

Historic Building Recording

Site & Landscape Survey

Interpretation, Design & Display

Westnewton wind farm, Cumbria

Archaeological Evaluation

Report No. Y043/12







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Summary

An archaeological evaluation was carried out on land at Warwick Hall Farm, Westnewton Cumbria between 16 and 18 January 2012. Thirteen trenches were excavated and possible ditches or furrows were recorded, though no finds were recovered.

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) on behalf of Broadview Energy Ltd between 16 and 18 January 2012. The CFA code and number for the project is WEWF/1461.

A Written Scheme of Investigation was produced by CFA dated 27 September 2011. The work was undertaken in accordance with the WSI in order to comply with a condition on planning approval Ref 2/2008/0997.

1.2 Site Location and Description

The proposed development site is situated 0.6m to the south of the village of Westnewton in Cumbria (Fig. 1, NGR NY 13711 43135). The topography of the site varies, but it can generally be described as occupying an elevated position in the landscape on a roughly east to west ridge. The ground level slopes gently to the south in the direction of Lancarr Beck. To the north, the ground slopes towards the village of Westnewton. The B5301 road bounds the site to the east. In all other directions the site is bound by large enclosed fields, typically used as arable. The land at the time of evaluation contained immature crops. The height above the ordnance datum varies from 68m in the east to 55m in the west AOD. The underlying geology comprises St Bees Sandstone formation, which is overlain by a Devensian Glacial Till (BGS 2012).

1.3 Previous Archaeological work

No previous invasive archaeological work is known to have taken place within the proposed development site. A Cultural Heritage Assessment formed part of the Environmental Statement. Two phases of geophysical survey were undertaken on an earlier layout and the consented layout in 2007 and 2008 respectively (ASUD 2007, 2008). A number of weak geophysical anomalies were interpreted as features of possible archaeological interest.

1.4 Objectives

The objectives of the evaluation were to:

• To determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development.

2. WORKING METHODS

2.1 General

All work was undertaken according to the Institute for Archaeologists' Code of Conduct, and relevant Standards and Guidance documents (IfA 1996, 2001), and CFAs standard procedures and the WSI (CFA 2011).

2.2 Evaluation

Trenches were positioned by CFA in order to test geophysical anomalies detected by previous geophysical survey (ASUD 2007 and 2008) and were agreed in advance with Cumbria County Council Historic Environment Service (CCCHES).

All machining was undertaken by a mechanical excavator using a toothless ditching bucket under direct archaeological supervision. Topsoil was removed down to the natural substrate or the first significant archaeological horizon, whichever was reached first. Any further excavation required to fulfil the objectives of the evaluation was carried out by hand.

Trenches positions were located using industry standard electronic surveying equipment and all trenches were backfilled on completion of the fieldwork.

2.3 Standards and Guidance

CFA Archaeology is a registered organisation (RO) with the Institute for Archaeologists (IfA). All work was conducted in accordance with relevant IfA Standards and Guidance documents (IfA 1996, 2001), English Heritage guidance (EH 2005, 2006, 2008a, 2008b and 2008c), and CFA's standard methodology.

2.4 Monitoring

The archaeological evaluation was monitored by the Historic Environment Officer for Cumbria County Council who was informed in advance of the works taking place and visited the site on 17 January 2011.

2.5 Archiving

The site archive currently consists of a single folder of recording forms along with digital photographs and AutoCAD files. The site archive will be ordered and stored according to national guidelines (Brown 2007, Ferguson and Murry 1997, IfA 2001, MGC 1994, SMA 1995 and UKIC 1990). A summary of the results of archaeological works will be submitted for inclusion in OASIS.

3. RESULTS

Thirteen trenches were excavated; the location of each trench is shown on Figure 1. A summary of contexts forms Appendix 1. Figure 2 shows the position of the trenches in relation to the geophysical survey results. No archaeological remains were recorded in trenches 2, 5, 6, 7, 8, 11, 12, and 13. Figures 3 and 4 show the excavated trenches 5

and 10. The archaeological evaluation also encountered a number of easily identifiable field-drainage systems, typically ceramic field drains.

