

4.1 Survey and Analysis Methods

Fieldwork Methodology

The first stage of Phase Ib fieldwork consisted of contacting each of the land owners and tenant farmers, both to obtain access and to seek background information. In most cases, plowing and disking was arranged with the farmer who was working each field in the LOD. Access was provided to all survey areas. There were no areas of denied access in the Phase Ib survey. An effort was made to accommodate farmers' schedules for the harvesting of fall crops and planting of winter crops in so far as possible, to minimize the need for crop removal or crop damage. Individuals were also asked for any information about the project area or specific landscape features. Information from informants has been included in the results section, in conjunction with the description of specific survey segments.

Field survey methods included pedestrian surface survey and the excavation of shovel tests and test units. Cultivated fields were prepared for pedestrian surface survey. First the LOD was marked by a survey team from Century Engineering, then the portions of the fields to be surveyed were plowed and disked by the farmer, using two disking passes, and then left to be washed by at least one heavy rainfall before being surveyed. Pedestrian survey consisted of field crew walking arm's length apart across each field, using pin flags to mark the location of each prehistoric or historic artifacts found (Photo 1). Each field find was collected and assigned a unique field number. GPS readings were taken to record each artifact location, forming the basis for the artifact distribution mapping. In most cases, two passes were made across each field. In the final stages of Phase Ib survey in the spring of 2010, survey was limited to one pass. The level of coverage is noted in the description of survey segments in Section 3.2. The methodology of recording each artifact as a unique field find was modified for Survey Segment 11, where the density was so high that each artifact could not be recorded individually. Instead, groups of artifacts found within approximately 6 inches (15 cm) of each other were grouped together as one find location and given a single GPS reading (Photo 2).

Excavations were conducted in areas where plowing and disking for surface collection was not feasible. Shovel tests measured 50 cm in diameter and were placed at 15 m intervals. They were excavated in natural soil strata. In areas where the geomorphological study indicated that buried archaeological resources could be present, test units measuring 1 m x 1 m were placed at 30 m intervals. They were excavated in arbitrary 10 cm levels within natural soil strata. All excavated soils were screened to recover artifacts, which were provenienced by excavation unit, level, and soil stratum. Methodologies were adapted to each terrain setting as necessary. In areas where deep soils were anticipated, such as small drainageways and stream terraces, test units were excavated (Photo 3). In areas where alluvial soils were anticipated to be no more than 60 cm deep or where uplands soils occurred, the excavation of shovel tests was considered sufficient. Test units were laid out for excavation along a small drainageway in late December 2009, before a heavy snowfall. Because the blanket of snow insulated the ground and kept it from freezing, it was possible to proceed with the excavations despite adverse weather conditions (Photo 4).



Photo 1. Bowman 2 Site (in Segment 20), looking west, showing the density of artifact locations identified with pin flags. Only the portion of the site within the LOD was plowed and disked for pedestrian surface survey.



Photo 2. Houston-LeCompt Site (in Segment 11) during pedestrian surface survey, looking northwest. The density of artifacts was so high that the methodology was modified, using each pin flag to mark a cluster instead of an individual artifact find.



Photo 3. Tributary drainage in Survey Segment 28, looking northwest. Test units were placed at the base of the slope and a transect of shovel tests was placed along the lower slope, because of the presence of a buried Ap horizon in this area.



Photo 4. Survey Segment 28, looking north, showing the excavation of test units following a deep snow fall.

Shovel tests were also excavated at archaeological sites to investigate features observed at the surface and to confirm site stratigraphy. One or two shovel tests were placed in each site that was identified before the end of fieldwork in April 2010. However, there was no opportunity to test the locations of sites that were identified during analysis of results, after the completion of fieldwork.

A geomorphological study was conducted in conjunction with the Phase Ib fieldwork. At stream crossings, the terrain was examined and auger probes were excavated to evaluate the need for test unit or shovel test excavations. The soil profiles of excavated test units were also examined to provide additional information on stratigraphy and the contexts in which artifacts were recovered. Results of the geomorphological study are discussed in the description of survey segments.

Following the completion of the Phase Ib fieldwork in April 2010, additional Phase Ib survey was performed by Hunter Research Inc. (HRI) for areas of proposed additional ground disturbance in Section 1 of the US 301 project. This included areas for borrow pits and staging areas, as well as proposed stormwater management locations. Results from the survey of areas adjacent to the A&HC Survey Segments provided additional information on the extent of sites that had been identified in the A&HC survey, or resulted in the identification of sites that had not been defined on the basis of the A&HC survey. Preliminary results from the HRI survey have been included in the description of survey segments and interpretation of sites, presented below.

Laboratory Analysis Methodology

All artifacts recovered during Phase Ib survey were processed in the laboratory and catalogued in an Access® database. Description and classification of artifacts focused on the identification of materials, function, and period of occupation. For prehistoric artifacts, projectile points were classified according to standard typologies. Other tools were classified on the basis of morphological characteristics. The identification of use wear (“utilized” artifacts) was preliminary, since it was based on visual examination of artifacts, not on microscopic inspection. Lithic artifacts were classified by the stages of biface reduction or flake production, reflecting the common technologies observed on prehistoric sites in the region. Historic artifacts were also classified by material type and function, with an emphasis on attributes relating to dating. Standard typologies were used for the identification of historic artifacts, especially ceramics and container glass.

The spatial distributions of artifacts from surface survey was generated using the GPS data points and Magellan Mobile Mapper® software. These are summarized in the set of maps included with the segment descriptions. The distribution of artifacts was mapped for each survey segment, with one set of maps recording the distribution of historic artifacts and a second set recording the distribution of prehistoric artifacts. The locations of shovel tests and test units are also shown on these artifact distribution maps. These maps were used as the basis for defining archaeological sites. There were two situations where the data points (pin flags) were destroyed by bad weather, resulting in artifacts that were recovered from a survey segment, but could not be mapped to specific locations. This included artifacts in Segment 11 (Houston-LeCompt Site,

N14517) and Segment 21 (Bowman Site 1, N14522). Despite these gaps in the data, there was sufficient information to define the boundaries of these sites. The GPS data points were also used to provide more detailed analysis of the distribution of artifacts within sites. It was possible to select subsets of the full artifact assemblage, such as comparing the distribution of early and late historic ceramics, or ceramics and architectural materials within a site.

Artifact summary tables were prepared for all surveyed segments. These tables include all artifacts from both surface survey and excavated contexts. As such, they represent a summary of the inventory of artifacts from the Phase Ib survey. In segments where sites were identified, the artifacts attributed to each site were enumerated in separate columns, to provide information on site assemblages. In sites where artifacts were derived from both pedestrian surface survey (PSS) and shovel test excavations, the artifacts were separated by context and soil strata. In the artifact summary tables, the historic artifacts have been organized by function and activity groups to aid in the interpretation of site function. For example, ceramic artifacts that were not tablewares have been grouped under other activities, such as placing tiles in architectural materials, toy tea sets in personal items, and pipe fragments in smoking items. This classification is derived from the pattern recognition system developed by South and modified for later historic sites by Sprague (South 1977, 1978; Sprague 1981).

Results of the Phase Ib survey are summarized in Table 1 and described below. In the description of each survey segment, the probability classification developed in the Phase Ia report is summarized, the field survey methods are enumerated, and the survey findings described. A description of each identified archaeological site is also provided, together with relevant results from the geomorphological study and additional background research. Recommendations for further work and evaluations of archaeological resources are presented in Section 5.1.

4.2 Survey Results

Results of the Phase Ib survey are organized by survey segment, beginning at the southwest end near the Norfolk Southern Railroad line and progressing northeast to a proposed interchange with Route 1. Historic resources are described in conjunction with the survey segments in which they were found.

Survey Segment 1

This segment was located at the southwestern end of the US 301 Section 1 project, on the east side of the Norfolk Southern Railroad line. It consisted of 4.0 acres in a cultivated field. Soils were mapped as Reybold silt loam, 2-5% slopes. This area was not proximal to water, and was designated as low probability for both historic and prehistoric resources.

At the time of the Phase Ib survey, the decision was made in consultation with DeIDOT and SHPO archaeologists to eliminate this low probability segment from survey by A&HC. Subsequently, this segment was included in additional Phase I survey conducted by HRI. One archaeological site was identified by HRI, extending from this segment into adjacent areas along a stream, the Pleasanton South Historic/Prehistoric Site (CRS N14527; Site 7NC-F-147).

Table 1
Phase Ib Survey Methods and Results

Survey Segment	Acres	Pedestrian Surface Survey	Shovel Tests	Test Units	Prehistoric Probability	Historic Probability	Archaeological Sites Identified
1	4.0	Not surveyed			Low	Low	
2	2.9	one pass	--	--	Moderate	Low	--None
3	1.5	--	38 at stream	--	High	Low	Spring Mill Branch (P/H) =in 3/4
4	5.3	one pass	--	--	Moderate	Low	
5	15.4	Not surveyed			Low	Moderate	
6	9.5	one/two passes	8 in woods; 1 in site	--	High	Low	Reedy Is Cart Road 4 (H/P); Churchtown 2 (P)
7	10.0	two passes	2 in sites	--	Moderate	Moderate	Churchtown 4 (H)
8	2.9	two passes	1 in site	--	High	Moderate	Churchtown 3 (P) =in Seg. 7/8; Churchtown 1 (P,H) =in Seg. 8/9
9	8.5	one/two passes	13 in woods, 5 at sites	--	Moderate	Moderate	Bird-Houston Loci A&B (H/P)
10	6.4	Not surveyed			Low	Low	
11	4.1	two passes	5 in site	--	Low	High	Houston-LeCompt (H/P)
12	6.4	two passes	63 in woods	--	Low-Moderate	High	Hobson/LeCompt 1 (H)
13	7.2	one pass	52 in woods	--	Low	High	Emerson Loci A& B (P/H) = in Seg. 13/14
14	9.1	one pass	10 in woods	--	High	Low	
15	9.2	Not surveyed			Low	Low	
16	5.6	one pass	--	--	Moderate	Low	None
17	10.4	one/two passes	--	--	Low	Low	None
18	8.2	two passes	2 in site	--	Low-Moderate	High	Reed-Elliot (H)
19-Ramp4	12.2	two passes	--	--	Low	Low	None
19-other	31.2	Not surveyed			Low	Low	
20	9.6	two passes	2 in site	--	Low	High	Bowman 2 (Tenancy) (H)
21	7.8	one/two passes	12 in lawn	--	Low-Moderate	High	Bowman 1 (Mrs. Bowman) (H)
22	0.8	one pass	--	--	Low	Low	None
23	6.6	one pass	--	--	Moderate	Low	Bowman 3 (H/P) =in Seg. 23/24
24	1.4	--	--	8 on terrace	High	High	
25	1.7	one pass	4 in woods	--	Moderate	Moderate	Hyetts Corner Road Tenant (H)
26	11.4	Not surveyed			Disturbed		
27	3.6	two passes	2 in field	--	Low-Moderate	Moderate	None
28	11.7	two passes	13 at stream; 6 in site	6 at stream	High	Low	Elkins Locus A&B (H/P)
29	7.9	two passes	1 in site	--	Low	Low	Van Allen (H/P) =in Seg. 29/30
30	7.3	two passes	1 in site	--	Moderate	Low	
31	2.3	Not surveyed			Disturbed		

Survey Segment 2

This segment consisted of 2.9 acres, located in a cultivated field. The terrain sloped very gently down to the east, towards an unnamed channelized headwater stream, a tributary of Spring Mill Branch. The predominant soil type was Fallsington loam, 0-2% slopes, with a small area of Reybold silt loam, 2-5% slopes, in the west, bordering Segment 1. This segment was designated as moderate probability for prehistoric resources and low probability for historic resources.

The boundary between Segment 2 and Segment 3 to the northeast coincided roughly with the division between the cultivated field and a wooded riparian zone along the stream channel (Figure 4). Therefore pedestrian survey was extended to the edge of the woods. The southwest boundary between Segments 1 and 2 was not well marked at the time of the Phase Ib survey. As a result, pedestrian survey extended slightly over the boundary into unsurveyed Segment 1. Phase Ib survey of Segment 2 consisted of one pass of pedestrian surface survey in a field that had been plowed and disked, providing high surface visibility. Prehistoric and historic artifacts were both found in low frequencies across the survey segment (Figures 5a and 5b; Table 2). No concentrations of artifacts were found, and no archaeological sites were identified.

The prehistoric assemblage (n=25) included a non-diagnostic projectile point tip of jasper and a hammerstone, as well as flake cores and debitage of quartz, jasper, and chert. Fragments of thermally altered stone occurred in scattered contexts and showed no clustering. The historic assemblage (n=49) included a scatter of brick and ceramics, with few other artifacts. The ceramics included only one diagnostic nineteenth century sherd, of green shell-edged whiteware. No eighteenth century artifacts were identified. The historic artifacts were characteristic of nineteenth century field scatter.

Survey Segment 3

This segment consisted of a wooded riparian zone along both sides of a first order stream, a channelized unnamed tributary of Spring Mill Branch. The segment covered an area of 1.5 acres, in which soils were mapped as Fallsington loam, 0-2% slopes. This segment was identified as having a high probability for prehistoric resources and a low probability for historic resources.

Phase Ib survey consisted of the excavation of shovel tests measuring 50 cm in diameter, placed at 15 m intervals in wooded terrain on both sides of the stream. Fourteen shovel tests were excavated in two transects on the west side of the stream. Soil profiles revealed an A horizon of dark grayish brown (10YR4/2) silt loam that varied in thickness from 5 to 30 cm, overlying a B horizon of light brownish gray (10YR6/1) silty clay loam with heavy mottling and mineral staining. All of the shovel tests on the west side were culturally sterile. On the east side of the stream, 21 shovel tests were placed in two transects. Soil profiles were similar to those described for the west side, with a higher frequency of pebbles and cobbles in the B horizon.

Table 2
Segment 2-Artifact Summary

Artifact Description	Date	Non-Site
PREHISTORIC LITHICS		
Projectile Point	tip; broken; Jasper	1
Flake Core	Grey Chert	1
	Jasper	1
	Quartz	2
	-Fragment Quartz	1
Decortication Flake	Black Chert	1
	Quartz	1
Biface Thinning Flake	-Secondary Jasper	1
Flake Fragment	Jasper	1
Shatter	Quartz	3
Hammerstone	Sandstone	1
Test Raw Material		1
Thermally Altered Stone		10
SubTotal PREHISTORIC LITHICS		25
DOMESTIC CERAMICS		
Whiteware	-Plain (1820+)	3
	-Shell-Edged, Green (1820-1840)	1
	-Blue Monochrome Transfer (1820+)	2
Ironstone	-Plain (1840+)	4
	-Decal Decorated (1900+)	1
Porcelain	-Plain (1700+)	1
Redware	-Lead Glaze (1770+)	1
	-Unglazed (1770+)	1
	-Manganese Glaze (1770+)	2
SubTotal DOMESTIC CERAMICS		16
DOMESTIC OTHER		
Top/Neck Glass Container, narrow mouth	-Patent Finish	1
Indeterminate Container Glass		1
Tableware Glass	Indeterminate	1
Unidentified Curved Glass		5
SubTotal DOMESTIC OTHER		8
ARCHITECTURE		
Brick		15
Drain Pipe Fragment	-Ceramic	4
Door	Other	1
SubTotal ARCHITECTURE		20
FAUNA & FLORA		
Shell Fragment		5
SubTotal FAUNA & FLORA		5
GRAND TOTAL		74

Shovel Test 3-18 produced one prehistoric artifact from the Ap horizon, a flake of quartzite. Eight additional shovel tests were excavated at 5 m intervals around this find. Three of the bracketing shovel tests were positive, producing four additional pieces of lithic debitage (Figure 5b). In these three bracketing shovel tests, placed closer to the stream, the artifacts were recovered from an Ab horizon, a gray (10YR5/1) sandy loam, which was buried by later historic alluvium. The artifacts were included in the Spring Mill Branch Prehistoric/Historic Site (CRS N14528, Site 7NC-F-148), which is described below in Segment 4. All other shovel tests were culturally sterile.

Survey Segment 4

This segment consisted of 5.3 acres located in a cultivated field east of a channelized headwater stream. There was a man-made drainage ditch extending southwest within the LOD to empty into the stream. Soils were primarily mapped as Reybold silt loam, 2-5% slopes, with a narrow zone of Fallsington loam, 0-2% slopes, bordering the riparian zone to the west. This segment was identified as having a moderate probability for prehistoric resources and a low probability for historic resources.

Phase Ib survey consisted of one pass of pedestrian surface survey. The field had been plowed and disked and surface visibility was high. Numerous drain tile fragments were found along both sides of the drainage ditch in this segment. This suggested that the area had once been tiled, but later dredged out to create the ditch. Because of their abundance, only a sample of drain tile fragments was collected in the field. Other historic artifacts included a light scatter of ceramics, brick, container glass, etc. (Table 3). These were largely nineteenth century materials, considered characteristic of field scatter from manuring. The low to moderate density of prehistoric artifacts lying south of the ditch and east of the channelized stream were identified as a prehistoric site, the Spring Mill Branch Site (CRS N14528, Site 7NC-F-148). Subsequent survey of adjacent areas by HRI confirmed that this site extended south beyond the A&C Segment to the confluence of the tributary with Spring Mill Branch. The portion of the site within the A&HC survey segment is described below. A few prehistoric artifacts were found beyond the limits of the site to the east, and north of the ditch, including one utilized flake, debitage, and thermally altered stone. These materials were not included in the site.

Spring Mill Branch Site (CRS N14528; Site 7NC-F-148)

This site was located on the east side of an unnamed channelized stream, a tributary of Spring Mill Branch. The portion of the site within the A&HC survey segment covered an area of 5.1 acres in Survey Segments 3 and 4. The site extends beyond the survey segment to the south. It was bounded to the west by a channelized stream, to the north by a man-made ditch, and to the east by decreasing artifact density (Figure 5b). In addition to artifacts from pedestrian surface survey in a cultivated field, the site included artifacts from shovel testing in the wooded riparian zone in Segment 3. These included artifacts recovered from the Ap horizon in Shovel Test 3-18, and from an Ab horizon in bracketing Shovel Tests 3-39, 3-43, and 3-44.

Table 3
Segments 3 and 4-Artifact Summary

Artifact Description	Date	7NC-F-148			Non-site	Total	
		SS	ST Ap	ST Apb			
PREHISTORIC LITHICS							
Projectile Point		tip broken; contracting stem; Quartz	2			2	
Utilized Decortication Flake		Jasper			1	1	
Utilized Core Flake	-Primary	Quartz	1			1	
Utilized Biface Thinning Flake	-Primary	Quartz	1			1	
Flake Core		Black Chert	1			1	
		Jasper			1	1	
	-Fragment	Quartz	2			2	
	-Fragment	Quartzite	1			1	
Decortication Flake		Jasper	1	1		2	
Core Flake	-Secondary	Grey Chert	1			1	
Biface Preform	-Primary	Quartz	1			1	
	-Primary	Quartzite	1			1	
Biface Thinning Flake	-Secondary	Argilite	1			1	
	-Secondary	Quartzite	1	1		2	
Flake Fragment		Quartzite		1		1	
Shatter		Jasper		1	1	2	
		Quartz	1		1	2	
Test Raw Material		Quartz	2		1	3	
		Grey Chert	1			1	
		Quartzite	2			2	
		Jasper		1		1	
Thermally Altered Stone			28		1	29	
SubTotal		PREHISTORIC LITHICS	48	1	4	6	59
DOMESTIC CERAMICS							
Whiteware	-Plain	(1820+)			1	1	
Ironstone	-Plain	(1840+)			1	1	
	-Embossed	(1840+)			1	1	
	-Slipped	(1840+)			1	1	
Redware	-Manganese Glaze	(1770+)	1			1	
SubTotal		DOMESTIC CERAMICS	1		4	5	
DOMESTIC OTHER							
Top/Neck Glass Container, narrow mouth	-Prescription				1	1	

Table 3
Segments 3 and 4-Artifact Summary

Artifact Description	Date	7NC-F-148			Non-site	Total
		SS	ST Ap	ST Apb		
Top/Neck Glass Container, wide mouth -Threaded					2	2
Base Glass Container, scarring -Machine Cutoff					1	1
Indeterminate Container Glass		3			2	5
Unidentified Curved Glass -Embossed		1				1
					14	14
SubTotal DOMESTIC OTHER		4			20	24
ARCHITECTURE						
Nail -Unidentifiable					1	1
Brick		20			1	21
Drain Pipe Fragment -Ceramic		3			3	6
SubTotal ARCHITECTURE		23			5	28
HARDWARE						
Weight		1				1
SubTotal HARDWARE		1				1
FAUNA & FLORA						
Shell Fragment		1				1
SubTotal FAUNA & FLORA		1				1
OTHER						
Hook					1	1
Metal strip					1	1
SubTotal OTHER					2	2
GRAND TOTAL		78	1	4	37	120

The prehistoric assemblage from the A&HC portion of the site (n=53; Table 3) included two projectile points of quartz, both of which have contracting stems (Photo 5). The only other tools were two utilized flakes of quartz. The assemblage included flake cores, biface preforms, and debitage representing the use of quartz, quartzite, chert, jasper, and argillite materials. Thermally altered stone was also scattered across the site. A low density of historic artifacts was also found within the site (n=30), mostly brick and drain tile fragments.



Photo 5. Spring Mill Branch Site, selected artifacts. (*left to right*) Two contracting stemmed projectile points, Quartz (FF4-59, 4-64).

Survey Segment 5

This segment extended across three cultivated fields, covering a total of 15.4 acres. It was identified as having a low probability for prehistoric resources, not being proximal to water. It had a moderate probability for historic resources, because of the presence of a high probability zone outside the LOD but close to this segment. This high probability zone was associated with the Brady Tenant House/Yaiser Property (CRS N14375), which dates to c. 1900 (Frederick et al. 2006).

At the time of the Phase Ib survey, the high probability zone associated with this historic resource was evaluated as unlikely to extend into the survey segment. In consultation with DelDOT and SHPO archaeologists, this segment was dropped from further survey. Subsequently, this segment was included in areas of additional Phase Ib survey by HRI.

Survey Segment 6

This segment extended on both sides of Drawyer Creek, a second order stream. It encompassed both the wooded riparian zone along the stream and portions of cultivated fields to the east and west, for a total of 9.5 acres (Figure 6). Soils were mapped as Matapeake silt loam, 2-5% slopes in the field west of the stream, Othello silt loam 0-2% slopes in the field to the east, and zones of Fallsington loam, 0-2% slopes and Lenni silt loam 0-2% slopes along the stream channel. This survey segment was identified as having a low probability for historic sites and a high probability for prehistoric sites, due to proximity to water and the availability of cobbles as potential lithic source material. Geomorphological testing indicated that the floodplain along Drawyer Creek and the adjacent steep slopes did not require testing, but that the wooded uplands and gentler slope on the west bank should be tested for archaeological resources.

Phase Ib survey consisted of two passes of pedestrian surface survey in the field to the east of Drawyer Creek, one pass of pedestrian surface survey in the field to the west, and shovel testing in the woods west of the stream. Both fields were plowed and disked, providing good surface visibility. Surface survey resulted in the identification of sites on both sides of the stream (Figures 7a and 7b). On the west side, the Reedy Island Cart Road 4 Site (CRS N14533; Site 7NC-F-153) encompassed the entire segment. Subsequent survey of adjoining areas to the north and to the west by HRI revealed that the site extended beyond the segment. On the east side of the stream, the Churchtown 2 Site (CRS N14534; Site 7NC-F-154) encompassed the entire segment extending to the boundary with Survey Segment 7. Therefore, there were no non-site artifacts in this segment. Subsequent survey by HRI of adjacent areas to the southeast confirmed that the Churchtown 2 site extended south along Drawyer Creek. The portions of these two sites within the A&HC LOD are described below.

Eight shovel tests measuring 50 cm in diameter were placed at 15 m intervals on a gentle slope on the west side of the stream, leading from the floodplain to the uplands. The soil profiles consisted of an A horizon up to 41 cm thick, overlying a B horizon of mottled soils and stream gravels. A single shovel test produced a very high frequency of historic artifacts from the A horizon, which was included in Reedy Island Cart Road Site 4 (N14533). The other seven shovel tests were culturally sterile.

Research by W. Liebeknecht of HRI indicated that an early historic cart road leading from Bohemia Manor on the Chesapeake to Reedy Island on the Delaware River would have passed through this vicinity, crossing Drawyer Creek approximately where the project alignment crosses the creek (W. Liebeknecht, personal communication 2010). The contours of the terrain at the stream crossing, especially on the west side, suggested that there may have been a ford at this location, within the LOD. No evidence of a historic road bed was identified in the shovel tests placed on this land form. Two auger probes were placed in the wet floodplain, using a 4-inch bucket auger, to look for additional evidence of a roadway, such as a gravel or corduroy roadbed. The first auger probe was placed midway between the shovel tests and a pair of large stones that were noted in the stream bank. Below a thin A horizon and B horizon, four strata of increasingly gleyed soils were encountered, extending to a depth of 167 cm below the surface. The second auger probe, placed 15 m southeast of the first, encountered channel lag cobbles and gravels at a depth of 36 cm. No evidence of a man-made roadbed was found.

Reedy Island Cart Road 4 Site (CRS N14533; Site 7NC-F-153)

This site was identified from surface survey and shovel testing on the west side of Drawyer Creek. Surface survey of the portion of the field within the A&HC LOD yielded a total of 74 prehistoric artifacts and 91 historic artifacts, covering an area of 3.9 acres (Table 4). In addition, shovel testing in the wooded riparian zone produced 429 historic artifacts from the A horizon in Shovel Test 6-9. To the west and south, tentative boundaries were defined by a decrease in artifact density towards the LOD (Figure 7b). To the east, the boundary was defined by the edge of the stream floodplain. Supplemental survey by HRI has shown that the site extends beyond the A&HC segment to the north and northwest, along the west side of Drawyer Creek.

The prehistoric artifact assemblage included one non-diagnostic projectile point fragment, a tip fragment of quartz. Other tools were limited to four utilized flakes. The assemblage included flake cores, a primary biface preform, and debitage. Lithic materials utilized included quartz, quartzite, jasper, chert, and chalcedony materials. Thermally altered stone was found scattered in the western part of the site. Overall, prehistoric artifacts were found in low to moderate densities throughout the site.

The site also had a historic component. The surface survey produced a low density of historic artifacts, consisting primarily of brick and drain tile fragments, together with scattered ceramics and glass. Shovel Test 6-9 yielded a total of 429 historic artifacts from an A horizon deposit 41 cm thick. This assemblage consisted almost entirely of domestic glass fragments and ceramic sherds. The ceramics included whiteware and ironstone sherds, including one sherd with a maker's mark dating to the 1920s-1930s (Photo 6). This suggested that the materials dated to the late nineteenth or early twentieth century. The container glass included one whole bottle and two fragments with marks dating to the second quarter of the twentieth century. The only other artifacts were a few nails and rusted metal fragments. Historic artifacts were not recovered from the other shovel tests, placed at 15 m intervals. This concentrated deposit of domestic artifacts suggested that it may have represented intentional trash disposal, rather than an occupation site, dating to the twentieth century.

Survey of adjacent areas by HRI revealed the presence of several loci of earlier historic occupation associated with this site, in areas extending north along the west side of Drawyer Creek. The earlier historic occupations may have been associated with an early cart road from Bohemia Manor to Reedy Island (W. Liebeknecht, personal communication 2010). This road may have passed through the LOD and crossed Drawyer Creek at a ford.

