PEEL PLACE QUARRY PROPOSED WESTERN EXTENSION, CUMBRIA

Archaeological Evaluation

Oxford Archaeology North

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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Tendley Quarries Ltd to undertake an archaeological evaluation for the purposes of an Environmental Impact Assessment for a proposed expansion (centred on NY 0650 0110) of Peel Place Quarry, Holmrook, Cumbria. This work follows on from an initial scheme of archaeological work comprising a desk-based assessment and walkover survey (OA North 2004) and a geophysical survey (Stratascan 2004) of the proposed western extension.

In agreement with Cumbria County Archaeology Service (CCCAS), four evaluation trenches were excavated over areas of geophysical anomalies, initially utilising a JCB 3CX equipped with a toothless ditching bucket, followed by manual cleaning of the trenches. The trenches varied in length from 15m to 30m and were all excavated to a width of 1.8m.

The trenches were excavated to the top of the natural geology, which consisted of a mixture of sands and gravels. A single archaeological feature, a ditch, was identified within Trench 3. The ditch contained pottery evidence, which was dated to between the late seventeenth and early twentieth centuries. From the evaluation it appeared to be a field boundary that had since become relict. When compared to the mapping evidence from the desk-based assessment (OA North 2004) it correlates with a field boundary recorded on the Ordnance Survey first edition map of 1865. This field system is likely to be the remains of the medieval strip fields, and the ditch located during the evaluation may be of medieval origin. No evidence of the ditch was seen in the geophysical survey results. Therefore, there exists the potential for other remains associated with the field system identified in the desk-based assessment to be located across the site.

The trenches were not able to identify the targeted geophysical anomalies, although a land drain in Trench 4 may account for one of the anomalies identified. It is possible that the anomalies located are associated with the variable geological conditions across the site. However, the low magnetic properties of the overlying soils has limited the usefulness of magnetometry, and the results of the evaluation have shown the geophysical survey data to be unreliable as a non-intrusive assessment technique for this site.

Due to the fact that the potential for prehistoric remains has yet to be quantified, together with the possibility for medieval agricultural activity remains, a suitable mitigation strategy will be necessary in order to adequately record any potential archaeological resource.

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The evaluation was undertaken by Paul Clark and Pip Kok, and the finds were examined by Jo Dawson. The report was written by Paul Clark and the drawings created by Adam Parsons. The project was managed by Emily Mercer, who also edited the report together with Alan Lupton.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Tendley Quarries Ltd (hereafter the client) commissioned Oxford Archaeology North (OA North) to conduct an archaeological evaluation at Peel Place Quarry, Holmrook, Cumbria, in accordance with a verbal brief from Cumbria County Council Archaeology Service (CCCAS). This was required for the purposes of an Environmental Impact Assessment for a proposed western extension of the present sand and gravel quarry. The evaluation followed previous archaeological work by OA North, comprising a desk-based assessment and walkover survey (OA North 2004), and a geophysical survey (Stratascan 2004), which highlighted a number of anomalies of possible archaeological potential. The evaluation was required to target these anomalies to investigate the presence, nature and extent of these possible archaeological features through four trenches.

1.1.2 This report sets out the background to the evaluation, including historical information and any previous archaeological interventions, together with the methodology employed during the fieldwork. The results of the evaluation are discussed and, with all things considered, the impact of the proposed development on any potential archaeological remains is considered.

2. BACKGROUND

2.1 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1.1 The site of the proposed extension to Peel Place Quarry (centred on NY 0650 0110; Fig 1) encompasses an area of some 12ha in the fields immediately to the west of the existing sand and gravel quarry. The site is located approximately 2km north of the village of Holmrook on the west coast of Cumbria, with Seascale to the north and Ravenglass to the south and between the main river valleys of the Calder and the Irt.

2.1.2 The area around the site is defined as part of the 'West Cumbria Coastal Plain' by the Countryside Commission (1998), a region consisting predominantly of lowland river valleys and land use comprising 'gently undulating or flat improved pasture' (*op cit*, 25). The site itself sloped gently to the south and consisted of fields currently under pasture. A Site of Special Scientific Interest (SSSI), in the form of the surviving raised mire of Hallsenna Moor, is located to the immediate south of the assessment area (Countryside Commission 1998).

2.1.3 The solid geology of the area consists of Permo-Triassic rocks, mainly Steeton Bees Sandstone (*op cit*, 27) and is overlain by glacial deposits, predominantly sand and gravel in the area of the site. The overlying soils in this area are defined by the Ordnance Survey (1983) as part of the Wick 1 series, a typical brown earth.

2.2 HISTORICAL BACKGROUND

2.2.1 ***Introduction:*** the historical and archaeological background is principally compiled through secondary sources and previous phases of archaeological investigation, and is an overview of the information detailed in the desk-based assessment (OA North 2004).

2.2.2 ***Mesolithic Period:*** previous investigations on the West Cumbrian Coastal Plain have shown that this area was a focus of late Mesolithic and early Neolithic activity. The landscape characteristic of low sandhills suggests a potential for prehistoric activity, as typified by other sites in the North West. Evidence for Mesolithic settlement is well represented from St Bees to Walney Island. Extensive fieldwalking at Drigg (Cherry and Cherry 1985), to the south-west of the study area, produced evidence of early prehistoric lithic assemblages.

2.2.3 ***Neolithic Period:*** there appears to be a degree of continuity between the end of the Mesolithic period and the start of the Neolithic period, with the flint artefacts being indistinguishable (Cherry and Cherry 2002). The Neolithic period was, however, a time of significant social change, with the introduction of ceramics, large funerary and ritual monuments, such as the reconstructed stone circle at Grey Croft near Seascale (Fletcher 1957, 1), more intensive agricultural practices and the large-scale production of polished stone axes.

These are found throughout Cumbria and were traded across Britain and into Europe (Rollinson 1967). In the general area much of the early Neolithic activity is defined through the presence of polished stone axes such as the Halsenna axe, found to the west of the site (OA North 2004). There are many such casual findspots of axes from the general area around the proposed development; the presence of these tools suggests intensification of activities including hunting and tree clearance. Pollen analysis of material from Barfield Tarn (Bootle, North Cumbria) to the south of the study area revealed episodes of such forest clearance and evidence for cereal cultivation (Pennington 1970, 69). The presence of rough-out, part-polished axes near the proposed development suggests an axe polishing site nearby, similar to that at Ehenside Tarn (Darbishire 1873), where the second stage of axe manufacture was undertaken, the first being production of rough-out axes at Langdale and at Scafell. Large quantities of flint materials have also been recovered from the putative settlement and axe finishing site at Ehenside Tarn to the north-west, near St Bees (Hodgkinson *et al* 2000, 71). Flintwork continued to be dominated by beach pebbles, resulting in small artefacts such as the leaf-shaped arrowheads from the sandhill sites at Drigg (*op cit* 75). Within the localised area, in the parish of Gosforth, a small but significant assemblage of lithic scatters has been found. These have a less dense distribution than those from the prominent raised beaches to the west (Cherry 1967, 5), and probably reflect the exploitation of the resources of the basin mires to supplement the exploitation of the coast (Hodgkinson *et al* 2000, 69).

