Phase 2 North-Western Extension, Peel Place Quarry, Holmrook, Cumbria

Archaeological Evaluation Report

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Elizabeth Collison
Assistant Supervisor
September 2010

Jamie Quartermaine
Senior Project Manager
September 2010

Alan Lupton
Operations Manager
September 2010

Oxford Archaeology North
Mill 3, Moor Lane Mills
Moor Lane
Lancaster
LA1 1GF
t: (0044) 01524 541000
f: (0044) 01524 848606

Oxford Archaeology Ltd (2010)
Jehan House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496
w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

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SUMMARY

Tarmac Ltd and Tendley Quarries Ltd have been granted planning consent to undertake the second element of the Phase 2 mineral extraction works, in an area immediately to the north-west of the site evaluated in 2008 (OA North 2008) at Peel Place Quarry, Holmrook, Cumbria (centred NY 0664 01234). This was subsequent to the submission of an Environmental Impact Assessment (EIA) (planning application reference 4/04/9011); at the request of the Cumbria County Council’s Historic Environment Service (CCCHES). Archaeological investigations had been carried out by Oxford Archaeology North (OA North) as part of the EIA investigations, and included a desk-based assessment, walkover survey, geophysical survey and four evaluation trenches (OA North 2004a; 2004b). The results from the EIA investigations suggested archaeological potential due to the number of prehistoric spot finds that were identified in the desk-based assessment. Consequentially, CCCHES advised an archaeological evaluation prior to the commencement of each phase of extraction, a condition imposed on the planning consent. To date, OA North have carried out the excavation of ten evaluation trenches, as part of the Phase 1 extraction (OA North 2005) and seventeen evaluation trenches as part of the first section of the Phase 2 extraction (OA North 2008). In May 2010, they were commissioned to undertake the required archaeological work for the second part of Phase 2 extraction, this being carried out in July 2010.

Twenty evaluation trenches were mechanically excavated to the top of the natural geology, which consisted of a mixture of sands and gravel. The trenches were between 15 and 40m long and 1.8m wide, with the maximum excavated depth being 0.66m.

The majority of these trenches were randomly positioned within the outlined area, but Trenches 13, 14 and 15 were positioned to investigate the possible medieval strip field system identified from OS 1865 map (OA North 2004a) and Trenches 12 and 16 were rotated and lengthened from their original course (OA North 2010), to examine a sharp rise in the landscape forming a peak in the centre of the field.

Trenches 1 to 11 (excluding 5 and 10) contained a series of north-west/south-east aligned furrows belonging to Group 204, of these 209 within Trench 9 contained post-medieval ceramics. Trench 13 contained a shallow north-west/south-east aligned gully, 211, also containing post-medieval ceramics. These features may have been associated with the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a). Trench 9 also contained a furrow 207 that was on a slightly different alignment and had a different fill, 206, to those seen in Group 204, suggesting that it may have been a survival of an earlier phase of ridge and furrow. Trenches 16 and 18 contained evidence of a possible trackway with visible wheel ruts, 215/217 and 219/220 respectively, and an associated hedgerow 216 (Trench 16), but had no finds and could not be dated. Trench 19, contained a north-east/south-west aligned undated ditch, 213.

The trenching in this phase of the evaluation demonstrates a low archaeological potential for further remains. It is considered that the groundworks for the extraction will have no impact on any significant archaeological remains, and no further archaeological investigation is recommended prior to the development of this area of the site.
Oxford Archaeology North would like to thank Tarmac Ltd and Tendley Quarries Ltd for commissioning the project, and the on-site quarry staff, especially for their co-operation during the work. In particular, we would like to thank Jonathon Garbutt of Tarmac Ltd and Gillian Pattison of Tendley Quarries for their support during the setting up of the evaluation.

The evaluation was undertaken by Marc Storey, Christina Robinson and Liz Collison. The report was undertaken by Liz Collison, with contributions from Christina Robinson; the drawings were undertaken by Liz Collison. The project was managed by Jamie Quartermaine, who also edited the report.
1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Tarmac Ltd and Tendley Quarries Ltd have been given planning consent to undertake the second element of the Phase 2 mineral extraction works, in an area immediately to the north-west of the site evaluated in 2008 (OA North 2008) at Peel Place Quarry, Holmrook, Cumbria (centred NY 0664 01234), following the submission of an Environmental Impact Assessment in 2004 (planning application reference 4/04/9011). Previous archaeological investigations, undertaken for the purpose of the Environmental Impact Assessment, included a desk-based assessment, geophysical survey and trial trenching (OA North 2003, 2004a; 2004b; 2005; 2008). These demonstrated that the soils are not responsive to a magnetometer survey and that there has been little of archaeological significance identified in the evaluation work undertaken to date, but there is nevertheless archaeological potential across the site due to numerous prehistoric find spots within the vicinity (OA North 2004a). As a result, Cumbria County Council’s Historic Environment Service (CCCHES) advised the mineral planning service that a condition should be imposed on the planning consent to undertake an archaeological evaluation of each proposed phase of extraction prior to the commencement of any groundworks. Phase 1 was undertaken in 2005 and the area currently under investigation is the second element of Phase 2. Oxford Archaeology North (OA North) was commissioned to undertake the archaeological work, which was undertaken in accordance with a brief issued by CCCHES (Appendix 1) and a project design compiled by OA North (Appendix 2).

