

wardell-armstrong.com

ENERGY AND CLIMATE CHANGE  
ENVIRONMENT AND SUSTAINABILITY  
INFRASTRUCTURE AND UTILITIES  
LAND AND PROPERTY  
MINING, QUARRYING AND MINERAL ESTATES  
WASTE RESOURCE MANAGEMENT



**Altogether Archaeology/ North Pennines AONB Partnership**

**Brackenber Moor**

**Appleby-In-Westmorland**

**Cumbria**

**October 2013**

*your earth our world*



**BRACKENBER MOOR**  
**APPLEBY-IN-**  
**WESTMORLAND**  
**CUMBRIA**

**INTERIM**  
**ARCHAEOLOGICAL**  
**EVALUATION REPORT**  
**CP. No: 10415**  
**09/12/2013**



WARDELL ARMSTRONG ARCHAEOLOGY  
COCKLAKES YARD,  
CUMWHINTON,  
CARLISLE,  
CUMBRIA,  
CA4 0BQ  
TEL: 01228 564820  
FAX: 01228 560025  
[WWW.WA-ARCHAEOLOGY.COM](http://WWW.WA-ARCHAEOLOGY.COM)

---

# WARDELL ARMSTRONG ARCHAEOLOGY

---

**DOCUMENT TITLE:** Brackenber Moor, Appleby-in-Westmorland, Cumbria  
**DOCUMENT TYPE:** Archaeological Evaluation Report  
**CLIENT:** North Pennines AONB Partnership  
**CP NUMBER:** CP10415  
**SITE CODE:** BMB/A  
**OASIS REFERENCE:** wardella2-166396  
**PRINT DATE:** 09/12/2013  
**GRID REFERENCE:** NY 716 193

## *Quality Assurance*

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by Wardell Armstrong Archaeology on the preparation of reports.

<b>REVISION SCHEDULE</b>			
	<b>01</b>	<b>02</b>	<b>03</b>
<b>PREPARED BY:</b>	Adam Slater		
<b>POSITION:</b>	Project Officer		
<b>DATE:</b>	05/12/2013		
<b>EDITED BY:</b>	Martin Railton		
<b>POSITION:</b>	Project Manager		
<b>DATE:</b>	05/ 12/ 2013		

Wardell Armstrong Archaeology is the archaeological contracting unit of Wardell Armstrong LLP. Company Registration No. 07702975 VAT Registration No. 108 2243 47. All rights reserved.

## *Disclaimer*

No part of this report may be copied or reproduced, stored or transmitted by any means without prior written permission from Wardell Armstrong Archaeology, or the client for whom the work was carried out. The report has been produced specifically for the client's usage, and no other party may use, make use of or rely on the contents of the report; any person or party using or relying on this document for such purposes agrees, and with such use or reliance be taken to confirm their agreement, to indemnify Wardell Armstrong Archaeology for all loss or damage resulting from their action. No liability is accepted by Wardell Armstrong Archaeology for any use of this report other than the use and purpose for which it was originally intended. Information contained in this report is provided by Wardell Armstrong Archaeology using due care and diligence and no explicit warranty is provided as to its accuracy. No independent verification of any information provided to Wardell Armstrong Archaeology has been made.

---

## CONTENTS

---

<b>SUMMARY</b> .....	<b>5</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>6</b>
<b>1 INTRODUCTION</b> .....	<b>7</b>
1.1 Circumstances of the Project .....	7
<b>2 METHODOLOGY</b> .....	<b>8</b>
2.1 Project Design .....	8
2.2 The Earthwork Survey .....	8
2.3 The Field Evaluation .....	9
2.4 The Archive .....	10
<b>3 BACKGROUND</b> .....	<b>11</b>
3.1 Location and Geological Context .....	11
3.2 Archaeological Context .....	11
3.3 Bronze Age Barrows .....	12
3.4 Previous Work .....	13
<b>4 ARCHAEOLOGICAL EVALUATION RESULTS</b> .....	<b>15</b>
4.1 Introduction .....	15
4.2 Results (figs 3-5) .....	15
<b>5 FINDS</b> .....	<b>20</b>
5.1 Finds Assessment .....	20
5.2 Prehistoric Pottery .....	20
5.3 Late Medieval – Post-medieval Pottery .....	21
5.4 Glass .....	21
5.5 Slag .....	21
5.6 Flint (Including Small Finds) .....	21
<b>6 ENVIRONMENTAL ANALYSES</b> .....	<b>26</b>
6.1 Introduction .....	26
6.2 Discussion of the Plant Remains .....	27
6.3 Conclusions and Recommendations .....	27
<b>7 CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>28</b>
7.1 Conclusions .....	28
7.2 Recommendations .....	29
<b>8 BIBLIOGRAPHY</b> .....	<b>30</b>
<b>APPENDIX 1: CONTEXT TABLE</b> .....	<b>32</b>
<b>APPENDIX 2: FIGURES</b> .....	<b>35</b>

---

## ILLUSTRATIONS

---

### FIGURES (APPENDIX 2)

FIGURE 1: SITE LOCATION

FIGURE 2: TRENCH LOCATION PLAN

FIGURE 3: TRENCHES A & B; PLAN

FIGURE 4: TRENCHES A & B; SECTIONS

FIGURE 5: TRENCH C; PLAN AND SECTION

### PLATES

PLATE 1: TRENCH A CENTRAL CAIRN(FACING SOUTHWEST-2X1M SCALE).....17

PLATE 2- TRENCH A FOLLOWING REMOVAL OF TOP/SUBSOIL.(FACING SOUTHEAST.1X2M,2X2M SCALES).....18

PLATE 3- TRENCH B FOLLOWING REMOVAL OF TOP/SUBSOIL. (FACING WEST. 1X2M, 2X1M SCALES).....19

PLATE 4- TRENCH C EXCAVATED DITCH AND BANKS (FACING SOUTH, 1X2M SCALE).....20

## SUMMARY

---

Wardell Armstrong Archaeology were commissioned by Paul Frodsham, Project Officer, North Pennines AONB Partnership, to undertake an archaeological evaluation at Brackenber Moor, Appleby-in-Westmorland, Cumbria (NGR NY 716 193). The archaeological work will form part of a community archaeology project to investigate Bronze Age Activity in the North Pennines as part of the Altogether Archaeology Project, a 3-year project funded by a grant from the Heritage Lottery Fund (HLF). The work follows a Written Scheme of Investigation produced for Paul Frodsham, Historic Environment Officer, North Pennines AONB Partnership and follows from previous investigations within Brackenber Moor.

The archaeological evaluation was undertaken over seven days between the 5<sup>th</sup> and 11<sup>th</sup> October 2013. The evaluation involved the excavation of 3 trenches, to investigate a probable Bronze Age barrow and an undated bank and ditch. The ditch was shown to have two associated banks but a date was not determined and the Barrow mound was shown to be largely constructed of redeposited local sand, overlying a central stone cairn with possible outer kerb and ditch.

An assemblage of sixteen Mesolithic and early Neolithic flints were recovered from the excavated barrow and subsoil deposits, indicating activity in the area before the barrow was constructed. Two small, heavily abraded sherds of prehistoric pottery as well as Roman and Modern glass, Medieval/ post-Medieval pottery and an undated lump of ironworking Slag were recovered from the overlying subsoil.

## ACKNOWLEDGEMENTS

---

Wardell Armstrong Archaeology would like to thank Paul Frodsham of the Altogether Archaeology Project and Historic Environment Officer, North Pennines AONB Partnership for commissioning the project, and for all his assistance and advice throughout the work.

Wardell Armstrong Archaeology would also like to thank all the keen and enthusiastic community volunteers and members of the Altogether Archaeology Project without whom the excavation could not have been possible; in particular the Appleby Archaeology Group.

Wardell Armstrong Archaeology would also like to extend their thanks to Appleby Golf Club, for their help, and access to facilities during this project.

The desk-based assessment and visual survey was undertaken by Martin Railton. The archaeological evaluation was supervised by Adam Slater. The report was written by Adam Slater and the drawings were produced by Adrian Bailey. The project was managed by Martin Railton, Project Manager for WAA. The report was edited by Martin Railton, Project Manager for WAA.

## 1 INTRODUCTION

---

### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In October 2013, Wardell Armstrong Archaeology were invited by Paul Frodsham, on behalf of the North Pennines AONB Partnership, to undertake a archaeological evaluation at Brackenber Moor, Appleby-in-Westmorland, Cumbria (NGR NY 716 193; Figure 1),
- 1.1.2 The archaeological work forms part of a community archaeology project to investigate Bronze Age activity in the North Pennines, as part of the Altogether Archaeology Project (Module 2), a 3-year project funded by a grant from the Heritage Lottery Fund (HLF). A Written Scheme of Investigation (WSI) was produced by Paul Frodsham, Historic Environment Officer, North Pennines AONB Partnership.
- 1.1.3 The archaeological evaluation was undertaken following approved standards and guidance (IfA 2008), and was consistent with the specification provided by Paul Frodsham (Altogether Archaeology 2013).
- 1.1.4 This report outlines the evaluation works undertaken on-site, the subsequent programme of post-fieldwork analysis, the results of this scheme of archaeological works and recommendations for future investigations.



---

## 2 METHODOLOGY

---

### 2.1 PROJECT DESIGN

2.1.1 A proposal was submitted by Wardell Armstrong Archaeology in response to a request by Paul Frodsham, Historic Environment Officer, North Pennines AONB Partnership, for an archaeological evaluation of a raised mound, potentially of a Bronze Age barrow (HER1820) on Brackenber Moor. A specification was then produced by Paul Frodsham (AONB Partnership) and approved by Andrew Davison, Inspector of Ancient Monuments (North West Region) at English Heritage. The specification was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.

### 2.2 THE EARTHWORK SURVEY

2.2.1 Five possible burial monuments have previously been recorded at Brackenber, but no accurate record exists of these monuments. An initial phase of survey was therefore undertaken to accurately locate and record these earthworks. This was achieved through a programme of field recording and detailed metric survey.

