

# PROPOSED SOUTH LAKELAND GATEWAY, CROOKLANDS, KENDAL, CUMBRIA

# Archaeological Evaluation



August 2007

#### **L&K Group Plc**

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#### **SUMMARY**

L&K Group Plc propose to undertake the development of the South Lakeland Gateway, which would comprises a livestock auction mart, sales area, tourist information and associated infrastructure, at Lane Farm, Crooklands, Kendal, Cumbria (NGR SD 5220 8360). The proposed development site lies in the valley of the Peasey Beck, c 10km to the south of Kendal and close to the junction of the M6 motorway and the A590. Previous works as part of the present planning application (05/06/0321) include a desk-based assessment (Egerton Lea 2005) and a metal detector survey. The latter discovered a 'hoard' of three Roman coins, to date, the most significant archaeological remains identified within the proposed development area. Following these preliminary works, Cumbria County Council Historic Environment Service (CCCHES) issued a brief for a programme of archaeological evaluation to be undertaken within a 2.75ha area identified as having high archaeological potential. Following submission of a project design to meet the requirements of the CCCHES brief, Oxford Archaeology (OA North) were commissioned by L&K Group Plc to undertake the archaeological works.

The evaluation, undertaken in February 2007, comprised the excavation of fifteen 50m by 2m trenches to a maximum depth of 1.2m. Small amounts of post-medieval pottery were recovered from the topsoil and subsoil of each trench but, with one exception, no significant archaeological remains were identified. The excavation of the central area of Trench 6 revealed a generally shallow localised peat horizon, which reached a depth of about 1m within a central depression. The base of the peat was marked by a distinct layer of fine whitish-grey clay, thought to be early post-Glacial in origin and suggesting that the peat had developed within either a natural depression between boulder clay drumlins, or a kettle hole. The trench was expanded and monolith samples for palaeoenvironmental remains were taken from the peat. A number of features associated with the surface of the peat were of particular interest. These included an arc-shaped deposit of large cobbles seemingly dumped on top of the peat, a series of horizontal timbers 2m – 4m long, and a pair of upright timbers that are more likely to be posts than tree stumps. No pattern was discernible among the horizontal timbers and most appeared to have been split, although it was not possible to determine whether this was by human agency. A similar, but less wellpreserved, peat deposit was seen in Trench 5 and may indicate the potential for the preservation of other such localised horizons across the development area.

Although enigmatic, the peat deposit is certainly of palaeoenvironmental significance whilst the associated, as yet undated, timbers, are possibly of archaeological importance. As such, due to the shallow depth of these features and, dependent upon the nature of the final development plans within this area, consideration should be given to further investigating the area of the peat deposit and its surroundings. Such works could be combined with the assessment of the palaeoenvironmental material taken from the peat, and absolute dating of the timbers should they prove more extensive and to be without associated artefacts.

#### **ACKNOWLEDGEMENTS**

Oxford Archaeology North are grateful to Clifford Kendal, Christine Knipe and Allan Thomas of L&K Group Plc for commissioning the programme of archaeological works and to Jeremy Parsons of CCCHES for his advice and assistance on site. The fieldwork was directed by Richard Lee with the assistance of Rebekah Pressler and Steve Clarke, together with palaeoenvironmental advice from Denise Druce and survey provided by Marc Storey. This report was compiled by Richard Lee and Stephen Rowland, whilst Rebekah Pressler examined the finds and Marie Rowland prepared the illustrations. The project was managed by Stephen Rowland, who also edited the report.

#### 1 INTRODUCTION

#### 1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 In 2005, L&K Group Plc submitted a planning application (05/06/0321) for the development of an area of agricultural land near Lane Farm, Crooklands, Kendal, Cumbria (NGR SD 5220 8360; Fig 1). The proposed development, the 'South Lakeland Gateway' is to comprise a livestock auction mart, a sales area and a tourist information centre, together with associated infrastructure and car parking. As part of the planning application, a desk-based assessment (Egerton Lea Consultancy Ltd (ELC) 2005) was submitted, and a metal detector survey was undertaken of the proposed development site. The desk-based assessment indicated that the development site was of moderate archaeological potential whilst the metal detector survey recovered three Roman coins (J Parsons pers comm). To further inform the planning process, Cumbria County Council Historic Environment Service (CCCHES) issued a brief for a programme of archaeological evaluation to be undertaken within a 2.75 ha area identified as having high potential on the basis of the results of the metal detector survey (Appendix 1). Following submission of a project design (Appendix 2) to meet the requirements of the CCCHES brief, OA North were commissioned by L&K Group Plc to undertake a programme of archaeological evaluation. The work took place between 19th and 27th February 2007.

#### 1.2 SITE LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The proposed development site lies in the valley of Peasey Beck, some 10km to the south of Kendal and close to the junction of the M6 motorway and the A590 (Fig 1). The evaluation site is divided into two fields under rough pasture and is bound to the north by the sinuous route of a small tributary of the Stainton Beck, and to the south by a small lane leading from the nearby Deepthwaite Farm. Although the average ground level is at roughly 30m OD, the site slopes down to the north and also undulates east/west in correspondence with the underlying glacial boulder clay drumlins (Plate 1). The solid geology of the area comprises Dinantian rocks of the Lower Carboniferous limestone series (BGS 2002).

#### 1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

1.3.1 *Introduction:* the following section is intended only as a brief summary to provide a context within which to place the results of the evaluation; a more detailed account of the local archaeology can be found in the desk-based assessment for the site (ELC 2005). With the exception of that desk-based assessment and the recent metal detector survey, there have been no previous archaeological investigations within or around the immediate development area. Nor is the documentary archive for the development area particularly extensive: most antiquarian histories of Westmorland contain little specific

- information about the site and instead concentrate on the historical parish of Preston Richard, within which the development area is situated (ELC 2005).
- 1.3.2 *Prehistoric:* there are no known sites within or particularly close to the development area, but there is sufficient, if somewhat sparse (particularly when compared to the wealth of contemporary sites from upland Cumbria), information to suggest that the wider area of Southern Cumbria/Northern Lancashire was inhabited since the end of the Ice Age. There are a number of significant sites within a 10km radius of Crooklands, including the Mesolithic remains at Borwick, the Bronze Age barrows and burnt mound from Levens Park, Borwick and Sparrowmire Farm, Kendal, and the very rare Iron Age burials from Levens. Recent metal detection at Milnthorpe has also recovered prehistoric artefacts, including a Middle Bronze Age (1400 1300 BC) palstave and a Late Bronze Age/Early Iron Age (1150 800BC) Halstatt C razor (ELC 2005).
- 1.3.3 *Roman:* the most significant archaeological remains known within the development area comprise the hoard of three Roman coins found close to the southern site boundary during the recent metal detector survey. Further finds of Roman date have been recently metal detected from the wider area, including an attractive copper alloy button and loop fastener from Milnthorpe (ELC 2005). Roman settlement in the area is known from the fort at Watercrook, just to the south of Kendal, although the closest known Roman Road runs up the Lune Valley between Low Borrowbridge and Burrow-in-Lonsdale, well to the east of Crooklands.
- 1.3.4 *Medieval:* the parish of Preston Richard is recorded in the Domesday Survey of 1086 as *Prestun*, a township within the parish of Heversham (Whellan 1860, 829) and the manor of Beetham, one of the many manors formerly held by Earl Tostig and awarded to Roger of Poitou following the Norman Conquest (Ferguson 1894, 72). The name Preston is derived from the Old English *prēost* and *tūn*, meaning the priest's farmstead (Mills 1989, 263), and the affix *Richard*, is evidently taken from a personal name, probably from a succession of similarly-named post-Domesday feudal lords (Smith 1967, 96). There are no known medieval sites within the proposed development area, but it is of interest to note that a number of fields in the area, including those selected for archaeological evaluation, have a decidedly aratral curvature to their boundaries. Such sinuous boundaries are thought to pertain to the fossilisation of medieval agricultural earthworks within the post-medieval enclosed landscape. The nearby fourteenth-century hall at Preston Patrick, just to the east, has an attached pele tower and forms a network of such defensive settlements during a period of almost incessant raiding and unrest around the contested borders of England and Scotland, as exemplified by other fortifications in the area, including Levens Hall, Dallam, Arnside and Beetham.
- 1.3.5 *Post-medieval:* the local settlement pattern of dispersed farmsteads persisted into the post-medieval period, and Lane Farm, to which the proposed evaluation site pertains, is mentioned as 'The Lane' in a deed of 1636 (ELC 2005). The name is almost certainly derived from the farm's location near the joining of five roads and, in 1636 it comprised a tenement with closes, houses,

