoe Sole, rubber		1											
Shoe Heel, rubber		2			1								
Button, iron													
Button, brass			1			1							
Button, bone													
Button, shell		1											
Button, plastic													
Buckle, iron													
Buckle, brass		1											
Snap, brass	1												
Clasp, brass													
Grommet/Eyelet, brass		1	1		1								
Safty Pin, brass													
Zipper			3										
Cloth													
Personal													
Snuff Can Lid, tin													
Activities													
Marble, glass													
Transportation													
Spark Plug													
Rubber Inner Tube													
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron					1								
UID Iron	2					1							
UID Brass	1												
UID Lead													
UID Aluminum	1												
UID White Metal													
UID Beveled Glass													
UID Plastic				1	1								
UID Plastic Tube													
UID Rubber	1		3										
Bone	1	1		1									
Shell													
Historic Total	*50*	*28*	*41*	*54*	*22*	*13*	*5*	*4*	*3*	*1*	*4*		*2*
GRAND TOTAL	**50**	**28**	**41**	**54**	**22**	**13**	**5**	**4**	**4**	**1**	**4**	**2**	**3**

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	2	2	2	2	2	2	2	2	2	2	2	2	2
Shovel Test Coordinates, N/E	440/485	495/500	495/500	495/500	495/505	495/505	495/505	495/510	505/500	505/505	505/505	505/510	495/510
Level	1	1	2	3	1	2	3	4	2	1	3	1	1
Shovel Test Artifact Depth (cm)	0-10	0-10	10-20	20-30	0-10	10-20	20-30	30-40	10-20	0-10	20-30	0-5	0-10
Bag Number	93	94	95	96	97	98	99	100	101	102	103	104	105
PREHISTORIC													
Lithic Reduction													
Thinning Flake, quartz													
metasiltstone													
Reduction Flake, quartz													
Flake Fragment, quartz													
metasiltstone													
metasandstone											1		
Cooking/Containment													
Ceramic, eroded													
Prehistoric Total											*1*		
HISTORIC													
Kitchen/Subsistence													
Whiteware, plain		1		1	1			1					
blue edged								1					
green edged													
blue transfer print													
red transfer print													
mulberry transfer print								1					
banded													
decal								1					
Ironstone, plain													
Stoneware, Albany slip													
Refined Earthenware, blue glazed													
Semivitreous, banded													
Hard-Paste Porcelain, purple lustre													
Bottle Glass, clear	7			1	2				1				1
clear, machine made													
amber													
aqua													
green													
light green													
cobalt blue													
cobalt blue, machine made													
solarized			3					2					
white opaque													
white opaque, machine made		1											
Canning Jar Seal, white opaque		1											
Canning Jar Lid, zinc				1									
Bottle Cap, iron													
Crown Bottle Cap													
Tin Can	9												
Table Glass, clear													
green opaque													
forest green													
Aluminum Foil													
Architectural/Structural													
Nail, cut		1	1					1	1	1			
wire													
uid													
Screw, iron	1												
Bolt, iron	1												
Nut and bolt, iron													
Washer, iron	2												
Brick Fragment, machine-made													1
uid		1	1			1							
Mortar													
Roofing shingle													
Insulation Liner													
Hinge, iron	1												
Electrical Tape													
Iron Wire													
Bead Chain, brass													
Window Glass		3	1		2	3	3	3	2			1	2
Furnishings/Appliances													
Lamp Glass													
Spring, iron													

Site Number 38LA	640	640	640	640	640	640	640	640	640	640	640	640	640
Locus	2	2	2	2	2	2	2	2	2	2	2	2	2
Shovel Test Coordinates, N/E	440/485	495/500	495/500	495/500	495/505	495/505	495/505	495/510	505/500	505/505	505/505	505/510	495/510
Level	1	1	2	3	1	2	3	4	2	1	3	1	1
Shovel Test Artifact Depth (cm)	0-10	0-10	10-20	20-30	0-10	10-20	20-30	30-40	10-20	0-10	20-30	0-5	0-10
Bag Number	93	94	95	96	97	98	99	100	101	102	103	104	105
Caster	1												
Weaponry													
Shotgun Shell, 12 guage													
Shell, brass 38 cal.													
Shell, brass 32 cal.													
Shell, brass 22 cal.													
Clothing/Adornment													
Shoe Heel and Sole, rubber													
Shoe Sole, rubber													
Shoe Heel, rubber													
Button, iron													
Button, brass													
Button, bone													
Button, shell													
Button, plastic													
Buckle, iron													
Buckle, brass													
Snap, brass													
Clasp, brass													
Grommet/Eyelet, brass													
Safty Pin, brass													
Zipper													
Cloth													
Personal													
Snuff Can Lid, tin		1											
Activities													
Marble, glass											1		
Transportation													
Spark Plug													
Rubber Inner Tube													
Agricultural													
Mechanical housing													
Plow Share, iron													
Miscellaneous													
"D" Ring, iron													
"O" Ring, iron													
UID Iron									1			1	
UID Brass													
UID Lead													
UID Aluminum													
UID White Metal	1												
UID Beveled Glass													
UID Plastic													
UID Plastic Tube													
UID Rubber													
Bone													
Shell													
Historic Total	*23*	*9*	*6*	*3*	*5*	*4*	*3*	*10*	*5*	*1*	*1*	*2*	*4*
GRAND TOTAL	**23**	**9**	**6**	**3**	**5**	**4**	**3**	**10**	**5**	**1**	**2**	**2**	**4**

HGM Testing Raw Data Table

Site Number 38LA	640	640	640	640	640	640	640	640	640	
Locus	2	2	2	2	2	2	2	2	2	
Shovel Test Coordinates, N/E	495/510	495/510	500/500	498/492	500/505	500/505	500/505	501.5/508	500/490	
Level	2	3	1	Surface	1	2	5	Surface	Surface	
Shovel Test Artifact Depth (cm)	10-20	20-30	0-10		0-10	10-20	40-50			
Bag Number	106	107	108	109	110	111	112	123	124	**Total**
PREHISTORIC										
Lithic Reduction										
Thinning Flake, quartz										**1**
metasiltstone										**1**
Reduction Flake, quartz										**4**
Flake Fragment, quartz										**17**
metasiltstone										**3**
metasandstone										**1**
Cooking/Containment										
Ceramic, eroded										**1**
Prehistoric Total										**28**
HISTORIC										
Kitchen/Subsistence										
Whiteware, plain	2									**28**
blue edged										**2**
green edged										**1**
blue transfer print										**1**
red transfer print										**1**
mulberry transfer print										**1**
banded										**1**
decal										**4**
Ironstone, plain										**1**
Stoneware, Albany slip				1						**2**
Refined Earthenware, blue glazed										**1**
Semivitreous, banded										**1**
Hard-Paste Porcelain, purple lustre										**1**
Bottle Glass, clear	2	1			5		1			**309**
clear, machine made										**33**
amber		1								**15**
aqua										**3**
green										**7**
light green	1									**4**
cobalt blue										**1**
cobalt blue, machine made									1	**1**
solarized	3	1								**9**
white opaque										**1**
white opaque, machine made										**1**
Canning Jar Seal, white opaque										**3**
Canning Jar Lid, zinc										**1**
Bottle Cap, iron										**1**
Crown Bottle Cap										**5**
Tin Can					2					**58**
Table Glass, clear										**10**
green opaque										**6**
forest green										**16**
Aluminum Foil										**1**
Architectural/Structural										
Nail, cut		1				1				**72**
wire										**146**
uid										**6**
Screw, iron										**2**
Bolt, iron										**2**
Nut and bolt, iron										**1**
Washer, iron										**3**
Brick Fragment, machine-made	1				3					**15**
uid			4		3	2				**62**
Mortar					3	1				**9**
Roofing shingle										**163**
Insulation Liner										**20**
Hinge, iron										**3**
Electrical Tape										**2**
Iron Wire										**4**
Bead Chain, brass										**1**
Window Glass	2	5								**150**
Furnishings/Appliances										
Lamp Glass										**3**
Spring, iron										**1**