2.2.4 ***Bronze Age:*** the evidence of clearance activity and burial cairns on the upland margins of the West Cumbrian Plain suggests an expansion of settlement during the Bronze Age (Quartermaine and Leech forthcoming). However, the large amount of lithic materials recovered through extensive field walking in the area suggests that much of the lowland settlement pattern was similar to the Mesolithic. The Drigg dunes in particular have produced large quantities of flint, including barbed and tanged arrowheads, from an organic layer revealed by sea erosion. Again the flint was predominantly beach pebbles, although some chalk flint was recovered (Hodgkinson *et al* 2000, 77). Also eroding out of the cliff was evidence for a prehistoric structure (possibly a burnt mound), which has been radiocarbon-dated to the late Neolithic or early Bronze Age (LUAU 2001, 7). Further to the east and inland at Holmrook a middle Bronze Age funerary urn and cremation were discovered and there was also a central burial cairn with cremation and Bronze Age artefacts recovered at Grey Croft stone circle (Fletcher 1957).

2.2.5 ***Iron Age:*** evidence for Iron Age activity on the west Cumbrian Coastal Plain is fairly scarce. Eskmeals, to the west of the site, has produced artefacts of a possible Iron Age date consisting of a pair of blue beads found together with an earlier flint assemblage (Hodgkinson *et al* 2000). There is some antiquarian evidence for the recovery of a bog body from within Seascale Moss in the nineteenth century, which could have been typologically dated to the Iron Age or Romano-British periods (Turner 1989, 21). This limited evidence is not sufficient to prove habitation on the sandhills during this period (Hodgkinson *et al* 2000, 77).

2.2.6 ***Romano-British Period:*** Roman activity in this area was concentrated at Ravenglass (Potter 1979) where a Roman fort and baths were constructed in mid-Hadrianic period and used for some considerable time. Further evidence of activity in this area is generally limited to scattered finds, consisting of coins and small artefacts, such as the findspot of the Hallsenna coin (Parker 1906; Shotter 1989). At Barnscar to the south-east of Ravenglass is an enclosed settlement dated to the Roman period (Quartermaine and Leech forthcoming). A single coin of Nerva (AD 96-98) was discovered on the edge of the field immediately north of the present study area (OA North 2004). There is evidence of a possible local iron manufacturing industry and associated pottery at Eskmeals, and possible small-scale encampments within the sandhills at Drigg (Hodgkinson *et al* 2000, 78).

2.2.7 ***Early Medieval Period:*** due to the lack of surviving records there is no documentary evidence of activity within the study area between the end of the Roman period and the twelfth century, apart from place-names; Seascales is rooted in Old Norse *skali* and *erg*, implying sheilings or shelters by the sea (Parker 1904, 38). At Devoke Water to the south-east, however, pollen evidence indicated episodes of clearance extending into the eighth and ninth centuries (Pennington 1970: Quartermaine and Leech forthcoming).

2.2.8 The West Cumbrian Coastal Plain is significant for the large number of pre-Conquest stone crosses especially to the north at Gosforth (Rollinson 1996). The Northumbrian cross at Irton is regarded as 'one of the finest examples of ninth century sculpture in the country' together with the greatest of the Anglo-Scandinavian crosses at Gosforth (Bailey 1980; Bailey and Cramp 1988).

2.2.9 ***Medieval:*** monastic records are the first documented evidence of the population in the area, and show the progressing expansion of settlements into the upland areas. Evidence of peat extraction can be shown from these sources, and from manorial records (Hodgkinson *et al* 2000, 79).

2.2.10 Hallsenna, to the west of the study area, is first recorded in 1225 and the assize rolls of 1278 as '*Sevenhoues*'. It is also recorded variously as '*Sewenhauis*' in 1285, and '*Sevenhoghes*' in 1292. By the seventeenth century it is known as '*Halseonhouse*' (1662) and '*Hall Senhouse*' (1668) (Armstrong *et al* 1950, 394). Peel Place was also first named in a deed of 1365 as '*Pyel'* (*ibid*) this would normally indicate the presence of a medieval manor in the area; however there is no other evidence of such a manor. The hamlet and the now disappeared medieval hall at Hallsenna are thought to have been the ancestral home of the notable Senhouse family. For a time they also owned the manor of Low Bolton in which the study area is found, and had a 500 year association with the manor of Seascale further to the west (Parker 1904, 39).

2.2.11 From within the study area is the site of the Hallsenna/Percy cross, which was found re-used as masonry in a shed within the hamlet of Hallsenna. It was a boundary cross that demarcated the boundaries between land owned by the Percy family, Barons of Egremont, and land owned by Furness Abbey, some time between 1414 and 1537 (Parker 1909, 91). There is a long tradition of boundary disputes in the area, with the place-name *Threapland Gate* to the

west of the study area meaning 'the road to the disputed lands' (Parker 1902, 98), although this may not refer to the boundary mentioned above.

2.3 ARCHAEOLOGICAL INTERVENTIONS

2.3.1 The desk-based assessment undertaken in 2004 (OA North 2004) identified 19 sites of archaeological interest within the study area, none of which will be affected by the proposed development. However, the site is considered to have a high archaeological potential due to the significant quantities of prehistoric worked flint recovered from an extensive programme of fieldwalking in the vicinity; four findspots of flint artefacts, a polished stone axe, and a hand axe roughout. No such finds have been recovered from the site to date as it is not possible to undertake any fieldwalking due to the proposed extension area being pasture.

2.3.2 Occupation during the Roman, medieval and post-medieval periods was also evident from the desk-based assessment and walkover survey (*ibid*). In particular, the Roman coin located to the immediate north of the proposed development (Site **06**, *ibid*), the medieval cross fragment (Site **16**, *ibid*), and the relict strip fields associated with the settlement of Hallsenna (Site **20**, *ibid*) are considered significant. The walkover survey identified four new archaeological sites including track ways and field boundaries likely to be associated with the remains of medieval strip-fields (*ibid)*.

