

## Chapter 7. Phase II National Register Evaluations: Research Design and Methods

### Phase II Research Design

Because site avoidance through project design was not feasible, UniStar requested that GAI conduct Phase II National Register Site Evaluations of the seven potentially-eligible archaeological sites identified in the project area (Sites 36LU279, 36LU280, 36LU281, 36LU283, 36LU285, 36LU286, and 36LU288) to evaluate their eligibility to the NRHP. These seven sites include six historic period sites (36LU279, 36LU280, 36LU281, 36LU283, 36LU285, and 36LU286) and one prehistoric site (36LU288). For each site, specific objectives of the study included the following:

- (1) Determine the horizontal and vertical limits of the site in the APE;
- (2) Interpret the site's cultural affiliations, functions and significance;
- (3) Evaluate site integrity;
- (4) Conclusively determine the site's eligibility for listing on the NRHP;
- (5) Define the need for further archaeological work.

The *National Register Bulletin No. 15-How to Apply the National Register of Criteria for Evaluation* (NPS 1991) provides standards that a site must meet to be considered eligible to the NRHP. The researcher must first be able to establish an historic context for the site, relating it to a specific cultural group or particular time period, and secondly, document that the site retains integrity.

To establish the historic context of a site, archaeologists must determine the period of occupation or cultural affiliation, typically accomplished via analysis of diagnostic artifacts (e.g., projectile points, bottle glass manufacturing method, ceramic type and decoration method), or by the identification of features which may provide a means to date the site occupation (e.g., large sample of diagnostic historic period artifacts or radiocarbon dating of charcoal from prehistoric hearths). For historic sites, context can be established by means of historic map research and chain-of-title and deed research. If the age of a site cannot be established, the site cannot be placed within a broad historic context and likely will not be eligible to the NRHP.

If the site provides data regarding its period of occupation, it must also be shown to be significant under one of the four National Register Criteria: A) association with historic events; B) association with historic individuals; C) distinctive design/construction; or D) information potential. Archaeological sites generally cannot be linked to historic events (Criterion A) or historic individuals (Criterion B), nor can they be evaluated based on their distinctive design/construction (Criterion C). Thus, most historic and prehistoric sites are evaluated for NRHP eligibility under Criterion D, the potential to contribute important information on the prehistory or history of the region. Sites in the BBNPP project area were evaluated for their NRHP eligibility under Criterion D.

An archaeological site must also retain integrity to qualify as NRHP-eligible. For archaeological sites, integrity is a quality that typically reflects whether or not the site's physical components have been disturbed since their original deposition. If the disturbance has been substantial, resulting in a significant loss of integrity, the site is likely to be not eligible to the NRHP. However, if a site was not disturbed, or only minimally disturbed to the extent that the

disturbance has not affected the qualities that render it NRHP-eligible, then the site can still be considered eligible to the National Register.

## **Phase II Methods**

GAI conducted Phase II field investigations of the seven archaeological sites in the BBNPP project area between July 7 and November 2, 2009. Phase II tasks included site-specific archival research and field investigations. Detailed descriptions of Phase II methods for each Phase II site are presented in the appropriate site description chapters of this report (Chapters 10, 11, 12, 14, 16, 17, and 19). Updated Pennsylvania Archaeological Site Survey (PASS) Forms) for each of these sites are provided in Appendix D.

### **Site-Specific Archival Research**

GAI conducted site-specific archival research for each of the six historic period sites (Sites 36LU279, 36LU280, 36LU281, 36LU283, 36LU285, and 36LU286) during the course of Phase II investigations in order to support NRHP evaluations. The goal of this documentary research was to identify important historical themes, events, or persons associated with the region, county, city, or town in which the site was located, and to determine the significance of the site relative to these themes, events, or persons. GAI's Architectural Historian and/or Cultural Resource Specialist conducted chain-of-title research, census research and historic map reviews at the Luzerne County Historical Society, Luzerne County Courthouse, and Osterhout Free Library (Wyoming Valley Historical and Genealogical Society) in Wilkes-Barre; the Luzerne County Community College Local History Reading Room in Nanticoke; the McBride Memorial Library Local History Reading Room in Berwick; the Columbia County Historical and Genealogical Society in Bloomsburg; and the Pennsylvania State Archives in Harrisburg. Sources such as tax records, rent rolls, appropriate published and unpublished histories, and on-line sources were also consulted. Additional resources included aerial photographic documentation of the property (circa 1939),

For the single prehistoric site (36LU288), GAI reviewed data from previous sites identified within the project vicinity, focusing on those sites located within the same watershed.

Results of Phase II documentary or background research for each Phase II site are included in the site description chapters (Chapters 10, 11, 12, 14, 16, 17 and 19).

### **Phase II Field Methods**

Phase II field investigations at each site varied based on ground surface visibility as well as on the depth of proposed project impacts but generally consisted judgmental or close-interval shovel testing, followed by test unit excavation. Table 7-1 presents a summary of Phase II work effort and results for each site.

Prior to the start of Phase II field investigations sites were prepared either by plowing and disking or by brush clearing, as appropriate. Four of the seven Phase II sites (36LU279, 36LU280, 36LU281, and 36LU288) were located within previously cultivated fields that were plowed and disked to provide adequate visibility for subsequent surface collection. The three sites (36LU283, 36LU285 and 36LU286) situated in wooded or brush/grass-covered settings were cleared with a brush hog and/or by hand to expose surface features and structural remains. Mechanical removal of a surface gravel layer was also required in portions of Site 36LU286 to permit hand excavations.

Following site preparation, GAI surveyors used a total station to establish a grid at each site. Positive Phase Ib STPs were relocated, where possible, and were used to aid in the definition of site boundaries. A site datum was established and designated with arbitrary coordinates. Where



possible, the datum was tied into a permanent off-site marker. North/south and east/west baselines, marked by wooden stakes, were laid in across the site, as needed. GPS coordinates and ground surface elevations were recorded at these stakes. Phase II testing locations at each site were designated by their coordinates within this grid system.

Phase II fieldwork at the four sites situated in cultivated fields (36LU279, 36LU280, 36LU281 and 36LU288) began with a controlled surface collection (CSC) of the plowed and disked area. Each site was gridded into 15x15-foot (5x5-meter) collection blocks and artifacts observed on the surface were collected and provenienced by block. Based on the results of surface collection, judgmental STPs were excavated to sample artifact concentrations or locations of possible cultural features within the site area.

For the three sites located in wooded and/or brush covered settings (36LU283, 36LU285 and 36LU286), GAI conducted close-interval shovel testing to refine site boundaries within the project area and to delineate within-site artifact concentrations. STPs were generally excavated at 15-foot (5 meter) intervals throughout the site area. STPs measured approximately 1.5x1.5-feet (50x50 cm) in diameter and were hand-excavated by natural strata into the subsoil. Note that GAI's Phase II Scope of Work proposed a metal detector survey within portions of Sites 36LU283 and 36LU285 prior to the start of close interval shovel testing (see Appendix B). A metal detector survey was attempted at Site 36LU285, but due to the ubiquitous nature of identified metal (positive "hits") within the soils this methodology was unsuccessful in identifying subsurface remains and its use was terminated at these sites.

Based on the results of shovel testing or surface collection, GAI excavated test units in areas of higher artifact density, unusual stratigraphy or potential cultural features within each of the seven Phase II sites. Test unit excavations served to: (1) define site stratigraphy, (2) sample artifact concentrations and/or activity areas, (3) determine the potential for subsurface features, and (4) assess stratigraphic context and the integrity of archaeological remains. At each of the six historic period site (36LU279, 36LU280, 36LU281, 36LU283, 36LU285, and 36LU286) test units varied in size but generally measured 5x5 feet (1.5x1.5 meters) and 2.5x5 feet (0.76x1.5 meters). Test units at prehistoric Site 36LU288 measured 3x3-feet (1x1-meter). Test units were labeled sequentially within each site (i.e., TU 1, TU 2), as well as by their coordinates within the site grid. Results of initial test units guided the placement of subsequent test units. Test units were hand-excavated in 0.3-foot (10-cm) levels according to natural stratigraphy and extended into subsoil. At the completion of each test unit, measured profiles were drawn and photographs taken of at least one wall of each unit.

For both STPs and test units, excavated soils were screened through 0.25-inch (6-mm) hardware cloth for systematic artifact recovery. Recovered artifacts were bagged and labeled with appropriate provenience information. Select diagnostic artifacts found in situ were point provenienced and bagged separately. GAI archaeologists recorded results of individual STPs and test units on standardized field forms, including depths of soil horizons, soil texture and Munsell color, and artifact recovery. Testing locations were plotted on project maps and documented with photographs. STPs and test units were backfilled upon completion.

Due to the upland setting of the six historic period sites (36LU279, 36LU280, 36LU281, 36LU283, 36LU285, and 36LU286), cultural resources in these localities were expected to be near-surface in nature and excavations typically extended to a maximum depth of approximately 1.6 feet (50 cm) below ground surface. Site 36LU288, located on a low terrace/floodplain, has a potential for deeply buried cultural resources. However, proposed project impacts in this area are anticipated to be shallow [0.5-0.6 foot (15-18 cm)], resulting from its use as a temporary laydown area. Based on the proposed depth of impact, PHMC-BHP concurred that excavations

in this locality would extend to a maximum depth of 2.6 feet (80 cm) below ground surface [phone consultation with Steve McDougal (PHMC/BHP) on April 8, 2008; see Appendix A].

Following completion of test unit excavations at the four sites in cultivated fields (36LU279, 36LU280, 36LU281, and 36LU288), mechanical removal of the plowzone was conducted in portions of these sites to expose cultural features at the plowzone/subsoil interface. A backhoe with a flat blade was used to remove the plowzone within approximately 6.5-foot (2-meter) wide strips to the top of the B horizon. This activity was monitored by GAI archaeologists. The exposed subsoil surface within each strip was hand shovel-scraped in order to define and delineate features. Plowzone strips were plotted on project maps, documented with photographs and backfilled upon completion.

Potential cultural features exposed during test unit excavations were troweled clean to clearly determine boundaries. Feature locations were plotted on the appropriate level forms and on the site map. Digital photographs were taken of the feature in planview. A detailed plan map of the feature was drawn on a Standard GAI Feature Form and resulting field data, including soil descriptions, feature dimensions and provenience information, were recorded. The feature was then cross-sectioned for profiling. A portion (generally at least 3 liters) of the fill was collected as a flotation sample. The remainder of the feature fill was screened through 0.25-inch (6-mm) hardware cloth for systematic artifact recovery. A measured drawing of the feature profile was recorded on a Standard GAI Profile/Summary Form, noting feature shape, stratigraphy (if present), and soil descriptions. Photographs were taken of the feature profile. The remaining half of the feature was then excavated and its fill was screened. For large and/or linear features, only a portion of the feature was exposed and sampled during Phase II testing. Recovered artifacts and samples collected from the feature fill were placed in bags labeled with the appropriate provenience information. A GAI Feature Form was used to record provenience data, feature type, feature description, samples collected, and numbers and types of artifacts recovered. Features were numbered sequentially within each site.

### **Overview of Phase II Field Results**

As presented in Table 7-1, Phase II field investigations of Sites (Sites 36LU279, 36LU280, 36LU281, 36LU283, 36LU285, 36LU286 and 36LU288) included the excavation of 1,169 STPs and 80 test units. This work produced 63,170 artifacts, ranging from 387 to 26,549 artifacts per site. Twenty-nine features were also documented and sampled during Phase II testing. Site 36LU285 yielded approximately 42 percent of the total recovered artifacts while Site 36LU283 produced approximately 23 percent; these two sites each produced approximately one-quarter of the features (23 to 26 percent each).

**Table 7-1. Summary of Phase II Field Results by Site**

Site	GAI Site #	Dimensions	# STPs	# TUs	Surface Collection	Plowzone Stripping	Features	Phase II Artifacts (Prehist)	Phase II Artifacts (Hist)	Total Phase II Artifacts P/H
36LU279	2	230x150 ft	53	8	Yes	4@6x105 ft (2,520 ft <sup>2</sup> )	0	2	1242	1244
36LU280	3	120x155 ft	59	4	Yes	3@6x105 ft (1,890 ft <sup>2</sup> )	5	1	1953	1954
36LU281	4	130x150 ft	81	8	Yes	3@6x105 ft (1,890 ft <sup>2</sup> )	2	0	9090	9090
36LU283	7	170x475 ft	310	12	No	--	8	1	14508	14509
36LU285	9	82x377 ft	108	12	No	--	7	4	26545	26,549
36LU286	10	420x350 ft	502	16	No	--	5	36	9401	9,437
36LU288	5	500x850 ft	56	20	Yes	11@6x197 to 344 ft (23,358 ft <sup>2</sup> / 2,170 m <sup>2</sup> )	2	284	103	387
<b>TOTALS</b>			<b>1,169</b>	<b>80</b>			<b>29</b>	<b>328</b>	<b>62,842</b>	<b>63,170</b>

\*Site 36LU288 NRHP eligibility recommendation is for upper soil profiles only—deep deposits not tested.

Based on the results of Phase II investigations, all seven sites (36LU279, 36LU280, 36LU281, 36LU283, 36LU285, 36LU286 and 36LU288) are recommended as Not Eligible to the NRHP. Results of Phase Ib and Phase II investigations and recommendations of NRHP eligibility for these seven sites are presented in Chapters 10, 11, 12, 14, 16, 17 and 19. Artifact catalogs are presented in Appendix H.

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## Chapter 8. Analytical Methods

### Introduction

This chapter reviews the methods employed during analysis of historic and prehistoric artifacts recovered during GAI's Phase Ib and II investigations of the BBNPP project area. Brief overviews of analytical methods are presented for historic/modern artifacts, prehistoric lithics, and flotation/ethnobotanical remains. Detailed descriptions of historic artifact analysis and prehistoric lithic analysis are provided in Appendices I and J.

### Laboratory Processing

Cultural materials collected during Phase Ib survey and Phase II testing were transported to GAI's Archaeological Laboratory in Homestead, Pennsylvania, for processing and analysis. These materials were processed in accordance with the *Curation Guidelines* of the Pennsylvania Historical and Museum Commission (2005). Following completion of this project and approval of technical reporting, project materials will be donated to the PHMC-BHP for permanent curation at the State Museum of Pennsylvania.

For each site, the initial processing stage consisted of checking artifact bags against the field-generated Field Specimen Log to confirm that all collected materials were present. Artifacts were temporarily placed in numerical order according to Field Specimen Number (FS#), providing a basis for processing, analysis, and curation. Artifacts were then cleaned, generally with water and a soft brush. Metal artifacts and perishable items were cleaned by dry-brushing. Non-cultural materials (i.e., pebbles) included in the artifact samples were recorded and discarded during this stage of processing or in later stages, as they were recognized. Cultural materials were placed on artifact-drying racks to air dry.

When dry, the artifacts within each provenience were sorted into basic artifact classes (i.e., glass, ceramics, metal) and were re-bagged accordingly in clean, perforated, 4-mil polyethylene bags. Bags were labeled with provenience information using a permanent ink marker. An acid-free paper tag with complete provenience information was also placed inside each artifact bag.

Specimens large enough in size were then labeled with the site number and the appropriate field specimen number (FS#). Labels were written in permanent ink and coated with PVA. After washing and labeling, artifacts were subject to the appropriate laboratory analysis.

### Methods of Historic/Modern Artifact Analysis

Historic/modern artifacts recovered during Phase II investigations were subjected to identification and analysis using GAI's Historic Coding scheme (see Appendix I). This multivariate classification system codes for significant attributes of various artifact classes. Artifact analysis was focused on the creation of an inventory of artifact classes and types to examine issues of chronology and function for each site containing historic/modern components. A variety of analytical techniques was employed to synthesize artifact data including standard classification typologies developed by South (1977).

Once washed, artifacts were sorted into major material classes including ceramics, glass, and metal. The materials were then subjected to a preliminary analysis, which included a basic description of artifacts by material class, functional group, and relevant attributes. Included among the recorded attributes, as applicable, are type, beginning and end dates of production, form, motif/decoration, color, manufacturing technique, functional group, base, finish, embossment, maker's mark/manufacturer, material, bore diameter, and pattern class and subclass (South 1977:95-96). Artifact dating was based on the identification of maker's marks,

diagnostic-manufacturing methods, such as bottle mold seams, bottle pontil marks, ceramic bodies and glazes, and known dates of production.

Coded data, using unique codes for each artifact description, were entered into the Access database. This database was subsequently converted into the Excel computer program for purposes of data manipulation and table generation.

Historic ceramic analysis focused on identifying ware and type categories, decorative attributes, and maker's marks, in order to interpret site chronology. Whenever possible, each provenience was assigned dates based on a Mean Ceramic Dates (MCD) and Terminus Post Quem (TPQ) date. Attributes recorded during the ceramic analysis include count, ware, type, form, motif, colors, percent complete, and functional group for each artifact or group of artifacts. Maker's marks were described in detail and dated, when possible.

Glass artifacts, much like ceramics, were tabulated according to major groups (e.g., bottle glass, window glass, lamp glass, tableware, tumblers) and then separated into functional categories whenever possible. Dating information was based on the identification of diagnostic technological attributes (e.g., mold seams and evidence of snap-case manufacture) in addition to identifiable bottle embossments. Attributes recorded for glass artifacts include manufacturing technique, decoration, finish type, base type, color, and functional group. The beginning and end dates for datable attributes were determined. Maker's marks and embossments were described and dated, when possible.

Other historic/modern artifact classes include architectural debris (e.g., bricks, nails, window glass, etc.), clothing (type and materials identified when possible) and miscellaneous small finds. Where appropriate, attributes such as character, wear, decoration, and material were recorded for these artifacts.

A data base was created for each site to use with Surfer 8.0 program to create artifact distribution maps. Recorded data include coordinates, total number of artifacts, number of kitchen-group artifacts, and number of architecture-group artifacts. The artifact distribution maps produced using this program were examined to identify artifact clusters.

### **Methods of Prehistoric Lithic Analysis**

The analytical approach for stone tools and debris employed here can be described as technomorphological; that is, lithic artifact classes and types were based on key morphological attributes, which are linked to or indicative of particular stone tool production (reduction) strategies (see Appendix J).

Following initial artifact processing, GAI's Lithic Analyst divided lithic artifacts from each provenience into general classes (i.e., debitage, bifaces, unifaces, cores, cobble tools, groundstone, fire-cracked rock) and then subdivided them into specific artifact types (i.e., early-stage biface, late-stage biface, projectile point) for that particular class. Artifacts were then examined and appropriate attributes were recorded. The surfaces and edges of artifacts were examined with the unaided eye and with a 10x hand lens, where appropriate, to discern evidence of retouch and/or utilization.

Lithic raw material type was recorded for all artifacts. These lithic raw material types were defined on the basis of macroscopic characteristics, including color, texture, hardness, and inclusions (Luedtke 1992). Where possible using conservative standards and based on the above macroscopic criteria, nonlocal (i.e., excluding cobble quartz and quartzite) lithic raw material types were attributed to known geological sources based on published sources (e.g., Stewart 1984) and by reference to GAI's lithic reference collection.

All lithic tools were examined at a detailed analysis level that recorded temporal/stylistic, functional, and technological variables as well as lithic raw material type. These variables included artifact class, artifact type, condition of specimen, presence/type of cortex, weight, and metric dimensions (when complete). Further artifact-specific observations (e.g., heat damage, refit, unique characteristics) were noted where appropriate. Diagnostic projectile points, important in assessing the age of prehistoric components represented at the sites, were to be identified through a comparison with standard typologies established for Maryland and the eastern United States (Stevenson et al. 1963; Dent 1995; Justice 1995; Broyles 1971; Coe 1964; Ritchie 1961). Additional variables of point type and temporal affiliation were to be recorded for diagnostic points.

Lithic debitage was classified using a typology designed to detect differences in lithic reduction practices and early vs. late-stage reduction (e.g., decortication flake, bipolar reduction flake, early reduction flake, biface thinning flake). Other attributes recorded on debitage included raw material, presence and type of cortex (as indicators of primary or secondary geologic source), weight and size grade.

Information recorded during lithic analysis was entered on analysis sheets as a series of codes, unique to each variable. The codes were then entered into Access, a relational database. For the purposes of data analysis and manipulation, this database was subsequently converted to the Excel computer program for data manipulation and table generation.

### **Methods of Flotation Processing**

Soil flotation samples were collected from feature fill during excavation in order to recover small specimens that would normally pass through 6-mm (0.25-inch) hardware cloth and to provide a constant volume sample of mortar, brick, shell, and coal, which may have been judgmentally-sampled during the screening process in the field.

Flotation samples of feature fill were processed at GAI's Archaeological Laboratory using an *R. J. Dausman Flot-Tech* flotation machine. The Dausman flotation machine is a self-contained, multi-modal system that uses a closed-loop water recirculation system. It allows the user to manually adjust water circulation and flow rates to assist in the separation of light and heavy fractions of flotation samples. This method produces clean, sediment-free, light and heavy fraction feature fill samples. Once floted, the materials were allowed to air dry before being re-bagged according to heavy or light fraction type into clean, 4-mil polyethylene bags. As with artifact processing, these bags were clearly labeled with provenience information using a permanent ink marker and an acid-free tag with complete provenience information placed inside each bag.

Following flotation processing, GAI technicians examined heavy fractions of each sample to collect cultural materials. To insure standardization during flotation sample "picking," each heavy fraction sample was examined for 20 minutes to separate out other cultural materials. Cultural materials identified in the samples were subjected to historic or prehistoric analysis as described above.

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## Chapter 9. Site 36LU278 (GAI Site 1)

### *Phase Ib*

**Location:** *West Alternative, Section 1*

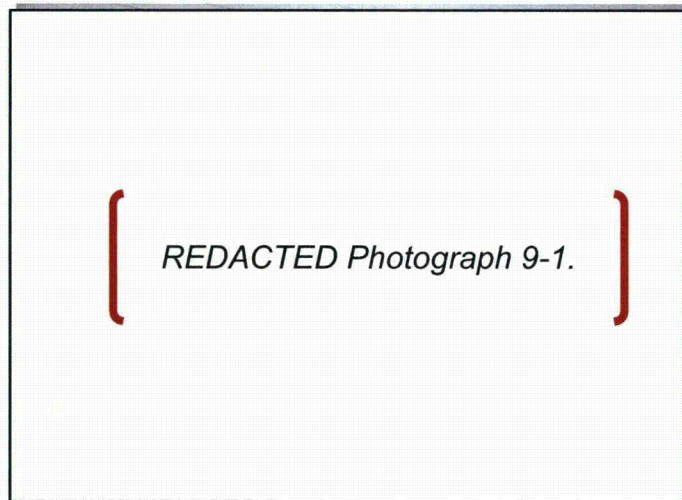
**Site Type:** *Indeterminate Prehistoric*

**Site Size:** *3x21 meters (10x70 feet)*

**Recommendations:** *Not NRHP Eligible/No Further Work*

Site 36LU278 (Site 1) is a small, undated prehistoric lithic scatter located in the West Alternative, Section 1, in the northwest portion of the project area (see Figure 1-3, Figure 9-1). It is situated in a cultivated field on a gently sloping upland hillside, approximately 49 meters (160 feet) south of Beach Grove Road (Figure 9-2, Photograph 9-1). Walker Run is located approximately 701 meters (2300 feet) to its west. The site lies at an elevation of approximately 730 feet above mean sea level (amsl); the hilltop located to its southwest rises to an elevation of 800 feet amsl. Identified during Phase Ib pedestrian ground survey, Site 36LU278 has dimensions of 3x21 meters (10x70 feet). Prehistoric Isolated Finds 24, 25, and 27, also recorded during pedestrian ground survey, are located between 27 and 85 meters (90 and 280 feet) south and west of Site 36LU278. These isolated artifacts consist of two pieces of debitage (IFs 24 and 25) and one distal fragment of a projectile point (IF 27). Proposed project impacts will result from cooling tower construction.

**Photograph 9-1. View of Site 36LU278 showing Pedestrian Ground Survey of Cultivated Field, Facing Southwest**



GAI's Phase Ib investigations in this locality consisted of pedestrian ground survey of the cultivated field and judgmental shovel testing. Initial pedestrian ground survey, conducted in transects spaced at 15-meter intervals, identified three prehistoric lithic artifacts in the northeast corner of the field. Observed surface artifacts were marked with pin flags. A grid was then established over this locality using a compass and tapes. Because of the low density and dispersed nature of the observed surface artifacts in this field, individual artifacts were point provenienced by coordinates within this grid system, rather than being collected by 5-meter blocks. Following collection of surface artifacts, GAI excavated one shovel test (STP 1) immediately east of these surface finds to document stratigraphy and the depth of cultural deposits in the site locality.

Shovel testing revealed an Ap-B soil horizon sequence within the field. As described for STP 1 the profile consists of a 28-cm-thick dark yellowish-brown silt loam plowzone above a brownish-yellow silty clay B horizon (Figure 9-3). Artifacts were recovered from the surface only. No cultural features were identified.

The three lithic artifacts recovered from Site 36LU278 consist of two untyped projectile point fragments and one piece of debitage. Both point fragments are manufactured from black chert, while the debitage (flake fragment) is made from grainy gray chert. One of the point fragments (FS 1) represents a small distal (tip) fragment while the other (FS 2) is an untyped stemmed point base. No diagnostic artifacts were recovered from this site.

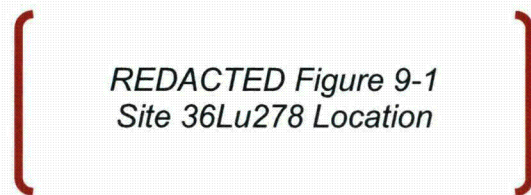
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*Site 36LU278 Recommendations*

*Site 36LU278 is a small, undated, prehistoric lithic scatter on an upland hillside east of Walker Run. The low artifact density and limited range of artifact types suggests that this site represents a small, brief prehistoric occupation. Due to the absence of diagnostic artifacts or dateable cultural features, the age of the site cannot be determined. The integrity of this site is good, with disturbances limited to cultivation. Based on the site's low artifact density and lack of diagnostic artifacts or features GAI concludes that the potential for Site 36LU278 to contribute important information on the prehistoric utilization of this area is low. GAI recommends that Site 36LU278 is Not Eligible for listing in the National Register under Criterion D. No further archaeological investigations are recommended for this site. The PHMC-BHP reviewed preliminary results of Phase Ib investigations of Site 36LU278 as presented in GAI's Phase Management Summary (Munford and Tuk 2008) and in a March 2, 2009 review letter (see Appendix A) concurred with GAI's recommendations for this site.*

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**Figure 9-1. Site 36LU278 Location**

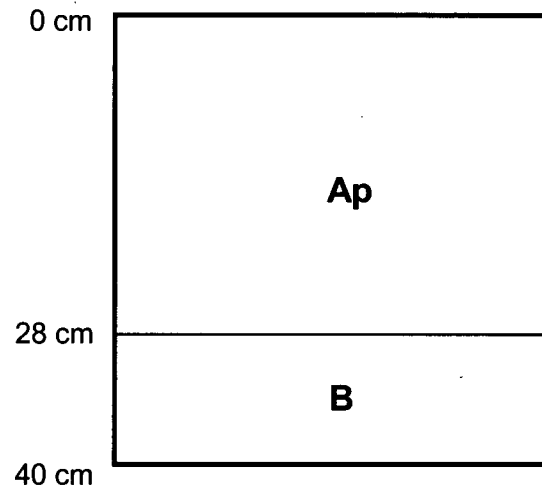


**Figure 9-2. Site 36LU278 showing Phase Ib Testing Locations**

*REDACTED Figure 9-2  
Site 36Lu278 showing Phase Ib  
Testing Locations*

# SITE 36LU278

## STP 1

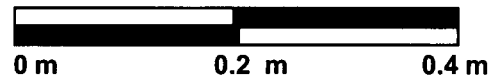


### KEY:

Ap – DARK YELLOWISH BROWN (10YR 4/4) SILT LOAM

B – BROWNISH YELLOW (10YR 6/6) SILTY CLAY LOAM

### SCALE



gai consultants

DWN LMD CHKD TJN

APPD BAM DATE 09/04/08

SCALE AS NOTED

DRAWING NUMBER C080204.10.002.C.A.Si 1

FIGURE 9-3. SITE 36LU278: REPRESENTATIVE PHASE Ib SOIL PROFILE (STP 1)

BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

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## Chapter 10. Site 36LU279 (GAI Site 2)

### *Phase Ib and Phase II*

*Location: West Alternative, Section 7*

*Site Type: Early to mid 19<sup>th</sup> Domestic Site; Prehistoric Lithic Scatter*

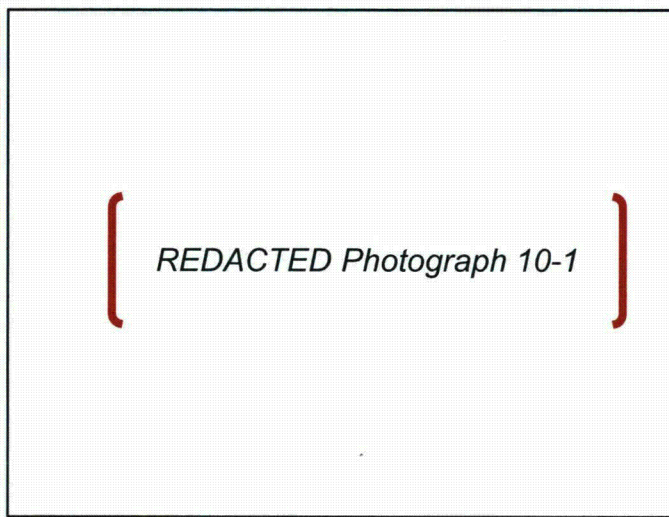
*Site Size: 230x150 feet (70x46 meters)*

*Recommendations: Not NRHP Eligible*

### Site Setting

GAI conducted a Phase Ib survey and a Phase II National Register site evaluation of Site 36LU279 (GAI Site 2). This historic period site (and minimal prehistoric lithic scatter) is situated in the West Alternative, Section 7, along the western margin of the project area (see Figure 1-3; Figure 10-1). It occupies the northern portion of a cultivated field flanked by North Market Street

to the west and woodlands bordering Walker Run to the east (Photograph 10-1). A slight rise is located in the central portion of the site. This upland setting has an elevation of 660 feet amsl. Site 36LU279 was identified during the Phase Ib pedestrian ground survey and has dimensions of 230x150 feet (70x46 feet). Disturbances in the site area appear to be limited to cultivation. Proposed project impacts will result from use of this locality as a laydown area.



**Photograph 10-1. Overview of Site 36LU279, Facing Southeast**

### Phase Ib Investigations

Phase Ib investigations of Site 36LU279 consisted of pedestrian ground survey, systematic surface collection and the excavation of judgmental shovel tests (Figure 10-2). Initial pedestrian ground survey, conducted in transects spaced at 15-meter intervals, identified an artifact scatter in the northern portion of the field. Artifacts observed on the surface were marked with pin flags. A grid was then established over this locality using a compass and tapes and the site was subject to a systematic surface collection. Observed artifacts were collected by 5-meter-blocks within the grid system. Artifacts were recovered from 56 5-meter blocks, with artifact density ranging from 1 to 10 per block. Three shovel tests were excavated in the north, east-central, and southern portion of the site to document stratigraphy and the depth of cultural deposits.

Shovel tests excavated at the site revealed an Ap-B soil horizon sequence. As described for STP 3, this profile consisted of a 30-cm-thick brown silt loam plowzone and a brown silty clay loam B horizon (Figure 10-3). Historic artifacts were recovered from the Ap horizon as well as from the surface. No cultural features were identified.

Phase Ib survey of Site 36LU279 generated 159 artifacts (Table 10-1). Approximately 90 percent of the artifact assemblage fell within the kitchen group and included bottles and ceramics. The vast majority of ceramics ( $n=104$ ) were redware, which typically dates to the



eighteenth and nineteenth centuries. There were several other temporally diagnostic ceramics including plain pearlware (1780-1830), hand-painted blue pearlware (1780-1820), hand-painted polychrome pearlware (1795-1820), and hand-painted polychrome whiteware (1840-1860). Architecture-related remains include a brick, a nail, and window glass. The window glass was thin, which is typical for the early to mid-nineteenth century. A small quantity of other artifacts was recovered including a honey-colored (French) gunflint, an aluminum pull-tab (modern), glass insulator, and a bolt (Photograph 10-2). The paucity of architectural-related artifacts may indicate that there was once a log house at this site, most likely during the second and third quarters of the nineteenth century.

**Table 10-1. Site 36LU279: Phase Ib Artifact Pattern Analysis**

Class	Sub-Class	Total	Percent
<b>Activities</b>	Cans/Tins	1	0.63
	Machine Parts/ Hardware	1	0.63
	<b>Activities Total</b>	<b>2</b>	<b>1.26</b>
<b>Architecture</b>	Brick	1	0.63
	Electrical	1	0.63
	Nails	1	0.63
	Window Glass	9	5.66
	<b>Architecture Total</b>	<b>12</b>	<b>7.55</b>
<b>Arms</b>	<b>Gunflints</b>	<b>1</b>	<b>0.63</b>
<b>Faunal</b>	<b>Bone</b>	<b>1</b>	<b>0.63</b>
<b>Kitchen</b>	Bottles/Jars	4	2.52
	Ceramics	139	87.42
	<b>Kitchen Total</b>	<b>143</b>	<b>89.94</b>
<b>TOTAL</b>		<b>159</b>	<b>100.00</b>



**Photograph 10-2. Site 37LU279: French Gun Flint Found during Phase Ib Surface Collecting Activities**



Phase I investigations produced 25 temporally diagnostic artifacts (Table 10-2). Since no structure appears in the site location on an 1873 map and the artifact assemblage appears to date to the nineteenth century, an arbitrary date of 1900 was used as the end date for plain whiteware and ironstone sherds. These artifacts yielded a mean date of 1850 and a TPQ date of 1840 for the site.

**Table 10-2. Site 36LU279: Phase Ib Artifact Dating Analysis**

Artifact	Item Description	Count	Start Date	End Date	Reference
Pearlware	plain	3	1780	1830	South 1977
Pearlware	hand painted; polychrome	3	1780	1830	South 1977
Whiteware	plain	16	1830	1900	Price 1979; Noël Hume 1980
Whiteware	hand painted brown	2	1840	1860	Lofstrum et al. 1982; Majewski & O'Brien 1984
Ironstone	plain	1	1840	1900	Wetherbee 1980
<b>Total Count</b>		<b>25</b>			
<b>Mean Date</b>		<b>1850</b>			
<b>TPQ</b>		<b>1840</b>			

### Phase Ib Summary and Recommendations

Site 36LU279 possessed good integrity and was composed of an early to mid-nineteenth century surface artifact scatter consisting largely of kitchen-related specimens, with low quantities of architectural debris and other artifacts. This artifact sample was considered a likely early domestic occupation for this area. The low quantity of architectural-related artifacts was consistent with use of a log house.

Based on the Phase Ib results (good integrity, artifacts from a relatively short timeframe, and likely association with a former structure), GAI recommended that Site 36LU279 was potentially eligible for listing in the NRHP under Criterion D. The PHMC-BHP reviewed preliminary results presented in GAI's Phase Ib Management Summary (Munford and Tuk 2008) and concurred with this recommendation in a letter dated March 2, 2009 (see Appendix A). Because Site 36LU279 could not be avoided by the proposed project construction, a Phase II archaeological evaluation was undertaken at this site.

### Phase II Methods

The Phase II study was designed to: (1) interpret the cultural affiliation and function of the site; (2) identify the horizontal and vertical site limits; (3) determine site integrity; (4) assess the site research potential; and (5) evaluate site significance as defined by eligibility for listing on the National Register of Historic Places. Phase II fieldwork was conducted in August 2009.

Phase II investigations consisted of archival research, field excavations, and laboratory analysis. The archival research focused on the former landowners. Fieldwork included with a controlled surface collection of the plowed field within 15x15 ft (4.6x4.6 m) blocks, followed by excavation of 81 STPs on a 15-foot (4.6-meter) grid and eight judgmentally placed test units (4-5x5-ft [1.5x1.5 m] and 4-2.5x5-ft [0.76x1.5 m]). Upon completion of the test units, the plowzone was removed from four mechanically excavated trenches, each measuring 6x105 feet (1.83x32 m) to search for cultural features.

### Phase II Archival Research

Map, deed, probate, and census documents were examined to develop a context and establish a chain-of-title for the property. Sites 36LU279 and 36LU286 are located within the same 142-acre parcel, which has remained undivided since it was originally granted to Jacob Smethers by the Commonwealth of Pennsylvania on April 5, 1814. While this chapter presents the results of

the deed and census research for the individuals who owned the land encompassing both sites, additional information specifically relating to Site 36LU286 will be presented in Chapter 17. Archival research revealed that the portion of the parcel occupied by 36LU279 is possibly associated with a log cabin dating to the early owners of the subject parcel. Table 10-3 summarizes chain-of-title data for Sites 36LU279 and 36LU286. A Warrantee Map drawn in 1848 shows how this area was divided and records the original landowners (Figure 10-4).

**Table 10-3. Site 36LU279: Chain-of-Title**

Date of Instrument	Grantee/Defendant	Grantor/Complainant	Conveyance Reference	Comments
July 1, 2000	PPL Susquehanna LLC	PPL Electric Utilities Corporation	Luzerne County Deed Book 2741:702	142 Acres
July 29, 1986	PPL Electric Utilities Corporation	William E. Kisner	Luzerne County Deed Book 2206:613	142 Acres
March 25, 1965	Emery R. Kisner Jr. and William E. Kisner	Emery R. Kisner Sr.	Luzerne County Deed Book 1563:690	142 Acres
July 3, 1944	Emery R. Kisner Sr. and Elsie Kisner	Mary J. Lutz	Luzerne County Deed Book 917:85	142 Acres
March 12, 1925	Mary J. Lutz	William J. Lutz	Luzerne County Deed Book 622:186	142 Acres
April 1, 1909	William J. Lutz	Elizabeth Hess, et ux.	Luzerne County Deed Book 495:266	142 Acres
November 5, 1865	Jacob Harter and John Hess	Jeremiah Hess	Luzerne County Deed Book 103:130	142 Acres
April 26, 1824	Jeremiah Hess	Christian Stout	Luzerne County Deed Book 20:330	142 Acres
November 28, 1819	Christian Stout	Frederick Nogle and Elizabeth Nogle	Luzerne County Deed Book 20:129	142 Acres
May 19, 1819	Frederick Nogle	Jacob Smethers and Rosena Smethers	Luzerne County Deed Book 19:573	142 Acres
April 5, 1814	Jacob Smethers	Commonwealth of Pennsylvania	Luzerne County Patent Book "H" Vol. 9:537	142 Acres

Further research, which included Federal Census data, tax assessment rolls, agricultural census data, and local history literature, was used in conjunction with deeds to develop the overall history of Site 36LU279.

Jacob Smethers was born in Northampton County, Pennsylvania, and was an early inhabitant of Luzerne County. It is unknown at what time he moved to Luzerne County, but a 1796 list of taxable inhabitants of Salem Township lists a Jacob Smuthers (Bradsby 1893:643). It is possible that this is the same Jacob Smethers, as his name is listed with variable spellings throughout the historical records. A review of the Federal Census records revealed that Jacob Smethers was living in Salem Township in 1800 as the head of a household of eight people: one male and three females under the age of 10, two males between the ages of 10 and 16, and one male and one female (presumably Jacob and his wife Rosena) between the ages of 26 and 45.

The 1810 Federal Census lists Jacob Smethers as still being the head of a household of eight; however, it appears that the structure of his family had changed. Jacob is listed as being older than 45, while Rosena is listed as still being between the age of 26 and 45. One male and two females are listed as being under the age of 10, and these would most likely represent new children in the family. Two males and one female are listed as being between the ages of 10 and 16. Considering that a decade earlier, Jacob and Rosena had one male and three females

listed as living in the household under the age of 10, it appears that two of their daughters no longer resided in the household. The 1810 census also listed Jacob as a farmer who owned one slave.

A review of tax assessment records for Jacob Smethers revealed that in 1812, prior to the granting of the subject parcel, Jacob owned 147 acres of land, with 45 acres improved and 102 acres unimproved, on two lots of ground containing a house and a barn. The 1813 tax assessment (also prior to the grant of the current parcel) states that Jacob owned 144 acres of land, 47 acres of which were improved, and 97 acres unimproved, on two lots of ground containing two houses and a barn. The 1815 tax assessment, one year after the Commonwealth of Pennsylvania granted Jacob the parcel containing Sites 36LU279 and 36LU286, states that Jacob again owned 147 acres of land, 45 acres being improved and 102 acres being unimproved, on two lots of ground containing one house and two barns. These assessments most likely refer to other land owned by Jacob Smethers, as the 142-acre parcel of land containing Sites 36LU279 and 36LU286 has remained an undivided 142-acre lot since the original 1814 grant. However, these tax assessments and census information illustrate that Jacob Smethers was farming in Salem Township both before and after he was granted the parcel of land on which Site 36LU279 and 36LU286 are located.

Between 1819 and 1824, the subject parcel traded hands numerous times. Frederick Nogle purchased the land from Jacob Smethers and his wife Rosena Smethers on May 19, 1819, for \$3,500.00 (Luzerne County Deeds 20:330). Frederick Nogle sold the property to Christian Stout on November 28, 1819, for \$3,500.00 (Luzerne County Deeds 20:129). The 1820 Federal Census listed Christian Stout as the head of a household of 13 people: three males and one female under the age of 10, one male and two females between the ages of 10 and 16, one male between the ages of 16 and 18, three females between the ages of 16 and 26, and one male and one female (presumably Christian Stout and his wife) were listed as being between the ages of 26 and 45. The census noted that three of the members of Mr. Stout's household were engaged in agriculture.

Christian Stout sold the property to Jeremiah Hess on April 26, 1824, for \$4,500.00 (Luzerne County Deeds 20:330). Jeremiah Hess was born in Easton, Northampton County, Pennsylvania in 1795, and moved to Luzerne County with his family in 1803. Jeremiah was a miller by trade and built a mill in Wapwallopen, Luzerne County, which he operated until he traded it for a farm in Salem Township. In 1824, he purchased the farm located within the project area (Beers, ed. 1915:437). However, the Federal Censuses did not list Jeremiah as a Salem Township resident until 1860. The 1830 census stated that Jeremiah Hess resided and operated his mill in nearby Wapwallopen. Based on this evidence, it appears that during the years before he resided in Salem Township, Jeremiah may have used the property located within the project area solely for farming and/or grazing land. Jeremiah Hess and his wife had 11 children: John, Philip, Jeremiah, Nathan, Reuben, Aaron, Susan (Fenstermacher), Elizabeth (Hill), Catherine (Hill) and Amanda (who died before reaching adulthood).

Jeremiah Hess's 142 acres of property were recorded in an 1826 tax assessment. The assessment stated that Jeremiah owned one lot in Salem Township that included 60 acres of improved land and 82 acres of unimproved land. One house and one outbuilding were located on his property. A subsequent tax assessment in 1830 listed no houses or outbuildings on the property, but revealed an increase in improved land to 63 acres, with 79 acres unimproved. An 1835 tax assessment revealed a further increase in improved land to 85 acres, with 70 acres unimproved. No houses or outbuildings were identified on the property, but Jeremiah was assessed for 155 acres of land. An 1840 tax assessment revealed another increase in improved

land to 90 acres, with 45 acres unimproved. Again, no houses or outbuildings were assessed on the property, and Jeremiah was only assessed for 135 acres. In 1845, Jeremiah was again assessed for 135 acres, but 95 were improved, and 40 were unimproved. These assessments reveal a steady increase in tillable land on Jeremiah Hess' property between 1826 and 1845, suggesting an increase in farming activity during that time. Of particular interest in the 1845 tax assessment is the listing of two houses and two outbuildings on the property; previous tax assessments listed the property as being void of structures subsequent to the 1830 assessment (Table 10-4).

**Table 10-4. Site 36LU279: Tax Assessment for Jeremiah and John Hess**

Description	Jeremiah Hess Ownership					John Hess Ownership	
	1826	1830	1835	1840	1845	1866	1875
Improved Land	60 acres	63 acres	85 acres	90 acres	95 acres	100 acres	100 acres
Unimproved Land	82 Acres	79 acres	70 acres	45 acres	40 acres	40 acres	40 acres
Lots of land	1	1	1	1	1	1	1
Houses	1	0	0	0	2	1	1
Outbuildings	1	0	0	2	2	2	2
Mills	0	0	0	0	0	0	0
Horses	2	2	2	3	3	1	2
Oxen	0	1	1	0	0	0	0
Cows	3	3	3	4	4	2	2
Occupation	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer	Farmer
<b>Total Valuation</b>	<b>\$790.00</b>	<b>\$1,059.00</b>	<b>\$1,059.00</b>	<b>\$997.00</b>	<b>\$665.00</b>	<b>\$1,804.00</b>	<b>\$2,716.00</b>

The listing of structures on the 1845 assessment corresponds to the 1850 Federal Census, which listed two of Jeremiah Hess' children (Jeremiah M. and John) as heads of households residing in Salem Township. It is possible that Jeremiah's two sons constructed houses on their father's property around that time.

The 1850 Federal Census listed Jeremiah Hess' son Jeremiah as a 35-year-old head of a household that included his wife Maria, who was 34 years old, his sister Mary, 28 years old, his brother Aaron, 23 years old, his brother Reuben, 15 years old, and his sister Catherine, 15 years old. The census also listed that Sarah Fenstermacher, 11 years old, lived with the family. Sarah Fenstermacher may have been the daughter of Jeremiah Hess' daughter Susan. The Fenstermachers were also early settlers and farmers of the Salem Township area. The three males in the household were listed as farmers. Since the 1850 Federal Census did not list Jeremiah Hess, Sr. as a Salem Township resident, it is assumed he continued to operate his mill in Wapwallopen while his children lived and worked the farm on which Sites 36LU279 and 36LU286 are located.

This is further confirmed, as Jeremiah Hess' Salem Township farm was surveyed as part of the 1850 Federal Agricultural Census, although he was not listed as a Salem Township resident (Table 10-5). This agricultural schedule provides a detailed account of the activities of the farm at that time, and reveals that the Hess farm was involved in the raising of dairy cows for the production of butter, and that the Hesses kept bees for the production of beeswax and honey. They also raised cattle and hogs for slaughter and cultivated cereal grains and vegetable crops, including corn, wheat, oats, potatoes, rye, buckwheat, and hay. The census stated that the household sold \$13.00 worth of home-manufactured goods. This diverse system of farming allowed families a wider range of commodities to barter and trade in the local economy, providing a strategy for obtaining goods not produced on the farm. Furthermore, the wide variety of farming techniques, including the tending of livestock and dairy production, as well as

the intensive farming of crops, suggests that the entire family, both males and females, were engaged in the production of the farm (McMurry 1988:91).

