

HHAC/02



HIGH HOUSE QUARRY, ASPATRIA, CUMBRIA

ARCHAEOLOGICAL EXCAVATION
PLANNING REF. 2/06/9017

commissioned by Stephenson Halliday
on behalf of D A Harrison Ltd

August 2017

HIGH HOUSE QUARRY, ASPATRIA, CUMBRIA

ARCHAEOLOGICAL EXCAVATION
PLANNING REF. 2/06/9017

commissioned by Stephenson Halliday
on behalf of D A Harrison Ltd

August 2017

© 2017 by Headland Archaeology (UK) Ltd

This report contains OS data © Crown copyright and database right 2017

PROJECT INFO:

HA Job No. **HHAC/02** / NGR **NY 13215 47873** / Parish **Holme St Cuthbert** / Local Authority **Cumbria County Council** / OASIS Ref. **headland1-278653** / Archive Repository **museum/archive**

PROJECT TEAM:

Project Manager **Edward Bailey** / Author **Stephen Cox** / Fieldwork **Amy Koonce, Stephen Cox, Triin Aadli** / Graphics **Caroline Norrman, Rafael Maya-Torcelly** / Environmental **Aisling Fitzpatrick, Angela Walker** / Finds **Julie Franklin, Julie Lochrie**

Approved by **Edward Bailey**



Headland Archaeology Scotland
13 Jane St | Edinburgh EH6 5HE
t 0131 467 7705
e scotland@headlandarchaeology.com
w www.headlandarchaeology.com/



PROJECT SUMMARY

Headland Archaeology conducted an archaeological excavation at a proposed mineral extraction area on land at High House Quarry, located east of Overby, Aspatria, Cumbria. The excavation was undertaken in accordance with a planning condition attached to the permission granted by Cumbria County Council. A total of 20 pits, 10 post-holes and 12 linears were excavated. Pottery fragments of early Neolithic Carinated Bowls and Early Bronze Age Collared Urns were recovered from three of the pits along with a reworked Neolithic polished axehead with associated debitage.

CONTENTS

1	INTRODUCTION	1
2	ARCHAEOLOGICAL BACKGROUND	1
3	METHOD	2
4	RESULTS	2
	4.1 ENVIRONMENTAL ASSESSMENT	6
	4.2 FINDS ASSESSMENT	7
5	DISCUSSION	8
6	CONCLUSION	9
7	REFERENCES	9
8	APPENDICES	10
	APPENDIX 1 SITE REGISTERS	10
	APPENDIX 2 ENVIRONMENTAL TABLES	14
	APPENDIX 3 FINDS CATALOGUE	15

LIST OF ILLUSTRATIONS

ILLUS 1 SITE LOCATION	VIII
ILLUS 2 SITE PLAN	3
ILLUS 3 GENERAL VIEW OF QUARRY AND SITE	5
ILLUS 4 NORTH FACING SECTION OF PIT [005]	5
ILLUS 5 CLOSE-UP OF POTTERY FRAGMENT IN PIT [005]	5
ILLUS 6 SOUTH FACING SECTION OF DITCH [014] AND PIT [016]	6
ILLUS 7 SOUTH FACING SECTION OF DITCH [014, 027, 044] AND PIT [016]	6
ILLUS 8 EAST FACING SECTION OF DITCH [014, 027, 044]	6
ILLUS 9 NORTH FACING SECTION OF DITCH [076]	6

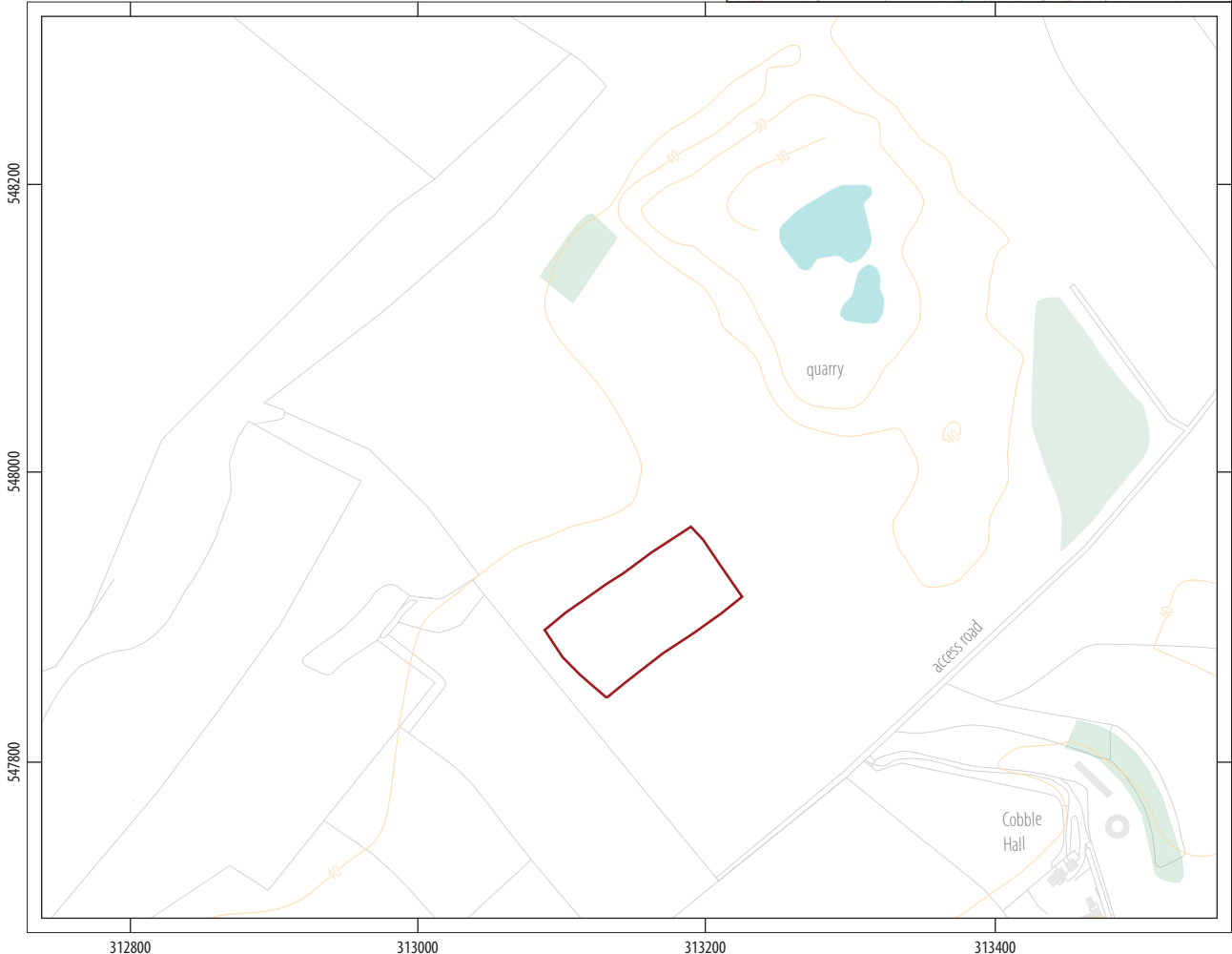
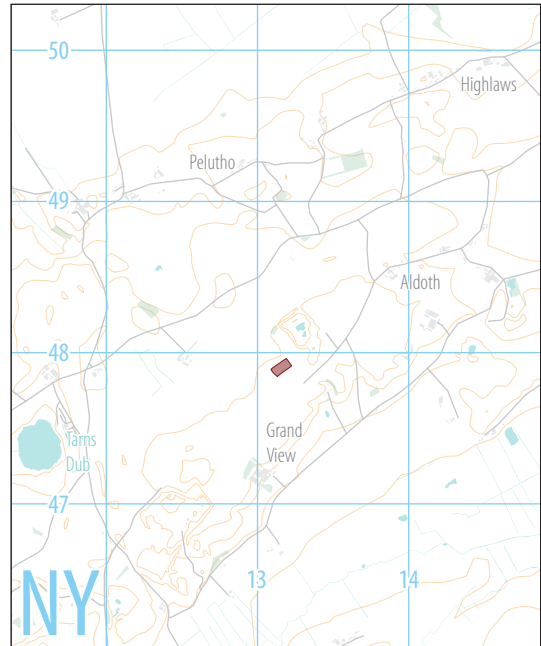
LIST OF TABLES