barns, stables, meadows, pastures and hedges. Other fields within the development site formerly belonged to Deepthwaite Farm, to the south-west, which is first documented in a deed of 1670, a date which accords with the physical fabric of the farmhouse (CHER 19001; ELC 2005). Both farms are shown on the 1862 Ordnance Survey 1:10,560 map, although Lane Farm was then known as Low Lane and Lane Cottage, to the north, was then known as High Lane. These names appear to have been short-lived and, by the end of the nineteenth century, they were known by their present names. The documents and maps do not indicate any area of archaeological or historical interest within the proposed development plot, although the name Tinter Close, the small enclosure to the east of Lane Farm, suggests a link to the manufacture of woollen cloth. 'Tinter' is likely to derive from 'tenter', the wooden frame upon which woollen cloth was placed to dry outdoors and stretch it back into shape following the fulling process. Many farms in the area would have woven woollen cloth, possibly to sell at Kendal market (ELC 2005). The presence of a lime kiln, referenced by a field name on the 1853 map of Lane Farm, is likely to relate to attempts to improve soil fertility and infers the practice of a mixed agricultural regime.

1.3.6 Several important transport routes passed close to the development area, including the Milnthorpe to Clawthorpe turnpike, with which a grade II listed milestone (CHER 21907) to the south of the site is likely to be associated. Built between *c* 1759 and 1767 the turnpike would have linked up with Heiring Syke turnpike road (Hindle 2001, 78), which formed part of the great road linking London to Scotland on the west side of England (ELC 2005). The second significant route is that of the Lancaster to Kendal canal, built at the end of the eighteenth century and which is locally spanned by the grade II listed Oldhall and Crooklands Bridges, both dating to *c* 1818. Deepthwaite Bridge spanning the Stainton Beck to the west is a seventeenth-century grade II listed structure (*ibid*).

#### 2 METHODOLOGY

#### 2.1 WRITTEN SPECIFICATION

2.1.1 The CCCHES-approved project design (*Appendix 2*) and trench location plan (Fig 2) was adhered to, and all works were consistent with IFA standards and generally acknowledged best practice. During the evaluation, two variations from the provisional scheme were enacted at the approval of CCCHES and the client. First, was the excavation of an additional trench (Trench 15) between, and to the east of, Trenches 13 and 14 in an effort to broaden the results. Secondly, the central part of Trench 6 was expanded across an area measuring 5m by 6m in order to more fully expose the identified stratigraphy.

#### 2.2 EVALUATION TRENCHING

- 2.2.1 Just over 5% (1500m²) of the total 2.75ha area of archaeological potential was evaluated by 15 trial trenches, each measuring 50m by 2m. All trenches were excavated under archaeological supervision by a 360 degree mechanical excavator fitted with a 2m toothless ditching bucket down to the level of the natural drift geology or to the top of the first archaeologically-significant horizon, whereupon further investigation was undertaken by manual techniques. The two dimensional position of trenches and of archaeological features were established by GPS survey techniques and height data was established using an optical level calibrated to Ordnance Datum. Spoil from the excavation was stored adjacent to the trenches, which were backfilled upon completion of the archaeological works.
- 2.2.2 All information identified in the course of site works was recorded stratigraphically, using a system adapted from that used by the English Heritage Centre for Archaeology Service. Results of the evaluation were recorded on *pro-forma* context sheets, and were accompanied by sufficient pictorial record (plans, sections and both monochrome and colour slide photographs) to identify and illustrate individual features. Primary record were available for inspection at all times.
- 2.2.3 Palaeoenvironmental sampling: during the evaluation of Trench 6, a series of palaeoenvironmental samples were taken from a peat horizon identified within this trench. Together with bulk samples taken for general biological analysis, principal and back-up monolith samples were taken through the peat horizon and underlying deposits using standard techniques and materials, following the advice of the OA North palaeoecology specialist. The samples are presently stored under stable conditions at the OA North offices in Lancaster.

#### 2.3 ARCHIVE

2.3.1 The results of the fieldwork will form the basis of a full archive in accordance with current English Heritage (1991) and UKIC (1990) guidelines and which will be deposited with the Cumbria County Record Office, Kendal. All

artefacts found during the course of the project, following agreement with the landowner, will be donated to the Kendal Museum. A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the County Historic Environment Record, Kendal, Cumbria. A copy of the index to the archive will also be available for deposition in the National Archaeological Record in Swindon.

#### 3 RESULTS

#### 3.1 Introduction

3.1.1 The following section presents the results of the evaluation in appropriate detail. Summaries of specific information relating to the evaluation trenches and to the contexts recorded therein can be found in *Appendices 3 and 4*, respectively. To augment the summary of the artefacts recovered from the evaluation in *Section 3.5*, below, a catalogue is provided in *Appendix 5*.

#### 3.2 TRENCHES 1-4 AND 7-15

3.2.1 With the exception of the occasional field drain, no significant archaeological features were identified during the evaluation of Trenches 1-4 and 7-15 (Plate 2), although small amounts of post-medieval pottery were recovered from the topsoil and subsoil within most trenches (*Section 3.5*). The topsoil varied in depth from 0.1m to 0.3m and generally overlay a 0.2m – 0.9m deep subsoil horizon, although on occasion this intermediate horizon was absent with the topsoil lying immediately above the natural boulder clay. This natural material was variable in character across the site, with a notably higher gravel content towards the west of the area of investigation.

#### 3.3 TRENCH 5

3.3.1 Beneath topsoil *501* and subsoil *502*, a very small lens of peat, *503*, was located, and probably represents the most northerly example of isolated lenses better exemplified by peat *603* just to the south in Trench 6.

#### **3.4** TRENCH 6

Only within Trench 6 was there any significant divergence from the general 3.4.1 pattern described above. Towards the centre of Trench 6, removal of topsoil 601 and subsoil 602 revealed peat horizon 603 (Fig 3; Plates 3 and 4). To allow further characterisation of the deposit and for monolith samples to be taken, the trench was expanded southwards for an area of 6m by 5m around the peat. Whilst generally shallow, peat 603 reached a depth of about 1m within a localised depression, and had formed on a distinct layer of fine whitish-grey clay (606). Of particular interest was an arc-shaped deposit of large cobbles, 604, that appeared to have been dumped on top of peat 603, a series of 2m – 4m long timbers that extended from the surface of the peat to that of the adjacent glacial till, and a pair of upright timbers within the expanded trench area (Plates 3 and 4). No pattern was discernible among the horizontal timbers, and most appeared to have been split, although it was not possible to determine whether this was by human agency. Nor was it possible to tell whether the upright timbers represented posts or in situ tree trunks; they were approximately 0.25m in diameter, were unsplit and appeared to have retained their bark, but there was no sign of roots (although these may have

lain beneath the peat surface). One of the horizontal timbers retained a complete circumference, but had a curious bowl-like depression at one end; again, it is not certain whether this was a natural or anthropogenic feature (Plate 4).