The topsoil (001) was between 0.30 and 0.35m thick and comprised a mid-dark grey, soft, sandy-clay consistent across the site. The natural substrate (000) was a glacial till, with slight variations in mineral content such as coal, manganese and iron pan flecks, but was typically a firm matrix of sandy-clay, orangey-pink, with mottles of orange, yellow and grey. The deposit included small to medium stone cobbles and gravel fragments. The archaeological visibility was good.

3.1 Ditch 002

The remains of a ditch (002) identified as a possible curvilinear anomaly in the geophysics was excavated in Trench 1 (Fig 2a). The ditch, which was cut 0.4m into the natural substrate (000) contained a single, sterile fill (003), overlain by a deposit of topsoil (001) which had slumped into the ditch, The date and purpose of the feature is unknown, though it is likely that the ditch probably relates to the route of a pre-existing field boundary on a similar alignment. The field boundary, seen as a stone dyke, with mature tree cover, is probably post-medieval in date. A field drain had cut into the southeast slope of the ditch.

3.2 Ditch 005

The remains of truncated ditch (005) was recorded in Trench 3 (Figs 5 and 6). The ditch was orientated north to south and was cut 0.28m into the natural substrate, is probably the feature identified by geophysical survey at this location (Fig. 2b). The feature contained sterile primary fill (014) sealed by an upper fill (004). The date and purpose of the feature is unknown. However, it is likely the feature is of post-medieval agricultural origin, possibly a field boundary.

3.3 Ditch 006

The remains of a truncated linear feature (006) were recorded in Trench 10 (Fig. 4). The feature was orientated north-south, had a flat base and was 1.6m wide and 0.26m deep (Figs 11 and 12). The cut contained a very stony, sterile primary fill (007) with a distinct tip line from the east. This was overlain by a sterile secondary fill (008). The feature may have been a shallow ditch, possibly a post-medieval field boundary.

3.4 Ditches 010 & 012

The remains of two roughly parallel linear features were excavated in Trench 4. These were possibly possible the bases of heavily truncated ditches or furrows and roughly corresponded with two geophysical anomalies (Figs 9 and 10). Ditch 010 was cut 0.05m into the natural substrate and was heavily truncated. It had a flat base and contained a single sterile fill (011). Ditch 012 was cut 0.1m into the natural substrate and had an undulating base and contained a single sterile fill (013).

4. CONCLUSION

The evaluation excavated 13 Trenches totalling an excavated area of 300m². The trenches targeted a number of possible archaeological features indentified by geophysical survey, some of these anomalies proved to be archaeological in nature, possibly relating to former field boundaries or past agricultural practice. No finds were recovered from any of these features, or the surrounding soil.

5. BIBLIOGRAPHY

ASUD 2007, Warwick Hall, Westnewton, Cumbria, Geophysical Survey, Archaeological Services University of Durham, Report 1765, October 2007

ASUD 2008, Warwick Hall, Westnewton, Cumbria, Geophysical Survey, Archaeological Services University of Durham, Report 2111, November 2008

Brown, D. H, 2007, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Institute for Archaeologists.

EH, 2005, Management of Research Projects in the Historic Environment, English Heritage.

EH, 2006, Management of Research Projects in the Historic Environment (MoRPHE): Project Managers' Guide, English Heritage.

EH, 2008a, Investigating Conservation: Guidelines on how the detailed examination of artefacts from archaeological sites can shed light on their manufacture and use, English Heritage.

EH, 2008b, Management of Research Projects in the Historic Environment: Archaeological Excavation, English Heritage PPN3.