Churchtown 2 Site (CRS N14534; Site 7NC-F-154)

This prehistoric site was identified from surface survey in a cultivated field on the east side of Drawyer Creek, covering an area of 3.9 acres within the LOD. To the west, the site was bounded by the edge of the stream floodplain. The eastern boundary of the site was defined by a decrease in the density of artifacts and the presence of a shallow drainage swale that separated Segment 6 from the slight rise in Segment 7 (Figure 7b). To the south, survey by HRI confirmed that the site extends beyond the A&HC survey segment along the northeast side of Drawyer Creek. It may also extend beyond the segment to the north. Surface survey yielded a total of 63 prehistoric artifacts from the portion of the site within the A&HC survey segment. Projectile points included a small broad-bladed form of quartz and the non-diagnostic blade portion of a

Table 4
Segment 6 -Artifact Summary

Artifact Description	Date	7NC-F-153		7NC-F-154	Total
		SS	ST		
PREHISTORIC LITHICS					
Projectile Point				1	1
	broken; tip and mid-section only, Jasper				
		1			1
	Broken; tip only; Quartz				
				1	1
	Broadspear type, Quartz				
Scraper				1	1
	Quartz				
Biface	-Unidentifiable Fragment			2	2
	Quartz				
Spokeshave				1	1
	Siltstone				
Utilized Decortication Flake		1			1
	Jasper				
		1		1	2
	Quartz				
Utilized Core Flake	-Primary			1	1
	Quartz				
	-Secondary			1	1
	Quartz				
	-Secondary			1	1
	Jasper				
Utilized Biface Thinning Flake	-Primary	1			1
	Grey Chert				
Utilized Shatter		1			1
	Quartz				
Flake Core		1		1	2
	Jasper				
				5	5
	Quartz				
	Quartzite	2			2
	Chalcedony	1			1
	-Fragment				
	Quartz	4		6	10
	-Fragment				
	Quartzite	1			1
Decortication Flake					
	Quartzite	1			1
	Black Chert	1			1
	Jasper	1			1
	Quartz	3		1	4
Core Flake	-Primary			1	1
	Quartzite				
	-Primary	1		1	2
	Quartz				
	-Secondary	1			1
	Quartz				
	-Secondary			1	1
	Quartzite				
Biface Preform	-Primary			3	3
	Quartz				
	-Secondary	1			1
	Quartz				
Biface Thinning Flake	-Primary			1	1
	Jasper				

Table 4
Segment 6 -Artifact Summary

Artifact Description		Date	7NC-F-153		7NC-F-154	Total
			SS	ST		
Biface Thinning Flake	-Primary	Quartz	2			2
	-Secondary	Quartz	1			1
	-Secondary	Quartzite			1	1
	-Secondary	Jasper			1	1
	-Secondary	Grey Chert			1	1
	-Tertiary	Quartz	1		1	2
	-Tertiary	Jasper	2			2
Flake Fragment		Grey Chert	1			1
		Jasper	1			1
		Quartz	1		1	2
		Quartzite	1			1
Shatter					1	1
		Grey Chert	1			1
		Quartz	9		24	33
		Quartzite	1		1	2
Expedient Tool		Quartz			1	1
Test Raw Material		Quartz			1	1
		Brown Chert	1			1
Thermally Altered Stone			29			29
SubTotal PREHISTORIC LITHICS			74		63	137
DOMESTIC CERAMICS						
White Salt-glazed Stoneware	-Plain	(1740-1790)			1	1
Other Stonewares	-Rhenish Gray-bodied				1	1
Red & Yellow Refined Earthenwares	-Jackfield	(1745-1790)			1	1
Pearlware	-Indeterminate	(1775-1840)			1	1
Whiteware	-Plain	(1820+)		50	1	51
Ironstone	-Plain	(1840+)		51	2	53
	-Hand-Painted, Floral	(1840+)		5		5
	-Embossed	(1840+)		8		8
	-Geometric	(1840+)		9		9
Semi-porcelain	-Plain	(1885+)			1	1

Table 4
Segment 6 -Artifact Summary

Artifact Description		Date	7NC-F-153		7NC-F-154	Total
			SS	ST		
Porcelain	-Hand-Painted, Floral	(1700+)	1			1
	-Decal Decorated	(1880+)	1			1
Redware	-Lead Glaze	(1770+)	1		3	4
	-Unglazed	(1770+)		4	5	9
	-Slipped	(1770-1820)			1	1
	-Manganese Glaze	(1770+)	1		8	9
Stoneware	-Manganese Glaze		1			1
	-Indeterminate				1	1
SubTotal DOMESTIC CERAMICS			5	127	26	158
DOMESTIC OTHER						
Complete Glass Container, narrow mouth	-Seamed Lip, Threaded			1		1
Complete Glass Container, wide mouth	-Threaded			3		3
Top/Neck Glass Container, narrow mouth	-Seamed Lip, Threaded			1		1
	-Crown Finish	(1912+)		1		1
Top/Neck Glass Container, wide mouth	-Threaded		1	1		2
Base Glass Container, scarring	-No Scars		1			1
	-Machine Cutoff		2	1		3
	-Post Bottom Mold			2		2
	-Cup Bottom Mold	(1890s-late 1900's)	1	2		3
Indeterminate Container Glass			4	42		46
	-Embossed		1			1
Tableware Glass Cup	-Base			1		1
Tableware Glass	Indeterminate		1		1	2
	Handle		1	1		2
Cap	-Plastic	(1915+)		1		1
Unidentified Curved Glass			16	225	2	243
SubTotal DOMESTIC OTHER			28	282	3	313
ARCHITECTURE						
Nail	-Unidentifiable		2	11		13
Brick			25		7	32

Table 4
Segment 6 -Artifact Summary

Artifact Description	Date	7NC-F-153		7NC-F-154	Total
		SS	ST		
Brick	-Glazed	1			1
Particle board or Fiber board	(1940+)			1	1
Drain Pipe Fragment	-Ceramic	30			30
SubTotal	ARCHITECTURE	58	11	8	77
FAUNA & FLORA					
Shell Fragment				9	9
Identifiable Bone	-Unmodified			1	1
SubTotal	FAUNA & FLORA			10	10
OTHER					
Unidentified Mechanical Piece			1		1
Unidentifiable Metal			8		8
SubTotal	OTHER		9		9
GRAND TOTAL		165	429	110	704



Photo 6. Reedy Island Cart Road 4 Site, selected artifacts. (clockwise from upper left) hand-painted porcelain sherd (FF6-124); plain ironstone with “Ravenna” makers’ mark, Homer-Laughline China Co., 1920s-1930s; glass container base with Whitehall-Tatum makers’ mark, 1935-1938; glass container base with Owens-Illinois makers’ mark, pre-1954; complete bottle with seamed lip (all from Shovel Test 6-9, Stratum 1, except FF6-124).

jasper point (Photo 7; Table 4). Other tools included a possible scraper formed on a pebble, and two unidentifiable biface fragments, all of quartz, as well as a spokeshave of siltstone, five utilized flakes, and an expedient tool. The assemblage included biface preforms, flake cores, and debitage representing the use of quartz, quartzite, jasper, and chert materials. No thermally altered stone was observed. Artifacts were found in moderate densities across the site, decreasing to the east (away from the stream). One shovel test was excavated in the approximate center of the site. It had a soil profile with an Ap horizon 24 cm thick overlying the B horizon, and was culturally sterile.

Scattered historic artifacts were also found within the Churchtown 2 Site. Early ceramics included one sherd each of white salt-glazed stoneware, Rhenish gray-bodied stoneware, Jackfield, and slip-decorated redware (Photo 7). Found in conjunction with shell and brick fragments, this suggested a possible eighteenth century occupation. These historic artifacts occurred in low density and were not identified as a historic occupation in Segment 6. However, they likely represent outliers of the historic site identified in Segment 7, Churchtown 4.

Survey Segment 7

This segment consisted of 10.0 acres in a cultivated field, between the high probability zone at Drawyer Creek (Segment 6) and the high probability zone at an unnamed tributary, known in historic deeds as Taylor Branch (Segment 8; Figure 8). The field had a slight rise in the center, bordered by shallow drainage swales to the northeast and southwest. Soils were mapped as Reybold silt loam, 2-5% slopes in the center and 0-2% slopes to the west, with Woodstown loam, 0-2% slopes to the east. In the Phase Ia survey, Segment 7 was identified as having a moderate probability for prehistoric resources because of its distance from the streams, and a moderate probability for historic resources because of its association with the Bird-Houston Farm. Although historic records indicated that a farmstead was located on this property, its location could not be identified from deeds or maps.

Phase Ib survey consisted of two passes of pedestrian surface survey. The field had been plowed and disked, providing excellent visibility. Survey revealed a light density of prehistoric artifacts and moderate density of historic artifacts across the segment (Figures 9a and 9b). Historic artifacts were largely associated with the central rise, and were identified as the historic Churchtown 4 Site (CRS N14535, Site 7NC-F-155). Prehistoric artifacts were found primarily in the eastern portion of the segment, in a locus that extended into Segment 8, bordering the west side of Taylor Branch. This was identified as the prehistoric Churchtown 3 Site (CRS 14514, Site 7NC-F-136). Together, these two sites cover almost the entire segment, leaving little non-site area. Subsequent survey by HRI revealed the presence of additional prehistoric occupations along the stream to the south. Based on minor landscape features and decreases in artifact density, these materials were combined with Churchtown 4 in Segment 7 and Churchtown 2 in Segment 6. None of the HRI materials were combined with Churchtown 3, which extended into Segment 8.

Churchtown 4 Site (CRS N14535, Site 7NC-F-155)

This site is located on a slight rise in the center of a field, and covers an area of 3.9 acres within the LOD. The site is bounded to the northeast and southwest by decreased artifact densities, associated with the presence of shallow drainage swales on either side of the rise (Figure 9a). Survey of adjacent areas by HRI indicated that the site extends southeast to Drawyer Creek. It



Photo 7. Churchtown 2 Site, selected artifacts. (*top row, l-to-r*) Broadspear type projectile point, quartz (FF7-244); projectile point blade, jasper (FF7-256); spokeshave, siltstone (FF6-19); (*middle*) scraper on pebble tool, quartz (dorsal and ventral views, FF6-39); (*bottom row, l-to-r*) Jackfield sherd (FF6-15); Rhenish gray-bodied stoneware sherd (FF6-81); white salt-glazed stoneware sherd (FF6-82).

may also extend northwest beyond the A&HC survey segment. Surface survey resulted in the identification of 148 historic artifacts and 27 prehistoric artifacts in the portion of the site within the A&HC survey segment (Table 5). One shovel test was placed in the center of the slight rise. It revealed an Ap horizon 30 cm thick overlying the B horizon, and was culturally sterile, reflecting the overall low to moderate density of artifacts.

The historic artifact assemblage consisted primarily of ceramics (61% of historic artifacts). Redware sherds predominated (52% of site ceramics), followed by whiteware (25%). Early ceramics included one sherd each of creamware, white salt glazed stoneware, scratch blue stoneware, Rhenish gray bodied stoneware, and slip-decorated redware (Photo 8). Together with six sherds of pearlware these represented 11% of site ceramics. The high proportion of redware sherds, together with a few sherds of other early times, suggested a historic occupation dating to the late eighteenth century. The frequency of whiteware (25% of site ceramics) suggests that the occupation extended into the mid-nineteenth century. Later historic ceramics such as ironstone and semi-porcelain were present in low frequencies. Together with container glass and tableware glass, these were considered characteristic of field scatter. The frequency of architectural materials was relatively low (19% of historic artifacts), suggesting that structures at the site were built primarily of perishable materials. The only small find on the site was one smoking pipe fragment.

The prehistoric assemblage from the site included two projectile points, a Levanna triangular point of jasper and a small broadspear type point of quartz (Photo 8). Other tools included a quartzite scraper, a quartz biface fragment, a quartzite spokeshave formed on a large flake, and a utilized flake. The assemblage included secondary biface performs, flake cores, and debitage representing the use of quartz, jasper, and chert materials. The density of prehistoric artifacts within the site was relatively low. But survey by HRI showed that the density increased towards the stream to the south.

Background Research: This site was located in the southern part of the "Percus Tract", a tract of 625 acres that was first patented by Edmund Percus [or Perkins] in 1686 and later re-surveyed and patented by John and Thomas Vail in 1773. It was acquired by William Bird before his death in 1780 and passed down through the Bird family until 1842, when it was sold to James Silcox. Silcox defaulted on a loan in 1860, and his property was sold by the sheriff to Thomas Houston, who owned extensive holdings in the area that were inherited by his sister Harriet Houston. There were indications in the deed descriptions of the presence of structures on the property during the Bird ownership, but not by the time it was owned by the Houstons. This is one of three early sites that have been identified on the Bird-Houston Farm, together with Churchtown 1 (N13415) in Segments 8 & 9, and the Bird-Houston Site (N14516) in Segment 9. Further research will be necessary to identify the early occupants of the site and trace its relationship to contemporary and subsequent residences on the property.

Churchtown 3 Site (CRS N14514, Site 7NC-F-136)

Prehistoric artifacts were found in surface survey on the east side of a stream known historically as Taylor Branch. The site covered an area of 2.4 acres, extending across Segment 8 and part of Segment 7 (Figure 9b). The site is bounded on the east by the stream, and on the north and west by a decrease in artifact density. To the southwest, it is separated from Churchtown 4 by a shallow drainage swale.

Table 5
Segment 7-Artifact Summary

Artifact Description	Date	7NC-F-136	7NC-F-155	Non-site	Total
PREHISTORIC LITHICS					
Projectile Point	Levanna, Chert		1		1
	Perkiomen Broadspear, Quartz		1		1
	Lamoka, Quartz	1			1
Scraper	Quartz	1			1
	Quartzite		1		1
Biface	-Unidentifiable Fragment	2	1	1	4
Spokeshave	Black Chert	1			1
	Quartzite		1		1
Utilized Core Flake	-Secondary	1			1
Utilized Biface Thinning Flake	-Secondary	1			1
	-Secondary		1		1
Flake Core	Quartz		2		2
	-Fragment		1		1
	-Fragment	2	2		4
Decortication Flake	Jasper		1		1
Core Flake	-Primary	2	1	1	4
	-Secondary		1		1
Biface Preform	-Primary	1			1
	-Secondary		2		2
Biface Thinning Flake	-Primary	1			1
	-Primary		1		1
	-Primary		1	1	2
	-Primary	1			1
	-Secondary	2			2
	-Tertiary		1		1
Shatter	Jasper		1		1
	Quartz	6	4	1	11
	Grey Chert		1		1
Hammerstone	Quartzite	1			1
Thermally Altered Stone			1		1
	Quartzite		1		1
SubTotal PREHISTORIC LITHICS		23	27	4	54

Table 5
Segment 7-Artifact Summary

Artifact Description	Date	7NC-F-136	7NC-F-155	Non-site	Total
DOMESTIC CERAMICS					
Creamware	-Plain (1750-1820)		1		1
	-Wheildonware, Unidentifiabl (1750-1775)	1			1
White Salt-glazed Stoneware	-Plain (1740-1790)	1	1		2
Other Stonewares	-Scratch Blue (1750-1775)		1		1
	-Rhenish Gray-bodied		1		1
Pearlware	-Plain (1780-1840)		5		5
	-Other Glaze (1775-1840)		1		1
Whiteware	-Plain (1820+)	2	18	1	21
	-Shell-Edged, Blue (1820-1860)		1		1
	-Annular (1820+)		1		1
	-Blue Monochrome Transfer (1820+)	1	2		3
	-Other Glaze (1820+)		1		1
	-Red, Green, or Purple Transfe (1825+)	1			1
Ironstone	-Plain (1840+)	1	3	1	5
	-Embossed (1840+)		1		1
Semi-porcelain	-Plain (1885+)		3		3
	-Decal Decorated (1900+)		1		1
Redware	-Lead Glaze (1770+)	1	6	1	8
	-Unglazed (1770+)		10		10
	-Slipped (1770-1820)	1	1		2
	-Manganese Glaze (1770+)	7	29	1	37
	-Luster, with Manganese (1770+)		1		1
Stoneware	-Salt Glazed (1700+)		1		1
	-Manganese Glaze		1		1
Unidentified Earthenware	-Other glaze		1		1
SubTotal DOMESTIC CERAMICS		16	91	4	111
DOMESTIC OTHER					
Top/Neck Glass Container, narrow mout	-Flared Lip	4			4
	-Neck Only		1		1
	-Patent Finish	1			1
Base Glass Container, scarring	-Owens Scar (1903-1917)			1	1
	-No Scars		1		1
Indeterminate Container Glass			2	1	3

Table 5
Segment 7-Artifact Summary

Artifact Description	Date	7NC-F-136	7NC-F-155	Non-site	Total
Tableware Glass Cup	-Base		1		1
Decorative Glass			1		1
Mason Jar Lid Liner	-White Milk Glass (1858+)		2		2
Unidentified Curved Glass		1	6		7
SubTotal DOMESTIC OTHER		6	14	2	22
ARCHITECTURE					
Nail	-Wrought (pre-1820)		1		1
Brick		2	25	1	28
	-Glazed		2		2
SubTotal ARCHITECTURE		2	28	1	31
SMOKING PIPES					
Ball Clay Pipe	-Stem or Stem Fragment		1		1
SubTotal SMOKING PIPES			1		1
FAUNA & FLORA					
Shell Fragment		5	12	1	18
SubTotal FAUNA & FLORA		5	12	1	18
OTHER					
Flowerpot	-Redware, unglazed		1		1
Plastic Fragment	(1915+)		1		1
SubTotal OTHER			2		2
GRAND TOTAL		52	175	12	239



Photo 8. Churchtown 4 and Churchtown 3 Sites, selected artifacts. Churchtown 4: (*top row, l-to-r*) Perkiomen Broadspear projectile point, quartz (FF7-69); spokeshave on large flake, quartz (FF7-240); (*middle*) Levanna Triangular projectile point, chert (FF7-212); (*bottom row, l-to-r*) white salt-glazed stoneware base (FF7-68); unidentified earthenware, reddish-gray paste, brown glaze (FF7-109); Churchtown 3: Lamoka projectile point, quartz (FF7-15); Whieldonware rim sherd (FF7-11)

The site assemblage consisted of 23 prehistoric artifacts and 29 historic artifacts (Table 5). Prehistoric tools included one Lamoka style projectile point of quartz (Photo 8), a quartz scraper, a spokeshave of black chert, two unidentifiable biface fragments, two utilized flakes, and one hammerstone. Other artifacts included a biface perform, two flake cores, and debitage representing the use of quartz, quartzite, and chert materials. The assemblage represented a relatively high ratio of tools to debitage. Artifacts occurred in moderate frequency near the stream, and lower frequency to the west.

Historic artifacts consisted primarily of a light scatter of later nineteenth and twentieth century materials such as whiteware ceramics and container glass, which were found in low densities characteristic of field manuring. Early ceramics included one sherd each of Whieldonware, white salt glazed stoneware, and slip decorated redware. The early historic artifacts occurred in low frequency and were not identified as a site component. However, they could represent outliers of the occupation at the adjacent Churchtown 4 site.

Survey Segment 8

This segment encompassed a zone along both sides of a first-order stream, which was known historically as Taylor Branch. The segment covered an area of 2.9 acres, extending beyond the narrow wooded zone along the stream into cultivated fields to the east and west (Figure 10). Soils are mapped as Woodstown loam 0-2% slopes along the riparian zone, Sassafras sandy loam 2-5% slopes in the field to the west, and Reybold silt loam 0-2% slopes in the field to the east. In the Phase Ia survey, it was identified as having a high probability for prehistoric sites because of the availability of cobbles at the surface and proximity to water. It had a moderate probability for historic resources, because it was within the Bird-Houston Farm.

Phase Ib survey consisted of two passes of pedestrian surface survey in fields to the east and west, and one pass of survey in a narrow field to the northeast. The survey area in each field had been plowed and disked, providing excellent surface visibility. The stream had been channelized, forming a steep-sided ditch. The bottom of the channel was active floodplain which was too wet for testing. The wooded upland fringe was less than 10 m wide and did not require shovel testing because it was narrower than the shovel test interval. Surface survey resulted in the identification of archaeological sites on each side of the stream (Figure 9a and 9b). The Churchtown 3 Site (N14514) on the west side of Taylor branch extended into Segment 7 and was described above. The Churchtown 1 Site (N14515) encompassed all of Segment 8 on the east side of the stream and extended into Segment 9. There were no non-site artifacts from the surface survey in Segment 8.

Churchtown 1 Site (CRS N14515, Site 7NC-F-137)

This site was first identified from a tight grouping of prehistoric artifacts on the division between Segments 8 and 9. The boundaries of the site were defined to encompass a wider area characterized by a lower density of prehistoric artifacts, together with a scatter of early historic artifacts in the southern part of the site (Figures 9a and 9b). The site covers an area of 2.9 acres. It was bounded to the west by Taylor Branch. To the north and east, the site limits were defined by a decreasing density of prehistoric artifacts. To the south, the density of artifacts declined towards the edges of the LOD, but the site may extend beyond the LOD. Surface survey resulted in the recovery of 131 prehistoric artifacts and 65 historic artifacts (Table 6). Two shovel tests were placed in the center of the site.

Table 6
Segment 8-Artifact Summary

Artifact Description		Date	7NC-F-137 Surface Survey
PREHISTORIC LITHICS			
Projectile Point		Small lancolate, Quartz	1
		Jacks Reef Pentagonal; Quartz	1
Scraper		Quartz	1
Flake Core		Jasper	1
		Quartz	8
		Quartzite	3
	-Fragment	Grey Chert	1
	-Fragment	Quartz	12
	-Fragment	Quartzite	1
Decortication Flake		Grey Chert	1
		Quartzite	1
Core Flake	-Primary	Black Chert	1
	-Primary	Quartz	1
	-Secondary	Quartz	1
Biface Preform	-Primary	Black Chert	1
	-Primary	Quartz	1
	-Secondary	Quartz	2
Biface Thinning Flake	-Primary	Black Chert	1
	-Secondary	Black Chert	1
	-Secondary	Quartz	6
	-Tertiary	Quartz	6
Flake Fragment		Quartz	1
Shatter		Jasper	2
		Grey Chert	1
		Quartz	57
Hammerstone			2
Expedient Tool		Other Chert	1
Test Raw Material			1
		Black Chert	1
		Gray Chert	1
		Jasper	1
		Quartz	8
Thermally Altered Stone			3
SubTotal PREHISTORIC LITHICS			131
DOMESTIC CERAMICS			
Creamware	-Plain	(1750-1820)	1
White Salt-glazed Stoneware	-Embossed, unidentifiable	(1740-1790)	2
Other Stonewares	-Scratch Blue	(1750-1775)	1
Whiteware	-Plain	(1820+)	2
Ironstone	-Plain	(1840+)	1
Porcelain	-Hand-Painted, Chinese	(1700+)	1
Redware	-Unglazed	(1770+)	1
	-Manganese Glaze	(1770+)	9
	-Lead Glaze, with Manganese	(1770+)	2
Stoneware	-Salt Glazed	(1700+)	1
SubTotal DOMESTIC CERAMICS			21

Table 6
Segment 8-Artifact Summary

Artifact Description	Date	7NC-F-137 Surface Survey
DOMESTIC OTHER		
Base Glass Container, scarring	-No Scars	1
	-Cup Bottom Mold (1890s-late 1900's)	1
Unidentified Curved Glass		4
SubTotal DOMESTIC OTHER		6
ARCHITECTURE		
Nail	-Wrought (pre-1820)	1
Brick		19
SubTotal ARCHITECTURE		20
CLOTHING		
Button	-Prosser (1840+)	1
SubTotal CLOTHING		1
FAUNA & FLORA		
Shell Fragment		15
SubTotal FAUNA & FLORA		15
GRAND TOTAL		194

Both had soil profiles consisting of an Ap horizon 26-29 cm thick overlying the B horizon, and both were culturally sterile, reflecting the relatively low frequency of artifacts.

The prehistoric artifact assemblage included a small Jacks Reef pentagonal type projectile point and a small lanceolate style projectile point, both of quartz (Photo 9). Other tools included a quartz scraper, a chert expedient tool, and two hammerstones. The assemblage included biface preforms, flake cores, and debitage representing the use of quartz, quartzite, jasper, and chert materials. The most common artifact types were quartz shatter (n=57) and flake cores (n=26). The site was characterized by a relatively high density of prehistoric artifacts.

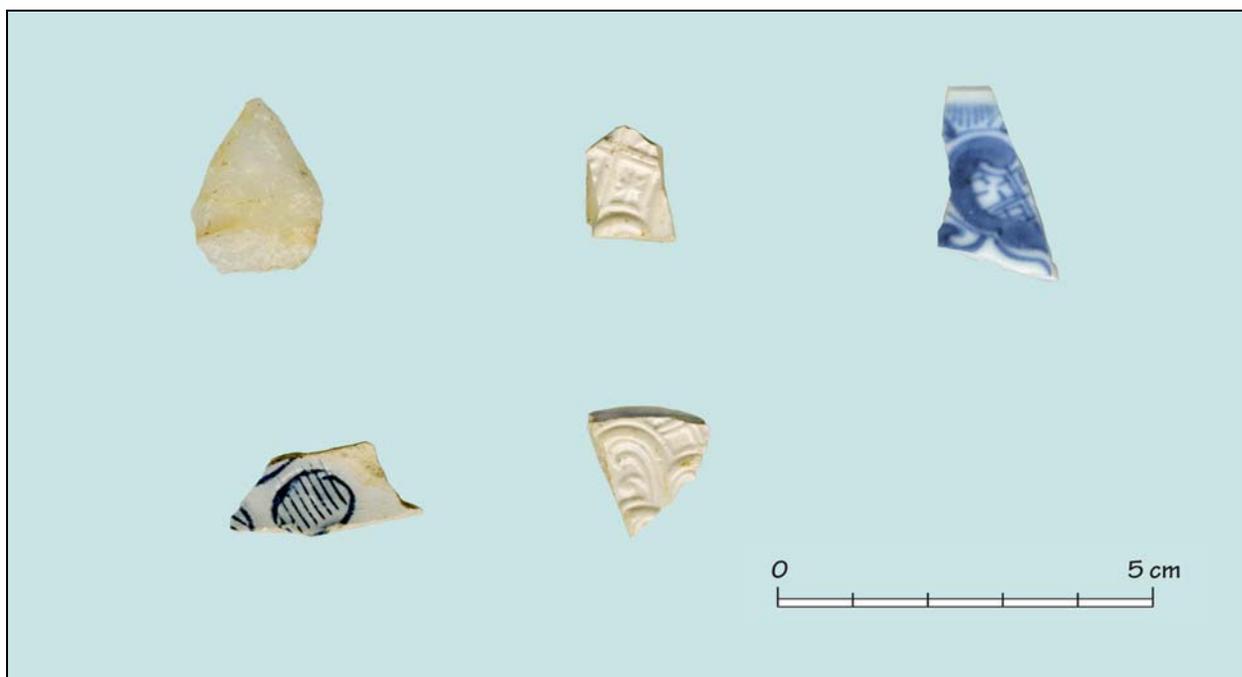


Photo 9. Churchtown 1 Site, selected artifacts. (*top row, l-to-r*) Jacks Reef Pentagonal projectile point, quartz (FF8-4); white salt-glazed stoneware sherd (FF8-42); Chinese hand-painted porcelain rim (FF8-100); (*bottom, l-to-r*) scratch blue stoneware sherd (FF8-123); white salt-glazed stoneware sherd (FF8-135).

The historic component at the site consisted primarily of ceramics and architectural materials (each representing 32% of historic artifacts). Early ceramics included two sherds of white salt-glazed stoneware and one sherd each of creamware and scratch blue stoneware. Redware represented 57% of the ceramics. Other types included one sherd each of whiteware, ironstone, porcelain, and stoneware. The assemblage included very few other domestic artifacts and only one small find, a Prosser button. The predominance of redware and early ceramics, together with the low frequency of container glass, suggested an occupation dating to the eighteenth century, overlaid with later field scatter from manuring. The historic artifacts were concentrated in the

southern part of the site, indicating that the historic occupation may extend beyond the LOD to the south.

Background Research: This site is located in an area of overlap between two land patents. Extending to the west and north was the “Percus Tract” of 625 acres from 1686, which was re-patented by John and Thomas Vail in 1773. Extending to the east was Samuel Guthrie’s 1744 patent for 106 acres. Guthrie’s lands were acquired by Mary Houston before her death in 1816, except for the area of overlap. The site is located on a 6 acre parcel on the east side of Taylor Branch, which James Houston bought from the heirs of William Bird in 1812, likely part of an effort to resolve the overlap. There was no reference to structures in the deed, and James Houston was living at the Houston-LeCompt Site at the time (N14517). The location of the dwelling or farmstead when the property was owned by the Bird family is unknown. However, the historic occupation at Churchtown 1 is one of three early historic occupations identified on the Bird-Houston Farm, together with the Churchtown 4 site to the west (N14535) and the Bird-Houston Site to the north (N14516). Further research will be necessary to trace the early ownership of this property and possible relationships between these sites.

Survey Segment 9

This segment consisted of 8.5 acres. It extended across parts of three cultivated fields northeast of a first-order stream that was known historically as Taylor Branch, and extends a short distance into a wood lot at the northern end of the segment (Figure 11). Soils are mapped as Reybold silt loam 0-2% slopes in the fields, and Fallsington loam, 0-2% slopes in the woods. In the Phase Ia survey, this segment was identified as having a moderate probability for prehistoric resources due to proximity to water. It also had a moderate probability for historic resources due to its location within the Bird-Houston Farm.

Phase Ib survey consisted of two passes of pedestrian surface survey in the northern and southern fields, and one pass of pedestrian surface survey in a narrow field in the center of the segment. All three fields were plowed and disked, providing good surface visibility. Surface survey resulted in the identification of two sites. The Churchtown 1 Site (N14515), which extended from Segment 8 into the southern portion of Segment 9, is described above. The Bird-Houston Site (N14516) covered most of the central and northern portions of Segment 9 and is described below. It had a major historic occupation, characterized by two distinct loci, and a minor prehistoric component (Figures 12a and 12b). The relatively low density of artifacts found in the area between these two sites was classified as non-site material (Table 7).

Shovel tests measuring 50 cm in diameter were placed at 15 m intervals in the wood lot at the northern end of the segment. They revealed consistent soil profiles, with an A horizon up to 41 cm thick overlying the B horizon. Shovel Test 9-2, located 7.5 m from the edge of the cultivated field, yielded four historic artifacts from the A horizon, one redware sherd and three pieces of glass. These materials were included in the periphery of the Bird-Houston Site. The other 12 shovel tests in the woods were culturally sterile.

