

# LAND AT SUN CROFT, IREBY, CUMBRIA

## Archaeological Evaluation



Client: Mr and Mrs Medicott

NGR: 323902 538760 (centre)

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## Non-Technical Summary

Following the submission of a planning application to build three dwellings on land at Sun Croft, Ireby, Cumbria a condition was placed requiring a programme of archaeological work be carried out. In response to this Greenlane Archaeology produced a project design for the excavation of three trial trenches, totalling an area of 110m<sup>2</sup>, to assess the archaeological potential of the site. Following acceptance of the project design, the work was carried out in May 2014.

The site is situated on the south-east side of the village of Ireby, which has at least medieval origins, although the place-name suggests potential Norse occupation. Examination of the available mapping for the area revealed that the site had been open field(s) since at least 1844, but there have been several finds of prehistoric and Roman date from the local environs.

The evaluation encountered the same sequence of deposits in each trench: a thin layer of topsoil overlay the subsoil, which in turn overlay the geological (natural) layer. No features were observed in either Trench 1 or Trench 2 but a small oval-shaped pit was revealed in Trench 3. Unfortunately, no finds were recovered from the fill of the pit, although small fragments of pottery, pieces of chert, a flake of flint and magnetic material including possible iron working waste were recovered from the sample, but the feature remains difficult to date. Most of the finds recovered from elsewhere on site were post-medieval in date, dating from the 17<sup>th</sup> to 20<sup>th</sup> century, but some earlier ceramic material was also recovered, which potentially dates from the 12<sup>th</sup> to 14<sup>th</sup> century. With the exception of the small pit the site seems to have limited archaeological potential, and only further investigation of the pit through radiocarbon dating would demonstrate whether this feature was of archaeological interest or not.

## Acknowledgements

Greenlane Archaeology would like to thank Mr and Mrs Medicott for commissioning the project, and their agent, Christopher Reeve of Edwin Thompson, for providing information about the site. Additional thanks are due to Jeremy Parsons, Historic Environment Officer at Cumbria County Council, for approving the project design and for comments made during the site visit. Thanks are also due to John Wilson for driving the excavator, Ruth Leary for her comments on one of the pieces of pottery, Anthony Dixon at Oxford Archaeology North and Annie Hamilton-Gibney for their comments on the chert, and Tim Padley, Keeper of Archaeology at Tullie House, for his information about previous archaeological finds from the area around Ireby.

The evaluation was carried out by Dan Elsworth and Ric Buckle at Greenlane Archaeology. All of the finds were processed and assessed in house, with the exception of the flint from the environmental sample, which was assessed by Laura Bailey at Headland Archaeology. The report was co-written by Tom Mace and Dan Elsworth, and the illustrations were produced by Tom Mace. Jo Dawson edited the report and the project was managed by Dan Elsworth.

# 1. Introduction

## 1.1 Circumstances of the Project

1.1.1 Following the submission of a planning application (ref. 2/2014/0124) by Mr and Mrs Medicott (hereafter 'the client') for the construction of three dwellings on land at Sun Croft, Ireby, Cumbria (NGR 323902 538760 (centre)), a condition (No. 6) was placed on the planning consent requiring an programme of archaeological work be carried out, as follows:

'No development shall commence within the site until the applicant 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. This written scheme will include the following components: i) An archaeological evaluation; ii) An archaeological recording programme the scope of which will be dependant upon the results of the evaluation; iii) Where appropriate, a post-excavation assessment and analysis, preparation of a site archive ready for deposition at a store approved by the Local Planning Authority, completion of an archive report, and submission of the results for publication in a suitable journal. Reason: To afford reasonable opportunity for an examination to be made to determine the existence of any remains of archaeological interest within the site and for the preservation, examination or recording of such remains.'

Greenlane Archaeology produced a project design (*Appendix 1*) in response to this and following its approval it was commissioned to carry out an archaeological evaluation of the site, which was carried out on 22<sup>nd</sup> and 23<sup>rd</sup> May 2014.

1.1.2 The proposed development site is situated on the south-east side of the village of Ireby, which has at least medieval origins, although the place-name suggests potential Norse occupation.

## 1.2 Location, Geology, and Topography

1.2.1 The site occupies an area of open field on the south-east side of the village of Ireby, a short distance from the Lake District National Park, at c160m above sea level (Ordnance Survey 2008) (Figure 1). The main road through Ireby passes the site to the west and the site is accessed via a field gate from Sun Croft. There is a sharp break of slope to the east side of the site and the field rapidly slopes downhill to the east, which was considered possibly artificially enhanced and so was specifically targeted during the evaluation (see *Section 2.3.1* below). The solid geology comprises Carboniferous limestone (Moseley 1978, plate 1), which is overlain by '*glacial debris, in the form of boulder clay or moraines*' (Countryside Commission 1998, 33).

1.2.2 The site lies within the Cumbria High Fells, which form the central core of the Lake District (Countryside Commission 1998, 31). The Fells combine rugged mountains, glaciated valleys, and dales, containing the lakes, rivers, woods and forests (*ibid*).

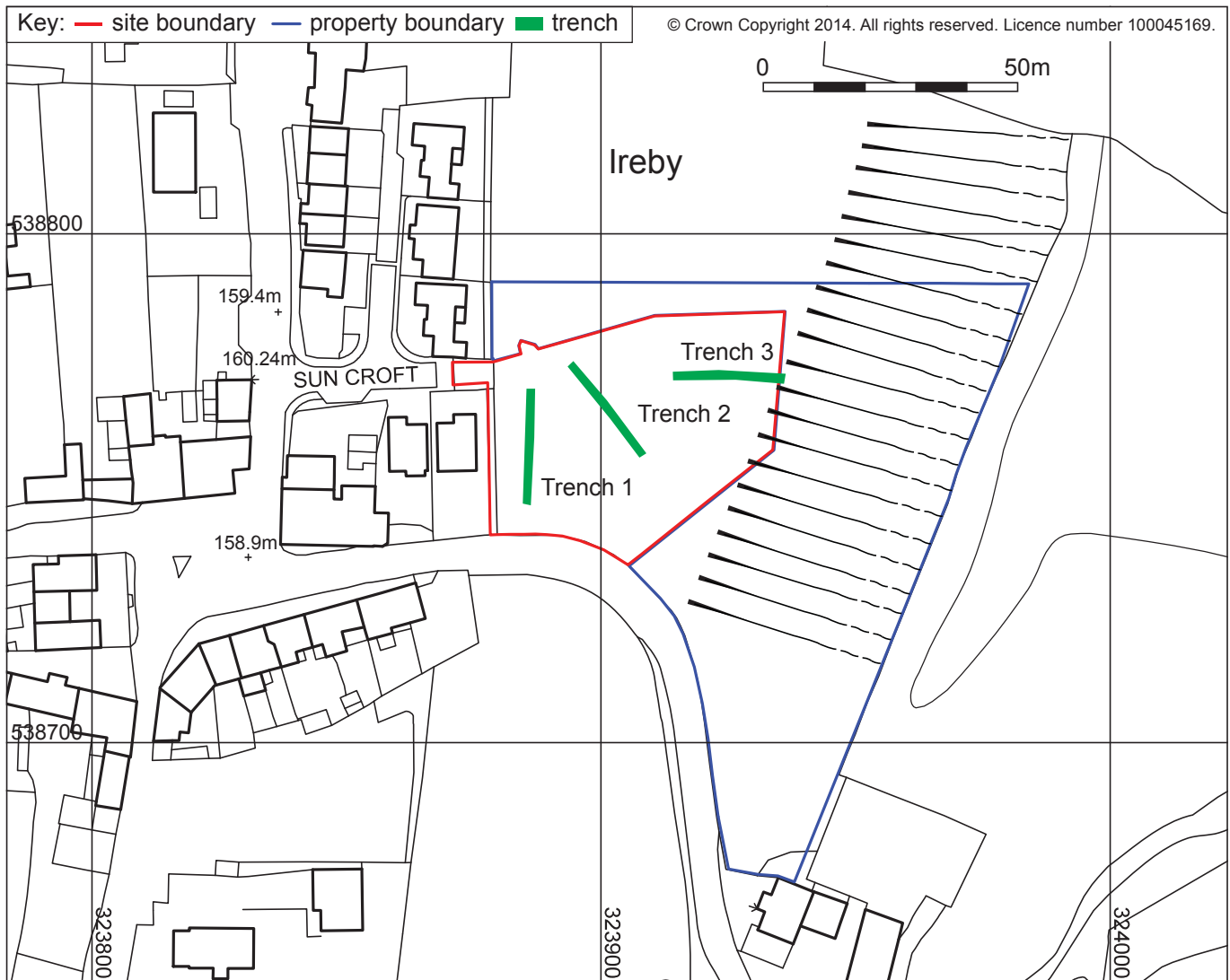
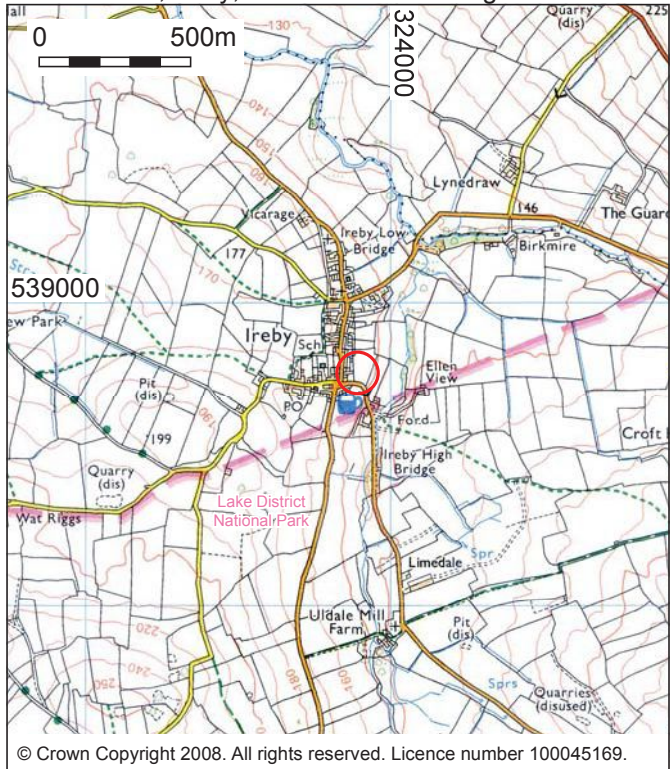
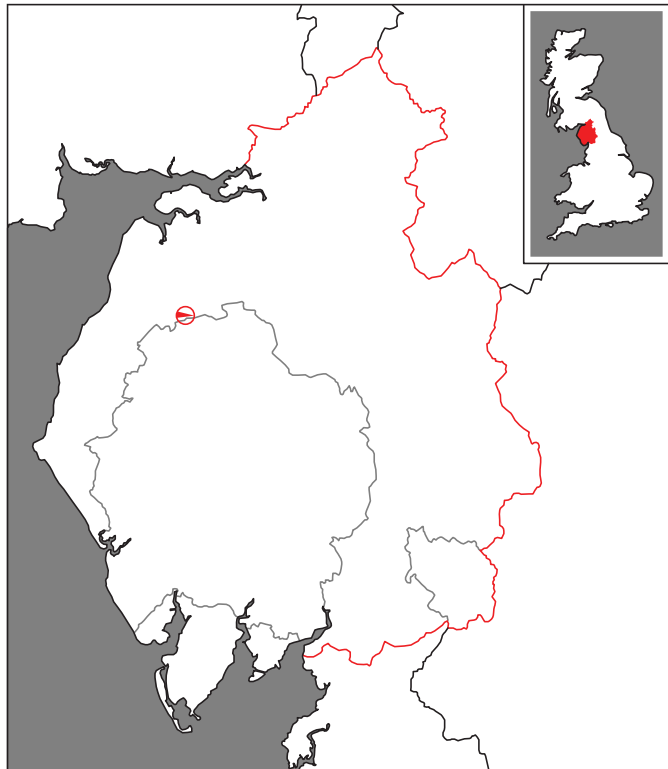