2.3.3 In conjunction with the desk-based assessment and walkover survey a geophysical survey was undertaken (Stratascan 2004). The low magnetic properties of the soil meant the general response of anomalies was relatively subtle. A number of faint linear anomalies were located that may be of archaeological origin, particularly given the prehistoric potential of the area, although their subtle appearance inhibits interpretation and the possibility exists that they are from agricultural activity or of geological origin. In addition, a discrete probable thermoremnant response was observed which may be of archaeological significance, perhaps a hearth. Plough marks were also seen in the plots, which may either relate to the medieval settlement of Hallsenna or could possibly be modern.

2.3.4 The area for archaeological evaluation lies immediately to the west of an area previously investigated in four distinct phases for the extension of the quarry northwards. The first three phases comprised evaluation (from 1997-99) by OA North, in their former guise as Lancaster University Archaeological Unit (LUAU). During this time a total of 24 trenches were excavated and were found to contain no significant archaeological deposits or features, although sieving retrieved an iron nail and a number of post-medieval and modern ceramic artefacts. In addition, a number of flint pebbles and fragments were retrieved, but none proved to be worked. The fourth phase comprised a low level desk-based assessment and evaluation (OA North 2003), which revealed three modern gullies and two tree throws, evidence of a post-medieval agricultural landscape. Several pieces of modern pottery and a fragment of clay pipe were also retrieved from the topsoil. No flint was recovered and no features deemed to be of archaeological significance were revealed.

3. METHODOLOGY

3.1 PROJECT DESIGN

3.1.1 OA North submitted a project design (*Appendix 1*) for an archaeological evaluation in accordance with a verbal brief from CCCAS. Following approval of the project design by CCCAS, and acceptance by the client, OA North was commissioned to undertake an archaeological evaluation. The work undertaken fully complied with the project design and with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists (IFA).

3.2 EVALUATION

3.2.1 The programme of trial trenching was undertaken to establish the presence or absence of any previously unknown archaeological deposits, and to test their date, and examine their nature, depth and quality of preservation. In this way, the archaeological potential of the threatened available area may be assessed more thoroughly.

3.2.2 More specifically, the evaluation was required to assess the nature of the anomalies located by the geophysical survey. This entailed the excavation of four trenches measuring approximately 1.8m wide. Trench 1 measured 25m in length and was positioned over a possible bank and ditch arrangement and also incorporated additional potential ditches. Trench 2 measured 15m in length and was located over possible cut features. Trench 3 measured 30m in length and assessed a rectilinear arrangement of possible ditches. The final trench, Trench 4, was 15m in length and targeted an area possibly belonging to a hearth.

3.2.3 The topsoil was removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. This deposit was cleaned by hand, using hoes, and inspected for archaeological features. All features of archaeological interest were investigated and recorded. The trenches were not excavated deeper than 1.20m to accommodate health and safety constraints. All trenches were excavated in a stratigraphical manner, whether by machine or by hand. Trenches were located by the use of a total station.

3.2.4 All investigation of intact archaeological deposits was exclusively manual. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval was achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, was undertaken with a view to avoiding damage to any archaeological features, which appeared worthy of preservation *in situ*.

3.2.5 All information identified in the course of the site works was recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify

and illustrate individual features. Primary records were available for inspection at all times.

3.2.6 Results of all field investigations were recorded on *pro forma* context sheets. The site archive includes 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 were 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.

3.3 ARCHIVE

3.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Cumbria County Record Office, (Whitehaven), on completion of the project.

4. RESULTS

4.1 TRENCH 1

4.1.1 Trench 1 was located in the north-west corner of the site (Fig 2), over a series of four linear geophysical anomalies. The trench was aligned approximately north/south and measured 25m x 1.8m. The topsoil consisted of silty-sand, to a maximum depth of 0.29m, and overlay the natural geology, although there was a fairly diffuse boundary between the two, of up to 0.15m maximum.

4.1.2 The natural geology (Plate 1) comprised gravely-sand at the southern end of the trench. Approximately 7m to the north of the southern end of the trench this changed to coarse gravels. No archaeological features were revealed within this trench and there were no finds recorded. Consequently, no obvious causes for the geophysical anomalies were observed, although the broad area of positive response correlates with an area of gravely-sand, and therefore maybe associated.

4.2 TRENCH 2

4.2.1 Trench 2 was located in the north-west corner of the site (Fig 2), to the east of Trench 1, over a single linear geophysical anomaly. The trench was aligned approximately east/west and measured 15m x 1.8m. The topsoil within this trench was similar to Trench 1 and consisted of silty-sand to a maximum depth of 0.37m. It overlay the natural geology (Plate 2), which consisted of coarse gravely-sand with a distinct band of gravel aligned north/south, running through roughly the middle of the trench. It initially appeared as though the gravel band might have been responsible for the geophysical anomaly identified within this trench, However, Figure 3 shows the gravel band approximately 4m to the west of the anomaly, unless there is a discrepancy in location between the trench and survey. No archaeological features were observed in this trench, although a single piece of unstratified pottery was recovered from the topsoil (*Section 4.5;Appendix 3*).

4.3 TRENCH 3

4.3.1 Trench 3 was located in the central western area of the site (Fig 2), over a series of geophysical anomalies, possibly representing putative rectilinear enclosure ditches. The trench was aligned broadly north-east/south-west and measured 30m x 1.8m. The topsoil within this trench consisted of silty-sand, as with Trenches 1 and 2, and had a maximum depth of 0.25m. The topsoil directly overlay the natural geology (Plate 3), which consisted of loose light orange coarse sandy-gravel. A single linear feature, ***2***, was observed (Fig 4, Plate 4), aligned broadly north-west/south-east. The feature was 0.3m deep and 0.55m wide, although the width varied considerably. It was exposed for a length of 1.8m within the trench, although clearly extended to both the north-west and south-east. The fill, ***1***, of this feature consisted of loose light brown silty-sand, containing two sherds of post-medieval pottery (*Section 4.5*;

Appendix 3; Fig 5). It seems most likely that this feature represents a small boundary ditch, with an infill of post-medieval date. This feature was incorrectly aligned and in the wrong position to account for any of the geophysical anomalies recorded in the area of this trench.

