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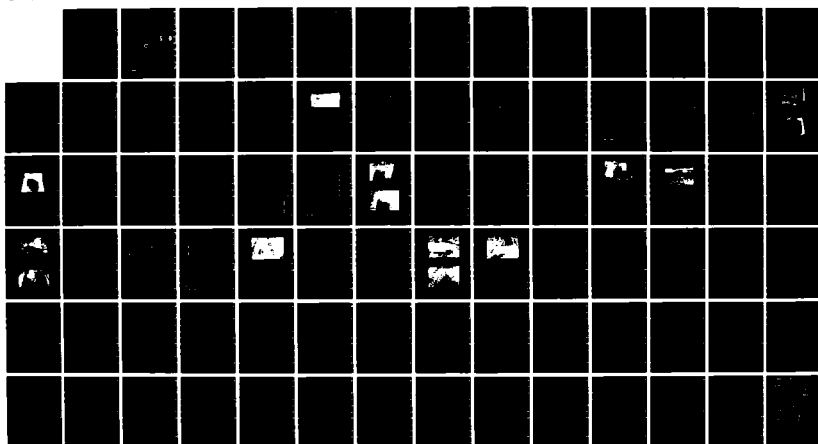
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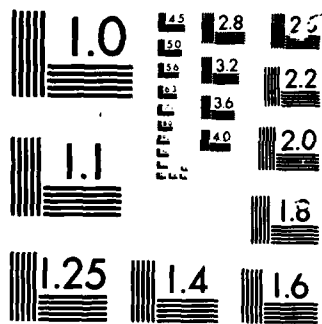
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ARCHAEOLOGICAL RECONNAISSANCE AT MILL CREEK
RUTHERFORD COUNTY, NORTH CAROLINA

Prepared Under the Supervision of:

Ronald A. Thomas
Principal Investigator

By

Calvert W. McIlhany III
Research Associate

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US Army Corps
of Engineers
Wilmington District

PREPARED FOR:

U.S. Army Corps of Engineers
Wilmington District
P.O. Box 1890
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February 1986

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ARCHAEOLOGICAL RECONNAISSANCE AT
MILL CREEK, RUTHERFORD COUNTY,
NORTH CAROLINA

Prepared Under The Supervision Of:
Ronald A. Thomas, Principal Investigator

By

Calvert W. McIlhany III
Research Associate

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FOREWORD

The research documented in this report was undertaken by a team of archaeologists organized by MAAR Associates, Inc. and placed under the direction of Mr. Calvert W. McIlhany or our staff. This team included persons with extensive experience in historic sites and prehistoric sites archaeology and in the archaeology of the Piedmont and Appalachian areas.

The undersigned served with Mr. McIlhany as Co-Principal Investigator but did not actually visit the project area. Constant communication was maintained between the Co-Principal Investigators and decisions as to procedure were shared between the two. The report submitted herewith is the result of the communication between Mr. McIlhany and the undersigned although authorship rests with the former.

This report presents the results of field investigations designed by the U.S. Army Corps of Engineers, Wilmington District and conducted by MAAR Associates, Inc. It has been reviewed by a number of review agencies and the draft modified accordingly. This final report recommends additional investigations to document the eligibility or lack of eligibilty to the National Register of Historic Places of the discovered cultural resources.

Ronald A Thomas

Ronald A. Thomas
Principal Investigator

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16. Abstract (Limit: 200 words) <p>The following report concerns a reconnaissance level survey of four designated survey areas and reconnaissance and or test excavations at four previously recorded prehistoric sites at a flood control dam permit site on Mill Creek in Rutherford County, North Carolina. The survey was conducted in the summer of 1985 by MAAR Associates, Inc. of Newark, Delaware, Del., on behalf of the U.S. Army Corps of Engineers, Wilmington District. Test excavations were conducted at three of the previously recorded prehistoric sites and on one of four new sites located in the course of the present survey.</p> <p>A total of eight sites are located in and adjacent to the project area. Of these, two sites (31RF45 & 144), are located outside of the project area, three sites (31RF46, 47 & 141) are severely disturbed, and three sites (36RF33, 142 & 143) require additional testing.</p>			
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MANAGEMENT SUMMARY

The following management summary concerns a reconnaissance level survey of four designated survey areas and reconnaissance and/or test excavations at four previously recorded prehistoric sites at a flood control dam permit site on Mill Creek in Rutherford County, North Carolina. The survey was conducted in the summer of 1985 by MAAR Associates, Inc. of Newark, Delaware, on behalf of the U.S. Army Corps of Engineers, Wilmington District. Test excavations were conducted at three of the previously recorded prehistoric sites and on one of four new sites located in the course of the present survey.

A total of eight sites are located in and adjacent to the project area. Of these, two sites (31RF45 & 144), are located outside of the project area, three sites (31RF46, 47 & 141) are severely disturbed, and three sites (36RF33, 142 & 143) require additional testing. The following paragraphs outline the survey methods employed at each site, the results obtained and recommendations are made for the future management of each one of the resources.

A) Sites located outside of and adjacent to the project area.

Site 31RF45 is located downstream from the project area. The site has been surface collected by Mr. Robert Conner, an avocational archeologist, who has a large collection of projectile points ranging from the Early Archaic to the Late Woodland periods. The site is presently under cultivation and should not be impacted by the proposed dam project. No further work is recommended for site 31RF45.

Site 31RF144 is also located downstream from the project area. The site was reported to the investigators who promptly conducted a quick surface collection of the site in order to verify its location and present condition. A variety of non-diagnostic prehistoric artifacts were recovered as well as several historic artifacts. The investigators also located what appear to be the remains of an historic period structure. The site is presently under cultivation and should not be impacted by the proposed dam project. No further work is recommended for site 31RF144.

B) Disturbed sites located in the project area.

Site 31RF46 is located near the north end of the proposed dam. A surface collection supplemented by subsurface testing resulted in the recovery of several non-diagnostic prehistoric artifacts. The site has been recently logged and soil profiles revealed that the site has been severely eroded. No further work is recommended for site 31RF46.

Site 31RF47 is located near the western end of the project area. Surface collection and subsurface testing resulted in the recovery of several non-diagnostic lithic artifacts and a single sherd of pottery of prehistoric derivation. The smallness of the recovered artifacts combined with the lack of patterning, the lack of artifact concentrations, the absence of features and the presence of well preserved organics in the (B) horizon all tend to indicate that the site has been redeposited from an upstream location. Due to the lack of IN-

SITU deposits and the anomolous stratigraphy encountered in the course of testing, no further work is recommended for site 31RF47.

Site 31RF141 is located in the southwestern portion of the project area. A controlled surface collection combined with the excavation of shovel tests resulted in the identification of two light scatters of prehistoric artifacts. No artifacts were recovered in the course of sub-surface testing and none of the artifacts recovered in the course of surface collection were diagnostic. The ephemeral nature of the artifact scatters and the lack of sub-surface deposits indicate that the site is not likely to yield any additional significant data. No further work is recommended for site 31RF141.

C) Sites in project area requiring additional investigations.

Site 31RF33 is located approximately in the center of the project area. A surface collection combined with the excavation of shovel tests and test units resulted in the identification of aboriginal lithics and ceramics dating to the Early and Middle Woodland periods. Test excavations completed to date have resulted in the delineation of site boundaries and have revealed the presence of at least two prehistoric components. The stratigraphy is relatively complex and the exact nature of the alluvial deposits is not clear. The Corps of Engineers agrees with the investigators that the site is potentially significant and has agreed to conduct additional testing at site 31RF33 in order to clarify the stratigraphy and to obtain additional data on the chronology of the site.

Site 31RF142 is located in the southwestern portion of the project area. Surface collection, shovel testing and the excavation of test units resulted in the recovery of prehistoric lithics and ceramics and in the identification of a small storage pit. No diagnostic artifacts were recovered. The Corps of Engineers agrees with the investigators that the site is potentially significant and has agreed that additional testing is warranted. Additional testing should help to further delineate the boundaries of the site which has been partially disturbed by logging and should also result in the recovery of diagnostic artifacts useful in the interpretation of the site's chronology.

Site 31RF143 is located in the north central portion of the project area. Based on the initial survey, this historic site appears to be industrial in nature and neither the exact function or the significance of the site could be determined. The Corps of Engineers has agreed to conduct additional investigations at site 31RF143 in order to determine its function, significance, and potential for national register eligibility.

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BACKGROUND

Nature of the Project

In June and July 1985, MAAR Associates, Inc. (MAAR) conducted archaeological investigations at a flood control dam permit site on Mill Creek in Rutherford County, North Carolina (Figure I-1). Proposed construction of the dam will permanently inundate the floodplain of Mill Creek and a small unnamed tributary entering it from the north to an elevation of 1010.5 feet with a flood control pool elevation of 1026.5 feet. Construction activities and flooding will affect an estimated 70 to 90 acres.

Field activities included a reconnaissance level survey of four previously unsurveyed floodplain areas and test excavations at three prehistoric sites. These investigations were conducted on behalf of the U. S. Army Corps of Engineers, Wilmington District, as authorized under Contract Number DACW54-85-C-0037. Delivery Order Number DACW54-85-F-3262.

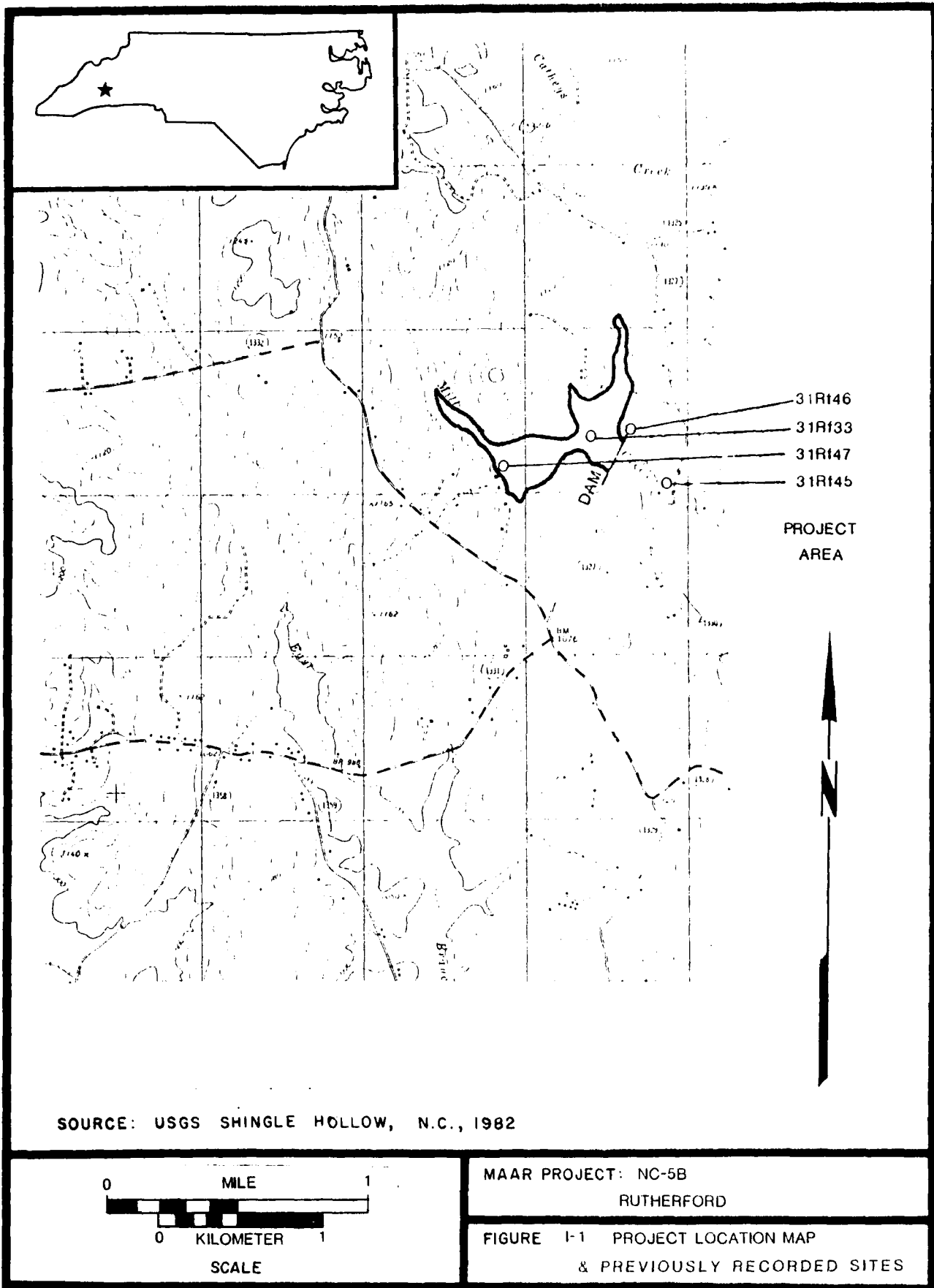
Field work was conducted during the periods from June 17 to June 21 and from July 12th to July 14, 1985. MAAR assigned Calvert W. McIlhany as Research Associate. Field supervision was provided by Mr. McIlhany with field assistance by Charles E. Hunter, Brad A. Ruesch, Charles D. McIlhany, and Catherine S. Einhaus. Ms. Einhaus also coordinated the preparation of the report. Graphics were prepared for this report by Richard L. Green. Word processing and editing were done by Evelyn G. McIlhany and Carla A. Koss.

Previous Investigations

In 1974, David Journey and Caren Downing conducted a survey of the Upper Second Broad Watershed including twelve planned reservoirs in McDowell and Rutherford Counties, North Carolina. Survey activities along Mill Creek recorded four prehistoric sites (31RF33, 31RF45, 31RF46, and 31RF47) within and adjacent to the project area.

Based on the results of surface collections from the Mill Creek area, Journey and Downing recommended a resurvey of the area to include auger testing of 31RF33 and 31RF46 as well as test excavations at 31RF47. No additional investigations were recommended for 31RF45. The additional survey and testing were felt necessary to locate and determine National Register eligibility of all sites within the project area which might be impacted by proposed construction and inundation.

On May 9th and May 10, 1985, the project area was inspected by Richard Kimmel, Staff Archaeologist for the U. S. Army Corps of Engineers, Wilmington District. Approximately 54 acres along Mill Creek and an unnamed eastern branch were subjected to visual inspection and photo documentation. This inspection resulted in the identification of four specific areas which were felt to be sensitive with respect to their potential for the location and preservation of cultural resources.



As a result of this inspection, additional reconnaissance level surveys and testing were recommended for the four identified, sensitive areas. The known sites in the project area, as well as any sites recorded during the survey, were recommended for testing to a degree sufficient to determine their National Register eligibility.

Natural Environment

The project area is located in north central Rutherford County, North Carolina about five kilometers (km) north-northwest of Gilkey. It is situated in the foothills section of the Piedmont physiographic province. The surface represents a dissected plateau with comparatively narrow strips of rolling to hilly uplands separated by generally narrow steep-sided valleys (United States Department of Agriculture, Bureau of Chemistry and Soils 1928:125, 133). Mill Creek is a third order stream which flows in a general southeasterly direction to its confluence with the Second Broad River near Bostic.

Upland soils surrounding the project area consist primarily of Cecil sandy and clay loams and Appling sandy loams. These soils are relatively thin and are underlain by micaceous or mottled clays in places grading into bedrock. Alluvial first bottoms have been mapped as Congaree fine sandy loam. This soil type is often poorly drained and is generally formed from recently deposited materials (USDA, BCS 1928:137, 142, 144, and 147).

No detailed geologic mapping has been conducted in northern Rutherford County. A large scale geologic map of the Knoxville Quadrangle in North Carolina, Tennessee, and South Carolina shows the project area as underlain by migmatite. This broad undifferentiated outcrop belt is described as mostly paragneiss and schist as well as leucocratic granitic material of varied composition in sheets, lenses, and dikes (Hadley and Nelson 1971:Map I-654).

Several periods of climatic change have been documented for Late Pleistocene and Holocene times in western North Carolina:

A full glacial period, dating from 19,000 to 14,000 B.P., is characterized by retreat of the Laurentide Ice Sheet to the north. While tundra conditions prevailed at the higher elevations, boreal forests dominated by jack pine and spruce covered much of the area (Delcourt and Delcourt 1981:9).

The late glacial period, between 14,000 and 10,000 B.P., saw the boreal forests replaced first by mixed conifer-northern hardwood forests followed by the northward advance of oak-hickory and mixed hardwood forests. Spruce and fir populations were stranded and persisted through the Holocene as relict "islands" at higher elevations in the southern Appalachians (Delcourt and Delcourt 1981:9).

In the Early Holocene, a cool, moist climate favored the widespread expansion of species-rich, mixed hardwood forests from 34 to 37 degrees North Latitude in eastern North America (Delcourt and Delcourt 1981:9).

The Mid-Holocene interval, from 8,000 to 4,000 B.P., was marked by increased warmth and aridity in the Great Plains. Major vegetation changes in the mid-eastern and southeastern United States reflect a similar climatic pattern. Mixed hardwood forests were areally restricted to favorable gorge and slope habitats of the Allegheny Plateaus. In the central and southern Appalachians, oak-chestnut forests became areally dominant (Delcourt and Delcourt 1981:9-10).

Analysis of pollen from Buckles Bog on the Appalachian Plateau of Maryland provides a similar sequence of floral succession. Tundra vegetation existed in this area until around 12,000 B.P. when it was replaced by open spruce woodland. This boreal woodland was then replaced by a mixed deciduous-coniferous forest around 10,500 B.P. Later in the Holocene, this forest cover was replaced by deciduous forest. The composition of this forest changed with successive sequential maximum frequencies of hemlock, beech, and hickory and a corresponding increase in oak until the present forest composition was reached (Maxwell and Davis 1972:522-527).

Alluvial deposits along the North Fork of the Holston River at Saltville, Virginia have produced an extensive record of Late Pleistocene megafauna which are now extinct. Late Pleistocene faunal material from New Paris No. 4 sinkhole in Pennsylvania was dated at 11,300\1000 B.P. (Guilday et.al. 1964). Sixty-five miles northeast of New Paris No. 4 at Hosterman's Pit, a date of 9340\1000 B.P. was obtained for a completely modern assemblage of faunal material (Guilday 1967). A similar time frame may be suggested for the change from Pleistocene to modern fauna in western North Carolina.