**Table 7
Segment 9-Artifact Summary**

Artifact Description	Date	7NC-F-138						Non-Site	Total
		Locus A		Locus B		Periphery			
		Surface	Ap	Surface	Ap	Surface	Ap		
PREHISTORIC LITHICS									
Projectile Point				1					1
				1					1
				1					1
Side Scraper				1					1
Biface	-Unidentifiable Fragment			2					2
	-Unidentifiable Fragment	1							1
Utilized Decortication Flake				1					1
Utilized Core Flake	-Primary			1					1
Utilized Biface Thinning Flake	-Primary			1					1
Utilized Shatter				1					1
							1		1
Flake Core				1					1
	-Fragment			4					4
	-Fragment			1					1
Decortication Flake				1					1
Core Flake	-Primary			1					1
Biface Preform	-Primary			1					1
	-Secondary		Other Chert, pink	1					1
	-Secondary		Quartz	1					1
Biface Thinning Flake	-Primary		Jasper	1		1			2
	-Primary		Quartz	3		1			4
	-Secondary		Black Chert	1					1
	-Secondary		Jasper	1					1
	-Secondary		Quartz	4					4
	-Tertiary		Quartz					1	1
Shatter		1		15				1	17

Table 7
Segment 9-Artifact Summary

Artifact Description		Date	7NC-F-138						Non-Site	Total	
			Locus A		Locus B		Periphery				
			Surface	Ap	Surface	Ap	Surface	Ap			
Hammerstone	Quartzite			1					1		
Test Raw Material	Chalcedony							1	1		
Thermally Altered Stone		1		3					4		
SubTotal PREHISTORIC LITHICS				3		50		2		4	59
DOMESTIC CERAMICS											
Creamware	-Plain	(1750-1820)	2		13				1		16
	-Wheildonware, Unidentifiable	(1750-1775)	1								1
Westerwald Stoneware	-Painted / Incised	(1575-1775)			1						1
Other Stonewares	-Black Basalt	(1750-1820)			2						2
	-Thin Gray-bodied Brown Slip		1								1
Red & Yellow Refined Earthenwares	-Buckley / Agateware	(1720-1775)	1								1
	-Jackfield	(1745-1790)			3						3
	-Lead Glazed Engine Turned	(1763-1820)			5						5
Pearlware	-Plain	(1780-1840)	18		30			1			49
	-Shell-Edged, Blue	(1780-1840)	6		1						7
	-Annular	(1790-1840)	2		2						4
	-Sponge/Spatter	(1820-1840)	5								5
	-Mocha	(1790-1840)				2					2
	-Hand-Painted, Floral	(1780-1840)	1		3						4
	-Hand-Painted, Chinese	(1780-1810)			2				1		3
	-Blue Monochrome Transfer	(1780-1840)	5		1	1		1			8
	-Hand-Painted, Other	(1780-1840)			5						5
	-Other Glaze	(1775-1840)	1								1
	-Embossed	(1775-1840)	1								1
Whiteware	-Plain	(1820+)	184	8	30	9		6		6	243
	-Shell-Edged, Blue	(1820-1860)	8	2	1			1			12
	-Annular	(1820+)	6					1		1	8

**Table 7
Segment 9-Artifact Summary**

Artifact Description			7NC-F-138						Non-Site	Total
			Locus A		Locus B		Periphery			
			Surface	Ap	Surface	Ap	Surface	Ap		
Whiteware	-Sponge/Spatter	(1820+)	9				1		10	
	-Cut Sponge	(1845+)	3						3	
	-Hand-Painted, Floral	(1820+)	4	1					5	
	-Blue Monochrome Transfer	(1820+)	31	2			2	1	36	
	-Other Monochrome Transfer	(1830+)	2				2		4	
	-Other Glaze	(1820+)	4	1					5	
	-Flow Blue Transfer	(1840-1880)	7						7	
	-Decal Decorated	(1880+)	3						3	
	-Indeterminate	(1820+)	5		1				6	
	-Embossed	(1820+)	4						4	
	-Old Blue	(1820-1835)	1						1	
	-Red, Green, or Purple Transfer	(1825+)	5						5	
	Ironstone	-Plain	(1840+)	55	2	2		8	1	68
		-Shell-Edged, Blue	(1840-1860)	1						1
		-Annular	(1840+)	3				1	1	5
-Sponge/Spatter		(1840+)	2						2	
-Blue Monochrome Transfer		(1840+)	5	1					6	
-Other Monochrome Transfer		(1840+)	2				1		3	
-Decal Decorated		(1900+)	1						1	
-Embossed		(1840+)	3		3				6	
-Other Glaze		(1840+)	2						2	
-Flow Blue Transfer		(1840-1910)	2						2	
Semi-porcelain		-Plain	(1885+)	13		7		1	3	24
		-Decal Decorated	(1900+)			1				1
Porcelain	-Embossed	(1885+)	4						4	
	-Plain	(1700+)	3		4		1		8	
	-Hand-Painted, Floral	(1700+)			1				1	

Table 7
Segment 9-Artifact Summary

Artifact Description			7NC-F-138						Non-Site	Total
			Locus A		Locus B		Periphery			
			Surface	Ap	Surface	Ap	Surface	Ap		
Porcelain	-Hand-Painted, Chinese	(1700+)				1				1
	-Decal Decorated	(1880+)			2					2
	-Embossed	(1700+)						1		1
	-Hand-Painted, Other	(1700+)					1			1
Yellow Ware	-Plain	(1827-1930)	1							1
	-Rockingham	(1845-1900)	1							1
	-Mocha	(1800-1850)	1							1
	-Other Glaze	(1827-1930)	1							1
Redware	-Lead Glaze	(1770+)	9		27		1			37
	-Unglazed	(1770+)	6		47	2	2			57
	-Slipped	(1770-1820)			7					7
	-Manganese Glaze	(1770+)	11	1	114	6	4	1	5	142
	-Lead Glaze, with Manganese	(1770+)	9		39		1		1	50
Stoneware	-Salt Glazed	(1700+)	10		2					12
	-Bristol	(1880+)			2					2
	-Cobalt Blue Glaze	(1790-1900)	2					1		3
	-Manganese Glaze				1					1
	-Albany Slip	(1805-1940)	1							1
	-Brown Glaze	(1820-1900)	1				1			2
20th Century Ceramics	-Indeterminate	(1900+)	1							1
Unidentified Earthenware	-Burned		1							1
	-Other glaze		3							3
SubTotal DOMESTIC CERAMICS			474	18	359	21	37	1	23	933
DOMESTIC OTHER										
Top/Neck Glass Container, narrow mouth	-Seamed Lip, Threaded		1							1
	-Seamed Lip, Not Threaded		1							1
	-Neck Only		2							2

**Table 7
Segment 9-Artifact Summary**

Artifact Description	Date	7NC-F-138						Non-Site	Total
		Locus A		Locus B		Periphery			
		Surface	Ap	Surface	Ap	Surface	Ap		
Top/Neck Glass Container, narrow mouth	-Patent Finish	6						6	
	-Crown Finish		(1912+)				1	1	
	-Double Ring	1						1	
	-Bead Ring	1						1	
	-Straight wine or brandy	1						1	
Top/Neck Glass Container, wide mouth	-Ground or Blown-off Lip	1	(c. 1850-1860)					1	
Base Glass Container, scarring	-Owens Scar	1	(1903-1917)					1	
	-No Scars	3		1				4	
	-Machine Cutoff	1						1	
	-Post Bottom Mold					1		1	
Indeterminate Container Glass		27	3	1		5	2	38	
	-Embossed	11				2		13	
Tableware Glass	Indeterminate	10		2				12	
Lantern	-Globe	1	(1785+)					1	
Decorative Glass		2						2	
Mason Jar Lid Liner	-White Milk Glass	8	(1858+)					8	
Unidentified Curved Glass		112	7	13		8	1	144	
Unidentifiable Melted Glass		3		1				4	
SubTotal DOMESTIC OTHER		193	10	18		15	2	244	
ARCHITECTURE									
Unidentified Flat Glass	-Bubbles/Patina	11	5				1	17	
	-No Bubbles/Patina	27	2	1		1		31	
Nail	-Cut	2	(1790+)					2	
	-Unidentifiable			2		1		3	
Brick		81	17	69	2	3		177	
Mortar			2					2	
Brick	-Glazed	6		3				10	

Table 7
Segment 9-Artifact Summary

Artifact Description	Date	7NC-F-138						Non-Site	Total	
		Locus A		Locus B		Periphery				
		Surface	Ap	Surface	Ap	Surface	Ap			
Insulator	-Glass	(1885+)	1						1	
	-Ceramic							1	1	
Drain Pipe Fragment	-Ceramic			1					1	
SubTotal	ARCHITECTURE		128	26	76	2	5	1	7	245
HARDWARE										
Bolt								1		1
Hammer				1						1
SubTotal	HARDWARE				1				1	2
CLOTHING										
Button	-Brass		1			1				2
	-Glass		2							2
	-Prosser	(1840+)	1	1			1			3
SubTotal	CLOTHING		4	1		1	1			7
SMOKING PIPES										
Ball Clay Pipe	-Stem or Stem Fragment		2		2					4
	-Bowl or Bowl Fragment				1					1
Stoneware Pipe	-Bowl or Bowl Fragment			1						1
SubTotal	SMOKING PIPES		2	1	3					6
HEATING										
Coal Fragment			3							3
Cinder Fragment								1		1
SubTotal	HEATING		3					1		4
FAUNA & FLORA										
Bone Fragment			5	1						6
Teeth			3							3

**Table 7
Segment 9-Artifact Summary**

Artifact Description	Date	7NC-F-138						Non-Site	Total
		Locus A		Locus B		Periphery			
		Surface	Ap	Surface	Ap	Surface	Ap		
Shell Fragment		17		8		4		18	47
Identifiable Bone	-Modified			5					5
	-Unmodified	3		17		3		1	24
SubTotal FAUNA & FLORA		28	1	30		7		19	85
OTHER									
Gun Flint				1					1
Bisque		3							3
Unidentified Iron		1		3		1			5
Unidentifiable Metal				5					5
SubTotal OTHER		4		9		1			14
GRAND TOTAL		839	57	546	24	68	4	61	1599

Bird-Houston Site (CRS N14516, Site 7NC-F-138)

This site encompassed two loci of high density historic occupation within a cultivated field, separated by a peripheral zone of moderate artifact density, for a total area of 4.4 acres (Figure 12a). To the west, the Locus A portion of the site likely extends beyond the LOD into the woods. To the east, the site is also bordered by the LOD, but decreasing artifact density suggests that it may not extend further to the east. To the south, the site is also defined by a zone of lower artifact density, separating this site from the Churchtown 1 Site (N14515). To the north, the presence of sterile shovel tests in the woods indicated that the site does not extend further in that direction. Within the site, Loci A and B were separated by a peripheral zone of lower artifact density and were characterized by differences in their artifact assemblages, indicative of separate occupations. This was most notable in the distribution of early and late historic ceramics (Figures 13a and 13b). Therefore, the two loci are described separately below.

Locus A: Surface survey encountered a high density of historic artifacts in the northern end of the field, bordering the woodlands, covering approximately 0.6 acres. Two shovel tests were placed 15 m apart on an area of slightly higher elevation in the center of Locus A. Both shovel tests had simple soil profiles consisting of an Ap horizon 22-28 cm thick, overlying a B horizon. Both shovel tests yielded high frequencies of historic artifacts from the Ap horizon (n=37 in ST 9-14; n=20 in ST 9-15), which have been included in the subassemblage from Locus A (Table 7).

The subassemblage of artifacts from Locus A consisted predominantly of ceramics (57% of historic artifacts), and other domestic artifacts (23%), followed by architectural materials (15%). The ceramics included a high proportion of whiteware (58% of ceramics) in a wide range of decoration types. Ironstone (12% of ceramics) and pearlware (8%) were also represented by a wide range of decoration types. Together these ceramics indicated an occupation dating throughout the nineteenth century, and possibly extending into the twentieth century. Early historic ceramics were represented by only five sherds (1% of ceramics).

The site assemblage was notable for the relatively high frequency of other domestic artifacts (23% of historic artifacts), which consisted primarily of container glass and non-diagnostic glass fragments. An abundance of container glass is often indicative of an occupation dating to the twentieth century, when machine-made glass wares were mass produced. Architectural materials (15% of historic artifacts) consisted primarily of brick and flat glass. Small finds were also present, including a variety of buttons and several smoking pipe fragments.

Prehistoric artifacts within Locus A were limited to one biface fragment, one piece of quartz shatter, and one piece of thermally altered stone.

Locus B: Surface survey revealed a second concentration of artifacts, in the middle of the same field. The density of artifacts was not as high as in Locus A, but this locus covered a larger area of 2.0 acres. Decreasing artifact densities towards the edges of this locus suggested that it did not extend beyond the LOD. Two shovel tests were placed 15 m apart on the rise of ground in the center of the locus. Both shovel tests had soil profiles with an Ap horizon 25-28 cm thick

overlying a B horizon. Both shovel tests yielded moderate densities of historic artifacts, which were included in the subassemblage from Locus B (n=17 in ST 9-16; n=7 in ST 9-17).

The historic subassemblage from Locus B was dominated by ceramics (72% of historic artifacts), and had lower proportions of architectural materials (15%) and other domestic artifacts (3%; Table 7). The ceramics from Locus B were indicative of an earlier occupation than Locus A. Redware ceramics predominated (63% of ceramics). Early ceramics included 12 sherds of creamware, 7 slip-decorated redware, 5 engine-turned red earthenware, 3 Jackfield, 2 black basalt, and one sherd of Westerwald, representing 8% of the ceramics (Photo 10). Taken together with the abundance of redware and comparatively low frequency of later ceramics such as whiteware and ironstone compared to pearlware, this suggested that the locus was occupied in the late eighteenth century. The low frequency of container glass fragments was also indicative of an early occupation, when glass wares were relatively scarce. Later ceramics were sparse, found in densities suggestive of field scatter overlying an earlier site.

The architectural materials consisted almost entirely of brick fragments, with one piece of flat glass, two nails, and a drain pipe fragment. Small finds included several smoking pipe fragments, one button, and a gun flint.

Locus B also encompassed a prehistoric occupation. The prehistoric subassemblage included three projectile points, a triangular point of jasper (Photo 10) and untyped points of rhyolite and black chert. Other tools included one scraper of chert, two biface fragments of quartz, a hammerstone, and four utilized flakes. Other artifacts included biface preforms, flake cores, and debitage representing the use of quartz, quartzite, jasper, and chert materials.

Background Research: Background research during the Phase Ia survey indicated that there was a farmstead on the property when it was owned by William Bird, but that its location could not be identified from deeds or historic maps. Additional research showed that the site is located in an area of overlap between two original land patents. Extending to the west and north was the "Percus Tract" of 625 acres from 1686, which was re-patented by John and Thomas Vail in 1773. Extending to the east was Samuel Guthrie's 1744 patent for 106 acres. The southern portion of the Vail tract was bought by William Bird before his death c.1780. Guthrie's land was acquired by Mary Houston before her death in 1816, except for the area of overlap with the Vail tract.

Comparison of a map from the division of Mary Houston's estate in 1829 with later deed descriptions and modern field boundaries showed that the two Bird-Houston loci were historically located on separate properties (Figure 14). Locus A was located within the boundaries of an 8-acre woodlot that Jacob Houston acquired in the estate division, together with the large field to the south. Locus B was located on the adjacent property to the west, with the property boundary running northwest to southeast between the two loci. Members of the Houston family apparently bought the area of overlap in several transactions, although the specific deed was not identified. It remained part of the Houston "Home Farm", which was associated with the T.J. Houston House (CRS N05131), until the area containing both loci was bought by Delaware Power and Light in 1974.

An aerial photograph from 1932 showed a farm lane running from the T.J. Houston House (N05131) to the Robinson House (N05185) through the area of woods



Photo 10. Bird-Houston Site, selected artifacts. (*top row, l-to-r*) engine-turned red earthenware base (FF9-905); gunflint, black flint (FF9-894); (*middle row, l-to-r*) black basalt base and spout sherds (FF9-565, 9-665). (*bottom row, l-to-r*) two triangular projectile points, quartz (FF9-953) and jasper (FF9-983); non-diagnostic projectile point fragments, rhyolite (FF9-860) and black chert (FF9-708).

(www.udel.edu/FREC/spatlab). This lane would have passed through or close to the location of the Bird-Houston Site, although no structures were extant at that time. By 1937, the lane was less clearly visible on aerial photos (Figure 15). By 1954 it was no longer in use.

The evidence suggests that the later nineteenth century occupation associated primarily with Locus A dates to the ownership of the site by Thomas Houston (until 1888), and then by his sister Harriet (until 1907). As such, it would have been a secondary residence associated with the Houston "Home Farm" (N05131). The attribution of the earlier historic occupation associated with Locus B is less clear. It likely dated to the ownership of the property by William Bird or his heirs, and occupation may have terminated when the parcel was bought by the Houstons. However, this is one of three early historic sites that have been identified on the Bird-Houston Farm, together with Churchtown 1 (N14515) to the south and Churchtown 3 (N14514) to the southwest. Further research will be necessary to trace the early ownership of this property and possible relationships between these sites.

Survey Segment 10

This segment included part of a cultivated field south of Boyds Corner Road, and part of a wood lot to the south (Figure 16). Soils are mapped as Reybold silt loam 2-5% slopes in the field and Fallsington loam 0-2% slopes in the woods. In the Phase Ia survey, it was identified as having a low probability for both historic and prehistoric resources. It was one of the low probability areas selected for elimination from Phase Ib survey, because of the forest cover.

Survey Segment 11

This segment is located in a cultivated field bordering the south side of Boyds Corner Road and covered an area of 4.1 acres (Figure 16). Soils are mapped as Reybold-Queponco complex 0-2% slopes, merging into Reybold silt loam 2-5% slopes to the south. In the Phase Ia survey, this area was identified as having a high probability for the Houston-LeCompt Farm and a moderate probability for the presence of other historic resources along Boyds Corner Road. It was given a low probability for prehistoric resources.

Phase Ib survey consisted of two passes of pedestrian surface survey in a field that had been plowed and disked, providing excellent surface visibility (see Photo 2). A dark stain was prominently visible when the field was freshly plowed, marking an area with a high frequency of coal and charcoal. Surface survey resulted in the identification of a high density of artifacts, both within the area of this stain and throughout most of the survey segment. The field methodology was modified, because it was not feasible to take individual GPS readings on so many closely spaced artifacts. Instead, artifacts located within 6 inches (15 cm) of each other were grouped together and assigned a single GPS data point. High winds resulted in the destruction of a number of pin flags in the center of the segment, before GPS readings could be taken. Given the high number of artifacts recovered, however, this loss of data points for a subset of artifacts did not affect the definition of the site or patterning of artifacts. The entire survey segment was identified as the Houston-LeCompt Site.

Houston-LeCompt Site (CRS N14517, Site 7NC-F-139)

The site was located on the south side of Boyds Corner Road in a cultivated field. The site was defined as covering the entire survey segment of 4.1 acres. The density of historic artifacts was

highest in the northeastern portion of the site, centered on a gentle rise in the terrain (Figure 17a and 17b). The artifact density decreased to moderate levels to the west and south, indicating that the boundaries of the site coincided with the boundaries of the survey. To the north, the site was bounded by Boyds Corner Road, known historically as the road from Mount Pleasant to Reedy Island. To the east, the site likely extends beyond the LOD.

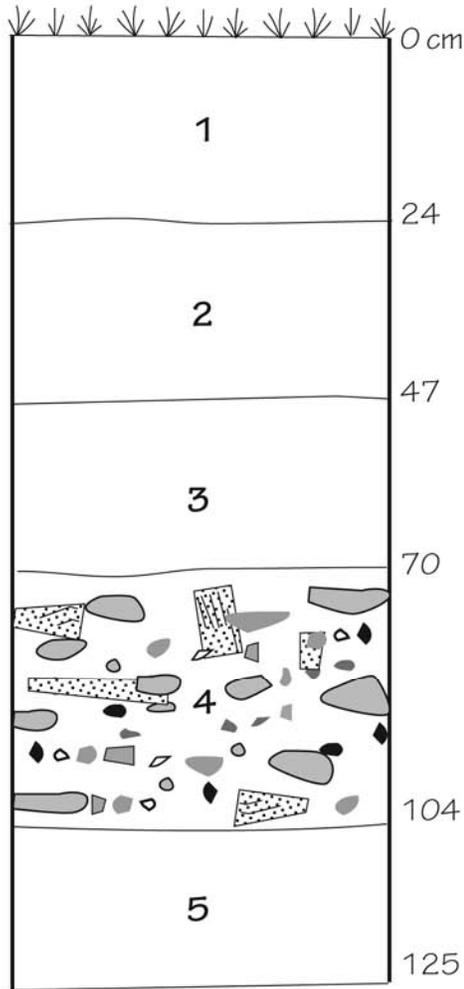
Shovel Test 11-1 was placed in the center of the area of the dark stain, within the high artifact density area (Figure 18). Below the Ap horizon (24 cm thick, n=94 artifacts), it encountered four historic deposits with varying frequencies of structural debris (stone, brick, and mortar) and historic artifacts (n=28 to 86; Table 8). Excavation was terminated at a depth of 125 cm below the surface, without reaching sterile subsoil. It was clear that this shovel test had encountered a feature, possibly a building cellar. The decision was made not to expand this excavation into a larger test unit, because there was sufficient information to consider the site potentially eligible without further investigation.

Shovel Test 11-2 was placed 15 m south of the first shovel test, on the southern slope of the rise. At the base of the Ap horizon, a second cultural feature was discerned, a deposit of mixed soils at a depth of 27-44 cm, overlying the B horizon (Figure 18). Since the historic deposit was not recognized during excavation, the artifacts from the Ap horizon and historic deposit were not separated, together producing a total of 214 artifacts. Three additional shovel tests were excavated at 15 m intervals around Shovel Test 11-2. These shovel tests each had simple soil profiles consisting of an Ap horizon 27-29 cm thick overlying a B horizon, and each produced artifacts from the Ap horizon (n=5 to 55).

The historic artifact assemblage included a wide variety of ceramics (35% of historic artifacts), other domestic artifacts (28%), and architectural materials (24%). Among the ceramics, whiteware predominated (51% of ceramics) and was represented by a wide range of decoration types. In contrast, ironstone was less common (11% of ceramics) and was represented by a more limited range of decoration types. Together, these ceramics indicated an occupation dating throughout the nineteenth century. Redware (22% of ceramics), pearlware (5%), and early ceramic wares (2%) were also present, indicating an occupation in the eighteenth century. Early ceramics included sherds of white salt-glazed stoneware, Westerwald, Staffordshire, Buckley, Jackfield, and engine-turned red earthenware, as well as creamware and slip-decorated redware (Photo 11). The distribution of early and later ceramics were each mapped to see if they indicated occupation of different portions of the site during different periods. However, both early and later ceramics were found to cluster in a core area focused on the higher ground in the northeastern part of the site (Figures 19a and 19b).

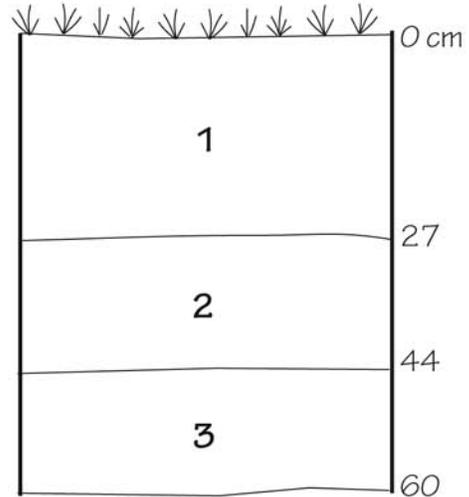
Other domestic artifacts included a number of whole and partial bottles, as well as a high proportion of container glass and non-diagnostic glass fragments. The high frequency of glass in the domestic assemblage suggested that the site occupation extended into the twentieth century, when automated bottle production made such materials more widely available. The assemblage also included a variety of glass tablewares. The distribution of glass artifacts showed that there was not a high frequency of glass containers along the northern edge, which would have come from roadside discard. Instead, glass artifacts, like ceramics, were concentrated in the core area of the site (Figure 20). Architectural materials included high frequencies of both flat window glass and brick, with the highest frequencies in the core area. The abundance of charcoal in the soil, contributing to the dark staining seen in the core area, suggested that a structure of primarily log or frame construction had been destroyed by fire.

Shovel Test 11-1



- 1 = 10YR5/3 brown silt loam (plowzone)
- 2 = 10YR6/2 light brownish gray sandy loam
- 3 = 7.5YR3/4 brown sandy loam
- 4 = 10YR6/3 light brown sandy loam, 50% rubble, brick and mortar
- 5 = 10YR6/2 light brown silty sandy loam (not subsoil)

Shovel Test 11-2



- 1 = 10YR4/3 brown silt loam
- 2 = 10YR4/3 brown mixed with 10YR6/8 brownish yellow silt loam
- 3 = 10YR6/8 brownish yellow silty clay (B)

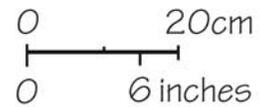


Figure 18. Shovel Test Profiles, Houston-LeCompte Site.

Table 8
Segment 11-Artifact Summary

Artifact Description	Date	Surface Survey	STP 11-1					STP 11-2		STP 11-3 Ap	STP 11-4 Ap	STP 11-5 Ap	Total
			Lv. 1 Ap	Lv. 2 Fill	Lv. 3 Fill	Lv. 4 Fill	Lv. 5 Fill	Lv. 1 Ap	Lv. 2 Fill				
Tableware Glass Cup		-Rim	3										3
		-Base	2										2
Tableware Glass Stemmed Dish		-Foot	1										1
Tableware Glass		Indeterminate	120									1	121
		Candy Dish	1										1
		Lid	1										1
		Handle	3										3
Lamp Globe	(1785+)	-Oil/Gas	1										1
	(1785+)		1										1
Painted Glass			1										1
Decorative Glass			7										7
Cast Iron Stove Part			1										1
Mason Jar Lid Liner	(1858+)	-White Milk Glass	78	1				1					80
Pull Tab or Stay-On Tab	(1975+)		1										1
Glass Stopper			1									1	2
		-Mushroom	2										2
Unidentified Curved Glass			1075	9	4	1		50	14	1	13	23	1190
Unidentifiable Melted Glass			6						1				7
Unidentified Flat Glass		-Beveled Edge	2										2
		-Non-Architectural	7										7
SubTotal	DOMESTIC OTHER		1868	10	4	1		61	17	1	14	31	2007
ARCHITECTURE													
Unidentified Flat Glass		-Bubbles/Patina	74					16	5	1	2		98
		-No Bubbles/Patina	243	24								4	271
Decorative Flat Glass		-Architectural	5										5
Nail	(pre-1820)	-Wrought	1										1
	(1790+)	-Cut	21					8	1		2		32
	(1850+)	-Wire	12					1					13
		-Unidentifiable	49	6	1	3	1	6	3		3	4	76
Staple		-Large	1										1
Brick			974	26	5	29	8	6	13	2	1	2	1074

Table 8
Segment 11-Artifact Summary

Artifact Description	Date	Surface Survey	STP 11-1					STP 11-2		STP 11-3 Ap	STP 11-4 Ap	STP 11-5 Ap	Total
			Lv. 1 Ap	Lv. 2 Fill	Lv. 3 Fill	Lv. 4 Fill	Lv. 5 Fill	Lv. 1 Ap	Lv. 2 Fill				
Slag Fragment		1										1	
Rod		1										1	
		1										1	
Wire		1										1	
		1										1	
Unidentified Iron		18							2			20	
Unidentified Tin								5				5	
Unidentifiable Metal		1					2	1				4	
SubTotal	OTHER	47					2	6	2			57	
GRAND TOTAL		6514	94	29	86	44	28	162	52	5	38	55	7107



Photo 11. Houston-LeCompt Site, selected artifacts. (*top row, l-to-r*) Jacks Reef Pentagonal projectile point, jasper (FF11-3653); blue mold-made glass bead (FF11-841); black Prosser bead (FF11-3362); turquoise wound glass bead (FF11-791); bisque doll arm (FF11-2370); (*2nd row, l-to-r*) cream Prosser button (FF-11-2111); brass eagle and shield button, Scovill Manufacturing Co, c.1850-1900 (FF11-3385); embossed creamware rim embossed (FF11-2242); bisque doll leg (FF11-1995); (*3rd row, l-to-r*) slip-decorated redware (ST 11-1, Stratum 4); whiteware with makers' mark, Jacob Furnival & Co., 1845-1870 (FF11-2382); Buckley sherd (11-1871); (*4th row, l-to-r*) two ironstone sherds with makers' marks, one possibly Burgess & Leigh 1862+ (FF11-1638), one unidentified (FF11-1566); marble-slipped Staffordshire sherd (FF11-403); engine-turned red earthenware sherd (FF11-1266); (*bottom, l-to-r*) scratch blue stoneware sherd (FF11-3221); Jackfield sherd (11-2606); engraved shell button (FF11-524).