**Table 10-5. Site 36LU279: Agricultural Census Data**

Description	Jeremiah Hess	John Hess	
	1850	1870	1880
Improved Land (acres)	60	100	100
Unimproved land (acres)	14	40	40
Cash Value of farm	\$3,000.00	\$6,000.00	\$6,000.00
Value of Farming Implements	\$250.00	\$279.00	\$200.00
Wages Paid for Labor and Board	n/a	\$400.00	\$125.00
Horses	3	4	4
Asses and Mules	0	0	0
Milk Cows	4	7	7
Working Oxen	0	0	0
Other Cattle	4	0	0
Sheep	0	4	0
Swine	13	7	6
Value of Livestock	\$394.00	\$787.00	\$300.00
Poultry (Barnyard/Other)	n/a	n/a	40/0
Eggs Produced (dozens)	n/a	n/a	250
Wheat (bushels)	150	185	200
Rye (bushels)	40	75	20
Indian Corn (bushels)	200	250	500
Oats (bushels)	100	300	200
Rice (lbs.)	0	0	0
Tobacco (lbs.)	0	0	0
Wool (lbs.)	0	200	0
Peas & Beans (bushels)	0	0	0
Irish Potatoes (bushels)	100	100	200
Sweet Potatoes (bushels)	0	0	0
Barley (bushels)	0	0	0
Buckwheat (bushels)	20	0	0
Apple Bearing Trees/Bushels	n/a	n/a	
Value of Orchard Products	\$0.00	\$10.00	\$6.00
Wine (gallons)	0	0	0
Value of Produce of Market Gardens	\$0.00	\$0.00	\$0.00
Butter (lbs.)	300	400	500
Cheese (lbs.)	0	0	0
Hay (tons)	12	20	15
Clover Seed (bushels)	2	0	0
Other Grass Seed (bushels)	0	0	0
Hops (lbs.)	0	0	0
Flax (lbs.)	0	0	0
Flaxseed (bushels)	0	0	0
Maple Sugar (lbs.)	0	0	0
Cane Sugar (lbs.)	0	0	0
Molasses (gallons)	0	0	0
Beeswax and Honey (lbs.)	50	50	0
Value of Home-made Manufactures	\$13.00	\$0.00	n/a
Value of Animals slaughtered	\$75.00	\$222.00	n/a
Estimated Value of Farm Production	n/a	\$1,608.00	\$1,000.00

John Hess, Jeremiah's other son living in Salem Township, was listed as the head of a household of six persons in the 1850 Federal Census. He lived with his 27-year-old wife Elizabeth, his four-year-old son Norman, two-year-old son Urias, and 11-month-old daughter

Rachel. Eliza Bittenbanden, 18 years old, was also listed as living with the family. It is possible that she worked as a servant. It is also possible that John and his family lived in one of the houses mentioned in Jeremiah Hess' 1845 tax assessment, as the property was later sold to him by his father.

The 1860 Federal Census listed Jeremiah Hess as a 67-year-old farmer who lived in Salem Township with his 61-year-old wife Catharine. This was the first Federal Census that listed Jeremiah Hess, Sr. as residing in Salem Township. According to *The History of Columbia and Montour Counties*, Jeremiah Hess retired to his farm in Salem Township sometime around 1860 where, although retired, he oversaw the operation of the farm (Beers 1915:437).

The dynamics of John Hess' family changed between the 1850 and 1860 Federal Census. At the time of the latter census, he was listed as the head of a household of seven persons. John was 41 years old, his wife Elizabeth, 37 years old, his son Norman W., 14 years old, and his son Urias was 12 years old. It appears that his daughter Rachel, who was 11 months old in 1850, had died, and John and his wife had three more daughters: Lydia C. was seven years old, Alice was five years old, and Lizza was two years old. There is no mention of Eliza Bittenbanden being in the household.

Jeremiah Hess owned the property until November 5, 1865, when he sold the land to his son John Hess and Jacob Harter for \$5,000.00 (Luzerne County Deeds 103:130). It is unclear who Jacob Harter was in relation to John Hess, but considering John Hess' wife Elizabeth's maiden name was Harter, he was likely a relative by marriage. Regardless, by the time of John Hess' death in 1881, he was the sole owner of the property.

In 1866, shortly after John Hess' acquired the property from his father, he was assessed for taxes on a plot of land that consisted of 100 acres of improved land and 40 acres of unimproved land. The tax assessment also listed one house and two outbuildings on the property. This assessment reveals an increase of five acres of cleared land and one less house than recorded in 1845. It is probable that after John acquired the property from his father one of the houses on the property, which may have housed his brother Jeremiah M. and his other siblings, was demolished.

The 1870 Federal Census listed John Hess, 51 years old, as the head of a household of eight, including his wife Elizabeth, 47; his sons Norman W., 24, and Urias, 22; and his daughters Lydia C., 17, Alice, 15, and Lizza, 12. The census also recorded that a laborer named Winner, 66 years old, lived with the family.

Jacob Harter was listed in the 1870 Federal Census as a 41-year-old head of a household of six that resided in Salem Township. Others in his household included his wife Cordelia, 41 years old, son James W., 15 years old, son Asbury A., 13 years old, son William P., 9 years old, and a "baby", one month old. Although the census listed Jacob as a farmer, it is unclear if he lived on the property at that time.

In 1870, John's father Jeremiah still lived on the property with his wife Catharine, and according to the 1870 Federal Census, he was 78 years old, while his wife was 70. The census did not list any personal or real estate value for Jeremiah, likely because he had sold the property to John and only resided there. Jeremiah Hess, Sr. died in 1877 at the age of 86. He still resided on the farm at the time of his death (Beers 1915:437).

The Hess farm was again surveyed in the Federal Agricultural Census in 1870 (see Table 1--5). At that time the census listed the farm in the name of John Hess. The 1870 agriculture schedule illustrates that between 1850 and 1870 the Hess' began raising sheep for the production of wool and increased their number of dairy cows, resulting in the production of 100 additional pounds of

butter. Also important to note is that as the farm increased in size so too did the cultivation of crops; most notably the harvest of oats tripled, and the harvest of rye nearly doubled. It appears that orchards were planted between 1850 and 1870, as the census recorded \$10.00 worth of products sold. However, no selling of manufactured goods was recorded, and no cattle other than dairy cows were present on the farm.

It was during the period of John Hess's ownership that an 1873 map of the area identified a structure labeled "J. Hess" in the immediate vicinity of Site 36LU286, and an absence of any other structures within the parcel (Figure 10-5).

The 1880 Federal Census listed John Hess as 61 years old and the head of a household of seven that included his wife Elizabeth, 56, son Urias, 31, daughter-in-law Fannie Hess, 29, and daughter Lydia C., 26, who at that time had the surname Smethers. The census also listed that two farm-hand servants, Elias Lawall, 17, and Stephan Halk, 50, lived in the household. The presence of servants and laborers in the 1870 and 1880 Federal Censuses, as well as the increased value of the property in the tax assessments between 1866 and 1875, illustrate the growing prosperity of the farm during this time.

As evidenced by the 1880 Federal Agricultural Census, between the years of 1850 and 1880, the Hess farm continued to increase the cultivation of wheat, corn, potatoes, and butter. The production of corn and potatoes doubled between 1870 and 1880. However, the farm witnessed a decrease in the cultivation of rye, oats, and hay between 1870 and 1880. Furthermore, the farm did not raise sheep and did not keep bees in 1880 (see Table 10-5). This suggests a more focused specialization in the production of wheat, corn, and butter during these years.

John Hess died in 1881 and willed the property to his heirs, who were listed on the deed as "Elizabeth widow of John Hess, Norman W. Hess and his wife Leah D. Hess from the borough of Benton, Lizzie Hess and William F. Hess of Wapwallopen, Urias Hess and his wife Fannie Hess from Salem Township, Lydia C. Harman and her husband Chester A. Harman of Salem Township, Alice Smethers and Jacob C. Smethers from Berwick" (Luzerne County Deed Book 495:266). Interestingly, two of John Hess' daughters, Lydia C. and Alice, married descendants of original landowner Jacob Smethers. Lydia C. first married Wesley Smethers and later Chester A. Harmon (Beers 1915:437).

William J. Lutz purchased the land from John Hess' heirs on April 1, 1909. William was born around 1874 and married his wife Mary around 1896. The 1910 Federal Census listed William J. Lutz as 36 years old, and the head of a household of four people. His wife Mary was listed as 34 years old, and his two daughters, May and Elsie were 13 and 3, respectively. The census also noted that Lutz owned his farm with a mortgage. The 1920 census listed William Lutz as 45 years old, and the head of a household of five, including his wife Mary, 42, daughter Elsie, 13, and son William A., seven. A 19-year-old boarder, Carl Gerts, was also listed as residing with the family. The census stated that he owned his farm free with no mortgage.

On March 12, 1925, William J. Lutz deeded the property to his wife Mary J. Lutz (Luzerne County Deed Book 622:186). The 1930 Federal Census listed William J. Lutz as 56 years old, and the head of a household of four, including his wife Mary, 55, daughter Elsie, a 23-year-old school teacher, and son William A, 18. William's real estate was valued at \$10,000, and it is assumed that included the property he deeded to his wife.

During the period of Mary Lutz's ownership, a 1939 aerial photograph was taken that shows a farmstead complex consisting of numerous structures in the same vicinity as the John Hess structure depicted on the 1873 map (Site 36LU286), but no structures in the vicinity of Site 36LU279 (Figure 10-6).

On July 3, 1944, Mary J. Lutz sold the property to Emery R. Kisner Sr. and his wife Elsie (Luzerne County Deed Book 917:85). During Emery and Elsie Kisner's ownership of the property, a 1955 quadrangle map illustrates a cluster of structures in the vicinity of Site 36LU286, but again, no structures are depicted in the vicinity of Site 36LU279 (Figure 10-7). Furthermore, an aerial photograph taken in 1959 reveals an absence of buildings in the vicinity of Site 36LU279 (Figure 10-8).

After the death of his wife Elsie, Emery Kisner became the sole owner of the land on February 24, 1965. One month later, on March 25, 1965, William E. Kisner and his brother Emery R. Kisner Jr. inherited the property from their father (Luzerne County Deed Book 1563:690). An aerial photograph taken in 1969 shows a complex of buildings in the vicinity of Site 36LU286, but no buildings are present in the vicinity of Site 36LU279 (Figure 10-9). It is unknown when William E. Kisner became the sole owner of the property but on July 29, 1986, William E. Kisner granted and conveyed an undivided 90% interest to PPL Electric Utilities Corporation and an undivided 10% interest to Allegheny Electric Cooperative (Luzerne County Deed Book 2206:613). Subsequently, on July 1, 2000, PPL Susquehanna LLC, the present owner of the parcel of land containing Sites 36LU279 and 36LU286, acquired the property (along with an additional 85.882 acres) from PPL Electric Utilities Corporation (Luzerne County Deed Book 2741:702).

Tax assessment records indicate at least three different houses were constructed within this 142-acre parcel. The earliest dwellings, recorded in 1826, consisted of one house and one outbuilding. The 1830 tax assessment shows no structures to assess, indicating that they were demolished between 1826 and 1830. The property remains void of structures in the 1835 and 1840 tax assessments. It is not until the 1845 tax assessment that structures are again recorded on the property, and these consist of two houses and two outbuildings (see Table 10-4). Unless one of the houses was built over the location of the former structures, there would be three different house sites on this parcel. It is unknown whether the two houses and outbuildings listed on the 1845 tax assessment were constructed near the structure shown in the 1873 map (Site 36LU286), or if they represent different house locations. Given the paucity of architectural-related artifacts, and the early dates of the artifacts recovered, it is possible that the house and outbuilding listed in the 1826 tax assessment, and subsequently demolished prior to 1830, are represented by the artifact assemblage recovered from Site 36LU279. This early house and outbuilding are related to the early occupation of the parcel and date from the period of ownership of Jacob Smethers, Frederick Nogel, and Christian Stout. The dates of these occupations correspond to the artifacts recovered from Site 36LU279, and the lack of architectural-related artifacts found at that site may indicate that there was once a log house in the vicinity, which would also correspond to the early dates of occupation.

## **Phase II Fieldwork**

Site 36LU279 was located in a cultivated agricultural field that was planted in corn at the time of the Phase II study (Figure 10-10). Prior to the start of fieldwork, the corn was mechanically cut and removed from the site area. Following site clearing, GAI surveyors established a grid across the site using a total station. The grid covered a 285x180 ft area (gridlines N120-405 and E210-390) and was oriented at an angle of N 10 degrees E. Hubs were placed at 15-foot (4.6-meter) intervals along gridlines at the edges of the site boundary and at select grid points throughout the site. The site datum (N300 E300) was located on a slight rise in the northern portion of the site.



## Phase II Soils and Geomorphology

Phase II excavations exposed an Ap-B soil horizon sequence across the site. The Ap horizon (plowzone) varied from brown to dark yellowish-brown silt loam measuring from 0.8 to 1.1 ft thick. The B horizon (subsoil) was typically yellowish-brown silt loam. The subsoil in TU 5, located in a low-lying area with the water table encountered at the B horizon, was comprised of grayish-brown silty clay loam.

### Artifact Distribution (Controlled Surface Collection and Shovel Tests)

The controlled surface collection (CSC) blocks and STP excavations were used to examine artifact distributions across the site and to refine the horizontal site limits. On domestic sites, higher frequencies of artifacts are generally found near the house and yard area and in refuse deposits, while lesser quantities are found on the fringe of the habitation area and lightly scattered across fields. CSC block artifact distributions and STP artifact distributions were plotted on site maps and the distribution of artifacts were used, in part, to guide the placement of subsequent test units.

Typically, concentrations of architectural remains reflect the general locations of former structures, burn piles, or refuse dumps. Concentrations of kitchen-related artifacts can be useful in identifying the former location of a structure, especially if these are associated with concentrations of architectural remains. Kitchen-related artifacts may also indicate activity areas around the house.

Phase II fieldwork began with a controlled surface collection of the site area within 217-15x15 ft (4.6x4.6 m) blocks. Surface collection activities yielded 369 historic and 3 prehistoric artifacts from 94 positive blocks (Figure 10-11). Surface collection activities were useful in identifying general artifact densities across the site. Four of the CSC blocks produced architecture remains (one to two specimens per block): N150 E300, N165 E240, N270 E285, and N330 E270. There were only six CSC blocks that produced 10 or more artifacts, all of which were kitchen-related items: N150 E285, N180 E315, N195 E255, N 195 E315, N210 E255, and N225 E255. The CSC block at N195 E255 is especially noteworthy, as it yielded 35 artifacts while the remaining blocks with high artifact counts produced only between 10 and 13 artifacts each.

Nearly all (98.6%) of the historic artifacts from CSC N195 E255 fell within the kitchen class (Table 10-6). Architecture-related artifacts were restricted to four brick and one window glass. The vast majority of artifacts were redware sherds, which were common utilitarian wares used in the first half of the nineteenth century. Pearlware and whiteware represented small components within the ceramic assemblage.

**Table 10-6. Site 36LU279: Controlled Surface Collection, Historic Artifact Pattern Table**

Class	Subclass	Object/Ware	Total	Percentage
Architecture	Brick, Block	Brick	4	1.1%
	Window Glass	Window glass	1	0.3%
Architecture Total			5	1.4%
Kitchen	Bottles	Bottle glass	2	0.5%
	Ceramics	Earthenware, indeterminate decoration	2	0.5%
		Pearlware, plain	4	1.1%
		Pearlware, transfer printed, blue	4	1.1%
		Pearlware, transfer printed, brown	1	0.3%
		Redware, glazed	138	37.4%
		Redware, unglazed	203	55.0%

Class	Subclass	Object/Ware	Total	Percentage
		Whiteware, paste only	1	0.3%
		Whiteware, plain	9	2.5%
Kitchen Total			364	98.6%
TOTAL			369	100.0%

Subsurface testing began with the systematic excavation of 53 STPs at 15-ft (4.6-m) intervals (Figure 10-12). Shovel test pits measured approximately 50 cm in diameter and were excavated in natural layers. The goals of this close interval testing were to help identify site limits, provide information on soil stratigraphy and artifact distribution, and identify potential features and activity areas.

Of the 53 STPs excavated, only 15 STPs produced artifacts. STP excavations resulted in the recovery of 72 historic artifacts, including 67 kitchen-related artifacts and five architecture-related artifacts (Table 10-7). Most of the positive shovel tests yielded a very low artifact density ( $\leq 5$  artifacts per shovel test). Five of the STPs produced more than five artifacts. STP N210 E270 produced 21 artifacts while the other four STPs (N180 E255, N180 E300, N180 E330, and N210 E255) yielded six to nine artifacts each.

**Table 10-7. Site 36LU279: Phase II STP Excavations, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Total	Percentage
Architecture	Brick, Block	Brick	1	1.4%
	Window Glass	Window glass	4	5.6%
Architecture Total			5	6.9%
Kitchen	Ceramics	Pearlware, plain	2	2.8%
		Pearlware, underglaze handpainted	1	1.4%
		Redware, glazed	24	33.3%
		Redware, unglazed	28	38.9%
		Stoneware, gray bodied	1	1.4%
		Whiteware, hand painted	1	1.4%
		Whiteware, plain	6	8.3%
		Whiteware, shell edged	1	1.4%
		Whiteware, transfer printed, blue	2	2.8%
		Yellowware, plain	1	1.4%
Kitchen Total			67	93.1%
TOTAL			72	100.0%

Nearly all of the artifacts (93%) were ceramics that fell within the kitchen class. Like the CSC artifact assemblage, architectural remains included a small quantity of window glass and brick; there were also a few whiteware and pearlware sherds, but redware ceramic dominated the assemblage.

Distributions of artifacts from all CSC blocks and STPs provide information on site limits and show general patterns of site usage. The site size of 230x150 feet (70x46 m) reflects the location of positive CSC blocks and STPs. No features were identified during these activities.

The total number of artifacts from the CSC blocks and STP excavations were plotted on two distribution maps (see Figures 10-10 and 10-11). Based on these maps one centrally located artifact concentration was identified.

High densities of artifacts can be useful indicators of feature and activity area locations. Only three STPs produced architecture artifacts, all of which fell in the artifact concentration (Figure 10-13). Three architectural related artifacts were recovered from the STP N210 E270, perhaps indicating that a structure was once located in this area. Sixteen STPs produced kitchen-related artifacts; all but three of these fell within the central artifact concentration (Figure 10-14). Five STPs produced more than five kitchen-related artifacts, including N180 E180, N210 E255, N210 E270, N180 E300 and N180 E330.

#### Test Units

GAI excavated eight test units of varying sizes, totaling 150 square feet (13.9 square meters), to further investigate the moderately high-density artifact cluster (see Figure 10-11). Test unit information is summarized in Table 10-8. Test unit excavations produced 801 artifacts. No features were identified. Test units are discussed below by three general locations: Test Units 2, 4, and 8 (possible house location), Test Units 3, 6, and 7 (possible activity area), and Test Units 1 and 5 (possible front yard area).

**Table 10-8. Site 36LU279, Test Unit Summary Information**

Test Unit #	Size (in ft)	Location	Soil Stratigraphy (Depth is feet below ground surface)	Artifact Ct.	Comments
1	5x5	N177 E306	Ap, 0-0.8' brown silt loam B, 0.8-1.2' brown (7.5YR5/4) silt loam	81	No features present. Plow scars visible at Ap/B interface.
2	5x5	N201 E270	Ap, 0-1.1' dark yellowish-brown silt loam B, 1.1-1.4' yellowish-brown silty clay loam	202	No features present.
3	2.5x5	N180 E262	Ap, 0-0.8' dark yellowish-brown silt loam B, 0.8-1.1'-13.5" yellowish-brown silty clay loam	50	No features present. Plow scars visible at Ap/B interface.
4	2.5x5	N210 E260	Ap, 0-1.0' brown silt loam B, 1.0-1.3' yellowish-brown silt loam	123	No features present. Plow scars visible at Ap/B interface.
5	5x5	N155 E295	Ap1, 0-0.9 dark yellowish-brown silt loam Ap2, 0.9-1.0' dark-brown silt loam B, 1.0-1.3' grayish-brown silty clay loam (wet soils)	66	No features present. An older plowzone measuring one inch thick was evident at base of recent plowzone
6	5x5	N193 E262	Ap, 0-1.0' brown silt loam B, 1.0-1.3' yellowish-brown silt loam	161	No features present. Plow scars visible at Ap/B interface.
7	2.5x5	N178 E250	Ap, 0-0.8' brown silt loam B, 0.8-1.2' yellowish-brown silt loam	27	No features present.
8	2.5x5	N212 E272	Ap, 0-0.9' brown silt loam B, 0.9-1.25' yellowish-brown silt loam	88	No features present. Plow scars visible at Ap/B interface.

*Test Units 2, 4, and 8* were excavated to investigate evidence of a structure in the vicinity of STP N210 E270, where three architecture-related artifacts were recovered. The soil stratigraphy exhibited an Ap-B soil horizon sequence (Figure 10-15). The Ap horizon or plowzone was 9.5-13 inches thick and varied from brown to dark yellowish-brown silt loam. Typically, plow scars were visible at the Ap/B interface. The sterile subsoil or B horizon was comprised of yellowish-brown silt loam to silty clay loam (Photograph 10-3). No features were identified in these three units.

*Test Unit 2* (5x5 ft) produced 202 artifacts from the Ap horizon (Table 10-9). Architecture-related artifacts included three brick fragments, one indeterminate nail, and four window glass. Four lamp chimney-glass fragments fell within the furnishing group. The remaining 191 artifacts consisted of ceramics.

**Photograph 10-3. Site 36LU279: Test Unit 4, South Profile. Note Plow Scars at Ap/B Interface.**



**Table 10-9. Site 36LU279: TUs 2, 4, and 8 Artifact Pattern Analysis**

Class	Subclass	Object/Ware	TU 2 Count	TU 4 Count	TU 8 Count	TOTAL	Percentage
Architecture	Brick, Block	Brick	3	8	1	12	2.9%
	Nails, Spikes, Etc.	Nail, indeterminate	1		1	2	0.5%
	Window Glass	Window glass	4	4	3	11	2.7%
Architecture Total			8	12	5	25	6.1%
Furnishings	Lighting	Lamp chimney glass	3			3	0.7%
Kitchen	Ceramics	Earthenware, indeterminate decoration	3			3	0.7%
		Pearlware, indeterminate decoration	1			1	0.2%
		Pearlware, plain	13	3	12	28	6.8%
		Pearlware, shell edged	3		2	5	1.2%
		Pearlware, simple bands	1		1	2	0.5%
		Pearlware, transfer printed, blue	1	1		2	0.5%
		Pearlware, handpainted	2			2	0.5%
		Redware, glazed	55	28	26	109	26.4%
		Redware, slipware, trailed			1	1	0.2%
		Redware, unglazed	49	53	28	130	31.5%
		Whiteware, hand painted	1			1	0.2%
		Whiteware, indeterminate decoration	1			1	0.2%
		Whiteware, plain	52	24	8	84	20.3%
		Whiteware, shell edged	1			1	0.2%
		Whiteware, simple bands	4		1	5	1.2%
		Whiteware, transfer printed, black	2			2	0.5%
		Whiteware, transfer printed, blue	1		3	4	1.0%
		Whiteware, stamped		2		2	0.5%
		Yellowware, plain	1		1	2	0.5%
Kitchen Total			191	111	83	385	93.2%
TOTAL			202	123	88	413	100.0%

In *Test Unit 4* (2.5x5 ft), 123 artifacts were recovered from the plowzone horizon (see Table 10-9). The artifacts consisted of eight brick fragments, four window glass pieces, and 111 ceramic sherds. The ceramics were comprised of redware, pearlware, and whiteware types.

*Test Unit 8* (2.5x5 ft) excavations generated 88 artifacts from the plowzone horizon (see Table 10-9). The artifacts include one brick, one nail, three window glass, and 83 ceramics (redware, yellowware, pearlware, and whiteware).

For all three units, the ceramic assemblage was dominated by redware sherds, which comprised approximately 58% of the entire assemblage. Redware is low-fired, porous clay that was usually glazed on the interior surface, although some vessel forms, such as jars, bowls, and pitchers, were glazed on both surfaces to make the vessel waterproof (Baughner-Perlin 1978: 201-202). Redware, a nineteenth century utilitarian ware, was made into other vessel forms, such as mugs, milk pans, crocks, chamber pots, and wash sets. Redware with trailed slip was commonly found on pie plates. Yellowware, which accounted for less than 1% of all artifacts, is also a utilitarian ware.

Pearlware and whiteware were refined earthenwares generally used for food and tea service. Pearlware was generally produced in the last quarter of the eighteenth century and the first quarter of the nineteenth century. The sample of pearlware, which comprised 9.7% of the assemblage, consisted of five different varieties including plain, shell-edged, banded, hand-painted, and blue transfer print. Plain pearlware was the least expensive variety, followed by minimally-decorated wares such as shell-edged and banded. Hand-painted and transfer printed wares were more expensive, with transfer printed designs representing the most expensive type of ceramic decoration at that time. Because the production of pearlware ended before this area was settled, it is likely that the pearlware sherds reflect dishes the family possessed prior to moving to this site.

Whiteware sherds represented 24.1% of the assemblage. This new ware type began to supplant pearlware around 1820. Therefore, the whiteware ceramics could have been in the family's possession when they moved to this site, or purchased after the family settled on the property. The decoration types displayed on the whiteware assemblage were very similar to the pearlware types and included plain, edge decorated, banded, hand-painted, and transfer printed varieties; in addition, there were two sponge-stamped sherds which were also relatively inexpensive compared to hand-painted and transfer printed designs.

Other types of artifacts recovered from these units include a small quantity of brick, window glass, nails, and lamp chimney glass. The paucity of construction materials (along with the lack of features) suggests that the house was located elsewhere on the site or the house was constructed of logs. The low density of artifacts indicates that the site was occupied for a very brief period or that the main occupation and activity area was located elsewhere within the site limits.

*Test Units 3, 6, and 7* were excavated within an area identified as having moderate quantities of artifact during the CSC and STP excavation. The soil stratigraphy exhibited an Ap-B soil horizon sequence (Figure 10-16). The Ap horizon or plowzone was 9.5-12 inches thick and varied from dark yellowish-brown to brown silt loam (Photograph 10-4). Typically, plow scars were visible at the Ap/B interface. The sterile subsoil or B horizon was comprised of yellowish-brown silt loam to silty clay loam. No features were identified in these units.





**Photograph 10-4. Site 36LU279: Test Unit 6, South Profile. Note Plow Scars at Ap/B Interface.**

Test Unit 3 (2.5x5 ft) excavations produced 50 artifacts from the plowzone horizon (Table 10-10). The majority of the artifacts consisted of ceramics (redware and whiteware types). Other types of artifacts produced from this unit include bottle glass, window glass, and safety glass.

**Table 10-10. Site 36LU279: Test Units 3, 6 and 7, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	TU 3 Count	TU 6 Count	TU 7 Count	Total	Percentage		
Architecture	Brick, Block	Brick		1	7	8	3.3%		
	Nails	Nail, indeterminate		2		2	0.8%		
	Window Glass	Window glass	2	2	1	5	2.1%		
		Safety Glass		1		1	0.4%		
Architecture Total			3	5	8	16	6.6%		
Kitchen	Bottles	Bottle glass	2	5		7	2.9%		
	Ceramics	Pearlware, plain			12	5	17	7.1%	
		Pearlware, shell edged			2		2	0.8%	
		Redware, glazed		19	45	4	68	28.2%	
		Redware, unglazed		15	35	7	57	23.7%	
		Whiteware, hand painted			1		1	0.4%	
		Whiteware, plain		13	45	3	61	25.3%	
		Whiteware, simple bands			1		1	0.4%	
		Whiteware, sponge stamped			2		2	0.8%	
		Whiteware, transfer printed, black			2		2	0.8%	
		Whiteware, transfer printed, blue		1	1		2	0.8%	
		Whiteware, underglaze handpainted			1		1	0.4%	
		Whiteware, underglaze stenciled			1		1	0.4%	
		Yellowware, plain			2		2	0.8%	
		Yellowware, Rockingham			1		1	0.4%	
		Kitchen Total			50	156	19	225	93.4%
		TOTAL			53	161	27	241	100.0%

Test Unit 6 (5x5 ft) excavations produced 161 artifacts from the plowzone horizon (see Table 10-10). The artifact assemblage included brick fragments, indeterminate nail pieces, window glass, bottle glass fragments, and ceramics. The ceramics included redware, yellowware, pearlware, and whiteware types.



Excavation of *Test Unit 7* (2.5x5 ft) recovered only 27 artifacts--all from the plowzone horizon (see Table 10-10). The artifact assemblage included seven brick fragments, one window glass fragment, and 19 ceramic (redware, pearlware, and whiteware) sherds.

The artifact assemblage for Test Units 3, 6, and 7, although smaller in number, was very similar to that recovered from Test Units 2, 4, and 8. The assemblage was dominated by utilitarian wares, especially redware sherds ( $n=125$ ), which comprised nearly 52% of the artifacts, and to a lesser extent, yellowware, which comprised 1.2% of the assemblage. Tablewares, such as pearlware and whiteware, were present in smaller quantities, with whiteware ( $n=71$  or 29.3%) more common than pearlware ( $n=19$  or 7.9%).

Other types of artifacts recovered from these units include a small quantity of brick, window glass, safety glass, nails, and bottle glass. The bottle glass includes olive, aqua, light blue and clear glass; some of these bottles appear to represent bottles discarded after the site was no longer occupied. The paucity of construction materials and lack of features suggest that the house was located elsewhere. The low density of artifacts indicates that the site was occupied for a very brief period or the main occupation and activity area was located elsewhere.

*Test Units 1 and 5.* CSC and STP excavation produced a moderate quantity of artifacts in the vicinity of Test Units 1 and 5, which were excavated to search for possible features. The water table in this area is relatively high, which resulted in some water seepage at the bottom of these two units (Photograph 10-5). The soil stratigraphy exhibited an Ap-B soil horizon sequence (Figure 10-17). The Ap horizon or plowzone was 10-12 inches thick and varied from dark yellowish-brown to dark-brown silt loam. Test Unit 5 evidenced remains of an earlier plowzone at the base of the current Ap horizon; the deeper plowzone was designated an Apb horizon. Plow scars were visible at the Apb/B interface. The sterile subsoil or B horizon of TU1 was comprised of brown silt loam. However, the subsoil in TU 5 consisted of grayish-brown silty clay loam. No features were identified in these units.



**Photograph 10-5. Site 36LU279: Test Unit 1, South Profile. Note Water along South Wall of Unit.**

*Test Unit 1* (5x5 ft) excavations produced a total of 81 artifacts from the Ap or plowzone horizon (Table 10-11). The artifacts consisted of two bottle glass fragments and 79 ceramic sherds. The ceramics were comprised of redware and whiteware varieties.



**Table 10-11. Site 36LU279, Test Units 1 and 5, Pattern Table**

Class	Subclass	Object/Ware	TU 1 Count	TU 5 Count	Total	Percentage
Kitchen	Bottles	Bottle glass	2	1	3	2.0%
	Ceramics	Pearlware, shell edged		1	1	0.7%
		Redware, glazed	25	26	51	34.7%
		Redware, unglazed	33	23	56	38.1%
		Whiteware, hand painted	2		2	1.4%
		Whiteware, plain	18	10	28	19.0%
		Whiteware, shell edged		1	1	0.7%
		Whiteware, transfer printed, blue	1		1	0.7%
		Whiteware, underglaze handpainted		1	1	0.7%
		Yellowware, plain		2	2	1.4%
	<b>Kitchen Total</b>		<b>81</b>	<b>65</b>	<b>146</b>	<b>99.3%</b>
Unidentified	Indeterminate	Rubber seal		1	1	0.7%
<b>TOTAL</b>			<b>81</b>	<b>66</b>	<b>147</b>	<b>100.0%</b>

*Test Unit 5* (5x5 ft) excavation produced 66 artifacts from the plowzone horizons (see Table 10-11). The artifacts consisted of one bottle glass fragments, one piece of tire rubber, and 64 redware, one whiteware, and one yellowware ceramic sherds.

Test Units 1 and 5 measured a total of 50 square feet, which is the same as the combined surface areas of TUs 2, 4, and 8 and of TUs 3, 6, and 7. In TUs 1 and 5, utilitarian wares (redware and yellowware) comprised over 74% of the assemblage. Tablewares, such as pearlware and whiteware, comprised 22.5% of the artifacts. Other types of artifacts recovered from these units included two clear and one olive bottle glass. The lack of architectural remains suggests that these units were located away from any structures.

#### Machine Excavated Trenches

Prior to the start of archaeological fieldwork a backhoe trench measuring 20x132 ft. and located at the southern margin of the site (approximately N90-112 E237-369) was excavated by another consultant, in association with wetland mitigation studies in the project area. A GAI archaeologist monitored this trench excavation. No artifacts or features were observed.

During the course of the Phase II archaeological study the plowzone was mechanically stripped from four 105x6 foot (1.83x32 m) trench blocks to search for cultural features (Photograph 10-6). Trench 1 was excavated from N165-270 and E 264-270. Trench 2 ran from N 165-270 and E 294-300.



**Photograph 10-6. Site 36LU279: Trench Excavation in Progress.**



Trench 3 was located at N 165-270 and E 318-324. Trench 4 was located at N 165-270 and E 234-240. Phase II testing, including machine excavated trenches (and the wetland backhoe mitigation trench), test units, and STPs, examined approximately 15.9% of the site area for features. No cultural features were identified.

### Phase I/II Artifact Analysis

Phase I/II investigations produced 1,403 artifacts. These artifacts included 159 from Phase I investigations, and 1,244 artifacts (1,242 historic and 2 prehistoric) from Phase II investigations. The historic artifacts fell within six analytical classes, which included arms, activity, architecture, kitchen, furnishings, and unidentified.

#### Pattern Analysis

Approximately 4.5 percent fell within the architecture class including window and safety glass ( $n=31$ ), electric insulator, ( $n=1$ ), brick ( $n=26$ ), and indeterminate nails ( $n=5$ ) (see Table 10-12). Furnishing remains were restricted to three pieces of lamp glass. A honey-colored (French) gunflint fell in the arms group. Activities-related artifacts included a bolt and an aluminum pull tab. One piece of rubber (possibly from a car tire) was placed in the unidentified group.

**Table 10-12. Site 36LU279: Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Cans/Tins	pull tab	1	0.07%
	Misc. Hardware	Bolt	1	0.07%
<b>Activities Total</b>			<b>2</b>	<b>0.14%</b>
Architecture	Brick, Block	Brick	26	1.85%
	Nails, Spikes, Etc.	Nail, indeterminate	5	0.36%
	Electrical	Insulator	1	0.07%
	Window Glass	Window glass	30	2.14%
		Safety Glass	1	0.07%
<b>Architecture Total</b>			<b>63</b>	<b>4.49%</b>
<b>Arms</b>	<b>Gunflints</b>	<b>Honey-colored French gun flint</b>	<b>1</b>	<b>0.07%</b>
<b>Faunal</b>	<b>Bone</b>	<b>bone</b>	<b>1</b>	<b>0.07%</b>
<b>Furnishings</b>	<b>Lighting</b>	<b>Lamp chimney glass</b>	<b>3</b>	<b>0.21%</b>
Kitchen	Bottles	Bottle glass	16	1.14%
	Ceramics	Refined earthenware	6	0.43%
		Pearlware, indeterminate decoration	1	0.07%
		Pearlware, plain	54	3.85%
		Pearlware, shell edged	8	0.57%
		Pearlware, simple bands	2	0.14%
		Pearlware, transfer printed, blue	6	0.43%
		Pearlware, transfer printed, brown	1	0.07%
		Pearlware, handpainted	6	0.43%
		Redware, glazed	463	32.98%
		Redware, slipware, trailed	1	0.07%
		Redware, unglazed	514	36.61%
		Stoneware, gray bodied	1	0.07%
		Ironstone, plain	1	0.07%
		Whiteware, indeterminate decoration	1	0.07%
		Whiteware, plain	206	14.67%

Class	Subclass	Object/Ware	Count	Percentage
		Whiteware, shell edged	3	0.21%
		Whiteware, simple bands	6	0.43%
		Whiteware, sponge	2	0.14%
		Whiteware, transfer printed, black	4	0.28%
		Whiteware, transfer printed, blue	9	0.64%
		Whiteware, handpainted	8	0.57%
		Whiteware, stamped	2	0.14%
		Whiteware, stenciled	1	0.07%
		Yellowware, plain	7	0.50%
		Yellowware, Rockingham	1	0.07%
Kitchen Total			1330	94.73%
Unidentified	Indeterminate	Rubber seal	1	0.07%
Prehistoric	Lithic	Debitage	3	0.21%
TOTAL			1404	100.00%

The artifact assemblage was dominated by kitchen-related artifacts ( $n=1330$ ) (see Table 10-12). These artifacts included bottle glass, whiteware, redware, pearlware, stoneware, and yellowware (Photograph 10-7). The bottle glass consisted of three aqua, one blue, two olive, two amber, one cobalt, and seven clear glass fragments. Olive bottle glass was common on mid-eighteenth to mid-nineteenth century sites.

The ceramic assemblage was composed predominately of redware ( $n=978$ ) (Photograph 10-7). Pearlware sherds included 54 undecorated, eight edge decorated, two banded, seven transfer printed, and six hand painted specimens. Edge decorations included both green and blue shell edge decorations. Transfer printed decorations included one brown and six blue decorations. The hand-painted sherds included both polychrome and blue designs.

Whiteware sherds included 206 undecorated, 13 transfer-prints, eight hand-painted, two stamped, one stenciled, two sponged, six banded, and three edge decorated specimens (see Photograph 10-7). Additional sherds in the sample consisted of one pearlware, one whiteware, six refined earthenware indeterminate, one Rockingham, seven plain yellowware, one ironstone, and one gray stoneware sherd.



**Photograph 10-7. Site 36LU279:  
Representative Ceramic Sample.**

Row 1 (L-R) – hand-painted whiteware (FS 191); blue transfer-printed pearlware (FS 63); green shell-edge whiteware (FS 167).  
Row 2 (L-R) – redware (FS 82); redware (FS 82); banded whiteware (FS 192).

## Dating Analysis

Artifacts, especially bottle glass and ceramics, provide useful information that helps to date the occupation or period of use for historic archaeological sites. The mean date of temporally diagnostic artifacts provides a general date for the occupation while the Terminus Post Quem (TPQ) date indicates the earliest possible manufacture date of the most recently manufactured artifact, indicating that occupation continued until at least the TPQ date. Modern artifacts, such as aluminum pull tabs found on sites near roads, could be modern intrusions and as a consequence are generally not used to calculate either of these dates.

There were 330 temporally diagnostic artifacts recovered from Site 36LU279 (Table 10-13). Because this site was likely abandoned prior to 1873, an arbitrary end date of 1900 was used for artifacts with production dates that continued into the twentieth century. These temporally diagnostic artifacts produced a mean date of ca. 1849 for this site. The site had a TPQ date of 1845.

Archival research revealed that Jacob Smethers obtained the original land grant for this parcel in 1814, which is the earliest likely date for occupation or use of this site. The tax assessments list two houses on the parcel in 1845 and only one house on the property in 1866. Site 36LU279 was likely used as a residential site within the period between 1814 and 1866. However, the lack of features and low density of architecture-related artifacts may also indicate that this was used as a refuse disposal area instead of a domestic site during this time period.

**Table 10-13. Site 36LU279: Historic Artifact Dating Analysis**

Object/Ware	Reference	Start Date	End Date	Count
Pearlware, plain	South 1977	1780	1830	54
Pearlware, shell edged	South 1977	1780	1830	8
Pearlware, transfer printed, blue	South 1977	1795	1840	6
Pearlware, transfer printed, brown	South 1977	1795	1840	1
Pearlware, underglaze handpainted	South 1977	1780	1830	6
Ironstone, plain	Wetherbee 1980	1840	1900	1
Yellowware, Rockingham glaze	South 1977	1845	1900	1
Whiteware, sponge stamped	Robacker and Robacker 1978	1830	1871	2
Whiteware, stamped	Robacker and Robacker 1978	1830	1871	2
Whiteware, plain	Price 1979, Noel Hume 1980	1830	1900	206
Whiteware, transfer printed, black	Majewski and O'Brien 1984, Mullins 1988	1828	1850	4
Whiteware, transfer printed, blue	Majewski and O'Brien 1984, Mullins 1988	1828	1860	9
Whiteware, hand painted	Majewski and O'Brien 1984; Lofstrum et al. 1982	1830	1860	8
Whiteware, banded	Majewski and O'Brien 1984	1830	1860	6
Whiteware, stenciled	Lofstrum et al. 1982, Majewski and O'Brien 1984	1840	1860	1
Whiteware, shell edged	Lofstrum et al. 1982, Miller and Hunter 1990	1830	1891	3
Yellowware, plain	Ketchum, 1987	1830	1900	7
Bottle glass, olive	IMAC, 1984	1730	1870	2
Bottle glass, mold blown	Deiss 1981	1800	1870	1
			<b>TOTAL</b>	<b>330</b>
			<b>Mean</b>	<b>1849</b>
			<b>TPQ</b>	<b>1845</b>

## Summary and Evaluation

Site 36LU279 is situated in the northern portion of a cultivated field flanked by North Market Street to the west and woodlands bordering Walker Run to the east. The Phase Ib field investigations resulted in the recovery of 159 artifacts but no features were identified. The background research indicated that the 142-acre property was occupied by the 1840s but the house location was not identified. Based on the artifact assemblage, Site 36LU279 was anticipated to be the original settlement location on this 142-acre parcel.

Phase II investigations used a three pronged approach including background research, archaeological testing, and laboratory analysis. Phase II archaeological testing included a controlled surface collection of 217-15x15 ft (4.6x4.6 m) blocks, excavation of 53 STPs on a 15-foot (4.6-meter) grid, eight judgmentally placed test units (150 sq ft or 13.9 sq m) and plowzone removal from three mechanically excavated 6x105 feet (1.83x32 m) trenches. In addition, excavation of an approximately 8x130 ft wetland mitigation exploratory trench (excavated by another contractor at the southern limits of Site 36LU279) was monitored by GAI. Phase II testing yielded 1,245 artifacts. The CSC activities produced 372 artifacts from 94 positive collection blocks. Fifteen positive STPs generated another 72 artifacts. No artifacts were collected from trench excavations. The remaining 801 artifacts came from test unit excavations.

The Phase I/II archaeological investigations at Site 36LU279 produced 1,403 artifacts. The vast majority of artifacts (69.7%) consisted of redware ceramics. There were few architectural-related materials recovered. This lack of architectural-related artifacts may be due either to log house construction or to secondary deposition of the artifacts (field scatter). The temporally diagnostic artifacts suggest the site dates to ca. 1815-1860. This agrees with the archival research, which indicated a house on the property in the 1840s. However, the lack of subsurface features makes it difficult to determine site function.

Phase II excavations examined nearly 16 percent of the site area. The archaeological remains are located entirely within the plowzone. No cultural features were identified. Based on the location of the artifacts and the lack of features, this site lacks integrity and does not meet the minimum criteria for listing in the National Register of Historic Places (NRHP). Accordingly, GAI recommends no further investigations of this site.