The present climate in Rutherford County is continental. Summers are mild, and winters are generally moderate with occasional severe cold spells, especially at higher elevations. The county is located in the so-called "Thermal Belt" of North Carolina where temperature inversions often produce very warm days followed by cold nights. The frost-free season averages 200 days, and rainfall tends to be concentrated in the spring and fall months. Data compiled at the Weather Bureau station in Caroleen show a mean annual temperature of 59.7 degrees and an average annual rainfall of 43.24 inches (USDA, BCS 1928:127).

The floral community of the project area falls near the boundary between the southern Appalachian section of the oak-chestnut forest region to the west and the oak-pine forest region to the east (Braun 1950:195, 259). At higher elevations to the west, chestnut was the dominant tree of mesic slope forests prior to its elimination by blight in the early twentieth century. Forests of the higher slopes in the mountains were dominated earlier by chestnut and oaks, particularly red oak and chestnut oak (Braun 1950:220). Although oak and pine dominate much of the area today, prehistoric climax forests may have been dominated by oaks and hickory associated with sourwood and sweet gum (Braun 1950:259).

Prehistoric and Historic Overview

Evidence of prehistoric habitation in western North Carolina indicates that the area has been occupied continuously from the Paleo-Indian period until replacement by Euro-American settlers in the nineteenth century A.D. A generalized chronological outline (Purrrington 1983:104-106) is as follows:

Paleo-Indian	10000-7500 B.C.
Early Archaic	7500-6000 B.C.
Middle Archaic	6000-3000 B.C.
Late Archaic	3000-1000 B.C.
Terminal Archaic	1000- 700 B.C.
Early Woodland	700- 300 B.C.
Middle Woodland	300- 600 A.D.
Late Woodland	600-1000 A.D.
Mississippian	1000-1839 A.D.

While evidence of Paleo-Indian occupation in western North Carolina is scarce, it is assumed that primary subsistence was based on the hunting of grassland herd animals (Gardner 1974:43). Excavations at the Williamson site in Dinwiddie County, Virginia suggest the possibility that floral resources, such as nuts, were also being exploited during the Paleo-Indian period (Benthall and McCary 1973:127-132).

The Archaic period may be characterized by the exploitation of a progressively wider resource base. A hunting and gathering subsistence strategy persisted throughout this period. Seasonal scheduling with temporary occupation of a number of base camps may have followed game movements and zones where floral resources were ripening. Specialized activities such as hunting, gathering and the processing of plant and lithic resources, as well as other activities may have been carried out from these base camps.

The Late Archaic period saw a more intensive exploitation of major river systems. The use of fish and shellfish became more important. Paleobotanical material from sites in the Little Tennessee River Valley suggest that the introduction of cultigens, such as squash, pumpkin, gourd, sunflower, goosefoot, and maygrass, may have occurred during the Late Archaic period (Chapman and Shea 1981:7-9).

The Woodland period saw a continued focus on the major river valleys. Habitation areas became larger and more permanent. Technological advances included the production of pottery and the development of the bow and arrow. With the introduction of maize and beans during the Middle Woodland period, there was a shift in emphasis to a horticultural economy supplemented by hunting and foraging. The establishment of large stockaded villages during the Late Woodland period may suggest the development of a more ranked social structure.

The Mississippian period, which replaced the Woodland in portions of the region, saw an increase in the reliance on agriculture. A more complex social structure may be suggested by the marked increase in trade, ritualism, the establishment of larger villages, and the construction of large ceremonial mounds.

The Late Mississippian Qualla phase represents the last Native American occupation in the region. This phase persisted into historic times and terminated with the removal of the Cherokees by 1839 (Purrington 1983:148).

Rutherford County was formed in 1779 from a portion of Tryon County. The county court met at various locations, including Gilbert Town, until the county seat moved permanently to Rutherfordton in 1785. The discovery of gold in Rutherford County in 1810 played a major role in the development of the area. A number of mines were established in the county. From 1831 to 1845 Christopher Bechtler, Sr. and his nephew, Augustus Bechtler, minted over three million dollars worth of gold into coins. The gold mining industry in Rutherford County failed abruptly in 1849 with the discovery of gold in California.

The economy of Rutherford County was based almost entirely on agriculture until the turn of the century. The establishment of rail service to the county in the 1870's was largely responsible for the development of the textile industry between 1890 and 1916. Agriculture and the textile industry continue to play a major role in the economy of Rutherford County (Griffin n.d.:1-2).

Research Strategy and Goals

The primary goals of the archaeological investigations conducted at the Mill Creek Flood Control Dam Project Area are as follows:

1. Conduct reconnaissance level survey and testing in the four survey areas identified in the Description of Work in order to determine the presence or absence of cultural resources.
2. Conduct test excavations at previously recorded sites 31RF33, 31RF46, and 31RF47 to a degree sufficient to determine cultural affiliation, areal extent, depth and stratification of components, nature of features, and any other information deemed relevant for determining National Register eligibility.
3. Conduct test excavations, similar to those described in No. 2 above, at any sites located in the designated survey areas.
4. The relocation of a previously recorded site, 31RF45.
5. Record what course of action should be taken with respect to all identified cultural resources.

The four specific areas identified for reconnaissance level survey include predominantly alluvial floodplain deposits and adjacent higher terraces or colluvial slopes which will be impacted by construction activities or inundation. The close proximity to a water source, relatively level land surfaces, and the depositional (as opposed to erosional) nature of these landforms indicates that these areas have a high potential for cultural activity and preservation of cultural deposits.

The three prehistoric sites previously recorded in the impact area were identified based only on collections of surface material. A testing strategy based on extensive shovel testing and augmented by the excavation of 1 by 1 meter test units, as described in Section II of this report, was used to gather data upon which to base recommendations for these and newly identified sites.

DATA BASE

Acquisition Procedures

Prior to beginning the survey and testing, a vehicular reconnaissance of the general area was made to familiarize crew personnel with the topography and vegetation, identify access routes, delineate project area boundaries, and contact landowners to obtain permission for access to privately owned lands.

Survey Areas

Field examination of the four defined areas to be surveyed (Figure II-1) included a pedestrian reconnaissance augmented by a series of shovel tests and examination of stream bank profiles. The trace of an old road and two structure locations shown on an early soil survey map (USDA, BCS 1928) (Plate II-1) just north of the west end of Survey Area 3 were also examined (Figure II-2). The old road ford across Mill Creek still exists. However, no trace of the two structures was found.

Each of the survey areas was covered by a team of three or four staff members walking parallel transects at 25 meter (m) intervals. All exposed ground surfaces were examined, and any evidence of prehistoric or early historic cultural activity was noted and mapped. In areas with limited surface visibility, shovel tests were excavated at intervals of no more than 25 meters. Whenever cultural material was recovered on the surface or during shovel testing, the interval between tests was reduced to no more than 12.5m in order to increase samples and delineate site boundaries. Each shovel test was 30 to 50 centimeters (cm) in diameter and excavated by natural soil zones when they could be identified. When natural soil zones could not be identified clearly or where thick alluvial deposits were encountered, excavations were conducted using arbitrary 10 cm levels. All excavated soil was either screened through one-quarter inch mesh or carefully trowel-sorted to check for the presence of cultural material. Trowel sorting was used predominantly in wet clay zones where soil would not readily pass through the mesh screens. In some cases, stream bank profiles were prepared with a shovel in place of or in conjunction with shovel tests to check for deeply buried cultural deposits.

A few steeply sloping areas were encountered along the floodplain margin. These areas were expected to have a low probability for cultural resources. Since these areas represent erosional settings, the probability of undisturbed cultural deposits being preserved along the steep slopes was minimal. These areas were visually inspected for evidence of cultural activity at the surface but were not subjected to shovel testing.

Known Cultural Resource Loci

Previously identified sites within the project area and those identified during examination of the four designated survey areas were subjected to intensive surface examination and shovel testing to delimit site boundaries and check for the presence of undisturbed subsurface

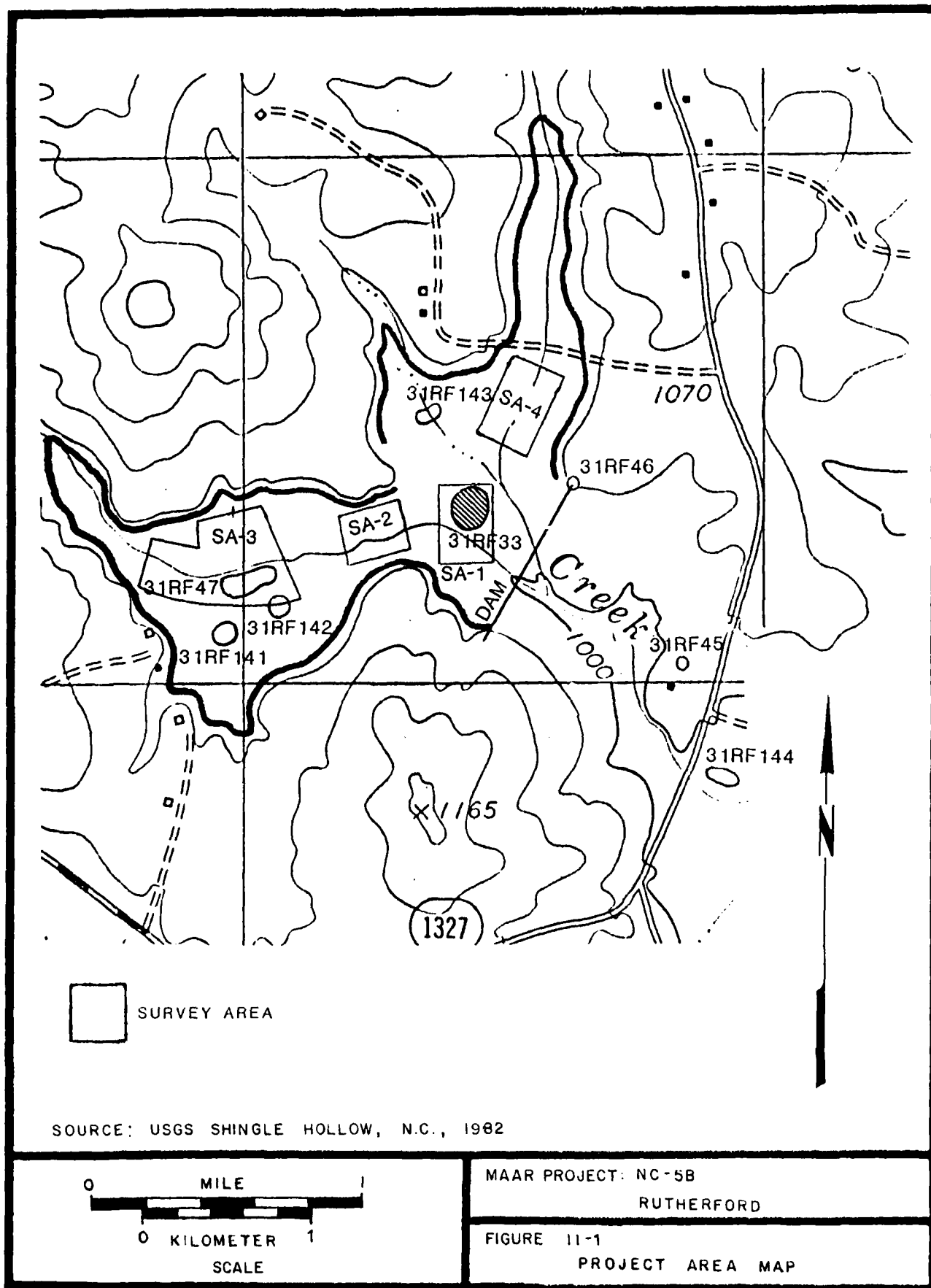
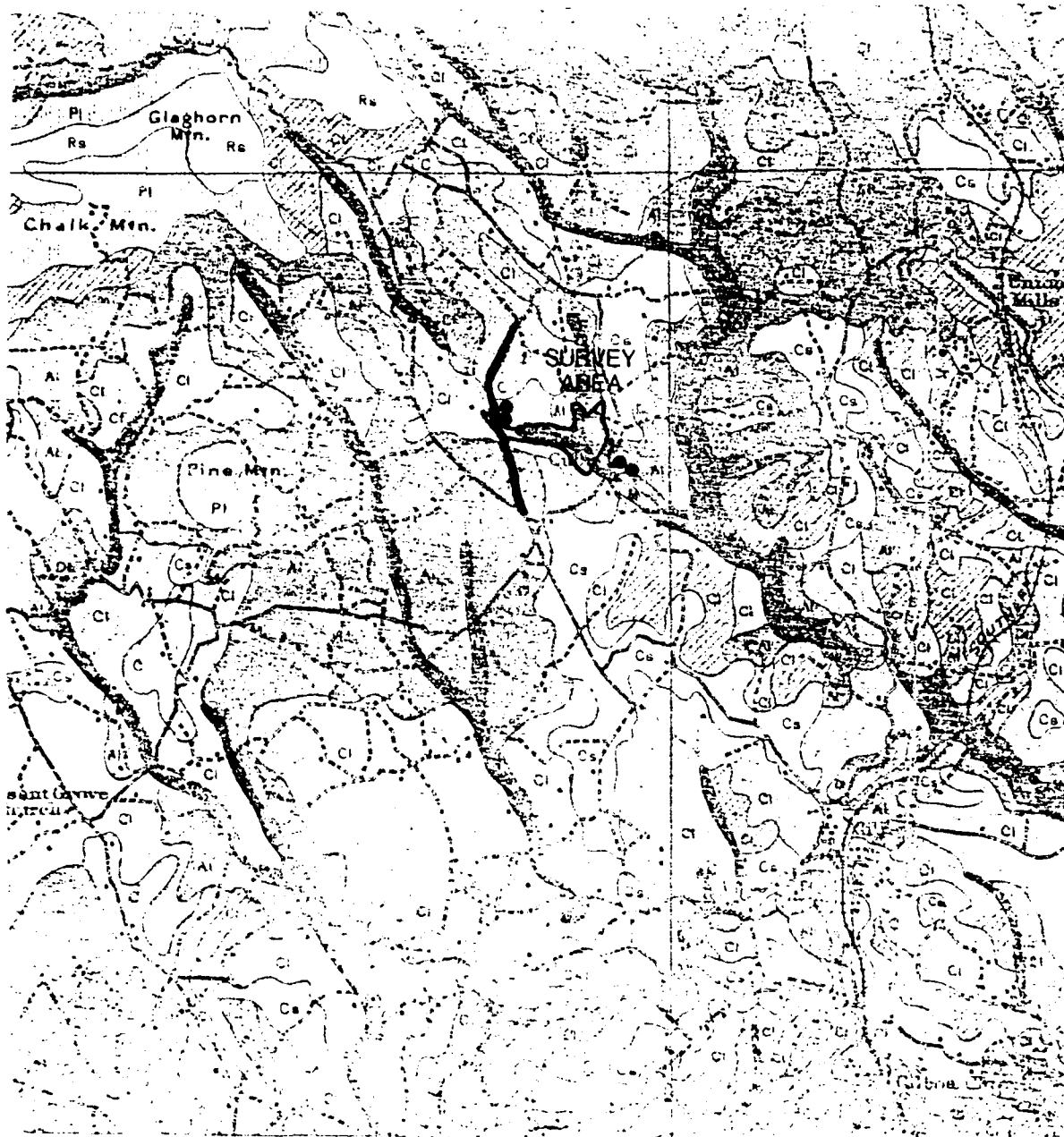




PLATE II-1

General View of Survey Area from Southwest



LEGEND:

~~SECRET~~ OLD ROAD

● HISTORIC STRUCTURES

SCALE UNAVAILABLE

MAAR PROJECT: NC-5B

RUTHERFORD

FIGURE 11-2

1928 SOIL MAP (USDA BCS)

cultural deposits. Sites 31RF33, 31RF47, and 31RF141 were selected for more intensive testing based on the results of surface examination and shovel testing. Test excavations at these sites consisted of a series of 1 X 1 meter excavation units to gather additional samples of cultural material and data concerning subsurface cultural deposits. These units were excavated by arbitrary 10 cm levels within identified natural soil zones. All excavated soil was screened through one-quarter inch mesh.

Field catalog numbers were assigned to cultural material recovered from each site and separated to designate whether it was recovered from the surface or a specific level within an excavation unit. A detailed list of cultural material recovered from each site is provided in the Artifact Inventory (Appendix C).

Data Description

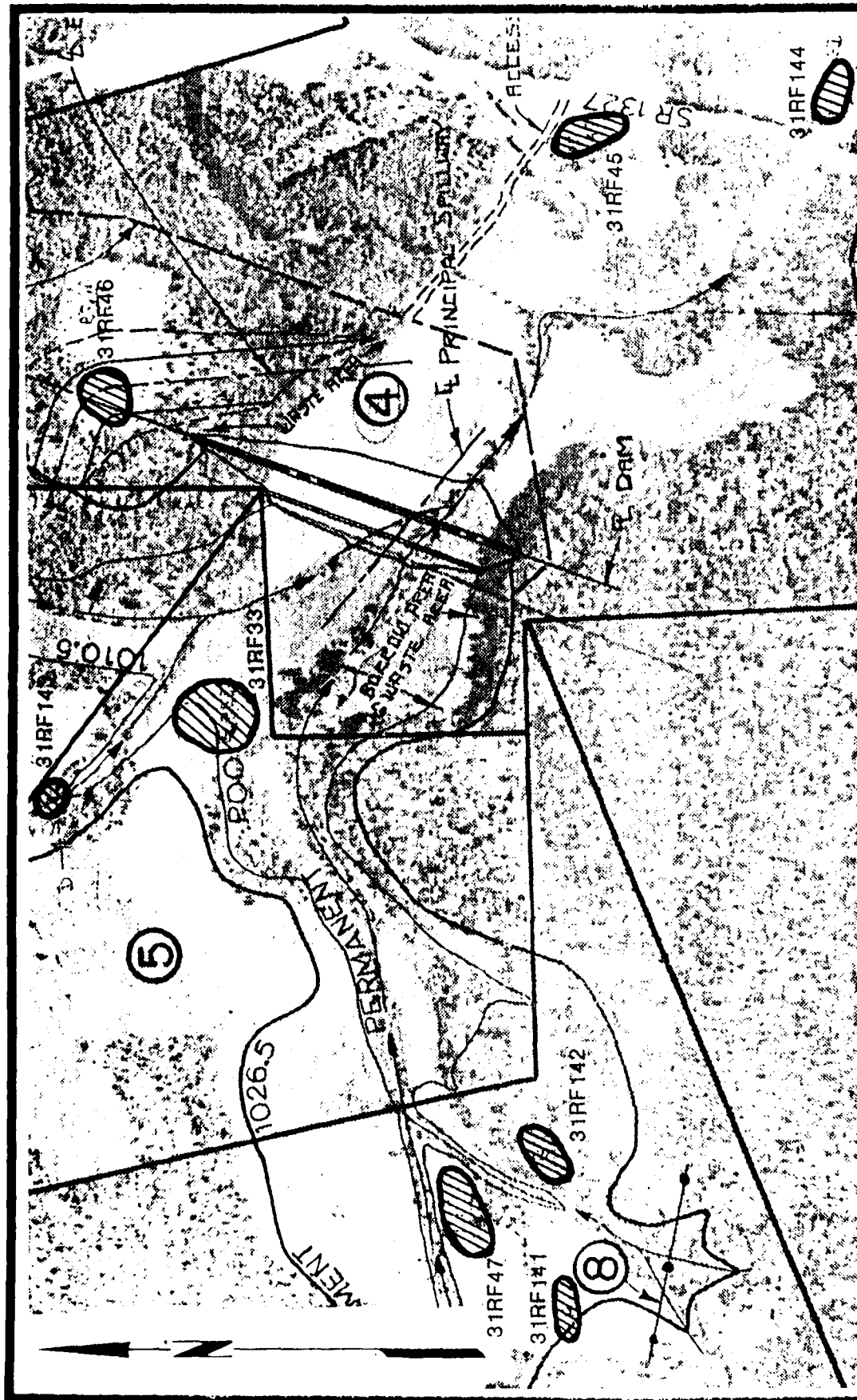
In addition to the four previously known sites in and adjacent to the project area, two prehistoric sites were recorded in Survey Area 3. Evidence of historic period activity was noted just north of Survey Area 1 along the banks of a small tributary of Mill Creek. A previously unrecorded site, 31RF144, with both historic and prehistoric components was also recorded along the north side of Mill Creek about 500 meters downstream from the proposed dam location.

