ADDENDUM TO THE PHASE I ARCHAEOLOGICAL SURVEY
OF THE BEECH RIDGE WIND ENERGY PROJECT &
ASSOCIATED TRANSMISSION SUPPORT LINE,
GREENBRIER AND NICHOLAS COUNTIES,
WEST VIRGINIA

By

Jamie S. Meece, MA, RPA
ADDENDUM TO THE PHASE I ARCHAEOLOGICAL SURVEY OF THE BEECH RIDGE WIND ENERGY PROJECT & ASSOCIATED TRANSMISSION SUPPORT LINE, GREENBRIER AND NICHOLAS COUNTIES, WEST VIRGINIA

By

Jamie S. Meece, MA, RPA

Submitted to:

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Submitted by:

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______________________________
C. Michael Anslinger, RPA
Principal Investigator
April 13, 2009

Lead Agency: West Virginia Public Service Commission, Case #: 05-1590-E-CS
West Virginia State Historic Preservation Office FR #: 06-147-GB-25
MANAGEMENT SUMMARY


During the period April 6-8, 2009, Cultural Resource Analysts, Inc. completed systematic Phase I survey for an approximate 8.9-ha (22.1-ac) tract selected as the new site for the construction laydown and batch plant located in Williamsburg District, Greenbrier County, West Virginia. The project tract, which is at an elevation of approximately 1,197.2 m (3,928 ft) to 1,213.4 m (3,981 ft) above mean sea level, consists of relatively level ridgetop just north of Beech Ridge road and a short distance east of the proposed operations and maintenance facility. Vegetation consists predominately of low grasses used for hay production; the presence of the hay field indicates that tract was cultivated in the past. Soil profiles across the project area contain large quantities of charcoal in the upper 9 cm (3.5 in), indicating a large-scale burn event since the area was last plowed.

Because of the general lack of surface visibility, the principal method of investigation was shovel testing. Systematic survey resulted in the identification of one previously undocumented archaeological site (46Gb467). The site consists of a low-density prehistoric lithic scatter of unknown cultural and temporal affiliation. Evidence for cultural features and/or midden was not discovered.

Based on extant information, it is the recommendation of Cultural Resource Analysts, Inc. that 46Gb467 is not eligible for listing in the National Register of Historic Places. No additional archaeological investigations are recommended for the site or the proposed construction laydown and batch plant site in general. However, should evidence of intact archaeological deposits or human burials be identified during mining or related activities, work in the area of discovery should cease and the West Virginia Public Service Commission and the West Virginia State Historic Preservation Office should be notified of the discovery.
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I. INTRODUCTION AND BACKGROUND

Between August 25 and September 26, 2008, personnel from Cultural Resource Analyst Inc. (CRA) conducted Phase I archaeological survey on approximately 69.9 ha (172.6 ac) of land for the proposed Beech Ridge Wind Energy project and associated Transmission Support Line (Beech Ridge Wind Energy Facility) located in Greenbrier and Nicholas counties, West Virginia (Meece and Smith 2008). The survey was completed under contract with Potesta & Associates, Inc. (Potesta) to aid Beech Ridge Energy, LLC (Beech Ridge) achieve compliance. The Beech Ridge Wind Energy Facility is located in north central Greenbrier County and southeast Nicholas County, West Virginia (Figure 1), and includes the development of a wind turbine power-generating facility, new access roads, upgrading existing access roads, an operations and maintenance facility, a transmission line, and a substation.

Figure 1. Location of Greenbrier and Nicholas Counties, West Virginia.

This survey resulted in the identification of six newly recorded archaeological sites; 46Gb445, 46Gb446, 46Gb447, 46Gb448, 46Gb449, and 46Gb450. Site 46Gb445 is a potential stone mound. Site 46Gb446 is a multicomponent artifact scatter containing prehistoric lithic debris and historic-period refuse. Sites 46Gb447 and 46Gb448 are possible historic-period gravesites. Sites 46Gb449 and 46Gb450 are prehistoric lithic scatters of unknown cultural and temporal affiliation.

A technical report detailing information generated by the survey was submitted on January 28, 2009 (Meece and Smith 2008). In response, the WVSHPO issued a comment letter dated March 9, 2009, stating that the report satisfactorily addressed their concerns regarding the presence of intact archaeological resources within the area proposed for the construction of the Beech Ridge Wind Energy Facility (Appendix A).

In early April 2009, CRA was notified by Beech Ridge that Phase I survey was required for the location of a proposed construction laydown and batch plant; this area was not examined during the 2008 survey. The proposed tract incorporates approximately 8.9 ha (22.1 ac), and is located east of the proposed operations and maintenance facility (Figures 2 and 3).