Site Number 38LA	640	640	640	640	640	640	640	640	640	
Locus	2	2	2	2	2	2	2	2	2	
Shovel Test Coordinates, N/E	495/510	495/510	500/500	498/492	500/505	500/505	500/505	501.5/508	500/490	
Level	2	3	1	Surface	1	2	5	Surface	Surface	
Shovel Test Artifact Depth (cm)	10-20	20-30	0-10		0-10	10-20	40-50			
Bag Number	106	107	108	109	110	111	112	123	124	**Total**
Caster										**1**
Weaponry										
Shotgun Shell, 12 guage										**1**
Shell, brass 38 cal.										**1**
Shell, brass 32 cal.										**1**
Shell, brass 22 cal.										**5**
Clothing/Adornment										
Shoe Heel and Sole, rubber										**1**
Shoe Sole, rubber										**1**
Shoe Heel, rubber										**4**
Button, iron										**1**
Button, brass										**2**
Button, bone										**1**
Button, shell										**1**
Button, plastic					2					**3**
Buckle, iron										**1**
Buckle, brass										**1**
Snap, brass										**1**
Clasp, brass										**1**
Grommet/Eyelet, brass										**3**
Safty Pin, brass										**1**
Zipper										**3**
Cloth										**2**
Personal										
Snuff Can Lid, tin										**1**
Activities										
Marble, glass										**2**
Transportation										
Spark Plug										**1**
Rubber Inner Tube										**1**
Agricultural										
Mechanical housing										**1**
Plow Share, iron								1		**1**
Miscellaneous										
"D" Ring, iron										**1**
"O" Ring, iron										**2**
UID Iron	2									**11**
UID Brass										**1**
UID Lead										**1**
UID Aluminum										**2**
UID White Metal										**1**
UID Beveled Glass										**1**
UID Plastic										**10**
UID Plastic Tube										**1**
UID Rubber										**4**
Bone										**16**
Shell										**2**
Historic Total	*13*	*9*	*4*	*1*	*18*	*4*	*1*	*1*	*1*	**1291**
GRAND TOTAL	**13**	**9**	**4**	**1**	**18**	**4**	**1**	**1**	**1**	**1319**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641
Shovel Test Coordinates, N/E	430/550	430/550	440/550	410/550	430/540	530/540	430/540	430/540	450/540	510/540	410/540	410/540	410/550	410/550	410/550	420/580	420/590
Level	3	5	4	2	2	3	4	6	4	3	4	5	5	6	7	5	5
Shovel Test Artifact Depth (cm)	20-30	40-50	30-40	10-20	10-20	20-30	30-40	50-60	30-40	20-30	30-40	40-50	40-50	50-60	60-70	40-50	40-50
Bag Number	1	2	3	4	7	8	9	10	11	13	14	15	16	17	18	20	21
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz									2								
metasiltstone																	
metasandstone						1											
chert										1							
diabase																	
Reduction Flake, quartz										2							
metasandstone		1															
metavolcanic					1												
Flake Fragment, quartz	2			1			1	1			1		1	1	1		
metasiltstone			1			1											
metasandstone												1				2	1
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz																	
Early Stage Biface, quartz																	
metasandstone																	
Biface Fragment, quartz																	
Cooking/Containment																	
eroded																	
FCR, quartz										1							
quartz cobble																	
Prehistoric Total	*2*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*2*	*4*	*1*	*1*	*1*	*1*	*1*	*2*	*1*
GRAND TOTAL	**2**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**2**	**4**	**1**	**1**	**1**	**1**	**1**	**2**	**1**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641
Shovel Test Coordinates, N/E	420/590	420/590	470/570	420/530	440/560	410.15/560.93	420/560	420/560	420/560	395/635	400/630	430/570	430/580	430/580	395/640	405/635	490
Level	6	7	6	3	5	7	2	3	6	5	4	5	5	6	3	4	1
Shovel Test Artifact Depth (cm)	50-60	60-70	50-60	20-30	40-50	60-70	10-20	20-30	50-60	40-50	30-40	40-50	40-50	50-60	20-30	30-40	0-10
Bag Number	22	23	25	26	27	29	30	31	32	35	36	37	38	39	42	43	45
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz																	
metasiltstone							1				1						
metasandstone																	
chert																	
diabase														1			
Reduction Flake, quartz																	
metasandstone																	
metavolcanic																	1
Flake Fragment, quartz	2		1	1	2	1	1			1		2				1	1
metasiltstone		1						1									
metasandstone									1								
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz																	
Early Stage Biface, quartz																	
metasandstone																	
Biface Fragment, quartz																	
Cooking/Containment																	
eroded																	
FCR, quartz															1		
quartz cobble													1				
Prehistoric Total	*2*	*1*	*1*	*1*	*2*	*1*	*2*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*2*
GRAND TOTAL	**2**	**1**	**1**	**1**	**2**	**1**	**2**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**2**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641
Shovel Test Coordinates, N/E	490/500	490/510	505/500	505/500	505/500	510/510	505/505	480/500	495/500	495/500	495/500	510/505	480/490	480/490	480/490	510/520	510/520
Level	3	4	1	2	8	7	2	5	1	3	4	5	3	4	5	5	6
Shovel Test Artifact Depth (cm)	20-30	30-40	0-10	10-20	70-80	60-70	10-20	40-50	0-10	20-30	30-40	40-50	20-30	30-40	40-50	40-50	50-60
Bag Number	46	47	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz																	
metasiltstone				1													
metasandstone																	
chert																	
diabase																	
Reduction Flake, quartz					1												
metasandstone										1							
metavolcanic																	
Flake Fragment, quartz	6	3	1				2	2	2	2	1			2		1	2
metasiltstone												1					
metasandstone									1	2			1	3	1		
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz						1											
Early Stage Biface, quartz																	
metasandstone				1												1	
Biface Fragment, quartz																	
Cooking/Containment																	
eroded																	
FCR, quartz																	
quartz cobble				1													
Prehistoric Total	*6*	*3*	*1*	*3*	*1*	*1*	*2*	*2*	*3*	*5*	*1*	*1*	*1*	*5*	*1*	*2*	*2*
GRAND TOTAL	**6**	**3**	**1**	**3**	**1**	**1**	**2**	**2**	**3**	**5**	**1**	**1**	**1**	**5**	**1**	**2**	**2**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641
Shovel Test Coordinates, N/E	450/970	450/970	460/970	450/950	460/960	470/950	470/960	465/955	450/490	450/940	460/940	460/950	460/950	470/940	420/540	420/540	610/1050
Level	6	5	7	5	8	7	6	7	4	8	6	3	5	2	3	4	6
Shovel Test Artifact Depth (cm)	50-60	40-50	60-70	40-50	70-80	50-60	50-60	60-70	30-40	70-80	50-60	20-30	40-50	10-20	20-30	30-40	50-60
Bag Number	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz			1					1									
metasiltstone								1									
metasandstone																	
chert																	
diabase																	
Reduction Flake, quartz					1		1		1		1			1			
metasandstone															5	5	
metavolcanic																	
Flake Fragment, quartz	1	2		1		1	2			2			1		4	1	3
metasiltstone																	
metasandstone															18	20	
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz																	
Early Stage Biface, quartz																	
metasandstone																	
Biface Fragment, quartz												1					
Cooking/Containment																	
eroded																	
FCR, quartz						1									1		
quartz cobble																	
Prehistoric Total	*1*	*2*	*1*	*1*	*1*	*2*	*3*	*2*	*1*	*2*	*1*	*1*	*1*	*1*	*28*	*26*	*3*
GRAND TOTAL	**1**	**2**	**1**	**1**	**1**	**2**	**3**	**2**	**1**	**2**	**1**	**1**	**1**	**1**	**28**	**26**	**3**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	641
Shovel Test Coordinates, N/E	600/1060	610/1060	610/1060	610/1060	615/1050	615/1050	610/1070	615/1055	615/1060	615/1060	615/1060	615/1060	620/1060	620/1060	415/535
Level	6	3	5	6	4	6	5	7	3	5	6	7	6	9	1
Shovel Test Artifact Depth (cm)	50-60	20-30	40-50	50-60	30-40	50-60	40-50	60-70	20-30	40-50	50-60	60-70	50-60	80-90	0-10
Bag Number	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
PREHISTORIC															
Lithic Reduction															
Thinning Flake, quartz						1					1		1		
metasiltstone				1											
metasandstone															
chert															
diabase															
Reduction Flake, quartz							1		1	1					
metasandstone															2
metavolcanic		1													
Flake Fragment, quartz	1		1	2	1					3		1		1	1
metasiltstone															
metasandstone								1							
Shatter, quartz						1									
Core/Biface Manufacture															
Core, quartz															
Early Stage Biface, quartz															
metasandstone															
Biface Fragment, quartz															
Cooking/Containment															
eroded															1
FCR, quartz															
quartz cobble															
Prehistoric Total	*1*	*1*	*1*	*3*	*1*	*2*	*1*	*1*	*1*	*4*	*1*	*1*	*1*	*1*	*4*
GRAND TOTAL	**1**	**1**	**1**	**3**	**1**	**2**	**1**	**1**	**1**	**4**	**1**	**1**	**1**	**1**	**4**

Site Number 38LA	641	641	641	641	641	641	641	641	641	641	641	641	641	641	
Shovel Test Coordinates, N/E	415/535	415/535	420/550	420/550	500/500	500/500	500/500	500/500	500/500	500/500	500/500	460/955	610/1055	610/1055	
Level	2	3	5	3	1	2	3	4	5	6	7	5	5	6	
Shovel Test Artifact Depth (cm)	10-20	20-30	40-50	20-30	0-10	10-20	20-30	30-40	40-50	50-60	60/70	40-50	40-50	50-60	
Bag Number	96	97	98	100	4	5	6	7	8	9	10	23	24	25	**Total**
PREHISTORIC															
Lithic Reduction															
Thinning Flake, quartz								4		1					**12**
metasiltstone															**5**
metasandstone	1														**2**
chert															**1**
diabase															**1**
Reduction Flake, quartz						4	6	7	8	1				1	**38**
metasandstone															**14**
metavolcanic															**3**
Flake Fragment, quartz	2		1	1	1	25	61	54	48	15	5	1	2	6	**297**
metasiltstone															**5**
metasandstone		1													**53**
Shatter, quartz															**1**
Core/Biface Manufacture															
Core, quartz															**1**
Early Stage Biface, quartz							1								**1**
metasandstone															**2**
Biface Fragment, quartz															**1**
Cooking/Containment															
eroded															**1**
FCR, quartz															**4**
quartz cobble															**2**
Prehistoric Total	*3*	*1*	*1*	*1*	*1*	*29*	*68*	*65*	*56*	*17*	*5*	*1*	*2*	*7*	**444**
GRAND TOTAL	**3**	**1**	**1**	**1**	**1**	**29**	**68**	**65**	**56**	**17**	**5**	**1**	**2**	**7**	**444**

HGM Testing Raw Data Table

Site Number 38LA	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654
Locus																	
Shovel Test Coordinates, N/E	430/500	430/510	430/510	430/510	435/505	435/505	460/500	315/415	315/410	315/410	320/420	325/395	325/425	325/425	325/420	325/420	325/420
Level	6	4	5	6	4	8	4	3	5	8	4	8	1	4	2	3	4
Shovel Test Artifact Depth (cm)	50-60	30-40	40-50	50-60	30-40	70-80	30-40	20-30	50-60	70-80	35	70-80	0-10	30-40	10-20	20-30	30-40
Bag Number	1	2	3	4	6	7	8	9	10	11	13	14	15	16	17	18	19
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz																	
metasiltstone									1							1	
metasandstone							1										
Reduction Flake, quartz																	
metasiltstone			1														2
metasandstone													2		1	3	
metavolcanic																	
Flake Fragment, quartz				1	1	2						1					
metasiltstone									1	1				1			
metasandstone	1	1		3							1		5	1	2		
chert																	
metavolcanic																	
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz																	
Formal Tools																	
Knife, metasiltstone																	
Cooking/Containment																	
Ceramic, eroded								1									
Flora/Fauna																	
Charcoal																	
Prehistoric Total	1	1	1	4	1	2	1	1	2	1	1	1	7	2	3	4	2
HISTORIC																	
Kitchen/Subsistence																	
Whiteware, plain																	
blue edged																	
Redware, lead glazed																	
Buff bodied earthenware, lead glazed																	
Bottle Glass, clear																	
olive green																	
Architectural/Structural																	
Nail, cut																	
Historic Total																	
GRAND TOTAL	**1**	**1**	**1**	**4**	**1**	**2**	**1**	**1**	**2**	**1**	**1**	**1**	**7**	**2**	**3**	**4**	**2**

