Test units were excavated to a depth of between 29 and 45 cm (0.9 and 1.5 feet) below surface and exposed an Ap-B soil horizon sequence across the site. The dark brown to dark-grayish brown sandy loam Ap horizon ranged from 19 to 35 cm (0.6 to 1.1 feet) in thickness and superimposed a yellowish brown sandy loam to gravelly sandy loam B horizon (Photograph 5). Channers (thin, flat rock fragments), gravels and cobbles were observed throughout the exposed soil profile in the majority of test units and generally increased from 5 to 10 percent at the top of the Ap horizon to as much as 40 to 50 percent in the subsoil (Photograph 6). Prehistoric artifacts were recovered exclusively from the Ap horizon (see Table 1).

Photograph 5. Site 36LU301: TU 1 West Wall Profile, Facing West

Photograph 6. Site 36LU301: TU 10 South Wall Profile showing Cobbles and Gravels, Facing South

No diagnostic artifacts and no cultural features were identified during test unit excavation. One soil anomaly (Feature 1) was exposed in TU 6, approximately 2 to 8 cm (0.8 to 3.1 in) below the Ap/B horizon interface. Based on sampling of this anomaly, it was concluded to represent noncultural activity (e.g., tree root).

Plowzone Stripping

Plowzone stripping was conducted within seven parallel trenches (Trenches 1-7), located in the western portion of the site (see Figure 2, Photograph 7). The plowzone ranged in thickness from approximately 25 to 30 cm (10 to 12 in) and was mechanically removed to expose the upper contact of the B horizon. Subsequent hand shovel scraping of the B horizon surface resulted in the identification of 211 possible cultural features (see Feature Overview below) (Photograph 8). GAI also observed numerous clearly noncultural stains (e.g., root or rodent disturbance) and likely agricultural related stains (e.g., long parallel, overlapping lines of very small circular stains) on the B horizon surface that were not designated as possible features (Photograph 9).

Photograph 7. Site 36LU301: View of Plowzone Stripping, Trenches 3, 4, and 5, Facing Northeast

Photograph 8. Site 36LU301: Trench 2 showing Exposed B Horizon Surface, Possible Cultural Features Marked by Pin Flags, Facing North

Photograph 9. Site 36LU301: Trench 1 showing Exposed B Horizon Surface, Possible Cultural Features Marked with Pin Flags.

Also Note Parallel Lines of Small, Shallow Circular Stains (Likely Agricultural-Related Stains), Facing North

In addition to possible features, plowzone stripping exposed a dense band of gravels and cobbles in the northwest portion of the site (north of the N590 gridline), in Trenches 1 through 5 (Photograph 10). This gravel bar was oriented southwest/northeast and widened towards the east, increasing from less than 5 meters (16.4 feet) in Trench 1 to over 25 meters (82 feet) wide in Trench 5. These gravels and cobbles likely represent the remains of a former stream channel.

Photograph 10. Site 36LU301: Trench 2 showing Band of Cobbles and Gravels on Exposed B Horizon Surface, Facing North

Feature Overview

As noted above, plowzone stripping activities exposed 211 possible cultural features on the B horizon surface of Trenches 1 through 7; one additional feature was encountered during previous test unit excavation. As requested by PHMC-BHP, GAI sampled 25 percent of these features, resulting in the investigation of 55 features during the Phase II study (54 features in trenches and one in TU 6).

Table 4 presents a summary of identified feature types and the sampling strategy. Features exposed during plowzone stripping were grouped into the following seven categories: small circular/oval stains; medium circular/oval stains; large circular stains; large oval/elongate stains; oxidized stains; irregular stains; and large, likely historic/modern features. The total number of features in each category varied from 4 to 114, with small circular/oval stains accounting for over half (*n*=114; 55 percent) of the identified features. Likewise, the number of sampled features in each category ranged from 29 (small circular/oval stains) to one (large circular stains and likely modern/historic stains). A 100 percent sample of oxidized stains was investigated due to their low frequency (only four features) and their high potential to represent prehistoric hearth features.