#### 3.5 FINDS

- 3.5.1 *Introduction:* in total, 76 finds were recovered from the evaluation, consisting of 72 sherds of pottery and two small fragments of clay pipe together with single pieces of timber and unidentifiable ceramic material. The majority of the finds were recovered unstratified from the perusal of the spoil heaps following machine excavation of topsoil and subsoil deposits.
- 3.5.2 **Post-medieval pottery:** all of the identified pottery dates from the eighteenth to nineteenth centuries and the majority belongs to the pearlware-type. Most types are fairly common, including two fragments of the transfer-printed design 'Asiatic Pheasants' recovered unstratified from Trench 11. Other interesting fragments include a nineteenth-century sherd of 'sponged' or 'spatter' ware, a fragment of press-moulded creamware recovered unstratified from Trench 8, possibly an example from Liverpool's Herculaneum Pottery and, from the same context, a quaint sherd of porcelain from a doll's tea cup. Also of interest was a small fragment of pearlware with blue enamel underglaze dated *c* 1770-1820.
- 3.5.3 *Timber:* a single piece of waterlogged timber was collected from Trench 6. A rapid examination indicated that the timber may have been roughly split, but that there was no evidence of tool marks to prove a human agency in this process. An examination of a thin section from the timber suggested that it was alder.
- 3.5.4 *Clay pipe:* two small clay pipe stem fragments were recovered unstratified from Trench 5 (500), and are of eighteenth to nineteenth century date.
- 3.5.5 *Conclusion:* it is probable that the majority of the ceramic finds recovered from the evaluation relate to the practice of using domestic waste as agricultural manure. As such, whilst the finds assemblage contributes to the dating of general activity in the area, the fact that it cannot be connected with any specific features means that it has no potential for further analysis. The timber sample taken from the site was selected on the basis that, unlike the other timbers, it was of a manageable size and could be collected without disturbing the arrangement of the more complete examples, several of which extended beyond the limit of excavation; as such, it is uncertain how representative it is.

#### 4 DISCUSSION

#### 4.1 CONCLUSIONS

- 4.1.1 The general lack of archaeological features from the majority of trenches meant that the only feature of any potential interest was peat deposit 603 and the associated remains identified within Trench 6. Although a full archaeological examination of this peat lay outside the remit of the present evaluation, it is clear that this feature is certainly of some palaeoenvironmental significance, whilst it is possible that the associated timbers may be of archaeological importance. The presence of whitish-grey clay 606 at the base of the very localised peat horizon would suggest that this feature is likely to be early post-Glacial in origin, possibly a kettle hole (Denise Druce pers comm), although it can also be observed that the peat deposit lies at the lowest elevation on the field, at a point between two drumlins. The base of the peat could, therefore, be of great antiquity and, depending on the speed of formation, may contain palaeoenvironmental information spanning a broad swathe of human history in the area. As such, the monolith sample taken from the deposit has good potential for further analysis in terms of absolutely-dated environmental reconstruction, and charting the influence of human activity on that local environment. A considerably smaller lens of peat was located c 40m to the north in Trench 5 and probably represents the vestigial survival of a similar feature. According to the present farmer, other fields around the outside of proposed development area are also known to have sporadic deposits of peat. Hence, the peat deposits in Trenches 5 and 6 are not likely to be isolated occurrences, although the fact that these deposits have been recognised in the past suggests that they may have suffered truncation as a result of ploughing.
- The nature of the timbers thought to be associated with peat 603 is harder to ascertain. The upright timbers could be tree trunks, but one would expect them to topple from the roots at death, rather than break-off mid-stem; this, together with the fact that no roots were identified, may imply that these were posts. The timber with the possible bowl-like depression is again curious, but may represent the erosion of a natural knot in the wood. Although the remaining, horizontal, timbers appear to have been split, they were too large to remove to the OA North offices, and it was not clear in the field whether they had been split by human agency. Assessment of a more manageable example that was retrieved was also fairly inconclusive: if it had been split, then it had been done so roughly. The horizontal timbers may have been placed on the surface of the peat in order to consolidate the surface (as seems to have been the intention in the case of the later cobbles 604, which appeared to have been used to fill a possible natural hollow or depression), but they might also be the remains of dead and broken trees that had grown very close-by. It is also possible that the posts and the timbers together represent the remains of some sort of boundary marker; if so, it must pre-date the survey for the 1862 OS map, since the nineteenth-century field system is not dissimilar to the modern arrangement.

4.1.3 A more complete understanding of these features can only really be gained by a targeted scheme of archaeological investigation, that would allow the full extent of the components of this feature to be identified, recorded, and sampled, with particular emphasis on the identification of tool marks and presence of dating evidence. Dependent on the presence and extent of additional associated timbers, some consideration should also be given to absolute dating of these timbers should they not be associated with artefacts. Similarly, assessment and absolute dating of the monolith samples taken from the peat horizon would be able to establish the potential for furthering an understanding of the local environment within a chronological framework.

#### 4.2 IMPACT ASSESSMENT

4.2.1 The full impact of the proposed development is difficult to assess from the current, preliminary, plans. However, for the majority of the investigated portion of the site, on the basis of the available evidence (which cannot discount the possibility that archaeological features may survive within unexplored areas of the site), it would appear that there will be a very low negative impact on the archaeological resource. Any groundworks within the area of Trench 6 are likely to have a negative effect on the peat deposit and associated timbers, which would be truncated even by fairly shallow groundworks. There is also the possibility that landscaping could alter the local drainage pattern and increase the weight of overburden, leading to drying-out or compression of the peat, compromising the palaeoenvironmental data. Nor can the possibility of further similar features within the area be discounted, as such small features could easily fall between trenches, notably between Trench 5 and 6.

#### 5 BIBLIOGRAPHY

#### 5.1 PRIMARY AND CARTOGRAPHIC SOURCES

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#### 6 ILLUSTRATIONS

#### **6.1** LIST OF FIGURES

Figure 1: Site Location Map

Figure 2: Trench location plan

Figure 3: Detail of results within Trench 6

#### 6.2 LIST OF PLATES

Plate 1: General view of the proposed development area, looking west

Plate 2: Typical result of trenching evaluation

Plate 3: Trench 6 with the peat deposit and timbers

Plate 4: Trench 6 timbers laying across the peat

# APPENDIX 1: PROJECT BRIEF

# BRIEF FOR AN ARCHAEOLOGICAL EVALUATION ON THE SITE OF THE PROPOSED SOUTH LAKELAND GATEWAY CROOKLANDS, KENDAL, CUMBRIA

Issued by the

#### **County Historic Environment Service**

Environment Unit, Economy, Culture and Environment



Date of Brief: 19 December 2006

This Design Brief is only valid for 1 year after the above date. After this period the County Historic Environment Service should be contacted. Any specification resulting from this Brief will only be considered for the same period.

