

## 8.0 P H A S E I I R E S U L T S

## **8.0 PHASE II RESULTS**

Between December 19, 2005 and February 10, 2006, a total of 65 1.0-meter square test units and six 30.0-meter long by 1.0-meter wide test trenches were excavated within the SR 1 North Frederica Grade Separated Intersection project's APE. The Phase II Archaeological Investigations uncovered a significant body of data concerning the geological formation of the landscape, as well as the cultural remains of Native American and later Euroamerican occupants. The results of the Phase II investigations are discussed below.

### **8.1 Area 1**

#### *8.1.1 Soil Stratigraphy*

Thirty-nine test units were excavated in Area 1 during the Phase II archaeological investigation (Figure 11). The soil profile in Area 1 evidenced a fairly uniform 25.0 to 39.0-centimeter thick dark brown to dark yellowish brown (10YR 3/3 to 4/4) sandy loam Ap-horizon throughout the parcel. TU N500 E589 exhibited two plowzone horizons, a 35.0-centimeter thick dark yellowish brown (10YR 4/4) sandy loam deposit on the top, and a brown (7.5YR 4/3) sandy loam deposit from 55.0 cmbd to the bottom of the excavation at 73.0 cmbd (Appendix E). Brackish water quickly percolated up from the floor of the unit (something that was not unexpected given the area's close proximity to a marsh), prohibiting further excavation. A visitor to the site claimed that the southern edge of the Area 1 had been subjected to infilling to increase the area of arable land. Unfortunately, the informant's name and date of visit was not collected, and this information was not substantiated through background research.

A 10.0 to 21.0-centimeter thick yellowish brown (10YR 5/4 to 5/6) sandy loam E-horizon was recorded below the plowzone. Deeper pockets of the E-horizon soil ranging from 30.0 to 40.0 centimeters thick were observed in the Phase II test units N530 E589, N558 E545, N559 E545, N576 E539, N660 E519, and N661 E584, as well as in the Phase I test units N570 E525, N580 E543, N590 E554, N660 E584, and N680 E587, indicating an undulating subsoil surface below the plowzone horizon.

The test excavations encountered three soil types associated with a Bt-horizon. TU N690 E530, located toward the northern limits of Area 1, produced a light yellowish brown (2.5Y 6/4) silty sand Bt-horizon from 70.0 to 83.0 cmbd (Stratum III), and a light yellowish brown mottled with dark yellowish brown (2.5Y 6/4 mottled with 10YR 4/6) sand Bt-horizon from 83.0 cmbd to the bottom of the excavation at 95.0 cmbd (Stratum IV). As seen in Photograph 26, numerous root tendrils and infilled root krotovena of varying widths penetrated through the plowzone down into Stratum IV, transporting the overlying soil matrices down into the successive horizons. The varying size and depth of penetration of these anomalies suggested that the northern portion of the landform consisted of a stable upland setting and that it supported a cover of vegetation for some time. A similar Bt-horizon, composed of a light olive brown (2.5Y 5/3) silty sand, was observed from 75.0 cmbd to the bottom of the excavation at 95.0 cmbd in TU N660 E519.

Small pockets of a dark yellowish brown to yellowish brown (10YR 4/6-5/6) Bt-horizon were documented in several locations in Area 1. TUs N530 E589 and N536 E526 exhibited a yellowish brown (10YR 5/6) gravelly sand Bt-horizon between 73.0 and 77.0 cmbd (Photograph 27). TUs N590 E589, N591 E589, and N594 E559 produced a yellowish brown (5/4 to 5/8) sandy loam to silt loam Bt-horizon between 60.0 and 65.0 cmbd (Photograph 28). In the northeastern portion of Area 1, TUs N630 E628 and N630 E629 contained a dark yellowish brown (10YR 4/6) silty clay Bt-horizon beginning between 65.0 and 73.0 cmbd and underlying Feature 11. The remaining excavations conducted in Area 1 yielded a strong brown (7.5YR 4/6 to 5/6) sandy loam to silty sand Bt-horizon generally recorded between 60.0 and 70.0 cmbd.

### *8.1.2 Features*

Feature 1. Feature 1 was identified in TUs N575 E539, N575 E540, N576 E539, and N576 E540 at the interface between the Ap-horizon and the E-horizon. The feature consisted of a roughly oval stain approximately 130.0 centimeters in length by 70.0 centimeters in width. The initial excavation of Feature 1 in TU N576 E539-540 exposed a dark yellowish brown (10YR 4/4) loamy sand feature matrix containing five percent gravel content surrounded by a yellowish brown (10YR 5/6) loamy sand E-horizon exhibiting less than two percent gravels (Photograph 29). In exposing the southern limits of Feature 1 in TU N575 E539-540, it was discovered that Feature 1 was comprised of two separate strata, designated Stratum I and Stratum II, with

Stratum I nested within Stratum II. Stratum I consisted of a dark yellowish brown (10YR 4/4) loamy sand with five percent gravel content located in the center of Feature 1. Stratum I extended for a depth of 49.0 to 69.0 cmbd. Stratum II consisted of a yellowish brown (10YR 5/4) loamy sand with approximately five percent gravel content and extended from 49.0 to 79.0 cmbd (Photograph 30).

During removal, Feature 1 evidenced considerable variation in its subsoil profile. The soil underlying the bottom of Feature 1 consisted of a yellowish brown (10YR 5/6) very coarse sand C-horizon with approximately 30 to 40 percent gravel content (Photograph 31). The C-horizon extended into the northeast corner of TU N575 E539, Stratum III, Level 2 (82.0 to 92.0 cmbd), Stratum III, Level 1 (60.0 to 70.0 cmbd) of TU N575 E540, and the southeast corner of TU N576 E539, Stratum III, Level 1 (82.0 to 92.0 cmbd), but was not present in the soil profile of TU N576 E540 (Appendix C). Pockets of 10.0 to 20.0-centimeter thick strong brown (7.5YR 5/6) sandy loam Bt-horizon subsoil were noted at 60.0 cmbd in the southwest corner of TU N575 E539 and 70.0 cmbd in the northwest corner of TU N576 E539, contiguous to the C-horizon soil. The B- and C-horizons in TUs N575 E539, N575 E540, and N576 E539 were overlain by an 8.0 to 29.0-centimeter thick E-horizon. TU N576 E540 exhibited a 40.0-centimeter thick E-horizon transitioning into a mottled E/B horizon at 80.0 cmbd.

The excavation of Feature 1 produced a small collection of debitage, FCR, and one hammerstone from Strata I and II. A varied selection of lithic material was encountered in the debitage collection (n=18), including jasper (n=7, 38.9%), quartz (n=2, 11.1%), chert (n=2, 11.1%), and rhyolite (n=7, 38.9%). Primary (n=1), secondary (n=6), and tertiary (n=8) flakes; a piece of shatter (n=1); a flake fragment (n=1); and unclassified (n=1) refuse were noted in the assemblage. No temporally diagnostic artifacts were recovered in the Feature 1 collection.

The distribution of the collection revealed a distinct trend in lithic material type between Stratum I and Stratum II. The largest concentration of prehistoric artifacts in Feature 1 was collected from Stratum II of TU N575 E540 (n=18). Stratum II in TU N575 E539 yielded two prehistoric artifacts. Stratum I produced a total of six artifacts in TU N575 E540 and one piece of shatter in TU N575 E539. No artifacts were recovered from Feature 1 in TU N576 E539-540. Stratum I

contained a piece of quartz shatter, three rhyolite secondary flakes, and three quartzite FCR fragments. Rhyolite secondary (n=2), tertiary (n=1), and flake fragment (n=1) debris; jasper primary (n=1), secondary (n=1), and tertiary (n=5, including one microflake) debitage; quartz tertiary (n=1) refuse; chert tertiary (n=1) and unclassified (n=1) debris; a sandstone hammerstone; and quartzite FCR (n=7) comprise the artifact collection in Stratum II.

The surrounding E-horizon produced a similar collection of artifacts as noted in Feature 1 (Table 13). The first 10.0-centimeter level of the E-horizon produced the largest quantity of artifacts, with counts dropping appreciably below this level. Historic and prehistoric artifacts were recorded in Level 1 of the E-horizon, indicating minor disturbance of the upper level of the subsoil through plow activities. A few lithic artifacts noted in Levels 2 and 3 of the E-horizon in TU N576 E539 may possibly represent deposits from a living surface or secondary intrusion from Feature 1, but the small size of the collection prohibits any definitive statements regarding integrity or function.

**Table 13. Artifact Assemblage in the E-horizon Surrounding Feature 3, Area 1.\***

TU #	Level	Depth (cmbd)	Artifacts
N575 E539	1	51.0 to 60.0	1 shell, eroded 1 cut nail
	2	60.0 to 72.0	1 rhyolite secondary flake
N576 E539	1	42.0 to 51.0	1 jasper secondary flake 1 quartz tertiary flake 1 rhyolite tertiary flake
	2	51.0 to 59.0	1 jasper tertiary flake 1 quartz shatter
	3	59.0 to 71.0**	1 rhyolite secondary flake
N576 E540	1	51.0 to 58.0	2 brick fragments 1 jasper flake fragment; terminal end 1 jasper primary flake 4 FCR

\*No E-horizon was recorded in TU N575 E540.

\*\*Depths in Level 3 reflect corrected measurements from re-established datum. Actual measurements are 70.0 to 82.0 cmbd.

The recovery of a hammerstone and various stages of waste flakes and shatter in Feature 1 reflect material culture associated with a stone tool processing station. Jasper, chert, rhyolite, and quartz debris found in Stratum II and the surrounding E-horizon represent local and non-local materials used in tool production. However, no discrete concentrations of waste flakes by reduction stage or material were identified in the vertical or horizontal distribution to suggest the duration of use. A charcoal sample recovered in the south half of Feature 1, Level 1 (49.0 to 59.0 cmbd), Stratum

I, TU N575 E540, produced a radiocarbon date of 1230 +/- 40 B.P. (A.D. 720), and possibly reflects a middle Woodland I period of occupation for the feature (Appendix G). The lack of jasper and chert debitage in Stratum I suggests that this stratum is a later intrusion into Stratum II. Stratum I does not likely represent a second knapping episode, as rhyolite debitage was found in both Strata I and II and possibly illustrates an intrusion from historic plowing of the landscape or the effects of bioturbation.

Features 2A and 2B. Features 2A and 2B were identified at the interface between the plowzone and the E-horizon in TU N594 E559. Feature 2A consisted of a roughly oval-shaped stain approximately 30.0 centimeters in diameter. Feature 2B was similarly shaped but smaller and approximately 22.0 centimeters in diameter. Both stains contained a dark yellowish brown (10YR 3/4) sandy loam matrix (Photograph 32).

Feature 2A extended from 39.0 to 120.0 cmbd. One possible quartz flake was recovered from Level 1 (39.0 to 49.0 cmbd) of the feature. No additional artifacts were recovered from Feature 2A. Feature 2B extended from 44.0 to 59.0 cmbd. No artifacts were recovered from Feature 2B (Photograph 33). Based on the paucity of cultural materials and the dimensions of the features, Features 2A and 2B are interpreted as rodent/root disturbances.

Features 3 and 3A. Feature 3, a yellowish brown (10YR 4/6) sandy loam matrix containing ten percent gravels, was first identified below the Ap-horizon in TU N570 E525 during the Phase I survey of Area 1. A total of 41 artifacts, including a variety of jasper, quartz, and quartzite debitage; quartzite FCR fragments; a jasper core fragment; and two brick fragments, was encountered in the 52.0-centimeter thick feature matrix, which ended at a culturally sterile strong brown (7.5YR 4/6) sandy clay Bt-horizon containing 10 to 20 percent gravels. Artifact counts were greatest in the first 20.0 centimeters of the feature profile and decreased with depth. No trends by material type or reduction stage were noted in the vertical distribution to indicate discrete chipping episodes.

In the Phase II investigation, TU N570 E524 was placed to the west of Feature 3 to identify the horizontal limits of the feature. The excavation of Feature 3 uncovered a gently sloping channel

trending from its deepest point in the southeast corner of the unit to the northwest (Figure 44). An abrupt rise in the Bt-horizon was exposed at 62.0 cmbd in the southwestern portion of the test unit, and extended below the feature matrix to 90.0 cmbd in the eastern portion of the test unit (Photograph 34). Feature 3 extended from 51.0 to 90.0 cmbd. Two carbonized wood fragments and a carbonized nutshell fragment, identified as products of the hickory species, were identified in a 1.5-liter flotation sample taken from the southeastern quadrant of TU N570 E524, 80.0 to 90.0 cmbd, in Feature 3 (Appendix F).

Artifact density was moderate in Feature 3 within TU N570 E524. Seven historic artifacts, one faunal remain, and 37 prehistoric artifacts were recovered from Feature 3. Historic artifacts included four fragments of coal, two fragments of slag, and one creamware fragment. One small avian long bone fragment, found in level 3 (70.0 to 80.0 cmbd), represented the only faunal material found in Feature 3. Prehistoric artifacts included 25 pieces of debitage, eight FCR, and four stone tools. Jasper (n=15) was the predominant material type recovered in the debitage collection, with examples of chert (n=2), argillite (n=3), quartzite (n=2), quartz (n=2), and chalcedony (n=1) also found in the assemblage. Various stages of reduction debris were observed in the debitage collection, including secondary (n=9), primary (n=1), and tertiary (n=11) flakes; a chert flake fragment (n=1); and unclassified (n=3) jasper and chalcedony debitage. Jasper, quartz, and quartzite microflakes (n=8) accounted for 72.7 percent of the tertiary flake collection. Stone tools included two jasper scrapers, one jasper core, and one sandstone abrader. No diagnostic tools or Native American ceramics were noted in Feature 3.

Analysis of the artifact assemblage identified lithic type and reduction stage debris distribution patterns within the profile of the feature matrix of TU N570 E524. In terms of raw artifact counts, Level 1 (51.0 to 60.0 cmbd) and Level 3 (70.0 to 80.0 cmbd) yielded fairly close counts, with 14 prehistoric and six historic artifacts and one faunal and 12 prehistoric artifacts, respectively. Level 2 (60.0 to 70.0 cmbd) produced six prehistoric artifacts, while Level 4 (80.0 to 90.0 cmbd) contained one historic artifact, a creamware sherd, and two prehistoric artifacts. The excavators suspect that the creamware sherd, as well as the single bird bone fragment, eroded out of the wall of the Ap-horizon during the excavation and do not as a consequence represent an *in situ* find, given the absence of any rodent/root stains in the feature or other

historic-period finds in the same context. The majority of the historic artifact collection, specifically the coal and slag fragments, was recovered in Level 1. Of the total counts, Levels 1 and 2 exhibited a greater number of initial reduction debris, including one primary chert flake and argillite (n=3), and jasper (n=3) and quartz (n=1) secondary flakes, while Levels 3 and 4 yielded only one jasper and one quartzite secondary flake. Conversely, Levels 3 and 4 produced six jasper, one quartz, and one quartzite microflakes. Water-worn cortex was observed on secondary flakes from Levels 1, 3, and 4, illustrating the use of local gravel resources. The portion of Feature 3 that fell within TU N570 E525 exhibited a general mix of primary, secondary, and tertiary flakes of jasper, quartz, and quartzite throughout all levels of the feature matrix.