Figure 1: Site location

Client: Mr and Mrs Medicott

## 2. Methodology

### 2.1 Introduction

2.1.1 A desk-based assessment was carried out in accordance with IfA guidelines (IfA 2008a) as part of the evaluation prior to the excavation of three trial trenches, the intention of which was to establish, where possible, whether any remains of archaeological significance are present on the site and their nature, degree of survival, extent, significance, and date.

2.1.2 All aspects of the evaluation were carried out according to the standards and guidance of the Institute for Archaeologists (IfA 2008b) and according to Greenlane Archaeology's own excavation manual (Greenlane Archaeology 2007).

### 2.2 Desk-Based Assessment

2.2.1 The intention of this element of the project was to identify the known remains of historical and archaeological interest present on the site, assess the potential for as yet unknown remains by examining the wider area, and thus identify what deposits and features were likely to be encountered during the course of the evaluation. This principally comprised an examination of early maps of the site, information from the Cumbria Historic Environment Record (HER), and published secondary sources. The following sources of information were used during the desk-based assessment:

- **Cumbria Historic Environment Record (HER):** this is a list of all the known sites of archaeological interest within the county, which is maintained by the Cumbria County Council and is the primary source of information for an investigation of this kind. Details of all the known sites of archaeological interest and previous pieces of archaeological work carried out within approximately 500m of the centre of the proposed development area (the 'study area') were examined. Each identified site comes with a grid reference, description, and source, and any additional information which was referenced was also examined as necessary. In addition, information relating to two sites, which were positioned within the boundary of the Lake District National Park and therefore covered by their own HER (LDNPA HER), was obtained from the Archaeological Data Service website;
- **Cumbria Archive Centre, Carlisle (CAC(C)):** this was visited in order to examine early maps and plans of the site and local and regional histories and directories as well as other sources of information pertinent to the site;
- **Greenlane Archaeology Library:** additional secondary sources were examined to provide information for the site background.

### 2.3 Archaeological Evaluation

2.3.1 Three evaluation trenches, each c22m long and 1.7m wide, were excavated with a combined area of approximately 115m<sup>2</sup> (Figure 2). In the absence of any features of obvious archaeological interest to target, as determined during the desk-based assessment, one trench was placed in the footprint of each of the three proposed houses, with the exception that Trench 3 was deliberately positioned as close as possible to the steep break of slope along the east edge of the proposed development area (see *Section 1.2.1*) in order to determine if this was artificially enhanced or not. Excavation was discontinued once the natural geology was reached, which was consistently at a depth of c0.4-0.5m below the current ground surface.

2.3.2 The topsoil and subsoil deposits were removed using a mechanical excavator with a toothless bucket. Deposits below this were subsequently cleaned and further investigated by hand. The location of each trench was recorded relative to nearby property boundaries and other structures that were evident on the site plans and Ordnance Survey mapping utilising a total station. All finds were collected from all deposits, as far as was practical, and the trench and spoil was scanned periodically with a metal detector

in order to locate smaller metal finds. The following recording techniques were used during the evaluation:

- **Written record:** descriptive records of all deposits and features (see *Appendix 2*) were made using Greenlane Archaeology *pro forma* record sheets. In addition, a general record was made of the day's events;
- **Photographs:** photographs in both 35mm colour print and colour digital format were taken of all archaeological features uncovered during the evaluation, as well as general views of the site, the surrounding landscape, and working shots. A selection of the colour digital photographs is included in this report and the remainder are included in the archive. A written record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets (Greenlane Archaeology 2007);
- **Instrument survey:** the trenches were surveyed using a Leica reflectorless total station coupled to a portable computer running AutoCAD 2006 LT and TheoLT, which captures the survey data in AutoCAD in real-time at a scale of 1:1. This enabled the location of each trench to be positioned and allowed levels above Ordnance Datum to be provided through reference to a nearby spot height in the road nearby;
- **Drawings:** plans and sections of the pit in Trench 3 were drawn on site at a scale of 1:10, but otherwise measured sketches were made on trench record sheets.

## 2.4 Finds

2.4.1 **Collection:** all of the finds were recovered by hand and stored in sealable bags on site before being removed for processing and assessment.

2.4.2 **Processing:** artefacts were washed (or dried and dry brushed in the case of glass and metal), naturally air-dried, and packaged appropriately in self-seal bags with white write-on panels.

2.4.3 **Assessment and recording:** the finds were assessed, identified where possible, and a list of them was compiled (see *Appendix 3*).

2.4.4 **Coin:** the coin was identified using *Coincraft's 1997 Standard Catalogue of English & UK Coins 1066 to Date* (Lobel *et al* 1997).

2.4.5 **Medieval pottery:** the medieval pottery is described in generic terms (e.g. *gritty ware*) with no attempt to link to specific fabrics or specific sources. Brief descriptions of the sherds are given in *Appendix 3*.

2.4.6 **Metal objects:** all of the metal artefacts are considered to be of post-medieval date and were therefore assessed in house.

2.4.7 **Clay tobacco pipe:** the clay pipe was recorded and studied according to nationally agreed guidelines (Davey and Higgins 2004; *Appendix 4*).

2.4.8 **Industrial residue and slags:** the industrial residues and slags were recorded following guidelines issued by English Heritage (Anon 2001, 7). The material was visually examined and classified based solely on morphology.

## 2.5 Environmental samples

2.5.1 **Strategy:** an approximately 7 litre sample was taken from the fill (**303**) of the small pit (**304**) in Trench 3.

2.5.2 **Processing:** all of the sample was wet sieved by hand; the light fragments were floated off and collected in 250µm and 500µm sieves with the coarse component collected on a 1mm mesh, and separated into different fractions using a 1cm sieve. The flot and retent were then air-dried in a drying oven. The flot was assessed by eye and all carbonised plant remains extracted and assessed. The retent was also examined by eye and all ecofacts, artefacts, and animal bones extracted.



**2.5.3 Assessment and recording:** the ecofacts within the flots were assessed using a stereo-microscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al* (2006). The content of the retent was recorded on *pro forma* record sheets. The results are discussed in *Section 4.5* and a full catalogue is produced in *Appendix 4*.

## 2.6 Archive

2.6.1 The archive, comprising the drawn, written, and photographic record of the evaluation, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Archive Centre in Carlisle (CAC(C)). The archive has been compiled according to the standards and guidelines of the IfA (Brown 2007), and in accordance with English Heritage guidelines (English Heritage 1991). In addition details of the project will be submitted to the Online Access to the Index of Archaeological Investigations (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

2.6.2 A copy of the report will be deposited with the archive at the Cumbria Archive Centre in Carlisle, one will be supplied to the client, and within one month of the completion of fieldwork, a copy will be provided for Cumbria County Council Historic Environment Service (CCCHES). In addition, Greenlane Archaeology will retain one copy and a digital copy will be deposited with the Cumbria Historic Environment Record (HER) and OASIS scheme as required.

