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Ardrossan Windfarm Extension, Ardrossan, North Ayrshire:

Results of Archaeological Work

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HEADLAND
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Project summary sheet

Client	Airtricity
National Grid Reference	NS4670 2230
Address	Ardrossan Windfarm, Dalry Road, Ardrossan, North Ayrshire.
Parish	Ardrossan
Council	North Ayrshire
Planning Application No	05/01151/PP
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Listing Category	N/A
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Fieldwork	Kate Bain Malcolm Corney
Schedule	
Fieldwork	April-June 2008
Report	30 June 2008

Signed off by:.....

Name Titles, Project Manager

Date:.....

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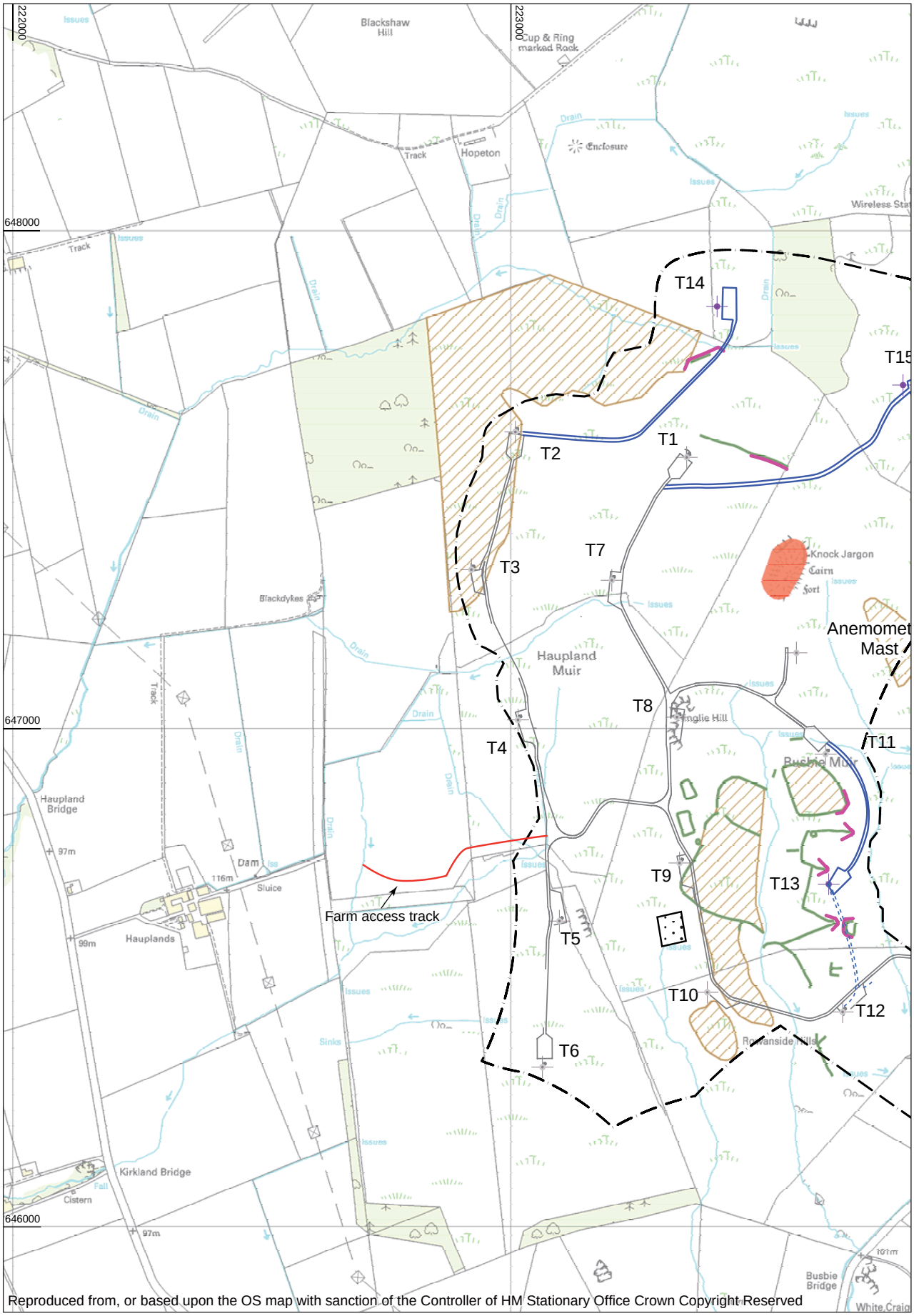

