

# Aikengall II Windfarm

## *Innerwick, East Lothian*

---

Archaeological Evaluation: September 2013  
Data Structure Report

for

Community Windpower Ltd.



*View of Trench 3 under excavation*



**Addyman Archaeology**

*Building Historians & Archaeologists*

a division of Simpson & Brown Architects

St Ninian's Manse Quayside Street Edinburgh EH6 6EJ

Telephone 0131 555 4678 Facsimile 0131 553 4576

admin@addyman-archaeology.co.uk www.simpsonandbrown.co.uk

**Aikengall II Windfarm**  
***Innerwick, East Lothian***

---

*Archaeological Evaluation (AA 2079.01)*

*September 2013*

by Kenneth Macfadyen, Ross Cameron and Louise Turner

Edited by Ross Cameron

*Contents*

*Executive Summary*

1. *Introduction*
  - i. *General*
  - ii. *Setting*
2. *Brief Historical Summary*
  - i. *The Cultural Heritage Assessment*
  - ii. *Map Regression*
3. *Evaluation Methodology*
4. *Evaluation Results*
  - i. *Trench 1*
  - ii. *Trench 2*
  - iii. *Trench 3*
  - iv. *Trench 4*
5. *Archaeological Environmental Impact Assessment – Peat Levels*
6. *Summary and Discussion*
  - i. *Evaluation*
  - i. *Archaeological Environmental Impact Assessment*
7. *Mitigation and Recommendations*
8. *Acknowledgements*

*Bibliography*

- Appendix A*** ***Photographic Register***  
***Appendix B*** ***Photographic Thumbnails***  
***Appendix C*** ***Context Register***  
***Appendix D*** ***Maps consulted for map regression***  
***Appendix E*** ***Community Windpower Ltd. Peat Survey Assessment; Aikengall II Windfarm***  
***Appendix F*** ***Provisional Discovery and Excavation (DES) Scotland Entry***

All photographs and drawings in this report are by the authors unless stated.

# Aikengall II Windfarm

## *Innerwick, East Lothian*

---

### Archaeological Evaluation– September 2013

#### *Executive Summary*

Addyman Archaeology were commissioned by Community Windpower Ltd. to complete an Archaeological evaluation ahead of the proposed development of Aikengall II Windfarm in East Lothian. This was to be complimented by an assessment on site for the potential of archaeological environmental remains. The site is located around 5km S of the burgh of Innerwick, and c.4km SW of Oldhamstocks.

Four trenches were to be excavated across two features identified in the preliminary assessment. The first two trenches were opened across a possible drove road. Comparatively little that could be attributed to its original construction or early use was found. Most of the deposits encountered could be considered evidence for wheel rutting of more recent times, likely relating to heavy machinery, tractors, etc. Potentially some of the features revealed could represent earlier cart ruts though the extent of the churning suggests heavy machinery.

The two trenches across the banked enclosure proved it to be at least in part built from turf (to the W) and of banked natural clays (to the E), apparently using the local deposits to form the bank. Ditches identified on either side of the bank are likely to be the quarries for the material to construct the bank. The interior of the enclosure was shown in Trench 3 to contain some degree of surfacing or metalling.

With the four trenches some dating evidence was hoped for but no artefactual materials were recovered to indicate age.

The assessment of peat depths across site demonstrated these to be predominantly less than 0.30m in depth. While studies have shown such peatlands across East Lothian to contain excellent potential for unaltered paleoenvironmental environments, none have been noted within the development area directly affected by the Aikengall II development.

A record of the evaluation has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID addymana1-159652) and with Discovery and Excavation in Scotland (DES), the annual publication of fieldwork by Archaeology Scotland.

#### ***1. Introduction***

##### *i. General*

Addyman Archaeology were contracted by Community Windpower Ltd. to undertake an Archaeological evaluation and Archaeological Environmental Impact Assessment in advance of the proposed development of Aikengall II Windfarm near to the burgh of Innerwick and the village of Oldhamstocks – see *Figure 1*, location plan. This archaeological mitigation was undertaken in advance of construction of roads relating to the proposed development. The sites of these evaluations fall just within East Lothian, close to its border with The Scottish Borders.

Prior to the evaluation a *desk-based assessment* (DBA) was undertaken in 2009 by CFA Archaeology, in order to identify any known archaeological sites or other features of cultural heritage interest. This

research included an assessment of known historical features within the boundaries of the site and its immediate vicinity as well as a consultation of historic maps and aerial photographs of the proposed development area for Aikengall II. The DBA was followed by a walkover survey of the site.

One result of this assessment was that East Lothian Council Archaeology Service (contact Andrew Robertson) required the present evaluation exercise, to focus on two major identified features of the archaeological landscape. These comprised a drove road (marked as such on historic maps), and a massive banked enclosure. The Evaluation aimed to assess the character, extent and condition of these two features.

The evaluation was carried on the 24<sup>th</sup> and 25<sup>th</sup> of September 2013 by Kenneth Macfadyen and Jenni Morrison. Weather conditions were poor, with heavy fog and light rain on the 24<sup>th</sup> clearing towards the end of the day and heavy, constant rain with very poor visibility all day on the 25<sup>th</sup>.

A survey of peat depths across the site took place on the 19<sup>th</sup> and 20<sup>th</sup> April 2011 and was completed by Community Windpower Ltd. The data from this study was used by Addyman Archaeology to assess the potential for surviving archaeological environmental remains.

This report contains historic maps, reproduced by permission of the Trustees of the National Library of Scotland (NLS). To view these maps online, see <http://www.nls.uk>.

*ii. Setting*

Roughly centred on NT 7290 6796 (to the W of Dod Hill), the proposed development site of Aikengall II is located on an upland heather moorland between two large forestry plantations. The ground is largely covered dense heather and is very exposed to the elements.



*Plate 1 General view of open heath along line of drove road*

The underlying geology in the area of the evaluation is essentially conglomerate and sandstone of the Great Conglomerate Formation. This sedimentary bedrock formed approximately 359-444 million years ago in the Devonian and Silurian Periods and is characteristic of an environment predominantly characterised by rivers.

Where the overlying superficial geology was recorded, this was Till, Devensian – Diamicton, formed up to 2 million years ago in the Quaternary Period and characteristic of an environment previously dominated by Ice Age conditions.<sup>1</sup>

---

<sup>1</sup> [www.bgs.ac.uk/opengeoscience/](http://www.bgs.ac.uk/opengeoscience/) - 07/10/13