Site Number 38LA	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654
Locus																	
Shovel Test Coordinates, N/E	325/420	440/590	330/560	340/560	340/560	340/560	345/560	350/550	345/550	345/550	350/580	350/380	360/560	360/560	350/540	340/565	340/565
Level	5	4	5	2	4	5	4	2	2	5	2	4	1	4	3	2	4
Shovel Test Artifact Depth (cm)	40-50	40-50	40-50	10-20	30-40	40-50	30-40	10-20	10-20	40-50	10-20	35	0-10	30-40	20-30	10-20	30-40
Bag Number	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz	1				2												
metasiltstone																	
metasandstone														1			
Reduction Flake, quartz							2										3
metasiltstone																	
metasandstone																	
metavolcanic																	
Flake Fragment, quartz	1	4	1	3	18	11				1			2			1	8
metasiltstone						1					1	1					
metasandstone																	
chert										1							
metavolcanic																	
Shatter, quartz																	
Core/Biface Manufacture																	
Core, quartz																	
Formal Tools																	
Knife, metasiltstone																	
Cooking/Containment																	
Ceramic, eroded																	
Flora/Fauna																	
Charcoal																	
Prehistoric Total	2	4	1	3	20	12	2			2	1	1	2	1		1	11
HISTORIC																	
Kitchen/Subsistence																	
Whiteware, plain																	
blue edged																	
Redware, lead glazed				1													
Buff bodied earthenware, lead glazed			1					1	1						1		
Bottle Glass, clear																	
olive green																	
Architectural/Structural																	
Nail, cut									1								
Historic Total			1	1				1	2						1		
GRAND TOTAL	**2**	**4**	**2**	**4**	**20**	**12**	**2**	**1**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**1**	**11**

HGM Testing Raw Data Table

Site Number 38LA	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654
Locus																	
Shovel Test Coordinates, N/E	340/565	355/560	355/560	355/560	355/580	350/565	350/565	350/555	355/555	355/365	355/565	360/555	360/555	360/555	360/555	355/565	355/565
Level	6	6	4	1	6	2	3	4	2	5	6	2	4	6	3	2	3
Shovel Test Artifact Depth (cm)	50-60	50-60	30-40	0-10	50-60	10-20	20-30	30-40	10-20	40-50	50-60	10-20	30-40	50-60	20-30	10-20	20-30
Bag Number	37	38	39	40	41	42	43	44	46	47	48	49	50	51	52	53	54
PREHISTORIC																	
Lithic Reduction																	
Thinning Flake, quartz		1															
metasiltstone																	
metasandstone																	
Reduction Flake, quartz																	
metasiltstone											1						
metasandstone																	
metavolcanic													1				
Flake Fragment, quartz	13	7	8	6		2			1		1	1	1		1	3	
metasiltstone					1					1			1				
metasandstone																	2
chert																	
metavolcanic														1			
Shatter, quartz																	1
Core/Biface Manufacture																	
Core, quartz								1									
Formal Tools																	
Knife, metasiltstone																	
Cooking/Containment																	
Ceramic, eroded																	
Flora/Fauna																	
Charcoal																	
Prehistoric Total	13	8	8	6	1	2		1	1	1	2	1	3	1	1	3	3
HISTORIC																	
Kitchen/Subsistence																	
Whiteware, plain				2													
blue edged																1	
Redware, lead glazed															1		
Buff bodied earthenware, lead glazed				1											1		
Bottle Glass, clear						1											
olive green				1			2										
Architectural/Structural																	
Nail, cut																	
Historic Total				4		1	2								2	1	
GRAND TOTAL	**13**	**8**	**8**	**10**	**1**	**3**	**2**	**1**	**1**	**1**	**2**	**1**	**3**	**1**	**3**	**4**	**3**

HGM Testing Raw Data Table

Site Number 38LA	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	
Locus									2	3	3	4	4	4	4	
Shovel Test Coordinates, N/E	355/565	610/490	610/485	610/485	605/495	605/475	595/485	600/480	335/560	525/415	325/415	605/485	605/485	605/485	605/485	
Level	4	3	4	5	3	3	3	5	7	2	6	3	4	5	6	
Shovel Test Artifact Depth (cm)	30-40	20-30	30-40	40-50	20-30	20-30	25	40-50	60-70	10-20	50-60	20-30	30-40	40-50	50-60	
Bag Number	55	56	57	58	59	60	61	62	35	36	37	38	39	40	41	**Total**
PREHISTORIC																
Lithic Reduction																
Thinning Flake, quartz																**4**
metasiltstone													1	2		**5**
metasandstone																**2**
Reduction Flake, quartz			1						1	1	2					**10**
metasiltstone												2	3	2	5	**16**
metasandstone																**6**
metavolcanic																**1**
Flake Fragment, quartz	1	1	3	1		1		1			8					**115**
metasiltstone	1						1					3	10	2	5	**31**
metasandstone																**16**
chert																**1**
metavolcanic																**1**
Shatter, quartz																**1**
Core/Biface Manufacture																
Core, quartz																**1**
Formal Tools																
Knife, metasiltstone					1											**1**
Cooking/Containment																
Ceramic, eroded																**1**
Flora/Fauna																
Charcoal																**P**
Prehistoric Total	2	1	4	1	1	1	1	1	1	1	10	5	14	6	10	**212**
HISTORIC																
Kitchen/Subsistence																
Whiteware, plain																**2**
blue edged																**1**
Redware, lead glazed																**2**
Buff bodied earthenware, lead glazed																**6**
Bottle Glass, clear																**1**
olive green																**3**
Architectural/Structural																
Nail, cut																**1**
Historic Total																**16**
GRAND TOTAL	**2**	**1**	**4**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**10**	**5**	**14**	**6**	**10**	**228**

Site Number 38LA	723	723	723	723	723	723	723	723	723	723	723	
Shovel Test Coordinates, N/E	500/495	500/505	500/505	500/505	500/505	500/505	510/500	515/500	515/500	495/505	505/505	
Level	3	3	4	5	6	7	5	5	7	2	4	
Shovel Test Artifact Depth (cm)	20-30	20-30	30-40	40-50	50-60	60-70	40-50	40-50	70-80	10-20	40-50	
Bag Number	1	2	3	4	5	6	7	8	9	10	11	**Total**
PREHISTORIC												
Lithic Reduction												
Thinning Flake, quartz					1							**1**
metasandstone								1	1			**2**
Reduction Flake, quartz				4								**4**
Flake Fragment, quartz	1	1	2	11	15	6	1			1	1	**39**
Prehistoric Total	1	1	2	15	16	6	1	1	1	1	1	**46**
GRAND TOTAL	**1**	**1**	**2**	**15**	**16**	**6**	**1**	**1**	**1**	**1**	**1**	**46**

HGM Testing Raw Data Table

Site Number 38LA	727	727	727	727	727	727	727	727	727	727	727	727	727	727
Shovel Test Coordinates, N/E	500/530	500/530	500/530	500/530	500/510	500/510	490/500	490/500	500/520	494/539	499/544	499/544	499/544	499/544
Level	3	4	5	6	3	4	4	5	5	5	3	4	5	6
Shovel Test Artifact Depth (cm)	20-30	30-40	40-50	50-60	20-30	30-40	30-40	40-50	40-50	30-40	20-30	30-40	40-50	50-60
Bag Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PREHISTORIC														
Lithic Reduction														
Thinning Flake, metasiltstone												1		1
Reduction Flake, quartz	1								1					
metasiltstone											1			
Flake Fragment, quartz	1	2	2	1	3	2	1	1	1			2		
metasiltstone											3	2	1	
metasandstone														
cobble quartz						1								
diabase										1				
Shatter, quartz									1					
Food Processing														
Processing Stone, diabase														
Prehistoric Total	2	2	2	1	3	3	1	1	3	1	4	5	1	1
GRAND TOTAL	**2**	**2**	**2**	**1**	**3**	**3**	**1**	**1**	**3**	**1**	**4**	**5**	**1**	**1**

Site Number 38LA	727	727	727	727	727	727	727	727	
Shovel Test Coordinates, N/E	499/534	499/534	499/534	499/534	595/514	495/514	505/514	505/514	
Level	3	4	5	6	3	4	4	6	
Shovel Test Artifact Depth (cm)	20-30	30-40	40-50	50-60	20-30	30-40	30-40	50-60	
Bag Number	15	16	17	18	24	25	26	27	**Total**
PREHISTORIC									
Lithic Reduction									
Thinning Flake, metasiltstone									**2**
Reduction Flake, quartz									**2**
metasiltstone	1	1							**3**
Flake Fragment, quartz	1	1	2	1		1		1	**23**
metasiltstone						1			**7**
metasandstone							1		**1**
cobble quartz									**1**
diabase									**1**
Shatter, quartz									**1**
Food Processing									
Processing Stone, diabase					1				**1**
Prehistoric Total	2	2	2	1	1	2	1	1	**42**
GRAND TOTAL	**2**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**42**

APPENDIX C - PHASE II ARCHEOBOTANICAL STUDY, SITES 38LA654 AND 38LA727

Phase II Archaeobotanical Study
Site 38LA654

PALEOBOT CONSULTING, LLC

Phase II Archaeobotanical Study
Site 38LA654

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Paleobot Consulting Report # 3

May 6, 2012

DRAFT REPORT

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1. Feature 1 Archaeobotanical Data. 1

I. INTRODUCTION

This study examines macrofloral remains from a prehistoric feature identified by R.S Webb & Associates during Phase II investigations at Site 38LA654. The current archaeobotanical investigation includes the identification and analysis of macrofloral remains from a single one liter sediment sample collected from Feature 1. The study was conducted by Ms. Leslie Branch-Raymer of Paleobot Consulting, LLC. The objectives of this macrofloral study consist of the following: (1) assess the preservation of macrofloral remains in the sediment sample and (2) offer preliminary interpretations of prehistoric floral-based subsistence practices, forest composition and selective patterns of wood use. The following report includes presentations of the Analysis Methods (Chapter II) and Results (Chapter III). The archaeobotanical analysis raw data are summarized in Table 1.