TABLE 1 SUMMARY OF FINDS ASSEMBLAGE BY FEATURE WITH SPOT DATING	7
TABLE A2.1 RETENT SAMPLE RESULTS	14
TABLE A2.2 FLOT SAMPLE RESULTS	14

HHAC/02
land at High House Quarry
Aspatria
Cumbria

0 200km
1:10,000,000 @ A4

Contains OS data © Crown copyright and database right 2017



0 100m
1:5,000 @ A4

KEY
[Red rectangle symbol] limit of excavation

HEADLAND
ARCHAEOLOGY

SCOTLAND

13 Jane Street
Edinburgh EH6 5HE
0131 467 7705
www.headlandarchaeology.com

ILLUS 1 Site location

HIGH HOUSE QUARRY, ASPATRIA, CUMBRIA

ARCHAEOLOGICAL EXCAVATION

1 INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by Stephenson Halliday on behalf of DA Harrison to undertake a programme of archaeological works in connection with gravel and sand extraction at High House Quarry. The current extraction phase (or Development Area - DA) is located near Cobble Hall Farm, c 6km north of Aspatria (NGR: NY 13215 47873; Illus 1). It is occupied by arable land and bounded by existing quarry activity to the south and agricultural land to the north, east and west. More generally the DA is located on the North Cumbria Plain in an area known as the Abbeytown Ridge, which stretches from Salta Moss to Wedholme Flow and defines the southern boundary of the Solway plain. The DA lies around 45m AOD and is underlain by Triassic sand and mudstones, and Glaciofluvial deposits of sand and gravel (NERC 2017).

Planning permission for the development was granted by Cumbria County Council (as Minerals Planning Authority) subject to a number of conditions, including one relating to archaeological works (no. 13):

'No development shall take place until the developer has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the local planning authority.'

In order to fulfil this condition a Written Scheme of Investigation (WSI) was prepared by Headland Archaeology (2015) on behalf of the client; setting out the proposed strategy for archaeological mitigation.

The WSI was submitted to and agreed with Jeremy Parsons, CCHES who advises the Local Planning Authority on archaeological matters. In line with the WSI the main objectives of archaeological works were:

- › to preserve by record any archaeological remains of significance in advance of quarrying.

More specific aims were:

- › to establish and record the location, extent, nature and date of archaeological features or deposits that may be present within the area proposed to be disturbed during the development.

The local and regional contexts are provided by the North West Region Archaeological Framework (Brennand 2007). Any evidence retrieved during the works should be analysed in light of the objectives contained in these frameworks.

This report details the results of the work.

2 ARCHAEOLOGICAL BACKGROUND

A Desk Based Assessment, walkover and geophysical survey relating to the development was undertaken by North Pennines Archaeology (Davies 2006a) which identified high potential for remains of prehistoric date and a number of cropmarks likely to reflect the presence of prehistoric features. The results of the DBA are summarised below.

Flints of Mesolithic and Neolithic date have been recovered within 1km of the DA (Ibid, 13) while a single piece of Neolithic or Bronze Age worked flint has been recovered from the quarry area. Taken in conjunction with the number of cropmarks seen in the area it is thought likely that parts of the proposed extraction area were farmed or settled in the Neolithic period.

A cist burial dating to the Bronze Age was found some 1km south-west of the DA at New Cowper Farm (Gaskell, N 2008). It is possible

that a number of undated boundary features at the same site could also have been of Bronze Age date.

There is little evidence for Iron Age and Romano-British occupation in the area, although it is known that there was a heavy military presence in Cumbria throughout the Roman period. A single sherd of Samian ware was found during excavations at New Cowper Farm and it is possible that undated cropmarks could be of this period.

During the medieval period the site fell under the jurisdiction of Holm Cultram Abbey and dykes were constructed to mark the limits of monastic lands. By the early part of the 19th century the site was enclosed agricultural land.

Site investigations comprising trial-trenching were undertaken by NPA (Davies 2006b, Noakes 2009) and by Headland Archaeology (Woodley 2013). These revealed remains in the form of post-holes, pits and linear features. Although undated they may represent the remains of prehistoric activity, as has been recorded at numerous other sand and gravel quarries in the area.

3 METHOD

The work was undertaken as specified in the WSI. The excavation was undertaken by a 360° 21 tonne tracked excavator equipped with a toothless ditching bucket. Topsoil and subsoil were removed under direct archaeological supervision from an area to the north-west of existing quarrying (Illus 2, Illus 3) and machine excavation terminated at the top of the natural geology or the first significant archaeological horizon whichever was encountered first.

Excavation of the archaeological deposits required to satisfy the objectives of the programme continued by hand.

All aspects of the work were undertaken in accordance with the current relevant Standards and Guidance for archaeological excavation of the Chartered Institute for Archaeologists (CIfA 2014) and with current Health & Safety legislation.

The results of the works are presented below. A summary report has been prepared for submission to the OASIS database (number: headland1-278653).

The complete project archive will be deposited with an appropriate museum within six months of the completion of the project. The records (paper and digital) will be archived according to best practice guidelines set out by the Archaeological Archiving Forum (CIfA 2007)

4 RESULTS

An area of 7,750m² was stripped of topsoil and subsoil. The soil profile comprised 0.3m of dark brown moderately stony silty sand plough soil. From the centre of the site and continuing towards the east this overlaid a mid-brown silty sand subsoil recorded to 1m at its deepest point. These layers overlay a mid-red sand natural geology, which contained frequent stone inclusions to the south

and east. This was cut by a number of archaeological features spread unevenly across the site. The densest concentration of features occurred in the western corner of the site, comprising three post-holes, four linears and five pits. These archaeological features were the only ones where a stratigraphic sequence was clearly evident, overall the stratigraphy of the features across the excavation area was basic with the remaining cutting the geological subsoil.

Prehistoric pottery was recovered from three features located in the western side of the excavation area indicating potential Neolithic/Bronze Age settlement activity. No spatial patterning was observed between the three features. Pit [005] (Illus 4) was located in the southern corner of the site. It contained a single dark brown silty sand fill (004) which included pottery fragments identified as Carinated Bowl pottery from the early Neolithic period. The pit also contained a reworked polished stone axehead which, along with two of the pottery fragments, appears to have been placed deliberately within the pit (Illus 5). Fragments of worked rock crystal and chert along with cereal grain and charred hazelnut shell were also recovered from fill (004).