Phase I survey of the area selected for the proposed laydown and batch plant was examined by CRA during the period April 6-8, 2009. The purpose of the survey was to examine the tract for any archaeological sites that might be present. Project mapping was provided by Beech Ridge.

Fieldwork was conducted by project archaeologists William D. Updike and Jamie S. Meece, with assistance from Richard Butler, Amber Hill, and Simone Kompaneck. The lithic analysis was conducted by Jamie S. Meece. Michael Anslinger served as principal investigator, over-seeing all aspects of the survey.

II. PURPOSE AND SCOPE

For the purpose of this project, a Phase I archaeological survey is defined as a reconnaissance-based survey designed to document and evaluate archaeological sites. An archaeological site is defined as any belowground remains and/or aboveground ruins of a district, site, building, structure, or...
object 50 years of age or older. A **historic property** is defined as any archaeological site determined to be eligible for inclusion in the NRHP. An **effect** is defined as any activity that alters a characteristic of a historic property qualifying it for inclusion in, or eligibility to, the NRHP.

The 8.9-ha (22.1-ac) project area is considered the direct Area of Potential Effects (direct APE) as defined by 36 CFR 800.16 (d). CRA understands that the indirect APE and indirect effects to historic properties from the Beech Ridge Wind Energy Facility have previously been addressed. Therefore, the sole purpose of this report is to address direct effects to archaeological sites located within the footprint of proposed construction laydown and batch plant.

The Beech Ridge Wind Energy Facility is subject to review by the West Virginia Public Service Commission (WVPSC). To meet WVPSC conditions, the project requires consultation with the WVSHPO concerning effects to historic properties.

Consultation between Beech Ridge and the WVSHPO lead to the execution of a Memorandum of Agreement (MOA), which included programmatic language requiring archaeological work prior to the initiation of construction activities (Appendix B). The results of the archaeological investigation reported herein were prepared to meet the requirements of Stipulation B.1 of the MOA. As required by Stipulation B.1.a of the MOA, a Scope of Work (SOW) for conducting Phase I archaeological survey for the Beech Ridge Wind Energy Facility was developed in consultation with the WVSHPO (see Meece and Smith 2008). The tasks completed to address the SOW for the current project followed the same guidelines and conditions developed for the original survey.

### III. PROJECT AREA DESCRIPTION

The current project area consists of approximately 8.9 ha (22.1 ac) located on slightly sloping ridgetop just north of Beech Ridge road, southeast of Little Beech Knob and northeast of Tipple in Williamsburg District, Greenbrier County, West Virginia (Figures 2-4).

Elevations range from approximately 1,197.2 m (3,928 ft) to 1,213.4 m (3,981 ft) above msl. Vegetation is predominately low grasses, and much of the area exhibits evidence of ground disturbance resulting primarily from the burning of vegetation and plowing likely associated with historic and/or modern agricultural activities. Primary surface drainage is provided by Maple Branch and Long Branch, which flow into the North Fork of Big Clear Creek.

#### Project Soils

The general soils map of Greenbrier County indicates that the project area is located within the Dekalb-Gilpin-Laidig-Cookport soil association. Soils in the Dekalb-Gilpin-Laidig-Cookport association are moderately deep-to-deep, well-drained to moderately well-drained, very steep to gently sloping, very stony soils along high mountains (Gorman et al. 1972).

Specific soils in the project area consist of Dekalb channery loam (DcC), and Dekalb-Cookport loams (DoB) (Gorman et al. 1972: Soil Map 12). Dekalb channery loam is described as moderately deep, gently sloping to very steep, well-drained soil that contains many small rock fragments. This soil type is usually widely distributed on upland and mountain slopes, with slopes ranging from 12 to 25 percent (Gorman et al. 1972:15). Dekalb-Cookport loams complex is described as moderately deep, gently sloping to very steep, well-drained soil located mostly on broad ridgetops, but can occur on benches. Slopes range from 3 to 12 percent (Gorman et al. 1972:16).
Figure 2. Overview showing previous survey and new proposed laydown and batch plant location.
Figure 3. Portions of USGS 7.5-minute 1972 (1981) Duo, WV quadrangle showing project area and 46Gb467.
Figure 4. Portion of orthophotograph showing project area and 46Gb467.
IV. METHODS

Methods used to complete the survey and report followed guidelines developed by the WVSHPO (Trader 2001).