On the basis of the artifact assemblage, Feature 3 was interpreted as representing a lithic reduction work station focused on long-term use of local jasper, chert, quartz, and quartzite gravels. The presence of two jasper core fragments and two jasper scrapers, combined with an assortment of jasper debitage, suggests that jasper was the primary lithic material used for tool manufacture in Feature 3. A small number of argillite flakes recovered in the top 20.0 centimeters of the feature in TU N570 E524 illustrates an isolated episode of knapping utilizing a non-local resource. Jasper, quartz, and quartzite microflakes recovered in Levels 3 and 4 of TU N570 E524, but not in the overlying deposit, possibly illustrate a limited episode of tool maintenance activity in the earliest part of the feature's occupation. However, this interpretation may be skewed by the use of 0.3-centimeter mesh screen in the excavation of TU N570 E524, as opposed to 0.64-centimeter mesh screen in TU N570 E525. It is uncertain the period of occupation in Feature 3, as no diagnostic artifacts were encountered in the feature assemblage. No ground stone tools, such as hammerstones, were recovered from Feature 3 to indicate nut processing activities, despite the identification of one carbonized hickory nutshell fragment in a soil sample extracted from 80.0 to 90.0 cmbd in the southeast quadrant of TU N570 E524 (Appendix F). Given the presence of one nutshell fragment, this one ecofact may possibly illustrate a secondary intrusion from the overlying living surface and does not accurately depict the activities within Feature 3.

Due to time and budget constraints, the remainder of Feature 3 could not be excavated, though it was evident the feature extended into all four walls of TUs N570 E524 and N570 E525. The plowzone was removed from surrounding test units TU N568 E526, TU N569 E524, TU N569 E525, and TU N571 E524 to determine the extent of Feature 3. However, the boundaries of Feature 3 were still positively determined after the removal of the plowzone. During the process of removing the plowzone, a second feature, designated Feature 3A, was noted in TUs N568 E526, N569 E525, and N569 E524. Feature 3A consisted of an oval stain intruding from or possibly part of Feature 3. Feature 3A was approximately 204.0 centimeters in length and approximately 74.0 centimeters in width. Feature 3A was comprised of a dark grayish brown (10YR 4/2) silt loam with two small concentrations of charcoal flecking within the feature matrix (Photograph 35).

Feature 4. Feature 4 was discovered at the interface between the plowzone and the E-horizon in TU N558-559 E545. Feature 4 consisted of an amorphous-shaped stain approximately 62.0 centimeters in length and approximately 50.0 centimeters in width trending in a northwest to southeast direction. The feature matrix was comprised of a dark yellowish brown (10YR 4/4) sandy loam surrounded by a yellowish brown (10YR 5/6) loamy sand E-horizon (Photograph 36).

The profile of the feature revealed a shallow, 17.0-centimeter deep bowl-shaped depression that extended into a deep, narrow channel in the southern portion of the feature (Photograph 37). The deepest portion of the feature extended to 95.0 cmbd. A small assemblage of prehistoric artifacts was recovered from the feature fill, including a tested quartzite cobble; a quartzite core fragment; quartzite primary (n=1), secondary (n=3), and tertiary (n=1) debitage; jasper secondary (n=2), tertiary (n=1), and unclassified (n=2) debitage; quartz secondary (n=3) debris; and FCR (n=2). One jasper secondary flake was excavated from Level 2, 52.0 to 64.0 cmbd of the feature, with the remainder of the collection found in Level 1, 42.0 to 52.0 cmbd. The surrounding E-horizon produced a similar compliment of artifacts, including a brick fragment, unclassified chert (n=1) debris, jasper secondary (n=2) flakes, quartz secondary (n=1) and unclassified (n=1) debitage, quartzite primary (n=2) flakes, a jasper scraper and FCR (n=12). Level 1 of the E-horizon yielded the bulk of the artifact collection (n=19), with a jasper scraper found in TU N559 E545,

Level 2 (52.0 to 62.0 cmbd). A strong brown (7.5YR 5/6) sandy loam Bt-horizon, recorded between 72.0 to 75.0 cmbd, did not contain any cultural materials.

Feature 4 appears to have been a non-cultural ground disturbance associated with tree roots. The irregularly shaped bottom of the feature, with several rills and undulations, suggested roots working their way out and down into the soil profile, with the deepest portion of the feature representing the remnant of a tap root (Photograph 38). The shallow upper level of the feature, combined with the 25.0 to 30.0-centimeter diameter tap root stain into the subsoil, reflected an E-horizon subjected to soil deflation, as a tap root of that girth would have likely supported a much larger root mass. In addition, the distribution of the artifact assemblage within the top 20.0 centimeters of the feature fill and the surrounding E-horizon suggested that soil deflation had effectively removed the thicker zone of homogenous artifact mixing within the feature matrix.

Features 5, 5A, and 7. Feature 5 consisted of an oval-shaped stain approximately 190.0 centimeters in length and 55.0 centimeters in width discovered at the interface of the Ap- and E-horizons in TUs N620 E589, 620.5 E588, N620.5 E590, N621 E589, and 621.5 E588. The feature matrix was composed of a dark brown (10YR 3/3) loamy sand with charcoal flecking containing less than five percent gravel content (Photograph 39). Feature 5 was bordered by what initially appeared to be the underlying E-horizon. In fact, Feature 5 nested within a second cultural feature, designated Feature 5A, composed of an approximately 225.0-centimeter long by 150.0-centimeter wide dark yellowish brown (10YR 4/4) loamy sand fill containing less than five percent gravel content. A yellowish brown (10YR 5/4) sandy loam E-horizon containing approximately five percent gravel content encircled Feature 5 and Feature 5A. A densely compact, strong brown (7.5YR 4/6) loamy clay Bt-horizon containing approximately ten percent gravel content was observed directly below the plowzone in the northern portion of TU N621 E589 and the northeastern portion of TU N621.5 E588. Feature 7 was initially identified as a 20.0-centimeter wide by 40.0-centimeter long oval dark brown (10YR 3/3) loamy sand stain located directly northwest of Feature 5. During excavation it was determined that Features 5 and 7 were indeed part of the same feature, but appeared separate due to several deep plowscars bisecting the feature (Figure 45) .

Feature 5 was bisected into northern and southern halves along the N621.1 transect and the south half excavated in 5.0-centimeter levels. The removal of Feature 5 exposed a gently undulating bottom extending between 102.0 cmbd in the western portion of the feature to 88.0 cmbd in the eastern portion (Figure 46). The subsequent excavation of the north half revealed a narrow channel of feature fill with a flat bottom in the central portion of the feature gently sloping to the east and west (Photograph 40).

Feature 5 revealed a varied assemblage of prehistoric artifacts. Debitage (n=160) accounted for the majority of the artifact assemblage, and contained examples of primary (n=7), secondary (n=49), and tertiary (n=104) debris. A small number of microflakes (n=41) was noted within the tertiary flake assemblage. Jasper (n=126) was the predominant material type found, and it accounted for 78.8 percent of the debitage collection. Other material types included quartzite (n=10, 6.3%), chert (n=8, 5%), quartz (n=8, 5%), rhyolite (n=4, 2.5%), siltstone (n=1, 0.6%) and sandstone (n=1, 0.6%). Approximately 21.2 percent (n=34) of the debitage collection exhibited evidence of exposure to intense heat. Jasper (n=30, 88.2%) yielded the largest concentration of heat-treated debitage, followed by quartzite (n=1, 2.9%), chert (n=1, 2.9%), sandstone (n=1, 2.9%), and quartz (n=1, 2.9%). Not surprisingly, fragments of FCR (n=11) were also recovered in Feature 5. Interestingly, no stone tools were recovered from Feature 5.

A small number (n=8) of pottery fragments were recovered from within the Feature 5 soil matrix as well. Accokeek ware (900 to 300 B.C.) was the most prevalent ceramic recovered in Feature 5. Accokeek ware consists of a sand- or crushed-quartz-tempered ceramic that is often reddish in color due to a high ferruginous content of the clay (Diagnostic Artifacts in Maryland, accessed 25 September 2006). Examples of fabric/textile impressed exterior (n=2) and cord-marked exterior (n=4) decorations were noted in the ceramic collection. One thick-walled sherd of Accokeek ware was too eroded to identify any surface decoration. The remaining sherd was not typed due to severe erosion of temper and body, but appeared to possibly have a grit and sand temper (Photograph 41).

One artifact of particular interest was recovered from Feature 5. Level 1 (42.0 to 49.0 cmbd) of Feature 5 in TU N620 E589 contained a possible bead (Photograph 42). The small, cylindrical

artifact, measuring approximately 8.0 millimeters long and 4.0 millimeters in diameter, exhibited parallel, diagonal end cuts (Photograph 43). The bore of the possible bead measured approximately 1.5 millimeters. Initial analysis of the bead material identified bits of sand and other particulates within the matrix, suggesting this object was comprised of clay or possibly limonite. No other artifacts similar to this type were recovered within the entire project area.

In addition to the prehistoric artifact assemblage, a small assortment of faunal and historic artifacts was also excavated from Feature 5. Faunal remains included one fragment of shell. Several historic artifacts were noted and included two fragments of whiteware, a brick fragment, and a fragment of coal. The intrusion of historic artifacts may be the result of plowing activities or bioturbation, as the historic artifacts were predominantly found in the top level of Feature 5.

Analysis of the vertical and horizontal distribution of the artifact assemblage in Feature 5 produced limited interpretations regarding the feature. In general, the largest number of artifacts was recovered from Level 1 (42.0 to 49.0 cmbd) (n=31), Level 2 (49. to 54.0 cmbd) (n=20), and Level 4 (59.0 to 64.0 cmbd) (n=23), with artifact counts decreasing slightly with depth. The selection of debitage reflected varied stages of stone tool production, from initial processing of raw materials (primary and secondary debris) to final shaping of the tool (tertiary). Primary and secondary flakes utilized as cutting and/or scraping tools illustrated expedient tool manufacture. Tool maintenance and sharpening were also evident in Feature 5, as evidenced by microflakes found throughout the feature. A small amount of rhyolite debris was found in Level 5 (64.0 to 68.0 cmbd) (n=1) and Level 7 (72.0 to 76.0 cmbd) (n=3), the only notable trend in material type found in Feature 5. The recovery of middle Woodland I period Accokeek ceramics, as well as one untyped ware, in Levels 1, 2, 4, 8 (76.0 to 80.0 cmbd), and 10 (85.0 to 90.0 cmbd), attributable perhaps to food preparation and storage activities, suggested that Feature 5 served as a storage pit. However, no significant discernable patterns by lithic material, reduction stage, or ceramics ware were observed within the feature matrix to suggest that the feature contained any discrete episodes of activity or cultural surfaces within the matrix.

Feature 5A was bisected along the N621.4 line, and the south half of the feature was removed in 5.0-centimeter levels (Photograph 44) (Figure 47). Two strata were exposed in the excavation of

Feature 5A. Stratum I consisted of a mottled brown and dark grayish brown (10YR 4/3 mottled with 10YR 4/2) sandy loam that extended from approximately 40.0 to 111.0 cmbd. Stratum II contained a yellowish brown (10YR 5/6) sandy loam and extended from 91.0 to 111.0 cmbd (Figure 48). In general, the deepest portions of Strata I and II were found in TU N621 E589 and became progressively shallower to the east in TU N620.5 E590. Feature 5A was surrounded by the E-horizon and Bt-horizon to the south, east, and west, and by the Bt-horizon to the north.

The excavations in Feature 5A yielded prehistoric artifacts exclusively. Debitage (n=83, 89.2%) included examples of jasper (n=69), quartz (n=12), and quartzite (n=2). Tertiary flakes (n=47) accounted for 56.6 percent of the debitage collection, followed by secondary flakes (n=31, 37.3%) and primary flakes (n=5, 6.0%). Jasper (n=7) and quartz (n=1) microflakes were identified within the tertiary flake collection. One jasper biface was recovered from within Feature 5A, in TU N620.5 E590, 66.0 to 71.0 centimeters below ground surface. Three FCR were also recovered from Feature 5A.

Six prehistoric ceramic sherds were recovered from the northern half of Feature 5A; no ceramic sherds were noted in the southern half. All six ceramic fragments were identified as middle Woodland I period Accokeek. Three sherds exhibited textile/fabric impressed decoration, while three showed cord-marked impressions. The ceramic sherds were uncovered at 61.0 to 66.0 cmbd (n=3) and 66.0 to 71.0 cmbd (n=3) of the feature.

Unlike Feature 5, the opening 17.0 centimeters of Feature 5A contained no artifacts. The greatest vertical density of prehistoric materials was recorded within Level 5 (66.0 to 71.0 cmbd) (n=30) and Level 6 (71.0 to 76.0 cmbd) (n=25), with artifact counts dropping off appreciably below Level 6. The density of jasper and quartz debitage and the recovery of a jasper biface and a utilized quartz flake suggested Feature 5A represented a brief episode of tool manufacture/maintenance that was subsequently abandoned or buried by later activities, possibly associated with Feature 5. The presence of Accokeek ceramics in Levels 4 and 5 suggested that these materials were possibly deposited after the debitage concentration, as a small number of debitage, but no ceramics, were encountered below Level 6.

An E-horizon was noted to the east, south, and west of Feature 5 and Feature 5A but was absent from the northern portion of the features. The E-horizon extended from 45.0 to 67.0 cmbd and was excavated in 10.0 centimeter levels within the natural strata. Level 1 (45.0 to 57.0 cmbd) revealed two fragments of creamware, one brick fragment, and one piece of coal. Prehistoric artifacts included jasper secondary (n=9) and tertiary (n=3) flakes, jasper flake fragments (n=3), quartz secondary flakes (n=2), and one piece of FCR. Four fragments of undecorated Accokeek type ceramic sherds were also discovered. Level 2 (57.0 to 70.0 cmbd) revealed jasper primary (n=3) and secondary (n=9) flakes, one jasper flake fragment, a quartz secondary flake (n=1), and a rhyolite secondary flake. Three fragments of prehistoric ceramic were recovered from Level 2 and included two fragments of undecorated Accokeek ware and one fragment of Dames Quarter. No artifacts were recovered from the Bt-horizon surrounding Feature 5 and Feature 5A.