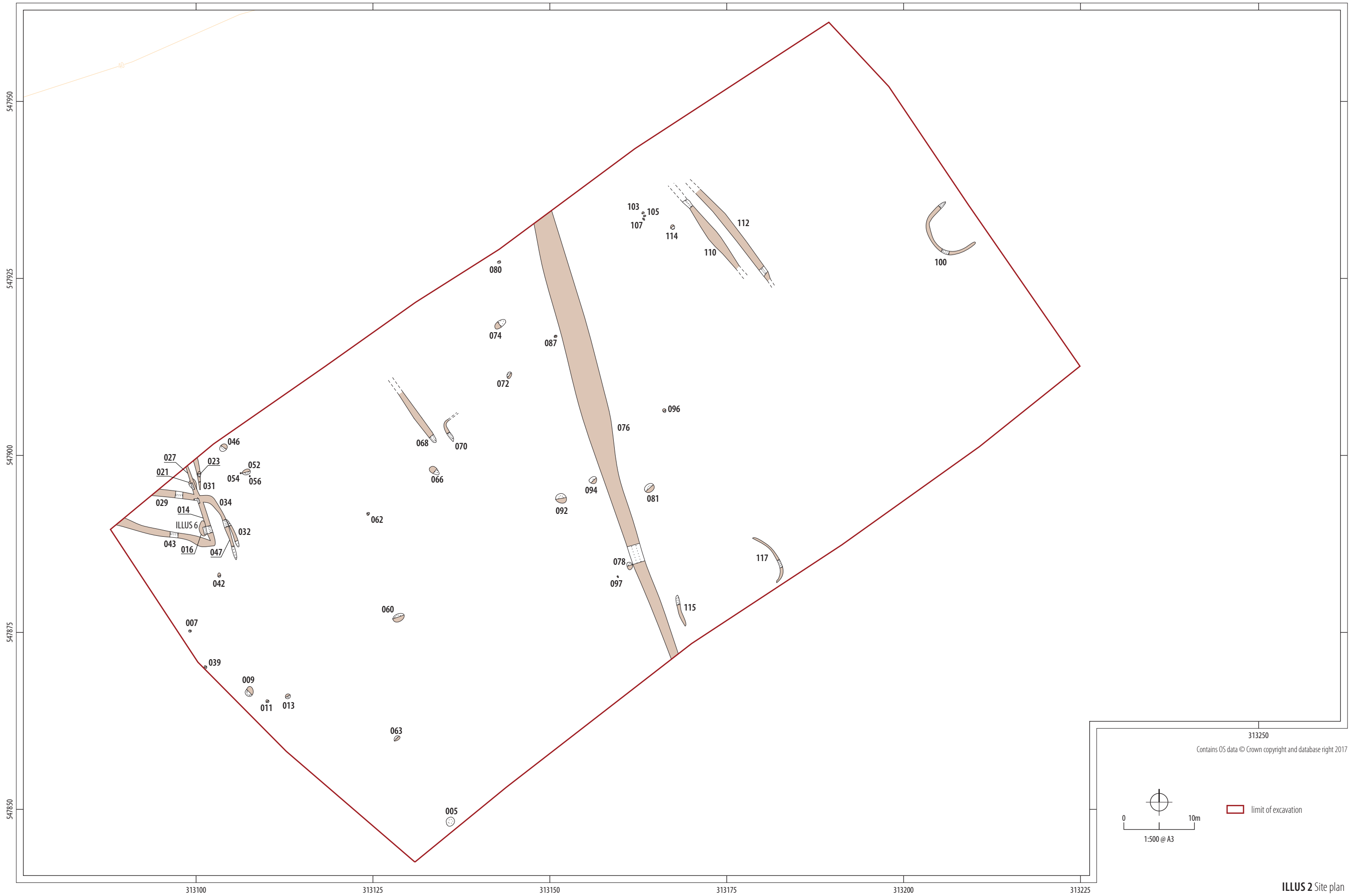
Additional Neolithic Carinated Bowl fragments were recovered from pit [046], recorded 60m north-west of pit [005]. The single dark bluish-grey silty sand fill (045) also included fired clay lumps, charcoal rare fragments of burnt bone, charred weed seeds and cereal grain.

The third pit [039] containing pottery was located at the western edge of the site. The frequent pottery fragments from this pit were from an early Bronze Age Collared Urn indicating later phase activity on the site. The mid-grey silty sand fill (038) also contained charcoal flecks and charred hazelnut shell fragments.

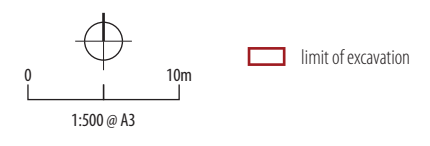
Of the undated features the most complex were the series of pits and linear features located in the western corner of the site. The earliest features in the stratigraphic sequence in this area were two large pits [016] and [021]. Pit [016] contained two fills; (017) a mid-orangish-grey silty sand primary fill, overlaid by mid-orangish-brown silty sand (040) secondary fill. Pit [021] was recorded five metres to the north of pit [016] and contained a single dark grey silty sand fill (020).

Both pits were cut by a ditch recorded with three different cut numbers along its length [014], [027] and [043] during the excavation (Illus 6, Illus 7). This ditch was oriented north/south and turned at its southern end to run west. This east/west arm contained only a single fill comprising a mid-reddish-brown silty sand (044) (Illus 8) whereas the north-south arm contained three fills; a primary fill comprising mid-brown silty sand (015), overlaid by a lens 0.1m thick of dark brown silty sand (018) which in turn was overlaid by a deposit of mid-reddish-brown silty sand (019). This upper fill contained rare fragments of burnt animal bone.

A second ditch recorded with three separate cut numbers during the excavation ([029], [034], and [047]) truncated the first ditch along its north/south alignment. The latter ditch was also L-shaped being orientated north/south and turning to the west at its northern end. It too contained three fills; the primary fill comprising mid-reddish-brown silty sand (035/048), overlaid by a lens of mid-reddish-orange silty sand 0.05m thick (036/048), the upper fill comprising a mid-



313250
Contains OS data © Crown copyright and database right 2017



limit of excavation

ILLUS 2 Site plan



ILLUS 3 General view of quarry and site **ILLUS 4** North facing section of pit [005] **ILLUS 5** Close-up of pottery fragment in pit [005]

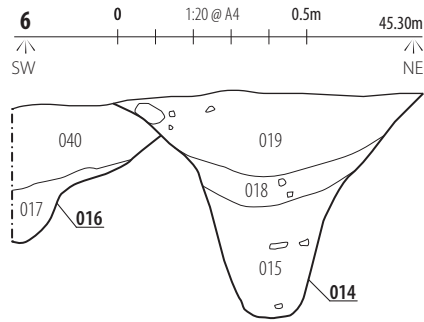
brown silty sand (037/050). Poorly preserved burnt bone fragments and a small fragment of fuel ash slag were recovered from the upper fill along with unidentified charred cereal grains (see Environmental and Finds Assessments below).