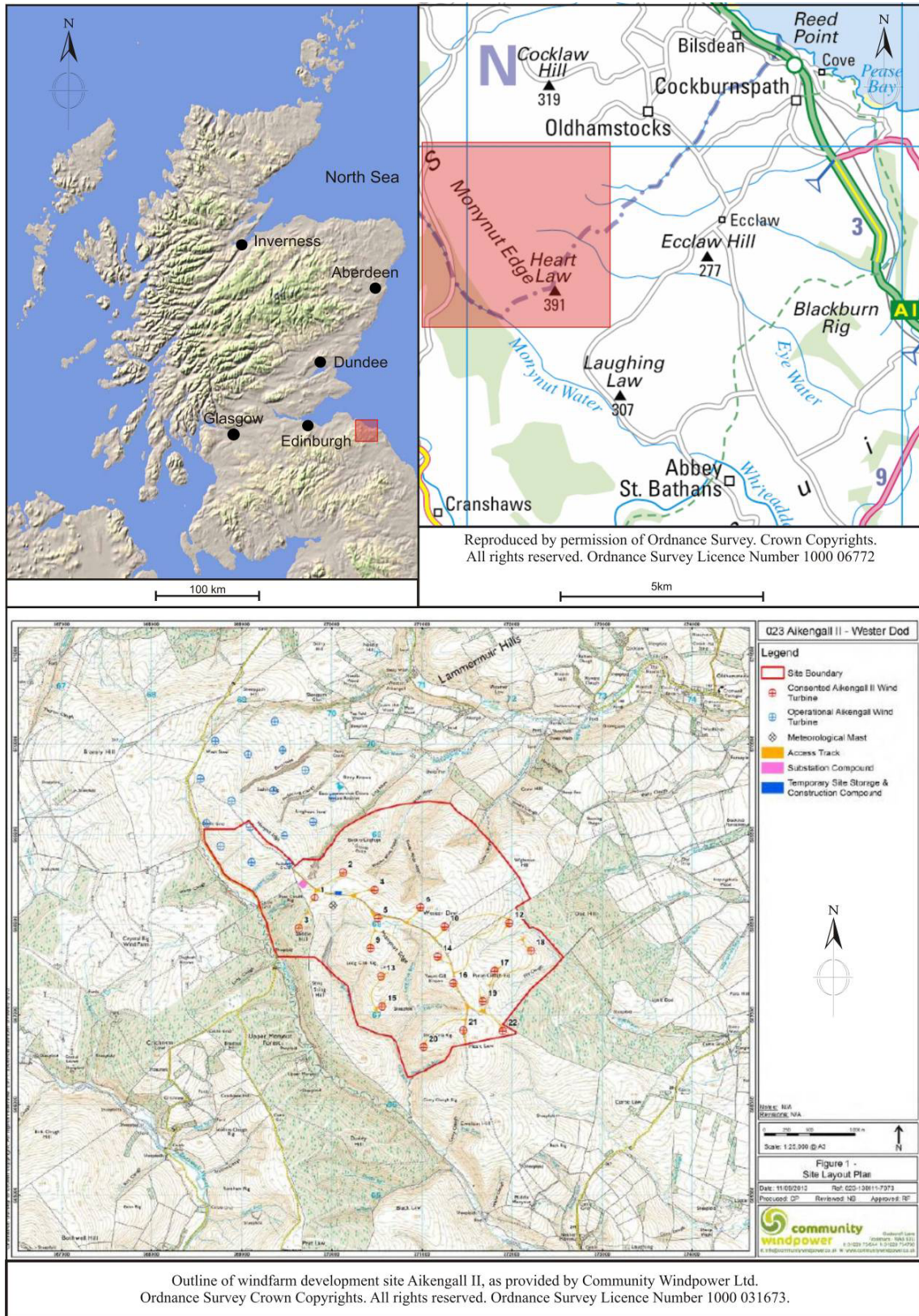


Figure 1 Site location

## 2. Brief Historical Summary

### i. The Cultural Heritage Assessment

An archaeological and cultural heritage assessment of the Aikengall II windfarm was completed in 2009.<sup>2</sup> This involved an assessment of the National Collection (NMRS via CANMORE and PASTMAP online resources) held by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) and of the Historic Environment Record (HER) for East Lothian and The Scottish Borders. There are no Scheduled Monuments or Listed Buildings within the development area.

The archaeological and cultural heritage assessment identified 14 sites within the boundaries of the Aikengall II windfarm. These essentially proved to be features or structures associated with medieval or later land usage.

A large, roughly rectangular enclosure was noted during the assessment and the walkover in addition to a drove road cutting NW-SE across the site (see *map regression* below).

### ii. Map Regression

Most of the pre-Ordnance Survey maps do not go into sufficient detail to allow identification of features within the site area. The site is fortunate enough to be covered by the maps of Timothy Pont, one of the earliest cartographers to provide mapping with any level of detail. The exact dates of Pont's life are unclear, but his 'Nithsdale; part of Teviotdale' has been dated to between c.1583-1596, providing a very early depiction of the site area. Pont's map is clearly skewed, thus the area of the proposed development can only be tentatively plotted. No sites are noted in this area, although the detail is insufficient to record anything other than a site of significant size.

By 1654 Joan Blaeu (*Figure 2*) produced his *Atlas of Scotland*, taken from the 16<sup>th</sup> century work of Timothy Pont. Blaeu's map of Mercia (1654) provided no new information, but it is notable that no woodlands were shown in the area.



Figure 2 Joan Blaeu's re-issue (1654) of Timothy Pont's map of ca. 1583-1596 showing the locations of Cockburnspath, the Monymutt Water, and the Middle and Nether Monymutt farms (NLS)

<sup>2</sup> CFA Archaeology Aikengall II – Wester Dod Community Windfarm – Environmental Statement, Section 9: Archaeological and Cultural Heritage Assessment





‘A map of East Lothian’ was surveyed by John Adair in the 1680's (*Figure 4*) and printed in Edinburgh in 1736 by Cooper. Adair's survey can be considered the first re-mapping of the development area post-Pont, however the map in its final form is very simple and shows little detail. It depicts two farms named Monynut, presumably Middle and Nether Monynut respectively. While some tree coverage is indicated in the wider area, only the farms are associated with tree symbols, but presumably only suggesting a settled place, rather than indicating actual tree coverage in these areas.

Although these early maps lack accuracy and detail, the general picture is clearly one lacking in any important historical occupation within the wider area of the site in this period apart from the two Monynut farms. Herman Moll's *The shire of Berwick alia the Mers or March and Lauderdale*, published 1732 shows insufficient detail for interpretation.

William Roy's military survey of Scotland conducted between 1747 and 1755 stands out as the first map with sufficient detail to analyse the development area (*Figure 5*). Roy's map clearly depicts the site area between the Monynut Water and Eye Water, and both farms of Middle and Nether Monynut are depicted, with areas of agricultural land around them. However, for the general development area no other features or landuse are depicted.



*Figure 5* Extract from William Roy's Military Survey of Scotland. Produced c.1750 this map has a remarkable level of detail. © The British Library Board. All Rights Reserved (Roy Military Survey of Scotland).





Figure 6 Detail of William Roy's Military Survey of Scotland, showing the area around the two Monymut farms.  
 © The British Library Board. All Rights Reserved (Roy Military Survey of Scotland)

The next map produced post-Roy is John Thomson's map of 'Haddington' in 1822. This map is the first depiction of the 'drove road', running NW-SE across the main development area with a branch splitting to the NE towards Wightman Hill and further diverging *en route*.

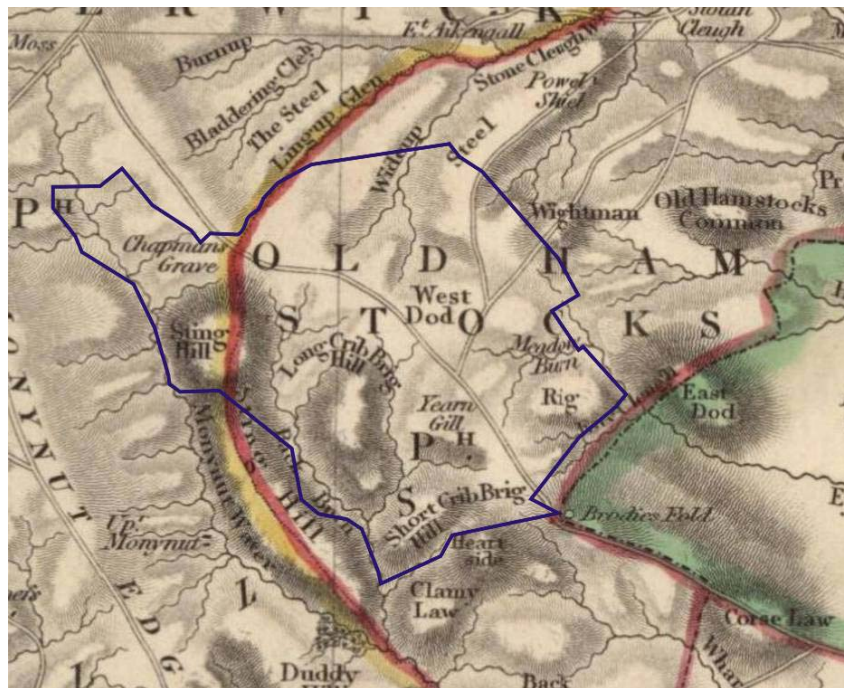


Figure 7 John Thomson's map of c.1832 showing Middle and Nether Monymut farms, and depicting a sheepfold to the north of Middle Monymut, identified as 'Bodies Fold'. The site layout is tentatively indicated in blue.  
 (NLS)

The first Ordnance Survey maps of this area were surveyed in the mid 1850s and provide the earliest accurate cartographic evidence for the development of the site. The 1<sup>st</sup> edition 25 inch to 1 mile is the most detailed of the early OS maps, but unfortunately does not cover the evaluation area.