1.1.2 The evaluation was carried out in July 2010. This report sets out the background to the evaluation, including relevant historical information and any previous archaeological interventions, together with the methodology employed during the fieldwork. The results of the evaluation are discussed and the impact of the proposed development on the known archaeological remains is considered.

1.2 SITE LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The site of the second element of the Phase 2 extension to Peel Place Quarry incorporates current pasture land immediately to the north-west of the existing sand and gravel quarry, and immediately to the north-west of the first element of the Phase 2 extension, which encompasses approximately 1.88ha (Fig 1).

1.2.2 The quarry 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 is between the main river valleys of the Calder and the Irt (Fig 1). The area around the site is defined as part of the ‘West Cumbria Coastal Plain’ by the Countryside Commission (1998). This is a region consisting predominantly of lowland river valleys, and the land-use comprises ‘gently undulating or flat improved pasture’ (op cit, 25). The site itself slopes gently to the south-west and north-east, with a peak at its centre, and is 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 earlier Phase 1 extraction area, which is located to the south of Phase 2 (ibid).
1.2.3 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. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 At the request of the client, OA North submitted a project design (Appendix 2) for an archaeological evaluation, prepared in accordance with a written brief from CCCHES (Appendix 1). Following approval of the project design by CCCHES, and acceptance by the client, OA North was commissioned to undertake the work.

2.1.2 The work 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).

2.2 EVALUATION TRENCHING

2.2.1 The programme of trial trenching was undertaken to establish the presence or absence of any previously known (ie possible medieval strip fields) and unknown archaeological deposits within the outlined second element of the Phase 2 extraction area. Any identified archaeological deposits were then investigated to determine their date, nature, depth and quality of preservation. In this way, it was possible to assess whether any further work will be required on site prior to commencement of the extraction works. The evaluation needed to examine a minimum of 5% of the total available area, and required the excavation of 940m² of trenching. In the event 20 trenches were excavated, of which 14 were of 30m length, four were of 15m length and two were of 40m length; all were 1.8m wide, and comes to a total of 1008m². Trenches 13, 14 and 15 targeted the possible medieval strip field system, 12 and 16 were rotated and lengthened from their original course (Appendix 2) to examine a sharp rise in the landscape forming a peak in the centre of the field, and the remaining trenches were randomly positioned in order to adequately assess the outlined area.

2.2.2 The topsoil was removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to either the surface of the first significant archaeological deposit or the interface with the underlying geology, whichever was encountered first. The eventual depth of the trenches did not exceed 0.66m, which was within health and safety constraints. All trenches were excavated in a stratigraphical manner, whether by machine or manually. Investigation of deposits was exclusively manual, undertaken with a view to avoiding damage to any archaeological features that appeared worthy of preservation in situ. Trenches were located by the use of a Leica 1200, GPS (Global Positioning System). The equipment is accurate to ± 0.01m, and altitude information was referenced with respect to Ordnance Survey Datum; this information was plotted onto an updated digital plan (Fig 2) of the extraction area.

2.2.3 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.
2.2.4 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 (1:20 and 1:10). All artefacts 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. No ecofacts were identified.

2.3 ENVIRONMENTAL ASSESSMENT

2.3.1 No environmental bulk samples were taken due to a lack of any suitable deposits.

2.4 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the project design (Appendix 2), and in accordance with current English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Whitehaven Record Office, and copies of the report will be forwarded to the Cumbria HER.
3. HISTORICAL BACKGROUND

3.1 INTRODUCTION

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

3.1.2 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.

3.1.3 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 axes are found throughout Cumbria and were traded across Britain and into Europe (Rollinson 1967), and most notably there was a very important settlement site, at Ehenside Tarn to the north of the study area, where there were found polished axes, rough-out axes and polishing stones which are indicative of a polishing site for completing the axes (Darbishire 1873). In the local area, much of the early Neolithic activity is defined through the presence of casual findspots of polished stone axes, such as the Halsenna axe found to the west of the site (Crawford and George 1983). The presence of these tools suggests intensification of activities, including tree clearance, although some of the axes were apparently never used and may have been treated as prestige items. Flintwork continued to be dominated by beach pebbles, resulting in small artefacts such as the leaf-shaped arrowheads from the sandhill sites at Drigg (Hodgkinson et al. 2000, 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).

3.1.4 Bronze Age Period: 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 that in the Mesolithic. The Drigg dunes in particular have produced large quantities of flint, predominantly beach pebbles, including barbed and tanged arrowheads, from an organic layer revealed by sea erosion (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...
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).

3.1.5 **Iron Age Period:** 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).

3.1.6 **Romano-British Period:** Roman activity in this area was concentrated at Ravenglass (Potter 1979) where a Roman fort and baths were constructed in the 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 single coin of Nerva (AD 96-98) discovered immediately north of the site (Collingwood 1923). 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).

3.1.7 **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. The main evidence lies with place-names; Seascale is rooted in Old Norse *skali* and *erg*, implying shielings 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).

3.1.8 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).

3.1.9 **Later Medieval Period:** 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 later manorial records (Hodgkinson et al 2000, 79).

3.1.10 Halsenna, to the west of the proposed extraction site, 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 1971, 394). Peel Place was also first named in a deed of 1365 as ‘Pyel’ (*ibid*), which 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).

3.1.11 From within the nearby vicinity, the site of the Hallsenna/Percy cross is known. It was found re-used as masonry in a shed within the hamlet of Hallsenna and 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.

