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Interpretation, Design & Display

**Wandylaw Wind Farm,
Northumberland**

Archaeological Works

Report No. Y084/13

 01274 864245

 01274 878494

 yorkshire@cfa-archaeology.co.uk

 www.cfa-archaeology.co.uk

CFA ARCHAEOLOGY LTD

Unit 22
Moorlands Business Centre
Balme Road
Cleckheaton
BD19 4EZ

Tel: 01274 864 245

Fax 01274 878494

email: Yorkshire@cfa-archaeology.co.uk

web: www.cfa-archaeology.co.uk

Author	Mark Bell BA
Illustrator	Tamlin Barton BA
Editor	Martin Lightfoot BA MA MifA
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Summary

A programme of archaeological works was undertaken by CFA Archaeology Ltd during the construction of a windfarm at Wandylaw, Northumberland between July 2012 and February 2013. The archaeological works comprised the demarcation of archaeological sites identified by walkover survey, a strip and record on all invasive groundworks and two phases of mitigation which preserved by record three sites which were directly impacted upon by the construction works.

1. INTRODUCTION

1.1 General

This report presents the results of a programme of archaeological works undertaken by CFA between July 2012 and February 2013 during the construction of a ten turbine wind farm development, including crane pads, access tracks and other associated infrastructure. The archaeological works comprised the demarcation of archaeological sites identified by previous walkover survey, a strip and record on all invasive groundworks and two phases of mitigation, that preserved by record three sites which were directly impacted upon by the development. The work was commissioned by Natural Power Ltd. The CFA code and number for the project is WAND/2070.

All work was undertaken in accordance with a written scheme of investigation (WSI) produced by CFA (Appendix 5) to fulfil the requirements of a brief issued by the Northumberland County Council Conservation Team (NCCCT 2007). Subsequently, three addenda were written by CFA and approved by NCCCT. Addendum 1 was produced following on site discussions with CFA and NCCCT to meet the specific requirements of a program of site demarcation to protect existing archaeological remains. Addendum 2 provided the methodology for the evaluation of Site 9, which was previously identified by walkover, and would be directly impacted by the development. Addendum 3 was produced prior to the excavation and recording of sites 13 and 16, which would be directly impacted by the development. Addenda 2 and 3 were intended to mitigate the destruction of the buried archaeological remains through 'preservation by record'. The planning reference for the development is REF 06/B/0765.

1.2 Site Location and Description

The site is located approximately 1km to the west of the hamlet of Wandylaw within the parish of Ellingham and approximately 12km north-west of the town of Alnwick Northumberland (Fig. 1, NGR NU 13765 25072).

The development area is entered to the east from the A1 and then along an existing single track road to Wandylaw. From east to west the land use and topography varies considerably. Initially the land use is arable and consists of improved fields. Commercial plantations then give way to upland pasture and moorland scrub. The land use then becomes upland moor with dense bracken and then heather at higher datum.

The ground rises from the east at approximately 105m AOD and climbs to approximately 205m AOD at Hangwell Law in the south-east of the development area. An upland bog known as ‘Wandylaw Bog’ is situated roughly central within the development area. The site is bordered to the north by Rosebrough Moor, to the west by forestry plantation at Fomart Knowe. To the south the development area is bound by further forestry plantation and to the east Middle Moor and the A1 (Fig. 1).

The geology of the area is characterised by superficial deposits of Diamicton Devensian Till and bedrock deposits of ‘Scremerston Coal Member’ consisting of sandstones, siltstone and mudstone (BGS 2013).

1.3 Previous Archaeological work and Historical Background

Twelve trenches were excavated within the proposed turbine locations as part of an archaeological evaluation undertaken by a separate contractor (Smith 2006). No archaeological features were identified and no finds were retrieved.

A field survey was undertaken by CFA Archaeology in Feb 2012 (Tweedie 2012) to expand upon a previous walkover survey conducted in 1988 (AUNEE 1988). The site walkover identified a number of upstanding archaeological sites which included clearance cairns, an enclosure earthwork and evidence of post-medieval mining activity. The results of the field survey were then used to assess the need for site-specific mitigation measures prior to the development.

A summary of the historical background of the area had previously been reported in an archaeological desk-based-assessment (Evans & Blockley 2006) and also as a chapter in an environmental statement (SKM 2006).

No other archaeological works are known to have been carried out within the development area.

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 1994a, 1994b, 1995 and 2001), and the terms of the WSI and subsequent addenda (1, 2 and 3).

All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, photography and by completing standard CFA record forms

2.2 Stage 1: Supplemental walkover survey

Stage 1 of the archaeological works was a supplemental walkover survey. This work was reported under separate cover (Tweedie 2012). The remit of the work was covered by mitigation requirements detailed in Section 2 of the WSI. In brief, this survey identified twenty sites of cultural heritage interest; eleven had been previously

identified. The results of the supplemental walkover survey informed the targeted mitigation response to stages 2 and 3.

2.3 Stage 2: Topographic survey and demarcation of archaeological sites

Stage 2 comprised a topographic survey and subsequent demarcation of identified archaeological earthworks. This work was covered by Addendum 1 of the WSI and was designed to mitigate the possible effects of construction on any identified sites within the development area. This required a program of demarcation and protective fencing, with a 5m buffer for those sites that were judged by NCCCT to be of sufficient importance to justify their preservation in situ. The Addendum required the fencing to remain in place for the duration of the construction works, that the fencing be durable and consist of highly visible barrier fencing (netlon or similar) supported with wooden stakes, erected under direct archaeological supervision with appropriate signage displayed to indicate that the fencing is in place to protect an archaeological site. Figures 1 and 2 show the sites and the extent of the areas that were demarcated

The addendum required sites 8, 12, 13, 14, to be demarcated. A section of the earthwork that formed Site 16 would be individually demarcated and additional strip fencing was erected where the access track crossed the feature in order to contain the development works within as narrow a corridor as practicable.

Strip fencing was also required around the northern ends of the planning application boundary for turbines 2 and 3 to provide a visible barrier of the end of the development area and along the southern edge of the planning application boundary as it passed Turbine 4.

A Toolbox talk was provided by the site archaeologist to inform all construction staff of the presence of the fenced off monuments and that the fencing must not be moved without the prior acknowledgement of the site archaeologist.

2.4 Stage 3: Strip and Record

All groundworks undertaken in association with the development were subject to a programme of 'strip and record' excavation in line with the specific requirements and detailed methodology outlined within Section 4 of the WSI.

2.5 Stage 4: Evaluation of Site 9 at Turbine 4

Addendum 2 (31/07/12) of the WSI provided the methodology for the evaluation of Site 9 at the location of Turbine 4. This required the hand excavation of a 1m wide trench through each length of the feature and extending either side. The surface of the feature would then be planned and a section excavated. The feature would then be recorded by means of photographs, drawings and written forms in accordance with the project brief, WSI and CFA's standard procedures.

Once the feature had been revealed and recorded the County Archaeological Officer was informed and invited to attend a site meeting to discuss further work as necessary.

2.6 Stage 5: Excavation and recording of Sites 13 and 16

Addendum 3 (06/02/13) of the WSI provided the methodology for the excavation and recording of Site 13, a small clearance cairn and Site 16, the curvi-linear earthwork remains of an enclosure. The excavation of Site 13 required a hand excavated trench through the feature followed by recording in accordance with the brief, WSI and CFA's standard procedures.

Prior to the excavation of a cable trench through Site 16, a section was machine excavated with a toothless ditching bucket under archaeological supervision. The resulting section was drawn and recorded in accordance with the brief, WSI and CFA's standard procedures.

2.7 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 1994), English Heritage guidance (EH, 2007), and CFA's standard methodology.

2.8 Archiving

The project archive, comprising all CFA records will be ordered according to the project brief and to nationally recognised standards (Brown 2011) and deposited with the relevant museum within the agreed timescale. A summary of the results of the archaeological works will be submitted for inclusion in OASIS.

2.9 Monitoring

The archaeological works were monitored by Nick Best, Assistant County Archaeologist for NCCCT, who was informed in advance of the works taking place and visited the site on 20 August 2012.

3. RESULTS

Numbers in parentheses refer to contexts, a full description of which is contained in Appendix 1. A gazetteer of sites is presented as Appendix 4.

3.1 Stage 2: Site Demarcation.

Sites 8, 12, 13 and 14 were all demarcated under archaeological supervision in line with the methodology specified by Addendum 1 of the project brief and WSI. A 5m buffer could be accommodated around all sites (Figs 3 and 4).

Site 16 was also successfully demarcated. The route of the nearby access track followed a previous route that had been used by commercial forestry vehicles prior to the development. The site crossed the development in two places 290m apart and as a consequence of the forestry activity, both sections of the Site had been destroyed. The width of the proposed access track in both locations was sufficiently wide enough to facilitate construction traffic and further groundbreaking was not required; although

as the site was within 5m of the access road it was demarcated to protect it from site traffic (Fig. 5). The access track was ‘floated’ past this site. The only ground breaking that was eventually required was for a cable trench which ran through the northern side of the site where it survived within the development boundary. This was mitigated by excavation and is reported in Section 3.5.