2.2.2 Topographic earthwork survey was undertaken of each of the burial monuments and the ditch/ bank crossing the ridge, in order to provide a metrically accurate record of each of the sites as existing. This was undertaken using a survey-quality GPS. GPS uses electronic distance measurement along radio frequencies to satellites to enable a positional fix in latitude and longitude which was converted mathematically to Ordnance Survey National Grid Coordinates.

2.2.3 The topographic earthwork survey comprised of a metric survey of all visible features at each of the sites, and a suitable buffer surrounding them. The objective of the earthwork survey was to provide an accurate record in plan of the archaeological features present, supplemented by pertinent earthwork profiles. In addition a regular series of spot heights were recorded across the surface of the barrow mound monument to be excavated using the GPS, in order to produce a contour survey of the site

2.2.4 All co-ordinates and levels were generated in metres to three decimal places, and are presented as easting, northing and height; the co-ordinates are expressed as Ordnance Survey National Grid (OSNG), and heights as Ordnance Survey height datum.

2.2.5 The metric survey was conducted in accordance with English Heritage guidelines (Riley & Wilson-North 2001), and corresponded to an English Heritage Level 3 survey (English Heritage 2007).

### 2.3 THE FIELD EVALUATION

2.3.1 The evaluation consisted of the excavation of 3 trenches covering 73m<sup>2</sup>. The purpose of the evaluation was to establish the nature and extent and preservation of a probable Bronze Age barrow mound as well as to investigate the nature and date of an irregular linear bank and ditch which crosses the ridge. All work was conducted according to the recommendations of the Institute for Archaeologists (2008). Scheduled Monument Consent (SMC) was also obtained for the archaeological evaluation from English Heritage prior to the start of the fieldwork and permission will be obtained in writing from the Appleby Golf Club.

2.3.2 In summary, the main objectives of the evaluation were:

- to establish the nature, extent and state of preservation of archaeological features associated with the earthworks, and to confirm the presence or absence of burials;
- to establish the character of those features in terms of cuts, structures, soil matrices and interfaces;
- to recover artefactual material, especially that useful for dating purposes;
- to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes;
- to obtain information on the age, sex, and number of individuals interred;
- to recover samples suitable for radiocarbon dating if these are present;
- to determine the nature of funerary activity at the site, in comparison with the Bronze Age cremation cemetery previously investigated;
- to publish the results of the project in a suitable journal.

2.3.3 All three of the evaluation trenches were excavated by Altogether Archaeology volunteers under close archaeological supervision. Once topsoil and turf was removed, the trenches were excavated by hand to either the top of archaeological deposits, or the natural substrate. Trenches were subsequently cleaned and all features were investigated and recorded according to the Wardell Armstrong Archaeology standard procedure as set out in the Excavation manual (Giecco 2012). All excavated contexts were

100% sieved with 5mm mesh to maximise the recovery of small artefacts and ecofactual materials.

- 2.3.4 All finds encountered were retained, including those from excavated topsoil, and were cleaned and packaged according to standard guidelines, and recorded under the supervision of Megan Stoakley, WWA Finds Officer.
- 2.3.5 Any environmental evidence found during the work was sampled, according to the Wardell Armstrong Archaeology standard environmental sampling procedure. Environmental samples were processed under the direction of Don O'Meara, Wardell Armstrong Archaeology Environmental Officer.
- 2.3.6 The fieldwork programme was followed by an assessment of the data, the process being adopted as set out in the *Management of Archaeological Projects* (2<sup>nd</sup> Edition, 1991).
- 2.3.7 The three evaluation trenches were backfilled at the end of the allotted excavation season, following excavation and recording. Trenches A&B, where the archaeology was not completely resolved, were lined with plastic membrane prior to backfilling to demarcate the upper horizon of unexcavated deposits. All turf was reinstated following backfilling.

## 2.4 THE ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the specification, and according to the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited within Kendal Museum, with copies of the report sent to the County Historic Environment Record at Carlisle, Cumbria. The archive can be accessed under the unique project identifier, CP 10415 BMB-A.
- 2.4.2 Wardell Armstrong Archaeology, Altogether Archaeology and the North Pennines AONB Partnership, support the **Online AccesS to the Index of Archaeological InvestigationS (OASIS)** project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of archaeological work. As a result, details of the results of this project will be made available by Wardell Armstrong Archaeology, as a part of this national project.
- 2.4.3 Following the completion of the post-excavation work and/or scientific dating, it is proposed that a publication article will be produced for submission to the Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society. It is unlikely that this will be published until the completion of excavations following further work.

---

## 3 BACKGROUND

---

### 3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 The current evaluation area is located on Brackenber Moor, situated c.3km to the east of Appleby-in-Westmorland, between the settlements of Hilton and Coupland Beck. It comprises 11ha of unenclosed moorland, bounded by the Hilton Beck to the north, enclosed fields to the east and west, and the A66 road to the south (Figure 1). Brackenber Moor is an open common, with a number of local farmers exercising grazing rights. Parts of the moor are used as a golf course, and are managed by Appleby Golf Club.
- 3.1.2 The solid geology of the area comprises New Red Sandstone, overlain by glacial deposits of boulder clay. George Gill, on the south side of Brackenber Moor is a Site of Special scientific Interest (SSSI), and is well known because of a series of rocky crags, exhibiting rock formations which were laid down in the Permian Period. The topography of the area is of undulating character with elevations ranging between c.150m and c.230m OD. Flodders Tarn, situated toward the centre of the moor, is the most significant body of water in the vicinity.

### 3.2 ARCHAEOLOGICAL CONTEXT

- 3.2.1 There is good evidence that Brackenber Moor has been occupied from at least the Bronze Age. The Cumbria County Council Historic Environment Record (HER) records four possible burial sites on a ridge between the Appleby Golf Club House, and Espland Farm (HER 1820-1823). Three of these are Scheduled Ancient Monuments, but have been disturbed both in antiquity, and in more recent times by illicit metal detecting. Another burial cairn is located to the west of the club house, near Hilton Beck (HER 15896), which has been disturbed by the creation of a bunker for the golf course.
- 3.2.2 A number of possible prehistoric settlement sites also exist in the area, which could potentially date to the Iron Age or Romano-British periods. The Druidical Judgement Seat is a D-shaped enclosure, comprising an outer bank and inner ditch, with a single entrance on the northwest side (HER 1817). The earthwork occupies a natural headland on the southwest side of the moor close to a number of the Bronze Age cairns. Similar sites in Cumbria are usually interpreted as Iron Age or Romano-British farmsteads. Previous evaluation work by Appleby Archaeology Group has demonstrated occupation of the site in the Late Bronze Age/Iron Age period, as well as activity on the headland dating to the Late Neolithic/Early Bronze Age (Railton 2009a).

- 3.2.3 There are a number of archaeological features of possible Roman date in the vicinity of Coupland Beck, at the southwest corner of Brackenber Moor. The present route of the A66, to the east of Coupland Beck, is known to follow the course of the High Street Roman Road (HER 1809). William Whellan recorded the presence of a Roman encampment at Coupland Beck (Whellan 1860). The site of a camp is also illustrated on the 1<sup>st</sup> edition Ordnance Survey map of 1861, immediately to the east of Coupland Beck (HER 1815). No visible evidence for this survives, but the remains of the camp have been confirmed by geophysical survey (Railton 2009b). The same map illustrates a 'Roman Fortress' to the northwest of Coupland Beck Bridge, on the north side of the road to Appleby (HER 1816). This has also been interpreted as the site of a possible Roman signal station or motte, which survives as an earthwork in the corner of the field.
- 3.2.4 No confirmed medieval features are recorded on Brackenber Moor, but a number of post-medieval agricultural features have been identified on the 1st Edition Ordnance Survey map of 1861. Some of these survive as earthworks including possible stack stands (HER 3088), sand pits (HER 15875), gravel pits (HER 15876), quarries (HER 18574 & HER 25689), and a lime kiln (HER15877).
- 3.2.5 The present golf course was founded in 1903, and the greens, bunkers and fairways occupy a large part of Brackenber Moor, between Coupland Beck and Brackenber. The Appleby Golf Club now manages the moor on behalf of the commoners, and holds the title of 'Lord of the Manor' with selected grazing rights being held by local residents.
- 3.2.6 In the 19<sup>th</sup> and early 20<sup>th</sup> centuries, and most notably during the First World War, parts of Brackenber Moor were used as a temporary army training camp. A photograph of 1901 shows an encampment north of Flodders Tarn (Appleby Golf Club 2003). The concrete foundations of camp buildings can still be seen near the tarn, to the northeast of the Appleby Gold Club clubhouse.

### 3.3 BRONZE AGE BARROWS

- 3.3.1 There are five possible recorded Bronze Age burial monuments recorded in the Cumbria County Historic Environment Record at Brackenber Moor:
- HER 1820: Round Barrow (Scheduled Ancient Monument 102a), one of three low mounds (c.0.5m high). Depicted on the 1<sup>st</sup> Edition 6"/mile Ordnance Survey map of 1861 (Easting 371605 Northing 519345). This barrow is the subject of this evaluation.