4.4 TRENCH 4

4.4.1 Trench 4 (Fig 2) was the easternmost trench, and was located in the south-eastern area of the site. The trench was aligned approximately north-west/south-west and targeted a geophysical anomaly interpreted as a possible pit or hearth (Fig 5). The trench measured 15m x 1.8m and the topsoil within this trench consisted of silty-sand to a maximum depth of 0.3m. The topsoil sealed the subsoil, consisting of firm light orange-brown silty-sand, which had a maximum depth of 0.5m. The subsoil in turn sealed the underlying natural geology (Plate 6), which comprised very clean orange sand. A single land drain, orientated north-north-east/south-south-west, was observed within the trench, approximately 6m from the eastern end of the trench, at a depth of approximately 0.9m. No archaeological features were observed within this trench, although it is possible that the land drain might account for the geophysical anomaly recorded. Artefactual remains were recovered from the topsoil within this trench, including unstratified pottery sherds and piece of clay tobacco pipe (*Section 4.5*)

4.5 FINDS

4.5.1 In total, seven artefacts were recovered from the site, comprising fragments of pottery and clay tobacco pipe. The bulk of the finds were retrieved from the topsoil in Trenches 2, 3, and 4, and only two pottery fragments were recovered from a stratified context. The finds are summarised in *Appendix 3*, and are discussed below.

4.5.2 The two fragments of stratified pottery joined together, and were from the rim of a slip-decorated tableware vessel, possibly a cup. A broad date range of between the late seventeenth and early twentieth centuries has been suggested, although it is most likely that the pottery dates to the eighteenth or nineteenth century.

4.5.3 The pottery recovered from the topsoil included three fragments of brown-glazed red earthenware from coarseware vessels, dated to the late seventeenth to early twentieth century. The fragments were undiagnostic in terms of vessel form, but this fabric was used essentially for kitchen wares such as bread crocks, jars, jugs, and bowls. The remaining piece of pottery from the topsoil was white-glazed white earthenware with brown sponge-printed decoration, and can be dated to the early nineteenth to twentieth century. Spongeware was at the lower end of the economic scale, and although it was used for a wide variety of vessels, some of the most common forms were mugs, porringers, and larger bowls. A single clay tobacco pipe stem was also recovered from the topsoil. It was plain, and probably dates to the eighteenth to twentieth century.

4.5.4 The assemblage is small, and derives largely from the topsoil. It appears to be entirely domestic, and demonstrates post-medieval activity in the area.

5. DISCUSSION

5.1 DISCUSSION

5.1.1 The four trenches excavated during the evaluation did not reveal any significant archaeological features. However, a possible boundary ditch, ***2***, was located in Trench 3. Pottery evidence from the infill of the ditch was dated to probably the eighteenth or nineteenth century, suggesting that the actual ditch may be much earlier than this. The alignment of the ditch appears to correlate with the arrangement of strip field boundaries identified in the desk-based assessment on the Ordnance Survey first edition map of 1865 (OA North 2004), and is therefore possibly medieval in origin. It appears that this feature was not located by the geophysical survey (Stratascan 2004) and none of the anomalies seen in the geophysical data for this trench were located during excavation.

5.1.2 This also applies to Trench 1 where no archaeological features, or features associated with geophysical anomalies, were revealed. However, it is possible that the geophysical anomalies correlated with the geological feature in Trench 2, although there is a 4m discrepancy between the two. In Trench 4 a land drain was located in the exact position of the geophysical anomaly, except the land drain would be expected to continue in the survey data as a linear anomaly and not as a discrete area.

5.1.3 It is possible that the geophysical survey anomalies relate predominantly to changes in the natural geology, which is highly variable across the site observed in bands of sand and gravel. Equally, any the change in geology accounting for the geophysical anomalies may have occurred at a greater depth than the extent of the trench. The results of the evaluation have not correlated with the geophysical survey results and it is obvious that the geophysical survey cannot be relied upon as a non-intrusive evaluation technique across the site.

6. IMPACT AND RECOMMENDATIONS

6.1 IMPACT

6.1.1 The evaluation appears to highlight the low potential for identifying archaeological features by geophysical prospecting, but this is not to say that this is a site of low archaeological potential. In particular, there is high potential for medieval agricultural remains, albeit of local archaeological significance. The single archaeological feature identified within the course of the evaluation, namely ditch ***2*** in Trench 3, will be impacted upon by the proposed quarry extension. If, as suspected, it is the remains of a field boundary ditch relating to the medieval strip fields there is the potential for further evidence of the field system to exist across the site. The proposed development will therefore have a moderately adverse impact on the potential remains.

6.1.2 Finds from the immediate vicinity also suggest potential for prehistoric activity on the site. However, there was no evidence of this recovered from the small number of evaluation trenches.

6.2 RECOMMENDATIONS

6.2.1 The evaluation did not correlate with the geophysical survey results and it is clear that the survey cannot be relied on to any extent as a method of assessment for this site. Therefore, prior to development further archaeological investigation will be required as a mitigation strategy to adequately record the archaeological remains.

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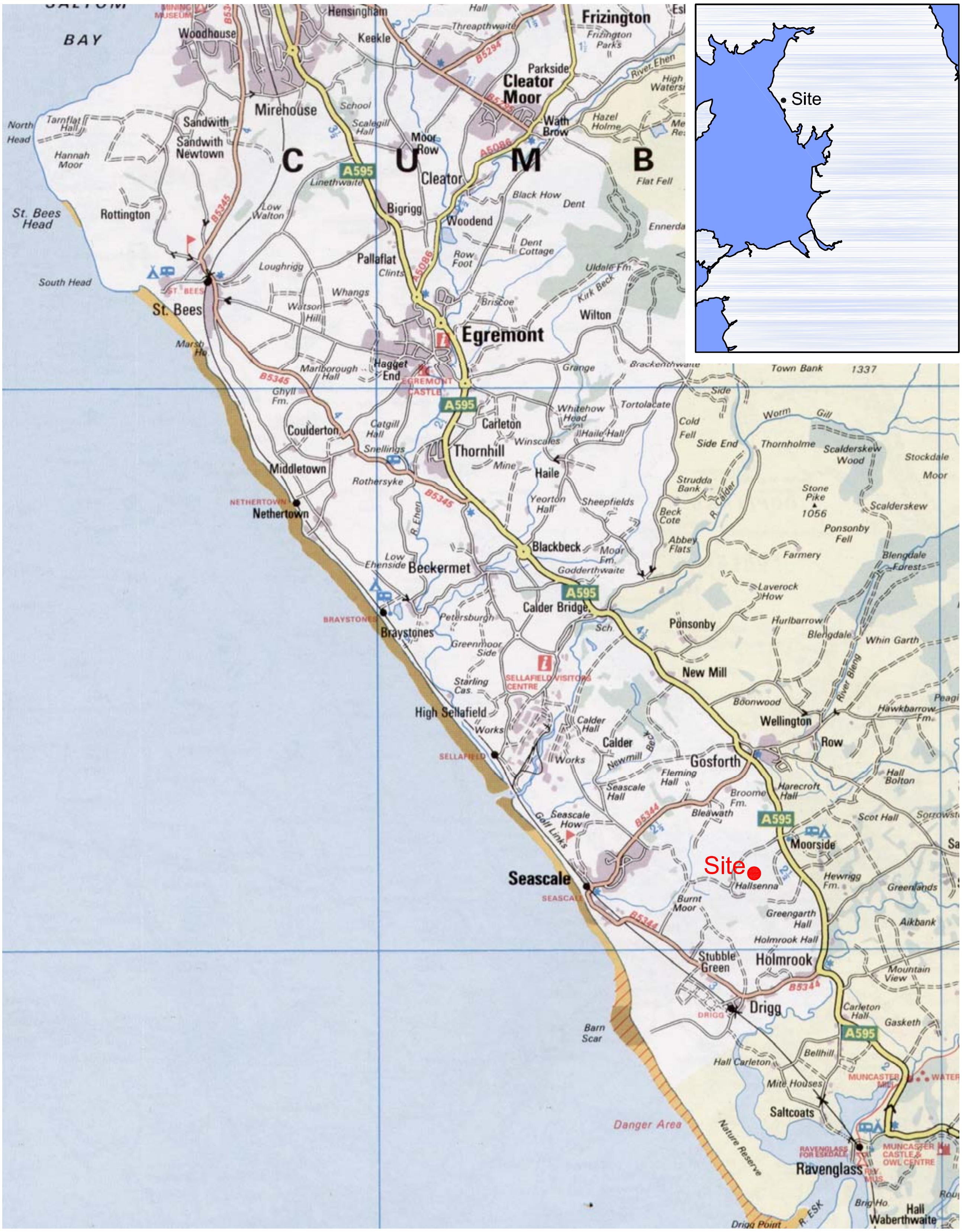
8. ILLUSTRATIONS