2.6.3 The client will be encouraged to transfer ownership of any finds considered suitable for retention to an appropriate museum, either Tullie House Museum and Art Gallery in Carlisle or Keswick Museum and Art Gallery. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

### 3. Historical and Archaeological Background

#### 3.1 Map Regression

3.1.1 **Tithe map for Ireby, 1844 (CAC(C) DRC/8/101 1844)**: this is the earliest detailed map of the area and shows the site comprises parts of a field numbered '258' (Plate 1). The apportionment lists this as belonging to George Armstrong, occupied by Thomas Bell, named simply 'croft', and described as pasture.

3.1.2 **Ordnance Survey 1868**: the site is largely unchanged (the north/south line shown cutting across the east side of the site is a contour) (Plate 2). Of interest is a site marked to the west as 'Roman antiquities have been found here' (this corresponds to HER number 4491; see Section 3.2.5 below).

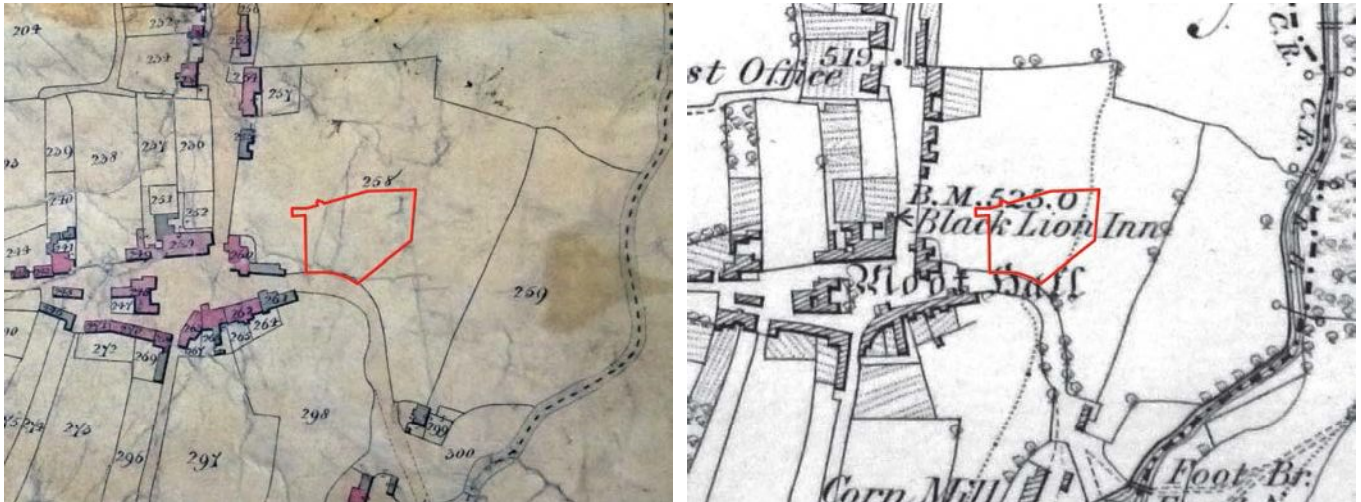


Plate 1: Extract from the tithe map for Ireby, 1844 (CAC(C) DRC/8/101 1844)

Plate 2: Extract from the Ordnance Survey map of 1868

3.1.3 **Ordnance Survey 1891**: the site appears unchanged (Plate 3). The same site of Roman antiquities is still marked to the west.

3.1.4 **Ordnance Survey 1900**: the site is largely unchanged (Plate 4). A south-west/north-east aligned field boundary, which was not present previously, cuts across the east side of the site, but this has since been removed. In addition to the find spot of Roman antiquities marked to the west, a number of other finds of archaeological interest are marked nearby, the closest is described as 'Thumb & Finger Stone found (AD 1870)', immediately to the south-west (corresponding to HER numbers 887 and 891, see Section 3.2.4 below), while further south (and now inside the Lake District National Park) is a 'Stone hammer found (AD 1870)' (corresponding to LDNPA HER number 4489, see Section 3.2.4 below).

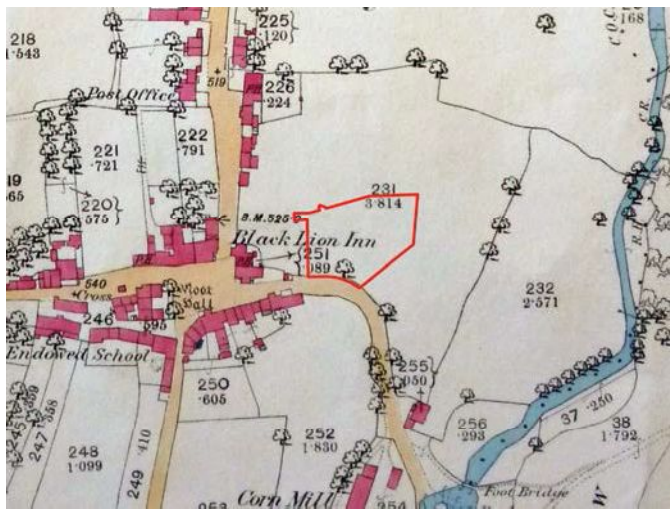


Plate 3: Extract from the Ordnance Survey map of 1891

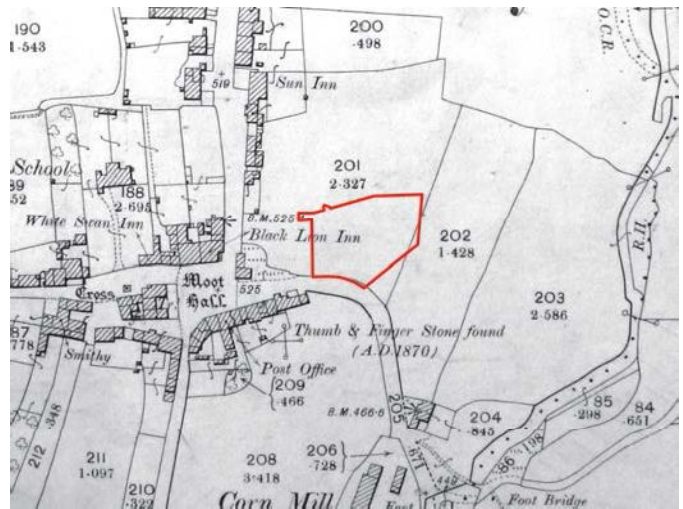


Plate 4: Extract from the Ordnance Survey map of 1900

## 3.2 Site History

3.2.1 **Introduction:** the site history is intended to place the results of the evaluation in their local context, incorporating information from the map regression (Section 3.1).

3.2.2 **Prehistoric Period (c11,000 BC – 1<sup>st</sup> century AD):** while there is some limited evidence for activity in the county in the period immediately following the last Ice Age, this is typically found in the southernmost part on the north side of Morecambe Bay. Excavations of a small number of cave sites have found the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Young 2002). Again, the county was also clearly inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field walking and eroding from sand dunes along the coast, but these are typically concentrated in the west coast area and on the uplands around the Eden Valley (Cherry and Cherry 2002). Similar locations elsewhere, along river valleys and in coastal areas, are also likely to have seen substantial activity during the Mesolithic period, based on examples from elsewhere (Hodgson and Brennand 2006, 26).

3.2.3 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured in vast quantities at Langdale (Hodgson and Brennand 2006, 45). Stone axe hammers and a perforated stone, perhaps a spindle whorl, potentially of Neolithic date are known from the immediate area around the site but these are perhaps more likely to be Bronze Age (see below). However, a polished axe head in volcanic tuff is recorded from the environs of the site (HER no. 42533; PAS LANCUM-39DF36). A recently discovered and rare monument thought to belong to this period, a causewayed enclosure, has been identified at Green How to the south of the site (Horne and Oswald 2000; Horne *et al* 2002). There has also been some reconsideration of the 'hillfort' on Carrock Fell, to the east of the study area, which has suggested that it too might in fact represent a Neolithic causewayed enclosure (Pearson and Topping 2002), although without excavation this remains difficult to prove.

3.2.4 During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still, and it is likely that settlement sites thought to belong to the Iron Age have their origins in this period. These are not well represented in the environs of the study area, although a group of enclosures of this type is present on Aughtertree Fell to the west (Bellhouse 1967). Stray finds of Bronze Age date are known across the county, and from the immediate environs of the site two hammer stones (HER nos. 887 and 19209) and a perforated stone, possibly a spindle whorl are recorded. The hammer stones, both described as 'thumb and finger' stones, were found in the late 19<sup>th</sup> century and late 20<sup>th</sup> centuries; the former is perforated and has a square butt (Spence 1940, 107),

while the latter is incomplete but is made from volcanic tuff and has a shallow 'finger-type' depression on one face (Richardson 1990, 68). A further stone hammer is recorded some distance to the south (LDNPA HER 4489) although there are no further details available. In addition, the possible spindle whorl (Ferguson 1881, 493; Spence 1940, 107) is also probably prehistoric on the basis of similar examples in Tullie House (Tim Padley pers comm.). Sites that can be specifically dated to the Iron Age (c600 BC – 1<sup>st</sup> century AD) are very rare; the 'classic' site of this period, the hillfort, is typically small and simple in form relative to examples in other parts of the country, and few have been dated (Barrowclough 2010, 195). There are, however, many smaller settlement sites, including the enclosures at Aughtertree Fell but also large numbers revealed as crop marks on the lower ground to the north, which are likely to have flourished in the Iron Age (Higham 1982), although a number of these probably have earlier origins. There is also, however, likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period; it is evident that in this part of the country, initially at least, the Roman invasion had a minimal impact on the native population in rural areas (Philpott 2006, 73-74).