Resource Loci Description: 31RF33

This site (Figure II-1) was initially recorded by Journey and Downing (1974) as a Middle Archaic site at location UTM Zone 17 3926325N/408400E based on material collected from the surface along the north side of Mill Creek. At the time of the current survey, this area was overgrown with tall grass, weeds, blackberries, and small trees, indicating that the field had not been cultivated for several years.

Sixteen shovel tests were excavated in this area at 25 meter intervals. These tests revealed thick alluvial deposits of sand and silt extending to depths of 58 to 84 cm where a basal layer of plastic bluish gray clay was encountered. The only possible cultural material recovered from these shovel tests consisted of occasional, small, charcoal flecks found within the sand and silt layers. These soil deposits appear to represent overbank deposition of alluvial material during flooding episodes and may have been continuously deposited until relatively recently. The charcoal flecks may represent secondary deposition during flooding episodes of charred material derived from natural or cultural activity which occurred upstream from this location.

Additional shovel testing was continued to the west in the area between Survey Areas 1 and 2. This area is presently planted in 15 to 20 year old pine trees. However, the aerial photograph used as a base for the Real Property Work Map of the project area (date unknown) indicates that this area may have been in pasture at the time the photograph was taken (Figure II-3). Twelve shovel tests were excavated in this area adjacent to the northeast corner of Survey Area 2. Four of the shovel



tests produced lithic debris and prehistoric ceramics from an area approximately 40 meters in diameter, centered at UTM Zone 17 3926380N/408315E. This location is just downstream from a natural constriction of the floodplain caused by truncated upland lobes to the north and south. The site is located at the base of the upland lobe on the north side of Mill Creek.

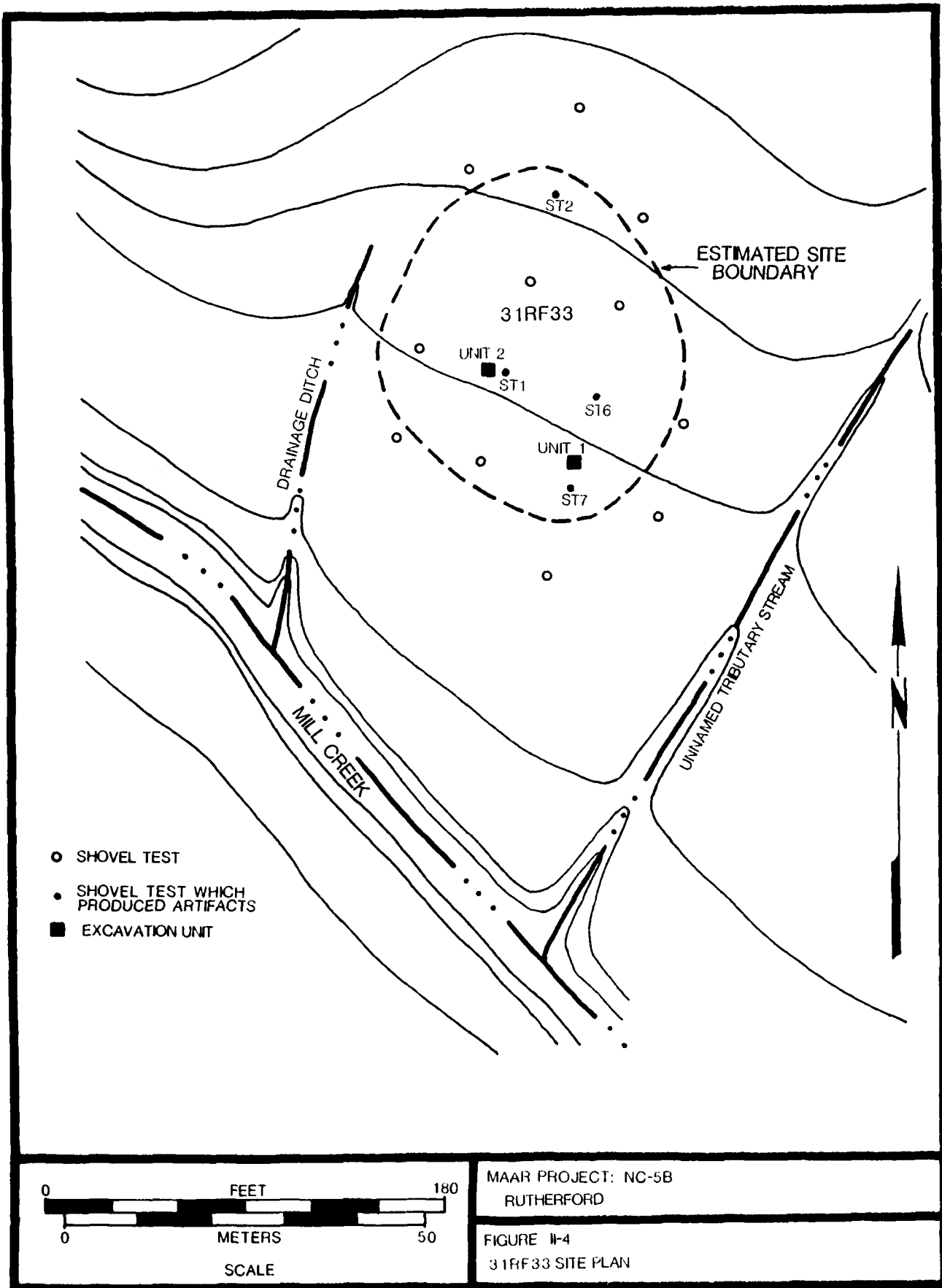
Shovel tests indicated that cultural material occurred from the present surface to a depth of at least 26 centimeters. Two 1 X 1 meter excavation units were placed adjacent to Shovel Tests 1 and 7. Shovel test and excavation unit locations are shown in Figure II-4. Each unit was excavated by arbitrary 10 cm levels within each identifiable natural soil zone. A description of soil zones and cultural material recovered from each excavation unit is provided below.

Excavation Unit 1 (Figure II-5, Plate II-3)

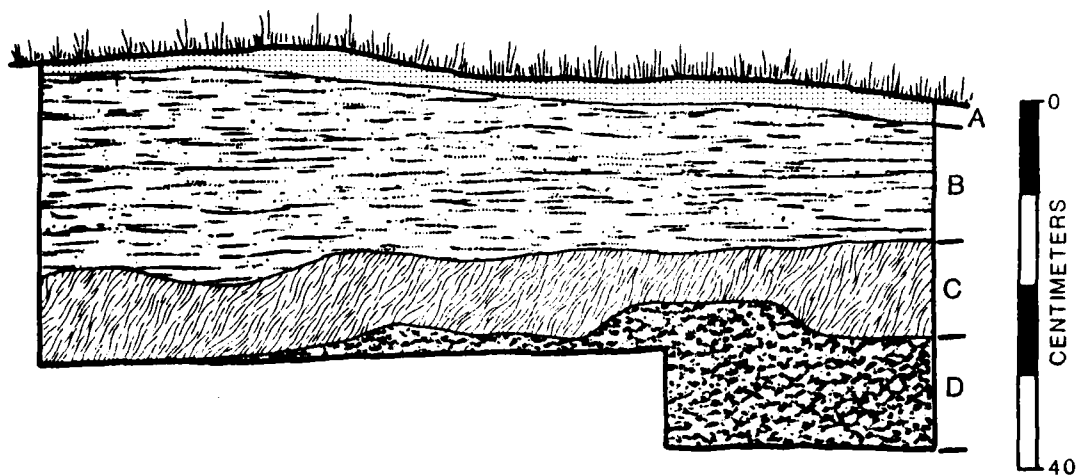
Excavation Unit 1 was placed near the south edge of the site, adjacent to Shovel Test 7 which had produced lithic chipping debris from a soil zone encountered at a depth of 18 to 26 centimeters. Soil at the surface (Soil Zone A) consisted of brownish gray sandy silt mixed with decayed organic matter and roots. This surface soil zone varied from 1 to 4 cm in thickness and was underlain by a brown silty sand varying from 13 to 23 cm in thickness. Six quartz flakes and one black chert flake were recovered from Soil Zone B which also contained occasional charcoal flecks and numerous subrounded gravel to cobble-sized quartz fragments. Soil Zone C was a brownish gray clayey silt varying from 6 to 11 cm thick. Two quartz flakes were recovered from this soil zone which also contained occasional small flecks of charcoal. Soil Zone D was a brownish yellow silty clay containing occasional rounded quartz pebbles. A 30 cm square area in the northeast corner of the unit was excavated within this clay zone to a total depth of 40 centimeters. No cultural material was recovered from this zone which appears to represent sterile subsoil.

Excavation Unit 2 (Figure II-6, Plates II-2 and II-4)

Excavation Unit 2 was placed near the center of the site, one meter west of Shovel Test 1. This shovel test had produced eight quartz flakes to a depth of 27 centimeters. Soil Zone A was a brownish gray loose sandy silt containing decayed organic matter and roots and averaged 2.5 cm in thickness. Several quartz flakes were recovered from this zone which also contained numerous rounded quartz cobbles and pebbles. Soil Zone B was a thick deposit of brown silty sand extending to an average depth of 36 centimeters. Although no discernable change in color or texture was noted, soil above the 19 cm level of this zone was less compact. This may represent the base of an early plow zone. Soil within Zone B was excavated by arbitrary 10 cm levels until the top of the underlying zone was encountered. Forty flakes, six ceramic sherds, and numerous charcoal flecks were recovered in this zone. Cultural material appeared to be randomly scattered both horizontally and vertically within Soil Zone B, and no concentrations of material or features were noted.




NORTH PROFILE



 BROWN-GREY SANDY SILT WITH ORGANIC MATERIAL

 BROWN-GREY SILTY CLAY

 BROWN SILTY SAND WITH CULTURAL MATERIAL

 YELLOW-GREY SILTY CLAY

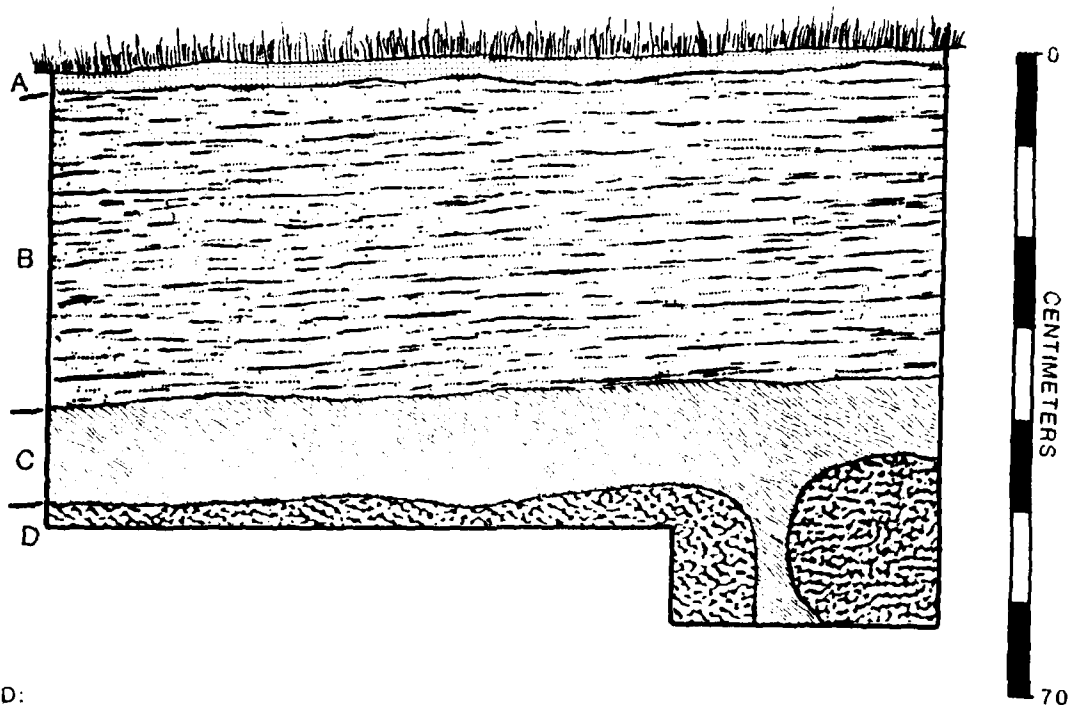
0 CENTIMETERS 60

SCALE





MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-5
SITE 31RF33 UNIT 1 NORTH PROFILE

NORTH PROFILE



LEGEND:

-  BROWN-GREY SANDY SILT WITH ORGANIC MATERIAL
-  BROWN SILTY SAND WITH CULTURAL MATERIAL
-  BROWN-GREY SILT (CLAY AT BOTTOM)
-  BROWN-YELLOW SILTY-CLAY

0 CENTIMETER 30

SCALE

MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-6
SITE 31RF33 EXCAVATION UNIT 2



PLATE II- 2
31RF33, Excavation Unit 2 from Southeast

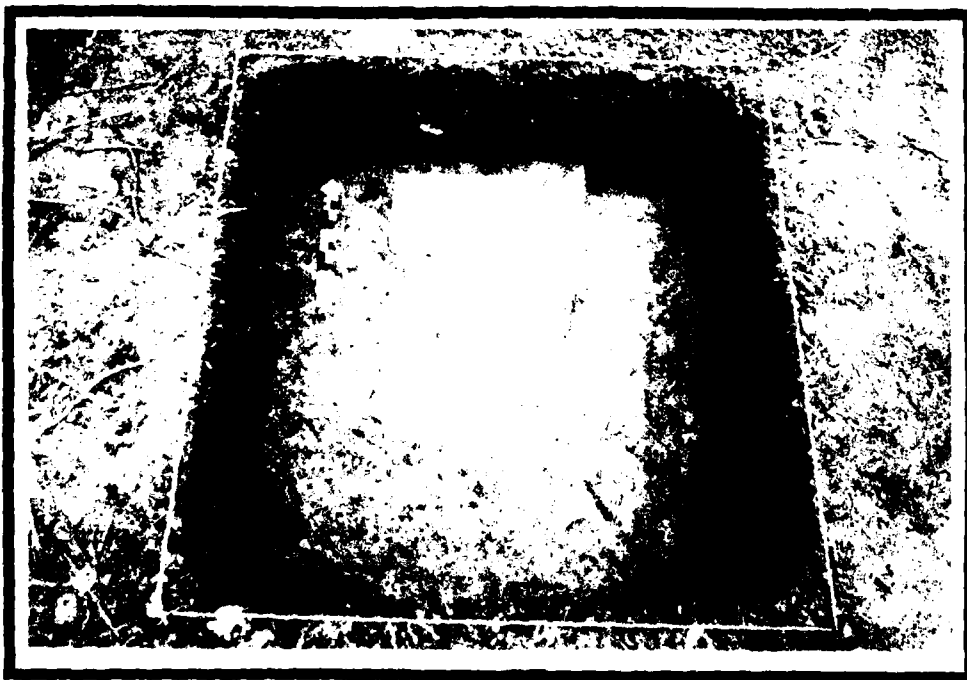


PLATE II- 3
31RF33, Excavation Unit 1 North Profile



PLATE II-4
31RF33, Excavation Unit 2 North Profile

Soil Zone C was a brownish gray clayey silt averaging 9 cm thick which produced 23 flakes and abundant charcoal flecks. A root mold near the northeast corner of the unit extended from the base of this zone into the subsoil below. The root mold contained soil similar to that in Soil Zone C with occasional small charcoal flecks but no lithic material. Soil Zone D was a brownish yellow silty clay which contained no cultural material. A 30 X 30 cm area in the northeast corner of the unit was excavated to a total depth of 65 cm, penetrating 18 cm into sterile subsoil.

Artifact Description: 31RF33

Prehistoric chipping debris recovered from 31RF33 appears to represent chipped stone tool manufacture/maintenance activity. None of the flakes recovered show any evidence of retouch or utilization, and no bifacially worked tools were recovered. Raw material which was a part of the chipping debris includes vein quartz (n=80), quartzite (n=4), crystal quartz (n=1), black chert (n=1), rhyolite (n=1), and silicified slate (n=1). Vein quartz occurs commonly in the vicinity of the project area both in bedrock outcrops and in waterborne cobble deposits along stream courses. Crystal quartz may also be locally available, although no sources were observed during the survey. Quartzite occurs in several Precambrian metamorphic formations which outcrop at least 10 km to the west. The nearest known source of black chert is the series of Paleozoic sediments of the Ridge and Valley province about 75 km to the northwest in Tennessee. Rhyolite and silicified slate are not known to outcrop in the general area and were probably brought in from the Carolina slate belt of central North Carolina to the east.