3.2 ARCHAEOLOGICAL INTERVENTIONS

3.2.1 The site lies to the north-west of an area previously investigated in four distinct phases, prior to the extension to the quarry detailed in the EIA in 2004. The first three phases comprised evaluation (from 1997-99) by OA North (OA North 2003), in their former guise as Lancaster University Archaeological Unit (LUAU), in which 24 trenches were excavated. No significant archaeological deposits or features were revealed, although sieving retrieved an iron nail and a number of post-medieval and modern ceramic artefacts. The fourth phase comprised a rapid 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.

3.2.2 During 2004, OA North carried out an archaeological investigation to inform the EIA for the proposed western extension, which includes the Phase 2 extraction area. This consisted initially of an enhanced and updated desk-based assessment and geophysical survey, and trial trenching targeting geophysical anomalies (OA North 2004a; 2004b).

3.2.3 The desk-based assessment (OA North 2004a) for the Phase 1 extraction area immediately to the south identified 19 sites of archaeological interest within the study area. None of the sites were to be affected by the proposed development, but the area was 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 and known findspots (*Section 3.1,* above). The assessment provided evidence of occupation during the Roman, medieval and post-medieval periods; in particular, the Roman coin located to the immediate north of the development (Site 06; *ibid*); the medieval cross fragment (Site 16; *ibid*); and the relict strip fields associated with the settlement of Hallsenna (Site 2; *ibid*), some of which lie within the Phase 2 extraction area targeted during the evaluation (Trenches 2, 5 and 6).

3.2.4 The walkover survey (OA North 2004a) identified four previously unrecorded sites, consisting of the remains of landscape features, including the remains of the relict medieval strip-field system (Site 20), a trackway (Site 21), two gate posts (Site 23) and a disused holloway (Site 22). The holloway was targeted by the Phase 2 extraction evaluation trenches (Trenches 10 and 17).
3.2.5 The geophysical survey showed a relatively low magnetic response in general (Stratascan Ltd 2004). However, a number of faint linear anomalies seen in the magnetometer results were considered to be of archaeological potential, particularly given the prehistoric potential of the area, and were investigated with evaluation trenching. Only one archaeological feature, a ditch, was revealed during trenching that had not been identified in the geophysical survey results, containing pottery evidence dated to between the late seventeenth and early twentieth centuries. It was interpreted as a relict field boundary, and correlated with a field boundary recorded on the Ordnance Survey First Edition map of 1865 (OA North 2004a; 2004b) (Fig 3).

3.2.6 The remaining geophysical anomalies were not observed during trenching, although a land drain may account for one of them (OA North 2004b), and the variable geological conditions across the site may account for the remainder. The results of the evaluation trenching showed that the low magnetic properties of the overlying soils limited the usefulness of magnetometry.

3.2.7 During 2005 ten evaluation trenches (OA North 2005) were investigated to the south-west of the outlined Phase 2 extraction, for the purposes of the Phase 1 extraction. No archaeological remains were uncovered. A composite of finds of pottery, glass, flint and metal were retrieved from the topsoil. The two potential waste flint chunks recovered only suggested small-scale knapping within the area, but it is impossible to date this activity closely. The rest of the finds were post-medieval in date and appeared to be entirely domestic. These finds are likely to be a result of manuring practice across the site (ibid).

3.2.8 In April 2008, seventeen evaluation trenches (OA North 2008) were investigated within the south-east end of the area outlined for Phase 2 extraction. The majority of the trenches within this area revealed no archaeological deposits or features. Five of the trenches (Trenches 1, 9, 11, 13 and 15) contained linear features. Trenches 1 and 13 contained modern ditches, the former complete with an in situ water pipe, Trench 9 contained a removed relict field boundary ditch, Trench 11 contained an undulating gully and Trench 15 contained a probable furrow that was likely to be related to the relict strip-field system and possibly date to the medieval period. A holloway, identified by the walkover survey (OA North 2004a) and bounding the south-east side of the site, was investigated within Trenches 10 and 17, and was revealed to have been formed in two main phases. The first phase consisted of the ‘cut’ of the holloway and had evidence of vehicle usage in the form of wheel ruts. The second phase showed banks having been constructed on top of the edges of the original ‘cut’. There was evidence in both trenches for a surface of rough cobbles and kerb stones. Evidence from the desk-based assessment and walkover survey (OA North 2004a) suggested that it was contemporary with the medieval relict strip-field system; however, no datable evidence was found during the excavation.
4. FIELDWORK RESULTS

4.1 INTRODUCTION

4.1.1 Twenty trenches were excavated and recorded using OA North pro forma sheets. Three of the trenches targeted the possible medieval relict strip-field system (Trenches 13, 14 and 15) and a further two (Trenches 12 and 16) targeted the high point in the landscape, at the centre of the field.

4.1.2 The geology of the trenches varied slightly across the site. The underlying natural geology was a highly mixed deposit of interleaved sands and gravel. There were sub-rounded pebbles and cobbles throughout and numerous stone types were evident, including quartz pebbles and sandstone. A complete list of the contexts is given in Appendix 3. Finds were retrieved from two of the archaeological features, furrow 209 and gully 211, with no further finds being recovered from the site.