Small finds together represented 1% of the site assemblage. Clothing items included a variety of buttons, as well as three beads and a buckle (Figure 11). The assemblage was also notable for the variety of toys and other personal items, as well as smoking pipes. Like all other artifact classes, these materials were found primarily in the core area. Overall, the artifact assemblage represented a moderate occupation dating to the eighteenth and early nineteenth century, which was overlain by a heavier occupation dating to the mid-nineteenth through twentieth century. The highest densities associated with both early and later occupations were found in the area identified as the site core, while lower densities of artifacts extended to the limits of the LOD.

The site also produced a small assemblage of prehistoric artifacts (n=35), including one plain ceramic body sherd with quartz temper (Table 8). Projectile points included one Jacks Reef Pentagonal point of jasper (Figure 11) and one contracting stemmed point of quartz. The only other tools were a biface fragment, a utilized flake, and an expedient tool, all of chert. Other lithic artifacts included flake cores and debitage representing the use of quartz, quartzite, jasper, chert, and siltstone materials. A moderate frequency of thermally altered stone was also found. All but one of the prehistoric artifacts were found in the core area where the highest density of historic artifacts was also found. The prehistoric occupation may have been heavily disturbed by the long historic occupation at this location.

Background Research: Background research conducted during the Phase Ia survey identified the Houston-LeCompt Site at this approximate location from nineteenth century maps. Deed research had traced the property to James Houston's ownership, matching that shown on the 1849 map (Rea and Price 1849). Additional research revealed that this property had originally been part of a tract of 106 acres patented by Samuel Guthrie in 1744, which overlapped to the west with the 625-acre "Percus Tract" that was re-surveyed for Evans in 1751 and patented by John & Thomas Vail in 1773. Guthrie's tract was acquired by Mary Houston some time before her death in 1816, except for the area of overlap with the "Percus Tract." In the division of Mary Houston's estate by the Orphans Court in 1828-1829, this was one of three large parcels assigned to her son James Houston, while other parcels to the north and south were assigned to her sons Jacob and George. The description indicated that James was living on the property at that time. An accompanying plan showed that the house at this location was the only house on the estate (Figure 14). The plan also showed that James Houston owned adjacent lands to the west of Mary's property, while George owned lands to the east.

James Houston died intestate in 1849. Having no direct heirs, his property passed to the children of his nieces, James and Jacob Boggs and Sarah Murphy. A survey of the property for the Orphans Court in 1850 indicated that it consisted of the same three parcels he had inherited from his mother, with two small additions. Although the court determined that the property could not be equitably divided between the three heirs, they proceeded to divide it along new lines. James Boggs acquired a 47-acre portion containing this site, which he sold to Richard Mumford in 1853, who sold it to James LeCompt in 1865. The nineteenth century atlases showed that this was one of several properties owned by LeCompt, indicating that it was likely occupied by tenant farmers or simply by renters. Following LeCompt's death, the property was bought by Harriet Houston, bringing it back into the Houston family as one of several properties she owned. Harriet Houston died in 1907 and the property was sold by her heirs to Fred Robinson in 1909. Robinson died in 1936 and the property passed through his heirs, until it was sold to the current owner, Frank Rausch in 1951.

The site appears to have been abandoned during the first half of the twentieth century, likely during Fred Robinson's ownership. On an early twentieth century topographic map (USGS 1906), a structure was erroneously shown on the *north* side of the road (Survey Segment 12), but none on the south side. However, examination of historic aerial photos showed that the house was present on the south side of the road in 1932, where it stood as a single structure, not a complex of farm buildings. By 1937, the structure had been demolished and the area incorporated into the surrounding cultivated field (Figure 15).

Survey Segment 12

This segment consisted of 6.4 acres bordering the north side of Boyds Corner Road. It encompassed a small cultivated field and a large area of poorly drained woodlands, in which wetlands were identified (Figure 16). Soils are mapped as Reybold-Queponco complex 0-2% slopes in the southern part of the field, Fallsington loam 0-2% slopes in the southern part of the woods, and Woodstown loam 0-2% slopes in the northern parts of both the field and woods. In the Phase Ia survey, portions of this segment were assigned low and moderate probabilities for prehistoric resources. The segment was attributed a high probability for historic resources, because of the proximity of a tenant farmstead, J. LeCompt Area 1, to the west. It also had a moderate probability for historic resources because of the proximity to a historic road, Boyds Corner Road. Additional background research in conjunction with the Phase Ib survey indicated that this tenant farm was located beyond the LOD to the west, on a small parcel that was added to the west side of the property by LeCompt. Examination of aerial photographs from the early twentieth century showed that the wooded zone was not present, the entire area being under cultivation at that time (Figure 15).

This segment is bordered to the east by a previously recorded historic resource, the Bertha Hobson Chicken House (CRS N14385). The property contains a c.1941 chicken house that was moved there from another farm, together with structures that were erected in the 1970s. The entire property was identified as the historic resource, which extends into the project area in the northern end of Segment 12. This resource was determined not eligible for the National Register of Historic Places.

In the Phase Ib survey, the small cultivated field of approximately 1.5 acres was plowed and disked. Pedestrian surface survey was conducted in two passes. One archaeological site was identified, from a moderate density of early historic artifacts. The Hobson/LeCompt 1 Site was recorded as an archaeological component of the extant historic resource (N14385), described below.

The woodlands were tested through the excavation of shovel tests at intervals of 15 m, except in areas of standing water. In all, 63 shovel tests were excavated. Soil profiles were characterized by an Ap horizon 20-37 cm thick overlying a B horizon. In portions of the project area, the organic-rich soil had formed a separate O horizon 6-10 cm thick. Historic artifacts recovered from two shovel tests located in the southeast corner of the woods were included with the Hobson/LeCompt 1 site. Three isolated shovel tests also yielded historic artifacts, including one redware sherd, three nails, and two fragments of brick, which were not included because of their distance from the site. Shovel Test 12-123 yielded one prehistoric lithic artifact, a jasper flake. Four bracketing shovel tests excavated at 5 m intervals yielded no additional prehistoric materials, only one fragment of brick.

Hobson/LeCompt 1 Site (CRS N14385, Site 7NC-F-140)

The site is located on the north side of Boyds Corner Road, where it extends from a small field into adjacent woodlands. The site covers an area of 1.9 acres. It is bordered to the south by the road, to the east and north by the previously defined historic resource of the Bertha Hobson Chicken House, and to the west by woodlands. Phase Ib survey resulted in the identification of an area of moderate historic artifact density in the center of a small cultivated field, extending to areas of lower artifact densities towards the periphery (n=92; Table 9). Two shovel tests in the edge of the woods also yielded historic artifacts from the Ap horizon and were included within the site boundary. The soil profiles of the shovel tests consisted of an O horizon 3-5 cm thick and an Ap horizon 28-30 cm thick overlying the B horizon. Shovel Test 12-127 yielded two sherds of redware, one of semi-porcelain, and four fragments of brick. Shovel Test 12-131 yielded only two fragments of brick.

The historic artifacts consisted primarily of architectural materials (38% of historic artifacts), with lower proportions of ceramics (24%) and other domestic artifacts (15%). There were no small finds. The ceramics included ten redware sherds, two pearlware sherds, and one sherd each of porcelain and engine-turned red earthenware, as well as later whiteware ceramics. The ceramics suggested an occupation dating from the late eighteenth through mid-nineteenth century. The presence of container glass (15% of historic artifacts), including artifacts such as container glass fragments with applied color labels or a seamed lip, suggested an occupation extending into the early twentieth century. However, some of these materials may have derived from roadside discard or field manuring practices.

The site produced three prehistoric lithic artifacts, including one non-diagnostic biface fragment. These were considered insufficient to indicate a prehistoric occupation component at the site.

Background Research: There was no documentary evidence of a historic occupation at this location. Background research conducted during the Phase Ia survey traced the property back to the ownership of James Houston before his death in 1849. Additional research conducted during the Phase Ib survey indicated that this was originally part of the extensive "Green's Forest" tract patented by Edward Green in 1686. This portion of approximately 100 acres had been acquired by Mary Houston before her death in 1816. In the division of the estate by the Orphan's Court in 1828-1829, this parcel went to her son James Houston. The accompanying plan showed no house on the portion of the estate north of the road. The 1849 atlas map also showed no structure on the north side of the road (Rea and Price 1849). A plan from the 1850 Orphan's Court disposition of James Houston's estate showed one house on the northern property, but that was located further north, coinciding with the location of the LeCompt Area 2 tenant house shown on the atlases of 1868, 1881, and 1893 (see discussion of the Emerson Site, below). The LeCompt Area 1 tenant house appears to have been located west of the current site, on a triangular parcel that James Houston acquired from the Rothwell family.

The only indication of a structure at this location was an early twentieth century topographic map, which showed a structure on the north side of the road, but none on the south side. In contrast, the earliest available aerial photograph (from 1932), showed a single house on the south side (Houston-LeCompt Site, N14517) and only cultivated fields on the north side of the road.

Table 9
Segment 12 - Artifact Summary

Artifact Description	Date	7NC-F-140		Non-Site	Total
		PSS	ST Ab		
PREHISTORIC LITHICS					
Biface	-Unidentifiable Fragment	Quartz	1		1
Utilized Decortication Flake		Tan Chert	1		1
Biface Thinning Flake	-Secondary	Jasper		1	1
Flake Fragment		Brown Chert	1		1
SubTotal PREHISTORIC LITHICS			3	1	4
DOMESTIC CERAMICS					
Red & Yellow Refined Earthenwares	-Lead Glazed Engine Turned	(1763-1820)	1	1	2
Pearlware	-Blue Monochrome Transfer	(1780-1840)	1		1
	-Indeterminate	(1775-1840)	1		1
Whiteware	-Plain	(1820+)	3		3
	-Annular	(1820+)	2		2
	-Other Glaze	(1820+)	1		1
	-Indeterminate	(1820+)	1		1
Semi-porcelain	-Plain	(1885+)		1	1
Porcelain	-Plain	(1700+)	1		1
Redware	-Lead Glaze	(1770+)	2	1	3
	-Unglazed	(1770+)	2		2
	-Manganese Glaze	(1770+)		1	1
	-Lead Glaze, with Manganese	(1770+)	4		4
Unidentified Earthenware	-Unglazed		1		1
	-Plain glaze		1		1
SubTotal DOMESTIC CERAMICS			21	3	25
DOMESTIC OTHER					
Top/Neck Glass Container, narrow mouth	-Seamed Lip, Threaded		1		1
Indeterminate Container Glass			1		1
	-Applied Color Label	(1935+)	7		7
Unidentified Curved Glass			5		5
Unidentifiable Melted Glass			1		1
SubTotal DOMESTIC OTHER			15		15
ARCHITECTURE					
Unidentified Flat Glass	-No Bubbles/Patina		3		3
Nail	-Wire	(1850+)		3	3
Brick			24	6	37
	-Glazed		3		3
Insulator	-Ceramic	(1885+)	1		1
Drain Pipe Fragment	-Ceramic		1	1	2
SubTotal ARCHITECTURE			32	6	49
FAUNA & FLORA					
Bone Fragment			4		4
Shell Fragment			1		1
Identifiable Bone	-Modified		11		11
SubTotal FAUNA & FLORA			16		16

Table 9
Segment 12 - Artifact Summary

Artifact Description	Date	7NC-F-140		Non-Site	Total
		PSS	ST Ab		
OTHER					
Plastic Fragment	(1915+)	4			4
Unidentifiable Metal		1			1
SubTotal OTHER		5			5
GRAND TOTAL		92	9	13	114

The artifact assemblage suggests that the Hobson/LeCompt 1 Site was contemporaneous with the Houston-LeCompt Site across the road. The occupation may thus have represented an outlier of that site. Since both parcels were owned by James Houston and later by James LeCompt, it is possible that refuse from the site was disposed in this area, or that outbuildings associated with that site could have been located here. The site has been included with the previously recorded Bertha Hobson Chicken House, because it was contiguous. But the archaeological occupation pre-dates the occupation associated with that historic structure.

Survey Segments 13 and 14

Segment 13 covered an area of 7.2 acres, including approximately 4.0 acres in poorly drained woodlands and 3.2 acres in a cultivated field. Soils were mapped as Fallsington loam 0-2% slopes. In the Phase Ia survey, it was assigned a low probability for prehistoric resources and a high probability for historic resources because of the proximity of a tenant farmstead, the J. LeCompt Area 2 to the west.

Segment 14 covered an area of 9.1 acres, extending across two cultivated fields and the corner of a wood lot between them (Figure 21). Soils were mapped as Woodstown loam 0-2% slopes in the fields and Fallsington loam 0-2% slopes in the woods. In the Phase Ia survey, this segment was assigned a high probability for prehistoric resources, because of the concentration of cobbles at the surface that could have supplied lithic raw materials, and a low probability for historic resources. In the analysis of Phase Ib survey results, these two areas are described together because a large site was identified extending across a large part of each segment.

Phase Ib survey consisted of one pass of pedestrian surface survey in both fields, and shovel testing in wooded areas. Both of the cultivated fields had been plowed and disked, providing good surface visibility. Surface survey resulted in the identification of one large site in the southern field that extended from Segment 13 into Segment 14, the Emerson Site (CRS N14518), and a second smaller site in the northern field in Segment 14, the LeCompt 2 Site (CRS N14520), described below (Figures 22a and 22b).

In the wooded area that covered the southern part of Segment 13, 52 shovel tests were excavated at 15 m intervals. The soil profiles were similar to those described in Segment 12, having an Ap horizon, B horizon, and an intermittent overlying O horizon. Five isolated historic artifacts were found in the A horizon in three of these shovel tests. In the northern wood lot between the fields in Segment 14, 10 shovel tests were placed at 15 m intervals. The soil profiles in this area consisted of an A horizon 12-33 cm thick overlying a mottled B horizon. A single nail was recovered from the A horizon in one shovel test. These artifacts from shovel test excavations were not included with either site, and are included with non-site materials in Table 10. One landscape feature was identified in the northern wood lot, the bed of a former railroad line. This historic resource was identified as the Mt. Pleasant to Port Penn Railroad (CRS N14519).

Emerson Site, Locus A & B (CRS N14518, Site 7NC-F-141)

This site was identified through surface survey, covering the entire LOD in a field that extended from the northern half of Segment 13 into the southern half of Segment 14, for a total of 6.2 acres. Two distinct artifact loci were identified within the site. Locus A, which was centered on a small mound at the northern end of the field, was characterized by a high frequency of

Table 10
Segments 13 and 14 - Artifact Summary

Artifact Description	Date	7NC-F-141		7NC-F-142	Non-Site	Total
		Locus A	Locus B			
PREHISTORIC LITHICS						
Projectile Point	Corner notched; hard to type; Jasper	1				1
	Fine tip; broken; Jasper	1				1
	Tip only; Quartzite		1			1
	Triangle; Jasper		1			1
	Broadspear base; Grey Chert		1			1
Biface	-Unidentifiable Fragment Mid-section; Rhyolite	1				1
	-Unidentifiable Fragment Quartz		3			3
Utilized Decortication Flake	Jasper	2	1			3
	Quartzite		1			1
Utilized Biface Thinning Flake	-Secondary Jasper	1				1
Flake Core	Grey Chert		1			1
	Jasper	1				1
	Quartzite		1			1
	-Fragment Quartz		3			3
Decortication Flake	Quartzite		1			1
	Jasper	5	3			8
Core Flake	-Primary Jasper	1				1
	-Secondary Quartzite	1				1
Biface Preform	-Primary Quartz		2			2
	-Primary Quartzite		2			2
	-Secondary Broken; mid-section only; Grey Chert		1			1
Biface Thinning Flake	-Primary Jasper		1			1
	-Secondary Quartzite		2			2
	-Tertiary Quartz		1			1
Flake Fragment	Quartz		3			3
	Chalcedony		1			1
	Jasper	1	1			2
Shatter	Jasper	3	1	1		5

Table 10
Segments 13 and 14 - Artifact Summary

Artifact Description	Date	7NC-F-141		7NC-F-142	Non-Site	Total
		Locus A	Locus B			
Shatter	Quartz		3			3
Test Raw Material	Quartz	2	1			3
	Grey Chert	1	1			2
	Jasper	3	2			5
	Quartzite	3				3
Thermally Altered Stone		4	3	1	1	9
SubTotal PREHISTORIC LITHICS		31	42	2	1	76
DOMESTIC CERAMICS						
Whiteware	-Plain (1820+)	4	10	10	1	25
	-Sponge/Spatter (1820+)	1				1
	-Cut Sponge (1845+)		1			1
	-Blue Monochrome Transfer (1820+)	2				2
	-Embossed (1820+)			1		1
Ironstone	-Plain (1840+)	1	1	4	1	7
	-Sponge/Spatter (1840+)		1			1
	-Other Glaze (1840+)		1			1
Semi-porcelain	-Plain (1885+)			1		1
	-Decal Decorated (1900+)			1		1
	-Embossed (1885+)			1		1
Porcelain	-Plain (1700+)			2		2
	-Decal Decorated (1880+)			2		2
Redware	-Lead Glaze (1770+)	1	2			3
	-Unglazed (1770+)	1	6			7
	-Manganese Glaze (1770+)	1	28		1	30
SubTotal DOMESTIC CERAMICS		11	50	22	3	86
DOMESTIC OTHER						
Base Glass Container, scarring	-Machine Cutoff		1			1
Indeterminate Container Glass			2	2		4
Tableware Glass	Indeterminate			5		5

Table 10
Segments 13 and 14 - Artifact Summary

Artifact Description	Date	7NC-F-141		7NC-F-142	Non-Site	Total
		Locus A	Locus B			
Mason Jar Lid Liner	-White Milk Glass (1858+)			1		1
Unidentified Curved Glass		1	5	13		19
SubTotal DOMESTIC OTHER		1	8	21		30
ARCHITECTURE						
Unidentified Flat Glass	-Bubbles/Patina		2			2
	-No Bubbles/Patina	1	3	5	1	10
Nail	-Wire (1850+)				1	1
	-Unidentifiable		1	1	1	3
Brick		3	14	4	1	22
Drain Pipe Fragment	-Ceramic	3				3
SubTotal ARCHITECTURE		7	20	10	4	41
HARDWARE						
Bolt				1		1
Farm Equipment			1			1
SubTotal HARDWARE			1	1		2
FAUNA & FLORA						
Shell Fragment			3			3
Identifiable Bone	-Modified	1				1
	-Unmodified			1		1
SubTotal FAUNA & FLORA		1	3	1		5
GRAND TOTAL		51	124	57	8	240

prehistoric artifacts. It covered an area of 1.2 acres. Locus B, centered in the southern part of the field, was characterized by a high frequency of historic artifacts, together with a lower frequency of prehistoric artifacts. It covered an area of 1.9 acres. Lower frequencies of artifacts, which were found in the zone between these two loci, were included with Locus B in the analysis (Table 10). To the north, a clear boundary was indicated by a decrease in prehistoric artifacts. To the east, the site likely extends beyond the LOD. It may also extend beyond the LOD to the west, although most of the shovel tests in the woods to the northwest were sterile. To the south, most of the shovel tests in the woods/wetlands were also culturally sterile, suggesting that the site was limited to the better drained terrain of the field. Altogether, the Emerson Site covered an area of 6.2 acres within the LOD.

The prehistoric artifact assemblage contained five projectile points, four biface fragments, and five utilized flakes (Table 10). In Locus A, there was an untyped corner-notched projectile point and a projectile point tip fragment, both of jasper, and the mid-section of a large projectile point or knife of rhyolite (Photo 12). In Locus B, there was the basal portion of a triangular point of jasper, a broadspear point of gray chert, and a tip fragment of quartzite, as well as three unidentifiable biface fragments of quartz. Flake ores were found in both loci, while biface preforms and biface thinning flakes were only found in Locus B. Lithics reflected the use of jasper, quartz, quartzite, chert, and chalcedony materials at the site.

The historic artifact assemblage was dominated by ceramics (60% of historic artifacts) and architectural materials (26%). Among ceramics, whiteware predominated in the lower density Locus A, while redware predominated in the higher density Locus B. No diagnostically early historic ceramics were identified. The combination of whiteware, ironstone, and semi-porcelain suggested an occupation dating from the mid- to late-nineteenth century. The low frequency of container glass fragments suggested that the occupation did not extend into the twentieth century.

Background Research: Background research from the Phase Ia survey indicated that a tenant farmstead identified as LeCompt Area 2 had been located in the vicinity of this site. Interpretation of property boundaries suggested that it was located outside the LOD to the west. Additional background research conducted during the Phase Ib survey helped to identify the location and period of occupation of LeCompt Area 2. A plan drawn in conjunction with the division of Mary Houston's estate in 1829 showed a house on the south side of the public road (Houston-LeCompt Site, N14517), but no structures to the north of the road (Figure 14). This portion of her estate was given to her son James Houston. A plan of his estate drawn in 1850 showed a second house along the northwest boundary of the property. Comparison of these two plans with historic aerial photos and modern properties showed that the boundaries between the field and the woodlands to the northwest have not changed since 1829. The house shown on the 1850 map would thus have been located inside the western edge of the field, just west of Locus B. The historic artifacts therefore likely represent the outer fringe of a historic component that extends west to the edge of the field. The property was divided by James Houston's heirs, this portion being bought by James LeCompt in 1865. He is shown on subsequent historic atlases as the owner of this and an adjacent structure on the north side of the road (LeCompt Area 1), and a structure on the south side of the road (Houston-LeCompt Site), as well as his principal farmstead to the northwest, along what is now Ratledge Road.

James LeCompt died in 1884 and his estate was sold by the sheriff in 1898. Occupation of the site may have terminated at that time. The property was still listed in LeCompt's name in the



Photo 12. Hobson/LeCompt 1, Emerson, and LeCompt 2 Sites, selected artifacts. (*top row, l-to-r*) Hobson/LeCompt 1: engine-turned red earthenware sherd (FF12-71); Emerson Site: biface midsection, rhyolite (FF14-92); untyped corner-notched projectile point, jasper (FF14-101); (*middle row, l-to-r*) triangular projectile point, jasper (FF13-88); broadspear projectile point, chert (FF13-90); (*bottom row, l-to-r*) cut sponge whiteware rim (FF13-10); LeCompt 2: decal-decorated semi-porcelain with unidentified makers' mark (FF14-30); plain ironstone with unidentified makers' mark (FF14-39).

1893 atlas, with a structure shown at this location. But the structure was not shown on a 1906 topographic map.

Mt. Pleasant to Port Penn Railroad (CRS N14519)

The line of a former railroad ran west-to-east across the LOD, between the southern and northern fields in Survey Segment 14. The railroad grade was clearly visible in the woods, where it was first observed as a linear landscape feature during shovel testing (Photo 13). The railroad grade formed a raised area that was relatively clear of trees. It was paralleled to the north by a water-filled ditch. This ditch may have originated as a borrow pit, providing fill material for the raised grade. There was no evidence of surviving railroad ties or rails along the alignment. No shovel tests were excavated into the railroad grade. The railroad alignment was not clearly visible in the cultivated field. East of this field, the railroad grade is still used as a farm road.



Photo 13. Grade of the Mt. Pleasant to Port Penn Railroad that crossed the project in Survey Segment 14, looking east. The rail line was built to serve a military depot along the coast during World War I.

Background Research: The presence of a railroad line was not identified in the Phase Ia survey. During the Phase Ib survey, a local farmer provided the information that there had once been a railroad line through this area, dating to the World War I era (L. Emerson, personal communication 2010). The line had been built to connect a military facility near Port Penn on the Delaware River to the existing railroad line further inland to the west. Construction of the facility it served was not completed before the war ended, at which point the project was terminated.

Part of the railroad's route could be traced on aerial photos from 1937, as it formed field boundaries or cut across fields and wood lots (Figure 15). At its western terminus, it joined with what had been the Pennsylvania Railroad (now the Norfolk Southern) at Mt. Pleasant. In several of the cultivated fields, the alignment was obscured and its location plowed over. This indicated that the line was no longer in service and the railroad ties and rails had been removed by 1937. Further research will be necessary to document the construction, use and eventual removal of this railroad line. The aerial photos can be used to trace the line to its eastern terminus, in an effort to identify the military base or depot that it served. Information on when the line was built, who owned and operated it, and when it was dismantled should also be collected.

LeCompt 2 Site (CRS N14520, Site 7NC-F-142)

This site was identified through surface survey, in the southeast corner of a large field, in the northern end of Survey Segment 14. It was located north of the Mt. Pleasant to Port Penn Railroad (N14519) and the Emerson Site (N14518). The site consisted of a concentration of historic artifacts covering an area of approximately 0.4 acres (Figure 22a). The boundaries of the site were defined by decreases in artifact density in all directions.

The site assemblage included 55 historic artifacts and two prehistoric artifacts (Table 10). Historic ceramics (n=22, 40% of assemblage) included 11 whiteware, 4 ironstone, 3 semi-porcelain, and 4 porcelain sherds. Other artifacts were mostly non-diagnostic domestic glass fragments (n=20; 36%) and architectural materials (n=10; 18%). The predominance of whiteware and ironstone ceramics, together with the relatively high frequency of domestic glass fragments, suggested that the site represented an occupation dating to the early twentieth century. Given its location in the far corner of a field next to a wood lot, this could have been a secondary dwelling site on a historic farmstead. Despite the presence of architectural materials, however, the limited area and small assemblage suggests that it does not represent a domestic occupation. The assemblage could have been associated with a farm outbuilding, or may have resulted from intentional refuse disposal from a nearby farmstead.

Background Research: There was no evidence of a previous occupation in this vicinity. Background research conducted during the Phase Ia survey showed that this property had been part of the principal farm owned by James LeCompt. Additional background research during the Phase Ib survey revealed that this property was located within the area of the enormous "Green Forest" patent, a property of almost 3000 acres patented by Edward Green in 1686 (Scharf 1888:987). The title to the property could not be traced back to the original patent. However, a tract from "Green Forest" that combined the location of this site was bought by David Thomas in 1767, who passed it on to his widow and sons. Their heirs sold a property of 120 acres to James LeCompt in 1845, this being the first of several properties within the project area bought by LeCompt. LeCompt died in debt in 1884 and his property was sold by the sheriff. This property was combined with the former James Houston property to the south, where the LeCompt Area 1 and LeCompt Area 2 tenant houses were located (see the Hobson/LeCompt 1 Site (N14385) and Emerson Site (N14518) for background information on the locations of these tenant areas in relation to identified sites). The combined 185-acre property was bought by a bank in 1898 (Security Trust and Safe Deposit Co.), which sold it to James Eliason in 1915. It remained in the Eliason family until 1945, and in the Hobson family until bought by the Delmarva Power and Light Company in 1974.

None of the historic atlases, early aerial photos, or topographic maps show indications of a structure at the location of the LeCompt 2 Site. There was a large farmstead further west on the property, set back from the east side of Ratledge Road. This was the principal LeCompt residence shown on historic atlases, which was outside the LOD and is no longer extant. It is possible that the site represents a secondary dwelling at the back of the property. Alternatively, this may have been a non-residential site, such as the location of an outbuilding, or an obscure location for the disposal of refuse.

Survey Segment 15

This segment included portions of two cultivated fields, covering an area of 9.2 acres. Soils are mapped as Woodstown loam 0-2% slopes and Reybold silt loam 2-5% slopes. In the Phase Ia survey, it was designated as having a low probability for both prehistoric and historic resources. This segment was chosen at random to be eliminated from Phase Ib survey.

Survey Segment 16

This segment was located primarily in one cultivated field, extending slightly into adjacent fields to the south and northeast. It covered an area of 5.6 acres. Soils are mapped as Reybold silt loam 2-5% slopes. In the Phase Ia survey, it was assigned a low probability for historic resources and a moderate probability for prehistoric resources.

Phase Ib survey consisted of one pass of pedestrian surface survey. Each of the fields had been plowed and disked, providing good surface visibility. Very few artifacts were found, including two prehistoric lithics, four historic ceramics, and one fragment of brick (Figures 23a and 23b; Table 11). No sites were identified.

Survey Segment 17

Segment 17 consisted of 10.4 acres in one cultivated field, extending slightly into an adjacent field to the southwest. Soils were mapped as Reybold silt loam 2-5% slopes. In the Phase Ia study, it was identified as not proximal to water and had a low probability for both prehistoric and historic archaeological resources. The northeastern end of this segment was heavily disturbed. A local informant indicated that topsoil had been stripped from this area and stockpiled elsewhere in the 1970s, as part of the preparations for construction of a nuclear power plant that was never built (G. Lyman, personal communication 2009). The area of stripped soils is included in the cultivated field, but is clearly visible in aerial views as a zone of reduced crop productivity (Figure 24). The zone of stripped soils covered 1.4 acres within Segment 17.

Phase Ib survey consisted of pedestrian surface survey, using two survey passes in the larger central and eastern field (7.8 acres, including the area of stripped soils) and one survey pass in the smaller field to the southwest (2.6 acres). Surface survey resulted in the recovery of a low frequency of historic and prehistoric artifacts (Figures 23a and 23b). No artifacts were found in the zone of stripped soils.