Field Methods

Identification of Project Boundaries

Field personnel used Garmin GPSMap 60CSx Chartplotting receivers, henceforth referred to as units, to verify locations in the field. Project boundaries, as mapped by Beech Ridge were first plotted onto the USGS 7.5-minute Duo quadrangle using the track function in Maptech Terrain Navigator software. Maps for use with the units were downloaded from the Garmin MapSource Eastern United States Topographic Maps CD-ROM. The datum used by both packages of software was set to NAD 1983. The geo-referenced tracks created in Maptech Terrain Navigator were loaded directly onto the units and appeared as an overlay on the Duo quadrangle. The units were then used in the field to verify crew location in relation to project area boundaries.

Pedestrian Survey

The entire 8.9-ha (22.1-ac) tract was examined systematically by walkover survey. Due to favorable conditions, survey transects were spaced at 15-m (49-ft) intervals. The purpose of the survey was to identify surface sites (e.g., mounds, foundations, cemeteries) that might be present.

Shovel Probing

The subsurface of the entire 8.9 ha (22.1 ac) tract was sampled through the excavation of shovel test probes (STPs). To the extent possible, STPs were placed on grid at 15-m (49-ft) intervals. Excavated soil was sifted through 0.64-cm (0.25-in) mesh hardware cloth. STPs measured approximately 50 cm (20 in) in diameter and were excavated into culturally sterile subsoil. A representative sample of soil profiles was documented, with information for soil horizons, texture, structure, Munsell color, and the presence or absence of natural or cultural inclusions recorded. All STPs were backfilled.

Documentation

All aspects of the field investigation were documented through the completion of notes, standardized forms developed by CRA, and digital color photography. All data recovered from the Phase I investigation was collected and returned to CRA’s West Virginia office for analysis.

V. RESULTS

Systematic survey of the project area resulted in the identification of one previously undocumented archaeological site assigned trinomial 46Gb467 by the WVSHPO. The site is a low-density prehistoric lithic scatter of unknown cultural and temporal affiliation. A West Virginia Archaeological Site Form for 46Gb467 is in Appendix C.

VI. SITE DESCRIPTIONS AND EVALUATIONS

46Gb467

Quadrangle: 1972 (1981) USGS 7.5-minute Duo, WV
UTM Location: Z-17, 4218343N, 0535642E (NAD 83)
Elevation: 1203.9 m (3950 ft) above msl
Size: 45.0-x-120.0 m (147.6-x-393.7 ft)
Component: Unassigned Prehistoric
Topographic Setting: Ridgetop
Closest named water: Maple Branch and Long Branch
Type of nearest water: Permanent
Slope: 3-35 percent
Soil: Dekalb-Cookport loams (DoB) & Dekalb Channery loam (DcC)

Description

Site 46Gb467 is a low-density prehistoric lithic scatter of unknown cultural and temporal affiliation located on slightly sloping ridgetop along Beech Ridge, just southeast of Little Beech Knob and northeast of Tipple.
The extent of the site was established on the basis of the spatial distribution of positive STPs. Based on field observations, the integrity of the site has been negatively impacted by agricultural activities.

**Archaeological Investigations**

At the time of the survey, the area was a fallow agricultural hay field (Figure 5). Forty-eight STPs were excavated within and adjacent to the site. Ten of these were positive for archaeological materials (Figure 6). Artifact-bearing deposits were restricted to shallow subsurface contexts associated with the soil A/B transition horizon. Careful examination of the soil profiles and screened deposits failed to discover any evidence of cultural features or midden.

The representative soil profile for this site, as documented in STP B01, consists of clay loam A horizon extending to a depth of approximately 19 cm (7.5 in), overlying very dark grayish-brown clay loam B horizon that extends below the base of the STPs. The latter includes approximately 10-15 percent natural sandstone inclusions.

The upper 9 cm (3.5 in) of the A or Ap horizon at the site and in the larger project area, which is black (10YR2/1), contains a high density of charcoal and is clearly discernable from the lower part of the A or Ap horizon which is very dark grayish-brown (10YR3/2) (Figures 6 and 7). The origin of the charcoal is not known, although it obviously represents one or more historic/modern burn events.

![Figure 5. Site overview looking east, 46Gb467.](image-url)
Figure 6. Site plan map, 46Gb467.
Materials Recovered

The site assemblage consists of 12 lithic artifacts (Table 1). Five fragments of Size Grade 1 lithic debitage were recovered from four positive STPs, and seven fragments of Size Grade 2 lithic debitage were recovered from six positive STPs. Five flakes were manufactured from Hillsdale chert, one from Kanawha chert High Quality, and one from Kanawha chert Gray/Tan variety. Of these twelve pieces of lithic debitage, only one retains cortex. One flake recovered from STP D01 was lost in the field.