Table 4. Site 36LU301 Phase II: Feature Types and Sampling Strategy

Feature Type	Feature Type Code	Feature Description	Total Features Exposed	Total Features Investigated (25% sample)
Small Circular/Oval	A	<25 cm diameter dark stain	114	29
Medium Circular/Oval	B	25-80 cm diameter dark stain	46	11
Large Circular	C	>80 cm diameter dark stain	5	1
Large Oval/Elongate	D	>80 cm length dark stain	13	3
Oxidized Stain	OX	Reddened (Oxidized) stain with charcoal flecking, circular to ovoid, 40-95 cm maximum dimension	4	4*
Irregular	I	Dark stain with variety of irregular shapes	23	5
Likely Historic/Modern	H	1-3+ meter dark stain, distinct boundaries, some right angle corners, historic artifacts	6	1
Total			**211**	**54****

*excavated 100 percent of Oxidized Stains
**One additional feature (Feature 1) was investigated in TU 6 prior to plowzone stripping

As presented in Table 5, possible cultural features were exposed in all seven trenches, with feature totals ranging from 16 to 43 per trench. Trenches 2 and 3 contained the largest number of identified features (43 and 40 features, respectively).

Table 5. Site 36LU301 Phase II: Summary of Identified Features by Trench

Feature Type	Feature Type Code	Trench 1	Trench 2	Trench 3	Trench 4	Trench 5	Trench 6	Trench 7	Total
Small Circular/Oval	A	15	25	21	14	23	7	9	114
Medium Circular/Oval	B	10	10	5	9	4	3	5	46
Large Circular	C	2	0	1	0	0	1	1	5
Large Oval/Elongate	D	0	3	6	2	1	1	0	13
Oxidized Stain	OX	0	0	0	0	4	0	0	4
Irregular	I	3	4	3	4	2	3	4	23
Likely Historic/ Modern	H	0	1	4	0	0	1	0	6
Total		**30**	**43**	**40**	**29**	**34**	**16**	**19**	**211***

*One additional feature (Feature 1) was investigated in TU6 prior to plowzone stripping

Based on the results of Phase II fieldwork and preliminary laboratory analysis, the 55 features investigated included one historic feature (Feature 77) in Trench 3, five thermal features of indeterminate origin (Features 150, 153, 154, 161 and 171) in Trench 5, and two possible prehistoric or historic postmolds (Features 37 and 38) in Trench 2. The remaining 47 features were concluded to represent noncultural soil anomalies, primarily reflecting extensive bioturbation activity (e.g., root and/or rodent disturbances) within the cultivated field.

Table 6 presents a summary of all 55 sampled features. The eight possible cultural features noted above are illustrated on Figure 2.

Table 6. Site 36LU301 Phase II: Summary of Sampled Features

Fea #	Fea Code	Trench	North	East	Cultural Status*	Description	Level of Excavation	Dimensions LxWxD (cm)	Artifacts P/H*	Comments
Thermal Features										
150	OX	5	543.33	445.99	Indeterm	Oxidized stain with charcoal flecking; shallow basin-shaped profile	Excavated	55x56x9	--	shallow basin, C14 flecks,
153	OX	5	555.99	446.63	Indeterm	Oxidized stain with charcoal flecking; shallow basin-shaped profile	Excavated	38x70x5	1 P (debitage)	shallow basin, C14 flecks,
154	B	5	556.50	445.24	Indeterm	Dark stain with charcoal flecking; shallow basin-shaped profile	Excavated	62x35x6.5	--	shallow basin,C14 flecks throughout
161	OX	5	571.20	445.40	Indeterm	Oxidized stain with charcoal flecking; basin-shaped profile	Excavated	95x78x29.5	--	basin, bright red center w/ dark red outer,C14 flecks
171	OX	5	592.16	445.67	Indeterm	Oxidized stain with charcoal flecking; basin-shaped profile	Excavated	52x90x26	2 P (1 debitage, 1 FCR)	basin shaped
Possible Postmolds										
38	A	2	546.25	416.90	P? / H?	Possible Postmold	Excavated	21x20x28	--	Rounded/tapered base
37	A	2	544.90	416.80	P? / H?	Possible Postmold	Excavated	20x18x16	--	Rounded/tapered base
Historic Refuse Pit										
77	H	3	517.05	426.87	H	Shallow Historic Refuse Pit	Bisected	95x214x26	92 H (faunal, glass, ceramic, metal)	Near historic Fea 76 and 78
Noncultural										
1**	--	--	602.3	445.0	NC	Bioturbation (Tree burn) / TU 6	Excavated	65x35x22	--	
2	A	1	541.57	406.62	NC	Bioturbation (root)	Bisected	27x26x22	2 P (debitage)	
10	A	1	571.50	405.73	NC	Bioturbation (root)	Excavated	18x22x38	--	
27	A	1	625.65	405.23	NC	Root burn	Bisected	20x22x29	--	
29	A	1	633.50	405.55	NC	Bioturbation (root)	Bisected	15x21x12	--	
42	A	2	559.15	415.80	NC	Bioturbation (root/rodent)	Bisected	20x20x28	--	adjacent to Fea 43
43	A	2	559.15	416.05	NC	Bioturbation	Bisected	12x9x12	--	adjacent to Fea 42
44	A	2	564.55	415.50	NC	Bioturbation (root/rodent)	Bisected	17x9x4	--	
45	A	2	546.69	416.02	NC	Bioturbation	Bisected	13X8X2	--	very shallow
47	A	2	565.20	415.57	NC	Bioturbation (root/rodent)	Bisected	9x9x7	--	
58	A	2	584.00	415.15	NC	Bioturbation (root/rodent)	Excavated	24x28x15	--	