Table 1. Feature 1 Archaeobotanical Data.

	Feature 1
Sample Volume (L)	1.0
Light Fraction Weight (g)	1.32
Heavy Fraction Weight (g)	2.49
Identified Wood Specimen Count	
Pine	14
White Oak	1
Total	15
Other Carbonized Macroplant Remains	
Pine Cone Scale	1

II. ANALYSIS METHODS

Archaeobotanical analysis is based upon macroplant remains derived from flotation of one liter of sediment from Feature 1. The sample was subjected to machine-assisted flotation by R.S. Webb & Associates prior to submission to Branch-Raymer.

In the laboratory, the flotation light fraction was first weighed, and then passed through nested geologic sieves (4.0 mm, 2.36 mm, 2.0 mm, 1.18 mm, 1.0 mm, 0.85 mm, 0.71 mm, 0.5 mm). The resulting sample light and heavy fractions were fully sorted under a binocular microscope (10-25x). Identifications were attempted on 15 randomly selected wood charcoal fragments. Whenever possible, wood specimens are identified to genus. Segments that are too fragmentary or poorly preserved to specifically identify are placed in the more general category of unidentifiable hardwood. Wood taxa are identified by comparison with charred and natural transverse, tangential, and radial thin sections of modern wood, as well as textbook illustrations. The transverse view is emphasized due to magnification limitations, size of the specimens, and time constraints. As needed, dichotomous keys are employed. Since these are geared toward fresh wood they are of limited use, but by employing both the microscopic and macroscopic keys, following multiple paths, and with frequent reference to the comparative collection, a genus can generally be determined.

III. RESULTS

Carbonized macrofloral remains were abundant in the Feature 1 pit. With the exception of a single carbonized pine cone scale, only wood charcoal and resin was recovered. The identified wood charcoal specimens consisted of 93 percent pine and seven percent white oak. These proportions are typical of other macrofloral assemblages examined by Branch-Raymer in the project locality (Patch et al. 2011). The wood charcoal suggests the site was situated in a pine-dominated evergreen forest. If this feature represents a fire-related facility, the wood is also suggestive of use of pine for fuel. The resin probably originated from pine. The complete absence of plant food remains precluded an assessment of plant food use at this site.

CONCLUSIONS

In conclusion, the abundant, but non-diverse, archaeobotanical assemblage that was retrieved from the small Feature 1 flotation sample was inadequate to assess past subsistence practices, but did offer tentative evidence of past forest composition and wood use. The high density of carbonized macroplant remains offers evidence for excellent preservation of carbonized macroplant remains at this site. However, it must be noted that only a single sample from one feature was assessed.

REFERENCES CITED

Patch, Shawn M., Keith C. Seramur, Leslie B Raymer, Christopher T. Espenshade, and Natatlie Adams.
2011 *Quarries, Blanks, and Bifaces: Data Recovery Excavations at Sites 38LA334 and 38LA355, Lancaster County, South Carolina.* New South Associates, Inc., Technical Report # 2002. Report prepared for the Haile Gold Mine, South Carolina.

Phase II Archaeobotanical Study
Site 38LA727

PALEOBOT CONSULTING, LLC

Phase II Archaeobotanical Study
Site 38LA727

Report Submitted to:

Report submitted to:
R.S. Webb & Associates
Cultural Resource Management Consultants
2800 Holly Springs Parkway, Suite 1319
Holly Springs, Georgia 30142

Report submitted by:

Paleobot Consulting, LLC
1414 Carter Road
Decatur, Georgia 30030

Leslie E. Branch-Raymer, RPA – Archaeobotanist and Author

Paleobot Consulting Report # 4

May 6, 2012

DRAFT REPORT

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LIST OF TABLES

1. Feature 2 Archaeobotanical Data. 1

I. INTRODUCTION

This study examines macrofloral remains from a Middle Archaic hearth (Feature 2) identified by R.S Webb & Associates during Phase II investigations at Site 38LA727. The current archaeobotanical investigation includes the identification and analysis of macrofloral remains from a one-liter flotation sample (Bag 46) and three unfloated carbon samples (Bags 41, 44, 45). The study was conducted by Ms. Leslie Branch-Raymer of Paleobot Consulting, LLC. The objectives of this macrofloral study consist of the following: (1) assess the preservation of macrofloral remains in the sediment samples, (2) note differences or similarities between the four sample contexts, and (3) offer preliminary interpretations of prehistoric floral-based subsistence practices, forest composition and selective patterns of wood use. The following report includes presentations of the Analysis Methods (Chapter II) and Results (Chapter III). The archaeobotanical analysis raw data are summarized in Table 1.

Table 1. Feature 2 Archaeobotanical Data.

	Bag 41	Bag 44	Bag 45	Bag 46
Flotation Sample Volume (L)	na	na	na	1.0
Sorted sample weight (carbon samples)	61.81	82.15	24.17	na
Light Fraction Weight (flotation sample)	na	na	na	12.23
Identified Wood Specimen Count				
Pine	30	30	25	20
Unidentifiable	3	2		

II. ANALYSIS METHODS

Archaeobotanical analysis is based upon macroplant remains derived from flotation of one liter of sediment and three unfloated carbon and sediment samples from Feature 2. The flotation sample was subjected to machine-assisted flotation by R.S. Webb & Associates prior to submission to Branch-Raymer.

In the laboratory, each sample was first weighed, and then passed through nested geologic sieves (4.0 mm, 2.36 mm, 2.0 mm, 1.18 mm, 1.0 mm, 0.85 mm, 0.71 mm, 0.5 mm). The samples were fully sorted under a binocular microscope (10-25x). Identifications were attempted on up to 33 randomly selected wood charcoal fragments from each sample. Whenever possible, wood specimens are identified to genus. Segments that are too fragmentary or poorly preserved to specifically identify are placed in the more general category of unidentifiable hardwood. Wood taxa are identified by comparison with charred and natural transverse, tangential, and radial thin sections of modern wood, as well as textbook illustrations. The transverse view is emphasized due to magnification limitations, size of the specimens, and time constraints. As needed, dichotomous keys are employed. Since these are geared toward fresh wood they are of limited use, but by employing both the microscopic and macroscopic keys, following multiple paths, and with frequent reference to the comparative collection, a genus can generally be determined.

III. RESULTS

Carbonized macrofloral remains were abundant in the Feature 2 hearth, however, only wood charcoal and resin was recovered. Approximately two thirds of each sample was wood charcoal, and one third was resin. There was no appreciable difference in the composition of the macrofloral assemblage found within each sample. No seeds were recovered from the sorted samples and 100 percent of the identified wood charcoal was pine. The exclusive (or near exclusive) identification of pine is typical of other macrofloral assemblages examined by Branch-Raymer in the project locality (Patch et al. 2011). The identified wood charcoal suggests the site was situated in a pine-dominated evergreen forest in the Middle Archaic period and that pine was utilized for fuel. The resin probably also originated from pine. The complete absence of plant food remains precluded an assessment of subsistence at this site.

CONCLUSIONS

In conclusion, the abundant, but non-diverse, archaeobotanical assemblage that was retrieved from the Feature 2 hearth was inadequate to assess past subsistence practices, but did offer tentative evidence of past forest composition and wood use. The high density of carbonized macroplant remains offers evidence for excellent preservation of carbonized macroplant remains at this site. However, it must be noted that only a single feature was assessed.

REFERENCES CITED

Patch, Shawn M., Keith C. Seramur, Leslie Branch-Raymer, Christopher T. Espenshade, and Natatlie Adams.

2011 *Quarries, Blanks, and Bifaces: Data Recovery Excavations at Sites 38LA334 and 38LA355, Lancaster County, South Carolina.* New South Associates, Inc., Technical Report # 2002. Report prepared for the Haile Gold Mine, South Carolina.

APPENDIX D - BETA ANALYTIC RADIOCARBON DATING RESULTS, SITE 38LA727

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Darden Hood
President

Ronald Hatfield
Christopher Patrick
Deputy Directors

April 23, 2012

Mr. Jon Bloom
R.S. Webb & Associates
2800 Holly Springs Parkway
Suite 200
P.O. Drawer 1319
Holly Springs, GA 30142

RE: Radiocarbon Dating Result For Sample 38LA727FEA2A

Dear Mr. Bloom:

Enclosed is the radiocarbon dating result for one sample recently sent to us. It provided plenty of carbon for an accurate measurement and the analysis proceeded normally. As usual, the method of analysis is listed on the report sheet and calibration data is provided where applicable.

As always, no students or intern researchers who would necessarily be distracted with other obligations and priorities were used in the analysis. It was analyzed with the combined attention of our entire professional staff.

If you have specific questions about the analyses, please contact us. We are always available to answer your questions.

Thank you for prepaying the analysis. As always, if you have any questions or would like to discuss the results, don't hesitate to contact me.