3.2.5 While the immediate environs of the study area have relatively little evidence for activity of this date, the area of lower ground to the north was well-occupied during the Roman period, by both the Roman military and 'native' people (Higham 1982). There was a fort close to Wigton, known as 'Old Carlisle' or 'Red Dial', which despite having an extensive civilian settlement and well preserved earthworks has seen little excavation; it is thought unlikely to date any earlier than the late 1<sup>st</sup> century AD (Shotter 2004, 62). It has been suggested that the road between Hesket Newmarket and Parkend, running approximately east/west, has Roman origins based on early references and the use of the term 'street' in association with it (Allen 1987, 10), but this remains unproven. Finds of Roman date from within the environs of the site are relatively rare, but they do include a single coin dated AD 161-175 to the north (Richmond 1945, 170; Shotter 1989, 42; HER no. 888), and what is described on the Ordnance Survey maps as 'Roman antiquities' (HER no. 4491) but there is no further information available about these and it is not known what they were (Richmond 1945, 170). More significant is the discovery of a lead vat of Roman date found during ploughing to the west of the site in 1943 (Richmond 1945). In the absence of any context it is a difficult object to interpret but other examples are thought, due to having been marked with Christian symbols, to date to the fourth century AD (*op cit*, 168-169). More recent consideration of such items, which are unique to Roman Britain, suggests that they perhaps acted as baptismal fonts or cisterns, and were portable so that they could be moved from one Christian estate to another (Thomas 1981, 226; Petts 2003, 96-99). The Ireby example is unusual, apart from the fact that it is not marked with any obvious Christian symbols, in being outside of the core area where such items are usually found; the south-east and east of England (Thomas 1981, 220). The presence of a Roman settlement in or near Ireby is suggested by these discoveries, although the antiquarian suggestion that Ireby equated with *Arbeia* is clearly a mistake based on flimsy etymological evidence (Richmond 1945, 169-170).

3.2.6 The early medieval period is not well represented in the area in terms of physical archaeological remains, which is a common situation throughout the county. The one site in the local area that has significant early medieval connections is the parish church at Caldbeck, which is dedicated to St Kentigern and said to have been established by him in the 6<sup>th</sup> century AD (Lees 1883; Cowper 1900). There is, typically, little physical evidence to support this proposition, and it is also considered possible that the dedication relates to a later period when there was a revival of interest in this saint due to the writings of Jocelyn of Furness in the 12<sup>th</sup> century (Whiddup 1981). Nevertheless, the local place-names indicate that at least some of the local settlements have early medieval origins, with Norse elements (dating perhaps to the 10<sup>th</sup> century) very common. Ireby itself is Norse in origin, meaning the farm of the Irishmen or similar (Armstrong *et al* 1950, 300). This would appear to indicate that a settlement existed there prior the establishment of a market in the medieval period, although the long-standing use of Norse as a language in the region, which persisted into the 12<sup>th</sup> century, might suggest otherwise.

3.2.7 **Medieval Period (11<sup>th</sup> century AD to 16<sup>th</sup> century AD):** Ireby certainly existed as a settlement by the medieval period as it is named in documents from at least c1160 AD (Armstrong *et al* 1950, 299). Despite seemingly only being a small settlement the lord of the manor, William of Ireby, was granted a market charter in 1236 (*ibid*). This market managed to flourish and its affect on the village is still visible in its topography, which preserves a market place with 'butter cross' (HER no. 4488) and moot hall

(Millward and Robinson 1970, 214), with field systems perhaps also of medieval date preserved to the north as ridge and furrow and other earthworks (HER no. 14535). The market's success was in part due to the plentiful supply of grain from the surrounding countryside, which challenged the larger market at Cockermouth to the extent that in 1578 the traders there complained to the lord of the manor about the damage it was doing (*ibid*). Ireby's growth was part of a general development of small settlements that took place across the region between 1100 and 1350 AD, with some towns growing from existing settlements and others being created anew, but Ireby ultimately never grew beyond being a market village (Winchester 1987, 123-124). The manor of Low Ireby, in which the site belongs, was originally held by the Thursby family, from whom it passed to the Boyviels before being acquired by William de Ireby (Whellan 1860, 244). It ultimately passed through marriage to the Dykes of Dovenby Hall by the late 19<sup>th</sup> century (*ibid*).

**3.2.8 Post-medieval Period (16<sup>th</sup> century AD – present):** despite the complaint about the market at Ireby by the traders at Cockermouth it continued to prosper and in 1688 it was described by Thomas Denton as flourishing on account '*of the great plenty of good corn that grows everywhere round the neighbourhood*' (*op cit*, 125). The market remained in operation until the 18<sup>th</sup> century, but the village saw relatively little physical growth, even in the post-medieval period. The area in general, as with the rest of the country, became dominated by the rise of the Industrial Revolution, although there is relatively little sign of this in the immediate environs of Ireby itself. Some 'old sandpits' marked on the Ordnance Survey map of 1900 to the south-west of the site (HER no. 10816) are perhaps representative of the extent of industrial activity in the area, although a brick works to the south of the site (LDNPA HER 10817) is a more intensive form of local industry, while the former tithe barns (HER no. 10896) represent the more typical rural industry. To the south, the Caldbeck Fells become an increasingly important area for lead mining, although these deposits had been exploited earlier, with the establishment of new mining endeavours by German miners from the Company of Mines Royal in the late 16<sup>th</sup> century and the extent of this continued to grow and diversify in the following centuries (Greenlane Archaeology 2012). Closer to the site, the Tithe Map shows that the land containing the proposed development area was owned by George Armstrong (see *Section 3.1.1* above). George Armstrong was evidently a local landlord in Ireby as his will dated 1827 states. It lists his freehold dwellinghouse, with outhouses and appurtenances '*and all that field or parcel of freehold land called the Croft adjoining the same*' (CAC(C) PROB/187/W438 1827), which is clearly a reference to the field named on the Tithe Map. However, a directory of the same period lists George Armstrong as a shoe maker and clogger, while Thomas Bell is listed as victualler (meaning inn keeper) of the Sun and also stone mason (Parson and White 1829, 346).

### 3.3 Conclusion

3.3.1 The map regression shows that the area has been open field(s) since at least 1844. A field boundary created in the late 19<sup>th</sup> century separated a small area to the eastern edge of the development area from the rest of it, but this has since been removed.

3.3.2 A consideration of the historical and archaeological evidence for the area immediately around the site shows a concentration of stray finds, primarily stone axes and hammers of probable late Neolithic and early Bronze Age date, but there is no specific evidence for settlement. Similarly, there are Roman stray finds from the area, including a significant lead vat, which may have been used in Christian baptism, but again there is no definite evidence for a settlement, of either military or civilian nature. Ireby is primarily a medieval village, although the place-name suggests possible early medieval origins, with a successful market that remained in operation until the 18<sup>th</sup> century. Despite this the village did not really grow beyond its medieval size and was minimally affected by the onset of the industrial revolution.

## 4. Fieldwork Results

### 4.1 Trench 1

4.1.1 Trench one was aligned north/south to the west side of the proposed development area. A thin layer of soft, dark grey topsoil (**100**), 0.1m thick, overlay a mid grey-brown sandy clay subsoil (**101**), with 1% angular stone inclusions. The subsoil was 0.2 to 0.4m thick and contained fragments of grey roof slate. The firm, mid brownish-orange, sandy-clay natural (**102**) was encountered below this throughout the trench at a depth of approximately 0.5m (Plate 5 and Plate 6).



**Plate 5 (left): The natural (102) exposed in Trench 1, viewed from the north**  
**Plate 6 (right): The natural (102) exposed in Trench, viewed 1 from the south**

### 4.2 Trench 2

4.2.1 Trench 2 was aligned north-west/south-east across the centre of the proposed development area. The same sequence of deposits that was encountered in Trench 1 was also encountered in Trench 2. A dark grey, sandy-loam topsoil (**200**), approximately 0.1m thick, was removed to reveal the underlying grey-brown sandy-silt clay subsoil (**201**), which was approximately 0.3m thick on top of the natural (**202**). The firm, mid orange-brown sandy-clay natural was encountered throughout the trench, which was up to 0.4m deep at the north-west end (Plate 7 and Plate 8).



Plate 7 (left): The natural (202) exposed in Trench 2, viewed from the north-west

Plate 8 (right): The natural (202) exposed in Trench 2, viewed from the south-east

### 4.3 Trench 3

4.3.1 Trench 3 was aligned approximately east/west towards the east side of the area, with the east clipping the sharp break of slope. The topsoil in Trench 3 (300) was between 0.06 and 0.15m thick, rising up and thinning out at the west end. The greyish-brown silty-clay subsoil (301) beneath that had a maximum depth of 0.3m at the east end of the trench but was shallower at the west end, where it was only 0.1m thick. A small, oval-shaped pit (304) was cut into the natural (302) and extended under the edge of the trench on the south side (Plate 9 and Plate 10; Figure 2). The sides of the pit sloped at approximately 45° and it had an irregular base (Plate 11 and Plate 12). It was aligned east/west and measured approximately 0.5 by 0.35m and was filled by a soft, mid brown, silty-clay (303), approximately 0.1m deep, with 1% rounded sub-angular cobbles and charcoal inclusions (Figure 2). The orangey-brown clay natural (302) was exposed throughout the trench (Plate 13, Plate 14, and Plate 15).