Flotation samples collected from 95.0 to 100.0 cmbd in the north half of Feature 5, TU N620.5 E588, and 76.0 to 81.0 cmbd in the north half of Feature 5A, TU N621 E588, revealed evidence of carbonized wood, nutshell, bark, and other unidentifiable plant remains. Interestingly, both Features 5 and 5A contained wood charcoal identified as hickory and red oak. However, only Feature 5A yielded hickory nutshell fragments, in this case five nutshell fragments larger than two millimeters in size. Feature 5A also contained a larger number of hickory (n=7) and an equal count of red oak (n=2) wood charcoal fragments compared to Feature 5 (hickory, n=2; red oak, n=2; unidentified oak species, n=1) (Appendix F).

Features 5 and 5A may illustrate an example of feature reuse by Native Americans. The initial characterization of Features 5 and 5A based on the recovery of debitage, middle Woodland I period pottery, and the presence of hickory nutshell fragments reflects a possible nutmeat storage pit containing lithic reduction debris impacted by a second disturbance. However, analysis of the artifact distribution patterns and material assemblage suggests that Features 5A and 5 are associated with two temporally distinct occupations. First, a carbon sample taken from 76.0 to 81.0 cmbd in the north half of Feature 5A, TU N621.5 E588, yielded a radiocarbon age of 3400 +/- 40 B.P. (1450 B.C.), corresponding to an early Woodland I period association (Appendix G). The carbon date is slightly older than the known date range for the Accokeek ceramics recovered from within Features 5 and 5A. Indeed, the Dames Quarter ceramic sherds found in the E-

horizon surrounding Features 5 and 5A have an accepted date range of 1000 to 750 B.C., similar to the Accokeek ware, and postdate the radiocarbon age of the charcoal sample by 450 years.

Second, Feature 5A contains a defined horizon of jasper and quartz debitage in Levels 5 and 6 with ceramics recovered from Levels 4 and 5. This discrete deposit of jasper and quartz debitage possibly illustrates an intact lithic reduction episode. Conversely, a general mix of debitage and ceramics was recovered throughout the profile of Feature 5. The general distribution of debitage and ceramics throughout Feature 5 and the isolated deposit of ceramics overlying a defined debitage episode in Feature 5A suggest that the ceramics in Feature 5A may represent excavated spoils from Feature 5 deposited over Feature 5A.

While fragments of prehistoric ceramics and nutshell remains indicate storage activities, Features 5 and 5A did not yield any *in situ* evidence of storage vessels, hearth remains, or processing of nutmeat. It is suggested by the artifact distribution patterns that Feature 5A served as an early Woodland I period lithic reduction workstation. During the middle Woodland I period, Feature 5 was excavated into Feature 5A, and Feature 5 may possibly represent a nutmeat storage activity given that ceramics and debitage were found mixed throughout the Feature 5 matrix, with ceramic overlying the debitage in Feature 5A. The recovery of nutshell fragments in Feature 5A is likely attributed to the activities in Feature 5 intruding into the surrounding Feature 5A matrix, such as surface debris eroding into the open pit, as no ceramics were encountered below Level 5 to suggest storage activities in Feature 5A.

Feature 6. Feature 6, a 45.0-centimeter long by 38.0-centimeter wide stain, was recorded at the interface between the plowzone and E-horizon in TU N590-591 E589 (Photograph 45). The feature matrix consisted of a brown (10YR 4/3) sandy loam surrounded by a yellowish brown (10YR 5/6) sandy loam E-horizon. The profile of Feature 6 consisted of a small, shallow, 28.0-centimeter-deep depression exhibiting an irregularly shaped bottom. Several small pockets of feature fill extended into the surrounding subsoil (Photograph 46). A small slip-trail redware sherd, a quartz tertiary flake, and an FCR fragment were recovered in Level 1 (45.0 to 55.0 cmbd) of Feature 8, TU N590 E589. No artifacts were recovered from the northern half of Feature 6. A small rodent run was noted extending from the center of the feature to the north.

Feature 6 is interpreted as a rodent disturbance given the absence of any appreciable quantities of prehistoric or historic artifacts and the numerous in-filled tunnels and runs extending from the feature into the surrounding subsoil.

Feature 8. Feature 8, a 1.8-meter long by 1.0-meter wide oval stain, was recorded at the interface between the plowzone and E-horizon in TU N560-561 E589-590. The feature matrix consisted of a yellowish brown (10YR 5/6) loamy sand containing 5 percent gravels and was surrounded by a yellowish brown (10YR 5/6) sandy loam E-horizon overlying a strong brown (7.5YR 5/6) sandy loam containing 20 percent gravels (Photograph 47). The depth of the E-horizon varied surrounding Feature 8, from 20.0 to 22.0 centimeters thick in TU N560 E589-590 to 10.0 centimeters thick in the northern limits of TU N561 E589-590 (Figure 49).

The excavation of Feature 8 revealed a deep, pit-shaped depression that extended from 50.0 to 130.0 cmbd (Photograph 48). Surprisingly, very few artifacts were recovered from the feature matrix. One jasper secondary flake and one sandstone FCR fragment were recovered from Level 2 (60.0 to 70.0 cmbd) in TU N560 E590, while Level 3 (70.0 to 80.0 cmbd) in the same test unit produced two quartzite FCR fragments. No other artifacts were found in Feature 8. This trend continued into the surrounding subsoil horizon, as illustrated in Table 14. At least one artifact, the colorless bottle glass fragment, is attributed to plow disturbance introducing refuse into the E-horizon, and may include artifacts in the prehistoric artifact assemblage as well.

**Table 14. Artifact Assemblage Recovered from the E- and Bt-horizons Surrounding Feature 8.**

<b>TU #</b>	<b>Stratum</b>	<b>Level</b>	<b>Depth (cmbd)</b>	<b>Artifacts</b>
<b>N560 E589</b>	II (E)	1	43.0-54.0	1 quartzite utilized flake
	III (B)	1	64.0-71.0	1 quartz primary flake 2 ceramic; possibly Minguannan
<b>N560 E590</b>	II (E)	1	39.0-49.0	2 jasper secondary flakes 3 FCR
<b>N561 E589</b>	II (E)	1	40.0-50.0	1 colorless bottle glass fragment 1 quartz secondary flake
<b>N561 E590</b>	II (E)	1	42.0-52.0	1 jasper primary flake

The function of Feature 8 is unclear, based on the small assemblage of prehistoric artifacts recovered from the feature matrix and the surrounding subsoil horizons. Four very small fragments of carbonized hickory nutshell, each fragment measuring between 0.5 and 2.0

millimeters in size, were present in a soil sample collected from the northwest quadrant of TU N561 E589 (70.0 to 80.0 cmbd), but the limited amount of nutshell cannot justify associating Feature 8 as a storage pit (Appendix F). The paucity of artifacts provides no firm evidence of Feature 8 serving as a storage pit, lithic reduction workshop, or other activity area. Two ceramic sherds, tentatively identified as Minguannan ware (A.D. 900 to 1600), and one quartz primary flake were recovered in the top 10.0 centimeters of the Bt-horizon in TU N560 E589. It is suggested that these few artifacts may have been introduced into the subsoil by the feature fill, as no other artifacts were recovered from the Bt-horizon in the other excavations, and Level 2 (54.0 to 64.0 cmbd) of the overlying E-horizon was culturally sterile.

Features 9 and 9A. Feature 9 was identified at the interface between the plowzone and the E-horizon in TU N530 E589. Feature 9 consisted of a small oval stain measuring approximately 20.0 centimeters in diameter composed of a dark yellowish brown (10YR 4/4) loamy sand that contained large charcoal chunks and fragments of burnt earth. The feature extended to 63.0 cmbd before groundwater flooded the test unit and temporarily prohibited further excavation. Once the groundwater level decreased, the surrounding yellowish brown (10YR 5/6) loamy sand E-horizon was removed, exposing a second stain at 77.0 cmbd, the interface between the E-horizon and the Bt-horizon. This stain was similar in size, shape, and composition to Feature 9, but was noted slightly to the southwest of Feature 9. This stain did not contain the amount of charcoal that was noted in Feature 9, but did have a substantial amount of fire-reddened soil and burnt earth. Designated Feature 9A, it extended to a maximum depth of 87.0 cmbd, where groundwater inundated the excavated feature (Photograph 49).

A small number of debitage and pieces of historic refuse were recovered from Feature 9A and the surrounding E-horizon. One chalcedony tertiary flake, two jasper microflakes, one unclassified jasper debitage, and three brick fragments were recovered from the southern half of Feature 9A, while no artifacts were recovered from the northern half of this feature, or from the entirety of Feature 9. The E-horizon produced only one chert secondary flake from Level 3, 65.0 to 77.0 cmbd.

Features 9 and 9A appear to be two parts of one distinct feature, likely a tree root/rodent disturbance. The distribution of the charcoal and burnt earth in Features 9 and 9A is attributed to bioturbation mixing these elements throughout the vertical profile. While burnt earth nodules were recovered in the feature matrix, the E-horizon did not exhibit any scorching or thermally altered soils adjacent to the feature to suggest that an object burned in place. In addition, the sparse number of historic and prehistoric artifacts found in Feature 9A, and the absence of FCR, illustrates the natural migration of cultural materials down into the feature void.

Feature 10. Feature 10 consisted of a dark yellowish brown (10YR 4/4) sandy loam matrix containing charcoal and burned earth surrounded by a yellowish brown (10YR 5/6) silty loam E-horizon subsoil (Appendix D). This feature was exposed at the interface between the Ap- and E-horizon in the northwestern portion of TU N660 E584 and the southwestern portion of TU N661 E584, and continued west into the adjacent unexcavated terrain. Feature 10 formed a roughly 166.0-centimeter wide circular shape as exposed in TUs N660 E584 and N661 E584.

The initial identification and excavation of Feature 10 proved to be problematic. The feature matrix was not readily discernible in plan view in TU N660 E584, as the feature matrix color and soil consistency blended into the E-horizon. A scatter of charcoal flecks was visible across the top of the soil horizon in the western portion of the excavation, as well as numerous small rootlets across the entire unit. This soil package, designated Stratum II, appeared to be similar to a typical E-horizon identified during the Phase I-II investigation, and was excavated in 10.0 centimeter levels as an E-horizon, extending from 37.0 to 84.0 cmbd. A culturally sterile strong brown (7.5YR 4/6) sandy clay was exposed below Stratum II.

Upon completion of the excavation, the north wall profile of TU N660 E584 revealed the vertical and horizontal limits of Feature 10 (Photograph 50). Based on the observation of Feature 10 in the north wall profile, TU N661 E584 was excavated to further expose the feature limits. The N661 grid line was used to divide Feature 10 into a north half (N661 E584) and a south half (N660 E584).

The excavation of Feature 10 yielded a large, 43.0-centimeter-deep depression. The widest and shallowest portion of the feature was found within the first 20.0 centimeters of the matrix, from 45.0 to 65.0 cmbd. Level 1 (45.0 to 55.0 cmbd) and Level 2 (55.0 to 65.0 cmbd) exhibited scattered concentrations of charcoal and burnt earth. The charcoal and burnt earth did not extend into the surrounding E-horizon. From 65.0 cmbd to the bottom of the feature matrix at 88.0 cmbd, Feature 10 tapered to a 49.0-centimeter long by 20.0-centimeter wide area extending into the west wall of the unit (Photograph 51). No charcoal or burnt earth was noted below 65.0 cmbd. The E-horizon was exposed below the feature matrix.

A uniform assemblage of debitage and FCR was recovered from the portion of Feature 10 in TU N661 E584. Secondary (n=9), tertiary (n=9), and flake fragment (n=1) debitage; a quartz tested cobble; a jasper tested pebble; FCR (n=13); and one sherd each of undecorated porcelain and blue painted whiteware represented the cultural materials recovered from the feature fill. No diagnostic prehistoric artifacts were recovered in this portion of Feature 10. Two historic ceramic sherds were found in Level 1 of the feature, artifacts introduced by plow disturbance into the underlying stratum. Jasper (n=19) was the predominant material noted in the debitage collection, followed by quartzite (n=1) and quartz (n=1) (Appendix E).

The E-horizon surrounding Feature 10 in TU N661 E584 yielded a small assortment of jasper secondary (n=4) and tertiary (n=2) flakes, a chert secondary flake, a rhyolite secondary flake, two unaltered quartz cobbles, a battered sandstone cobble, FCR (n=15), a quartz projectile point, and a burned brick fragment. The quartz projectile point, a Goose Creek Spike (A.D. 500-1000), was recovered in Level 2 (55.0 to 65.0 cmbd). The burned brick fragment was excavated in Level 4 (75.0 to 85.0 cmbd) but likely represents an artifact eroded out of the overlying Ap-horizon during the unit excavation, as no historic or modern artifacts were noted in either of the two test units below Level 1 of Feature 10 and the E-horizon.

While the lack of a definable feature context in TU N660 E584 prohibited classifying artifact types by feature and natural subsoil matrices, the composition of the artifact collection did not differ from that noted in Feature 10 and the E-horizon in TU N661 E584. Level 1 (37.0 to 45.0 cmbd) of Stratum II exhibited brick (n=4), a window glass fragment, a blue painted pearlware

fragment, charcoal fragments (n=9), a chert primary flake, jasper tertiary flakes (n=3), FCR (n=4), and a tested jasper cobble. Level 2 (45.0 to 55.0 cmbd) contained a quartzite hammerstone as well as jasper secondary (n=2) and tertiary (n=1) debitage and two quartzite FCR fragments. A mixture of jasper secondary (n=1), tertiary (n=7), and flake fragment (n=1) debris; chert secondary (n=1), tertiary (n=2), and flake fragment (n=2) refuse; one argillite tertiary flake; and one quartzite FCR comprised the assemblage in Levels 3 through 5. No artifacts were found in the Bt-horizon.