4.2 TRENCH DESCRIPTIONS

4.2.1 Trench 1: was aligned north-east/south-west and measured 30m by 1.8m. It was excavated to a maximum depth of 0.3m. The general stratigraphy comprised 0.3m of topsoil, 200, over natural sands and gravel, 201. A series of furrows, Group 204, were identified throughout the trench (Fig 4). At the south-west end of the trench a furrow, 202, was excavated, which measured 0.53m wide and 0.12m deep (Plate 1). It was aligned north-west/south-east, and was filled by 203, a mid to dark orangey-brown, silty sand fill. This furrow may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.2 Trench 2: was aligned north-west/south-east and measured 15m by 1.8m, and was excavated to a maximum depth of 0.42m. The general stratigraphy comprised 0.35m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench, and may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Figs 3 and 4).

4.2.3 Trench 3: was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.41m. The general stratigraphy comprised 0.32-0.34m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench (Plate 2; Fig 4) and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a).

4.2.4 Trench 4: was aligned north-west/south-east and measured 15m by 1.8m; it was excavated to a maximum depth of 0.32m. The general stratigraphy comprised 0.27m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench (Fig 4) and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.5 Trench 5: was aligned north-east/south-west and measured 10m by 1.8m, and was excavated to a maximum depth of 0.38m. The general stratigraphy comprised 0.3m
of topsoil, 200, over natural sands and gravel, 201. No archaeological deposits or features were revealed.

4.2.6 **Trench 6:** was aligned north-east/south-west and measured 30m by 1.8m, and was excavated to a maximum depth of 0.35m. The general stratigraphy comprised 0.35m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench (Fig 4) and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.7 **Trench 7:** was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.3m. The general stratigraphy comprised 0.3m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified within the trench (Fig 4) and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.8 **Trench 8:** was aligned north-east/south-west and measured 30m by 1.8m; it was excavated to a maximum depth of 0.33m. The general stratigraphy comprised 0.28-0.3m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.9 **Trench 9:** was aligned north-east/south-west and measured 30m by 1.8m; it was excavated to a maximum depth of 0.41m (Figs 2 and 5). The general stratigraphy comprised 0.39m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified to the south-west end of the trench (Plates 3 and 4). One of these, 209, was excavated and was found to contain post-medieval ceramics throughout its fill, 208, a mid to dark orangey-brown, silty sand. The furrow was aligned north-west/south-east and measured 0.5m wide and 0.14m deep. These furrows may possibly relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3). A slightly different furrow, 207, was also located within this trench, at the north-east end. It was aligned north-west/south-east and measured 1.16m wide and 0.14m deep. This feature was filled with 206, a mid orangey-brown, sandy silt, which was different to the fill of 208 in both colour and composition suggesting a possibly different phase of furrow to 209. This may suggest that the ridge and furrow in the field developed over an extended period, although no dating evidence was found.

4.2.10 **Trench 10:** was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.35m. The general stratigraphy comprised 0.35m of topsoil, 200, over natural sands and gravel, 201. No archaeological deposits or features were revealed.

4.2.11 **Trench 11:** was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.4m. The general stratigraphy comprised 0.3m-0.4m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench, and they may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.2.12 **Trench 12:** was aligned north-west/south-east and measured 40m by 1.8m; it was excavated to a maximum depth of 0.31m. The general stratigraphy comprised 0.23-
0.28m of topsoil, 200, over natural sands and gravel, 201. No archaeological deposits or features were revealed. This trench was located to investigate the peak in the landscape, at the centre of the field. The evidence suggested that this was a natural rise with no associated archaeological features.

4.2.13 **Trench 13**: was aligned north-east/south-west and measured 30m by 1.8m; it was excavated to a maximum depth of 0.41m. The general stratigraphy comprised 0.28-0.3m of topsoil, 200, over natural sands and gravel, 201. A gully, 211, was located at the north-east end of the trench, which was aligned north-west/south-east and measured 0.39m wide and 0.18m deep (Plate 5). This feature was filled with deposit, 210, which contained post-medieval ceramics, and was very similar to the fills within the furrows forming Group 204. While this feature is not thought to be a furrow itself, given its date, fill composition, and alignment, it is thought that it is likely that it is related to Group 204, possibly as a gully associated with a field boundary. This trench was located to investigate any evidence of possible medieval strip-fields, but no evidence was found for them.

4.2.14 **Trench 14**: was aligned north-east/south-west and measured 40m by 1.8m; it was excavated to a maximum depth of 0.4m. The general stratigraphy comprised 0.4m of topsoil, 200, over natural sands and gravel, 201. This trench was intended to locate any evidence of possible medieval strip-fields, but no evidence was found for them.

4.2.15 **Trench 15**: was aligned north-west/south-east and measured 10m by 1.8m; it was excavated to a maximum depth of 0.3m. The general stratigraphy comprised 0.3m of topsoil, 200, over natural sands and gravel, 201. This trench was intended to locate any evidence of possible medieval strip-fields, but no evidence was found for them.

4.2.16 **Trench 16**: was aligned north-east/south-west and measured 30m by 1.8m; it was excavated to a maximum depth of 0.42m. The general stratigraphy comprised 0.24m of topsoil, 200, over 0.18m of subsoil, 214, which sealed natural sands and gravel, 201. Plough scarring was visible across the trench, running north-west/south-east. One hedgerow, 216, and a possible pair of wheel ruts, 215, and 217, were also present, and were also aligned north-west/south-east. These features appeared to be contemporary with each other and all three were filled by subsoil 214. It is thought that the possible wheel ruts may have formed a trackway, which was also seen in Trench 18, and the hedgeline may have been associated with this, running alongside the track, along its north-east edge. This trench was intended to investigate the peak in the landscape (Plate 6), at the centre of the field, but the evidence suggested that this was a natural rise with no associated archaeological features.