---

### *Site 36LU279 Recommendations*

*Site 36LU279 consists of an early to mid 19<sup>th</sup> century domestic site or secondary refuse disposal area located in a field between North Market Street and Walker Run. All of the artifacts were recovered from a plowzone context. There were no cultural features identified. Since all of the archaeological remains were located within a plow disturbed context, this site lacks integrity. GAI concludes that Site 36LU279 is not Eligible for listing to the National Register under Criterion D. Accordingly, GAI recommends that no additional work is required.*

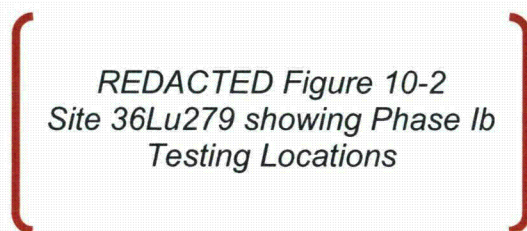
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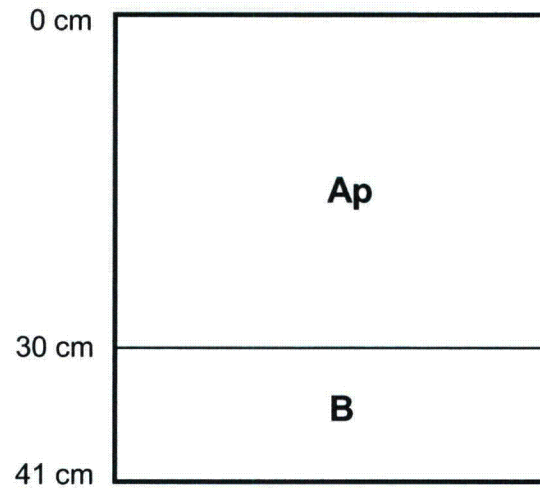
**Figure 10-1. Site 36LU279 Location**



**Figure 10-2. Site 36LU279 showing Phase Ib Testing Locations**



# STP 3

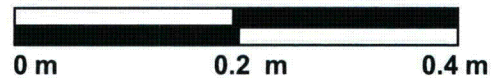


## KEY:

Ap – BROWN (10YR 4/3) SILT LOAM

B – BROWN (7.5YR 4/4) SILTY CLAY

## SCALE



DWN LMD CHKD TJN

APPD BAM DATE 09/04/08

SCALE AS NOTED

DRAWING NUMBER C080204.10.002.C.A.Si 2

**FIGURE 10-3. SITE 36LU279: REPRESENTATIVE SOIL PROFILE  
(STP 3)**

**BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.**

**Figure 10-4. Site 36LU279 on Warrantee Map showing Original Parcels**

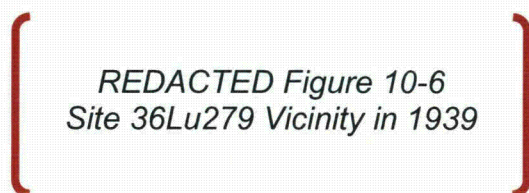
*REDACTED Figure 10-4  
Site 36Lu279 on Warrantee Map  
showing Original Parcels*



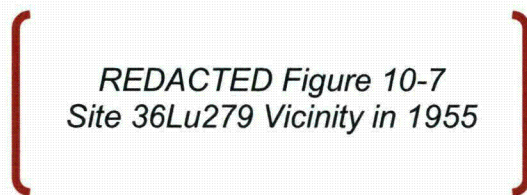
**Figure 10-5. Site 36LU279 Vicinity in 1873**

*REDACTED Figure 10-5  
Site 36Lu279 Vicinity in 1873*

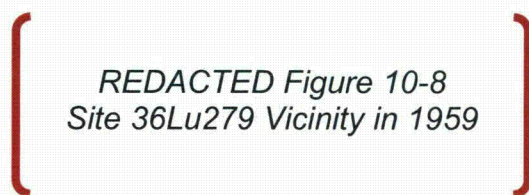
**Figure 10-6. Site 36LU279 Vicinity in 1939**



**Figure 10-7. Site 36LU279 Vicinity in 1955**



**Figure 10-8. Site 36LU279 Vicinity in 1959**



**Figure 10-9. Site 36LU279 Vicinity in 1969**



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**Figure 10-10. Site 36LU279 Phase II Testing Locations**

11x17

*REDACTED Figure 10-10  
Site 36Lu279 Phase II Testing  
Locations*

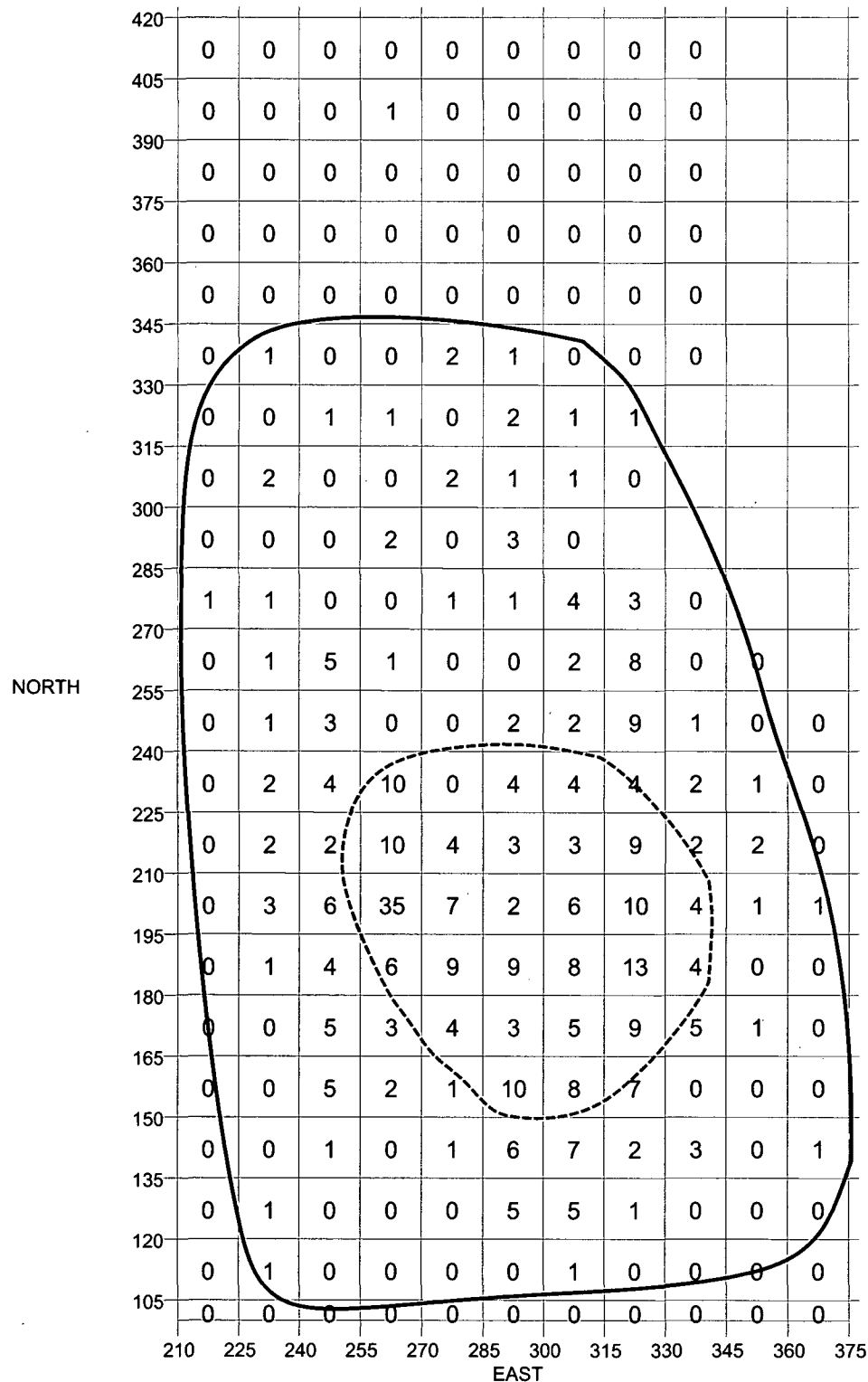


(Back of Figure 10-10)

*Side two of REDACTED Figure 10-10*



# SITE 36LU279 CONTROLLED SURFACE COLLECTION ARTIFACT DISTRIBUTION



## LEGEND

———— : SITE BOUNDARY

----- : ARTIFACT CONCENTRATION

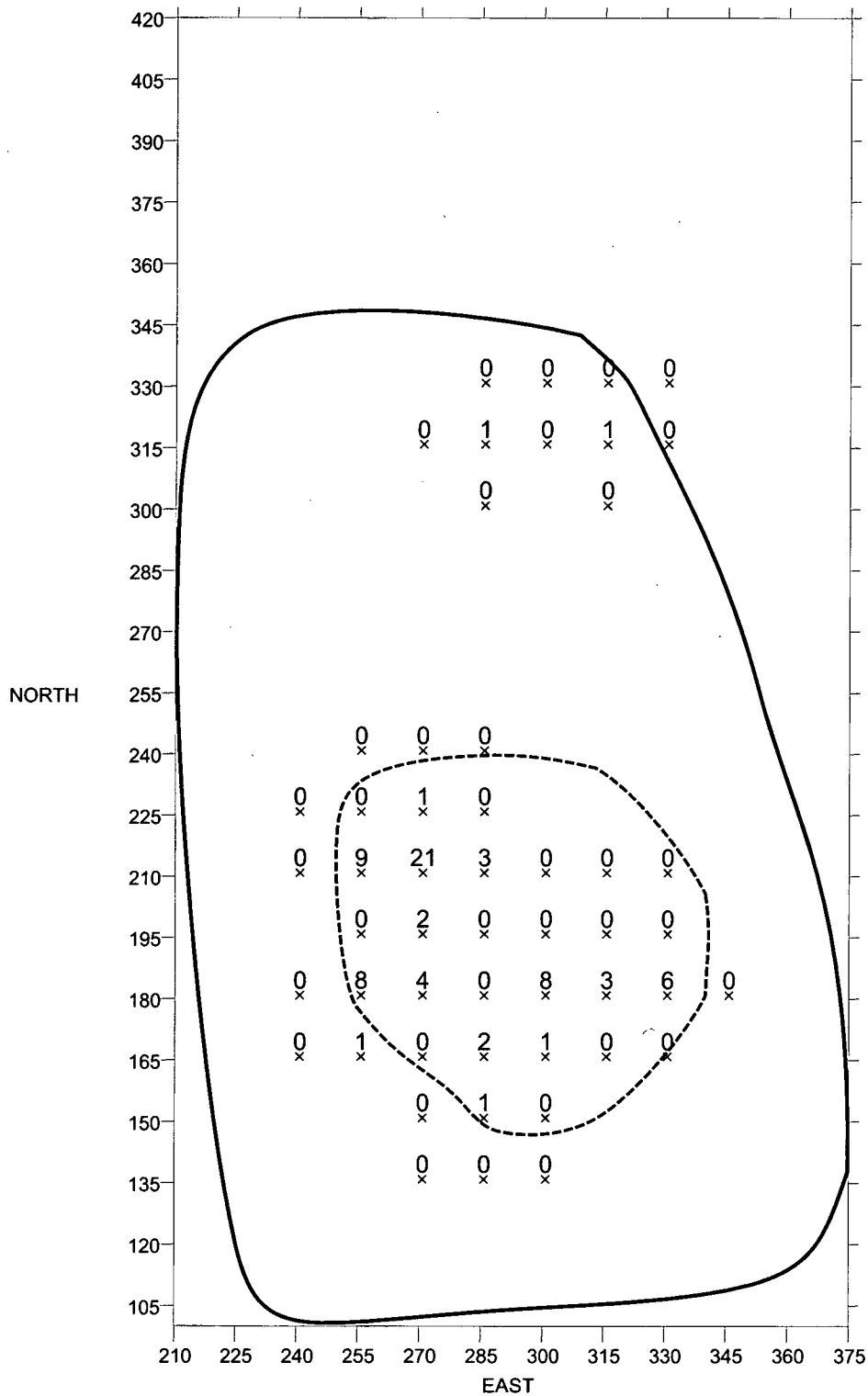
**FIGURE 10-11**  
**36LU279 CSC ARTIFACT DISTRIBUTION**

 **BELL BEND NUCLEAR POWER PLANT**  
**UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

**DRAWN: SJS**  
**CHECKED: AKT**

**DATE: 05/06/10**  
**APPROVED: LAF**

# SITE 36LU279 STP HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

———— : SITE BOUNDARY

----- : ARTIFACT CONCENTRATION

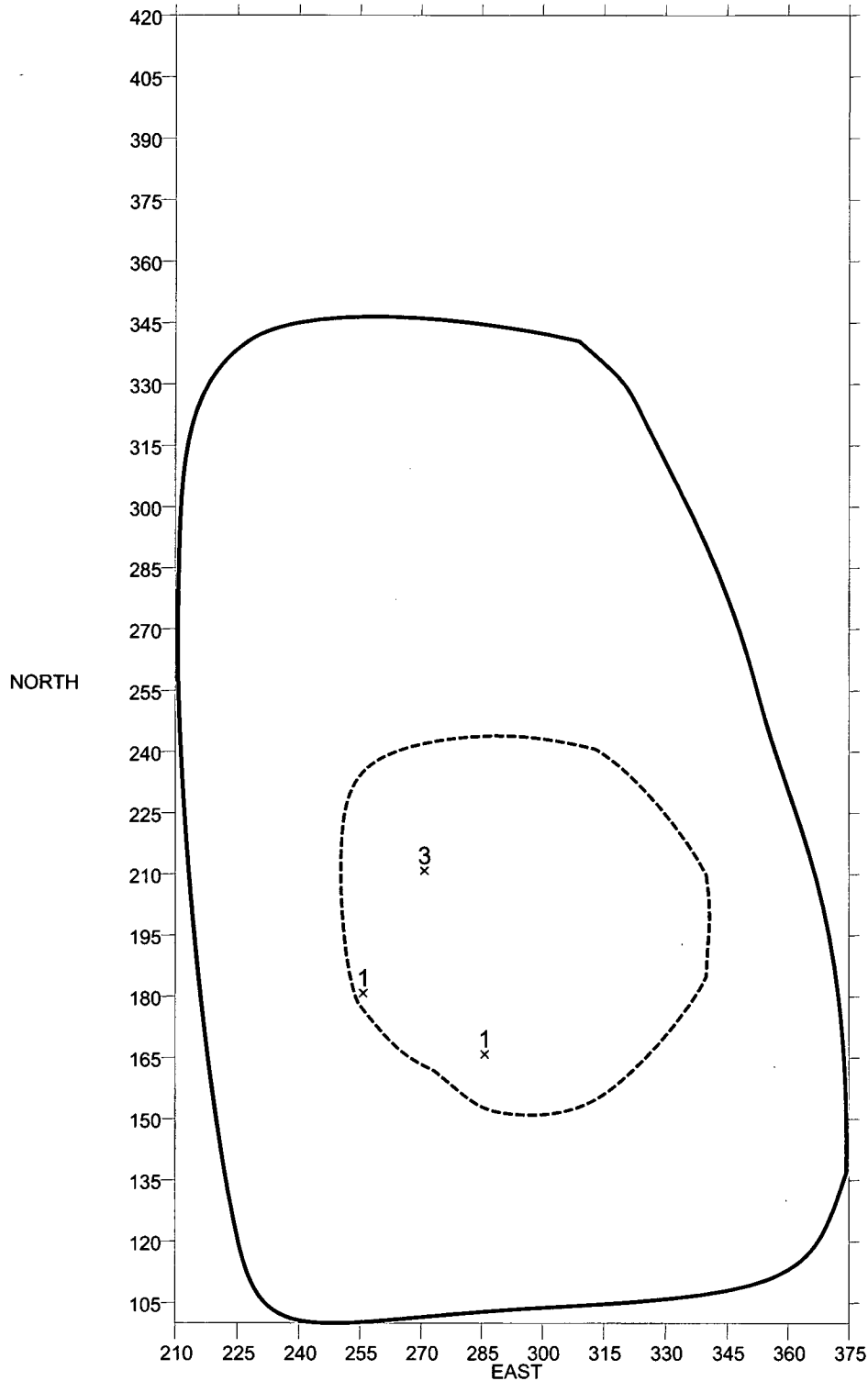
FIGURE 10-12  
SITE 36LU279: STP ARTIFACT  
DISTRIBUTION

**BELL BEND NUCLEAR POWER PLANT**  
**UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

DRAWN: SJS  
CHECKED: AKT

DATE: 05/06/10  
APPROVED:

# SITE 36LU279 ARCHITECTURAL ARTIFACT DISTRIBUTION



## LEGEND

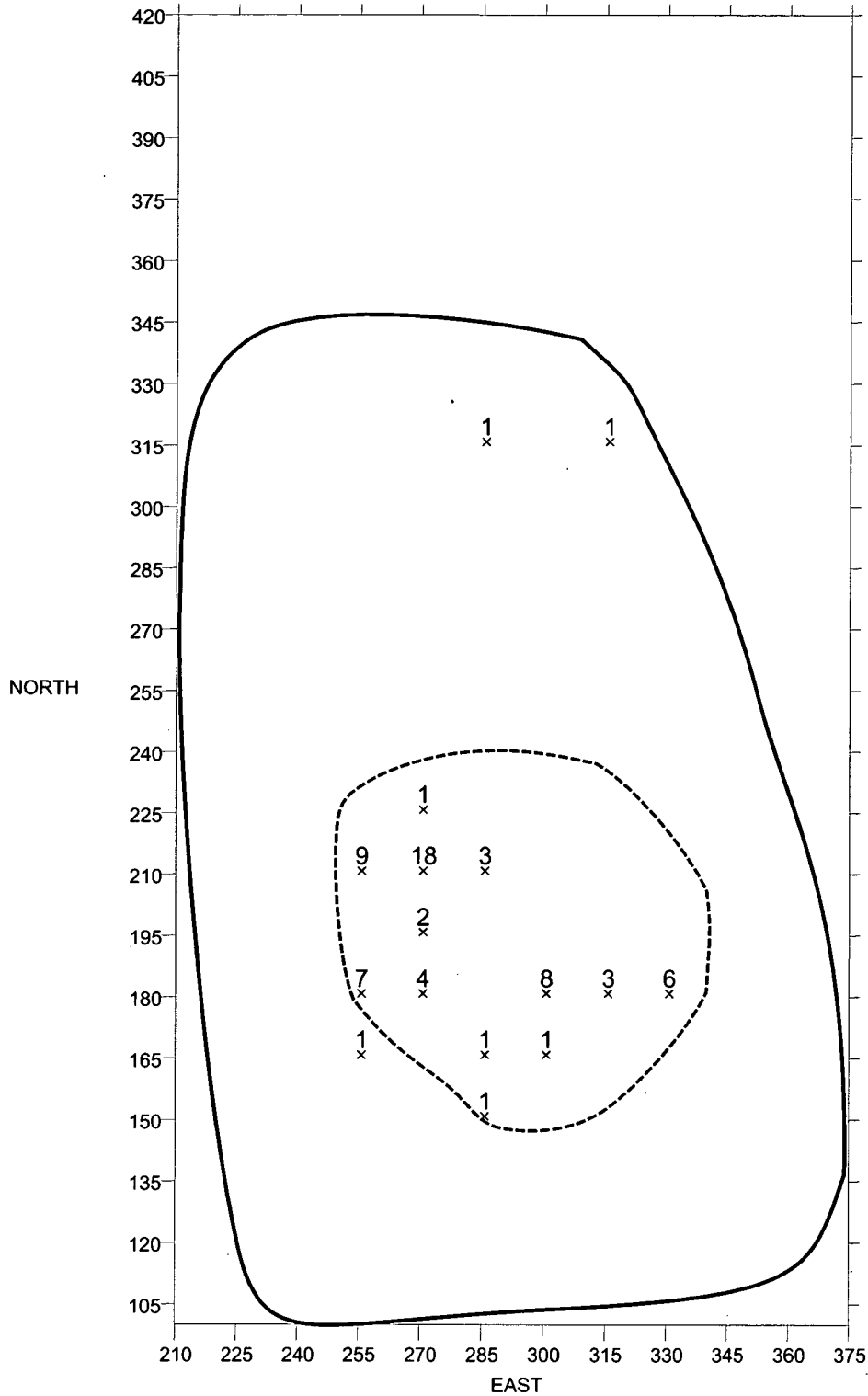
- : SITE BOUNDARY
- : ARTIFACT CONCENTRATION

**FIGURE 10-13**  
**SITE 36LU279 :ARCHITECTURAL**  
**ARTIFACT DISTRIBUTION**

 **BELL BEND NUCLEAR POWER PLANT**  
**UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

**DRAWN: SJS**      **DATE: 05/06/10**  
**CHECKED: AKT**      **APPROVED: LAF**

# SITE 36LU279 KITCHEN ARTIFACT DISTRIBUTION



## LEGEND

———— : SITE BOUNDARY

----- : ARTIFACT CONCENTRATION

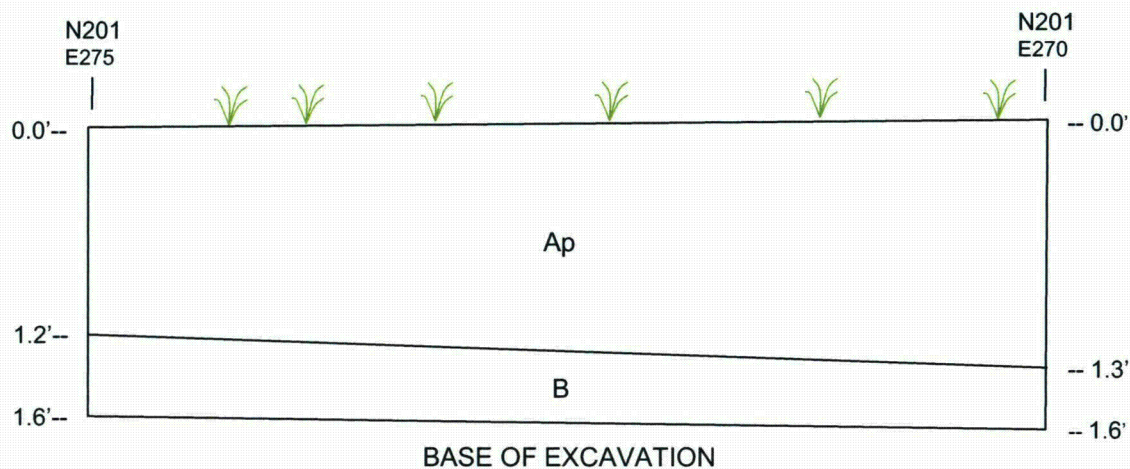
**FIGURE 10-14**  
**SITE 36LU279: KITCHEN ARTIFACT**  
**DISTRIBUTION**

**BELL BEND NUCLEAR POWER PLANT**  
**UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

DRAWN: SJS  
CHECKED: AKT

DATE: 05/06/10  
APPROVED: LAF

SITE 36LU279  
TEST UNIT 2  
SOUTH WALL PROFILE



Ap – DARK YELLOWISH BROWN (10YR 4/4) SILT LOAM  
B – YELLOWISH BROWN (10YR 5/6) SILT CLAY LOAM

LEGEND



GROUND SURFACE

SCALE

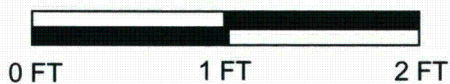


FIGURE 10-15  
SITE 36LU279: TEST UNIT 2  
SOUTH WALL PROFILE



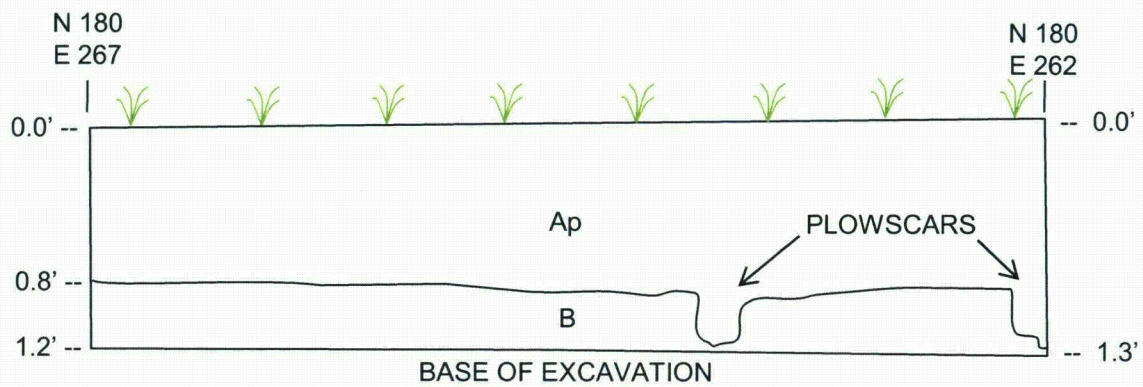
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM



SITE 36LU279  
TEST UNIT 3  
SOUTH WALL PROFILE



Ap – DARK YELLOWISH BROWN (10YR 4/4) SILTY LOAM  
B – YELLOWISH BROWN (10YR 5/6) SILTY CLAY LOAM

LEGEND



GROUND SURFACE

SCALE

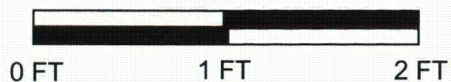


FIGURE 10-16  
SITE 36LU279: TEST UNIT 3  
SOUTH WALL PROFILE

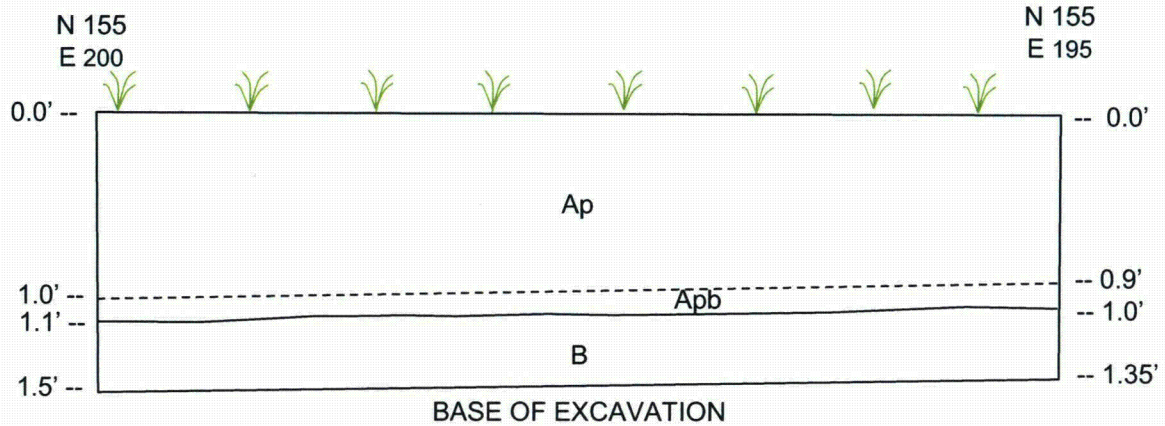


BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AJW  
CHECKED: AKT

DATE: 09/15/09  
APPROVED:

SITE 36LU279  
TEST UNIT 5  
SOUTH WALL PROFILE



Ap – DARK YELLOWISH BROWN (10YR 4/4) SILT LOAM  
 Apb – DARK BROWN (10YR 3/3) SILT LOAM  
 B – GREYISH BROWN(10YR 5/2) SILT CLAY LOAM

LEGEND



GROUND SURFACE

SCALE



FIGURE 10-17  
SITE 36LU279: TEST UNIT 5  
SOUTH WALL PROFILE



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AJW  
CHECKED: LMD

DATE: 09/15/09  
APPROVED: BAM

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## Chapter 11. Site 36LU280 (GAI Site 3)

### *Phase Ib and Phase II*

**Location:** West Alternative, Section 13

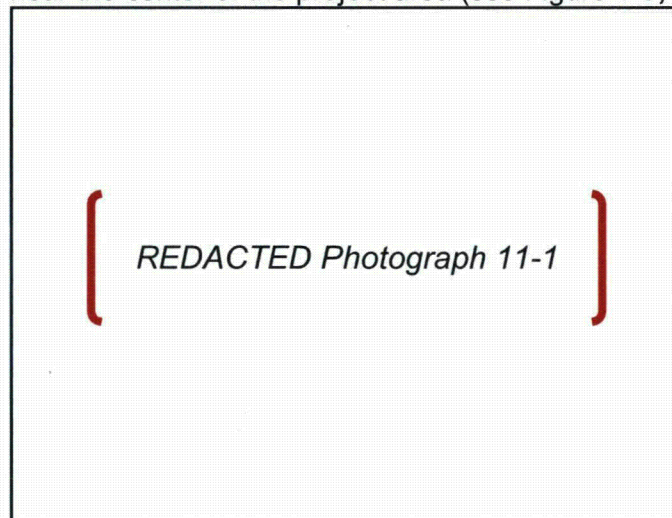
**Site Type:** Late 19<sup>th</sup> Century Domestic Site

**Site Size:** 120x155 feet (37x47 meters)

**Recommendations:** Not NRHP Eligible

### Site Setting

GAI conducted a Phase Ib survey and a Phase II National Register site evaluation of Site 36LU280 (GAI Site 3). This historic period site is situated in the West Alternative, Section 13, near the center of the project area (see Figure 1-3; Figure 11-1). It lies in a cultivated field on a



broad upland flat, 23 meters (75 feet) north of Confers Lane and approximately 60 meters (200 feet) west of a sharp bend in this roadway (Photograph 11-1). Site 36LU284 is located just east of the road's bend and Site 36LU283 is situated 198 meters (650 feet) to the west, while Site 36LU281 lies in a field south of Confers Lane, 107 meters (350 feet) to the southwest. Disturbances in the site vicinity appear to be limited to cultivation. Proposed project impacts will result from use of this locality as a laydown area.

***Photograph 11-1. Overview of Site 36LU280, Facing Northeast.***

### Phase Ib Survey

Phase Ib investigations of Site 36LU280 consisted of a pedestrian reconnaissance survey, systematic surface collection and judgmental shovel testing. Initial pedestrian ground survey of the field was conducted along transects spaced at 15-meter intervals. Observed surface artifacts were marked with pin flags. Following the identification of the Site 36LU280 artifact scatter, a grid was established over this locality using a compass and tapes, and the site was subject to a systematic surface collection. Observed artifacts were collected by 5-meter-blocks, designated by coordinates within the site grid. Artifacts were recovered from 15 of the 5-meter blocks, with artifact density ranging from 1 to 18 per block. One shovel test was excavated in the center of the site to document stratigraphy and the depth of cultural deposits (Figure 11-2).

Shovel testing revealed an Ap-B soil horizon sequence. As described for STP 2, this profile consisted of a 25-cm-thick brown silt loam plowzone above a yellowish-brown silt loam B horizon (Figure 11-3). Historic artifacts were recovered from the Ap horizon as well as from the surface. No cultural features were identified.

Phase Ib survey of Site 36LU280 produced 107 artifacts (Table 11-1). Over three-fourths of the artifact assemblage fell within the kitchen group. Kitchen ceramics were typically plain whiteware, but also included one decal-decorated whiteware, one refined earthenware, and one

porcelain ceramic sherds. Kitchen glass included beer bottles, other bottles, and jar fragments, as well as, canning jar lid liners. Other types of artifacts were present in smaller quantities.

**Table 11-1. Site 36LU280: Phase Ib Artifact Pattern Analysis**

Class	Sub-Class	Count	Percent
<b>Activities</b>	Ceramic pipe	4	3.74
	Flowerpots	2	1.87
	Machine part-indeterminate	1	0.93
	Toy tea set piece	1	0.93
	<b>Activities Total</b>	<b>8</b>	<b>7.48</b>
<b>Architecture</b>	Electric Insulator	1	0.93
	Window Glass	8	7.84
	<b>Architecture Total</b>	<b>9</b>	<b>8.41</b>
<b>Furnishings</b>	<b>Lamp or chandelier bead</b>	<b>1</b>	<b>0.93</b>
<b>Kitchen</b>	Bottles/Jars	46	42.99
	Ceramics, earthenware	1	0.93
	Ceramics, redware	1	0.93
	Ceramics, porcelain	1	0.93
	Whiteware	20	18.69
	Canning jar lid liner	14	13.08
	Decorative table glass	1	0.93
	<b>Kitchen Total</b>	<b>84</b>	<b>78.50</b>
<b>Unidentifiable</b>	Indeterminate metal	4	3.74
	Indeterminate plastic	1	0.93
	<b>Unidentifiable Total</b>	<b>5</b>	<b>4.67</b>
<b>TOTAL</b>		<b>107</b>	<b>100.00</b>

The assemblage contained 38 temporally diagnostic artifacts, consisting largely of plain whiteware ceramics and canning jar lid liners (Table 11-2). A mean date of 1921 was calculated for these diagnostic specimens. The artifacts produced a TPQ date of 1945 and five of the diagnostic artifacts were not produced until 1939 or later. There were no plastic artifacts, which would be expected on sites occupied in the latter half of the twentieth century. Based on the artifact assemblage the site dates to ca. 1910-1950. The cartographic sources support this conclusion and indicate that this domestic site was present in 1939 and abandoned prior to 1955.

**Table 11-2. Site 36LU280: Phase Ib Artifact Dating Analysis**

Material	Description	Count	Begin Date	End Date	Reference
beer bottle	stippled	2	1939	1955	Busch 1983
bottle glass	Fairmont Glass Co.	1	1945	1955	Toulouse 1971
bottle glass	Owen's mark	1	1929	1954	Toulouse 1971
bottle glass	Owen's Illinois Glass Co.	1	1939	1954	Busch 1983; Toulouse 1971
canning jar lid liner	white opaque	14	1869	1950	Toulouse 1971
whiteware	plain	18	1830	1955	Price 1979; Noël Hume 1980
whiteware	overglaze decal, floral	1	1890	1955	Haskell 1981
<b>Total</b>		<b>38</b>			
<b>Mean Date</b>		<b>1907</b>			
<b>TPQ</b>		<b>1945</b>			



## Phase Ib Summary and Recommendations

Phase Ib investigations indicated that Site 36LU280 consists of an early to mid-twentieth century surface artifact scatter, composed predominantly of kitchen-related artifacts, along with limited architectural debris and activities-related specimens. Cartographic research documents a complex of structures in this locality in 1939; these structures were apparently demolished prior to 1955. Site 36LU280 appears to have good integrity.

Based on the Phase Ib results (good integrity, early to mid-twentieth century temporal affiliation, and possible association with former structures), GAI recommended that Site 36LU281 was potentially eligible for listing in the NRHP under Criterion D. Based on a review of preliminary results presented in GAI's Phase Ib Management (Munford and Tuk 2008) the PHMC-BHP concurred with this recommendation in a letter dated March 2, 2009 (see Appendix A). Because Site 36LU281 could not be avoided by the proposed project construction, a Phase II archaeological evaluation was undertaken at this site.

## Phase II Methods

The Phase II study was designed to: (1) interpret the cultural affiliation and function of the site; (2) identify the horizontal and vertical site limits; (3) determine site integrity; (4) assess the site research potential; and (5) evaluate site significance as defined by eligibility for listing on the National Register of Historic Places. Phase II fieldwork was conducted between August 11 and October 4, 2009.

Phase II investigations included archival research, field excavations, and laboratory analysis. The archival research focused on the former landowners. Fieldwork began with a controlled surface collection of the plowed field within 15x15 ft (4.6x4.6 m) blocks, followed by excavation of STPs on a 15-foot (4.6-meter) grid and judgmentally placed test units. Upon completion of the test units, the plowzone was removed from mechanically excavated trenches, each measuring 6x105 feet (1.83x32 m), to search for cultural features.

## Phase II Archival Research

Map, deed, probate, and census documents were examined to develop a context and establish a chain-of-title for the property. Site 36LU280 is located within a parcel that originally consisted of a 95-acre plot of land granted to Benjamin Stookey by the Commonwealth of Pennsylvania on April 6, 1802 (Figure 11-4). By the time the property was sold to PPL Electric Utilities Corporation on September 21, 1983, the parcel containing Site 36LU280 consisted of a 30.354-acre tract of land. Archival research, which included patent, deed and mortgage investigations, was used to create a chain-of-title for this parcel (Table 11-3). This research traced the property as it passed through multiple ownerships and established a link between Site 36LU280 and several local farmers.

**Table 11-3. Site 36LU280: Chain-of-Title**

Date of Instrument	Grantee/Defendant	Grantor/Complainant	Conveyance Reference	Comments
July 1, 2000	PPL Susquehanna LLC	PPL Electric Utilities Corporation	Luzerne County Deed Book 2741:684	30.354 Acres Transferred.
September 21, 1983	PPL Electric Utilities Corporation	Stanley E. Shortz and Joyce Shortz	Luzerne County Deed Book 2116:425	30.354 Acres 90% interest to PPL Electric Utilities Corporation and an undivided 10% interest to Allegheny Electric Cooperative
April 9, 1951	Stanley E. Shortz and Joyce Shortz	John C. Hess and Veanous T. Hess	Luzerne County Deed Book 1111:406	30.354 acres, sold for \$1+

Date of Instrument	Grantee/Defendant	Grantor/Complainant	Conveyance Reference	Comments
April 9, 1951	John C. Hess and Veanous T. Hess	Webman Hess and Ida Hess	Luzerne County Deed Book 1111:406	8 acres
April 21, 1933	Webman Hess and Ida Hess	George W. Smith	Luzerne County Deed Book 735:57	8 acres from southern portion of 75 acres, sold for \$1,000
January 22, 1924	George W. Smith	Dessa M. Lockhart et ux. (Heirs of Charles C. Lockhart)	Luzerne County Deed Book 595:269	75 acres sold for \$5,000
February 18, 1895	Charles C. Lockhart	I.E. Ross et ux. (heirs of James Lockhart)	Luzerne County Deed Book 336:378	75 acres sold for \$1+
April 1, 1859	James Lockhart	Joseph C. Lockhart et ux.	Luzerne County Deed Book 169:34	75 acres sold for \$666
January 25, 1838	Joseph C. Lockhart (in trust)	Commonwealth of Pennsylvania	Luzerne County Patent Book H 38:470	95 acres (in trust), assumed that the property went to Joseph's eldest son James at this time
April 6, 1802	Benjamin Stookey	Commonwealth of Pennsylvania	Luzerne County, Patent Book "H" 40:168	95 acres

Further research (including Federal Census data, tax assessment rolls, agricultural census data and local literature) was used in conjunction with deeds to develop the overall history of Site 36LU280.

#### Stookey –Lockhart Ownership of Site 36LU280 (1802-1924)

On April 6, 1802, Benjamin Stookey was granted two 95-acre lots in Salem Township (Luzerne County Patent Book "H" 40:168). Benjamin Stookey had lived in Luzerne County since at least 1790, as that year's Federal Census listed him as the head of a household of six people residing in Luzerne County. Within the household were one free white male 16 years old and upwards, one free white male under 16 years old, and four females listed simply as "free white females." Although the 1790 census does not specify in what township Benjamin and his family lived, a 1796 list of taxable men stated he resided in Plymouth Township.

However, by the 1800 Federal Census, Benjamin Stookey lived in Salem Township and was the head of a household of eight, including one male and two females under 10 years old, one male and one female between 10 and 15 years old, one female between 16 and 25 years old, one female, presumably Benjamin's wife Martha, between the age of 26 and 44, and one male, presumably Benjamin, 45 years or older. This census illustrates that between the years of 1790 and 1800 Benjamin Stookey's household had grown by two females and one male, all under the age of 10, and that the male listed in the 1790 census as over the age of 16 was no longer part of the household.

It appears that Benjamin Stookey died before 1810, as his wife Martha is listed in that year's Federal Census as a widow heading a household of five persons, including one male between 10 and 15 years old, one male and two females between 16 and 25 years old, and one female (presumably Martha) as 45 years or older. Of note is that the female listed in the 1800 census between the ages of 16 and 25 is no longer present in the house. After Benjamin's death, the 95-acre lot not containing Site 36LU280 was awarded to his widow Martha and his eldest son Benjamin by Luzerne County's Orphan's Court (Luzerne County Deed Book 34:626). As this lot does not contain any of the sites currently under review, the history of this property is not included in this report.

The 95-acre lot that contains Site 36LU280 was transferred to Joseph Lockhart who had held the property in trust since before Benjamin's death. Joseph Lockhart was born in Scotland and moved with his parents, first to Ireland, then to America. His family first settled on land they owned called Egg Harbor, in New Jersey. Afterwards Joseph's family moved to Luzerne County where his father James and his uncle John purchased 300 acres of land; however, these 300 acres were lost to the Lockhart family under the Pennamite Claims Act of 1782. After the loss of their land, James and John Lockhart bought 90 acres in Salem Township, cleared the land, and began farming (Beers 1915:1143).

It is unknown when Joseph Lockhart officially took possession of Benjamin Stookey's property. However, it was likely sometime after 1812, when Benjamin Stookey's other 95-acre lot was awarded to his widow and son. An 1812 tax assessment record of Joseph Lockhart indicated that he was a farmer and owned a 36-acre plot of land containing one house. It appears that this tax assessment recorded property owned by Joseph before he acquired the 95 acres of land from Benjamin Stookey. However, it reveals that Joseph lived and farmed in the area at this early date.

The 1820 Federal Census listed Joseph Lockhart as the head of a household of 14 people. The household included Joseph and his wife Anna, who were both over 45 years old, and their 12 children consisting of three males and two females under 10, one male and one female between 10 and 16, one male between 16 and 18, two males between 16 and 26, and one male and one female between 26 and 45. It appears that this large family was heavily involved in the production of the farm, as seven of them were listed as being engaged in agriculture. The names of their 12 children were Julia, James, Alexander, George, John, Mary, Jane, Margaret, Cameron, Robert, Fannie and Joseph (Beers 1915:1143).

It appears that Joseph Lockhart died before the 1830 Federal Census was collected, listing his son James as the head of a household of eight persons, including one female under five, one male between five and 10, one male between 10 and 15, two females between 15 and 20, two males between 20 and 30, and one female between 40 and 50. James was the eldest son of Joseph and was born in 1802 in Salem Township. Upon the death of Joseph, James inherited the farm and continued to cultivate it (Beers 1915:1144).

The 1830 census most likely represents James as the head of a household containing some of his siblings and his mother Anna, the female listed between the age of 40 and 50. A review of the 1830 tax assessment for James Lockhart revealed that along with the 95 acres of land acquired from his father, an additional three lots had been added to the Lockhart family holdings for a total of 459 acres. The tax assessment from that year also stated he owned three houses, two barns, and a sawmill (Table 11-4). It is unknown how or where these additional lots were acquired, but suggest that the Lockhart Family was quite prosperous by 1830.

By 1840, James was 38 years old and listed in that year's Federal Census as the head of a household consisting four people, including his wife Susan who was between the ages of 30 and 40, and their two children (one female under five years old, and one male between 10 and 15). The 1840 tax assessment recorded his land holdings as one lot equaling 80 acres, 50 of which were cleared, containing one house and two barns (see Table 11-4). It is unknown what happened to the other lots of land recorded in the 1830 tax assessment, but considering that James was recorded as the head of a household consisting of only his wife and children, the other properties may have been sold off or in the possession of his other siblings.

Ten years later, the 1850 Federal Census listed James as the head of a household of seven people, including his 42-year-old wife Susan, 11-year-old daughter Mary, eight-year-old

daughter Elizabeth, five-year-old daughter Maria, and his one-year-old daughter Rachel. The census also stated a 16-year-old laborer named John Packer lived with the family. Also of note is that the male who was listed between the age of 10 and 15 in the 1840 census no longer resided in the household.

**Table 11-4. Site 36LU280: James Lockhart's Tax Assessments (1830-1870)**

Description	1830	1840	1860	1865	1870
Improved Land	100 acres	50 acres	50 acres	31 acres	55 acres
Unimproved Land	359 acres	30 acres	0 acres	27 acres	25 acres
Lots of land	4	1	1	1	1
Houses	3	1	1	1	1
Outbuildings	2 barns	2 barns	2 barns	1 barn	1 barn
Mills	1 sawmill	0	0	0	0
Horses	2	2	2	2	2
Oxen	2	0	2	0	0
Cows	3	12	9	5	0
Occupation	Farmer	Farmer	Farmer	Farmer	Farmer
<b>Total Valuation</b>	<b>\$1,913.00</b>	<b>\$2,000.00</b>	<b>\$2,900.00</b>	<b>\$2,202.00</b>	<b>\$2,390.00</b>

In this same year, James Lockhart's farm was subject to the Federal Agricultural Census. This census provided a detailed account of the activities that occurred on James' farm (Table 11-5). This schedule reveals that James and his family were involved in the raising of dairy cows, sheep, and bees for the production of butter, wool, honey and beeswax, as well as the growing of cereal and vegetable crops, most notably oats, wheat, rye, buckwheat, corn, and potatoes.

**Table 11-5. Site 36LU280: 1850-1880 Agricultural Census Data**

Descriptions	James Lockhart		Charles Lockhart
	1850	1870	1880
Improved Land (acres)	50	65	60
Unimproved land (acres)	125	45	30
Cash Value of farm	\$3,000.00	\$1,000.00	\$5,000.00
Value of Farming Implements	\$300.00	\$115.00	\$150.00
Wages Paid for Labor and Board	n/a	\$1,511.00	\$60.00
Horses	2	3	3
Asses and Mules	0	0	0
Milk Cows	4	8	8
Working Oxen	0	0	0
Other Cattle	1	2	3
Sheep	0	0	0
Swine	25	4	7
Value of Livestock	\$330.00	\$951.00	\$770.00
Poultry (Barnyard/Other)	n/a	n/a	50/5
Eggs Produced (dozens)	n/a	n/a	300

Descriptions	James Lockhart		Charles Lockhart
	1850	1870	1880
Wheat (bushels)	80	150	245
Rye (bushels)	60	0	0
Indian Corn (bushels)	200	200	300
Oats (bushels)	100	80	90
Rice (lbs.)	0	0	0
Tobacco (lbs.)	0	0	0
Wool (lbs.)	23	0	0
Peas & Beans (bushels)	0	0	0
Irish Potatoes (bushels)	60		160
Sweet Potatoes (bushels)	0	0	0
Barley (bushels)	0	0	0
Buckwheat (bushels)	36	0	0
Apple Bearing Trees/Bushels	n/a	n/a	60/50
Value of Orchard Products	\$0.00	\$30.00	\$10.00
Wine (gallons)	0	0	0
Value of Produce of Market Gardens	\$0.00	\$0.00	0
Butter (lbs.)	260	700	800
Cheese (lbs.)	0	0	0
Hay (tons)	6	18	14
Clover Seed (bushels)	0	0	0
Other Grass Seed (bushels)	0	0	0
Hops (lbs.)	0	0	0
Flax (lbs.)	0	0	0
Flaxseed (bushels)	0	0	0
Maple Sugar (lbs.)	0	0	0
Cane Sugar (lbs.)	0	0	0
Molasses (gallons)	0	0	0
Beeswax and Honey (lbs.)	15	0	0
Value of Home-made Manufactures	\$20.00	\$0.00	n/a
Value of Animals slaughtered	\$84.00	\$286.00	n/a
Estimated Value of Farm Production	n/a	\$1,277.00	\$900.00

On April 1, 1859, James Lockhart officially purchased 75 acres of his father's original 95-acre farm from the remaining Joseph Lockhart heirs. The other 20 acres of the original 95-acre homestead, which were located in the southern portion of the lot, had been transferred to Samuel Hicks sometime prior to 1859 (Luzerne County Deed Book 169:34). These 20 acres (deeded to Samuel Hicks) are located to the south of Site 36LU280, south of present-day Confers Lane.



James Lockhart was listed in the 1860 Federal Census as a 58-year-old farmer, and the head of a household of eight people including his wife Susan, and his daughters Mary, Elizabeth, Maria, and Rachel, and his three-year-old son Charles. The census also listed that 19-year-old Joseph Courtright lived with the family. The Courtrights were also early settlers of the Salem Township area, and owned a farm to the north of the Lockharts where Site 36LU285 is located. The relationship of Joseph Courtright with the Lockharts is unknown.

An 1860 tax assessment stated that James owned a 50-acre lot of improved land containing one house and two barns (see Table 11-4). It appears that this assessment did not record land sold to James on April 1, 1859. On that date, the remaining heirs of Joseph Lockhart: Joseph C. Lockhart, John B. Lockhart, A.H. Lockhart, Isabel Lockhart, Edwin Lockhart, George R. Lockhart and Mary Augusta Lockhart, sold 75 acres of the original Benjamin Stookey 95-acre homestead to James for \$666.66. It is assumed that these 75 acres were part of the land James had continued to cultivate after his father Joseph's death. However, in 1865, James Lockhart was assessed for one lot consisting of only 31 improved acres and 27 unimproved acres. Although he was still assessed for one house, only one barn was recorded (see Table 11-4).

In 1870 James Lockhart was a 67-year-old farmer. The Federal Census stated he lived with his 65-year-old wife Susan, and all of his children who were listed in the 1860 census still resided in the household. In addition, the census listed that Joseph Roderback, 26 years old, and Robert Roderback, four years old, lived with the family. Joseph Roderback was listed as a farm laborer, and it is assumed that Robert was his son.

In 1870, the tax assessment for James Lockhart recorded that he was assessed for one 80-acre lot (55 acres improved land and 25 acres of unimproved land) containing one house and one barn (see Table 11-4). However, the 1870 Federal Agricultural Census states that James Lockhart owned 65 acres of improved land and 45 acres of unimproved land. This farming schedule illustrates that between 1850 and 1870 the Lockharts doubled their number of dairy cows, and increased their production of butter from 260 pounds in 1850 to 700 pounds in 1870. Also of note is that the farm began to produce orchard crops, generating \$30.00 by 1870. The schedule also shows that the farm no longer raised sheep or kept bees, and other than an increase in the production of wheat, the family grew less cereal crops. These statistics suggest that the Lockharts began to focus more of their energies on the production of butter. It is important to note that the females traditionally oversaw the production of butter, and James Lockhart's family consisted of five adult females and one adolescent son.

An 1873 map depicting the project area records no structures in the vicinity of Site 36LU280. However, to the north of Site 36LU280, within the boundaries of the parcel owned by James Lockhart, a structure is marked and labeled J. Lockhart (Figure 11-5). It is assumed that this was the area in which the structures were located that are noted on the tax assessments for James Lockhart, and the area in which Site 36LU280 is located was either being utilized for agricultural purposes or was unimproved during this period.

James Lockhart does not appear in a census after 1870. However, his son Charles C. Lockhart was listed in the 1880 Federal census as a 23-year-old farmer and the head of a household consisting of three people, including his 38-year-old sister Mary A. Lockhart, and his 35-year-old sister Margaret E. Lockhart. It is of note that Margaret may be a sister-in-law, as none of the previous Federal Census listings for James Lockhart listed a Margaret E. Lockhart.

The Lockhart farm was subject to another Federal Agricultural Census in 1880 (see Table 11-5). While this farm schedule shows an increase in crop production from 1870, it shows that the same crops were relied upon, notably wheat, corn, and potatoes. The schedule also shows a

continued increase in the production of butter. The 1880 agricultural census provided a more detailed account of farms than previous surveys, and among other things newly recorded was the presence of poultry. While poultry was most likely present on the Lockhart farms in previous years, the 1880 schedule recorded that 300 dozen eggs were produced on the farm.

Although Charles Lockhart took over the farm after his father's death, he did not inherit the property by will. Instead, he purchased the property for \$1.00 on February 18, 1895, from his father's remaining heirs: I.E. Ross, Maria L. Ross, Mary A. Lockhart, Elizabeth Lockhart, and Rachel and George W. Harter. The 1900 Federal Census listed Charles Lockhart as a 43-year-old farmer and head of a household of three, including his 60-year-old sister Mary A. Lockhart, and his 56-year-old sister Elizabeth Lockhart. Charles was listed as owning his home mortgage-free. According to local histories, Charles Lockhart took over the farm after his father's death and cultivated the land until 1904, when he retired and moved to Berwick Township, Columbia County. After his retirement, Charles rented the farm (Beers 1915:1144). No one from the Lockhart family appears in the 1910 Federal Census as living in Salem Township. Charles Lockhart died prior to 1917, and after his death his heirs began to sell parcels of the original Lockhart land holdings.

#### Development and Abandonment of Site 36LU280 (1924-Present)

On January 22, 1924, Charles Lockhart's heirs sold the 75-acre parcel containing Site 36LU280 to George W. Smith. Nine years later (April 21, 1933), Smith sold eight acres of this property containing Site 36LU280 to Webman and Ida Hess for \$1,000.00. Based on the selling price of the land, a house may have been built at Site 36LU280 prior to the Hess family's acquisition of the land. A 1939 aerial photograph depicts a complex of structures in the vicinity of Site 36LU280 (just north of Confers Lane) that supports this deduction (Figure 11-6). (Note: No structure was marked in this area on an 1873 map.)

Webman and Ida Hess sold the eight acres containing Site 36LU280 to John C. Hess and his wife Veanous on April 9, 1951. John and Veanous Hess had previously purchased acreage of the original 95-acre parcel, and with this acquisition owned 30.354 acres of the original 95 acre tract. The same day that they purchased the eight acres parcel containing Site 36LU280, they sold all of their holdings to Stanley E. Shortz and Joyce Shortz for \$1 (Luzerne County Deed Book 2116:425). The 1955 USGS quadrangle map of Berwick, Pennsylvania does not depict a structure at the location of Site 36LU280 (Figure 11-7). The USGS map typically depicts houses and not small outbuildings. Aerial photographs of the site area taken in 1959 and 1969 confirm that there are no longer any extant structures in the site area (Figure 11-8 and Figure 11-9). This suggests that the structures depicted in the 1939 aerial photograph (see Figure 11-6) were removed prior to 1955.

Stanley and Joyce Shortz owned these 30.354 acres until September 21, 1983, when they granted 90% interest to PPL Electric Utilities Corporation and an undivided 10% interest to Allegheny Electric Cooperative for \$145,000.