No temporally or culturally diagnostic artifacts were recovered from the site, nor was evidence of floral or faunal remains, fire-cracked rock, midden, or cultural features identified.

Discussion

Current data suggest 46Gb467 is a prehistoric site containing a paucity of non-diagnostic material from a non-stratified deposit lacking evidence of cultural features or midden.

NRHP Evaluation: Not Eligible

It is the recommendation of CRA that 46Gb467 is unlikely to produce information important to understanding local and/or regional prehistory. Site 46Gb467 is recommended not eligible for inclusion in the NRHP.

Management Recommendation: No Further Investigation:

No further investigation of 46Gb467 is warranted.
Table 1. Debitage by Size Grade and Raw Material, 46Gb467.

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<th>Provenience</th>
<th>Raw Material</th>
<th>Size</th>
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<th>Number with Cortex</th>
<th>Weight (g)</th>
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<td>Kanawha High Quality</td>
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VII. CONCLUSIONS AND RECOMMENDATIONS

Systematic survey of the approximately 8.9-ha (22.1-ac) tract selected for the construction laydown and batch plant identified one previously undocumented, prehistoric low-density lithic scatter of unknown cultural and temporal affiliation, assigned trinomial 46Gb467 by the WVSHPO. Not unlike other sites in the region, 46Gb467 appears to represent a short-term station or camp of unknown age and cultural affiliation, at which activities included lithic reduction. Site deposits are contained in a shallow deposit and lack stratification. Although not clearly discernable, it is likely that the A horizon at the site, and larger project area in general, has been plowed on some occasions. Extant data indicate the site has low potential to produce information important to furthering our understanding of local or regional prehistory.

Based on these conclusions, the following recommendations are made:

1. Site 46Gb467 is not eligible for inclusion in the NRHP;
2. No additional archaeological investigations are warranted for 46Gb467;
3. No additional archaeological investigations are warranted for the larger project tract in general, and
4. Should evidence of intact archaeological deposits or human burials be identified during construction or project activities, work in the area of discovery should cease, and the West Virginia Public Service Commission and the West Virginia State Historic Preservation Office should be notified immediately of the discovery.

REFERENCES


Trader, Patrick D.
2001 Guidelines for Phase I Surveys, Phase II Testing, Phase III Mitigation and Cultural Resource Reports. Ms on file at Division of Culture and History, Charleston, WV.
APPENDIX A

WVSHPo CORRESPONDENCE
March 9, 2009

Mr. Erik Duncan
Beech Ridge Energy, LLC
Inenergy, LLC
7564 Standish Place
Suite 123
Rockville, MD 20855

RE: Beech Ridge Wind Energy Facility
Phase I Archaeological Survey
FR#: 06-147-GB-25

Dear Mr. Duncan:

We have reviewed the report titled *Phase I Archaeological Survey of the Beech Ridge Wind Energy Project and Associated Transmission Support Line, Greenbrier and Nicholas Counties, West Virginia*, which was submitted for the above referenced project. The following comments are offered under West Virginia Code 29-1-8.

The report satisfactorily addresses our concerns regarding the presence of intact archaeological resources within the area proposed for construction of the above referenced project. According to the report, 4 new archaeological sites, 46Gb445, 46Gb446, 46Gb449 and 46Gb450, and two possible historic period grave sites, 46Gb447 and 46Gb448, were identified during the survey. Portions of the project area where sites were identified are the access roads for Turbines D-4 and C-6, Turbines C-3, E-24/E-25 and J-10 and the proposed location of the operation and maintenance facility.

Archaeological Resources:
Sites 46Gb449 and 46Gb450 consist of low density lithic scatters from an unknown prehistoric period. It is our understanding that all artifacts were recovered from the soil O/A Horizons and that no evidence was observed suggesting the presence of cultural features, midden or stratified deposits. We concur that these sites are not likely to produce significant information and as such, are not eligible for inclusion in the National Register of Historic Places. No further work is necessary for these resources.

Site 46Gb446 is a multicomponent site consisting of an intermixed scatter of historic and prehistoric period artifacts along an existing access road in the vicinity of Turbine C-6. Project plans propose to upgrade this access road. It is our understanding that the prehistoric component of the site produced an ephemeral scatter of non-diagnostic lithic debris and that the historic component consists of an ephemeral scatter of domestic and architectural debris. Because diagnostic materials, subsurface cultural features or midden and stratified deposits were not identified at 46Gb446, we concur that the portion of the site within the project area (or direct APE) lacks research potential and is not eligible for inclusion in the National Register of Historic Places.