Immediately east of and parallel to Ditch [034] a 4m long north-south aligned ditch [032] was recorded. The ditch was 0.38m wide and 0.14m deep, its profile becoming more V-shaped at its northern end. It contained a single fill, a mid-reddish-brown silty sand (033). Although both ditches were in close proximity no stratigraphic relationship was identified.

Another short 4m long ditch [031] ran parallel and immediately east of ditch [027]. It was 0.46m wide and 0.21m deep, and contained a

single fill comprising a mid-greyish-brown silty sand (026). It was cut about half way along its length by post-hole [023]. This post-hole contained a single fill of mid-greyish-brown silty sand (022) with stone inclusions which may have functioned as packing to support a post.

The only other evidence of stratigraphy across the site was that between pit [078] and ditch [076]. The pit, which measured 0.9m in diameter and was 0.18m deep containing a single sterile mid-brown silty sand fill (077) was truncated on its eastern side by ditch [076]. The ditch was the most prominent feature on the site running north/south across the centre of the excavation area (Illus 9). It measured 1.9m in width and was 0.59m deep. It contained two fills (075) and (078), both a moderately stony silty sand. No dating evidence was



ILLUS 6 South facing section of ditch [014] and pit [016] **ILLUS 7** South facing section of ditch [014, 027, 044] and pit [016] **ILLUS 8** East facing section of ditch [014, 027, 044] **ILLUS 9** North facing section of ditch [076]

recovered from this feature. It is most likely that this feature was the same feature observed in the previous trial trenching.

Three curvilinear gullies were recorded in the eastern half of the area. Gully [100] measured 13m in length, was 0.43m wide and 0.1m deep and formed a horseshoe shape in plan. Its fill (099) was a sterile mid-greyish-brown silty sand. Both gully [117] and gully [115] were located approximately 50m to the south and had a similar profile to gully [100]. Their fills (118) and (116) were both dark grey silty sand with very rare charcoal flecks. No features were observed within the areas demarcated by the gullies.

Two parallel linear features [110] and [112] 1.5m apart were recorded 21m north-east of ditch [076]. Both had similar profiles being between 0.6 and 0.8m wide and 0.15–0.2m deep. They contained similar fills, a mid-grey silty sand (109) and (111) respectively. Both ditches were orientated north-west/south-east and were 12 and 16m long respectively. A similar short 10m long ditch [068] was located 48m to the south-west of ditches [110] and [112] but was parallel and shared a similar profile. It contained a single mid-greyish-brown silty sand fill (067).

The remaining features comprised a scattering of pits of varying sizes across the site with no discernible pattern to their distribution and with no evidence for dating or function recovered from their fills.

4.1 ENVIRONMENTAL ASSESSMENT

Introduction

Four samples, ranging in size from twenty to 40 litres, were recovered during archaeological works at High House Quarry, Aspatria, Cumbria. Samples derived from three pits and a ditch and ranged in date from the early Neolithic to the early Bronze Age. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains and to determine the potential of the material in indicating the character and significance of the deposit.

Method

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250µm sieve and once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. All samples were scanned using a stereomicroscope at magnifications of x10 and up to x100. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers et al (2006) and Zohary et al (2012); nomenclature for wild taxa follows Stace (1997).

Faunal remains were examined under low magnification and, as far as possible, identified to species and skeletal element, using modern reference material and with reference to Schmid (1972), and Hillson (1992). Measurements are taken as per von den Dreisch (1976). Ageing criteria were recorded using various methods outlined in Amorosi (1989). Fragments were recorded together with their weight and level of preservation and included any signs of butchery or modification.

CONTEXT	POTTERY (PH)		LITHICS Count	STONE Count	CBM Wgt	IND WASTE Wgt	SPOT DATE
	Count	Wgt					
005	1,094	1,488g	123	8	–	–	E Neol, 3950–3750 BC
014	–	–	–	–	–	<0.5g	?
039	823	2,227g	–	–	–	–	EBA, 2000–1550 BC
046	518	477g	11	–	14g	–	E Neol, 3950–3750 BC
Total	2,435	4,192g	134	8	14g	<0.5g	

TABLE 1 Summary of finds assemblage by feature with spot dating

Results

Results of the assessment are presented in Tables A2.1 (Retent samples) and A2.2 (Flotation samples). Material sufficient for AMS (Accelerated Mass Spectrometry) radiocarbon dating is also identified in each table.

Charred plant remains

Cereals Cereal grain was recovered from three contexts; (004) the fill of pit [005], (019) the upper fill of ditch [014] and (045) the fill of pit [046] (Table A2.2). The overall preservation of the grain was generally poor with the majority showing signs of abrasion, as a result the classification categories were restricted to glume wheat, cf barley (*Hordeum* sp.) and cereal indeterminate.

Other charred plant remains A number of charred 'weed seeds', (here used to include seeds, fruits, achene, caryopses etc.) were recovered from context; (045) the fill of pit [046]. Taxa present included individual seeds of corn spurrey (*Spergula arvensis*) and docks (*Rumex* sp.) (Table A2.2).

Charred hazel (*Corylus avellana*) nutshell was recovered from three contexts; (045) the fill of pit [046] (which contained >50 fragments), (004) fill of pit [005] and (038) the fill of pit [039] (Table A2.1).

Wood charcoal

Wood charcoal of a size sufficient for identification and/or Accelerated Mass Spectrometry (AMS) dating was recovered from all 4 assessed contexts (Tables A2.1 and A2.2).

Faunal remains

Faunal remains were recovered from 2 contexts; (045) the fill of Pit [046] and (019) the upper fill of Ditch [014] (Table A2.1). The material which was burnt and fragmented did not exhibit any of the diagnostic features required for species and/or body part identification and was classified as burnt indeterminate mammal bone. The very poor level of preservation and paucity of remains precludes any further analysis.

Other biological remains

Uncharred root fragments varying in volume from occasional to abundant were observed in all samples. Occasional worm egg capsules and fungal sclerotia were also present. The condition and character of these indicated that they are modern in origin and were not considered further.

Discussion

The small charred plant assemblage does not offer any significant information relating to site economy other than possible crop choices. Once incorporated into negative features charred remains tend to survive well but, as in this case, their inclusion is often incidental and the materials have no direct relationship to the features themselves.

The faunal remains do not provide any information pertaining to species present or site economy. The paucity of remains precludes any further analysis.

4.2 FINDS ASSESSMENT

Introduction

The finds assemblage comprises 2,435 sherds (4.192kg) of pottery, 134 finds of chipped stone, eight other stone finds and a small collection of fired clay and fuel ash slag. These were retrieved from four features. The Neolithic and Bronze Age are both represented. Of particular note is a polished stone axehead with evidence for reworking and substantial quantities of Carinated Bowl pottery. The finds are summarised by feature in Appendix 3 and a complete catalogue is given at the end.

Results

Prehistoric pottery

The pottery from pits [005] (004) and [046] (045) is very similar. These are early Neolithic Carinated Bowls, of 'Traditional' form with everted necks, rounded rims, gentle carnations and hemispherical bases. Carinated bowls are the first type of pottery used in the British Isles and date to 3950–3750 BC. Several vessels are present and the quantities and deposition are typical of early Neolithic domestic refuse.