The prehistoric assemblage (n=10; Table 12) included a Jacks Reef Pentagonal projectile point of black chert and a Bare Island projectile point of jasper (Photo 14). Other tools included two unidentifiable biface fragments and a piece of utilized debitage. The prehistoric artifacts were

Table 11
Segment 16-Artifact Summary

Artifact Description	Date	Non-Site
PREHISTORIC LITHICS		
Flake Core	Quartz	2
SubTotal PREHISTORIC LITHICS		2
DOMESTIC CERAMICS		
Whiteware	-Plain (1820+)	2
Stoneware	-Salt Glazed (1700+)	2
SubTotal DOMESTIC CERAMICS		4
ARCHITECTURE		
Brick		1
SubTotal ARCHITECTURE		1
GRAND TOTAL		7

Table 12
Segment 17-Artifact Summary

Artifact Description	Date	Non-Site
PREHISTORIC LITHICS		
Projectile Point	Jack's Reef Pentagonal Point, Black Chert	1
	Bare Island Point, Jasper	1
Biface	-Unidentifiable Fragment Quartz	1
	-Unidentifiable Fragment Rhyolite	1
Utilized Core Flake	-Primary Gray Chert	1
Decortication Flake	Quartz	1
Biface Preform	-Primary Jasper	1
	-Secondary Quartz	1
Shatter	Quartz	2
SubTotal PREHISTORIC LITHICS		10
DOMESTIC CERAMICS		
Creamware	-Plain (1750-1820)	1
Red & Yellow Refined Earthenwares	-Lead Glazed Engine Turned (1763-1820)	1
Pearlware	-Plain (1780-1840)	5
	-Shell-Edged, Green (1780-1840)	1
	-Shell-Edged, Blue (1780-1840)	2
Whiteware	-Plain (1820+)	21
	-Annular (1820+)	1
	-Blue Monochrome Transfer (1820+)	2
	-Other Glaze (1820+)	1
Ironstone	-Plain (1840+)	2
Semi-porcelain	-Plain (1885+)	3
Porcelain	-Plain (1700+)	1
Redware	-Lead Glaze (1770+)	3
	-Unglazed (1770+)	2
	-Slipped (1770-1820)	1
	-Manganese Glaze (1770+)	12
	-Lead Glaze, with Manganese (1770+)	2
Stoneware	-Cobalt Blue Glaze (1790-1900)	1
	-Brown Glaze (1820-1900)	1

Table 12
Segment 17-Artifact Summary

Artifact Description	Date	Non-Site
Stoneware	-Monochrome Glaze	1
SubTotal DOMESTIC CERAMICS		64
DOMESTIC OTHER		
Top/Neck Glass Container, narrow mouth	-Neck Only	1
	-Straight wine or brandy	1
Base Glass Container, scarring	-Owens Scar (1903-1917)	1
	-No Scars	1
Unidentified Curved Glass		3
Unidentifiable Melted Glass		1
SubTotal DOMESTIC OTHER		8
ARCHITECTURE		
Unidentified Flat Glass	-No Bubbles/Patina	1
Nail	-Unidentifiable	2
Brick		11
	-Glazed	1
Tile		1
SubTotal ARCHITECTURE		16
HARDWARE		
Horseshoe		2
SubTotal HARDWARE		2
FAUNA & FLORA		
Shell Fragment		2
Identifiable Bone	-Unmodified	1
SubTotal FAUNA & FLORA		3
OTHER		
Unidentified Iron		1
Unidentifiable Metal		1
SubTotal OTHER		2
GRAND TOTAL		105



Photo 14. Reed-Elliott Site and isolated finds, selected artifacts: (*top row, l-to-r*) Non-Site: Bare Island projectile point, jasper (FF17-26); Jacks Reef Pentagonal projectile point, chert (FF17-48); Reed-Elliott Site: contracting stemmed projectile point, quartz (FF18-19); Levanna triangular projectile point, chert (FF18-207); (*2nd row, l-to-r*) blue glazed semi-porcelain sherd with over-glaze decoration (FF18-46); plain ironstone sherd with unidentified makers' mark (FF18-460); stoneware pipe bowl (FF18-103); (*3rd row, l-to-r*) buckle (FF18-137); Non-Site: Bare Island projectile point, argillite (FF19-4); (*bottom, l-to-r*) untyped projectile point, chert (FF19-36); Madison projectile point, used as spokeshave, jasper (FF19-58)

widely scattered and showed no clustering. These materials were considered to represent isolated finds, not a prehistoric site.

Historic artifacts were found in low frequencies, with slightly higher frequencies in the northeast portion of the segment, just south of the area of stripped soils (Figure 23a). Ceramics predominated (67% of historic artifacts), with lower proportions of architectural materials (17%) and other domestic artifacts (8%). Among the ceramics, whiteware was the most common (39% of ceramics), followed by redware (30%). Early historic ceramics included one sherd each of creamware, engine-turned red earthenware, and slip-decorated redware, as well as eight sherds of pearlware. The assemblage included few glass containers or other domestic artifacts, and no small finds.

The presence of early historic ceramics suggested a possible early historic occupation in the general vicinity, but the location of an associated building could not be identified. These materials could represent an outlier of the historic site identified to the northeast in Segment 18, the Reed-Elliott Site (N14521). Early historic ceramics were also found in low frequencies beyond the Reed-Elliott Site in Segment 19, again suggesting an early historic occupation in the vicinity. It is possible that the early historic occupation was at the Reed-Elliott Site and has been obscured by the later historic occupation at that site, or that the site or sites from which these materials derived was not identified because it or they were outside the LOD. Lacking sufficient evidence for an occupation within Segment 17, these materials were not identified as an archaeological site.

Survey Segment 18

This segment consisted of 8.2 acres, including 7.4 acres in a cultivated field and 0.8 acres in a wide grass covered area to the southwest, between two fields (Figure 24). According to a tenant farmer, this grass covered area had been stripped of topsoil in the 1970s, like the adjacent disturbed area in Segment 17 (G. Lyman, personal communication 2009). To the northeast, Segment 18 extended slightly into a second field, adjoining Segment 19. Soils are mapped as Reybold silt loam 2-5% slopes in most of the field and Reybold silt loam 5-10% slopes in the area surrounding the headwaters of Ivy Run, a first-order stream to the northwest. In the Phase Ia survey, Segment 18 was identified as having a high probability for historic resources because of the Reed-Elliott farmstead shown in this vicinity on historic atlas maps. It was considered to contain both a low and a moderate probability zone for prehistoric resources.

Phase Ib survey consisted of two passes of pedestrian surface survey in the two cultivated fields, which had been plowed and disked, providing excellent surface visibility. This survey covered an area of 7.4 acres. The portion of Segment 18 in the grassy area to the southwest (0.8 acres) was not surveyed, since limited probing confirmed that the soils in this area were heavily disturbed, like those in the stripped area to the southwest in Segment 17. Surface survey of the stripped soils in Segment 17 had shown that the area was devoid of artifacts. Phase Ib survey resulted in the identification of one large historic site, the Reed-Elliott Site (N14521), covering most of the survey segment (Figures 25a and 25b). Low frequencies of historic and prehistoric artifacts were found beyond the site limits to the northeast. Artifacts in this non-site context included one contracting stemmed projectile point of quartz (Figure 14; Table 13).

Table 13
Segment 18 - Artifact Summary

Artifact Description	Date	7NC-F-143	Non-site	Total
PREHISTORIC LITHICS				
Projectile Point	Levanna, Black Chert	1		1
	Contracting stemmed, Quartz		1	1
Biface	-Unidentifiable Fragment	1		1
Flake Core		1		1
	-Fragment	1	1	2
Biface Thinning Flake	-Primary	1		1
	-Tertiary	1		1
Shatter		3		3
		1		1
Test Raw Material		1		1
Thermally Altered Stone		10		10
		2		2
SubTotal PREHISTORIC LITHICS		23	2	25
DOMESTIC CERAMICS				
Creamware	-Plain	(1750-1820)		1
Red & Yellow Refined Earthenwares	-Jackfield	(1745-1790)		1
Pearlware	-Plain	(1780-1840)		1
	-Shell-Edged, Blue	(1780-1840)	1	1
Whiteware	-Plain	(1820+)	2	52
	-Shell-Edged, Blue	(1820-1860)	1	1
	-Blue Monochrome Transfer	(1820+)	1	1
	-Decal Decorated	(1880+)	3	3
Ironstone	-Plain	(1840+)	16	16
	-Blue Monochrome Transfer	(1840+)	1	1
	-Decal Decorated	(1900+)	3	3
Semi-porcelain	-Plain	(1885+)	4	4
	-Decal Decorated	(1900+)	1	1
	-Monochrome Glaze	(1885+)	1	1
Porcelain	-Plain	(1700+)		1
	-Embossed	(1700+)	1	1
Yellow Ware	-Plain	(1827-1930)	2	2
Redware	-Lead Glaze	(1770+)	9	11
	-Unglazed	(1770+)	6	9
	-Slipped	(1770-1820)	1	1
	-Manganese Glaze	(1770+)	32	33
	-Lead Glaze, with Manganese	(1770+)	1	1
Stoneware	-Salt Glazed	(1700+)	9	9
	-Cobalt Blue Glaze	(1790-1900)	1	1
	-Brown Glaze	(1820-1900)	1	1
Unidentified Earthenware	-Burned		1	1

Table 13
Segment 18 - Artifact Summary

Artifact Description	Date	7NC-F-143	Non-site	Total
SubTotal	DOMESTIC CERAMICS	148	10	158
DOMESTIC OTHER				
Top/Neck Glass Container, narrow mouth	-Neck Only	3		3
	-Rim Fragment	1		1
	-Patent Finish	3		3
	-Applied lip, Ring/Oil	2		2
	-Prescription	1		1
	-Bead Ring	1		1
Top/Neck Glass Container, wide mouth	-Threaded	2		2
Base Glass Container, scarring	-Owens Scar	1		1
	-No Scars	5		5
	-Machine Cutoff	5		5
	-Post Bottom Mold	1		1
Indeterminate Container Glass		10	1	11
	-Embossed	10		10
Tableware Glass	Indeterminate	6		6
	Lid	1		1
Decorative Glass		1		1
Mason Jar Lid Liner	-White Milk Glass	6		6
Unidentified Curved Glass		64	2	66
Unidentifiable Melted Glass		3	1	4
SubTotal	DOMESTIC OTHER	126	4	130
ARCHITECTURE				
Unidentified Flat Glass	-Bubbles/Patina	3		3
	-No Bubbles/Patina	7	1	8
Nail	-Cut	5	2	7
	-Wire	7		7
	-Unidentifiable	25		25
Spike		1		1
Brick		166	7	173
Mortar		1		1
Brick	-Glazed	3		3
Insulator	-Ceramic	15		15
SubTotal	ARCHITECTURE	233	10	243
HARDWARE				
Bolt		2		2
Washer		1		1
Horseshoe		1		1
Farm Equipment		2		2
SubTotal	HARDWARE	6		6

Table 13
Segment 18 - Artifact Summary

Artifact Description	Date	7NC-F-143	Non-site	Total
CLOTHING				
Buckle	-Metal	1		1
SubTotal CLOTHING		1		1
PERSONAL				
Cosmetic Jar	-Glass	1		1
Figurine	-Semi-Porcelain	1		1
SubTotal PERSONAL		2		2
SMOKING PIPES				
Stoneware Pipe	-Bowl or Bowl Fragment	1		1
SubTotal SMOKING PIPES		1		1
HEATING				
Coal Fragment		2		2
SubTotal HEATING		2		2
FAUNA & FLORA				
Bone Fragment		8		8
Shell Fragment		8	1	9
Identifiable Bone	-Unmodified	4		4
SubTotal FAUNA & FLORA		20	1	21
OTHER				
Flowerpot	-Redware, unglazed	1		1
Ring	-Iron	1		1
Braided Wire		1		1
Plastic Fragment	(1915+)	1		1
Unidentified Iron		3		3
Unidentifiable Metal		3		3
SubTotal OTHER		10		10
GRAND TOTAL		572	27	599

Reed-Elliot Site (CRS N14521, Site 7NC-F-143)

The Reed-Elliot Site covered much of Segment 18, extending from the edge of the zone of stripped soils in the southwest to the head of a ravine leading to Ivy Run in the northeast. The site covers an area of approximately 3.2 acres within the LOD and likely extends beyond the LOD to the northwest (towards Ivy Run) and to the southeast (towards a farm lane leading to Jamison Corner Road). To the northeast, the site boundary was defined by a decrease in artifact density, while to the southwest it was bounded by the zone of stripped soils.

The site assemblage consisted predominantly of brick and other architectural materials (42% of historic artifacts). This likely reflected the demolition of the residence and other farmstead structures at the site. Architectural materials tended to cluster in the southern part of the site (Figure 26), while ceramics were found in higher densities toward the north. There was also a concentrated area of terra cotta drain tile fragments along the southern LOD. However, there was no dark stain of charcoal like that observed at the Houston-LeCompt Site (N14517) or Bowman 1 Site (N14522), indicating that the structures at this site had not been destroyed by fire.

The site assemblage included a relatively low frequency of historic ceramics (23% of historic artifacts). Whiteware sherds predominated among the ceramics from the site (37% of ceramics), followed by redware (33%), and a lower proportion of ironstone (13%). The high proportion of whiteware suggested an occupation dating from the mid-nineteenth century. The presence of later ceramics such as ironstone, semi-porcelain, and sherds with decal decorations, indicated that the occupation extended through the late nineteenth century into the twentieth century. However, there were relatively few artifacts datable to the twentieth century in the assemblage. Offsite refuse disposal patterns may have been adopted by the early twentieth century, possibly involving field dumps, or use of the ravine of Ivy Run, which lies northwest of the site.

Although redware was abundant, the ceramic types with which it is associated in an early occupation were rare, being limited to one sherd each of Jackfield, creamware, pearlware, and slip-decorated redware. Examination of the distribution of early and later ceramics confirmed that there were few early ceramics, and showed that both early and later materials were distributed throughout the site (Figures 27a and 27b). Early historic artifacts were also found in low frequencies in Segment 17 to the southwest and Segment 19 to the northeast. Taken together, these materials suggest that there was an early historic occupation in the vicinity, but its location could not be identified.

The assemblage included a relatively high proportion of artifacts in the other domestic artifacts category (23% of artifacts, mostly non-diagnostic glass fragments). The abundance of container glass fragments is characteristic of a late nineteenth to twentieth century occupation, in which the use of glass largely replaced ceramic vessels for the storage of foods and beverages. The site assemblage included few small finds, such as clothing, smoking pipes, or personal items (Photo 14).

Two shovel tests were excavated within the Reed-Elliot Site, in the vicinity of the cluster of terra cotta tiles. Both shovel tests showed simple soil profiles, with an Ap horizon 20-21 cm thick overlying the B horizon. Both were culturally sterile.

There was a small assemblage of prehistoric artifacts found within the historic site boundary (n=23; Table 13). This included one Levanna style triangular projectile point of black chert and one unidentifiable biface fragment, as well as fragments of thermally altered stone. There was also a contracting stemmed projectile point found beyond the historic site boundary to the east.

Background Research: In the Phase Ia survey, ownership of the Reed-Elliot property was traced back to Thomas Lawes' original patent of 500 acres in 1683. Thomas Hyatt bought 300 acres of the original patent from Lawes' heirs in 1722. It was divided among his three sons in 1759. Given the dispersed pattern of early ceramics across Segments 17, 18, and 19, it is not clear where an early farmstead may have been located. The three parcels were bought by Thomas Reed in the late eighteenth century, re-uniting the 300 acre farmstead, but it was divided by his heirs, being reduced to 202 acres. The property passed down through Read's heirs in the early and mid-nineteenth century and through other absentee land owners in the late nineteenth and early twentieth centuries. It is likely that the site was occupied by tenants throughout this period, until it was bought by the Crothers brothers in 1927.

Comparison of the nineteenth century atlas maps and early aerial photographs showed that a farmstead was shown at this location as early as 1849 (Rea and Price 1849) and remained largely unchanged in the twentieth century. On aerial photos from 1932 through 1961, the farmstead was shown as a compact rectangle of structures set back from the road at the end of a long driveway, surrounded by a larger farmyard. The structures extended into current LOD and extended beyond the LOD to the south. The farmstead was likely demolished in the 1970s, when the property was bought by Delmarva Power and Light for a planned nuclear plant that was never completed. The adjacent soils were stripped at that time, as part of the preparations for construction. Only the driveway survives, serving as a farm lane for the adjacent fields. The area has been maintained as cultivated fields and the site has only been disturbed by regular tilling.

Survey Segment 19 – Ramp 4

Segment 19 was a large area encompassing three ramps of a proposed interchange with Jamison Corner Road. The area of Ramp 1 in the northeast quadrant of the interchange was included in Segment 20. Segment 19 extended across fields east and west of Jamison Corner Road and included a small area north of Hyatts Corner Road, covering a total of 43 acres. Soils were mapped as Reybold silt loam 2-5% slopes and Matapeake silt loam 2-5% slopes. In the Phase Ia study, the entire area was designated as having a low probability for both historic and prehistoric resources. Two of the three ramps (Ramps 2 and 3 in the southeast and southwest quadrants) were selected at random to be eliminated from the survey. Ramp 4, in the northwest quadrant of the proposed interchange was selected for Phase Ib survey. This covered an area of 12.2 acres, including 11.1 acres in a large cultivated field west of Jamison Corner Road, and 1.1 acres in a second cultivated field north of Hyetts Corner Road (Figure 25). Between the two fields lay an area of gravel driveway leading to a residence, which was not tested. This residence, Delmarva House 2 (CRS N14390), consists of a mid-twentieth century ranch house, which was determined not eligible for inclusion in the National Register of Historic Places.

Phase Ib survey was conducted after both fields had been plowed and disked. Survey consisted of pedestrian surface survey, using two survey passes. No shovel tests were excavated in this

segment. Sparse historic and prehistoric artifacts were found, but the densities were not high enough to warrant classification as archaeological sites (Figures 28a and 28b; Table 14). The prehistoric assemblage (n=26) included three projectile points, a Madison triangular projectile point of jasper, which appears to have been re-used as a spokeshave, a Bare Island projectile point of argillite, and an untyped projectile point of black chert with pebble cortex (Figure 14). Other tools included one end scraper, two biface fragments, and three utilized flakes. The artifact distribution map showed that these tools and other prehistoric artifacts were widely scattered across the field, representing isolated finds rather than an occupation site.

The small assemblage of historic artifacts consisted primarily of ceramics (55% of historic artifacts) and architectural materials (23%). Like the prehistoric artifacts, they were scattered across the entire segment. There was a general increase in density toward the west, approaching the Reed-Elliot Site (N14521) in Segment 18. There was also a small cluster on the north side of Hyetts Corner Road, directly across the road from the Bowman 2 Site (N14523; the Bowman Tenant Site) in Segment 20. However, neither of these clusters was of sufficient density to be defined as part of a site.

Survey Segment 20

This segment consisted of 9.6 acres in a cultivated field, on the southeast side of the intersection of Jamison Corner Road and Hyetts Corner Road (Figure 24). Soils were mapped as Matapeake silt loam 2-5% slopes and Reybold silt loam 2-5% slopes. In the Phase Ia survey, this segment was identified as having a high probability for historic resources, based on the location of a structure shown on one historic atlas map of the area (Beers 1868). Not being proximal to water, the area was identified as having a low probability for prehistoric resources.

Phase Ib survey consisted of two passes of pedestrian surface survey in a plowed and disked field, with excellent surface visibility. One historic archaeological site was identified, named Bowman 2 or the Bowman Tenant Site (CRS N14523), described below. Beyond the limits of the Bowman Tenant Site, survey in Segment 20 yielded a low to moderate density of historic artifacts (n=150) scattered over a wide area (Figure 29a). This non-site assemblage included predominantly whiteware and redware ceramics, brick, and shell fragments, which were considered representative of field scatter from manuring practices.

The small assemblage of prehistoric artifacts (n=16) was also widely scattered (Figure 29b). It included two diagnostic artifacts, a contracting stemmed projectile point of black chert and a Bare Island style projectile point of quartz (Photo 15). Other tools included an end scraper, two unidentifiable biface fragments, and a spokeshave. Like the historic field scatter, the prehistoric artifacts were not of sufficient density to be identified as a site.

Bowman 2 or Bowman Tenant Site (CRS N14523, Site 7NC-F-145)

This historic site was identified in surface survey as a high density of historic artifacts found along the northern edge of the segment, bordering Hyetts Corner Road. The site covered an area of 0.3 acres within the project. It was bounded by Hyetts Corner Road to the north, and had boundaries defined by a decrease in artifacts to the west and south. The site extended beyond the LOD boundary to the east.

Table 14
Segment 19 - Artifact Summary

Artifact Description		Date	Non-Site
PREHISTORIC LITHICS			
Projectile Point		Madison Point; Re-used as a spokeshave, Jasper	1
		Unique "pebble point", Black Chert	1
		Bare Island, Argillite	1
Biface	-Unidentifiable Fragment	Grey Chert	1
	-Unidentifiable Fragment	Quartz	1
Utilized Decortication Flake		Jasper	2
		Quartz	1
Flake Core		Quartz	2
	-Fragment	Quartz	1
Biface Preform	-Primary	Grey Chert	1
Biface Thinning Flake	-Primary	Black Chert	1
	-Secondary	Jasper	1
Flake Fragment		Quartzite	1
		Quartz	3
Shatter		Cobble Flake; Quartz	1
		Grey Chert	2
		Quartz	3
Test Raw Material		Quartz	1
Thermally Altered Stone		Quartzite	1
SubTotal PREHISTORIC LITHICS			26
DOMESTIC CERAMICS			
Pearlware	-Plain	(1780-1840)	2
Whiteware	-Plain	(1820+)	9
	-Annular	(1820+)	1
	-Blue Monochrome Transfer	(1820+)	1
	-Other Monochrome Transfer	(1830+)	1
Ironstone	-Plain	(1840+)	2
Redware	-Lead Glaze	(1770+)	9
	-Unglazed	(1770+)	1
	-Slipped	(1770-1820)	1
	-Manganese Glaze	(1770+)	17

Table 14
Segment 19 - Artifact Summary

Artifact Description	Date	Non-Site
Stoneware	-Cobalt Blue Glaze (1790-1900)	1
SubTotal DOMESTIC CERAMICS		45
DOMESTIC OTHER		
Base Glass Container, scarring	-Pontil	1
	-Machine Cutoff	1
Body Glass Container, shape	-Panel	1
Indeterminate Container Glass	-Embossed	1
Tableware Glass	Indeterminate	1
Glass Stopper		1
Unidentified Curved Glass		3
SubTotal DOMESTIC OTHER		9
ARCHITECTURE		
Unidentified Flat Glass	-Bubbles/Patina	1
	-No Bubbles/Patina	3
Nail	-Cut (1790+)	1
Brick		17
Tile		1
SubTotal ARCHITECTURE		23
SMOKING PIPES		
Redware Pipe	-Stem or Stem Fragment 1710-1750	1
SubTotal SMOKING PIPES		1
FAUNA & FLORA		
Shell Fragment		2
SubTotal FAUNA & FLORA		2
OTHER		
Sheet	-Iron	2
SubTotal OTHER		2
GRAND TOTAL		108



Photo 15. Bowman 2 Site and isolated finds, selected artifacts: (*top row, l-to-r*) Non-Site: contracting stemmed projectile point, chert (FF20-214); Bare Island projectile point, quartz (FF20-297); spokeshave, quartzite (FF20-228); Bowman 2: blue cut-faceted mold-made bead (FF20-424); red-coated Prosser button (FF20-247); (*middle row, l-to-r*) green inlaid slip pearlware rim (FF20-291); sponge/spatter pearlware rim (FF20-257); blue shell-edged whiteware rim (FF20-290); cats-eye cable pearlware rim (FF20-127); (*bottom row, l-to-r*) copper buckle (FF20-46); Non-Site: painted porcelain doll's head (FF20-307).

Two shovel tests were excavated within the site. Both had soil profiles consisting of an Ap horizon 30-33 cm thick overlying a B horizon. Both shovel tests yielded historic artifacts from the Ap horizon. Shovel Test 20-1, placed in the high density area, yielded 18 historic ceramic sherds and 27 other artifacts. Shovel Test 20-2, placed 10 m to the southwest, produced 15 ceramics and 7 other artifacts. No features or buried strata were identified. The shovel tests confirmed the high density of artifacts within the compact site area.

The site yielded a total of 728 historic artifacts and one prehistoric artifact from surface survey (Table 15). The artifact assemblage included an unusually high proportion of ceramic sherds (80% of site), and correspondingly low proportions of other domestic artifacts and architectural materials (8% each). Among the site ceramics, whiteware predominated (46% of ceramics), followed by a high frequency of redware (32%). Although the relative proportion of pearlware was not high (9%), it was similar to that seen in other nineteenth century sites. Also notable was the wide range of decoration types represented in pearlware sherds, indicating that pearlware was an important part of the assemblage. This suggested that the site occupation dated to the late eighteenth or early nineteenth century. The only other early ceramics were four Jackfield sherds. No creamware or white salt-glazed stoneware sherds were identified. However, the early occupation was also represented by the high proportion of redware. The frequency of whiteware sherds indicated that the occupation extended through the mid- and late-nineteenth century. The low proportions of ironstone and semi-porcelain, and the lack of late decoration types such as gilding or decal decoration indicate that the occupation likely did not extend to the end of the nineteenth century. The distribution of different ceramic wares within the site was examined, but showed little difference over time. Both earlier ceramics, such as Jackfield and pearlware, and later ceramics, such as whiteware and ironstone, were found in higher densities in the eastern portion of the site (Figures 30a and 30b).

The frequency of container glass fragments and other domestic artifacts was quite low (8% of site artifacts). The only glass datable to the twentieth century was a single glass base with an Owens type scar. Architectural materials were also relatively scarce, consisting of a light to moderate scatter of flat glass and brick fragments. This suggested that the house may have been quite small, and constructed largely of perishable materials. Analysis of the distribution of architectural materials showed that it was similar to the overall distribution of artifacts across the site, with the highest frequency being in the eastern part of the site (Figure 31). The assemblage contained a low frequency of small finds, including one bead and other clothing items and smoking pipes (Photo 15).