Prehistoric ceramics recovered from Soil Zone B at this site include six small sherds. Five sherds were tempered with sand and/or finely crushed grit. One of these sherds exhibited a simple, stamped exterior surface while the other four were too badly eroded or too small to identify. One fine sand tempered sherd has a cord marked exterior surface. The sand tempered, cord marked sherd is similar to Connestee Series ceramics which have been assigned to the Middle Woodland period in the Appalachian Summit area with a suggested date range of 200 to 600 A.D. (Keel 1976:107-109, 219). However, identification based on a single sherd is admittedly tenuous and should be regarded as such when evaluating the total assemblage from this site. The sample of sand/grit tempered sherds could fit into one of several ceramic series identified for the Appalachian Summit area. Since a good ceramic sequence has not been established for the general region in which the project area lies, the only assumption that can be made from the ceramic sample is that it represents a probable Early to Middle Woodland period of occupancy at this site.

No ceramics were recovered from Soil Zone C in the two excavation units nor in Shovel Test 7 which penetrated to this level. Although the total area excavated from this level is only slightly over two square meters, the absence of ceramics may indicate an earlier occupation during the Archaic period. Since no artifacts diagnostic of a specific cultural period were recovered from this soil zone, it could not be determined whether cultural material from this zone might be associated with Middle

Archaic period material collected from the surface in the general area during Jurney and Downing's (1974) initial visit to the site area in 1974.

Cultural Resource Description: Site 31RF45

This site is located in a garden plot owned by Mr. Robert L. Conner, downstream from the proposed dam site, along the north side of Mill Creek, and outside of the project area. UTM Zone 17 coordinates for this site are 3926040N/408845E. Although no additional investigations were recommended for this site, the area was visited on July 14, 1985 to verify its present condition and to examine artifacts recovered from the site by the landowner. The site had been cultivated since the last rain, and no attempt was made to surface collect the site during this visit.

Mr. Conner has collected a large number of projectile points and other artifacts from this site and from an adjacent field southeast of Route 1327 along the north side of Mill Creek. This collection includes projectile points diagnostic of a wide range of cultural periods ranging from the Early Archaic to Late Woodland periods. Specific point types in this collection include Kirk Corner Notched, Morrow Mountain, Guilford, and Savannah River as well as a variety of Early to Late Woodland stemmed and triangular point types. When questioned about which points had been found in the garden plot or the field further downstream, Mr. Conner identified a number of specific points from each location, indicating that both sites represented a spread of occupations from the Early Archaic to Late Woodland periods. Material collected from the site downstream will be discussed as Site 31RF144.

Cultural Resource Description: Site 31RF46

This site is located near the north end of the proposed dam at location UTM Zone 17 3926375N/408665E. Extensive ground clearing and surveying activities throughout this area have virtually obliterated any evidence of the previously recorded site. The general area may be defined as an upland margin sloping generally to the southwest in an erosional area with shallow topsoil overlying subsoil or bedrock. Surface disturbance has provided excellent surface visibility within an area planted in pine trees. No cultural material was recovered during an intensive surface reconnaissance augmented by shovel testing in locations where topsoil remnants were observed.

Resource Loci Description: 31RF47

This site is located along the south bank of Mill Creek in Survey Area 3 at UTM Zone 17 3926190N/408000E. Surface reconnaissance and shovel testing along the floodplain produced occasional charcoal flecks up to 41 cm below the surface in an approximate 50 meter east-west by 35 meter north-south area just upstream from the mouth of a small tributary stream entering Mill Creek from the south. Thirty-one shovel tests were excavated in this area at intervals ranging from 7 to 12.5 meters. Charcoal flecks were observed in seven of these tests. Several stream bank profiles were also prepared along both Mill Creek and the small tributary stream adjacent to the site to check for possible deeply buried cultural deposits.

Two 1 X 1 meter excavation units were placed near the center and the downstream end of the site, and a third unit was placed near the south edge, back from the stream (Figure II-7). Excavations were performed using arbitrary 10 cm levels within each identifiable natural soil zone. A description of soil zones and cultural material recovered from each excavation unit is provided below.

Excavation Unit 1 (Figure II-8, Plate II-5)

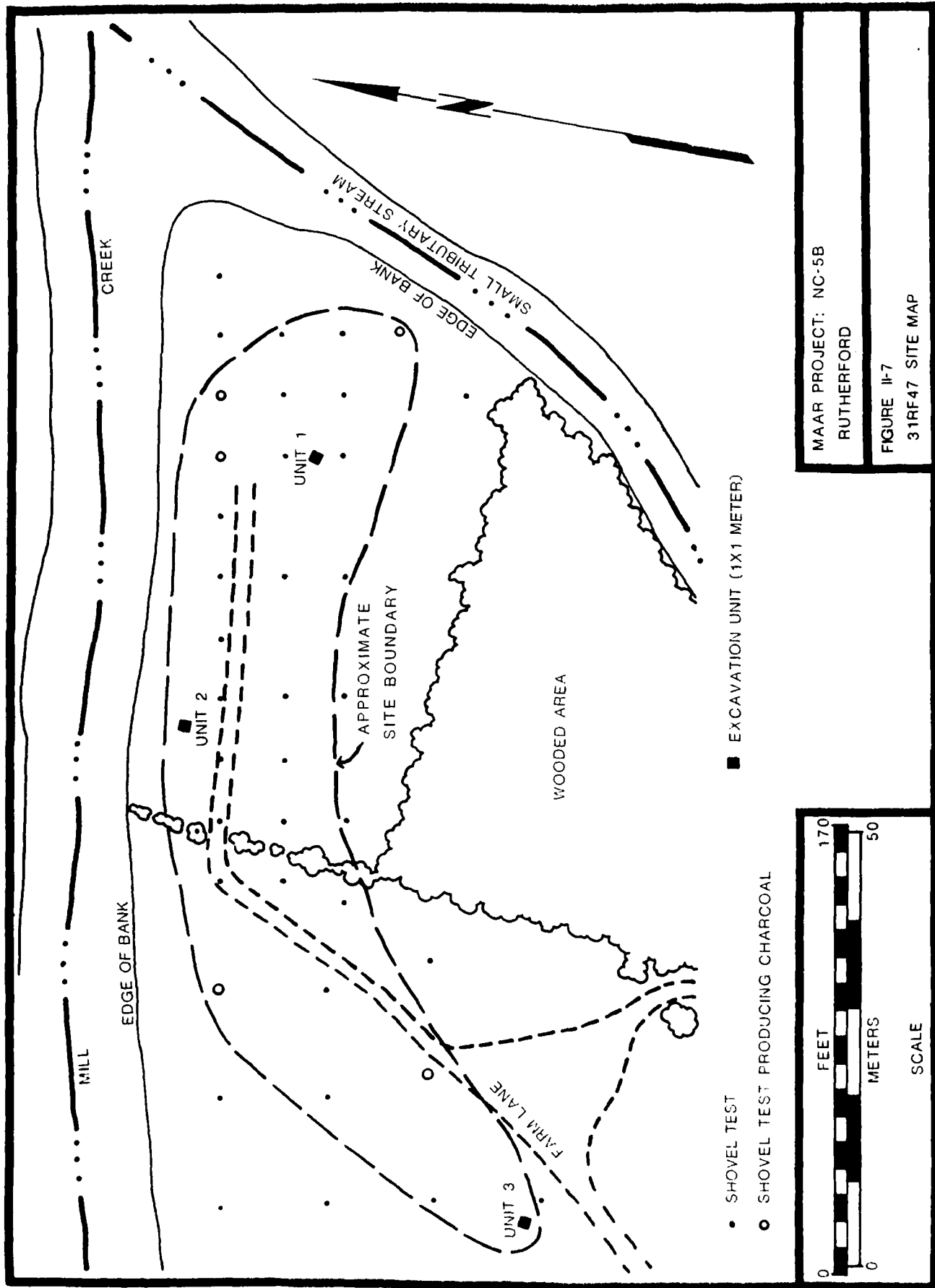
Soil Zone A was a brown silty sand averaging 24 cm thick and represents a plow zone. One quartz flake was recovered near the base of this zone. Soil Zone B was a dark yellowish brown sandy silt containing numerous charcoal flecks and averaging 13 cm in thickness. A ceramic sherd that was broken into three pieces during excavation was recovered from this zone. Soil Zone C was a yellowish brown sandy silt ranging from 16 to 29 cm thick. The upper portion of this zone contained numerous charcoal flecks with the lowest noted at a depth of 64 cm below the surface. An irregular area with mottles of dark brown sandy clay was encountered in the southeast corner of the unit in this zone and appears to represent a root mold.

About 65 cm below the ground surface at the base of Soil Zone C, a 30 X 30 cm area in the northeast corner of the unit was excavated to a total depth of 132 centimeters. Soil Zone D was a 35 cm thick layer of dark brown sandy silt. No charcoal or other cultural material was recovered from this zone. Soil Zone E was a strong brown micaceous sand 10 cm thick which contained no cultural material. This was underlain by Soil Zone F, a dark gray micaceous sandy clay 18 cm thick. Soil Zone G was a very dark gray micaceous silty clay containing small rootlets and fragments of partially decayed organic material. A one liter sample of soil was recovered from the 120 to 131 cm level of this zone.

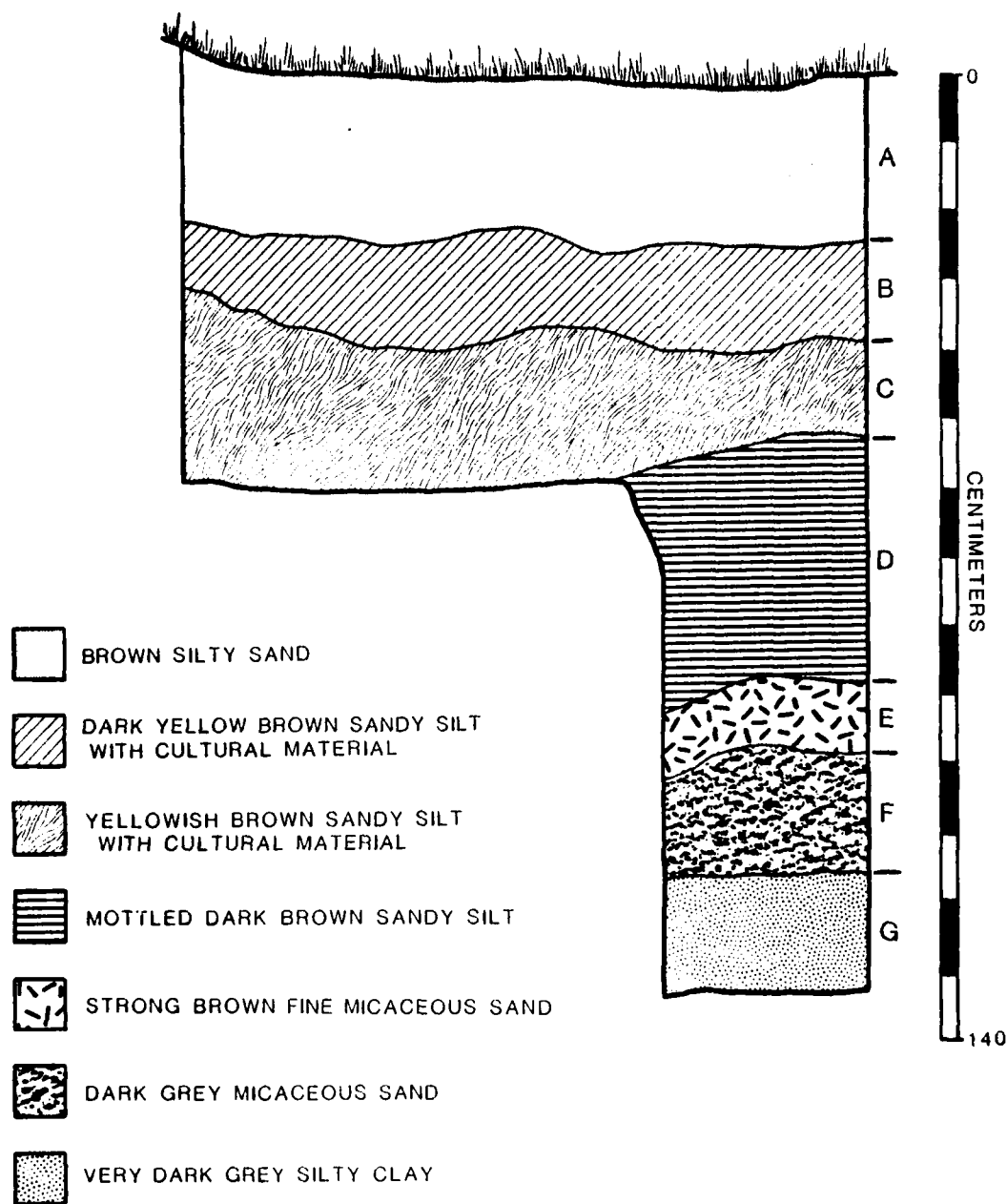
Excavation Unit 2 (Figure II-9, Plate II-6)

Excavation Unit 2 was placed just south of the natural levee along the south bank of Mill Creek. Soil Zone A was a grayish brown sandy silt ranging from 6 to 14 cm thick and containing abundant quartz gravel and pebbles. Four quartz fragments recovered from this zone may represent debris from the manufacture of chipped stone tools. However, they may have been produced by natural breakage of the gravel or pebbles in this zone. Soil Zone B was a reddish brown silty sand averaging 15 cm in thickness. Two small charcoal flecks were noted during the excavation of this zone. Soil Zone C was a 6 cm thick layer of finely lensed yellow sand with brown mottles grading to a coarse sandy gravel at the base. No cultural material was recovered from this zone.

At the base of Soil Zone C, a 30 X 30 cm area in the northeast corner of the unit was excavated from a depth of 30 to 70 centimeters. Soil Zone D was a brown sandy silt 22 cm thick. This was underlain by Soil Zone E, a grayish brown silt which extended 15 cm to the bottom of the excavation unit. No cultural material was recovered from Soil Zones D or E.



NORTH PROFILE



0 CENTIMETERS 60

SCALE

MAAR PROJECT: NC-5B
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FIGURE II-8
SITE 31HF47 UNIT 1 NORTH PROFILE

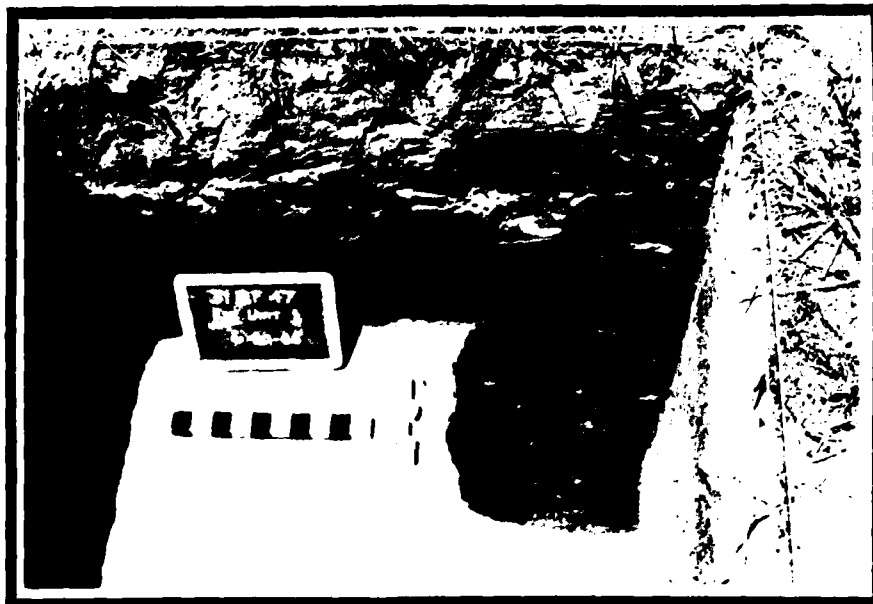


PLATE II- 5

31RF47, Excavation Unit 1 North Profile

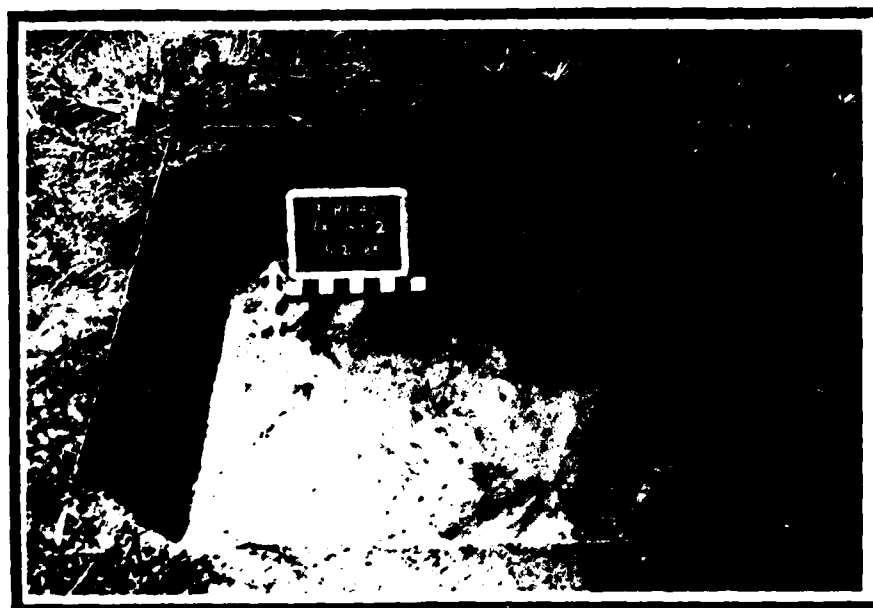
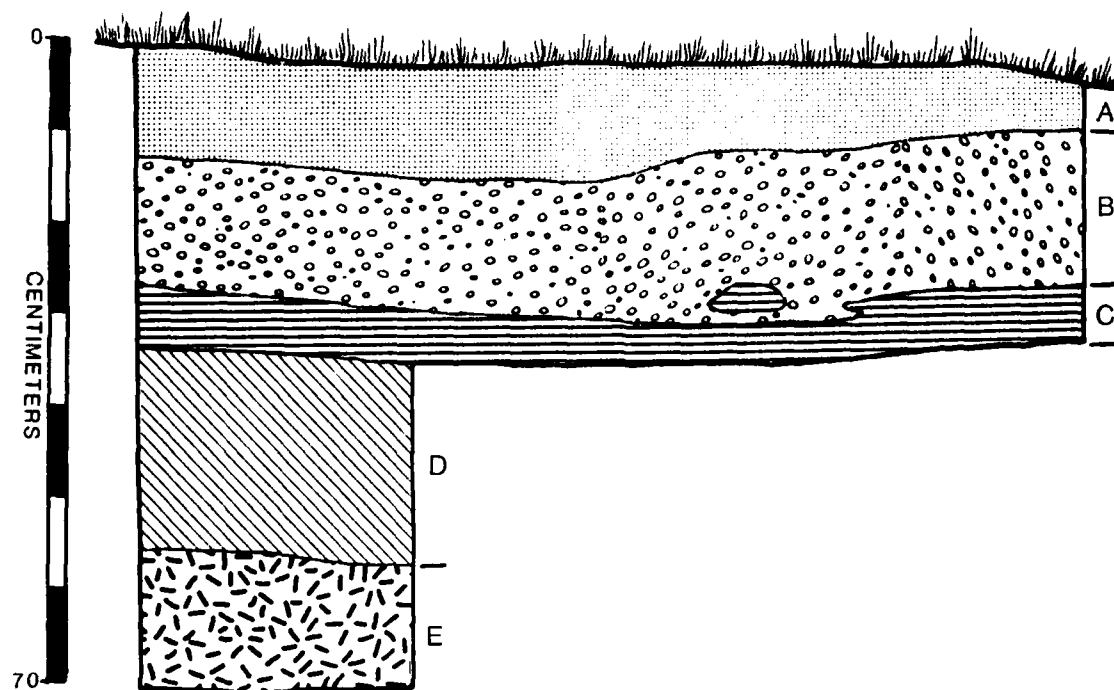


PLATE II- 6

31RF47, Excavation Unit 2 North Profile

EAST PROFILE



GREYISH BROWN SANDY SILT



REDDISH BROWN SILTY SAND



GREYISH BROWN SILT



FINELY LENSED YELLOW SAND WITH BROWN MOTTLES GRADING TO A COARSE SANDY GRAVEL



BROWN SANDY SILT



CENTIMETERS

SCALE

MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-9
SITE 31RF47 UNIT 2 EAST PROFILE

Excavation Unit 3 (Figure II-10, Plate II-7)

Excavation Unit 3 was placed about 65 meters south of Mill Creek near the southernmost shovel test location which had produced charcoal flecks. Soil Zone A was a brown sandy silt ranging from 4 to 13 cm thick which contained abundant quartz gravel and pebbles. Two quartz flakes and one rhyolite flake were recovered from this zone. Soil Zone B was a brown sandy clay from 14 to 19 cm thick containing lenses of yellow sand as well as abundant quartz cobbles and pebbles. The bottom of this zone contained yellowish brown concretions. No cultural material was recovered from this zone. A 30 X 30 cm area in the northeast corner of the unit was excavated from the base of Soil Zone B at 25 cm to a depth of 50 centimeters. Soil Zone C was a yellowish brown sandy silt averaging 9 cm thick and containing no cultural material. Soil Zone D was a brown silty sand which extended 13 cm to the bottom of the excavation unit. No cultural material was recovered from this zone.