**Plate 9 (left): Pit (304), pre-excavation, viewed from the south**



**Plate 10 (right): Pit (304), pre-excavation, viewed from the north**



**Plate 11 (left): Half-sectioned pit (304), viewed from the north**



**Plate 12 (right): Pit (304) section, viewed from the east**





**Plate 13 (left): The natural (302) exposed in Trench 3, viewed from the east**  
**Plate 14 (centre): The natural (302) exposed in Trench 3, viewed from the west**  
**Plate 15 (right): Trench 3 section (east end), viewed from the south**

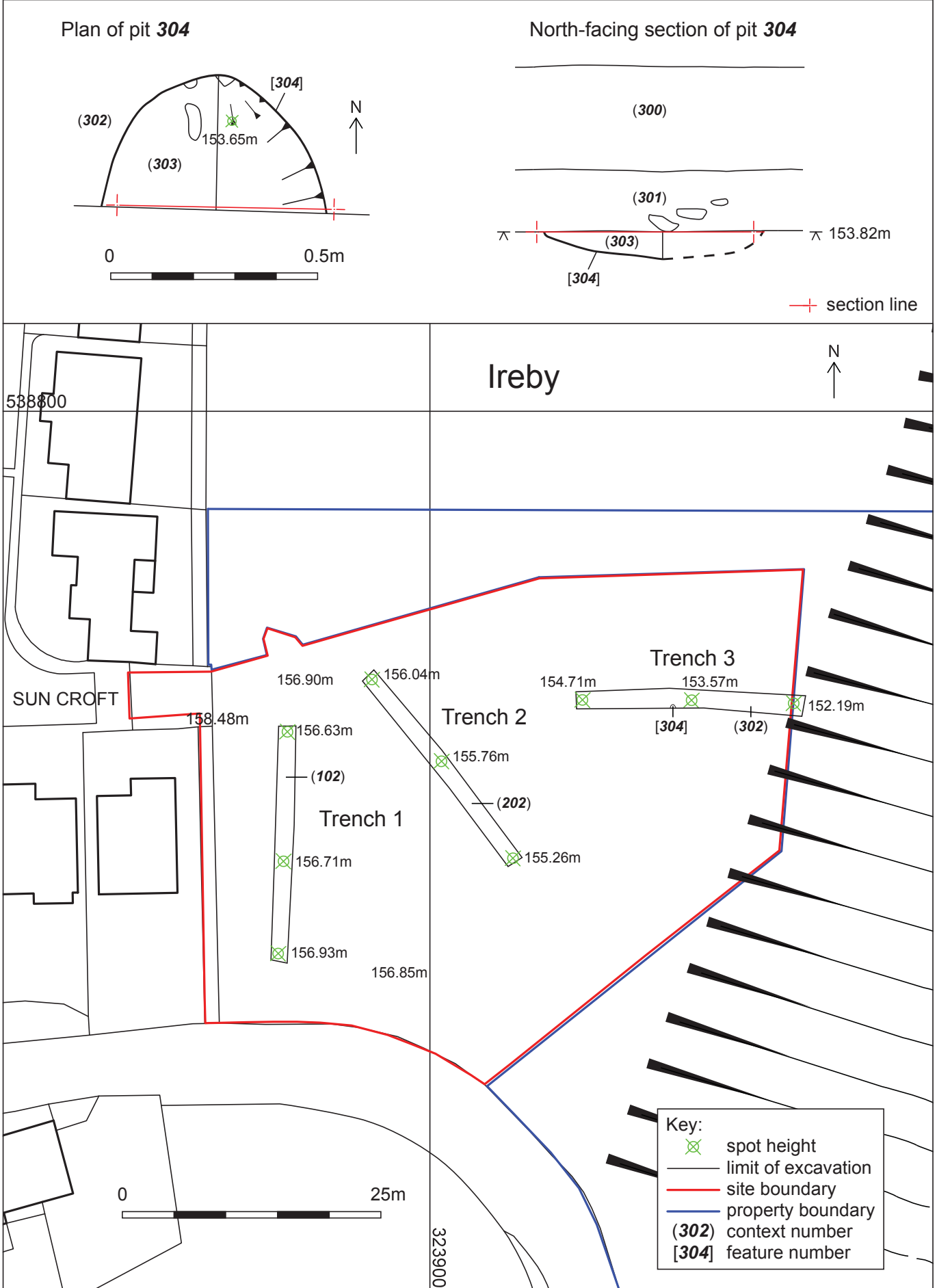


Figure 2: Trench location plan and detailed drawings of pit 304

Client: Mr and Mrs Medicott

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## 4.4 Finds

4.4.1 **Introduction:** in total, 156 artefacts were recovered during the evaluation. These are dealt with by material in the following sections. A complete list is provided in *Appendix 3*.

4.4.2 **Stone:** five pieces of what appears to be a type of chert were recovered. Of these, most are probably naturally occurring, although possible flake scars were visible on two and one large lump may be an irregular form of core, in which case a Mesolithic date would be likely. A band of chert is known to exist in the Caldbeck area (Anthony Dixon pers comm.).

4.4.3 **Medieval pottery:** a fragment of later 'gritty ware' was recovered from the subsoil in Trench 3 (**301**) and another fragment of a similar fabric was recovered from Trench 1 (**101**). The material is broadly similar to excavated material recovered from elsewhere in the region (e.g. McCarthy and Brooks 1992). Both fragments were fairly abraded and soft enough to mark paper. A 12<sup>th</sup> to 14<sup>th</sup> century date is suggested for both fragments.

4.4.4 **Fired clay and CBM:** two lumps of very soft, orange, fired clay or daub were recovered from context **300**. These may be medieval, or earlier, in date but this is uncertain. Five pieces of a rough ceramic fabric were also recovered from context **200** and another from context **100**; these were not dateable but probably represent fragments of a ceramic building material.

4.4.5 **Post-medieval pottery:** a total of 82 fragments of post-medieval pottery were recovered from across the site. Overall, the assemblage potentially ranges in date from the late 17<sup>th</sup> to 20<sup>th</sup> century and reflects typical domestic ware types, including red and white earthenwares, and stoneware. The more closely dateable types show a noticeable concentration of late 17<sup>th</sup> to 18<sup>th</sup> century dates from the lower deposits, with the upper deposits more mixed, and this is probably a better indicator of dating for the other fabrics.

4.4.6 **Post-medieval glass:** five fragments of colourless glass were recovered from four contexts, including window pane glass and fragments of bottles, all of which are post-medieval in date and may in fact be 20<sup>th</sup> century or later.

4.4.7 **Other post-medieval finds:** a number of other finds of post-medieval date were recovered, many metal. A lead weight, which was part of a set of nested imperial weights and weighed 2oz, was recovered from context **300**. In addition, a worn George VI penny, dated 1945, was recovered from the topsoil in Trench 1 (**100**). Various other metal objects were recovered: most of the recognisable ironwork came from context **200**, including nails, part of a knife and handle, and a 'shockproof' Swiss watch. Later material included the front end of a vintage metal toy car, recovered from context **100**, and an old style aluminium ring-pull and the plastic propeller from a polystyrene glider toy plane, both of which were recovered from the subsoil in Trench 2 (**201**). The polystyrene plane is probably late 20<sup>th</sup> century in date, but similar products are still available to buy.

4.4.8 **Clay tobacco pipe:** a total of 27 clay tobacco pipe fragments were recovered from six contexts, an average of 4.5 fragments per context (see *Appendix 4*). The majority of these were plain stem fragments but also included pieces of at least four bowls. The shapes of the bowls, coupled with the consistently large bore size (8/64" bore diameter), suggest they are all 17<sup>th</sup> or 18<sup>th</sup> century in date (*Appendix 4*; see Ayto 1994; Atkinson and Oswald 1969). These were plain apart from one, which had a milled edge. None of the stems or bowls were marked, which makes dating of the assemblage more difficult. Overall, however, the assemblage forms two main groups of 8/64" and 6/64" bore diameter, which suggests 17<sup>th</sup> and 18<sup>th</sup> century deposits of material respectively, with fewer examples of the thinner bore diameter stems (4/64"), representing later 19<sup>th</sup> century activity at the site (following Davey 2013). One of the later fragments with a narrow bore (4/64") was twisted along its length and had a very narrow bore opening at one end which probably made it unusable. It is possible that this was a reject from manufacture (i.e. a 'waster').

4.4.9 **Industrial residue:** three large fragments of industrial residue were recovered, all of which probably derived from ironworking or smithing. While this might suggest that industrial activity connected

with ironworking or smithing was taking place nearby, the small quantity and relative durability of such material means that these finds are of no real significance.

4.4.10 **Animal bone:** one small burnt fragment of unidentified animal bone of uncertain date was recovered from context **200**.

4.4.11 **Undated metalwork:** several corroded and undiagnostic lumps of metal were recovered from Trenches 2 and 3 (see *Appendix 3*). These are probably all post-medieval to modern in date and of limited significance, and only further investigation through x-ray would elucidate their date and function.

## 4.5 Environmental Sample

4.5.1 A single sample of approximately 7 litres was collected from the fill (**303**) of the small pit (**304**) in Trench 3. While the retent revealed a number of very small fragments of pottery of uncertain type, ceramic building material, small animal bones, pieces of chert, small amounts of magnetic material including iron working debris, and a single flake of flint (*Appendix 5*) it is extremely difficult to determine its date or function. Much or all of this material is very hard wearing and could be residual and/or is very small and could have therefore become incorporated through natural bioturbation processes. The flot only contained fragments of charcoal and no other ecofacts, although some of this was suitable for radio carbon dating (*Appendix 6*).

## 5. Discussion

### 5.1 Results

5.1.1 The same sequence of deposits was encountered in each trench: a thin layer of dark topsoil overlay the subsoil on top of the natural.