The pottery from pit [039] (038) dates approximately two millennia later. The sherds represent a heavily damaged Collared Urn. The overall shape of the vessel is tripartite with a heavy collar, the body below this is concave before changing angle with a rounded carination and continuing to a small flat base. The collar has been constructed by application of a thick strip which has been smeared

upwards to appear as a collar, it is decorated with twisted cord in a hurdle pattern. The mid-section of the body is decorated in panels of vertical twisted cord and fingernail impressions. Early Bronze Age Collared Urns are often found used as cinerary vessels and exceptionally rarely found in non-cinerary contexts. Although no cremated bone was recovered it suggests evidence for a severely truncated cremation and can be dated to the period 2000–1550 bc. Collared Urn finds are rare in Cumbria but another recent discovery was made in Aspatria (Wardell Armstrong 2015), although its decoration and morphology differ from the High House Quarry example.

Fired clay

The fired clay amounts to three lumps weighing 14g. They were found with early Neolithic pottery in pit [045] and are probably contemporary. No shape could be discerned from the fired clay but they may derive from a wattle and daub structure, pit lining, hearth, or clay collected for pottery manufacture.

Lithics

The 134 lithic finds were of three different material types: 111 rock crystal; 21 flint; and two chert. All were found in the two early Neolithic pits. Most of the material including all the rock crystal and chert was found in pit [005] (004). The type of debitage indicates that knapping was taking place on site and the rock crystal includes probable tools and a core.

Stone finds

The stone finds are an axehead from pit [005] (004) and seven pieces of debitage struck from the same. The stone is a volcanic tuff which is available within Cumbria, though not locally at Aspatria, and is often associated with stone axes. The assemblage represents the reworking of a previously finished and polished axe. Three areas of polish can be seen and the bifacial flakes have clearly been removed after the polishing has taken place. The motivation behind this could be practical; the axehead may have been damaged needed reshaping. However the extent to which it has been flaked shows a determination not to simplify to modify it but to change it entirely. It is also possible that the piece was deliberately defaced through surface removal to signify the end of its use as an axe. The modification certainly took place at the site as the flakes were found with the axe, including some small chips, with one flake refitting the axehead itself. Polished stone axeheads date to the Neolithic and it is likely to be contemporary with the early Neolithic pottery in this pit.

Industrial waste

A very small fragment of fuel ash slag, weighing less than 1g, was retrieved from ditch [014]. Fuel ash slag can be associated with any kind of high temperature activity including as domestic hearths.

Finds Discussion

The two Neolithic pits [005] and [046] were found some 60m apart but both represent broadly contemporary domestic activity. The finds from pit [005] were of particular note and provide several defining cultural associations of the early Neolithic period: the Carinated Bowl pottery; the polished stone axe; and the evidence for trade and exchange networks evidenced by the use of non-local stone types. Polished stone axes are rarely discovered in stratified excavations in

Cumbria (Brown & Clark 2011) and the discovery of an axehead with associated debitage is very rare indeed. Though found in a domestic context the deposition may still have had symbolic significance. Ritualised activities could be bound up in everyday activities, assigning special meaning to even the most mundane of tasks.

The early Bronze Age evidence in pit [039] is likely to represent the remains of a cremation cemetery. The pit was found at the far western limit of the excavation area and other features may have been present outside it. The Collared Urn was found in a shallow pit which may previously have been covered by a barrow or cairn. No cremated human bone was found in association with it but, as it is heavily fragmented, there has clearly been some post-depositional disturbance.

The prehistoric assemblage is of great interest. The Neolithic remains are of particular significance. Neolithic discoveries from excavations in Cumbria are rare, especially in relation to domestic occupation (Hodgson and Brennand 2008, 32). The polished stone axehead and associated debitage are extremely unusual.

Archive recommendations

This is a small but significant assemblage and the material should be retained. The Neolithic artefacts in particular are not common to the area.

5 DISCUSSION

The earliest dated features are the pits [005] and [046] which both contained early Neolithic pottery and are evidence of settlement related activity. The apparently deliberate positioning of the pottery fragments and axehead within pit [005] is interpreted as evidence of the entanglement of ritual and domestic in the Neolithic – the pots belong in the domestic sphere but their treatment in their deposition appears to be ritual rather than simple waste disposal. It may be that the act of placing these objects in the pit is indicative of the significance of this location to the Neolithic people.

The early Bronze Age Collared Urn fragments in pit [039] may indicate the presence of a cremation; however, this interpretation cannot be stated with certainty as no burnt bones were recovered from the fill and the feature has been truncated by ploughing. Approximately 1.5km away the remains of eight Collared Urns were recovered from the cremation cemetery excavated at Overby Quarry (Cavanagh 2010). The other pits within the area lack datable evidence and may have functioned as pits for waste disposal during the prehistoric period.

The densest concentration of features was in the western corner of the site, where at least two phases of activity were observed. The presence of burnt bone, cereal remains and fuel ash slag in one of the ditch fills is indicative of domestic activity which was probably contained within the area demarcated by the ditches.

Ditch [076] is likely to be the same feature revealed in the archaeological trial trenching. No datable material from the trench has been recovered in any of the phases of work so the earlier suggestions (Noakes 2009, p25; Woodley 2013, p5) that this

is a prehistoric feature cannot be confirmed, but the difference in alignment of this ditch compared with the modern field boundaries suggests at least a pre 19th century date.

Although no dating evidence was recovered from the linears [068], [110] and [112] it is likely that they functioned as part of rectilinear field system, possibly prehistoric. The curvilinear gullies [100], [115] and [117] demarcate specific centres of activity and the lack of evidence of features within these areas indicates they did not function as dwellings. They are likely to have functioned as stock compounds and are interpreted as evidence of stock management.

The post-holes lack any pattern of spatial distribution and do not form part of any structures. Post-holes [054] and [056] functioned as markers to indicate the location of pit [052]. Post-holes [103], [105] and [107] could have functioned as a wind-break, or part of a fence-line. Other post-holes within the area may have held similar functions.

6 CONCLUSION

The discoveries at High House quarry have provided evidence of early Neolithic activity in the area, in addition to the evidence from the excavations at New Cowper Quarry (Gaskell 2008, Davies 2008) within a short distance of High House Quarry. The features and finds uncovered here contribute to the characterisation of the DA as a significant location within the Neolithic landscape. The location was also significant in the early Bronze Age with a possible cremation cemetery lying outwith the area of excavation. However, the rest of the features indicates a shift of focus to domestic settlement and different phases of field systems with associated animal husbandry activities. Although undated they may belong to the later prehistoric period.