4.2.17 **Trench 17**: was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.4m. The general stratigraphy comprised 0.32m of topsoil, 200, over natural sands and gravel, 201. No archaeological deposits or features were revealed.

4.2.18 **Trench 18**: was aligned north-east/south-west and measured 30m by 1.8m and was excavated to a maximum depth of 0.4m. The general stratigraphy comprised 0.26m of topsoil, 200, over 0.16m of subsoil, 218, which sealed natural sands and gravel, 201. A trackway, 219 and 220, aligned north-west/south-east, was present in the centre of the trench (Fig 6; Plate 7). It comprised a pair of wheel ruts, which each
had ‘U’ shaped cross sections; each was filled by subsoil, 218, and the feature was also visible in Trench 16, to the north-west.

4.2.19 **Trench 19:** was aligned north-west/south-east and measured 30m by 1.8m; it was excavated to a maximum depth of 0.33m. The general stratigraphy comprised 0.26m of topsoil, 200, over natural sands and gravel, 201. A ditch, 213, was located at the south-east end of the trench (Plate 8); it was aligned south-west/north-east and measured 1.36m wide and 0.41m deep (Fig 7). This feature was filled with deposit, 212, which contained no datable evidence. The ditch had a shallow U-shaped, profile albeit with a deeper stepped centre; this latter feature was probably possibly an earlier phase of a field boundary, and was aligned parallel to the modern field limits, suggesting that the field was formerly sub-divided into strips.

4.2.20 **Trench 20:** was aligned north-east/south-west and measured 45m by 1.8m; it was excavated to a maximum depth of 0.42m. The general stratigraphy comprised 0.36-0.4m of topsoil, 200, over natural sands and gravel, 201. Furrows, Group 204, were identified throughout the trench (Fig 4), and may relate to the relict strip field boundary that can be seen on the First Edition Ordnance Survey 1865 map (OA North 2004a) (Fig 3).

4.3 **ENVIRONMENTAL RESULTS**

4.3.1 No environmental bulk samples were taken due to a lack of any suitable deposits.
5.1 DISCUSSION

5.1.1 The majority of the trenches in this programme of evaluation for the Phase 2 extraction area featured a series of north-west/south-east aligned furrows belonging to Group 204 (Trenches 1, 2, 3 (Plate 2), 4, 6, 7, 8, 9, 11, 20: Fig 4). Of these, two were excavated, 202 (Trench 1, Plate 1) and 209 (Trench 9, Plate 3, Fig 7), in order to characterise and date the group. The fill deposits within the furrows were similar to the topsoil, implying that they had a relatively recent date, and fill 209 contained post-medieval ceramics. Trench 13 contained a shallow north-west/south-east aligned gully, 211 (Plate 5), which also contained post-medieval ceramics. While this feature is not thought to be a furrow itself, given its date, fill composition and alignment, it is thought likely that it is related to Group 204, possibly as a ditch associated with a field boundary. These features may have been associated with the former field system associated with the relict strip field boundary that is shown on the First Edition Ordnance Survey 1865 map (Fig 3; OA North 2004a). Trench 9 also contained a furrow, 207 (Plate 4), that was on a slightly different alignment and had a slightly different fill to those seen in Group 204. It may be a survival of an earlier phase of ridge and furrow, although it had no dating evidence; there is the possibility that this feature relates to the relict medieval strip-field system which had been identified in the desk-based assessment and walkover survey (OA North 2004a).

5.1.2 Trenches 16 and 18 contained evidence of a possible trackway with visible wheel ruts, 215/217 and 219/220 (Plate 7; Fig 5) respectively, and an associated hedgerow, 216, extending along its north-eastern edge. These were aligned north-west/south-east, but had no finds and could not be dated.

5.1.3 Trench 19, contained a north-east/south-west aligned ditch, 213 (Plate 8, Fig 6), which also could not be dated. It is considered that this feature was potentially a former field boundary, being aligned parallel to the modern field edges, and suggests that the present field was formerly sub-divided.

5.1.4 Trenches 5, 10, 12, 14, 15 and 17 contained no archaeological features or deposits; they were located so as to investigate the peak in the landscape, at the centre of the field, but the absence of archaeological features suggested that this had a natural origin (Plate 6).

5.1.5 The evidence collected supports that found in the first section of the Phase 2 extraction evaluation (OA North 2008), that the site has been used for agricultural practises probably dating back to the medieval period. It offers evidence for relict strip-field systems, and associated features, such as the ditch, gully and trackway, and suggests that there has been relatively little change in the agricultural over this extended period.
5.2 IMPACT

5.2.1 The results of the programme of evaluation trenching appears to demonstrate the low potential for archaeological remains, despite finds from the immediate vicinity suggesting a potential for prehistoric activity in the region. It is considered, therefore, that the groundworks for the extraction will have no significant impact and no further archaeological work is suggested in this area prior to the commencement of extraction.
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APPENDIX 1: PROJECT BRIEF

1. SITE DESCRIPTION AND SUMMARY

Site: Peel Place, Gosforth

Grid Reference: NY 066 012

Planning Application No.: 4/04/9011

Area of Evaluation: approximately 1.7 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, 2001. 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 the County’s mineral planning service regarding a planning application for the extension to an existing quarry at Peel Place, Gosforth.