Site 46Gb446 also contains a series of stone piles and section of a stone wall. Because there was an historic era farm at this location, the stone piles have been interpreted to be the result of field clearing activities. Shovel probes in the vicinity of the stone piles did not result in the recovery of cultural materials. However, the stone piles themselves were not investigated. Consequently, their cultural association is tentative and their historic significance is unknown. It is our understanding that the stone piles and stone wall are located outside the direct APE and will not be impacted by the proposed turbine construction or access road upgrade. Provided that they are avoided by proposed construction activities, it is our opinion that this project will have no effect to this part of 46Gb446. Please notify this office if 46Gb446 cannot be avoided.
Mr. Duncan  
FR# 06-147-GB-25  
March 9, 2009  
Page 2

Site 46Gb445 consists of a stone mound that was identified along the proposed route of the access road for proposed Turbine D-1. Although no artifacts were recovered from shovel probes excavated in the vicinity of the stone mound, its size and shape are similar to others that have been determined to be prehistoric burial mounds. As a result, we concur with the recommendation that 46Gb445 be avoided by the proposed project and strongly advise that alternatives be considered. If it cannot be avoided, Federally recognized Native American Tribes will need to be notified and invited to participate in consultation. We also concur that Phase II investigations will need to occur to determine the eligibility of this resource. Provided that this resource is avoided by proposed construction activities, it is our opinion that this project will have no effect to 46Gb445. Please notify this office if 46Gb445 cannot be avoided.

Cemetery Resources:
It is our understanding that two possible grave sites, 46Gb447 and 46Gb448, were identified within the proposed project area. Grave 46Gb447 was identified at the proposed location of Turbine C-3, while grave 46Gb448 was found along the proposed access road between the proposed locations of Turbines E-24 and E-25. Both possible graves are marked by upright, uncarved fragments of sandstone. In addition, pedestrian investigation of the area surrounding each possible grave failed to discover evidence of other graves or markers, fencing, ornamental plantings or other cultural features typically associated with cemeteries. Currently, very little is known about the possible graves. As a result, the report recommends that they be avoided by the proposed project or undergo Phase II National Register assessment. While we concur that 46Gb447 and 46Gb448 should be avoided by construction activities associated with this project, it is our opinion that they do not meet the criteria to consider them eligible for listing in the National Register of Historic Places.

We appreciate the opportunity to be of service. If you have questions regarding our comments or the Section 106 process, please contact Lora A. Lamarre, Senior Archaeologist at (304) 558-0240.

Sincerely,

Susan M. Pierce  
Deputy State Historic Preservation Officer

SMP/LAL
APPENDIX B

MOA FOR BEECH RIDGE WIND ENERGY FACILITY
MEMORANDUM OF AGREEMENT

Whereas, Beech Ridge Energy LLC (Beech Ridge) has determined that the proposed Beech Ridge Wind Energy Wholesale Electric Generating Facility and Related Transmission Support Line (Beech Ridge Wind Energy Facility), located in Greenbrier County may potentially have an effect on historic resources and;

Whereas after public notice and public hearings affording the public reasonable opportunity to participate in the review process, the West Virginia Public Service Commission (PSC) issued an order dated August 28, 2006 granting Beech Ridge Energy LLC a Siting Certificate to construct and operate the Beech Ridge Wind Energy Facility and;

Whereas the Certificate contains a condition that Beech Ridge shall receive all necessary agency approvals including that of the West Virginia Division of Culture and History - State Historic Preservation Office (WVSHPO) and;

Whereas Beech Ridge has consulted with the WVSHPO pursuant to 82 CSR 2 Standards and Procedures for Administering State Historic Preservation Programs implementing West Virginia Code 29-1-8(a) including identification of historic resources listed in or eligible for the National Register of Historic Places and assessment of possible effects to these resources and;

Whereas, Beech Ridge has conducted a survey of above ground historic resources located within the defined Area of Potential Effect and received concurrence from the WVSHPO regarding their eligibility according to the Criteria of Evaluation for listing in the National Register of Historic Places and;

Whereas, Beech Ridge has agreed to complete stipulations regarding the identification, evaluation of eligibility and assessment of effects regarding archaeological resources as elaborated below and;

Whereas, it is agreed that the potential adverse effects to above ground historic resources cannot be reasonably eliminated due to the nature of the Project and the necessary wind turbine height; and
Beech Ridge has identified and analyzed the potential alteration of the view shed and subsequent impact to the historic resources in the report entitled, "Assessment of Effects for the Proposed Beech Ridge Energy Facility," dated February 15, 2008, prepared by BHE Environmental, Inc., for the WVSHPO;