Sincerely,

Darden Hood
Digital signature on file

BETA ANALYTIC INC.
DR. M.A. TAMERS and MR. D.G. HOOD
4985 S.W. 74 COURT
MIAMI, FLORIDA, USA 33155
PH: 305-667-5167 FAX:305-663-0964
beta@radiocarbon.com

REPORT OF RADIOCARBON DATING ANALYSES

Mr. Jon Bloom — Report Date: 4/23/2012

R.S. Webb & Associates — Material Received: 3/23/2012

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 319050	4550 +/- 30 BP	-25.4 o/oo	4540 +/- 30 BP

SAMPLE : 38LA727FEA2A
ANALYSIS : RadiometricPLUS-Standard delivery
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid
2 SIGMA CALIBRATION : Cal BC 3360 to 3310 (Cal BP 5310 to 5260) AND Cal BC 3300 to 3280 (Cal BP 5250 to 5230)
Cal BC 3280 to 3260 (Cal BP 5230 to 5210) AND Cal BC 3240 to 3100 (Cal BP 5190 to 5050)

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "*". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

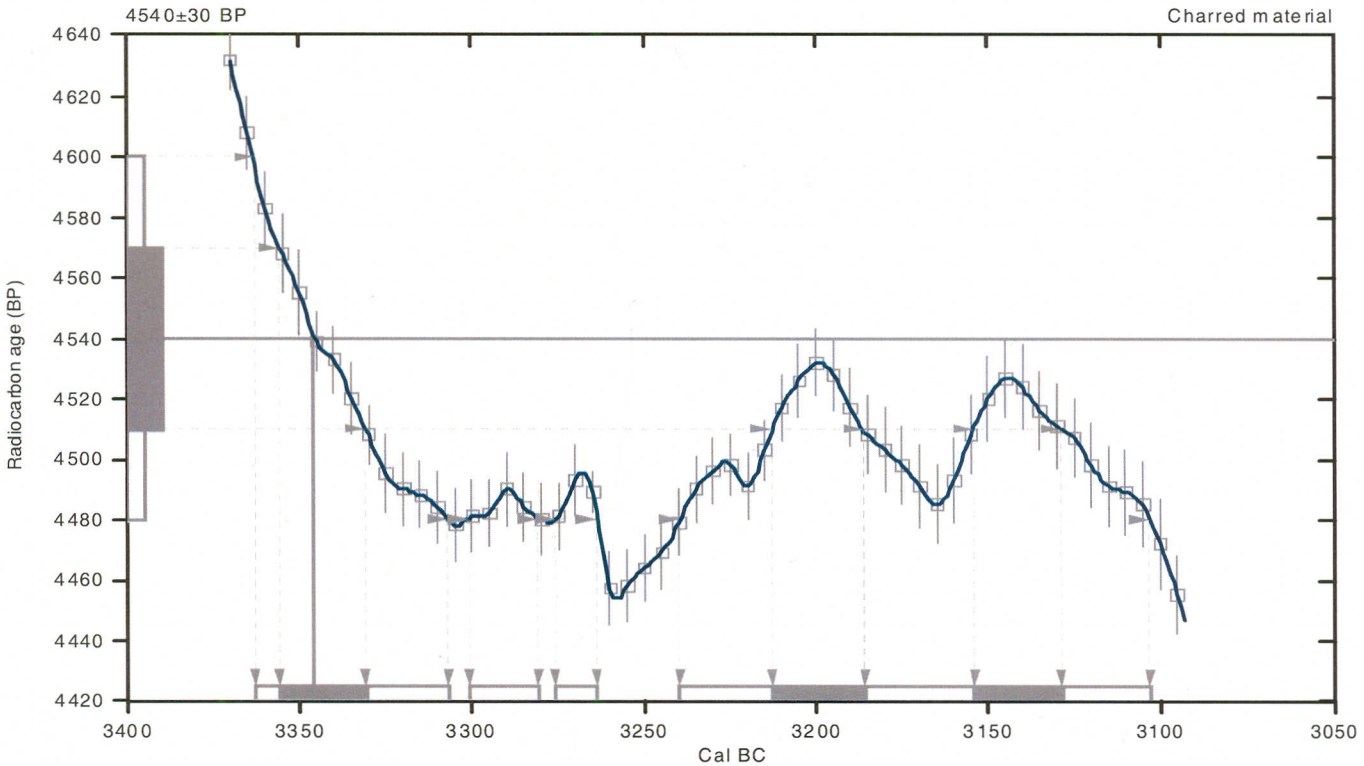
CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.4:lab. mult=1)

Laboratory number:	**Beta-319050**
Conventional radiocarbon age:	**4540±30 BP**
2 Sigma calibrated results: (95% probability)	**Cal BC 3360 to 3310 (Cal BP 5310 to 5260) and Cal BC 3300 to 3280 (Cal BP 5250 to 5230) and Cal BC 3280 to 3260 (Cal BP 5230 to 5210) and Cal BC 3240 to 3100 (Cal BP 5190 to 5050)**

Intercept data

Intercept of radiocarbon age with calibration curve:	Cal BC 3350 (Cal BP 5300)
1 Sigma calibrated results: (68% probability)	Cal BC 3360 to 3330 (Cal BP 5310 to 5280) and Cal BC 3210 to 3190 (Cal BP 5160 to 5140) and Cal BC 3150 to 3130 (Cal BP 5100 to 5080)



References:

Database used

INTCAL09

References to INTCAL09 database

Heaton,et.al.,2009, Radiocarbon 51(4):1151-1164, Reimer,et.al, 2009, Radiocarbon 51(4):1111-1150, Stuiver,et.al,1993, Radiocarbon 35(1):137-189, Oeschger,et.al.,1975,Tellus 27:168-192

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

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Mr. Christopher Patrick
Deputy Directors

The Radiocarbon Laboratory Accredited to ISO-17025 Testing Standards (PJLA Accreditation #59423)

Final Report

The final report is accessed as a PDF via a secure personal directory on our website. UserID and password are initially provided to you, which you can change to values of your choosing (letters and numbers only). A mailed copy is also sent to you including a statement outlining our analytical procedures, a glossary of pretreatment terms, calendar calibration information, and billing documents. In addition to the analytical result, the final report sheet includes the individual analysis method, the delivery basis, the material type and the individual pretreatments applied.

Pretreatment

Pretreatment methods are reported along with each result. All necessary chemical and mechanical pretreatments of the submitted material were applied at the laboratory to isolate the carbon, which may best represent the time event of interest. When interpreting the results, it is important to consider the pretreatments. Some samples cannot be fully pretreated, making their ^{14}C ages more subjective than samples, which can be fully pretreated. Some materials receive no pretreatments. Please look at the pretreatment indicated for each sample and read the pretreatment glossary to understand the implications.

Analysis

Results reported using the AMS technique were derived from reduction of sample carbon (after pretreatment) to graphite (100 %C), along with standards and backgrounds, with subsequent detection in one of two AMS instruments here in our facilities. Results reported using the radiometric technique were analyzed by synthesizing sample carbon (after pretreatment) to benzene (92% C), measuring for ^{14}C content in one of 53 scintillation spectrometers. If the Extended Counting Service was used, the ^{14}C content was measured for a greatly extended period of time.

The Radiocarbon Age and Calendar Calibration

The Conventional ^{14}C Age and related "percent modern carbon" (pMC) is the result after applying $^{13}C/^{12}C$ corrections to account for isotopic fractionation differences between the sample and modern reference. Always cite both this age and the 13C/12C ratio in your reports and papers (as well as the laboratory number). The Conventional Radiocarbon Age is cited with the units "BP" (Before Present). "Present" is defined as AD 1950 for the purposes of radiocarbon dating. Results are reported as pMC for samples containing more ^{14}C than the modern reference standard. pMC results indicate the material was respiring carbon after the advent of thermo-nuclear weapons testing and is less than ~ 60 years old.

Calendar calibrations are included for applicable materials. If calibrations are not included for a result, it means it was too young, too old, or inappropriate for calibration. The calibration database and mathematics used are cited at the bottom of each calibration printout. The most appropriate approximation of age is the "2 sigma calibrated result". Be sure to cite this as well as the calibration database and mathematics used in your reports and papers.

PRETREATMENT GLOSSARY
Standard Pretreatment Protocols at Beta Analytic

Unless otherwise requested by a submitter or discussed in a final date report, the following procedures apply to pretreatment of samples submitted for analysis. This glossary defines the pretreatment methods applied to each result listed on the date report form (e.g. you will see the designation "acid/alkali/acid" listed along with the result for a charcoal sample receiving such pretreatment).

Pretreatment of submitted materials is required to eliminate secondary carbon components. These components, if not eliminated, could result in a radiocarbon date, which is too young or too old. Pretreatment does not ensure that the radiocarbon date will represent the time event of interest. This is determined by the sample integrity. Effects such as the old wood effect, burned intrusive roots, bioturbation, secondary deposition, secondary biogenic activity incorporating recent carbon (bacteria) and the analysis of multiple components of differing age are just some examples of potential problems. The pretreatment philosophy is to reduce the sample to a single component, where possible, to minimize the added subjectivity associated with these types of problems. If you suspect your sample requires special pretreatment considerations be sure to tell the laboratory prior to analysis.

"acid/alkali/acid"

The sample was first gently crushed/dispersed in deionized water. It was then given hot HCI acid washes to eliminate carbonates and alkali washes (NaOH) to remove secondary organic acids. The alkali washes were followed by a final acid rinse to neutralize the solution prior to drying. Chemical concentrations, temperatures, exposure times, and number of repetitions, were applied accordingly with the uniqueness of the sample. Each chemical solution was neutralized prior to application of the next. During these serial rinses, mechanical contaminants such as associated sediments and rootlets were eliminated. This type of pretreatment is considered a "full pretreatment". On occasion the report will list the pretreatment as "acid/alkali/acid - insolubles" to specify which fraction of the sample was analyzed. This is done on occasion with sediments (See "acid/alkali/acid - solubles"

Typically applied to: charcoal, wood, some peats, some sediments, and textiles "acid/alkali/acid - solubles"

On occasion the alkali soluble fraction will be analyzed. This is a special case where soil conditions imply that the soluble fraction will provide a more accurate date. It is also used on some occasions to verify the present/absence or degree of contamination present from secondary organic acids. The sample was first pretreated with acid to remove any carbonates and to weaken organic bonds. After the alkali washes (as discussed above) are used, the solution containing the alkali soluble fraction is isolated/filtered and combined with acid. The soluble fraction, which precipitates, is rinsed and dried prior to combustion.

"acid/alkali/acid/cellulose extraction"

Following full acid/alkali/acid pretreatments, the sample is bathed in (sodium chlorite) $NaClO_2$ under very controlled conditions (Ph = 3, temperature = 70 degrees C). This eliminates all components except wood cellulose. It is useful for woods that are either very old or highly contaminated.