Background Research: Research during the Phase Ia survey tentatively traced the ownership of this property to an original patent by Thomas Lawes in 1683, the same 500-acre patent from which the Reed-Elliott Farm was derived. Additional research during the Phase Ib survey confirmed that the property of 197 acres derived from that patent. It passed through Lawes' heirs to Richard Humphries. Humphries' estate was seized to pay his debts and sold to Dr. Alexander Stewart in 1788, who sold it to Peter Bowman (Sr.) in 1794. The next year, Bowman also bought an adjacent 95 acre property to the south. Bowman died in 1796, but his estate was not settled in Orphans Court until 1837, at which time Peter Bowman (Jr.) gained control of the property. A plan of the property from that court settlement showed two structures on the property and the layout of fields and wood lots (Figure 32). A small house was shown at the location of the Bowman 2 Site, set within a wood lot on a back corner of the property. In contrast, the principal residence on the property was depicted as a grand house with multiple

Table 15
Segment 20 - Artifact Summary

Artifact Description	Date	7NC-F-145		Non-Site	Total	
		PSS	ST Ap			
PREHISTORIC LITHICS						
Projectile Point	Contracting stemmed; Black Chert			1	1	
	Bare Island, Quartz			1	1	
Biface	-Unidentifiable Fragment			2	2	
Spokeshave	Quartzite			1	1	
Decortication Flake	Quartzite	1			1	
Biface Thinning Flake	-Secondary			1	1	
	-Secondary			1	1	
Shatter	Cobble Flake; Quartz			1	1	
	Quartz			4	4	
Test Raw Material	Quartzite			1	1	
Thermally Altered Stone				3	3	
SubTotal PREHISTORIC LITHICS		1		16	17	
DOMESTIC CERAMICS						
Red & Yellow Refined Earthenwares	-Jackfield	(1745-1790)	4		1	5
Pearlware	-Plain	(1780-1840)	22	2	4	28
	-Shell-Edged, Green	(1780-1840)	5			5
	-Shell-Edged, Blue	(1780-1840)	3		2	5
	-Annular	(1790-1840)	3			3
	-Sponge/Spatter	(1820-1840)	3		1	4
	-Mocha	(1790-1840)	1			1
	-Hand-Painted, Floral	(1780-1840)	3			3
	-Blue Monochrome Transfer	(1780-1840)	6		2	8
	-Other Monochrome Transfer	(1830-1840)	1			1
	-Hand-Painted, Other	(1780-1840)	1			1
	-Other Glaze	(1775-1840)	1		1	2
	-Embossed	(1775-1840)	2			2
	-Indeterminate	(1775-1840)	2			2
	-Red, Green, or Purple Transfer	(1825-1840)	2			2
Whiteware	-Plain	(1820+)	177	19	37	233
	-Shell-Edged, Blue	(1820-1860)	9	1	1	11
	-Annular	(1820+)	24		2	26
	-Sponge/Spatter	(1820+)	11	1	3	15
	-Cut Sponge	(1845+)	2			2
	-Hand-Painted, Floral	(1820+)	9		1	10
	-Blue Monochrome Transfer	(1820+)	19	2	2	23
	-Other Monochrome Transfer	(1830+)	2	1		3
	-Other Glaze	(1820+)	5		1	6
	-Hand-Painted, Other	(1820+)	2			2
	-Indeterminate	(1820+)	1			1
	-Embossed	(1820+)	1			1
	-Red, Green, or Purple Transfer	(1825+)	6	1		7

Table 15
Segment 20 - Artifact Summary

Artifact Description			7NC-F-145		Non-Site	Total	
			PSS	ST Ap			
Whiteware	-Hand-Painted, Earthtone Flora	(1820-1828)	1			1	
Ironstone	-Plain	(1840+)	27	1	6	34	
	-Annular	(1840+)	3			3	
	-Other Monochrome Transfer	(1840+)	1			1	
	-Polychrome Transfer	(1840+)	1			1	
	-Plain	(1885+)	6		1	7	
Semi-porcelain	-Embossed	(1885+)	1			1	
	-Plain	(1827-1930)	6	1		7	
Yellow Ware	-Embossed	(1827-1930)	1			1	
	-Lead Glaze	(1770+)	54		14	68	
Redware	-Unglazed	(1770+)	38		11	49	
	-Slipped	(1770-1820)	6			6	
	-Indeterminate	(1770+)	1			1	
	-Manganese Glaze	(1770+)	93	4	22	119	
	-Luster, with Manganese	(1770+)	1			1	
	Stoneware	-Salt Glazed	(1700+)	7			7
		-Cobalt Blue Glaze	(1790-1900)	3		2	5
-Manganese Glaze			1			1	
-Indeterminate			1			1	
-Brown Glaze		(1820-1900)	1			1	
SubTotal DOMESTIC CERAMICS			580	33	114	727	
DOMESTIC OTHER							
Top/Neck Glass Container, narrow mouth	-Neck Only				1	1	
	-Rim Fragment		1			1	
	-Bead Ring				1	1	
	-Blob		1			1	
	-Double Oil or Mineral	1820's-1880's	2			2	
	-Ring/Oil		1			1	
Top/Neck Glass Container, wide mouth	-Ground or Blown-off Lip	(c. 1850-1860)	1			1	
Base Glass Container, scarring	-Owens Scar	(1903-1917)	1			1	
	-No Scars		1	1		2	
	-Machine Cutoff				1	1	
	-Post Bottom Mold		1			1	
Body Glass Container, shape	-Blake		1			1	
Indeterminate Container Glass			10	1		11	
	-Embossed		2		1	3	
Tableware Glass Tumbler	-Rim		1			1	
Tableware Glass	Indeterminate		2	1		3	
Unidentified Curved Glass			36	7	4	47	
SubTotal DOMESTIC OTHER			61	10	8	79	
ARCHITECTURE							
Unidentified Flat Glass	-Bubbles/Patina		9	2		11	

Table 15
Segment 20 - Artifact Summary

Artifact Description	Date	7NC-F-145		Non-Site	Total
		PSS	ST Ap		
Unidentified Flat Glass	-No Bubbles/Patina	14	13	2	29
Nail	-Wrought (pre-1820)			1	1
	-Cut (1790+)	1			1
	-Unidentifiable	5	5	2	12
Brick		32		32	64
Outdoor Lighting Fixture				1	1
SubTotal ARCHITECTURE		61	20	38	119
CLOTHING					
Button	-Prosser (1840+)	3			3
Bead	-Faceted Moldmade Glass	1			1
Buckle	-Metal	1			1
SubTotal CLOTHING		5			5
PERSONAL					
Ceramic Doll				1	1
SubTotal PERSONAL				1	1
SMOKING PIPES					
Ball Clay Pipe	-Stem or Stem Fragment	2			2
	-Stem or Stem Fragment 1710-1750	2			2
	-Bowl or Bowl Fragment	1	1		2
SubTotal SMOKING PIPES		5	1		6
FAUNA & FLORA					
Bone Fragment			1		1
Shell Fragment		12	2	10	24
Identifiable Bone	-Unmodified	1			1
SubTotal FAUNA & FLORA		13	3	10	26
OTHER					
Ring	-Iron			1	1
Plastic Fragment	(1915+)	1			1
Unidentified Iron		2		1	3
SubTotal OTHER		3		2	5
GRAND TOTAL		729	67	189	985

chimneys, surrounded by outbuildings and set back from the road along an avenue lined with trees. It was located on the northeastern portion of the property, north of Hyetts Corner Road. That location was outside the current project area, and has probably been destroyed by the construction of St. Georges High School. The map also indicated that the house at the Bowman 1 Site (see below) had not yet been built.

Examination of historic atlases showed that the Bowman 2 Site was not shown on the 1849 map, but it was shown as one of two structures on the property (together with the Bowman 1 Site) on the 1868 map, with Mrs. Bowman shown as the owner. The house at Bowman 2 was not shown on the 1881 and 1893 maps, suggesting that the site had ceased to be occupied. Examination of historic aerial photos confirmed that the occupation of the site did not extend into the twentieth century (Figure 33). The wood lot had been cleared and the entire area was under cultivation.

Examination of census records indicated that Peter Bowman (Jr.) was living on the property in 1820 and 1830, before the estate was settled in court. He was recorded as head of a household that included both enslaved persons and free blacks in 1820, and included enslaved persons in 1830. This suggested that the Bowman 2 Site may have been occupied by either enslaved or free black farm laborers. Census records suggest that Peter Bowman ceased to occupy the property after he gained control of it in the 1837 Orphans Court settlement. Beginning with the 1840 census, he was listed as living elsewhere, first in Brandywine Hundred, and later in Wilmington. In the mid- and late-nineteenth century, the property would thus have been occupied by tenant farmers. The Bowman 2 Site may have continued to be occupied by laborers, working for the tenant rather than the owner. Further research may reveal whether the tenant farmers of the Bowman property can be identified through tax lists, court records, or other estate records.

Survey Segment 21

This segment extended across two agricultural fields, on either side of a driveway leading from Hyetts Corner Road to the Welfare Foundation office (Figure 34). The segment covered an area of 7.8 acres, including approximately 7.1 acres in cultivated fields and 0.7 acres covered by buildings, driveway, and lawn, which could not be tilled for pedestrian survey. Soils were mapped as Reybold silt loam 2-5% slopes. In the Phase Ia survey, this segment was identified as having a low to moderate probability for prehistoric resources and a high probability for historic resources based on the presence of a structure on historic maps. Although most of the farmstead structures have been demolished, there are two surviving structures from a former farmstead, a long storage shed located on the east side of the driveway, and a smaller shed set back from the road on the eastern edge of the site. The driveway was lined on both sides with a grassy verge and a recently planted hedge.

Phase Ib survey consisted of two passes of pedestrian surface survey in the cultivated field west of the driveway (3.3 acres) and one pass of pedestrian surface survey in the field on the east of the driveway (3.5 acres). Both fields had been plowed and disked, providing excellent surface visibility. Shovel tests measuring 50 cm in diameter were excavated at 15 m intervals in the grassy verge between the driveway and the cultivated fields (Photo 16). One historic site was identified, Bowman 1 or the Mrs. Bowman Site (N14522), described below. Outside the boundaries of the site, a light scatter of historic and prehistoric artifacts was found (Figures 35a and 35b; Table 16). The prehistoric artifacts (n=12) included a non-diagnostic projectile point tip of quartz, together with flake cores, biface preforms, and debitage of quartz, chert, and rhyolite. These artifacts occurred in low frequency over a wide area and were not identified as

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total
		PSS	Ap	Ab	B		
PREHISTORIC LITHICS							
Projectile Point	Broken, Quartz					1	1
Knife	Quartz	1					1
Utilized Decortication Flake	Jasper					1	1
Utilized Core Flake	-Primary Black Chert					1	1
Flake Core	Quartz	1		1			2
	Rhyolite					1	1
	-Fragment Quartz	2				1	3
Core Flake	-Primary Quartz					2	2
	-Secondary Quartz	4					4
Biface Preform	-Secondary Quartz					1	1
	-Secondary Grey Chert	1					1
Shatter	Quartz	4		1			5
Thermally Altered Stone		7				4	11
SubTotal PREHISTORIC LITHICS		20		2		12	34
DOMESTIC CERAMICS							
Red & Yellow Refined Earthenwares	-Buckley / Agateware (1720-1775)	1					1
	-Jackfield (1745-1790)	1					1
Pearlware	-Plain (1780-1840)	2			1	2	5
	-Shell-Edged, Blue (1780-1840)			1			1
	-Annular (1790-1840)	1					1
	-Hand-Painted, Floral (1780-1840)	1					1
	-Hand-Painted, Chinese (1780-1810)	2					2
	-Blue Monochrome Transfer (1780-1840)	2					2
Whiteware	-Plain (1820+)	273		4		12	289
	-Shell-Edged, Blue (1820-1860)	23					23
	-Annular (1820+)	5				1	6
	-Sponge/Spatter (1820+)	1		1			2
	-Hand-Painted, Floral (1820+)	2					2
	-Blue Monochrome Transfer (1820+)	10					10

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total
		PSS	Ap	Ab	B		
Whiteware	-Other Monochrome Transfer	(1830+)	1				1
	-Other Glaze	(1820+)	5				5
	-Hand-Painted, Other	(1820+)	1				1
	-Flow Blue Transfer	(1840-1880)				1	1
	-Decal Decorated	(1880+)	3				3
	-Indeterminate	(1820+)	3				3
	-Embossed	(1820+)	5				5
Ironstone	-Plain	(1840+)	145			2	148
	-Annular	(1840+)	5		1		6
	-Blue Monochrome Transfer	(1840+)	1				1
	-Decal Decorated	(1900+)	2				2
	-Embossed	(1840+)	7				7
Semi-porcelain	-Plain	(1885+)	18				18
	-Decal Decorated	(1900+)	1			1	2
	-Hand-Painted, Other	(1885+)	1				1
Porcelain	-Gilded	(1885+)	1				1
	-Plain	(1700+)	10				10
	-Blue Monochrome Transfer	(1750+)	1				1
Yellow Ware	-Plain	(1827-1930)	7		1	1	9
	-Rockingham	(1845-1900)	6				6
	-Indeterminate	(1827-1940)	1				1
Redware	-Lead Glaze	(1770+)	24			2	26
	-Unglazed	(1770+)	34				34
	-Manganese Glaze	(1770+)	33	1	2	4	40
	-Lead Glaze, with Manganese	(1770+)	3				3
	-Luster, with Manganese	(1770+)	3			1	4
Stoneware	-Salt Glazed	(1700+)	21				21
	-Bristol	(1880+)	2				2
	-Cobalt Blue Glaze	(1790-1900)				1	1
	-Albany Slip	(1805-1940)	3				3
	-Indeterminate		5				5

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total
		PSS	Ap	Ab	B		
Stoneware	-Yellow Glaze (1920+)	2					2
	-Brown Glaze (1820-1900)	3					3
	-Speckled	1					1
20th Century Ceramics	-Indeterminate (1900+)	1					1
Unidentified Earthenware	-Burned	1					1
	-Buff paste, glazed	1					1
	-Other glaze	1					1
SubTotal DOMESTIC CERAMICS		686	1	11	1	28	727
DOMESTIC OTHER							
Top/Neck Glass Container, narrow mouth	-Seamed Lip, Threaded	3					3
	-Rim Fragment		1				1
	-Patent Finish	2				1	3
	-Double Ring	3					3
	-Bead Ring	3					3
	-Ring/Oil	1					1
Top/Neck Glass Container, wide mouth	-Threaded	8					8
	-Not Threaded	1					1
	-Ground or Blown-off Lip (c. 1850-1860)	1					1
Base Glass Container, scarring	-Owens Scar (1903-1917)	9					9
	-No Scars	7					7
	-Machine Cutoff	2					2
	-Post Bottom Mold	1					1
	-Cup Bottom Mold (1890s-late 1900's)	2					2
Body Glass Container, shape	-Oval	1					1
	-Blake	1					1
Indeterminate Container Glass		40				1	41
	-Embossed	12					12
Tableware Glass Mug	-Base	1					1
Tableware Glass	Indeterminate	26					26
	Handle					1	1

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total	
		PSS	Ap	Ab	B			
Light Bulb	-Base	(1879+)	1				1	
Decorative Glass			6			1	7	
Mason Jar Lid Liner	-White Milk Glass	(1858+)	11		1	1	13	
Glass Stopper						1	1	
Unidentified Curved Glass			149	1	13	1	168	
Unidentifiable Melted Glass			7		2		9	
Unidentified Flat Glass	-Beveled Edge		1				1	
	-Non-Architectural		2				2	
SubTotal		DOMESTIC OTHER	301	2	16	1	10	330
ARCHITECTURE								
Unidentified Flat Glass	-Bubbles/Patina		11		3		14	
	-No Bubbles/Patina		43		1		44	
Decorative Flat Glass	-Architectural		2				2	
Nail	-Cut	(1790+)	4				4	
	-Wire	(1850+)	6	1			7	
	-Unidentifiable		3		6	3	12	
Brick			609	6	13		638	
Mortar			1	2	12		15	
Brick	-Glazed		4			2	6	
Roof Tile	-Asbestos		1				1	
Insulator	-Glass		2				2	
	-Ceramic	(1885+)	10	2			14	
Drain Pipe Fragment	-Ceramic		44			2	44	
Pipe	-Lead		1				1	
SubTotal		ARCHITECTURE	741	11	35	3	14	804
HARDWARE								
Decorative Trim			1				1	
Bolt			1				1	
Washer			1				1	
Horseshoe			6		1		7	

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total
		PSS	Ap	Ab	B		
Machine Part	-Indeterminate	1					1
Farm Equipment		4					4
SubTotal	HARDWARE	14		1			15
CLOTHING							
Button	-Glass	1					1
	-Prosser	(1840+)	2				2
Shoe	-Sole		2				2
SubTotal	CLOTHING		5				5
PERSONAL							
Glass Marble	-Machine-made	(c. 1905+)	2				2
SubTotal	PERSONAL		2				2
HEATING							
Coal Fragment			1				1
SubTotal	HEATING		1				1
FAUNA & FLORA							
Shell Fragment			36			4	40
Identifiable Bone	-Unmodified		2			1	3
SubTotal	FAUNA & FLORA		38			5	43
OTHER							
Bisque			5				5
Flowerpot	-Redware, unglazed			1			1
Strap	-Iron		3				3
Plastic Nozzle		(1915+)	3				3
Plastic Fragment		(1915+)		4			4
Rubber Fragment		(1839+)	5				5
Unidentifiable material and item			3				3
Mica						1	1
Sheet	-Iron		65				65

Table 16
Segment 21 - Artifact Summary

Artifact Description	Date	7NC-F-144				Non-Site	Total
		PSS	Ap	Ab	B		
Sheet -Aluminum		2					2
Wire -Iron		1					1
Unidentified Iron		9	1	1			11
Unidentified Brass		2					2
Unidentified Tin		2					2
Unidentifiable Metal		15	1	1			17
SubTotal	OTHER	115	3	6		1	125
GRAND TOTAL		1923	17	71	5	70	2086

an archaeological site. Historic artifacts (n=58) were also found in low frequencies outside the site boundaries. Artifacts included the same ceramic wares found within the site, but in low frequencies characteristic of field scatter from manuring practices.

Bowman I or Mrs. Bowman Site (CRS N14522, Site 7NC-F-144)

The site was identified from the distribution of historic artifacts both east and west of the driveway that crossed the LOD in this segment. The site covered an area of 2.8 acres, including the driveway and standing structures. Site boundaries were defined to the east and west by decreasing artifact densities in the surface collection. To the north and south, the site may extend beyond the LOD. The name was identified in the Phase Ia survey as the Mrs. Bowman Farm (AHC10), based on the name attributed to two structures on the 1868 map. At the time of the Phase Ib survey, there were two surviving farm outbuildings on the east side of the driveway. A large area of charcoal formed a dark stain in the field west of the driveway, indicating that a structure had been destroyed by fire.

Shovel tests were excavated in the grass covered area that bordered the driveway on both sides and surrounded the surviving outbuildings. The soil profiles from shovel tests west of the driveway revealed a surface layer of disturbed soils up to 24 cm deep (Ap horizon), with a high frequency of building rubble and charcoal, overlying A and B horizon soils. Shovel Test 21-5 on the west side of the driveway revealed a possible building foundation or other feature at a depth of 22 cm, consisting of stone associated with a dark lens (Photo 17). In shovel tests on the east side of the driveway, the disturbed surface layer was less pronounced. Shovel Test 21-9, located near the northeast corner of the long shed, encountered a shallow trench cut into the subsoil, possibly associated with the foundation of an outbuilding. Artifacts were recovered from the disturbed surface layer (Ap horizon) in seven of the shovel tests, from the Ab horizon in five of the shovel tests, and from the surface of the B horizon in one shovel test. Only one shovel test was culturally sterile.

The artifact assemblage from the site included 1994 historic artifacts (Table 16). Architectural materials were the largest class of artifacts (40% of site artifacts), mostly brick. The distribution of architectural materials showed that it occurred in the highest frequency on the west side of the site, where a dark stain also marked the destruction of a building (Figure 36). The high frequency of sheet metal (listed under other artifacts in Table 16) suggested that this material was also used in construction.

Ceramics represented 35% of the site artifacts. Whiteware predominated (50% of ceramics), and included a wide range of decoration types, suggesting an extensive mid-nineteenth century occupation. Ironstone sherds occurred in lower frequencies (23% of ceramics) and a more limited range of types. There were several sherds with partial makers' marks, including two that were attributed to the Empire Pottery of Trenton, New Jersey, dating to 1865-1884 (Photo 18). Redware represented only 14% of site ceramics and did not include any of the slip-decorated redware sherds associated with earlier occupations. Other ceramic wares were present in low frequencies, including stoneware, Yellow ware, and porcelain. Pearlware was present in a low frequency (1% of ceramics) and limited range of decoration types. Earlier ceramics were represented by one sherd each of Buckley and Jackfield types. Analysis of the distribution of artifacts showed that early ceramics occurred in low frequencies across the site, while later historic ceramics occurred in high frequencies on both the east and west sides of the driveway (Figures 37a and 37b).



Photo 18. Bowman 1 and Bowman 3 Sites, and isolated finds, selected artifacts. Bowman 1: (*top row, l-to-r*) Rockingham rim (FF21-341); two ironstone sherds with makers' mark, Empire Pottery, 1863-1884 (FF21-19 and 21-369); (*2nd row, l-to-r*) ironstone sherd with unidentified makers' mark (FF21-46); red mold-made conical glass button (FF21-202); (*3rd row, l-to-r*) Bowman 3: Pequea projectile point, quartz (TU 24-4, Stratum 2); Buckley sherd (FF23-58); scratch blue stoneware with rouletted design (FF23-35); Non-Site: white salt-glazed stoneware, overglaze polychrome painted (FF23-88); (*bottom row, l-to-r*) Rhenish gray-bodied stoneware (FF22-11); Bowman 3: Jackfield handle (FF23-38).

Other domestic artifacts made up 16% of the site assemblage, consisting largely of container glass fragments. Although few diagnostic glass fragments were identified, the frequency and variety of container glass can be considered indicative of a late nineteenth to twentieth century occupation. The site contained relatively few small finds, including clothing and personal items, but no smoking pipes.

In all, 22 prehistoric artifacts were found within the boundaries of the historic site. However, the low frequency and wide distribution of prehistoric materials was similar to that found in non-site contexts. Therefore, these artifacts were considered isolated finds, not a site component representing a prehistoric occupation.

Background Research: Research during the Phase Ia survey tentatively traced the ownership of this property to an original patent by Thomas Lawes in 1683, the same 500-acre patent from which the Reed-Elliott Farm was derived. Additional research during the Phase Ib survey confirmed that the property of 197 acres derived from that patent. It passed through Lawes' heirs to Richard Humphries. Humphries' estate was seized to pay his debts and sold to Dr. Alexander Stewart in 1788, who sold it to Peter Bowman (Sr.) in 1794. The next year, Bowman also bought an adjacent 95 acre property to the south, for a total of approximately 300 acres. Bowman died in 1796, but his estate was not settled in Orphans Court until 1837, at which time Peter Bowman (Jr.) gained control of the property. A plan of the property from that court settlement showed two structures on the property and the layout of fields and wood lots (Figure 32). This plan showed the principal farmstead as a cluster of buildings to the northeast and an isolated structure at the location of the Bowman 2 Site. No structures were shown on the plan at the location of the Bowman 1 Site, indicating that the farmstead had not been built by 1837.

Examination of historic atlases showed that the Bowman 1 Site was present by 1849 and continued to be represented on later maps. The Bowman 2 site was shown only on the 1868 map, while the Bowman 3 Site (see below) and the principal farmstead from the 1837 plan were not represented on any of the historical atlas maps. P. Bowman was listed as owner in 1849, while Mrs. Bowman was listed on the subsequent maps. Examination of historic aerial photos showed that the Bowman 1 Site consisted of structures arranged on both the east and west sides of a farmyard, with a driveway extending north to Hyetts Corner Road (Figure 33).

Examination of census records indicated that Peter Bowman (Jr.) was living on the property in 1820 and 1830, before the estate was settled in court. He was recorded as head of a household that included both enslaved persons and free blacks in 1820, and included enslaved persons in 1830. He was likely living in the principal farmstead shown on the northeast part of the property. Census records suggest that Peter Bowman ceased to occupy the property after he gained control of it in the 1837 Orphans Court settlement. Beginning with the 1840 census, he was listed as living elsewhere, first in Brandywine Hundred, and later in Wilmington. The Bowman 1 Site must have been built to replace the older farmstead and provide a new residence and associated farm complex, either for the Bowman family or for the tenant farmer or farm manager who occupied the property after the Bowmans moved. Further research may reveal whether the tenant farmers of the Bowman property can be identified through tax lists, court records, or other estate records.

Studies of regional architecture have shown that the mid-nineteenth century was a period of growth, when the enlargement and improvement of farmlands was followed by the remodeling or replacement of many rural residences (Jicha and Bensinger 1984; Herman et al. 1989). The Bowman 1 Site may have been built as part of this trend, replacing an older residence with a new one in a new setting. However, during most or all of its history, the site would have been occupied by tenant farmers, instead of the property owners. Further research may provide information on the identity of these tenants, and on the relationship between this site and the other sites on the Bowman property.

The farmstead at the Bowman 1 Site continued in use through the 1960s. The farmstead was still intact in the 1961 aerial, and was likely demolished in preparation for the construction of a proposed nuclear power plant in the 1970s. The house and most of the outbuildings were demolished, with at least one structure being destroyed by fire. A barn and a shed remain on the east side of the driveway that crosses through the site. They are currently used for equipment storage and maintenance. A portion of the historic site lies below the grass that borders the driveway, while the rest has been incorporated into the cultivated fields to the east and west.

Survey Segment 22

This small segment of 0.8 acres is located in the middle of a cultivated field, south of Hyetts Corner Road. Soils were mapped as Reybold silt loam 2-5% slopes and 5-10% slopes. In the Phase Ia survey it was identified as a zone of low probability for both prehistoric and historic resources. It formed a narrow band located between the moderate probability zone located closer to Scott Run to the east and the high probability historic area in Segment 21 to the west.

In the Phase Ib survey, this segment was covered with one pass of pedestrian surface survey. The field had been plowed and disked, providing good surface visibility. Survey resulted in the recovery of low frequencies of both historic and prehistoric artifacts (Figures 35a and 35b; Table 17). Only two prehistoric artifacts were found, neither of which was diagnostic. Historic artifacts (n=12) included a few ceramics, domestic glass, and brick fragments. These could have been outliers of either the Bowman 1 Site to the west or the Bowman 3 Site to the east. They did not occur in sufficient density to be included in either site.

Survey Segment 23

This segment included 6.6 acres in a cultivated field, south of Hyetts Corner Road, on a slope leading east toward Scott Run (Figure 34). Soils were mapped as Reybold silt loam 2-5% slopes and 5-10% slopes. In the Phase Ia survey, it was designated as having a moderate probability for prehistoric resources, due to its proximity to water, and low probability for historic resources.

Phase Ib survey consisted of one pass of pedestrian surface survey. Surface visibility was high in a field that had been plowed and disked. A moderate density of historic artifacts was found in the eastern part of the segment, on the lower slopes leading down to Scott Run. This was identified as the Bowman 3 Site (N14176), a historic and prehistoric site that extended from the slopes in Segment 23 onto the stream terrace in Segment 24. The site is described below in Segment 24. A light scatter of historic and prehistoric artifacts was found on the upper part of the field, beyond the limits of the site (Figures 38a and 38b; Table 17). The prehistoric artifacts

Table 17
Segments 22 and 23 - Artifact Summary

Artifact Description	Date	Seg. 22 Non-Site	Seg. 23 Non-Site
PREHISTORIC LITHICS			
Projectile Point	point tip; Quartz		1
Flake Core	-Fragment Quartz	1	
Biface Thinning Flake	-Tertiary Quartz		1
Flake Fragment	Quartz		1
Shatter	Quartz		1
Thermally Altered Stone		1	
SubTotal	PREHISTORIC LITHICS	2	4
DOMESTIC CERAMICS			
White Salt-glazed Stoneware	-Plain (1740-1790)		1
Other Stonewares	-Rhenish Gray-bodied	1	
Whiteware	-Plain (1820+)	2	1
Ironstone	-Plain (1840+)	1	
Redware	-Unglazed (1770+)	1	
	-Lead Glaze, with Manganese (1770+)	1	
SubTotal	DOMESTIC CERAMICS	6	2
DOMESTIC OTHER			
Base Glass Container, scarring	-Post Bottom Mold	1	
Indeterminate Container Glass	-Embossed	1	
Unidentified Curved Glass		1	
SubTotal	DOMESTIC OTHER	3	
ARCHITECTURE			
Brick		2	
SubTotal	ARCHITECTURE	2	
FAUNA & FLORA			
Shell Fragment		1	1
SubTotal	FAUNA & FLORA	1	1
GRAND TOTAL		14	7

in non-site contexts included one tool, a non-diagnostic projectile point tip of quartz, and three pieces of debitage. The historic artifacts were limited to one sherd each of white salt-glazed stoneware and whiteware, together with one shell fragment.

Survey Segment 24

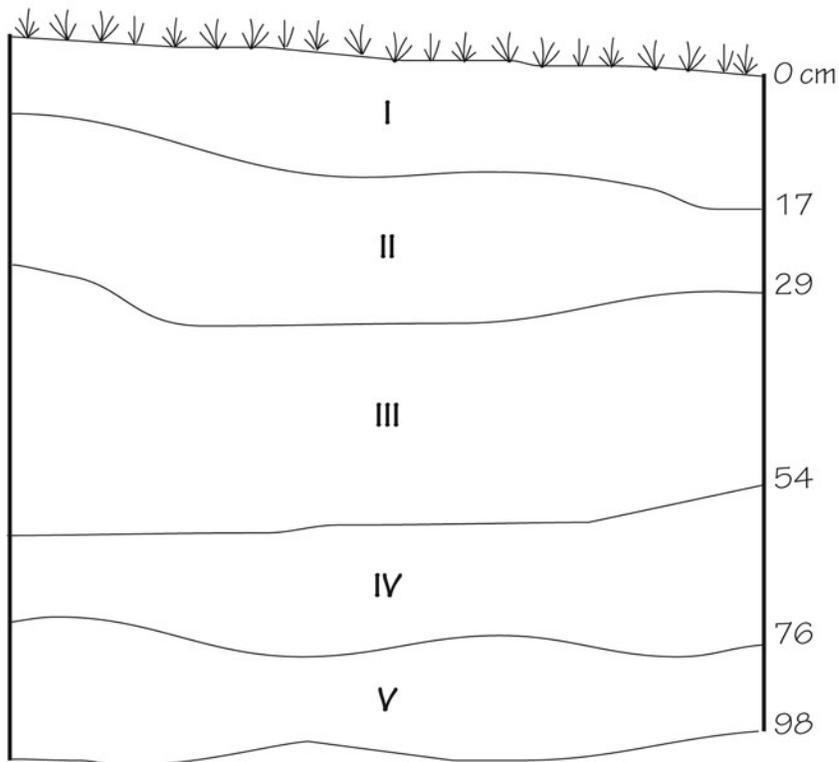
This segment included the floodplain and lower slopes on both sides of Scott Run, covering an area of 1.4 acres. In the soils survey, most of the area was mapped as Reybold silt loam 5-10% slopes, without distinguishing the floodplain. Towards the northern edge of the segments, the floodplain was mapped as Longmarsh and Indiantown soils, frequently flooded. This segment was identified in the Phase Ia survey as having a high probability for prehistoric sites, because of proximity to water. It was identified as having a high probability for historic resources, because of the presence of an earthen dam within the segment and the possible presence of a previously recorded site. This site (N14176; Site 7NC-F-085) was recorded in a previous survey for a sewer line (Heite 2004). Artifacts were recovered from the plow zone in three test units excavated at 15 m intervals in the previous survey. Recorded artifacts included "small pieces of brick, black-glazed red earthenware, and fire-cracked rocks" (Heite 2004:8-9).