Artifact Description: 31RF47

Three quartz flakes, one rhyolite flake, and four fragments of quartz which may represent chipping debris were recovered from the plow zone of the three excavation units. A crushed quartz, tempered ceramic sherd with a smoothed over, simple stamped exterior surface was also recovered from the 24 to 34 cm level in Excavation Unit 1. Scattered charcoal fragments were recovered from Soil Zones A, B, and C to a maximum depth of 64 cm in Excavation Unit 1. Two small flecks of charcoal were noted in Soil Zone B of Excavation Unit 2, and no charcoal was noted in Excavation Unit 3.

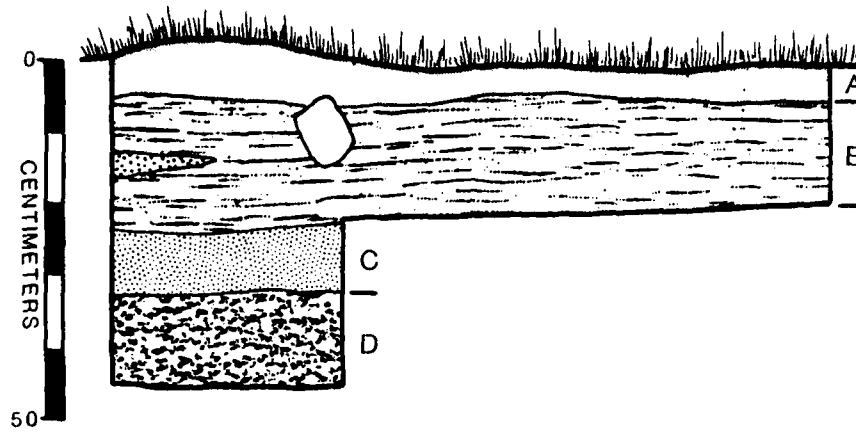
The basal clay, containing plant fragments encountered at a depth of 120 cm in Excavation Unit 1, contained no cultural material. However, macro and possibly micro fossil material preserved in this layer may be an important source of data concerning the depositional history of the Mill Creek watershed as well as past climates and floral communities of the area.


No attempt will be made to assign the single ceramic sherd to a specific ceramic series. This sherd and the several items of lithic chipping debris recovered from the site suggest an ephemeral presence at the site, probably during the Early or Middle Woodland periods. The scattered nature of these small cultural items and flecks of charcoal with no specific area of concentration or preserved features may indicate that these items represent secondary deposition during flood episodes from a site upstream.

Resource Loci Description: 33RF141

This site is located on a broad level, first terrace south of the Mill Creek floodplain at UTM Zone 17 3926100N/407910E. Elevation of this terrace varies from one to two meters above the active floodplain. At the time of the survey, the surface of the site was overgrown with weeds but was probably cultivated the previous year (Plate II-8). Surface

EAST PROFILE



-  BROWN SANDY SILT
-  BROWN SANDY CLAY
-  YELLOW SAND
-  YELLOW SANDY SILT
-  DARK BROWN SILTY SAND

0 CENTIMETERS 60

SCALE

MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-10
SITE 31RF47 UNIT 3 EAST PROFILE

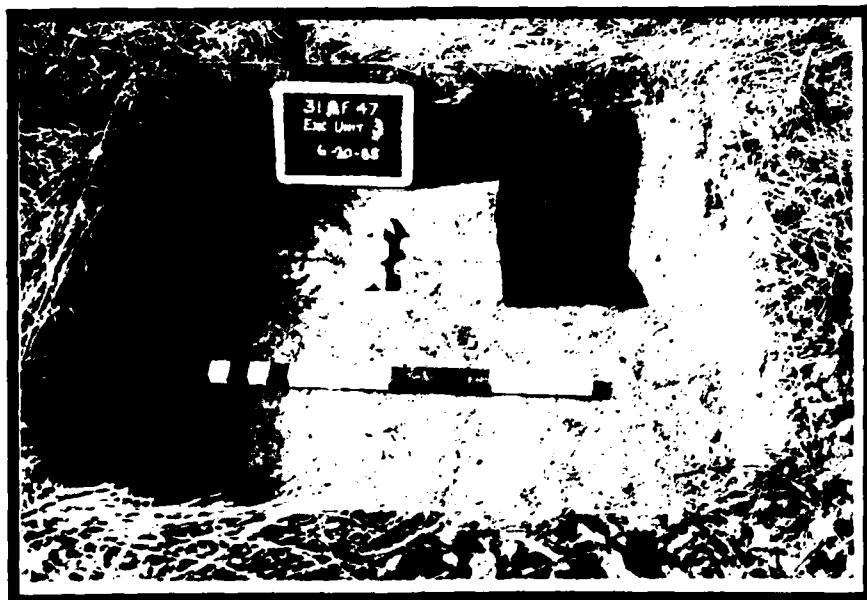


PLATE II- 7

31RF47, Excavation Unit 3 North Profile



PLATE II- 8

Site 31Rf141 from East

visibility varied from poor to good with frequent bare patches throughout the field. A systematic survey of the surface revealed two light scatters of prehistoric chipping debris and two pieces of white earthenware probably associated with the occupation of the house near the south end of the site. The lithic scatters were each about 10 meters in diameter and were located 30 meters apart.

Nineteen shovel tests were excavated in the area of the two lithic scatters, the area between them, and in several locations in the field where surface visibility was obscured by dense weeds. A plow zone of varying soil composition, ranging from 12 to 21 cm in depth, was found to overlie brownish yellow compact sandy clay subsoil throughout the site area. No cultural material was recovered from any of the shovel tests.

Artifact Description: 31RF141

One broken quartz biface and five quartz flakes were recovered from a 10 meter diameter area about 50 meters north of the northwest corner of the yard surrounding the house occupied by Mrs. Jean Helton, formerly Jean Barrier. Five quartz flakes and two fragments of white earthenware were recovered from a 10 meter diameter area, 30 meters south of the first lithic concentration. None of the lithic items are diagnostic of a specific cultural group, and no chronological assessment can be made for the prehistoric occupation at this site. The manufacture of chipped stone tools is the only functional activity which can be suggested for this site based on the limited artifact inventory. No evidence of cultural deposits or features beneath the plow zone was observed during shovel testing. The two fragments of white earthenware recovered from the site appear to be of twentieth century manufacture and are assumed to be associated with the occupation of the house to the south of the site.

Resource Loci Description: 31RF142

Surface examination and shovel testing in a wooded area at the southeast corner of Survey Area 3 (Figure II-11, Plate II-9)) produced scattered lithic debris on the surface and within the shallow plow zone. This site is located along the east side of a small tributary stream which enters Mill Creek from the south. Cultural material was recovered from a 20 X 10 m area along the crest of a low rise which is about two meters higher than the Mill Creek floodplain. At the time of the survey, timber had been recently cut in this area. Cutting and log hauling operations had caused extensive disturbance to the ground surface and provided extensive patches of bare ground with good to excellent surface visibility for the survey team.

Eighteen shovel tests were excavated along the crest of the low rise within and adjacent to the site area. Cultural material was recovered from three of these shovel tests. Two 1 X 1 m excavation units were placed within the site area at locations where cultural material had been recovered from the surface and in shovel tests. These units were excavated by arbitrary 10 cm levels within identifiable natural soil zones. Excavation unit and shovel test loci are shown in Figure II-11.

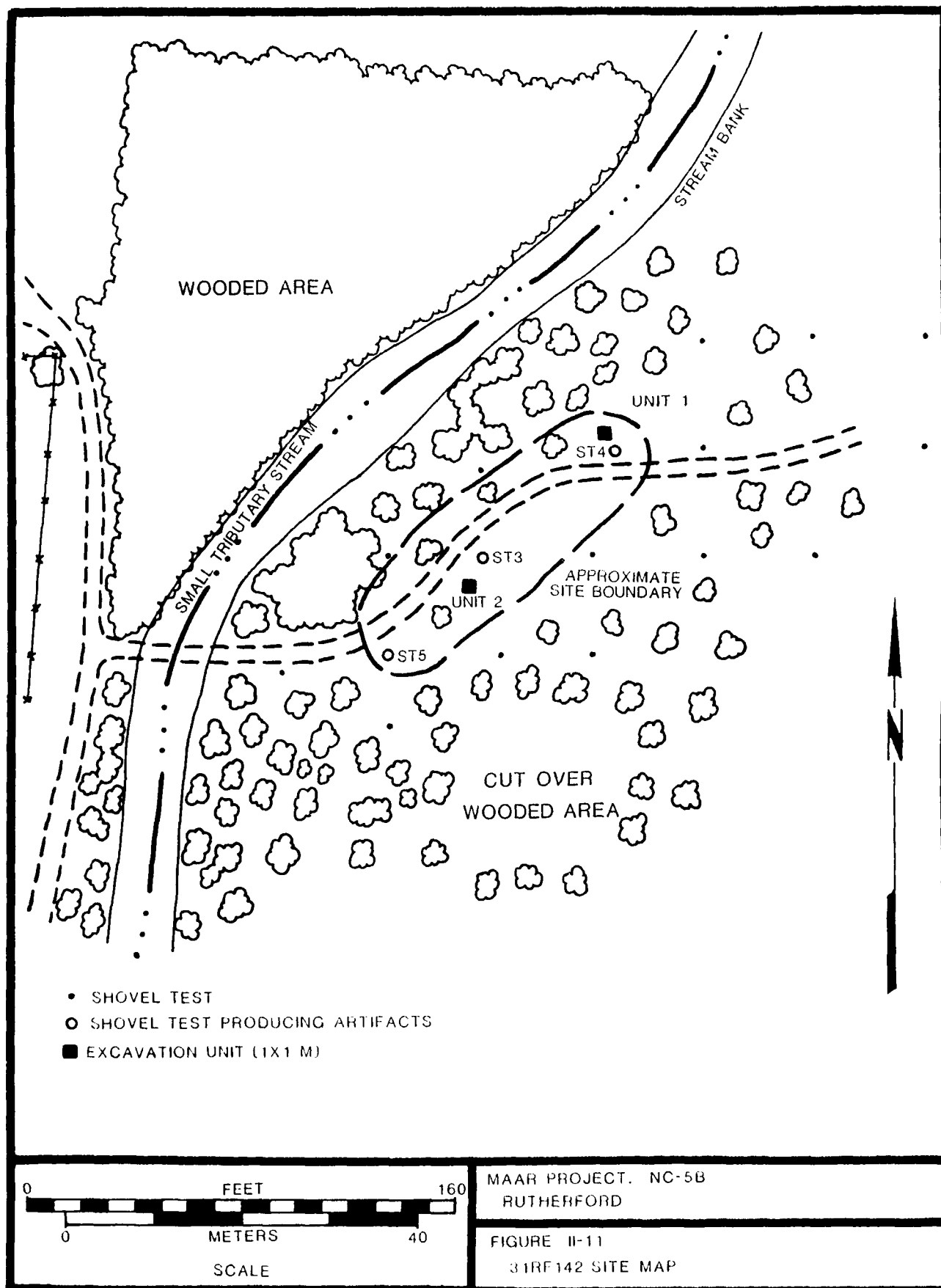




PLATE II-9

Site 31Rf142 from Northwest

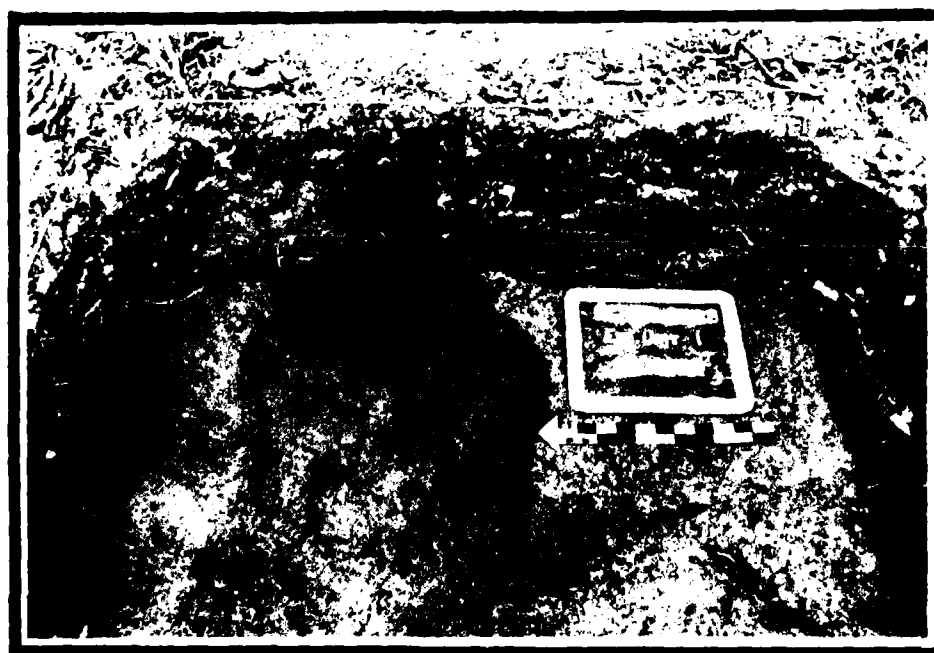


PLATE II- 10

Site 31Rf142, Excavation Unit 1 East Profile

Excavation Unit 1 (Figure II-12, Plate II-10)

Excavation Unit 1 was placed adjacent to Shovel Test 4 and about three meters north of a logging road. Cultural material had been recovered from the surface along the road at this point as well as from the shovel test. Soil Zone A was a light brownish gray sandy silt containing roots and organic matter. This zone varied from 2 cm thick to absent where it had been scraped away when logs and brush were dragged across the surface. Soil Zone B was a yellowish brown silty sand containing occasional charcoal flecks and quartz gravel extending to an average depth of 14 centimeters. Cultural material recovered from this zone included 21 flakes, 2 ceramic sherds, and 3 pieces of fire cracked rock. Soil Zone C was a yellowish brown sandy clay containing occasional quartz pebbles and gravel. The excavation unit was excavated to the base of this Zone at a depth of 31 centimeters. Four flakes were recovered from the upper 5 cm of this zone.

At a depth of 29 cm within Zone C, the top of a circular pit 28 cm in diameter was encountered along the east wall of the unit. This pit had straight sides and a flat bottom at a depth of 44 cm below the ground surface. Pit fill consisted of very dark grayish brown silty clay containing large fragments of charcoal. A one liter sample of soil was collected from this pit, designated as Feature 1.

Excavation Unit 2 (Figure II-13, Plate II-11)

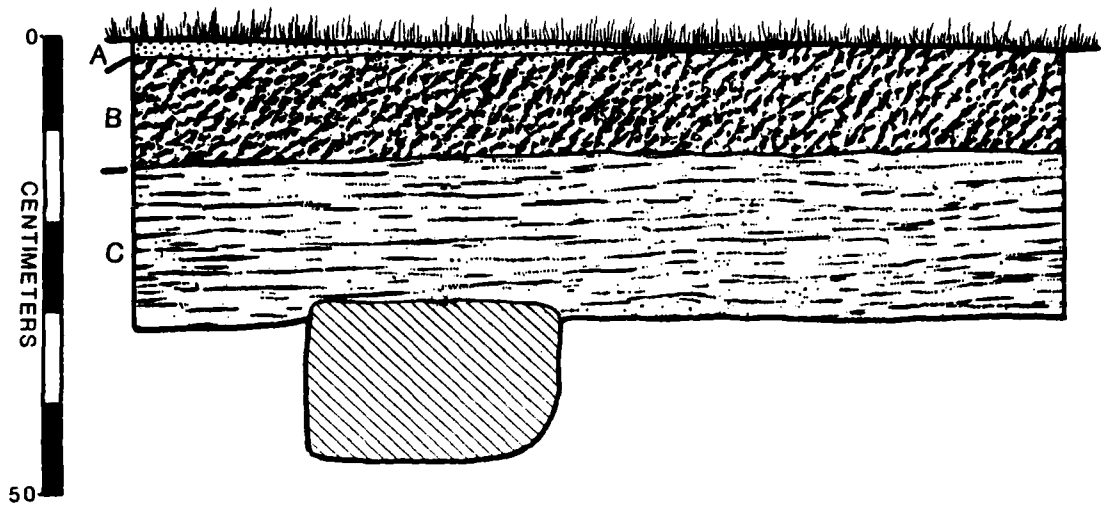
Excavation Unit 2 was placed near the center of the site, three meters southwest of Shovel Test 3 and about two meters east of the logging road. Soil Zone A was a light brownish gray sandy silt containing roots and organic matter. Soil Zone B was a yellowish brown silty sand with occasional charcoal flecks extending to a depth of 13 centimeters. Fifteen flakes, the tip of a broken biface, three ceramic sherds, and two pieces of fire cracked rock were recovered from this zone. Soil Zone C was a brownish yellow clay subsoil which continued to a depth of 45 centimeters. Two quartz flakes and one quartzite flake were recovered from the top 5 cm of this zone. At the 20 cm level, the north half of the unit was excavated an additional 5 cm to the 25 cm level. The northeast quarter of the unit was then excavated to the 30 cm level, and a 30 X 30 cm area in this corner was extended to a bottom depth of 45 centimeters. No cultural material was recovered below a depth of 18 centimeters.