Strip fencing was erected around the northern ends of the planning application boundary for turbines 2 and 3 which provided a visible barrier to the limit of the development in these areas

Strip fencing was erected along the south-east edge of the planning application boundary as it passed Turbine 4 (Fig. 6).

3.2 Stage 3: Strip and Record

The composition of the topsoil varied; to the west of the site it comprised friable, mid-brown, clayey-silt and was generally 0.2 to 0.4m deep (001). To the east, in the upland areas of Wandylaw Moor, the deposit was generally 0.3-0.5m deep and comprised organic, mid to dark brown or greyish-brown clay-silt. The soil in the upland areas was usually friable, although it was recorded as soft in the areas of turbines 6 and 9 which were poorly drained. No finds were recovered from the topsoil which, with the exception of root matter was quite homogenous. The presence of an occasional yellowy-grey, clay-silt subsoil (002) 0.1m deep was recorded and removed at turbine locations 2, 4, 5, 6, 7, 9. The natural substrate (000) was typically firm mottled orangish-grey or yellowy-orange sandy-clay containing occasional sub-angular sandstone cobbles (Fig. 7, 8), and evidence of bioturbation. Plough scars were recorded at Turbine 1, in the south-east of the development, indicated the land here had been improved (Fig. 9).

3.3 Archaeological Features recorded during strip and record

Turbine 7: Drainage Ditch 006

A north-east to south-west orientated drainage ditch (006) was uncovered at the north-west corner of the crane pad for Turbine 7 (Fig. 10). The ditch measured approximately 10m and continued beyond the limit of excavation in both directions. The ditch was 0.95m wide, 0.22m deep and contained a single fill comprising light greyish-brown friable silty-sand (005). A number of drainage ditches on a similar orientation were noted discharging water into a small culvert which drained the land to the north east. The feature is very probably post-medieval in date.

Turbine 4: Possible Trackway 010 and 012

Parallel hollows or ruts of a possible former trackway were recorded at Turbine 4 (010, 012). The feature was orientated north-east to south-west and was recorded for 10m within the footprint of the turbine base before continuing beyond the limit of excavation (Fig. 11). It was probably of post-medieval origin and one of several trackways known across the moorland (Tweedie 2012, 5).

Turbine 5: Bell pit (Site 3)

The cut of a backfilled bell pit was exposed during topsoil removal at Turbine 5 (008). The feature is probably the remains of Site 3 that was previously located by field survey (Tweedie 2012). The sub-circular cut of the feature was 2m in diameter and contained a mixed deposit of very compacted greyish-yellow shale, crushed stone and sand (007) (Fig. 12). The feature was not fully excavated due to risks to the safety of staff. A machine excavated a sondage to a depth of 0.3m whereupon the backfill became indurated. The bell pit is an example of an early working of pre-industrial age that confirmed that coal resources in parts of the site were exploited.

Turbine 4: Petroglyph (Site 21)

During the archaeological works at Turbine 4, a large sub-angular earth-fast boulder was examined and found to have a petroglyph on its upper surface (Fig 13). The cruciform ‘carving’ was 0.2m long by 0.15m wide with a north-west long axis located on the northern corner of the boulder. Liaison with the main contractor established that the site was not at risk from groundbreaking, but it was agreed the site should be demarcated to avoid accidental damage as per Stage 2 (Addendum 1).

Examples of prehistoric rock art are widely known in the surrounding area and include a cup and ring marked rock located 0.7km to east of Turbine 4, beyond the development site boundary. The precise date and purpose of the feature is not known, although this example is not thought to be prehistoric in origin. Possible interpretations include a possible pilgrim’s mark or quarry man’s inscription.

3.4 Stage 4: Evaluation of Site 9 at Turbine 4

Site 9 was located within the proposed footprint of Turbine 4 and belonged to a larger prehistoric cairn field (SMR No. 4961).

The cairn consisted of two merging spreads of stone cobbles and boulders (Fig. 14a, 15). To the east of the site was a 0.3m high concentration of stones (003) which merged with a less concentrated and more ad-hoc deposit of larger boulders and cobbles (004) that were 0.2-0.3m high. The evidence in section showed the stones were covered by subsoil (002) and were situated directly on the natural substrate (Fig. 14b). When seen in plan, the elongated characteristics of Site 9 may suggest that more than one cairn is present, or, that a larger cairn had been disturbed.

Two sondages were excavated through the each deposit; however no internal, buried or cut features or deposits were uncovered (Fig. 16). The removal of the rest of the site was supervised under the remit of strip and map, although the site yielded no further information. The evaluation confirmed this was a clearance cairn, though the date is unknown.

3.5 Stage 5: Excavation and recording of Sites 13 and 16

Site 13

The cairn was located to the north-east of Turbine 4 and was one of a larger prehistoric cairn field (SMR No. 4961). The site was initially demarcated in Stage 2 of the archaeological works as it was situated within the site boundary, but unlike Site 9, was not initially directly impacted upon by construction. However, a change to the proposed layout scheme of the wind farm would mean that mitigation by excavation and recording was required. The work was covered by Addendum 3 of the WSI and Project Brief.

The cairn at Site 13 was sub-circular and measured roughly 2.8m east to west and 2.4m north to south (Fig. 14c). The profile of the cairn was 0.35m at its deepest and tapered to 0.1m at the edges (Fig. 14d). The excavation removed a fibrous layer of turf which revealed a cairn that consisted of a mixture of irregular sized sandstone cobbles and small boulders (013) deposited on sub-soil (002) (Fig. 17). A scatter of stones to the north may have been related to some later disturbance. A sondage was excavated through the centre of the cairn; however no buried or cut features were recorded. The removal of the rest of the site was monitored under the strip and map, though no further remains were recorded. As with Site 9, 46m to the north-east, the site was interpreted as a clearance cairn of unknown date.

Site 16

The Site was a large sub-circular enclosure 350m in diameter and defined by a pronounced bank or earthwork that enclosed a low-lying part of the site called Wandylaw Bog, in the vicinity of Turbine 3 (Fig.1). The majority of the circuit of the Site was situated to the north of the development boundary. However, the circuit of the earthwork did enter the development area in two places. Forestry vehicles had destroyed the any upstanding remains where the proposed windfarm access track was to be constructed. Therefore no mitigation, other than demarcation where the site had survived was required. It emerged that the excavation of a cable trench would pass through the remains where they survived within the development boundary to the north of the access track, and it was agreed that this work would be mitigated by excavation as per Addendum 3 of the WSI.

An 8m x 2m wide trench was excavated across Site 16 where the cable trench would intersect the archaeological remains (Fig. 18). Beneath the overgrowth of heather, a band of friable, organic topsoil (001) 0.3m deep covered a deposit of grey silty-clay (014) with a maximum depth of 0.7m in the centre of the feature. The depth of this deposit tapered down to 0.2m at the edges of the section. The bank was 3m wide.

The earthwork is probably post-medieval, large earthwork boundary features are common throughout Northumberland, many of which date to a phase of agricultural improvement in the second half of 18th century (NNP 2013).

4. DISCUSSION

Landscape Features

Site 16 is probably associated with the Enclosure Awards of the 18th and early 19th centuries at a time of economic and population growth. The act of enclosing land from open pasture was an attempt to manage livestock, in part to improve strains and control disease. Improvements by the Duke of Northumberland at Rothebury forest in the early 18th century and also at Chillingham castle by Lord Tankerville and his agent John Bailey were early examples of the practice. The pace of enclosure became more rapid in the 2nd half of the 18th century with land previously termed 'wasteland' either brought into cultivation or common land improved to carry more stock. Around this time the Board of Agriculture commissioned surveys to inform them of the state of the country's agriculture. The survey for Northumberland was carried out by John Bailey and the agriculturalist George Culley; who farmed at Glendale in north Northumberland (NPP 2013). In 1794, they documented that parts of the county were enclosed by hedges or fenced fields and by 1804 the claim was that there were very few unenclosed farms. Their account goes on to describe boundary structures that were generally used for new enclosures as earth mounds at the base of which are planted 'quicks' on upturned sods. 'Quicks' a colloquialism of 'Quickset' used to describe a quickset hedge and required the planting of hazel or hawthorn cuttings that take root and form new plants that create a dense barrier. The ephemeral features at the base of Site 16 may relate to bioturbation from a landscape feature such as a hedge. The preferred size of enclosure earthworks at this time was a width of 6 feet (1.83m) with a height of 4ft (1.22m) (ibid). Site 16 was not as high, or as wide, but this is probably due to soil erosion and may explain why the 'features' interpreted as bioturbation or a possible hedge line were recorded under the bank. The site is depicted on the 1866 Ordnance Survey map with two sheepfolds within the interior, which ties in with a pastoral interpretation.