8.1 FIGURES

8.2 PLATES



based upon the Ordnance Survey 1:100000
with the permission of the controller of HMSO
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0 5
kilometers

Figure 1: Location Map

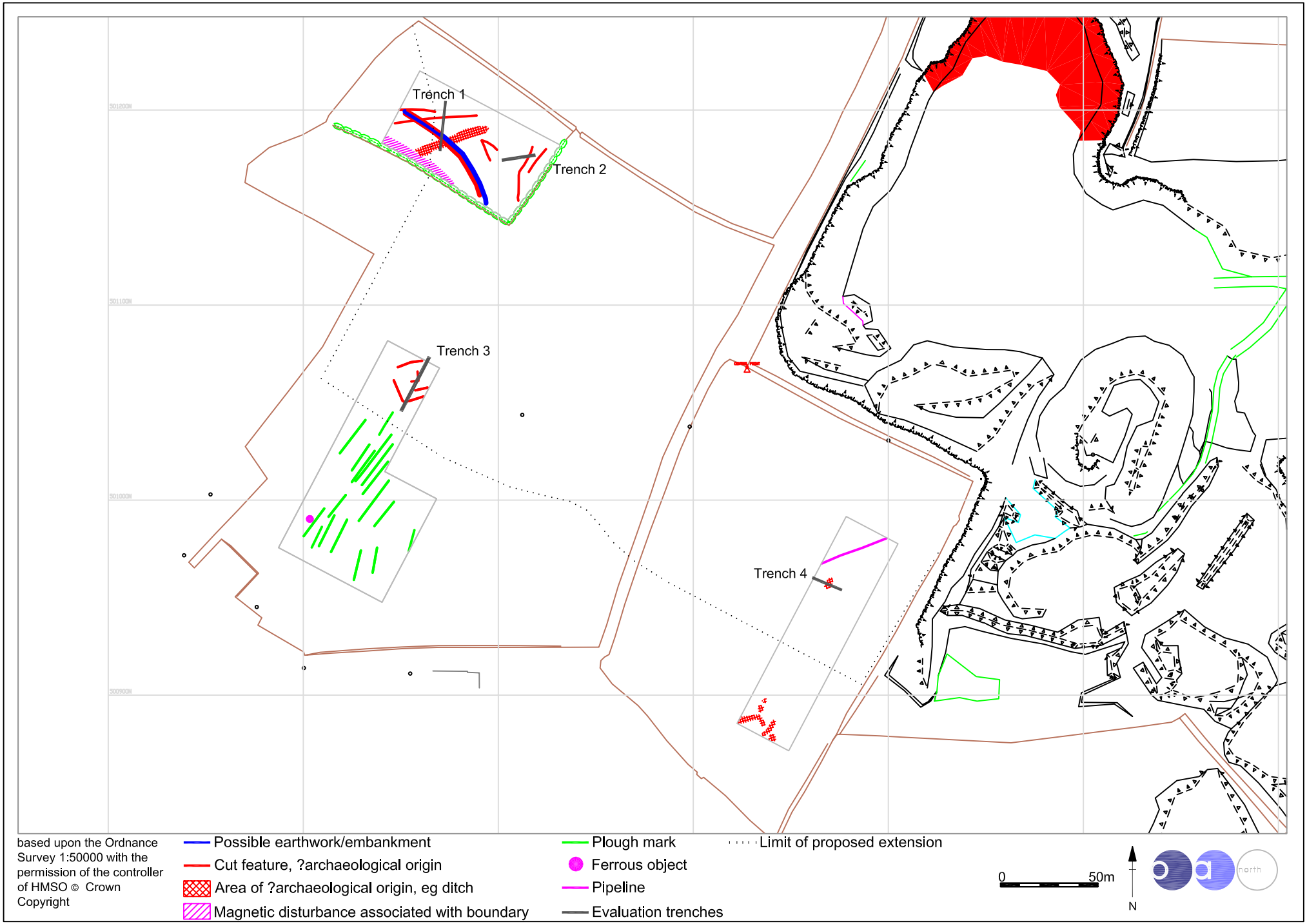

Figure 2: Trench location plan

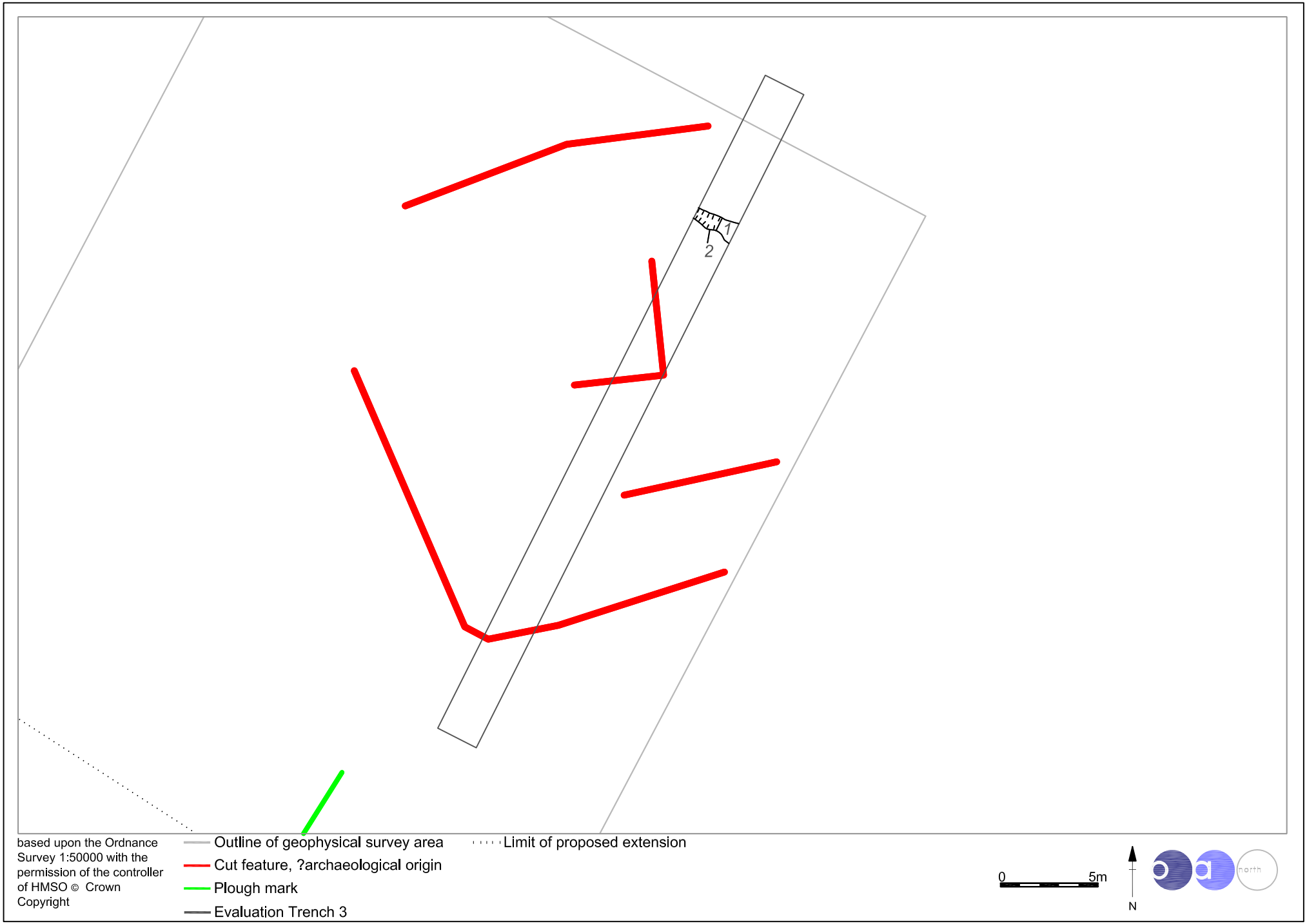

Figure 4: Plan of Trench 3

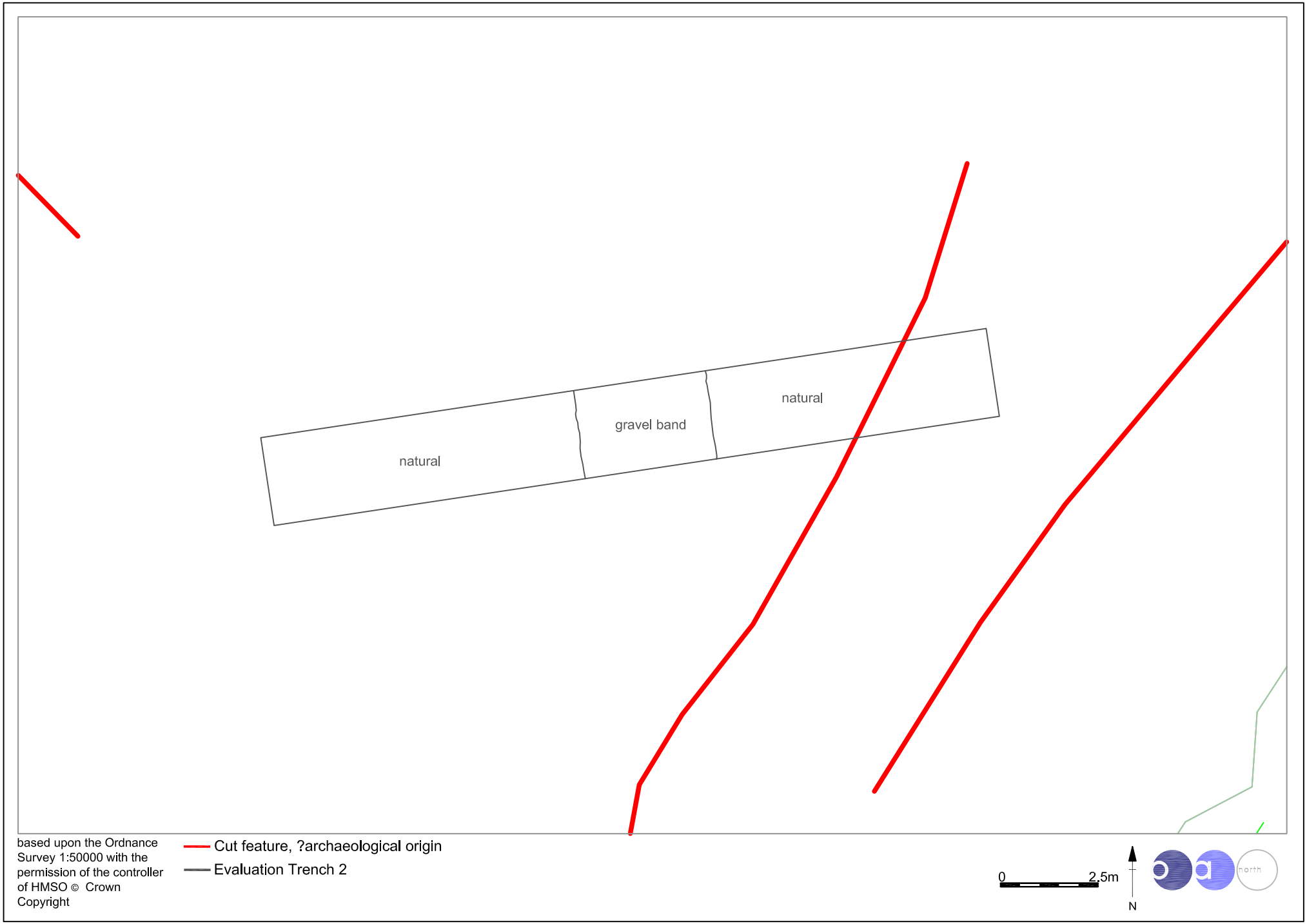

Figure 3: Plan of Trench 2

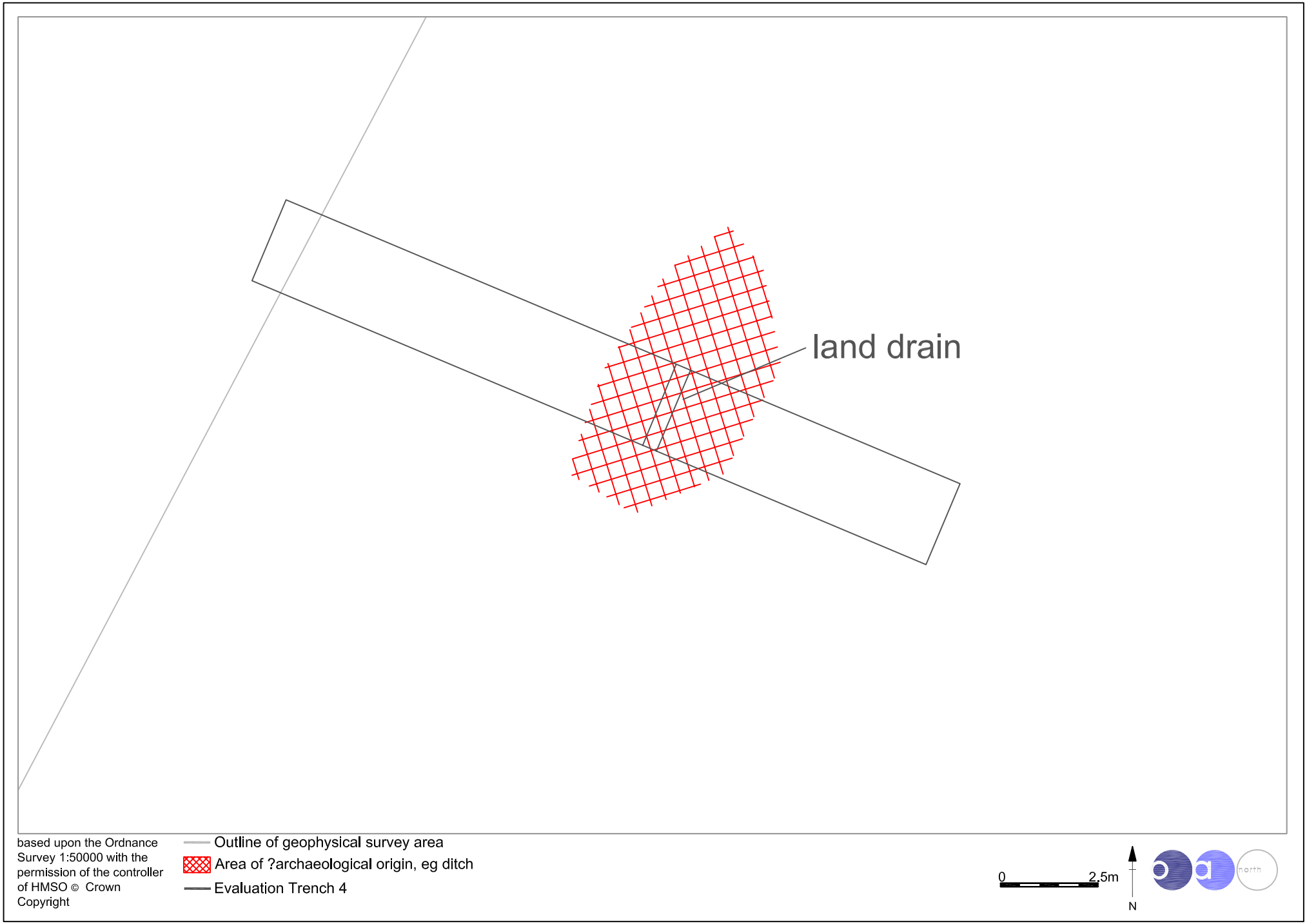

Figure 5: Plan of Trench 4

Plate 1: Trench 1, looking south

Plate 2: Trench 2, looking west

Plate 3: Trench 3, looking south-west

Plate 4: Ditch ***2***, within Trench 3, facing north-west

Plate 5: Excavation of Trench 4 in progress

Plate 6: Trench 4, looking north-west

APPENDIX 1: PROJECT DESIGN

Oxford Archaeology North

June 2004

PEEL PLACE QUARRY WESTERN EXTENSION, HOLMROOK, CUMBRIA.

ARCHAEOLOGICAL EVALUATION
PROJECT DESIGN

Proposals