- HER 1821: Round Barrow (Scheduled Ancient Monument 102b), one of three low mounds (c.0.5m high). Depicted on the 1<sup>st</sup> Edition 6"/mile Ordnance Survey map of 1861 (Easting 371625 Northing 519320)
  - HER 1822: Round Barrow (Scheduled Ancient Monument 102c), one of three low mounds (c.0.5m high). Depicted on the 1<sup>st</sup> Edition 6"/mile Ordnance Survey map of 1861 (Easting 371791 Northing 519153)
  - HER 1823: A mound, 53 yds NW of HER 1822, said to be 18ft in diameter and 2.5ft high. Not depicted by Ordnance Survey (Easting 371795 Northing 519115)
  - HER 15896: Hilton Beck Tumulus, incorporated into one of the greens of the golf course Depicted on the 1<sup>st</sup> Edition 6"/mile Ordnance Survey map of 1861 (Easting 371125 Northing 519530)
- 3.3.2 Nothing certain is known about any of these sites. However, a similar monument near Sandford, located c.1km to the southeast of Brackenber Moor, was the subject of an antiquarian excavation in the 18<sup>th</sup> century (Nicholson & Burn 1777). It contained evidence for Bronze Age cist and cremation burials, with rich grave goods.
- 3.3.3 William Whellan also records burial sites near Sandford in *The History and Topography of the Counties of Cumberland and Westmorland* (1860). He writes: "Near the village and not far from the Roman road are three tumuli, the largest of which is 91 paces in circumference, the next 86, and the next 40. The former was opened in 1766, when some remains of arms, bones, ashes, and an iron urn, were discovered, which were supposed to have belonged to some British Chieftain".
- 3.3.4 The Royal Commission on the Historic Monuments of England make reference to the sites in 1936 (RCHME 1936, 178). The 1<sup>st</sup> Edition Ordnance Survey map of 1861 depicts four round barrows (tumuli) as well as three 'stones' between the easternmost barrow and the Druidical Judgement Seat.
- 3.3.5 Following a visit in 1992 an English Heritage Field Warden recorded illegal metal detecting at the Scheduled round barrows, having identified "oval cut turfs, disturbed soil and dislodged stones" ([www.britarc.ac.uk](http://www.britarc.ac.uk)).

## 3.4 PREVIOUS WORK

- 3.4.1 It is possible that further (unrecorded) monuments, associated with the Bronze Age occupation of the area may survive on Brackenber Moor. This was proven by a previous Altogether Archaeology evaluation in 2011 on the west side of the moor, which revealed an Early Bronze Age cremation cemetery (Railton 2011).



- 3.4.2 This evaluation site comprised a circular earthwork enclosure, with entrances on the north and south sides, which is recorded in the Cumbria Historic Environment Record as the site of a possible Roman signal station. The interpretation of the site changed significantly when a cluster of pits at the centre of the enclosure, contained deposits of burnt bone and pottery, were revealed. This including the decorated rim of an inverted Bronze Age collared urn (c.1900-1750 cal BC) and two small accessory vessels. There was also clear evidence of a burning episode across the whole of the monument, after which it appears to have been 'closed' by the construction of a stone cairn over the central platform. The centre of this cairn was subsequently removed and many of the cremation pits were truncated, probably as a result of antiquarian investigation. Immediately to the west of the enclosure was another oval ditched feature, which is believed to be associated (Railton 2011).
- 3.4.3 Bronze Age flint tools were also recovered during the Appleby Archaeology Group evaluation of the Druidical Judgement Seat earthwork in 2008 and 2009 (Railton 2009a). These included an Early Bronze Age button/thumb nail scraper, a blade and flint flakes, which suggest that the headland was being utilised in the Bronze Age, prior to the construction of the enclosure

---

## 4 ARCHAEOLOGICAL EVALUATION RESULTS

---

### 4.1 INTRODUCTION

4.1.1 The evaluation took place between the 5<sup>th</sup> and 11<sup>th</sup> of October 2013, over seven days. This comprised the excavation of two opposing 'quadrants' through the barrow mound (Trenches A and B) and a 1.5mx5.5m trench located crossing the ditch and bank feature to the north-west (Trench C). All three trenches were excavated by hand, with all excavated material being hand sieved with 5mm mesh to maximise the recovery of material culture.

### 4.2 RESULTS (FIGS 3-5)

4.2.1 *Trenches A&B:* As Trenches A&B were both excavated through the same monument, a similar developmental sequence was identified in both trenches, and are indicative of the further work that is required to fully resolve the barrow mound and nearby features.

4.2.2 The earliest excavated feature was a central stone cairn with a maximum diameter of 2.35m and maximum depth of 0.65m. That portion recorded within Trench A comprised a lower deposit of large rounded and sub-rounded stones of varied geologies (a maximum of 0.3m in diameter) forming a potentially flat platform (121). This was overlain by a notably thick deposit of sandy silt (122) and then sealed by a second deposit of rounded and sub-rounded stones, forming the curved top of the cairn. No distinction between stone and other cairn deposits was clear in Trench B, where a single deposit of sub-rounded and rounded stones (140) formed the cairn. The base of the cairn stones was not exposed in either trench due to time constraints and therefore no burials/ cremations or associated ritual deposits were identified.

4.2.3 Probably contemporary with the erection of the central cairn was a possible kerb. This was identified in both trenches (111)&(134) suggesting a diameter of 8.8m and was likely to have been employed to contain the up-cast deposits of the barrow; piled up against and over the central stone cairn. Only the uppermost stones were exposed which were of sub-angular and rounded stones (maximum of 0.23m).

4.2.4 The deposits forming the mound of the barrow on-top and around the central cairn were largely of compacted sand, and demonstrated a relatively high degree of post depositional slumping; (135), (136), (103) and (109) within Trench A; (146) & (110) within Trench B. A localized, small deposit of dark grey silt (148) contained at the horizon of (146) and (110) contained seven flints (SF6-12). This deposit was unexcavated during the 2013



excavation season, but suggests a certain degree of activity during the construction of the barrow mound.



Plate 1: Trench A Central Cairn (121-123) facing southwest-2x1m scale

- 4.2.5 No clear cut or fills for an outer ditch, beyond the kerb (111)/ (134) was clear in the 2013 evaluation; although two slightly darker concentric areas initially interpreted as two shallow curvilinear ditches within Trench A; [104], (105) & [106], (107), which were initially interpreted as two shallow curvilinear ditches separated by a sandy deposit (147), may well represent the upper fill of a wider deeper ditch. A deposit of stones (108) within the outermost extent of (107) may be the result of a collapsed outer stone bank not exposed within the excavation area. Worked flints were within the upper horizon of (105); (SF1) and (107); (SF4) as well as from deposit (103); (SF2&3) which appears to represent an upper slumping deposit from the mound into the ditch.
- 4.2.6 Deposits likely to represent either an accumulation of sandy material up against the lower barrow, sealing the possible barrow ditch, appear to be contemporary with the slumping of the softer barrow deposits; (147) in Trench A, (145), (143), (142), (144) in Trench B.
- 4.2.7 Two ditches with an unclear relationship with the barrow mound were present within Trench B [113], fill (114) was aligned roughly northwest-southeast and truncated accumulative deposit (143) and was sealed by accumulative deposits (142) and (144). Ditch [112], fill (141) was located immediately above the probable kerb stones (111) and was unclear in plan.

Whilst it is possible that this represents a medieval or post medieval activity, it is also possible that this represents the accumulation of deposits up against the outside and collapse of mound material against the inside of a higher set of kerb stones that were removed or collapsed at a later time, the void being filled by silty subsoil (112)

- 4.2.8 Thin subsoil, (101), was present throughout the entirety of Trenches A&B and contained abraded worked flints, very small fragments of prehistoric pottery, post-medieval glass, several bullet shells and a fragment of slag. This was truncated by several features; Two narrow, parallel, roughly north-south aligned plough-scars were evident in Trench B [115], [117] revealing evidence of post-medieval cultivation. An irregular truncation of the subsoil and upper barrow deposits was located on the crown of the barrow [119], fill (120) in Trench B; a smaller truncation [137], fill (138) was located in Trench A; these are likely to relate to modern metal detecting.



Plate 2- Trench A following removal of top/subsoil. (Facing southeast. 1x2m, 2x2m scales)





Plate 3- Trench B following removal of top/subsoil. (Facing west. 1x2m, 2x1m scales)

4.2.9 **Trench C:** Trench C was aligned northwest-southeast, and was located to cross the ditch and associated bank/ banks 150m to the northwest of Trenches A and B. Trench C was 5.5m in length and 1.5m in width and was aligned northwest to southeast. The excavation of Trench C identified a developmental sequence of a single ditch with an up-cast bank on either side: The geological 'natural' (150) within Trench C was dark orangey-brown sand. The ditch [133] had a maximum depth of 0.37m, with moderately steeply sloping concaved sides and a concaved base which truncated a thin deposit of buried paleosoil (127) preserved on both sides of the ditch (Sample <2>). A low bank was present on both sides of the ditch; likely comprised of upcast from the ditch. The southeastern bank comprised a primary deposit (131) sandy silt overlain by several thin lenses of stony and silty sands (128); (129); (130). The northwestern bank comprised of similar thin stony sandy-silt deposits (124); (125); (126), but without a primary mound deposit.

4.2.10 The lower fill within ditch [133], was of sandy silt (Sample <1>) with a quantity of large rounded stones in the base (132). It was unclear if these stones were placed within the ditch base or were primary tumble from the bank or banks. An overlying deposit of turf and topsoil (102) sealed both the ditch and banks, being thicker within the ditch.

4.2.11 No material culture was present within any of the ditch fills or bank deposits and no dating of the features was possible, although it was hoped during post-excavation that bulk environmental samples of the buried palaeosoil (127) and primary ditch fill (132) may indicate a date and purpose of the feature.



Plate 4- Trench C Excavated Ditch and Banks (Facing south, 1x2m Scale)

## 5 FINDS

### 5.1 FINDS ASSESSMENT

- 5.1.1 A total of ten bulk artefacts, weighing 48g, were recovered from two contexts during an archaeological evaluation at Brackenber Moor.
- 5.1.2 A total of twelve small finds, weighing 32g, were recovered during the archaeological evaluation.
- 5.1.3 All finds were dealt with according to the recommendations made by Watkinson & Neal (1998) and to the Institute for Archaeologists (IfA) Standard & Guidance for the collection, documentation, conservation and research of archaeological materials (2008b). All artefacts have been boxed according to material type and conforming to the deposition guidelines recommended by the Kendal Museum.
- 5.1.4 The material archive has been assessed for its local, regional and national potential and further work has been recommended on the potential for the material archive to contribute to the relevant research frameworks.
- 5.1.5 The finds report has been written by Megan Stoakley and Dave Jackson with contributions from Blaise Vyner.
- 5.1.6 Quantification of finds by context is visible in Table 1.

