

# Beinn nan Oighrean: Watching Brief Report

April 2009



ARCHAEOLOGY

HERITAGE

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## Beinn nan Oighrean: Watching Brief Report

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**On Behalf of:** RockbySea Scotland Ltd.,  
5 Atholl Crsecent,  
Edinburgh,  
EH3 8EJ

**National Grid Reference (NGR):** NH 6088 8229

**AOC Project No:** 21132

**Prepared by:** Alan Hunter Blair

**Illustration by:** Alan Hunter Blair

**Date of Report:** 27<sup>th</sup> April 2009

This document has been prepared in accordance with AOC standard operating procedures.

<b>Author:</b> Alan Hunter Blair	<b>Date:</b> 27 <sup>th</sup> April 2009
<b>Approved by:</b> John Gooder	<b>Date:</b> 27 <sup>th</sup> April 2009
<b>Draft Report Stage:</b>	<b>Date:</b> 27 <sup>th</sup> April 2009

**Enquiries to:** AOC Archaeology Group  
Edgefield Industrial Estate  
Edgefield Road  
Loanhead  
EH20 9SY

Tel. 0131 440 3593  
Fax. 0131 440 3422  
e-mail. [admin@aocarchaeology.com](mailto:admin@aocarchaeology.com)



## 1 NON TECHNICAL SUMMARY

- 1.1 A watching brief carried out during peat stripping associated with the construction of an access road, hard standings, a service trench, two wind turbine bases and allied structures at Beinn nan Oighrean, Easter Ross, did not uncover any artefacts or features of archaeological significance.

## 2 INTRODUCTION

- 2.1 AOC Archaeology Group was commissioned by RockbySea to undertake an archaeological Watching Brief at a site just south of the Dornoch Firth, a few miles north from Ardrross. This work was necessitated by a condition on consent granted for the addition of two wind turbines to an existing wind turbine development on the slopes of Beinn nan Oighrean.
- 2.2 The requirement for, and extent of archaeological works, was determined by Highland Council as advised by Highland Council Archaeology Unit (HCAU). The watching brief was carried out in accordance with SSP23 (SG 2008) and PAN42 (SOEnd 1994a), and was designed to determine the presence of, and safeguard, any archaeological remains within the proposed development area; and in the event of significant archaeological remains being encountered prepare an appropriate mitigation strategy. The work was conducted in accordance with a *Written Scheme of Investigation*, as approved by HCAU on behalf of Highland Council, and was undertaken between 8<sup>th</sup> December and 1<sup>st</sup> April 2009 in varied weather conditions.

## 3 SITE LOCATION AND ARCHAEOLOGICAL BACKGROUND

- 3.1 The development site is presently rough upland pasture and is centred on NGR: NH 60885 82290. The site lies on the western slope of Beinn nan Oighrean with the Allt Mor stream marking the western and northern limits of the site and with the existing Beinn nan Oighrean windfarm forming the southern boundary. To the east lies open land towards the summit of Beinn nan Oighrean.
- 3.2 This isolated area contained no known archaeological sites; nevertheless there remained a significant possibility that hitherto unknown sub-surface archaeological features may be present within the development area. A Neolithic carved stone ball (NMRS Number NH67NW 1) was recovered from the summit of Beinn Tharsuin to the south of the development site whilst in general the wider surrounding landscape has an abundance of prehistoric sites, including hut circles with associated field systems, burnt mounds and chambered cairns.

## 4 OBJECTIVES

4.1 The objectives of the archaeological works were:

- i) to monitor ground-breaking works associated with the erection of two wind turbines and their associated works thus preventing the destruction of significant archaeological features prior to their recording;
- ii) to undertake the immediate recording of isolated finds of moderately significant archaeological material that will be disturbed by the development programme;
- iii) given the discovery of highly significant archaeological material in quantity that that will suffer an adverse impact from development programme (ie preservation *in situ* is impractical), the recording of all archaeological features by means of a mitigation strategy to be formulated with HCAU.

## 5 METHOD

5.1 All ground breaking works involved in the erection of two wind turbines and any associated works were monitored by an experienced field archaeologist.

5.2 The turf horizon comprising mainly of heather and mosses was removed and set aside for re-laying during reinstatement. Peat up to 2 m in depth was subsequently excavated down to drift deposits comprising stony gravel, sand and gravel with occasional patches of green clay. A discrete dark brown/black, silty sandy layer up to 0.1 m in depth was occasionally visible at the base of the peat overlying the till. No evidence of charcoal was found in this layer which may comprise an early Holocene organic soil. All ground reduction was carried out using a 360<sup>0</sup> mechanical excavator equipped with toothless ditching bucket

5.3 The watching brief works were recorded photographically (black and white print, and digital format Appendix 1). Appendix 2 contains a copy of the *Discovery and Excavation in Scotland* entry.