#### Summary of Archival Research

Considering the cartographic evidence, census data, and tax assessment records, during the Lockhart's tenure, the land containing Site 36LU280 was used for agricultural purposes or was unimproved. The structures that were located in the immediate vicinity of Site 36LU280 were constructed between 1873 and 1939, most likely during the period of George W. Smith's ownership (1924-1933). The buildings shown on the 1939 aerial photograph were no longer extant in 1959 and were likely removed prior to 1955 since no house was depicted in this location at that time.

## Phase II Fieldwork

Site 36LU280 was located in a cultivated agricultural field that was planted in corn at the time of Phase II investigations (Figure 11-10). Prior to the start of fieldwork the corn was mechanically cut and removed within the site area. Following completion of site clearing, GAI surveyors established a grid across the site using a total station. The grid covered an area measuring 120x140 feet (36.6x42.7 meters), extending from gridlines N220-N340 and E205- E355. Survey hubs were placed at 15-foot (4.6-meter) intervals along gridlines at the margins of the site and at select grid points throughout the site interior. A grid was placed across the site at an angle of N 354 degrees E. Site elevations were tied to a hub located at N260 E280.

### Phase II Soils and Geomorphology

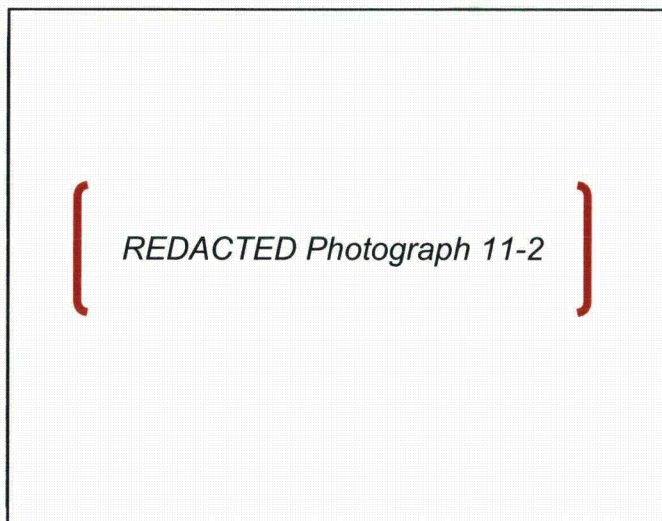
The site exhibited an Ap-B soil sequence. The Ap horizon varied from 0.7-1.0 ft deep and consisted of brown to dark yellowish-brown silt loam. The underlying B horizon was comprised of dark yellowish-brown to yellowish-brown silt loam. Plow scars were visible at the Ap/B interface.

### Artifact Distribution (Controlled Surface Collection and Shovel Tests)

A controlled surface collection (CSC) followed by STP excavations was used to identify artifact distributions across the site and to refine the horizontal site limits. On domestic sites, higher frequencies of artifacts are generally found near the house and yard area and in refuse deposits, while lesser quantities are found on the fringe of the habitation area and lightly scattered across fields. Typically, concentrations of architectural remains reflect the general locations of former structures, burn piles, or refuse dumps. Concentrations of kitchen-related artifacts are frequently useful in identifying potential structure locations and/or activity areas, especially if the concentrations also fall in the same location as concentrations of architectural remains.

The controlled surface collection was undertaken in 99-15x15 ft blocks (Figure 11-11; Photograph 11-2). Surface collection activities produced 260 (Table 11-6) artifacts from 44 positive blocks (Table 11-6). Surface collection activities were useful in identifying general artifact densities across the site. Two of the CSC blocks produced more than 20 artifacts (N280 E280, N295 E 280). Seven other blocks produced between 11 and 20 artifacts (N280 E 310, N295 E250, N295 E265, N295 E 280, N295 E295, N 310 E265, and N310 E280). These nine

blocks were considered to have a moderate to high artifact density. The remaining CSC blocks had no to low artifact densities.



**Photograph 11-2. Surface Collection Activities at Site 36LU280, Facing Northeast**

**Table 11-6. Site 36LU280: Phase II Controlled Surface Collection, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Ceramic pipe	5	1.92%
		Decorative concrete	1	0.38%
	Flowerpots	Terra cotta	16	6.15%
	Toys	Toy porcelain tea set	1	0.38%
Activities Total			23	
Architecture	Brick, Block	Brick	2	0.77%
	Electrical	Insulator	1	0.38%
	Nails/Spikes	Nail, indeterminate	1	0.38%
	Window Glass	Window glass	27	10.38%
Architecture Total			31	
Furnishings	Furniture-Decorative	Figurine	1	0.38%
Kitchen	Bottles/Jars	Beer bottle	0	0.00%
		Bottle glass	55	21.15%
		Jar	3	1.15%
		Container glass	10	3.85%
	Ceramics	Earthenware	0	0.00%
		Hardpaste porcelain, plain	5	1.92%
		Ironstone, plain	5	1.92%
		Redware, unglazed	12	4.62%
		Whiteware, colored glaze	2	0.77%
		Whiteware, decal	1	0.38%
		Whiteware, overglaze handpainted	3	1.15%
		Whiteware, plain	56	21.54%
		Whiteware, underglaze handpainted	1	0.38%
		Stoneware, buff bodied	1	0.38%
		Whiteware, Fiesta ware-like colored glaze	3	1.15%
	Glassware-Other	Candy dish	1	0.38%
		Decorative table glass	2	0.77%
	Kitchen-related-Other	Canning jar lid liner	40	15.38%
	Kitchenware (Utensils, Pots, Etc.)	Utensil or cookware handle	1	0.38%
	Tumblers, Stemware	Tumbler	2	0.77%
Kitchen Total			202	
Personal	Hygiene	Cold cream jar	2	0.77%
Unidentified	Indeterminate	Metal	1	0.38%
TOTAL			260	100.00%

A wide assortment of artifacts was represented in the assemblage. Kitchen-related artifacts ( $n=202$ ) represented approximately 77% of all artifacts. Kitchen-related artifacts include various types of bottles and jars, tablewares made from ironstone, whiteware, and porcelain, utilitarian wares (redware and stoneware), canning jar lid liners, tumblers, utensil handles, and decorative glass dishes. Most of the tablewares collected from the site were undecorated. However, the whiteware included a few decorated pieces with colored glaze, hand-painted, or decals.

The remainder of the artifact assemblage fell into five other artifact classes. Toy tea set, flowerpots, ceramic drain tile, and decorative concrete fell within the activities class. Architecture-related artifacts included brick, nail, window glass, and electric insulators. A faceted glass ornament for a lamp and a figurine were placed in furnishings. Personal-related artifacts included cold cream jar fragments. Five unidentified pieces of metal were also recovered.

Following completion of the controlled surface collection activities, STPs were excavated at 15-ft (4.6-m) intervals throughout the site area (see Figure 11-10). The goals of close interval shovel testing were to help identify site limits, provide information on soil stratigraphy and artifact distribution and identify potential features and activity areas.

Of the 59 STPs excavated, 33 STPs were positive, yielding 180 artifacts. Most of the positive shovel tests yielded a very low artifact density (0-5 artifacts per shovel test) (Figure 11-12). Seven STPs yielded a moderate density of six to ten artifacts. Four of the STPs, all on the N295 gridline, produced more than ten artifacts (N295 E280, N295 E295, N295 E310, and N295 E325) and were considered to have a high artifact density. Distribution maps indicate that these four STPs also produced the highest density of architecture and kitchen-related artifacts (Figures 11-13 and 11-14).

The 180 recovered artifacts consisted of 121 kitchen and 51 architecture related artifacts (Table 11-7). Kitchen artifacts included 77 container glass, 10 canning jar lid liners, one table glass, nine redware, and 24 whiteware. Architecture remains consisted of 47 window glass, one cut nail, and three wire nails. Smaller quantities of activities, clothing, furnishings, and unidentified pieces were also present.

**Table 11-7. Site 36LU280: Phase II STP Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Misc. Small Hardware	Bolt and washers	3	1.67%
<b>Activities Total</b>			<b>3</b>	<b>1.67%</b>
Architecture	Nails/Spikes	Nail, cut	1	0.56%
		Nail, wire	3	1.67%
	Window Glass	Window glass	47	26.11%
<b>Architecture Total</b>			<b>51</b>	<b>28.33%</b>
Clothing	Clothing Fasteners	Button	2	1.11%
Furnishings	Lighting	Lamp glass, chimney	2	1.11%
Kitchen	Bottles/Jars	Bottle glass	70	38.89%
		Jar glass	1	0.56%
		Container glass	6	3.33%
	Ceramics	Redware, unglazed	9	5.00%
		Whiteware, plain	24	13.33%
	Glassware-Other	Decorative table glass	1	0.56%
	Kitchen-related-Other	Canning jar lid liner	10	5.56%
<b>Kitchen Total</b>			<b>121</b>	<b>67.22%</b>
Unidentified	Indeterminate	Metal, indeterminate	1	0.56%
<b>Unidentified Total</b>			<b>1</b>	<b>1.08%</b>
<b>TOTAL</b>			<b>180</b>	<b>100.00%</b>



CSC block artifact distributions and STP artifact distributions were plotted on maps. The highest density of artifacts from both the CSC and STP excavations were assumed to represent the location of the house and yard activity areas. Based on these maps, the area of highest artifact concentration occurred between gridlines N280-310 and E275-330. This general area was anticipated to have the highest potential for features. Artifact distributions from these two field techniques were used, in part, to guide the placement of subsequent test units.

Distributions of artifacts from all CSC blocks and STPs also provided information on site limits. Outlier positive STPs and CSC blocks were not used to determine site limits. The site size of 120x155 feet (37x47 m) reflects the location of positive CSC blocks and STPs.

#### Test Units

GAI excavated four test units of varying sizes at Site 36LU280, totaling 75 square feet (23 square meters), to further investigate a moderately high-density artifact concentration (see Figures 11-10 to 11-14). Test unit information is summarized in Table 11-8. Test unit excavations produced 1145 artifacts. The four test units were placed in the portion of the site that exhibited higher artifact densities during CSC and STP activities.

**Table 11-8. Site 36LU280: Test Unit Summary**

Test Unit #	Size (in ft)	Location	Soil Stratigraphy (Depth is feet below ground surface)	Artifact Ct.	Comments
1	5x5	N 290 E 315	Ap, 0-0.75 ft, dark yellowish-brown (10YR3/4) silt loam B, 0.75-1.1 ft, dark yellowish-brown (10YR4/6) silt loam	352	Tested area of highest artifact density. No features present.
2	5x5	N 287.50 E 295	Ap, 0-0.8 ft, brown (10YR5/3) silt loam B, 0.8-1.2 ft, yellowish-brown (10YR5/6) silt loam	356	Tested area of highest artifact density. No features present.
3	2.5x5	N 295 E 285	Ap, 0-0.75 ft, dark-brown (10YR3/3) silt loam B, 0.75-1.4 ft, dark yellowish-brown (10YR4/6) silt loam	296	Tested area of highest artifact density. Feature -1 (Modern drainage ditch) identified at Ap/B interface.
4	2.5x5	N 307 E 268	Ap, 0-1.0 ft, dark yellowish-brown (10YR4/4) silt loam B, 1.0-1.4 ft, yellowish-brown (10YR5/6) silt loam	141	No features present.

*Test Unit 1* (5x5 ft) was excavated at N290 E 315 to test the artifact concentration at Site 36LU280. The Ap horizon or plowzone was 0.75 ft thick and consisted of dark yellowish-brown silt loam. The underlying sterile subsoil or B horizon was comprised of a lighter shade of yellowish-brown silt loam. No features were identified in this unit.

Excavation of TU 1 produced 352 artifacts from the Ap horizon (see Table 11-9). Architectural related artifacts include 12 nails and 129 pieces of window glass. There were 25 artifacts placed in the Activities Class including 20 flowerpot fragments, a battery core, decorative concrete, hardware, and ceramic drainpipe. One bone fragment was placed in the faunal class. The remaining 185 artifacts consisted of 132 bottle glass, six other glass pieces, 42 ceramics and five indeterminate metal pieces. The high quantity of glass artifacts ( $n=267$  or 75.8%) may indicate the presence of a refuse disposal area in this vicinity.

**Table 11-9. Site 36LU280: Test Unit 1, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Ceramic pipe	1	0.28%
		Decorative concrete	1	0.28%
		Battery core	1	0.28%
	Flowerpots	Terra cotta	20	5.68%
	Misc. Small Hardware	Misc. hardware	2	0.57%
<b>Activities Total</b>			<b>25</b>	<b>7.10%</b>
Architecture	Nails/Spikes	Nail, cut	4	1.14%
		Nail, wire	1	0.28%
		Nail, indeterminate	7	1.99%
	Window Glass	Window glass	129	36.65%
<b>Architecture Total</b>			<b>141</b>	<b>40.06%</b>
<b>Faunal</b>	<b>Bone</b>	<b>Bone</b>	<b>1</b>	<b>0.28%</b>
Kitchen	Bottles/Jars	Beer bottle	4	1.14%
		Beverage bottle	4	1.14%
		Bottle glass	122	34.66%
		Container glass	2	0.57%
	Ceramics	Hardpaste porcelain, handpainted	1	0.28%
		Hardpaste porcelain, plain	3	0.85%
		Ironstone, plain	4	1.14%
		Whiteware, colored glaze	1	0.28%
	Glassware-Other	Whiteware, plain	33	9.38%
		Decorative table glass	3	0.85%
		Decorative table glass finial	1	0.28%
	Kitchen-related-Other	Canning jar lid liner	1	0.28%
	Tumblers, Stemware	Tumbler	1	0.28%
<b>Kitchen Total</b>			<b>180</b>	<b>51.14%</b>
<b>Unidentified</b>	<b>Indeterminate</b>	<b>Metal, indeterminate</b>	<b>5</b>	<b>1.42%</b>
<b>TOTAL</b>			<b>352</b>	<b>100.00%</b>



Test Unit 2 (5x5 ft) was excavated at N287.5 E295 to test a moderate artifact concentration Identified during STP and CSC activities. The Ap horizon or plowzone was 0.8 ft thick and consisted of brown silt loam (Photograph 11-3). The underlying sterile subsoil or B horizon was comprised of yellowish-brown silt loam. No features were identified in this unit.

**Photograph 11-3. Site 36LU280: Test Unit 2, South Profile, Facing South**

Excavation of TU 2 produced 356 artifacts including nine nails and 109 window glass that fell within the architecture class (Table 11-10). There were 9 artifacts placed in the activities class, all nine flowerpot pieces. One plastic pull knob was placed in the furnishings class. One pharmaceutical bottle fell within the personal class. The other artifacts consist of bottle glass, other glass pieces, ceramics, and unidentified metal and glass. Like TU 1, artifacts from TU 2 consisted predominately of glass ( $n=286$  or 80.0%), suggesting the presence of a refuse dump in this general area.

**Table 11-10. Site 36LU280: Test Unit 2, Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Flowerpots	Terra cotta	9	2.53%
Architecture	Nails/Spikes	Nail, cut	2	0.56%
		Nail, indeterminate	7	1.97%
	Window Glass	Window glass	109	30.62%
Architecture Total			118	33.15%
Furnishings	Furniture Hardware	Pull knob	1	0.28%
Kitchen	Bottles/Jars	Beverage bottle	4	1.12%
		Bottle glass	156	43.82%
		Jug	1	0.28%
		Container glass	4	1.12%
	Ceramics	Hardpaste porcelain, decal	1	0.28%
		Hardpaste porcelain, plain	1	0.28%
		Ironstone, plain	1	0.28%
		Redware, unglazed	1	0.28%
		Whiteware, overglaze handpainted	6	1.69%
		Whiteware, plain	32	8.99%
		Whiteware, underglaze handpainted	1	0.28%
		Whiteware, Fiesta-like	1	0.28%
		Whiteware, transfer printed	1	0.28%
	Glassware-Other	Dessert bowl	1	0.28%
		Decorative table glass	4	1.12%
	Kitchen-related-Other	Canning jar lid liner	6	1.69%
Kitchen Total			221	62.08%
Personal	Pharmaceutical	Pharmaceutical bottle/jar	1	0.28%
Unidentified	Indeterminate	Metal, indeterminate	5	1.40%
		Glass, melted	1	0.28%
Unidentified Total			6	1.69%
TOTAL			356	100.00%

*Test Unit 3* (5x5 ft) was excavated at N245 E285 (5x2.5 ft). The 0.75-ft thick Ap horizon or plowzone consisted of dark-brown silt loam. Plow scars were visible at the Ap/B interface. The underlying sterile subsoil or B horizon was comprised of dark yellowish-brown silt loam. Feature 1, a modern drainage pipe trench, was identified at this location (Figure 11-15).

This unit produced 296 historic artifacts and one prehistoric lithic artifact from the Ap horizon. The single lithic was a broken notched point made from Shriver chert that was recovered from Level 3 of the plowzone, along with historic artifacts. Of the 296 historic artifacts, 219 artifacts

were kitchen-related specimens (Table 11-12). These consisted of 167 bottle glass, 18 other glass pieces, and 34 ceramics. There were 13 artifacts placed in the Activities Class including seven flowerpot pieces, two battery cores, one decorative concrete, one miscellaneous metal, and two miscellaneous hardware items. Architectural-related specimens included five nails and 57 window glass. The Furnishings Class consisted of one ceramic figurine fragment. One mirror fragment fell within the personal class. Glass comprised approximately 82% of the artifact assemblage; this high percentage of glass seemed typical of the test unit assemblages.

**Table 11-11. Site 36LU280: Test Unit 3, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Decorative concrete	1	0.34%
		Battery core	2	0.68%
	Flowerpots	Terra cotta	7	2.36%
	Misc. Small Hardware	Misc. hardware	2	0.68%
		<b>Activities Total</b>	<b>12</b>	<b>4.05%</b>
Architecture	Nails/Spikes	Nail, cut	4	1.35%
		Nail, indeterminate	1	0.34%
	Window Glass	Window glass	57	19.26%
		<b>Architecture Total</b>	<b>62</b>	<b>20.95%</b>
Furnishings	Furniture-Decorative	Figurine	1	0.34%
Kitchen	Bottles/Jars	Beverage bottle	10	3.38%
		Bottle glass	152	51.35%
		Container glass	5	1.69%
		<b>Ceramics</b>	<b>2</b>	<b>0.68%</b>
		Hardpaste porcelain, plain	2	0.68%
		Whiteware, decal	1	0.34%
		Whiteware, overglaze handpainted	1	0.34%
		Whiteware, plain	29	9.80%
		Whiteware, Fiesta-like	1	0.34%
	Glassware-Other	Decorative table glass	3	1.01%
	Kitchen-related-Other	Canning jar lid liner	9	3.04%
	Kitchenware (Utensils, Pots, Etc.)	Table utensil handle	1	0.34%
	Tumblers, Stemware	Tumbler	5	1.69%
		<b>Kitchen Total</b>	<b>219</b>	<b>73.99%</b>
Personal	Personal-Other	Mirror glass	1	0.34%
Unidentified	Indeterminate	Metal, indeterminate	1	0.34%
<b>TOTAL</b>			<b>296</b>	<b>100.00%</b>

*Test Unit 4* (2.5x5 ft) was excavated at N304 E268. This unit produced 141 historic artifacts from the Ap horizon (Table 11-12). The Ap horizon or plowzone, which measured 1.0 ft thick, consisted of dark yellowish-brown silt loam (Photograph 11-4). The soil matrix of the underlying sterile subsoil or B horizon consisted of yellowish-brown silt loam. No features were identified in this unit.

In the sample of 141 artifacts from TU 4, glass was once again the most common material type, accounting for 79.4% ( $n=112$ ) of the artifacts. Kitchen-related artifacts consisted of 85 bottle



glass, 11 other glass pieces, and 16 ceramics. There were eight artifacts placed within activities, including six flowerpot pieces, one battery core, and one ceramic drainpipe. Sixteen window glass, three nails and two brick fell within the architecture class. Once again glass was very common, accounting for 79.4% ( $n=112$ ) of the artifacts.

**Photograph 11-4. Site 36LU280: Test Unit 4, South Profile, Facing South**



**Table 11-12. Site 36LU280: Test Unit 4, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Ceramic pipe	1	0.71%
		Battery core	1	0.71%
	Flowerpots	Terra cotta	6	4.26%
	Activities Total		8	5.67%
Architecture	Brick, Block	Brick	2	1.42%
	Nails/Spikes	Nail, indeterminate	3	2.13%
	Window Glass	Window glass	16	11.35%
	Architecture Total		21	14.89%
Kitchen	Bottles/Jars	Beverage bottle	1	0.71%
		Bottle glass	82	58.16%
		Jar	2	1.42%
	Ceramics	Hardpaste porcelain, plain	2	1.42%
		Whiteware, overglaze decal	2	1.42%
		Whiteware, plain	11	7.80%
		Redware, glazed	1	0.71%
	Kitchen-related-Other	Canning jar lid liner	8	5.67%
	Tumblers, Stemware	Tumbler	3	2.13%
	Kitchen Total		112	79.43%
TOTAL		141	100.00%	



### Machine Excavated Trenches

The plowzone was mechanically stripped from four 105x6 foot (1.83x32 m) trenches to search for cultural features (Figure 11-16; Photograph 11-5). Trenches were oriented east/west and extended from gridlines E235 to E340. Twelve soil anomalies (including six cultural features, one unknown feature, and five non-cultural soil stains) were identified at this site.



**Photograph 11-5. Site 36LU280: Backhoe Beginning Trench Excavations, Facing East**

**Trench 1.** Trench 1 was located at N280-2860 E 235-340 (Photograph 11-6). After cleaning the trench floor, Features 2a, 3, and 4 and several soil anomalies were identified. Three small extensions were excavated on the south side to explore these soil anomalies (see Figure 11-16).



**Photograph 11-6. Site 36LU280: Trench 1 Excavation. Facing East**

A grab sample of 43 artifacts was collected during trench excavation (Table 11-13). Most of the artifacts were bottle glass and ceramics. Small quantities of architecture and personal--related artifacts were also collected.

*Trench 2*, located at N295-301 E 235-340, was excavated in the center of the highest density area of both the CSC and STP testing areas. This trench excavation exposed Features 1, 2b, 5, 6, and 7 (see Figure 11-16). A grab sample of 128 artifacts was collected during excavation of this trench (Table 11-14). Kitchen-related bottle glass and ceramics accounted for approximately 84% of these artifacts. Small quantities of architecture and activities related artifacts were also collected.

**Table 11-13. Site 36LU280: Trench 1 and 1 Extensions, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Architecture	Nails/Spikes	Nail, cut	6	13.95%
	Window Glass	Window glass	6	13.95%
Architecture Total			12	27.91%
Kitchen	Bottles/Jars	Bottle glass	10	23.26%
		Jar	1	2.33%
	Ceramics	Hardpaste porcelain, plain	2	4.65%
		Whiteware, Fiesta style	9	20.93%
		Whiteware, plain	8	18.60%
		Kitchen Total		30
Personal	Pharmaceutical	Pharmaceutical bottle/jar	1	2.33%
TOTAL			43	100.00%

**Table 11-14. Site 36LU280: Trench 2, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Flowerpots	Terra cotta	4	3.13%
	Cans/Tins	Can	2	1.56%
Activities Total			6	4.69%
Architecture	Nails/Spikes	Spike, cut	1	0.78%
		Nail, indeterminate	2	1.56%
	Window Glass	Window glass	2	1.56%
Architecture Total			5	3.91%
Kitchen	Bottles/Jars	Bottle glass	65	50.78%
		Fruit jar	1	0.78%
		Container glass	2	1.56%
	Ceramics	Hardpaste porcelain, decal	1	0.78%
		Whiteware, decal	3	2.34%
		Whiteware, plain	14	10.94%
		Whiteware, Fiesta-like	1	0.78%
	Glassware-Other	Decorative table glass	1	0.78%
		Decorative bowl	13	10.16%
	Kitchen-related-Other	Canning jar lid liner	4	3.13%



Class	Subclass	Object/Ware	Count	Percentage
	Kitchenware (Utensils, Pots, Etc.)	Table knife	1	0.78%
<b>Kitchen Total</b>			<b>106</b>	<b>82.81%</b>
Unidentified	Indeterminate	Metal, indeterminate	6	4.69%
		Plastic	1	0.78%
		Rubber	4	3.13%
<b>Unidentified Total</b>			<b>11</b>	<b>8.59%</b>
<b>TOTAL</b>			<b>128</b>	<b>100.00%</b>

Trench 3 was located at N310-316 and E235-340 (Photograph 11-7). This 6x105 ft long trench exposed Feature 2c, 8, 9, and 10 (see Figure 11-16). A grab sample of 32 artifacts was collected during trench excavation (Table 11-15). The majority (87.38%) of these artifacts consisted of kitchen-related glass and ceramics. Small quantities of architecture- and activities-related artifacts were also collected.

**Photograph 11-7. Site 36LU280: Trench 3 Overview, Facing East. Note Trench 2 on right**



**Table 11-15. Site 36LU280: Trench 3, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Flowerpots	Terra cotta	1	3.13%
Architecture	Window Glass	Window glass	3	9.38%
Kitchen	Bottles/Jars	Bottle glass	9	28.13%
		Hardpaste porcelain, decal and handpainted	1	3.13%
	Ceramics	Hardpaste porcelain, plain	1	3.13%
		Whiteware, decal	1	3.13%
		Whiteware, plain	9	28.13%
	Kitchen-related-Other	Canning jar lid liner	4	12.50%
	Tumblers, Stemware	Tumbler	2	6.25%
<b>Kitchen Total</b>			<b>27</b>	<b>84.38%</b>
Unidentified	Indeterminate	Metal, indeterminate	1	3.13%
<b>TOTAL</b>			<b>32</b>	<b>100.00%</b>

## Features

Twelve soil anomalies were identified and given feature numbers. Of these, six were cultural features, the origin of one was unknown, and five were non-cultural. The cultural features included two utility line trenches (Features 1 and 2), two postholes (Features 3 and 6), one burn pit (Feature 4), and one possible trash pit (Feature 5). Feature 7 was irregular in shape and its



origin and/or function could not be determined. Features 8-12 were non-cultural and are not discussed below.

*Feature 1* consisted of a portion of a modern (corrugated plastic) drainage pipe (Feature 1a) and pipe trench (Feature 1b) first identified at the Ap/B horizon interface in TU3. The feature extended northwest-southeast through the central portion of TU3 and measured 1.9x2.6 ft (see Figure 11-15). This feature also appeared in Trench 2 but not Trenches 1 and 3. The trench fill was dark-brown (10YR3/3) silt loam with 90% small gravel. Feature excavation was halted when a modern 4-inch corrugated black plastic pipe was exposed in a gravel filled trench (Photograph 11-8). Excavations failed to produce any artifacts.



**Photograph 11-8. Site 36LU280: Test Unit 3, Feature 1 (Pipe and Pipe Trench) Planview, Facing North.**

*Feature 2* was a utility trench identified in all three trenches, with its southeastern extent at N275 E248.2-252.0 and its northeastern exposed extent at N316 E252.2-257.2 (see Figure 11-16). The trench was approximately 2.8-4.0 ft wide and was oriented northeast-southwest.

Sections of the approximately 42 ft length were exposed in the three trenches and designated as Features 2a, 2b, or 2c. The Feature 2 fill consisted of brown (10YR4/3) sandy loam with 40% coal and gravels. No artifacts were recovered in association with Feature 2.

*Feature 3* represented a posthole and post mold that was identified in Trench 1 with a center point at N 281 E303.25. The posthole was nearly circular and measured 21.5x20 inches

(Photograph 11-9). The feature fill was composed of dark-grayish-brown (10YR4/2) silt loam. Feature 3 produced 14 ceramics, including nine Fiesta style whiteware sherds and five plain whiteware (Table 11-16).



**Photograph 11-9. Site 36LU280: Feature 3, Planview, Facing North**



**Table 11-16. Site 36LU280: Feature 3, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Kitchen	Ceramics	Whiteware, Fiesta Style	9	64.29%
		Whiteware, plain	5	35.71%
TOTAL			14	100.00%

*Feature 4*, a possible burn pit, was identified in Trench 1 and further exposed in an extension to this trench (Figure 11-18; Photograph 11-10). The feature was amorphous in shape with a center point located at N279.7 E314 (Figure 11-17). The pit measured 4.0 ftx2.4 ftx0.7 ft deep.

The fill matrix was comprised of mottled dark-grayish-brown (10YR 4/2) and yellowish-red (5YR5/8) silt loam with 10% charcoal and <5% gravel. The bottom of the pit was relatively flat. No artifacts were recovered.



**Photograph 11-10. Site 36LU280: Feature 4 East Profile, Facing West**

Two flotation samples were submitted for archaeobotanical analysis (see Appendix K). The flotation samples produced pine charcoal, carbonized acorn shell, and non-carbonized remains from pigweed, raspberry/blackberry, and grapes. The raspberry/blackberry and grape seeds suggest that the burn pit was open in the fall. It appears that this fire pit was dug to burn either pine tree remains or items made from pine.

*Feature 5* was a trash pit/drainage ditch located in Trench 2 (Photograph 11-11). The feature center point was located at N298.5 E 258.5. The feature measured 5.1 ft N/S by 5.0 ft E/W and 1.2 ft deep and extended into the north trench wall but stopped 0.9 ft short of the south trench wall. A 2.5x2.5 ft sample was excavated on the northeast end of the feature (Figures 11-19; Photograph 11-12). The soil matrix was composed of very dark-grayish-brown (10YR 3/2) silt loam mottled with dark yellowish-brown (10YR4/6) silt loam. The feature had a flat base and sloping sidewalls.

The 206 artifacts recovered from Feature 5 included 181 container glass pieces (Table 11-17). Other artifacts were present in smaller quantities including can pieces, can opener, crayon, battery core, nails, window glass, bottle closures, and unidentified metal and rubber.



**Photograph 11-11. Site 36LU280: Feature 5 in Trench 2 before Excavation, Facing North**



**Table 11-17. Site 36LU280: Feature 5, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Battery core	2	0.97%
	Toys	Crayon, marking	1	0.49%
	Cans/Tins	Can	3	1.46%
Activities Total			6	2.91%
Architecture	Nails/Spikes	Nail, wire	2	0.97%
		Nail, indeterminate	3	1.46%
	Window Glass	Window glass	2	0.97%
Architecture Total			7	3.40%
Kitchen	Bottles/Jars	Beverage bottle	31	15.05%
		Bottle glass	137	66.50%
		Fruit jar	6	2.91%
		Jar	2	0.97%
		Container glass	5	2.43%
	Ceramics	Hardpaste porcelain, plain	1	0.49%
	Glassware-Other	Decorative bowl	1	0.49%
	Kitchen-related-Other	Bottle cap	1	0.49%
		Bottle cap liner	1	0.49%
		Can opener key	1	0.49%
Kitchen Total			186	90.29%
Unidentified	Indeterminate	Metal, indeterminate	6	2.91%
		Rubber	1	0.49%
	Unidentified Total			7
TOTAL			206	100.00%



**Photograph 11-12. Site 36LU280: Feature 5 Excavated Section, North Profile, Facing North**



Two flotation samples from Feature 5 were submitted for archaeobotanical analysis (see Appendix K). The flotation samples produced pine charcoal, pine wood and oak wood. In addition this possible trash pit feature also had non-carbonized remains of several types of seeds including goosefoot/pigweed, carpetweed, purselane, cinquefoil, elderberry, grapes, and raspberry/blackberry. The elderberry, raspberry/blackberry and grape seeds suggest that the feature was open during the fall.

Feature 6 was a circular posthole feature identified in Trench 2. The feature measured 1.0 ft in diameter and had a total depth of 0.2 ft (Photograph 11-13). The soil matrix consisted of yellowish-brown (10YR5/4) silt loam mottled with yellowish-red (5YR4/6) silt loam (Figure 11-20).



**Photograph 11-13. Site 36LU280: Feature 6, West Profile, Facing West**

The feature fill from the east half was collected as a flotation sample and submitted for archaeobotanical analysis (see Appendix K). The flotation sample produced unidentified pieces of wood charcoal. There were also non-carbonized remains of pigweed, elderberry, and raspberry/blackberry. Like Feature 5, the elderberry and raspberry/blackberry seeds suggest that the feature was open in the fall.



*Feature 7* was identified in Trench 2 and extended into the north wall of the trench. Feature 7 was amorphous in shape, with the exposed portion measuring 28 inches N/Sx25 inches E/Wx5 inches deep. The feature has a center point at N299.6 E289.5 (Photograph 11-14). The feature fill consisted of dark-grayish-brown (10YR4/2) silt loam with less than 5% gravel (Figures 11-21 and 11-22). The origin and function of this anomaly is unknown.

Feature 7 excavation produced 13 artifacts (Table 11-18). These included nails, container glass, ceramics, canning jar lid liner, and indeterminate metal pieces.

**Table 11-18. Site 36LU280: Feature 7, Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Architecture	Nails/Spikes	Nail, indeterminate	2	15.38%
Kitchen	Bottles/Jars	Bottle glass	4	30.77%
		Container glass	1	7.69%
	Ceramics	Whiteware, plain	1	7.69%
	Kitchen-related-Other	Canning jar lid liner	1	7.69%
Kitchen Total			7	53.85%
Unidentified	Indeterminate	Metal, indeterminate	4	30.77%
TOTAL			13	100.00%

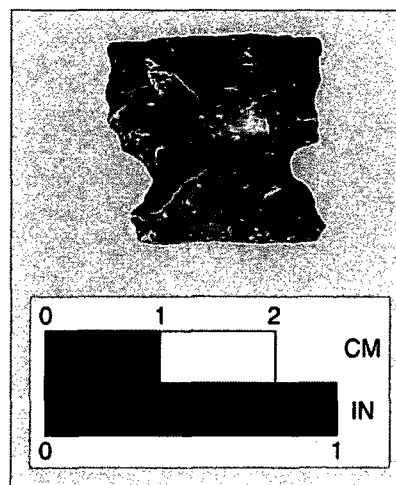


**Photograph 11-14. Site 36LU280: Feature 7, East Profile, Facing East**

### Phase I/II Artifact Analysis

Phase Ib investigations resulted in the recovery of 107 historic artifacts and the Phase II activities produced 1,954 historic artifacts and one prehistoric lithic, for a total of 2,061 artifacts. The single prehistoric artifact found at this site was an untyped notched point base made from Shriver chert (Photograph 11-5).

**Photograph 11-15. Site 36LU280: Untyped Point Base (FS 102)**



### Pattern Analysis

The historic artifacts fell into seven classes including activities, architecture, clothing, faunal, furnishings, kitchen, and personal. In addition, there were 37 pieces of glass, metal, rubber, and plastic too fragmentary to assign a specific class and designated as unidentified (Table 11-19). Several classes were represented by very low artifact densities including clothing (two buttons), faunal (one bone), furnishing artifacts (one pull knob, two figurine pieces, and three lamp parts), and personal items (two cold cream jar fragments, one mirror glass, and two medicine bottles).

Activities class is a mixed grouping that includes a diverse range of items such as hardware, toys, horse accoutrements, and tools. The artifact sample included 101 artifacts that fell in this class, representing 4.9% of the artifact assemblage (see Table 11-19). Activities artifacts were divided into five sub-classes: cans/tin, flowerpots, small hardware (machine part and miscellaneous small hardware), toys (crayon and porcelain tea set pieces), and other (battery core, ceramic drain pipe, and decorative concrete).

**Table 11-19. Site 36LU280: Historic Artifact Pattern Analysis**

Class	Subclass	Object/Ware	Count	Percentage
Activities	Activities-Other	Battery core	6	0.29%
		Ceramic pipe	11	0.53%
		Decorative concrete	3	0.15%
	Cans/Tins	Can	5	0.24%
	Flowerpots	Terra cotta	65	3.15%
	Misc. Small Hardware	Machine part, indeterminate	1	0.05%
		Misc. hardware	7	0.34%
	Toys	Crayon, marking	1	0.05%
		Toy tea set	2	0.10%
	<b>Activities Total</b>		<b>101</b>	<b>4.90%</b>
Architecture	Brick, Block	Brick	4	0.19%
	Electrical	Insulator	2	0.10%
	Nails/Spikes	Nail, cut	18	0.87%
		Nail, indeterminate	24	1.16%
		Nail, wire	6	0.29%
	Window Glass	Window glass	406	19.70%
<b>Architecture Total</b>			<b>460</b>	<b>22.33%</b>
Clothing	Clothing Fasteners	Button	2	0.10%
Faunal	Bone	Bone	1	0.05%
Furnishings	Furniture Hardware	Pull knob	1	0.05%

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Class	Subclass	Object/Ware	Count	Percentage
	Furniture-Decorative	Figurine	2	0.10%
	Lighting	Lamp glass, chimney	2	0.10%
		Lamp shade bead	1	0.05%
<b>Furnishings Total</b>			<b>6</b>	<b>0.29%</b>
Kitchen	Bottles/Jars	Beer bottle	10	0.49%
		Beverage bottle	50	2.43%
		Bottle glass	858	41.63%
		Container glass	34	1.65%
		Fruit jar	7	0.34%
		Jar	9	0.44%
		Jug	1	0.05%
	Ceramics	Earthenware	1	0.05%
		Hardpaste porcelain, decal	2	0.10%
		Hardpaste porcelain, decal and handpainted	1	0.05%
		Hardpaste porcelain, overglazed handpainted	1	0.05%
		Hardpaste porcelain, plain	18	0.87%
		Ironstone, plain	10	0.49%
		Redware, glazed	1	0.05%
		Redware, unglazed	23	1.12%
		Stoneware, buff bodied	1	0.05%
		Whiteware, colored glaze	3	0.15%
		Whiteware, Fiesta-like colored glaze	15	0.73%
		Whiteware, overglaze decal	8	0.39%
		Whiteware, overglaze handpainted	10	0.49%
		Whiteware, underglaze handpainted	2	0.10%
		Whiteware, plain	235	11.40%
		Whiteware, transfer printed	1	0.05%
	Glassware-Other	Candy dish	1	0.05%
		Decorative bowl	14	0.68%
		Decorative table glass	15	0.73%
		Decorative table glass finial	1	0.05%
		Dessert bowl	1	0.05%
	Kitchen-related-Other	Bottle cap	1	0.05%
		Bottle cap liner	1	0.05%
		Can opener key	1	0.05%
		Canning jar lid liner	96	4.66%
	Kitchenware (Utensils, Pots, Etc.)	Table knife	1	0.05%
		Table utensil handle	1	0.05%
		Utensil or cookware handle	1	0.05%
	Tumblers, Stemware	Tumbler	13	0.63%
<b>Kitchen Total</b>			<b>1448</b>	<b>70.29%</b>
Personal	Hygiene	Cold cream jar	2	0.10%
	Personal-Other	Mirror glass	1	0.05%
	Pharmaceutical	Pharmaceutical bottle/jar	2	0.10%



Class	Subclass	Object/Ware	Count	Percentage
Personal Total			5	0.24%
Unidentified	Indeterminate	Glass, melted	1	0.05%
		Metal, indeterminate	30	1.46%
		Plastic	2	0.10%
		Rubber	4	0.19%
Unidentified Total			37	1.80%
Prehistoric	Lithic	Projectile point	1	0.05%
TOTAL			2061	100.00%

A total of 460 (or 22.33%) of the artifacts were placed in the architecture class (see Table 11-19). Architecture remains are usually associated with building construction. Types of construction remains identified included brick, electric insulator, nails, and window glass. Window glass was common and comprised nearly 20% of the assemblage. Nails included cut ( $n=18$ ), wire ( $n=6$ ), and indeterminate ( $n=24$ ) varieties. Typically, the presence of cut nails suggests pre-1890s construction activities.

The vast majority of artifacts ( $n=1448$  or 70.29%) consisted of kitchen-related specimens (see Table 11-19). These artifacts were subdivided into bottles and jars, ceramics, kitchenware, tumblers, other glassware, and other kitchen-related artifacts. The 969 bottle and jar glass fragments included a jug, canning jars, beer bottles, beverage bottles, and jars, bottle, and container glass that could not be assigned to a more specific type. There were 13 tumbler pieces. Kitchenware included a table knife and utensil handles. Bottle caps, bottle and jar cap liners, and a can opener were also placed in kitchenware. Decorative glass bowls and candy dish pieces were placed in other glassware. These included clear pressed glass pieces as well as colored glass vessels (Photograph 11-16).

**Photograph 11-16. Site 36LU280:  
Representative Sample of Decorative Table  
Glass Artifacts**

Row 1 (L-R) – Glass hollowware with pressed designs (FS 114); light green container glass with embossed floral design (FS 94); sugar bowl with red flashed glass below lid seat (FS 56). Row 2 (L-R) – light green glass with embossed floral design (FS 105); blue dessert dish (FS 56)



Ceramics exhibited the greatest variability and were divided into utilitarian (redware and stoneware) and tableware (porcelain, ironstone, whiteware, and refined earthenware). The vast majority of ceramics were whiteware ( $n=274$ ). Both the whiteware and porcelain came in decorated varieties. Decoration methods included decal, hand-painted, colored glaze, molded relief, and transfer printed designs (Photograph 11-17). Several rust-colored whiteware sherds were identified as Oven Serve ware, produced by Homer Laughlin from 1933 to 1959. According to Cunningham (1998:143-148), Oven Serve ware was inexpensive, practical (guaranteed to withstand changes in oven and refrigerator temperatures), decorative, and very popular with consumers.





**Photograph 11-17. Site 36LU280:  
Representative Sample of Ceramics**

Row 1 (L-R) – yellow glazed whiteware (FS 108); hand-painted whiteware; light green glazed whiteware with scalloped rim (FS 95). Row 2 (L-R) – porcelain teacup with chinoiserie, design (FS 109); scalloped and embossed whiteware base (FS 108); whiteware with embossed dots and floral design (Fs 108). Row 3 (L-R) – whiteware bowl with orange floral design (FS 108); rust colored "Oven Serve" plate with embossed design (FS 111).

### Dating Analysis

The artifact sample included 526 temporally diagnostic artifacts that help date the occupation at Site 36LU280. Large quantities of some artifacts, such as plain whiteware ( $n=235$ ), canning jar lid liners ( $n=93$ ) and stippled bottles ( $n=92$ ) tend to weight the mean date for this site. The diagnostic artifacts had a mean date of 1926 and a TPQ date of 1945, which corresponds with the results of archival research. No structures appear on the 1873 map (see Figure 11-5) or the 1955 map (see Figure 11-7), but structures are shown on the 1939 aerial photograph (see Figure 11-6).

The assemblage contains several artifacts that were only produced for a short period of time (<30 years) and that can, accordingly, be used to confirm the mean date for the site. The Ball Perfect Mason was produced from 1923-1933. A bottle manufactured by the Fairmont Glass Works, Inc. dated to a 15-year period from 1945-1960. Two bottles manufactured by J.T. & A. Hamilton were produced during a four-year period between 1939 and 1943. Whitall-Tatum & Co. manufactured a Lysol bottle within a 15-year period from 1920-1935 (Photograph 11-18). Oven Serve dishes were manufactured by Homer Laughlin China Company between 1933 and 1959 (Photograph 11-19). These artifacts confirm that the site was occupied in the first half of the twentieth century. The presence of cut and wire nails may indicate that construction of buildings at the site began before ca. 1890 when cut nails still predominated the market. This would indicate a potential late nineteenth to mid-twentieth century date for Site 36LU280.

**Table 11-20. Site 36LU280: Dating Analysis**

Object/Ware	Reference	Start Date	End Date	Count
Nail, cut	Nelson 1968	1790	1890	18
Nail, wire	Nelson 1968; IMAC 1984	1880	2009	6
Bottles/Jars embossed: "THIS B" "TO "	Busch 1983	1933	1964	1
Bottles/Jars stippled	Busch 1983	1939	2009	92
Bottles/Jars Owen's Illinois maker's mark	Busch 1983; Toulouse 1971:403	1939	1954	1
Bottles/Jars Maker's mark for Anchor Hocking Glass Corp. also embossed "10-48A"; "6"; "52"	Busch 1983; Toulouse 1971: 46-59	1938	1970	1
Bottles/Jars mold blown	Deiss 1981	1800	1870	6
Bottles/Jars standardized screw threads	Deiss 1981	1919	2009	16
Bottles/Jars "BALL PERFECT MASON"; "8" underlined on the base"	home.earthlink.net/~raclay/DatingBalljars.HTML 2009	1923	1933	1
Bottles/Jars cobalt	IMAC 1984	1890	1960	1



Object/Ware	Reference	Start Date	End Date	Count
Bottles/Jars crown finish	Lief 1965	1892	2009	4
Bottles/Jars Owen's Illinois maker's mark	Toulouse 1971:403	1929	1954	1
Bottles/Jars embossed "GHB"; Fairmont Glass Works, Inc. maker's mark on base: F in a wide hexagon	Toulouse 1971:201	1945	1960	1
Bottles/Jars J.T. & A. Hamilton maker's mark - a triangle with "H" inside, also "2" above and "1471" below triangle	Toulouse 1971: 290; Busch 1983	1939	1943	2
Bottles/Jars embossed maker's mark for Swindell Bros., Baltimore, Md.	Toulouse 1971: 452	1920	1959	1
Bottles/Jars crown finish, stippled, embossed H within an anchor (Anchor Hocking Glass Corp., Lancaster OH) on base and "NOT TO BE REFILLED" "NOT DEPOSIT NO RETURN" on body	Toulouse 1971; Lief 1965:14; Busch 1983	1892	2009	1
Canning jar lid liner	Toulouse 1971	1869	1950	93
Bottle with patent finish; embossed "4x's = Lysol " and "Lysol Incorporated BLOOMFIELD. N.J. Bottle made in U.S.A."; Whitall-Tatum & Co. embossed maker's mark on base: "3", W over T in a triangle, "7"	Jones and Sullivan 1989; Toulouse 1971: 544; Lysol website	1920	1935	1
Ironstone, plain	Wetherbee 1980	1840	2009	10
Whiteware, colored glaze	Price 1979; Noel Hume 1980; Lofstrum et al.; Majewski and O'Brien 1984	1830	1860	4
Whiteware, Fiesta Style colored glaze with floral motif interior; "Oven Serve"; "Made in USA"	DeBolt 1994:82	1935	1959	9
Whiteware, decal	Haskell 1981	1890	2009	8
Whiteware, overglaze handpainted	Price 1979; Noel Hume 1980; Lofstrum et al. 1982; Majewski and O'Brien 1984	1830	2009	10
Whiteware, plain	Price 1979; Noel Hume 1980	1830	2009	235
Whiteware, transfer printed	Majewski and O'Brien 1984	1828	1860	1
Whiteware, underglaze handpainted	Lofstrum et al. 1982; Majewski and O'Brien 1984	1840	1860	2
TOTAL				526
Mean				1926
TPQ				1945



**Photograph 11-18. Site 36LU280: Lysol Bottle (FS 110) with Manufacturer's Mark, Produced by Whitall -Tatum Co. from 1920 to 1935**



**Photograph 11-19. Site 36LU280: Oven Serve Makers Mark, Manufactured by Homer Laughlin China Company between 1933 and 1959**



### Summary and Evaluation

Phase Ib/II investigations were undertaken at Site 36LU280 to evaluate the eligibility of this site for listing in the NRHP. Phase I testing included a surface collection and excavation of one STP within the 120x155-ft (37x47-m) site. Phase II investigations included archival research, controlled surface collection of 99-15x15 ft blocks and excavation of 59 STPs at 15-ft intervals, four judgmentally placed test units and mechanical removal of the plowzone from four 105x6 foot (1.83x32 m) trenches. The testing strategy resulted in the identification of six cultural features and one possible cultural feature: two utility trenches (Features 1 and 2), two postholes (Features 3 and 6), one burn pit (Feature 4), one possible trash pit (Feature 5), and one amorphous pit of unknown function or origin (Feature 7).

The Phase Ib/II investigations also resulted in the recovery of 2060 historic artifacts and one prehistoric artifact from this site. The temporally diagnostic artifacts indicate a late-nineteenth century to mid-twentieth century use of the site. Archival research, in conjunction with the archaeological investigations, indicates that there were no structures at this location until after 1873 and that there were no buildings remaining on this site by 1959. Based on diagnostic artifacts and map research Site 36LU280 dates to the late-nineteenth to mid-twentieth century.