The recovery of secondary (n=8) and tertiary (n=9) jasper flakes, compared to lesser quantities of quartz and quartzite, and a jasper tested pebble suggests that Feature 10 represents a tool production station focusing on local jasper and quartz gravel deposits. It is likely chert gravels may have also been utilized based on the presence of various stages of debitage in the E-horizon of TU N661 E584 and Stratum II of N660 E584. Unlike the jasper assemblage, no tested chert cobbles or pebbles were found in the feature and subsoil deposits to confirm the origin of the debitage. Unfortunately, the inability to define feature matrix from the E-horizon in TU N660 E584 prohibits assigning the chert assemblage to a feature provenience. No discrete clusters of debitage by material or reduction stage were observed in Feature 10 and the surrounding E-horizon in TU N661 E584 or Stratum II in N660 E584. The general mix of lithic material throughout the vertical profile of Feature 10 and the surrounding E-horizon in TU N661 E584 and Stratum II in N660 E584 possibly reflects long-term reuse and mixing of the cultural deposits. The excavations in TU N660 E584 and N661 E584 did not yield any evidence of non-cultural ground disturbance (root upheaval) redistributing archaeological materials as a secondary deposit.

While no intact hearth remains were noted in TUs N660 E584 and N661 E584, charcoal, burnt earth, and FCR fragments were identified within the first 20.0 centimeters of Feature 10. A scatter of charcoal was also recorded in the western portion of the Stratum II, Levels 1 and 2, TU N660 E584. The discrete vertical distribution of the charcoal and numerous fragments of FCR within a narrow horizon of Feature 10, as well as the presence of charcoal within the first 20.0 centimeters of Stratum II in TU N660 E584, suggests that the remains of a hearth feature may have been present in Feature 10 at one time, or were located within or adjacent to the

unexcavated portions of the feature. One sample of charcoal from Stratum II, Level 2 (55.0 to 65.0 cmbd), in TU N660 E584 produced a C14 date of 1650 +/- 40 B.P. (A.D. 300). A quartz projectile point, a Goose Creek Spike (A.D. 500 to 1000), was also recovered in Level 2. The C14 sample and the Goose Creek Spike projectile point reflect a late Woodland I period of association with the activities in Feature 10.

Interestingly, a small assortment of carbonized nutshell fragments (n=5), pitch (n=2), and unknown organics (n=6) was recovered from the same level as the radiocarbon-dated charcoal sample (Appendix F). Acorn (n=2) and hickory (n=3) species comprised the nutshell remains, the only acorn nutshell identified within the project APE during the Phase I-II investigation. A single fragment of uncarbonized bark was also identified in the collection. It is unclear if the nutshell fragments illustrate nutmeat processing in Feature 10, or if the nutshell fragments are non-cultural secondary intrusions introduced into the feature matrix from the surrounding living surface during aboriginal occupation. No ceramic sherds were encountered in the feature matrix to indicate nutmeat storage; however, the feature is only partially excavated and may contain further evidence pinpointing specific use in the unexcavated portion.

Feature 11. Feature 11 was recorded in the northwest corner of TU N630 E629 at the interface between the plowzone and the E-horizon. TU N630 E629 was placed in this location to explore a portion of Area 1 which had produced a high density of prehistoric artifacts, including a steatite pendant fragment, during the Phase IB survey. TU N630 E628 and TU N631 E628.75 were opened in an attempt to fully expose the feature.

Feature 11 consists of a roughly circular stain measuring approximately 52.0 centimeters in diameter (Photograph 52). The feature matrix was comprised of a yellowish brown (10YR 5/4) silt loam with small charcoal flecks surrounded by a yellowish brown (10YR 5/6) sandy loam E-horizon (Appendix D). Feature 11 was found to be a shallow depression no more than 10.0 centimeters in depth. A large rodent disturbance was recorded to the north of Feature 11 in TU N631 E628.75, as well as several 2.0 to 4.0-centimeter deep plow scars extending across the top of the E-horizon in the test unit excavations (Photograph 53).

Feature 11 yielded an abundance of debitage (n=61), one quartz early stage biface, and three FCR fragments. Jasper (n=41) was the predominant lithic material in the debitage collection, with examples of quartz (n=6), chalcedony (n=5), rhyolite (n=4), and chert (n=5) also noted in the collection. All stages of reduction waste were observed in Feature 11, including secondary flakes (n=28), which accounted for 46 percent of the debitage assemblage, tertiary (n=15, 24.6%), flake fragments (n=8, 13.1%), microflakes (n=8, 13.1%), primary (n=1, 1.6%), and unclassified (n=1, 1.6%) debitage. Four jasper flake fragments, seven jasper secondary flakes, and seven jasper tertiary flakes exhibited discoloration from exposure to heat (Appendix E).

The surrounding E-horizon produced a similar compliment of debitage as noted in Feature 11, albeit in smaller quantities. Jasper primary (n=2), secondary (n=5), tertiary (n=2), and flake fragments (n=3), two chert secondary flakes, two rhyolite secondary flakes, and one quartz secondary flake were recovered from Stratum II (49.0 to 65.0 cmbd), TU N630 E628. TU N630 E629, Stratum II (50.0 to 73.0 cmbd) produced jasper secondary (n=8) and tertiary (n=1) debris, one chert secondary flake, quartzite secondary (n=1) and tertiary (n=2) refuse, and a rhyolite projectile point, typed as a Rossville Stemmed variant (520 B.C. to A.D. 300). A small assemblage of jasper secondary (n=4) and flake fragment (n=1) debris, two rhyolite secondary flakes, and a multifacially worked jasper tool were contained in Stratum II (50.0 to 73.0 cmbd), TU N631 E628.75. A jasper utilized flake was recovered from below Feature 11 in Level 1 (65.0 to 75.0 cmbd), Stratum III, TU N631 E628.75, the Bt-horizon. It was the only artifact found within this soil horizon.

The shallow depth of Feature 11 prohibited defining any vertical trends in the artifact collection. A large number of carbonized hickory nutshell (n=11) and wood (n=27) fragments were recovered from a 1.5-liter soil sample collected in the south half of the feature, but these floral remains likely represent plow-dispersed organics distributed into the underlying subsoil and feature matrix (Appendix F). Unfortunately, Feature 11 contained no clear evidence linking the floral remains to feature use. In addition, no discrete clusters of artifacts by material or reduction stage indicative of an isolated chipping feature were noted in the horizontal distribution in Feature 11. The large count of secondary debitage and the presence of an early stage quartz biface suggest that initial reduction activities occupied the main activity in Feature 11, with a

minor focus on tool maintenance and sharpening functions based on the recovery of tertiary and flake fragments. The rhyolite Rossville Stemmed projectile point likely represents a tool finished outside of Feature 11. The artifact collection from the feature matrix and the surrounding subsoil evidenced a small number of rhyolite secondary flakes and no tertiary debris to indicate that this point was manufactured within Feature 11. No evidence was uncovered defining the use of fire to thermally alter the knapping properties of lithic materials, despite the recovery of heat-treated jasper and charcoal in the feature, as well as thermally altered jasper, rhyolite, and quartzite in the E-horizon.

### *8.1.3 Discussion of the Phase II Findings*

Limited information was gathered concerning the distribution of gravel densities both horizontally and vertically in Area 1. As seen in Table 15, small areas of gravels were noted in the Ap-horizon in the southern portion of Area 1, outside of the LOD, as well as in several isolated loci within the central portion of the LOD. TUs N512 E509, N536 E526, N561 E589 and N561 E590 exhibited consistent, if not increasing, percentages of gravel into the underlying E- and Bt-horizons, suggesting that the subsoil horizons in these areas contained natural gravels transported up into the plowzone through historic agricultural activities. Gravel percentages noted in the Ap-horizon of the remaining test unit excavations in Table 15 did not correlate with any appreciable gravel amounts in the underlying subsoil, and possibly represent plow-dispersed materials. In some cases, gravelly E- and Bt-horizons did not result in an Ap-horizon containing any substantial quantity of gravels. Analysis of these excavations exposed varying concentrations of gravels in the top and bottom of the subsoil package, with no consistency in depth of gravels and thickness of the gravel horizon.

**Table 15. Gravel Percentages by Stratum in Phase II Excavations Conducted in Area 1.**

<b>TU</b>	<b>% in Ap-horizon*</b>	<b>% in E-horizon*</b>	<b>% in Bt-horizon*</b>
N500 E589	10		
N512 E509	10	30	30
N530 E589	30		10
N536 E526	10	10	80
N560 E589			10
N560 E590		10	
N561 E589	10	10	30
N561 E590	10	10	30
N568 E526	20		
N569 E524	20		
N569 E525	20		
N571 E524	20		
N575 E539			30
N575 E540			30
N576 E540			20
N580 E562			20
N589 E620		20	
N594 E559		20	20
N604 E570		10	
N650 E589			20
N690 E530		10	

\*Empty cells or TU excavations not listed contained 5 percent or less gravels.

In addition, the Phase II archaeological investigation identified homogeneity in sand size distribution between and within each test unit and feature. In general, silt/clay components are typically redistributed through the soil column as a result of weathering processes. All profile samples included varying amounts of both silt (12 to 26%), clay (6 to 24%), and silt/clay (28 to 44%) with the highest concentrations found in the Bt-horizon. Sand grains, however, are relatively less prone to reconfiguration over time, with size and sorting characteristics of the sand component more likely to reflect original deposition conditions. The absence of grain variation in all soil horizons suggests that the sand material shares a common origin and mode of deposition consistent with a riverine/estuarine environment and does not indicate eolian deposition (Appendix C).

Altogether, the sedimentology of the site sediments in Area 1 demonstrated no strong indicators of eolian processes. The homogenous sand content does not reflect deposition characteristics of wind-blown soils. Furthermore, the pebble content in Area 1 exhibited little patterning indicative of original deposition, or reworking of the land surface by eolian processes (pebble lags should mark eroded contacts). Overall, the sediment profile in Area 1 reflects water deposited, and

possibly water reworked, depositional processes consistent with erosion and redeposition of pre-existing marine sediments in estuarine and shoreline settings.

An impressive assemblage of prehistoric and historic artifacts was collected during the Phase II investigation of Area 1. In total, the Phase II investigation of Area 1 produced 341 faunal remains, 1,536 historic artifacts, and 1,557 prehistoric artifacts. The faunal collection yielded clam (n=11), oyster (n=237), and eroded (n=422) shell fragments, as well as undiagnostic bone fragments (n=5) and one piece of tooth enamel. Examples of undiagnostic calcined bone (n=4) were encountered in the faunal collection (Appendix D).

Historic-period artifacts evidenced a larger proportion of domestic remains (n=735) as compared to architectural (n=507), industrial (n=287), and personal (n=4) classes. Brick (n=363, including seven glazed fragments), window glass (n=79), and cut nails (n=57) were most frequently recovered in the architectural group, followed by wire nails (n=4), slate shingle fragments (n=2), an unidentified nail, and a fragment of mortar (Appendix D). Coal (n=216), slag (n=36), and unidentifiable iron fragments (n=14) comprised the largest number of industrial class artifacts found, with smaller counts of charcoal (n=7), plastic (n=7), wire (n=2), terra cotta (n=2), and other debris (n=8). Personal items included an iron buckle, a pewter button, an undecorated kaolin pipe bowl fragment, and an undecorated kaolin pipe stem (Appendix D). The pewter button exhibits a cast eye shank and spun back generally produced between 1837 and 1865 (Hume 2000:90).

A diverse assortment of ceramics (n=613, 83.4%) and glassware (n=111, 15%), followed by a small number of can fragments (n=12, 1.6%), was recovered in Area 1. The ceramic collection contained a large body of mid-eighteenth- through early-nineteenth-century wares (Table 16). Wares generally manufactured from 1730 to 1830 accounted for approximately 77.8 percent (n=477) of the collection. The excavations did uncover an example of a late-seventeenth-through mid-eighteenth-century ceramic. A rim sherd tentatively identified as Manganese Mottled buff-bodied earthenware was recovered from the Ap-horizon in TU N620.5 E588 (Diagnostic Artifacts in Maryland – Manganese Mottled) (Photograph 54).

**Table 16. Historic Ceramic Assemblage Recovered from the Phase II Investigation of Area I.**

<b>Ceramic</b>	<b>Decoration</b>	<b>Artifact Count</b>	<b>Date Range</b>
<b>Pearlware</b>	Blue Sponge Edge	1	1779-1820
	Brown Dot	1	1779-1820
	Green Glaze	1	1779-1820
	Molded	1	1779-1820
	Undecorated	159	1779-1820
	Blue Hand Painted	18	1779-1820
	Blue Edge	6	1779-1820
	Annular Overglaze	1	1779-1820
	Blue Glaze	3	1779-1820
	Blue Feather Edge	1	1780-1820
	Green Shell Edge	6	1780-1820
	Blue Shell Edge	3	1780-1820
	Annular	4	1795-1815
	Polychrome	8	1795-1820
	Orange Overglaze	1	1795-1820
	Blue Transfer Print	16	1795-1840
Flow Blue	2	1840-1860	
<b>Buff-Bodied Earthenware</b>	Manganese Mottled	1	1680-1780
<b>Creamware</b>	Whieldon-type Polychrome "Clouded Glaze"	1	1759-1765
	Orange Overglaze	1	1765-1810
	Overglaze Painted	1	1765-1815
	Undecorated	130	1762-1820
<b>Porcelain</b>	Orange Overglaze	1	1700-
	Blue Hand Painted, possibly Chinese import	1	1700-
	Overglaze Painted	1	1745-
	Blue Hand Painted	1	1745-
	Undecorated	8	1745-
<b>Redware</b>	Slip Trail	16	1733-1850
	Eroded	65	1733-1900
	Jackfield	15	1751-1818
	Whieldon Type	1	1751-1900
	English Import, Engine Turned	2	1790-1830
	Lead Glazed	41	1822-1900
	Clear Lead Glaze	16	1822-1900
	Manganese	13	1822-1900
<b>Stoneware</b>	White Salt Glazed	1	1720-1790
	Gray Bodied	1	1720-1900
	White Salt Glazed with Blue Decoration	1	1740-1775
<b>Whiteware</b>	Blue Transfer Print	2	1820-
	Brown Transfer Print	1	1828-
	Green Glaze	1	1820-
	Polychrome	2	1820-
	Banded	1	1820-1850
	Blue Glaze	2	1820-
	Blue Hand Painted	1	1820-
	Undecorated	50	1820-
<b>Yellowware</b>	Undecorated	1	1830-
<b>Ironstone</b>	Undecorated	3	1840-

As shown in Table 16, the ceramic assemblage exhibited a robust cross-section of decorations and glazes, especially within the pearlware group, illustrating eighteenth- and nineteenth-century decorative trends utilized by ceramic manufacturers. One sherd of creamware recovered from the Ap-horizon in TU N590 E589 exhibits a Whieldon type polychrome “Clouded Glaze” decoration, unique amongst the more common blue and brown painted/printed decorations (Hume 2000:124-125) (Photograph 55). While rim fragments (n=15) and one vessel base were recorded in the collection, the small size of the sherds prohibited defining a specific vessel form. However, inspection of the overall ceramic collection yielded varying thicknesses of the sherds, as well as different interior/exterior curvatures, suggesting that the assemblage included both flatware and hollowware forms.