## 6 RESULTS

### 6.1 Haul road and temporary lay down area (Figure 1, Plate 1)

6.1.1 A corridor measuring 40 m long by 4 m wide linking the borrow-pit and the new access road immediately east of the hard standing for existing turbine 14 was stripped of peat up to 2 m in depth, this overlay stony sandy gravel. No archaeological features were seen.

## **6.2 Borrow-pit (Figure 1, Plate 2)**

6.2.1 An area measuring 48 m wide by 65 m long was stripped of peat, this overlay stony sandy gravel. Approximately 0.6 m of peat was recorded at the northern limit of the borrow-pit, this reduced in depth to 0.25 m towards the southern extent of the borrow-pit. No archaeological features were seen.

## **6.3 Access road (Figure 1, Plates 3 - 5)**

6.3.1 Peat 0.4 m up to 2 m in depth was excavated along the course of the access road to the new turbine bases and associated hard standings. Iron pan up to 0.01 m in depth was frequently visible at the interface between the peat base and the till. Occasional widely dispersed Scots pine roots were visible within the basal 0.3 m of peat below 480 m OD. Occasional large boulders or glacial erratics were encountered lying within the peat just below the turf horizon (Plate 5). These were hand cleaned and inspected for rock art, none was seen. No archaeological features were visible across this part of the site.

## **6.4 Turbine base 1 and hard standing (Figure 1, Plate 6)**

6.4.1 Peat from 0.65 m up to 1.8 m in depth was excavated across the area of turbine base 1 and associated hard standing. Iron pan up to 0.01 m in depth was frequently visible at the interface between the peat base and the stony gravel till. Occasional widely dispersed Scots pine roots were visible within the basal 0.3 m of peat. A large glacial erratic was encountered just below the turf horizon no rock art was visible across its surface. No archaeological features were observed.

## **6.5 Turbine base 2 and hard standing (Figure 1, Plate 7)**

6.5.1 Peat 0.45 m up to 2.0 m in depth was excavated across the area of turbine base 2 and associated hard standing. Iron pan up to 0.01 m in depth was frequently visible at the interface between the peat base and the sandy gravel till. Occasional widely dispersed Scots pine roots were visible within the basal 0.3 m of peat. A small stone was found with circular abrasion marks lying among the heather towards the northern end of this area. This transpired to be a result of the borehole investigation work. No archaeological features were seen.

## **6.6 Sub-station and crane base (Figure 1)**

6.6.1 Peat up to 2 m deep overlying stony gravel was excavated across an area 10 m by 8 m forming the footprint of the new substation. Immediately adjacent to the north, an area 22 m long by 12 m wide was excavated through up to 2 m of peat to stony gravel. This area formed the platform for the crane to assist in construction of the new sub-station. No archaeological features were encountered.

## 6.7 Cable trench (Figure 1, Plate 8)

- 6.7.1 A trench aligned east to west and cut through peat up to 1.8 m deep was excavated from the site of the new sub-station to turbine 1. Here the trench turned north and continued to turbine 2. Very stony ground was encountered at a depth of 0.35 m around the area of turbine 1. A number of peat pipes (natural drainage features) were visible along parts of the trench no archaeological features were seen.

## 7 CONCLUSIONS

- 7.1 Neither significant archaeological features nor artefacts were unearthed by the watching brief. No further archaeological works area required. This conclusion will require confirmation from HCAU on behalf of Highland Council.

## 6 REFERENCES

2008 *Beinn Nan Oighrean Two Turbine Project Revised Environmental Statement*, Unpublished client report

SOEnd 1994a Planning Advice Note 42. Archaeology – the Planning Process and Scheduled Ancient Monument Procedures. The Scottish Office Environment Department

SG 2008 *Scottish Planning Policy SPP23. Archaeology and Planning*. The Scottish Government, Nov.2008.