Artifact Description: 31RF142

Prehistoric chipping debris recovered from 31RF142 appears to represent both chipped stone tool manufacture and maintenance activities. None of the recovered flakes show evidence of retouch or utilization. The tip of a chalcedony biface could represent breakage during manufacture or resharpening. However, it could also represent breakage during use.

Raw material represented in the chipped stone inventory includes vein quartz (n=27), quartzite (n=3), crystal quartz (n=6), black chert (n=5), light gray chert (n=1), rhyolite (n=8), chalcedony (n=1), and

EAST PROFILE



LIGHT BROWNISH GREY SANDY SILT



YELLOWISH BROWN SANDY CLAY



YELLOWISH BROWN SILTY SAND



FEATURE 1 DARK GREYISH BROWN
SILTY CLAY WITH CHARCOAL

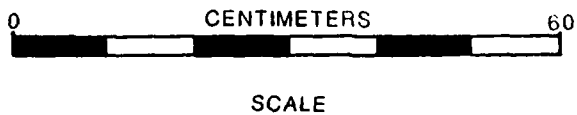
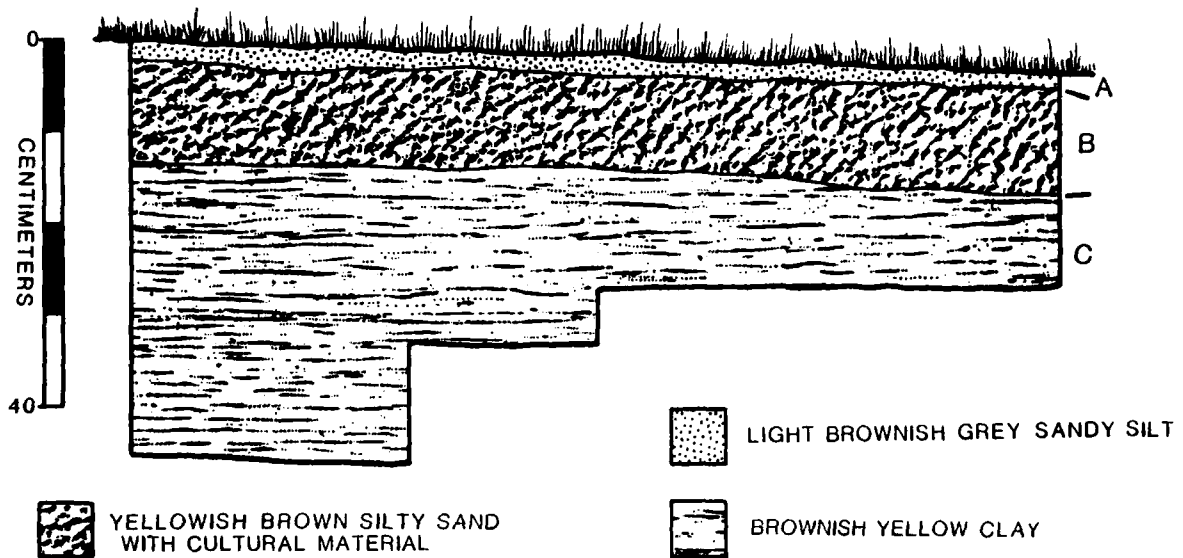


SCALE

MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-12
31RF142 UNIT 1 EAST PROFILE

EAST PROFILE



MAAR PROJECT: NC-5B
RUTHERFORD

FIGURE II-13
31RF142 UNIT 2 EAST PROFILE

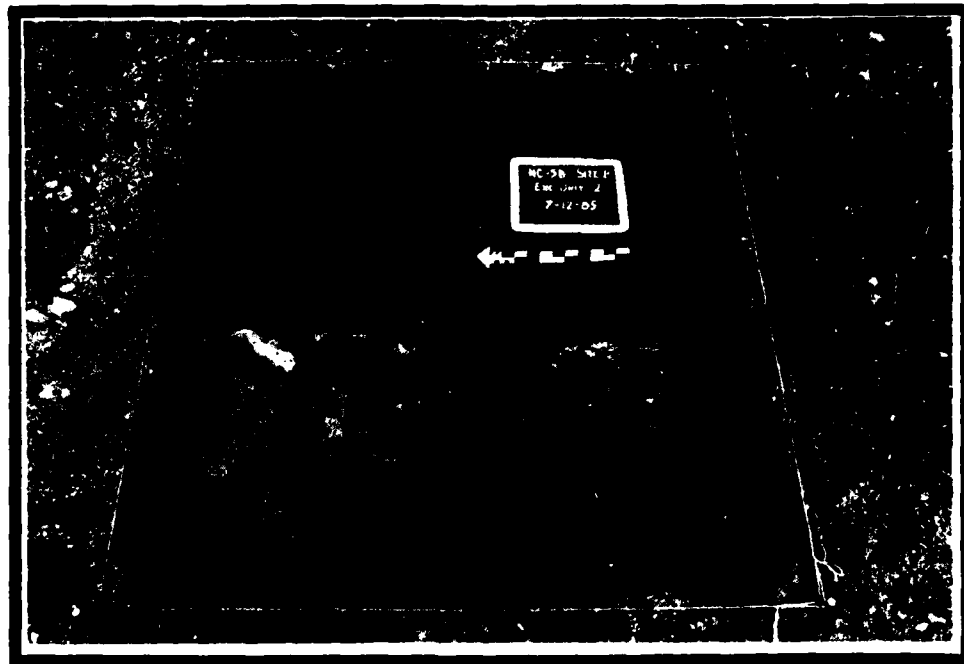


PLATE II-11

Site 31Rf142, Excavation Unit 2 East Profile

jasper (n=2). Sources for most of these materials were discussed in the Artifact Description for site 31RF33. The light gray chert, chalcedony, and jasper may have derived from sources in the Ridge and Valley province of eastern Tennessee.

The ceramic sample consists of five sherds. Three sand tempered sherds included one with a plain exterior surface and two with unidentified surface treatment. Two crushed quartz tempered sherds included one with a plain exterior surface and one with unidentified surface treatment. The limited ceramic sample precludes confident assignment to established ceramic series for the Appalachian Summit area. It can only be assumed that the sample represents a probable Early to Middle Woodland period of occupancy for this site.

The presence of ceramics, fire cracked rock, and a possible storage pit suggests the use of this site for possible food preparation activities and/or the presence of storage vessels. These activities plus those suggested by the chipped stone inventory and the variety of both local and nonlocal lithic materials would seem to indicate repeated use of this location by a prehistoric group or groups who either traveled to or traded with contemporaneous groups both to the east and west of the project area.

Resource Loci Description: 31RF143

Surface reconnaissance along the banks of the west branch of a small tributary stream entering Mill Creek from the north revealed the presence of three identical sets of apparent twentieth century structures of unknown function (Figure II-14, Plates II-12, II-13, II-14). This area occupies both sides of the stream at UTM Zone 17 3926510N/408350E. Each of the activity areas includes a set of parallel trenches presently 30 cm deep, 2 m apart, and 14 m in length. The trenches slope gently toward the stream and come together in a "V" at the lower end. A covered channel extends from the lower end of the "V" beneath a three meter square, rock lined, and earth covered structure about one meter high. At the far end of the structure, the channel continues a short distance to the stream. Several iron bars were observed in the "V" area of each location, indicating possible support of some type of equipment.

A number of open-ended rectangular galvanized sheet metal sections, resembling heating ducts, were found scattered over the surface in the vicinity of the trenches. Each section measures about 67 cm X 30 cm X 22 cm with one end cut at an angle.

These structures were encountered on the afternoon of the last scheduled field day. Upon completion of survey activities, attempts were made to contact several local landowners to find out what activity may have been performed at the three locations. Unfortunately, no one was home at any of the visited houses.

Resource Loci Description: 31RF144

While talking with Mr. Robert L. Conner, owner of the property on which site 31RF45 is located, it was learned that prehistoric cultural material had also been recovered from a field along the north side of

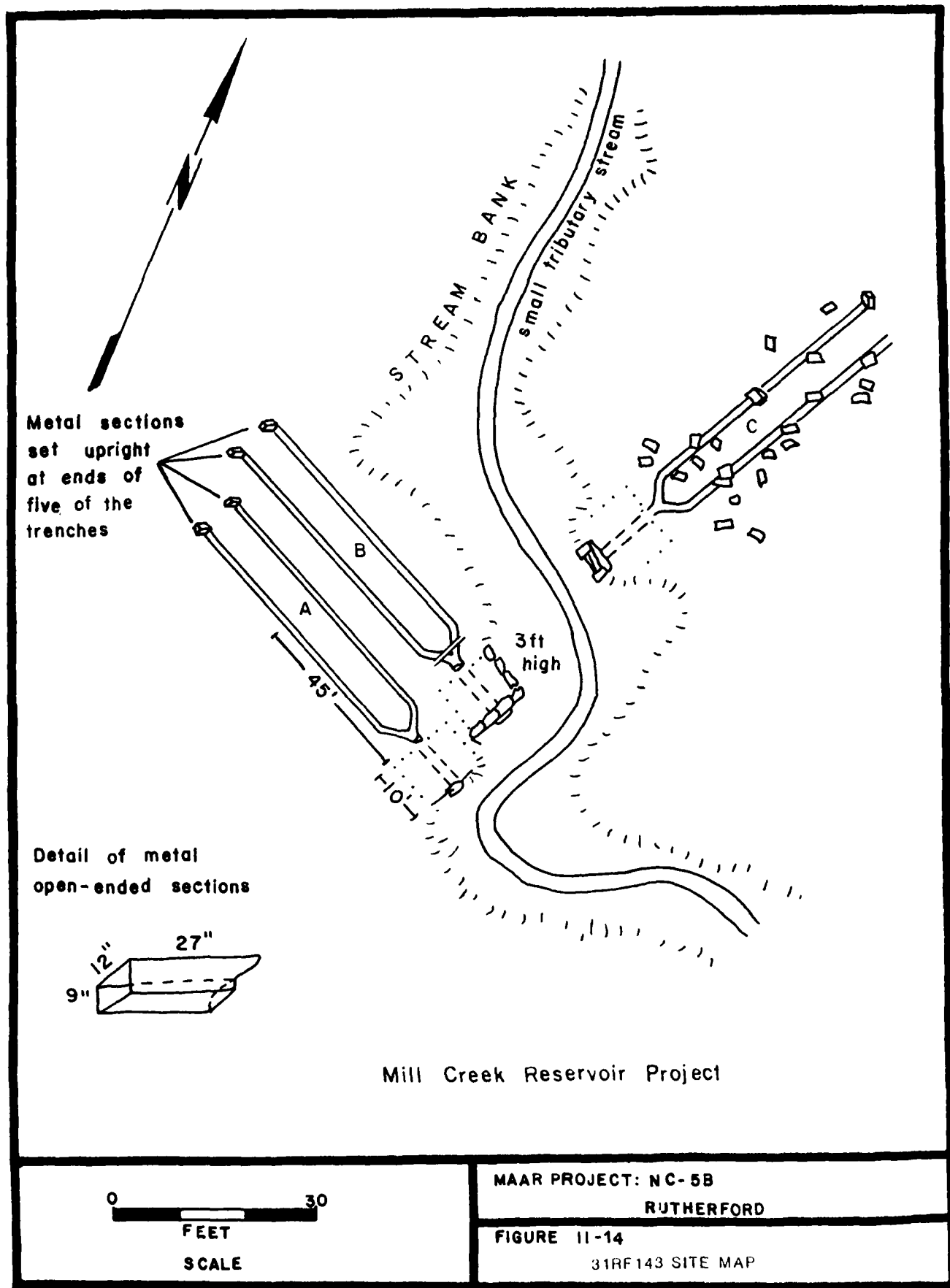




PLATE II-12

Site 31Rf143, Activity Area B

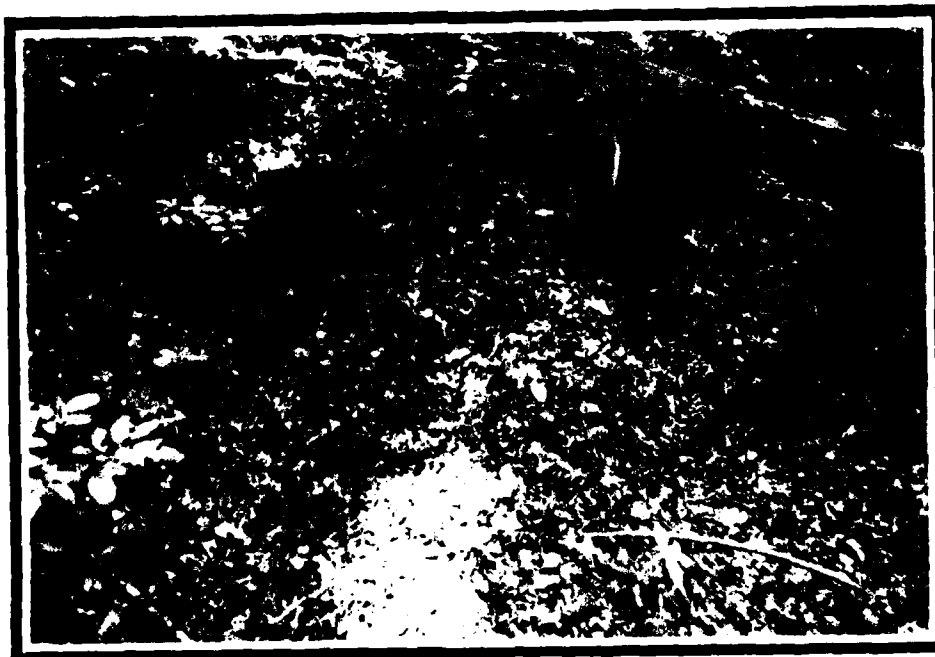


PLATE II-13

Site 31Rf143, Activity Area B



PLATE II-14

Site 31Rf143, Activity Area C

Mill Creek about 200 meters downstream from 31RF45. This site is in a cultivated field just east of State Route 1327 within the Mill Creek floodplain. Although the site is outside of the project area and will not be impacted, a surface collection was made by the survey crew to gain additional data for site recordation and to gain a better picture of prehistoric cultural activity in the vicinity of the project area.

Artifact Description: 31RF144

At the time of the survey, the field in which the site is located was under cultivation. The south half of the field was being used as a garden and afforded excellent surface visibility. The north half of the field had been cultivated since the last rain, leaving soil to cover the surfaces of most stone objects and making them difficult to see. A concentration of stone chipping debris and broken tools was noted in a 35 meter east-west by 15 meter north-south area extending eastward from near the road along a slight rise. Material recovered from this area included 39 quartz flakes, 1 quartzite flake, 5 broken quartz bifaces, and 1 piece of fire cracked rock.

Near the west end of the site, historic period material was also found, including an amethyst table glass fragment, 10 white earthenware fragments, and a fragment of stoneware. Examination of an overgrown area around several trees near the west end of the site revealed handmade brick debris and possible in situ foundation elements of an historic period structure. Two structures are shown at this location on the soil survey map for the area which was prepared in 1924 (Figure II-2).

SUMMARY AND RECOMMENDATIONS

Summary of Investigations

A reconnaissance level investigation of four designated survey areas and test excavations at three prehistoric sites were conducted at the flood control dam permit site on Mill Creek in Rutherford County, North Carolina. Survey activities revealed five prehistoric sites and one historic site within the project area as well as a prehistoric site and a site with both prehistoric and historic components outside of the project area. Test excavations were conducted at three previously recorded sites, and a fourth site which was recorded during the current survey. Specific information on the nature and integrity of each site, recommendations with respect to National Register eligibility and suggested courses of action to be taken for each identified cultural resource are included in the following section of the report.

Recommendations

A general recommendation of site avoidance is automatically made for each cultural resource identified, regardless of its potential significance, since the preservation of archaeological sites is the basic concern of cultural resource management. However, it is understood that site avoidance is not always physically or economically feasible within the constraints of a given project. Whether a site has been identified as potentially significant or not, the location of each identified cultural resource should be considered during construction activities within the project area as well as during planning for locations where secondary impacts such as construction access routes, staging areas, borrow areas, and locations for future development along the periphery of the impoundment area, are likely to occur.

The evaluation of whether or not a prehistoric site meets significance criteria for inclusion in the National Register of Historic Places requires the consideration of many factors. Of key importance is the question of whether further investigation would be likely to produce information important in prehistory. The degree of significance for a particular site must be evaluated based on factors such as the degree of previous disturbance to cultural deposits, the preservation of cultural features, and the site's role within a settlement/subsistence system for a given area or region. Specific recommendations for each site are follow (Table 1).

Prehistoric Site 31RF33

Test excavations at this site produced evidence of stratified cultural deposits, including an Early to Middle Woodland period component in Soil Zone B and a possible preceramic component in Soil Zone C. A Middle Archiac period of occupancy was suggested for this or an adjacent area based on surface collected material during a previous survey of the area.

Although a limited inventory of ceramic sherds represents the only artifacts which may be assigned to a general Woodland period of occupancy for the site and no features were encountered, the presence of lithic chipping debris and charcoal within both soil zones suggests that a variety of functional activities were carried out at this site during a Woodland and possibly an earlier period of occupancy.