Cxt	Quad	Material	Qty	Wgt (g)	Date
101	A	Flint	2	5	
110	B	Flint	1	4	
101	B	Glass	2	10	RB? - PM
101	A	Pottery	2	4	Late Med - PM
101	B	Pottery	2	2	Prehistoric
101	A	Slag	1	23	U

*Table 1: Quantification of Finds by Context*

### 5.2 PREHISTORIC POTTERY

- 5.2.1 A total of two fragments of prehistoric pottery, weighing 2g, were recovered from deposit (101).
- 5.2.2 The fragments are highly abraded and very small, with thin walls and a dark grey/brown temper. Consultation with an external specialist has revealed that the fragments are either Neolithic or Iron Age in date; no further conclusions can be drawn.

### **5.3 LATE MEDIEVAL – POST-MEDIEVAL POTTERY**

- 5.3.1 A single sherd of Medieval to Post-medieval pottery, weighing 4g, was recovered from deposit (101).
- 5.3.2 The fragment, measuring 17.07mm Ø, comprises a buff-coloured, dense clay matrix with well-sorted, common sand and mica inclusions (0.02mm Ø). Poorly sorted, rare iron panning inclusions are visible in the temper. The fragment is undecorated and no form of glaze is evident.
- 5.3.3 The sherd likely dates to the Late Medieval to Post-medieval period.

### **5.4 GLASS**

- 5.4.1 Two fragments of glass, weighing 10g, were recovered from deposit (101).
- 5.4.2 One shard comprises a fragment of light to mid green bottle glass of likely Modern date.
- 5.4.3 One shard comprises a body fragment of mid blue bottle glass and a moderate to large degree of abrasion/post-depositional wear is evident on the shard. Frequent air pockets/bubbles are visible throughout the fragment. The shard is possibly of Roman date.

### **5.5 SLAG**

- 5.5.1 A single fragment of slag, weighing 23g, was recovered from deposit (101).
- 5.5.2 It is possible that the fragment comprises iron-working slag. It is of unknown date.

### **5.6 FLINT (INCLUDING SMALL FINDS)**

- 5.6.1 During the excavation, a total of 16 lithic artefacts were recovered (Tables 1 and 2). All lithic artefacts were recovered from stratified deposits. The lithic assemblage was comprised of three modified pieces, as well as a flake displaying signs of possible use-wear. The remaining pieces within the assemblage were classified as debitage, including two bladelets.
- 5.6.2 Two groups within the assemblage could be broadly associated based upon similar technological and raw material traits. However, it is highly probable that these groups were associated with secondary deposits as they predate the monument they were recovered from.
- 5.6.3 All lithic artefacts were analysed macroscopically only. Measurements were taken using digital callipers to an accuracy of 0.1 mm.



SF No	Cxt	Quad	Fabric	Qty	Wgt (g)
1	105	A	Flint	1	2
2	103	A	Flint	1	3
3	103	A	Flint	1	3
4	107	A	Flint	1	1
5	110	B	Flint	1	3
6	148	B	Flint	1	5
7	148	B	Flint	1	2
8	148	B	Flint	1	3
9	148	B	Flint	1	1
10	148	B	Flint	1	1
11	148	B	Flint	1	2
12	148	B	Flint	1	3
13	146	B	Flint	1	3

Table 2: Quantification of Small Finds

- 5.6.4 *Modified Pieces*; A total of three pieces within the assemblage retained evidence of modification; with a further piece also displaying signs of use-wear (Table 3). One of the modified pieces was the distal end of a grey flint flake <5>, which measured 22.97mm in length, 16.18mm in width and 5.99mm in thickness. The flake retained direct semi-abrupt retouch along its right lateral margin, whilst the opposite edge was wholly cortical. A retouched flake fragment of poor quality grey flint was also identified, although the piece retained a heavy patina, and had been heavily rolled and damaged, making identification difficult. Although the flake had undergone post-depositional damage, it also appears that it had been broken in antiquity as a small section of invasive retouch had been initiated from the broken edge. Also included within the assemblage was the distal end of a translucent grey flint flake <12>, which measured 28.14mm in length, 18.92mm in width, and 5.37mm in thickness. The flake retained approximately 45% cortex which extended along its left lateral edge. The opposite edge of the piece appeared to retain evidence of use-wear, although there was no evidence of secondary retouch.
- 5.6.5 Unfortunately, none of these flakes resemble any particular tool type and probably represent the simple retouched or unmodified tools found within many lithic assemblages.

Category					Number
Flakes (inc. incomplete flakes)					9
Bladelets (inc. incomplete bladelets)					2
Modified Flakes					2
Modified Bladelets					1
Flakes displaying signs of use-wear					1
Fragments					1

Table 3: Summary of Lithic assemblage

- 5.6.6 The assemblage also included the distal end of a modified translucent grey flint bladelet <8>, which measured 29.79mm in length, 12.51mm in width and 4.22mm in thickness. The bladelet was largely cortical, apart from one dorsal scar, and retained direct semi-abrupt retouch along both lateral edges which extended around the distal end, culminating in a point. It is again difficult to assign this piece to any particular category of tool, although it could be argued that it resembles an unfinished or rough microlith of the lanceolate type. However, such microliths are generally of better quality and smaller than the example here, and it is rare to find such implements with a significant amount of cortex retention, although this could be a result of poor raw material availability. Therefore, it is probably more accurate to classify this tool as a retouched bladelet.
- 5.6.7 **Debitage;** The majority of the assemblage was classified as debitage. Most of the debitage was comprised of incomplete pieces and was therefore unsuitable for metrical analysis. The debitage appears to be largely comprised of soft-hammer struck flakes of varying shapes and sizes. On the whole however, the flakes are diminutive in size, although it is difficult to gage the true aspect of flake size due to the fragmentary nature of much of the assemblage. The debitage included a complete bladelet and a broken bladelet. The complete bladelet <6> was produced from mottled grey flint and measured 44.78mm in length, 12.96mm in width and 7.28mm in thickness, whilst the broken bladelet <7> was also produced from mottled grey flint and measured 32.97mm in length, 10.33mm in width and 3.70mm in thickness. This bladelet had lost its distal end and retained heavily rolled cortex along its left lateral margin.
- 5.6.8 **Cortex Retention;** A total of five pieces within the assemblage retained surface cortex. All of the cortex present appeared to be heavily rolled.
- 5.6.9 **Raw Material;** The majority of the assemblage was comprised of a mottled grey/translucent grey flint with numerous intraclasts, with a lesser number



of good quality black flint and single flakes of blue/grey, light grey and pinkish brown flint. Two pieces of chert were also present. All of the cortex present was heavily rolled indicating that a significant proportion of the assemblage was derived from secondary deposits such as gravels or beach pebble flint. However, the black flint, which had no cortex present, is reminiscent of the good quality material found within, or close to chalk outcrops. The pieces of chert within the assemblage were probably procured from small pockets which occur locally.

- 5.7 *Discussion;* In terms of dating, it is probable that much of the assemblage belongs to the Mesolithic period based upon the presence of bladelet technology. A further five pieces, including the flake displaying possible use-wear, are highly likely to be associated with the bladelets as they have been produced from the same raw material and were recovered within close proximity to each other. Three further flakes, which were found within close proximity to each other and produced from the same raw material, closely resemble the debitage produced during the creation of longer flakes and blades of Early Neolithic date, although similar debitage was also produced during the Mesolithic period.
- 5.7.1 The presence of particular raw material types may also be used to support a Mesolithic and Early Neolithic date for much of the assemblage. It appears that in many parts of the country where good quality raw material was not readily available, including Cumbria, that locally available material of varying quality was largely exploited during the Mesolithic period. However, the preference for good quality raw material over locally available sources appears to become a significant factor from the Early Neolithic onwards, possibly due to the establishment of wider social networks. It is notable then that the part of the assemblage dated to the Mesolithic period has been produced from derived (gravel/beach pebble) flint, whilst the flakes of probable Early Neolithic date have been produced from good quality black flint which was probably procured from, or close to a fresh chalk outcrop. This supports previous findings (Cherry and Cherry 1987, 2002) in which sites, like Brackenber, within the Cumbrian Uplands probably had strong trading links with East Yorkshire from the Early Neolithic period onwards.
- 5.7.2 It is probable then that much of the lithic assemblage is significantly earlier than the monument they were recovered from. This indicates that whilst some of the un-diagnostic material could be directly associated with the monument, a large proportion of the assemblage has been disturbed during this later activity. However, the good condition of this earlier material indicates that it has not moved far from its original place of deposition,

suggesting that the investigation area has continued to be a focus of activity during much of the later prehistoric period.

## **5.8 STATEMENT OF POTENTIAL**

5.8.1 The recovery of some of the artefacts (Medieval to Post-medieval pottery, slag and glass) from the archaeological evaluation is of fairly low archaeological importance, as these artefacts were retrieved from subsoil/topsoil deposits. The recovery of Mesolithic and Neolithic flint and Neolithic/ Iron Age pottery is significant, as these artefacts show prehistoric domestic/settlement activity on or within a close proximity of the site, which is a rare occurrence in Cumbria. This small assemblage is therefore of moderate to high archaeological potential.

---

## 6 ENVIRONMENTAL ANALYSES

---

### 6.1 INTRODUCTION

- 6.1.1 During the course of the archaeological evaluation two samples were taken from the base of and under the bank of an otherwise undated ditch feature. These were processed to assess their archaeobotanical potential. The samples were taken to extract material that may aid the understanding of the depositional history of the site. This could include evidence of human activity that may have left preserved archaeological material during the prehistoric or historic periods. As well as anthropogenic evidence, the remains of wild plants may allow inferences to be made regarding the local environment.
- 6.1.2 The methodology employed required that the whole earth samples be broken down and split into their various different components: the flots, the residue, the clay-silt and the sand-silt. The sample was manually floated and sieved through a 'Siraf' style flotation tank. In this case the residue and the flots are retained while the sand-silt-clay components are filtered out. The sample was floated over a 0.5mm plastic mesh, into which the residue was collected, then air-dried and sorted by eye for any material that may aid our understanding of the deposit. This included charred plant remains, bones, pottery and charcoal. Charcoal fragments if larger than 1cm x 1cm were retained for later analysis. The residue samples were also scanned with a hand magnet to retrieve forms of magnetic material. This was done to retrieve residues of metallurgical activity, in particular hammer scale, spheroid hammer scale, fuel-ash slag and vitrified material which might be indicative of other high temperature non-metallurgical processes (though in this case only naturally occurring magnetic minerals were recovered). Processing procedures and nomenclature follows the conventions set out by the Archaeological Datasheets of the Historical Metallurgical Society (1995) and the English Heritage Centre for Archaeological Guidelines publication (2001). An experienced environmental archaeologist examined all of the dried residues for artefactual material. All of the heavy residues were then re-floated in order to maximize the retrieval of this material as it was felt eye-sorting alone would be time consuming and may not allow an accurate retrieval of the smaller, more delicate charred remains.
- 6.1.3 The washover (flot) was recovered in a 250-micron geological sieve, dried slowly and scanned at x40 magnification for charred and uncharred botanical remains. Identification of these was undertaken by comparison with reference material held in the Environmental Laboratory at Wardell-Armstrong Archaeology and by reference to relevant literature (Cappers et

al. 2010, Berggren 1981, Jacomet 2006). Plant taxonomic nomenclature follows Stace (2010).