7 REFERENCES

- Amorosi T 1989 *A Postcranial Guide to Domestic Neo-Natal and Juvenile Mammals* BAR International Series 533, Oxford
- Archaeological Archives Forum (AAF) 2011 *Archaeological Archives A guide to best practice in creation, compilation, transfer and curation* (2nd edn) www.archaeologyuk.org/archives/aaf-archaeological-archives-2011.pdf Chartered Institute for Archaeologists (CIfA): Reading, accessed March 2017
- Brennand M 2007 *The Archaeology of North-West England: An Archaeological Research Framework for North-West England; Volume 1 & 2 Resource Assessment* CBA North-West
- Brown F & Clark P 2011 *Stainton West (Parcel 27 North) CNDR* [unpublished client doc, Oxford Archaeology North]
- Cavanagh N 2010 *Overby Quarry, Aikshaw, Aspatria, Cumbria* [unpublished client doc, North Pennines Archaeology Ltd]
- Chartered Institute for Archaeologists (CIfA) 2014 *Standard and guidance for archaeological excavation* http://www.archaeologists.net/sites/default/files/CifAS&GExcavation_1.pdf accessed March 2017
- Davies G 2006a *Archaeological Desk-based Assessment, walkover survey and geophysical survey for a proposed quarry extension at High House, Westnewton, Cumbria* [unpublished client doc, North Pennines Archaeology Ltd, Ref. CP/215/05 A]
- Davies G 2006b *Report on a Targeted Archaeological Field Evaluation at High House, Westnewton, Cumbria* [unpublished client doc, North Pennines Archaeology Ltd]
- Davies G 2008 *An Archaeological Excavation at New Cowper Quarry Northern Extension (Phase 2) Aspatria, Cumbria* [unpublished client doc, North Pennines Archaeology Ltd]
- Gaskell N 2008 *Assessment Report on an Archaeological Excavation at New Cowper Quarry (Northern Area), Aspatria, Cumbria* [unpublished client doc, North Pennines Archaeology]
- Headland Archaeology (UK) Ltd 2015 *High House Quarry, Aspatria, Cumbria Written Scheme of Investigation for Archaeologically-monitored Topsoil Strip* [unpublished client doc, Headland Archaeology Ltd]
- Hillson, S 1992 *Mammal Bones and Teeth; An Introductory Guide to Methods of Identification* London
- Natural Environment Research Council (NERC) 2017 *British Geological Survey* www.bgs.ac.uk/ accessed March 2017
- Noakes 2009 *Archaeological Evaluation at High House Quarry, Cobble Hall, Aldoth, Wigton, Cumbria* [unpublished client doc, North Pennines Archaeology Ltd]
- Schmid E 1972 *Atlas of Animal Bones Knochenatlas fur Praehistoriker, Archaeologen und Quaternarbiologen* Amsterdam, London and New York
- Stace C 1997 *New Flora of the British Isles* (2nd Edition) Cambridge, Cambridge University Press
- The Groningen Institute of Archaeology (GIA) 2006 *Digital Seed Atlas of the Netherlands* <http://dzn.eldoc.ub.rug.nl/> accessed March 2017
- Von den Dreisch A 1979 *A Guide to the Measurement of Animal Bones from Archaeological Sites* Cambridge, Mass
- Wardell Armstrong 2015 'Early Bronze Age urn uncovered in Aspatria' <http://wa-archaeology.com/2810-early-bronze-age-urn-uncovered-in-aspatria/>, accessed April 2017
- Woodley N 2013 *High House Quarry, Aspatria, Cumbria; Archaeological Evaluation* [unpublished client doc, Headland Archaeology (UK) Ltd]
- Zohary D, Hopf M & Weiss, E 2012 *Domestication of Plants in the Old World* Oxford, Oxford University Press

8 APPENDICES

APPENDIX 1 SITE REGISTERS

Appendix 1.1 Context register

CONTEXT	DESCRIPTION	DIMENSIONS (M)		
		L (m)	W (m)	D (m)
001	Topsoil	–	–	–
002	Subsoil	–	–	–
003	Natural	–	–	–
004	Fill of pit [005]	1.33	1.14	0.21
005	Cut of pit	1.33	1.14	0.21
006	Fill of possible post-hole [007]	0.45	0.40	0.25
007	Cut of possible post-hole	0.45	0.40	0.25
008	Fill of pit [009]	1.60	1.28	0.12
009	Cut of pit	1.60	1.28	0.12
010	Fill of pit [011]	0.53	0.46	0.15
011	Cut of pit	0.53	0.46	0.15
012	Fill of pit [013]	0.74	0.60	0.19
013	Cut of pit	0.74	0.60	0.19
014	Cut of a gully/ditch. Same as [025] and [027]	10.00	0.72	0.56
015	Primary fill of gully/ditch [014]	–	0.26	0.22
016	Cut of pit	2.18	0.76	0.35
017	Primary fill of pit [016]	2.18	0.78	0.14
018	Secondary fill of gully/ditch [014]	–	0.56	0.10
019	Upper fill of gully/ditch [014]	–	0.80	0.16
020	Fill of pit [021]	1.00	0.86	0.19
021	Cut of pit	1.00	0.86	0.19
022	Fill of post-hole [023]	0.57	0.46	0.21
023	Cut of post-hole	0.57	0.46	0.21
024	Fill of gully/ditch [025]	11.10	0.29	0.13
025	Cut of gully/ditch. Same as [014] and [027]	11.10	0.29	0.13
026	Fill of gully/ditch [027]	11.10	0.40	0.16
027	Cut of gully/ditch. Same as [014] and [025]	11.10	0.40	0.16
028	Fill of gully/ditch [029]	13.00	0.50	0.27
029	Cut of gully/ditch	13.00	0.50	0.27
030	Fill of linear [031]. Cut by post-hole [023]	0.57	0.46	0.21
031	Cut of linear. Cut by post-hole [023]	0.57	0.46	0.21
032	Cut of gully	4.05	0.38	0.14

CONTEXT	DESCRIPTION	DIMENSIONS (M)		
		L (m)	W (m)	D (m)
033	Fill of gully [032]	4.05	0.38	0.14
034	Cut of gully	12.00	0.60	0.39
035	Primary fill of gully [034]	12.00	0.60	0.39
036	Secondary fill of gully [034]	–	0.40	0.05
037	Upper fill of gully [034]	–	0.60	0.18
038	Fill of pit [039]	0.70	0.58	0.12
039	Cut of pit	0.70	0.58	0.12
040	Upper fill of pit [016]	2.18	0.78	0.20
041	Fill of pit [042]	0.60	0.44	0.20
042	Cut of pit	0.60	0.44	0.20
043	Cut of gully. Same as [014]	12.00	0.57	0.39
044	Fill of gully [043]	12.00	0.57	0.39
045	Fill of pit [046]	1.15	1.00	0.15
046	Cut of pit	1.15	1.00	0.15
047	Cut of linear	–	0.84	0.43
048	Primary fill of linear [047]	–	0.84	0.43
049	Secondary fill of linear [047]	–	0.32	0.05
050	Upper fill of linear [047]	–	0.82	0.20
051	Fill of pit [052]	1.20	0.90	0.17
052	Cut of pit	1.20	0.90	0.17
053	Fill of post-hole [054]	0.30	0.27	0.05
054	Cut of post-hole	0.30	0.27	0.05
055	Fill of post-hole [056]	0.30	0.27	0.35
056	Cut of post-hole	0.30	0.27	0.35
057	Fill of post-hole [058]	0.50	0.40	0.20
058	Cut of post-hole	0.50	0.40	0.20
059	Fill of pit [060]	1.35	1.20	0.22
060	Cut of pit	1.35	1.20	0.22
061	Fill of post-hole [062]	0.37	0.37	0.02
062	Cut of post-hole	0.37	0.37	0.02
063	Cut of pit	0.85	0.50	0.15
064	Fill of pit [063]	0.85	0.50	0.15
065	Fill of pit [066]	1.80	0.68	0.11
066	Cut of pit	1.80	0.68	0.11
067	Fill of linear [068]	8.00	0.54	0.08
068	Cut of linear	8.00	0.54	0.08
069	Fill of gully [070]	3.00	0.26	0.07