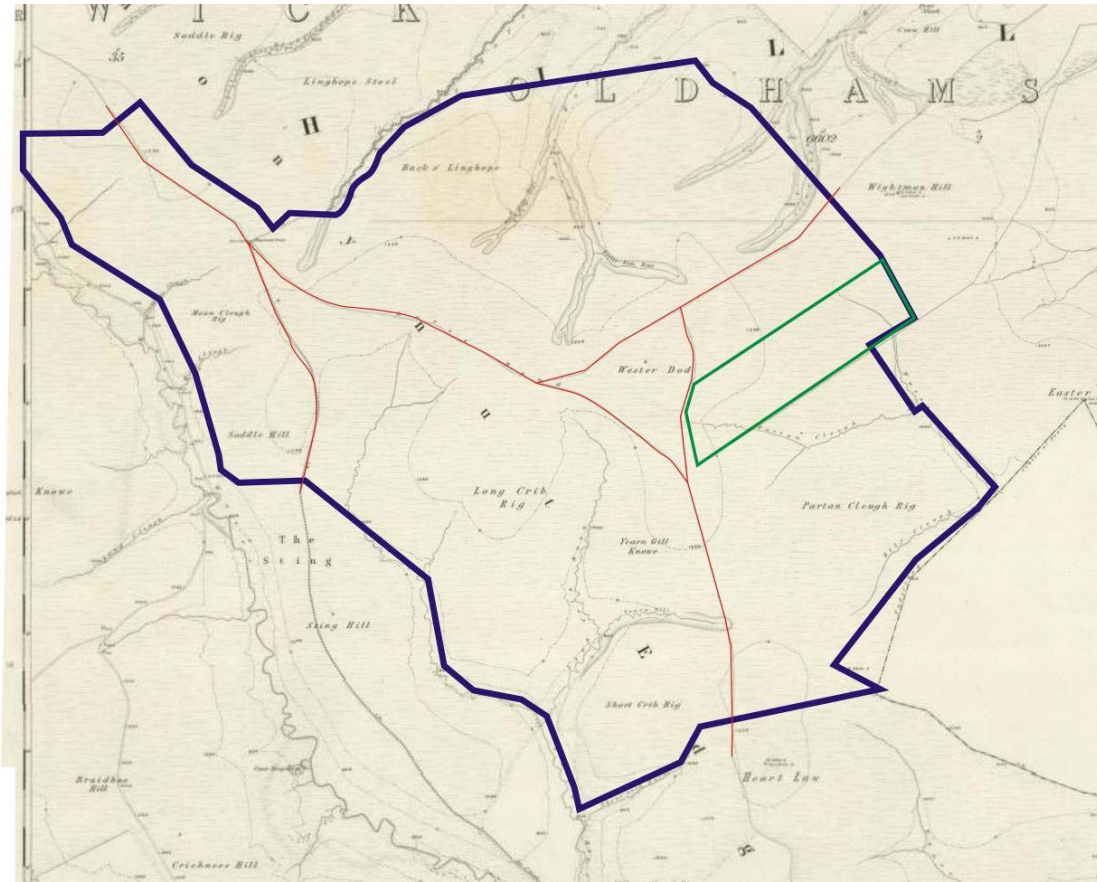


Figure 8 The OS 1<sup>st</sup> edition 6 inch to 1 mile Haddington sheet with the drove road marked in red, and the enclosure marked in green

The 6 inch to 1 mile series of OS maps (Figure 8) provide comprehensive coverage of the site. Of particular interest is a drove road which lies outwith the area depicted on the 25 inch maps. It comes from the NW and then forks heading towards the ford at Stottenleugh to the N and the farm at Middle Monynut to the S. It also appears on the second edition map, which does not include any additional information.

The 1<sup>st</sup> edition also depicts a large, roughly rectangular enclosure running NE-SW between Wester Dod and Wightman Hill. The function of this is unclear.

### 3. Evaluation Methodology

Following the completion of a Desk Based Assessment and walkover survey by CFA Archaeology in 2009, East Lothian Council stipulated that evaluation trenches be excavated at geographically separated points upon two of the sites identified - a drove road and a large enclosure. Both of these features were likely to be significantly impacted by road construction providing access to the proposed turbine locations. As noted above the drove road is marked as such upon historic maps and today survives as a farm access road. The large enclosure measures approximately 1,000m by 300m in extent and is bounded by the visible remnants of a bank believed to be of turf construction.



Within the general area of the excavations the ground conditions were largely obscured beneath deep heather though interspersed with occasional bogs and areas of boggier ground.

Evaluation of the drove road was undertaken by two cross sections mechanically excavated by JCB fitted with a toothless ditching bucket (Trenches 1 and 2). Soil was removed in spits, with each deposit or feature recorded as per established Addyman Archaeology and *IfA* recording standards. All mechanical works were carried out under archaeological supervision. Evaluation trenches across the enclosure boundary bank were excavated by hand (Trenches 3 and 4).

All trench locations were located by a hand held GPS and in relation to features and site boundaries as marked on the current OS map.

#### **4. Evaluation Results**

Within the trenches across the possible drove road comparatively little that could be attributed to its original construction or early use was found. Most of the deposits encountered could be considered evidence for wheel rutting of more recent times, likely relating to heavy machinery, tractors, etc. Potentially some of the features revealed could represent earlier cart ruts though the extent of the churning suggests heavy machinery.

The trenches across the banked enclosure proved it to be at least in part built from turf (to the W) and of banked natural clays (to the E), apparently using the local deposits to form the bank. Ditches identified on either side of the bank are likely to be the quarries for the material to construct the bank.

With the four trenches some dating evidence was hoped for but no artefactual materials were recovered. The only possible indication of age was noted when digging the turf bank in Trench 3 the excavator noted that the visible individual turves were still quite 'rooty' and as such were considered to not be of a great age; otherwise the root material would in more likelihood have rotted down.

A description of all the trenches and the key deposits and features identified in each trench is provided below. All context numbers for layers and feature fills are recorded within curved brackets (xxx) and cuts recorded within squared brackets [xxx].



*Plate 2 Opening up Trench 1 in the fog*

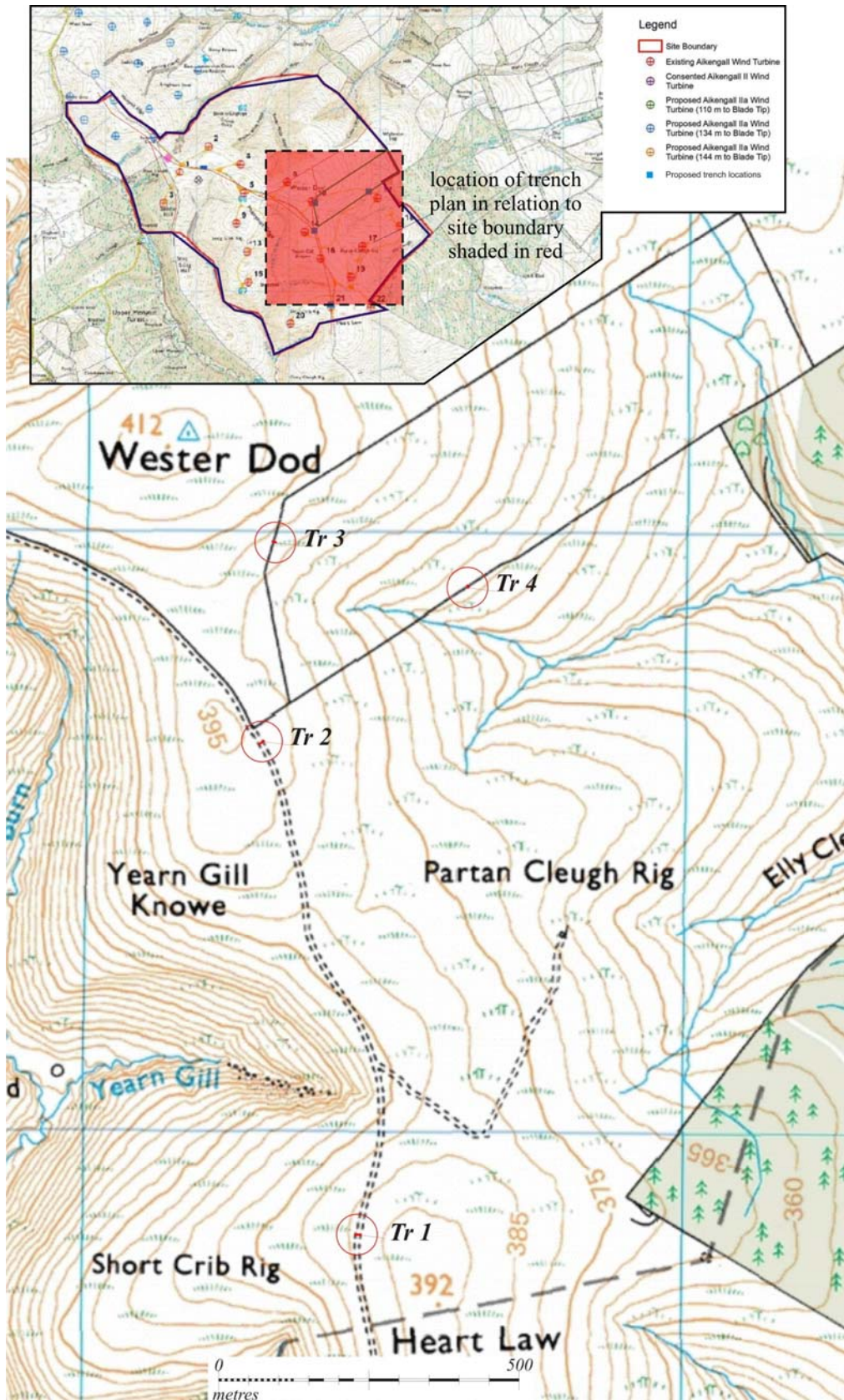


Figure 2 Trench locations





i. *Trench 1* (NT 71462 66825)

Trench 1 measured 6.0m by 1.50m (the bucket width) and was sited perpendicular to the line of the existing track-way. This was excavated 3m to the S of the turbine marker at Heart Law. Deposits were carefully and systematically removed down to solid natural subsoil across the whole trench; the subsoil was encountered at a maximum depth of 0.60m. Trench 1 was entirely excavated by JCB and afterwards cleaned up and recorded by hand.

When exposed the surface of the natural subsoil was found to gently slope down to the west, reflecting the general slope and wider topography of the area. The subsoil surface was somewhat uneven, with notable depressions in two main areas ('cuts' [106] and [107]), interpreted as probably having been caused by down-cutting or wear. When first identified [106] was a possible candidate for the wear of a drove road but, when considered with [107], and with their relationship to the current machine track, these were felt more likely to relate to paired machine wheel ruts cutting down in to the soft ground. These cuts were filled with a dark silty soil (102, 108, 103) containing a high proportion of small angular stones; this likely represents the churning up and intermixing of the former top-soils and underlying stony natural (105).