# **Beinn nan Oighrean: Watching Brief Report**

## **Section 2: Illustrations**

# **Beinn nan Oighrean: Watching Brief Report**

## **Section 3: Appendices**



## APPENDIX 1: PHOTOGRAPHIC REGISTER

Black and White film and digital, Film 1

<i>Frame</i>	<i>Description</i>	<i>From</i>
1	Registration	
2-3	General view during peat stripping for temporary lay down area	W
4	General view during peat stripping for temporary lay down area	S
5-6	General view of haul road and temporary lay down after peat stripping	SE
7-8	General view of haul road and temporary lay down after peat stripping	W
9-10	General view of haul road and temporary lay down after peat stripping	SE
11-12	North-facing section through peat at the north end of borrow-pit strip	N
13-14	North-east facing section through peat at the south eastern end of the access road strip	NE
15-16	General view of access road during peat stripping	SE
17-18	General view of access road during peat stripping	SE
19-20	General view during excavation of the borrow-pit	SW
21-22	General view during formation of access road	S
23-24	East-facing section showing depth of peat along the access road	E
25-26	General view of access road during peat stripping	SE
27-28	General view during formation of access road	NW
29-30	General view during formation of access road	SE
31-32	General view of access road between turbines 1 and 2	N
33	General view of the borrow-pit during stone extraction	N
34	North-facing section showing granite bedrock in borrow-pit	N
35-36	General view of borrow-pit peat strip	SE

Black and White film and digital, Film 2

<i>Frame</i>	<i>Description</i>	<i>From</i>
1	Registration	
2-3	General view along access road between turbines 1 and 2	SE
4-5	General view along access road between turbines 1 and 2	N
6-7	General view of peat stripping and hard standing formation at turbine 2	N
8-9	General view of peat stripping at turbine 2	N
10-11	General view of de-turfing during peat stripping at turbine 1	SW
12-13	General view of peat stripping for hard standing and turbine 1	E
14-15	General view of glacial erratic during peat stripping for turbine 1	SE
16-17	General view after peat stripping at turbine 2	W

Black and White film and digital, Film 3

<i>Frame</i>	<i>Description</i>	<i>From</i>
1	Registration	
2-3	General view along route of cable trench pre-excavation	E
4-5	General view of cable trench	E

6-7	Typical section through peat in cable trench	S
8-9	General view during cable trench excavation	SE
10-11	General view during cable trench excavation	SE
12-13	Typical section through peat in cable trench	S
14-15	Typical section through peat in cable trench	S
16-17	General view of cable trench crossing peat hags	W
18	General view of glacial erratic towards the western end of cable trench	S
19-20	General view of the start of the north-south section of the cable trench at turbine1 showing shallower depth of peat	W
21-22	General view of cable trench between turbines 1 and 2	S

## APPENDIX 2: DISCOVERY AND EXCAVATION IN SCOTLAND REPORT

<b>LOCAL AUTHORITY:</b>	Highland
<b>PROJECT TITLE/SITE NAME:</b>	Beinn nan Oighrean
<b>PROJECT CODE:</b>	AOC 21132
<b>PARISH:</b>	Edderton
<b>NAME OF CONTRIBUTOR:</b>	Alan Hunter Blair
<b>NAME OF ORGANISATION:</b>	AOC Archaeology Group
<b>TYPE(S) OF PROJECT:</b>	Archaeological watching brief
<b>NMRS NO(S):</b>	
<b>SITE/MONUMENT TYPE(S):</b>	
<b>SIGNIFICANT FINDS:</b>	
<b>NGR (2 letters, 6 figures)</b>	NH 60885 82290
<b>START DATE (this season)</b>	8 <sup>th</sup> December 2008
<b>END DATE (this season)</b>	1 <sup>st</sup> April 2009
<b>PREVIOUS WORK (incl. DES ref.)</b>	
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	A watching brief carried out during peat stripping associated with the construction of an access road, hard standings, a service trench, two wind turbine bases and allied structures at Beinn nan Oighrean, Easter Ross, failed in covering any artefacts or features of archaeological significance.
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	---
<b>SPONSOR OR FUNDING BODY:</b>	RockybySea Scotland Ltd
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	C/o AOC Archaeology Group, Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
<b>EMAIL ADDRESS:</b>	admin@aocarchaeology.com
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited in NMRS.