- 6.1.4 Favourable preservation conditions can lead to the retrieval of organic remains that may produce a valuable suite of information, in respect of the depositional environment of the material, thus enabling assessment of anthropogenic activity, seasonality and climate and elements of the economy associated with the features from which the samples are removed. In this case the sandy, well-drained, nature of the soil would be suitable for the preservation of charred plant remains, but not desiccated or waterlogged material. The sandy nature of the deposits which were samples for this project would allow for excellent recovery of charred archaeobotanical material.

## **6.2 DISCUSSION OF THE PLANT REMAINS**

- 6.2.1 Sample (132) <1> produced a flot which had very frequent herbaceous roots and moss fragments, which is evidence of the penetration of the overlying vegetation into the archaeological layers. A small volume of charcoal was recovered from the secondary flot, though no identifiable charred plant remains were included.

- 6.2.2 Sample (127) <2> produced a flot that had noticeably less root material. As well as this some charred root fragments and a charred grain (possibly an oat but not enough of the caryopsis remains for a firm identification). The secondary flot produce a moderate amount of charcoal, though no identified charred plant remains. However, as some of the charcoal seemed to come from twigs of woody plants these would be suitable for use as radiocarbon samples should these be sought for this site.

## **6.3 CONCLUSIONS AND RECOMMENDATIONS**

- 6.3.1 No further work is recommended at this time on the material from the two samples. However, should radiocarbon dates be sought from this site then the charcoal recovered from sample (127) <2> would be suitable. In the event of further work open at this site, the taking of bulk soil samples of greater volume is recommended in order to maximise the chances of recovery of material relating to the construction of this monument.

---

## 7 CONCLUSIONS AND RECOMMENDATIONS

---

### 7.1 CONCLUSIONS

- 7.1.1 During the 2013 archaeological evaluation, a probable Bronze Age Barrow (SAM 102A) at Brackenber Moor, two trenches was investigated by two hand excavated trenches (Trench A&B). A third trench was excavated to determine the function and date of the irregular linear ditch crossing the ridge (Trench C). Trenches A&B were located to maximise the longitudinal transects through the barrow mound and to identify the presence and extent of features such as ditches beyond the mound and to determine the extent and preservation of the mound itself.
- 7.1.2 The excavation of Trenches A&B did not resolve the full stratigraphic sequence of the barrow mound or associated features but did identify the layout of the monument, as well as allowing the uppermost barrow deposits to be recorded; A central stone cairn with a probable outer stone kerb and ditch was overlain by sandy mound material, likely upcast from the ditch. The full extent of the kerb and ditch and the full extent of the mound were not determined.
- 7.1.3 A number of flints were recovered from Trenches A&B which indicate Mesolithic activity. The identification of Early Neolithic blades and bladelets within the upcast barrow mound suggest the continued importance of the ridge from the early prehistoric period. Geographically the ridge forms a mid-ground between the Eden valley, and the high Pennines and would have been the preferred occupation area with access to resources provided by both and with less impediment to travel and hunting.
- 7.1.4 Trench C was excavated to geological natural and revealed a shallow ditch with a low bank present on both sides; although the exact function of the feature remains uncertain at this time, the best possible interpretation for the archaeology based on the available evidence is one of a former boundary ditch; drainage being discounted due to the raised bank on both sides and a water channel being discounted due to the undulating course of the ditch. The absence of material culture made dating of this probable boundary impossible to determine, the examination of bulk environmental samples from the primary ditch fill did contain charcoal which could be radiocarbon dated.

## 7.2 RECOMMENDATIONS

7.2.1 The objectives of this archaeological field evaluation as set out in the specification were, in part, to establish the nature and extent of the barrow, to determine the presence of associated features and state of preservation of the monument as well as to firmly date its construction. However, the time restrictions of the 2013 season did not allow a full stratigraphic sequence of the mound and associated features to be determined. The lower mound deposits remain un-investigated and the presence and location of any burials was subsequently not identified.

7.2.2 Given the significance of previous archaeological discoveries along the ridge of Brackenber Moor, specifically the apparent importance of Bronze Age monuments within the immediate vicinity of the study area, it is recommended that further work be carried out within Trenches A&B;

- Trenches A&B need to be fully excavated, with the lower deposits of barrow material thoroughly investigated down to underlying substrata to determine the presence or absence of burials as well as to recover any dating evidence for the barrow construction.
- The presence of a probable kerb surrounding the mound as well as a probable circular ditch and the suggestion that a second outer ring of stones is present (at least in Trench A) needs further investigation. A northeastern extension to Trench A would fully expose this as well as allowing the identification and extent of, as well as excavation of any associated ditch.
- Once lower barrow mound/ ditch deposits are excavated a full bulk environmental sample program can be instigated. The survival (if any) of palaeosoil horizons, sealed by the erection of the barrow mound needs to be investigated and sampled to determine land use prior to the construction of the monument.
- The recovery of a high number of flints and other small artefacts such as the pottery from the overlying subsoil of the barrow highlight the need to continue the hand sieving of all excavated deposits, to recover further artefactual material suitable for dating purposes.
- To recover samples suitable for radiocarbon dating if these are present.



---

## 8 BIBLIOGRAPHY

---

- Allen, J.L. and St. John Holt, A. (1991) Health and Safety in Field Archaeology, Standing Conference of Archaeological Unit Managers (SCAUM).
- Appleby Golf Club (2003) Appleby Golf Course: Centenary 1903-2003
- Beijerinck, W. 1947. Zadenatlas der Nederlandsche Flora. Wageningen (Facsimile Edition 1976. Amsterdam: Backhuys en Meesters).
- Brennan, M, et al (2007) Research and Archaeology in North West England – An Archaeological Research Framework for North West England: Volume 2 Research Agenda and Strategy, Archaeology North West
- British Geological Survey (2001) Solid Geology Map: *UK North Sheet*, 4<sup>th</sup> edition
- Brown, D.H. (2011) *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation*. Archaeological Archives Forum
- Cappers, R.T.J. Bekker, R.M. and Jans, J.E.A. 2010. Digitale Zaden Atlas van Nederlands. Barkhuis Publishing and Groningen Library, Groningen.
- Cherry, J. and Cherry, P. J. (1987) *Prehistoric Habitation Sites on the Limestone Uplands of Eastern Cumbria: A Survey of the Area Between Shap and Kirkby Stephen*. CWAAS Research Series Vol. II.
- Cherry, P. J. and Cherry, J. (2002) *Coastline and Upland in Cumbrian Prehistory- A Retrospective*. CW3: 1-19
- English Heritage (1991) *Management of Archaeological Projects (MAP2)*. London: English Heritage.
- English Heritage (2002) *Environmental Archaeology: A Guide to the Theory and Practice of Methods from Sampling and Recording to Post-Excavation*. London: English Heritage.
- English Heritage (2006) *Management of Research Projects in the Historic Environment*. London: English Heritage.
- English Heritage. 2001. *Archaeometallurgy*. Swindon: English Heritage.
- English Heritage. 2011. *Environmental Archaeology*. Swindon: English Heritage. 2nd edition.
- Giocco, F.O (2012) Wardell Armstrong Archaeology Excavation Manual, unpublished document.
- Henson, D (1985), The Flint Resources of Yorkshire and the East Midlands, *Lithics* 6: 2-9.

Hodgson, J. and Brennand, M. (eds.), (2004) *The Prehistoric Period: Resource Assessment*. North West Region Archaeological Research Framework Prehistoric Resource Assessment.

Institute for Archaeologists (Revised 2008) *Standards and Guidance for the Archaeological Field Evaluations*, IFA, Birmingham

IfA (2008b) *Standards and Guidance for the collection, documentation, conservation and research of archaeological materials*, Reading: Institute for Archaeologists

Jacomet, S. 2006. Identification of cereal remains from archaeological sites. 2nd edition. IPAS, Basal University.

Nicholson and Burn (1777) *History and Antiquities of Westmorland and Cumberland*, Vol I, 609-610

NPPF (2012) *National Planning Policy Framework: Archaeology and Planning*. Department for Communities and Local Government

Railton, M (2009a) *Phase II archaeological evaluation of The Druidical Judgement Seat, Brackenber Moor, Appleby-in-Westmorland, Cumbria*, unpublished report, North Pennines Archaeology

Railton, M (2009b) *Geophysical surveys at Brackenber Moor, Appleby-in-Westmorland, Cumbria*, unpublished report, North Pennines Archaeology

Railton, M 2013 *Written Scheme of Investigation for an Archaeological Evaluation at Brackenber Moor, Cumbria; For North Pennines AONB Partnership*. Unpublished Report, North

Riley and Wilson-North (2001) *Metric Survey Specifications for English Heritage*, English Heritage

Stace, C. 2010. *New Flora of the British Isles*. 3rd Edition, Cambridge: Cambridge University Press.

SSEW (1984) *Soils and their use in Northern England*. Soil Survey of England and Wales.