Between the two probable wheel ruts a small island of a possible pre-existing surface survived - (109). This consisted of a layer of smaller angular stones within a dark soil matrix. It is possible (109) could be the remains of a road make-up deposit, although alternatively it could equally be a stony topsoil layer.

Overlying the whole trench was a fairly even continuous topsoil deposit (101) of dark black humic silt. This overlies all the deposits below to a depth of 0.20m - 0.30m. The absence of cuts disturbing the deposit demonstrated that the underlying rutting of the ground was not of very recent origin. In the northern part of the trench a shallow lens of stony soil (104) underlay the (101) topsoil; this possibly related to occasional strengthening or repair of the track.

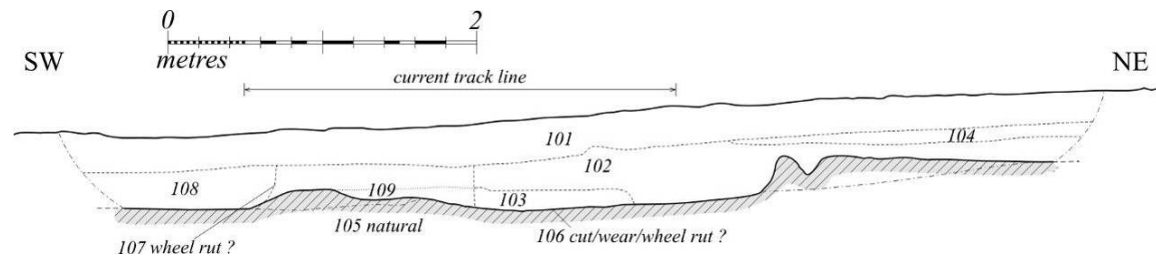


Figure 3 trench 1 Section across line of drove road



Plate 3 Trench 1 at LOE shows west section; turbine marker (white post) in background



ii. *Trench 2* (NT 71285 67663)

Trench 2 measured 5.0m by 1.50m and was also positioned across the line of the probable drove road, this time in the vicinity of a turbine on Yearn Gill Knowe, to the SW of the large enclosure. This trench was also mechanically excavated. At about 0.40m the overlying deposits were of shallower depth than those in Trench 1, and natural subsoil (207) was quickly revealed.

Again, as within Trench 1, there appeared to be paired, wide depressions worn down into the natural, running parallel to one another. The alignment of these depressions was found to tie in well with an opening in the field boundary to the W. Examination of the boundary revealed a much-buried sandstone mile marker surviving *in situ* to the immediate W of the trench. This marker confirmed the line of the former drove road ran on the same alignment as the existing track. A further feature of the field boundary was a degraded wrought iron gate with cast iron uprights, this possibly 19<sup>th</sup> or 18<sup>th</sup> century in date and presumably in place to service the road.



Plate 4 Trench 2 section

The rut-like depressions were in-filled with a mixed dark stony soil (202, 203); again much as in Trench 1 this is likely churned up/intermixed topsoil and natural subsoil. Between the two ruts subsoil survived to a higher level. In this area it had been further cut into by a clear rounded cut (205), this in-filled with a stony soil (206). The latter this soil was noticeably different to the surrounding deposits, being a more grey in hue with smaller stones mixed through, almost gravely. This was considered to perhaps be a motorbike wheel rut or similar (the JCB driver indicated that he and others drive their motorbikes up along these tracks).

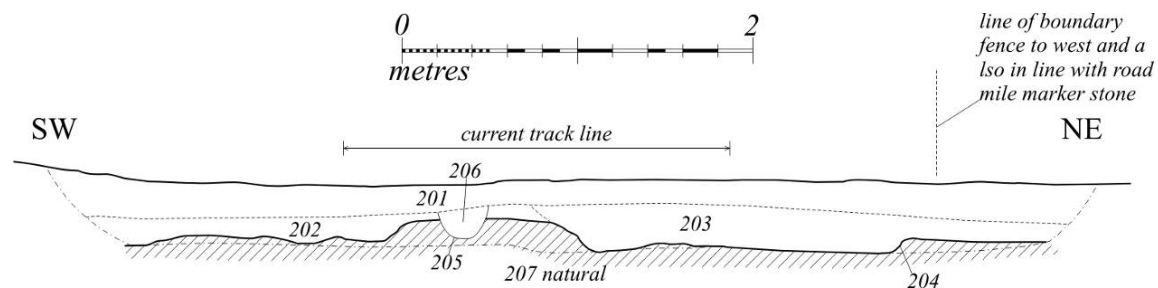


Figure 4 Trench 2 section

As in Trench 1 the overlying topsoil (201) was a continuous humic silty soil with heavy root infestation; this overlay the whole trench. The interface with the underlying deposits is very clear but no obvious cuts for the underlying ruts could be made out, perhaps again indicating they are not of very recent origin.



Plate 5 Trench 2 general location with wrought iron gate and mile stone to the W, looking N

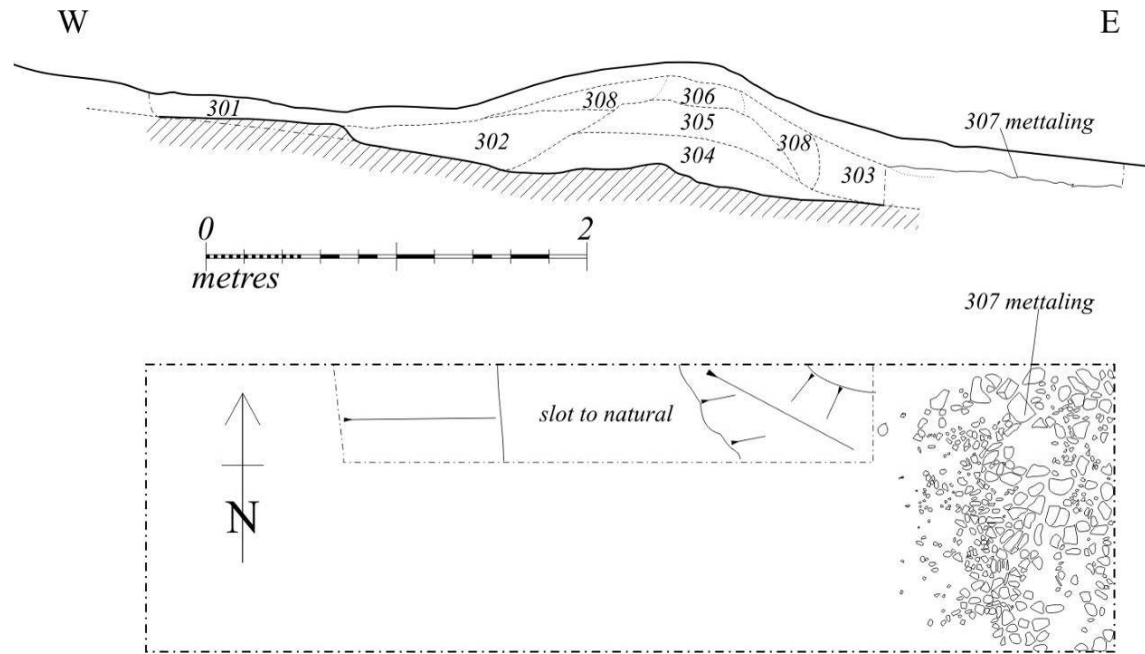
iii. *Trench 3* (NT 71327 68040)

Trench 3 measured 5.0m by 1.50m and was sited across the line of the banked enclosure perimeter. The trench was located in the vicinity of a turbine on Wester Dod and in the approximate location of a proposed access road that will cut through the feature. This trench was originally planned to be entirely hand excavated but the mat of deep heather proved difficult to remove and this was stripped by machine thereby allowing hand digging within the bank.

The trench opening by the machine meant that the trench was much wider than originally intended; also the original proposal of a trench 1m by 1.5m was inadequate to achieve a full section across the bank; it was thus extended to an overall length of 5m.

The upper surface of the underlying natural subsoil was exposed and this followed the general slope of the hill down to the N. The natural subsoil was shown to be an orange–grey stony, dry, clay/silt which appeared to have been cut into as part of the construction process to form the bank. This process of cutting into the natural subsoil may have been in order to borrow soil from nearby in order to form the base of the bank (304). (304) contained a high % of stone and was similar to the natural subsoil but with a higher degree of stones. This material was likely scooped from the natural subsoil either side of the bank and then mounded up to form the bank base; although it was a lot dirtier with soil than might be expected if the natural was simply shifted less than a metre.





Figures 5 and 6 Section and plan of Trench 3

Sitting on top of (304) was a well packed turf bank (305); many of the individual turves could be physically separated intact during excavation. These were approximately 0.15m square and 0.05m-0.08m thick. These were likely cut from along the line of the bank to construct it.