Fea #	Fea Code	Trench	North	East	Cultural Status*	Description	Level of Excavation	Dimensions LxWxD (cm)	Artifacts P/H*	Comments
60	A	2	586.30	416.30	NC	Bioturbation (root/rodent)	Bisected	24x40x22	--	loose recent fill
92	A	3	564.52	425.77	NC	Bioturbation	Bisected	14x14x39	--	C14, gray halo w/ depth; loose fill
93	A	3	565.00	425.85	NC	Bioturbation	Bisected	11x11x26	--	loose recent fill
95	A	3	564.75	426.29	NC	Bioturbation (rodent)	Bisected	14x15x12	--	
101	A	3	578.15	425.30	NC	Bioturbation (rodent)	Bisected	12X12X16	--	
102	A	3	480.05	425.85	NC	Bioturbation	Bisected	8x9x1	--	
103	A	3	480.15	426.09	NC	Bioturbation	Bisected	10x11x2	--	
148	A	5	541.80	445.70	NC	Bioturbation (root/rodent)	Bisected	8x9x16	--	angles to N, very narrow/faint
149	A	5	542.10	446.06	NC	Bioturbation (root)	Bisected	18x17x29	--	Corona at base
151	A	5	545.27	445.25	NC	Root burn	Bisected	17x17x27	--	Corona at base
152	A	5	554.09	446.19	NC	Bioturbation (root burn)	Bisected	16x11x28	--	corona visible, angled
155	A	5	557.00	446.81	NC	Bioturbation (root)	Excavated	8x7x11	--	C14 flecks
156	A	5	558.18	445.33	NC	Bioturbation (root burn)	Bisected	12x14x12.5	--	C14 flecks, corona visible
164	A	5	586.15	445.00	NC	Bioturbation (tree/rodent	Bisected	20x18x25	--	widens w/ depth, extends into W trench wall
168	A	5	588.05	445.20	NC	Bioturbation	Bisected	12x11x8	--	
169	A	5	589.10	4454.20	NC	Bioturbation	Bisected	23x20x10	--	
183	A	6	567.16	456.69	NC	Bioturbation	Bisected	8x16x10	--	right-angle turn with depth
22	B	1	612.44	406.20	NC	Bioturbation (root)	Bisected	20x21x26	--	
31	B	1	636.05	405.55	NC	Bioturbation (rodent)	Bisected	45x80x20	--	
61	B	2	586.20	416.25	NC	Bioturbation (root/rodent)	Bisected	18x22x29	--	poss extension of Fea 60; C14
64	B	2	590.35	415.65	NC	Bioturbation (rodent)	Bisected	35x25x5	--	triangular/circular plan view; loose recent fill
71	B	2	623.30	416.70	NC	Bioturbation	Bisected	20x30x20	--	
100	B	3	573.72	426.62	NC	Bioturbation (rodent)	Bisected	27x34x18	--	
122	B	4	549.55	443.58	NC	Bioturbation (tree root)	Bisected	33x40x58+	--	tap root continues below 58cm
136	B	4	589.00	436.64	NC	Root burn?	Bisected	48x24x10	--	semi-circular w/ some oxidation and C14
138	B	4	593.00	436.25	NC	Root burn	Bisected	33x26x32+	--	ovoid w/ oxidation and C14 flecks; ass w/ Fea 140
140	B	4	592.50	437.00	NC	Root burn	Bisected	40x21x20	--	