Now therefore, Beech Ridge and the WVSHPO agree that the following will be implemented to address the PSC Certificate condition and the potential effect of the Project on historic resources:

**STIPULATIONS**

**A. Mitigation of Visual Effects to Above Ground Historic Resources**

1. Beech Ridge will provide up to six copies of the completed survey, entitled "Architectural Investigations for the Proposed Beech Ridge Energy Facility," dated March 16, 2007, in hard-copy format and in electronic format on compact disk (CD) for deposit in the Greenbrier County Public Library, Greenbrier Historical Society (GHS), Williamsburg District Historical Foundation (WHF) in Greenbrier County, the Summersville and Richwood public libraries in Nicholas County, and the Nicholas County Historical & Genealogical Society.

2. Beech Ridge will provide one-time monetary funding of up to $10,000 or in-kind service of equivalent value for future assistance in historic preservation-related activities conducted for or by the WVSHPO and/or WHF that fall within the defined WVSHPO historic preservation program activities. Proposed activities shall focus upon the communities visually impacted by the Beech Ridge Energy Facility. This funding will be available at any time for a period of two years following notification by Beech Ridge to the WVSHPO of initiation of construction at the Beech Ridge site. An approved scope of work by the WVSHPO will be submitted to Beech Ridge.

3. Upon notification by WVSHPO, but no earlier than the initiation of construction of the Beech Ridge Wind Energy Facility, Beech Ridge shall provide said funding or in-kind services to WVSHPO and/or WHF for the approved historic preservation activities.

4. After fulfillment of the conditions described above or the expiration of the two year period following initiation of construction without a request from WVSHPO or WHF for funding, Beech Ridge
will have satisfied its mitigation requirements for this specific stipulation.

**B. Identification and Mitigation Efforts for Archaeological Resources**

1. Prior to the initiation of any construction activities that could potentially disturb or damage archaeological resources, Beech Ridge shall carry out archaeological investigations in accordance with WVSHPO Guidelines for Phase I, II, and III Archeological Investigations and Technical Reports, published in 2001 and in accordance with the methodology set forth in this Memorandum of Agreement. Beech Ridge shall ensure that all scopes of work for archaeological identification and evaluation include a plan for the treatment of human remains and funerary objects that might be encountered.

   a) Phase I Archaeological Survey. Beech Ridge shall ensure that a Phase I Scope of Work will be developed in consultation with WVSHPO. Phase I work will be designed to provide information regarding the significance of all identified archaeological sites as “site is not eligible” or “eligibility of site is indeterminable” to the National Register of Historic Places (NRHP). This work will be done in consultation with WVSHPO and all deliverables will be submitted for WVSHPO review and comment.

      1) If Beech Ridge and the WVSHPO agree that a “site is not eligible” for the NRHP, then no further investigations of that site will be conducted.

      2) If Beech Ridge and the WVSHPO agree that a site with indeterminable eligibility can and will be avoided by the Beech Ridge Wind Energy Facility, which would be the preferred option, then no further investigation of that site will be conducted, unless avoidance no longer becomes feasible.

   b) Phase II Archaeological Testing. If all parties agree that the “eligibility of a site is indeterminable” and avoidance is not feasible, Beech Ridge shall ensure that a Phase II Research Design will be developed in consultation with the WVSHPO. This document will be consistent with WVSHPO guidelines. Phase II work will be designed to provide information regarding the significance of an archaeological site as “site is not eligible” or
“site is eligible” to the NRHP. This work will be done in consultation with WVSHPO and all deliverables will be submitted for WVSHPO review and comment.

1. If Beech Ridge and WVSHPO agree that a “site is not eligible” for the NRHP, then no further investigations of that site will be conducted.

2. If Beech Ridge and WVSHPO cannot agree regarding eligibility, all appropriate information regarding the site will be submitted by Beech Ridge to the Keeper of the National Register, National Park Service, for review. The Keeper's determination of eligibility will be final.

3. If Beech Ridge and WVSHPO agree that an eligible site can and will be avoided by the Beech Ridge Wind Energy Facility, which would be the preferred option, then no further investigation of that site will be conducted, unless avoidance no longer becomes feasible.

c) Application of Criteria of Adverse Effects. If parties agree that the “site is eligible” and avoidance is not a feasible alternative, then Beech Ridge will consult with WVSHPO to apply the criteria of adverse effects. This work will be completed in consultation with WVSHPO guidelines and all deliverables will be submitted for WVSHPO review and comment.

1. If following the application of the criteria of adverse effects, parties agree that the Beech Ridge Wind Energy Facility will have “no effect” or “no adverse effect” on an eligible site, then no further investigations of that site will be conducted.