On top of (305) was a continuation of turf construction, possibly in the form of a vertical sided feature/turf wall about 0.50m wide (306). The extent of this was hard to define; it in part blended into the (308) deposits either side, which were interpreted as part collapse of the (306) turf wall.

To the W and upslope the depression left by the robbing for the banks construction was in-filled with a dark humic silty soil (302). Elsewhere on the bank's circuit such depressions are still very visible either side of the bank.



Plate 6 Trench 3 section across turf bank (in heavy rain)

On the interior of the enclosure against the bank a deep deposit of dark humic silt (303) appears to be a similar build up to (302), infilling any construction cut for the bank. One feature of note was overlying this - a compacted metalling layer (307). This was very well defined at the E of the trench with the overlying (301) topsoil peeling off, but it became more patchy with smaller stones nearer the

bank. What this represents is unclear it is possible this could be a road surfacing around the circuit of the enclosure or it could relate to a structure; from localised exposure within the small evaluation area this was difficult to determine.



Plate 7 Trench 3 Metalling (307)

iv. *Trench 4* (NT 71591 67878)

Trench 4 measured 2.0m by 0.50m in extent. Like Trench 3, it was also positioned across the line of the banked enclosure perimeter. The trench was originally planned to be in the vicinity of a turbine to the immediate S of the forestry area on Dod Hill but access to the area proved difficult at best (indeed the JCB sank and got badly trapped within a bog when attempting to approach the proposed location).

Following the attempts to get to the trench location, and with the verbal agreement of East Lothian Council Archaeology Service, the trench location was moved to the S to a more accessible area of the same bank of the enclosure. The trench was entirely hand dug.

The linear bank was expected to be of similar construction to that exposed within Trench 3 but following excavation this proved to be of slightly different character – essentially it comprised a heaped-up bank of the surrounding natural subsoil with no real turf visible within its construction.

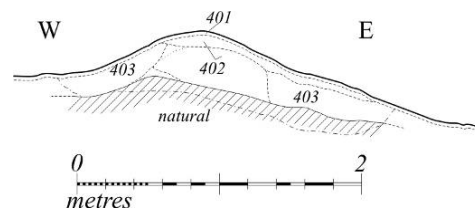


Figure 7 Section across Trench 4

The bank in this area was in places also flanked by visible shallow ditches, as seen in Trench 3. The origin of the bank's material, the natural subsoil in this area, comprised a greyish clay and the bulk of the bank was formed of this material (402). The bank make-up was found to be somewhat looser in its middle parts and it was thought that this may represent remnants of turfs within the bank. The turf (401) in this area is much shallower than elsewhere and there may have been little available to form the bank hence the use of a much greater proportion of re-deposited natural than was seen in Trench 3. (403) likely represents collapse of the bank over time





Plate 8 Trench 4 section across bank

## 5. *Archaeological Environmental Impact Assessment – Peat Levels*

East Lothian Council Archaeology Service intimated in their response to the planning application that:

*areas of potential for archaeological environmental remains (peat deposits etc) to survive should be identified. Where identified these should be assessed for what impact levels the development will have on them. Where these are likely to be directly impacted upon they should be probed to ascertain an approximate depth.<sup>3</sup>*

In 2011 Community Windpower Ltd. completed a site survey in order to characterise the depth of peat across the proposed Aikengall II site. This survey systematically extracted soil cores across the whole of the development site, with five geographically separated cores being extracted from each of the 22 proposed turbine locations (*Figure 9*).

The results of the survey indicated that areas of peat survived at Aikengall II, but that these were on the whole shown to be shallow and no deeper than 0.59m. Indeed analysis of the data collected illustrates that over 48% of cores taken revealed the peaty topsoil to have a depth of 0.10-0.20m. In addition a further 38% were shown to have a depth of between 0-0.10m. Together this provides a total of 86% of cores taken having a depth of less than 0.20m. This assessment can be taken further to show that nearly 95% of the cores taken during the assessment contained readings of less than 0.30m. Using an Inverse Distance Weighting (IDW) method, these results can be seen plotted against the plan of the site (*Figure 10*).

---

<sup>3</sup> East Lothian Council Internal Memorandum, *Aikengall II – Wester Dod Windfarm, Archaeological Implications*, 07/10/09



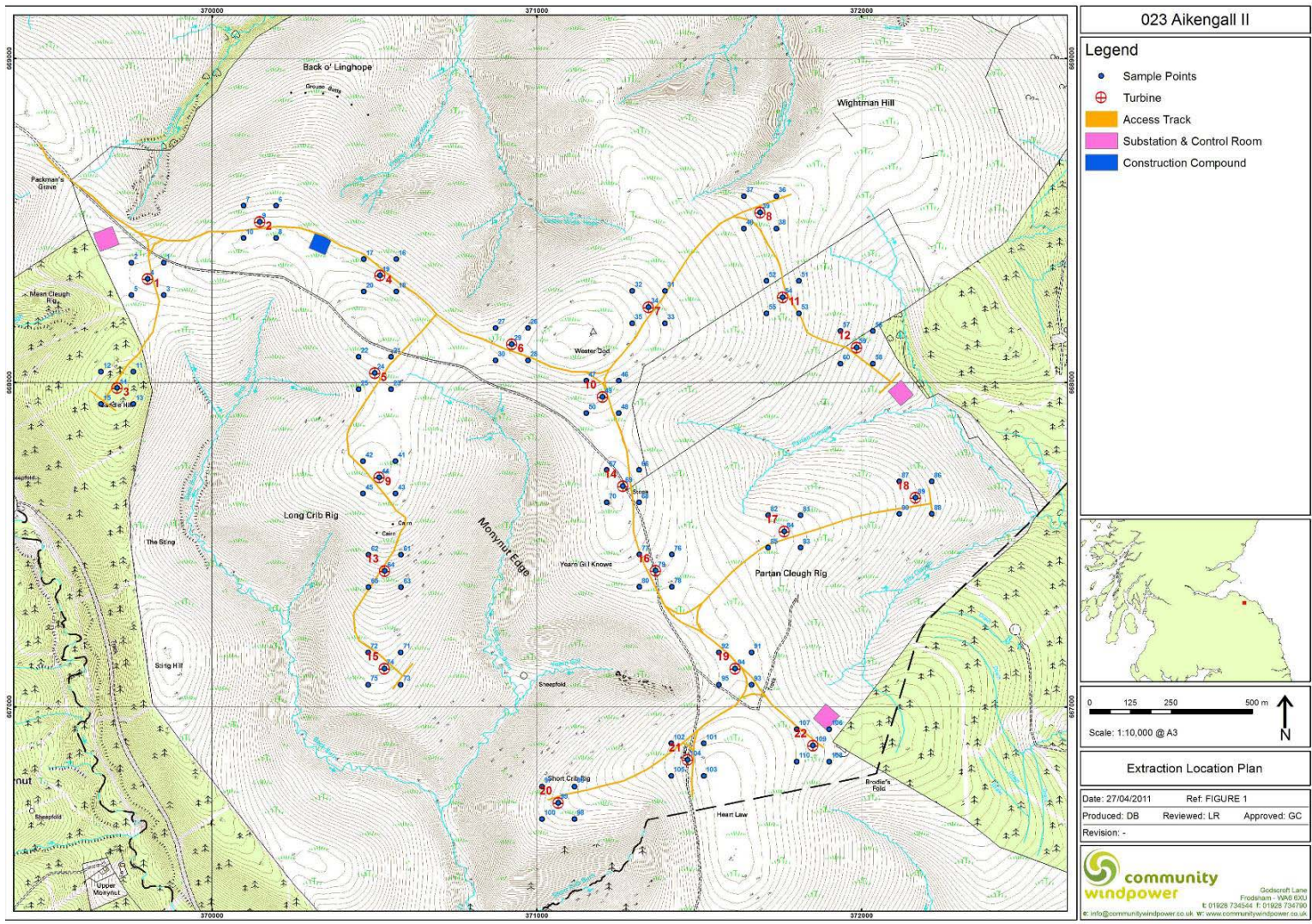


Figure 9 Locations of peat cores taken (courtesy of Community Windpower Ltd)