Clearance Cairns

The cairns at Turbine 4 represent an accumulation of stones that were deposited probably following a clearance of the surrounding area for agricultural purposes. Clearance cairns are a common feature of upland landscapes and moorlands across the north of England and the Scottish Borders. They can often occur in considerable numbers and are termed 'cairn fields'. They are often difficult to date, though a tentative Bronze Age date is often muted based on their association with burial cairns or settlements of similar date. Sites 9 and 13 are probably related to twenty nine other clearance cairns that comprise cairn field SMR No. 4961. Most of these cairns are either oval or rounded and measure between 1m and 6m across. A small hut circle is also situated within this cairn field and may be evidence of settlement and land management possibly as early as the Late Neolithic or as late as the Iron Age.

Other cairn fields exist on Wandylaw Moor including a group of three cairns of similar typology located further to the east (SMR No. 4962) and a group of five cairns (SMR No. 5026) a short distance beyond.

The accumulation of cairns at Wandylaw is evidence of a wider fledgling agricultural landscape that was created when the ground was cleared of stones to prepare the land

for cultivation. It has been suggested (Higham 1986, 89), that the cultivation of very thin upland soils would result in soil exhaustion and was a short term strategy. One of the questions surrounding clearance cairns and cairn fields in general is whether multiple cairns indicate multiple, simultaneous or broadly contemporary agricultural efforts or whether these are the evidence of small scale clearance by small groups that farmed the soils near to exhaustion, before further clearing an adjacent or nearby area in order to continue the practice?

Mining Remains and Trackways

The SMR records a series of trackways (No. 4959) that run from Slateford, north of the development area, south-west across Wandylaw Moor near to the location of Turbine 4 (010, 012). The trackways are thought to be associated with the movement of coal from Wandylaw colliery or from one of the numerous bell pits located near to here (No. 4929), including Site 3. The Ordnance Survey 1st Edition Map clearly depicts these early workings. Another interpretation is that the trackway may be of agricultural origin.

Wandylaw Moor has many post-medieval mining remains that survive as bell pits ranging in size from 8m to 10m across. A bell pit was a vertical shaft that was dug to the seam, after which the miners would then work outwards extracting the resource until it was too dangerous due to the risk of collapse. The feature recorded at Turbine 5 (Site 3), is possibly one of a cluster of bell pits that were shown on the Ordnance Survey 1st Edition. The feature may have a pre-18th century origin, as the use of different techniques of extraction such as shoring and drift mining became more common as the 18th century progressed, allowing larger mines to be dug and more coal to be excavated (DMM).

5. CONCLUSION

A change in the proposed layout of the windfarm required excavation of sites 13 and 16 in mitigation of the effects of the development. Both of the sites had been identified by the walkover. The clearance cairns (sites 9 and 13) were both located close to a known prehistoric cairn field, and though no independent dating evidence was recovered, it may be that they are contemporary and therefore possibly Bronze Age in date. The evidence from the excavation and following that further research suggested that the enclosure (Site 16) was probably a late 18th century earthwork related to livestock management and the reorganisation of the landscape that took place at this time. Other features recorded were a post-medieval trackway, a bell pit and an undated (though probably not ancient) petroglyph carved into a boulder.

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APPENDICES

Appendix 1: Context Summary

No.	Area	Fill	Type	Description
000			Deposit	Natural substrate; friable reddish-orange sandy-clay.
001			Deposit	Topsoil; friable mid-brown clayey-silt.
002			Deposit	Subsoil; friable yellowish-grey clayey-silt.
003	T4		Deposit	East spread of clearance cairn (Site 9). 3m Diameter x 0.3m D.
004	T4		Deposit	West spread of clearance cairn (Site 9). 3m Diameter x 0.2m D.
005	T7		Deposit	Fill of drainage channel. Light greyish-brown friable silty-sand.
006	T7		Deposit	Cut of drainage channel. >10m L x 0.95 W x 0.2m D. Linear feature in plan on a north-east to south-west orientation. Gently sloping-rounded sides. Rounded base.
007	T5	008	Deposit	Fill of bell pit (Site 3). Firm greyish-yellow mixed shale deposit.
008	T5		Cut	Cut of bell pit. 2m Diameter x >0.3m D. Regular circular cut. Not fully excavated.
009	T4	010	Deposit	Fill of relict trackway. Firm greyish-brown clayey-silt.
010	T4		Cut	Cut of relict trackway. >12m L x 1m W x 0.1m D. Regular sided linear feature with a shallow rounded base. Forms a trackway with trackway 012.
011	T4	012	Deposit	Fill of relict trackway. Firm greyish-brown clayey-silt.
012	T4		Cut	Cut of relict trackway. >12m L x 1m W x 0.1m D. Regular sided linear feature with a shallow rounded base. Forms a trackway with 010.
013	T4		Deposit	Spread of irregular stones of clearance cairn (013). 2.8m Diameter x 0.25m D.
014	Nr T3		Deposit	Enclosure embankment. 0.7m H x 3m W. Friable firm grey silty-clay.

Appendix 2: Photographic Register

No.	Contexts/description	Facing	Conditions
1	Turbine 1 following topsoil removal	West	Bright
2	Turbine 1 following topsoil removal	East	Bright
3	Turbine 1 following topsoil removal	North-west	Bright
4	Turbine 2 following topsoil removal	South-east	Bright
5	General shot of earthworks west of Turbine 1 facing east	East	Bright
6	General shot of earthworks west of Turbine 1 facing west	West	Bright
7	Turbine 2 following topsoil removal	North-west	Bright
8	Turbine 2 following topsoil removal	North	Bright
9	Working shot of Turbine 3 during topsoil removal	North	Bright
10	Turbine 3 following topsoil removal	South-west	Bright
11	Working shot of trackway between Turbine 3 and Turbine 8 during topsoil removal	West	Bright
12	Trackway between Turbine 3 and Turbine 8 following topsoil removal	West	Bright
13	Trackway between Turbine 3 and Turbine 8 following topsoil removal	East	Bright
14	Turbine 3 following topsoil removal	North	Bright
15	Working shot of erecting fencing beyond Turbine 2	West	Overcast
16	Netlon fencing around Site 16	South	Bright
17	Netlon fencing around Site 16	South-west	Bright
18	Netlon fencing beyond Turbine 2	North-west	Overcast
19	Netlon fencing beyond Turbine 3	North	Bright
20	Netlon fencing around Site 9	North-west	Bright
21	Turbine 8 following topsoil removal	East	Bright
22	Working shot of topsoil removal at Turbine 8	West	Overcast
23	Turbine 8 following topsoil removal	South-east	Overcast
24	Turbine 8 following topsoil removal	West	Bright
25	Working shot of evaluation of clearance cairn 003/004 (Site 9)	North	Bright
26	West extent of clearance cairn 004 (Site 9)	South	Bright
27	East extent of clearance cairn 003 (Site 9)	North	Bright
28	General shot of clearance cairn 003,004 (Site 9) following excavation	South-west	Overcast
29	General shot of clearance cairn 003,004 (Site 9) following excavation	West	Overcast
30	Excavated Slot 1 through east extent of clearance cairn 003 (Site 9)	South-west	Overcast
31	Excavated Slot 1 through east extent of clearance cairn 003 (Site 9)	South	Overcast
32	Excavated Slot 2 through west extent of clearance cairn 004 (Site 9)	North	Overcast
33	Post-excavation shot of clearance cairn 003,004 (Site 9)	South-west	Overcast
34	Turbine 6 following topsoil removal	North-east	Overcast
35	Turbine 10 following topsoil removal	North-west	Bright
36	Turbine 10 following topsoil removal	West	Bright
37	Turbine 7 following topsoil removal	East	Overcast
38	Turbine 7 following topsoil removal	South-west	Overcast
39	Working shot of erecting fencing around Turbine 4	South	Overcast
40	Working shot of erecting fencing around Turbine 4	South	Overcast
41	General shot of Site 5 adjacent to trackway construction	North-east	Overcast
42	General shot of Site 5 adjacent to trackway construction	South-east	Overcast
43	Pre-excavation shot of bell pit (008) (Site 3)	South	Bright