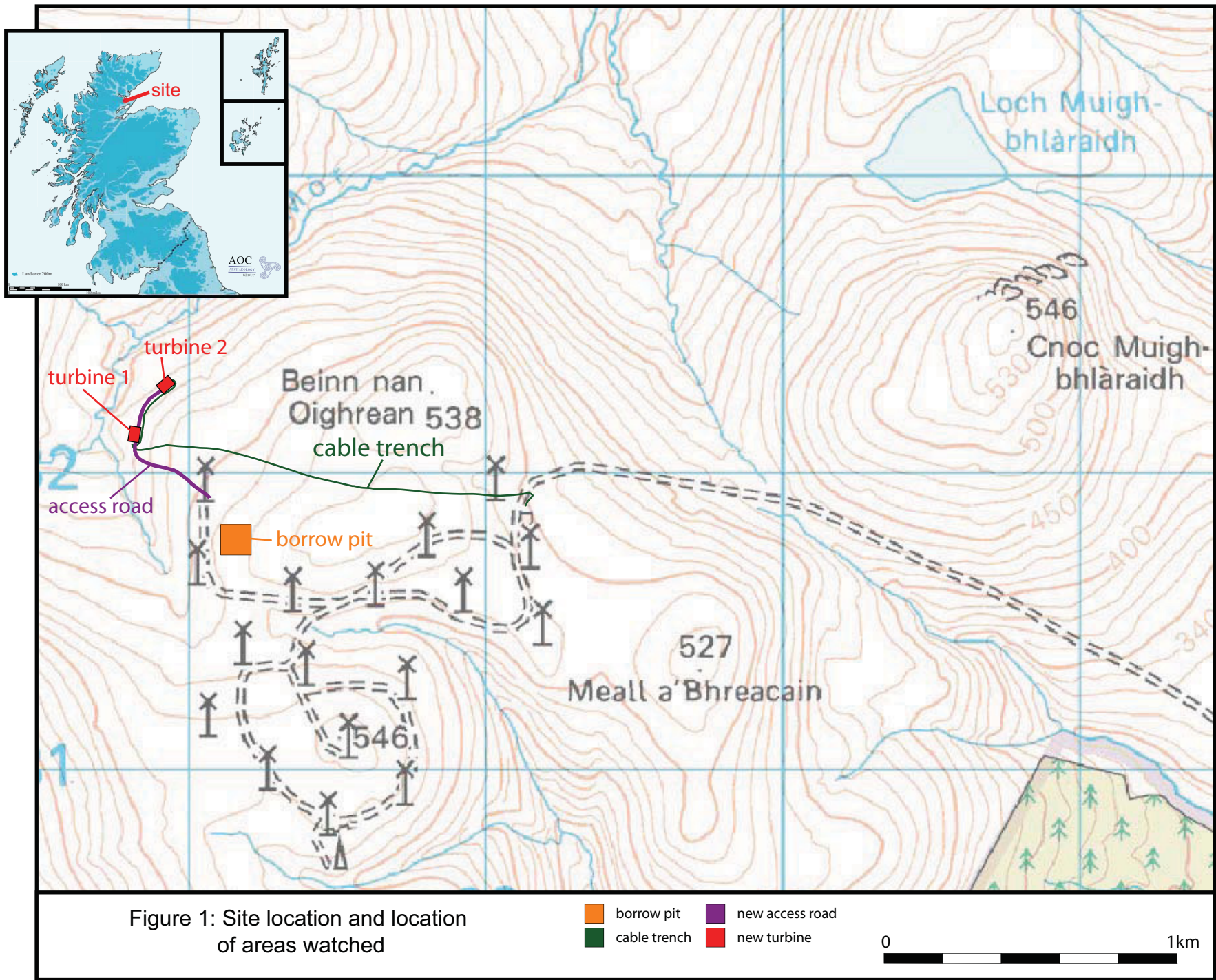


Figure 1: Site location and location of areas watched

- borrow pit
- new access road
- cable trench
- new turbine







Plate 1: General view after peat stripping haul road and temporary lay down area, from the north