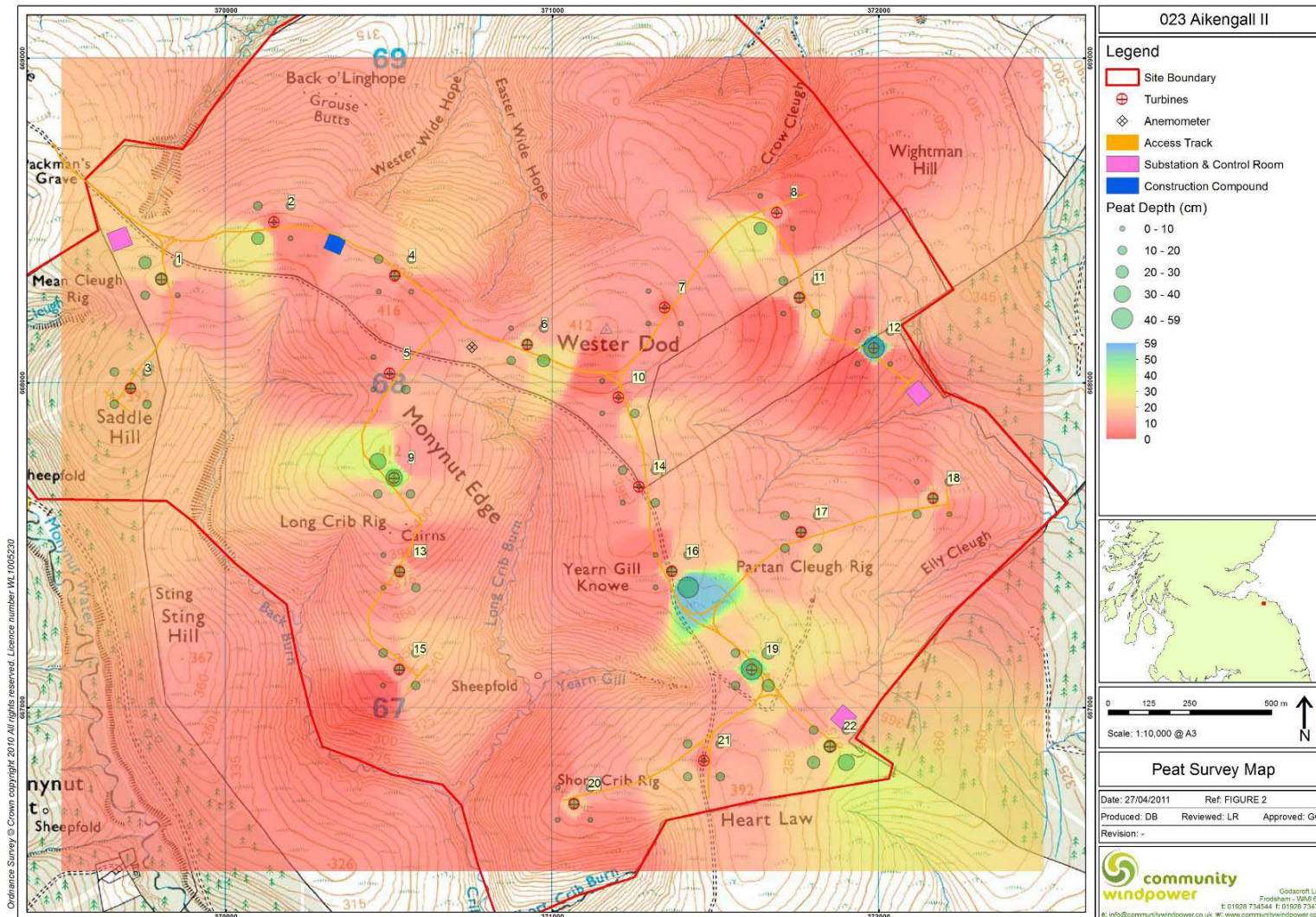


Figure 10 Peat depths across site as interpolated using an IDW method (courtesy of Community Windpower Ltd.)

The depth of 0.59m recorded in the vicinity of Turbine 12 was shown by adjacent cores (0-0.15m) to be anomalous, but indicative of the potential for localised deep peat deposits across the site and unrecorded by the assessment.

The survey showed the region around Turbines 16 and 19 to contain the deepest peat deposits. This was visually noted to be saturated at the time of the survey and the peat here was found to be up to 0.55m and 0.50m respectively.

The peat coring survey notes that ‘there is a sharp boundary between the organic surface horizon and the underlying soft, clay rich substrate’<sup>4</sup> and in none of the cores was a layer which may be interpreted as an earlier ground surface recorded beneath the peat deposit.

Whilst excavating features affected by the presence of humans, the evaluation trenches did not reveal any clear peat deposits and showed the clay silt subsoil to lie at a depth of 0.10-0.20m deep.

---

<sup>4</sup> Community Windpower Ltd. April 2011, *Aikengall II Community Windpower – Peat Survey Assessment*, 5



## 6. *Summary and Discussion*

### i. *Evaluation*

The four evaluation trenches were located and excavated to obtain some idea of construction and dating of the two principal archaeological features that will be affected by the proposed works. However within the trenches no actual dating evidence for their construction was recovered. Trenches 1 and 2, across the line of the historic drove road, showed mostly heavy rutting that was probably of relatively recent origin, although it is possible that this was caused in part by horse-drawn carts of an earlier period.

Trenches 3 and 4, sited over the enclosure perimeter, showed it to have been a low bank formed from local deposits quarried from trenches either side. A bank as low as this would not keep livestock in, and it is not likely to have been much higher (there was comparatively little evidence for degradation and collapse). If the feature was a pen for livestock, possibly associated with the use of the drove road, then some sort of fencing must have sat on top of the bank although no evidence was seen for this. What else this could represent apart from a land boundary is not clear.

The survival of some metalling within the interior of this enclosure, as seen within Trench 3, indicates that there may be deliberately surfaced areas or even evidence for structures within.

### ii. *Archaeological Environmental Impact Assessment*

The assessment of peat deposits across site demonstrated that the depth of peat at Aikengall II does not exceed 0.59m. The majority of coring results showed, on the whole, peat depths to be less than 0.30m and no results revealed which showed the existence of buried ground surfaces or deposits.

A study undertaken in the late 1990s by Dr. Paula Milburn and Dr. Geraint Coles looked in part at the survival of peat deposits in East Lothian. The survey identified 72 areas of peat across the jurisdiction, of which 27 (38%) were subsequently assessed in the field. The findings of the field survey demonstrated that where peat deposits survive in the region, 81% of these can be shown to be in 'pristine' condition.<sup>5</sup> This in effect means that where peat exists in East Lothian, the potential is significant the preservation of paleoenvironmental or buried prehistoric archaeological remains. Such sites have not undergone significant alteration and landscaping brought on by intensive farming, forestry or development.

Three of these 'pristine' (numbers 25-27) sites were located within the boundaries of the existing Aikengall I windfarm. Indeed one of the three (number 25 – NT 690 689) is located within the site boundary for the new development, but in the extreme NW of the site where the Aikengall I windfarm is located. No major infrastructure work will be completed here to disrupt this environment.

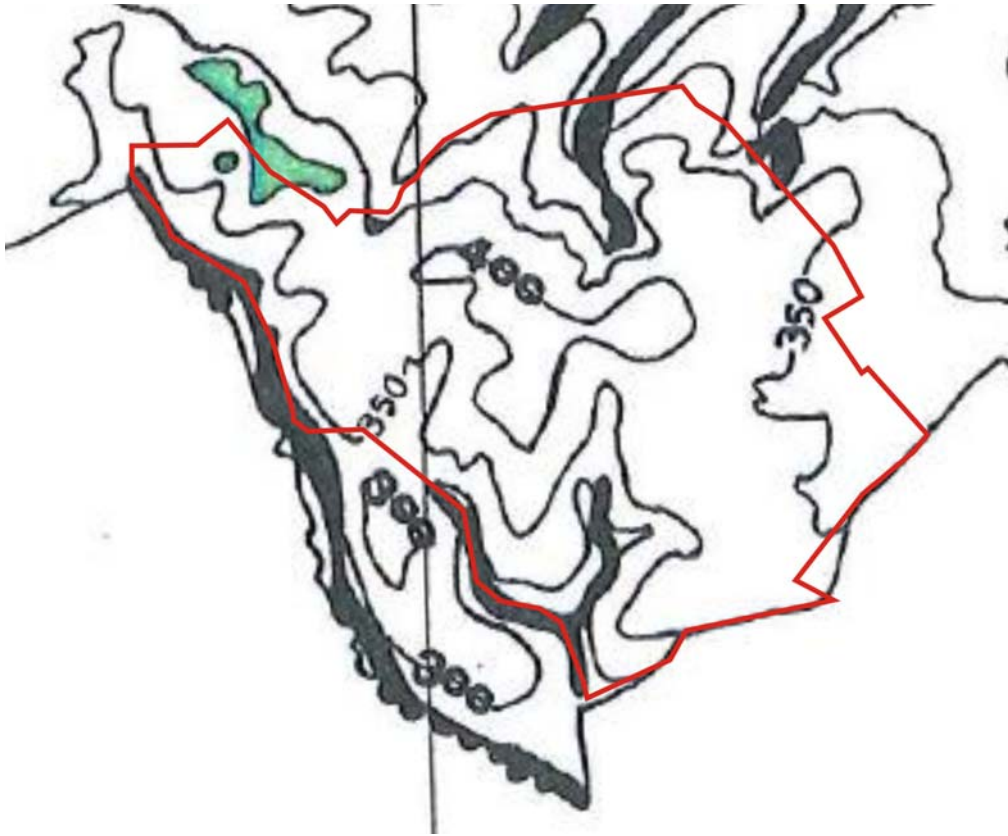
The proximity of these 'pristine' paleoenvironmental sites to the development gives rise to the possibility that such undisturbed sites may exist elsewhere across the Aikengall II development. The conclusions presented in the report indicate that the survival of peat deposits of greater than 0.50m is rare in the Lammermuirs, but that there is a high chance those that do survive will be in 'pristine' condition and located at higher altitudes. However it is important to look at the nature of the Milburn and Coles study before using this information in relation to the Aikengall II development.