EH, 2008c, Management of Research Projects in the Historic Environment, Development of Procedural Standards and Guidelines for the Historic Environment, English Heritage PPN 6

EH 2010a, *A Thematic Research Strategy for the Historic Industrial Environment*, English Heritage Thematic Research Strategies

EH 2010b, *A Thematic Research Strategy for the Urban Historic Environment*, English Heritage Thematic Research Strategies

Ferguson, L. M. and Murray, D. M., 1997, *Archaeological Documentary Archives: Preparation, Curation and Storage*, Paper 1, Institute for Archaeologists.

IfA 1996, *Standard and Guidance for Field Evaluation*, Institute for Archaeologists, Revised October 2008.

IfA 2001, Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials, Institute for Archaeologists, Revised October 2008.

MGC 1994, Standards in the Museum Care of Archaeological Collections, Museums and Galleries Commission.

SMA, 1995, Towards an accessible archaeological archive - the transfer of Archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales, Society for Museum Archaeologists.

UKIC, 1990, *Guidelines for the Preparation of Excavation Archives for Long term Storage*, United Kingdom Institute for Conservation.

APPENDICES

Appendix 1: Context Summary

Context	Trench/ Area	Fill of	Type	Description
000	Site	-	Deposit	Natural: Glacial till, slight variations in mineral content such as coal, manganese and iron pan flecks, typically a firm matrix of sandy-clay, orangey-pink, with mottles of orange, yellow and grey. Stone inclusions gravels and sub-rounded to rounded
001	Site	-	Deposit	cobbles, small to very rare large examples. Topsoil: 0.3-0.35m thick, comprised a mid-dark grey,
002	Trench 1	-	Cut	soft, sandy-clay, generic across the site. Cut of linear ditch: > 2m in length, 1.25m in width by 0.4m in height, with a flat base and sloping 45 degree sides tapering to the base.
003	Trench 1	002	Deposit	Fill of linear ditch 002, contains fleck and orangey mottles or re-deposited natural. Deposit had been cut for a field drain to the east. Sterile. Topsoil partly fills the ditch having slumped into it.
004	Trench 3	005	Deposit	Fill of linear ditch 005, greyish, sandy-clay, friable, with very occasional small stone inclusions. Sterile. Cut by field drain from the west. 0.12m in height.
005	Trench 3	-	Cut	Cut of linear ditch orientated north-south. 1.1m in width by 0.28m in height, horizontally truncated, slightly concave base with shallow < 45 degree sides.
006	Trench 10	-	Cut	Cut of linear ditch orientated north-south, 1.6m in width by 0.26m in height, although probably horizontally truncated.
007	Trench 10	006	Deposit	Stony fill of linear ditch 006. Has a distinct tip line from the west. Mixed deposit of light, greyish-pink matrix of friable sandy-clay with angular to subrounded cobbles, 0.26m in height. 1 off large rounded boulder. Sterile
008	Trench 10	006	Deposit	Upper fill of ditch 006 comprised mixed greyish, orangey-pink, friable sandy-clay, with the occasional stone cobble inclusion, 0.26m in height. Worm action. Sterile.
009	Void	-	-	-
010	Trench 4	-	Cut	Cut of linear ditch orientated north-south, 1.7m in width, with an obvious truncated depth of 0.05m max. A relatively flat base.
011	Trench 4	010	Deposit	Shallow fill of linear ditch 010. Comprised friable greyish-brown sandy-clay. Sterile.
012	Trench 4	-	Cut	Cut of linear ditch, with a truncated maximum height of 0.1m. Orientated north-south with shallow sloping sides to an undulating base.
013	Trench 4	012	Deposit	Fill of linear ditch 012 comprised greyish-brown, friable sandy-clay. Sterile.
014	Trench 3	005	Deposit	Primary fill of ditch 005. Comprised orangey-grey, friable sandy-clay, 012m in height. Sterile.