SSEW (1980) *Soils of England and Wales: Sheet 1 Northern England*, Soil Survey of England and Wales

UKIC (1990) *Guidelines for the preparation of excavation archives for long-term storage*

Watkinson, D.E. & Neal, V. (1998) *First Aid for Finds*, RESCUE, The British Archaeological Trust: London

Whellan, W (1860) *The History and Topography of the Counties of Cumberland and Westmorland*, 772



## APPENDIX 1: CONTEXT TABLE

Context Number	Trench	Context Type	Description
100	A&B	Turf/ Topsoil	Thick deposit of turf with very dark grey to black, moderate to loosely compacted silty sand.
101	A&B	Topsoil	Very dark grey to black, moderate to firmly compacted sandy silt with occasional thin dark grey and dark orange sandy lenses
102	C	Turf/ Topsoil	Thick deposit of moderate to firmly compacted very dark grey-brown to black, humic sandy silt high levels of rooting, thick upper turf layer.
103	A	Buried Subsoil	Thin deposit of very dark grey to black, firmly compacted sandy silt with occasional small angular and sub angular stones. Truncated by ditch [104]
104	A	Ditch Cut	Curvilinear ditch, truncating deposits (103) and (147). Max excavated length 7.05m, 1m width, maximum depth 0.2m, irregular concaved sides to irregular, generally flat base.
105	A	Fill of [104]	Mid to light grey-brown, moderate to loosely compacted silty sand.
106	A	Ditch Cut	Curvilinear ditch, 5.8m in excavated length, 0.45m in width, maximum excavated depth 0.2m. Concaved sides to concaved base.
107	A	Fill of [106]	Mid to light grey, moderate to loosely compacted silty sand.
108	A	Stone Fill of [106], Possible Kerb?	Deposit of angular and sub-angular stones (0.1-0.23m) within base of ditch [106]. Not full excavated and unclear if stones form part of outer Kerb/ bank or are fill of deeper, as yet unexcavated ditch.
109	A	Deposit	Upper Mound deposit, mid to dark orangey brown and dark grey-brown silty sand with frequent angular and sub-angular stones.
110	B	Deposit	Upper Mound deposit, mid to dark orangey brown and dark grey-brown silty sand with frequent angular and sub-angular stones.
111	B	Possible Stone Kerb	Curvilinear deposit of large sub-angular and sub-rounded stones. No bonding material. Relates to (134) in Trench A. Maximum exposed length 1.5m, width 0.75m.
112	B	Ditch (?) Cut	Possible curvilinear ditch, demarcating the base of the surviving barrow mound. Maximum excavated length 1.5m, maximum width 0.85m, maximum depth 0.25m. Unclear relationship with possible kerb stones (111)
113	B	Ditch Cut	Shallow, irregular (curvilinear?) ditch. Aligned northwest to southeast. 4.4m in excavated length, 0.8m in width 0.38m in depth. Concaved sides to irregular, generally flat base.
114	B	Fill of [113]	Mid to light grey, moderate to loosely compacted silty sand (redeposited (150) with occasional small angular and sub-angular stones.
115	B	Cut of Plough Scar	Narrow north east to southwest aligned linear plough scar truncating subsoil (101) and barrow mound material (110). Maximum excavated length

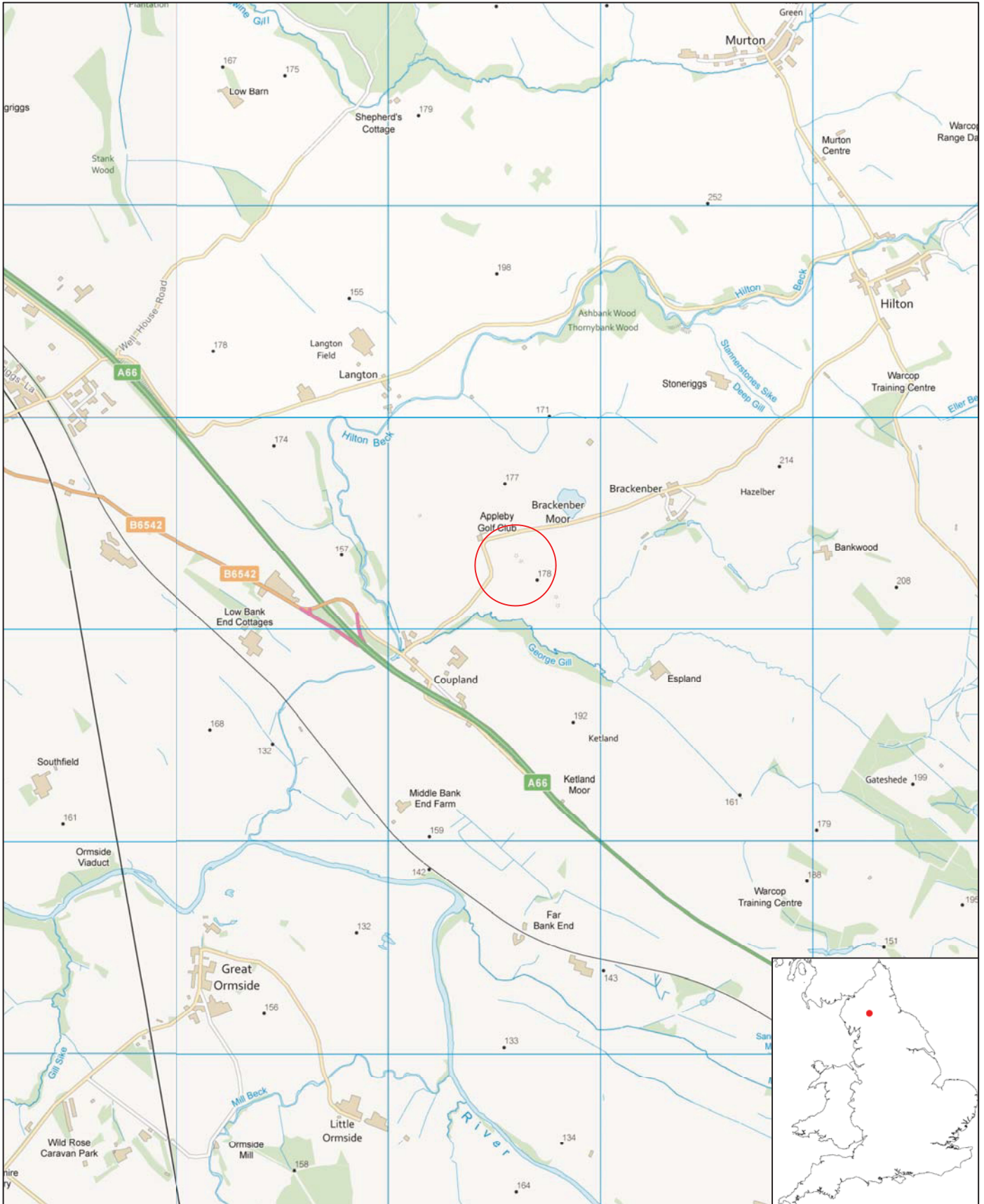
			7.6m, seemingly halted by presence of large stones. 0.2m maximum width and maximum 0.1m in depth.
116	B	Fill of [115]	Mid to light grey, moderate to loosely compacted silty sand (redeposited (110 and 101).
117	B	Cut of Plough Scar	Narrow north east to southwest aligned linear plough scar truncating subsoil (101) and barrow mound material (110). Maximum excavated length 10.1m, crossing the southern side of the barrow mound, maximum width 0.2m, maximum depth 0.22m.
118	B	Fill of [117]	Mid to light grey, moderate to loosely compacted silty sand (redeposited (110 and 101).
119	B	Cut of pit/ Truncation	Irregular, short, curvilinear pit/ ditch around the south western crown of barrow mound. Maximum length 5m, maximum width 0.37m, maximum depth 0.44m. Truncating subsoil deposit (101)
120	B	Fill of [119]	Mid to dark grey, moderately compacted silty sand. Occasional small angular and sub-angular stones.
121	A	Cairn Stones	Lower deposit of sub-rounded and rounded cairn stones (maximum 0.26m). Almost horizontal suggesting a rudimentary coursing.
122	A	Barrow Deposit	Mid to light brown, moderate to firmly compacted sand with infrequent small sub-angular stones. Overlies cairn stones (121) and sealed by cairn stones (123).
123	A	Cairn Stones	Upper deposit of sub-rounded and rounded cairn stones (maximum 0.28m); overlying sandy deposit (122). Notable curvature forming upper layer and north eastern side of cairn.
124	C	Bank Upcast	Mid grey-brown, moderate to firmly compacted silty sand with occasional sub-rounded stone inclusions.
125	C	Bank Upcast	Mid orangey-brown, moderate to loosely compacted sand with occasional small stones.
126	C	Bank Upcast	Light orangey-grey to brown, moderate to firmly compacted silty sand with occasional small stones.
127	C	Palaeosoil	Dark grey to mid orangey-brown, moderate to loosely compacted silty sand with infrequent small stone inclusions.
128	C	Bank Upcast	Mid to dark orangey-brown, moderate to loosely compacted sand with frequent small angular stones.
129	C	Bank Upcast	Mid grey-brown, moderately compacted silty sand.
130	C	Bank Upcast	Mid grey-brown, moderately compacted silty sand.
131	C	Bank Upcast	Mid grey-brown, moderate to firmly compacted sandy silt with frequent small rounded stones.
132	C	Ditch Fill	Mid orangey-brown to grey-brown moderate to loosely compacted sandy, silty clay. Frequent large angular and sub angular stones towards the base.
133	C	Ditch	Irregular linear in plan, moderately steeply sloping concaved sides to concaved base. Maximum width 1.68m, maximum depth 0.37m
134	A	Possible Stone Kerb	Curvilinear deposit of large sub-angular and sub-rounded stones. No bonding material. Relates to (111) in Trench B. Maximum exposed length 5.5m, width 0.35m.
135	A	Deposit	Light yellowy brown, moderate to loosely compacted sand with frequent lenses and