5.1.2 During the course of the evaluation only one small pit was observed (in Trench 3; **304**) and only a small quantity of medieval and post-medieval finds were recovered. Two fragments of gritty ware, which potentially dates from the 12<sup>th</sup> to 14<sup>th</sup> century, were recovered from the subsoil in Trench 1 and 3 (from contexts **101** and **301**), two fired lumps of clay, which may also be medieval in date, were also recovered from the topsoil in Trench 3 (**300**). The rest of the material was post-medieval in date, including glass, pottery, clay tobacco pipe bowl and stem fragments, industrial residue, and various metal and metal alloy objects. The clay tobacco pipe assemblage formed two main groups of 17<sup>th</sup> and 18<sup>th</sup> century date and a smaller 19<sup>th</sup> century group, including a possible waster, and although the industrial residues suggest that industrial activity connected with ironworking or smithing was taking place nearby, these finds are not thought to be significant. The post-medieval pottery probably dates from the late 17<sup>th</sup> to 20<sup>th</sup> century, but the more accurately dateable fabrics typically comprise 17<sup>th</sup> to 18<sup>th</sup> century types in the subsoils and a more mixed assemblage in the overlying deposits. Several other late post-medieval and modern finds were also recovered including an imperial lead weight, a George VI penny, a 'shockproof' Swiss watch, the front end of a vintage metal toy car, an old style aluminium ring-pull, and the plastic propeller from a polystyrene toy plane.

5.1.3 No finds were recovered by hand from the fill of the small pit (**303**), but the assessment of the retent revealed ceramic material of potentially early (medieval or earlier) but essentially undateable form, as well as further fragments of chert and a small piece of flint, likely to have derived from a beach cobble collected from the west coast (Anthony Dixon pers comm.). This suggests this feature has early origins, although whether medieval or earlier is uncertain, but it is otherwise of limited significance.

### 5.2 Conclusion

5.2.1 The finds suggest that the area saw only limited activity during the medieval period and increased activity from the 17<sup>th</sup> century onwards. A single, essentially undateable, pit was the only feature revealed and the lack of certain dating evidence from this makes its significance difficult to determine. It is possible that there were other features present on the site, but that ploughing has obliterated them and the finds recovered from the deposits encountered are the result of this. There is also nothing to indicate that the steep edge along the east side of the field is anything other than natural, again perhaps enhanced by regular ploughing of the level part of the field. Prehistoric activity is potentially indicated by the presence of small amounts of chert from across the site and a single piece of flint from the retent of the sample from pit **304**, although the former could all be naturally occurring.

5.2.2 On the basis of the available evidence from the evaluation it is not considered likely that there are any significant archaeological remains present on the site, or that archaeology would be a constraint to the development of the site. However, the significance of the small pit in Trench 3 is uncertain, and this could only be ascertained by obtaining one, or ideally more, radiocarbon dates from the charcoal collected from the sample. If this were done and the pit shown to be of medieval or earlier date then there would be grounds for carrying out further archaeological work on the site, although the nature of this would be dependant on the nature of any groundworks associated with the proposed development.

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## Appendix 1: Project Design

# LAND AT SUNCROFT, IREBY, CUMBRIA

Archaeological Evaluation Project Design



Client: Mr and Mrs Medicott

NGR: 323902 538760 (centre)

May 2014



# 1. Introduction

## 1.1 Project Background

1.1.1 Following the submission of a planning application (ref. 2/2014/0124) by Mr and Mrs Medicott (hereafter 'the client') for the construction of three dwellings on land at Suncroft, Ireby, Cumbria (NGR 323902 538760 (centre)), a condition (No. 6) was placed on the planning consent requiring an programme of archaeological work be carried out, as follows:

**'No development shall commence within the site until the applicant 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. This written scheme will include the following components: i) An archaeological evaluation; ii) An archaeological recording programme the scope of which will be dependant upon the results of the evaluation; iii) Where appropriate, a post-excavation assessment and analysis, preparation of a site archive ready for deposition at a store approved by the Local Planning Authority, completion of an archive report, and submission of the results for publication in a suitable journal.** Reason: To afford reasonable opportunity for an examination to be made to determine the existence of any remains of archaeological interest within the site and for the preservation, examination or recording of such remains.'

Greenlane Archaeology was subsequently commissioned by client, via their agent Christopher Reeve of Edwin Thompson, to carry out the archaeological evaluation, and this project design was produced in response.

1.1.2 The proposed development site is situated on the south-east side of the village of Ireby, which has at least medieval origins, although the place-name suggests potential Norse occupation.

## 1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have a combined total of over 18 years continuous professional experience working in commercial archaeology, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Institute for Archaeologists' (IfA) Code of Conduct. The evaluation will be carried out according to the Standards and Guidance of the Institute for Archaeologists (IfA 2008).

## 1.3 Project Staffing

1.3.1 The project will be managed and supervised by **Dan Elsworth (MA (Hons), AIFA)** with suitably qualified assistance. Daniel graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has recently managed a number of similar archaeological excavation projects in the region including evaluation and excavation at the former Lowwood Gunpowder Works in Haverthwaite (Greenlane Archaeology 2010; 2011a), evaluation at Salthouse Farm, Millom (Greenlane Archaeology 2011b), and evaluation in Cartmel (Greenlane Archaeology 2011c), as well as several more projects over the last six years ranging from large excavations, to building recordings, surveys and desk-based assessments.

1.3.2 All artefacts will be processed by Greenlane Archaeology, and it is envisaged that they will initially be assessed by Jo Dawson, who will fully assess any of post-medieval date; medieval pottery will be assessed by Tom Mace. Finds of earlier date will be assessed by specialist sub-contractors as appropriate. The Cumbria County Council Historic Environment Service (CCCHES) will be notified of any other specialists, other than those named, who Greenlane Archaeology wishes to engage, before any specialist contracts are awarded, and the approval of the (CCCHES) will be sought.

1.3.3 Environmental samples, and faunal or human remains will be processed by Greenlane Archaeology. It is envisaged that any environmental samples would be assessed by staff at Headland Archaeology, Roman pottery by Ruth Leary, and animal bones by Jane Richardson at ASWYAS. Other remains, such as industrial material, will be assessed by specialist sub-contractors as appropriate and the CCCHEs will be informed and their approval will be sought for these arrangements.

## 2. Objectives

### 2.1 Desk-Based Assessment

2.1.1 To examine early maps of the site, any other relevant primary and secondary sources, and information held in the Cumbria Historic Environment Record, in order to better understand the development of the site, identify areas of specific archaeological interest, and set the results of the evaluation in their historical and archaeological context.

### 2.2 Archaeological Evaluation

2.2.1 To excavate evaluation trenches totalling 110m<sup>2</sup>, depending on the nature of any on site constraints. This will assess the presence or absence of features of archaeological interest within the area, their extent, date, nature, and significance.

### 2.3 Report

2.3.1 To produce a report detailing the results of the evaluation, that will present the results, and assess the potential of the site and significance of the remains.

### 2.4 Archive

2.4.1 Produce a full archive of the results of the evaluation.

## 3. Methodology

### 3.1 Desk-based assessment

3.1.1 A rapid examination of readily available sources, particularly maps, relating to the site will be carried out. These will include:

- **Cumbria Historic Environment Record (HER):** this is the primary source of information for a study of this kind and comprises a list of all the known sites of archaeological interest in the county. Each entry has a grid reference and description, as well as sources providing further information. Details of sites recorded on the HER in close proximity to the proposed development area will be obtained and relevant sources examined;
- **Cumbria Archive Centre (Whitehaven and/or Carlisle):** the majority of original and secondary sources relating to the site are deposited in the Cumbria Archive Centres in Whitehaven and/or Carlisle. Of principal importance are early maps of the site, particularly Ordnance Survey maps and the Tithe Map. These will be examined in order to establish the manner in which the landscape has changed over time, the presence of any structures on the site, and any areas of obvious archaeological interest that should be targeted;
- **Greenlane Archaeology:** a number of copies of maps and local histories are held by Greenlane Archaeology. These will be consulted in order to provide additional historical information about the site in order to place it in its local context.

### 3.2 Archaeological Evaluation

3.2.1 A brief site visit will be carried out prior to the evaluation, primarily to ascertain whether there are any constraints to the evaluation, in particular issues of health and safety and access.

3.2.2 Evaluation trenching amounting to 110m<sup>2</sup> will be excavated, and it is envisaged that this will comprise three trenches each c22m in length and 1.7m wide (a standard excavator bucket width) depending on the topography and any constraints. These will be excavated until significant archaeological deposits or the natural geology are reached, or to a depth of 1.2m. The trenches will be positioned to target the features of possible archaeological interest recorded during the desk-based assessment. It is anticipated that the evaluation will take two days on site with two archaeologists (totalling four person days).

3.2.3 The evaluation methodology, which is based on Greenlane Archaeology's excavation manual (Greenlane Archaeology 2007c), will be as follows:

- Each trench will be excavated with regard to the position of any known constraints, focussing on the areas of high archaeological interest or potential, and avoiding areas which are likely to have been severely damaged or truncated by later activity, unless they are considered to have a high potential;
- The overburden (which is likely to largely comprise topsoil) will be removed by machine under the supervision of an archaeologist until the first deposit beneath it is reached;
- All deposits below the overburden will be examined by hand in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale. Deposits will only be sampled, rather than completely removed, below the first identified level of archaeological interest, unless specified by the CCCHES, with the intension of preserving as much *in situ* as possible;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. Negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include hand-drawn plans and sections, typically at a scale of 1:20 and 1:10, respectively, and photographs in both 35mm colour print and colour digital format;
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the evaluation for further assessment as far as is practically and safely possible. Should significant quantities of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the evaluation, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.3* above), who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any human remains discovered during the evaluation will be left *in situ*, and, if possible, covered. The CCCHES will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will require a Home Office licence, under Section 25 of the Burial Act of 1857, which will be applied for should the need arise;

- Any objects defined as 'treasure' by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- Each evaluation trench will be backfilled following excavation although it is not envisaged that any further reinstatement to its original condition will be carried out.