Fea #	Fea Code	Trench	North	East	Cultural Status*	Description	Level of Excavation	Dimensions LxWxD (cm)	Artifacts P/H*	Comments
191	C	6	593.95	456.35	NC	Root burn	Bisected	80x70x23	--	circular, gravels/cobbles, C14 flecks
72	D	2	628.15	416.10	NC	Root burn	Bisected	25x70x9	--	oval w/ C14 and gray halo
83	D	3	534.20	425.65	NC	Large shallow basin; possible filled depression	Excavated	220x90x10	1 H (window glass); 2 P (debitage)	large, shallow basin-shaped depression; 1 glass from base; south of Fea 85
85	D	3	538.00	425.50	NC	Large shallow basin; possible filled depression	Excavated	100x62x13	--	shallow basin, north of Fea 83
59	I	2	584.30	416.70	NC	Root burn	Bisected	13x55x29	--	
146	I	5	537.89	446.36	NC	Root burn	Bisected	121x65x30	--	
172	I	5	593.52	446.61	NC	Root burn	Bisected	102x62x31	--	mottled, root-like extensions, lenses of fill
185	I	6	572.74	455.56	NC	Bioturbation (rodent)	Bisected	40x46x24	--	splits into two parts w/ depth
190	I	6	585.83	455.81	NC	Bioturbation (rodent/root)	Bisected	35x46x35	--	extends into E trench wall, fresh rodent dist, irregular base

*H=Historic, P=Prehistoric, NC=Noncultural, Indeterm=Indeterminate; **Feature 1 identified in TU 6

Thermal Features

Five thermal-related features were identified on the surface of the B horizon in Trench 5 during plowzone stripping (see Table 6). These features included four oxidized stains (Features 150, 153, 161 and 171) and one medium circular/oval stain (Feature 154) (see Figure 2, Photographs 11-20).

The four oxidized stains were characterized by circular to oval areas of reddened soil and charcoal flecking; Feature 154 contained charcoal flecking but no evidence of oxidation. In planview, the features had maximum dimensions of between 56 and 95 cm (22 and 37 in) (see Photographs 11, 13, 15, 17 and 19). The upper portion of each of these features had been truncated by plowing and by plowzone stripping.

Photograph 11. Site 36LU301: Feature 150, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West

Photograph 12. Site 36LU301: Feature 150, Profile of Thermal Feature, Facing Northwest

Feature excavations exposed basin-shaped profiles with maximum depths ranging from 5 to 29.5 cm (2 to 12 in) (see Photographs 12, 14, 16, 18 and 20). Excavation of Feature 153 produced one debitage, while Feature 171 yielded one debitage and one piece of FCR. No cultural materials were recovered from the three remaining thermal features.

Flotation samples collected from each of these features have undergone initial laboratory processing. Materials recovered from flotation will be subject to archaeobotanical analysis and select charcoal samples will be submitted for radiocarbon analysis.

These thermal features represent the remains of burning events, which resulted in reddened soils and/or concentrations of charcoal flecking in these localities. The size and morphology of the features suggest that they may be the remains of truncated prehistoric hearth features. However, lacking associated diagnostic artifacts (and for three of the features, lacking any prehistoric artifacts), the origin of these features is currently indeterminate. It is possible that these features may reflect historic burning episodes within the cultivated field, or even natural tree burns. Subsequent feature interpretation is dependent on the results of forthcoming radiocarbon analysis of charcoal samples from the feature fill.

Photograph 13. Site 36LU301: Feature 153, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing North

Photograph 14. Site 36LU301: Feature 153, Profile of Thermal Feature, Facing Southeast

Photograph 15. Site 36LU301: Feature 154, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West

Photograph 16. Site 36LU301: Feature 154, Profile of Thermal Feature, Facing West

Photograph 17. Site 36LU301: Feature 161, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing North

Photograph 18. Site 36LU301: Feature 161, Profile of Thermal Feature, Facing West

Photograph 19. Site 36LU301: Feature 171, Plan View of Thermal Feature on Exposed B Horizon Surface (Trench 5), Facing West

Photograph 20. Site 36LU301: Feature 171, Profile of Thermal Feature, Facing West

Possible Prehistoric or Historic Postmolds

Two possible postmolds (Features 37 and 38) were identified on the B horizon surface in Trench 2 during plowzone stripping (see Figure 2, see Table 6). These features were both categorized as small circular/oval stains. They each measured approximately 20 cm (8 in) in diameter, had rounded to tapered bases, and extended to depths of 16 to 28 cm (6 to 11 in) below the B horizon surface (Photographs 21-22). They were both located in the southern portion of Trench 2, approximately 1.25 meters (4.1 feet) apart.