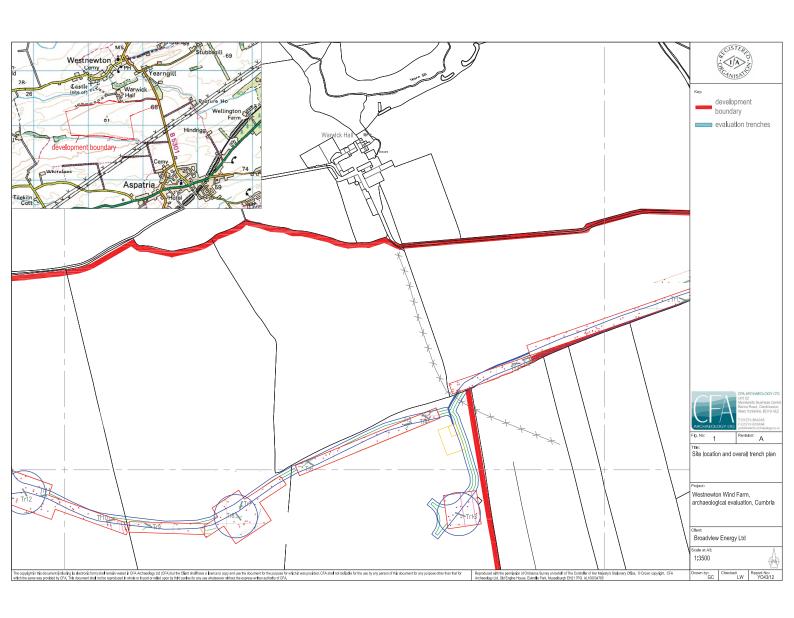
Appendix 2: Photographic Register

Digi	Contexts/description	Taken	Conditio
No	Destruction destruction of the Complete	from North-west	ns Clear
-	Post-excavation shot of Trench 1 after the removal of topsoil.		
2	Post-excavation shot of Trench 3 after the removal of topsoil.	North	Clear
3	Pre-excavation shot of ditch 005	North	Clear
4	Post-excavation shot of Trench 2 after the removal of topsoil.	East	Clear
5	Post-excavation shot of Trench 13 after the removal of topsoil	South-east	Clear
6	Post-excavation shot of Trench 6 after the removal of topsoil	North-west	Overcast
7	Post-excavation shot of Trench 5 after the removal of topsoil	East	Overcast
8	Post-excavation shot of Trench 8 after the removal of topsoil	North	Overcast
9	Post-excavation shot of Trench 10 after the removal of topsoil.	East	Bright
10	Post-excavation shot of Trench 10 after the removal of topsoil.	West	Bright
11	Post-excavation shot of Trench 11 after the removal of topsoil.	East	Bright
12	Post-excavation shot of Trench 12 after the removal of topsoil	North-west	Bright
13	Post-excavation shot of Trench 12 after the removal of topsoil	South-east	Bright
14	Shot of north-facing section of ditch 006: Trench 10	North	Overcast
15	Shot of north-facing section of ditch 006: Trench 10	North	Overcast
16	Shot of north-facing section of ditch 006: Trench 10	North	Overcast
17	Post-excavation shot of Trench 9 after the removal of topsoil	North-west	Overcast
18	Shot of sondage testing natural feature/ geophysical anomaly in Trench 7	East	Overcast
19	Post-excavation shot of Trench 7 after the removal of topsoil	North	Overcast
20	Shot of north-facing section of ditch 010: Trench 4	North	Overcast
21	Shot of north-facing section of ditch 010: Trench 4	North	Overcast
22	Shot of north-facing section of ditch 012: Trench 4	North	Overcast
23	Shot of north-facing section of ditch 005: Trench 3	North	Overcast
24	Shot of north-facing section of ditch 005: Trench 3	North	Overcast
25	Post-excavation shot of south-facing section of ditch 005	South	Overcast
26	Post-excavation shot of ditch 005 in plan Trench 2	West	Overcast
27	Shot of south-west facing section of ditch 002: Trench 1	South-west	Rain
28	Shot of south-west facing section of ditch 002: Trench 1	South-west	Rain
29	Post-excavation shot of ditch 002 in plan: Trench 1	North-west	Rain
30	Shot of north-east facing section of ditch 002: Trench 1	North-east	clear
31	Shot of north-east facing section of ditch 002: Trench 1	North-east	clear