#### 1. SITE DESCRIPTION AND SUMMARY

Site: The Proposed South Lakeland Gateway, Crooklands, Kendal

**Grid Reference:** SD 5220 4348

Planning Application No.: 5/06/0321

**Area of Evaluation:** 2.75 hectares

Detailed proposals and tenders are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists, or equivalent. Any response to this Brief should follow IFA Standard and Guidance for Archaeological Field Evaluations, 1994. No fieldwork may commence until approval of a specification has been issued by the County Historic Environment Service.

#### 2. PLANNING BACKGROUND

- 2.1 Cumbria County Council's Historic Environment Service (CCCHES) has been consulted by South Lakeland District Council regarding a planning application for the South Lakeland Gateway Project comprising a livestock auction mart, sales area, tourist information and associated infrastructure at Crooklands, Kendal.
- 2.2 The site has been the subject of a desk-based assessment (Egerton Lea Consultancy Ltd, 2005, South Lakeland Gateway, Lane Farm, Crooklands, Cumbria, Archaeological Assessment, unpublished report) and a metal detector survey. The results have indicated that the scheme affects an area of archaeological potential and so the County Historic Environment Service has advised that the applicant provide further information concerning the impact of the proposal on archaeological remains. In order to provide this information an archaeological evaluation of an area considered to have the highest archaeological potential is necessary. The area of evaluation is 2.75 hectares in extent and targets the location of Roman coins that were found in the metal detector survey (see attached plan). Further evaluation and/or mitigation work may be required depending upon the results of the evaluation and will require the production of a separate design brief from this office.
- 2.3 This advice is in accordance with guidance given in Planning Policy Guidance note 16 (Archaeology and Planning) and with policy C19 of the South Lakeland Local Plan.

#### 3. ARCHAEOLOGICAL BACKGROUND

- 3.1 The site has been the subject of a desk-based assessment and this brief should be read in conjunction with that report. This has identified a number of post medieval features on the site: a listed grade II 18<sup>th</sup> century milestone; a former field boundary; and the line of a tramway to Gatebeck gunpowder works. The report has also highlighted that the site has the potential to contain prehistoric and Roman remains as it sits in a wider landscape that contains evidence from these periods.
- 3.2 A metal detector survey was undertaken in June 2006 by Kendal and the Lune Valley metal detecting clubs in some of the fields of the proposed development site. This revealed three Roman coins in relatively close proximity to one another. The evaluation outlined in this brief targets the area in which these coins were found (see attached plan).

#### 4. SCOPE OF THE PROJECT

- 4.1 Objectives
- 4.1.1 The evaluation should aim to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.

- 4.2 Work Required
- 4.2.1 The site has been the subject of a desk-based assessment and the results should be summarised in the evaluation report.
- 4.2.2 The excavation of a series of linear trial trenches to adequately sample the threatened available area, and the investigation and recording of deposits and features of archaeological interest identified within those trenches. All features must be investigated and recorded unless otherwise agreed with the County Historic Environment Service. Initial topsoil removal can be undertaken by machine, but subsequent cleaning and investigation must be by hand. A minimum sample of 5% of the total site area should be investigated.
- 4.2.3 The evaluation should provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. An impact assessment should also be provided, wherever possible.
- 4.2.5 The following analyses should form part of the evaluation, as appropriate. If any of these areas of analysis are not considered viable or appropriate, their exclusion should be justified in the subsequent report.
  - A suitably qualified specialist should assess the environmental potential of the site through the examination of suitable deposits, including: (1) soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features, and; (2) the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits.
  - Advice is to be sought from a suitably qualified specialist in faunal remains on the potential of sites for
    producing bones of fish and small mammals. If there is potential, a sieving programme should be
    undertaken. Faunal remains, collected by hand and sieved, are to be assessed and analysed, if
    appropriate.
  - The advice from a suitably qualified soil scientist should be sought on whether a soil micromorphological study or any other analytical techniques will enhance understanding site formation processes of the site, including the amount of truncation to buried deposits and the preservation of deposits within negative features. If so, analysis should be undertaken.

#### 5. SPECIFICATION

- 5.1 Before the project commences a project proposal must be submitted to, and approved by, the County Historic Environment Service.
- 5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of The Management of Archaeological Projects, 2<sup>nd</sup> ed. 1991, and must include:
  - ❖ A description of the excavation sampling strategy and recording system to be used
  - ❖ A description of the finds and environmental sampling strategies to be used
  - ❖ A description of the post excavation and reporting work that will be undertaken
  - Details of key project staff, including the names of the project manager, site supervisor, finds and environmental specialists and any other specialist sub-contractors to be employed
  - Details of on site staffing, expressed in terms of person days
  - ❖ A projected timetable for all site work and post excavation work
- 5.3 The specification should identify the proposed locations of trial trenches.
- 5.4 Any significant variations to the proposal must be agreed by the County Historic Environment Service in advance.

#### 6. REPORTING AND PUBLICATION

6.1 The archaeological work should result in a report, this should include as a minimum:

- ❖ A site location plan, related to the national grid
- ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
- The dates on which the fieldwork was undertaken
- ❖ A concise, non-technical summary of the results
- An explanation of any agreed variations to the brief, including justification for any analyses not undertaken (see 4.2.5)
- A description of the methodology employed, work undertaken and the results obtained
- Plans and sections at an appropriate scale showing the location and position of deposits and finds located
- A list of, and dates for, any finds recovered and a description and interpretation of the deposits identified
- ❖ A description of any environmental or other specialist work undertaken and the results obtained
- 6.2 Three copies of the report should be deposited with the County Historic Environment Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Historic Environment Record.
- 6.3 Should further archaeological work result from the evaluation, the results of the evaluation will need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication.
- Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation should **not** be included in the report. Such recommendations are welcomed by the County Historic Environment Service, and may be outlined in a separate communication.
- 6.5 Cumbria HER is taking part in the Online Access to Index of Archaeological Investigations (OASIS) project. The online OASIS form at <a href="http://ads.ahds.ac.uk/project/oasis">http://ads.ahds.ac.uk/project/oasis</a> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

#### 7. THE ARCHIVE

- 7.1 An archive must be prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2<sup>nd</sup> ed. 1991, and arrangements made for its deposit with an appropriate repository. A copy shall also be offered to the National Monuments Record.
- 7.2 The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. In this case Kendal Museum is the most likely repository. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.
- 7.3 The County Historic Environment Service must be notified of the arrangements made.

#### 8. PROJECT MONITORING

- 8.1 One weeks notice must be given to the County Historic Environment Service prior to the commencement of fieldwork.
- 8.2 Fieldwork will be monitored by the Assistant Archaeologist on behalf of the local planning authority.

#### 9. FURTHER REQUIREMENTS

9.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). The County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.

- 9.2 All aspects of the evaluation shall be conducted in accordance with the Institute of Field Archaeologist's *Code of Conduct* and the IFA's *Standard and Guidance for Archaeological Field Evaluations*.
- 9.3 Human remains must be left *in situ*, covered and protected when discovered. No further investigation should normally be permitted beyond that necessary to establish the date and character of the burial, and the County Historic Environment Service and the local Coroner must be informed immediately. If removal is essential, it can only take place under appropriate Department for Constitutional Affairs and environmental health regulations.
- 9.4 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

#### 10. FURTHER INFORMATION

For further information regarding this brief, contact

Jeremy Parsons Assistant Archaeologist Cumbria County Council County Offices Kendal Cumbria LA9 4RQ Tel: 01539 773431

Email: Jeremy.Parsons@cumbriacc.gov.uk

For further information regarding the County Historic Environment Record, contact

Jo Mackintosh Historic Environment Records Officer Cumbria County Council County Offices Kendal Cumbria LA9 4RQ

Cumbria LA9 4RQ Tel: 01539 773432

Email: jo.mackintosh@cumbriacc.gov.uk

As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the Assistant Archaeologist at the above address.