2.2 The site has been the subject of an Environmental Impact Assessment (Stephenson Hallway 2004) which included the results from an archaeological desk-based assessment, a walkover survey, a geophysical survey and a programme of limited targeted trial trenching. The results of this work indicate that it is unlikely any archaeological remains of national importance survive on the site, which are worthy of preservation in situ. However, the results also indicate that the soils were not particularly receptive to the geophysical survey and, because the trial trenching was only very limited in scope, there is a high potential for archaeological remains to extend across the site that have not been revealed by the surveys. Because of this, a condition has been placed on planning consent requiring a scheme of archaeological work to be undertaken at the site. Initially, this work will comprise an archaeological evaluation to assess the nature and potential of the whole site threatened by extraction. The evaluation will be undertaken in advance of each phase of mineral extraction and the first phase of evaluation was undertaken in 2005. The results of this evaluation revealed no archaeological remains in a one hectare area. This brief deals solely with the second phase of extraction, as shown on Figure 4a (P114/3c), which approximately 1.7 hectares in extent.

3. ARCHAEOLOGICAL BACKGROUND

3.1 The site has been the subject of a desk-based assessment, a walkover survey, a geophysical survey and two phases trial trenching (see bibliography) and this brief should be read in conjunction with these reports. A considerable number of prehistoric implements have been found in the immediate vicinity of the site through systematic fieldwalking and by chance (Historic Environment record nos. 1273, 1309, 3556, 6462, 6463 etc.). Two cropmark enclosures of possible prehistoric origin lie to the east (HER nos. 13542 & 13545). A walkover survey revealed relict field boundaries likely to be of medieval origin, a hollow way and a trackway surviving on the site.

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 within the area shown on the attached plan (Figure 4a (P114/3c)). An adequate
representative sample of all areas where archaeological remains are potentially threatened should be studied.

4.2 Work Required

4.2.1 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.

4.2.2 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.

4.2.3 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, 2nd 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
- The proposed locations of the trial trenches

5.3 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 4.2.3)
- 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 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 if further archaeological fieldwork is expected.

6.4 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 http://ads.ahds.ac.uk/project/oasis 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 in Brown, DH, 2007, *Archaeological Archives A Guide To Best Practice In Creation, Compilation, Transfer and Curation*, Archaeological Archives Forum. Arrangements must be made for its long term storage and deposition 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. 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 Historic Environment Officer 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
Historic Environment Officer
Cumbria County Council
County Offices
Kendal
Cumbria LA9 4RQ
Tel: 01539 773431
Email: Jeremy.Parsons@cumbriacc.gov.uk
APPENDIX 2: PROJECT DESIGN

1.1 PROJECT BACKGROUND

1.1.1 Tarmac Ltd (hereafter the ‘client’) has commissioned Oxford Archaeology North (OA North) to undertake an archaeological evaluation of land outlined for the next phase of mineral extraction (Fig 1) at Peel Place Quarry, Gosforth, Cumbria (centred NY 0664 01234). It is immediately to the north-west of an area evaluated in 2008 (OA North 2008). An Environmental Impact Assessment for a mainly westward extension to the existing quarry was submitted in 2004, and included the results of a desk-based assessment, walkover survey, geophysical survey and an area of targeted trial trenching. On the basis of the results of the archaeological investigations, Cumbria County Council’s Historic Environment Service (CCCHES) requested that a scheme of archaeological work be undertaken as a condition to the planning consent in advance of each phase of extraction; Phase 1 was undertaken in 2005 and this area is the second element of Phase 2.

1.1.2 A brief has been issued by CCCHES regarding the second outlined phase of extraction, recommending a programme of evaluation trenching as the first stage of work. The area of the proposed evaluation is 1.88ha, but because of a water main extending through the area this is reduced to 1.71ha. The following project design has been prepared in accordance with the brief, but has taken into account the reduced area.

1.2 ARCHAEOLOGICAL BACKGROUND

1.2.1 During 2004, OA North carried out an archaeological investigation to inform the Environmental Impact Assessment for the proposed western extension. This consisted initially of a desk-based assessment, walkover survey and geophysical survey, and was followed by four evaluation trenches targeting areas of geophysical anomalies (OA North 2004a; 2004b).

1.2.2 The desk-based assessment identified 19 sites of archaeological interest within the surrounding area, none of which were positioned within the outlined application boundary. Nevertheless, the site was considered to have archaeological potential due to the significant quantities of prehistoric worked flint previously recovered from an extensive programme of field walking in the area, including four findspots of flint artefacts, a polished stone axe, and a hand axe roughout. Research also found there to be evidence of occupation during the Roman, medieval and post-medieval periods; in particular a Roman coin located to the north of the proposed extraction site, a medieval cross fragment, and a relict strip field system associated with the settlement of Hallsenna (OA North 2004a).

1.2.3 The walkover survey located an additional three sites of archaeological significance to those identified during the desk-based assessment (ibid). The field boundary along the southern edge of the outlined area of Phase 2 was identified as the likely remains of a medieval strip-field system, evidence of which was also seen from the Ordnance Survey Survey first edition map of 1865 extending across the Phase 2 area. Furthermore, incorporated in the east side of the Phase 2 area a deep hollow way was noted, bound by embankments either side. The date is unknown but it was identifiable on the Ordnance Survey map of 1865 (ibid).