As part of their study Drs. Milburn and Coles undertook a detailed desk based analysis of all available paleoenvironmental evidence within East Lothian. This included an assessment of the 'earliest available geological, soil and Ordnance Survey maps, aerial photographs, data from Scottish Natural

---

<sup>5</sup> Milburn, P. and Coles, G 2004(?), *Assessing the Nature, Extent and Condition of the Paleoenvironmental Archive in the Scottish Ploughlands: A Pilot Study*, 6

Heritage and the Scottish Paleoecological Archive Database'.<sup>6</sup> They used this data to plot where paleoenvironmental sites, and in particular for this study, peat deposits, were located (see *Figure 11*) prior to visiting a number of these sites. Whilst 'pristine' peatlands are noted to the N of the site within the boundaries of Aikengall I, none were recorded to the S, within the main development area of Aikengall II. From the evidence available, Milburn and Coles did not believe the Aikengall II site to contain 'pristine' peatlands, or paleoenvironmental material.



*Figure 11 Paleoenvironmental areas within the site boundary as identified by Milburn and Coles. Areas of peat are identified in green (Addyman Archaeology after Milburn and Coles. Courtesy of P Milburn.)*

The study was also limited to visual inspections and no coring was undertaken to reveal the depth of the peat deposits in the area.

The deepest deposits were noted in the vicinity of Turbines 16 and 19 and the erection of turbines and associated infrastructure could have a significant impact on any peatland identified in this area. However, the depths of peat remain relatively shallow and there is no direct evidence to suggest these deposits protect any archaeological material of interest.

---

<sup>6</sup> *Ibid.* 5

## 7. *Mitigation and Recommendations*

Two of the more visible archaeological features that may be affected by the proposed wind farm development at Aikengall II have been evaluated, with 4 trenches excavated across them. These trenches have given a snapshot view into their construction although the intent to recover some dating evidence for the features was less successful.

The drove road proved in the investigated areas to be latterly a farm track heavily disturbed by modern machinery with no real surviving construction of the earlier drove road (if there was any formed surface to begin with rather than just beaten earth), the line of the drove road is likely to be heavily churned up along its length and of little surviving interest. It is recommended that no further investigation of this feature is required.

Isolated features relating to the road such as the stone marker by Trench 2 should be preserved ideally *in situ* but perhaps removed from the site to prevent loss during the new access roads construction.

The banked enclosure was investigated with two trenches providing geographically separate sections across the enclosure bank. These proved the feature to be a low bank formed from the surrounding deposits. The trenches have adequately evaluated the structure and further sections are unlikely to provide any more understanding of its construction. However within Trench 3 a small area of metallurgy was noted within the enclosure. The purpose and date of this feature remains unclear, but it seems likely this represents some kind of prepared surface either for a road or perhaps occupation.

The peat coring did not reveal any evidence for consistent, deep peat deposits across the development. An earlier assessment of paleoenvironmental sites in the area<sup>7</sup> noted the possibility of unaltered, or 'pristine' peatland sites surviving in East Lothian, but none of these were recorded within the area affected by the development. Three assessments of locations immediately N of Aikengall II, within the boundaries of Aikengall I, were interpreted as 'pristine' paleoenvironmental environments, but this landscape was not seen as encroaching within the area affected by the new development.

From the evaluation there is clearly the possibility for some surviving *in situ* archaeology within the enclosure, at least within the area of Trench 3. As such a watching brief on the road across the enclosure between Turbines 10 and 12 is advised or that this road be re-routed to avoid the vicinity of Trench 3. From the evidence presented it seems improbable that paleoenvironmental material will survive on Aikengall II.

---

<sup>7</sup> *Ibid.*

## 8. *Acknowledgements*

Addyman Archaeology was commissioned for this project by Community Windpower Ltd, whilst the mechanical excavator was provided by ITC. Both organisations deserve recognition for their committed approach and understanding of the archaeological resource. We are also grateful to the farmer at Middle Monynut, David Morrison, who provided great assistance on the ground in making the evaluation possible.

In preparing the Archaeological Environmental Impact Assessment, we are grateful to Paula Millburn of RCAHMS and Rod McCullagh of Historic Scotland in helping us source Paula's paper on paleoenvironmental survival in East Lothian.

## *Bibliography*

Community Windpower Ltd. April 2011, *Aikengall II Community Windpower – Peat Survey Assessment*

CFA *Archaeology Aikengall II – Wester Dod Community Windfarm – Environmental Statement*, Section 9: Archaeological and Cultural Heritage Assessment

East Lothian Council Internal Memorandum, *Aikengall II – Wester Dod Windfarm, Archaeological Implications*, 07/10/09

Milburn, P. and Coles, G 2004(?), *Assessing the Nature, Extent and Condition of the Paleoenvironmental Archive in the Scottish Ploughlands: A Pilot Study*

[www.bgs.ac.uk](http://www.bgs.ac.uk)

[www.nls.co.uk](http://www.nls.co.uk)

[www.rchams.gov.uk](http://www.rchams.gov.uk)



**Appendix A Photographic Register; Aikengall II – Archaeological Evaluation**

<i>Frame no</i>	<i>Aspect facing</i>	<i>Description</i>
01	NW	Trench 1 pre excavation
02	NW	Trench 1 setting up trench
03	W	Trench 1 working shot in the fog
04	W	Trench 2 pre excavation
05	W	Trench 2 pre excavation
06	N	Trench 2 pre excavation
07	W	Trench 2 after machining finished
08	E	Trench 2 after machining finished
09	W	Trench 1 at LOE shows section and location of turbine marker
10	N	Trench 1 section
11	N	Trench 1 section
12	N	Trench 1 section
13	N	Trench 1 section
14	N	Trench 1 section
15	W	Trench 1 at LOE
16	E	Trench 1 at LOE
17	-	-
18	S	General view down the track in vicinity of tr1
19	N	General view up the track in vicinity of tr1
20	E	Trench 3 pre ex
21	W	Trench 3 pre ex
22	NE	Trench 3 pre ex
23	SW	Trench 3 pre ex
24	W	Trench 2 section
25	W	Trench 2 section
26	W	Trench 2 section
27	W	Trench 2 section
28	S	Trench 2 at LOE
29	N	Trench 2 at LOE with gate and mile stone in background
30	N	Trench 2 at LOE with gate and mile stone in background
31	E	Trench 3 working shot
32	E	Trench 3 working shot
33	SE	Trench 3 working shot
34	E	View from tr3 to sunken job in the fog
35	W	Trench 3 at LOE
36	NE	Trench 3 section in the rain
37	NE	Trench 3 section in the rain
38	NE	Trench 3 section in the rain
39	NE	Trench 3 section in the rain
40	NE	Trench 3 section in the rain
41	NE	Trench 3 section in the rain Trench 3 section in the rain
42	NE	Trench 3 section in the rain
43	NE	Trench 3 section in the rain
44	E	Trench 3 section in the rain
45	E	Trench 3 section in the rain
46	W	Trench 3 metalling 307
47	W	Trench 3 at LOE
48	NW	Trench 3 at LOE
49	V	Trench 3 metalling 307
50	V	Trench 3 metalling 307
51	V	Trench 3 metalling 307
52	NE	Trench 4 section
53	NE	Trench 4 section
54	NE	Trench 4 section
55	E	Trench 4 section
56	E	Trench 4 section
57	NE	Trench 4 section