Geomorphological survey was conducted in advance of Phase Ib archaeological testing in this Segment. On the southeast side of the stream, there was a narrow floodplain, backed by a steep slope. Geomorphological survey indicated that this area contained recent alluvium and soils that had been disturbed for the construction of a dam across the stream and an access road along the narrow floodplain and toe of slope. This area was deemed to have no archaeological potential and no further survey was conducted. A local informant indicated that the earthen dam had been built during his father's time (in the mid-twentieth century), to create a farm pond. He remembered the use of dynamite to shape the pond (G. Lyman, personal communication 2009).

On the northwest side of the stream, geomorphological testing indicated the presence of a T-1 terrace above the active floodplain, which merges with the sloping upland to the west. A sewer main runs along the back of the terrace parallel to Scott Run, with a branch sewer line extending to the northwest in the area between the proposed highway and Hyetts Corner Road. The terrace was considered to have the potential to contain archaeological resources in buried contexts, both in the narrow zone between the sewer disturbance and the floodplain to the southeast, and between the sewer disturbance and the shallower upland soils to the northwest. The excavation of test units was recommended for these areas.

Phase Ib survey consisted of the excavation of one shovel test and eight test units, placed at 30 m intervals in the zone between the sewer line and the front of the terrace. In Test Unit 24-1, located to the northeast, excavation was extended to a depth of 92 cm through strata of recent alluvium, without encountering an Apb horizon similar to that described below. Excavation was halted at this depth by the increased rate of water flowing into the unit. In the other three test units placed near the front of the terrace, a buried Ap horizon was identified below several strata of historic alluvium. In Test Unit 24-2, the Apb horizon was identified at a depth of 60-82 cm, below historic slopewash and alluvium (Figure 39; Photo 19). In Test Unit 24-3, the Apb horizon was at a depth of 54-80 cm, again below slopewash and historic alluvium (Figure 40). Above this, an Ab horizon had also developed within the historic alluvium, at a depth of 23-25 cm. In Test Unit 24-4, the Apb horizon was at a depth of 62-88 cm below the surface (Figure 41; Photo 20). It was overlain by an Ap horizon developed in historic deposits

Test Unit 24-2, South Profile



- I = 10YR4/3 brown, and
10YR5/4 yellowish brown silt loam (AC)
- II = 10YR5/4 yellowish brown silt loam (CB)
- III = 10YR4/6 dark yellowish brown mottled with
7.5YR5/8 strong brown silt loam (CB)
- IV = 2.5Y5/3 weak red, and
10YR3/3 dark brown silt loam, very compact (A_{pb})
- V = 2.5Y4/4 dusky red, and
7.5YR5/8 strong brown silt loam (B_{gb})

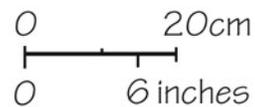


Figure 39. Test Unit 24-2 Profile, Bowman 3 Site.

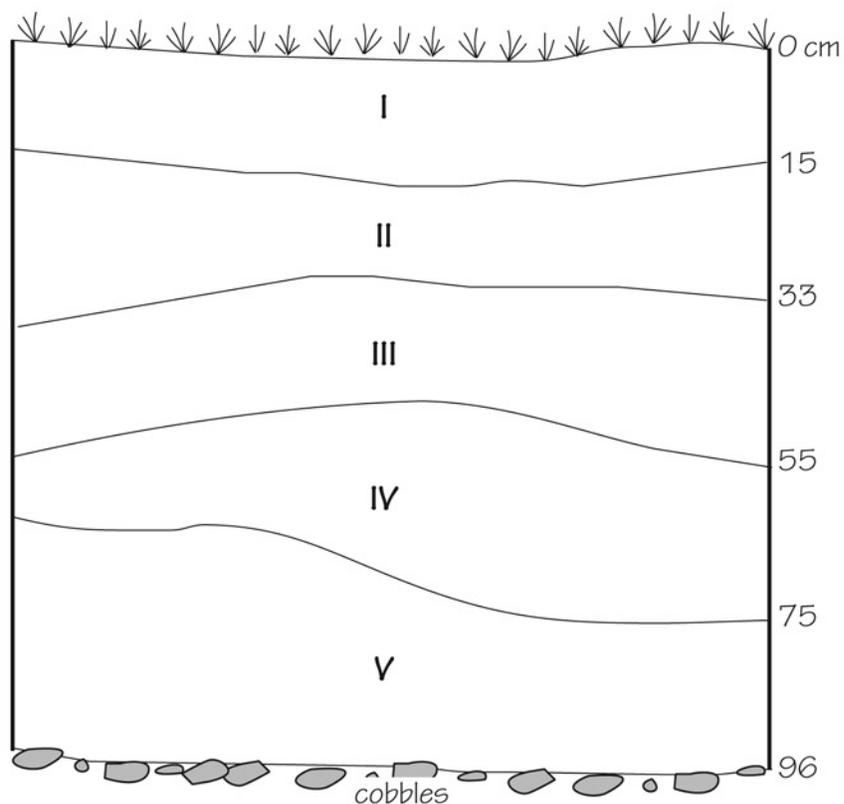


Photo 19. Bowman 3 Site, Test Unit 24-2 profile, looking south. An Apb horizon was identified at a depth of 60-82 cm below the surface



Photo 20. Bowman 3 Site, Test Unit 24-4 profile, looking east. An Apb horizon was identified at a depth of 62-88 cm below the surface.

Test Unit 24-3, North Profile

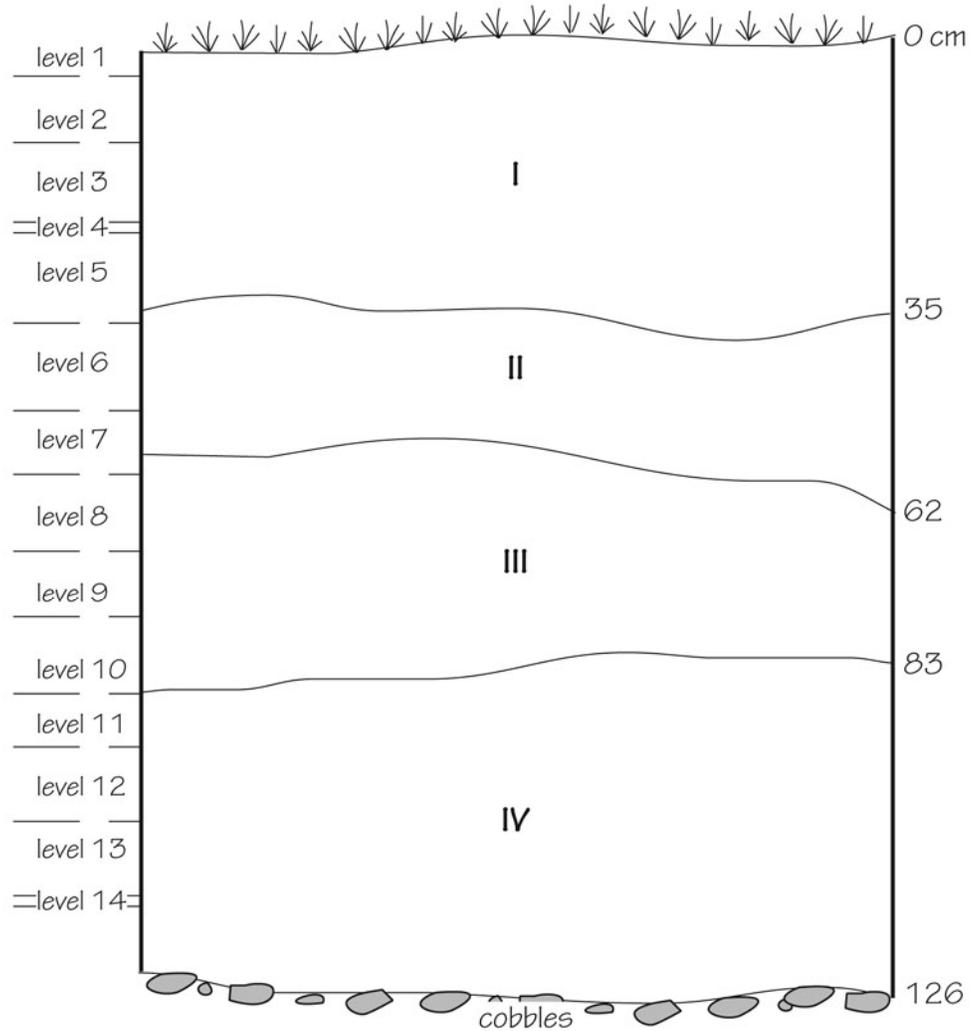


I = 10YR5/4 yellowish brown, and
 10YR6/8 brownish yellow silty clay loam (AC, CB1)
 II = 10YR4/4 dark yellowish brown silt loam (Ab)
 III = 10YR4/6 dark yellowish brown silty clay loam (CB2)
 IV = 10YR4/3 brown sandy clay loam (Apb)
 V = 10YR5/6 yellowish brown clay loam (Bwb1)
 cobbles = (Bwb2)

0 20cm
 ───────────
 0 6 inches

Figure 40. Test Unit 24-3 Profile, Bowman 3 Site.

Test Unit 24-4, North Profile



- I = 10YR5/4 yellowish brown silty clay loam (ACp)
- II = 10YR6/3 pale brown silt loam (CB)
- III = 10YR6/6 pale brownish yellow silty clay loam (Apb)
- IV = 10YR6/4 light yellowish brown mottled with
10YR6/6 brownish yellow silty clay loam (Bwb)

0 20cm
 ───────────┬──────────
 0 6 inches

Figure 41. Test Unit 24-4 Profile, Bowman 3 Site.

(0-32 cm) and historic alluvium (32-62 cm). In each test unit, the Apb horizon had been thickened by the addition of historic alluvium to the prehistoric surface, blended by plowing. The resulting Apb horizon yielded both historic and prehistoric artifacts (Table 18). No cultural features were identified. The artifacts from these excavations were combined with those identified in surface survey of the adjacent slopes to the west to define a single archaeological site with both prehistoric and historic components, the Bowman 3 Site. Below the Apb horizon in these three test units was a Bwb or Bgb horizon, representing prehistoric alluvium. These latter strata were sterile of cultural material except for a single artifact, presumably there due to ioturbation. A few scattered prehistoric artifacts were found in the overlying strata. Since this overburden was a mixture of slope wash and alluvium, artifacts in these contexts could have derived from the adjacent slopes to the west, or from locations further upstream, representing re-deposited materials.

To the northwest of the sewer line, one shovel test was excavated to probe whether soils were of a depth to require test unit excavations. The shovel test was excavated to a depth of 73 cm without encountering intact B horizon soils or stream gravels. Therefore, test units were placed at 30 m intervals along the base of the slope. Test Units 24-6 and 24-8, placed downstream, had soil profiles similar to Test Unit 24-1. Several strata of historic alluvium and sloopewash were identified, but excavation extended to the water table without encountering intact buried resources. In Test Unit 24-7, the entire soil profile had been disturbed by construction of the sewer line, to the base of excavation at a depth of 140 cm below the surface. Test Unit 25-5, located northeast of Test Unit 24-7, was the only excavation on the northwest side of the sewer line to encounter intact soils. There was a thin Apb horizon at a depth of 34-40 cm below the surface, overlain by Ap1 and Ap horizons that had developed in historic sloopewash with gravels. The Apb horizon was discontinuous across the test unit and may have been heavily disturbed by stump removal or similar activities during land clearing. The Apb horizon produced only one fragment of brick. The underlying Btb horizon also produced one redware sherd and two brick fragments, reflecting the extent of soil disturbance.

Bowman 3 Site (N14176, Site 7NC-F-085)

This site was identified through a combination of surface survey on the upland slopes in Segment 23 and test unit excavations on the stream terrace in Segment 24. Disturbance caused by the construction of a recent sewer line cut across the site at the junction between slope and terrace. The site covered an area of 4.4 acres, including the zone of disturbance. The site was bounded to the southeast by Scott Run and to the southwest by the ravine of an intermittent tributary stream. To the northwest and northeast, the limits were defined by decreasing artifact density in the surface collection, and by the lack of intact deposits in Test Unit 24-1.

The historic artifact assemblage included 71 artifacts from the surface survey and 45 from test unit excavations (Table 18). Most of the historic artifacts from the test units were recovered from the Ap horizon that developed in historic alluvium. Only three ceramic sherds and seven brick fragments were recovered from the Apb horizon. The majority of historic artifacts were found in the surface survey, suggesting that the historic occupation was probably situated on the slope above the stream, with some materials being washed down slope into the terrace deposits. The assemblage consisted almost entirely of ceramics and brick fragments, with few other materials and no small finds. All of the ceramics could be attributable to an eighteenth century occupation, with the exception of four sherds of whiteware from the surface survey and one

Table 18
Segment 24 - Artifact Summary

Artifact Description	Date	7NC-F-085					Total
		PSS	AC	Ap	Apb	B	
PREHISTORIC CERAMICS							
Plain Body Sherd	-Undecorated	Quartz			1		1
SubTotal		PREHISTORIC CERAMICS			1		1
PREHISTORIC LITHICS							
Projectile Point		Pequea?, Quartz			1		1
Biface	-Unidentifiable Fragment	Quartz			1		1
Utilized Core Flake	-Primary	Black Chert	2		2		4
	-Primary	Grey Chert			1		1
Utilized Shatter		Black Chert			1		1
Flake Core		Grey Chert	1		1		2
		Quartz	4			1	5
		Black Chert	1				1
	-Fragment	Quartz	2				2
	-Fragment	Grey Chert	4				4
Decortication Flake		Grey Chert			1	1	2
		Quartz	2				2
Core Flake	-Secondary	Grey Chert			1		1
	-Secondary	Quartz	1				1
Biface Preform	-Primary	Quartz	1				1
	-Secondary	Quartz	1				1
Biface Thinning Flake	-Primary	Other Chert			1		1
	-Primary	Black Chert	1				1
	-Secondary	Black Chert				1	1
	-Secondary	Grey Chert	1				1
	-Secondary	Jasper			1		1
	-Secondary	Quartz	2				2
	-Secondary	Quartzite			1	2	3
	-Tertiary	Grey Chert		1	3		4
	-Tertiary	Quartzite			1		1
	-Tertiary	Jasper		2	3		5
	-Tertiary	Black Chert			3	2	5
	-Tertiary	Quartz	2				2

Table 18
Segment 24 - Artifact Summary

Artifact Description	Date	7NC-F-085						Total
		PSS	AC	Ap	Apb	B	Dist.	
Flake Fragment	Grey Chert			2	2			4
	Jasper	1			2			3
	Quartz				3			3
	Quartzite				2	1		3
Shatter	Jasper			1	1			2
	Other Chert				1			1
	Quartz	2	1	4				7
	Quartzite			2	1			3
	Tan Chert				1			1
	Black Chert	1	2	2				5
	Quartzite			1				1
Expedient Tool	Quartzite							1
Test Raw Material	Quartzite		2	3				5
	Grey Chert	4						4
Thermally Altered Stone	Quartz	3						3
	Quartzite	6			1			7
	Quartzite		4	10	4			18
SubTotal PREHISTORIC LITHICS		40	14	47	25	1		127
DOMESTIC CERAMICS								
Creamware	-Plain	(1750-1820)	1		1			2
White Salt-glazed Stoneware	-Plain	(1740-1790)	5					5
Other Stonewares	-Scratch Blue	(1750-1775)	1					1
Red & Yellow Refined Earthenwares	-Staffordshire	(1765-1775)			1			1
	-Buckley / Agateware	(1720-1775)	1					1
	-Astburyware	(1725-1750)	1					1
	-Jackfield	(1745-1790)	1	3	2			6
Pearlware	-Plain	(1780-1840)	1					1
Whiteware	-Plain	(1820+)	3					3
	-Embossed	(1820+)	1					1
Ironstone	-Annular	(1840+)			1			1
Porcelain	-Plain	(1700+)			1			1
Redware	-Lead Glaze	(1770+)	1	1				2
	-Unglazed	(1770+)	6		1		1	8

Table 18
Segment 24 - Artifact Summary

Artifact Description	Date	7NC-F-085						Total
		PSS	AC	Ap	Apb	B	Dist.	
Redware	-Manganese Glaze (1770+)	15		2	3	1	1	22
	-Lead Glaze, with Manganese (1770+)	2						2
	-Luster, with Manganese (1770+)	1						1
SubTotal DOMESTIC CERAMICS		40	4	9	3	2	1	59
DOMESTIC OTHER								
Unidentified Curved Glass				2				2
SubTotal DOMESTIC OTHER				2				2
ARCHITECTURE								
Unidentified Flat Glass	-Bubbles/Patina	1						1
	-No Bubbles/Patina	1						1
Brick		16	3	7	7	2		35
Concrete			1					1
Brick	-Glazed	1						1
SubTotal ARCHITECTURE		19	4	7	7	2		39
HARDWARE								
Farm Equipment				1				1
SubTotal HARDWARE				1				1
OTHER								
Unidentified Iron				3				3
SubTotal OTHER				3				3
GRAND TOTAL		99	22	69	36	5	1	232

sherd of ironstone from the Ap horizon developed in historic alluvium. The rest of the historic assemblage consisted of brick and flat glass fragments. The Ap horizon yielded the only other types of artifact found within the site, including fragments of domestic glass, a piece of farm equipment, and unidentified iron.

The prehistoric artifact assemblage included 46 artifacts from the surface survey and 88 from test unit excavations (Table 18). A single prehistoric ceramic sherd was recovered from the Apb horizon in Test Unit 24-3. It was a plain body sherd with quartz temper. A Pequea-style projectile point of quartz was found above the Apb, in the Ap horizon in Test Unit 24-4. Other tools in the assemblage included a biface fragment of quartz, utilized flakes, and an expedient tool of quartzite. The assemblage included flake cores of quartz and chert, most of which were found in the surface survey. Debitage represented the use of quartz, quartzite, jasper, and chert materials. Thermally altered stone was found in low frequencies in the Apb horizon, the overlying strata of historic alluvium, and in the surface survey. The ceramic sherd was indicative of a Woodland period occupation while the Pequea style projectile point suggested an occupation extending as early as the Late Archaic period.

The Apb horizon encountered in test unit excavations had been disturbed by plowing, but the predominance of prehistoric artifacts in this context suggested that it was also a locus of prehistoric occupation. The low to moderate frequency of prehistoric artifacts found in the surface survey indicated a light prehistoric occupation extending onto the adjacent slopes overlooking the stream. Prehistoric artifacts were also recovered in moderate densities in the Ap horizon that formed in historic alluvium, reflecting the degree to which artifacts were carried with slope wash, which was mixed with alluvium in the upper deposits on the terrace.

Background Research: Previous research conducted for the Phase Ia survey gave no indication of the presence of a historic site at this location. Background research conducted during the Phase Ib survey provided additional information on the history of the property, but no indication of a structure on this part of the Bowman property. A detailed property plan that accompanied the 1837 settlement of Peter Bowman's estate showed the principal farmstead on the northern part of the property, consisting of a main dwelling and several outbuildings. It also showed the small isolated structure at the location of the Bowman 2 Site (N14523). But the vicinity of the Bowman 3 Site was simply depicted as part of a field bordering Scott Run, next to a wood lot that was shown on the other side of the small ravine (Figure 32).

Diagnostic ceramics indicated that the historic component predated 1837 and was no longer occupied by that time. It could have been the site of first settlement on the property, predating the construction of the principal farmstead. It is not known whether that farmstead was built by Peter Bowman or an earlier owner such as Lawes or Humphries. Alternatively, the Bowman 3 Site could have been an early secondary residence on the property. As such, it would likely have predated the Bowman 2 Site, which was the secondary residence shown on the 1837 plan. Like the latter, this site could have served as an early residence for enslaved or free farm laborers. Further research of census or tax records may provide additional information on the early occupants of the property, including the occupants of this historic site.

Survey Segment 25

This segment consisted of 1.7 acres located south of Hyetts Corner Road and east of Scott Run. The segment was situated on relatively high ground overlooking the stream (Figure 34). Most of

the segment was within a cultivated field, with a narrow strip in woods at the edge of a steep slope. Soils were mapped as Reybold silt loam 2-5% slopes. In the Phase Ia survey, it was identified as having a low probability for prehistoric resources and a moderate probability for historic resources, because of its proximity to an historic road.

Phase Ib survey covered a slightly different area than the segment identified in the Phase Ia survey. Visual inspection confirmed that the northeastern area (bordering the south side of Hyetts Corner Road) was disturbed by road grading and the placement of buried utilities. But part of the area that had been identified in the Phase Ia survey as being disturbed (designated as Segment 26) did not appear to be disturbed. The pedestrian surface survey therefore covered a slightly larger area, for a total of 2.0 acres. In addition, four shovel tests were excavated at 15 m intervals in a strip of woodlands at the western edge of the segment, at the top of a slope overlooking Scott Run. The shovel tests all had Ap/B horizon soil profiles. All four were culturally sterile.

Phase Ib survey consisted of one pass of pedestrian surface survey in the cultivated field. The field had been plowed and disked after the crop was harvested, providing high surface visibility. Surface survey resulted in the identification of a low frequency of prehistoric and historic artifacts (Figures 42a and 42b). This material did not appear sufficient to define an archaeological site. However, additional artifacts were found in subsequent survey of the adjacent field to the south by HRI. This resulted in the identification of a historic site, the Hyetts Corner Road Tenant Site (N14536). All of Segment 25 was included within the site.

Hyetts Corner Road Tenant Site (CRS N14536, Site 7NC-G-176)

This site was defined primarily on the basis of supplemental survey by HRI. The boundaries of the site were defined to include the entire field. The portion of the site within the A&HC survey segment yielded a total of 20 historic artifacts and 17 prehistoric artifacts (Table 19). The small historic assemblage consisted of eight sherds, four pieces of domestic glass, seven architectural materials, and one shell fragment. The ceramics included one sherd of plain creamware and one of white salt glazed stoneware. The low frequency of artifacts and presence of container glass fragments suggested that they derived from roadside discard or the manuring of fields. However, the presence of early ceramics suggested a possible occupation dating to the late eighteenth century.

The prehistoric assemblage from the portion of the site surveyed by A&HC included three flake cores of quartz, debitage representing the use of quartz and chert, and thermally altered stone. There were no chronologically diagnostic artifacts.

Background Research: Previous research conducted during the Phase Ia survey had traced the property, identified as the Johns/Garman Farm (AHC11) back as far as the ownership of Kensey Johns in the 1840s. The previous owner had not been identified, among the numerous properties in St. Georges Hundred that had been bought by this prominent lawyer and wealthy land owner. Property descriptions from the deeds and examination of historic atlases showed that the residence associated with this property on the south side of the road had actually been situated on a one acre parcel on the north side of the road. This house is still extant, and has been recorded as Kirkwood/Dr. M. Johns House (CRS N05245). The structure was described as a two-story

Table 19
Segment 25 - Artifact Summary

Artifact Description	Date	7NC-F-176
PREHISTORIC LITHICS		
Flake Core	Quartz	1
-Fragment	Quartz	2
Core Flake	-Primary Quartz	2
Biface Thinning Flake	-Secondary Grey Chert	1
-Secondary	Quartz	1
Flake Fragment	Grey Chert	1
Shatter	Quartz	3
Thermally Altered Stone		6
SubTotal	PREHISTORIC LITHICS	17
DOMESTIC CERAMICS		
Creamware	-Plain (1750-1820)	1
White Salt-glazed Stoneware	-Plain (1740-1790)	1
Whiteware	-Plain (1820+)	1
Semi-porcelain	-Plain (1885+)	1
Porcelain	-Hand-Painted, Floral (1700+)	1
Redware	-Lead Glaze (1770+)	1
-Manganese Glaze	(1770+)	2
SubTotal	DOMESTIC CERAMICS	8
DOMESTIC OTHER		
Base Glass Container, scarring	-Owens Scar (1903-1917)	1
-Cup Bottom Mold	(1890s-late 1900's)	1
Unidentified Curved Glass		2
SubTotal	DOMESTIC OTHER	4
ARCHITECTURE		
Brick		4
Semi-porcelain Sink Basin		3
SubTotal	ARCHITECTURE	7
FAUNA & FLORA		
Shell Fragment		1
SubTotal	FAUNA & FLORA	1
GRAND TOTAL		37

brick side-gabled dwelling, dating to ca.1840, with late twentieth century additions, which was determined not eligible for listing in the National Register of Historic Places (Frederick et al. 2006).

No additional background research was conducted specifically for this property during the Phase Ib survey, since it had not been identified as an archaeological resource at that time. There was no evidence of a secondary residence or earlier residence on the property. However, additional research may reveal who the earlier owners of the property were.

Survey Segment 26

This segment incorporated an area extending 100 ft on either side of Hyetts Corner Road. Because this area had been disturbed by road bank grading and buried utilities, the segment was considered in the Phase Ia survey to have no potential for intact sites and was eliminated from further survey. As noted above, the boundary between Segment 25 and 26 was modified during the Phase Ib survey, to include a small, undisturbed portion of Segment 26 in the survey of Segment 25.

Survey Segment 27

This segment consisted of 3.6 acres in a cultivated field on the north side of Hyetts Corner Road, southeast of Scott Run (Figure 43). Soils were mapped as Reybold silt loam 2-5% slopes. In the Phase Ia survey, it was identified as containing low and moderate probability zones for prehistoric resources, not being proximal to water, and was a moderate probability zone for historic archaeological resources, because it lies within 500 ft of a historic road. Background research showed that the extant Kirkwood/Dr. M. Johns House (CRS N05245) was located outside the LOD to the east.

Phase Ib survey consisted of two passes of pedestrian surface survey. Because the field had just been planted in winter barley and had received rain, ground visibility was excellent and additional plowing and disking was not considered necessary. Two shovel tests confirmed a simple soil profile with an Ap horizon 19-20 cm thick, overlying a B horizon. Both shovel tests were culturally sterile. The surface survey yielded low frequencies of both historic and prehistoric artifacts (Figures 42a and 42b). No archaeological sites were identified.

The small historic assemblage (n=25) was dominated by ceramics and brick (Table 20). Early ceramics included one sherd each of creamware, Buckley, and Jackfield types. The overall density of artifacts and presence of later ceramic types like whiteware was suggestive of artifacts from field manuring. The presence of early ceramics suggested a possible early occupation, predating the practice of field manuring. These materials may have been derived from the occupation at the Elkins Site (N14524) in Segment 28.

The assemblage of prehistoric artifacts was small (n=6), but included one diagnostic projectile point, a Lehigh/Koens-Crispin style broadspear point of jasper (Photo 21). Other artifacts included one flake core, and debitage of jasper, quartz, and rhyolite. One shovel test was placed where the projectile point was found and a second shovel test where two lithics were found, but neither produced additional artifacts.

Table 20
Segment 27 - Artifact Summary

Artifact Description	Date	Non-Site
PREHISTORIC LITHICS		
Projectile Point	Lehigh/Koens-Crispin Broadspear, Jasper	1
Utilized Decortication Flake	Jasper	1
Flake Core	-Fragment Quartz	1
Biface Thinning Flake	-Primary Quartz	1
Flake Fragment	Rhyolite	1
Thermally Altered Stone		1
SubTotal PREHISTORIC LITHICS		6
DOMESTIC CERAMICS		
Creamware	-Plain (1750-1820)	1
Red & Yellow Refined Earthenwares	-Buckley / Agateware (1720-1775)	1
	-Jackfield (1745-1790)	1
Whiteware	-Plain (1820+)	3
Redware	-Lead Glaze, with Manganese (1770+)	3
Stoneware	-Salt Glazed (1700+)	2
SubTotal DOMESTIC CERAMICS		11
DOMESTIC OTHER		
Indeterminate Container Glass		2
Unidentified Curved Glass		3
SubTotal DOMESTIC OTHER		5
ARCHITECTURE		
Brick		6
	-Glazed	2
SubTotal ARCHITECTURE		8
HEATING		
Coal Fragment		1
SubTotal HEATING		1
GRAND TOTAL		31



Photo 21. Elkins Site and isolated finds, selected artifacts. (*top row, l-to-r*) Non-Site: Lehigh/Koens-Crispin projectile point, jasper (FF 27-21); Elkins Site: slip-decorated redware, rouletted rim (FF29-106); Buckley sherd (FF29-186); (*2nd row, l-to-r*) tin enameled earthenware sherd (FF28-45); scratch blue stoneware rim (FF29-337); Jackfield sherd (ST 29-1, Stratum 1); (*3rd row, l-to-r*) incised, painted Westerwald sherd (FF28-16); Whieldonware sherd (FF29-135); combed Staffordshire sherd (FF28-37); (*bottom row, l-to-r*) Rhenish gray bodied stoneware (FF29-163); Non-Site: Brewerton eared projectile point, chert (FF29-38).

Survey Segment 28

This segment covered a total of 11.7 acres, including parts of two agricultural fields (Figure 43). The segment crossed two arms of an intermittent stream, an unnamed tributary of Scott Run. The southern arm was a deeper drainage vegetated with low brush, which separated two fields. The northern arm was a shallow swale in the cultivated field to the northeast. Soils were mapped as Othello silt loam 0-2% slopes in the two drainages and as Reybold silt loam 5-10% slopes on uplands of the adjacent fields. In the Phase Ia survey, the entire area was classified as having a high probability for prehistoric sites, including the small flat interfluves, and a low probability for historic resources.