The following project design is offered in response to a request by Tarmac Northern Ltd on behalf of Tendley Quarries Ltd for an archaeological evaluation to inform the Cultural Heritage section of an Environmental Impact Assessment prior to the proposed western extension to the existing Peel Place Quarry, Holmrook, Cumbria.

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.2 Tendley Quarries Ltd (hereafter the 'client') are proposing to extend the existing sand and gravel quarry at Peel Place, Holmrook, Cumbria (centred NY 067011) to the west, to encompass a total area of approximately 28ha. As a result an Environmental Impact Assessment (EIA) is required, to which the client has requested that Oxford Archaeology North (OA North) submit proposals for an archaeological assessment of the outlined area. In response to this Cumbria County Council Archaeology Service (CCCAS) issued a verbal brief requesting an enhanced desk-based assessment to that already undertaken over the original quarry in 2003 (OA North 2003), together with a geophysical survey and walkover survey. As a result of this initial phase of the investigation (OA North 2004), a programme of pre-determination evaluation trenching has been subsequently requested by CCCAS to target anomalies of possible archaeological significance located in the geophysical survey.

1.2 ARCHAEOLOGICAL BACKGROUND

1.2.1 The desk-based assessment undertaken in 2004 identified 19 sites of archaeological interest within the study area, none of which are affected by the development. However, the site is considered to have a high archaeological potential due to the significant quantities of prehistoric worked flint recovered from an extensive programme of field walking in the vicinity; four findspots of flint artefacts, a polished stone axe, and a hand axe roughout. Evidence of occupation during the Roman, medieval and post-medieval periods was also produced. In particular the Roman coin located to the immediate north of the proposed development, the medieval cross fragment, and the relict strip fields associated with the settlement of Hallsenna are considered significant.