#### APPENDIX 2: PROJECT DESIGN

PROPOSED SOUTH LAKELAND GATEWAY, CROOKLANDS, KENDAL,

**CUMBRIA** 

ARCHAEOLOGICAL
EVALUATION PROJECT
DESIGN



January 2007

L & K Group PLC

Grid Reference: SD 5220 8360 OA North Tender No: t2933

#### 1. INTRODUCTION

#### 1.1 PROJECT BACKGROUND

1.1.1 L & K Group Plc (hereafter the 'client') has requested that Oxford Archaeology North (OA North) submit proposals for an archaeological evaluation ahead of the development of the South Lakeland Gateway, Crooklands, Kendal, Cumbria (NGR SD 5220 8360). The proposed development, which comprises a livestock auction mart, sales area, tourist information and associated infrastructure, affects a 2.75ha area considered to have high archaeological potential and, accordingly, following consultation with South Lakeland District Council, Cumbria County Council Historic Environment Service (CCCHES) have issued a brief, to which the following project design adheres. The proposed development site lies in the valley of the Peasey Beck, c 10km to the south of Kendal and close to the junction of the M6 motorway and the A590. The site is presently under rough pasture, and is bound to the north by the rather sinuous route of a tributary of the Stainton Beck, and to the south by a small lane leading from the nearby settlement of Deepthwaite. The site would appear fairly level at c 30m OD

#### 1.2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 1.2.1 the most significant archaeological remains known within the development area comprise the hoard of Roman coins found during the recent metal detector survey. Roman settlement in the area is known from the fort at Watercrook, just to the south of Kendal and, although the closest known Roman Road runs up the Lune Vally between Low Borrowbridge and Burrow-in-Lonsdale, well to the east of Crooklands, it is possible that a road passed close to the present development area in order to connect the latter fort, or even that at Lancaster, with that at Watercrook.
- 1.2.2 The nearby pele tower of Preston Patrick Hall probably dates to around 1500, a period of almost incessant raiding and unrest around the contested borders of England and Scotland, and forms a network of such defensive settlements, as exemplified by other fortifications in the area, including Levens Hall, Dallam, Arnside and Beetham, most of which actually date to the fourteenth century. A few, such as Levens, continued as high status manors into the post-medieval period. Other significant post-medieval activity within the vicinity comprises the nearby Lancaster to Kendal canal, built at the end of the eighteenth century.

#### 1.3 OXFORD ARCHAEOLOGY NORTH

- 1.3.1 The company, both as Oxford Archaeology North and under the former guise of Lancaster University Archaeological Unit (LUAU), has considerable experience of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 25 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.3.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (**IFA**) **registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

#### 2 OBJECTIVES

2.1 The following programme has been designed to assess the subsoil deposits within the development area in order to determine the presence, extent, nature, quality and significance of any archaeological deposits that may be threatened by the proposed development. To this

end, the following programme of archaeological work has been designed. The results of each stage will influence that which ensues and will provide information as to whether further mitigation works are required prior to, or during, ground works associated with the development. The required stages to achieve these ends are as follows:

- 2.2 **Archaeological evaluation:** to implement a programme of trial trenching examining 5% of the 2.75ha proposed development area, which equates to 1375m<sup>2</sup>.
- 2.3 **Report and archive:** a written report will assess the significance of the data generated by this programme within a local and regional context. It will present the results of the evaluation and would make an assessment of the archaeological potential of the area, and any recommendations for further work.

#### 3 METHOD STATEMENT

#### 3.1 EVALUATION

- 3.1.1 The programme of trial trenching will establish the presence or absence of archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. In this way, it will adequately sample the threatened available area.
- 3.1.2 **Trench configuration:** the evaluation is required to examine a minimum of 1375m<sup>2</sup> through trial trenching, and it is proposed that 14 trenches, each measuring 50m by 2m, be excavated. Trenches will be located and aligned in order to maximise the identification of archaeological features; a plan of the proposed trench locations will be submitted for the approval of CCCHES prior to work commencing.
- 3.1.3 **Methodology:** within each trench, the upper horizons of overburden, topsoil, subsoil and any recent made-ground will be rapidly removed by a mechanical excavator fitted with a wide toothless ditching bucket and working under archaeological supervision to the surface of the first significant archaeological deposit or to the level of the natural subsoil. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels, depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest must be investigated and recorded unless otherwise agreed by CCCHES. The trenches will not be excavated deeper than 1.2m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting.
- 3.1.4 All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of GPS equipment, which is accurate to +/- 0.25m, or Total Station. Altitude information will be established with respect to Ordnance Survey Datum.
- 3.1.5 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.1.6 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections, colour slides and monochrome contacts) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.1.7 Results of all field investigations will be recorded on *pro-forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using

the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

- 3.1.8 **Reinstatement:** it is understood that there is a basic requirement for reinstatement; the trenches will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded. Following agreement with CCCHES, any trenches that do not contain archaeological features would be backfilled as soon as possible. It would be preferable for the landowner to agree to the finished reinstated trenches prior to leaving site. Should there be a requirement by the client other than that stated this will involve recosting for an agreed variation. Similarly, if there is any requirement to cut turf prior to excavation and re-lay it following backfilling, this would need to be costed separately as an agreed variation.
- 3.1.9 Fencing/hoarding requirements: it is assumed that the client will advise on the arrangements/requirements for the site to be protected from public access, and also from any livestock incursions. Since the development site forms part of a larger field, it is recommended either that animals are removed from the whole field, or, that stock-proof fencing is erected that will still allow ingress by OA North staff and any associated vehicles/machinery. If it is, however, deemed that the current site boundaries are sufficient to maintain the security of the development site, the open ends of trenches would be secured with 1m high orange barrier fencing, whilst the sides would be secured by the topsoil and subsoil spoil heaps. Should the hire and erection of heras fencing or similar by OA North staff be required, it can be included as a contingency item and will be invoiced at cost. Outline costs for hire and delivery of fencing, together with the cost of staff to erect such fencing, are included as a contingency within Section 10.
- 3.1.10 *Environmental Sampling:* environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis.
- 3.1.11 The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluses from former dry-land palaeosols and cut features. In addition, samples from waterlogged deposits would be assessed for plant macrofossils, insects, molluses and pollen. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good deposits are identified and will be subject to the agreement of CCCHES and the client.
- 3.1.12 *Faunal remains:* if there is found to be the potential for discovery of bones of fish and small mammals, a sieving programme will be carried out. These will be assessed as appropriate by OA North's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.
- 3.1.13 *Human Remains*: any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. CCCHES and the local Coroner will be informed immediately. If removal is essential, the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations. The cost of removal or treatment will be agreed with the client and costed as a variation.
- 3.1.14 *Treatment of finds:* all finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines.

- 3.1.15 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.1.16 *Treasure:* any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.
- 3.1.17 *Contingency plan:* a contingency costing may also be employed for unseen delays caused by prolonged periods of bad weather, vandalism, discovery of unforeseen complex deposits and/or artefacts which require specialist removal, use of shoring to excavate important features close to the excavation sections etc. This has been included in the Costings document (*Section 10*) and would be charged in agreement with the client.
- 3.1.18 The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, an impact assessment will also be provided.