3.2.4 Should any significant archaeological deposits be encountered during the evaluation these will immediately be brought to the attention of the CCHES so that the need for further work can be confirmed. Any additional work will be carried out following discussion with the CCHES and subject to a new project design, and the ensuing costs will be agreed with the client.

### 3.3 Report

3.3.1 The results of the evaluation will be compiled into a report, which will include the following sections:

- A front cover including the appropriate national grid reference (NGR) and planning application number;
- A concise non-technical summary of results, including the date the project was undertaken and by whom;
- Acknowledgements;
- Project Background;
- Methodology, including a description of the work undertaken;
- Results of the evaluation, incorporating the results of the desk-based assessment, including descriptions of any deposits identified, their extent, form, and potential date, and an assessment of any finds or environmental remains recovered during the evaluation;
- Discussion of the results including an assessment of the significance of any archaeological remains present within the study area, and areas of further archaeological potential. Any recommendations for further work, and appropriate types of further work, will be provided separately;
- Bibliography, including both primary and secondary sources;
- Illustrations at appropriate scales including:
  - a site location plan related to the national grid;
  - copies of early maps, plans, drawings, photographs and other illustrations of elements of the site collected as part of the desk-based assessment as appropriate to aid the understanding of the results of the evaluation;
  - a plan showing the location of the evaluation trenches in relation to nearby structures and the local landscape;
  - plans and sections of the evaluation trenches showing any features of archaeological interest;
  - photographs of the evaluation, including both detailed and general shots of features of archaeological interest and the trench;
  - illustrations of individual artefacts as appropriate.

### 3.4 Archive

3.4.1 The archive, comprising the drawn, written, and photographic record of the evaluation, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Archive Centre in Carlisle (CAC(C)). The archive will be compiled

according to the standards and guidelines of the IfA (Brown 2007), and in accordance with English Heritage guidelines (English Heritage 1991). In addition details of the project will be submitted to the Online Access to the Index of archaeological investigationS (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

3.4.2 A copy of the report will be deposited with the archive at the Cumbria Archive Centre in Carlisle, one will be supplied to the client, and within two months of the completion of fieldwork, one paper and one digital copy will be provided for CCCHES. In addition, Greenlane Archaeology will retain one copy, and a digital copy will be deposited with the OASIS scheme as required.

3.4.3 The client will be encouraged to transfer ownership of the finds to a suitable museum. Any finds recovered during the evaluation will be offered to an appropriate museum, most likely Tullie House in Carlisle. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

## 4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project from the **12<sup>th</sup> May 2014**, or at another date convenient to the client. The project will comprise the following tasks:

- **Task 1:** desk-based assessment;
- **Task 2:** archaeological evaluation;
- **Task 3:** post-excavation work on archaeological evaluation, including processing of finds and production of draft report and illustrations;
- **Task 4:** feedback, editing and production of final report and archive.

## 5. Other matters

### 5.1 Access

5.1.1 Access to the site for the evaluation will be organised through co-ordination with the client and/or their agent(s).

### 5.2 Health and Safety

5.2.1 Greenlane Archaeology carries out risk assessments for all of its projects and abides by its internal health and safety policy and relevant legislation. Health and safety is always the foremost consideration in any decision-making process.

### 5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£1,000,000**. Details of this can be supplied if requested.

### 5.4 Environmental and Ethical Policy

5.4.1 Greenlane Archaeology has a strong commitment to environmentally and ethically sound working practices. Its office is supplied with 100% renewable energy by Good Energy, uses ethical telephone and internet services supplied by the Phone Co-op, is even decorated with organic paint, and has floors finished with recycled vinyl tiles. In addition, the company uses the services of The Co-operative Bank for ethical banking, Naturesave for environmentally-conscious insurance, and utilises public transport wherever possible. Greenlane Archaeology is also committed to using local businesses for services and materials, thus benefiting the local economy, reducing unnecessary transportation, and improving the sustainability of small and rural businesses.

## 6. Bibliography

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HMSO, 1996 *Treasure Act*, <http://www.opsi.gov.uk/acts/acts1996/1996024.htm>

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## Appendix 2: Summary Context List

Context	Type	Description	Interpretation
<b>100</b>	Layer	0.1m thick, soft, dark grey, sandy loam	Topsoil and turf
<b>101</b>	Layer	0.2-0.4m thick, soft, mid grey-brown, sandy-clay with 1% angular stone and 1% rounded grey (roofing?) slate and sandstone	Subsoil
<b>102</b>	Layer	Firm, mid brownish-orange, sandy-clay, with 2% cobbles and one larger boulder on the west side	Natural
<b>200</b>	Layer	Soft, dark, grey-brown, sandy loam; 0.1m thick	Topsoil
<b>201</b>	Layer	Soft, dark grey-brown, sandy-silt clay, up to 0.3m thick	Subsoil
<b>202</b>	Layer	Firm, mid orange-brown, sandy-clay	Natural
<b>300</b>	Layer	Same as (100); 0.06-0.15m thick	Topsoil / turf
<b>301</b>	Layer	Greyish-brown, silty-clay, 0.1-0.3m thick	Subsoil
<b>302</b>	Layer	Orangey-brown clay	Natural
<b>303</b>	Deposit	Soft, mid brown, silty-clay, with 1% rounded sub-angular cobbles and charcoal inclusions; 0.5m east/west by 0.35m north/south and a maximum of 0.1m deep	Fill of pit ( <b>304</b> )
<b>304</b>	Cut	Oval-shaped pit with an irregular base, aligned east/west, extending under the edge of the trench on the south side; 0.5m east/west by 0.35m north/south and a maximum of 0.1m deep; the sides slope at 45° to the horizontal; filled by context <b>303</b>	Cut of pit ( <b>304</b> )

## Appendix 3: Summary Finds List

Context	Type	Qty	Description	Date range
100	Stone	1	Buff coloured lump of possible chert, not obviously worked but with possible flake scars on several sides	Mesolithic or natural
100	Pottery	6	Black-glazed red earthenware coarseware fragments	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
100	Pottery	1	Brown-glazed red earthenware coarseware base fragment	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
100	Pottery	2	Brown-glazed orange earthenware base fragments	Late 17 <sup>th</sup> – early 18 <sup>th</sup> century
100	Pottery	1	Low-fired orange earthenware, only one surface present and glaze remaining only over part of incised line with white slip beneath	Late 17 <sup>th</sup> – early 18 <sup>th</sup> century?
100	Pottery	3	White salt-glazed stoneware cup (?) rim, and dinner plate fragments, one from press-moulded plate with basket weave motif on rim	18 <sup>th</sup> century
100	Ceramic	1	Red earthenware gritty lump, no surfaces present	Not closely dateable
100	Glass	1	Colourless window pane fragment	20 <sup>th</sup> century?
100	Clay tobacco pipe	4	Plain bowl fragments (three refitting but probably all from the same pipe) from a pipe with a wide flat heel (8/64" bore diameter)	17 <sup>th</sup> century?
100	Clay tobacco pipe	2	Plain stem fragments (6/64" bore diameter), one appears deliberately rounded at both ends	18 <sup>th</sup> century
100	Iron	2	Very corroded lump and possible nail or hook?	Not closely dateable
100	Metal alloy	1	Front end of a vintage toy car, painted blue	20 <sup>th</sup> century
100	Cu alloy	1	Strip bent along sides and at end where it is pierced with a hole, part of a strap or fitting, possibly painted	Post-medieval
100	Coin	1	Very worn George VI penny, dated 1945 (Lobel <i>et al</i> 1997, 581)	Post-1945
101	Stone	3	Lumps of grey and buff coloured chert, one possibly a very rough core (with cortex) suitable for producing microliths, the others, more likely to be natural	Mesolithic or natural
101	Pottery	1	Soft (it will mark paper), light orange, sandy fabric, with sparse very small grit inclusions, possibly with a thin, red slip applied externally beneath a thin, flaky, light olive-green glaze and a light brown slip(?) internally; possibly a later gritty ware. Simple upright rim.	Late 12 <sup>th</sup> to 14 <sup>th</sup> century
101	Pottery	1	Black-glazed red earthenware coarseware	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century
101	Pottery	9	Brown-glazed red earthenware, including four recently broken fragments of fineware from same vessel	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century
101	Pottery	1	Yellow ware?	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
101	Clay tobacco pipe	3	Plain stem fragments (6/64" bore diameter)	18 <sup>th</sup> century
101	Clay tobacco pipe	2	Plain stem fragments (8/64" bore diameter)	17 <sup>th</sup> century
101	Industrial residue	1	Smithing hearth bottom, diagnostic of iron smithing (Anon 2001)	Not closely dateable
200	Pottery	1	Black-glazed red earthenware	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century