No.	Contexts/description	Facing	Conditions
44	Pre-excavation shot of bell pit (008) (Site 3)	South-west	Overcast
45	Working shot of excavating bell pit (008) (Site 3)	North	Overcast
46	Post-excavation shot of bell pit (008) (Site 3)	North	Overcast
47	Shot of Turbine 5 following topsoil removal	North-east	Overcast
48	Shot of Turbine 5 following topsoil removal	South-west	Overcast
49	Working shot of topsoil removal around clearance cairn 003,004 (Site 9)	North-east	Overcast
50	Working shot of topsoil removal at Turbine 4, showing the area beneath clearance cairn (Site 9)	South-east	Bright
51	Cruciform carving north of Turbine 4 (Site 21)	South	Overcast
52	Cruciform carving north of Turbine 4 (Site 21)	South	Overcast
53	Close-up shot of rock engraving	South	Overcast
54	Pre-excavation shot of relict trackway 010,012 at Turbine 4	South	Overcast
55	General shot of relict trackway 010,012 at Turbine	North	Overcast
56	Shot of Turbine 4 following topsoil removal	South	Overcast
57	Shot of Turbine 4 following topsoil removal	East	Overcast
58	Shot of Turbine 4 following topsoil removal	North-west	Overcast
59	Working shot of topsoil removal at Turbine 9	North	Bright
60	Turbine 9 following topsoil removal	North-west	Bright
61	Turbine 9 following topsoil removal	North	Bright
62	Netlon fencing around enclosure ditch (Site 16)	South-west	Overcast
63	Netlon fencing around enclosure ditch (Site 16)	North-east	Overcast
64	Netlon fencing around upcast from drainage ditch (Site 14)	North	Overcast
65	Netlon fencing alongside Turbine 4	North-east	Overcast
66	Netlon fencing alongside Turbine 4	South-east	Overcast
67	Netlon fencing around clearance cairn (Site 13) and rock engraving	North-west	Overcast
68	Netlon fencing around clearance cairn (Site 11)	West	Overcast
69	Netlon fencing around clearance cairns (Sites 12 and 8)	East	Overcast
70	North-east facing section of drainage channel (006) at Turbine 4	South-west	Overcast
71	Drainage channel (006) at Turbine 4	South-west	Overcast
72	General shot of cable trench at Turbine 7	West	Snowing
73	East facing section of cable trench at Turbine 1	West	Snowing
74	General shot of cable trench between Turbine 1 and Compound	East	Snowing
75	General shot of Site 13 during topsoil removal	North-west	Bright
76	Oblique shot of south-east facing section of evaluation trench through Site 13	North	Bright
77	South facing section of Site 16	North	Overcast
78	Oblique shot of south facing section of Site 16	North-east	Overcast
79	General shot of pipe trench at Wandylaw Village	North-east	Overcast
80	General shot of pipe trench facing south-west towards the compound	South-west	Overcast

Appendix 3: Drawing Register

No.	Sheet	Scale	Plan / Section	Description/contexts
1	1	1:20	P	Scale drawing of clearance cairn 003,004 (Site 9)
2	2	1:20	P	Scale drawing of clearance cairn 003,004 (Site 9)
3	2	1:20	S	North-west facing section of clearance cairn 003,004 (Site 9)
4	2	1:20	S	South-west facing section/profile of clearance cairn 003,004 (Site 9)
5	2	1:10	S	North-east facing section of Slot 1 through clearance cairn 003,004 (Site 9)
6	2	1:10	S	South-east facing section of Slot 1 through clearance cairn 003,004 (Site 9)
7	2	1:10	S	South facing section of Slot 2 through clearance cairn 003,004 (Site 9)
8	3	1:10	S	North-east facing section of drainage ditch 006
9	3	1:100	P	Scale drawing of drainage ditch 006
10	3	1:50	P	Pre-excavation plan of bell pit 008 (Site 3)
11	3	1:10	S	South facing section of bell pit 008 (Site 3)
12	3	1:20	P	Scale drawing of bell pit 008 (Site 3)
13	4	1:10	S	South facing section of relict trackway 010 & 012
14	4	1:50	P	Scale drawing of relict trackway 010 & 012
15	5	1:20	P	Scale drawing of clearance cairn (Site 13)
16	6	1:20	S	North-east facing section of clearance cairn (013) (Site 13)
17	6	1:20	S	South-west facing section of clearance cairn (013) (Site 13)

Appendix 4: Amended Gazetteer of Sites Demarcated During Archaeological Works

Site No.	Site Type	Description	NGR	SMR No.	Source
3	Bell Pit	Field survey identified the remains of a bell pit, visible as hollow surrounded by upcast on its northern side. The upcast survives to a maximum height of 1m, and the hollow was found to be at least 0.8m in depth. The bell pit measured approximately 8m x 4m.	413136-625286		Field survey (Tweedie 2012)
8	Clearance Cairn	Field survey identified the remains of a small clearance cairn measuring approximately 3m x 3m, and a maximum of 0.3m in height. The cairn is covered with moss and grass, but four stones remain visible on the north-western side.	413267-625123	4961	Field survey
9	Possible Structural Remains	Field survey identified the remains of an L-shaped mound of uncertain function with some protruding stones surviving in fair condition. The longer axis of the mound is orientated north-west to south-east and measures approximately 6m in length, the shorter axis which extends from the north-western end measures approximately 3m in length. The whole feature is approximately 2.5m in width.	413140-625012	4961	Field survey
11	Clearance Cairn	Field survey identified the remains of a small clearance cairn which had previously been identified by the 1988 survey by the Archaeological Unit for North East England (as site 5). The clearance cairn conformed to the previous description. It comprises a sub-circular mound measuring 3m x 3m and approximately 0.3m high. The cairn was grass-covered with some stone visible on its southern edge.	413202-625145	4961	1988 survey (AUNEE 1988); Field survey
12	Clearance Cairn	Field survey identified the remains of a small clearance cairn which had been previously identified by the 1988 survey by the Archaeological Unit for North East England (as site 6). The clearance cairn conformed to the previous description. It comprises a flat-topped sub-circular mound approximately 2.5m x 3m and approximately 0.4m in height. The clearance cairn was grass and moss covered and no stone content was visible.	413231-625119	4961	1988 survey; Field survey
13	Clearance Cairn	Field survey identified the remains of a small clearance cairn which had been previously identified by the 1988 survey by the Archaeological Unit for North East England (as site 20). The clearance cairn conformed to the previous description. It comprises a circular mound measuring approximately 3m x 3m and approximately 0.4m in height. Two stones are visible on the northern edge of the clearance cairn which is otherwise grass-covered.	413174-625049	4961	1988 survey; Field survey

Site No.	Site Type	Description	NGR	SMR No.	Source
14	Upcast from drainage ditch	Field survey located this site which had been identified as a stone scatter measuring 3m x 5m by the previous 1988 survey by the Archaeological Unit for North East England (as site 35). The current field survey identified this site as being upcast from a drainage ditch located to the south-east.	413038-624961	4961	1988 survey; Field survey
16	Enclosure	Field survey identified the remains of an enclosure, as marked on the modern OS mapping. It survives as a turf-bank surviving to a maximum height of approximately 1m and approximately 2m in width. The enclosure survives in very good condition, but close to the forestry, and within the survey area it is in very poor condition, having been destroyed by traffic related to the forestry plantation. The enclosure crosses the proposed access track at 413197 624230 (NU 13197 24230) and 412894 624331 (NU 12894 24331).	413057-624632		Field survey
21	Petroglyph	A large sub-angular earth-fast boulder with an engraved cruciform petroglyph on its upper surface on a north-west to south-east axis, measuring 0.2m L x 0.15m W.	413153-625048		Noted during ground-works

Appendix 5: Written Scheme of Investigation and Addenda

**Wandylaw Farm Windfarm, Berwick-upon-Tweed, Northumberland.
(Planning Ref 06/B/0765)**

Written Scheme of Investigation

1 Introduction

A planning application has been submitted for the construction of up to 10 wind turbines and associated infrastructure on land at Wandylaw Farm, Chathill, Berwick-upon-Tweed

This WSI is based upon the supplied brief and subsequent discussion with Nick Best the Assistant County Archaeologist of the Northumberland County Council Conservation Team (NCCCT).

All archaeologists involved with the project will familiarise themselves with the relevant archaeological background material before commencing on-site works.. The existing assessment data includes i) DBA / ES Chapter, ii) Results of evaluation, iii) The Wandylaw Moor Archaeological Survey of 1988 (a previous walkover survey).

2 Archaeological Methods

Work (fieldwork and any required post-excavation assessment and/or analysis) will be carried out in accordance with current good practice, as well as with the Standards and Guidance issued by the Institute of Field Archaeologists and other relevant bodies (such as English Heritage, UKIC etc.).

Stage 1: Supplemental walkover survey

In order to reduce the potential for archaeological earthworks or other surface features to be impacted destroyed during construction, a supplemental archaeological walkover survey will be undertaken prior to work on site commencing. This walkover survey will be undertaken either during the winter months when vegetation is low, or following the clearance of vegetation within the development corridor. Any additional sites or monuments identified during this process will be subject to a targeted mitigation response in line with the methodology outlined below (Stage 2). Any additional mitigation will require the WSI to be updated to reflect this.

Any additional sites or monuments identified during the walkover survey will be subject to a rapid assessment and interpretation and located with reference to the Ordnance Survey National Grid.

Stage 2: Topographic survey and demarcation of identified archaeological earthworks

Any newly identified features and groups of features wholly or partially affected by the development will be subject to a detailed topographic survey prior to development commencing. Further work (Stage 3) may also be required to fully mitigate the effects of the development.

Following the survey exercise (Stage 1) if standing features are judged by NCCCT to be of sufficient importance to justify their preservation in situ they will be protected with a suitable buffer by robust and prominent fencing for the duration of the

construction work. Additional signs will be displayed indicating that the fencing is in place to protect an archaeological site.

Cairns 20 and 35 will be fenced with a 6m buffer (see DWG NO 589_M_017) by robust and prominent fencing for the duration of the construction work. Additional signs will be displayed indicating that the fencing is in place to protect an archaeological site.