Phase II testing of approximately 14% of the site failed to identify any deep shaft features or structural features. In general, the absence of these types of features makes it problematic to address questions associated with site proxemics (use of the landscape/space within a domestic site) and architecture or other broader research questions related to its late-nineteenth-century to mid-twentieth century occupation. Based on the results of Phase II investigations GAI recommends that Site 36LU280 is not eligible for listing in the National Register of Historic Places.

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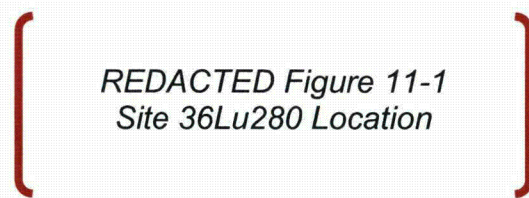
*Site 36LU280 Recommendations*

*Site 36LU280 represents the remains of a late-nineteenth to mid 20th century domestic site in a field north of Confers Lane. The site possesses good integrity and the only disturbances appear to be from cultivation. However, testing of approximately 14 % of the site (including removal of the plowzone from four large trenches measuring 6x105 ft) did not identify any structural remains or shaft features, thereby reducing the potential of the site to address important research questions regarding late-nineteenth to mid 20th century farmsteads in this region. Accordingly, GAI recommends that Site 36LU280 is Not Eligible to the National Register under Criterion D. No further archaeological investigations are recommended for Site 36LU280.*

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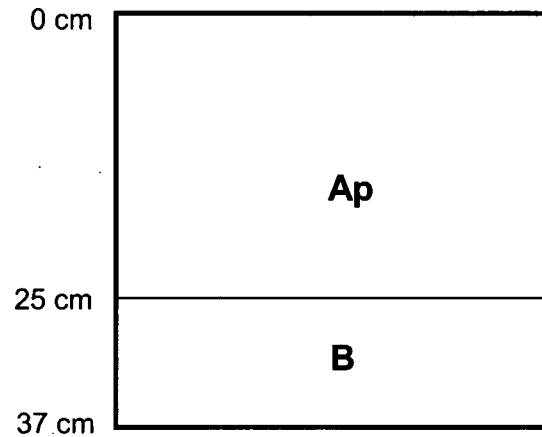
**Figure 11-1. Site 36LU280 Location**



**Figure 11-2. Site 36LU280 showing Phase Ib Testing Locations**

*REDACTED Figure 11-2  
Site 36Lu280 showing Phase Ib  
Testing Locations*

## STP 2

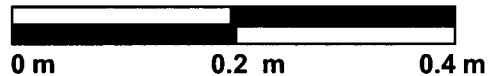


### KEY:

Ap – DARK YELLOWISH BROWN (10YR 4/4) SILT LOAM

B – YELLOWISH BROWN (10YR 5/6) SILT LOAM

### SCALE



DWN LMD CHKD TJN

APPD BAM DATE 09/04/08

SCALE AS NOTED

DRAWING NUMBER C080204.10.002.C.A.SI 2

**FIGURE 11-3. SITE 36LU280: REPRESENTATIVE PHASE IB SOIL PROFILE  
(STP 2)**

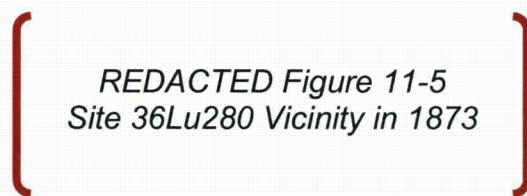
**BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.**

**Figure 11-4. Site 36LU280 on Warrantee Map showing Original Parcels**

*REDACTED Figure 11-4  
Site 36Lu280 on Warrantee Map  
showing Original Parcels*



**Figure 11-5. Site 36LU280 Vicinity in 1873**



**Figure 11-6. Site 36LU280 Vicinity in 1939**

*REDACTED Figure 11-6  
Site 36Lu280 Vicinity in 1939*

**Figure 11-7. Site 36LU280 Vicinity in 1955**

*REDACTED Figure 11-7  
Site 36Lu280 Vicinity in 1955*

**Figure 11-8. Site 36LU280 Vicinity in 1959**

*REDACTED Figure 11-8  
Site 36Lu280 Vicinity in 1959*



**Figure 11-9. Site 36LU280 Vicinity in 1969**

*REDACTED Figure 11-9  
Site 36Lu280 Vicinity in 1969*

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**Figure 11-10. Site 36LU280 Phase II Testing Locations**

11x17

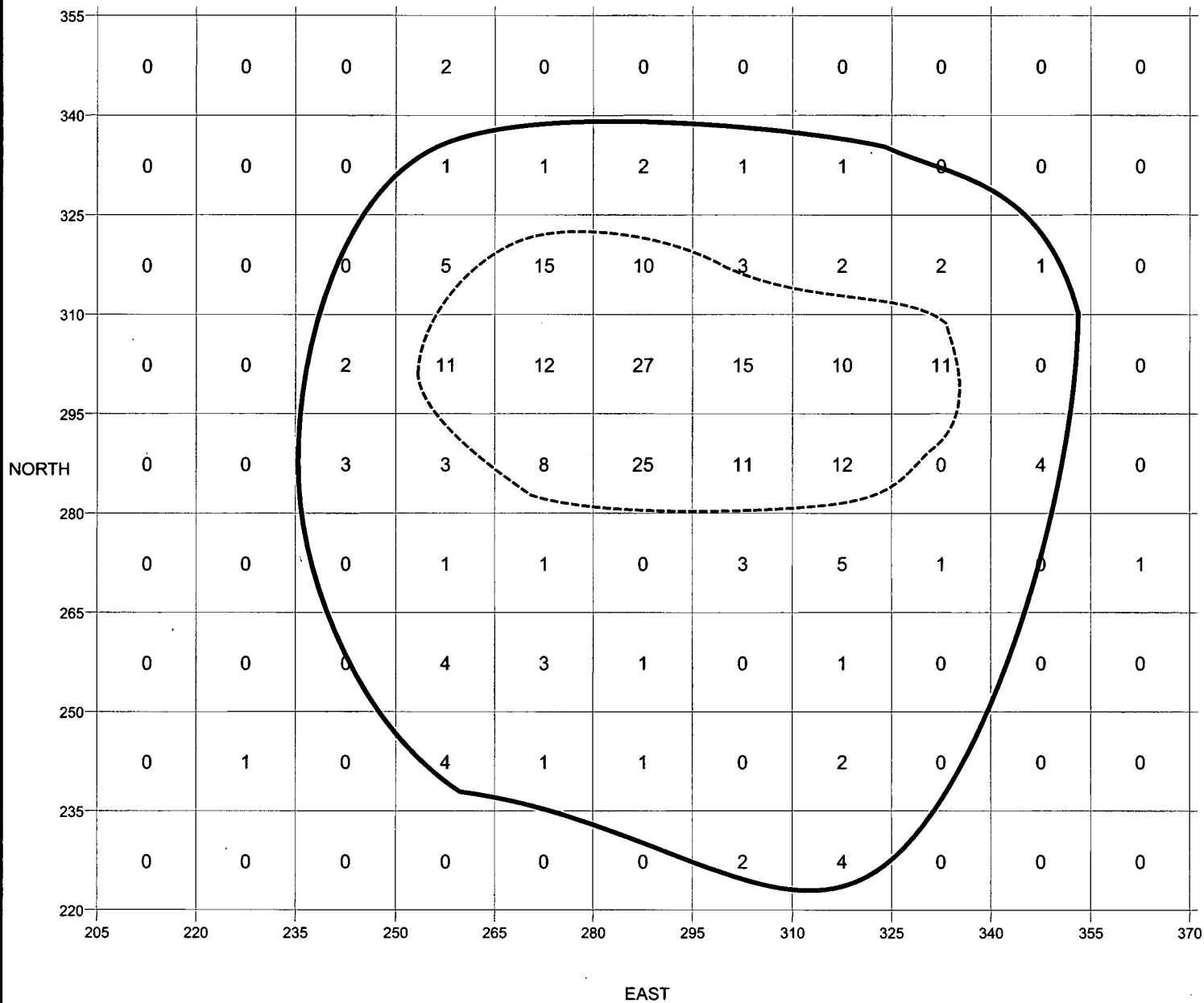
*REDACTED Figure 11-10  
Site 36Lu280 Phase II Testing  
Locations*

(Back of Figure 11-10)

*Side 2 of REDACTED Figure 11-10*



# SITE 36LU280 CONTROLLED SURFACE COLLECTION ARTIFACT DISTRIBUTION



## LEGEND

- : SITE BOUNDARY
- : ARTIFACT CONCENTRATION

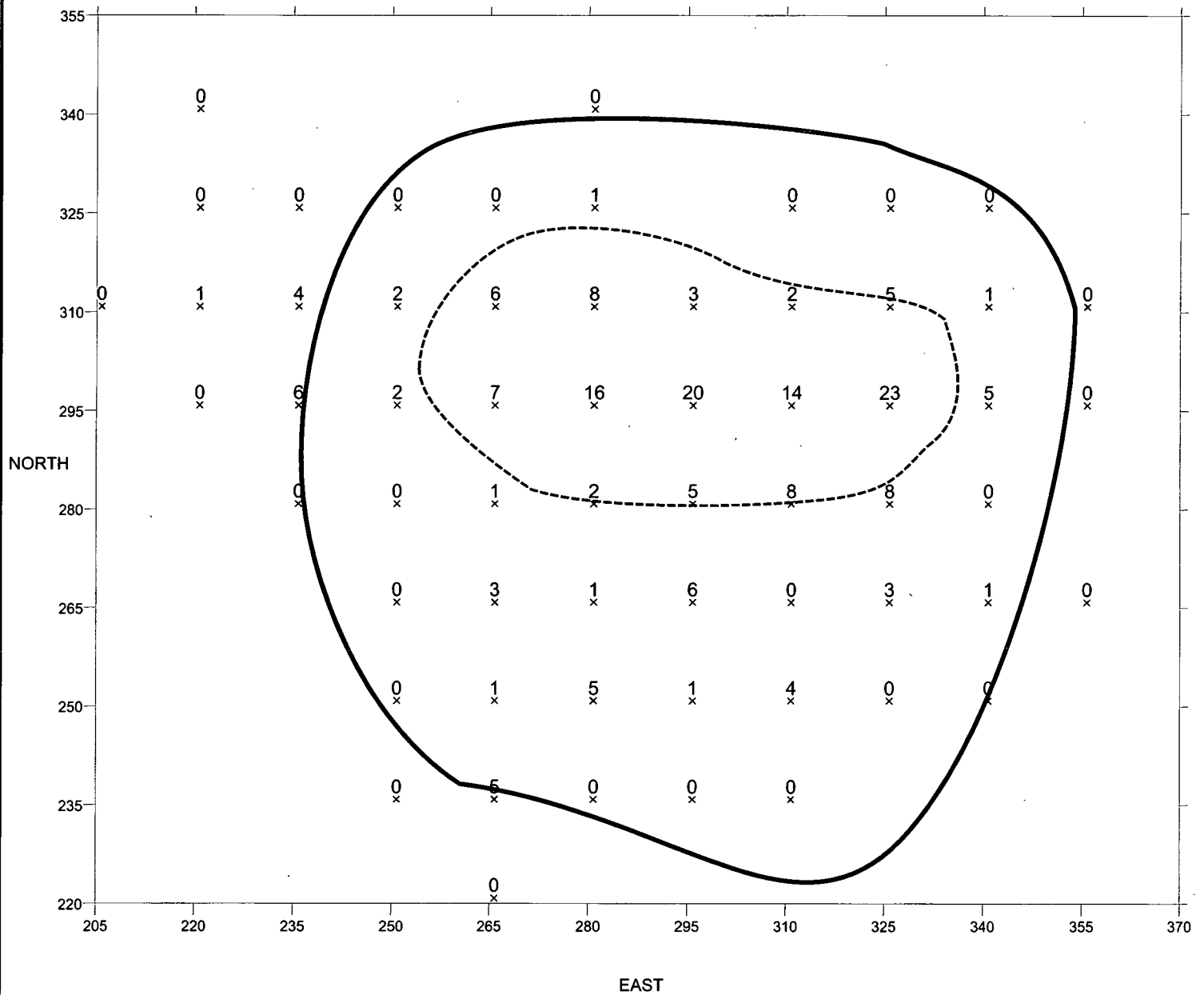
**FIGURE 11-11.  
SITE 36LU280 CSC ARTIFACT  
DISTRIBUTION**

**BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

DRAWN: SJS  
CHECKED: AKT

DATE: 05/06/10  
APPROVED:

# SITE 36LU280 STP HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

- : SITE BOUNDARY
- : ARTIFACT CONCENTRATION

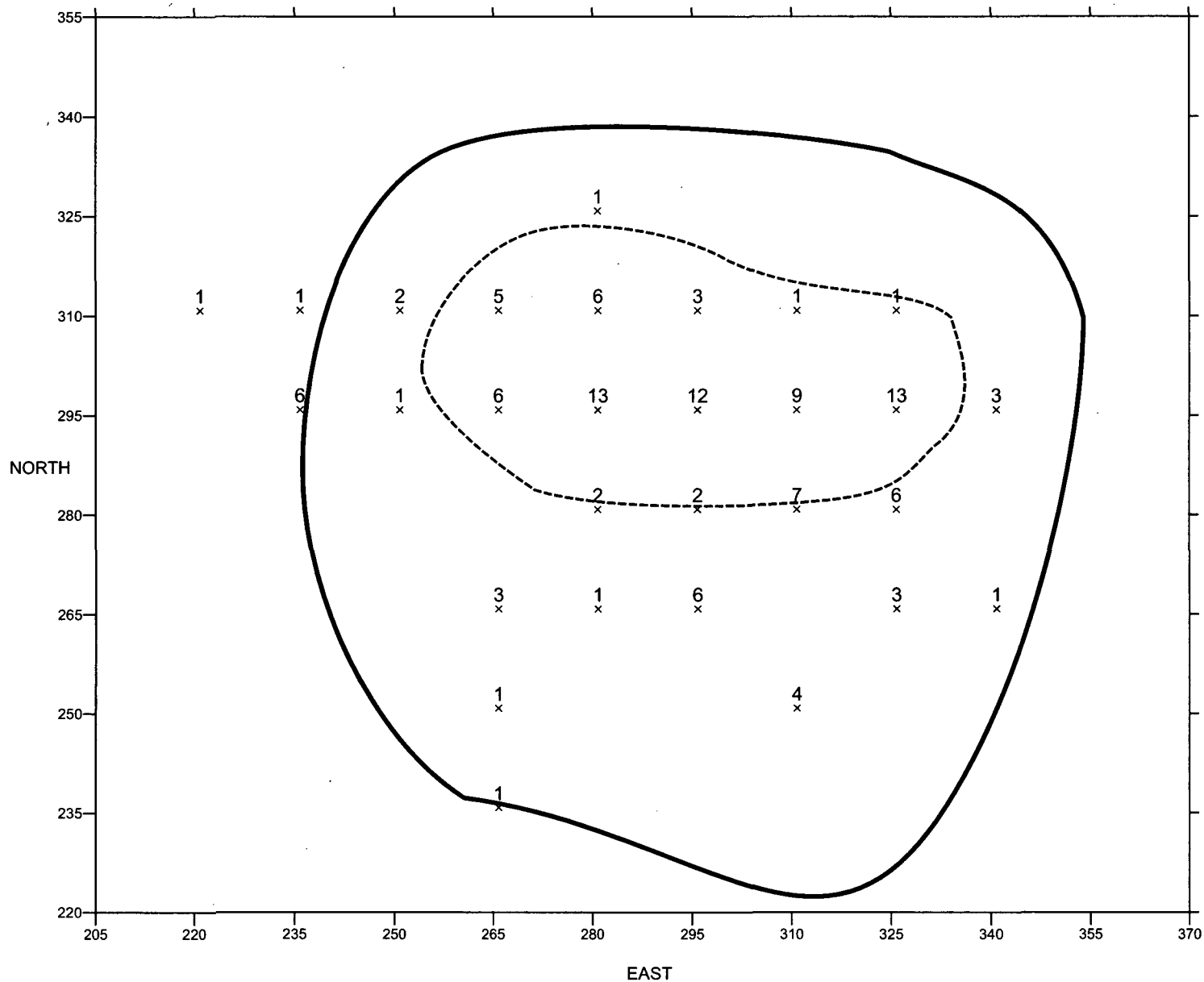
FIGURE 11-12.  
SITE 36LU280 STP HISTORIC ARTIFACT  
DISTRIBUTION

 BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

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CHECKED: AKT

DATE: 05/06/10  
APPROVED:


# SITE 36LU280 KITCHEN HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

- : SITE BOUNDARY
- - - : ARTIFACT CONCENTRATION

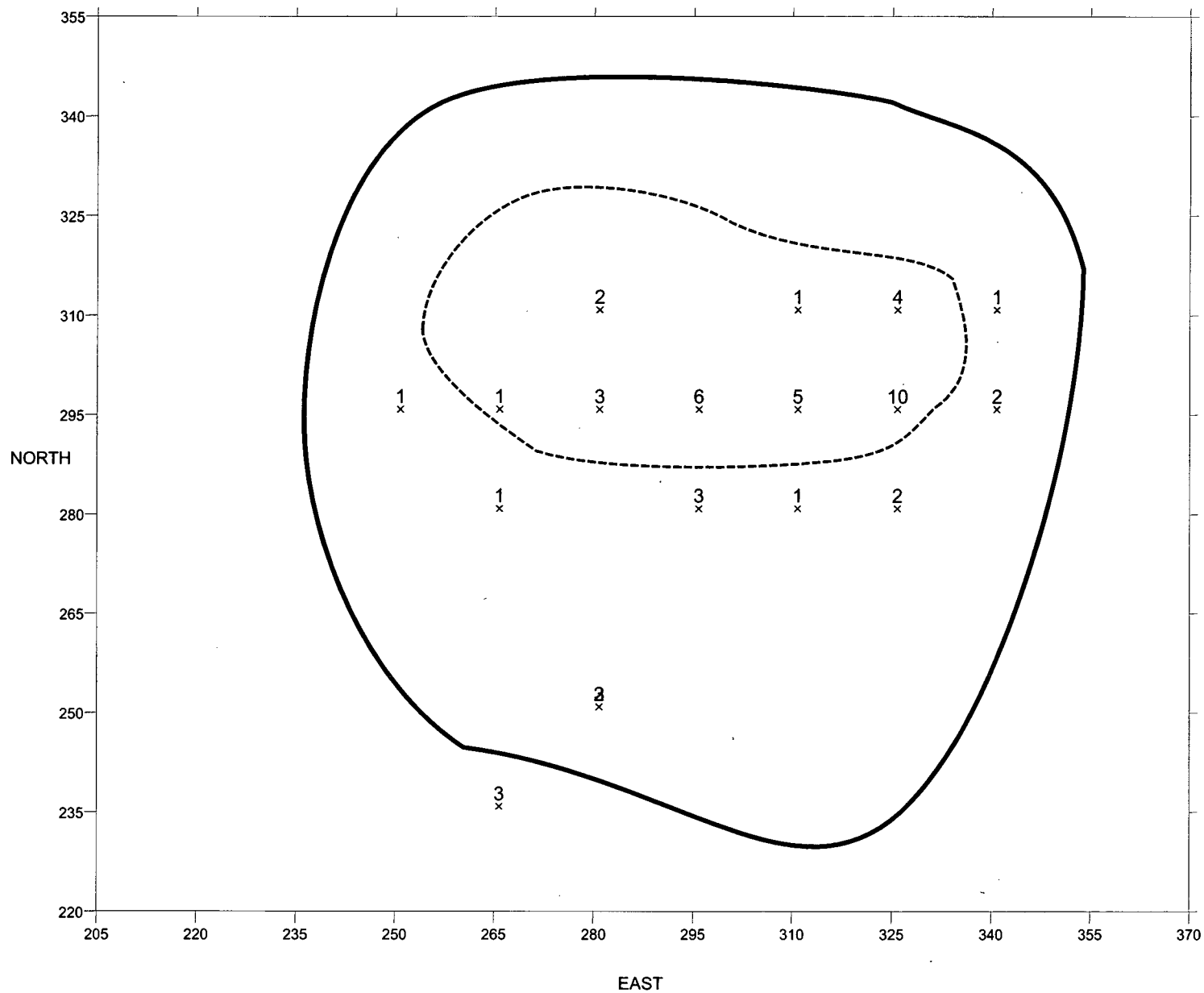
FIGURE 11-13.  
36LU280 KITCHEN HISTORIC ARTIFACT  
DISTRIBUTION

 BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.  
gai consultants

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CHECKED: AKT

DATE: 05/06/10  
APPROVED:

# SITE 36LU280 ARCHITECTURAL HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

- : SITE BOUNDARY
- : ARTIFACT CONCENTRATION

**FIGURE 11-14.**  
**36LU280 ARCHITECTURAL HISTORIC**  
**ARTIFACT DISTRIBUTION**

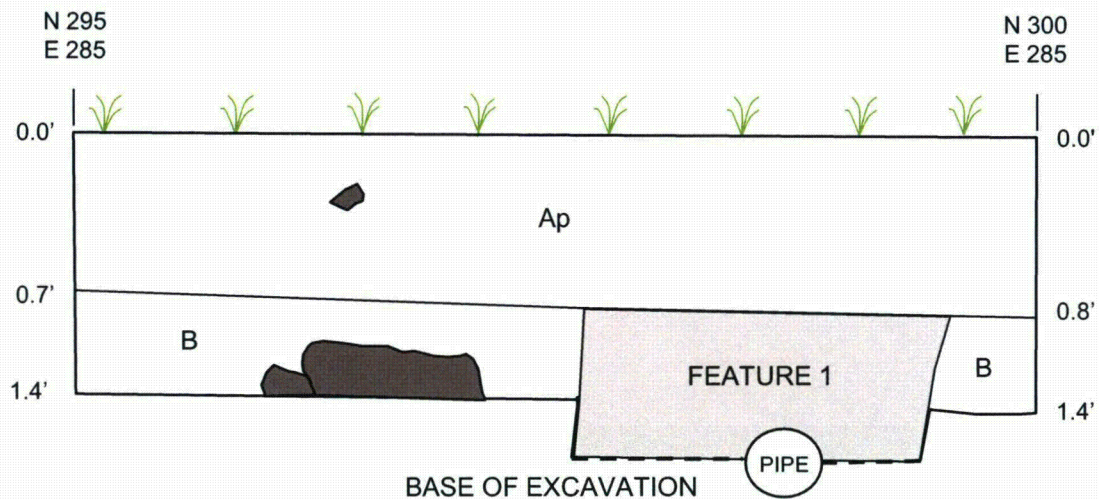
 **BELL BEND NUCLEAR POWER PLANT**  
**UNISTAR NUCLEAR DEVELOPMENT, LLC.**  
gai consultants

**DRAWN: SJS**  
**CHECKED: AKT**

**DATE: 05/06/10**  
**APPROVED:**

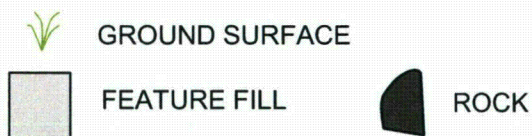


SITE 36LU280  
TEST UNIT 3  
WEST WALL PROFILE



Ap –DARK BROWN (10YR 3/3 ) SILT LOAM  
B –DARK YELLOWISH BROWN (10YR 4/6 ) SILT LOAM  
FEATURE 1 –DARK BROWN (10YR 3/3) SILT LOAM MIXED WITH DARK  
YELLOWISH BROWN (10YR 4/6 ) SILT LOAM WITH 90% GRAVEL

LEGEND



SCALE



FIGURE 11-15.  
SITE 36LU280: TEST UNIT 3  
WEST WALL PROFILE



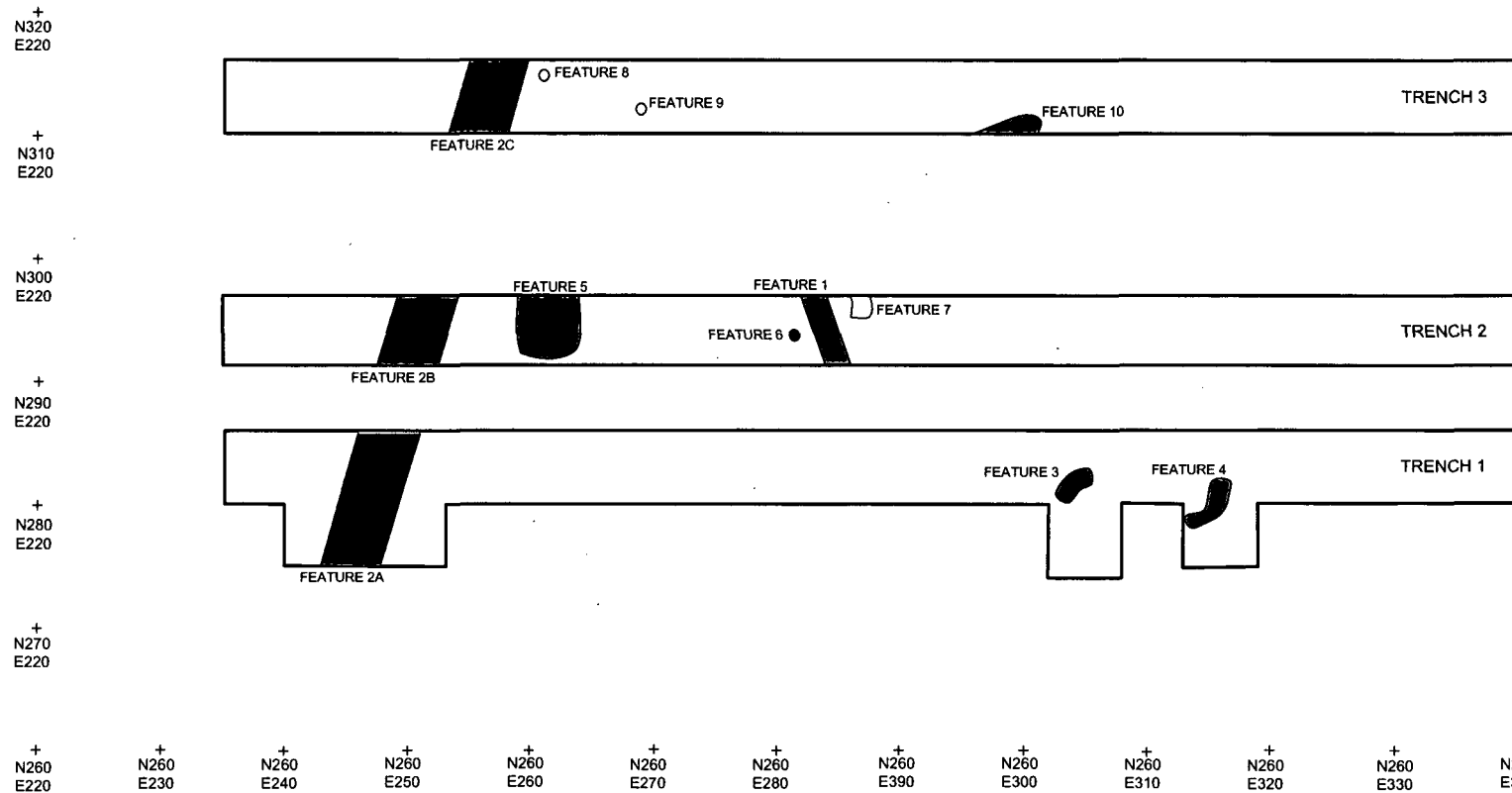
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AWJ  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: LAF

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# SITE 36LU280 PHASE II TRENCH PLANVIEW



## LEGEND

- : FEATURE
- : FEATURE (NON-CULTURAL)

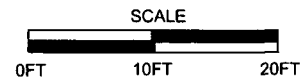


FIGURE 11-16.  
SITE 36LU280: PHASE II TRENCH PLANVIEW



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRAWN: SJS

DATE: 5/27/10

CHECKED:

APPROVED: LAF

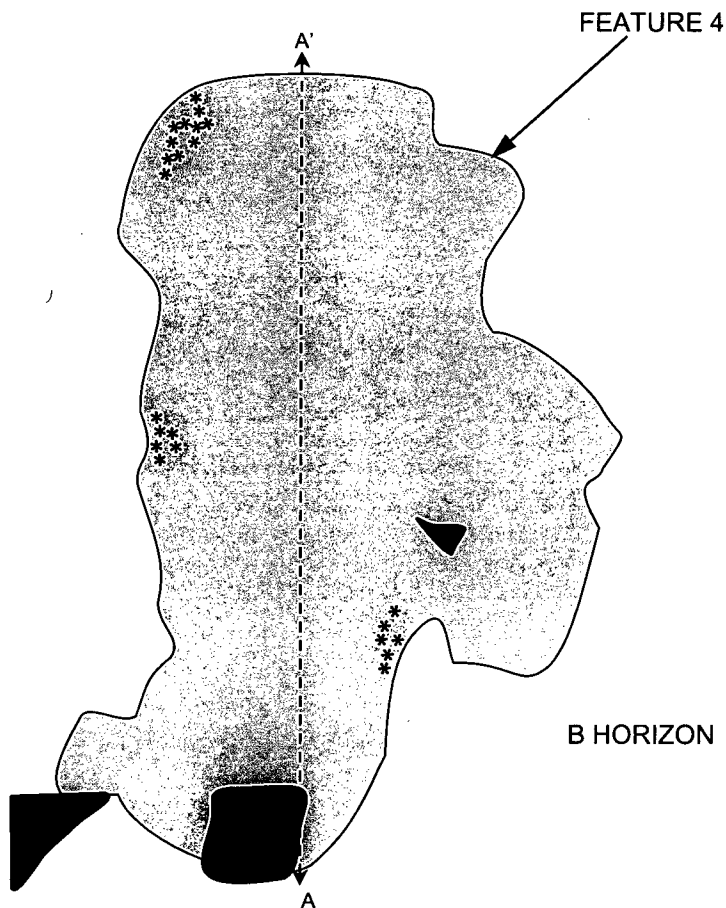


SITE 36LU280  
FEATURE 4  
PLAN VIEW

N 283  
+ E 312.5 +

N 283  
+ E 316.5

B HORIZON



N 277  
+ E 312.5 +

N 277  
+ E 316.5

FEATURE 4 –DARK GRAYISH BROWN (10YR 4/2 ) SILT LOAM WITH FIRE REDDENED  
YELLOWISH RED (5YR 4/6) SILT LOAM  
B HORIZON – YELLOWISH BROWN (10YR 5/6) SILT LOAM

LEGEND



FEATURE FILL



ROCK



CHARCOAL

SCALE



FIGURE 11-17.  
SITE 36LU280: FEATURE 4  
PLAN VIEW



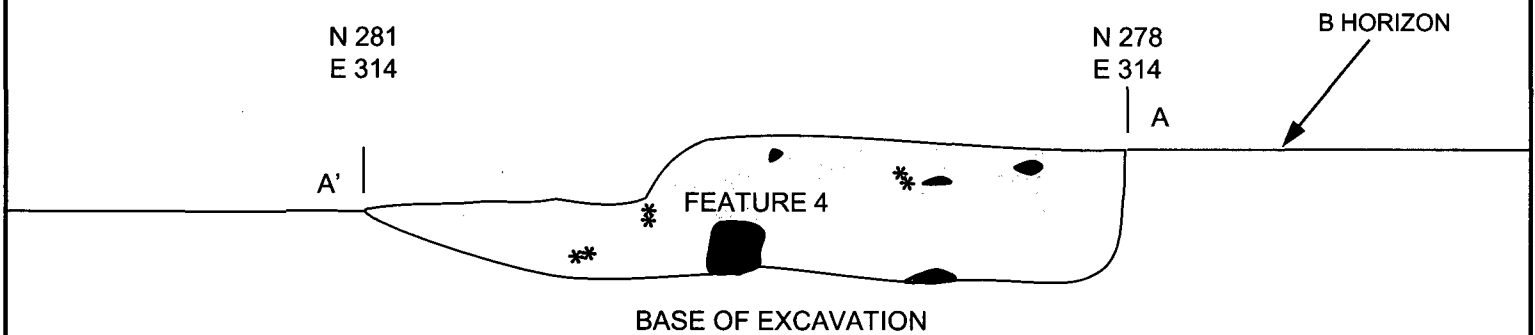
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM



SITE 36LU280  
FEATURE 4  
EAST WALL PROFILE



FEATURE 4 –DARK GRAYISH BROWN (10YR 4/2 ) SILT LOAM WITH FIRE REDDENED  
YELLOWISH RED (5YR 4/6) SILT LOAM  
B HORIZON – YELLOWISH BROWN ( 10YR 5/6) SILT LOAM

LEGEND



FEATURE FILL



ROCK

\*

CHARCOAL

SCALE



FIGURE 11-18.  
SITE 36LU280: FEATURE 4  
EAST PROFILE



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

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DATE: 05/25/10  
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SITE 36LU280  
FEATURE 5  
PLAN VIEW



N 301  
E 256

N 301  
E 262

TRENCH 2 NORTH WALL

EXCAVATED  
SAMPLE

FEATURE 5

B HORIZON

N 297  
E 256

N 297  
E 262

B HORIZON

FEATURE 5 - DARK GRAYISH BROWN (10YR 4/2) SILT LOAM  
B HORIZON - YELLOWISH BROWN (10YR 5/6) SILT LOAM

LEGEND



: FEATURE FILL

\* : WOOD



: ROCK

/ : METAL



: GLASS

\* : CERAMICS

SCALE



FIGURE 11-19.

SITE 36LU280: FEATURE 5  
PLANVIEW



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

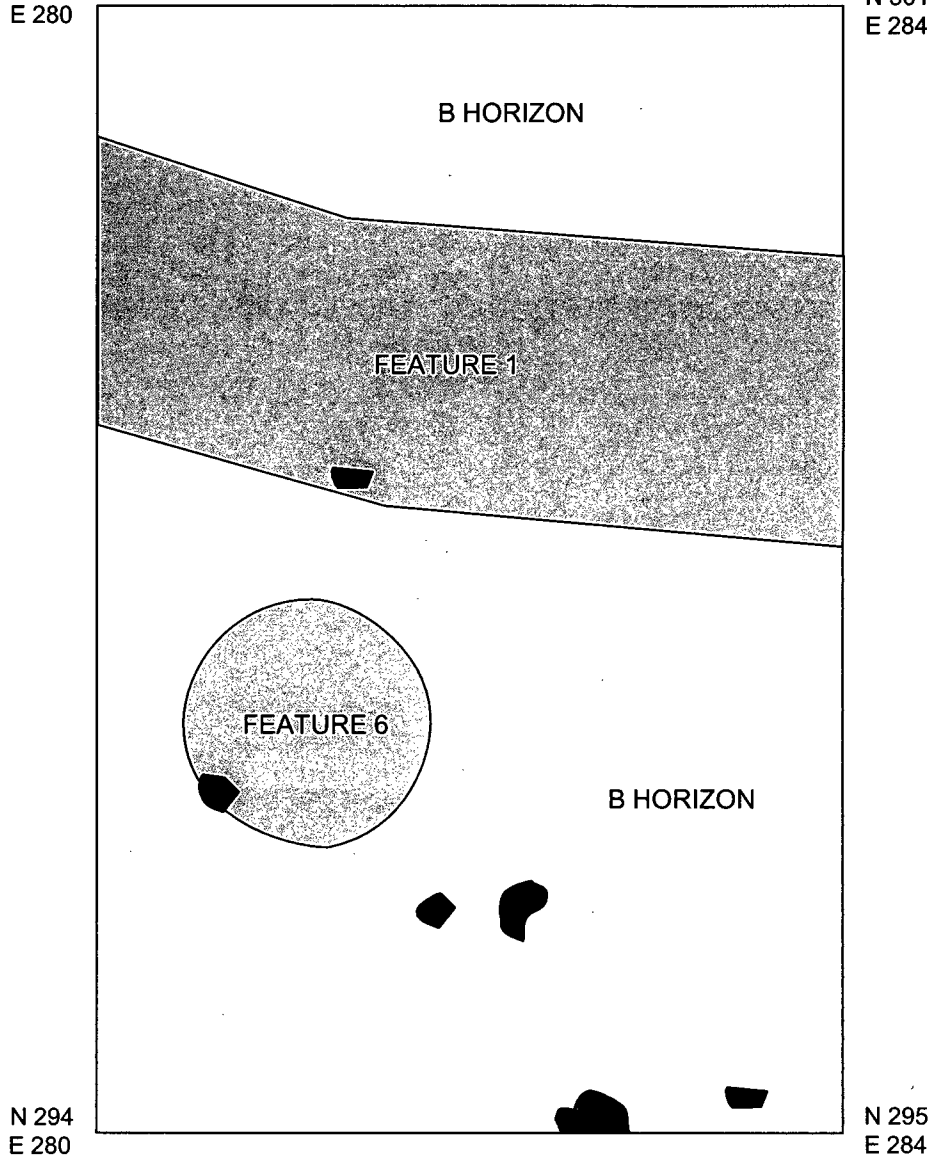
DATE: 05/25/10  
APPROVED: BAM

SITE 36LU280  
FEATURES 1 AND 6  
PLAN VIEW



N 301  
E 280

N 301  
E 284



FEATURE 1 – GRAVEL DITCH  
FEATURE 6 –YELLOWISH BROWN (10YR 5/4 ) SILT LOAM MOTTLED  
WITH OLIVE (5YR 4/4 ) SILT LOAM  
B HORIZON –DARK YELLOW BROWN (10YR 4/6 ) SANDY LOAM

LEGEND



FEATURE FILL



ROCK

SCALE



FIGURE 11-20.  
SITE 36LU280: FEATURE 1 AND  
6 PLANVIEW



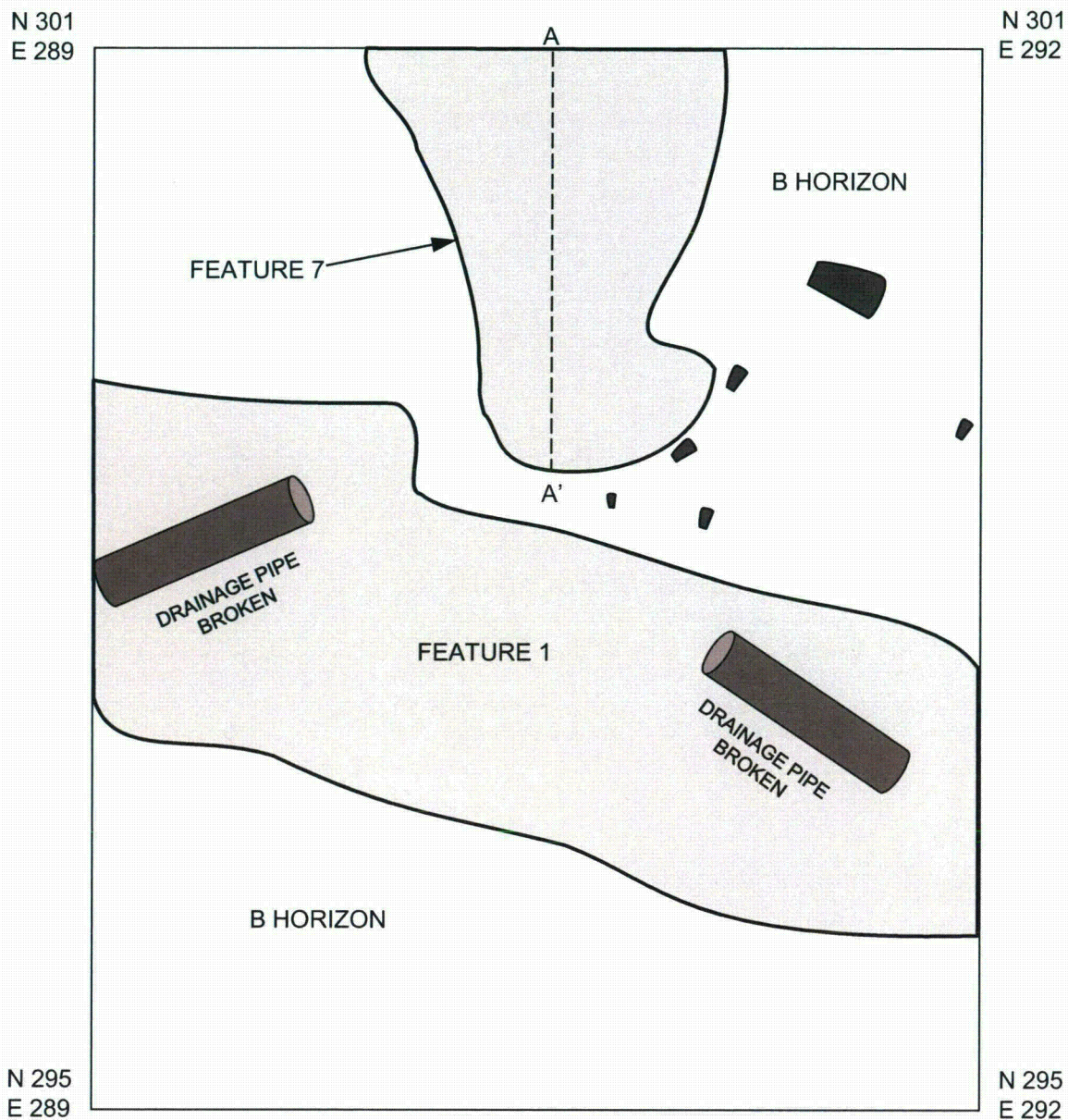
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

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CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM



SITE 36LU280  
FEATURE 1 AND 7  
PLANVIEW



FEATURE 1 – GRAVEL FILLED TRENCH  
FEATURE 7 – DARK GRAYISH BROWN (10YR 4/2 ) SILT LOAM  
B HORIZON – DARK YELLOWISH BROWN ( 10YR 4/6) SANDY LOAM

LEGEND



FEATURE FILL



ROCK

SCALE

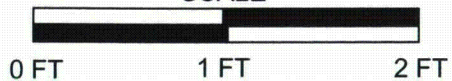


FIGURE 11-21  
SITE 36LU280: FEATURE 1 AND 7  
PLANVIEW



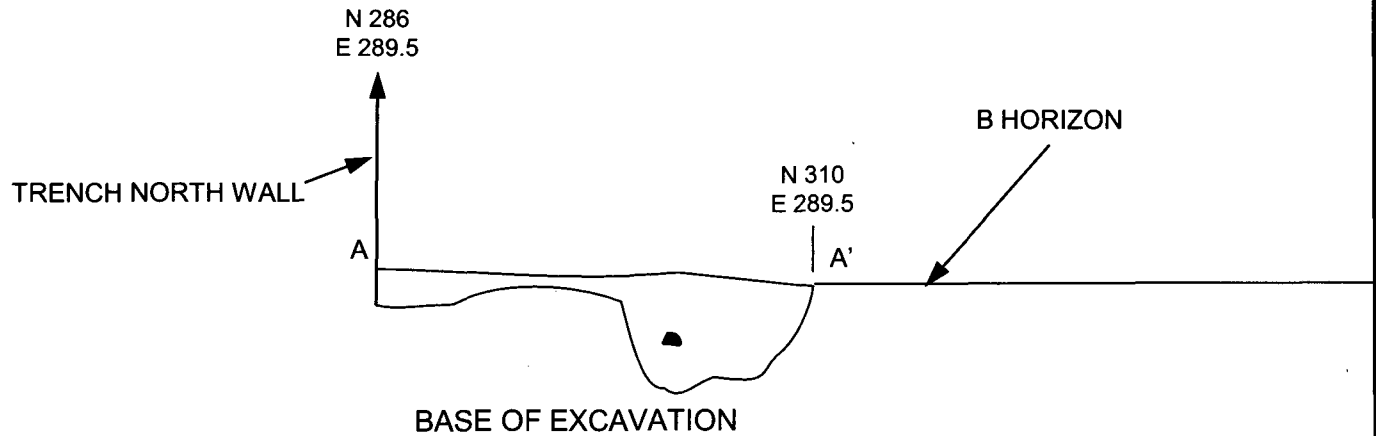
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: LAF



SITE 36LU280  
FEATURE 7  
EAST WALL PROFILE



FEATURE 7 –DARK GRAYISH BROWN (10YR 4/2) SILT LOAM  
B HORIZON – DARK YELLOWISH BROWN (10YR 4/6) SANDY LOAM

LEGEND



: FEATURE FILL



: ROCK

SCALE



FIGURE 11-22.  
SITE 36LU280: FEATURE 7  
EAST WALL PROFILE



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: LAF

## Chapter 12. Site 36LU281 (GAI Site 4)

### *Phase Ib and Phase II*

*Location: West Alternative, Section 14*

*Site Type: Mid 19<sup>th</sup> to Early 20<sup>th</sup> Century Farmstead*

*Site Size: 30x45 meters (130x150 feet)*

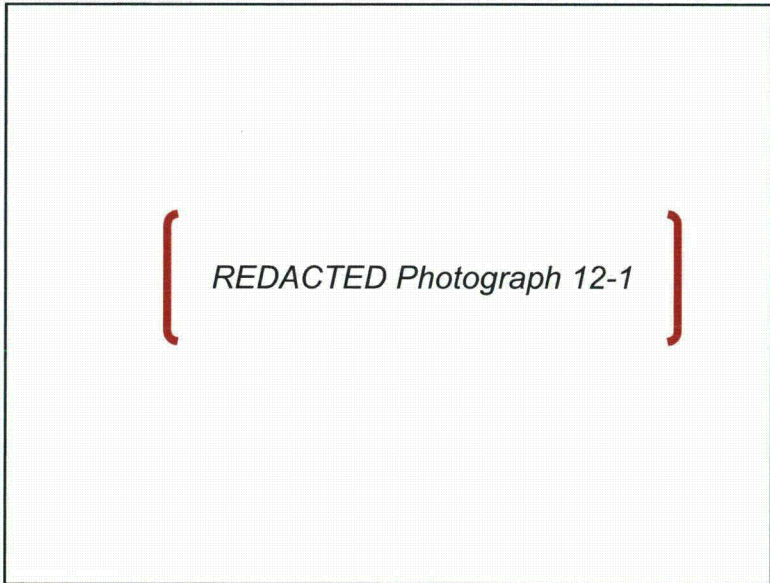
*Recommendations: Not NRHP Eligible*

### Site Setting

GAI conducted a Phase Ib survey and a Phase II National Register site evaluation of Site 36LU281 (GAI Site 4). This historic period site is situated on a broad upland flat in the West Alternative, Section 14, near the center of the project area (see Figure 1-3; Figure 12-1). It lies in a cultivated field immediately south of Confers Lane and approximately midway between two sharp bends in this roadway (Photograph 12-1). Two other historic period sites identified during GAI's archaeological investigations of the BBNPP project area are located just opposite (north of) Confers Lane—Site 36LU283 (Sink Site), 20 meters (75 feet) to the northwest, and Site

36LU280, in a field 107 meters (350 feet) to the northeast.

Disturbances in the site vicinity are limited to cultivation. The ground surface slopes down slightly to the south and two bedrock outcrops are located near the center of the site at the top of the slope. Phase Ib investigations indicate that Site 36LU281 has dimensions of 30x45 meters (130x150 feet). Proposed project impacts will result from use of this locality as a laydown area.



*REDACTED Photograph 12-1*

***Photograph 12-1. View of Site 36LU281 in Cultivated Field South of Confers Lane, Facing Southwest***

### Phase Ib Investigations

Phase Ib investigations of Site 36LU281 consisted of pedestrian reconnaissance, systematic surface collection and judgmental shovel testing (Figure 12-2). Initial pedestrian ground survey of the field was conducted along transects spaced at 15-meter intervals. Observed surface artifacts were marked with pin flags. Following the identification of the Site 36LU281 artifact scatter, a grid was established over this locality using a compass and tapes, and the site was subject to a systematic surface collection. Observed artifacts were collected by 5-meter-blocks, designated by coordinates within the grid system. A total of 362 surface artifacts were recovered from 38 5-meter surface collection blocks, with artifact density ranging from 1 to over 75 artifacts per block. One shovel test was excavated near the center of the artifact scatter to document site stratigraphy and the depth of cultural deposits.