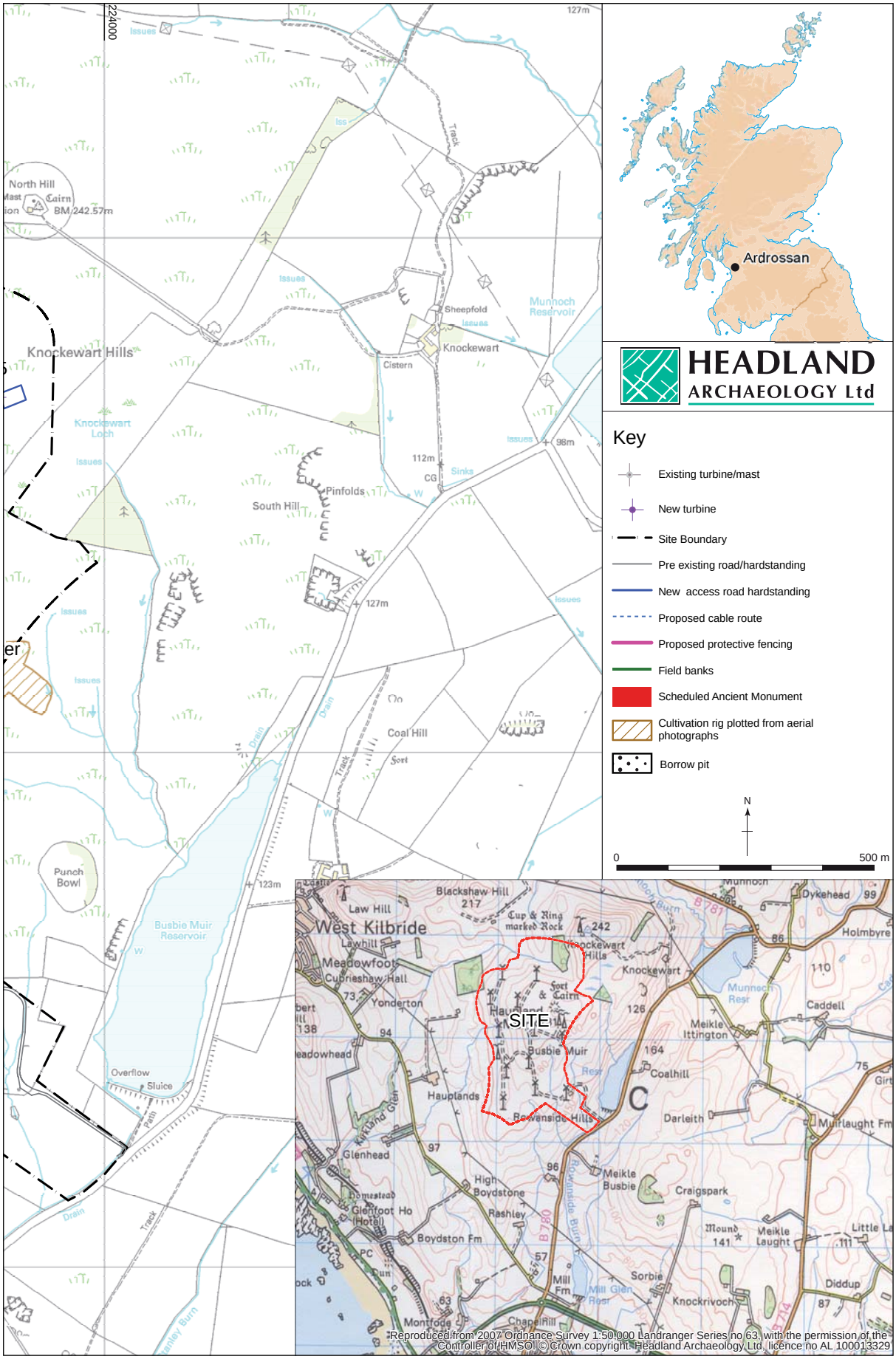

Illus 1:
Site location showing areas of archaeological monitoring

Ardrossan Windfarm Extension, Ardrossan, North Ayrshire: Results of Archaeological Work

by Kate Bain

Headland Archaeology was commissioned by Airtricity to undertake a program of archaeological works at Ardrossan Windfarm, North Ayrshire, during soil stripping associated with the erection of three new wind turbines.

The site was deemed to be of archaeological potential as the remains of a Knock Jargon prehistoric hillfort and cairn, designated a Scheduled Ancient Monument (SAM 305) is located near to the centre of the site and upstanding elements of possible medieval cultivation practices are also preserved within its boundaries. As part of the works, upstanding features potentially affected by groundworks were fenced to prevent any accidental damage during excavations. No further archaeological features or deposits of an archaeological nature were identified during the course of works which was thought to represent a genuine absence of below ground features within the monitored areas, rather than their destruction by outside influences.

INTRODUCTION

This report presents the results of a programme of archaeological works carried out during soil stripping associated with the erection of three new wind turbines at Ardrossan Windfarm, Ardrossan, North Ayrshire. The work was carried out as part of planning conditions imposed by North Ayrshire Council and sought to identify and preserve by record any buried archaeological remains on the site and to protect any known remains which may be affected by the development. This was carried out in accordance with a Written Scheme of Investigation (Headland 2007) submitted, and previously agreed with the West of Scotland Archaeology Service (WoSAS).