#### 3.2 REPORT AND ARCHIVE

- 3.2.1 **Report:** one bound and one unbound copy of the final report will be submitted to the client within two months of completion of fieldwork. Should the client require a draft report, bound and unbound copies of such reports can be provided on request, within three weeks of the completion of each stage of the programme of work. Three copies of the final report will be submitted to the CHER. The report will include:
  - a site location plan related to the national grid
  - a front cover to include the planning application number and the NGR
  - the dates on which each phase of the programme of work was undertaken
  - a concise, non-technical summary of the results
  - an explanation to any agreed variations to the brief, including any justification for any analyses not undertaken
  - a description of the methodology employed, work undertaken and results obtained
  - an interpretation of the desk-based assessment results and their significance, using the 'Secretary of State's criteria for scheduling ancient monuments' included as Annex 4 of PPG 16 (DoE 1990)
  - plans and sections at an appropriate scale showing the location and position of deposits and finds located as well as sites identified during the desk-based assessment
  - monochrome and colour photographs as appropriate
  - a list of and dates for any finds recovered and a description and interpretation of the deposits identified
  - a description of any environmental or other specialist work undertaken and the results obtained
  - a summary of the impact of the development on any archaeological remains and, where
    possible, a model of potential archaeological deposits within as-yet unexplored areas of
    the development site

- a copy of this project design, and indications of any agreed departure from that design
- the report will also include a complete bibliography of sources from which data has been derived.
- 3.2.2 This report will be in the same basic format as this project design; a copy of the report can be provided on CD, if required. Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation will be provided in a separate communication.
- 3.2.3 *Confidentiality:* all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.
- 3.2.4 *Archive:* the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context.
- 3.2.5 The deposition of a properly ordered and indexed project archive in an appropriate repository is essential and archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Cumbria HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the appropriate Record Office.
- 3.2.6 All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists. The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum, most likely the Kendal Museum. Discussion regarding the museum's requirement for the transfer and storage of finds will be conducted prior to the commencement of the project, and CCCHES will be notified of the arrangements made.

#### 4. HEALTH AND SAFETY

- 4.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 4.2 Full regard will, of course, be given to all constraints (services etc) during the fieldwork as well as to all Health and Safety considerations. **Information regarding services within the study area have been received and will be used during the course of the evaluation.**

#### 5 PROJECT MONITORING

Whilst the work is undertaken for the client, CCCHES will be kept fully informed of the work and its results, and will be notified a week in advance of the commencement of the fieldwork. Any proposed changes to the project design will be agreed with CCCHES in consultation with the client. Fieldwork will be monitored by the CCCHES Assistant Archaeologist on behalf of the developer.

#### 6 WORK TIMETABLE

#### 6.1 **EVALUATION TRENCHING**

- 6.1.1 Approximately two weeks will be required to complete this element, although a few additional days may be needed if there is any requirement for OA North to erect heras fencing prior to works commencing and then dismantle it afterwards.
- 6.1.2 OA North can execute projects at very short notice once an official order/confirmation has been received from the client. A team could mobilise with one to two weeks notice (to allow the necessary arrangements to be made to commence the task).

#### 6.2 **REPORT**

6.3.1 Copies of the report, as outlined in *Section 3.2.1*, will be issued to the client and other relevant parties within two months of the completion of fieldwork, unless otherwise agreed prior to the commencement of fieldwork.

#### 6.3 ARCHIVE

6.3.1 The archive will be deposited within six months following submission of the report, unless otherwise instructed.

#### 7 STAFFING

7.1 The project will be under the direct management of **Stephen Rowland** (OA North Project Manager) to whom all correspondence should be addressed. The finds will be processed, studied and reported upon, either by, or under the guidance, of Chris Howard-Davies (OA North Finds Manager) who has extensive experience of finds from all periods, but particularly prehistoric and Roman material. All environmental sampling and assessment will be undertaken under the auspices of Elizabeth Huckerby (OA North Environmental Manager) who has unparalleled experience of palaeoenvironmental work in the North West and who heads an excellent team of environmental archaeologists. Any faunal remains will be studied by Andrew Bates (OA North Project Officer), who has a large amount of experience in undertaking the assessment and analysis of faunal assemblages of all sizes from a wide range of periods and locations. Current time-tabling precludes the allocation of specific members of staff at this juncture, but OA North can guarantee that the desk-based assessment and walkover survey will be undertaken by an OA North Supervisor experienced in such work and capable of carrying out projects of all sizes. Similarly, the evaluation will comprise a suitably-sized team of experienced archaeologists led by an OA North Project Officer or Supervisor. All OA North Project Officers and Supervisors are experienced archaeologists capable of undertaking small-, medium- and large-scale projects in a range of urban and rural situations.

#### 8 INSURANCE

8.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

#### 9 REFERENCES

English Heritage, 1991 Management of Archaeological Projects, second edition, London

SCAUM (Standing Conference of Archaeological Unit Managers), 1997 *Health and Safety Manual*, Poole

UKIC, 1990 Guidelines for the Preparation of Archives for Long-Term Storage, London

UKIC, 1998 First Aid for Finds, London

# APPENDIX 3: TRENCH SUMMARY

Trench Number	Length/Width	Depth	Archaeological	Finds
			Presence	
1 50m x 2m		0.61m	No	Pottery
2	50m x 2m	0.55m	No	Pottery
3	50m x 2m	0.30m	No	None
4	50m x 2m	1.22	No	None
5	50m x 2m	0.75m	No	Pottery, Clay pipe
6	50m x 2 (with 6m	Max 1.7m	Peat, timber,	Pottery, timber
	sq box)	Min 1.49m	cobbles	
7	50m x 2m	0.43m	No	Pottery
8	50m x 2m	0.80m	No	Pottery
9	50m x 2m	0.67m	No	Pottery
10	50m x 2m	0.35m	No	Pottery
11 50m x 2m		0.40m	No	Pottery
12 50m x 2m		0.71m	No	Pottery
13 50m x 2m		0.48m	No	Pottery
14	50m x 2m	0.65m	No	None
15 50m x 2m		0.31m	No	Pottery

# APPENDIX 4: SUMMARY CONTEXT LIST

Context	Trench	Description
100	Trench 1	Unstratified
101	Trench 1	Topsoil
102	Trench 1	Subsoil
103	Trench 1	Natural gravel
200	Trench 2	Unstratified
201	Trench 2	Topsoil
202	Trench 2	Subsoil
203	Trench 2	Natural clay sand
204	Trench 3	Topsoil
300	Trench 3	Unstratified
301	Trench 3	Topsoil
302	Trench 3	Natural gravel
400	Trench 4	Unstratified
401	Trench 4	Topsoil
402	Trench 4	Subsoil
403	Trench 4	Natural clay sand
500	Trench 5	Unstratified
501	Trench 5	Topsoil
502	Trench 5	Subsoil
503	Trench 5	Peat lens
504	Trench 5	Fill of field drain cut
505	Trench 5	Field drain
506	Trench 5	Clay sand
600	Trench 6	Unstratified
601	Trench 6	Topsoil
602	Trench 6	Subsoil
603	Trench 6	Peat
604	Trench 6	Cobbles
605	Trench 6	Silty Clay
606	Trench 6	White clay
700	Trench 7	Unstratified
701	Trench 7	Topsoil
702	Trench 7	Natural gravelly sand
800	Trench 8	Unstratified
801	Trench 8	Topsoil
802	Trench 8	Subsoil
803	Trench 8	Natural gravelly sand
900	Trench 9	Unstratified
901	Trench 9	Topsoil
902	Trench 9	Subsoil Noticel ground
903	Trench 9	Natural gravel
1000	Trench 10	Unstratified Topsoil
1001	Trench 10 Trench 10	Subsoil
-	Trench 10	Natural gravelly sand
1003 1100	Trench 11	Unstratified
1100	Trench 11	Topsoil
1101	Trench 11	Subsoil
1102	Trench 11	Natural gravelly sand
1200	Trench 12	Unstratified
1200	Trench 12	Topsoil
1201	Trench 12	Subsoil
1202	Trench 12	Natural gravelly sand
1300	Trench 13	Unstratified
1300	110101113	Onsulatifica