Photograph 21. Site 36LU301: Feature 37, Profile of Postmold on Exposed B Horizon Surface (Trench 2), Facing North

The size and morphology of Features 37 and 38 suggest that they may represent the truncated remains of prehistoric postmolds. However, as these features produced no artifacts, do not appear to be part of a larger postmold pattern, and are not associated with other prehistoric features, their prehistoric origin cannot be confirmed. It is also possible that these features may represent small historic period postmolds.

Photograph 22. Site 36LU301: Feature 38, Profile of Postmold on Exposed B Horizon Surface (Trench 2), Facing East

Historic Features

Plowzone stripping exposed six large soil anomalies that were considered likely to represent historic features (see Tables 4 and 5). One of these features (Feature 77) was sampled during Phase II investigations (see Table 6).

Feature 77 was identified on the surface of the B horizon near the southern end of Trench 3 (see Figure 2). Two other likely historic features (Feature 76 and 78) that were not included in the excavated sample abutted Feature 77 to the south and west, respectively (Photograph 23). In planview Feature 77 appeared as a large, dark-gray to dark-grayish brown, oval stain measuring 95x214 cm (3.2 to 7.0 feet) and extending into the east wall of the trench. A pocket knife and historic ceramics were observed on the surface of the feature. Excavation of the north half of the feature revealed a basin-shaped profile with a maximum depth of 26 cm (10 in) (Photograph 24).

Photograph 23. Site 36LU301: Feature 77, Plan View on Exposed B Horizon Surface (Trench 3) showing Feature 77 (to right) Feature 76 to the south and Feature 78 to the West (left), Facing North

Photograph 24. Site 36LU301: Feature 77, Profile, Facing East

Ninety-two historic artifacts were recovered during feature sampling. Over half of these specimens (58 percent, *n*=54) were animal bone and teeth. The remaining artifacts consisted largely of kitchen-related redware sherds (n=26), along with one stoneware sherd, one bone-handled pocket knife, one wrought nail, two fragments of window glass and seven indeterminate metal fragments.

Based on preliminary Phase II results, Feature 77 represents a shallow refuse pit. The presence of redware sherds, a wrought nail, and thin tinted window glass suggest an early to mid nineteenth century age for this feature. As the adjacent Michael's residence dates to circa 1880, this feature may be associated with a use of the field that predates construction of the current residence.

Non Cultural Features/Anomalies

Based on the results of feature excavations, 47 (85 percent) of the 55 possible cultural features sampled during Phase II fieldwork were concluded be noncultural anomalies. As described in Table 6, the majority (*n*=27) of these anomalies were categorized as small circular/oval stains, with a lower frequency of medium circular/oval stains, irregular stains, large circular stains, and large oval/elongate stains. Phase II investigations indicated that these stains primarily represented bioturbation (i.e. root and/or rodent disturbances) and areas of tree or root burns within the cultivated field. Two large oval/elongate stains (Feature 83 and 85) may reflect shallow in-filled depressions.

Artifacts were recovered from only two of these noncultural features (see Table 6). Feature 2 (a root disturbance in Trench 1) produced two debitage, while Feature 83 (shallow in-filled depression in Trench 3) yielded one debitage and one piece of window glass. No artifacts were recovered from the remaining features.

IV. Artifact Summary

GAI's Phase II investigations resulted in the recovery of 49 prehistoric lithic artifacts and 143 historic specimens.

Prehistoric Artifacts

Prehistoric lithic artifacts occurred in a very sparse, dispersed scatter, primarily within the western portion of the site. The lithic assemblage consisted of 2 bifaces, 24 debitage and 23 pieces of FCR. These artifacts were recovered overwhelmingly (83.7 percent, *n*=41) from plow disturbed contexts (surface and Ap horizon) (Table 7). Seven lithics were recovered from feature fill, while a single artifact was found on the plowzone-stripped B horizon surface (Trench 3).