Appendix 3: Drawing Register

Dwg No.	Sheet No.	Scale	Plan / Section	Description/contexts
1	1	1:20	Plan	Plan of Trench 1 and ditch 002
2	1	1:10	Section	South-west facing section of ditch 002 in Trench 1
3	1	1:10	Section	North-facing section of Trench 3 and ditch 005
4	2	1:20	Plan	Plan of Trench 10 and ditch 006
5	2	1:10	Section	North-facing section of ditch 006 in Trench 10
6	2	1:10	Section	North-facing section ditch 010 in Trench 4
7	2	1:10	Section	North facing section of ditch 012 in Trench 4
8	2	1:20	Plan	Plan of Trench 3 and ditch 005
9	3	1:20	Plan	Plan of Trench 4 and ditches 010 and 012

Figures 1-12



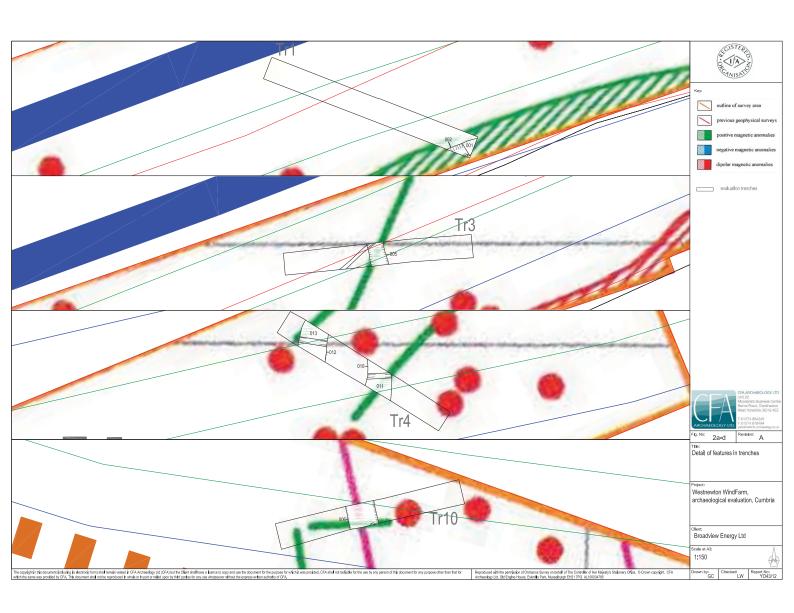






Fig. 3 Post-Excavation Photo of Trench 5



Fig. 4 Post-Excavation Photo of Trench 10

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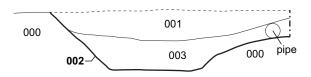


Fig. 5 South-West Facing Section of Ditch 003, Trench 1



Fig. 6 Photo of South-West Facing Section of Ditch 003, Trench 1

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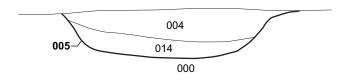


Fig. 7 North-Facing Section of Ditch 005, Trench 3



Fig. 8 Photo of North-Facing Section of Ditch 005, Trench 3

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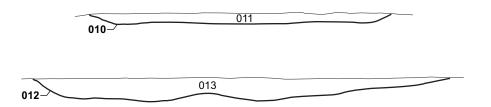


Fig. 9 North-Facing Sections of Ditches 010 & 012, Trench 4



Fig. 10a Photo of North-Facing Section of Ditch 010, Trench 4



Fig. 10b Photo of North-Facing Section of Ditch 012, Trench 4

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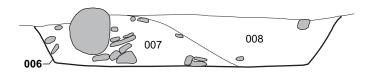


Fig. 11 North-Facing Section of Ditch 006, Trench 10



Fig. 12 Photo of North-Facing Section of Ditch 006, Trench 10

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