The glassware collection contained a mix of bottle (n=92), vessel (n=11), jar (n=1), lamp (n=5), and vial (n=2) forms (Appendix D). Colorless (n=33) bottle glass fragments occupied the majority of the bottle glass assemblage, but examples of olive (n=27), aqua (n=17), amber (n=7), light olive (n=4), dark aqua (n=2) and green (n=1) were also recovered. Diagnostic characteristics were few in the glass collection. TU N604 N570, Stratum I (Ap), produced a colorless, hand-tooled, prescription finish bottle lip fragment manufactured after 1899. An aqua glass canning jar lid, likely part of a lightning-type closure produced by 1877 (Jones et al. 1989:167), was excavated from the Ap-horizon in TU N558 E545. TU N512 E509, Stratum I (Ap), uncovered a fragment of a solarized hatched-exterior tumbler (Appendix D). Solarized glass was most commonly produced from the last quarter of the nineteenth century until the end of the first quarter of the twentieth century (ibid:13). In general, much of the glass collection, based on the general dates for incorporating colored glass into production, as well as the few diagnostic artifacts recovered in the collection, reflects a mid-nineteenth- to early-twentieth-century period of manufacture. However, the light olive and olive bottle glass component supports a general date of manufacture from 1690 to the 1880s, and possibly depicts an eighteenth-century component with the collection. Unfortunately, the small size of the fragments obscured any diagnostic characteristics by which to ascertain an approximate date of manufacture.

An equally diverse collection of Native American artifacts was recovered from the Phase II archaeological investigation of Area 1. The prehistoric ceramic collection (n=66) yielded an assortment of middle Woodland I to Woodland II (1000 B.C. to A.D. 1600) wares, including Accokeek (1000 to 200 B.C.) (n=21), Dames Quarter (1000 B.C.) (n=6), Hell Island (600 B.C. to A.D. 800) (n=4), Minguannan (900 to 1600 A.D.) (n=10), Mockley (600 B.C. to A.D. 800) (n=6), Page (900 to 1600 A.D.) (n=3), Popes Creek (1000 to 200 B.C.) (n=1), Townsend (900 to 1600 A.D.) (n=6), Wolfe Neck (600 B.C. to A.D. 800) (n=3), and several untyped sherds (n=6). Accokeek cord-marked (n=5) and fabric-impressed (n=5), Dames Quarter fabric impressed (n=3), Minguannan incised (n=1) and corded (n=4), Mockley cord-marked (n=3), and Townsend fabric impressed (n=1) wares illustrate some of the decorative designs incorporated onto the surfaces of the vessels.

The excavations also recovered what appears to be a fragment of a steatite vessel. TU N660 E519, Stratum I (Ap), uncovered a small, 3.3-centimeter long, 2.0-centimeter wide, and 5.0 to 6.0-millimeter thick fragment of steatite (Photograph 56). The profile of the sherd evidenced a slight curvature, with the interior/exterior faces ground or worn to a flat surface (Photograph 57). Unlike the steatite fragment recovered during the surface collection of Area 1 in the Phase I survey, this fragment exhibited a rough, unpolished surface.

The stone tool assemblage yielded a small number of diagnostic projectile points, as well as other tool forms. Projectile points include a chalcedony Waratan Corner-Notched (1000 B.C. to A.D. 1000) point in TU N569 E525, Stratum I (Ap), a jasper Levanna Triangle (A.D. 1000 to 1500) in TU N576 E540, Stratum I (Ap), a jasper Goose Creek Spike (A.D. 500 to 1000) in TU N661 E584, Stratum II (E), Level 2 (55.0 to 65.0 cmbd), a quartzite Rossville Stemmed variant (520 to 100 B.C.) in TU N569 E524, Stratum I (Ap), and a rhyolite Rossville Stemmed variant in TU N630 E629, Stratum II (E), Level 1 (50.0 to 60.0 cmbd) (Photographs 58 and 59). Three untyped point tip fragments were recovered as well, including an argillite tip in the plowzone horizon of TU N575 E540, a chert point tip in the plowzone of TU N630 E629, and a jasper point tip in TU N568 E526, Stratum I (Ap). Bifaces (n=6), cores (n=9), scrapers (n=7), a uniface, and utilized flakes (n=9) represent some of the other flaked stone tools found during the Phase II investigation of Area 1. Ground stone tools include nine hammerstones and one sandstone shaft

abrader (Appendix D). In addition to the prehistoric ceramics and lithic artifacts, the Phase II investigation in Area 1 recovered a number of FCR (n=366) and a possible bead.

The lithic assemblage evidenced a strong preference toward the use of local gravel resources for tool production activities. Jasper accounts for 67.8 percent of the debitage collection, followed by quartz at 13.3 percent (Table 17). This is not a surprise, given the rich deposits of jasper, quartz, quartzite, and chert gravels noted across the study area. Of the 23 tested cobbles and pebbles recovered, close to half of the assemblage consists of jasper (n=11, 47.8%) gravels, followed by quartz (n=6, 26%), chert (n=3, 13.1%), and quartzite (n=3, 13.1%) (Appendix D). Rhyolite and argillite represented a very small portion of the debitage collection, but do illustrate the transport of non-local resources through exchange networks extending beyond the Delmarva Peninsula.

**Table 17. Breakdown of Lithic Types in Debitage Collection, Area 1, Phase II Investigation.**

<b>Lithic Type</b>	<b>Artifact Count</b>	<b>Percentage of Debitage Collection</b>
Argillite	27	2.4%
Chalcedony	18	1.6%
Chert	63	5.6%
Jasper	759	67.8%
Quartz	149	13.3%
Quartzite	59	5.4%
Rhyolite	38	3.4%
Siltstone	1	0.1%
Sandstone	5	0.4%
<b>TOTAL</b>	<b>1,119</b>	<b>100.0%</b>

Analysis of the lithic collection suggests that a significant focus on tool manufacturing activities occurred in Area 1. Table 18 provides a breakdown of the various debitage and stone tools recovered during the Phase II investigation of Area 1. Analysis of the debitage and tools suggests that initial reduction and cobble shaping activities occurred frequently in Area 1, followed by final preparation and sharpening tasks. Overall, secondary debris was the largest debitage class for all lithic types, excluding sandstone. As evident in Table 18, 42 percent of the entire lithic collection consisted of secondary flakes, of which 64.9 percent were jasper. Tertiary debris accounted for 31.3 percent of the entire lithic collection, with jasper comprising 76.8 percent of the category. The large volume of jasper (and to a lesser extent quartz, quartzite, and chert) secondary debris possibly reflects the production of bifaces and cores that are subsequently

transported off-site and processed into final forms elsewhere. The recovery of jasper and quartz utilized flakes also suggests that flake tool production was possibly a key function in Area 1. The presence of projectile points, scrapers, a uniface, utilized flakes, cores, bifaces, and a cobble tool illustrates varying stages of manufacture of finished hunting tools, floral and faunal processing tools, and expedient flake tools used for a variety of tasks, essentially the tools found in most lithic tool kits.

**Table 18. Lithic Debitage and Tools Recovered from Phase II Investigation in Area 1.**

	Argillite	Chalcedony	Chert	Jasper	Quartz	Quartzite	Rhyolite	Siltstone	Sandstone	TOTAL
Primary	2	2	10	63	15	14	1			107
Secondary	20	9	21	305	64	22	28	1		470
Shatter			2	18	13	2				35
Tertiary (# flake fragments)	2	6 (3)	16 (2)	269 (30)	39	10	8 (2)			350 (37)
Tested cobble/pebble			3	11	6	3				23
Unclassified debitage	2		8	64	9	2				85
Biface				5	1					6
Core			1	7		1				9
Hammerstone					1	4			4	9
Projectile Point	Undiagnostic point tip	1	1	1						3
	Waratan Corner-Notched; 1000 B.C.-A.D. 1000		1							1
	Levanna Triangle; A.D. 1000-1500				1					1
	Goose Creek Spike; A.D. 500-1000				1					1
	Rossville Stemmed type; 520-100 B.C.						1	1		2
Scraper			1	6						7
Shaft abrader								1		1
Uniface				1						1
Utilized flakes				7	2					9
<b>TOTAL</b>	<b>27</b>	<b>18</b>	<b>63</b>	<b>759</b>	<b>150</b>	<b>59</b>	<b>38</b>	<b>1</b>	<b>5</b>	<b>1,120</b>

Conversely, rhyolite and argillite were limited to projectile points and a small number of debitage. No flake tools, cores, bifaces, or other classes of tools composed of these materials were encountered in the assemblage. In regards to the debitage collection, the Phase II investigation recovered 28 rhyolite and 20 argillite secondary flakes, but only eight rhyolite and two argillite tertiary flakes. The minimal count of tertiary debris suggests that the argillite point tip and the complete Rossville stemmed rhyolite point were likely manufactured off-site, and that the rhyolite debitage in Area 1 represents a separate stone tool processing episode.

The vertical and horizontal distribution of the artifact assemblage illustrates a distinct variation between artifact content in the soil profile. Overall, the plowzone horizon contained 77.2 percent (n=2,652) of the Phase II faunal, prehistoric and historic artifact collection, followed by feature fill (n=491, 14.3%), the E-horizon (n=264, 7.7%), and the Bt-horizon (n=27, 0.8%). The largest concentration of historic artifacts (n=1,477, 43%) was recovered from the plowzone horizon, with a substantial decrease into the E-horizon (n=38, 1.1%) and feature fill (n=12, 0.3%), predominantly within the first 10.0 centimeters of these two strata. Domestic (n=720, 48.7%) and architectural (n=492, 33.3%) categories represented the two largest artifact classes within the historic artifact collection recovered from the plowzone. A disproportionate number of ceramics (n=602, 40.8%) and brick (n=346, 70.3%) comprised the bulk of their respective classes. The ceramic assemblage largely reflects mid-eighteenth- through early-nineteenth-century wares in a variety of designs and decorations, as well as forms. Both decorative tableware and utilitarian crockery were identified in the assemblage. The few historic-period artifacts (n=9, 0.3%) encountered in the Bt-horizon were recovered exclusively from the initial 10.0-centimeter level in TU N500 E589, located near the marshlands. The excavation of this test unit also exposed two plowzone horizons overlying the Bt-horizon, suggesting that fill was deposited along the marsh in an effort to expand the tillable land.

Greater than half of the prehistoric artifact assemblage (n=839, 53.9%) was also recovered from the plowzone horizon. Analysis of the prehistoric collection in the plowzone generally reflects a significant emphasis on stone tool production activities. Debitage (n=512) accounted for 61 percent of the prehistoric collection in the plowzone, with secondary debris (n=247, 48.2%) the largest reduction stage class noted. A large number of FCR (n=258, 30.8%) fragments suggests

that cooking features were present in Area 1, but no *in situ* hearths were exposed in the Phase II excavations. A diverse assortment of ceramic types and projectile points was evident in the plowzone as well. Phase II excavations recovered Accokeek, Dames Quarter, Hell Island, Minguannan, Mockley, Page, Popes Creek, Townsend and several untyped sherds. In addition, three untyped point tip fragments, one Waratan Corner-Notched, a Levanna Triangle, and a Rossville Stemmed Variant were produced during the survey. The ceramics and points reflect a wide temporal span of dates ranging from middle Woodland I (1000 B.C. to A.D. 0) Accokeek sherds and a Waratan Corner-Notched point through Woodland II (A.D.1000 to 1600) period with Minguannan ceramics and a Levanna Triangle point.

The horizontal distribution of the artifact assemblage illustrates a greater frequency of ceramics, brick fragments, coal, and shell remains in the southwest portion of Area 1, with a reduced, but consistent, count of historic-period debris across the remainder of Area 1. TUs N568 E526, N569 E524, N569 E525, N570 E524, N570 E525, and N571 E524 yielded a cluster of creamware (n=39), pearlware (n=52), porcelain (n=6), redware (n=64), and whiteware (n=26) sherds, coal (=118), bottle glass (n=27) fragments, and shell (n=137) within the Ap-horizon. A smaller concentration of similar historic-period artifact types was noted within the plowzones of TUs N575 E539, N575 E540, N576 E539, and N576 E540. The pearlware, redware, and whiteware assemblages exhibited a variety of decorations and motifs, but no distinction was evident in decoration attributes between the two concentrations and the remainder of the ceramic collection in Area 1. The bottle glass collection included olive (n=11), aqua (n=7), and colorless (n=9) fragments. Similar to the ceramic collection, the bottle glass assemblage exhibited a general assortment of olive, aqua, and colorless fragment types noted elsewhere across Area 1, but was distinguished by a higher count within these two concentrations than elsewhere. The remainder of Area 1 exhibited a general dispersal of architectural, domestic, industrial, and personal artifact classes.

The frequency of creamware, pearlware, redware, and olive bottle glass in the two historic-period artifact concentrations is interpreted to reflect domestic refuse associated with a mid-eighteenth- through early-nineteenth-century domestic occupation. Historic background research suggests that the mid-eighteenth-century brick Thomas Brinckle House possibly existed within

Area 1 at one time. The general mid-eighteenth- through early- to mid-nineteenth-century date of the creamware and pearlware assemblages, as well as the slip-trail and Jackfield redware collection, and the brick refuse corresponds to both the general time period of that occupation and the building materials used in the house. Conversely, the Soulie Gray House, which dates approximately from the second or third quarter of the nineteenth century, was constructed from lumber. The distance of the concentrations from the non-extant house site, as well as the large number of artifacts, does not reflect patterns of household refuse from the Soulie Gray House dispersed through plow activities. While the Phase II excavation did not expose subsurface features associated with a domestic occupation, such as foundations, wells, privies, or yard scatters, the unexcavated portion of the LOD in Area 1 may contain these remnants.

Horizontal distribution trends in the prehistoric artifact assemblage depicted a general dispersal of cultural materials across Area 1 as well. As previously mentioned, secondary debitage was most frequently observed in the distribution, with average counts of five to ten flakes per test unit over Area 1. Several clusters of increased counts were noted in the Ap- and E-horizons, specifically in the Ap-horizons in TUs N568 E526 (n=14), N569 E525 (n=22), N570 E524 (n=14), N571 E524 (n=16), and in the E-horizons in TUs N630 E628 (n=12), N630 E629 (n=24), and N631 E628.75 (n=16). Not surprisingly, Feature 11, which produced a large number of secondary debitage (n=26) and other lithic refuse, was found in TUs N630 E628, N630 E629, and N631 E628.75, and likely provided a significant source for debitage recovered from the plowzone and surrounding subsoil. Feature 3, present in TUs N568 E526, N569 E525, N570 E524, and N571 E524, was not fully excavated in the Phase II investigation. However, the recovery of nine secondary flakes within the feature matrix, as well as lesser counts of primary and tertiary debris, in TU N570 E524 suggests that the unexcavated portion of the feature may contain additional significant quantities of secondary and other debitage.