Additional investigations at this site are felt to have a high probability for producing significant data relevant to understanding the prehistoric settlement/subsistence systems on both a regional and local level. Based on data recovered during test excavations, this site is felt to meet eligibility criteria for inclusion in the National Register of Historic Places. National register documentation is recommended for site 31RF33.

Prehistoric Site 31RF45

This site is located downstream from the proposed dam and should not be threatened by proposed construction related to the project. An access road shown on the real property work map will pass just to the north of this site. Construction activities associated with this road should be planned so as to minimize any disturbance south of the actual access road. No further archaeological investigations are recommended for this site unless it is threatened by future construction plans.

Prehistoric Site 31RF46

This site, located near the north end of the proposed flood control dam, has been extensively disturbed by recent ground clearing activities. Surface survey and shovel testing revealed no evidence of undisturbed prehistoric cultural deposits at this location. Additional archaeological investigations would not be likely to yield important data concerning prehistoric occupation of the site, and no further work is recommended.

Prehistoric Site 31RF47

Intensive shovel testing and excavation of three test units at this site produced only scattered and randomly dispersed prehistoric cultural material. These items appear to have been redeposited from a site or sites upstream during flooding episodes or from possible ephemeral prehistoric activity at the site location. Additional archaeological investigations would not be likely to produce important data concerning prehistoric occupation of this site. No further work is recommended for this site.

Site 31RF141

This site appears to represent a light lithic scatter confined to the plow zone with a twentieth century historic period component associated with the house located to the south of the site. Intensive shovel testing in this area produced no evidence of undisturbed cultural deposits beneath the plow zone. Additional archaeological investigations would not be likely to produce important data relevant to either prehistoric or historic occupation of the site. No further work is recommended for this site.

Site 31RF142

This site has been partially disturbed by recent logging operations. It is located above the proposed permanent pool level but within the temporary flooding easement for the project area. Cultural material recovered from this site suggests an Early to Middle Woodland period of occupancy based on a limited ceramic inventory. A wide variety of lithic raw materials represented in the chipped stone inventory suggests either trade relationships or travel to areas both east and west of the project area.

Although most of the recovered cultural material was confined to a shallow plow zone or a soil horizon, a small, circular, vertical-sided, and flat-bottomed pit containing an abundance of large charcoal fragments was encountered 15 cm below the top of the apparent clay subsoil. The occurrence of both local and nonlocal lithic raw materials, ceramics, fire cracked rock, and preserved features suggests that this site has high potential for producing important information concerning regional and local settlement/subsistence patterns as well as travel or trade relationships with contemporaneous cultural groups both to the east and west of the project area. The site is felt to meet eligibility criteria for inclusion in the National Register of Historic Places. If any significant surface disturbance is anticipated for this area, national register documentation is recommended prior to data recovery.

Site 31RF143

This site is located along the edge of the permanent flooding level and within the temporary flooding level of the project area. Although this site appears to represent mid-twentieth century historic period cultural activity, the function carried out at this site is currently unknown.

This industrial site has the potential to meet eligibility criteria for inclusion in the National Register of Historic Places. It may represent a cultural function unique to this region or local area. Interviews with local residents should be conducted to document the functional activities performed at this site, as similar activity areas may be encountered during future archaeological investigations within the area. National register documentation is recommended for site 31RF143.

Site 31RF144

This site, with both prehistoric and historic components, is located downstream from the project area and should not be impacted by proposed construction activities. The wide variety of prehistoric artifacts reportedly found on the surface of the site by the owner and the remains of a probable late nineteenth to early twentieth century structure suggest that the site may be eligible for inclusion in the National Register of Historic Places.

No further archaeological investigations are recommended for this site at this time. However, should the site be threatened by future construction activities, additional investigations should be conducted to determine the age, extent, and integrity of the cultural deposits.

Table III-1 Survey Summary

Site	Investigation	Recommendation
31RF33	Tested	National Register Documentation
31RF45	Surface collection	NFW unless site will be affected
31RF46	Surface collection	NFW No Further Work
31RF47	Tested	NFW
31RF141	Tested	NFW
31RF142	Tested	National Register Documentation
31RF143	Feature recording	National Register Documentation
31RF144	Private collection	NFW unless site will be affected

REFERENCES CITED

- Benthall, Joseph L. and Ben C. McCary
1973 The Williamson Site: A New Approach. In Archaeology of Eastern North America 1(1):127-132. Braun-Brumfield, Inc., Ann Arbor, Michigan.
- Braun, E. Lucy
1950 Deciduous Forests of Eastern North America. The Blakiston Company, Philadelphia, Pennsylvania.
- Chapman, Jefferson and Andrea Brewer Shea
1981 The Archaeobotanical Record: Early Archaic Period to Contact in the Lower Little Tennessee River Valley. In Tennessee Anthropologist 6(1):61-84. Knoxville, Tennessee.
- Delcourt, P. A. and H. R. Delcourt
1981 Vegetation Maps for Eastern North America: 40,000 B.P. to the Present. In Geobotany, an Integrating Experience. Edited by R. Romans, Proceedings of the 1980 Geobotany Conference, Plenum Publishing Company.
- Gardner, William M.
1974 The Flint Run Complex: Pattern and Process During the Paleo-Indian and Early Archaic. In Occasional Paper No 1. Archaeology Laboratory, Department of Anthropology, The Catholic University of America, Washington, D. C.
- Griffin, Clarence
n.d. A Brief Outline History of Rutherford County. Manuscript on file, Research Branch, Archaeology and Historic Preservation Society, Division of Archives and History, Raleigh, North Carolina.
- Guilday, John E.
1967 The Climatic Significance of the Hosterman's Pit Local Fauna, Center County, Pennsylvania. In American Antiquity 32(1).
- Guilday, John E., Paul S. Martin, and Allen D. McCrady
1964 New Paris No. 4: A Pleistocene Cave Deposit from Bedford County, Pennsylvania. In Bulletin of the National Speleological Society 26.
- Hadley, Jarvis B. and Arthur E. Nelson
1971 Geologic Map of the Knoxville Quadrangle, North Carolina, Tennessee, and South Carolina. U. S. Geological Survey, Washington.
- Jurney, David and Caran Downing
1974 An Archaeological Survey of the Upper Second Brood Watershed, McDowell and Rutherford Counties, North Carolina.
- Keel, Bennie C.
1976 Cherokee Archaeology: A Study of the Appalachian Summit. University of Tennessee Press, Knoxville, Tennessee.

Maxwell, J. A. and M. B. Davis

1972 Pollen Evidence of Pleistocene and Holocene Vegetation of the Allegheny Plateau, Maryland. In Quaternary Research 2(4).

Pederson, Fred C.

1923 The Geology and Mineral Resources of Wise County and the Coal-bearing Portion of Scott County. In Bulletin of the Virginia Geological Survey 24. Charlottesville, Virginia.

Purrington, Burton L.

1983 Ancient Mountaineers: An Overview of Prehistoric Archeology of North Carolina's Western Mountain Region. In The Prehistory of North Carolina: An Archeological Symposium. Edited by Mark A. Mathis and Jeffrey J. Crow, Pp. 83-160. North Carolina Division of Archives and History, Raleigh, North Carolina.

United States Department of Agriculture, Bureau of Chemistry and Soils.

1928 Soil Survey of Rutherford County, North Carolina, 1924(5).

United States Government Printing Office, Washington, D. C.

United States Geological Survey

1982 Shingle Hollow, North Carolina, Quadrangle Map, 7.5 minutes. Raleigh, North Carolina.

APPENDIX A
Project Documents

22 MAY 1985

DESCRIPTION OF WORK: FLOOD CONTROL DAM PERMIT SITE, RUTHERFORD COUNTY, N.C.

1. The Rutherford County Board of Commissioners has made application to the Wilmington District Corps of Engineers for a permit authorizing construction of a 38-foot high flood control dam on Mill Creek in Rutherford County. The project area includes the dam site, impoundment lands up to flood control pool elevation of 1,026.5 feet, and any necessary borrow, construction staging, and access and operation areas for the dam. Total acreage to be affected is estimated at 70 to 90 acres. The purpose of the archeological work is to test known sites within the area of projected impact, conduct reconnaissance for undiscovered sites, and determine National Register eligibility for discovered cultural resources. The applicants public notice has been previously furnished together with a U.S.G.S. Shingle Hollow, N.C. 1:24,000 quadrangle sheet and a District memorandum showing the minimal areas to be tested. These areas have been delimited by the District archeologist in field visits to the project vicinity. As time allows, other marginal areas may be investigated at the discretion of the Field Director or the direction of the C.O.R.
2. The contractor will perform the following tasks in accordance with this delivery order and the contract Scope of Work:
 - a. Notifications: All land owners will be notified by mail or telephone of the District's intent to survey project lands. If access is denied, the District archeologist will be notified as soon as practical. A list of land owners has been sent under separate cover.
 - b. Testing: The known sites shown on the contour sheet will be tested to a degree sufficient to determine cultural affiliation, areal extent, depth and stratification of components, nature of features, and any other information deemed relevant for determining National Register eligibility. Due to our limited knowledge of this area, it will be necessary to closely monitor the field labor effort and coordinate any projected modifications with the C.O.R. It is anticipated that 2 days will be required to test 31Rf47 and the field located at survey area 3 (see memo dated 13 May 1985).
 - c. Reconnaissance and Testing: For those areas delimited on the contour sheet, the contractor will implement transect or other controlled survey in order to determine the presence/absence of cultural material. For any sites discovered, the contractor will conduct testing as in b. above. Whereas portions of these areas are narrow creek bottoms of less than two acres, the Field Director may, at his discretion, conduct uncontrolled testing. In no case, however, should low intensity recovery procedures such as augering or post holes be substituted for shovel tests and test units except as an ancillary technique for the recovery of deep soil samples. The Field Director

may expand the project lands covered by the reconnaissance as information on the project area is developed.

d. Report: The contractor will prepare a draft and final report, National Register Inventory/Nomination and N.C. site forms (long version) as per the contract Scope of Work.



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

January 15, 1986

IN REPLY REFER TO

Environmental
Resources Branch

SUBJECT: Contract DACW54-85-C-0037, D.O. DACW54-85-F-3262

Dr. Ronald A. Thomas
MAAR Associates, Inc.
9 Liberty Plaza
Post Office Box 676
Newark, Delaware 19715-0676

Dear Dr. Thomas:

We have received and reviewed the revised draft report titled "Archaeological Investigations at Mill Creek, Rutherford County, North Carolina." While the revised report is much improved, the Management Summary and other minor editorial items require attention as enumerated below. Please refer to the basic contract Scope of Work, Section 4.e, Reports and Documentation, when implementing these comments. In addition, we have considered your comments and recommendations for further testing at sites 31 Rf 33, 142, and 143 as expressed in the report and your letter of December 18, 1985, and agree that this work is appropriate. Please refer to my comments at item 5, below, with regard to this testing.

1. Forward: As Mr. Kimmel has noted in past conversations, you are the Principal Investigator for purposes of the contract. Therefore, you must prepare a signed Forward to be submitted as part of the final report (see paragraph 4.e(1)(c) of the basic Scope of Work).

2. Cover:

a. Change "Submitted To:" to "Prepared For:."

b. Whereas the recommended site documentation for National Register determinations will likely result in a separate report, I recommend that the title of this report be modified to read "Archaeological Reconnaissance at...."

3. Title Page: The basic Scope of Work specifies at 4.e.(1)(e) that the title page will bear the source of funding and the contract number. This needs to be added.

4. Management Summary:

a. The Management Summary would be easier to read if the sites were listed with their site numbers in the first paragraph in the two groups you mention; that is, those previously recorded and those discovered during the course of the reconnaissance.

b. One site is mislabeled in the 9th paragraph as "145."

c. Several sites are summarized in different paragraphs. The Management Summary would be easier to understand if each site were mentioned only once, with those requiring no further work summarized in one paragraph. For example, paragraph 5 and 8 should be combined since both discuss site 31 Rf 142, as should paragraphs 6 and 9 which discuss site 31 Rf 143. Sites 31 Rf 144 and 45 may be discussed in a separate paragraph since they are out of the project area and may not be affected by the proposed project.

d. It would be helpful to include a simple table listing all of the sites, the type of investigation conducted, and the recommendation. As a suggestion, the following is provided:

<u>Site</u>	<u>Investigation</u>	<u>Recommendation</u>
33	Tested	National Register Documentation
45	Surface collection	NFW unless site will be affected
46	Surface collection	NFW
47	Tested	NFW
141	Tested	NFW
142	Tested	National Register Documentation
143	Feature recording	National Register Documentation
144	Private collection	NFW unless site will be affected

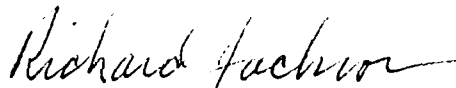
e. Be certain that all eight sites investigated are mentioned in the Management Summary; site 31 Rf 141 is not discussed in the submitted draft.

5. Recommendations: We concur with the recommendations for further testing and/or documentation at sites 31 Rf 33, 142, and 143. You are instructed to review carefully the field procedures and scheduling requirements you anticipate and to coordinate these closely with Mr. Kimmel so that a modification to the Delivery Order can be made, if necessary, and so that we may coordinate the survey activities

with the permit applicant and the State Historic Preservation Officer. The revised draft report should be carefully edited to indicate that the final report addresses the comments of the review agencies and that we have agreed to a program of site survey and National Register eligibility determination.

Thank you for your timely submission of the revised draft. If you have questions concerning my comments and instructions, please contact Mr. Richard Kimmel, archeologist, at (919) 343-4994.

Sincerely,



Richard M. Jackson
Authorized Representative
of the Contracting Officer

Copies Furnished:

Dr. William S. Price, Jr.
State Historic Preservation Officer
North Carolina Division of Archives and History
109 East Jones Street
Raleigh, North Carolina 27611

U.S. Department of the Interior
National Park Service
Southeast Regional Office
Archaeological Services Division
ATTN: Mr. John E. Ehrenhard
75 Spring Street, S.W.
Atlanta, Georgia 30303



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

November 4, 1985

IN REPLY REFER TO

Environmental Resources
Branch

Dr. Ronald A. Thomas
MAAR Associates Inc.
9 Liberty Plaza
Post Office Box 676
Newark, Delaware 19715-0676

Dear Dr. Thomas:

We have reviewed the draft report "Archaeological Investigations at Mill Creek, Rutherford County, North Carolina," and have received comments from two other review agencies--the North Carolina Division of Archives and History and the National Park Service, Southeast Regional Office. I have attached copies of the comments by these agencies. Our comments follow:

1. Please have page numbers assigned consecutively throughout the report, not by section number (e.g., 1,2,.....n).
2. Your attention is called to the contract basic Scope of Work, Section 4.e., Reports and Documentation. The final report must conform to the specifications of this section. In particular, take note of the requirements for Corps of Engineers logo, perfect binding, and the inclusion of a management summary.
3. Mr. Hoffman's recent question regarding curation is addressed in Sections 6 and 7 of the basic Scope of Work, Disposition of Data and Curation.
4. On page I-1, second paragraph, the DACW number referred to is the contract number, not the purchase order number.
5. A map showing the project area in relationship to the state as a whole should be included. A reader unfamiliar with North Carolina would be at a loss to locate the project area.

6. Profile figures would be much easier to use if a scale was added to a margin and aligned with the profile. The zones could be labeled in the opposite margin.

7. Most of the photos are of such poor quality that features they are meant to represent cannot be distinguished. This should be corrected in the final report.

8. Is the "raw material" referred to in the discussion of 31Rf33 artifacts (page II-13) reduced by modification or is it the naturally occurring stone (e.g., "sub-rounded quartz")?

9. Is it clear from your analysis and lab work that 31Rf33 is not a redeposited site?

10. Those sites downstream from the dam are not likely to be impacted; however, they should be included in the report. When discussing these two sites, it should be made clear that recommendations for further research are relevant only if there is a potential for damage from construction or operation of the flood control project (for example, from erosion from discharge of flood waters).

11. With regard to provisional site B, from the profile drawing in the report, the pit would appear to be truncated at the base of zone c. But the report says zone c continues, giving the impression that the pit originates within zone c. Which impression is the correct one?

12. With regard to the comments of the National Park Service on significance, we are in agreement with the Park Service position regarding statements of significance. We suggest that draft copies of the National Register Nomination-Inventory forms be examined in order to gain an idea of the level of detail required. It will be necessary to state with authority whether a site is geologically or culturally stratified (e.g., "continuous" stratification), what information may be gained from excavation of such ordered remains, and the methodological strategy for making research recommendations (e.g., cultural ecology, chronology, history, etc.).

13. With regard to National Park Service comments on the appendices, only Appendix C is important from our point of view. We do not approve of the inclusion of site forms due to the specific information given on site locations. The other appendices may remain in the report at your option.

14. We concur with the comments of the North Carolina Division of Archives and History. These comments should be addressed in the final report.

If you have questions regarding our comments, I may be contacted at (919) 343-4745 or you may call Richard Kimmel at (919) 343-4994.

Sincerely,

Richard M. Jackson
Authorized Representative of the
Contracting Officer

Enclosures

Copy Furnished:

Dr. William S. Price, Jr.
State Historic Preservation
North Carolina Division of Archives and History
109 East Jones Street
Raleigh, North Carolina 27611

Mr. David Moore
Western Field Office
North Carolina Division of Archives and History
13 Veterans Avenue
Asheville, North Carolina 28805

Department of the Interior
National Park Service
Southeast Regional Office
ATTN: John E. Ehrenhard
75 Spring Street, S.W.
Atlanta, Georgia 30303

APPENDIX B
Personnel Qualifications

RESUME

Ronald A. Thomas
2608 Stephenson Drive
Wilmington, Delaware 19808

RES: (302) 999-1197
SS#: 165-32-2948

Member: Eastern States Archeological Federation,
Recording Secretary 1969-74
President 1976-78
Middle Atlantic Archaeological Conference,
Editor 1972-73
Delaware Review Board 1977-81
Society of Professional Archaeologists (S.O.P.A.) 1977-85
Archaeological Society of Delaware,
Editor & Membership Chairman 1978-82
Delaware Academy of Science,
President 1981-82
Environmental Advisory Service, Inc., Founder 1985

EDUCATION: Uniontown, PA High School 1958
Penn State University, 1962
(B.A.) Anthropology
University of Arkansas, 1964
(M.A.) Anthropology
University of Pittsburgh 1969
(Ph.D. Candidate)
Temple University 1983
(Ph.D. Candidate)

EXPERIENCE:

1962-1964 University of Arkansas, Research Assistant.
1963 Test excavations at Civil War Battlefield,
Prairie Grove, AR.
1965-1977 Division of Historical and Cultural Affairs,
State of Delaware, State Archaeologist and
Archaeology Supervisor.
1965 Salvage excavations at 17th century Jacob
Aldricks House, New Castle, DE.
1967-1979 University of Delaware, Department of
Anthropology, Instructor and Adjunct Assistant
Professor.
1970 Supervised test excavations at Kingston Upon
Hull, 17th century complex along St. Jones
River, Kent County, DE.