Context	Trench	Description
1301	Trench 13	Topsoil
1302	Trench 13	Subsoil
1303	Trench 13	Natural gravelly sand
1400	Trench 14	Unstratified
1401	Trench 14	Topsoil
1402	Trench 14	Subsoil
1403	Trench 14	Natural clay sand
1500	Trench 15	Unstratified
1501	Trench 15	Topsoil
1502	Trench 15	Subsoil
1503	Trench 15	Natural gravelly sand

# APPENDIX 5: FINDS CATALOGUE

10001100Pottery2Transfer-printed pearlware - asiatic pheasar10001100Pottery1Unglazed red earthenware10001100Pottery1Creamware10001100Pottery2Pearlware - undecorated10011500Pottery1Brown/yellow-glazed red earthenwar Arnside?1002100Pottery1Creamware1002100Pottery3Transfer-printed pearlware1002100Pottery1Blackware1002100Pottery1Cornishware1003800Pottery2Transfer-printed pearlware1003800Pottery2Porcelain, including partial doll's tea cup1003800Pottery2Creamware1003800Pottery1Pearlware - undecorated1003800Pottery1Press-moulded with flowers1003800Pottery1Press-moulded with flowers1003800Pottery1Press-moulded with flowers	C19-20th C19th C19th
1000         1100         Pottery         1         Creamware           1000         1100         Pottery         2         Pearlware - undecorated           1001         1500         Pottery         1         Brown/yellow-glazed red earthenware archard red earthenware           1002         100         Pottery         1         Creamware           1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th C19th C19th  C18-19th C18-19th C18-19th C19-20th C19-20th C19th C19th
1000         1100         Pottery         2         Pearlware - undecorated           1001         1500         Pottery         1         Brown/yellow-glazed red earthenwar Arnside?           1002         100         Pottery         1         Creamware           1002         100         Pottery         3         Transfer-printed pearlware           1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th  C19th  C18-19th  C18-19th  C18-19th  C19-20th  C19-20th  C19th  C19th
1001         1500         Pottery         1         Brown/yellow-glazed red earthenwar Arnside?           1002         100         Pottery         1         Creamware           1002         100         Pottery         3         Transfer-printed pearlware           1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th  C18-19th  C19th  C18-19th  C19-20th  C19-20th  C19th  C19th
Arnside?   1002   100   Pottery   1   Creamware   1002   100   Pottery   3   Transfer-printed pearlware   1002   100   Pottery   1   Blackware   1002   100   Pottery   1   Cornishware   1003   800   Pottery   1   Cornishware   1003   800   Pottery   2   Transfer-printed pearlware   1003   800   Pottery   2   Porcelain, including partial doll's tea cup   1003   800   Pottery   2   Creamware   1003   800   Pottery   2   Creamware   1003   800   Pottery   1   Pearlware - undecorated   1003   800   Pottery   1   Press-moulded with flowers   1003   800   Pottery   1   Yellow ware   Yell	C18-19th C19th C18-19th C19-20th C19-20th C19th C19th
1002         100         Pottery         1         Creamware           1002         100         Pottery         3         Transfer-printed pearlware           1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th C18-19th C19-20th C19-20th C19th
1002         100         Pottery         3         Transfer-printed pearlware           1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th C18-19th C19-20th C19-20th C19th
1002         100         Pottery         1         Blackware           1002         100         Pottery         1         Cornishware           1003         800         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C18-19th C19-20th C19-20th C19th C19th
1002         100         Pottery         1         Cornishware           1003         800         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19-20th C19-20th C19th C19th
1003         800         Pottery         1         Cornishware           1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19-20th C19th C19th
1003         800         Pottery         2         Transfer-printed pearlware           1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th C19th
1003         800         Pottery         2         Porcelain, including partial doll's tea cup           1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	C19th
1003         800         Pottery         2         Creamware           1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	
1003         800         Pottery         1         Pearlware - undecorated           1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	(   X_   19fh
1003         800         Pottery         1         Press-moulded with flowers           1003         800         Pottery         1         Yellow ware	
1003 <b>800</b> Pottery 1 Yellow ware	C19th
	C19th C18-19th
I HIRE I MAN I Dettem I I I December alone describe accessor exités alimbre	
1003 800 Pottery 1 Brown-glazed red earthenware with slip ba	
1004 1200 Pottery 1 Pearlware; undecorated	C19th
1004 1200 Pottery 2 Blackware 1004 1200 Pottery 1 Brown-glazed red earthenware	C18-19th C18-19th
10041200Pottery1Brown-glazed red earthenware1005701Pottery1Unglazed red earthenware	C18-19th
1005 701 Pottery 1 Offgrazed red eartherware 1006 701 Pottery 2 Transfer-printed pearlware; enamelled	
underglaze	
1006 701 Pottery 1 Pearlware; undecorated	C19th
1007 <b>400</b> Pottery 2 Brown-glazed red earthenware	C18-19th
1007 400 Pottery 1 Transfer-printed pearlware	C19th
1008 <b>500</b> Clay pipe 2 Stems	C18-19th
1009 <b>500</b> Pottery 1 Blackware	C18-19th
1009 <b>500</b> Pottery 1 Cornishware	C19-20th
1009 500 Pottery 1 Unglazed red earthenware	C19-20th
1010 900 Pottery 1 Brown-glazed red earthenware	C18-19th
1010 900 Pottery 1 Transfer-printed pearlware	C19th
1010 900 Pottery 1 Blackware	C18-19th
1010900Ceramic2Toilet handle1011504Pottery1Transfer-printed pearlware	C19th C19th
* * * *	C19th
1011 504 Pottery 1 Pearlware; undecorated 1012 1000 Pottery 2 Pearlware; undecorated	C19th
1012 1000 Pottery 2 Feariware; undecorated  1012 1000 Pottery 1 Brown-glazed SW	C18-19th
1012 1000 Pottery 1 Brown-glazed SW  1012 1000 Pottery 1 Brown-glazed red earthenware	C18-19th
1012 1000 Pottery 1 Brown-grazed red eartherware	C19-20th
1012 1000 Pottery 1 Stoneware	C19-20th
1012 1000 Pottery 1 Transfer-printed pearlware	C19th
1012 1000 Pottery 1 Manganese mottled ware	C18th
1013 600 Pottery 2 Blackware	C18-19th
1013 600 Pottery 1 Transfer-printed pearlware	C19th
1013 600 Pottery 1 Sponged/spatter ware	C19th
1013 600 Pottery 1 Brown-glazed red earthenware	C18-19th
1013 600 Pottery 1 Creamware - press moulded handle	C18-19th