2. If parties agree that the Beech Ridge Wind Energy Facility will have an “adverse effect” on an eligible site, but the project is subsequently redesigned to avoid adverse effects, then the finding would be changed to “no effect”. Beech Ridge shall provide written documentation demonstrating avoidance for WVSHPO concurrence.

3. If continued design of the project determines that avoidance is no longer feasible, the effect will be reassessed.
d) Phase III Archaeological Data Recovery. If all parties agree that the Beech Ridge Wind Energy Facility will have an “adverse effect“ on an eligible site and avoidance is not a feasible option, then Beech Ridge will consult with WVSHPO to identify measures to minimize and mitigate the adverse effect to the site. Beech Ridge shall ensure that a Data Recovery Plan will be developed in consultation with WVSHPO. The plan will be consistent with WVSHPO guidelines. The Phase III work will be designed to recover, interpret, and disseminate significant data for any eligible site. This work will be completed in consultation with WVSHPO guidelines and all deliverables will be submitted for WVSHPO review and comment.

1. Following WVSHPO review and approval of Phase III deliverables, no further investigations of that site will be conducted, unless an unanticipated post-review discovery is made.

c) Post-review discoveries.

In the event of any unanticipated discoveries of archaeological sites, unmarked cemeteries, or human remains and associated funerary objects during the implementation of the Beech Ridge Wind Energy Facility, all activities will be suspended in the area of discovery. Beech Ridge will contact WVSHPO within 48 hours of the discovery. In consultation with WVSHPO, Beech Ridge shall ensure that, if necessary, a qualified archaeologist will visit and assess the discovery within 72 hours of the initial WVSHPO notification. Through consultation, Beech Ridge and WVSHPO shall agree upon the appropriate treatment of the discovery prior to resumption of construction activities in the area of discovery. If human remains are determined to be of Native American origin, WVSHPO, in consultation with Beech Ridge, shall comply with W. Va. Code §29-1-8a. Beech Ridge affirms that all human remains will be avoided by direct construction impacts where feasible.
3. Dispute Resolution

During the execution of the stipulations as outlined above, should Beech Ridge and the WVSHPO be unable to reach a mutually satisfactory decision, except as noted, the WVSHPO will provide written comments to Beech Ridge. Beech Ridge shall respond to WVSHPO comments. This exchange of correspondence shall demonstrate that Beech Ridge has afforded the WVSHPO an opportunity to comment and considered potential effects to historic resources. All stipulations not subject to the dispute shall remain in force.

4. Reporting

Should there be an interruption of activity associated with the project for any significant length of time, Beech Ridge will provide at the minimum every six months a project status letter regarding the completion of work associated with the above stipulations.

5. Amendment

Beech Ridge and the WVSHPO may request an amendment to this agreement and consult with the other party prior to execution.

Execution of this Memorandum of Agreement by the Consulting Parties evidences that Beech Ridge has afforded the WVSHPO an opportunity to comment on the Project and its effects on historic properties and that Beech Ridge has addressed the Siting Certificate's condition of coordination with the WVSHPO in this regard.
CONSULTING PARTIES:

Susan S. Pierce 7/31/08
West Virginia State Historic Preservation Office Date

David Andrews 8/4/08
Beech Ridge Energy LLC Date

1104590
WEST VIRGINIA ARCHAEOLOGICAL SITE FORM

1. Site No(s) 46Gb467
2. Site Name

3. County: Greenbrier

5. UTM Zone 17
   Northing 4218343
   Easting 0535642
   Datum NAD 83

6. Location Description
   The site is located on Beech Ridge, just southeast of Little Beech Knob and northeast
   of Tipple and is situated on a slightly sloping ridgetop along the Monongahela National
   Forest Boundary.

7. Ownership (Name/Address/Tenant) Unknown

8. Temporal Periods:
   Prehistoric
   ✔ Unassigned
   □ Paleo-Indian
   □ Archaic, E M L
   □ Woodland, E M L
   □ Late Prehistoric/Protohistoric
   Historic
   □ 1700-1750
   □ 1751-1800
   □ 1801-1850
   □ 1851-1900
   □ 1901-1950
   □ 1951-Present

9. Cultural Affiliations(s), if known

10. Prehistoric Site Type:
    □ Isolated Find
    □ Open Air Habitation (Village/Camp/Hamlet)
    □ Cave/Rock Shelter
    □ Mound/Earthwork
    ✔ Lithic Scatter
    □ Rock Art (Petroglyph/Pictograph)
    □ Unknown
    □ Quarry/Reduction

   Remarks:

11. Historic Site Type:
    □ Domestic
    □ Industrial
    □ Military
    □ Cemetery
    □ Rural
    □ Other
    □ Urban (Tax Map 3......... Parcel # ..........)
    □ Unknown

   Remarks:

12. Site Condition:
    □ Unknown
    □ Undisturbed
    □ Destroyed
    ✔ Disturbed (explain): The site is located in an old field which mostly likely has been plowed for
    years; this has distributed artifacts over a larger area.