1.2.4 The geophysical survey showed a relatively low magnetic response in general (Stratascan Ltd 2004). However, a number of faint linear anomalies were seen in the magnetometer results of archaeological potential, particularly given the prehistoric potential of the area. Some of these anomalies were further investigated by evaluation trenching (OA North 2004b). Only one archaeological feature, a ditch, was identified during trenching that had not been identified in the geophysical survey results, containing pottery evidence dated to between the late seventeenth and early twentieth centuries. It was interpreted as a relict field boundary, and correlated with a field boundary recorded on the Ordnance Survey Survey first edition map of 1865 (OA North 2004a; 2004b). The field system was believed to be the remains of medieval strip fields, and the ditch would therefore be of medieval origin and likely to have been still in use in the post-medieval period.

1.2.5 The remaining geophysical anomalies were not observed during trenching, and it is likely that the variable geological conditions across the site may have accounted for this. The results of the
evaluation trenching showed that the low magnetic properties of the overlying soils limited the usefulness of magnetometry.

1.2.6 During trial trenching undertaken prior to the Phase 1 extraction (OA North 2005) no archaeological features were uncovered. The presence of two potential waste flint chunks recovered suggests small-scale knapping had been taking place in the area, but it is impossible to date this activity closely. The fragments of pottery, glass, and metal recovered from the topsoil were all post-medieval in date, and are likely to be a result of manuring practice across the site (ibid).

1.3 OXFORD ARCHAEOLOGY NORTH

1.3.1 OA North has considerable experience of the assessment of sites of all periods, having undertaken a great number of small and large-scale projects. Such projects have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. In recent years OA North also has extensive experience of archaeological work at Peel Place Quarry, as well as under its former guise as Lancaster University Archaeological Unit (LUAU).

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 (1994).

2 AIMS AND OBJECTIVES

2.1 The main aim of the investigation will be to characterise the level of preservation and significance of any buried archaeological remains surviving in situ within the site. The work will evaluate the archaeological resource and potential for further archaeological deposits, in order to determine their extent and nature of the remains that may be threatened by the proposed development. The results will provide information as to whether further investigation or mitigation work is necessary prior to the development taking place. To this end, the following programme has been designed.

2.2 Evaluation trenching: to undertake evaluation trenching sampling a minimum of 5% of the area within the Phase 2 extraction, to determine the quality, extent and importance of any archaeological remains on the site (in accordance with the IFA standards (1999b)).

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 in accordance with the CCCHES brief. The report will be produced for the client within eight weeks, unless a report submission deadline is agreed with the client at the time of commission. An archive will be produced to English Heritage guidelines (MAP 2 (1991)).

3. METHOD STATEMENT

3.1 EVALUATION TRENCHING

3.1.1 Introduction: 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 adequately sample the Phase 2 outlined area and assess whether any further work will be required on site prior to extraction.

3.1.2 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) and the IFA’s code of conduct.

3.1.3 Trenching Strategy: the evaluation is required to examine 5% of the outlined Phase 2 area, which is approximately 1.71ha in total, taking into account the stand-off area for the water mains. The sample equates to around 855m². Therefore, due to the configuration of available area for evaluation the programme of trenching will involve 13 trenches measuring 30m in length and six 15m long trenches, all 1.7m wide (the average width of a ditching bucket).

3.1.4 The majority of the trenches have been randomly positioned within the outlined area in order that it can be adequately assessed. However, trenches (Tr 13, 14, and 15; Fig 1) have been positioned...
to investigate the possible medieval strip field system identified from the OS 1865 map (OA North 2004a).

3.1.5 **Methodology:** the topsoil will be removed by machine (fitted with a toothless ditching bucket). All such work will be undertaken 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 trenches will be excavated in a stratigraphical manner, whether by machine or by hand.

3.1.6 The trenches will not be excavated deeper than 1m to accommodate health and safety constraints, without shoring or stepping out of the trench sides. Should this be required, this may be costed as a variation should additional days on site be necessary. However, this is not likely to be an issue given that the trenches in the previous evaluation (OA North 2004) were typically 0.5m depth and only those in the hollow-way were deeper than 1m.

3.1.7 All features of archaeological interest will be investigated and recorded unless otherwise agreed by CCCHES. 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*.

3.1.8 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.

3.1.9 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.

3.1.10 Trenches will be located by use of GPS equipment which is accurate to +/- 0.03m, altitude information will be established with respect to Ordnance Survey Datum. This information will be plotted onto an updated digital plan (dwg) of the extraction area provided by the client.

3.1.11 **Access:** liaison for basic site access will be undertaken through the client and it is understood that there will be access for both pedestrian and vehicular traffic to the site. Should there be any unforeseen delays resulting from access difficulties beyond the control of OA North a stand down rate will be charged.

3.1.12 **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.

3.1.13 **Fencing requirements:** the trenches will be protected during the course of the evaluation using barrier tape. However, if the client deems this as not suitable OA North must be informed prior to commencement of site works. Consequently, should heras fencing or similar be required this will be costed as a variation.

3.1.14 **Environmental Sampling:** environmental samples (bulk samples of 40 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.
3.1.15 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 will be provided as a variation.

3.1.16 **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.