ORN	Context	Material	Count	Description	Date range
1014	300	Pottery	1	Brown-glazed red earthenware	C18-19th
1014	300	Pottery	1	Creamware	C18-19th
1014	300	Pottery	1	Stoneware	C19th
1014	300	Pottery	1	Transfer-printed pearlware	C19th
1015	502	Pottery	1	Transfer-printed pearlware (handle)	C19th
1015	502	Pottery	1	Pearlware; outer mid-blue glaze	C19th
1016	200	CBM/ Pottery	1	Unidentifiable	?
1017	200	Pottery	5	Pearlware; undecorated	C19th
1017	200	Pottery	1	Unglazed red earthenware	C18-19th
1017	200	Pottery	1	Transfer-printed pearlware	C19th

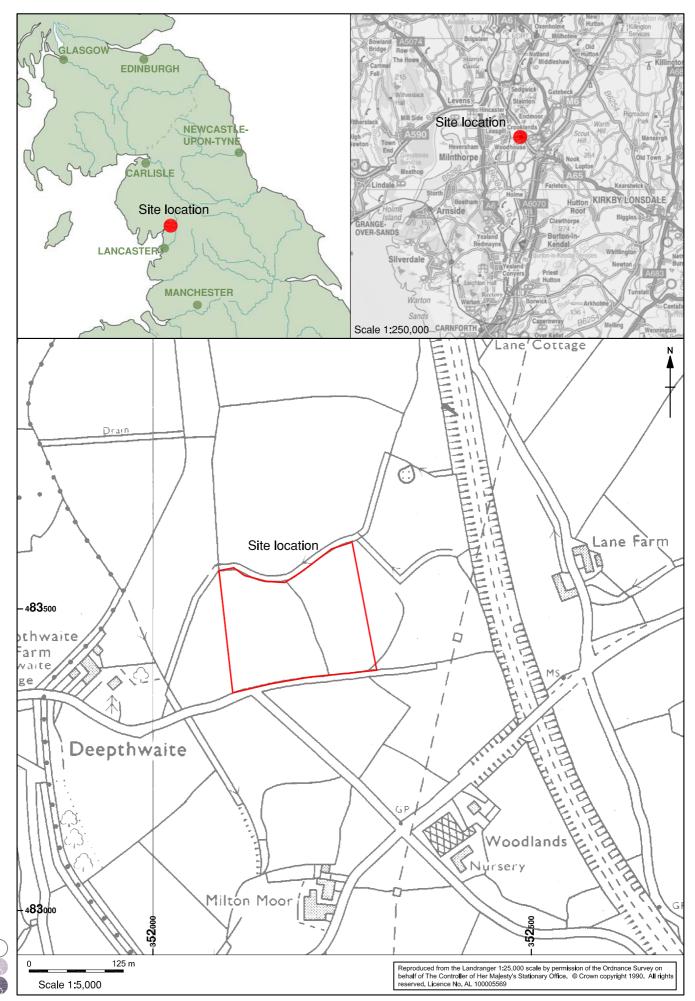


Figure 1: Site location plan

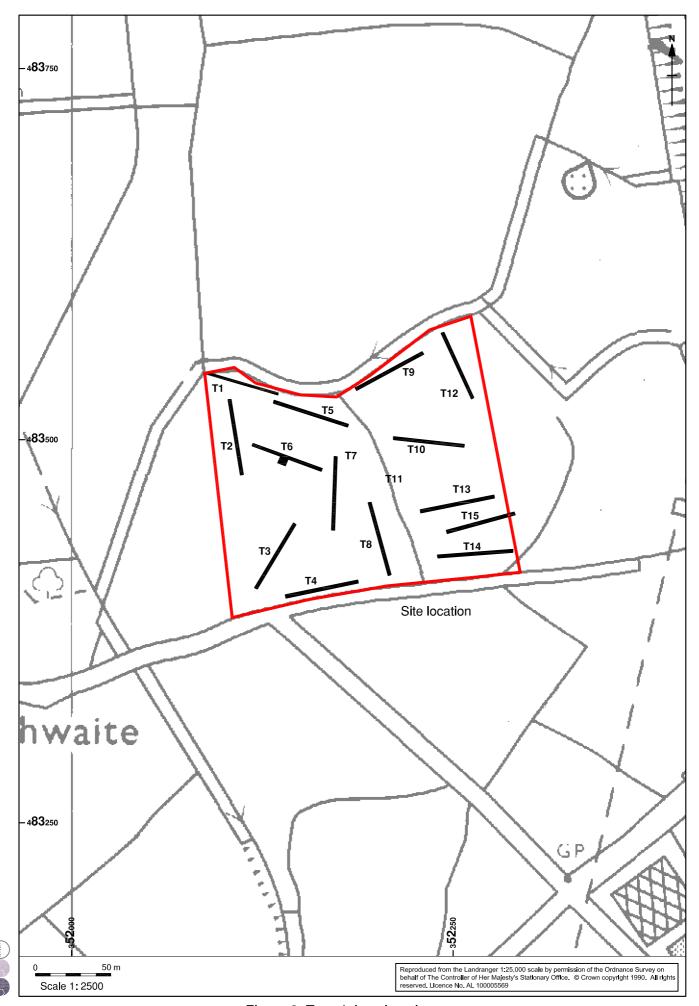


Figure 2: Trench location plan



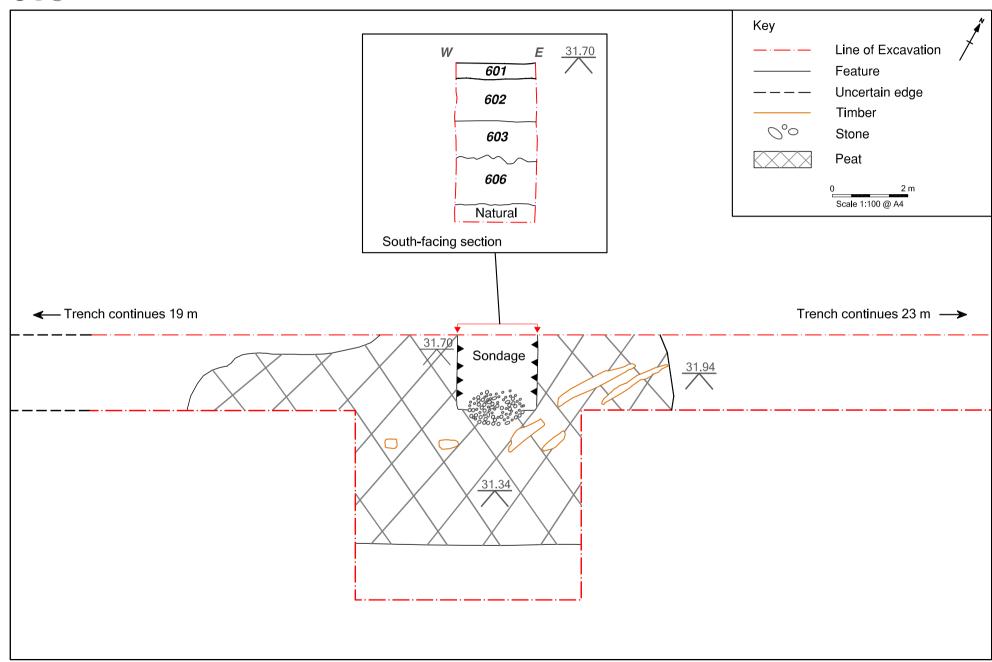


Figure 3: Plan of Trench 6, showing south-facing section of sondage



Plate 1: General view of the proposed development area, looking west



Plate 2: Typical result of evaluation trenching



Plate 3: Trench 6, with the peat deposit and timbers



Plate 4: Trench 6, timbers laying across the peat