Shovel testing exposed an Ap-B soil horizon sequence. As described for STP 1, this profile consisted of a 23-cm-thick brown silt loam plowzone superimposing a brown clay loam B horizon (Figure 12-3). Four historic artifacts were recovered from the Ap horizon in this STP. No cultural features were identified.

Phase Ib survey of Site 36LU281 yielded 366 artifacts. Nearly ninety-two percent of this assemblage consisted of kitchen-related bottle/jar glass and ceramics (Table 12-1). The ceramic assemblage included whiteware, redware, ironstone, stoneware, and porcelain sherds. The bottle glass sample included aqua, amethyst, cobalt, clear and blue specimens. White opaque canning jar lid liners were also present. The few remaining artifacts consisted of architectural debris (i.e., window glass, nails, and brick), a toy (glass marble), a shell, a white ball clay pipe fragment, two possible clay pigeons, and two unidentified plastic items.

**Table 12-1. Site 36LU281: Phase Ib Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	Percent
Activities	Toys	marble	1	0.27%
<b>Activities Total</b>			<b>1</b>	<b>0.27%</b>
Architecture	Brick, Block	brick	2	0.55%
	Nails, Spikes, Etc.	nail, indeterminate	1	0.27%
	Window Glass	window glass	19	5.19%
<b>Architecture Total</b>			<b>22</b>	<b>6.01%</b>
Arms	Arms Related-Other	clay pigeon	2	0.55%
Faunal	Shell	shell	1	0.27%
Kitchen	Bottles/Jars	bottle glass	45	12.30%
		container glass	3	0.82%
		jar glass	2	0.55%
	Ceramics	earthenware, paste	1	0.27%
		hardpaste porcelain, handpainted	2	0.55%
		hardpaste porcelain, plain	8	2.19%
		ironstone, plain	6	1.64%
		pearlware, plain	2	0.55%
		redware, glazed	44	12.02%
		redware, paste	13	3.55%
		redware, unglazed	17	4.64%
		stoneware, buff bodied	7	1.91%
		stoneware, gray bodied	1	0.27%
		whiteware, colored glaze	4	1.09%
		whiteware, handpainted	11	3.01%
		whiteware, overglaze decal	2	0.55%
		whiteware, plain	145	39.62%
		whiteware, shell edge	5	1.37%
		whiteware, spongeware	3	0.82%
		whiteware, transfer printed, black	3	0.82%
		whiteware, transfer printed, blue	3	0.82%
		whiteware, transfer printed, green	4	1.09%
	Kitchen-related-Other	canning jar lid liner	5	1.37%
		<b>Kitchen Total</b>	<b>336</b>	<b>91.80%</b>
Personal	Pharmaceutical	pharmaceutical bottle	1	0.27%
Tobacco Pipes	White Ball Clay	tobacco pipe	1	0.27%
Unidentifiable	Indeterminate	plastic	2	0.55%
<b>TOTAL</b>			<b>366</b>	<b>100.00%</b>

The assemblage contained 198 temporally diagnostic specimens, consisting largely of ceramics (whiteware and ironstone) along with bottle glass pieces (Table 12-2). These diagnostic specimens indicated a mid-19<sup>th</sup> to early 20<sup>th</sup> century temporal affiliation for the site. The paucity of architecture-related artifacts could indicate that the house was constructed of logs.

**Table 12-2. Site 36LU281: Phase Ib Artifact Dating Analysis**

Ware Type/Object	Decoration/Manufacturing Tech	Count	Begin Date	End Date	Reference
bottle glass	patent finish.	2	1860	1935	Jones & Sullivan 1989
bottle glass	sun colored amethyst	5	1880	1915	Miller & Pacey 1980
canning jar lid liner	white opaque	5	1869	1950	Toulouse 1971
ironstone	plain/other	10	1830	1955	Wetherbee 1980
whiteware	hand painted	10	1840	1860	Lofstrum et al. 1982; Majewski & O'Brien 1984
whiteware	overglaze decal	2	1890	1955	Haskell 1981
whiteware	plain	148	1830	1955	Price 1979; Noël Hume 1890
whiteware	shell edge, blue & green	4	1830	1860	Lofstrum et al 1982; Miller & Hunter 1990
whiteware	spongeware, various colors	3	1830	1871	Robacker & Robacker 1978
whiteware	transfer print, various colors	9	1828	1850	Majewski & O'Brien 1984
<b>Total</b>		<b>198</b>			
<b>Mean Date</b>		<b>1887</b>			
<b>TPQ</b>		<b>1890</b>			

A structure is depicted in the vicinity of Site 36LU281 in 1873 on historic maps. Due to possible reorientation of Confers Lane (shown on the 1873 map as having a right-angled turn), the structure illustrated on the south edge of this road may represent either Site 36LU281 (identified south of the roadway) or Site 36LU283 (north of the roadway). No structures appear in this locality on the 1939 aerial photograph or the 1955 map of the project vicinity.

#### Phase Ib Summary and Recommendations

GAI's Phase Ib study indicated that Site 36LU281 consists of a relatively high density, mid 19<sup>th</sup> to early 20<sup>th</sup> century surface artifact scatter. The overwhelming majority of artifacts are kitchen-related specimens; low frequencies of architectural debris and other items are also present. The artifact assemblage suggests a domestic occupation. Historic map review indicates the presence of a structure in this vicinity in 1873.

Based on the Phase Ib results (good integrity, relatively high artifact density, and likely association with a former structure), GAI concluded that Site 36LU281 was potentially eligible for listing in the NRHP under Criterion D. PHMC-BHP reviewed preliminary Phase Ib results presented in GAI's Phase Ib Management Summary (Munford and Tuk 2008) and concurred with these recommendation in a March 2, 2009 letter (see Appendix A). Because Site 36LU281 could not be avoided by the proposed project construction, a Phase II archaeological evaluation was undertaken at this site.

#### Phase II Methods

Phase II investigations included archival research, field excavations, and laboratory analysis. The Phase II study was designed to: (1) interpret the cultural affiliation and function of the site; (2) identify the horizontal and vertical site limits; (3) determine site integrity; (4) assess the site research potential; and (5) evaluate site significance as defined by eligibility for listing on the National Register of Historic Places. Phase II fieldwork was conducted between August 10 and September 4, 2009, and included controlled surface collection (CSC), systematically excavated STPs at 15 ft intervals, judgmentally placed test units, and mechanically excavated trenches.



## Phase II Archival Research

Archival research, which included patent, deed and orphan court record investigations, was used to create a chain-of-title for the parcel of land containing Site 36LU281 (Table 12-3). Site 36LU281 and Site 36LU283 are located on property that was originally granted to Emanuel Hover as a 71-acre parcel (Figure 12-4). The land encompassing Site 36LU281 and Site 36LU283 remained part of the same parcel until January 19, 1957, when 6.2 acres encompassing Locus 2 of Site 36LU283 was sold separately. The chain-of-title table reflects the property encompassing Site 36LU281 and Locus 1 of Site 36LU283. The division of the property encompassing Locus 2 of Site 36LU283 is presented in Chapter 14. The chain-of-title research established a link between Site 36LU281 and 36LU283 and several local farmers.

**Table 12-3. Site 36LU281: Chain-of-Title**

Date of Instrument	Grantee/Defendant	Grantor/Complainant	Conveyance Reference	Comments
July, 1 2000	PPL Susquehanna LLC	PPL Electric Utilities Corporation	Luzerne County Deed Book 2741:702	
July 29, 1986	PPL Electric Utilities Corporation	William E. Kisner	Luzerne County Deed Book 2206:613	
March 1, 1957	Emery R. Kisner Jr. and William E. Kisner	C. Grant Brittingham, Mary Brittingham, et ux.	Luzerne County Deed Book 1345:89	70.8 acres, sold for \$1,950
March 10, 1928	C. Grant Brittingham et ux.	J. Grant Long	Luzerne County Courthouse, Orphans Court Records no. 332	70.8 acres
February 18, 1920	J. Grant Long	Eva J. Ferrell	Luzerne County Deed Book 536:300	77 acres, sold for \$5,500
April 30, 1913	Eva J. Ferrell	Miles G. Shultz and Martha Shultz	Luzerne County Deed Book 488:478	77 acres, sold for \$2,400
January 25, 1910	Miles G. Shultz and Martha Shultz	W.C. Davenport and Addie Davenport	Luzerne County Deed Book 457:591	77 acres, sold for \$2,850
January 12, 1882	Ellen Frace	Jacob Gould	Luzerne County Deed Book 237:553	77 acres (more or less) Willed
May 23, 1881	Jacob Gould	Paul Fortner (administrator of William Hicks)	Luzerne County Deed Book 225:510	78 acres, sold for \$3055
April 10, 1815	Samuel Hicks	Emanuel Kirkendall and Mary Kirkendall	Luzerne County Deed Book 16:147	57 acres, sold for \$1100
May 15, 1809	Emanuel Kirkendall	Moses Parks	Luzerne County Deed Book 11:197	57 acres, sold for \$450
January 22, 1809	Moses Parks	Emanuel Hover and Cornelia Hover	Luzerne County Deed Book 11:116	57 acres, sold for \$350
March 10, 1806	Emanuel Hover	Commonwealth of Pennsylvania	Map of Salem TWP original patents, Luzerne Co. Historical Society	71 acres

Further research, which included Federal Census data, tax assessment rolls, agricultural census data, and local literature, was used in conjunction with deeds to develop the overall history of Site 36LU281.

When the Commonwealth of Pennsylvania granted Emanuel Hover 71 acres of land in Salem Township on March 10, 1806, he had been living in the area for at least six years. The 1800

Federal Census listed Emanuel Hover as the head of a household of five people residing in Salem Township. The household consisted of Emanuel and his wife Cornelia, both listed as being between the age of 16 and 26, and three females, presumably his daughters, all under the age of 10.

Emanuel and Cornelia Hover sold 57 acres of their property to Moses Parks on January 22, 1809, for \$350.00. A few months later, on May 15, 1809, Moses sold the same 57 acres to Emanuel Kirkendall for \$450.00. Emanuel Kirkendall was listed in the 1810 Federal Census as a farmer and the head of a household of 10 people who resided in Salem Township. Within the household were one male and two females under the age of 10, one male and two females between the age of 10 and 16, two males between the age of 16 and 26, and one male and one female, presumably Emanuel and his wife Mary, between the age of 26 and 45. The census also listed that he owned three slaves. A tax assessment of Emanuel Kirkendall in 1812 stated that of his 57 acres, 30 were improved (Table 12-4). The tax assessment also listed Emanuel's occupation as a farmer, and stated he owned one house and one outbuilding with a total value of \$361.00. These documents show that the area containing Sites 36LU281 and 36LU283 was being farmed at that early date.

**Table 12-4. Site 36LU281: Emanuel Kirkendall Tax Assessments**

Description	1812
Improved Land	30 acres
Unimproved Land	27 acres
Lots of land	1
Houses	1
Outbuildings	1
Mills	0
Horses	0
Oxen	0
Cows	0
Occupation	Farmer
<b>Total Valuation</b>	<b>\$361.00</b>

Emanuel and Mary Kirkendall sold their 57 acres of property to Samuel Hicks for \$1,100.00 on April 10, 1815. Samuel Hicks had lived in Salem Township since at least 1796, as he appears on a list generated that year of taxable men living in the township. An 1815 tax assessment recorded that he owned 85 acres of improved land and 76 acres of unimproved land on one lot. This assessment also recorded two houses, two horses, and five cows with a total value of \$763.00 (Table 12-5). It is unclear whether this assessment included the property acquired from the Kirkendalls in addition to property already owned by Samuel Hicks as one lot, or if this assessment was for land owned by Samuel prior to his acquisition of the Kirkendall tract. However, it illustrates that Samuel was engaged in agriculture when he purchased the property from the Kirkendalls in 1815.

In 1820, Samuel was listed in the Federal Census as the head of a household consisting of eight people, including two females between the age of 10 and 16, one male between 16 and 18, two males and one female between 16 and 26, and one male and female, presumably Samuel and his wife, 45 or older. Two people within the household were listed as engaged in agriculture.

Ten years later, the Federal Census listed only Samuel and a female, presumably his wife, as living in the household. Both of these people were listed as being between the age of 60 and 70. This census reveals that all of Samuel's children had left the household by this time. A tax

assessment from the same year recorded that Samuel owned a horse, a cow, a house and outbuilding on one lot consisting of no acres of land (see Table 12-5). Considering this tax assessment coincides with the Federal Census stating that none of Samuel's children were residing in his household, it may suggest that his property had been transferred to one or more of his relatives. Sometime prior to 1859, Samuel Hicks purchased 20 acres to the east of his property. These 20 acres were located south of Site 36LU280 and consisted of the southern portion of an original 95-acre tract.

**Table 12-5. Site 36LU281: Samuel Hicks Tax Assessments**

Description	1815	1830
Improved Land	85 acres	0
Unimproved Land	76 acres	0
Lots of land	1	1
Houses	2	1
Outbuildings	0	0
Mills	0	0
Horses	2	1
Oxen	0	0
Cows	5	1
Occupation	Farmer	Farmer
<b>Total Valuation</b>	<b>\$763.00</b>	<b>\$58.00</b>

It is unknown when Samuel Hicks' property was transferred to William Hicks, but on May 23, 1881, Paul Fortner, acting as the administrator of William Hicks' Estate, sold 77 acres of William's property to Jacob Gould. These 77 acres consisted of three parcels that William Hicks had previously acquired, including the 57 acres that Samuel Hicks had purchased from Emanuel and Mary Kirkendall (Wilkes-Barre Courthouse Annex, Deed Book 16, pg. 147). The 1830 tax assessment of Samuel Hicks, recording that he owned no acreage, may suggest that the transfer of his property to William occurred sometime around that date.

In 1820, William Hicks was listed in the Federal Census as the head of a household consisting of five people residing in Salem Township. Within his household were one female under the age of 10, one female between 10 and 16, one male (presumably William) between the ages of 26 and 45, and one female over the age of 45. Two people within the household were listed as engaged in agriculture.

A decade later, the Federal Census recorded William as the head of a household consisting of eight people, including one male and one female under the age of five, two males between five and 10, one male and one female between 10 and 15, one female between 30 and 40, and one male (presumably William) between 40 and 50. The 1830 tax assessment for William Hicks stated that he was a farmer who owned a 120-acre lot consisting of 60 improved acres, and the total value of his estate was recorded at \$1,312.00. This assessment also recorded he owned a house and outbuilding (Table 12-6).

A tax assessment conducted in 1835 recorded that William still owned one house, although an additional outbuilding had been added. However, this tax assessment states he owned two lots totaling 60 acres improved and 40 acres unimproved, and the total value of his estate was assessed at \$756.00. Five years later, William Hicks' tax assessment recorded he had cleared an additional 10 acres of land, and only one outbuilding was on his property. The total value of his estate during this assessment was \$1,074.00 (see Table 12-6).

**Table 12-6. Site 36LU281: William Hicks Tax Assessments**

Description	1830	1835	1840	1875
Improved Land	60 acres	60 acres	70 acres	60 acres
Unimproved Land	60 acres	40 acres	30 acres	32 acres
Lots of Ground	1	2	2	2
Houses	1	1	1	1
Outbuildings	1	2	1	1
Mills	0	0	0	0
Horses	1	0	1	0
Oxen	0	0	0	0
Cows	4	2	3	0
Occupation	Farmer	Farmer	Farmer	Farmer
<b>Total Valuation</b>	<b>\$1,312.00</b>	<b>\$756.00</b>	<b>\$1,074.00</b>	<b>\$2,138.00</b>

In 1850, William Hicks was 61 years old, and the Federal Census listed him as the head of a household consisting of seven people, including his 51-year-old wife Sarah, their 22-year-old son Thomas, 21-year-old daughter Mary, 18-year-old son Martin, and their 16-year-old son Stephen. Also listed in the household was an 86-year-old woman named Casandra Hicks. William, Thomas, and Stephen were listed as farmers. While no relation is listed for Casandra, it is possible that she was the mother of William. Considering that the 1830 census listed Samuel Hicks and his wife between the ages of 60 and 70, and the 1850 census listed Casandra as 86, it is possible that Casandra was Samuel's wife, and William their elder son. This would explain the unrecorded transfer of land between Samuel and William.

William Hicks' farm was listed in the Federal Agricultural Census of 1850 (Table 12-7). This agricultural census illustrates that diversified farming occurred on the property. The schedule reveals that William and his family were involved in the raising of dairy cows, sheep, and bees for the production of butter, wool, and honey and beeswax, as well as the raising of swine and cattle for slaughter. They also harvested numerous cereal and vegetable crops including oats, wheat, rye, buckwheat, corn, and potatoes. The Agricultural Census also recorded the manufacture of homemade goods. These activities illustrate a joint effort of all members of the family towards the production and capital of the farm.

**Table 12-7. Site 36LU281: William Hicks Agricultural Census**

Owner	William Hicks	William Hicks
	1850	1878
Improved Land (acres)	120	60
Unimproved land (acres)	55	40
Cash Value of Farm	\$5,200.00	\$10,000.00
Value of Farming Implements	\$150.00	\$280.00
Wages Paid for Labor and Board	n/a	\$210.00
Horses	5	4
Asses and Mules	0	0
Milk Cows	5	1
Working Oxen	0	0
Other Cattle	3	1



Owner	William Hicks	William Hicks
	1850	1878
Sheep	15	0
Swine	20	7
Value of Livestock	\$514.00	\$720.00
Poultry (Barnyard/Other)	n/a	n/a
Eggs Produced	n/a	n/a
Wheat (bushels)	150	100
Rye (bushels)	60	50
Indian Corn (bushels)	200	150
Oats (bushels)	200	150
Rice (lbs.)	0	0
Tobacco (lbs.)	0	0
Wool (lbs.)	30	0
Peas & Beans (bushels)	0	0
Irish Potatoes (bushels)	100	150
Sweet Potatoes (bushels)	0	0
Barley (bushels)	0	0
Buckwheat (bushels)	40	50
Apple Bearing Trees/Bushels	n/a	n/a
Value of Orchard Products	\$0.00	\$10.00
Wine (gallons)	0	0
Value of Produce of Market Gardens	\$0.00	\$0.00
Butter (lbs.)	300	600
Cheese (lbs.)	0	0
Hay (tons)	14	12
Clover Seed (bushels)	0	0
Other Grass Seed (bushels)	0	0
Hops (lbs.)	0	0
Flax (lbs.)	0	0
Flaxseed (bushels)	0	0
Maple Sugar (lbs.)	0	0
Cane Sugar (lbs.)	0	0
Molasses (gallons)	0	0
Beeswax and Honey (lbs.)	500	0
Value of Home-made Manufactures	\$15.00	\$0.00
Value of Animals slaughtered.	\$109.00	\$60.00
Estimated Value of Farm Production	n/a	\$171.00

In 1860, William Hicks was a 70-year-old farmer. A review of the Federal Census for that year suggests that by this time his wife Sarah had passed away. Living in the house with William was his 26-year-old son Stephen, Stephen's 24-year-old wife Margaret, and their two daughters, four-year-old Anna, and one-year-old Sarah.

Ten years later the census still recorded William as a farmer; however, his other son Thomas, 43 years old, Thomas' 27-year-old wife Julia, and their four children, 10-year-old Lockhart, eight-year-old Robert, six-year-old Alice, and two-year-old Maggie, were listed as living in the house. This census valued William's real estate at \$10,000.00 and his personal estate at \$1,122.00.

A review of the 1870 Agricultural Census revealed the improved land on the Hicks farm consisted of half the acreage it did in 1850. However, the cash value of the farm had almost doubled. The only increase in cultivation was in the production of butter (which doubled between 1850 and 1870), potatoes, buckwheat, and orchard products. The rest of the commodities of the farm decreased from their 1850 levels, and no sheep or bees were raised in 1870. Furthermore, the number of milch [sic] cows dropped from five in 1850 to one in 1870, while the production of butter increased from 300 pounds in 1850 to 600 pounds in 1870 (see Table 12-7).

It was during William Hicks' ownership of the property that an 1873 map depicting the project area was published (Figure 12-5), illustrating a structure labeled "W. Hicks Est." in the vicinity of Site 36LU281, and no structures in the vicinity of Loci 1 and 2 of Site 36LU283. It appears that the artifact assemblage recovered from Site 36LU281 is associated with the William Hicks Estate and represents the activities of this early farming family in Salem Township.

In 1875, when William Hicks would have been about 85 years old, a tax assessment for his property stated that he still owned one house and outbuilding, and two lots of ground, with 60 acres improved, and 32 acres unimproved. His estate was valued at \$2,138.00 (see Table 12-6). It is assumed that by 1880 William Hicks had passed away, as he is not listed in that year's Federal Census. However, the census states that Thomas Hicks and his family still lived in Salem Township. It is unknown if Thomas and his family continued to live in William's house after he passed away. According to the 1880 Federal Agricultural Census, Thomas Hicks rented 135 acres of land for a share of the products, indicating that after his father's death he did not own the farmstead. It is unknown if the land he farmed was his father's old land, or if it was an entirely different plot of land.

After William Hicks' death, the property was sold by Paul Fortner, William's administrator, to Jacob Gould for \$3,055.00 on May 23, 1881. Jacob Gould was born ca. 1819 in Pennsylvania, making him about 62 years old when he purchased William Hicks' property. The previous year's Federal Census listed Jacob as a farmer and the head of a household consisting of seven people. Besides Jacob, the household included 22-year-old farm laborer William Case, 49-year-old Ellen Frace, 17-year-old domestic servant Fanny Robert, 25-year-old William Chester Davenport, William's 26-year-old wife Agnes, and their one-year-old daughter Pearl. Ellen Frace was twice-widowed and a relative of Jacob Gould. Her first husband died when their son, William Chester Davenport, was an infant. Ellen remarried in 1857 (two years after her son William was born) to George Frace, who was later killed in the Civil War. After George Frace's death, Jacob Gould took in Ellen Frace and her son William Chester Davenport. Jacob Gould died shortly after purchasing the property in 1881 and he left it to Ellen Frace in his will. The deed for this transaction was recorded on January 12, 1882 (Luzerne County Deed 237:553).

The 1900 Federal Census listed William C. Davenport as a 45-year-old farmer and head of a household consisting of nine people. Besides William, the household included his 28-year-old

wife Addie, their eight-year-old daughter Mary M., six-year-old son Chester, five-year-old daughter Dasie, four-year-old son Gould W., two-year-old daughter Jennie F., and eight-month-old daughter Reber R. William's mother Ellen Frace, who officially owned the farm, was also listed in the household. The census noted that the farm was owned free of mortgage.

William Chester Davenport inherited his mother's property when she died in 1908. Shortly thereafter, on January 25, 1910, William and his wife Addie sold the 77-acre property to Miles G. and Martha Shultz for \$2,850.00. Miles G. Shultz is listed as a 22-year-old farmer and head of a household of four persons residing in Salem Township in the 1910 Federal Census. Besides Miles, the household included his 26-year-old wife Martha, their three-year-old son Boyd, and a 21-year-old farm hand named Frank Runton. The census illustrates that the property was still being farmed in 1910.

On April 30, 1913, Miles and Martha Shultz sold the property to Eva J. Ferrell for \$2,400.00. Eva Ferrell then sold the property to J. Grant Long on February 18, 1920 for \$5,500.00. Unfortunately, J. Grant Long was not entered into the Pennsylvania Triennial Farm Census of 1927; therefore, 20<sup>th</sup> century agricultural census data is not available for comparison and analysis. J. Grant Long died on March 10, 1928 and his property was willed to his wife Sarah S. Long. Mr. Long's will, filed in folio 332 of the Orphan's Court of Luzerne County, stated that his land was to be transferred for life to his wife, then to his daughter Jessie M. Long Brittingham, and then to her children. It was during his wife Sarah's ownership that an aerial photograph was taken of the property in 1939 (Figure 12-6). This photograph does not depict any structures within the vicinity of Site 36LU281; however, the photograph does depict structures in the locations of Locus 1 and 2 of Site 36LU283.

Sarah Long died on January 31, 1946, and Jessie M. Long Brittingham died on September 29, 1955, whereupon the land became vested in fee to Jessie's children and their respective spouses.

No structures are depicted in the vicinity of Site 36LU281 on a 1955 USGS Quadrangle (Figure 12-7). However, the house represented by the foundations in Locus 2 of Site 36LU283 is depicted on the map.

On January 19, 1957, C. Grant and Mary Brittingham, along with the remaining heirs of Jessie Brittingham, sold 6.2 acres of their holdings to William H. and Dorothea V. Sink. This 6.2-acre plot contained the farmhouse and adjacent property represented by Locus 2 of Site 36LU283. This piece of property will be discussed in more detail in the archival research results for Site 36LU283 in Chapter 14.

The remaining land, containing Site 36LU281 and Locus 1 of Site 36LU283, was sold to William Kisner and Emery R. Kisner Jr. on March 1, 1957. William and Emery Kisner were in the process of expanding their farm, where Sites 36LU279 and 36LU286 are located, and this purchase added to their already large landholdings. During the Kisner's ownership of the property containing Site 36LU281 and Locus 1 of Site 36LU283 aerial photographs were taken of the property in 1959 and 1969 (Figures 12-8 and 12-9). These photographs do not depict any structures in the vicinity of Site 36LU281.

William Kisner came into sole possession of the property and sold an undivided 90% interest to PPL Electric Utilities Corporation and an undivided 10% interest to Allegheny Electric Cooperative on July 29, 1986 (Wilkes-Barre Courthouse Annex Deed Book 2206, Pg. 613). PPL Electric Utilities Corporation then sold the land containing Sites 36LU281 and Locus 1 of Site 36LU283 (along with an additional 85.882 acres) to the current owners, PPL Susquehanna LLC, on July 1, 2000 (Wilkes-Barre Courthouse Annex Deed Book 2741, Pg. 702).

## Phase II Fieldwork

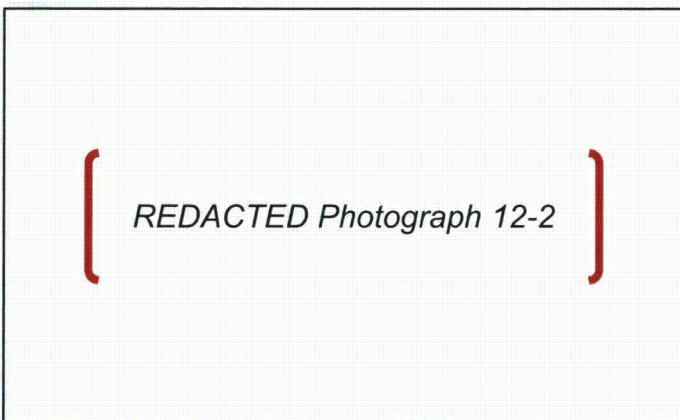
Site 36LU281 lies in a cultivated agricultural field that was planted in corn at the time of the Phase II study (Figure 12-10). Prior to the start of fieldwork, the corn was mechanically cut and removed from the site area. Following site clearing, GAI surveyors established a grid across the site, extending from gridlines N310 to N450 and E1485 to E1695.

### Phase II Soils and Geomorphology

Phase II testing documented an Ap-B soil horizon sequence across the site. Typically the plowzone (Ap horizon) consisted of dark-brown to very dark-grayish-brown silt loam measuring from 0.7 to 1.2 ft in depth. The underlying subsoil or B horizon was comprised of yellowish-brown sandy silt loam with up to 20 percent gravel.

### Artifact Distribution (Controlled Surface Collection and Shovel Tests)

Controlled surface collection (CSC) blocks and STP excavations were used to examine artifact distributions across the site and to refine the horizontal site limits. Fieldwork began with a controlled surface collection of the site area within 120-15x15 ft blocks (Photograph 12-2). Surface collection activities yielded 1148 artifacts from 65 positive blocks with counts ranging from 1 to 98 artifacts per block (Figure 12-11). Surface collection activities were useful in identifying general artifact densities across the site. Eight of the CSC blocks produced a high density of 51 or more artifacts; these blocks fell within the N400 (E1525 and E1555), N415 (E1525, E1555, and E1570), and N430 (E1525, E1555, and E1570) lines. Seven other blocks had a moderate artifact density, producing between 26 and 50 artifacts (N355 E1555, N370 E1540, N370 E1555, N385 E1555, N400 E1540, N430 E1540, and N445 E1540). Twelve blocks produced a low density of 11-25 artifacts each. The remaining 38 positive CSC blocks had very low artifact densities (1 to 10 artifacts each). The area between N355-460 and E1525-1585 contained all but one of the CSC blocks that produced more than ten artifacts each; this area was expected to have the highest potential for cultural features.



**Photograph 12-2. Site 36LU281: Crew Conducting Surface Collection, Facing Southeast**

The CSC activities resulted in the recovery of 1148 historic artifacts (Table 12-8). Artifacts classes represented in the assemblage included kitchen,

architecture, activities, clothing, personal, and unidentified. Kitchen remains ( $n=974$  or 84.84%) dominated the assemblage. Redware, whiteware, brick, and various kinds of container glass were the most common artifacts. Other types of artifacts were present in smaller quantities.



**Table 12-8. Site 36LU281: CSC Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Activities	Flowerpots	terra cotta	2	0.17%
	Household Items	battery core	1	0.09%
	Toys	marble	1	0.09%
Activities Total			4	0.35%
Architecture	Brick, Block	brick	135	11.76%
	Building Materials	ceramic tile	1	0.09%
	Window Glass	window glass	24	2.09%
Architecture Total			160	13.94%
Clothing	Clothing Fasteners	button	2	0.17%
Kitchen	Bottles/Jars	beer bottle	2	0.17%
		bottle glass	78	6.79%
		container glass	4	0.35%
		jar glass	1	0.09%
	Ceramics	earthenware, colored glaze	1	0.09%
		earthenware, paste	1	0.09%
		hardpaste porcelain, handpainted	4	0.35%
		hardpaste porcelain, decal	3	0.26%
		hardpaste porcelain, handpainted and decal	1	0.09%
		hardpaste porcelain, plain	14	1.22%
		ironstone, plain	69	6.01%
		pearlware, mocha	1	0.09%
		pearlware, plain	4	0.35%
		pearlware, shell edge	2	0.17%
		pearlware, handpainted	4	0.35%
		redware, glazed	379	33.01%
		redware, paste	75	6.53%
		redware, slip trailed	3	0.26%
		redware, unglazed	124	10.80%
		stoneware, buff bodied	7	0.61%
		stoneware, gray bodied	1	0.09%
		stoneware, gray bodied, handpainted cobalt	4	0.35%
		whiteware, annular	2	0.17%
		whiteware, colored glaze	10	0.87%
		whiteware, handpainted	18	1.56%
		whiteware, decal	2	0.17%
		whiteware, plain	120	10.45%
		whiteware, shell edge	9	0.78%
		whiteware, sponge	7	0.61%
		whiteware, transfer printed	5	0.44%
		yellowware, brown glaze	1	0.09%
		yellowware, plain	10	0.87%
	Kitchen-related-Other	canning jar lid liner	7	0.61%
		jar lid	1	0.09%

Class	Sub-Class	Ware Type/Object	Count	%
<b>Kitchen Total</b>			<b>974</b>	<b>84.84%</b>
<b>Personal</b>	<b>Pharmaceutical</b>	<b>pharmaceutical bottle</b>	<b>3</b>	<b>0.26%</b>
Unidentifiable	Indeterminate	metal	4	0.35%
		wire	1	0.09%
<b>Unidentifiable Total</b>			<b>5</b>	<b>0.44%</b>
<b>TOTAL</b>			<b>1148</b>	<b>100.00%</b>

Subsurface testing began with the systematic excavation of 81 STPs at 15-ft (4.6-m) intervals (Figure 12-12). Of the STPs excavated, 55 positive STPs produced 630 historic artifacts. Thirty-four of the positive shovel tests yielded a low artifact density (1-10 artifacts per shovel test). Nine of the STPs produced between 11 and 20 artifacts each. Seven of the STPs produced a high density of 21-30 artifacts. Five STPs (N370 E1555, N385 E1540, N415 E1525, N430 E1570 and N430 E1585) exhibited a very high artifact density (31-47 artifacts). All but one of these STPs with high and very high artifact densities fell in an area between N345-450 and E1520-1590, which also includes the high artifact densities from CSC activities, suggesting once again that this delineated the center of the site.

STP excavations resulted in the recovery of 630 historic artifacts, including 471 kitchen and 150 architecture related artifacts (12-9). Like the CSC, a few types of artifacts, including redware, whiteware, brick, bottle glass and window glass, accounted for over 85 percent of all of these artifacts. Other artifacts classes represented in the assemblage include activities, clothing, faunal, personal, tobacco, and unidentified, which were present in smaller quantities.

**Table 12-9. Site 36LU281: STP Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
<b>Activities</b>	<b>Household Items</b>	<b>battery core</b>	<b>1</b>	<b>0.16%</b>
Architecture	Brick, Block	brick	50	7.94%
	Nails, Spikes, Etc.	nail, cut	10	1.59%
		nail, indeterminate	6	0.95%
		nail, wire	1	0.16%
	Window Glass	window glass	83	13.17%
<b>Architecture Total</b>			<b>150</b>	<b>23.81%</b>
<b>Clothing</b>	<b>Clothing Fasteners</b>	<b>button</b>	<b>2</b>	<b>0.32%</b>
<b>Faunal</b>	<b>Bone</b>	<b>bone</b>	<b>2</b>	<b>0.32%</b>
Kitchen	Bottles/Jars	beer bottle	6	0.95%
		bottle glass	56	8.89%
	Ceramics	earthenware, colored glaze	1	0.16%
		earthenware, paste	2	0.32%
		hardpaste porcelain, overglaze decal	1	0.16%
		hardpaste porcelain, plain	1	0.16%
		ironstone, plain	36	5.71%
		pearlware, handpainted	1	0.16%
		pearlware, plain	3	0.48%
		redware, glazed	138	21.90%
		redware, paste	25	3.97%

Class	Sub-Class	Ware Type/Object	Count	%
		redware, unglazed	47	7.46%
		stoneware, buff bodied	1	0.16%
		stoneware, gray bodied	2	0.32%
		whiteware, annular	1	0.16%
		whiteware, colored glaze	1	0.16%
		whiteware, handpainted	2	0.32%
		whiteware, plain	115	18.25%
		whiteware, shell edge	8	1.27%
		whiteware, spongeware	3	0.48%
		whiteware, transfer printed, black	1	0.16%
		whiteware, transfer printed, blue	1	0.16%
		whiteware, underglaze handpainted	9	1.43%
		yellowware, plain	7	1.11%
	Kitchen-related-Other	canning jar lid liner	1	0.16%
	Kitchenware (Utensils, Pots, Etc.)	handle, utensil	1	0.16%
	Tumblers, Stemware	tumbler glass	1	0.16%
<b>Kitchen Total</b>			<b>471</b>	<b>74.76%</b>
<b>Personal</b>	<b>Cosmetics</b>	cosmetic jar	1	0.16%
<b>Tobacco Pipes</b>	<b>White Ball Clay</b>	tobacco pipe	1	0.16%
<b>Unidentifiable</b>	<b>Indeterminate</b>	metal	2	0.32%
<b>TOTAL</b>			<b>630</b>	<b>100.00%</b>

On domestic sites, higher frequencies of artifacts are generally found near the house and yard area and in refuse deposits, while lesser quantities are found on the fringe of the habitation area and lightly scattered across fields. Typically, concentrations of architectural remains reflect the general locations of former structures, burn piles, or refuse dumps. There were six STPs that produced 6-10 architecture-related artifacts and three STPs that produced more than 10 of these artifacts (Figure 12-13). All but two of these moderate to high densities fell within the artifact concentration identified by CSC and STP activities.

Concentrations of kitchen-related artifacts can be useful in identifying the former location of a structure, especially if these are associated with concentrations of architectural remains. Kitchen-related artifacts may also indicate activity areas around the house. Excavations of 12 STPs yielded 10-20 kitchen-related artifacts each, and another six STPs produced more than 20 kitchen-related artifacts (Figure 12-14). All but three of these 18 STPs fell within the high artifact concentration area defined by CSC and STP testing.

### Test Units

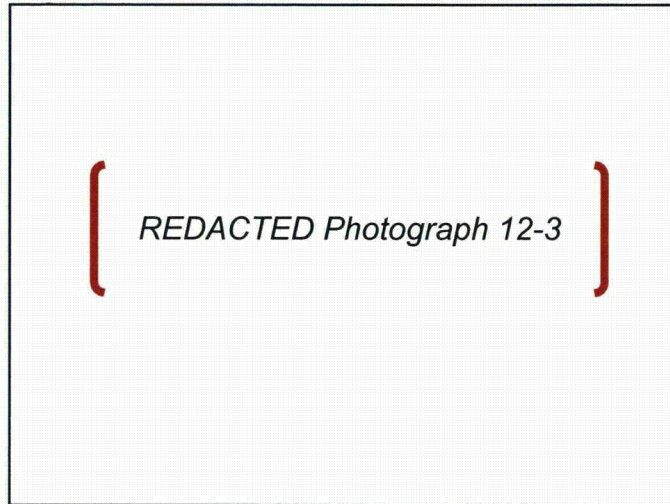
CSC block artifact distributions and STP artifact distributions were plotted on site maps, and the distribution of artifacts was, in part, used to guide the placement of subsequent test units. GAI excavated eight test units of varying sizes, totaling 150 square feet (46 square meters), to further investigate the site (see Figure 12-10). Test unit information is summarized in Table 12-10. Test unit excavations produced 4320 artifacts (exclusive of artifacts from features located within test units). Feature 1 was identified in Test Unit 3 and subsequently in two mechanically stripped trenches.

**Table 12-10. Site 36LU281: Test Unit Summary Information**

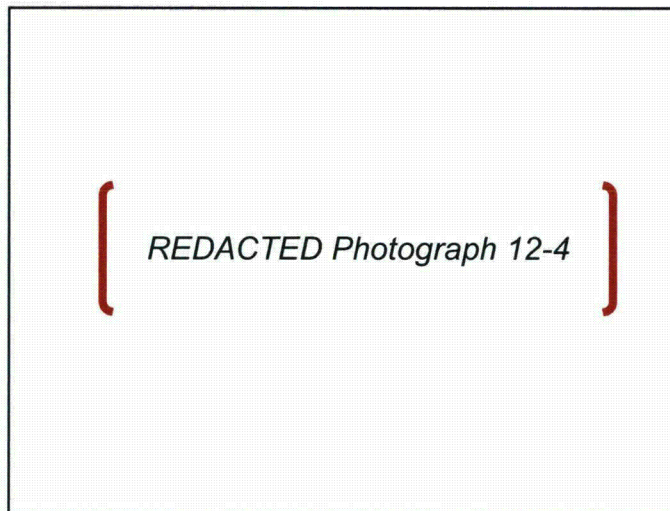
Test Unit #	Size (in ft)	Location	Soil Stratigraphy (Depth is inches below ground surface)	Artifact Ct.	Comments
1	5x5	N 370 E 1530	Ap, 0-2.0 ft dark-brown (10YR3/3) silt loam B, 2.0-2.45 ft yellowish-brown (10YR5/6) sandy loam with 10% gravel	672	Heavy root disturbance throughout Ap horizon. No features present.
2	5x5	N 385 E 1542	Ap, 0-0.8 ft dark-brown (10YR3/3) silt loam with 20% gravel B, 0.8-1.5 ft yellowish-brown (10YR5/6) sandy silty loam	571	No features present. Plow scars visible at Ap/B interface.
3	5x5	N 430 E 1575	Ap, 0-0.7 ft dark-brown (10YR3/3) silt loam with up to 40% gravel B, 0.7-1.0 ft yellowish-brown (10YR5/6) sandy silt loam with 20% gravel and large rocks (Feature 1) in southeast corner.	1052	F-1 (Possible structure foundation).
4	2.5x5	N 365.5 E 1555	Ap, 0-1.2 ft very dark-grayish-brown (10YR3/2) silt loam B, 1.2-1.55 ft yellowish-brown (10YR5/6) sandy silt loam	265	No features present.
5	2.5x5	N 352.5 E 1573	Ap, 0-1.2 ft dark-brown (10YR3/3) silt loam with 30% gravel B, 1.2-1.55 ft yellowish-brown (10YR5/6) silty sandy loam with 15% gravel	158	No features present. Plow scar visible at Ap/B interface.
6	2.5x5	N 427.5 E 1550	Ap, 0-0.8 ft dark-brown (10YR3/3) silt loam B, 0.8-2.2 ft yellowish-brown (10YR5/6) sandy silt loam	296	No features present.
7	5x5	N 415 E 1516	Ap, 0-0.95 ft very dark-grayish-brown (10YR3/2) silt loam B, 0.95'-1.35 ft yellowish-brown (10YR5/6) sandy silt loam	1,018	No features present.
8	2.5x5	N 406 E 1552	Ap, 0-0.7 ft dark-brown (10YR3/3) silt loam B, 0.7-1.3 ft yellowish-brown (10YR5/6) silt loam	288	No features present.



There was a short terrace slope running east-west across the site between N380 and N400 (Photographs 12-3 and 12-4). Test Units 1, 2, 4, and 5 fell on the lower (south side) of the slope, while Test Units 3, 6, 7, and 8 fell between the top of this slope and Confers Lane. This topographic feature was used to group the test unit discussions into the upper and lower landforms.



***Photograph 12-3. Site 36LU281: Upper Landform along Confers Road, Facing Southeast***



***Photograph 12-4. Site 36LU281: Slope Leading to Lower Landform, Facing South***



**Lower Landform – Test Units 1, 2, 4, and 5**

**Test Unit 1** (5x5 ft) was excavated at N370 E 1530 to test an area of higher artifact density. This unit had an Ap-B soil sequence (Photograph 12-5). The Ap horizon or plowzone was 1.9 to 2.1 ft



thick and sloped down to the south and west (Figure 12-15). The soil matrix consisted of dark-brown silt loam. The underlying sterile subsoil or B horizon was comprised of yellowish-brown sandy loam. No features were identified in this unit.

**Photograph 12-5. Site 36LU281: TU 1 North Profile, Facing North**

TU 1 produced 672 artifacts from the Ap horizon (Table 12-11). The majority of the artifacts were situated within either the architecture ( $n=189$ ) or kitchen ( $n=469$ ) classes. Architectural related artifacts included 31 brick fragments, 80 nails, and 78 window glass. Nails included cut and indeterminate varieties. One utensil handle, one container glass, 117 bottle glass, two earthenware, five porcelain, 156 redware, 37 stoneware, five yellowware, one pearlware, 125 whiteware, and 19 ironstone ceramics were placed under the kitchen class.

The remaining artifact classes had only a few artifacts. One knife was placed in activities. One button fell within the clothing group. Six pharmaceutical bottle glass fell within the personal class. One pipe was placed into the tobacco class. Unidentified artifacts included one plastic and four metal fragments.

**Test Unit 2** (5x5 ft) was excavated at N385 E 1542 to test an area of higher artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence (Photograph 12-6). The 0.8 ft thick Ap horizon or plowzone consisted of dark-brown silt loam and sloped down to the west (Figure 12-



16). Plow scars were observed at the Ap/B interface. The underlying sterile subsoil or B horizon was comprised of yellowish-brown sandy silt loam. No features were identified in this unit.

**Photograph 12-6. Site 36LU281: TU2, West Profile, Facing West**

**Table 12-11. Site 36LU281: Test Units 1, 2, 4 and 5, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	TU 1	TU 2	TU 4	TU 5	Count	%
Activities	Hand Tools	knife	1				1	0.06%
Architecture	Brick, Block	brick	31	9	12	7	59	3.54%
	Nails	nail, cut	18	23	6	3	50	3.00%
		nail, indeterminate	62	5	1	1	69	4.14%
	Window Glass	window glass	78	36	41	22	177	10.62%
Architecture Total			189	73	60	33	355	21.31%
Arms	Ammunition	bullet casing		1			1	0.06%
	Arms Related-Other	clay pigeon		1			1	0.06%
Arms Total				2			2	0.12%
Clothing	Clothing Fasteners	button	1				1	0.06%
Kitchen	Bottles/Jars	beer bottle	19	5		1	25	1.50%
		bottle glass	99	27	16	17	159	9.54%
		container glass			2	1	3	0.18%
Ceramics		earthenware, colored glaze	1	1			2	0.12%
		earthenware, paste		4		2	6	0.36%
		earthenware, unglazed	2		1		3	0.18%
		hardpaste porcelain, plain	5	2	1		8	0.48%
		ironstone, handpainted				1	1	0.06%
		ironstone, plain	19	69	16	7	111	6.66%
		pearlware, plain	1	6			7	0.42%
		pearlware, shell edge		3	1		4	0.24%
		pearlware, underglazed handpainted		2			2	0.12%
		redware, glazed	120	199	77	42	438	26.29%
		redware, paste	7	2	6	8	23	1.38%
		redware, slip trailed	1	3	2		6	0.36%
		redware, unglazed	28	13	10	9	60	3.60%
		stoneware, buff bodied	2	2			4	0.24%
		stoneware, gray bodied	35	2	1	2	40	2.40%
		whiteware, annular	1	5	1	1	8	0.48%
		whiteware, colored glaze		1	1		2	0.12%
		whiteware, handpainted	4	2	2	2	10	0.60%
		whiteware, plain	106	93	50	21	270	16.21%
		whiteware, shell edge	9	22	7	3	41	2.46%
		whiteware, spongeware	1	3			4	0.24%
		whiteware, transfer printed, black	1	1	1		3	0.18%
		whiteware, transfer printed, blue	1	3			4	0.24%
		whiteware, transfer printed, brown		2	1		3	0.18%
		whiteware, transfer printed, green		1	1		2	0.12%
		whiteware, transfer printed, mulberry		1			1	0.06%
		whiteware, transfer printed, red		2	1		3	0.18%
		whiteware, underglaze handpainted	1	11	4	3	19	1.14%
		yellowware, annular				1	1	0.06%



Class	Sub-Class	Ware Type/Object	TU 1	TU 2	TU 4	TU 5	Count	%
		yellowware, plain	5	1	2		8	0.48%
	Decorative Table Glass	bowl		1			1	0.06%
	Kitchen-related-Other	canning jar lid liner			1	1	2	0.12%
	Kitchenware (Utensils, Pots, Etc.)	handle, utensil	1				1	0.06%
	Tumblers, Stemware	tumbler glass		1			1	0.06%
Kitchen Total			469	490	205	122	1286	77.19%
Personal	Pharmaceutical	pharmaceutical bottle	6	1			7	0.42%
Tobacco Pipes	White Ball Clay	tobacco pipe	1	2		2	5	0.30%
Unidentifiable	Indeterminate	metal	4	3		1	8	0.48%
		plastic	1				1	0.06%
Unidentifiable Total			5	3		1	9	0.54%
TOTAL			672	571	265	158	1666	100.00%

TU 2 excavation produced 571 artifacts from the Ap horizon (see Table 12-11). The most common artifacts, redware ( $n=217$ ) and whiteware ( $n=147$ ) represented nearly 64% of this unit's artifact assemblage. Architectural related artifacts included 36 window glass, nine brick, and 28 nails (cut and indeterminate). One pharmaceutical bottle was placed in the personal class. One white ball clay pipestem and one pipe fell within tobacco class. The remaining artifacts consisted of 32 bottle glass, one tumbler, one tableware, five earthenware, two porcelain, 71 ironstone, eight pearlware, four stoneware, and one yellowware, all of which fell within the kitchen class.

*Test Unit 4* (2.5x5 ft) was excavated at N365.5 E1355 to test an area of higher artifact density. The soil stratigraphy revealed an Ap-Apb-B soil horizon sequence (Figure 12-17; Photograph 12-7). The 1.2 ft thick Ap horizon consisted of very dark-grayish-brown silt loam and sloped

down to the east. The underlying B horizon was comprised of yellowish-brown sandy silt loam. No features were identified in this unit.