Applied to: wood

"acid washes"

Surface area was increased as much a possible. Solid chunks were crushed, fibrous materials were shredded, and sediments were dispersed. Acid (HCI) was applied repeatedly to ensure the absence of carbonates. Chemical concentrations, temperatures, exposure times, and number of repetitions, were applied accordingly with the uniqueness of each sample. The sample was not be subjected to alkali washes to ensure the absence of secondary organic acids for intentional reasons. The most common reason is that the primary carbon is soluble in the alkali. Dating results reflect the total organic content of the analyzed material. Their accuracy depends on the researcher's ability to subjectively eliminate potential contaminants based on contextual facts.

Typically applied to: organic sediments, some peats, small wood or charcoal, special cases

PRETREATMENT GLOSSARY
Standard Pretreatment Protocols at Beta Analytic
(Continued)

"collagen extraction: with alkali" or "collagen extraction: without alkali"

The material was first tested for friability ("softness"). Very soft bone material is an indication of the potential absence of the collagen fraction (basal bone protein acting as a "reinforcing agent" within the crystalline apatite structure). It was then washed in de-ionized water, the surface scraped free of the outer most layers and then gently crushed. Dilute, cold HCI acid was repeatedly applied and replenished until the mineral fraction (bone apatite) was eliminated. The collagen was then dissected and inspected for rootlets. Any rootlets present were also removed when replenishing the acid solutions. "With alkali" refers to additional pretreatment with sodium hydroxide (NaOH) to ensure the absence of secondary organic acids. "Without alkali" refers to the NaOH step being skipped due to poor preservation conditions, which could result in removal of all available organics if performed.

Typically applied to: bones

"acid etch"

The calcareous material was first washed in de-ionized water, removing associated organic sediments and debris (where present). The material was then crushed/dispersed and repeatedly subjected to HCI etches to eliminate secondary carbonate components. In the case of thick shells, the surfaces were physically abraded prior to etching down to a hard, primary core remained. In the case of porous carbonate nodules and caliches, very long exposure times were applied to allow infiltration of the acid. Acid exposure times, concentrations, and number of repetitions, were applied accordingly with the uniqueness of the sample.

Typically applied to: shells, caliches, and calcareous nodules

"neutralized"

Carbonates precipitated from ground water are usually submitted in an alkaline condition (ammonium hydroxide or sodium hydroxide solution). Typically this solution is neutralized in the original sample container, using deionized water. If larger volume dilution was required, the precipitate and solution were transferred to a sealed separatory flask and rinsed to neutrality. Exposure to atmosphere was minimal.

Typically applied to: Strontium carbonate, Barium carbonate
(i.e. precipitated ground water samples)

"carbonate precipitation"

Dissolved carbon dioxide and carbonate species are precipitated from submitted water by complexing them as ammonium carbonate. Strontium chloride is added to the ammonium carbonate solution and strontium carbonate is precipitated for the analysis. The result is representative of the dissolved inorganic carbon within the water. Results are reported as "water DIC".

Applied to: water

"solvent extraction"

The sample was subjected to a series of solvent baths typically consisting of benzene, toluene, hexane, pentane, and/or acetone. This is usually performed prior to acid/alkali/acid pretreatments.

Applied to: textiles, prevalent or suspected cases of pitch/tar contamination, conserved materials.

"none"

No laboratory pretreatments were applied. Special requests and pre-laboratory pretreatment usually accounts for this.

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Deputy Directors

Calendar Calibration at Beta Analytic

Calibrations of radiocarbon age determinations are applied to convert BP results to calendar years. The short-term difference between the two is caused by fluctuations in the heliomagnetic modulation of the galactic cosmic radiation and, recently, large scale burning of fossil fuels and nuclear devices testing. Geomagnetic variations are the probable cause of longer-term differences.

The parameters used for the corrections have been obtained through precise analyses of hundreds of samples taken from known-age tree rings of oak, sequoia, and fir up to about 12,000 BP. Beyond that, back to about 42,000 BP, correlation is made using multiple lines of evidence. This older data is still subjective and should be interpreted conservatively.

The Pretoria Calibration Procedure (Radiocarbon, Vol 35, No.1, 1993, pg 317) program has been chosen for these calendar calibrations. It uses splines through the tree-ring data as calibration curves, which eliminates a large part of the statistical scatter of the actual data points. The spline calibration allows adjustment of the average curve by a quantified closeness-of-fit parameter to the measured data points. The calibration database used was INTCAL09. References for the calibration are listed at the bottom of each graphic page.

In describing our calibration curves, the solid bars on the graphs represent one sigma statistics (68% probability) and the hollow bars represent two sigma statistics (95% probability). When you see multiple calibration ranges reported, it is reflecting “wiggles” in the calibration data in the time range of the Conventional Radiocarbon Age. These wiggles create gaps in the calendar time scale corresponding to sections of the calibration curve which go outside of the precision limitations on the BP date (Y axis bars). In some cases it might be possible to exclude some of the ranges based on other lines of evidence. It is also acceptable to use the end-limits of the youngest and oldest ranges and preceed the single range with “circa”. Use of probabilities to establish a “most likely” range within the set of ranges is not recommended. Since the radiocarbon result provides and inference of age, and since it will vary within the precision limitations of the +/- cited, since calculations can lead to very misleading interpretations.

Important Note: The correlation curve for organic materials assume that the material dated was living for exactly ten or twenty years (e.g. a collection of 10 or 20 individual tree rings taken from the outer portion of a tree that was cut down to produce the sample in the feature dated). For other materials, the maximum and minimum calibrated age ranges given by the computer program are uncertain. The possibility of an "old wood effect" must also be considered, as well as the potential inclusion of younger or older material in matrix samples. Since these factors are indeterminant error in most cases, these calendar calibration results should be used only for illustrative purposes. In the case of carbonates, reservoir correction is theoretical and the local variations are real, highly variable and dependent on provenience.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

Variables used in the calculation of age calibration

(Variables: C13/C12=-24.3:lab. mult=1)

The uncalibrated Conventional Radiocarbon Age (± 1 sigma)

Laboratory number: **Beta-123456**

Conventional radiocarbon age: **1260±30 BP**

The calendar age range in both calendar years (AD or BC) and in Radiocarbon Years (BP)

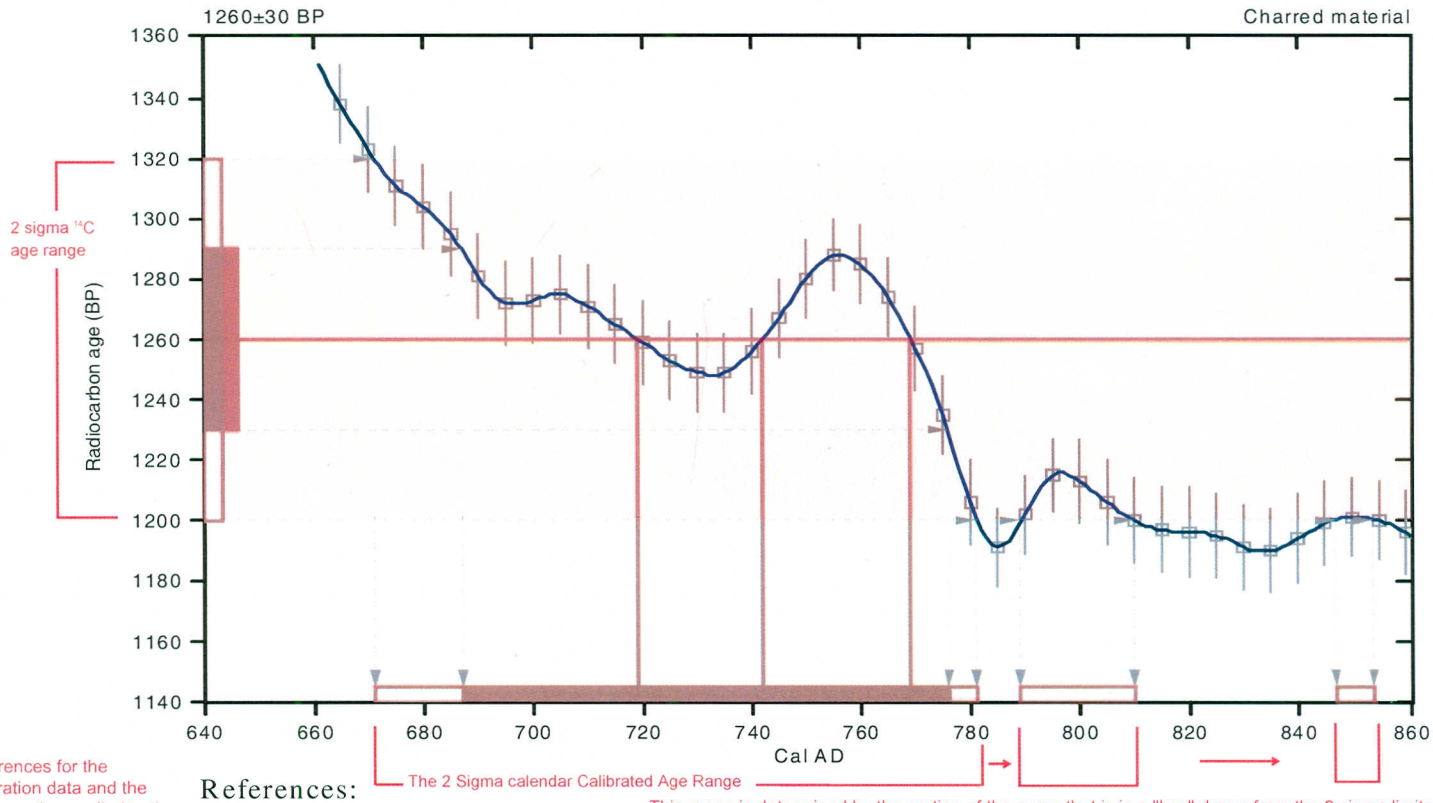
2 Sigma calibrated results: **Cal AD 670 to 780 (Cal BP 1280 to 1170) and**
(95% probability) **Cal AD 790 to 810 (Cal BP 1160 to 1140) and**
Cal AD 850 to 850 (Cal BP 1100 to 1100)

Intercept data

The intercept between the average radiocarbon age and the calibrated curve time scale. This value is illustrative and should not be used by itself.