Geomorphological study was conducted in Segment 28 in conjunction with the Phase Ib survey. Investigation of the southern arm of the stream showed a potential for intact resources buried below later historic alluvium. The excavation of test units was recommended to sample these deposits. Probing also identified the presence of two stacked Ap horizons on the lower slopes to the west of the drainage. The excavation of shovel tests was recommended to sample these strata, because plowing and disking would only expose artifacts in the upper plow zone for surface survey.

Phase Ib survey included a combination of field methods, as indicated by the results of the geomorphological study. Pedestrian surface survey with two passes was conducted in the cultivated fields to the northeast and southwest of the two drainageways, as well as on the slight knoll between them, covering a total area of 8.8 acres. This resulted in the identification of one historic site, the Elkins Site (N14524), described below (Figures 44a and 44b). In the southwest field, shovel tests were excavated in a transect at 15 m intervals on the lower slopes west of the drainage, because of the presence of two Ap horizons. Soil profiles from the southern two shovel tests consisted of an Ap1 horizon varying from 28 to 52 cm thick and Ap2 horizon 15-28 cm thick, overlying a B horizon. In the remaining shovel tests, the proportion of gravels from slopewash was higher and the Ap2 horizon was not identified as a distinct stratum within the thickened Ap horizon. The only artifact recovered from these excavations was a single piece of flat grass, from the Ap1 horizon in Shovel Test 28-13 (Table 21). Two shovel tests were excavated on the upper part of the slope northeast of the drainage. The soil profiles here confirmed that the Ap2 horizon was not present as a separate stratum on this slope. Four historic artifacts were recovered from the Ap horizon, which were included in Locus B of the Elkins Site, extending to the east.

Six test units were excavated in the southern arm of the drainageway, where deeper soil strata had been identified in the geomorphological study. Three test units were placed along the sloping northeast side of the drainage, two at the base of the slope on the southwest edge, and one on the floor in the center of the drainage. Test Unit 28-1, placed in the center, encountered 70 cm of historic alluvium and slope wash, overlying gleyed soils. The water table was encountered at a depth of 50 cm. No artifacts were recovered. Test Units 28-2 and 28-3, placed 30 m to the southwest, revealed two historic plow zones overlying additional historic slope wash. The water table was encountered at a depth of approximately 1 m below the surface. An auger probe in the base of Test Unit 28-2 encountered channel lag at a depth of 159 cm. A shovel test in the base of Test Unit 28-3 extended to a depth of 171 cm below the surface without encountering cobbles. One prehistoric artifact was recovered in historic alluvium.

Table 21
Segment 28-Artifact Summary

Artifact Description	Date	7NC-G-174				Non-Site			Total			
		Locus A		Locus B		PSS	ST Ap	TU Ap				
		PSS	ST Ap	ST Fill	PSS					ST Ap		
PREHISTORIC LITHICS												
Utilized Decortication Flake		Rhyolite					1		1			
Utilized Biface Thinning Flake	-Secondary	Quartz	1						1			
Flake Core		Grey Chert				2			2			
Decortication Flake		Grey Chert				1			1			
		Tan Chert			1				1			
Biface Preform	-Primary	Quartz			2				2			
Biface Thinning Flake	-Secondary	Quartz			3				3			
	-Secondary	Quartzite				1			1			
	-Tertiary	Quartz			1				1			
Shatter		Brown Chert				1		1	2			
Test Raw Material		Grey Chert			1				1			
		Quartzite			1				1			
SubTotal		PREHISTORIC LITHICS			1			9	6		1	17
DOMESTIC CERAMICS												
Creamware	-Plain	(1750-1820)			1					1		
	-Wheildonware, Unidentifiabl	(1750-1775)	1							1		
White Salt-glazed Stoneware	-Plain	(1740-1790)	19	3		1		1		24		
Westerwald Stoneware	-Painted / Incised	(1575-1775)				1				1		
Other Stonewares	-Scratch Blue	(1750-1775)	5		1					6		
	-Rhenish Gray-bodied		1							1		
Tin-enameled Earthenware	-Indeterminate	(1660-1800)				1				1		
Red & Yellow Refined Earthenwares	-Staffordshire	(1765-1775)				1				1		
	-Buckley / Agateware	(1720-1775)	1							1		
	-Jackfield	(1745-1790)	5	1	1					7		
Pearlware	-Plain	(1780-1840)	1					1		2		
Whiteware	-Sponge/Spatter	(1820+)	1							1		
Ironstone	-Plain	(1840+)	1							1		
Semi-porcelain	-Plain	(1885+)			1					1		
	-Hand-Painted, Chinese	(1885+)						1		1		

Table 21
Segment 28-Artifact Summary

Artifact Description	Date	7NC-G-174					Non-Site			Total
		Locus A			Locus B		PSS	ST Ap	TU Ap	
		PSS	ST Ap	ST Fill	PSS	ST Ap				
Redware	-Lead Glaze	(1770+)	14			3				17
	-Unglazed	(1770+)	14	1		1		1		17
	-Slipped	(1770-1820)	11	3		1			1	16
	-Indeterminate	(1770+)	2							2
	-Lead Glaze, with Manganese	(1770+)	114	6	4	10	1	1		136
Stoneware	-Salt Glazed	(1700+)	2			1		1		4
SubTotal DOMESTIC CERAMICS			192	14	8	20	1	6	1	242
DOMESTIC OTHER										
Top/Neck Glass Container, wide mouth	-Threaded					1				1
Base Glass Container, scarring	-Pontil		1							1
	-Machine Cutoff					1				1
Body Glass Container, shape	-Cylindrical/Round							1		1
Indeterminate Container Glass			1			3				4
Mason Jar Lid Liner	-White Milk Glass	(1858+)				3				3
Cap	-Metal					1				1
Unidentified Curved Glass			2	3		5		1	1	12
Unidentifiable Melted Glass							1			1
SubTotal DOMESTIC OTHER			4	3		14	1	2	1	25
ARCHITECTURE										
Unidentified Flat Glass	-Bubbles/Patina		1			1				2
	-No Bubbles/Patina							1	1	2
Nail	-Cut	(1790+)				1				1
Brick			87	56	54	24	1	6	1	229
	-Glazed		3	1		3		1		8
SubTotal ARCHITECTURE			91	57	54	29	1	8	1	242
SMOKING PIPES										
Ball Clay Pipe	-Stem or Stem Fragment					1				1
SubTotal SMOKING PIPES						1				1
HEATING										

Table 21
Segment 28-Artifact Summary

Artifact Description	Date	7NC-G-174				Non-Site			Total	
		Locus A		Locus B		PSS	ST Ap	TU Ap		
		PSS	ST Ap	ST Fill	PSS					ST Ap
Charcoal Fragment				14					14	
Coal Fragment						1			1	
SubTotal HEATING				14		1			15	
FAUNA & FLORA										
Bone Fragment		1	1						2	
Teeth		3							3	
Shell Fragment		42			4		3		49	
Wood	-natural		1						1	
Identifiable Bone	-Unmodified	2	1						3	
SubTotal FAUNA & FLORA		48	3		4		3		58	
OTHER										
Unidentified Mechanical Piece					2		1		3	
SubTotal OTHER					2		1		3	
GRAND TOTAL		336	77	76	79	4	26	1	4	603

On the northeast side of the tributary, Test Units 28-5 through 28-7 were placed at the edge of the agricultural field, at 30 m intervals. The soil profiles revealed an Ap horizon overlying historic slope wash, below which channel lag deposits were encountered at a depth of approximately 100 cm. The water table was encountered at a depth of approximately 90 cm below the surface in each unit, just above the channel lag deposits. These excavations produced three historic artifacts from alluvial or slopewash contexts. None of these materials were included in the Elkins Site.

Along the shallower northeast drainage swale, deeply buried soils were not anticipated. Five shovel tests were excavated, three on the north side and two on the south side of the swale. Two of the shovel tests had soil profiles with an Ap horizon 28-35 cm thick overlying alluvium, while the others had profiles with alluvium up to 82 cm deep. The water table was encountered at depths of 56-75 cm below the surface. None of these shovel tests produced artifacts.

Elkins Site, Locus A and B (CRS N14524, Site 7NC-G-174)

This historic site was identified through surface survey, which identified a small locus of high artifact density on a slope north of the northern arm of the small drainageway, and a broader locus of moderate artifact density covering the area between the two arms of the drainageway (Figure 45). Together, the two loci that made up the site cover an area of approximately 3.8 acres. The site was bounded to the southwest by the southern arm of the drainageway. To the northwest and northeast, the limits of the site were defined by a decrease in artifact density. To the southeast, the density of artifacts also decreased slightly, but the site likely extends beyond the LOD in this direction. The two loci within the site are described below.

Locus A: This area of high artifact density covered an area of approximately 0.8 acres at the northeast end of the site. It was centered on a slight knoll or bench on the gently sloping terrain northeast of the drainageway. It was separated from Locus B by the shallow swale of the northern arm of the drainageway.

During the surface survey, a series of large stones was observed in the field, forming a roughly L-shaped alignment (Photo 22). This was interpreted as evidence of a possible structure foundation. Shovel Test 29-1 was placed “inside” the L-shaped alignment (Figure 46). because the boundary between segments was poorly defined at the time of the field survey. The soil profile consisted of a recent Ap horizon 19 cm thick, a historic deposit with building debris extending to a depth of 60 cm, and an Ab horizon at a depth of 60-72 cm, overlying intact B horizon soils (Photo 23). The soil profile indicated the presence of a cultural feature, likely a shallow cellar or crawl space of a structure. A total of 76 artifacts were recovered from the fill with rubble, and 34 from the overlying Ap horizon. Three additional shovel tests were placed in Locus A at intervals of 7 to 10 m. All three had simple soil profiles, with an Ap horizon 16-22 cm thick, overlying a B horizon. Artifacts were recovered from the Ap horizon.

The subassemblage from Locus A (n=488) included almost equal proportions of ceramics (44% of Locus A artifacts) and architectural materials (41%), indicating the presence of both



Photo 22. View of the Elkins Site Locus A, looking northeast. Note the series of large stones forming an L-shaped alignment suggestive of a foundation, with one shovel test excavated inside the alignment.



Photo 23. Elkins Site Locus A, showing the rubble of brick and stone encountered in an enlarged shovel test placed inside the alignment of stones.

occupational refuse and structural debris (Table 21). Among the historic ceramics, redware predominated (80% of ceramics). Most of the other ceramics consisted of types datable to the eighteenth century, including sherds of creamware, white salt-glazed stoneware, scratch blue stoneware, Rhenish gray-bodied stoneware, Buckley, Jackfield, and slip-decorated redware (Photo 22). Later ceramic types including whiteware, ironstone, and semi-porcelain were each represented by only one sherd. These later artifacts may have been the result of field manuring practices.

Domestic container glass was also present in very low frequencies, indicating the lack of a later historic occupation at the site. The architectural materials consisted almost entirely of brick, with only one piece of flat glass. Also notable was the frequency of shell on the site, suggesting its use in conjunction with the historic occupation. No smoking pipes or other small finds were recovered in Locus A.

Analysis of the distribution of artifacts within the site showed that most of the early ceramics that were characteristic of this site occurred within Locus A (Figure 45). Both ceramics and architectural materials were clustered in the vicinity of the possible house foundation identified in Shovel Test 29-1 (Figure 46).

Locus B: This locus encompassed the area that was partially enclosed by the two branches of an unnamed first order stream. It was characterized by a lower density of artifacts spread over a larger area of almost 3 acres. Two shovel tests were excavated in Locus B. Both revealed soil profiles of an Ap horizon overlying a B horizon and both yielded low frequencies of artifacts from the Ap horizon.

The subassemblage from Locus B was much smaller, consisting of 74 historic artifacts and 9 prehistoric artifacts (Table 21). The historic artifacts included a lower proportion of ceramics (28% of historic artifacts) and a higher proportion of other domestic artifacts (20%), compared with Locus A. As in Locus A, redware predominated among the ceramics (80% of Locus B ceramics), and ceramic types datable to the eighteenth century were present. The latter included one sherd each of white salt glazed stoneware, Westerwald, tin-enameled earthenware, and Staffordshire. No later historic types were represented. Domestic container glass, in contrast, included several artifacts of later date, such as a threaded lip or a base with machine cut off scarring. Lacking other evidence of a later historic occupation, it is assumed that such materials derived from field manuring. Locus B had a high proportion of architectural materials (41%), although the density of brick was relatively low, which suggested the possible presence of a secondary structure in this part of the site. The overall lower density of artifacts in Locus B suggested that this was a peripheral area of the site represented by Locus A. A secondary residence or one or more outbuildings could have been located in this area.

Locus B contained a small assemblage of prehistoric artifacts (n=9). There were no diagnostic projectile points, biface fragments, or other tools. The artifacts consisted of two biface preforms and debitage from the use of chert, quartz, and quartzite materials. These were considered isolated finds, insufficient to be identified as a prehistoric occupation at the site.

Background Research: In the Phase Ia survey, the Johns-McMullen Farm (AHC12) was traced back to the ownership of Kensey Johns, who died in 1848. Kensey Johns was Chief Justice of

Delaware in 1798-1828 and Chancellor in 1830-1832, residing in New Castle. He bought numerous farm properties in St. Georges Hundred, but appears never to have lived there.

Additional research was successful in tracing the property back to Amos Nichols, who obtained warrants for two adjacent tracts in 1686 and sold them both to Edmond Percus. The deed for the 200-acre tract indicated that there was already a house on the property by 1686. The property changed hands rapidly, being sold to John Sims in 1687, to Edward Gibbs in 1697, and to Matthias Erikson in 1699. Erikson divided it into two 100-acre properties, one along the southeast side of Scott Run and one adjacent to the east. Both properties were acquired by John Greenwater in the early eighteenth century. He retained the western, stream-side half until 1741, but sold the eastern half in 1716. The two parcels passed through different hands, being reunited by John McCool, who bought the eastern parcel in 1739 and the western one in 1741. It is interesting to note that the boundary description in the 1739 deed included a point "at the head of a valley and before John Greenwater's door" (DB M1:370). This indicated that John Greenwater occupied a house on the boundary between the two parcels, which could be the Elkins Site.

When John McCool died, the property passed to his daughter Mary, then his grandson, Benjamin Meriss, who sold both tracts to Kensey Johns in 1793. Kensey Johns died in 1848 and this part of his vast land holdings passed to his son Henry Van Dyke Johns, who died in 1858. The property was then divided along new lines, following the public road, with the property north of the road going to his son James Carroll Johns. J.C. Johns, shown as the owner on the 1868 map, sold the property to James McMullen in 1867. The property remained in the McMullin family, being inherited by Helen Elkins and Maris Van Allen in 1988.

The nineteenth century farmstead on the property was recorded as the Mondamon Tenant Farm (CRS N05246) as part of a National Register thematic study (Herman 1986). It was built in the second quarter of the nineteenth century, indicating that it was built during Kensey Johns' ownership of the property, and would therefore have served as the residence for his tenant farmer or farm manager. This farmstead, which has since been demolished, was shown on nineteenth century atlases and early twentieth century aerial photos (Figure 47). There was no evidence of the presence of secondary residences or earlier farmsteads on the property.

No structure was shown at the location of the Elkins Site on nineteenth century atlases or early twentieth century aerial photographs. It was interesting to note that on the 1937 aerial photo there is a farm road leading from the principal farmstead on the property (Mondamon Tenant Farm, N05246) to Hyetts Corner Road (Figure 47). Unlike the surviving farm lane that runs directly southwest to the road, the former lane went due west from the farmstead toward the location of the Elkins Site, before turning southwest to access Hyetts Corner Road next to the Dr. M. Johns House (N05245). The older farm lane may have originally been laid out to give access to the Elkins Site. In the early twentieth century, when the Elkins Site no longer existed, this was a minor farm lane, while the principal access was northeast toward the Dupont Highway (before Route 1 was built). Additional research may provide information on the relationship between the Elkins Site and Van Allen Site (in Segment 30), as well as the relationship to the nineteenth century principal farmstead on the property.

Survey Segment 29

This segment consisted of 7.9 acres in a cultivated field, west of the toll plaza on Route 1 (Figure 48). Soils were mapped as Reybold silt loam 2-5% slopes. In the Phase Ia survey, it was

designated as having a low probability for both prehistoric and historic sites, being distant from water and from known historic site locations. This segment was randomly selected for elimination from further study. During the Phase Ib field survey, scatters of early ceramics and other historic artifacts were found in both Segments 28 to the south and Segment 30 to the north, adjacent to the boundaries of Segment 29. A decision was made in consultation with DelDOT during the fieldwork, to conduct Phase Ib survey of Segment 29.

Phase Ib survey consisted of two passes of pedestrian surface survey. Like the adjacent segments, visibility was high because the field had recently been planted in winter barley, which had begun to sprout. Low to moderate densities of historic artifacts were found (Figures 49a and 49b). Artifacts in the northeast portion of Segment 29 were included in the Van Allen Site (N14525), which is described below in Segment 30. Artifacts found between the boundaries of the Van Allen Site to the northeast and the Elkins Site to the southwest occurred in low frequencies and were not included with either site.

The non-site artifacts from Segment 29 included 36 historic artifacts and 2 prehistoric artifacts (Table 22). Historic artifacts consisted principally of ceramics and brick. There were no diagnostic early historic ceramics. Overall, the range of artifact types and low frequency of artifacts was characteristic of field scatter from manuring practices. The prehistoric artifacts consisted of two projectile points, a Brewerton eared-notched point of jasper (Photo 24), and a non-diagnostic projectile point blade of quartz. These were identified as isolated finds.

Survey Segment 30

This segment consisted of 7.3 acres in a cultivated field bordering the west side of Route 1 (Figure 48). The terrain sloped down to the northeast, towards a small drainageway. This tributary of Scott Run would have drained to the northeast, but has been truncated by the construction of the highway. Soils were mapped as Reybold silt loam 2-5% slopes and 5-10% slopes. In the Phase Ia survey, this segment was identified as having a moderate probability for prehistoric resources and a low probability for historic resources.

Phase Ib survey consisted of two passes of pedestrian surface survey. Surface visibility was high since the ground had recently been tilled and planted in winter barley, which had begun to sprout, but was not yet high. Surface survey resulted in the recovery of a moderate density of historic artifacts and a low density of prehistoric artifacts (Figures 49a and 49b). Most of these materials were included in the Van Allen Site (N14525), which also extended upslope to the southwest into Segment 29. The few artifacts not included in the site were found in the northern part of Segment 30, near the base of the slope. The historic artifacts included scattered ceramics, brick, and shell. These materials may have been outliers of the Van Allen Site, or could have derived from field manuring practices. The only prehistoric artifact was a Levanna triangular projectile point of black chert, which was identified as an isolated find (Photo 25).

Van Allen Site (CRS N14525, Site 7NC-G-175)

This site was identified through surface survey and was defined to include both an area of moderate artifact density on a slope and an area of lower artifact density on a slight rise at the top of the slope. The site covered an area of 6.0 acres. It was bounded to the east by the grade of Route 1

Table 22
Segment 29 - Artifact Summary

Artifact Description	Date	Non-Site
PREHISTORIC LITHICS		
Projectile Point	Tip and base broken; unspecified type, Quartz	1
	Brewerton Eared-Notched, Jasper	1
SubTotal PREHISTORIC LITHICS		2
DOMESTIC CERAMICS		
Whiteware	-Plain (1820+)	3
	-Indeterminate (1820+)	1
Ironstone	-Plain (1840+)	3
Semi-porcelain	-Plain (1885+)	1
	-Decal Decorated (1900+)	1
Redware	-Lead Glaze (1770+)	1
	-Unglazed (1770+)	1
	-Lead Glaze, with Manganese (1770+)	6
Stoneware	-Indeterminate	1
SubTotal DOMESTIC CERAMICS		18
DOMESTIC OTHER		
Tableware Glass	Indeterminate	1
Unidentified Curved Glass		2
SubTotal DOMESTIC OTHER		3
ARCHITECTURE		
Unidentified Flat Glass	-Bubbles/Patina	1
	-No Bubbles/Patina	2
Brick		12
SubTotal ARCHITECTURE		15
GRAND TOTAL		38



Photo 24. Van Allen Site and isolated finds, selected artifacts. (*top row, l-to-r*) Non-Site: Levanna triangular projectile point (FF30-171); Morrow Mountain-style projectile point, chert (FF30-40); scraper, heavily weathered, jasper (FF30-41); (*middle row, l-to-r*) Van Allen Site: Nottingham stoneware sherd (FF30-68); Staffordshire jeweled slip rim (FF30-32); slip-decorated redware sherd (FF30-2); ironstone rim, green transfer print (FF30-37); (*bottom row, l-to-r*) blue transfer-print pearlware (FF29-17); scratch blue stoneware (FF29-24); gun flint, black flint (FF30-44).

and to the northeast by a small drainageway. To the southeast and southwest the site was defined by a decrease in artifact density. To the northwest, the site may extend beyond the LOD.

Phase Ib survey yielded a total of 200 historic artifacts and 8 prehistoric artifacts (Table 23). Two shovel tests were excavated within the site. Shovel Test 30-1, placed in the area of moderate artifact density, had a soil profile consisting of an Ap horizon 24 cm thick, overlying a B horizon. Shovel Test 30-2, placed on the area of high ground, had a similar profile, with an Ap horizon 22 cm thick. Both shovel tests were culturally sterile.

The assemblage of historic artifacts consisted primarily of ceramics (43% of historic artifacts), followed by architectural materials (33%), and other domestic artifacts (15%). The only small find of note was a gun flint with a trapezoid cross-section, made of black flint (Photo 24). Among the ceramics, redware predominated (57% of site ceramics), while other ceramics occurred in lower frequencies. The assemblage included later historic types such as whiteware, ironstone, and semi-porcelain and container glass indicative of a later occupation, such as fragments with a seamed lip or machine cutoff. The assemblage also included a limited range of early historic ceramics, including sherds of creamware, white salt glazed stoneware, Nottingham, scratch blue stoneware, Staffordshire, and Jackfield. The range of ceramic types is suggestive of a long occupation, extending from the late eighteenth century into the twentieth century.

The low to moderate density of artifacts across the site was similar to that found in early historic sites, but is lower than that found in later historic sites. The site may therefore not represent a residential occupation. It could be the periphery of a larger site that has been lost through the construction of the adjacent highway, or could have been a location of outlying farm buildings, where a more limited range of activities was undertaken. The artifact distribution is not characteristic of a field dump, which usually involved the disposal of household refuse in a concentrated area such as a pit or gully.

The Van Allen Site assemblage included eight prehistoric artifacts. Tools included a projectile point of gray chert tentatively identified as a Morrow Mountain type, a tan chert scraper, and a brown chert expedient tool. These artifacts occurred together with three pieces of debitage in a tight cluster within the bounds of the site. This small locus could represent a limited short-term occupation on the slope overlooking the drainageway.

Background Research: In the Phase Ia survey, the Johns-McMullen Farm (AHC12) was traced back to the ownership of Kensey Johns, who died in 1848. Kensey Johns was Chief Justice of Delaware in 1798-1828 and Chancellor in 1830-1832, residing in New Castle. He bought numerous farm properties in St. Georges Hundred, but appears never to have lived there.

Additional research was successful in tracing the property back to Amos Nichols, who obtained warrants for two adjacent tracts in 1686 and sold them both to Edmond Percus. The deed of the 200-acre tract indicated that there was already a house on the property by 1686. The property changed hands rapidly, being sold to John Sims in 1687, to Edward Gibbs in 1697, and to Matthias Erikson in 1699. Erikson divided it into two 100-acre properties, one along the southeast side of Scott Run and one adjacent to the east. Both properties were acquired by John Greenwater in the early eighteenth century. He retained the western, stream-side half until 1741, but sold the eastern half in 1716. The two parcels passed through different hands, being reunited by John McCool, who bought the eastern parcel in 1739 and the western one in 1741

Table 23
Segment 30 - Artifact Summary

Artifact Description	Date	7NC-G-175	Non-Site	Total
PREHISTORIC LITHICS				
Projectile Point	Possibly Morrow Mountain type, Gray Chert	1		1
	Levana, Black Chert		1	1
Scraper	Tan Chert	1		1
Decortication Flake	Grey Chert	1		1
	Jasper	1		1
Biface Thinning Flake	-Secondary Quartzite	1		1
Shatter	Quartz	2		2
Expedient Tool	Brown Chert	1		1
SubTotal PREHISTORIC LITHICS		8	1	9
DOMESTIC CERAMICS				
Creamware	-Plain (1750-1820)	4		4
White Salt-glazed Stoneware	-Plain (1740-1790)	1		1
Other Stonewares	-Nottingham (1700-1810)	1		1
	-Scratch Blue (1750-1775)	1		1
Red & Yellow Refined Earthenwares	-Staffordshire (1765-1775)	1		1
	-Jackfield (1745-1790)	2		2
Pearlware	-Plain (1780-1840)	5		5
	-Shell-Edged, Blue (1780-1840)	1		1
	-Flow Blue Transfer (1820-1840)	1		1
Whiteware	-Plain (1820+)	5	3	8
	-Shell-Edged, Blue (1820-1860)		1	1
	-Embossed (1820+)	1		1
Ironstone	-Plain (1840+)	7		7
	-Other Monochrome Transfer (1840+)	1		1
	-Embossed (1840+)	1		1
Semi-porcelain	-Plain (1885+)	3		3
	-Hand-Painted, Floral (1885+)		1	1
	-Decal Decorated (1900+)	2		2
Redware	-Lead Glaze (1770+)	10		10
	-Unglazed (1770+)	6		6
	-Slipped (1770-1820)	2		2
	-Lead Glaze, with Manganese (1770+)	31	3	34
SubTotal DOMESTIC CERAMICS		86	8	94
DOMESTIC OTHER				
Top/Neck Glass Container, narrow mouth	-Seamed Lip, Threaded	1		1
Base Glass Container, scarring	-Machine Cutoff	1		1
Indeterminate Container Glass		6		6
Mason Jar Lid Liner	-White Milk Glass (1858+)	1		1
Unidentified Curved Glass		19	1	20
Unidentifiable Melted Glass		1		1
SubTotal DOMESTIC OTHER		29	1	30
ARCHITECTURE				
Unidentified Flat Glass	-Bubbles/Patina	1	1	2
	-No Bubbles/Patina	3		3
Brick		52	3	55

Table 23
Segment 30 - Artifact Summary

Artifact Description	Date	7NC-G-175	Non-Site	Total
Brick	-Glazed	8		8
Drain Pipe Fragment	-Ceramic	1		1
SubTotal	ARCHITECTURE	65	4	69
HARDWARE				
Washer		1		1
Machine Part	-Indeterminate	1		1
SubTotal	HARDWARE	2		2
HEATING				
Coal Fragment		1		1
SubTotal	HEATING	1		1
FAUNA & FLORA				
Shell Fragment		13	3	16
SubTotal	FAUNA & FLORA	13	3	16
OTHER				
Gun Flint		1		1
Bisque		1		1
Unidentified Mechanical Piece		1		1
Plastic bottle		1		1
SubTotal	OTHER	4		4
GRAND TOTAL		208	17	225

When John McCool died, the property passed to his daughter Mary, then his grandson, Benjamin Meriss, who sold both tracts to Kensey Johns in 1793. Kensey Johns died in 1848 and this part of his vast land holdings passed to his son Henry Van Dyke Johns, who died in 1858. The property was then divided along new lines, following the public road, with the property north of the road going to his son James Carroll Johns. J.C. Johns, shown as the owner on the 1868 map, sold the property to James McMullen in 1867. The property remained in the McMullen family, being inherited by Helen Elkins and Maris Van Allen in 1988.

The nineteenth century farmstead on the property was recorded as the Mondamon Tenant Farm (CRS N05246) as part of a National Register thematic study (Herman 1986). It was built in the second quarter of the nineteenth century, indicating that it was built during Kensey Johns' ownership of the property, and would therefore have served as the residence for his tenant farmer or farm manager. This farmstead, which has since been demolished, was shown on nineteenth century atlases and twentieth century aerial photos. There was no evidence of secondary residences or earlier farmsteads on the property.

No structure was shown at the location of the Van Allen Site on nineteenth century atlases or early twentieth century aerial photographs (Figure 47). The site is located roughly equidistant from the Mondamon Tenant Farm (N05246) to the south and the G.W. Townsend Site (N12770) to the north. The G.W. Townsend Site was documented as a historic site that has been largely destroyed by a borrow pit. Artifacts from the Van Allen Site included a nineteenth century occupation, which would likely have been contemporaneous with both of these historic farmsteads. The Elkins Site, in contrast, likely predated both of the nineteenth century farmsteads. The Van Allen Site also had artifacts indicative of an earlier occupation, suggesting that it may have been contemporaneous with the Elkins Site, as well as with the later sites. Further research on the Van Allen Site should be conducted in conjunction with research on the Elkins Site, to determine the relationship between these two sites and the nineteenth century farmstead locations, and to identify site occupants, if possible.

Survey Segment 31

This segment at the northeastern terminus of Section 1 consisted of areas within the right-of-way of existing Route 1. In the Phase Ia survey the entire segment was considered too disturbed to contain intact archaeological resources and was eliminated from further survey.