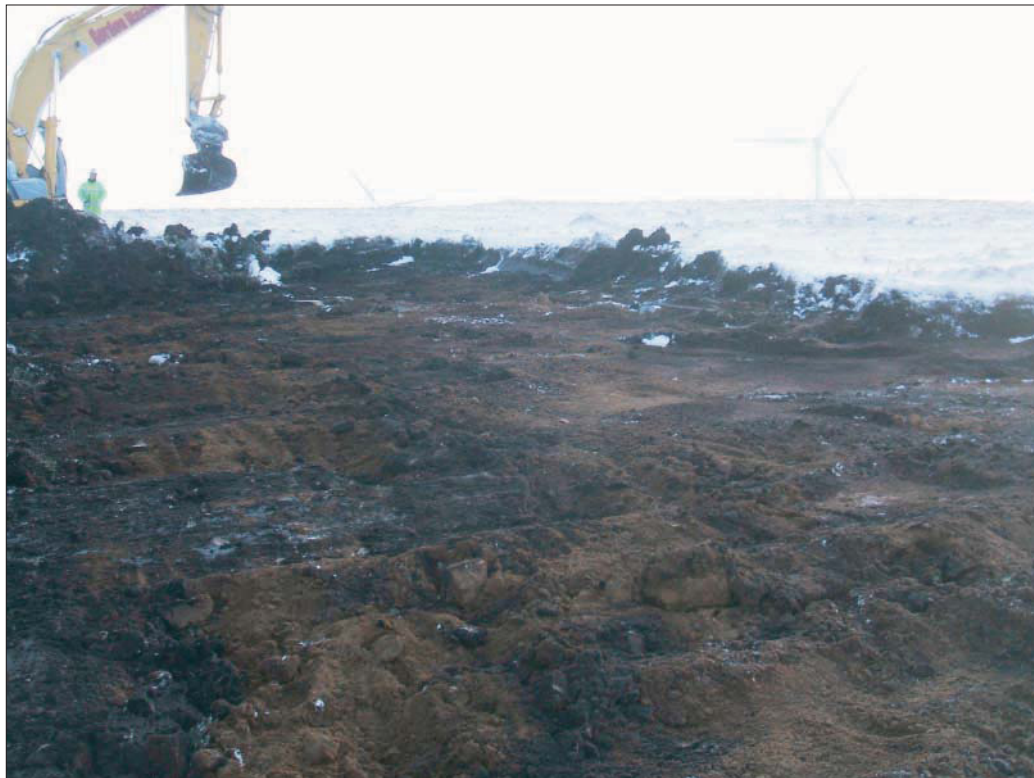


Plate 2: General view during peat stripping across borrow-pit, from the north-west



Plate 3: General view during peat stripping along the access road to turbine 1



Plate 4: General view after peat stripping access road between turbines 1 and 2, from the north





Plate 5: General view of typical glacial erratic encountered along parts of the access road to turbines 1 and 2



Plate 6: General view during peat stripping of the area and hard standing for turbine 1, A large glacial erratic is visible just below the turf horizon



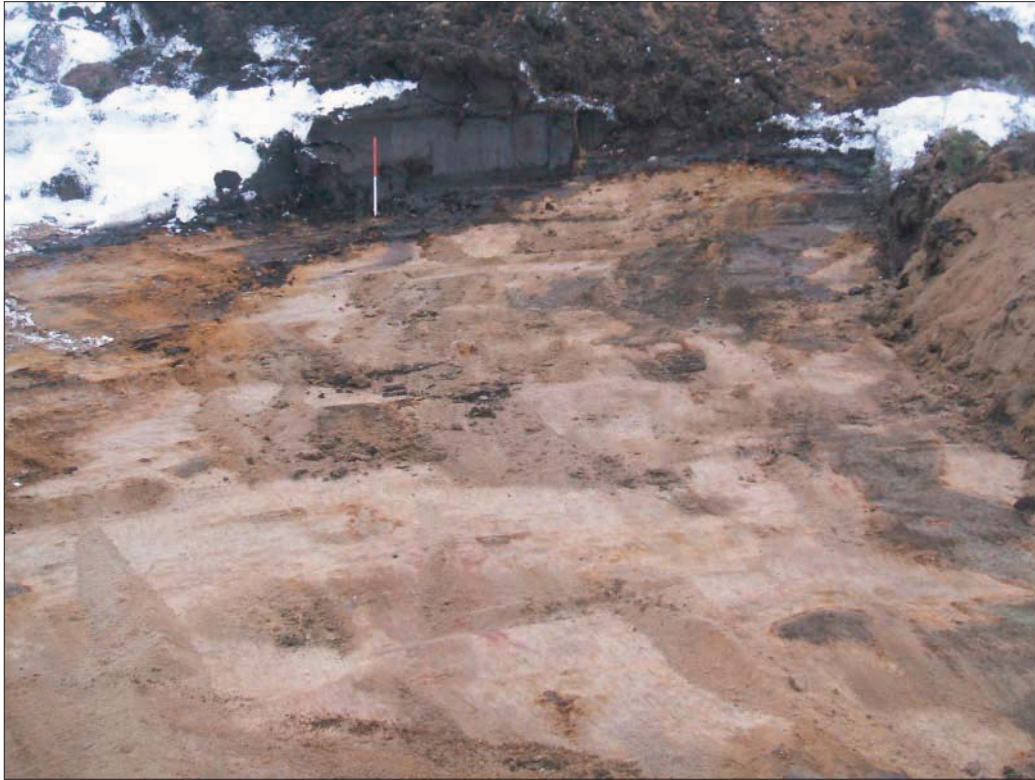


Plate 7: General view showing sandy gravel encountered around the base and area of hard standing for turbine 2



Plate 8: General view during excavation of cable trench, from the east





**AOC Archaeology Group**, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY  
tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: [admin@aocarchaeology.com](mailto:admin@aocarchaeology.com)

[www.aocarchaeology.com](http://www.aocarchaeology.com)