Intercepts of radiocarbon age with calibration curve: Cal AD 720 (Cal BP 1230) and
Cal AD 740 (Cal BP 1210) and
Cal AD 770 (Cal BP 1180)

1 Sigma calibrated result: Cal AD 690 to 780 (Cal BP 1260 to 1170)
(68% probability)



The 2 Sigma calendar Calibrated Age Range

This range is determined by the portion of the curve that is in a "box" drawn from the 2 sigma limits on the radiocarbon age. If a section of the curve goes outside the "box", multiple ranges will occurs as shown by the two 1 sigma ranges which occur from sections going outside of a similar "box" which would be drawn at the t sigma limits.

References for the calibration data and the mathematics applied to the data. These references, as well as the Conventional Radiocarbon Age and the 13C/12C ratio used should be included in your papers.

References:

Database use

INTCAL09

References to INTCAL09 database

Heaton,et.al.,2009, Radiocarbon 51(4):1151-1164, Reimer,et.al, 2009, Radiocarbon 51(4):1111-1150, Stuiver,et.al,1993, Radiocarbon 35(1):137-189, Oeschger,et.al.,1975,Tellus 27:168-192

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

Beta Analytic Radiocarbon Dating Laboratory

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APPENDIX E - PRINCIPAL INVESTIGATOR'S RESUME

ROBERT S. WEBB

President
Senior Principal Archeologist

EDUCATION: M.A., Anthropology, University of Tennessee
B.A., Anthropology, University of Tennessee

PROFESSIONAL MEMBERSHIPS: Southeastern Archeological Conference, Georgia Council of Professional Archeologists, The Society for Georgia Archaeology, Society for American Archaeology, Tennessee Council for Professional Archaeology, Archaeological Society of South Carolina

CAREER SUMMARY

Mr. Webb has over 30 years of professional experience in cultural resource management studies. He is the president and principal archeologist of the firm. Mr. Webb has expertise in cultural resources identification, evaluation, data recovery and other areas of resource management. He is also a trained physical anthropologist and bio-statistician. Mr. Webb served as senior archeologist and cultural resources assessment department manager at Law Environmental, Inc. from 1990 through 1993. He owned a cultural resources management firm from 1985 until joining Law Environmental, Inc. in 1990. Mr. Webb established R.S. Webb & Associates in January 1994.

SELECTED PROJECTS

Unless otherwise noted, Mr. Webb served as principal investigator on the selected projects below.

Reservoir Projects

Cultural resources survey, Carroll County raw water supply reservoir, Carroll County, Georgia (748 acres)

Cultural resources survey, testing and data recovery, Walton County raw water supply reservoir system, Walton County, Georgia (1,600 acres)

Cultural resources survey, testing and data recovery, City of Canton raw water supply reservoir system, Cherokee County, Georgia (350 acres)

Cultural resources survey and testing, Tired Creek recreational reservoir, Grady County, Georgia (1,500 acres)

Cultural resources survey and testing, South Fulton County raw water supply reservoir system, Fulton County, Georgia (625 acres)

Cultural resources survey and testing, Richland Creek raw water supply reservoir, Paulding County, Georgia (500 acres)

Cultural resources reconnaissance surveys, Glades Reservoir alternatives analysis, Hall County, Georgia

Cultural resources survey, Lake Chastain water supply reservoir, Gilmer County, Georgia (40 acres)

Cultural resources survey, testing and data recovery, Blue Creek reservoir, White County, Georgia (100 acres)

Cultural resources reconnaissance surveys, Tallapoosa Basin, West Georgia Regional reservoir alternatives analysis, Haralson County, Georgia

Cultural resources survey, City of Newnan reservoir improvements, Coweta County, Georgia (160 acres)

Cultural resources survey and testing, Bear Creek raw water supply reservoir system, Newton County, Georgia (1,500 acres)

Cultural resources survey and testing, Henry County raw water supply reservoir system, Henry and Butts Counties, Georgia (1,650 acres)

Cultural resources survey, testing and data recovery, City of Griffin raw water supply reservoir system, Pike County, Georgia (450 acres)

Cultural resources survey, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia (1,000 acres)

Cultural resources survey, testing and data recovery, Lake MacIntosh raw water supply reservoir system, Fayette and Coweta Counties, Georgia (650 acres)

Data recovery at nine prehistoric sites, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia

Cultural resources survey, Horton Creek raw water reservoir and dam site, Fayette County, Georgia (800 acres)

Cultural resources survey, Town Creek raw water supply reservoir and dam site, Jones County, Georgia (750 acres)

Testing at a Historic Creek village and a late 19th/early 20th century cemetery, Town Creek raw water supply reservoir, Jones County, Georgia

Cultural resources survey and testing, Cornish Creek raw water supply reservoir and dam site, Newton County, Georgia (1,000 acres)

Data recovery at three prehistoric sites, Cornish Creek raw water reservoir and dam site, Newton County, Georgia

Cultural resources survey, testing, and data recovery, Yellow Creek raw water supply reservoir and dam site, Cherokee County, Georgia (330 acres)

Data recovery at an Archaic and Woodland period camp/quarry site, Pates Creek raw water supply reservoir, Henry County, Georgia

Cultural resources survey, Shoal Creek raw water supply reservoir and dam site, Clayton County, Georgia (450 acres)

Cultural resources survey, Ellijay-Gilmer raw water supply reservoir and dam site, Gilmer County, Georgia (300 acres)

Cultural resources survey, Hudson River raw water supply reservoir and dam site, Banks County, Georgia (570 acres)

Cultural resources survey, Rush Creek raw water supply reservoir and dam site, Meriwether County, Georgia (80 acres)

Cultural resources survey and testing, Hazel Creek raw water supply reservoir and dam site, Habersham County, Georgia (350 acres)

Cultural resources literature and records search, water supply reservoir alternatives study, Lamar County, Alabama

Airports

Cultural resources survey, selected airport site, Lumpkin County, Georgia (150 acres)

Cultural resources survey, selected airport site, Upson County, Georgia (220 acres)

Cultural resources survey and testing, Cartersville Airport strip extension project, Bartow County, Georgia (60 acres)

Cultural resources survey, Gwinnett County airport strip replacement project, Lawrenceville, Georgia (250 acres)

Cultural resources survey, Tom B. David Airport strip extension project, Calhoun, Georgia (110 acres)

Development Projects

Cultural resources survey and testing Wateree industrial development site, Richland County, South Carolina (300 acres)

Cultural resources survey and testing Burt Creek development site, Dawson County, Georgia (969 acres)

Cultural resources survey and testing Corinth development site, Coweta County, Georgia (800 acres)

Cultural resources survey and testing, Spring Tract development site, Spaulding County, Georgia (1,820 acres)

Cultural resources survey, testing, and data recovery, River Club development site, Gwinnett County, Georgia (750 acres)

Cultural resources survey, timber stands, Sumter National Forest, Oconee County, South Carolina (1,146 acres)

Cultural resources survey, testing, and data recovery, Rivermoore development site, Gwinnett County, Georgia (700 acres)

Cultural resources survey and testing, Cypress Harbour development site, Jasper County, South Carolina (90 acres)

Cultural resources survey, Perigrine Point development tract, Beaufort County, South Carolina (6 acres)

Phase II testing at 38BK1002, Crowfield Plantation, Berkeley County, South Carolina

Cultural resources survey and testing, Silver Creek development site, Forsyth County, Georgia (700 acres)

Cultural resources survey, Trenton industrial development site, Edgefield County, South Carolina (470 acres)

Cultural resources survey, Kingswood South development site, Fulton County, Georgia (83 acres)

Cultural resources survey, Matrix Parcel 15 development site, Greenville County, South Carolina (50 acres)

Cultural resources survey, Abbotts Bridge Road development site, Fulton County, Georgia (20 acres)

Cultural resources survey and testing, Lugoff industrial development site, Kershaw County, South Carolina (250 acres)

Archival research and archeological testing, St James Hotel renovation and expansion project, Selma, Alabama (Project Manager)

Cultural resources survey and evaluative testing, Harbor View development site, Cherokee County, Georgia (1,400 acres)

Evaluative testing at two historic house sites, Sugarloaf Farm, Gwinnett County, Georgia

Cultural resources survey and data recovery, Ballantyne golf course community, Mecklenburg County, North Carolina (750 acres)

Archival research, archeological monitoring and archeological data recovery, Atlanta Federal Center (Richs Department Store site), Atlanta, Georgia

Cultural resources survey, (confidential) golf course community, Beaufort County, South Carolina (90 acres)

Cultural resources survey and testing, I-20 mall site, Dekalb and Rockdale Counties, Georgia (1,250 acres)

Cultural resources survey, Columbia County community center, Columbia County, Georgia (50 acres)

Cultural resources survey, Columbia County public school site, Columbia County, Georgia (70 acres)

Cultural resources survey and testing, BMW automobile manufacturing plant site, Spartanburg County, South Carolina (1,500 acres)

Cultural resources reconnaissance surveys, alternative Mercedes-Benz automobile manufacturing plant sites, Alamance County, North Carolina and Berkeley County, South Carolina (2,500 acres)

Cultural resources reconnaissance survey, five Resolution Trust properties, Columbia, South Carolina (15 acres)

Cultural resources reconnaissance survey, American-Italian Pasta Company, Columbia, South Carolina (250 acres)

Cultural resources reconnaissance survey, Bona Allen development project, Buford, Georgia (320 acres)

Cultural resources survey, Union Camp facility, Prattville, Alabama (50 acres)

Cultural resources survey and testing, Technology Parkway development, Floyd County, Georgia (800 acres)

Cultural resources survey and testing, Publix Distribution Center development, Gwinnett County, Georgia (150 acres)