Table 7. Site 36LU301 Phase II: Stratigraphic Distribution of Prehistoric Artifacts by Artifact Class

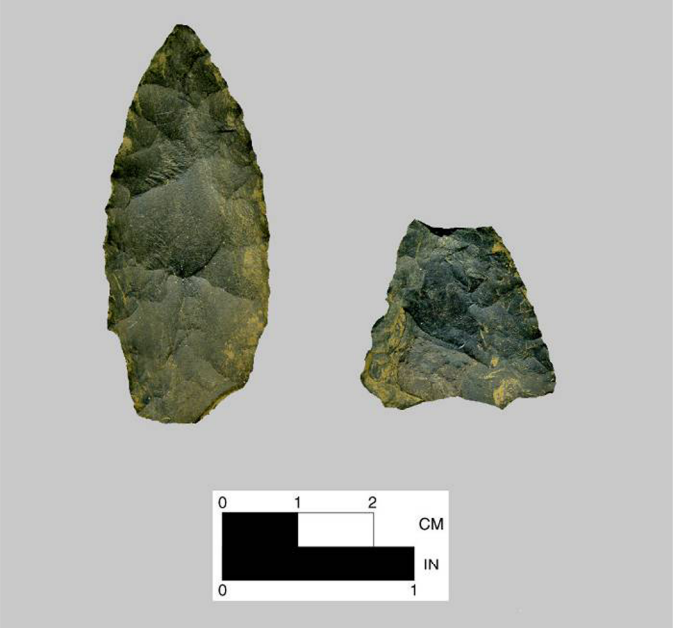
Soil Horizon	Biface	Debitage	Fire-Cracked Rock	Total	%
Surface	2	11	7	20	40.8%
Ap	0	6	15	21	42.9%
B	0	1	0	1	2.0%
Feature Fill	0	6	1	7	14.3%
TOTAL	**2**	**24**	**23**	**49**	100.00%

Lithic analysis identified eight raw material types within the small assemblage (Table 8). Shriver/Helderberg chert was used to manufacture the largest number (*n*=8) of chipped stone artifacts, including both bifaces. The remaining artifacts were made from claystone, Onondaga chert, metamorphic rock, black chert, dark-gray chert, and argillite. Metamorphic rock, sandstone, and claystone were used for fire-cracked rock.

Table 8. Site 36LU301 Phase II: Crosstabulation of Artifact Class by Lithic Raw Material

Material Type	Biface	Debitage	Fire Cracked Rock	Total	%
Argillite		1		1	2.0%
Black Chert		2		2	4.1%
Dark gray chert		2		2	4.1%
Claystone		5	1	6	12.2%
Metamorphic		4	13	17	34.7%
Onondaga		4		4	8.2%
Sandstone			9	9	18.4%
Shriver/Helderberg	2	6		8	16.3%
TOTAL	**2**	**24**	**23**	**49**	100.0%

The two bifaces recovered during Phase II investigations were both projectile points. They include one diagnostic Early Woodland Cresap-like project point (FS 216) and one untyped medial projectile point fragment (FS 217) that may represent a broken stemmed specimen (Photograph 25). Both points were found on the surface of the cultivated field, in the northwest portion of the site. They were separated by approximately 38 meters (124.7 feet).



Photograph 25. Site 36LU301: Early Woodland Cresap Projectile Point (FS 216) and Untyped Projectile Point (FS 217)

As noted previously, along with the prehistoric lithic artifacts reported here, more than 200 additional specimens of claystone were collected during initial surface collection activities. Subsequent to laboratory processing and analysis it was concluded that these specimens were likely noncultural. An outcrop of calcareous clay shale (claystone) occurs within the northern portion of the site and fractured pieces of this material were ubiquitous throughout the site. Although it is possible that this immediately-available claystone was used prehistorically for stone tool manufacture, no tools of this material were identified during Phase Ib or Phase II investigations. The breakage patterns observed in these specimens may be a result of plowing or other nondeliberate activity (e.g., vehicle impacts). The few specimens of claystone (*n*=5) included in the prehistoric lithic assemblage exhibit good flake morphology, however, it is possible that these specimens may also represent noncultural breakage.