**Photograph 12-7. Site 36LU281: Test Unit 4, West Profile, Facing West**



The Ap and Apb horizons produced 265 artifacts (see Table 12-11). The artifacts fell within either the architecture or kitchen class. Like TU2, redware and whiteware were the most common artifacts. Architectural related artifacts included 12 brick fragments, seven nails, and 41 window glass. Kitchen artifacts included 16 bottle glass, two container glass, one canning jar lid liner, one earthenware, one porcelain, 16 ironstone, 95 redware, one stoneware, two yellowware, and 70 whiteware.

*Test Unit 5* (2.5x5 ft) was excavated at N352.5 E1573 to further investigate an area of higher shovel test artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence. The 1.2 ft thick Ap horizon consisted of dark-brown silt loam underlying the yellowish-brown silt loam B horizon. Plow scars were identified at the Ap/B interface. No features were identified in this unit.

Test Unit 5 produced only 158 artifacts from the Ap horizon, the lowest density of any of the test units at this site. The artifacts fell within the activities, architecture, kitchen, and tobacco classes (see Table 12-11). One piece of metal was placed under activities. Architecture class material included 22 window glass, four nails, and seven brick. Kitchen artifacts include 19 bottle glass, one canning jar lid liner, two earthenware, eight ironstone, 47 redware, two stoneware, 30 whiteware, and one yellowware. A white ball clay pipe bowl was placed in the tobacco class.

#### **Higher Landform – Test Units 3, 6, 7, and 8**

*Test Unit 3* (5x5 ft) was excavated at N430 E 1575 to test an area of higher artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence. The 0.7 ft thick Ap horizon consisted of dark-brown silt loam and sloped down to the west. The underlying sterile subsoil (B horizon) was comprised of yellowish-brown sandy silt loam. Feature 1, a structure foundation, was identified in the southeast corner of this unit (Photograph 12-8).



**Photograph 12-8. Site 36LU281: Test Unit 3, Planview of Feature 1 before Excavation, Facing North**

Test Unit 3 produced 1052 artifacts; exclusive of Feature 1 excavations (see Table 12-12). The majority of the artifacts fell within either architecture ( $n=278$ ) or kitchen ( $n=760$ ) classes. The most common artifacts include whiteware ( $n=264$ ), various container glass ( $n=260$ ), redware ( $n=106$ ), window glass ( $n=185$ ), and brick ( $n=60$ ). Other architecture and kitchen related artifacts include two plaster, 31 nails (29 cut nails and two indeterminate nails), nine canning jar lid liners, one tumbler, 15 earthenware, 15 porcelain, 19 stoneware, 20 yellowware, 11 pearlware, and 42 ironstone.

**Table 12-12. Site 36LU281: Test Units 3, 6, 7, and 8, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	TU 3	TU 6	TU 7	TU 8	Total	%
Activities	Activities-Other	ceramic pipe			2		2	0.08%
	Misc. Small Hardware	bracket		1			1	0.04%
<b>Activities Total</b>				<b>1</b>	<b>2</b>		<b>3</b>	<b>0.11%</b>
Architecture	Brick, Block	brick	60	6	80	6	152	5.73%
	Mortar, Cement	plaster	2				2	0.08%
	Nails, Spikes, Etc.	nail, cut	29	13	61	12	115	4.33%
		nail, indeterminate	2		10	3	14	0.57%
		nail, wire		1		1	2	0.08%
	Window Glass	window glass	185	51	103	38	377	14.20%
<b>Architecture Total</b>			<b>278</b>	<b>71</b>	<b>254</b>	<b>60</b>	<b>663</b>	<b>24.98%</b>
Arms	Ammunition	shotgun base	1				1	0.04%
	Arms Related-Other	clay pigeon		1	10		11	0.41%
<b>Arms Total</b>			<b>1</b>	<b>1</b>	<b>10</b>		<b>12</b>	<b>0.45%</b>
Clothing	Clothing Fasteners	button				1	1	0.04%
Faunal	Bone	bone	1		1		2	0.08%
		teeth			3		3	0.11%
<b>Faunal Total</b>			<b>1</b>		<b>4</b>		<b>5</b>	<b>0.19%</b>
Furnishings	Furniture-Decorative	finial, glass	1				1	0.04%
	Lighting	lamp shade bead			1		1	0.04%
<b>Furnishings Total</b>			<b>1</b>		<b>1</b>		<b>2</b>	<b>0.08%</b>
Kitchen	Bottles/Jars	beer bottle	3	1	9	1	14	0.53%
		bottle glass	244	38	105	25	412	15.52%
		container glass	10				10	0.38%
		jar glass	3		1		4	0.15%
	Ceramics	earthenware, colored glaze	15		1		16	0.60%
		earthenware, paste		1	1	2	4	0.15%
		hardpaste porcelain, decal	5				5	0.19%
		hardpaste porcelain, handpainted	3			1	4	0.15%
		hardpaste porcelain, plain	7	2	1		10	0.38%
		ironstone, plain	42	10	51	15	118	4.45%
		pearlware, handpainted	3	2	5	5	15	0.56%
		pearlware, plain	8	4	8	4	24	0.90%
		redware, glazed	76	56	189	73	394	14.85%
		redware, paste	8	3	40	14	65	2.45%
		redware, slip trailed		1	4		5	0.19%
		redware, unglazed	22	12	60	25	119	4.48%
		stoneware, buff bodied	5				5	0.19%
		stoneware, gray bodied	13	1	3		17	0.64%
		stoneware, gray bodied, handpainted cobalt	1				1	0.04%
		whiteware, annular		2	10	2	14	0.53%
		whiteware, banded	3	1	2		6	0.23%
		whiteware, colored glaze	4		5	3	12	0.45%
		whiteware, handpainted	21	7	21	6	55	2.07%
		whiteware, decal	6		1		7	0.26%

Class	Sub-Class	Ware Type/Object	TU 3	TU 6	TU 7	TU 8	Total	%
		whiteware, plain	212	69	172	38	491	18.50%
		whiteware, shell edge	2	1	15	5	23	0.87%
		whiteware, sponge	2	2	9		13	0.49%
		whiteware, transfer printed	12	4	10	5	31	1.18%
		yellowware, plain	20	2	2	1	25	0.94%
	Decorative Table Glass	decorative glass hollowware				1	1	0.04%
	Kitchen-related-Other	canning jar lid liner	9	3	3		15	0.57%
	Tumblers, Stemware	tumbler glass	1	1			2	0.08%
<b>Kitchen Total</b>			<b>760</b>	<b>223</b>	<b>728</b>	<b>226</b>	<b>1937</b>	<b>72.98%</b>
Personal	Coins	U.S. Indian Head Penny	2				2	0.08%
	Pharmaceutical	bottle	1		1		2	0.08%
<b>Personal Total</b>			<b>3</b>		<b>1</b>		<b>4</b>	<b>0.15%</b>
<b>Tobacco Pipes</b>	<b>White Ball Clay</b>	<b>tobacco pipe</b>			<b>4</b>		<b>4</b>	<b>0.15%</b>
<b>Unidentifiable</b>	<b>Indeterminate</b>	<b>metal</b>	<b>8</b>		<b>14</b>	<b>1</b>	<b>23</b>	<b>0.87%</b>
<b>TOTAL</b>			<b>1052</b>	<b>296</b>	<b>1018</b>	<b>288</b>	<b>2654</b>	<b>100.00%</b>

Activities, arms, faunal, furnishings, and personal classes had smaller quantities of artifacts. These artifacts included eight miscellaneous metal pieces, one shotgun shell, one glass finial, one bone, two Indian Head pennies, and a medicine bottle.

*Test Unit 6* (2.5x5 ft) was excavated at N427.5 E1550 to test an area of higher shovel test artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence, with a 0.8 ft thick dark-brown silt loam Ap horizon overlying the yellowish-brown sandy silt loam B horizon. Heavy rodent disturbances were observed in the subsoil. Artifacts were recovered from several levels within the B horizon as a result of the rodent activity. No features were identified in this unit.

This unit produced 296 artifacts from the Ap and rodent burrow activities in the B horizon (see Table 12-12). Architectural related artifacts included 14 nails, six brick fragments, and 51 window glass. Nails included both cut and wire varieties. There were two artifacts placed in the activities class—one miscellaneous hardware piece and one clay pigeon. The remaining 223 artifacts consisted of 39 bottle glass, one container glass, three canning jar lid liners, one earthenware, two porcelain, 10 ironstone, six pearlware, 72 redware, two yellowware, and 85 whiteware.

*Test Unit 7* (5x5 ft) was excavated at N415 E1516 to further examine an area of higher artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence with a 0.8 ft thick dark brown silt loam Ap horizon overlying the yellowish-brown sandy silt loam B horizon (Figure 12-18). Plow scars extending into the B horizon were excavated separately (Photograph 12-9). No features were identified in this unit.

This unit produced 1018 artifacts from the Ap horizon and plow scars in the B horizon (see Table 12-12). Architectural related artifacts included 80 brick fragments, 71 nails, and 103 window glass. Nails included cut and indeterminate varieties. There were two ceramic drain tiles placed in the activities class. Faunal remains included one bone and three teeth. One medicine bottle was placed in the personal class. The 728 kitchen artifacts consisted largely of redware ( $n=293$ ), whiteware ( $n=245$ ), and bottle/container glass ( $n=115$  bottle) along with low



frequencies of yellowware, pearlware, earthenware, porcelain, stoneware, and ironstone ceramics.



**Photograph 12-9. Site 36LU281: Test Unit 7 showing Plow Scars, Facing North**

Test Unit 8 (2.5x5 ft) was excavated at N406 E1552 to test an area of higher artifact density. The soil stratigraphy revealed an Ap-B soil horizon sequence with a 0.8 ft-thick dark-brown silt loam Ap horizon overlying the yellowish-brown sandy silt loam B horizon (Photograph 12-10).



Plow scars extending into the B horizon were excavated separately. No features were identified in this unit.

**Photograph 12-10. Site 36LU281: Test Unit 8, East Profile, Facing East**

This unit produced 288 artifacts from the Ap and upper B horizon (see Table 12-12). Architectural related artifacts included 16 nails, six brick fragments, and 38 window glass. Nails included cut, wire, and indeterminate varieties. There was one miscellaneous metal item placed in the activities class. Clothing items included one button. The remaining 221 artifacts consisted of 26 bottle glass, 112 redware, one yellowware, four pearlware, 59 whiteware, 15 ironstone, one porcelain, two earthenware, and one glassware.



## Machine Excavated Trenches

The plowzone was mechanically stripped from three 105x6 foot (1.83x32 m) trench blocks to search for cultural features (Figure 12-19; Photograph 12-11). These parallel trenches were oriented east/west, with Trench 1 the southernmost of the excavations. A nonsystematic collection of artifacts observed during the course of this work yielded 139 artifacts.



**Photograph 12-11. Site 36LU281: Crew Shovel Scraping B Horizon Surface Exposed at Base of Trench, Facing East**

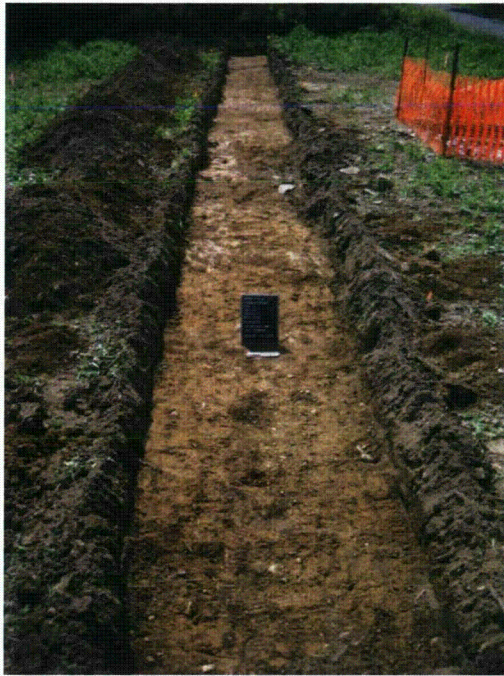
Trench 1 was excavated from N370-376 and E1509-1615 and did not expose any soil anomalies. A grab sample of eight artifacts was collected during excavation of this trench (Table 12-13). Most of the artifacts were bottle glass and ceramics. One clay pigeon fragment was also collected.

**Table 12-13. Site 36LU281: Trench 1, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Arms	Arms Related-Other	clay pigeon	1	12.50%
Kitchen	Bottles/Jars	bottle glass	3	37.50%
	Ceramics	redware, glazed	1	12.50%
		stoneware, gray bodied	1	12.50%
		whiteware, plain	2	25.00%
Kitchen Total			7	87.50%
TOTAL			8	100.00%



Trench 2 extended from N 415-421 and E1509-1615 (see Figure 12-19). This trench was placed 39 ft north of Trench 1. Trench 2 excavation exposed Feature 4 and part of Feature 1 (Photograph 12-12). Twenty artifacts were collected as a grab sample from this trench (Table 12-14). These artifacts included one brick fragment and 19 ceramic sherds.



**Photograph 12-12. Site 36LU281: Trench 2 Planview Facing West**

**Table 12-14. Site 36LU281: Trench 2, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Architecture	Brick, Block	brick	1	5.00%
Kitchen	Ceramics	hardpaste porcelain, overglaze gilded	1	5.00%
		ironstone, plain	3	15.00%
		pearlware, plain	1	5.00%
		redware, glazed	6	30.00%
		redware, unglazed	2	10.00%
		whiteware, overglaze decal	1	5.00%
		whiteware, plain	5	25.00%
Kitchen Total			19	95.00%
TOTAL			20	100.00%

Trench 3, the northernmost of the three trenches and the one located closest to Confers Lane, lay between N430-436 and E1509-1615. This stripped area exposed a portion of Feature 1, Feature 3, and one non-cultural soil anomaly (Feature 2) (see Figure 12-19; Photograph 12-13). As a grab sample, 111 artifacts were collected from Trench 3 (Table 12-15). Most of the artifacts were kitchen-related glass and ceramics. Two unidentified metal and small quantities of activities, architecture, furnishings, and personal--related artifacts were also collected.



**Photograph 12-13. Site 36LU281: Overview of Trench 3 showing Feature 1 (Dark Soil) Near Center of Trench, Facing West**



**Table 12-15. Site 36LU281: Trench 3, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Activities	Household Items	battery core	1	0.90%
	Livestock/Pets	horseshoe	1	0.90%
	Misc. Small Hardware	nut	1	0.90%
		tube	2	1.80%
Activities Total			5	4.50%
Architecture	Brick, Block	brick	4	3.60%
	Nails, Spikes, Etc.	nail, cut	4	3.60%
		nail, wire	1	0.90%
	Window Glass	window glass	4	3.60%
Architecture Total			13	11.71%
Furnishings	Furniture-Decorative	figurine, porcelain, bisque	3	2.70%
Kitchen	Bottles/Jars	bottle glass	12	10.81%
	Ceramics	hardpaste porcelain, decal	3	2.70%
		hardpaste porcelain, overglaze handpainted	1	0.90%
		hardpaste porcelain, plain	2	1.80%
		ironstone, plain	14	12.61%
		pearlware, shell edge	1	0.90%
		redware, glazed	6	5.41%
		redware, unglazed	2	1.80%
		stoneware, buff bodied	4	3.60%
		stoneware, gray bodied	5	4.50%
		stoneware, gray bodied, handpainted cobalt	1	0.90%



Class	Sub-Class	Ware Type/Object	Count	%
		whiteware, colored glaze	5	4.50%
		whiteware, decal	2	1.80%
		whiteware, plain	21	18.92%
		whiteware, shell edge	2	1.80%
		whiteware, transfer print	1	0.90%
	Decorative Table Glass	decorative glass lid	1	0.90%
	Kitchen-related-Other	canning jar lid liner	2	1.80%
	Tumblers, Stemware	tumbler glass	1	0.90%
Kitchen Total			86	77.48%
Personal	Pharmaceutical	pharmaceutical bottle	2	1.80%
Unidentifiable	Indeterminate	metal	2	1.80%
TOTAL			111	100.00%

## Features

Four soil anomalies were identified and designated with feature numbers. Features 2 and 4 were determined to be non-cultural in origin and are not discussed below.

*Feature 1* is a structure remnant consisting of a stone foundation and cellar hole associated with a former dwelling first identified in Test Unit 3 and then further exposed in Trenches 2 and 3 (Photograph 12-14). Excavations exposed part of the east, south and west foundation edges.

The exposed portion of the east wall measured 6 ft and ran from N430 E1598 to N436 E1596. The uncovered south wall segment measured 7 ft and extended from N418 E1584 to N421 E1592. The identified sections of the west foundation, which appeared in Trenches 2 and 3, ran from N418 E1584 to N436 E1579, measuring at least 19 ft. There was also an extension to the west on the west foundation wall, possibly for a porch.



**Photograph 12-14. Site 36LU281: Crew Documenting Feature 1 in Trench 3, Facing Northeast**

Two samples of Feature 1 were excavated: the portion located within Test Unit 3 (N430-435 E1575-1580) which fell along the west foundation wall of the former structure, and a 3x3 ft sample (N431-434 E1587-1590) in Trench 3, which included an area on the eastern side of the cellar hole. The feature fill in Test Unit 3 consisted of dark-brown (10YR3/3) silt loam with 30% gravel and rocks (Figure 12-20). Feature fill in the 3x3 ft sample (Photograph 12-15) exposed a fill deposit characterized by dark yellowish-brown (10YR4/6) silty clay loam with large rocks and voids. This 3x3 ft sample was halted at a depth of approximately 3.5 ft below the stripped trench surface due to large debris and unstable unit walls.





**Photograph 12-15. Site 36LU281: Overview of 3x3 ft Excavated Sample of Feature 1's Cellar Hole, Facing North**

Sampling of Feature 1 produced 2,778 artifacts (Table 12-16). The most common artifacts recovered were container glass ( $n=843$ ) and tin can pieces ( $n=755$ ). Other well-represented artifacts included whiteware ( $n=136$ ) and ironstone ( $n=175$ ). These four artifact types accounted for nearly 68% of the artifact assemblage. Decorated whiteware included annular, colored glaze, embossed, decal, handpainted, shell edged, and transfer printed varieties. Utilitarian wares, such as redware and stoneware, were present in small quantities. Other types of kitchen artifacts included earthenware, porcelain, decorative tableware, canning jar closures, a frying pan and a salt or pepper shaker.

Architecture related artifacts included mortar, plaster, widow glass, brick, and cut, wire, and indeterminate nails. The high quantity of cut nails ( $n=48$ ) compared to wire nails ( $n=4$ ) suggests that most of the construction was completed prior to c. 1890 when wire nails quickly began to outsell cut nails. One button, four rivets, and one shoe heel comprised the clothing remains. Four teeth and 51 bones fell in the faunal class. Furnishing remains were restricted to 52 oil or kerosene lamp pieces and two light bulb glass. Four eyeglass parts and 35 medicine bottles comprised the personal class. One white ball clay tobacco pipe fragment fell in the tobacco class.

**Table 12-16. Site 36LU281: Feature 1, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Activities	Cans/Tins	can parts	755	27.18%
	Hand Tools	wrench	1	0.04%
	Household Items	household/automotive oil bottle	2	0.07%
	Livestock/Pets	barbed wire	88	3.17%
	Misc. Small Hardware	band	5	0.18%
		chain link	1	0.04%
		hook	2	0.07%
		latch	1	0.04%
		machine part, indeterminate	2	0.07%
		nut	1	0.04%
		rivet, slotted	1	0.04%



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Class	Sub-Class	Ware Type/Object	Count	%
		spring	2	0.07%
		strap	1	0.04%
		tube	1	0.04%
		washer	1	0.04%
	Sewing	scissor handle	2	0.07%
Activities Total			866	31.17%
Architecture	Architectural Decorative Elements	house number sign	1	0.04%
	Brick, Block	brick	57	2.05%
	Mortar, Cement	mortar	51	1.84%
		plaster	148	5.33%
	Nails, Spikes, Etc.	nail, cut	48	1.73%
		nail, indeterminate	14	0.50%
		nail, wire	4	0.14%
	Window Glass	window glass	98	3.53%
Architecture Total			421	15.15%
Clothing	Clothing Fasteners	button	1	0.04%
	Clothing Related-Other	rivet	4	0.14%
	Shoe Parts	heel	1	0.04%
Clothing Total			6	0.22%
Faunal	Bone	bone	51	1.84%
		teeth	4	0.14%
Faunal Total			55	1.98%
Furnishings	Lighting	chimney lamp glass	39	1.40%
		lamp bobesches	2	0.07%
		lamp bracket	1	0.04%
		lamp cap	7	0.25%
		lamp collar	1	0.04%
		lamp deflector	1	0.04%
		lamp wick	1	0.04%
		light bulb part	2	0.07%
Furnishings Total			54	1.94%
Kitchen	Bottles/Jars	beer bottle	12	0.43%
		beverage bottle	5	0.18%
		bottle glass	755	27.18%
		canning jar	6	0.22%
		container glass	15	0.54%
		jar glass	48	1.73%
		syrup bottle	2	0.07%
	Ceramics	earthenware, colored glaze	2	0.07%
		earthenware, paste	6	0.22%
		hardpaste porcelain, decal	2	0.07%
		hardpaste porcelain, overglaze handpainted	1	0.04%
		hardpaste porcelain, plain	7	0.25%
		ironstone, plain	175	6.30%

Class	Sub-Class	Ware Type/Object	Count	%
		redware, glazed	18	0.65%
		redware, paste	2	0.07%
		redware, unglazed	5	0.18%
		stoneware, buff bodied	9	0.32%
		whiteware, annular	1	0.04%
		whiteware, handpainted	4	0.14%
		whiteware, decal	9	0.32%
		whiteware, decal and handpainted	1	0.04%
		whiteware, plain	97	3.49%
		whiteware, shell edge	4	0.14%
		whiteware, transfer print	20	0.72%
	Decorative Table Glass	decorative glass hollowware	1	0.04%
		decorative glass lid	2	0.07%
		salt/pepper shaker	1	0.04%
	Kitchen-related-Other	bottle stopper	1	0.04%
		canning jar lid liner	22	0.79%
		jar lid	1	0.04%
	Kitchenware (Utensils, Pots, Etc.)	frying pan	3	0.11%
<b>Kitchen Total</b>			<b>1237</b>	<b>44.53%</b>
Personal	Personal-Other	eye glass part	4	0.14%
	Pharmaceutical	medicine bottle	35	1.26%
<b>Personal Total</b>			<b>39</b>	<b>1.40%</b>
<b>Tobacco Pipes</b>	<b>White Ball Clay</b>	<b>tobacco pipe</b>	<b>1</b>	<b>0.04%</b>
Unidentifiable	Indeterminate	metal	24	0.86%
		plastic	2	0.07%
		wire	69	2.48%
		wood	4	0.14%
<b>Unidentifiable Total</b>			<b>99</b>	<b>3.56%</b>
<b>TOTAL</b>			<b>2778</b>	<b>100.00%</b>

Two flotation samples from the cellar hole fill were collected, processed, and submitted for archaeobotanical analysis (see Appendix K). Carbonized pieces of white oak, bald cypress, and unidentified species of deciduous and coniferous wood were present. Oak was commonly used for building construction. Non-carbonized seeds in the flotation samples included pigweed, goosefoot/pigweed, carpetweed, sheepsorrel, panic or foxtail grass, knotweed/dock, elderberry, catchfly, and chickweed. These seeds likely represented plants growing in the area when the cellar hole was backfilled. Since elderberry seeds appeared on the plant during the summer and early fall, the backfilling activities may have occurred during this time of year.

*Feature 3* was a posthole situated approximately 61 ft west of *Feature 1* (house foundation) (Figure 12-21). This feature measured 1.1x1.25 ft and was centered at N434 E1514.5. The feature had vertical sidewalls and a relatively flat base and extended 0.75 ft below the excavated trench surface (Photograph 12-16). The soil matrix was comprised of dark-brown (10YR3/3) silt loam with rocks and bricks. Rocks and bricks found in the posthole may have been used as wedges to help support the post.



**Photograph 12-16. Site 36LU281: Planview of Feature 3 after Excavation, Facing North**

The south half of the feature was screened and the north half of the feature was collected for flotation. Seventy-five artifacts were recovered from Feature 3 (Table 12-17). The artifacts included brick, mortar, window glass, bones, ironstone, redware, and whiteware.

Archaeobotanical analysis of the flotation sample resulted in the identification of carbonized pieces of hickory, American chestnut, and white oak species (see Appendix K). These are all locally available hardwood species that could have been used for construction activities. Several non-carbonized seed species were identified including pigweed, purselane, and raspberry/blackberry. These plants may have been growing in the area during the time the posthole was originally excavated.

**Table 12-17. Site 36LU281: Feature 3, Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Architecture	Brick, Block	brick	7	9.33%
	Mortar, Cement	mortar	2	2.67%
	Window Glass	window glass	7	9.33%
Architecture Total			16	21.33%
Faunal	Bone	bone	17	22.67%
		teeth	1	1.33%
	Shell	shell	1	1.33%
Faunal Total			19	25.33%
Kitchen	Ceramics	ironstone, plain	9	12.00%
		redware, glazed	11	14.67%
		redware, paste	9	12.00%
		redware, unglazed	1	1.33%
		whiteware, plain	8	10.67%
		whiteware, shell edge	1	1.33%
		whiteware, transfer printed, blue	1	1.33%
		Kitchen Total	40	53.33%
TOTAL			75	100.00%

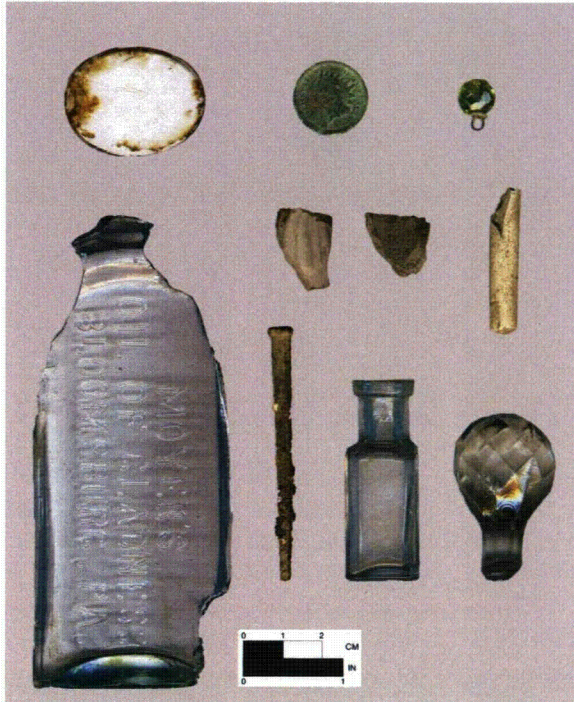
### Phase I/II Artifact Analysis

Phase I/II archaeological investigations of Site 36LU281 produced 9,456 historic artifacts (366 artifacts from Phase Ib survey and 9,090 from Phase II testing). No prehistoric artifacts were recovered from the site.



## Pattern Analysis

The 9,456 recovered artifacts fell within nine historic artifact functional groups, along with 142 unidentified pieces of metal, plastic, wire, and wood, which could not be placed into a more specific class (Table 12-18). The faunal and tobacco pipe groups exhibited little diversity of finds. The faunal assemblage included 72 bone, eight teeth, and two shells. The tobacco pipe assemblage included 12 white ball clay tobacco pipe pieces (Photograph 12-17).



**Photograph 12-17. Site 36LU281: Representative Artifact Sample**

Row 1 (L-R) – eyeglass lens (FS 200.01); 1864 U.S. Indian Head Penny (FS 169); lamp shade bead (FS 191). Row 2 (L-R) – Pharmaceutical bottle with embossed letters “MOYER’S OIL OF GLADNESS BLOOMSBURG, PA” (FS 201); two clay pipe bowl fragments (FS 190); clay pipestem (FS 165). Row 3 (L-R) – Cut nail (FS 191); pharmacy bottle with patent finish (FS 201.01); faceted cut glass finial for candy dish or sugar bowl (FS 200).

**Table 12-18. Site 36LU281: Artifact Pattern Analysis**

Class	Sub-Class	Ware Type/Object	Count	%
Activities	Activities-Other	ceramic pipe	2	0.02%
	Cans/Tins	can parts	755	7.98%
	Flowerpots	terra cotta	2	0.02%
	Hand Tools	knife	1	0.01%
		wrench	1	0.01%
	Household Items	battery core	3	0.03%
		household/automotive oil bottle	2	0.02%
	Livestock/Pets	barbed wire	88	0.93%
		horseshoe	1	0.01%
	Misc. Small Hardware	band	5	0.05%
		bracket	1	0.01%
		chain link	1	0.01%
		hook	2	0.02%
		latch	1	0.01%
		machine part, indeterminate	2	0.02%
		nut	2	0.02%
		rivet, slotted	1	0.01%



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Class	Sub-Class	Ware Type/Object	Count	%
		spring	2	0.02%
		strap	1	0.01%
		tube	3	0.03%
		washer	1	0.01%
	Sewing	scissor handle	2	0.02%
	Toys	marble	2	0.02%
<b>Activities Total</b>			<b>881</b>	<b>9.32%</b>
Architecture	Architectural Decorative Elements	house number sign	1	0.01%
	Brick, Block	brick	467	4.94%
	Building Materials	ceramic tile	1	0.01%
	Mortar, Cement	mortar	53	0.56%
		plaster	150	1.59%
	Nails, Spikes, Etc.	nail, cut	227	2.40%
		nail, indeterminate	104	1.10%
		nail, wire	8	0.08%
		spike	1	0.01%
	Window Glass	window glass	789	8.34%
<b>Architecture Total</b>			<b>1801</b>	<b>19.05%</b>
Arms	Ammunition	bullet casing	1	0.01%
		shotgun base	1	0.01%
	Arms Related-Other	clay pigeon	15	0.16%
<b>Arms Total</b>			<b>17</b>	<b>0.18%</b>
Clothing	Clothing Fasteners	buttonthree	7	0.07%
	Clothing Related-Other	rivet	4	0.04%
	Shoe Parts	heel	1	0.01%
<b>Clothing Total</b>			<b>12</b>	<b>0.13%</b>
Faunal	Bone	bone	72	0.76%
		teeth	8	0.08%
	Shell	shell	2	0.02%
<b>Faunal Total</b>			<b>82</b>	<b>0.87%</b>
Furnishings	Furniture-Decorative	figurine, porcelain, biscuit	3	0.03%
		finial, glass	1	0.01%
	Lighting	chimney lamp glass	39	0.41%
		lamp bobesches	2	0.02%
		lamp bracket	1	0.01%
		lamp cap	7	0.07%
		lamp collar	1	0.01%
		lamp deflector	1	0.01%
		lamp shade bead	1	0.01%
		lamp wick	1	0.01%
		light bulb part	2	0.02%
<b>Furnishings Total</b>			<b>59</b>	<b>0.62%</b>
Kitchen	Bottles/Jars	beer bottle	59	0.62%

Class	Sub-Class	Ware Type/Object	Count	%
		beverage bottle	5	0.05%
		bottle glass	1520	16.07%
		canning jar	6	0.06%
		container glass	35	0.37%
		jar glass	55	0.58%
		syrup bottle	2	0.02%
	Ceramics	earthenware, colored glaze	22	0.23%
		earthenware, paste	20	0.21%
		earthenware, unglazed	3	0.03%
		hardpaste porcelain, handpainted	3	0.03%
		hardpaste porcelain, overglaze decal	14	0.15%
		hardpaste porcelain, overglaze gilded	1	0.01%
		hardpaste porcelain, overglaze handpainted	9	0.10%
		hardpaste porcelain, handpainted, decal	1	0.01%
		hardpaste porcelain, plain	50	0.53%
		ironstone, handpainted	1	0.01%
		ironstone, plain	541	5.72%
		pearlware, handpainted	10	0.11%
		pearlware, mocha	1	0.01%
		pearlware, plain	41	0.43%
		pearlware, shell edge	7	0.07%
		pearlware, underglazed handpainted	12	0.13%
		redware, glazed	1435	15.18%
		redware, paste	212	2.24%
		redware, slip trailed	14	0.15%
		redware, unglazed	377	3.99%
		stoneware, buff bodied	37	0.39%
		stoneware, gray bodied	67	0.71%
		stoneware, gray bodied, handpainted cobalt	6	0.06%
		whiteware, annular	26	0.27%
		whiteware, banded	6	0.06%
		whiteware, colored glaze	34	0.36%
		whiteware, handpainted	65	0.69%
		whiteware, overglaze decal	21	0.22%
		whiteware, overglaze decal and handpainted	1	0.01%
		whiteware, plain	1274	13.47%
		whiteware, shell edge	93	0.98%
		whiteware, spongeware	30	0.32%
		whiteware, transfer printed, black	14	0.15%
		whiteware, transfer printed, blue	15	0.16%
		whiteware, transfer printed, brown	8	0.08%
		whiteware, transfer printed, flow blue	4	0.04%

Class	Sub-Class	Ware Type/Object	Count	%
		whiteware, transfer printed, green	33	0.35%
		whiteware, transfer printed, mulberry	3	0.03%
		whiteware, transfer printed, purple	3	0.03%
		whiteware, transfer printed, red	6	0.06%
		whiteware, underglaze handpainted	65	0.69%
		yellowware, annular	1	0.01%
		yellowware, brown glaze	1	0.01%
		yellowware, plain	50	0.53%
	Decorative Table Glass	bowl	1	0.01%
		decorative glass hollowware	2	0.02%
		decorative glass lid	3	0.03%
		salt/pepper shaker	1	0.01%
	Kitchen-related-Other	bottle stopper	1	0.01%
		canning jar lid liner	54	0.57%
		jar lid	2	0.02%
	Kitchenware (Utensils, Pots, Etc.)	frying pan	3	0.03%
		handle, utensil	2	0.02%
	Tumblers, Stemware	tumbler glass	5	0.05%
<b>Kitchen Total</b>			<b>6393</b>	<b>67.61%</b>
Personal	Coins	U.S. Indian Head Penny	2	0.02%
	Cosmetics	cosmetic jar	1	0.01%
	Personal-Other	eye glass part	4	0.04%
	Pharmaceutical	pharmaceutical bottle	50	0.53%
<b>Personal Total</b>			<b>57</b>	<b>0.60%</b>
Tobacco Pipes	White Ball Clay	tobacco pipe	12	0.13%
Unidentifiable	Indeterminate	metal	63	0.67%
		plastic	5	0.05%
		wire	70	0.74%
		wood	4	0.04%
<b>Unidentifiable Total</b>			<b>142</b>	<b>1.50%</b>
<b>TOTAL</b>			<b>9456</b>	<b>100.00%</b>

The activities group includes a variety of materials such as toys, tools, writing items, musical instruments, hardware, machine parts, and stable items, such as horse tack. A total of 881 artifacts fell within the activities group. Activities related remains consisted of nine subclasses: flowerpots, cans/tins, hand tools, household items, livestock/pets, miscellaneous small hardware, toys, sewing, and other types of items (see Table 12-18). Tin can fragments ( $n=755$ ) and barbed wire pieces ( $n=88$ ) were the most common Activities-related artifacts, accounting for all but 38 of artifacts in this class.

The architecture group includes construction materials. A total of 1,801 architecture-related items were identified including nails ( $n=340$ ), window glass ( $n=789$ ), mortar ( $n=53$ ), plaster ( $n=150$ ), house number sign ( $n=1$ ), and brick ( $n=467$ ). Architecture-related artifacts comprised approximately 19 percent of all artifacts recovered during fieldwork (see Table 12-18). Nails included cut ( $n=227$ ) and wire ( $n=8$ ) varieties, as well as nails that were too corroded to provide

evidence of manufacturing method ( $n=105$ ) (see Photograph 12-17). The high ratio of cut-wire nails indicates that most of the construction activities occurred prior to ca. 1890, when the cost of wire nails became competitive with cut-nail prices.

Seventeen artifacts were classified as arms-related items. This included 15 clay pigeon fragments, one shot gum shell, and one brass bullet cartridge.

Only 12 artifacts were clothing related items. These artifacts included seven buttons, four rivets, and one shoe heel. There were three white opaque sew-through buttons, one domed button,



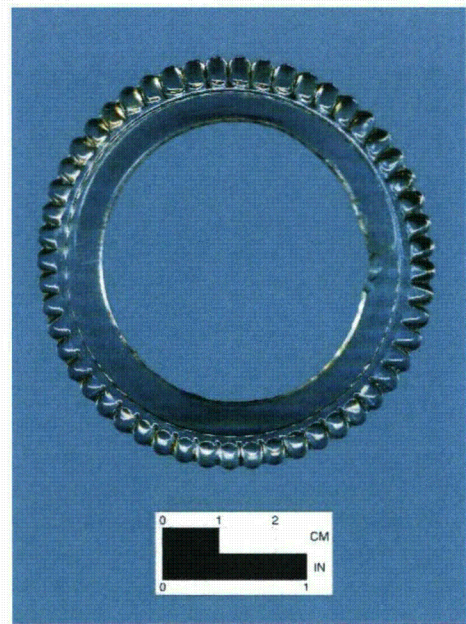
one coat button, and two gilt covered brass buttons (Photograph 12-18). The brass buttons were recovered during STP excavations. One brass button was stamped "DOUBLE GILT" and one was stamped "TREBLE, LONDON". These types of gilt buttons were commonly produced ca. 1800-1850 (Luscomb 1967:163).

**Photograph 12-18. Site 36LU281: Back of Two Brass Buttons**

(L-R): Shank with TREBLE, LONDON "Warranted" backstamp (FS 147); button with "DOUBLE GILT" backstamp (FS 110).

The furnishings assemblage consisted of 59 lighting, decorative items, and figurine artifacts. These included three figurine, one glass finial (see Photograph 12-17) and 55 oil or kerosene lamp pieces (Photograph 12-19).

**Photograph 12-19. Site 36LU281: Lamp Chimney Glass Sample**

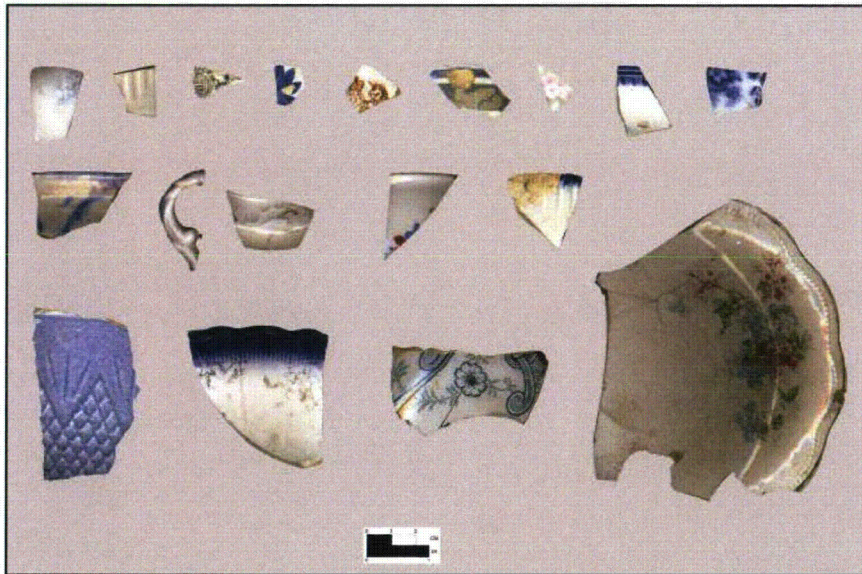


The kitchen group consists of artifacts that represent the remains of food preparation, service, and consumption. Kitchen artifacts dominated the assemblage, accounting for 6,393 (or 67.61%) of the artifacts (see Table 12-18). This group was divided into six subclasses and included 1682 bottle/jar glass, 4,637 ceramics, seven decorative table glassware pieces, five kitchenware (pans and utensils), five tumblers, and 57 kitchen-related-other (closures, etc.). The kitchen bottle and jar glass included beer bottles, root beer syrup bottle, canning jars, and other container glass pieces.



The 4,637 ceramic sherds were further subdivided according to type and included 2038 redware, 110 stoneware, 52 yellowware, 542 ironstone, 45 refined earthenware, 78 porcelain, including 541 ironstone, 50 porcelain, 41 pearlware, 1,274 whiteware, and 50 yellowware. There was also a variety of decoration types present, including hand-painted, decal decoration, gilded, annular, shell edge decorated, banded, sponge decorated, transfer print, and colored glazes (Photograph 12-20).

Ceramic maker's marks and bank stamps were useful in identification of purchases made by the former occupants at this site. Three different design patterns were identified. The blue transfer printed Mikado pattern found on a saucer was manufactured by Bridgwood and Son in England between 1885 and 1891 (Godden 1992: 102) (Photograph 12-21). The blue transfer-printed Ardennes pattern was produced by the English firm of E. Challinor between 1842 and 1867 (Snyder 1977:42) (Photograph 12-22). The floral Dixie decal pattern, identified on a plate, was produced by the East Palestine Pottery Co. ca. 1884-1909 (DeBolt 1994:46-47) (see Photograph 12-20 and Photograph 12-23). Other pottery maker's marks indicated that the former occupants purchased whiteware or ironstone made by the Wheeling Pottery Company, 1879-1909; Anchor Potter Co., Trenton, N.J., 1904-1912 (DeBolt 1994:19); Sevres China Co., 1900-1908 (Gates and Omerod 1982:241); and James Edwards & Sons, Dale Hall Burslem, England, ca.1851-1882 (Coyish & Henrywood 1982: 24) (see Photograph 12-23). Another maker's mark, exhibited part of the word "Germany".



**Photograph 12-20. Site 36LU281: Representative Sample of Ceramics**

Row 1 (L-R) – whiteware with decal (FS 199.06); ironstone with molded design (FS 194.04); whiteware with black transfer print design (FS 191); blue hand-painted pearlware (FS 191); whiteware with maker's mark from Wheeling Pottery Company 1879-1909 (FS 191); annular decorated Whiteware (FS 191); porcelain with decal decoration (FS 199.01); blue edged decorated whiteware (FS 199.05); flow blue transfer printed whiteware (FS 190). Row 2 (L-R) – blue decorated stoneware (FS 199); whiteware teacup handle (FS 199.03); ironstone teacup with molded design (FS 199.04); handpainted whiteware (FS 191); blue shell edge decorated whiteware (FS 199). Row 3 (L-R) – whiteware with blue colored glaze and molded design (FS 199); edge decorated pearlware (FS 199); whiteware with green transfer-print floral design (FS 199); whiteware plate with floral decal in "Dixie" pattern (FS 204).



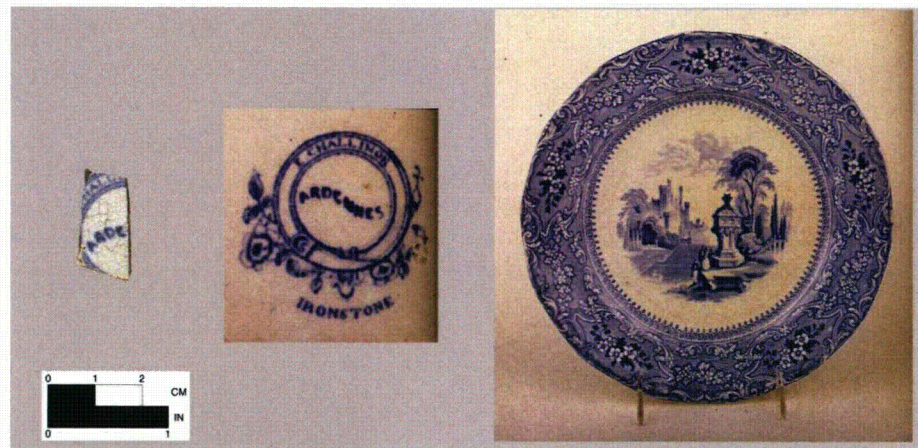


**Photograph 12-21. Site 36LU281: Saucer with Mikado Pattern (FS 203 & 220)**

Manufactured by Sampson Bridgwood and Son, England, 1885-1891 (Godden 1992: 102).

**Photograph 12-22. Site 36LU281: Sherd with Ardennes Pattern Name (FS 166)**

Manufactured by E. Challinor, England, 1842-1867 (Snyder 1977:42).

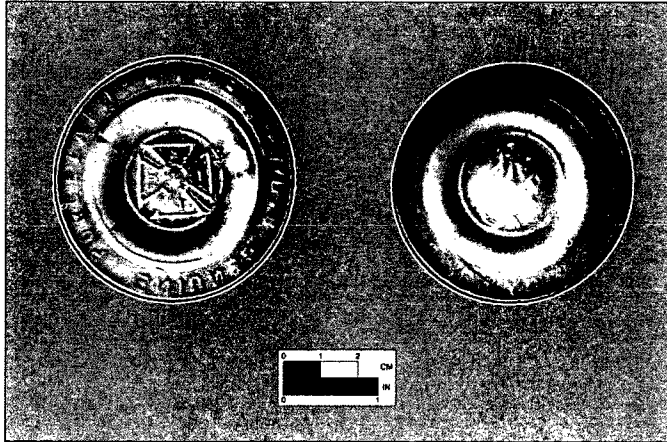


**Photograph 12-23. Site 36LU281: Ceramic Maker's Marks**

Row 1 (L-R): Partial maker's mark from Wheeling Pottery Company, 1879-1909 (FS 191); Anchor Potter Co., Trenton, N.J. Maker's Mark, 1904-1912 (DeBolt 1994:19) (FS 169); Sevres China Co. fleur de lis maker's mark, , 1900-1908 (Gates and Omerod 1982:241) (FS 199); Impressed maker's mark: JAS EDWARDS & SO..." Dale Hall Burslem, England, ca.1851-1882 (Coyish & Henrywood 1982: 24) (FS 200). Row 2 (L-R): East Palestine Pottery Co. Maker's Mark, ca. 1884-1909 (DeBolt 1994:46-47) (FS 204); James Edwards and Sons Maker's Mark, Dale Hall Burslem, England, ca. 1851- 1882 (Coyish & Henrywood 1982: 24) (FS 201).



There were 54 pieces of canning jar lid liners. Most of the pieces came from two different brands of lid liners: H.F. P. Co. and Consolidated Fruit Jar Company in New York (Photograph 12-24). These two types were produced in the last quarter of the nineteenth century.



**Photograph 12-24. Site 36LU281: Sample of Common Canning Jar Lid Liners Brands**

(L-R): "BOYD'S GENUINE PORCELAIN LINED"; "H F P CO" inside a templar cross (FS 201); "CONSOLIDATED FRUIT JAR COMPANY NEW YORK" (FS 201).

Fifty-seven artifacts were placed in the personal class: two Indian Head pennies dated 1859 and 1864, one cosmetic jar, four eye glass pieces, and 50 medicine bottle pieces.

Many of the medicine bottles had embossed information useful in identifying the product and/or manufacturer (see Fike 1994). *Chamberlain's Colic, Cholera, and Diarrhea Remedy* was manufactured by David, Izanna, and Lowell Chamberlain, three siblings who established the Chamberlain Medicine Company in Des Moines, Iowa. This product was used for a variety of ills. Dr. Miles Restorative, Nervine was a restorative tonic to help with nervous problems. Dr. Kilmer's Swamp Root Kidney Cure was produced by Dr. Kilmer and Co. in Binghamton, New York. The bottle found at Site 36LU281 was a smaller, sample bottle.

There were two brands of medicine for throat ailments. Kemp's Balsam for Throat and Lungs was manufactured by O.F. Woodward in LeRoy, New York; Mr. Woodward died in 1906 but the business was later acquired by his son. Moyers Oil of Gladness was manufactured in Bloomsburg, Pennsylvania by Moyer Brothers for treatment of coughs and throat irritations.

There were two brands of cod liver oil and more than one bottle of each brand. Scott's Emulsion, Cod Liver Oil with Lime and Soda was introduced by Alfred Scott and Samuel Browne in 1876 from their plant in New York before moving their business to Bloomfield, New Jersey around 1900. The lime and soda was used to make the cod liver oil more palatable. Slocum's Oxygenized Pure Cod Liver Oil was manufactured by Dr. T.A. Slocum in New York City.