Toolbox talks will be provided by the site archaeologist to inform all construction staff of the presence of the fenced off monuments and that the fencing must not be moved without the prior acknowledgement of the site archaeologist.

Stage 3: Strip and Record

All groundworks undertaken in association with the development will be subject to a programme of 'strip and record' excavation in line with the methodology outlined below.

Strip and Record: soil stripping

- i) Topsoil and unstratified modern material may be removed mechanically by a machine using a wide toothless ditching bucket, under continuous archaeological supervision.
- ii) The topsoil or recent overburden will be removed down to the first significant archaeological horizon in successive level spits
- iii) No machinery will track over areas that have previously been stripped.
- iv) The full nature and extent of archaeological features and deposits will be exposed within the working area
- v) Areas containing archaeological features and deposits will be recorded on a pre-excavation plan within the Strip and Record area.

Strip and record area: recording and excavation

- i) All features exposed will be fully mapped and a full site plan prepared before decisions regarding the appropriate level of excavation are made. The aim of the strip and record exercise is to record all and any archaeological features present on the site and to undertake sufficient intrusive excavation to enable the date, character, form and stratigraphic relationships of archaeological features to be understood. This process will typically involve significantly less intrusive excavation than would be required under full excavation conditions. This process will typically require, as a maximum, the following level of sampling:
 - 50% of every discrete feature and features of particular interest
 - 10% of the area of linear/curvilinear features with a non-uniform fill
 - 10% of the area of linear/curvilinear features with a uniform fill

All archaeological features and deposits will be excavated by hand

Limited supplemental targeted excavation may also be required in certain locations in the event that stratigraphic relationships or artefactual dating evidence cannot be recovered from archaeological features via the initial sampling process. A

contingency allowance of 100 person-days is made for any additional work required under these circumstances.

All excavation and on-site recording will be carried out according to standard CFA procedures, principally by drawing, by photography and by completing standard CFA record forms. CFA uses the Museum of London's single context recording system, with minor adaptations. Full details of CFA's on site recording strategy are contained within the document *CFA Archaeology Ltd – On Site Recording*. This can be supplied under separate cover. All CFA staff are issued with this document.

A photographic record of all contexts and test-pits will be taken in colour transparency and black and white print and will include a clearly visible, graduated metric scale. A register of all photographs will be kept.

Advice on sampling strategies previously received from Jaqui Huntly, the English Heritage Regional Science Advisor, recommend that environmental sampling is targeted upon potentially significant archaeological deposits or features and should predominantly examine sealed contexts. Sample size will take into account the frequency with which material appropriate for sampling will occur but bulk samples of dry deposits will normally be 20 litres and waterlogged samples will be 10-12 litres. Where deposits with a high palaeoenvironmental potential are identified advice will be sought from the English Heritage Regional Science Advisor and from the County Archaeologist on the need to extract, process and further examine environmental samples. Bulk sampling may also be used to collect charcoal for C14 dating where appropriate.

All artefacts and animal bones will be recorded, collected and labelled according to their individual stratigraphical context. Artefacts of clearly modern date will be recorded but not retained for off-site assessment. Finds from each archaeological context will be allocated an individual finds bag(s) and waterproof labels will be used for each bag to identify unique individual contexts.

Conservation advice may be necessary on site prior to lifting of, and initial treatment of, fragile objects. All finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed according to the United Kingdom Institute for Conservation's *Conservation Guidelines No.2*, the Council for British Archaeology's *First Aid For Finds* (Second Edition, 1987) and the Institute of Field Archaeologists' *Guidelines for Finds Work* (1992).

In the event of the discovery of human remains, including cremation burials, these will be left *in situ* and not be further examined and NCCCT will be contacted immediately.

3 Products and Reporting

A post-excavation assessment report including all the information necessary to make decisions about the future direction of the project in line with Section 6 and Appendix 4 in English Heritage's Guidelines on the Management of Archaeological Projects will be submitted to NCCCT for comment and approval prior to any further analysis or publication work commencing. This document will be submitted within six months of the end of fieldwork unless previously agreed with all relevant parties.

Copies of the reports will be distributed as required by Northumberland County Council. This will include a copy to the Berwick Borough Archive.

The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> will be completed as part of the project.

If full analysis and publication is required an updated project design will be supplied as per the terms of the brief. The publication article will be submitted within one year of the approval of the updated project design for full analysis and publication, unless previously agreed with all relevant parties.

The project archive, comprising all CFA record sheets, plans and reports, will be prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed, 1991, and arrangements made for its deposit with an appropriate repository within 6 months of the completion of post-excavation and reporting. The deposition and disposal of artefacts must be agreed with the legal owner and recipient museum prior to the work taking place. Where the landowner decides to retain artefacts adequate provision will be made for recording them.

NCCCT will be notified of the arrangements made for the deposit of the archive and the transfer and storage of finds to the Museum of Antiquities in Newcastle. CFA will liaise with the Curator, Alison Jones.

A summary will be prepared for 'Archaeology in Northumberland' and submitted by December of the year in which the work is completed.

The involvement of the Northumberland County Archaeologist shall be acknowledged in any report or publication generated by this project.

4 Monitoring

Close contact will be maintained with the client and NCCCT for the purposes of managing the project. Important or unexpected discoveries will be communicated to the client and NCCCT, with whom a monitoring visit will be arranged, where required.

5. Resources and Programming

5.1 Key Personnel

Bruce Glendinning BSc PgDip MIFA will manage this project. Mr Glendinning graduated from the University of Glasgow in 1993 with a BSc in Archaeology. Since then he has worked as a professional archaeologist with many units throughout Scotland and England. He has extensive experience of managing large-scale archaeological projects in both rural and urban environments. In addition to project management he has acted as a consultant for Morrison Homes, Robertsons Residential, Apex Hotels, Wimpey Homes and Stewart Milne Homes amongst many others

Field Director for CFA will be selected from CFA's pool of Project Officers, all of whom have appropriate experience.

All illustrations for the project will be produced by CFA's **Illustrator** Kevin Hicks BA AAI&S. Mr Hicks has a professional qualification in graphic design as well as archaeological experience dating from 1989, and has worked on international research projects since 1992. He joined CFA to act as its Senior Illustrator at the start of 1994, and has acted as draughtsman for many urban projects including the Scottish Burgh

Survey project, conducted by the Department of Scottish History, University of Edinburgh for Historic Scotland.

5.2 Specialist Staff

CFA have in-house palaeoenvironmental, human remains and artefact specialists to advise on sampling, storage and conservation of finds. We have dedicated finds and sample storage and processing areas.

Human Remains and Finds Conservation Pottery Analysis and small finds analysis

Sue Anderson BA MPhil MIFA DipMusStud. Sue Anderson is a Project Manager at CFA with extensive experience in general finds analysis. She graduated from Durham University in 1986 and completed her research into human skeletal populations of the first millennium AD in the North-East of England in 1991. After graduation, she worked as a freelance human bone specialist on contracts for a variety of archaeological units throughout the country, as well as projects funded or managed by English Heritage and Historic Scotland, and is a specialist in both cremated and non-cremated human remains. She developed an interest in post-Roman pottery whilst working for Hampshire County Museums Service as a Museum Assistant, and gained further experience as Finds Manager for Suffolk County Council Archaeological Service between 1995 and 2004. During that time she added further specialisms in post-Roman small finds and Roman and medieval/post-medieval ceramic building material, and has compiled and written numerous reports on general finds assemblages. Her publications include reports on human bones from sites in East Anglia and Southern England, several large reports in the Ancient Monuments Laboratory Report Series (all forthcoming), papers and reports on medieval pottery in Medieval Ceramics, and a paper on architectural terracotta in Archaeological Journal. In addition, she has training in archaeological conservation and collections management as part of her degree course and post-graduate museums diploma, as well as some practical experience in a conservation laboratory. Ms Anderson will provide advice throughout the project and will carry out site visits during the evaluation as appropriate.

Charcoal / Palaeo-environmental Co-ordinator

Dr Mike Cressey BA MSc PhD FSA Scot. Dr Cressey is a Project Manager at CFA and acts as Palaeoenvironmental Co-ordinator, with a specialism in the analysis of charcoal assemblages. He has been working as a field archaeologist since 1982. He completed the MSc in Environmental Archaeology and Palaeoeconomy at Sheffield University in 1991. During the course of his postgraduate studies he has developed his soil science skills, and he is also skilled in palynology, palaeolimnology and fossil wood identification. Dr Cressey will provide advice, as appropriate, on sampling strategies, and will also be our charcoal specialist.

Animal bone

Dr Jennifer Thoms BSc MA PhD. Dr Thoms is an experienced zooarchaeologist and has over 15 years experience in the subject. She has contributed specialist reports to numerous publications and has recently completed a doctorate examining faunal remains from Iron Age sites in the Outer Hebrides. She currently teaches a course on Archaeological Practice for the University of the Highlands and Islands.