Cultural resources survey, International Paper Facility, Corinth, New York (50 acres)

Cultural resources literature/records review, industrial development site, Texas City, Texas

Cultural resources survey, Sawmill Place development site alternatives study, Columbus, Ohio

Cultural resources reconnaissance survey, Elbow Road development project, Chesapeake, Virginia (150 acres)

Cultural resources survey, Interrose industrial development site, Georgetown County, South Carolina (400 acres)

Cultural resources survey and testing, American Okenite industrial development site, Orangeburg County, South Carolina (250 acres)

Cultural resources survey and testing, Chapel Hill golf course, Douglas County, Georgia (150 acres)

Archeological testing at Crowfield Plantation for Westvaco Development Corporation, Summerville, South Carolina

Cultural resources survey and testing, Vereen Memorial Gardens, Horry County, South Carolina (120 acres)

Cultural resources survey, Tiger Creek stream channelization project, Fort Benning, Georgia (4 acres)

Cultural resources survey, Moccasin Creek lake site, Union County, Georgia (60 acres)

Cultural resources reconnaissance survey, Plantation Centre site, Bibb County, Georgia (90 acres)

Highways

Cultural resources survey, Annistown Road improvements corridor, Gwinnett County, Georgia

Evaluative testing at Site 9GW347, Annistown Road improvements corridor, Gwinnett County, Georgia

Data recovery at a prehistoric quartz quarry site and 19th century farmstead site, Ronald Reagan Parkway, Gwinnett County, Georgia

Cultural resources survey, Old Madison Pike road-widening project, Huntsville, Alabama

Cultural resources survey, Four Mile Post road-improvement project, Huntsville, Alabama

Cultural resources survey, Kentucky Highway 15 road-widening project, Hazard, Kentucky

Cultural resources literature and records search, Valdosta by-pass alternatives study, Valdosta, Georgia

Historic Cemetery Delineations and Relocations

Archival research, delineation, and relocation of the Hudson-Wood Cemetery, City of Atlanta, Georgia

Archival research, delineation, and relocation of the Harrison-Addington-Mallard Cemetery, Jackson County, Georgia

Delineation and relocation of the Martin Family Cemetery, Dekalb County, Georgia

Delineation and relocation of two historic cemeteries, Allendale County, South Carolina

Archival research and delineation of the Farmer Street Cemetery, Newnan, Georgia

Archival research and delineation of the Brooks Family Cemetery, Pickens County, Georgia

Archival research and delineation of the Alexander Family Cemetery, Mecklenburg County, North Carolina

Archival research and delineation at Bethel Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of an abandoned cemetery, Anderson County, South Carolina

Archival research and delineation of the Franklin-Hamilton Cemetery, Cobb County, Georgia

Archival research and delineation of the Strickland Cemetery, Forsyth County, Georgia

Archival research and delineation of the Hiram Road Cemetery, Cobb County, Georgia

Archival research and delineation of the Harmony Cemetery, Gwinnett County, Georgia

Archival research and delineation of Thompson Cemetery, Fulton County, Georgia

Archival research and delineation of the McCurdy-Rawlins-Boring Cemetery, Gwinnett County, Georgia

Archival research and delineation of the Barham Cemetery, Henry County, Georgia

Archival research and delineation of the Adams-Adkins Cemetery, Henry County, Georgia

Archival research and delineation of the Woodward-Puch Cemetery, Henry County, Georgia

Archival research and delineation of the Grice Cemetery, Henry County, Georgia

Archival research and delineation of an abandoned 19th century cemetery, Madison County, Alabama

Archival research and delineation of a late 18th century cemetery, Spartanburg, South Carolina

Archival research and delineation of the Lost Mountain Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Shiloh Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Turner-Sewell Cemetery, Cobb County, Georgia

Archival research and delineation of the Matthew Strickland Gravesite, Gwinnett County, Georgia

Archival research and delineation of the Morris Cemetery and Sarah Webb Gravesite, Fulton County, Georgia

Archival research and delineation of the Moon Cemetery, Cobb County, Georgia

Archival research, delineation and relocation of the Miles Cemetery, Jackson County, Florida

Archival research, delineation and relocation of two 19th century cemeteries, Spartanburg County, South Carolina.

Archival research, delineation and relocation of the Freshwater Resort Cemetery, Calhoun Falls, South Carolina

Archival research, delineation and relocation of the Harris and McClure Cemeteries, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Smithfield Cemetery, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Rock Creek Cemetery, Guilford County, North Carolina

National Priority List Hazardous Waste Sites

Cultural resources survey (Phase Ia), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (126 acres)

Cultural resources survey (Phase 2b), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (1 acre)

Cultural resources literature review, dry cleaning facility, Fort Riley, Kansas

Cultural resources literature and records search, selected sites, Griffiss Air Force Base, New York

Radioactive Waste Facilities (Proposed Locations)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Wake and Chatham Counties, North Carolina (850 acres)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Richmond County, North Carolina (2,000 acres)

State of Georgia

Cultural resources survey and testing, Richard B. Russell State Park golf course, Elbert County, Georgia (430 acres)

Cultural resources survey, Gordonia State Park golf course, Tattnall County, Georgia (90 acres)

Various public outreach site visits for the Georgia Council of American Indian Concerns

More than 20 cultural resources surveys conducted for State agencies under the Georgia Environmental Policy Act

Solid Waste Landfill Sites

Data recovery, solid waste landfill site, Banks County, Georgia

Cultural resources survey, solid waste landfill site, Catawba County, North Carolina (350 acres)

Cultural resources survey, two solid waste landfill sites, Chickasaw County, Mississippi (700 acres)

Cultural resources survey, Superior Sanitation solid waste landfill site, Chatham County, Georgia (742 acres)

Cultural resources survey, BFI regional solid waste landfill site, Lawrence County, Alabama (500 acres)

Cultural resources reconnaissance survey, proposed solid waste landfill site, Forsyth County, Georgia (650 acres)

Cultural resources survey and testing, solid waste landfill site, Dekalb County, Georgia (150 acres)

Data recovery at a soapstone quarry site, solid waste landfill site, Dekalb County, Georgia

Cultural resources survey and testing, solid waste landfill site, Spartanburg County, South Carolina (90 acres)

Cultural resources survey, solid waste landfill site, Florence County, South Carolina (600 acres)

Cultural resources survey, solid waste landfill site, Louisville, Kentucky (300 acres)

Cultural resources survey, solid waste landfill site, Mt. Pleasant, Tennessee (15 acres)

Cultural resources survey, solid waste landfill site, Blount County, Tennessee (50 acres)

Cultural resources survey, solid waste landfill site, Johnson City, Tennessee (20 acres)

Cultural resources survey, solid waste landfill site, Jackson County, Florida (2 acres)

Cultural resources survey, solid waste landfill site, Jasper County, South Carolina (250 acres)

Cultural resources survey, solid waste landfill site, Harris County, Texas (500 acres)

U.S. Army Corps of Engineers Waterways

Testing of two prehistoric sites, Tennessee-Tombigbee Waterway, Monroe County, Mississippi

U.S. Forest Service Timber Sale Areas

Cultural resources survey, Chattahoochee National Forest, Georgia (990 acres)

Five cultural resources surveys, Nantahala National Forest, North Carolina (1,667 acres)

Cultural resources survey, Pisgah National Forest, North Carolina (349 acres)

Six cultural resources surveys, Oconee National Forest, Georgia (18,268 acres)

Utilities Projects

Cultural resources survey, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

Evaluative testing at Site 9FO218, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

More than 20 other cultural resources survey and testing projects, transmission line corridors and substation sites across Georgia, Oglethorpe Power Corporation, Decatur, Georgia

Cultural resources survey and evaluative testing, sewer line extensions, Davidson County, Tennessee

Cultural resources survey, water treatment plant site and water intake corridor, Banks County, Georgia

Cultural resources survey (Phase Ia), proposed Mohawk Power Corporation gas pipeline, Jefferson County, New York

Cultural resources reconnaissance survey, transmission line alternatives study, Curles Neck, Virginia

Cultural resources literature and records search, U.S. Generating Company power facilities alternatives study, various sites across Georgia

Cultural resources survey and testing, Butler Creek sewer line, Richmond County, Georgia

Cultural resources survey, realignment monitoring, in-place preservation planning, public meeting, agency presentation and evaluation of impacts to the Augusta Canal National Historic Landmark and a prehistoric shell midden site, Richmond water line and intake, Richmond and Columbia Counties, Georgia

Cultural resources survey, Proctor Creek MARTA rail line, Atlanta, Georgia

Evaluative testing of a 19th century landfill, Proctor Creek MARTA station, Atlanta, Georgia

Cultural resources survey, north, east and west MARTA rail extensions, Atlanta, Georgia

Cultural resources survey, East Point MARTA rail line, Atlanta, Georgia

Cultural resources survey and testing, Brookhaven MARTA rail line and station, Atlanta, Georgia

Data recovery at historic Johnsontown, Lennox Square MARTA station, Atlanta, Georgia

Cultural resources survey, gas pipeline, Big Thicket, Texas (field director)

Cultural resources survey, gas pipeline, Calcasieu Parrish, Louisiana (field director)

Cultural resources survey, Wildwood Park water line and water treatment site, Columbia County, Georgia

Cultural resources surveys, Phases I and II, sewer line improvements, Commerce, Georgia

Cultural resources survey, water system improvements, Senoia, Georgia

Cultural resources survey, sewer and water system improvements, Tallapoosa, Georgia

FCC Checklist Studies (Cultural Resources)

Literature review and field survey of over 4,000 communication tower sites in Georgia, North Carolina, South Carolina, Tennessee, Alabama, Florida and Virginia

Wastewater Treatment Projects

Cultural resources reconnaissance survey, land application site, Spalding County, Georgia (750 acres)

Cultural resources survey and testing, Piedmont Park and White Park CSO projects, Atlanta, Georgia

Cultural resources survey, land application site, Turner County, Georgia (264 acres)

Cultural resources survey, land application site, Rochelle, Georgia (10 acres)

Cultural resources survey, land application site, Blackshear, Georgia (90 acres)