			laminations. Infrequent small angular and sub-angular stones.
136	A	Deposit	Light to mid yellowy brown, moderate to loosely compacted sand with frequent lenses and laminations.
137	A	Cut (Truncation)	Short irregular truncation located at base of north eastern side of barrow mound. 0.6m excavated length, 0.38m maximum width, 0.17m maximum depth). Steeply concaved sides to narrow concaved base.
138	A	Fill [137]	Mid brown, loosely compacted sandy silt with occasional angular and sub-angular stones.
139	A	Sandy Lense	Thin convex lense of dark orangey-brown silty sand. Possibly associated with the possible kerb (134), as yet unexcavated.
140	B	Cairn Stones	Large sub-angular, sub- rounded and rounded cobbles (max 0.3). No visible coursing and no bonding material.
141	B	Fill of [112]	Mid to light grey-brown, moderate to loosely compacted silty sand. Occasional small angular and sub angular stones. Possibly associated with subsoil deposit (101).
142	B	Buried Subsoil	Very dark grey to black, firmly compacted sandy silt with occasional small angular and sub angular stones.
143	B	Deposit	Mid to light yellowy brown, moderate to loosely compacted sand with frequent lenses and laminations. Infrequent small angular and sub-angular stones.
144	B	Subsoil	Light grey, loosely compacted silty sand.
145	B	Deposit	Mid yellowy brown, moderate to loosely compacted sand with frequent lenses and laminations. Infrequent small angular and sub-angular stones.
146	B	Deposit	Light yellowy brown, moderate to loosely compacted sand with frequent lenses and laminations. Infrequent small angular and sub-angular stones.
147	A	Deposit	Light yellowy brown, moderate to loosely compacted sand with frequent lenses and laminations. Infrequent small angular and sub-angular stones.
148	B	Deposit/ Lense	Sub-circular deposit of very dark grey to black, moderately compacted silty sand. 0.3-0.4m in diameter. <b>Not excavated</b> . High quantity of flint SF 6-12.
150	B	Natural Substrata	Mid to light yellowy orange-brown moderately compacted sand. Occasional small angular and sub-angular stones.

*Table 5: List of Contexts issued during excavation*

## APPENDIX 2: FIGURES

---






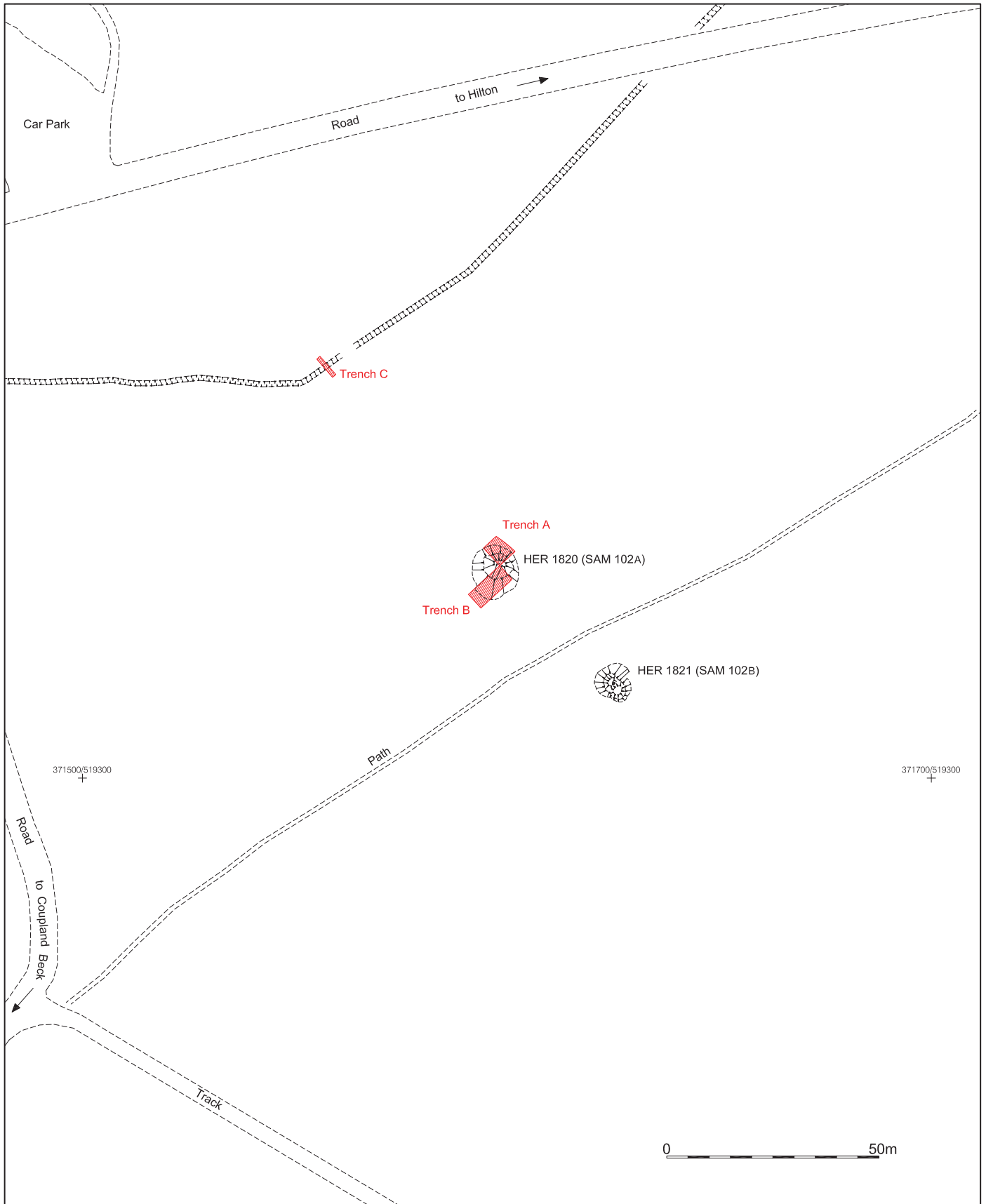
 <p>Wardell Armstrong Archaeology 2013</p>	<p>PROJECT: Brackenber Moor, Appleby-in-Westmorland, Cumbria</p> <p>SCALE: 1:25,000 at A4</p> <p>REPORT No: CP10415</p> <p>CLIENT: North Pennines AONB Partnership</p> <p>DRAWN BY: AB</p> <p>DATE: November 2013</p> <p>FIGURE: 1</p>	<p>KEY:</p> <p> Site location</p>	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
---	--	---	---

Figure 1: Site location.







 <p>Wardell Armstrong Archaeology 2013</p>	<p>PROJECT: Brackenber Moor, Appleby-in-Westmorland, Cumbria</p> <p>SCALE: 1:1,250 at A4</p> <p>REPORT No: CP10415</p> <p>CLIENT: North Pennines AONB Partnership</p> <p>DRAWN BY: AB</p> <p>DATE: November 2013</p> <p>FIGURE: 2</p>	<p>KEY:</p> <p> Evaluation trenches</p> <p> Earthwork bank and ditch</p>	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
---	---	--	---

Figure 2: Trench location plan.



PROJECT:  
Brackenber Moor,  
Appleby-in-Westmorland,  
Cumbria

CLIENT:  
North Pennines  
AONB Partnership

SCALE: 1:50 at A3

DRAWN BY: AB

DATE: October 2013

KEY:

- (101) Context numbers
- Section location
- Limit of excavation



REPORT No:  
CPI0415

FIGURE:  
3

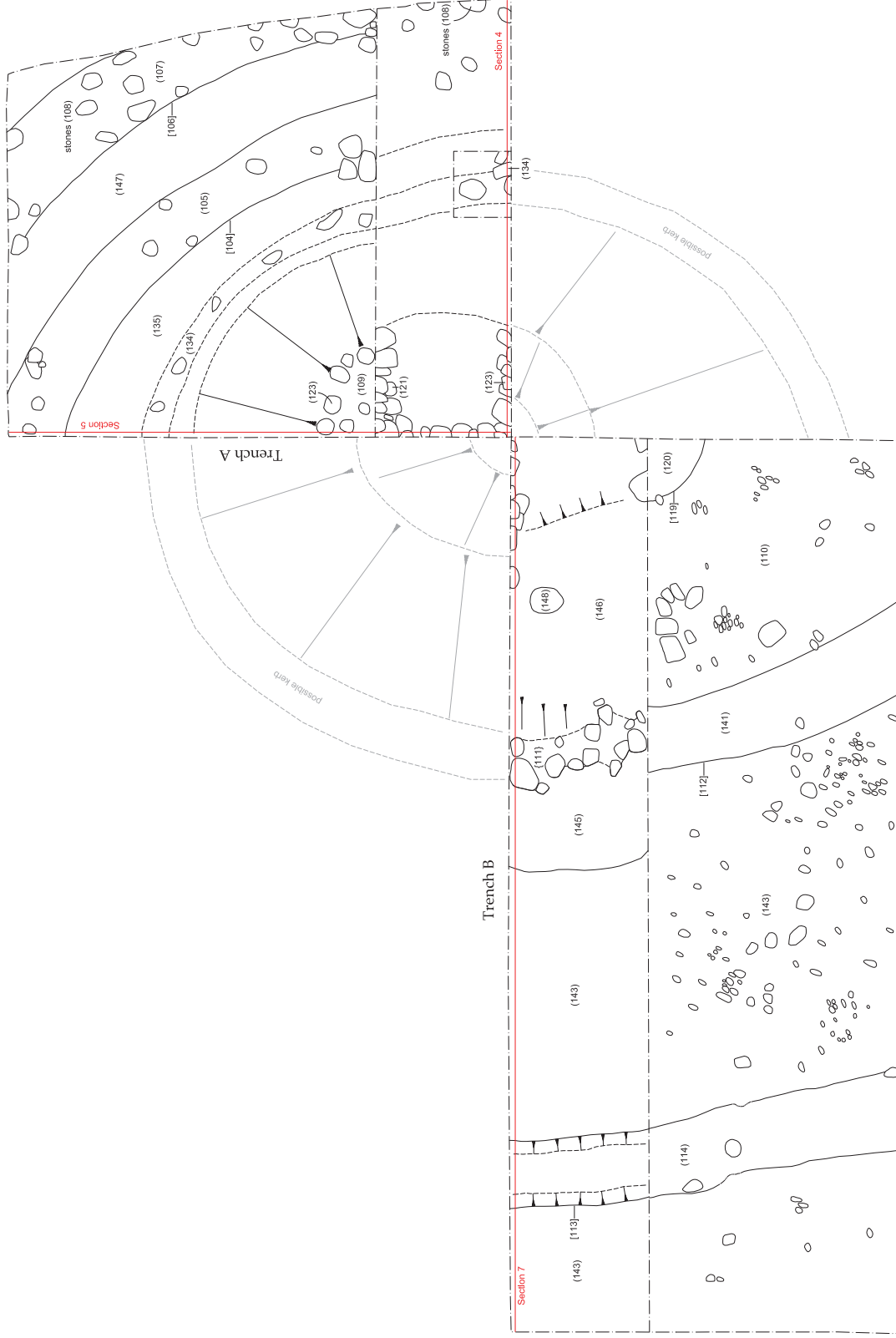


Figure 3: Trenches A & B; plan.