Historic Artifacts

A total of 143 historic artifacts were collected within the boundary of Site 36LU301 during Phase II investigations. Approximately two-thirds (64 percent, *n*=92) of these artifacts were recovered from a single historic refuse pit (Feature 77), located in the cultivated field near the southwest corner of the site (see Figure 2; see Table 2). Nearly all of the remaining historic specimens (34 percent, *n*=48) occurred in plow disturbed contexts, in a low density scatter found largely in the southern portion of the site. One historic artifact was recovered from noncultural Feature 83, while two were found in disturbed contexts.

The historic artifact assemblage was composed predominantly of kitchen-related ceramics and glass (47.5 percent), and faunal remains (37.7 percent) (Table 9). Low frequencies of architectural debris, activities-related specimens, personal items and unidentifiable materials were also recovered.

The sample of kitchen ceramics (n=53) consisted largely of redware, with a lower frequency of plain and transfer print whiteware. Kitchen glass included clear bottle glass (*n*=12), aqua bottle glass (*n*=1), and canning jar lid liners (*n*=2).

The faunal assemblage (*n*=54) was composed of animal bone and teeth. These specimens will be subject to detailed faunal analysis to identify species type, where possible.

The low quantity of architectural debris (*n*=10) included window glass, brick fragments and nails (wrought and indeterminate). Activities-related items consisted of braided wire (*n*=2), while the single personal item was a bone-handled pocket knife.

The 92 historic artifacts recovered from Feature 77 included redware, a wrought nail, thin tinted window glass, and a relatively large quantity (*n*=54) of faunal remains (animal bone and teeth). Based on the presence of diagnostic specimens this feature appears to date to the early to mid nineteenth century.

The remaining low-density dispersed scatter of historic artifacts included clearly twentieth century materials and likely reflects field scatter associated with use of this property over approximately the last 175 years.

Table 9. Site 36LU301 Phase II: Pattern Analysis, Historic Artifacts

Class	Sub-Class	Ware Type/Object	Count	%
Activities	**Farming**	**braided wire**	**2**	**1.40%**
Architecture	Brick, Block	brick	2	1.40%
	Nails and Spikes	nail, indeterminate	1	0.70%
		nail, wrought	1	0.70%
	Window Glass	window glass	6	4.20%
		Architecture Total	**10**	**6.99%**
Faunal	Bone	bone	49	34.27%
		teeth	5	3.50%
		Faunal Total	**54**	**37.76%**
Kitchen	Bottles/Jars	bottle glass	10	7.0%
		Container glass	3	2.1%
	Ceramics	redware	45	31.49%
		Stoneware, olive glaze	1	0.70%
		whiteware, plain	5	3.50%
		whiteware, hand painted	1	0.7%
		whiteware, transfer print	1	0.7%
	Kitchen Related-Other	canning jar lid liner	2	1.40%
		Kitchen Total	**68**	**47.55%**
Personal	**Personal-Other**	**pocket knife**	**1**	**0.70%**
Unidentifiable	Indeterminate	indeterminate metal	7	4.90%
		indeterminate pewter	1	0.70%
		Unidentifiable Total	**8**	**5.59%**
		TOTAL	**143**	**100.00%**

V. Conclusions

GAI Consultants, Inc. conducted Phase II National Register Evaluations of Site 36LU301 at the Bell Bend Nuclear Power Plant (BBNPP), Luzerne County, Pennsylvania on behalf of PPL Bell Bend, LLC (PPL). Phase II fieldwork was performed between June 24 and July 27, 2011, and included a controlled surface collection, shovel testing, test unit excavations, plowzone stripping, and feature sampling.

Based on the results of this work, Site 36LU301 consists of a very low density, dispersed, prehistoric lithic scatter, measuring 140x210 meters (459x689 feet) and located on an upland flat north of Walker Run. The bulk of the site currently lies within a cultivated field. Phase II testing yielded just 49 prehistoric lithic artifacts (2 bifaces, 24 debitage and 23 pieces of fire-cracked rock), as well as 143 historic artifacts (largely faunal remains and kitchen-related ceramics and glass). The Phase II prehistoric assemblage included a single diagnostic specimen—an Early Woodland Cresap-like projectile point, found in a surface context within the plowed field.

