

4.0 FINDINGS – FIELDWORK

The project area comprises 23.96 acres, 3.57 of which are utilized by the county as a yard waste demonstration site. As noted in the field methods, due to logistical challenges resulting from extensive yard waste dumping, it was determined in advance that this almost 4 acre facility would not be tested. Phase I survey of the testable 20.5-acre APE was conducted over nine days from June 18-June 26, 2012. A total of 458 tests were excavated as part of this field effort: 344 shovel tests on 15-m grid and 144 radial and close-interval tests at 7.5 m. (Figure 4-1).

Excavations revealed relatively consistent soils across the area consisting primarily of a silty loam to clay loam plowzone overlying culturally sterile silty clay loam to clay subsoil. Some minor localized differences in the relative percentage of sand composition in the plowzone and subsoil were noted. Percentage of gravel inclusion ranged from very minimal to upwards of 20 percent. Generally, percentage of sand and gravel increased along the intermittent draining running roughly east/west parallel to the DART access road and along Silver Run. An overburden of fill was recorded in some tests immediately adjacent to DuPont Highway/US 13. The following shovel tests provide a representative sample of the stratigraphic sequence observed across the survey area:

<i>Shovel Test N880/E1820</i>		
A:	0-25cm	brown (10YR5/3) silty loam; plowzone with 2-5% gravel; 2 flakes ~clear transition~
B:	25+ cm	yellowish brown (10YR 5/6) silty clay loam, sterile subsoil with 2-5% gravel maximum excavated depth: 40 cm
<i>Shovel Test N985/E1820</i>		
A:	0-30 cm	brown (10YR 5/3) sandy loam; plowzone with 15% gravel ~clear transition~
B:	30+ cm	yellowish brown (10YR 5/6) sand, sterile subsoil with 15-20% gravel maximum excavated depth: 40 cm
<i>Shovel Test N985/E2000</i>		
A:	0-16 cm	dark grayish brown (10YR 4/2) silty loam; fill/overburden with 5% rock ~clear transition~
B:	16-33 cm	brown (10YR5/3) silty loam; fill/overburden with 25% gravel ~clear transition~
C:	33-63 cm	brown to dark brown (10YR 4/3) loam; plowzone with 25% gravel; 1 square shanked nail and 1 clear container glass fragment ~clear transition~
D:	63+ cm	yellowish brown (10YR 5/4) clay loam, sterile subsoil maximum excavated depth: 73 cm
<i>Shovel Test N1120/E1745</i>		
A:	0-25 cm	brown (10YR 5/3) silty loam; plowzone with 2% gravel ~clear transition~
B:	25+ cm	yellowish brown (10YR 5/6) silty clay loam, sterile subsoil with 2% gravel maximum excavated depth: 35 cm;