PROJECT:  
Brackenber Moor,  
Appleby-in-Westmorland,  
Cumbria

CLIENT:  
North Pennines  
AONB Partnership

SCALE: 1:50 at A4

DRAWN BY: AB

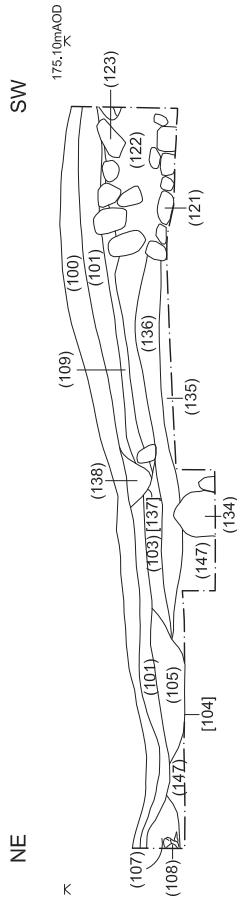
DATE: November 2013

KEY:

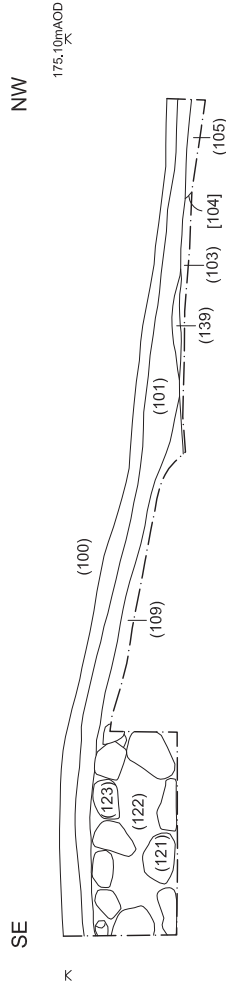
- (101) Context numbers
- Height mAOD
- Section location
- Limit of excavation

REPORT No:  
CP10415

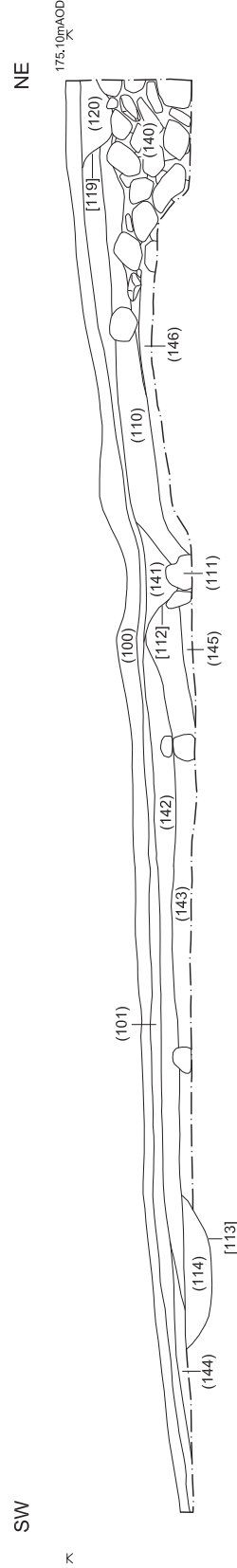
FIGURE:  
4



Section 4. North-west facing section, Trench A.



Section 5. North-east facing section, Trench A.



Section 7. South-east facing section, Trench B.



Figure 4: Trenches A & B; sections.



PROJECT:

Bracken Moor,  
Appleby-in-Westmorland,  
Cumbria

CLIENT:

North Pennines  
AONB Partnership

SCALE: 1:50 at A4

DRAWN BY: AB

DATE: November 2013

KEY:

- (101) Context numbers
- / Height mAOD
- Section location
- Limit of excavation

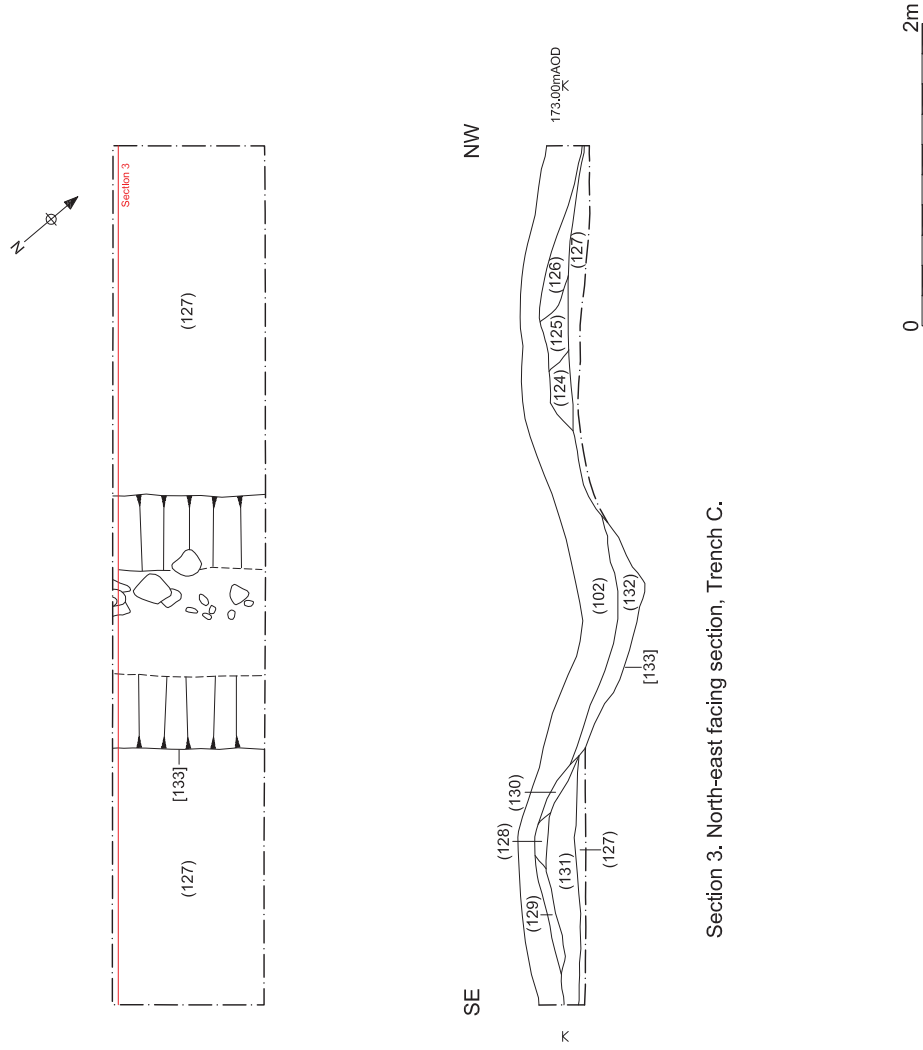


REPORT No:

CP10415

FIGURE:

5



Section 3. North-east facing section, Trench C.

Figure 5: Trench C; plan and section.

wardell-armstrong.com

STOKE-ON-TRENT  
Sir Henry Doulton House  
Forge Lane  
Etruria  
Stoke-on-Trent  
ST1 5BD  
Tel: +44 (0)845 111 7777

CARDIFF  
22 Windsor Place  
Cardiff  
CF10 3BY  
Tel: +44 (0)29 2072 9191

EDINBURGH  
Suite 2/3, Great Michael House  
14 Links Place  
Edinburgh  
EH6 7EZ  
Tel: +44 (0)131 555 3311

GREATER MANCHESTER  
2 The Avenue  
Leigh  
Greater Manchester  
WN7 1ES  
Tel: +44 (0)1942 260101

LONDON  
Sutherland House  
5-6 Argyll Street  
London  
W1F 7TE  
Tel: +44 (0)20 7287 2872

NEWCASTLE UPON TYNE  
City Quadrant  
11 Waterloo Square  
Newcastle upon Tyne  
NE1 4DP  
Tel: +44 (0)191 232 0943

PENRYN  
Tremough Innovation Centre  
Tremough Campus  
Penryn  
Cornwall  
TR10 9TA  
Tel: +44 (0)1872 560738

SHEFFIELD  
Unit 5  
Newton Business Centre  
Newton Chambers Road  
Thornccliffe Park  
Chapelton  
Sheffield  
S35 2PH  
Tel: +44 (0)114 245 6244

TRURO  
Wheal Jane  
Baldhu  
Truro  
Cornwall  
TR3 6EH  
Tel: +44 (0)1872 560738

WEST BROMWICH  
Thynne Court  
Thynne Street  
West Bromwich  
West Midlands  
B70 6PH  
Tel: +44 (0)121 580 0909

International offices:

ALMATY  
29/6 Satpaev Avenue  
Rahat Palace Hotel  
Office Tower  
9th floor  
Almaty  
Kazakhstan  
050040  
Tel : +7-727-3341310

MOSCOW  
Suite 2, Block 10,  
Letnikovskaya St.  
Moscow, Russia  
115114  
Tel: +7(495) 980 07 67

Wardell Armstrong Archaeology:

CUMBRIA  
Cocklakes Yard  
Carlisle  
Cumbria  
CA4 0BQ  
Tel: +44 (0)1228 564820