Tool forms were also noted with some frequency in proximity to Feature 3 and Feature 11. TU N570 E524 produced two jasper cores, a chert scraper, and two hammerstones in the Ap-horizon, followed by a jasper scraper, a jasper core, and a sandstone shaft abrader in the E-horizon. The plowzone horizon in TU N571 E524 exhibited a tested chert pebble and a tested jasper pebble, a jasper biface, a hammerstone, and two jasper utilized flakes. Feature 3 also yielded a jasper

scraper. Excavations conducted in and surrounding Feature 11 produced a similar assortment of tools, including two projectile points. The Ap-horizon of TU N630 E629 revealed a jasper biface and a chert projectile point tip, while a rhyolite Rossville stemmed point was recovered from the E-horizon. The plowzone and E-horizon in TU N631 E628.75 each produced two jasper utilized flakes. A quartz biface was recovered from Feature 11. Similar types of utilized flakes, cores, bifaces, scrapers, and projectile points were found across Area 1, but not in the density observed in and around Features 3 and 11.

While jasper provided the predominant lithic material in the debitage and tool collection, several discrete clusters of chert, quartzite, and rhyolite were observed in Area 1. Feature 4, a rodent/root disturbance in TU N558 E545, produced a small complement of quartzite debitage, including one primary flake, three secondary flakes, a tertiary flake, a tested cobble, and a core fragment, whereas the Ap-horizon in the same test unit contained one primary, four secondary, and one tertiary flake of the same material. The E-horizon in TU N559 E545 also produced two quartzite primary flakes. A second quartzite cluster was observed in the plowzone horizon of TUs N568 E526, N569 E524, and N569 E525, producing a total of two primary, two secondary, and one tertiary flake, one scraper, a tested cobble and a Rossville projectile point. Feature 3, situated below the plowzone in these three test units, also produced one secondary and one tertiary quartzite flake. The general mix of debitage, tested cobbles, a core fragment, and a finished projectile point attests to the full range of tool manufacturing activities, from procurement, selection, and utilization of local gravels resources, initial core reduction, expedient flake tool manufacture, and finished tool production. A small number of chalcedony flakes, including two primary, four secondary, and a tertiary flake; and a Waratan Corner-Notched projectile point were also recovered from the Ap-horizon above Feature 3, but not from the feature matrix itself.

A small concentration of rhyolite debitage was observed in close proximity to the quartzite and chalcedony debris. TUs N575 E539, N575 E540, N576 E539, and N576 E540 produced a total of 11 secondary and three tertiary flakes, with no tools or primary flakes identified, within the Ap-horizon, E-horizon, and Feature 1. Of this collection, six secondary flakes were recovered from Feature 1, suggesting that a brief knapping episode focusing on the initial reduction of a rhyolite core occurred within this feature. A similar episode of core reduction utilizing local

chert gravel was also observed in TUs N590 E589 and N591 E589. Primary (n=4) and tertiary (n=1) debitage and a core were collected from the plowzone and the E-horizon.

Analysis of the horizontal distribution of the ceramic assemblage provided minimal interpretations regarding cooking and storage activities in Area 1, given the absence of *in situ* ceramic vessel remains in the Phase II investigation. In general, the ceramic assemblage largely reflects middle to late Woodland I into Woodland II wares dispersed across Area 1, predominantly within the plowzone context. Discrete loci of specific ceramic types were evident in the assemblage. TUs N571 E524 and N576 E540 yielded four and two sherds, respectively, of late Woodland I to Woodland II period Townsend ware from the plowzone horizon. Three middle to late Woodland I period Wolfe Neck sherds were recovered from Level 1 of the E-horizon in TUs N590 E589 and N591 E589. TU N500 E589 yielded two sherds of late Woodland I to Woodland II period Page ceramics in the plowzone of TU N500 E589, overlying a middle to late Woodland I period Hell Island sherd in a second underlying plowzone deposit. Testing in TU N660 E519 recovered a fragment of a steatite vessel, the only vessel fragment recovered that is temporally associated with the Archaic to Woodland I period. No particular horizontal trends were observed within each cluster to suggest temporally discrete episodes of cooking activities within Area 1.

The excavations in Features 5 and 5A did uncover a cluster of ceramics in the middle of Area 1 interpreted as a storage pit. Feature 5 yielded a series of middle Woodland I period Accokeek ceramics mixed throughout the feature matrix, with several additional sherds recovered in a discrete deposit 66.0 to 76.0 cmbd in the surrounding Feature 5A matrix. The surrounding plowzone and E-horizon produced Accokeek sherds, as well as a smaller number of contemporaneous Dames Quarter wares. Feature 5A yielded carbonized hickory nutshell fragments, in this case five nutshell fragments larger than two millimeters in size. The recovery of nutshell fragments in Feature 5A is attributed to the activities in Feature 5 intruding into the surrounding Feature 5A matrix (for example, from surface debris eroding into the open pit), as no ceramics were encountered below the discrete artifact concentration in Feature 5A to suggest storage activities in Feature 5A. An additional three Accokeek and one Dames Quarter sherds

were recovered from Phase II excavations outside of Features 5 and 5A; however, the locus of these two ceramic types is focused within these two features.

## **8.2 Architectural Refuse Concentration in Area 2**

### *8.2.1 Soil Stratigraphy*

Thirteen 1.0-meter square test units were excavated for the Phase II archaeological investigation of the architectural refuse scatter in Area 2 (Figure 50). The excavations exposed a generally 21.0 to 34.0-centimeter thick brown to dark yellowish brown (10YR 4/3 to 4/4) sandy loam Ap-horizon. TU N514 E584 exhibited a thin 6.0-centimeter thick strong brown (7.5YR 5/8) very gravelly, sandy silt fill deposit beneath the Ap-horizon, followed by a yellowish brown (10YR 5/4) sandy silt Bt-horizon. One test excavation exhibited evidence of substantial ground disturbance and fill activity. TU N512 E608 contained two fill deposits: an 11.0-centimeter thick strong brown (7.5YR 5/8) sand fill containing 40 percent gravels, overlying a 7.0-centimeter thick dark grayish brown (10YR 4/2) sand fill containing 40 percent gravels. A yellowish brown (10YR 5/4) sandy silt Bt-horizon was observed below the fill deposits. Based on the presence of cultural deposits within the test units and the location of visible structural ruins, six 3.0-meter wide test trenches were conducted within the architectural refuse concentration in Area 2. The plowzone horizon was stripped away within each trench to expose the underlying subsoil horizon and any cultural features.

### *8.2.2 Features*

Feature 4. Feature 4 consisted of very dark grayish brown (10YR 3/2) sandy loam stain approximately 5.5 meters in length containing brick and concrete fragments, coal and coal ash, and cinders (Photograph 60). This feature was uncovered in TU N520 E594 and TU N521 E594. Based on the limited area of feature exposure, Trench 1 was excavated by backhoe for approximately 15.0 meters north of TU N521 E594 to further expose the horizontal limits of the feature. While the trench did document the northern and southern horizontal limits of Feature 4, it did not capture the feature's eastern and western boundaries. The excavation of Feature 4 yielded a rather shallow stain that ranged in depth from 1.0 to 7.0 centimeters below ground surface. Artifacts recovered included a mixture of mid-nineteenth- to mid-twentieth-century demolition rubble, including brick fragments (n=23); cut (n=44), wire (n=22), and unidentified

(n=13) nail fragments; cut spikes (n=2); window glass (n=1); mortar (n=3); faunal refuse, including two eroded shell fragments and an undiagnostic bone fragment; a small number of domestic artifacts, such as a can fragment (n=1), ironstone (n=2), porcelain (n=1), and whiteware (n=2) sherds, colorless (n=3) and aqua (n=1) bottle glass fragments, and opaque milk glass vessel fragments (n=2); and a selection of industrial class artifacts, including a long iron bolt with nut (n=1), iron chain link (n=1), unidentified iron (n=5), and other iron debris (n=5). Feature 4 appears to be the result of a limited burn episode related to the demolition of the mid-twentieth-century concrete block and frame barn located in the near vicinity, and possibly refuse from mid-nineteenth-century outbuildings and occupation of the property mixed with the burned debris.

Feature 6. Trench 2 was placed at the southwestern corner of TU N520 E594 and extended southwest of the test unit for approximately 20.0 meters, ending near TU N513 E574. Feature 6, a large stain, was observed extending from N517 E583 to N513 E576 (Figure 51). The eastern and western boundaries of the feature were exposed, but due to large tree growth and the limits of the APE, the northern and southern limits could not be established. This stain measured approximately 7.0 to 8.0 meters in length and consisted of a brown mottled with a strong brown (10YR 4/3 mottled with 7.5YR 4/6) sandy loam matrix. Occasionally, large 1.0 to 2.0-meter diameter pockets of a yellowish brown (10YR 5/6) coarse sand were observed overlying sections of Feature 6. After inspection, it was noted that the yellowish brown coarse sand appeared to be a modern fill episode overlying the older, darker feature matrix. Modern debris (aluminum beverage cans and plastic shopping bags) was noted in the overlying coarse sand fill. An STP and a small 5.0-meter long by 30.0-centimeter wide test trench were placed along Feature 6 to determine the depth of the modern soil intrusion and underlying feature matrix (Photograph 61). The northwesternmost portion of Feature 6 extended to a depth of 0.4 meter below surface, increasing to 1.5 meters deep at the southeastern extent of the feature. The stain abruptly ended at its deepest part with a strong brown (7.5YR 5/6) sandy loam Bt-horizon noted at the end of the trench.

The artifact assemblage recovered from Feature 6 revealed a small number of architectural debris and domestic refuse. In addition to cut (n=1) and wire (n=1) nails, brick (n=1), and mortar (n=1),

the architectural artifact assemblage also yielded a complete large iron hinge and a fragment of a large iron hinge. These hinges are similar to large strap hinges found on the doors of outbuildings, and exhibit considerable thickness and heft. A small number of ironstone (n=1), blue sponge print pearlware (n=1), white Bristol glazed exterior stoneware (n=1), terra cotta (n=1), and whiteware (n=2) sherds; along with aqua (n=1) and colorless (n=2) bottle glass; and an aluminum soda can represent household refuse deposited in Feature 6. Plastic (n=2), unidentified iron (n=1), a large iron knife blade, an iron gear sprocket, and a segment of large gauge wire illustrate the other artifacts collected from the feature. Although the pearlware sherd and cut nail support a late-eighteenth-century date of manufacture, the overall architectural and domestic artifact assemblage suggests a mid- to late-nineteenth- through mid-twentieth-century period of the deposit.

Features 5 and 7. Feature 5 consisted of a poured concrete footer associated with the mid-twentieth-century concrete block and frame barn on the Soulie Gray House lot (Figure 52). The poured footer, initially uncovered in TU N519 E619, measured 30.0 centimeters in width and was oriented in a northeast to southwest direction. No builder's trench was associated with the footer. Based on a general visual inspection, it appeared that Feature 5 lined up with the remains of a concrete block foundation found approximately 4.0 meters to the northeast.

Trench 3 exposed the horizontal limits of Feature 5 (Photograph 62). Trench 3 was initiated at the southwest corner of the aboveground remnants of a concrete block foundation. A poured concrete footer was noted immediately at the base of the concrete block foundation remains. The backhoe continued to follow the concrete footer, connecting with the section of the footer exposed in TU N519 E619 until it terminated approximately 11.0 meters to the southwest. A concrete block footer was observed at the southern terminus of Feature 5.

Trench 4 was placed west of, and perpendicular to, the end of Trench 3 in an effort to determine the presence of additional subsurface architectural elements. Trench 4 measured 18.0 meters long and terminated at the edge of the project APE near the N510 E605 grid point. Trench 4 exposed a second poured concrete footer approximately 6.0 meters west of the southern terminus of Trench 3. Approximately 7.0 meters of this second poured footer was exposed to the northwest

of Trench 4 (Photograph 63). The second poured footer, approximately 30.0 centimeters wide, consisted of a similar construction type recorded in Feature 5. Trench 4 also exposed a concrete block footer at the southern terminus of the second poured footer. A third and fourth set of concrete block footers were noted at approximately 4.5 meters and 9.0 meters northwest of the second poured concrete and concrete block footer in Trench 4. No additional poured concrete footers were associated with the third and fourth section of footers. The third and fourth set of concrete block footers and second poured footer were designated Feature 7.

Feature 8. Feature 8, an approximately 3.8-meter diameter brown (10YR 4/3) silty sand mixed with concrete and brick rubble, was identified in Trench 5 (Photograph 64). Trench 5 was placed along the northern boundary of the concrete block foundation remains, near the N527 E610 grid point. Trench 5 extended approximately 30.0 meters to the north of the foundation. The feature was surrounded by a yellowish brown (10YR 5/6) silty sand E-horizon and situated approximately 0.5 meter from the northern wall of the cinder block foundation. The excavation of Feature 8 revealed a 30.0-centimeter thick package of brown (10YR 4/3) silty sand overlying a large, approximately 3.0-meter diameter circular concrete cap (Photograph 65). A 40.0-centimeter wide builder's trench was observed around the edge of the concrete cap.

A diverse assortment of historic and modern refuse was recovered from the feature matrix overlying the concrete cap. A large number of architectural artifacts (n=109), including whole (n=1); half (n=1); and fragments (n=11) of brick; cut (n=26), wire (n=28) and unidentified (n=3) nails; cement (n=1); lumber fragments (n=2); mortar fragments (n=21); and window glass (n=15) were recovered from the feature soil. The mortar collection contains examples (n=8) of shell tempered material, with five fragments identified as containing oyster shell. The domestic artifact collection (n=45) yielded less material, with one lead glaze redware sherd; amber (n=3), aqua (n=11), colorless (n=6), and dark aqua (n=3) bottle glass fragments; opaque vessel glass fragments (n=6); and can fragments (n=15). An assortment of corroded iron strap (n=3), unidentifiable metal (n=2), a large metal wheel/belt hub, an adjustable wrench, wire (n=3), barbed wire (n=1), and other refuse (n=7) represents general tools and industrial materials. Two personal items, a plastic toy airplane fragment and a plastic comb, were also recovered from

Feature 8. The faunal assemblage contained examples of sawn bone (n=2), avian bone (n=1), and eroded shell (n=36).