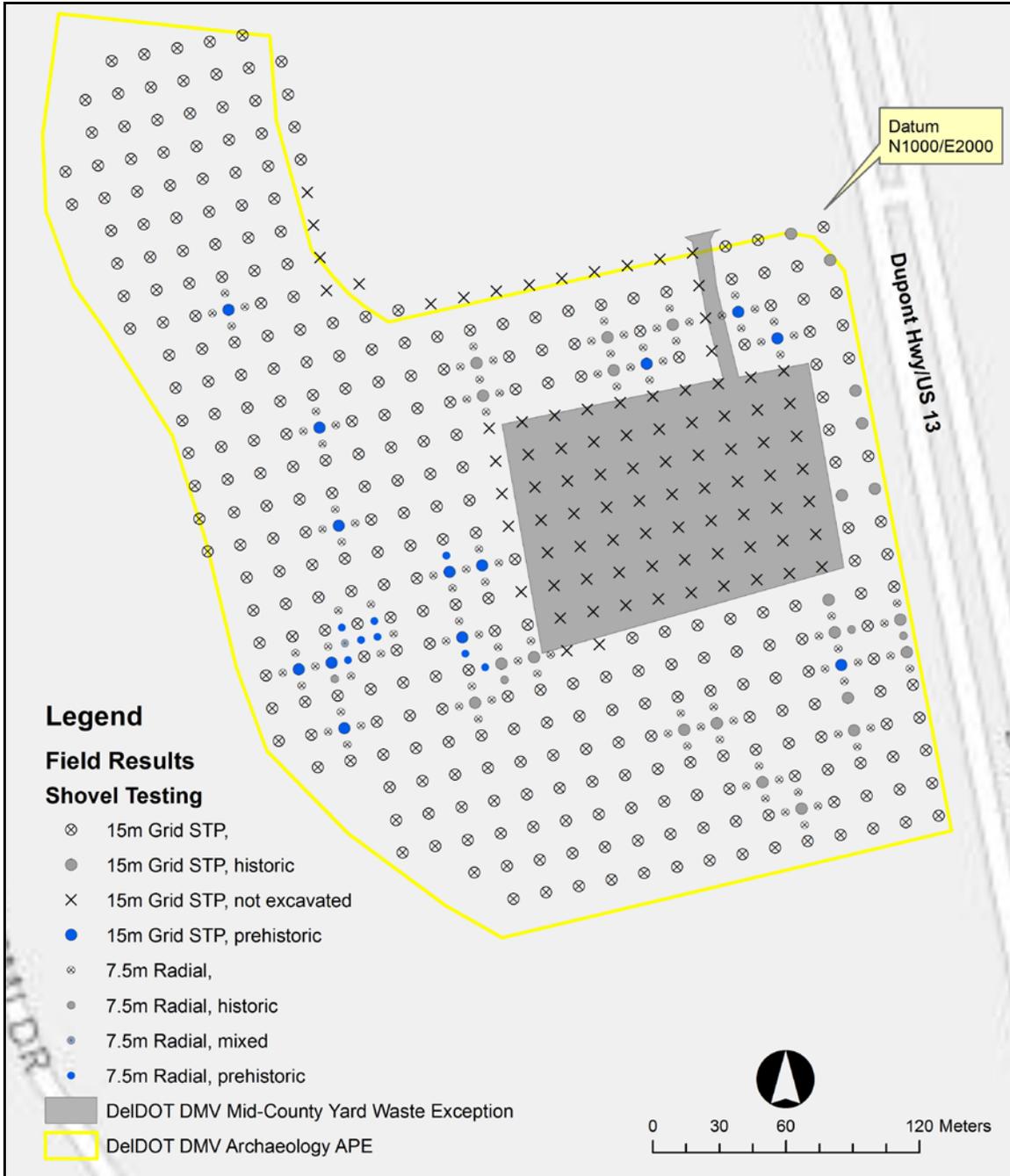


Figure 4-1: Results of Shovel Testing.

A total of 66 artifacts were recovered from shovel testing the 20.5-acre APE: n=48 from shovel testing on 15-m grid and n=18 from radial and close interval testing at 7.5 m (for the complete catalogue see Appendix C). A total of 39 historical period artifacts were recovered consisting of building material as well as ceramic and glass vessel sherds (Table 4-1). The building material sample was small, primarily brick and window glass. Ceramic sherds included a range of late-eighteenth to later-nineteenth or twentieth-century types. Over half (62%) of the ceramic sherds were spalls, having the original surface of at least one face missing. In addition, the sherds were highly fragmented,

averaging 1.2 grams each. The coarse earthenwares included both brown and black lead-glazed examples; however no forms could be identified beyond hollowware due to their small size. Refined earthenware included three sherds of brown lead-glazed redware, and single undecorated examples of creamware, whiteware, and ironstone. One blue transfer-printed pearlware sherd also was recovered. All identified glass vessels were machine-made bottles, including several with stippled bases which post-date 1939 (Busch 1983:226). Given the size, type, and distribution of these artifacts, the assemblage is interpreted as field scatter and road debris associated with US 13 and following DE SHPO guidelines (1993:45) does not constitute a site within the state’s current definition.

Table 4-1. Historical Field Scatter by Group and Material.

Group	Material/Function	Typology	Count
Building Material	Brick		7
	Window Glass		3
	Square Shanked Nail		1
	Modern Tile		1
Ceramic Vessel	Coarse Earthenware	Lead-glazed Redware	8
	Refined Earthenware	Lead-glazed Redware	3
	Refined Earthenware	Whiteware	6
	Refined Earthenware	Creamware	1
	Refined Earthenware	Ironstone	1
	Refined Earthenware	Pearlware	1
	Stoneware	Alkaline-glazed	1
Glass Vessel	Bottle	Untyped	1
	Bottle	Machine-made	5
Total			39

One prehistoric archaeological site was recorded as a result of shovel testing (Figure 4-2 and 4-3). Silver Run Prehistoric 7NC-G-181 (CRS N07483), is a small (n=21 artifacts; 1 potential ecofact), non-diagnostic, lithic scatter recovered from the surface and within the plowzone (for CRS inventory forms see Appendix D). The site was first uncovered during grid excavation southwest of the current Yard Waste Demonstration Site. Radial testing was conducted to better define the horizontal distribution of artifacts. Since positive loci remained somewhat diffuse, close interval testing was conducted judgmentally around positive radial tests in an effort to further refine artifact distribution.

While the relatively strongest concentration of artifacts centered on STP N850/E1745, following DE SHPO guidance (1993:45), the site limits were defined to encompass the terrace landform, the localized high ground in the area (n=5 acres). The ground continues to slope gently upward east into the Yard Waste Demonstration Site, however, this area has experienced an unknown degree of disturbance (see Figure 4-4 for use of wheel dozer with 14 ft bucket to move yard waste and other debris, and wood tub grinder).



Figure 4-3: Silver Run Prehistoric 7NC-G-181 (CRS N07483), View South.



Figure 4-4: Evidence of Mechanical Disturbance at the Yard Waste Demonstration Site.

A total of 21 flakes and a single distal tip of a late stage biface were recovered from site Silver Run Prehistoric (Table 4-2). The flakes are primarily of jasper but include a range of raw material and four of the five quartzite flakes are of the distinctive cuesta quartzite that has been reported in New Jersey (Mounier 2008) and elsewhere in Delaware (Versar 2011). The great majority of these artifacts were recovered from the plowzone; however, one artifact and one potential ecofact, a quartz flake and a naturally-perforated jasper pebble, were recovered from the surface in the immediate vicinity of STP N820/E1745. Though the perforated pebble is natural, given its association, it was retained as a potential ecofact, possibly collected prehistorically. This pebble may have been used as a pendant or bead, or may be natural and completely unrelated to the use of the site.

Table 4-2. Artifacts from Silver Run Prehistoric 7NC-G-181 (CRS N07483), by Raw Material.

	Chalcedony	Chert	Jasper	Limonite	Quartz	Quartzite
Flake	1	3	6	3	2	5
Biface		1				
Pebble			1			

Three prehistoric isolated finds (IF) were recorded outside of the Silver Run Prehistoric limits (Table 4-3, Figure 4-5). These diffuse flake recoveries are outside of the landform used to define the site limits of Silver Run Prehistoric.

Table 4-3. Prehistoric Isolated Finds by Material Type.

	Chert	Jasper	Quartz
IF1			1 flake
IF2		1 flake	
IF3	2 flakes		
IF4		1 flake	