CONTEXT	DESCRIPTION	DIMENSIONS (M)		
		L (m)	W (m)	D (m)
070	Cut of gully	3.00	0.26	0.07
071	Fill of post-hole [072]	0.42	0.40	0.12
072	Cut of post-hole	0.42	0.40	0.12
073	Fill of pit [074]	2.10	0.55	0.44
074	Cut of pit	2.10	0.55	0.44
075	Primary fill of linear	Not recorded		
076	Cut of linear	40.00	1.90	0.59
077	Fill of pit [078]. Cut by [076]	Not recorded		
078	Cut of pit. Cut by [076]	Not recorded		
079	Fill of pit [080]	0.47	0.41	0.17
080	Cut of pit	0.47	0.41	0.17
081	Cut of pit	1.40	0.98	0.14
082	Primary fill of pit [081]	Not recorded		
083	Secondary fill of pit [081]	0.55	0.62	0.13
084	Fill of pit [081]	0.98	0.98	0.13
085	Upper fill of pit [081]	Not recorded		
086	Fill of pit [087]	0.55	0.30	0.07
087	Cut of pit	0.55	0.30	0.07
088	Upper fill of linear [076]	Not recorded		
089	Fill of pit [090]	0.50	0.45	0.13
090	Cut of pit	0.50	0.45	0.13
091	Fill of pit [092]	1.52	1.46	0.20
092	Cut of pit	1.52	1.46	0.20
093	Fill of pit [094]	1.50	1.38	0.44
094	Cut of pit	1.50	1.38	0.44
095	Fill of pit [096]	0.57	0.41	0.28
096	Cut of pit	0.57	0.41	0.28
097	Cut of post-hole	0.20	0.21	0.32
098	Fill of post-hole [097]	0.20	0.21	0.32
099	Fill of curvilinear [100]. Same as (101)	13.00	0.43	0.06
100	Cut of curvilinear. Same as (102)	13.00	0.43	0.06
101	Fill of curvilinear [102]. Same as (099)	13.00	0.46	0.10
102	Cut of curvilinear. Same as [100]	13.00	0.46	0.10
103	Cut of post-hole	0.21	0.22	0.16
104	Fill of post-hole [103]	0.21	0.22	0.16
105	Cut of post-hole	0.16	0.17	0.04
106	Fill of post-hole [105]	0.16	0.17	0.04

CONTEXT	DESCRIPTION	DIMENSIONS (M)		
		L (m)	W (m)	D (m)
107	Cut of post-hole	0.26	0.21	0.14
108	Fill of post-hole [107]	0.26	0.21	0.14
109	Fill of linear [110]	10.00	0.83	0.20
110	Cut of linear	10.00	0.83	0.20
111	Fill of linear [112]	10.00	0.60	0.15
112	Cut of linear	10.00	0.60	0.15
113	Fill of pit [114]	0.57	0.40	0.27
114	Cut of pit	0.57	0.40	0.27
115	Cut of curvilinear	4.00	0.30	0.08
116	Fill of curvilinear [115]	4.00	0.30	0.08
117	Cut of curvilinear	8.00	0.38	0.05
118	Fill of curvilinear [117]	8.00	0.38	0.05

Appendix 1.2 Photo register

PHOTO	DIRECTION	DESCRIPTION
001	SW	General pre-strip view of site
002	S	General pre-strip view of site
003	NE	General pre-strip view of site
004	N	General pre-strip view of site
005	NE	View of topsoil strip, end of day 1
006	SW	View of quarry edge
007	SW	View of site, start of day 2
008	SW	View of topsoil strip, end of day 2
009	NE	South-west-facing section of trench
010	NE	View of edge of quarry
011	E	View of area stripped in mist
012	SW	General view of stripped area
013	SE	General view of stripped area
014	SE	General view of stripped area
015	NE	General view of stripped area
016	NE	View of edge of quarry
017	N	Post-excavation plan of possible post-hole [007]
018	N	South-facing section of possible post-hole [007]
019	N	South-facing section of possible post-hole [007]
020	N	Post-excavation plan of pit [009]
021	E	Post-excavation plan of pit [009]

PHOTO	DIRECTION	DESCRIPTION
022	N	South-facing section of pit [009]
023	NW	Post-excavation plan of pit [011]
024	NW	South-east-facing section of pit [011]
025	NW	Post-excavation plan of pit [013]
026	NW	South-east-facing section of pit [013]
027	NW	South-east-facing section of pit [013]
028	NW	View of slot in ditch [014]
029	NE	View of slot in ditches [021] and [025]
030	NW	View of slot in ditches [021] and [025]
031	N	Oblique view of slot in ditches [021] and [025]
032	NW	South-east-facing section of ditch [014] and pit [016]
033	NW	South-east-facing section of post-hole [023]
034	NE	South-west-facing section of linears [027] and [029]
035	N	South-facing section of linears [027] and [029]
036	N	South-facing section of linears [027] and [029]
037	W	Shot of linear [031] and post-hole [023]
038	S	North-facing section of linear [031]
039	SE	North-west-facing section through gullies [032] and [034]
040	NW	South-east-facing section through gullies [032] and [034]
041	SE	North-west-facing section of pit [039]
042	N	South-facing section of pit [042]
043	NW	South-east-facing section of pit [046]
044	NW	South-east-facing section of pit [046]
045	E	West-facing section of pit [052] and post-hole [054]
046	N	South-facing section of pit [052] and post-hole [054]
047	N	South-facing section of pit [052] and post-hole [054]
048	N	South-facing section of post-hole [056]
049	N	South-facing section of post-hole [056]
050	SE	North-west-facing section of post-hole [058]
051	SE	North-west-facing section of pit [004]
052	SE	North-west-facing section of pit [004]
053	SW	View of pit and edge of quarry
054	SE	Close-up of pot fragment in pit [005]
055	SW	Close-up of pot fragment in pit [005]
056	NW	Close-up of pot fragment in pit [005]
057	SE	North-west-facing section of pit [060]
058	SE	North-west-facing section of pit [060]
059	S	North-facing section of post-hole [062]