13. Topography/Landform:
    □ Floodplain
    □ Terrace 1
    □ 2
    □ 3
    □ Ridge Top
    □ Gap/Saddle
    □ Hillside/Bench
    □ Other:
    Remarks:
14. Physiographic Province:

☑ Appalachian Plateau  ☐ Transitional  ☐ Ridge and Valley

☐ Other

15. Soils Dekalb-Cookport loams (DoB) & Dekalb Channery loam (DcC)

16. Vegetation Grasses


20. Nearest Water (Name) Long and Maple Branch ☑ Permanent ☐ Intermittent

21. Site Size (Dimensions in Meters) 120 NS-x-45 EW

22. Site Description (Note features, present land use, etc.) See Continuation Sheets

23. Investigation Type:

☑ Reconnaissance (Surface survey, shovel tests) ☐ Intensive (Phase II Testing) ☐ Excavation (%)


Remarks:

25. Site Significance: (For Official Use Only)

☐ NHL ☐ Not Evaluated ☐ National Register

☐ Considered Eligible ☐ Not Eligible

26. Artifacts Collected: ☐ All ☑ Some ☐ None

Check types collected:

☑ Lithics ☐ Ceramics ☐ Floral ☐ Faunal ☐ Historical ☐ Other

Remarks: See Continuation Sheets

27. Curation Location: Cultural Resource Analysts, Inc: Hurricane, WV (Temporary)

28. Recorder: Jamie S. Meece, RPA  Date: April 9, 2009

Cultural Resource Analysts, Inc., 3556 Teays Valley Road, Suite 3, Hurricane, West Virginia 25526

29. Map/References (Attach quad map or sketch location with nearest landmarks and include north arrow. Also note references, if any.) See Continuation Sheets
Site #: 46Gb467
Site Name: Cultural Resource Analysts, Inc.
County: Greenbrier
Page: 3 of 4

Portions of USGS 7.5' 1972 (1981) Duo, WV Quadrangle showing the location of 46Gb467.
Site 46Gb467 is a low-density prehistoric lithic scatter of unknown cultural and temporal affiliation located on slightly sloping ridgetop along Beech Ridge, just southeast of Little Beech Knob, and northeast of Tipple. The extent of the site was established on the basis of the spatial distribution of positive STPs. Based on field observations, the integrity of the site has been negatively impacted by agricultural activities.

At the time of the survey, the area was a fallow agricultural hay field. Forty-eight STPs were excavated within and adjacent to the site. Ten of these were positive for archaeological materials. Artifact-bearing deposits were restricted to shallow subsurface contexts associated with the soil A/B transition horizon. Careful examination of the soil profiles and screened deposits failed to discover any evidence of cultural features or midden.

The representative soil profile for this site, as documented in STP B01, consists of clay loam A horizon extending to a depth of approximately 19 cm (7.5 in), overlying very dark grayish-brown clay loam B horizon that extends below the base of the STPs. The latter includes approximately 10-15 percent natural sandstone inclusions.

The upper 9 cm (3.5 in) of the A or Ap horizon at the site and in the larger project area, which is black (10YR2/1), contains a high density of charcoal and is clearly discernable from the lower part of the A or Ap horizon which is very dark grayish-brown (10YR3/2). The origin of the charcoal is not known, although it obviously represents one or more historic/modern event.

The site assemblage consists of 12 lithic artifacts. Five fragments of Size Grade 1 lithic debitage were recovered from four positive STPs, and seven fragments of Size Grade 2 lithic debitage were recovered from six positive STPs. Five flakes were manufactured from Hillsdale chert, one from Kanawha chert High Quality, and one from Kanawha chert Gray/Tan variety. Of these twelve pieces of lithic debitage, only one retains cortex. One flake recovered from STP D01 was lost in the field. No temporally or culturally diagnostic artifacts were recovered from the site, nor was evidence of floral or faunal remains, fire-cracked rock, midden, or cultural features identified.

Current data suggest 46Gb467 is a prehistoric site containing a paucity of non-diagnostic material from a non-stratified deposit lacking evidence of cultural features or midden. It is the recommendation of CRA that 46Gb467 is unlikely to produce information important to understanding local and/or regional prehistory.