1972 Excavation of early 18th century well along
Murderkill River, Kent County, DE.
 1978-1980 DeLeuw, Cather/Parsons, Amtrak Northeast
 Corridor Project, Senior Archaeologist.
 1977- MAAR Associates, Inc. (formerly Mid-Atlantic
 Present Archaeological Research, Inc.), Newark, DE:
President, Principal Investigator, and/or
Project Director for the following sampling:

In the Caribbean

1983 & 85, Mangrove Lagoon/Turpentine Run Phase IA and
 IB, St. Thomas, U.S.V.I.
 1985, Cruz Bay, Stage IA Survey, St. John, U.S.V.I.
 1985, Culebra Stage IA and IB Survey, Puerto Rico.

In Delaware

1977, Kent County Administration Building, Dover,
 DE: 18th century domicile, salvage
 excavation.
 1979, U.S. Route 202, Concord Pike, New Castle
 County, DE: Test excavations at several
 18th/19th century houses.
 1979, Wilmington Boulevard Survey, Wilmington,
 DE: Intensive survey of six city blocks for
 Delaware DOT project.
 1983, Lewes Field II, Sussex County, DE: Data
 recovery of 18th century farmstead.

In Maryland

1977, Molloy House Investigations, Kent County, MD:
 Excavations around standing-18th century
 structure in Chestertown, MD.
 1977, Susquehanna Museum Excavations, Harford
 County, MD: Excavations around Canal Lock
 House of Susquehanna Canal in Havre de Grace.
 1979, Hampton Mansion Excavations, Baltimore County,
 MD: Excavations of front porch area at
 Hampton Mansion National Park, Towson, MD.
 1981, St. Clement Shores II, St. Mary's County, MD:
 Data recovery operations of 18th century
 "earth fast" house.
 1982, Granite Factory Site: Excavations at mid-19th
 century textile mill on Patapsco River,
 Baltimore County, MD.
 1983, Brick Row, Talbot County, MD: Excavations of
 late 19th century site in Easton, MD.
 1983, Wallace Carter Mill Complex, Cecil County, MD:
 Extensive excavations.
 1984-85, Black Oak/Ft. Ashby, Albright Junction,
 Phase I, II & III, Allegany County, MD.
 1985, Buck House Restoration Project, Upper
 Marlboro, MD.

In New Jersey

- 1979 & 80, Gloucester County Highway Surveys, Phase I and II.
- 1983, Gloucester City Senior Citizens Housing Project, Gloucester, NJ: 17th and 18th century domestic occupations along Delaware River.
- 1983, Carino Park Elderly Housing Project, Williamstown Glass Factory, Monroe Township, NJ: Salvage investigations.
- 1985, Perth Amboy Facility Plan Revision, Middlesex County, NJ.

In North Carolina

- 1983, Cultural Resource Investigations at Orange Factory, Lipscomb's Mill, and Johnston's Mill, Durham County, NC: Data Recovery operations of three mill complexes.
- 1985, Continuing archaeological investigations at federally licensed and funded projects of the Wilmington District, North Carolina and Virginia, as notified by the U.S Army Corps of Engineers, Wilmington, NC.

In South Carolina

- 1985, U.S. Route 221 Relocation, City of Laurens, Laurens County, SC.

In Tennessee

- 1985, Tellico Plains-Robbinsville Highway, Monroe, Tennessee, and Graham Counties, TN.

In Pennsylvania

- 1977, Pennsylvania Historical & Museum Commission Property Survey of all historic properties throughout the Commonwealth of Pennsylvania.
- 1978, Transco Energy Company Survey, Delaware County, PA.
- 1985, Bakers Bay Retirement Center, Phase I & II, Philadelphia County, PA.

In Virginia

- 1979, Chatham Manor Survey, Stafford County, VA: Excavations at Chatham Manor National Historic Site in Fredericksburg, VA.
- 1983, Fort A.P. Hill Survey, Caroline County, VA: Reconnaissance and intensive survey project of four 18th century homestead complexes, the

- ruins of a large manor house, and an early church and academy site.
 1984, Ammar Archaeological Survey, Bluefield, VA.
 1985, Lake Gaston Water Supply Project Cultural Resources Reconnaissance, Lake Gaston, VA.

In West Virginia

- 1980, Van Voorhis Farm Site Archaeological Investigations.

SELECTED PUBLICATIONS:

- 1963 "Projectile Point Sequence at Breckenridge Shelter", Bulletin of the Arkansas Archaeological Society, Vol. III, No. 10, pg. 1-3.
 1965 Delaware Archaeology, Editor.
 1966 "Excavations at Pratt Shelter (3BE187) in Beaver Reservoir, Northwest Arkansas", Bulletin of the Arkansas Archaeological Society, Vol. VII, No. 4, co-authored with Hester A. Davis.
 1966 "Preliminary Excavations at the Old Martin Place, 3LR49, Millwood Reservoir, Arkansas", National Park Service, Southeast Region.
 1966 "Paleo-Indian in Delaware", Delaware Archaeology, Vol. 2, No. 3.
 1969 Archaeology in Delaware, Department of Public Instruction Pupil Guide, Editor.
 1970 "The Island Field: A Prehistoric Village and Cemetery", Delaware Archaeological Board.
 1970 "Adena Influence in the Middle Atlantic Coast", Adena: The Seeking Of and Identity, Ball State University, B.K. Schwartz, Editor.
 1970 "1970 Salvage Excavations at the Mispillion Site", The Archeolog, Vol. XXII, No. 2, co-authored with Nancy H. Warren.
 1970 "A Middle Woodland Cemetery in Central Delaware: Excavations at the Island Field Site", Bulletin of the Archaeological Society of Delaware, No. 8NS, co-authored with Nancy H. Warren.
 1973 "Cached Blades from a Millsboro Site", The Archeolog, Vol. XXV, No. 1.
 1973 "Prehistoric Mortuary Complexes of the Delmarva Peninsula", Proceedings of the 4th Annual Middle Atlantic Archeological Conference.
 1974 "A Brief Survey of Prehistoric Man on the Delmarva Peninsula", Transactions of the Delaware Academy of Science, Vol. 576.
 1974 "Webb Phase Mortuary Customs at the Island Field", Transactions of the Delaware Academy of Science, Vol. 576.

- 1974 "A Discussion of the Lithics, Ceramics, and Cultural Ecology of the Fox Creek-Selby Bay Paradigm as it Applies to the Delmarva Peninsula", 5th Annual Middle Atlantic Archeological Conference, co-authored with Daniel R. Griffith, Cara L. Wise, Richard E. Artusy, Jr.
- 1975 Lithic Source Notebook, Editor.
- 1975 "Environmental Adaptation on Delaware's Coastal Plain", Archaeology on Eastern North America, Vol. 3, co-authored with Daniel R. Griffith, Cara L. Wise, Richard E. Artusy, Jr.
- 1976 "Early Man at Holly Oak, Delaware", Science, Vol. 192, No. 4241, co-authored with John C. Kraft.
- 1976 "A Re-evaluation of the St. Jones River Site", Archaeology of Eastern North America, Vol. 4.
- 1982 "The Early/Middle Woodland Period in New Jersey: ca 1000 B.C.-A.D. 1000", New Jersey's Archeological Resources from the Paleo-Indian Period to the Present: A Review of Research Problems and Survey Priorities, New Jersey Department of Environmental Protection, Olga Chesler, Editor.
- 1982 "Intensive Archeological Excavations at the Hollingsworth Farm Site, Elkton, Maryland", Maryland Archeology, Journal of the Archeological Society of Maryland, Inc., Vol. 18, No. 1.

RESUME

Calvert W. McIlhany
106 Clover Lane
Bristol, VA 24201

Birth Date 8/8/41
SS # 415-68-9796
(703) 628-2794

EDUCATION:	The University of Tennessee	1964	Geology B.S.
	The University of Tennessee	1978	Anthropology M.A.
	The University of Tennessee		Ph.D. Candidate

EXPERIENCE: PROFESSIONAL

November 1965 - Aerospace Munitions Officer - United States Air Force.
June 1972 Managed storage, maintenance, training, quality control, and inspection functions of various squadron level munitions organizations.

August 1972 - Weapons Safety Officer - United States Air Force. Managed
May 1976 explosive, missile, and nuclear safety program for a Tactical Fighter Wing and several geographically separated units.

June 1977 - Archaeological Aide - Tennessee Department of Conservation,
August 1977 Division of Archaeology, Nashville, Tennessee. Predetermined two month period of employment while conducting survey of portion of Nolichucky River Basin.

June 1981 - Archaeological Consultant - Bartlett and Associates Geological
June 1984 Consultants, Abingdon, Virginia.

July 1984 - Research Associate and Branch Officer - MAAR Associates, Inc.,
present Bristol, Tennessee.

RESEARCH AND FIELD

June - August
1960 & 1961 Archaeological Field Crew Member - Department of Anthropology, The University of Tennessee, Knoxville. Melton Hill Reservoir Salvage Archaeology Project in Anderson County, Tennessee. Immediate supervisors: Dr. Charles H. McNutt and Mr. J. B. Graham.

September 1960 - Performed lithic and ceramic analysis, report preparation, and
December 1964 artifact illustration for numerous archaeological projects. Immediate supervisors: Dr. T. M. N. Lewis, Dr. Charles H. McNutt, Dr. Dan F. Morse, and Mr. J. B. Graham.

June 1964 - Archaeological Field Lab Supervisor - Department of Anthropology,
August 1964 The University of Tennessee, Knoxville. Supervised all field lab activities for the Nickajack Reservoir Salvage Archaeology Project in Marion County, Tennessee. Immediate supervisor: Mr. J. B. Graham.

June 1962 - Acted in same capacity as above for the Barclay Reservoir
August 1962 Salvage Archaeology Project in Stewart County, Tennessee. Immediate supervisor: Mr. J. B. Graham.

January 1977 - Laboratory Assistant. Department of Anthropology, The
January 1978 University of Tennessee, Knoxville. Performed analysis of
and lithic materials from sites 40MR40 and 40MR45 in Monroe
December 1980 - County, Tennessee. Immediate supervisors: Dr. Gerald F.
June 1981 Schroedl and Dr. Jefferson Chapman.

PROFESSIONAL
ORGANIZATIONS: Society for American Archaeology
Council of Virginia Archaeologists
Tennessee Anthropological Association
Archaeological Society of Virginia

RESEARCH
REPORTS:

1976 Early Archaic Side Notched Projectile Points. Manuscript on
file, Department of Anthropology, University of Tennessee,
Knoxville.

1977 Paleo-Indians in the Southeastern United States. Manuscript
on file, Department of Anthropology, University of Tennessee,
Knoxville.

Frequency, Variation, and Uses of Human Cerumen Types. Manu-
script on file, Department of Anthropology, University of
Tennessee, Knoxville.

Incidence of Separate Neural Arch in Lumbar Vertebrae of
Arikara Indians of South Dakota. Manuscript on file, Department
of Anthropology, University of Tennessee, Knoxville.

Archaeological Survey of the Middle Nolichucky River Basin of
Northeastern Tennessee. Manuscript on file, Tennessee Depart-
ment of Conservation, Division of Archaeology, Nashville.

Lithic Resources of the Middle Nolichucky River Basin and Their
Relationship to Prehistoric Chipped Stone Industries. Manu-
script on file, Tennessee Department of Conservation, Division
of Archaeology, Nashville.

1978 An Archaeological Survey of the Middle Nolichucky River Basin.
Master's Thesis, Department of Anthropology, University of
Tennessee, Knoxville.

1980 Current Research in Lithic Technology. Manuscript on file,
Department of Anthropology, University of Tennessee, Knoxville.

Changes in Use of Lithic Raw Materials During the Early and
Middle Archaic Periods. Manuscript on file, Department of
Anthropology, University of Tennessee, Knoxville.

1981

Changes in Environment and Areas of Exploitation: A Possible Explanation for Middle Archaic Changes in Lithic Raw Materials. Manuscript on file, Department of Anthropology, University of Tennessee, Knoxville.

Middle Archaic Shift in Use of Lithic Raw Materials. Manuscript on file, Department of Anthropology, University of Tennessee, Knoxville.

The Effect of Karst Topography on Paleo-Indian and Archaic Subsistence Patterns in Central Tennessee and Kentucky. Manuscript on file, Department of Anthropology, University of Tennessee, Knoxville.

Cultural Resource Management Reports: Attached

APPENDIX C
Artifact Inventory

ARTIFACT INVENTORY

SITE: 31RF47

MAAR PROJECT: NC-5B

RECORDER: C. W. McIlhany

DATE: 07/30/85

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
1	Excavation Unit 1 0 - 24 cm	1	Quartz flake.
2	Excavation Unit 1 24 - 34 cm	3	Ceramic sherds (cojoined to form a single sherd), crushed quartz temper, smoothed-over, simple stamped exterior, 6.5 mm thick.
		5	Charcoal fragments.
3	Excavation Unit 1 34 - 44 cm	35 Approx.	Charcoal fragments.
4	Excavation Unit 1 44 - 54 cm	14	Charcoal fragments.
5	Excavation Unit 1 54 - 64 cm	3	Charcoal fragments.
6	Excavation Unit 1 @ 58 cm	5	Charcoal fragments.
7	Excavation Unit 1 @ 64 cm	9	Charcoal fragments.
8	Excavation Unit 1 120 - 131 cm	1	Liter, soil sample with organic matter.
9	Excavation Unit 2 0 - 10 cm	4	Quartz flakes.
10	Excavation Unit 3 0 - 13 cm	2 1	Quartz flakes. Rhyolite flake.

SITE: 31RF141 & 142

MAAR PROJECT: NC-5B

RECORDER: C. W. McIlhany

DATE: 07/30/85

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
11	Site 31RF141	1	Broken quartz biface.
	Surface 50 m	5	Quartz flakes.
	N of NW corner		
	of yard		
12	Site 31RF141	5	Quartz flakes.
	Surface 20 m	1	White earthenware.
	N of NW corner	1	White earthenware with floral
	of yard		transfer print.
13	Site 31RF142	4	Quartz flakes.
	Surface	1	Rhyolite flake.
14	Site 31RF142	1	Quartz flake.
	Shovel Test 3		
	0 - 13 cm		
15	Site 31RF142	1	Quartz shatter fragment.
	Shovel Test 4	2	Rhyolite flakes.
	0 - 11 cm		
16	Site 31RF142	1	Quartz flake.
	Shovel Test 5		
	0 - 5 cm		
17	Site 31RF142	9	Quartz flakes.
	Excavation	2	Crystal quartz flakes.
	Unit 1	5	Rhyolite flakes.
	0 - 14 cm	4	Black chert flakes.
		1	Light grey chert flake.
		2	Ceramic sherds, sand temper, surface
			treatment unidentified.
		3	Fire cracked rock.
18	Site 31RF142	1	Quartz flake.
	Excavation	2	Jasper flakes.
	Unit 1	1	Crystal quartz shatter fragment.
	14 - 24 cm		
19	Site 31RF142	1	Liter, soil sample with charcoal.
	Excavation		
	Unit 1		
	Feature 1		
	30 - 45 cm		

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
20	Site 31RF142 Excavation Unit 2 0 - 13 cm	8	Quartz flakes.
		3	Crystal quartz flakes.
		2	Quartzite flakes.
		1	Chert flake.
		1	Chalcedony broken biface.
		2	Fire cracked rock.
		1	Ceramic sherd, crushed quartz temper, plain surface.
		1	Ceramic sherd, crushed quartz temper, unidentified surface treatment.
		1	Ceramic sherd, sand temper, plain surface.
		1	Charcoal fragment.
21	Site 31RF142 Excavation Unit 2 13 - 23 cm	2	Quartz flakes.
		1	Quartzite flake.

SITE: 31RF33

MAAR PROJECT: NC-5B

RECORDER: C. W. McIlhany

DATE: 07/31/85

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
22	Shovel Test 1 0 - 15 cm	7	Quartz flakes.
23	Shovel Test 1 @ 27 cm	1	Quartz flake.
24	Shovel Test 2 10 - 20 cm	1	Ceramic sherd, sand/grit temper, eroded surface.
25	Shovel Test 6 0 - 10 cm	2 1	Quartz flakes. Broken cast iron handle.
26	Shovel Test 6 10 - 20 cm	3 1	Quartz flakes. Silicified slate flake.
27	Shovel Test 7 18 - 26 cm	2 1	Quartz flakes. Quartzite flake.
28	Excavation Unit 1 0 - 20 cm	6 1	Quartz flakes. Black chert flake.
29	Excavation Unit 1 20 - 26 cm	2	Quartz flakes.
30	Excavation Unit 2 0 - 10 cm	18 1 1	Quartz flakes. Ceramic sherd, grit temper, simple stamped. Ceramic sherd, grit temper, eroded surface.
31	Excavation Unit 2 10 - 20 cm	12 1 1 1 10	Quartz flakes. Crystal quartz flake. Ceramic sherd, sand temper, cord marked. Ceramic sherd, grit temper, eroded surface. Charcoal fragments.
32	Excavation Unit 2 20 - 30 cm	9 1 5	Quartz flakes. Ceramic sherd, grit temper, eroded surface. Charcoal fragments.

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
33	Excavation	1	Quartz flake.
	Unit 2	1	Ceramic sherd, grit temper,
	30 - 36 cm	6	unidentified surface treatment. Charcoal fragments.
34	Excavation	19	Quartz flakes.
	Unit 2	3	Quartzite flakes.
	36 - 45 cm	1	Rhyolite flake.
		22	Charcoal fragments.

SITE: 31RF144

MAAR PROJECT: NC-5B

RECORDER: C. W. McIlhany

DATE: 07/31/85

<u>Cat. #</u>	<u>Provenience</u>	<u>Quantity</u>	<u>Artifact Description</u>
35		39	Quartz flakes.
		1	Quartzite flake.
		5	Broken quartz bifaces.
		1	Fire cracked rock, quartzite.
		1	Amethyst table glass fragment.
		8	White earthenware fragments.
		1	White earthenware fragment with blue decoration.
		1	White earthenware fragment with hand painted purple floral design.
		1	Stoneware crock fragment, lip portion, grey/buff glaze.

END

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