In addition to these artifacts, Phase II plowzone stripping exposed an unanticipated 211 possible features on the B horizon surface within seven trenches; one additional possible feature was identified in a test unit, for a total of 212 possible features. As requested by PHMC-BHP, GAI investigated a 25 percent sample (n=55) of these features. Based on preliminary Phase II results, these 55 features include one historic refuse pit, five thermal features of indeterminate origin (possible prehistoric hearth features, historic burn features, or natural burn localities), and two prehistoric or historic postmolds. The remaining 47 sampled features were concluded to be noncultural anomalies, primarily reflecting extensive bioturbation (i.e. root and rodent disturbance) within the cultivated field. It is anticipated that the age and origin of the five thermal features documented during Phase II testing will be determined based on the results of forthcoming radiocarbon analysis.

Based on Phase Ib investigations and preliminary Phase II results, Site 36LU301 appears to represent the remains of multiple, small, brief, prehistoric occupations dating to the Early Archaic and Early Woodland periods. The historic artifacts and feature represent nineteenth through twentieth century field scatter and use of this property for refuse disposal. Final results of the Phase II study, including recommendations on the site's NRHP eligibility and the need for additional work, if necessary, will be provided in a Phase II Technical Report.

VI. References

Munford, Barbara A.
2010 *Addendum Report, Second Supplemental Phase Ib Cultural Resources Investigation, Power Block Relocation, Bell Bend Nuclear Power Plant, Luzerne County, Pennsylvania, ER 81-0658-079*. Prepared by GAI Consultants, Inc., Homestead, Pennsylvania, for AREVA NP Inc. and UniStar Nuclear Energy, LLC.

Munford, Barbara A, and Jared N. Tuk
2008 *Technical Report, Phase IA Cultural Resources Reconnaissance, Berwick, PA NPP-1, Areas 6, 7, 8 and Confers Lane Parcel, Luzerne County, Pennsylvania*. Prepared by GAI Consultants, Inc., Homestead, Pennsylvania, for AREVA NP Inc. and UniStar Nuclear Development, LLC.

Munford, Barbara A., Lori A. Frye, and Michael P. Kenneally
2010 *Technical Report, Phase I Cultural Resources Investigations and Phase II National Register Site Evaluations, Bell Bend Nuclear Power Plant, Luzerne County, Pennsylvania, ER 81-0658-079*. Prepared by GAI Consultants, Inc., Homestead, Pennsylvania, for UniStar Nuclear Energy, LLC.

Pennsylvania Historical and Museum Commission-Bureau for Historic Preservation (PHMC-BHP)
1991 *Cultural Resource Management in Pennsylvania: Guidelines for Archaeological Investigations*. Harrisburg.

Appendix A

Project Correspondence

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

20 May 2011

Rocco R. Sgarro
PPL Bell Bend, LLC
38 Bomboy Lane, Suite 2
Berwick, PA 18603

Re: ER# 81-0658-079-CC
Addendum Report, Second Supplemental Phase Ib Cultural Resource Investigation, Power Block Relocation, Bell Bend Nuclear Power Plant, Salem Township, Luzerne County, Pennsylvania

Dear Mr. Sgarro:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999 and 2004. These regulations require consideration of the project's potential effect upon both historic and archaeological resources.

This report meets our standards and specifications as outlined in *Guidelines for Archaeological Investigations in Pennsylvania* (BHP 2008) and the Secretary of the Interior's Guidelines for Archaeological Documentation. This report documents two previously unrecorded archaeological sites with the project area. These sites include **GAI Site 12 (36Lu301)** and **GAI Site 13 (36Lu302)**.

We agree that **36Lu301** is potentially eligible for inclusion on the National Register of Historic Places. If this site cannot be avoided by project activities, then a Phase II investigation is necessary to formally determine site eligibility.

We agree that **36Lu302** is not eligible for inclusion on the National Register. In our opinion, no further archaeological work is necessary at this site.

Please send four additional copies of the final report (three bound and one unbound) for our files and distribution to the repositories.

If you need further information in this matter please consult Steven McDougal at (717) 772-0923.

Sincerely,

Andrea L. MacDonald for

Douglas C. McLearen, Chief
Division of Archaeology &
Protection

cc: B. Munford, GAI Consultants, 385 E. Waterfront Dr., Homestead, PA
S. Imboden, NRC, Mailstop T-6D38M
J. Davis, NRC, Mailstop O-11F1

DCM/srm