PHOTO	DIRECTION	DESCRIPTION
060	NE	Close-up of pot fragment in pit [005]
061	N/A	Close-up of pot fragment in pit [005]
062	NW	South-east-facing section of pit [066]
063	NW	South-east-facing section of linear [068]
064	NW	South-east-facing section of linear [068]
065	SE	North-west-facing section of pit [063]
066	NW	South-east-facing section of curvilinear [070]
067	NW	South-east-facing section of curvilinear [070]
068	NW	South-east-facing section of curvilinear [070]
069	E	West-facing section of post-hole [072]
070	E	West-facing section of post-hole [072]
071	SW	North-east-facing section of pit [074]
072	SW	North-east-facing section of pit [074]
073	SE	North-west-facing section of linear [076]
074	SE	North-west-facing section of linear [076]
075	SE	North-west-facing section of pit [078]
076	SE	North-west-facing section of pit [078]
077	N	Post-excavation plan of pit [080]
078	N	South-facing section of pit [080]
079	NW	North-west-facing section of pit [081]
080	NW	North-west-facing section of pit [081]
081	S	North-facing section of pit [087]
082	S	North-facing section of pit [090]
083	—	VOID
084	S	North-facing section of pit [092]
085	SE	Post-excavation plan of pit [094]
086	SE	North-west-facing section of pit [094]
087	NW	South-east-facing section of pit [096]
088	SW	North-east-facing section of linear [100]
089	SW	North-east-facing section of linear [100]
090	W	East-facing section of linear [102]
091	W	East-facing section of linear [102]
092	E	Post-excavation plan of linear [102]
093	E	Shot of post-holes [103], [105] and [107]
094	E	Shot of post-hole [103]
095	E	Shot of post-hole [105]
096	E	Shot of post-hole [107]
097	SE	North-west-facing section of linear [110]

PHOTO	DIRECTION	DESCRIPTION
098	SE	North-west-facing section of linear [110]
099	SE	North-west-facing section of linear [112]
100	—	VOID
101	SE	North-west-facing section of linear [112]
102	NW	South-east-facing section of pit [114]
103	NW	Post-excavation plan of pit [114]
104	W	Working shot
105	N	Shot of post-hole [097]
106	SE	View of gully slot [117]
107	SE	View of gully slot [115]

Appendix 1.3 Sample register

SAMPLE	CONTEXT	DESCRIPTION
001	038	Fill of pit [039] – frequent charcoal and pot
002	045	Fill of pit [046] – frequent charcoal, pot and flint
003	019	Upper fill of ditch [014] – burnt bone
004	015	Primary fill of ditch [014]
005	035	Primary fill of ditch [034]
006	004	Fill of pit [005] – charcoal, pot
007	085	Upper fill of pit [081] – charcoal
008	104	Fill of post-hole [103] – frequent charcoal

Appendix 1.4 Drawing register

DRAWING	DESCRIPTION
001	South-facing section of pit [016] and ditch [014]
002	South-west facing section of slot in [027] and [029]
003	North facing section through gullies [032] and [034]
004	West facing section through ditch [047]
005	North-west facing section through pit [081]
006	North facing section of linear [076] and pit [078]

APPENDIX 2 ENVIRONMENTAL TABLES

CONTEXT	SAMPLE		CERAMIC	STONE			INDUSTRIAL WASTE		BURNT BONE	CHARRED NUTSHELL	CHARCOAL		SUFFICIENT FOR AMS?	COMMENTS
	No	Vol (l)	Pottery	Lithics	Stone	Fe slag	Other	Mammal		Qty	Max size (mm)			
004	006	40	++++	+++	-	+	-	-	+	+++	14	Y	Hazel nutshell fragments (<0.1g), worm egg capsule	
019	003	20	-	-	-	-	+	++	-	++	17	Y	32 indeterminate burnt mammal bone fragments (4.6g)	
038	001	20	++++	-	+	-	-	-	+	++++	19	Y	Hazel nutshell (<0.1g)	
045	002	40	++++	++	-	-	-	++	++++	++++	16	Y	Hazel nutshell (5g) 50+ fragments, 15 indeterminate burnt mammal bone fragments (1.9g)	

Key: += rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50)

NB charcoal over 10mm is sufficient for identification and AMS dating

TABLE A2.1 Retent sample results

CONTEXT	SAMPLE		GRAIN			SEEDS	CHARCOAL		SUFFICIENT FOR AMS?	COMMENTS
	No	Vol (ml)	Glume wheat	Cereal indet.	Weed	Qty	Max size (mm)			
004	006	30	+	+	-	+++	5	Y	grains of glume wheat and cereal indet	
019	003	50	-	++	-	+++	10	Y	cereal indet grains, fungal sclerotia ++	
038	001	150	-	-	-	++++	10	Y	fungal sclerotia ++, worm egg capsules ++	
045	002	200	+	++	+	++++	15	Y	glume wheat, cf barley and cereal indet, weeds; Rumex sp., Spargula arvensis, worm eggs ++, fungal sclerotia ++,	

Key: += rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50)

NB charcoal over 10mm is sufficient for identification and AMS dating

TABLE A2.2 Flot sample results

APPENDIX 3 FINDS CATALOGUE

FEATURE	CONTEXT	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
005	004	–	120	30	Lithics	Debitage	rock crystal (108), chert (2) and flint (10) flakes and chips	PH
005	004	–	1	246	Stone	Axehead	tuff, bifacially flaked with traces of polish carried out prior to flaking. Reworked axehead, one of the flake refits	Neol
005	004	006	7	7	Stone	Debitage	tuff flakes and chips. One refits with the large bifacially flaked axehead	Neol
005	004	006	745	201	Pottery (PH)	Carinated Bowl	sherds from all sections of a carinated bowl with everted neck, gentle carination and traditional profile, surface treated by burnishing	3950 - 3750 BC
005	004	–	345	1097	Pottery (PH)	Carinated Bowl	sherds from all sections of a carinated bowl with everted neck, gentle carination and traditional profile, surface treated by burnishing (+410g frags)	3950 - 3750 BC
005	004	–	3	7	Lithics	Debitage	three secondary rock crystal flakes	PH
014	019	–	–	–	Industrial Waste	FAS	small fragments of fuel ash slag	–
039	038	001	516	354	Pottery (PH)	Collared Urn	decorated and undecorated sherds from a Collared vessel with carination below collar. Decorated with a twisted cord applied hurdle pattern to the collar and vertical cord and fingernail impressions below.	2000 - 1500 BC
039	038	–	307	1873	Pottery (PH)	Collared Urn	decorated and undecorated sherds from a Collared vessel with carination below collar. Decorated with a twisted cord applied hurdle pattern to the collar and vertical cord and fingernail impressions below (+ 360 frags).	2000 - 1500 BC
046	045	–	1	2	Lithics	Debitage	secondary flint flake	PH
046	045	002	10	0	Lithics	Debitage	flint chips	PH
046	045	–	20	141	Pottery (PH)	Carinated Bowl	two everted rims sherds, a carinated sherd and lower body sherds	3950 - 3750 BC
046	045	002	498	336	Pottery (PH)	Carinated Bowl	small sherds and fragments from several carinated bowls	3950 - 3750 BC
046	045	–	1	5	CBM	Fired Clay	small lump	–
046	045	002	2	9	CBM	Fired Clay	small lumps	–



© 2017 by Headland Archaeology (UK) Ltd

Headland Archaeology South & East
Building 68C | Wrest Park | Silsoe | Bedfordshire MK45 4HS
t 01525 861 578
e southandeast@headlandarchaeology.com

Headland Archaeology Midlands & West
Unit 1 | Clearview Court | Ivyford Rd | Hereford HR2 6JR
t 01432 364 901
e midlandsandwest@headlandarchaeology.com

Headland Archaeology North
Unit 16 | Hillside | Beeston Rd | Leeds LS11 8ND
t 0113 387 6430
e north@headlandarchaeology.com

Headland Archaeology Scotland
13 Jane Street | Edinburgh EH6 5HE
t 0131 467 7705
e scotland@headlandarchaeology.com

www.headlandarchaeology.com