#### Dating Analysis

Artifact analysis identified 2,931 temporally-dagnostic artifacts in the assemblage that help to date the occupation at Site 36LU281 (Table 12-19). Large quantities of some artifacts, such as plain whiteware ( $n=1269$ ), undecorated ironstone ( $n=531$ ), and cut nails ( $n=227$ ) tend to weight mean date calculations for this site. The diagnostic artifacts had a mean date of 1880 and a TPQ date of 1939. The overwhelming predominance of cut nails suggests a pre-1890 construction date for any structures at the site. The TPQ date does not correlate with the cartographic research that depicts a house at this location in 1873, but not on 1939 or later sources. The TPQ date is based on four bottle glass pieces that may be associated with later activities, such as roadside trash disposal.

**Table 12-19. Site 36LU281: Artifact Dating Analysis**

Ware Type/Object	Count	Beg Date	End Date	Reference
Nail, cut	227	1790	1890	Nelson 1968
Nail, wire	8	1880	1955	IMAC 1984; Nelson 1968
Button; backstamp "DOUBLE GILT"	1	1800	1850	Luscomb 1967:163
Button; backstamp TREBLE, LONDON "Warranted"	1	1800	1850	Luscomb 1967:163
U.S. Indian Head Penny	1	1859	1859	US Mint
U.S. Indian Head Penny	1	1864	1864	US Mint
Chimney lamp glass, crimped	3	1877	1955	Woodhead 1977
Lamp cap, gold plated; embossed: center "JUNE 4 18 5" "UNITED STA S," "ENGLAND, FRA" "BELGIUM, SWITZ" "GERMANY, AUSTRIA" "SPAIN, CUBA, CANA" "VICTORIA NEW ZEALAN" "NEW SOUTH WALES, AND" " OTHER COUNTRIES" " DESIGN PATENTED" "MAY 28 1895"; ext "TED" "1887" "1898" "OTHER PATENTS"	2	1898	1898	
Pharmaceutical bottle. "Chamberlain's Colic Cholera & Diarrhoea Remedy"	5	1882	1930	
Pharmaceutical bottle; "MOYER'S OIL OF GLADNER BLOOMSBURG, PA"	1	1868	1900	Bradley
Pharmaceutical bottle; "WOODWARD Chemist Nottingham"	2	1897	1915	Deiss 1981; <a href="http://www.worthpoint.com/worthopedia/antique-bottle-kemps-balsam-for-throat-and-lungs">www.worthpoint.com/worthopedia/ antique-bottle-kemps-balsam-for-throat-and-lungs</a>
Pharmaceutical bottle; "KEMPS BALSAM FOR THROAT AND LUNGS" Leroy, NY	9	1889	1915	Fike 1987:25; Deiss 1981; <a href="http://www.worthpoint.com/worthopedia/antique-bottle-kemps-balsam-for-throat-and-lungs">www.worthpoint.com/ worthopedia/antique-bottle-kemps-balsam-for-throat-and-lungs</a>
Pharmaceutical bottle; "DR. MILES"; R "ESTORATIVE"; "NERVINE"	1	1885	1935	Fike 1984:190
Pharmaceutical bottle; "SAMPLE DR. KIMER'S SWAMP- ROOT KIDNEY CURE BINGHAMTON N.Y."	1	1895	1906	Fike 1987:101
Pharmaceutical bottle; "Scott's Edmundson's Cod Liver Oil with Lime & Soda" (fish on base)	5	1890	1934	Fike 1987:196
Pharmaceutical bottle; "Slocum's Oxygenized Pure Cod Liver Oil NY City"	1	1890	1934	Fike 1987:196
Pharmaceutical bottle, patent finish	9	1860	1935	Jones & Sullivan 1989
Bottle/jar glass, applied finish	1	1820	1870	Deiss 1981
Bottle/jar glass, cobalt	1	1890	1960	IMAC 1984
Bottle/jar glass, crown finish	4	1892	1955	Leif 1965
Bottle/jar glass, machine made	16	1903	1955	Deiss 1981
Bottle/jar glass, mold blown	30	1800	1870	Deiss 1981
Bottle/jar glass, olive	25	1730	1800	IMAC 1984
Bottle/jar glass, standardized screw threads	6	1919	1955	Deiss 1981
Bottle/jar glass, stippled	4	1939	1955	Busch 1983
Bottle/jar glass, sun colored amethyst	101	1880	1915	Miler and Pacey 1985
Bottle/jar glass, tooled finish	5	1870	1915	Deiss 1981
Canning jar; mark "Hero's cross"; "E"; "3" Patent Nov 30,1858	1	1882	1884	Toulouse 1969:84
Syrup bottle, tooled finish; "For Making Root beer at home"	1	1870	1915	Deiss 1981
Decorative glass, pressed mold	2	1820	1950	Schroy 2001
Canning jar lid liner	50	1869	1950	Toulouse 1971
Canning jar lid liner; mark "CONS"; "NEW YO" Consolidated Fruit Jar Company New York	1	1871	1882	Toulouse 1971:123-125,149
Canning jar lid liner; mark: C overlaid with a J; "CONSOLIDATED FRUIT JAR COMPANY NEW YORK"	3	1871	1882	Toulouse 1971:123



Ware Type/Object	Count	Beg Date	End Date	Reference
Earthenware, colored glaze	1	1830	1955	Price 1979; Noël Hume 1980; Lofstrum et al. 1982; Majewski & O'Brien 1984
Hardpaste porcelain, plain; marked "Germa...", [Germany] Taft Act	1	1885	1955	Kovel & Kovel 1986:229
Ironstone, plain; mark "Anchor Pottery Co., Trenton, N.J."	1	1904	1912	DeBolt 1994:19
Ironstone, plain; mark "STONE CHINA" "JAMES EDWARDS & SONS" "DALEHALL" Burslem England	9	1851	1882	Coyish & Henrywood Vol. 1:24
Ironstone, plain	531	1840	1955	Wetherbee 1980
Ironstone, handpainted	1	1840	1955	Wetherbee 1980
Pearlware, plain	41	1780	1820	South 1977
Pearlware, handpainted	22	1780	1820	South 1977
Pearlware, mocha, dendritic	1	1795	1820	Noel Hume 1969
Pearlware, shell edge	7	1780	1820	South 1977
Redware, slip trailed	14	1733	1850	Magid 1984
Whiteware, plain; mark "Edward Challinor Ardnnes pattern"	1	1842	1867	Snyder 1977:42; Williams 1978:191
Whiteware, plain; mark "Sampson Bridgwood & son (Ltd)"	4	1885	1891	Golden 1964: 101-102; <a href="http://rubylane.com/shops/brysantiques/item/RL000649">http://rubylane.com/shops/brysantiques/item/RL000649</a>
Whiteware, plain; mark "Sevres China Co." Fleur de lis "s"	1	1900	1908	Gates & Ormerod 1982:241
Whiteware, plain	1269	1830	1955	Price 1979; Noël Hume 1890
Whiteware, annular, mocha	26	1830	1860	Price 1979; Mullins 1988
Whiteware, banded	6	1830	1860	Majewski and O'Brien 1984
Whiteware, colored glaze	34	1830	1955	Price 1979; Noël Hume 1980
Whiteware, handpainted	137	1840	1860	Lofstrum et al. 1982; Majewski & O'Brien 1984
Whiteware, overglaze decal	22	1890	1955	Haskell 1981
Whiteware, shell edge	107	1830	1891	Lofstrum et al 1982; Mullins 1988
Whiteware, spongeware	30	1830	1871	Robacker & Robacker 1978
Whiteware, transfer printed; Flow Blue	4	1844	1860	Lofstrum et al. 1982
Whiteware, transfer printed; blue	15	1828	1860	Majewski & O'Brien 1984; Mullins 1988
Whiteware, transfer printed; black, brown	22	1828	1850	Majewski & O'Brien 1984; Mullins 1988
Whiteware, transfer printed; red, green	37	1828	1850	Majewski & O'Brien 1984; Mullins 1988
Whiteware, transfer printed; mulberry, purple	6	1830	1860	Lofstrum et al. 1982
Yellowware, annular	1	1827	1922	Brown 1982
Yellowware, brown glaze	1	1827	1922	Brown 1982
Yellowware, plain	50	1830	1900	Ketchum 1987
<b>Total</b>	<b>2931</b>			
<b>Mean Date</b>	<b>1880</b>			
<b>TPQ</b>	<b>1939</b>			

## Summary and Evaluation

Site 36LU281 represents the remains of a mid-nineteenth to early-twentieth-century farmstead located on the south side of Confers Road with a total site area of 130x150 ft. Any structures that formerly stood on the property had been razed sometime prior to 1939. This site was subject to Phase I/II archaeological investigations including surface collection, STP and test unit excavations and three mechanically stripped trenches.

These excavations resulted in the recovery of 9,456 artifacts and identification of two cultural features: a foundation with a cellar hole and a posthole. The artifact assemblage included 2931 of temporally-diagnostic artifacts, however, many of these artifacts were produced over a long time period. In addition, these temporally-diagnostic artifacts could not be linked to specific site occupants, severely limiting the research potential of the artifact assemblage. With the exception of a limited number of artifacts found in Feature 3 (posthole), the artifacts were recovered either from plow-disturbed contexts or from the Feature 1 (foundation) cellar hole, which was filled in sometime during the twentieth century. Due to their mixed context, artifacts associated with specific historic era occupations of the site cannot be segregated horizontally or vertically. Based on the results of Phase II testing, the integrity of Site 36LU281 is concluded to be poor. Therefore, it is unlikely that this site could provide important information towards our understanding of farmsteads in the region during the mid-nineteenth to early twentieth century. Accordingly, Site 36LU281 is concluded to be Not Eligible for listing in the National Register, under Criterion D.

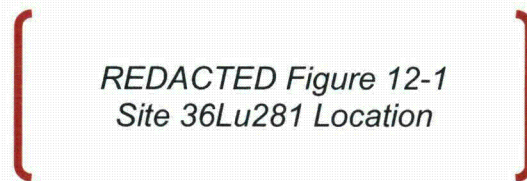
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### *Site 36LU281 Recommendations*

*Site 36LU281 represents the location of a mid 19<sup>th</sup> to early 20<sup>th</sup> century farmstead site. The site has a relatively high density of artifacts from secondary deposition but lacks deep shaft features and does not possess good integrity. Accordingly, GAI concludes that Site 36LU281 does not possess the potential to contribute important information on the historic utilization of this area. GAI recommends that Site 36LU281 is Not Eligible for listing to the National Register under Criterion D. No further archaeological investigations are recommended for Site 36LU281.*

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**Figure 12-1. Site 36LU281 Location**

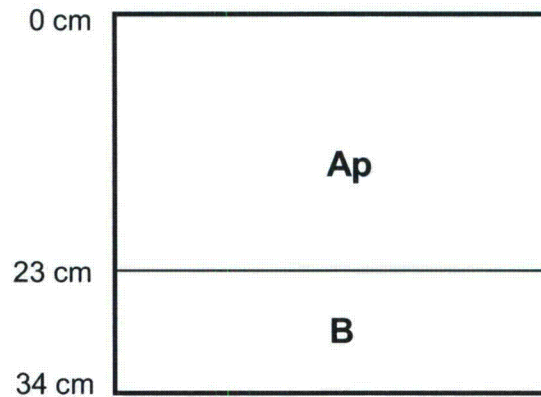


**Figure 12-2. Site 36LU281 showing Phase Ib Testing Locations**

*REDACTED Figure 12-2  
Site 36Lu281 showing Phase Ib  
Testing Locations*



# STP 1

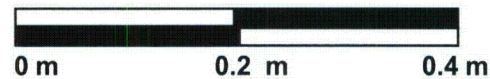


## KEY:

Ap – DARK YELLOWISH BROWN (10YR 4/4) SILT LOAM

B – BROWN (7.5YR 4/4) SILTY CLAY LOAM

## SCALE



gai consultants

DWN LMD CHKD TJN

APPD BAM DATE 09/04/08

SCALE AS NOTED

DRAWING NUMBER C080204.10.002.C.A.Si 2

**FIGURE 12-3. SITE 36LU281: REPRESENTATIVE PHASE IB SOIL PROFILE  
(STP 1)**

**BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.**

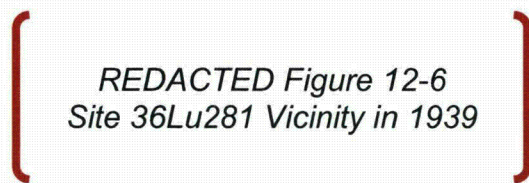
**Figure 12-4. Site 36LU281 on Warrantee Map showing Original Parcels**

*REDACTED Figure 12-4  
Site 36Lu281 on Warrantee Map  
showing Original Parcels*

**Figure 12-5. Site 36LU281 Vicinity in 1873**

*REDACTED Figure 12-5  
Site 36Lu281 Vicinity in 1873*

**Figure 12-6. Site 36LU281 Vicinity in 1939**





**Figure 12-7. Site 36LU281 Vicinity in 1955**

*REDACTED Figure 12-7  
Site 36Lu281 Vicinity in 1955*

**Figure 12-8. Site 36LU281 Vicinity in 1959**

*REDACTED Figure 12-8  
Site 36Lu281 Vicinity in 1959*

**Figure 12-9. Site 36LU281 Vicinity in 1969**

*REDACTED Figure 12-9  
Site 36Lu281 Vicinity in 1969*

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**Figure 12-10. Site 36LU281 Phase II Testing Locations**

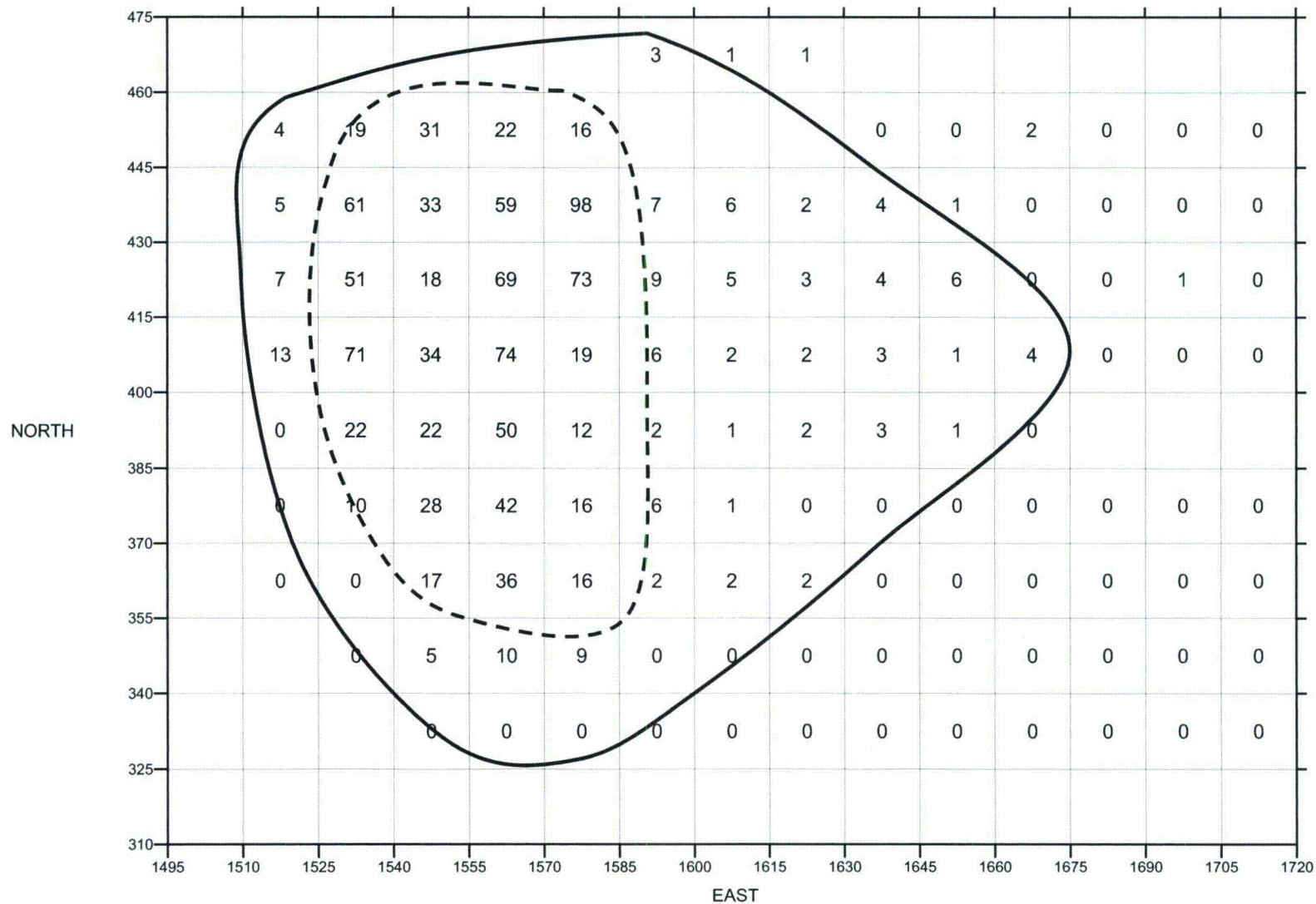
11x17

*REDACTED Figure 12-10  
Site 36Lu281 Phase II Testing  
Locations*

(Back of Figure 12-10)

*Side 2 of REDACTED Figure 12-10*

# SITE 36LU281 CONTROLLED SURFACE COLLECTION ARTIFACT DISTRIBUTION



## LEGEND

———— : SITE BOUNDARY

----- : ARTIFACT CONCENTRATION

FIGURE 12-11.  
SITE 36LU281 CONTROLLED SURFACE  
COLLECTION ARTIFACT DISTRIBUTION

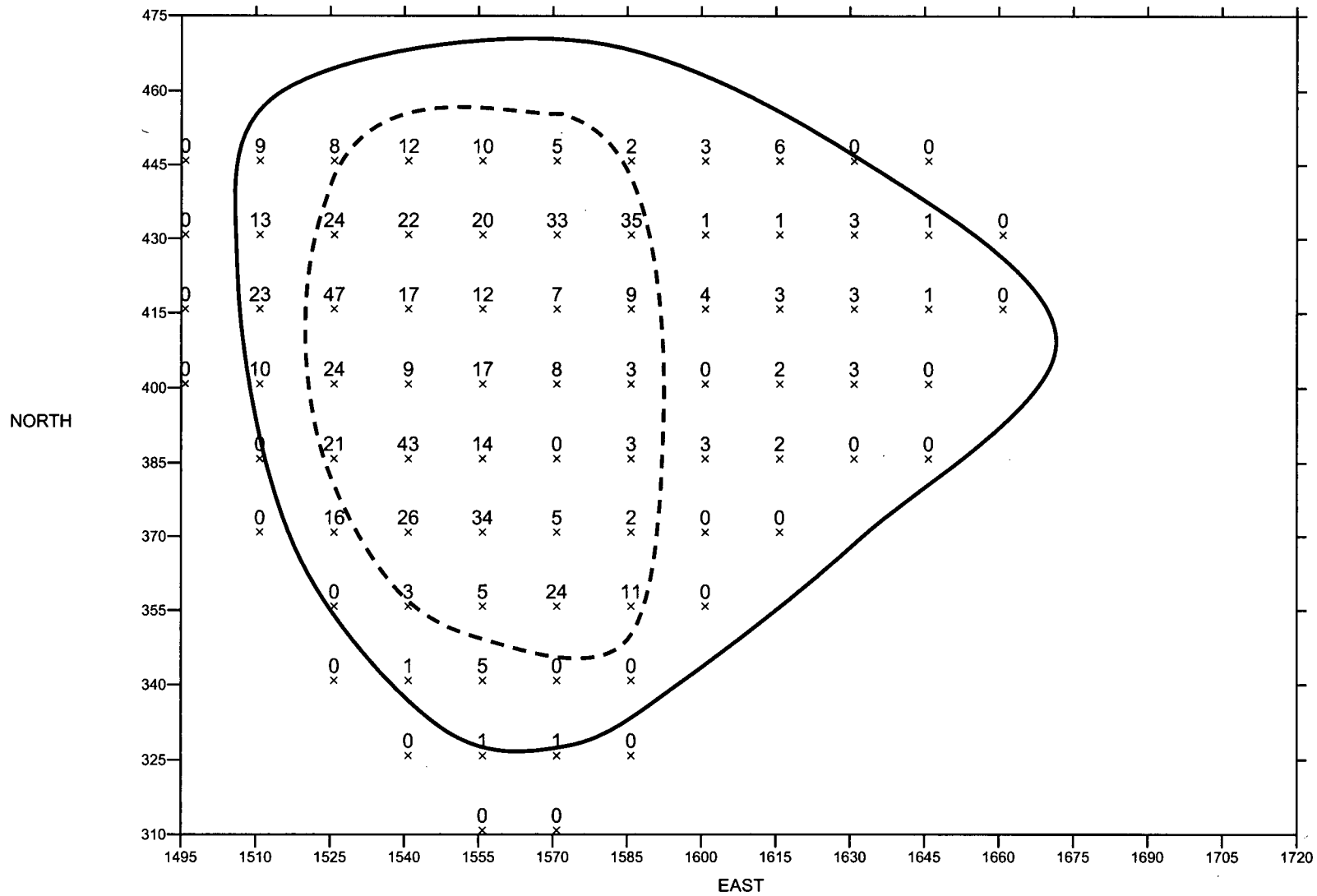


BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LAF

DATE: 05/04/10  
APPROVED: BAM

# SITE 36LU281 STP HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

— : SITE BOUNDARY

- - - : ARTIFACT CONCENTRATION

FIGURE 12-12.  
SITE 36LU281 STP HISTORIC ARTIFACT  
DISTRIBUTION



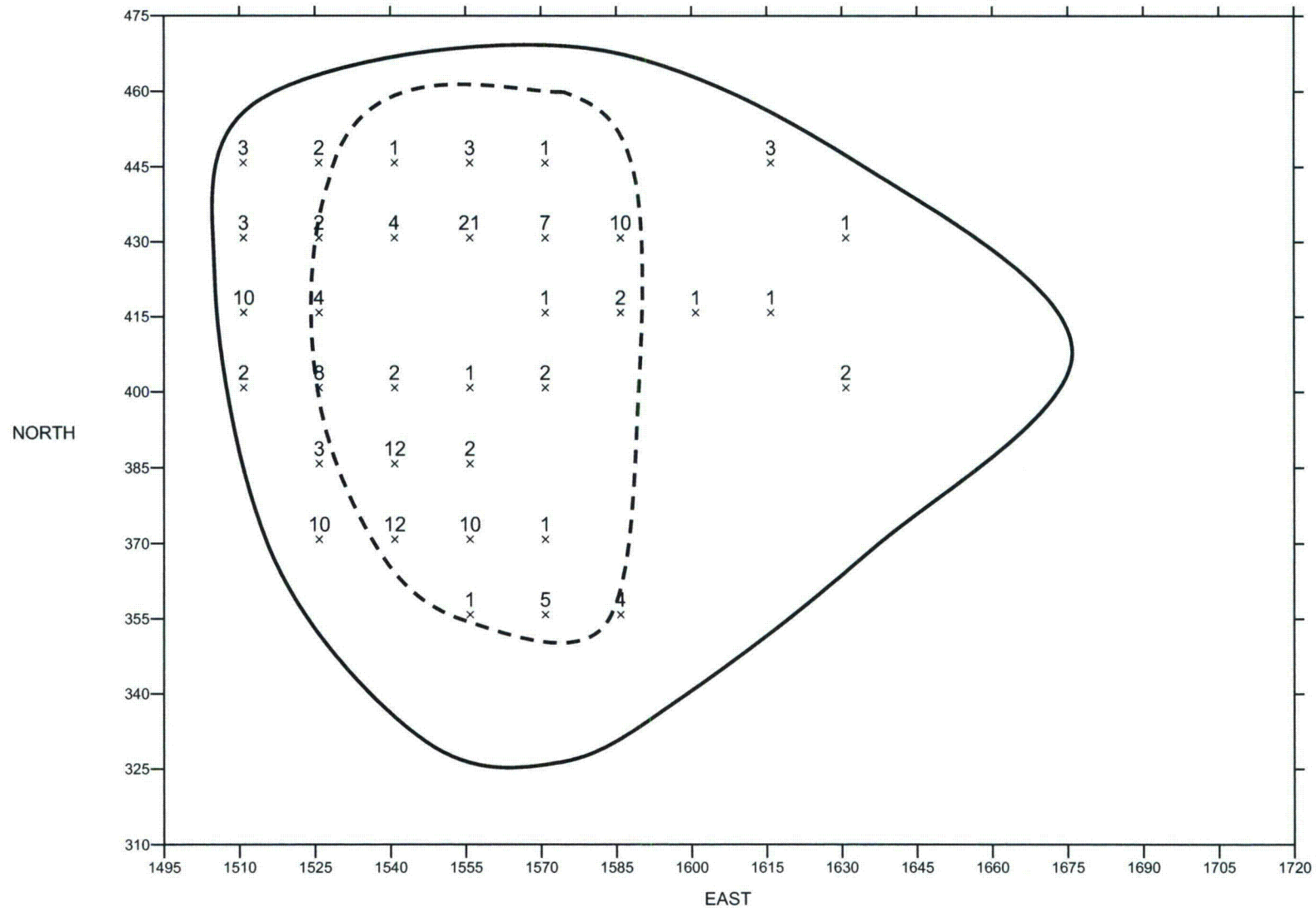
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UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LAF

DATE: 05/04/10  
APPROVED: BAM



# SITE 36LU281 ARCHITECTURAL HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

— : SITE BOUNDARY

- - - : ARTIFACT CONCENTRATION

FIGURE 12-13  
SITE 36LU281 ARCHITECTURAL HISTORIC  
ARTIFACT DISTRIBUTION

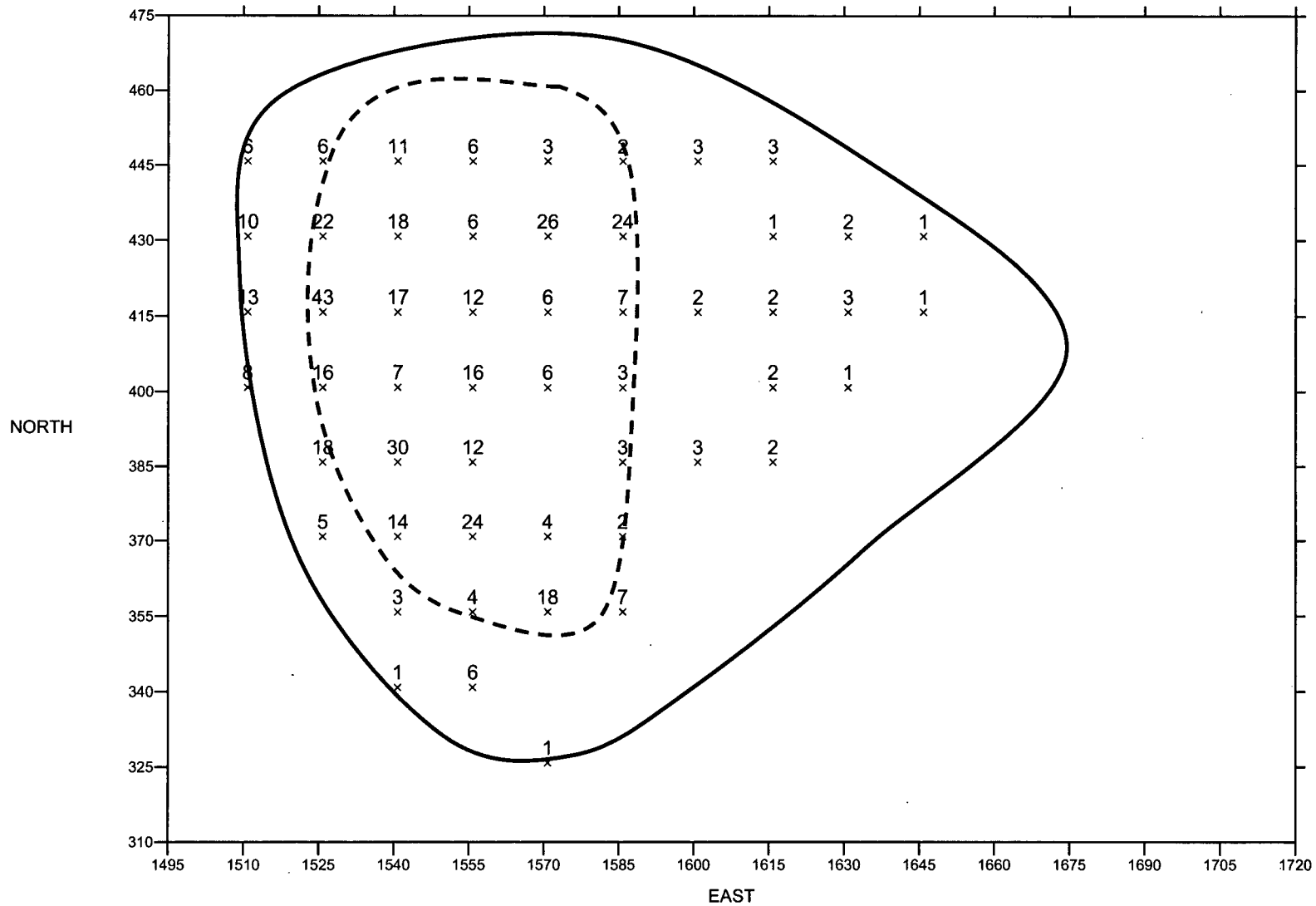


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UNISTAR NUCLEAR DEVELOPMENT, LLC.

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CHECKED: LAF

DATE: 05/04/10  
APPROVED: BAM

# SITE 36LU281 KITCHEN HISTORIC ARTIFACT DISTRIBUTION



## LEGEND

———— : SITE BOUNDARY

----- : ARTIFACT CONCENTRATION

FIGURE 12-14.  
SITE 36LU281 KITCHEN HISTORIC  
ARTIFACT DISTRIBUTION



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UNISTAR NUCLEAR DEVELOPMENT, LLC.

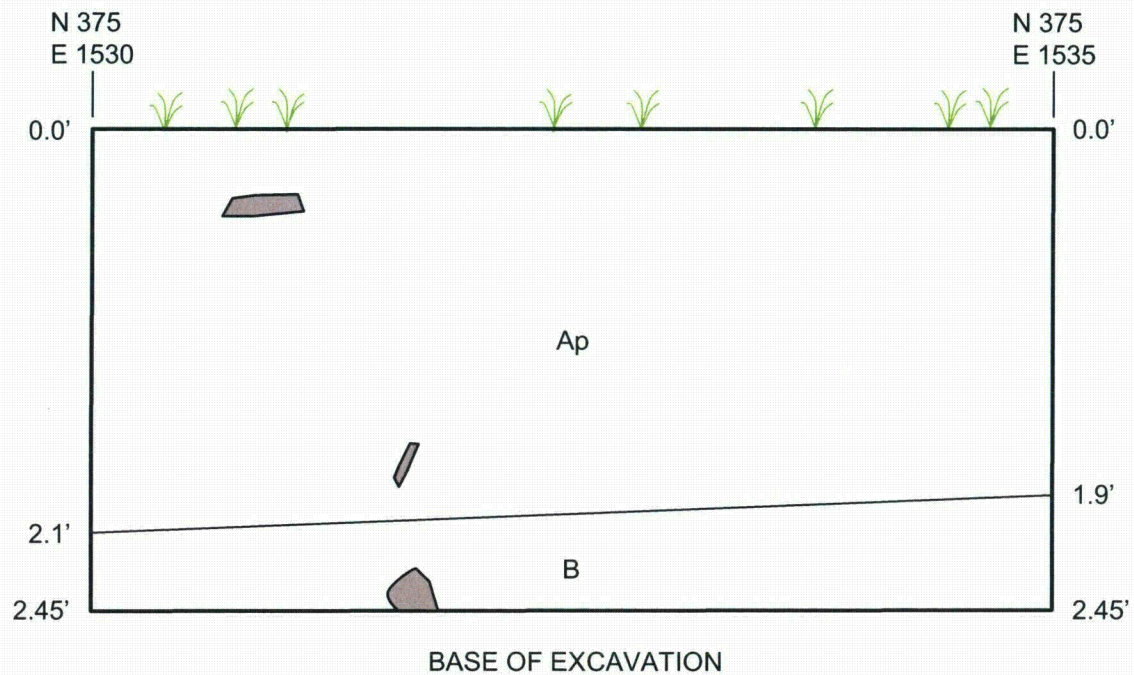
DRWN: SJS

DATE: 05/04/10

CHECKED: LAF

APPROVED: BAM

SITE 36LU281  
TEST UNIT 1  
NORTH WALL PROFILE



Ap - DARK BROWN (10YR 3/3) SILT LOAM  
B - YELLOW BROWN (10YR 5/6) SANDY LOAM

LEGEND

 :GROUND SURFACE

 :ROCK

SCALE

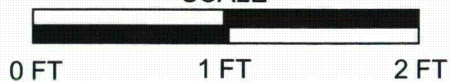


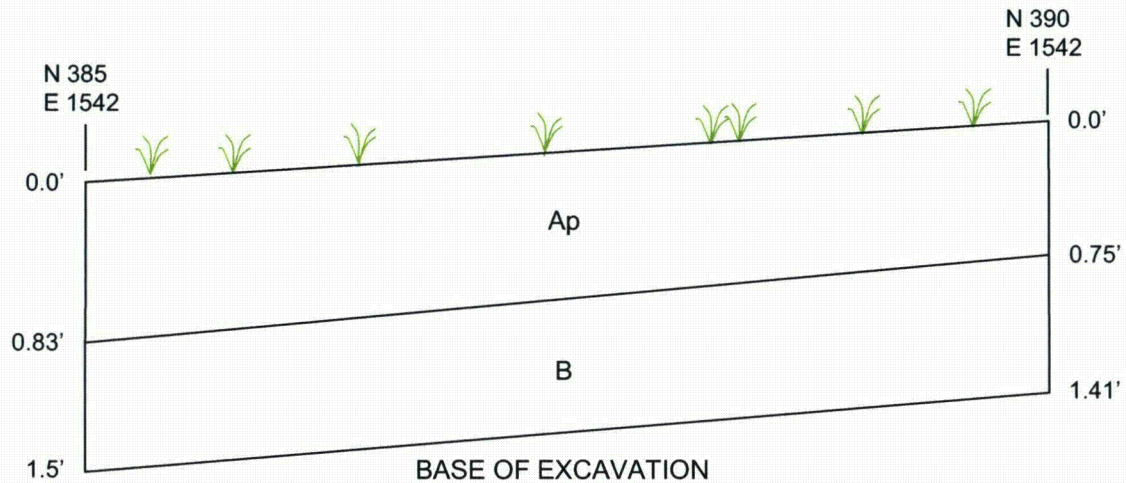
FIGURE 12-15.  
SITE 36LU281: TEST UNIT 1  
NORTH WALL PROFILE

 BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM

SITE 36LU281  
TEST UNIT 2  
WEST WALL PROFILE



Ap – DARK BROWN (10YR 3/3) SILT LOAM  
B -- YELLOW BROWN (10YR 5/6 ) SANDY SILT LOAM

LEGEND



GROUND SURFACE

SCALE



FIGURE 12-16  
SITE 36LU281: TEST UNIT 2  
WEST WALL PROFILE



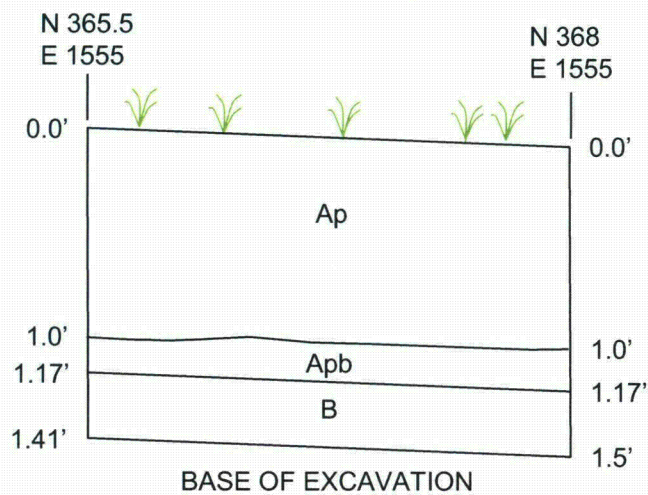
BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AJW  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM



SITE 36LU281  
TEST UNIT 4  
WEST WALL PROFILE



Ap – VERY DARK GRAYISH BROWN (10YR3/2) SILT LOAM  
 Apb –DARK YELLOWISH BROWN (10YR4/4 ) SILT LOAM  
 B –YELLOWISH BROWN (10YR5/6 ) SANDY LOAM

LEGEND



GROUND SURFACE

SCALE

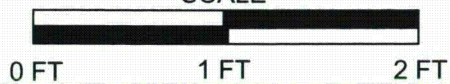


FIGURE 12-17.  
SITE 36LU281: TEST UNIT 4  
WEST WALL PROFILE

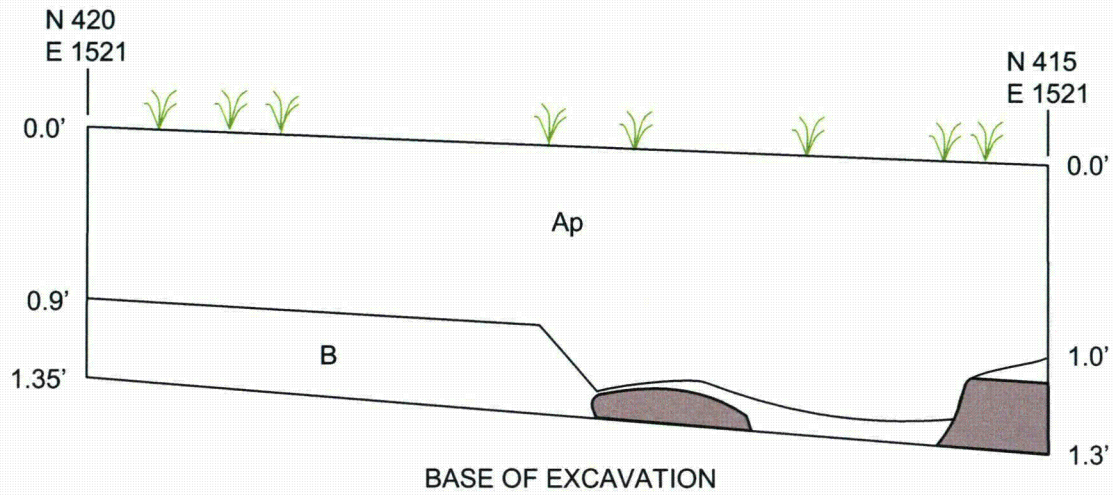


BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AWJ  
CHECKED: LAF

DATE: 05/25/10  
APPROVED: BAM


SITE 36LU281  
TEST UNIT 7  
NORTH WALL PROFILE



Ap – DARK BROWN (10YR 3/3) SILT LOAM  
B – YELLOWISH BROWN (10YR 5/6) SANDY SILT LOAM

LEGEND

 :GROUND SURFACE

 :ROCK

SCALE

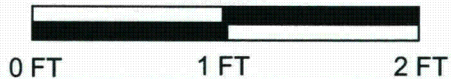


FIGURE 12-18  
SITE 36LU281: TEST UNIT 7  
NORTH WALL PROFILE



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AWJ  
CHECKED: LAF

DATE: 05/25/10  
APPROVED: BAM

# SITE 36LU281 PHASE II TRENCH PLANVIEW

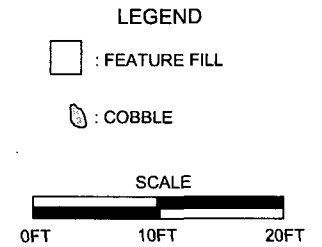
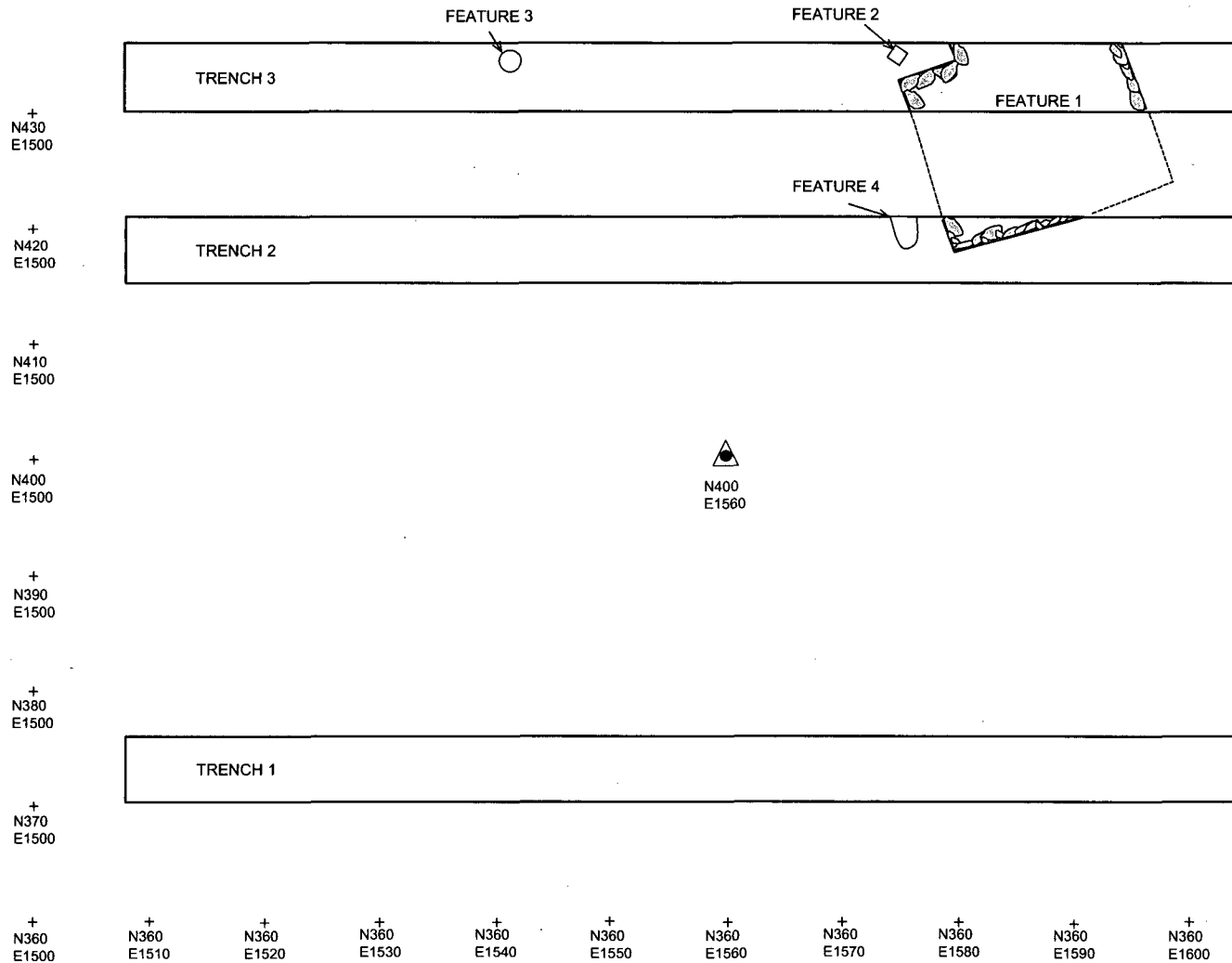
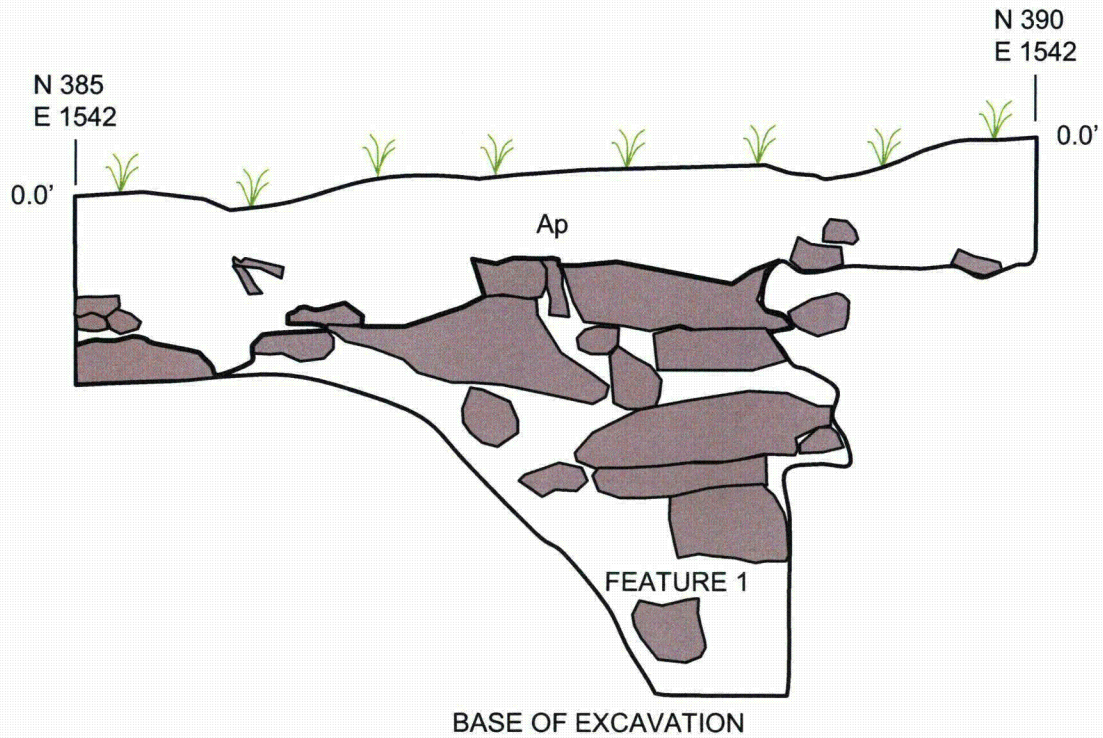


FIGURE 12-19.  
SITE 36LU281: PHASE II TRENCH PLANVIEW

**gal consultants** BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

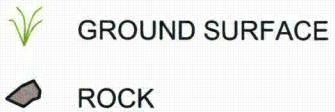
DRAWN: SJS DATE: 5/25/10  
CHECKED: LMD APPROVED: LAF

SITE 36LU281  
TEST UNIT 3 – FEATURE 1  
EAST WALL PROFILE



Ap –DARK BROWN (10YR 3/3) SILT LOAM  
FEATURE 1 –HORIZONTAL STACKED STONES IN DARK  
BROWN (10YR 3/3) SILT LOAM

LEGEND



SCALE

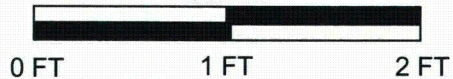


FIGURE 12-20.  
SITE 36LU281: TEST UNIT 3  
FEATURE 1, EAST WALL PROFILE



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: SJS  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM

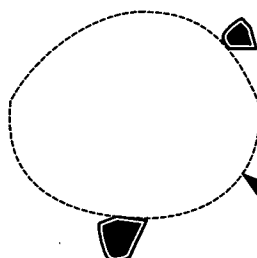




SITE 36LU281  
FEATURE 3  
PLANVIEW

N 435  
E 1540

N 435  
E 1545



FEATURE 3

B HORIZON

N 430  
E 1540

N 430  
E 1545

FEATURE 3 – DARK BROWN (10YR 3/3) SILT LOAM  
B HORIZON – YELLOW BROWN (10YR 5/6) SANDY LOAM

LEGEND



FEATURE FILL



ROCK

SCALE



FIGURE 12-21.  
SITE 36LU281: FEATURE 3  
PLANVIEW



BELL BEND NUCLEAR POWER PLANT  
UNISTAR NUCLEAR DEVELOPMENT, LLC.

DRWN: AWJ  
CHECKED: LMD

DATE: 05/25/10  
APPROVED: BAM