Conservation

Conservation services will be provided by **Will Murray**, Artefacts and Preventive Conservator at The Scottish Conservation Studio LLP. Mr Murray achieved a Postgraduate Diploma in Archaeological Conservation, and has since achieved Accredited Conservator-Restorer status through the Professional Accreditation of Conservator-Restorers scheme (2000). He is also an Accredited Member of the United Kingdom Institute for Conservation. Until this year, Mr Murray was, since 1989, Conservation Officer: Artefacts for the Scottish Museums Council Conservation and Collections Care Service. Since March 2005 he has been a director of The Scottish Conservation Studio LLP, based in South Queensferry.

5.3 Health and Safety

All CFA staff have been inducted into CFA's Health and Safety Policy. All work for the project will be subject to Risk Assessment procedures.

CFA Archaeology Ltd
20 June 2012

Wandylaw Farm Windfarm, Berwick-upon-Tweed, Northumberland.
(Planning Ref 06/B/0765)

Demarcation to protect archaeological remains

Written Scheme of Investigation (Addendum 1)

1. Background

- 1.1 This addendum to the WSI Written has been prepared for Natural Power Ltd and is designed to meet the requirements of the Northumberland County Council Conservation Team (NCCCT). The details of the demarcation were discussed at an onsite meeting between Natural Power, CFA and NCCCT. The locations and archaeological sites that require demarcation are illustrated on the accompanying plan. The details have been revised from the WSI that was issued on 10/06/11.
- 1.2 The Addendum contains reference numbers, which refer to gazetteer entries in the 'Cultural Heritage' chapter of the Environmental Statement (ES) (RES 2004). This WSI should be read in conjunction with the ES.

2 Demarcation

- 2.1 Sites 8, 12, 13, 14, will be demarcated with a 5m buffer zone provided. If 5m cannot be accommodated then a lesser buffer will be agreed with NCCCT.
- 2.2 A section of the field bank that forms Site 16 will be individually demarcated and additional strip fencing will be erected where the access track crosses the banks to contain the works within as narrow a corridor as practicable.
- 2.3 Strip fencing will be erected around the northern ends of the planning application boundary for Turbine 2 and Turbine 3 to provide a visible barrier to the end of the development area.
- 2.4 Strip fencing will be erected along the southern edge of the planning application boundary as it passes Turbine 4.
- 2.5 The erection of the fencing will be carried out by the construction contractors under direct archaeological supervision
- 2.6 It is the responsibility of the construction contractor to provide and maintain durable, highly visible barrier fencing (netlon or similar) supported with wooden stakes. Additional signs will be displayed indicating that the fencing is in place to protect archaeological sites.
- 2.7 The fencing will remain in place for the duration of all construction works.

- 2.8 Toolbox talks will be provided by the site archaeologist to inform all construction staff of the presence of the fenced off monuments and that the fencing must not be moved without the prior acknowledgement of the site archaeologist.
- 2.9 No development is intended within the demarcated areas but if a site cannot be preserved *in situ* then a programme of mitigation will need to be agreed in advance with NCCCT.

CFA Archaeology Ltd
31 July 2012

Wandylaw Farm Windfarm, Berwick-upon-Tweed, Northumberland
(Planning Ref 06/B/0765)

Evaluation of 'Site 9' at Turbine 4

Written Scheme of Investigation (Addendum 2)

1. Background

- 1.1 This addendum to the Written Scheme of Investigation has been prepared for Natural Power Ltd and is designed to meet the requirements of the Northumberland County Council Conservation Team (NCCCT) and is further to the project brief (Ref. B18/2:5262) and the WSI (10/06/11).
- 1.2 Site 9 refers to the gazetteer entry in the 'Cultural Heritage' chapter of the Environmental Statement (ES) (RES 2004) and from the walkover survey (CFA 2012). It has the SMR entry number 4961 and is described in the following terms:

'Field survey identified the remains of an L-shaped mound of uncertain function with some protruding stones surviving in fair condition. The longer axis of the mound is orientated north-west to south-east and measures approximately 6m in length, the shorter axis which extends from the north-western end measures approximately 3m in length. The whole feature is approximately 2.5m in width.'

2 Evaluation

- 2.1 A hand excavated trench 1m wide will be excavated through each length of the feature and extending either side. The surface of the feature will then be planned and a section excavated. The feature will then be recorded by means of photographs drawings and written forms in accordance with the brief, WSI and CFA's standard procedures.
- 2.2 Once the feature has been revealed and recorded the County Archaeological Officer will be informed and invited to attend a site meeting to discuss further work if necessary.
- 2.3 Should no further work be necessary then the results will be incorporated into the report on the strip and record element of the site.

Wandylaw Farm Windfarm, Berwick-upon-Tweed, Northumberland
(Planning Ref 06/B/0765)

Excavation and Recording of 'Sites 13 and 16'

Written Scheme of Investigation (Addendum 3)

1. Background

1.1 This addendum to the Written Scheme of Investigation has been prepared for Natural Power Ltd and is designed to meet the requirements of the Northumberland County Council Conservation Team (NCCCT) and is further to the project brief (Ref. B18/2:5262) and the WSI (10/06/11). Two known site will be affected by the development. It is necessary to widen the access road through Site 13 and the cable trench will pass through Site 16.

1.2 Site 13 is recorded in the walkover survey (CFA 2012). It has the SMR entry number 4961 and is described in the following terms:

‘Field survey identified the remains of a small clearance cairn which had been previously identified by the 1988 survey by the Archaeological Unit for North East England (as site 20). The clearance comprises a circular mound measuring approximately 3m x 3m and approximately 0.4m in height. Two stones are visible on the northern edge of the clearance cairn which is otherwise grass-covered.’

1.3 Site 16 is recorded in the walkover survey (CFA 2012). It has the SMR entry number 4961 and is described in the following terms:

‘Field survey identified the remains of an enclosure, as marked on the modern OS mapping. It survives as a turf-bank surviving to a maximum height of approximately 1m and approximately 2m in width. The enclosure survives in very good condition, but close to the forestry, and within the survey area it is in very poor condition, having been destroyed by traffic related to the forestry plantation. The enclosure crosses the proposed access track at 413197 624230 and 412894 624331.’

2 Excavation and Recording

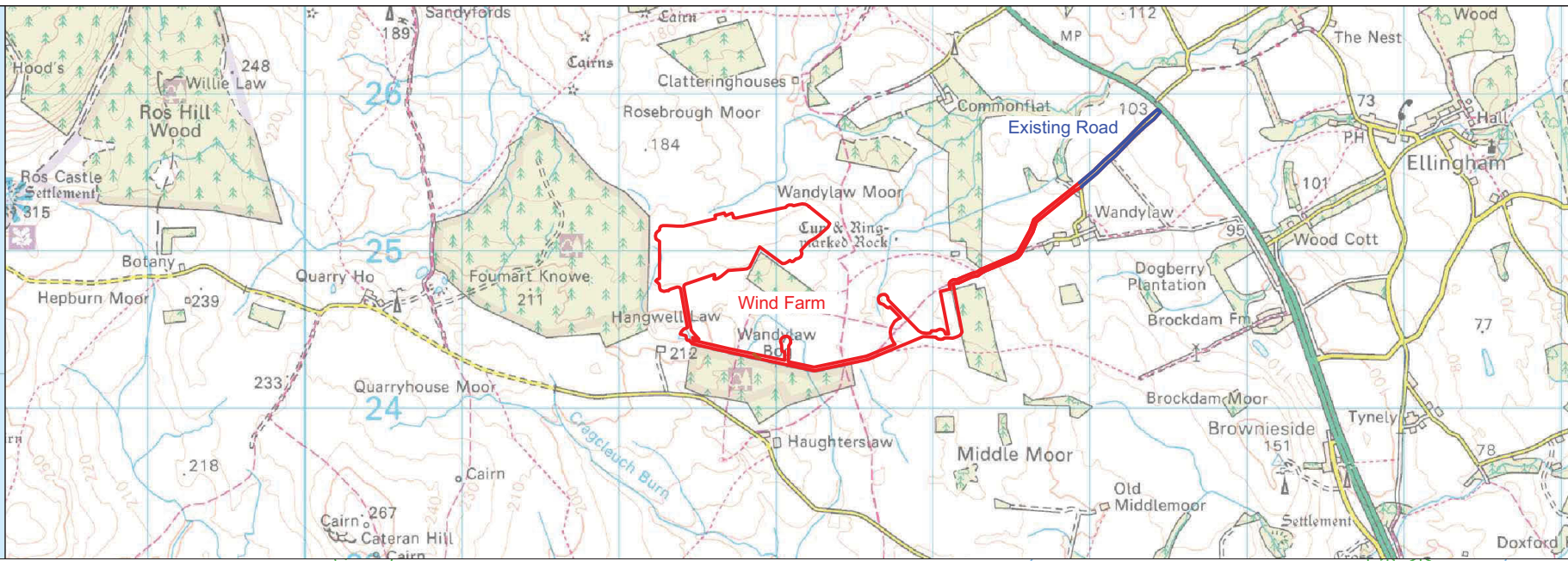
2.1 A hand excavated trench will be excavated through Site 13 where it is projected to intersect with the road. The surface of the feature will then be planned and a section excavated. The feature will then be recorded by means of photographs drawings and written forms in accordance with the brief, WSI and CFA’s standard procedures.