Context	Type	Qty	Description	Date range
200	Pottery	1	Mottled ware (red bodied)	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
200	Pottery	1	Mottled ware (cream bodied)	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
200	Pottery	1	Black-glazed, red slip coated cream bodied earthenware	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
200	Pottery	2	White earthenware, including one blue transfer printed	Late 18 <sup>th</sup> to early 20 <sup>th</sup> century
200	CBM	5	Very rough red earthenware fragments, no surfaces	Not closely dateable
200	Clay tobacco pipe	1	Large plain stem fragment (6/64" bore diameter)	18 <sup>th</sup> century
200	Animal bone	1	Possibly a small fragment of burnt animal bone; unidentified	Uncertain
200	Iron	7	T-shaped bracket with hollow interior, and various other differently sized fragments, three nails(?) sections, part of a knife with handle, 'shockproof' Swiss watch (with no strap), castor from piece of furniture, and smaller flat bracket with screws	Post-medieval
201	Stone	1	Lump of grey chert, not obviously worked but possibly waste	Mesolithic or natural
201	Pottery	1	Black-glazed cream-coloured earthenware fragment	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
201	Pottery	1	Cream-coloured earthenware, only one surface present	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
201	Pottery	3	Brown-glazed red and orange earthenware	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
201	Pottery	1	Brown-glazed orange fineware with white slip decoration	Late 17 <sup>th</sup> to 18 <sup>th</sup> century
201	Pottery	1	Brown salt-glazed grey-bodied stoneware fineware	Late 17 <sup>th</sup> to early 19 <sup>th</sup> century
201	Glass	1	Colourless bottle/vessel fragment	Not closely dateable
201	Clay tobacco pipe	3	Plain stem fragments (8/64" bore diameter)	17 <sup>th</sup> century
201	Clay tobacco pipe	1	Stem/bowl junction (6/64" bore diameter) with plain flat heel	17 <sup>th</sup> to 18 <sup>th</sup> century
201	Clay tobacco pipe	3	Two refitting (undecorated) bowl fragments and a third possibly from the same pipe (unknown bore diameter)	17 <sup>th</sup> to 18 <sup>th</sup> century?
201	Clay tobacco pipe	1	Twisted stem fragment (4/64" bore diameter) with very narrow bore opening at one end, which probably made it unusable; possible waster	19 <sup>th</sup> century
201	Industrial residue	1	Large lump of undiagnostic ironworking slag	Not closely dateable
201	Aluminium	1	Old style ring-pull (replaced by stay-tabs in the 1990s)	c1960s to 1990s
201	Plastic	1	Propeller, probably from a polystyrene glider toy plane	Late 20 <sup>th</sup> century to present
300	Fired clay	2	Very soft, orange fired clay or daub	Medieval or earlier?
300	Pottery	9	Brown-glazed red earthenware with white slip coated interior, probably all from same vessel with rouletted decoration	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century
300	Pottery	11	Brown-glazed red earthenware including one fragment with white slip decoration and bases from three different vessels	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century

Context	Type	Qty	Description	Date range
300	Pottery	4	Black-glazed red or orange earthenware	Late 17 <sup>th</sup> to 18 <sup>th</sup> century
300	Pottery	2	Black-glazed orangey-buff coloured earthenware, one with white slip decoration	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
300	Pottery	1	Tin-glazed earthenware	18 <sup>th</sup> century
300	Pottery	1	White salt-glazed stoneware	18 <sup>th</sup> century
300	Pottery	2	White earthenware, one blue transfer printed	Late 18 <sup>th</sup> to early 20 <sup>th</sup> century
300	Glass	2	Colourless window pane fragments	20 <sup>th</sup> century
300	Clay tobacco pipe	1	Plain stem fragment (6/64" bore diameter)	18 <sup>th</sup> century
300	Clay tobacco pipe	1	Plain stem fragment (4/64" bore diameter)	19 <sup>th</sup> century
300	Iron	8	Mostly, undiagnostic lumps, but three nail fragments, and one larger piece of slightly curving sheet	Not closely dateable
300	Lead	1	part of a set of nested imperial weights (Graham 2003), unmarked but weighing exactly 2oz	Post-medieval
301	Pottery	1	Soft (it will mark paper), light orange, gritty ware, with sparse small grit and quartz inclusions, with light brown outer surface	12 <sup>th</sup> to 14 <sup>th</sup> century
301	Pottery	4	Black-glazed red earthenware	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century
301	Pottery	7	Brown-glazed red earthenware including one rim with white slip trailed decoration and one body with white slip band	Late 17 <sup>th</sup> to early 20 <sup>th</sup> century
301	Pottery	1	Green-glazed red earthenware, similar to material from Yorkshire or transitional	Post-medieval
301	Pottery	1	Brown-glazed buff-coloured earthenware	Late 17 <sup>th</sup> to early 18 <sup>th</sup> century
301	Pottery	1	Pearlware, one with blue transfer printed decoration other with gilded stripe	Late 18 <sup>th</sup> to early 19 <sup>th</sup> century
301	Glass	1	Bottle base	Late 20 <sup>th</sup> century to present
301	Clay tobacco pipe	1	Almost complete plain bowl with flat heel (8/64" bore diameter)	17 <sup>th</sup> century
301	Clay tobacco pipe	1	Complete bowl with milled edge, rounded spur and part of the stem (8/64" bore diameter)	17 <sup>th</sup> century
301	Clay tobacco pipe	1	Plain stem fragment (8/64" bore diameter)	17 <sup>th</sup> century
301	Clay tobacco pipe	1	Plain stem fragment (6/64" bore diameter)	18 <sup>th</sup> century
301	Clay tobacco pipe	1	Plain stem fragment (4/64" bore diameter)	19 <sup>th</sup> century
301	Iron	2	Nail and unidentified corroded lump	Not closely dateable

## Appendix 4: Clay Tobacco Pipe Catalogue

Site Code	Cxt <sup>1</sup>	B <sup>2</sup>	S <sup>3</sup>	M <sup>4</sup>	H/S <sup>5</sup>	64 <sup>6</sup>	Decoration	Comments	Date range
SI14	100	4				8		three refitting but probably all from the same pipe with a flat heel	17 <sup>th</sup> century?
SI14	100		2			6		one appears deliberately rounded at both ends	18 <sup>th</sup> century
SI14	101		3			6			18 <sup>th</sup> century
SI14	101		2			8			17 <sup>th</sup> century
SI14	200		1			6			18 <sup>th</sup> century
SI14	201		3			8			17 <sup>th</sup> century
SI14	201				1	6		stem/bowl junction with plain flat heel	17 <sup>th</sup> to 18 <sup>th</sup> century?
SI14	201	3				7		Two refitting and third fragment possibly from the same bowl	17 <sup>th</sup> to 18 <sup>th</sup> century?
SI14	201		1			4		Twisted, with a very narrow bore opening at one end, which probably made it unusable; possible waster	19 <sup>th</sup> century
SI14	300		1			6			18 <sup>th</sup> century
SI14	300		1			4			19 <sup>th</sup> century
SI14	301	1				8		almost complete bowl with flat heel	17 <sup>th</sup> century
SI14	301	1				8	milled edge	complete bowl with rounded spur and part of the stem	17 <sup>th</sup> century
SI14	301		1			8			17 <sup>th</sup> century
SI14	301		1			6			18 <sup>th</sup> century
SI14	301		1			4			19 <sup>th</sup> century

**Notes:** 1. Context; 2. Bowl; 3. Stem; 4. Mouthpiece; 5. Heel / spur; 6. Bore hole diameter in sixty-fourths of an inch; 7. Bore diameter was either not applicable or could not be recorded (e.g., for a bowl fragment)

## Appendix 5: Environmental Sample Data

Contents of retent (Key: + = 1-9, ++ = 10-20, +++ = 21-50, ++++ = >51)

<b>Sample number</b>	<b>1</b>
<b>Charred organic</b>	+++
<b>Small animal bone</b>	+
<b>Chert</b>	++
<b>Flint</b>	+
<b>Pottery (not specified)</b>	+
<b>Ceramic building material</b>	+
<b>Lime mortar</b>	+
<b>Iron working slag</b>	+
<b>Prill</b>	+
<b>Hammerscale</b>	+

Volume and contents of flot (Key: + = 1-9, ++ = 10-20, +++ = 21-50, ++++ = >51)

<b>Sample Number</b>	<b>1</b>
<b>Context Number</b>	<b>303</b>
<b>Total flot volume (ml)</b>	100
<b>Feature</b>	Fill of pit ( <b>304</b> )
<b>Charcoal Quantity</b>	++++
<b>Material available for AMS</b>	++

## Appendix 6: Palaeoenvironmental Assessment Report

### Introduction

The flot from one sample taken from the fill of a small pit during archaeological works at Ireby near Keswick, were received for palaeoenvironmental assessment. The aim of the environmental work was to assess the presence, preservation and abundance of any environmental remains and to establish if the sample contained material suitable for Accelerated Mass Spectrometry (AMS) radiocarbon dating.

### Method

The sample was analysed using a stereomicroscope at magnifications of x10 and up to x100 where necessary. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006). Any charred plant remains were recorded using a simple four-point scale as follows: + = rare, ++ = occasional, +++ = common, ++++ = abundant.

### Results

The results of the sample processing are presented in *Appendix 5* (Volume and contents of flot). Charcoal of a suitable size for AMS (Accelerated Mass Spectrometry) radiocarbon dating was recovered from the sample.

### Charcoal

Frequent, heavily fragmented, charcoal fragments were present in the flotation sample. The fragments ranged in size from 0.01mm to 1cm. Charcoal fragments were identified as both oak and non-oak.

### Discussion

Charcoal was the only ecofact recovered from the flot from the fill of the small, currently undated, pit. Although the charcoal was abundant, it was heavily fragmented. However, occasional charcoal fragments of a suitable size for identification and AMS dating were recovered from the sample.