### *8.2.3 Discussion of Phase II Findings*

The Phase II excavations conducted within the architectural refuse concentration in Area 2 uncovered subsurface deposits and foundation remains associated with the agricultural activities of the Soulie Gray farm. This was not unexpected, given that the Soulie Gray House and farm was an active agricultural occupation by at least the second quarter of the nineteenth century, continuing up until the late twentieth century. Background research indicated that the property contained a main house, a series of barns, and several small outbuildings situated along the northern and eastern portions of the lot. In addition, historical documentation indicated that an early- to mid-eighteenth-century brick house was possibly located in the immediate project area, although no direct evidence of the building's location was established through background research or the Phase II excavations.

Excavations conducted within the area of architectural refuse in Area 2 exposed a limited number of features. Features 5 and 7 consisted of foundation remains of the mid-twentieth-century concrete block and frame barn situated in the northeast corner of the lot. The poured concrete footer and existing concrete block foundation at the north end of Trench 3 matched the footprint of the barn illustrated on the 1963 as-built map of the property, and likely will provide no further archaeological or historical value. Feature 4 consisted of a limited burn episode likely related to the demolition of the mid-twentieth-century concrete block and frame barn. The full dimensions of this feature were not exposed, but the shallow depth of the feature matrix and general mix of mid-nineteenth- through mid-twentieth-century architectural and domestic refuse offers little research potential. However, exposure of the full horizontal limits of Feature 4 may provide new insights into artifact content, feature depth, or other characteristics not presented in the limited trench exposure.

Feature 8, a large circular concrete cap exposed to the north of the barn foundation, was partially excavated, documenting only the surface of the cap. The general size and diameter of the concrete cap is similar to a cap used to close off a well shaft. Feature 8 was located in the general

area of the early-twentieth-century barn, but it is not certain from the excavations conducted to date if this feature is a well associated with the early-twentieth-century barn or possibly the nineteenth-century period of the farm's occupation. Feature 6, a large, 7.0-meter long stain, was located in an area that once contained a series of small, possibly mid- to late-nineteenth- through early-twentieth-century frame outbuildings. The excavation of Feature 6 yielded a small number of late-eighteenth- through mid-twentieth-century domestic, architectural, and industrial artifacts, including a large possible butchering knife. An 1866 fire insurance policy for John West lists a 12-foot by 16-foot meat house as part of the estate, as well as several other outbuildings (Table 5), but the limited horizontal exposure and minimal sampling prohibited defining Feature 6 as the remains of a specific outbuilding.

### **8.3 Locus 2, Prehistoric Resources, Area 5**

The soil profile within the LOD in Area 5 exhibited a typical Ap/E/Bt sequence with minor variations in the thickness and color of the E-horizon in the southern portion of the tested area attributed to colluvium buildup on the lower elevations of the landform slope. TUs D and C, located along the rise of the landform east of the Soulie Gray House, produced a 22.0 to 34.0-centimeter thick brown (10YR 4/3) sandy loam Ap-horizon overlying a 10.0-centimeter thick yellowish brown (10YR 5/6) sandy loam E-horizon. A strong brown (7.5YR 5/6) loam Bt-horizon was encountered below the E-horizon in both excavations. TUs A, E, and F, situated adjacent to SR 1 and at the lower portion of the slope, exhibited an 18.0 to 20.0-centimeter thick E-horizon overlying the Bt-horizon. The E-horizon in TU A consisted of a typically yellowish brown (10YR 5/6) sandy loam, while TU E and TU F, excavated within the prehistoric resource identified in Phase IB testing as Locus 2, produced a dark yellowish brown (10YR 4/6) and light yellowish brown (2.5Y 6/4) sandy loam E-horizon, respectively. No cultural features, prehistoric or historic, were encountered in any of the test unit excavations.

TUs B and G, found midslope on the landform, evidenced several distinct soil anomalies within their associated subsoils. The removal of the Ap-horizon in TU B exposed two soil anomalies. The first, an approximately 60.0-centimeter long by 30.0-centimeter wide brownish yellow (10YR 6/6) coarse sand deposit, extended into the west wall of the unit. The second soil anomaly, composed of a 20.0-centimeter wide band of light reddish brown (2.5YR 6/3) sandy

loam, was identified along the eastern edge of the unit and extended into TU G (Photograph 66). A yellowish brown (10YR 5/6) sandy loam E-horizon separated the two anomalies. Several plowscars and shallow rodent disturbances were observed in the E-horizon to the east of the light reddish brown (2.5YR 6/3) sandy loam in TU G.

The brownish yellow (10YR 6/6) coarse sand deposit was similar to a soft soil deformation created by an upwelling of groundwater, similar to a spring. This soil formation comprised a natural feature and was not excavated. The excavation of the light reddish brown sandy loam anomaly revealed a 20.0-centimeter thick band of soil that tapered from its shallowest point in the midsection of TU G to its deepest point in TU B (Photograph 67). Numerous rounded and tabular iron concretions were noted in the bottom of the soil formation. No cultural materials were recovered in this soil horizon. The surrounding E-horizon consisted of a very shallow, 8.0-centimeter thick yellowish brown (10YR 5/6) sandy loam matrix, much thinner than the typical E-horizon profile noted elsewhere in the LOD for Area 5. One FCR fragment was recovered from the E-horizon in TU G. A strong brown (7.5YR 5/6) loamy sand to sand Bt-horizon was recorded below the E-horizon and the light reddish brown sandy loam anomaly.

The Phase II investigation within the LOD of Area 5 produced a total of 57 prehistoric artifacts, 75 historic/modern artifacts, and eight faunal artifacts (Appendix E). TUs E and F, located within Locus 2, yielded 25 percent of the faunal assemblage (n=2), 49 percent of the prehistoric artifacts (n=28), and 38.7 percent of the historic artifact collection (n=29). The prehistoric artifact collection consists of debitage forms, including primary (n=6), secondary (n=14), tertiary (n=5), flake fragments (n=2), and unclassified debitage (n=8); as well as two quartz bifaces, one jasper utilized flake, one tested jasper cobble, and one tested chert cobble. Lithic material types heavily favored jasper (n=31, 55.3%) and quartzite (n=16, 28.6%), followed by chert and quartz (n=3, 5.3%), sandstone (n=2, 3.7%), and chalcedony (n=1, 1.8%). The debitage and tools illustrated the various stages of stone tool manufacture, from raw resource procurement to final shaping, as well as expedient tool use with debitage. One prehistoric ceramic sherd, a cord-impressed exterior ware tentatively identified as Minguannan (A.D. 1000 to 1600), was recovered from the Ap-horizon in TU G. In addition, a small quantity of FCR (n=16) was also collected.

The historic artifact assemblage included an assortment of architectural and domestic refuse. Domestic artifacts (n=32) presented the largest artifact class in the collection. Sherds of undecorated creamware (n=5), undecorated (n=8), flow blue (n=1) and blue transfer print (n=1) pearlware, porcelain (n=2), lead (n=3) and manganese (n=1) glazed redware, and eroded white earthenware paste wares (n=2) reflect a mid-eighteenth- through late-nineteenth-century period of manufacture. Glass containers, including aqua (n=2), dark aqua (n=1), colorless (n=2), light olive (n=1), and olive (n=1) bottle glass fragments, and colorless vessel glass shards (n=2), illustrate a later period of manufacture, from the early-nineteenth- through the early-twentieth-century. Architectural remains (n=22) recovered in the LOD of Area 5 included brick (n=15), cut nails (n=3), and window glass fragments (n=4). Coal (n=18), unidentified iron (n=2), and a piece of plastic represented the remainder of the historic artifact collection (Appendix E).

The vertical distribution of the artifact collection was limited predominantly to the Ap-horizon and the top 10.0 centimeters of the E-horizon. Overall, 92.2 percent (n=129) of the collection was recovered from the Ap-horizon, with 6.4 percent (n=9) from the top 10.0 centimeters of the E-horizon. TU E produced one undecorated porcelain sherd and one tested jasper cobble from Level 2, 55.0 to 65.0 cmbd, of the E-horizon. These were the only artifacts found below the initial 10.0-centimeter level of the E-horizon and accounted for the remaining 1.4 percent of the collection. No artifacts were encountered in the Bt-horizon, and no trends by artifact type were observed by stratum.

Artifact counts were highest in the extreme southern and northern portions of the LOD. TU D produced a total of ten prehistoric and 23 historic artifacts, while TU F yielded one faunal, 22 prehistoric, and 18 historic artifacts. The historic artifact collection did not yield any trends suggesting the presence of an activity area within the LOD. Rather, the general mix of mid-eighteenth- through late-nineteenth-century ceramics, early-nineteenth- through early-twentieth-century glassware, and architectural debris within all of the excavations illustrates the common practice of field manuring and the subsequent redistribution of the debris across the field by plowing. Given the identification of mid-nineteenth- to mid-twentieth-century household and farmstead refuse along the periphery of the Soulie Gray House lot, the mid-eighteenth- through late-nineteenth-century portion of historic artifact assemblage in the LOD of Area 5 represents

refuse associated with the early occupation of the house distributed over the landscape through long-term historic and modern plowing.

The prehistoric artifact assemblage recovered within the LOD represents material culture associated with raw resource procurement, stone tool manufacture, and cooking/hearth activities. TU F, excavated within Locus 2, included a mix of jasper, chalcedony, quartzite, and chert debitage; a tested jasper pebble; a jasper utilized flake tool; and a quartz late stage biface fragment, artifacts reflecting raw resource procurement and stone tool manufacture. The presence of five FCR fragments in the assemblage suggested the presence of a hearth, but no soil anomalies or features indicative of a hearth were encountered in any of the excavations conducted within the LOD of Area 5. TU E, also located within Locus 2, produced only six prehistoric artifacts largely from the Ap-horizon, composed of jasper debitage (n=2), a tested jasper cobble (n=1), a tested chert cobble (n=1), and two FCR. While the tested jasper cobble was recovered from the second level of the E-horizon, a sherd of porcelain was also recovered from the same context, drawing some question as to the integrity of the artifacts' provenience.

Despite the diversity of prehistoric materials and the concentration of remains in the northern and southern limits of the LOD, the majority of the collection was recovered from a disturbed plowzone context. No cultural features were recorded in the excavations to suggest that the remains of hearths, storage pits, or other intact features existed within the LOD. Based on the proximity of Area 1, the debitage, tools, FCR, and ceramic sherd in the LOD of Area 5, as well as in Locus 2, represent a part of a larger prehistoric resource found within the project area. However, given the long period of historic and modern agricultural use of the property, these artifacts were displaced from their original contexts and present limited information concerning lithic technology, resource procurement trends, and the spatial distribution of discrete activity areas.

#### **8.4 Feature 3, Brick Concentration, Area 6**

The excavations conducted on Feature 3 did not document an intact feature associated with the eighteenth- or nineteenth-century occupation of the farm, but rather substantial evidence of twentieth-century grading and landscaping activities likely associated with the construction of

SR 1. As previously discussed in Section 5.5, a 9.0 to 20.0-centimeter thick dark brown to dark yellowish brown (10YR 3/3 to 4/4) sandy loam fill deposit (Stratum I) was documented overlying a 17.0 to 18.0-centimeter thick brown to dark yellowish brown (10YR 4/3 to 4/6) loamy sand plowzone (Stratum II) in TU N519 E499, TU N519 E500, and STP N520 E500. These soil horizons were present in the additional five test units excavated during the Phase II investigation. Feature 3, an approximately 90.0-centimeter wide by 105.0-centimeter long concentration of brick, was exposed at the top of the second level of Stratum II 52.0 cmbd in the southern half of TU N519 E499 and the southwest corner of TU N519 E500. The surrounding plowzone matrix was excavated to reveal the next soil stratum, a yellowish brown (10YR 5/6) loamy sand deposit (Stratum III).

The Phase II archaeological investigation of Feature 3 identified three separate strata. Stratum I consisted of a 9.0 to 14.0-centimeter thick mottled brown and light yellowish brown (10YR 4/3 mottled with 2.5Y 6/4) loamy sand containing decayed mortar, 30 percent gravel content, and large brick fragments. The dense concentration of brick observed in TU N519 E499 and TU N519 E500 defined Stratum I. Stratum II, a 5.0 to 16.0-centimeter thick package of mottled brown and yellowish brown (10YR 4/3 mottled with 5/6) loamy sand with less than five percent gravels and small brick fragments, was recorded underlying Stratum I in TUs N517 E499, N518 E498, N518 E499, N519 E498, N519 E499, and N519 E500. Stratum III was composed of a 10.0 to 15.0-centimeter thick fill horizon of mottled brown and light yellowish brown (10YR 4/3 mottled with 6/4) sandy loam with ten percent gravels found in TUs N517 E499, N518 E498, N518 E499, N519 E497, and N519 E498 (Figure 53) (Photograph 68).

Two additional features were recorded during the Phase II investigation. Two oblong, shallow pits with irregular bottoms were identified below Feature 3, Strata II and III, in TUs N517 E499, N518 E498, N518 E499, N519 E498, N519 E499, and N519 E500. Designated Feature 3A, these pits consisted of 12.0 to 27.0-centimeter thick and 40.0 to 50.0-centimeter wide mottled brown and yellowish brown (10YR 4/3 mottled with 5/6) loamy sand deposits extending into the E-horizon (Figure 54). Feature 3A extended in a northeast to southwest direction, generally oriented parallel to the nearby farm ponds and perpendicular to the slope of the ground. Feature 3B, a post mold/hole, was recorded in the northern half of TU N519 E497-498 (Photograph 69).

The post hole measured 36.0 centimeters in diameter and 40.0 centimeters in depth, with the corresponding post mold measuring 20.0 centimeters in diameter and set in the southern portion of the post hole.

Natural subsoil horizons were encountered below the various fill deposits. A 20.0 to 25.0-centimeter thick yellowish brown (10YR 5/6) loamy sand horizon containing two percent gravels (E) was recorded below Features 3, 3A, and 3B. The E-horizon was underlain by a yellowish brown (10YR 5/6) loamy sand horizon containing five percent gravels (E/B). During the excavation of the E/B horizon, an increase in sand coarseness and moisture content with depth was noted. A thin 2.0-centimeter thick dark brown (10YR 3/3) lens of hydric soils was observed at the interface of the E-horizon and Feature 3A with the overlying fill deposits in TUs N518 E498, N519 E497, and N519 E498 (Figure 54, Photograph 69).