2.2 Prior to the excavation of the cable trench through Site 16, a section will be machine excavated with a toothless ditching bucket under archaeological supervision. The

resulting section will be drawn and recorded by means of photographs, drawings and written forms in accordance with the brief, WSI and CFA's standard procedures.

- 2.3 The County Archaeological Officer will be informed in advance of the work taking place and invited to attend site during the excavation.
- 2.4 It is envisaged the field work will take 2-3 days. The results will be incorporated into the report on the strip and record element of the site.

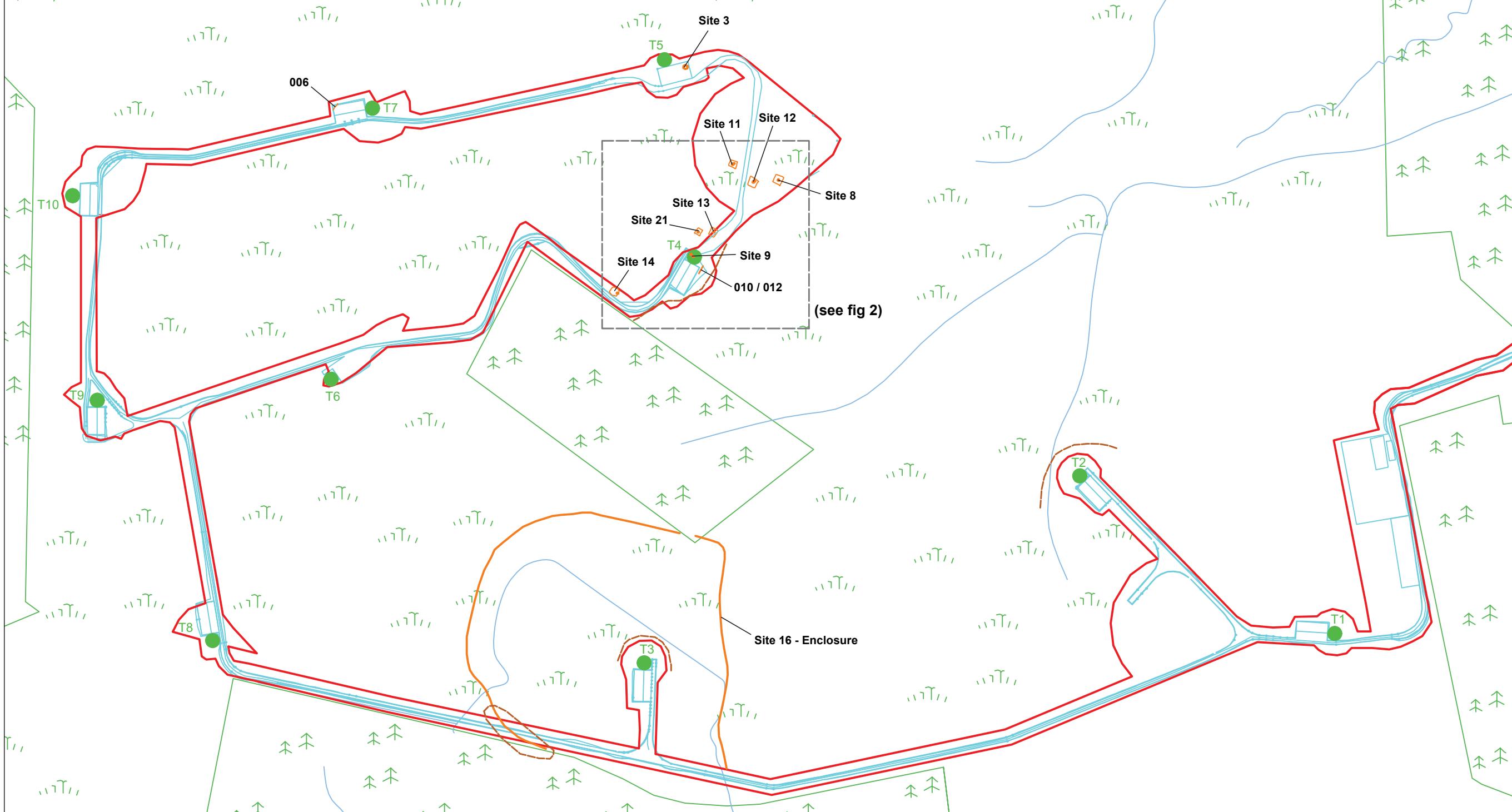
Figures 1-18



REGISTERED ORGANISATION

Key:

- Turbines
- Wind farm boundary
- Extent of 5m road and crane hardstandings
- Archaeological sites
- Archaeological demarcation fencing



CFA ARCHAEOLOGY LTD
 Unit 22
 Moorland's Business Centre
 Bame Road, Cleckheaton
 West Yorkshire, BD19 4EZ
 T: 01274 864245
 F: 01274 878494
 yorkshire@cfa-archaeology.co.uk

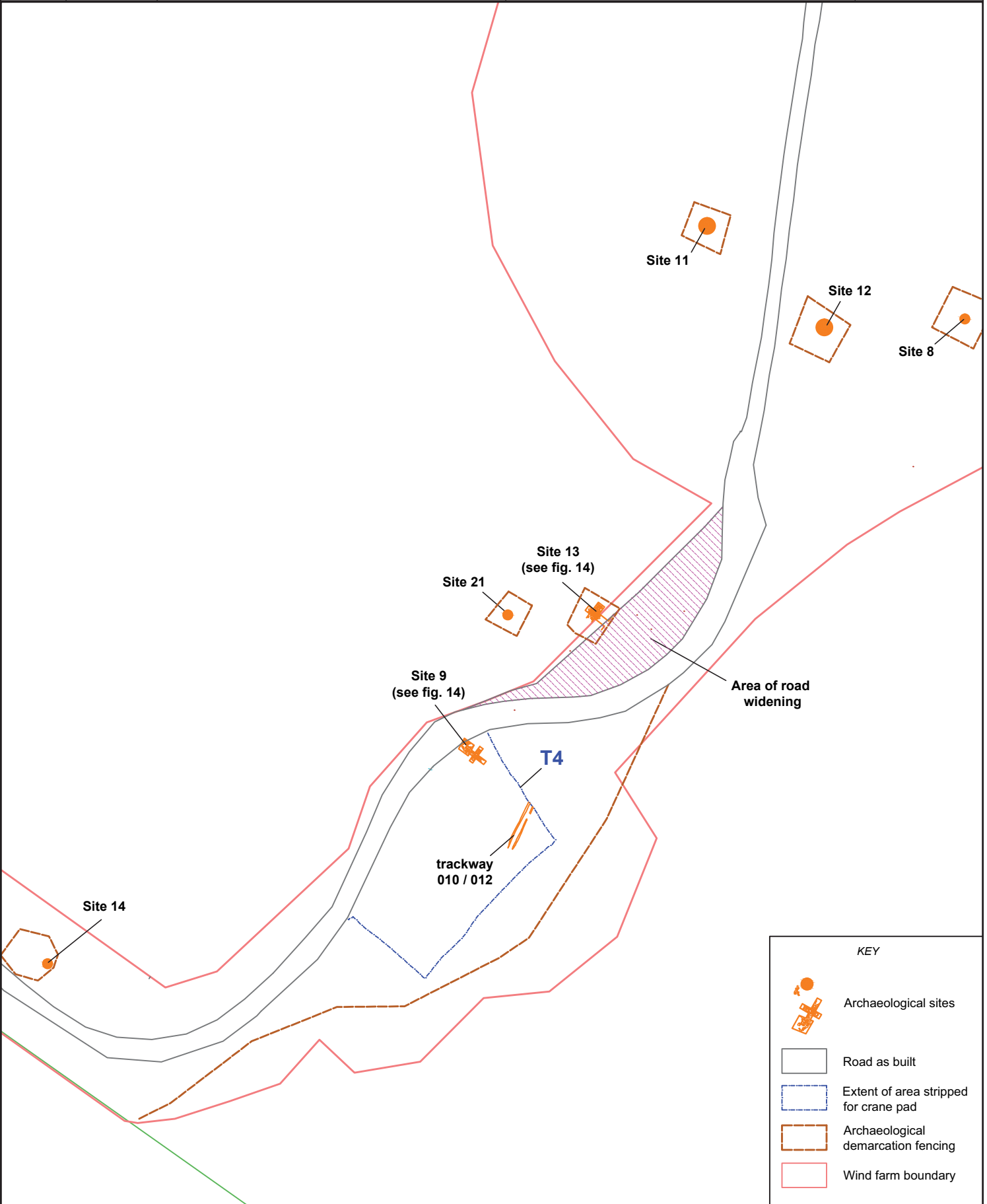
Fig. No: 1	Revision: A
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Title:
Site location and wind farm layout

Project:
Wandylaw Wind Farm, Northumberland: Archaeological Works

Client:
Natural Power

Scale at A3:
1:6000



KEY	
	Archaeological sites
	Road as built
	Extent of area stripped for crane pad
	Archaeological demarcation fencing
	Wind farm boundary