BACKGROUND

The areas proposed for soil stripping site were located within the boundaries of the existing windfarm. The site was characterised by large areas of rough upland grazing with spurs of outcropping bedrock and wet flushes populated by reeds, cotton grasses and various other common wetland species. The sites of two of the new turbines (14 &15) were located toward the northern limit of the site whilst the third, turbine 13, was located east of the sites centre.

The results of a walkover survey (GUARD 2002), Desk-based assessment and on site monitoring of construction works (Dalland 2003 & Kimber 2004), were included as part of an Environmental Impact Appraisal for the site in 2005 (Airtricity 2005). The most significant of the identified archaeological remains of a Prehistoric hillfort and cairn, designated a Scheduled Ancient Monument (SAM 305, NMR no.NS24NW 21). Whilst other prehistoric sites are known in the area, primarily concentrated to the north of the site, no appreciable prehistoric landscape features were identified within the site boundaries. Other above ground archaeological features were identified as being the remnants of former cultivation practices, primarily in the form of ridge and furrow cultivation and the remains of possible field banks of probable medieval and post-medieval date. Although the on site monitoring (Kimber 2004) did not reveal any significant archaeological remains, the presence and significance of the known features and the lack of any other obvious cultivation or development on the site, meant that it was identified as having archaeological potential

The aim of the archaeological work was to protect any upstanding archaeological elements likely to be impacted on by the development and to identify and preserve by record any below ground archaeological features encountered during soil stripping. A separate mitigation strategy was to be devised had complex or extensive remains been identified during this process.

METHODOLOGY

In order that the upstanding elements of the relict farming landscape were preserved, those portions of them deemed to be potentially threatened by groundwork were protected using high visibility 'Netlon' mesh fencing. A buffer zone was allowed between the fencing and the features in order to minimise the potential for accidental damage.

Three access roads with associated turbine bases and areas of hard-standing were stripped of topsoil using 360° tracked mechanical excavators fitted with toothless ditching buckets. In addition to this, the site of a borrow pit and a farm access track were also stripped using the same method.

The location of all of the stripped areas was plotted to Ordnance Survey National Grid coordinates. Individual features and deposits were to be recorded on pro-forma record sheets. A full photographic record was kept, using colour print film.

RESULTS

Turbines 13-15

The new access roads associated with the three new turbine sites were excavated to an approximate width of 6m and to varying depths, dependant on the load bearing capacity of the natural geology. Occasional widening of the roads was required to allow for passing places and extra drainage measures. The natural was variously represented by boulder clays, in spectrum of colours ranging from blue greys to buff-brown, to solid bedrock. In the very lowest, wettest areas, semi-solid, saturated grey sand was observed. Sealing the natural, in areas toward the foot of hillslopes, distinct deposits of colluvium were present, comprising fine, orange-brown loamy sands. This was absent toward the hill crests where bedrock was exposed and at the very lowest points where the previously mentioned sands were encountered. The topsoil across these areas consisted of wet, humic peat ranging from as little as 0.07m, in areas of outcropping natural bedrock, up to 0.70m at the foot of hillslopes. The turbine bases and hardstandings each comprised areas of approximately 1400 and 1100m^2 and revealed similar stratigraphic profiles as their associated access routes. All upstanding archaeological elements proximal to this activity were protected using 'Netlon' fencing and none of these features were physically impacted upon by the work. No further features or deposits of an archaeological nature were observed during the course of this work

Illus 2:
Road excavations showing Knock Jargon Hillfort in background

Illus 3:
Road to Turbine 13 under excavation

Borrow Pit

An area of 2800m^2 was stripped of topsoil between the sites of the existing sites of Turbines 9 &10 in advance of blasting for the provision of stone for the turbine bases and roads. The site of the borrow pit was located toward the edge of a rocky scarp where stripping revealed an area of deeply fissured bedrock, overlain in places by similar colluvium as that seen along the access routes. Where the colluvial layer was absent, peat and the shallow root mat of coarse grasses forming the topsoil directly overlay the bedrock. Again, no evidence of archaeological features or deposits was observed during these groundworks.

Farm Access Track

A narrow farm access track was constructed linking the most westerly existing access route to Hauplands Farm to the west of the site. The track measured approximately 3m wide and rarely exceeded 0.50m in depth. The natural was represented by bedrock overlain by firm orange-brown sand-loam. The topsoil here generally comprised a loamier, freer draining soil than the peat across the rest of the site and averaged 0.20m in depth along the course of the route. As in the other stripped areas, no archaeological features or deposits were identified during these excavations.

CONCLUSION

No below ground archaeological features or deposits were identified during the course of the archaeological monitoring. The preservation of above ground features, as part of a relict field system, suggests that very little ground disturbance has taken place on the site in terms of development and cultivation. It seems, therefore, reasonable to assume that the absence of below ground archaeological features is as the result of a genuine paucity of activity, rather than for reasons of later intrusions.

REFERENCES

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