Appendix B Photographic Thumbnails; Aikengall II – Archaeological Evaluation



2079 Aikengall (01).JPG



2079 Aikengall (02).JPG



2079 Aikengall (03).JPG



2079 Aikengall (04).JPG



2079 Aikengall (05).JPG



2079 Aikengall (06).JPG



2079 Aikengall (07).JPG



2079 Aikengall (08).JPG



2079 Aikengall (09).JPG



2079 Aikengall (10).JPG



2079 Aikengall (11).JPG



2079 Aikengall (12).JPG



2079 Aikengall (13).JPG



2079 Aikengall (14).JPG



2079 Aikengall (15).JPG



2079 Aikengall (16).JPG



2079 Aikengall (17).JPG



2079 Aikengall (18).JPG



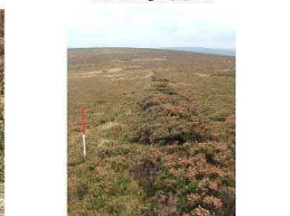
2079 Aikengall (19).JPG



2079 Aikengall (20).JPG



2079 Aikengall (21).JPG



2079 Aikengall (22).JPG



2079 Aikengall (23).JPG



2079 Aikengall (24).JPG





2079 Aikengall (25).JPG



2079 Aikengall (26).JPG



2079 Aikengall (27).JPG



2079 Aikengall (28).JPG



2079 Aikengall (29).JPG



2079 Aikengall (30).JPG



2079 Aikengall (31).JPG



2079 Aikengall (32).JPG



2079 Aikengall (33).JPG



2079 Aikengall (34).JPG



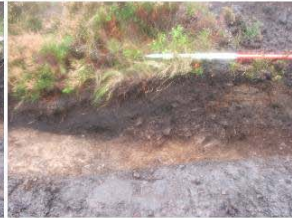
2079 Aikengall (35).JPG



2079 Aikengall (36).JPG



2079 Aikengall (37).JPG



2079 Aikengall (38).JPG



2079 Aikengall (39).JPG



2079 Aikengall (40).JPG



2079 Aikengall (41).JPG



2079 Aikengall (42).JPG



2079 Aikengall (43).JPG



2079 Aikengall (44).JPG



2079 Aikengall (45).JPG



2079 Aikengall (46).JPG



2079 Aikengall (47).JPG



2079 Aikengall (48).JPG





## Appendix C Context Register; Aikengall II – Archaeological Evaluation

Context No	Description
101	<i>Humic silty top soil 20 cm deep across whole trench, dark brown black in colour . heavily root infested</i>
102	<i>fine silty soil dark brown to black in colour with a high % of angular stone up to 5 cm diameter</i>
103	<i>stone rich soil similar to 102 but with smaller more rounded pebbles</i>
104	<i>Stone rich soil , forming a narrow band of mid grey to brown stony soil similar to 102</i>
105	<i>Natural, packed clean silt with high % of angular stone. orange to grey/green in colour</i>
106	<i>Probable shallow wear /cut into the natural likely to be a wheel rut</i>
107	<i>Probable shallow wear /cut into the natural likely to be a wheel rut</i>
108	<i>Fill of 107, dark silty soil containing a high proportion of small angular stones</i>
109	<i>Possible former stony topsoil surviving in situ , layer of stony dark soil a bit lighter in colour than the churned deposits surrounding</i>
201	<i>Humic silty top soil across whole trench, dark brown black in colour . heavily root infested</i>
202	<i>Possible top soil, mid to dark brown silty soils. possibly a continuation of 201 beyond the root zone</i>
203	<i>Stony soil . a mix of angular small stones and dark brown to black fine silty soils</i>
204	<i>Shallow Wear / cut into the natural possibly wheel ruts</i>
205	<i>Probable wheel rut , cut that's rounded base and sides</i>
206	<i>Mixed fill of 205 some greyer silty soils with small gravels at base and dark soil like 201 nearer the top</i>
207	<i>Natural, packed clean silt with high % of angular stone. orange to grey/green in colour</i>
301	<i>Humic silty top soil across whole trench, dark brown black in colour . heavily root infested</i>
302	<i>dark humic silty soil</i>
303	
304	<i>stony soil with a high % of stone and similar to the natural but perhaps a little more stony and dirtier than the natural</i>
305	<i>turf bank, constructed from turfs</i>
306	<i>Possible vertical sided feature/turf wall about 0.50m wide, part of 305 forming bank</i>
307	<i>Metalling , stony layer beneath 301 turf ,probably a surface</i>
308	<i>turf collapse of 305/306</i>
401	<i>thin topsoil and turf</i>
402	<i>main part of bank constructed from redeposited natural and perhaps some turf</i>
403	<i>probable collapse of 402</i>

***Appendix D Maps Consulted; Aikengall II – Archaeological Evaluation***

Timothy Pont (c.1560-c.1614)

- ‘Nithsdale; part of Teviotdale’ [ca. 1583-1596]

Robert Gordon (1580-1661)

- ‘A description of the province of Merche. The Mers’ imprint [ca. 1636-52]

Joan Blaeu (1596-1673)

- ‘Mercia’ 1654

John Adair (1650-1722)

- ‘A map of East Lothian’ (original survey 1680's) imprint Edinburgh, Cooper ca.1736

Hermann Moll (d.1732)

- ‘The Shire of Berwick alia the Mers or March and Lauderdale’ 1732

William Roy (1726-1790)

- ‘Military Survey of Scotland. Lowland of Scotland’ 1752-1755

John Thomson (1777-1840)

- ‘Berwickshire’ 1832

Ordnance Survey (1859 – present)

- 1 inch, Haddington (33). Surveyed 1855-1857. Published 1878.
- 1 inch, Haddington (33). Surveyed 1895. Published 1898.
- 1 inch, Haddington (33). Surveyed 1901. Published 1903.
- 1 inch popular, Dunbar and Lammermuir (75). Published 1926.
- 6 inch to 1 mile, Haddingtonshire (17). Surveyed 1853. Published 1854.
- 6 inch to 1 mile, Haddingtonshire, (XVII) NE. Surveyed 1892. Published 1895.
- 6 inch to 1 mile, Haddingtonshire, (XVII) NW. Surveyed 1892. Published 1895.
- 6 inch to 1 mile, Haddingtonshire, (XVII) NE. Surveyed 1906. Published 1908.
- 6 inch to 1 mile, Haddingtonshire, (XVII) NW. Surveyed 1906. Published 1908.
- 6 inch to 1 mile, Berwickshire (III) NE. Surveyed 1898. Published 1900.
- 6 inch to 1 mile, Berwickshire (IV) NW. Surveyed 1898. Published 1900.
- 6 inch to 1 mile, Berwickshire (III) NE. Surveyed 1906. Published 1908.
- 6 inch to 1 mile, Berwickshire (IV) NW. Surveyed 1906. Published 1908.
- 6 inch to 1 mile, Haddingtonshire XVII.SE. Surveyed 1893. Published 1895.
- 6 inch to 1 mile, Haddingtonshire XVII.SE. Surveyed 1906. Published 1908.
- 6 inch to 1 mile, Berwick III.8. Surveyed 1856. Published 1859.
- 6 inch to 1 mile, Berwick III.12 Surveyed 1856. Published 1859.
- 6 inch to 1 mile, Berwick III.16 Surveyed 1856. Published 1859.
- 6 inch to 1 mile, Berwick IV.13 (with inset 11.16) Surveyed 1856. Published 1858.
- 6 inch to 1 mile, Berwick IV.5 Surveyed 1856. Published 1858.
- 25 inch Haddingtonshire, (017.11). Surveyed 1893. Published 1895.
- 25 inch Haddingtonshire, (017.11). Surveyed 1906. Published 1907.
- 25 inch Haddingtonshire, (017.03). Surveyed 1893. Published 1895.
- 25 inch Haddingtonshire, (017.03 & 04). Surveyed 1906. Published 1907.
- 25 inch, Berwickshire (004.05). Surveyed 1898. Published 1899.
- 25 inch, Berwickshire (004.05). Surveyed 1906. Published 1907.



***Appendix E:  
Community Windpower Ltd. Peat Survey Assessment; Aikengall II Windfarm***

**Appendix F:**  
**Proposed Discovery and Excavation Scotland entry; Aikengall II Windfarm – Archaeological Evaluation**

<b>LOCAL AUTHORITY:</b>	East Lothian
<b>PROJECT TITLE/SITE NAME:</b>	Aikengall II Windfarm
<b>PROJECT CODE:</b>	AA 2079
<b>PARISH:</b>	Oldhamstocks (East Lothian)
<b>NAME OF CONTRIBUTOR:</b>	Kenny Macfadyen
<b>NAME OF ORGANISATION:</b>	Addyman Archaeology
<b>TYPE(S) OF PROJECT:</b>	Archaeological Evaluation
<b>NMRS NO(S):</b>	-
<b>SITE/MONUMENT TYPE(S):</b>	-
<b>SIGNIFICANT FINDS:</b>	None
<b>NGR (2 letters, 8 or 10 figures)</b>	NS 7290 6796
<b>START DATE (this season)</b>	24/09/13
<b>END DATE (this season)</b>	25/09/13
<b>PREVIOUS WORK (incl. DES ref.)</b>	
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	<p>Addyman Archaeology were commissioned to undertake an archaeological evaluation of two features identified during a Desk Based Assessment and walkover survey of the proposed site for the Aikengall II windfarm in East Lothian.</p> <p>Two geographically separated trenches were opened across a drove road at places where this was most likely to be disturbed by the development with the hope of providing evidence relating to its construction. In addition two further trenches were opened across a large enclosure identified in the map regression.</p> <p>The trenches across the drove road provided little of interest, revealing no clear surface and wheel ruts of more recent times. Those across the enclosure showed this to be constructed at least in part from piled turves although no evidence was encountered to indicate a date of construction. One trench revealed the existence of a surface or metalling within the enclosure, although the extent of this remains unclear.</p> <p>An analysis of coring results completed across the site showed no evidence for deep deposits of peat or any surviving, significant archaeological environmental remains.</p>
<b>PROPOSED FUTURE WORK:</b>	Watching Brief
<b>CAPTION(S) FOR ILLUSTRS:</b>	-
<b>SPONSOR OR FUNDING BODY:</b>	Community Windpower Ltd.
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	Simpson & Brown/Addyman Archaeology St Ninian's Manse Quayside Street Edinburgh EH6 6EJ
<b>EMAIL ADDRESS:</b>	admin@addyman-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive and report to be deposited with RCAHMS and East Lothian Council Archaeology Service