0 50m

Scale at A4: 1:1000

Fig No: 2	Revision: A	Client: Natural Power
Title: Turbine 4 and surrounding area		
Project: Wandylaw Wind Farm, Northumberland: Archaeological Works		

CFA ARCHAEOLOGY LTD

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

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Fig. 3 - Demarcation of Sites 12 and 8



Fig. 4 - Demarcation of Site 14



Fig. 5 - Demarcation of Site 16



Fig. 6 - Strip fencing at Turbine 4



Fig. 7 - Shot of Turbine 9 after topsoil removal



Fig. 8 - Working shot of topsoil removal at Turbine 4

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Fig. 9 - Shot of Turbine 1 after the removal of topsoil



Fig. 10 - Drainage channel 006 at Turbine 7



Fig. 11 - Pre-excitation shot of relict trackway 010, 012: Turbine 4



Fig. 12 - Shot of Site 3 after the removal of topsoil: Turbine 5



Fig. 13 - Shot of petroglyph: Site 21

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Key:

- stones
- stones removed for sondages

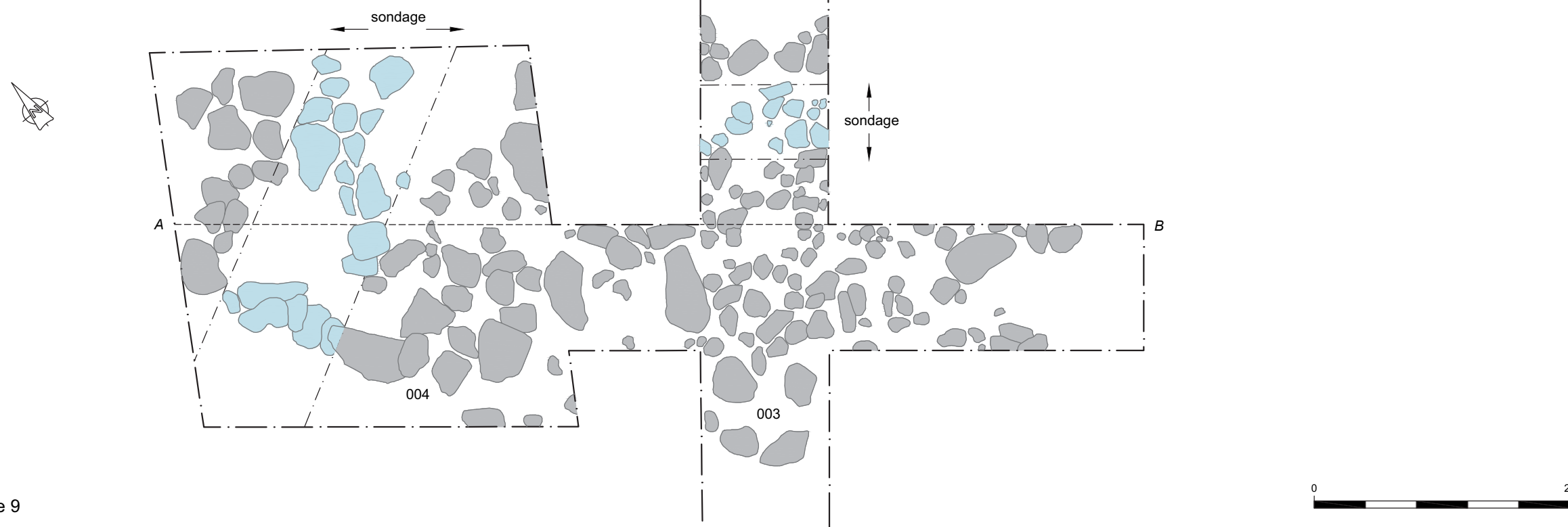


Fig. 14a, Plan of cairns, Site 9

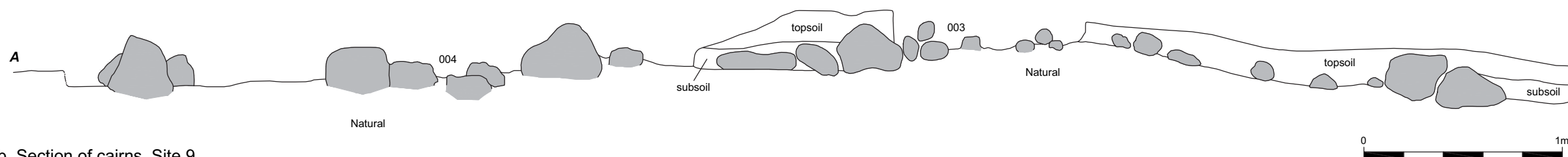


Fig. 14b, Section of cairns, Site 9

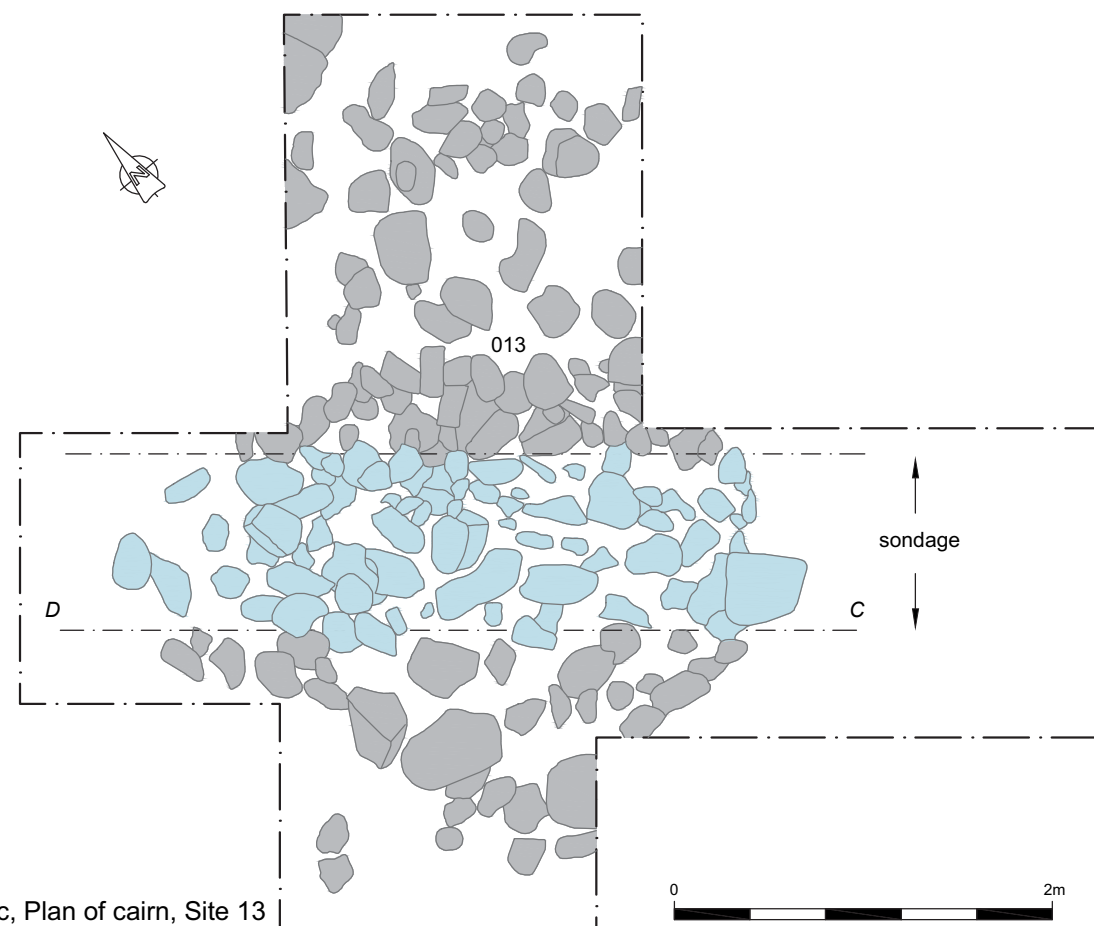


Fig. 14c, Plan of cairn, Site 13

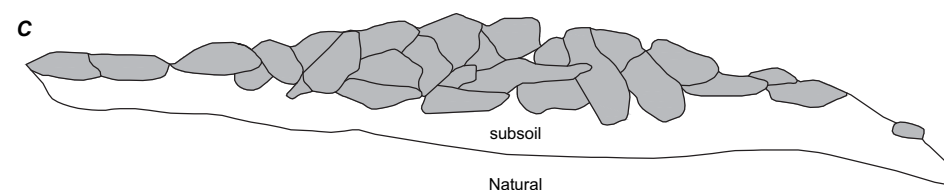


Fig. 14d, section of cairn, Site 13



Fig. 15 - Post-excavation shot of Site 9





Fig. 16 - Post-excavation shot of Site 9



Fig. 17 - Shot of Site 13 after the removal of topsoil



Fig. 18 - Oblique shot of Site 16

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