In order to maintain consistency in the discussion of total artifact counts and distribution trends for the features, the Phase IB and Phase II assemblages were combined. The Fill topsoil horizon (Stratum I) and the buried Ap-horizon (Stratum II) yielded the largest quantity of artifacts. Table 19 lists the historic artifact collection recovered from Strata I and II, and the E-horizon, as well as Features 3, 3A, and 3B. Not surprisingly, brick comprised the largest single artifact type recovered in the excavations. The brick assemblage, unlike that noted in Area 2, included many large chunks exhibiting portions of corners and faces, as well as eight fragments that contained glazed faces. None of the brick was recovered as a portion of an intact mortared wall or other architectural feature, only as broken refuse. The densest concentration of brick was recorded in the Ap-horizon in TUs N519 E500 (n=312) and N519 E499 (n=252), with reduced counts found in Feature 3, Stratum I, of TUs N518 E499 (n=69), N519 E498 (n=42), N519 E499 (n=55), and N519 E500 (n=64). The number of brick fragments decreased substantially below Feature 3, Stratum I, as illustrated in Table 19.

**Table 19. Historic Artifact Collection from Strata I and II, Features 3, 3A, and 3B, Area 6.**

Artifact Type	Fill	Ap	E	Fea 3 I	Fea 3 II	Fea 3 III	Fea 3A	Fea 3B	Total
<b>Faunal</b>	3	13		1	1				<b>18</b>
<b>Brick (Glazed)</b>	86(2)	790(4)	1	232(2)	8	10	3	7	<b>1137(8)</b>
<b>Cut Nail</b>	7	29			1	2		8	<b>47</b>
<b>Wire Nail</b>	1	11							<b>12</b>
<b>Window Glass</b>	9	7							<b>16</b>
<b>Creamware</b>	4	9							<b>13</b>
<b>Pearlware</b>	5	8					1		<b>14</b>
<b>Redware</b>	6	20		3	3	5	4	1	<b>42</b>
<b>Terra Cotta</b>		1							<b>1</b>
<b>Whiteware</b>	8	6		1					<b>15</b>
<b>Bottle glass</b>	7	14		1		2			<b>24</b>
<b>Vessel Glass</b>		2							<b>2</b>
<b>Lamp Glass</b>	1	1							<b>2</b>
<b>Coal</b>	63	95		2	1	2			<b>163</b>
<b>Slag/Cinder/Charcoal</b>	9	17							<b>26</b>
<b>Wire</b>	1								<b>1</b>
<b>Chain</b>	3								<b>3</b>
<b>Other</b>	7	5				1			<b>13</b>
<b>Kaolin Pipe Stem</b>		1							<b>1</b>
<b>Total</b>	<b>220</b>	<b>1029</b>	<b>1</b>	<b>240</b>	<b>14</b>	<b>22</b>	<b>8</b>	<b>16</b>	<b>1,550</b>

While not as substantial as brick, cut nail, ceramics, bottle glass, and coal were also prevalent artifacts types found within the assemblage. Examples of undecorated creamware, undecorated (n=8), blue edge (n=2), blue painted (n=1), blue transfer print (n=1), and green shell edge (n=1) pearlware, and slip trail redware (n=6) illustrate early-eighteenth- to mid-nineteenth-century manufactures, whereas clear lead (n=4), lead (n=10), and manganese (n=12) glazed redware, and sherds of decal (n=1), red decorated (n=1), transfer print (n=2) and undecorated (n=11) whiteware represent wares produced from the early nineteenth through mid-twentieth century. A number of corroded machine-made cut nails are also contemporaneous with a late-eighteenth-through twentieth-century production (Miller et al. 2000:14).

The deposits in Strata I and II throughout the area, from Strata I through III in Feature 3, and from Feature 3A are interpreted as episodes of graded fill associated with the construction of SR 1. While Strata I and II contained the majority of the historic artifact assemblage, examples of brick and redware were recovered throughout all levels of fill, as well as in Feature 3B, with one brick fragment found in the E-horizon. The presence of creamware, pearlware, and slip trail redware indicate an early- to mid-eighteenth- to mid-nineteenth-century component in the domestic collection, as do the examples of handmade brick in the architectural collection. The bulk of the domestic and architectural collection was found in Strata I and II, and in Feature 3, Stratum I, suggesting that the locus of a domestic site, possibly pre-dating the Soulie Gray House, was excavated as secondary demolition fill and graded along the farm pond. The underlying fill horizons likely represent graded fill materials collected away from the historic locus, given the lesser, but similar, quantity and composition of artifacts. It is not clear if Feature 3B, a post mold, represents the location of an early-eighteenth- to mid-nineteenth-century structure, or a fence post as recorded in TU 5, Area 2. However, the few artifacts found within the feature matrix are similar to the general collection identified in the overlying fill deposits, and likely represent cultural materials from the same locus.

A significant assortment of prehistoric artifacts was recovered from the Ap-horizon and fill deposits as well. Table 20 lists the prehistoric artifact assemblage recovered from the Fill topsoil (Stratum I), the Ap-horizon (Stratum II), and Features 3, 3A, and 3B. As depicted in this table, the excavations uncovered ceramics associated with the Woodland I and II periods, one Woodland I period projectile point, debitage, a few tools, and FCR. Jasper (n=51, 38.3%) and argillite (n=49, 36.8%) were heavily favored material types in the lithic collection, with smaller percentages of rhyolite (n=10, 7.5%), quartz (n=9, 6.8%), chert (n=8, 6.0%), quartzite (n=4, 3.0%), and chalcedony (n=2, 1.5%). The presence of non-local argillite and rhyolite in the prehistoric artifact assemblage suggests that an exchange network was established with groups beyond the Delmarva Peninsula area, such as in the Piedmont region of southeastern Pennsylvania (argillite), and possibly in the Ridge and Valley region of Maryland and Pennsylvania (rhyolite). (The data recovery excavation conducted at the Hickory Bluff site identified porphyritic rhyolite material in the archaeological assemblage from quarry sites as far away as the Carolina Ridge and Valley area in North Carolina [Petraglia et al. 2000:13-110]).

The debitage collection yielded primary (n=15), secondary (n=40), tertiary (n=56), shatter (n=13), a tested cobble (n=1), and unclassified debitage (n=4), attesting to lithic reduction activities with a variety of materials. The recovery of ceramic sherds (n=14) and FCR (n=37) suggests cooking activities, but no evidence of a hearth feature was encountered in the excavations.

Despite the disturbed context of the soil horizons, certain trends were apparent within the prehistoric artifact assemblage. Primary (n=15) and secondary (n=40) stage debitage were noted with some frequency, while tertiary (n=56) debris was not as predominant in the collection. Jasper accounted for the largest material type in the primary (n=5, 33.3%), secondary (n=22, 55.0%) and shatter (n=10, 76.9%) debitage categories, but accounted for only 19.6 percent (n=11) of the tertiary flake assemblage. The jasper artifact collection was distributed throughout all contexts, excluding Feature 3A, and in all test unit excavations. The presence of appreciable quantities of primary and secondary jasper debitage, coupled with a tested jasper cobble/pebble, reflects raw material procurement and initial reduction activities in the assemblage. The recovery of a jasper Susquehanna broadspear projectile point and an undiagnostic jasper point tip in the artifact collection, compared to the lesser quantity of tertiary debitage, suggests that the tertiary collection is the product of minor tool sharpening and maintenance. Final shaping and sharpening of the two points would have likely yielded a larger tertiary assemblage than the 11 tertiary jasper flakes noted in Strata I and II and Features 3, 3A, and 3B.

A large number of argillite tertiary flakes (n=44, 78.6%) were encountered in Feature 3, Stratum III, TU N519 E497, along with a small number of primary (n=3) and secondary (n=1) waste flakes. One additional argillite secondary flake was found in the Ap-horizon of TU N517 E499. While no tools of this material were recovered, the dense concentration of argillite flakes in a disturbed, isolated vertical and horizontal provenience is interpreted as the secondary deposition of a lithic reduction episode. Unfortunately, the disturbed context of the soil horizon offers little information concerning the original provenience of the debitage.

**Table 20. Prehistoric Artifact Collection from Strata I and II, Features 3, 3A, and 3B, Area 6.**

Artifact Type		Fill	Ap	E	Fea 3 I	Fea 3 II	Fea 3 III	Fea 3A	Fea 3B	Total
Ceramic	Accokeek (1000 to 200B.C.)		1	1				4		6
	Wolfe Neck (600B.C. to A.D. 800)			3	2	1				6
	Minguannan (A.D.900 to 1600)		1				1			2
Primary	Argillite						3			3
	Chalcedony						1			1
	Chert	1								1
	Jasper		4				1			5
	Quartz	1	1				1			3
	Quartzite		1				1			2
Secondary	Argillite		1				1			2
	Chert		3		1			1		5
	Jasper	5	9	2	1	1	4			22
	Quartz	1								1
	Quartzite		1							1
	Rhyolite		1		5		3			9
Tertiary	Argillite						44			44
	Jasper	2	5				4			11
	Quartz		1							1
Shatter	Jasper	2	6		2					10
	Quartz		2		1					3
Tested Cobble/Pebble, Jasper			1							1
Utilized Flake	Quartz			1						1
	Rhyolite				1					1
Scraper, Chalcedony					1					1
FCR		9	11	8	1	1	1	6		37
Projectile Point	Susquehanna Broadspear, Jasper (1750 to 700B.C.)						1			1
	Undiagnostic Tip, Jasper		1							1
Unclassified Debitage	Chert		2							2
	Jasper								1	1
	Quartzite		1							1
<b>Total</b>		21	53	15	15	3	66	11	1	185

The excavations also identified a small assortment of prehistoric artifacts in the E-horizon. Wolfe Neck Cord Marked sherds (n=2), a fragment of Accokeek pottery, two jasper secondary flakes, and five fragments of FCR, along with one brick fragment, were recovered within the top 10.0 centimeters of the E-horizon. TU N519 E500, Stratum III, Level 2 (70.0 to 84.0 cmbd), yielded one sherd of Wolfe Neck Cord Marked pottery and two FCR, while TU N518 E499, Stratum III, Level 2 (80.0 to 99.0 cmbd), produced one FCR fragment. A quartz utilized flake was also recovered from TU N519 E500, Stratum III, Level 3 (84.0 to 95.0 cmbd). The recovery of prehistoric artifacts in Levels 2 and 3 of TU N519 E500 and Level 2 in TU N518 E499 suggests that the locus of the prehistoric activity area was located along the top of the slope overlooking the drainage/farm pond. While the excavations documented one brick fragment found with ceramic, debitage, and FCR in the first 10.0-centimeter level of the E-horizon, the second and third levels yielded exclusively prehistoric materials, albeit in very small numbers. The presence of Accokeek and Wolfe Neck sherds suggests a Woodland I period association for the prehistoric material in the E-horizon, although the few sherds encountered in the first level of the E-horizon may have been re-deposited by grading activities. Excavation of the E-horizon did not uncover any prehistoric subsurface features or extensive root/rodent disturbance as a source for transporting the artifacts deep into the E-horizon.

The distribution of the artifact assemblage suggests that Stratum I and Features 3 and 3A were deposited during landscaping activities along the nearby drainage during the construction of SR 1. In these three contexts, prehistoric and historic artifacts were recovered together. The 1992 aerial photograph (Figure 29) illustrates that the construction of SR 1 encompassed part the northern driveway entrance adjacent to the drainage/farm pond. A portion of the drainage channel was filled in for the roadway and the drainage channeled under the roadbed via a culvert.

## **8.5 Prehistoric Resources, Area 7**

A total of four 1.0-meter square test units was excavated in the prehistoric lithic scatter identified during the Phase IB archaeological survey of Area 7. The Phase II excavations exposed a typical soil profile composed of a 25.0 to 35.0-centimeter thick brown to dark yellowish brown (10YR 4/3 to 4/4) loamy clay to sandy loam Ap-horizon overlying a 10.0 to 18.0-centimeter thick yellowish brown (10YR 5/4 to 5/6) sandy loam to silty clay E-horizon. A strong brown (7.5YR

4/6 to 5/6) silty clay to sandy clay Bt-horizon was recorded below the E-horizon (Photograph 70). No subsurface cultural features were identified in the test unit excavations.

The Phase II archaeological investigation recovered a small selection of faunal (n=2), prehistoric (n=29), and historic/modern (n=94) artifacts. An assortment of debitage (n=22) forms was noted in the collection, including primary (n=3), secondary (n=10), tertiary (n=3), shatter (n=1), and unclassified (n=5) stages of debris. Tools included a chert cobble tool, two tested jasper pebbles, and a jasper core fragment. A small number of FCR (n=3) accounts for the remainder of the prehistoric artifact collection. The overwhelming percentage of the collection consisted of jasper (n=18, 81.8%), with quartzite (n=3, 13.6%) and chert (n=1, 4.5%) noted in smaller amounts. Historic refuse consisted of a sparse number of architectural (n=29), domestic (n=39), and industrial class (n=26) artifacts, including brick fragments (n=15), window glass (n=7), a sample of undecorated creamware (n=2), blue painted pearlware (n=2), eroded redware (n=2), and undecorated whiteware (n=2) fragments, amber (n=15), colorless (n=13), and aqua (n=1) bottle glass, coal (n=16), plastic (n=8), and other refuse.

The distribution of the historic artifact assemblage within the prehistoric resource is likely attributable to the plow dispersal of debris associated with Building C, which was located approximately 15.2 meters to the west. The ceramics, bottle glass, brick, nails, and other refuse in the Phase II excavations, all recovered from the Ap-horizon, are similar in age and type to those recorded in the Phase IB historic artifact scatter. No discernable patterns of artifact class or count were present in the historic artifact collection. No historic features were observed in the Phase II excavations to indicate the source of the historic debris or exact location of Building C.

No appreciable trends were observed in the distribution of the prehistoric artifact collection. The Ap-horizon contained 82.7% (n=24) of the debitage, tools, and FCR recovered in the Phase II investigation, with 17.3% (n=5) of the assemblage found in the E-horizon. TU N585 E599 produced the largest count of prehistoric materials (n=17, 58.6%) in the Phase II investigation, with an equal dispersal of three to six prehistoric artifacts in the remaining test unit excavations. These excavations also produced a small number of debitage from the E-horizon, the only

evidence of prehistoric artifacts below the Ap-horizon. No subsurface features, soil stains, or other anomalies were observed in the Phase II excavations.

Given the high frequency of jasper secondary flakes in the collection, as well as two tested jasper pebbles, one jasper shatter, and a chert cobble tool, this prehistoric resource represents a small, short-term raw resource procurement and lithic reduction/maintenance site. The small number of debitage reflects a brief period of occupation focusing on obtaining and processing local gravel sources, as suggested by several water-worn cortex primary and secondary flakes. The absence of subsurface features attests to the temporary nature of this activity.