1.2.2 The geophysical survey located a number of faint linear anomalies that may be of archaeological origin, particularly given the prehistoric potential of the area. In addition, a discrete probable thermoremnant response was observed which may be of archaeological significance. Plough marks were also seen in the plots, which may either relate to the medieval settlement of Hallsenna or could possibly be modern. The walkover survey identified four new archaeological sites including track ways and field boundaries associated with possible remains of strip-fields of medieval origin.

1.3 OXFORD ARCHAEOLOGY NORTH

1.3.1 OA North has extensive experience of desk-based assessments, as well as the evaluation and excavation of sites of all periods in this area, having undertaken a great number of small and large-scale projects during the past 23 years. These 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 in agreement with CCCAS to target anomalies of possible significance located in the geophysical survey in order to evaluate the presence or absence, survival, extent and nature of any archaeological remains that may be impacted on by the proposed quarry extension.

2.2 ***Archaeological Evaluation****:* to implement a programme of four trial trenches examining geophysical anomalies.

2.3 ***Report and Archive:*** a report will be produced for the client within two weeks of completion. A site archive will be produced to English Heritage guidelines (MAP 2) and in

accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3 METHOD STATEMENT

3.1 EVALUATION

3.1.1 The programme of trial trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. In this way, it will assess the archaeological potential of the threatened available area

3.1.2 The evaluation is required to assess the nature of the anomalies located by the geophysical survey. This would entail the excavation of 4 trenches measuring approximately 1.8m wide. Trench 1 measures 25m in length and is positioned over a possible bank and ditch arrangement and also incorporates additional potential ditches. Trench 2 measures 15m in length and aims to assess possible cut features. Trench 3 measures 30m in length and will assess the rectilinear arrangement of possible ditches which may represent and enclosure of field system. The final trench, Trench 4, is 15m in length and targets an area possibly belonging to a hearth or pit.

3.1.3 The topsoil will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. 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 CCCAS. The trenches will not be excavated deeper than 1.20m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting. 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, altitude information will be established with respect to Ordnance Survey Datum.

3.1.4 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, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.

3.1.5 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 and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

3.1.6 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.

3.1.7 ***Reinstatement:*** it is understood that there will be no requirement for reinstatement of the ground beyond backfilling. The ground will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded with the machine. Should there be a requirement by the client other than that stated this will involve recosting.

3.1.8 ***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. The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, the samples would be assessed for plant macrofossils, insect, molluscs and pollen from waterlogged deposits. 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 CCCAS and the client.

3.1.9 Advice will also be sought as to whether a soil micromorphological study or any other analytical techniques will enhance the understanding of the site formation processes, including the amount of truncation to buried deposits and the preservation of deposits within negative features. Should this be required the costs for analysis have been provided as a contingency.

3.1.10 ***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.

3.1.11 ***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. CCCAS 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.

3.1.12 ***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.

3.1.13 ***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.

3.1.14 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.

3.1.15 ***Contingency plan:*** in the event of significant archaeological features being encountered during the evaluation, discussions will take place with CCCAS as to the extent of further works to be carried out, and in agreement with the client. All further works would be subject to a variation to this project design. In addition, 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 and would be in agreement with the client.

3.1.16 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 ARCHIVE/REPORT

3.2.1 ***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 represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the CSMR (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum. Wherever possible, OA North recommends the deposition of such material in a local museum approved by the Museums and Galleries Commission, and would make appropriate arrangements with the designated museum at the outset of the project for the proper labelling, packaging, and accessioning of all material recovered.

3.2.2 The Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3.2.3 ***Report:*** one bound and one unbound copy of a written synthetic report will be submitted to the client, and a further three copies submitted to the Cumbria SMR within two weeks of completion of fieldwork. The report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, with an assessment of the overall stratigraphy, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived.

3.2.4 This report will identify areas of defined archaeology. An assessment and statement of the actual and potential archaeological significance of the identified archaeology within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, section drawings, and plans.

3.2.5 Provision will be made for a summary report to be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork, if relevant results are obtained.

3.2.6 ***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.

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 evaluation as well as to all Health and Safety considerations. It is assumed that the client will provide any available information regarding services within the study area, if available.

5 PROJECT MONITORING

5.1 Monitoring of this project will be undertaken through the auspices of the Assistant Archaeologist CCCAS who will be informed of the start and end dates of the work.

6 WORK TIMETABLE

6.1 ***Evaluation Trenching:*** approximately three days will be required to complete this element. It is anticipated that this will commence on Monday 21st June 2004. OA North will consult with the client regarding access.

6.2 ***Archive/Report:*** the report and archive will be produced following the completion of all the fieldwork. The final report will be submitted within approximately two weeks of completion of the fieldwork, and the archive deposited within six months.

7 STAFFING

7.1 The project will be under the direct management of **Emily Mercer BA (Hons) MSc AIFA** (OA North Senior Project Manager) to whom all correspondence should be addressed.

7.2 The excavation will be directed by **Mark Bagwell** (OA North project officer). Mark is an experienced field archaeologist who has undertaken supervision of numerous small- and large-scale evaluation and excavation projects.

7.3 Mark will be assisted by one archaeological assistant on site.

7.4 The processing and analysis of any palaeoenvironmental samples will be carried out under the auspices of **Elizabeth Huckerby BA, MSc** (OA North project officer), who has extensive experience of the palaeoecology of the North West, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey.

7.5 Assessment of any finds from the excavation will be undertaken by **Sean McPhillips** or **Jo Dawson**. Sean has worked as a finds supervisor for English Heritage and MOLAS on a number of occasions and has extensive knowledge concerning finds.

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.

REFERENCES

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London

Institute of Field Archaeologists (IFA), 1992 *Guidelines for data collection and compilation*, London

Oxford Archaeology North, 2004 *Peel Place Quarry - Proposed Western Extension, Holmrook, Cumbria, Archaeological Desk-Based Assessment, Geophysical Survey and Walkover Survey* unpubl report

United Kingdom Institute for Conservation (UKIC), 1990 *Guidelines for the preparation of archives for long-term storage* London

United Kingdom Institute for Conservation (UKIC), 1998 *First Aid for Finds* London

APPENDIX 2: CONTEXT LIST

Context	Trench	Description
1	3	Fill of Ditch ***2***
2	3	Ditch Cut

APPENDIX 3: FINDS SUMMARY

Trench	Context	Object record	Quantity	Material	Description	Date range
2	Topsoil	1	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth - early twentieth century
3	***1***	2	2	Pottery	Slip-decorated brown-glazed red earthenware (fineware)	Late seventeenth - early twentieth century
3	Topsoil	3	1	Pottery	White-glazed white earthenware	Early nineteenth - twentieth century
4	Topsoil	4	2	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth - early twentieth century
4	Topsoil	5	1	Clay tobacco pipe	Stem	Eighteenth - early twentieth century