3.1.17 **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. Such removal may also require costing as a variation, the amount of which will be made in agreement with the client.

3.1.18 **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.

3.1.19 **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.

3.1.20 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.

3.1.21 **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 and would be in agreement with the client.

3.1.22 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**

3.2.1.1 Initially, a pdf version of the draft report will be submitted to the client for approval within eight weeks of completion. Upon client agreement, one bound and one unbound copy of the finalised report will be submitted to the client, and a further three copies submitted to the Cumbria HER. Any additional draft submissions and amendments may require recosting as a variation.

3.2.2 The report will be in accordance with the CCCHES brief and 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 the fieldwork 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
- 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
• 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.

3.2.3 It must be noted that as per the CCCHES brief, recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation will not be included, although this may be outlined to the client and CCCHES in a separate communication.

3.2.4 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.

3.2.5 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.

3.2.6 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.

3.3 ARCHIVE

3.3.1 The 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 will deposit the original record archive of projects with the Whitehaven Record Office.

3.3.2 All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists.

3.3.3 The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum. CCCHES will be notified of the arrangements made.

4. OTHER MATTERS

4.1 HEALTH AND SAFETY

4.1.1 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.

4.1.2 Full regard will, of course, be given to all constraints (services etc) during the watching brief as well as to all Health and Safety considerations. As a matter of course the Unit uses a Cable Avoidance Tool (CAT) prior to any excavation to test for services. However, this is not fool-proof and it is assumed that the client will provide any available information regarding services within the study area.

4.1.3 A portable toilet with hand washing facilities, and a messing facility/laying out space will be required during the archaeological works. Should the client wish for OA North to arrange for these facilities they will be charged as a variation.

4.1.4 The costs assume that the mechanical excavator will be provided by the client.

4.2 PROJECT MONITORING
4.2.1 Whilst the work is undertaken for the client, the Historic Environment Officer, working on behalf of the Local Planning Authority, 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.

4.3 WORK TIMETABLE

4.3.1 Evaluation Trenching: approximately six days will be required to complete this element with a team of three people.

4.3.2 Report: the report will be produced following the completion of all the fieldwork. A draft report will be submitted within eight weeks of completion of the fieldwork for approval by the client. A final version will be submitted within two weeks of receipt of detail of amendments.

4.3.3 Archive: the archive will be deposited within six months.

4.3.4 OA North requires a formal written agreement or order, subsequent to which the work can be scheduled. Due to present commitments at least two weeks notice is necessary.

4.4 STAFFING

4.4.1 The project will be under the direct management of Jamie Quartermaine BA (Hons) Surv Dip MIFA (OA North senior project manager) to whom all correspondence should be addressed.

4.4.2 All elements of the assessment will be supervised by either an OA North project officer or supervisor experienced in this type of project, and assisted by two OA North project assistants. Due to scheduling requirements it is not possible to provide these details at the present time. All OA North project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.

4.4.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North’s in-house finds specialist Christine Howard-Davis (OA North finds manager). Christine has extensive knowledge of finds from many periods.

4.4.4 Assessment of any palaeoenvironmental samples will be undertaken by or under the auspices of Elizabeth Huckerby MSc (OA North environmental manager). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

4.5 INSURANCE

4.5.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.
### APPENDIX 3: CONTEXT REGISTER

<table>
<thead>
<tr>
<th>Context</th>
<th>Trench</th>
<th>Interpretation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>All</td>
<td>Topsoil</td>
<td>Grey brown-black silty sand, 10% pebbles/cobbles/gravel</td>
</tr>
<tr>
<td>201</td>
<td>All</td>
<td>Geology</td>
<td>Orange and yellowish-brown sands and gravel</td>
</tr>
<tr>
<td>202</td>
<td>1</td>
<td>Cut of furrow</td>
<td>A ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>203</td>
<td>1</td>
<td>Fill of furrow, 202</td>
<td>Mid to dark orangey-brown, silty sand, less than 1% of pebbles</td>
</tr>
<tr>
<td>204</td>
<td>All</td>
<td>Group for furrows</td>
<td>A group of furrows aligned north-west/south-east, within trenches 1,2,3,4,6,7,8,9,11,20</td>
</tr>
<tr>
<td>205</td>
<td>N/A</td>
<td>Void</td>
<td>Void</td>
</tr>
<tr>
<td>206</td>
<td>9</td>
<td>Fill of furrow, 207</td>
<td>Mid orangey-brown, sandy silt, containing less than 1% of cobbles/pebbles, and less than 1% of charcoal</td>
</tr>
<tr>
<td>207</td>
<td>9</td>
<td>Cut of furrow</td>
<td>An undulating ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>208</td>
<td>9</td>
<td>Fill of furrow, 209</td>
<td>A mid to dark orangey-brown, silty sand, with less than 1% of pebbles, and less than 1% of charcoal</td>
</tr>
<tr>
<td>209</td>
<td>9</td>
<td>Cut of furrow</td>
<td>A ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>210</td>
<td>13</td>
<td>Fill of gully, 211</td>
<td>A mid to dark orangey-brown, silty sand, with less than 1% of sandstone, less than 2% of pebbles, and less than 1% of charcoal</td>
</tr>
<tr>
<td>211</td>
<td>13</td>
<td>Cut of gully</td>
<td>A ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>212</td>
<td>19</td>
<td>Fill of ditch, 213</td>
<td>A mid-orangey-brown, silty sand, with less than 5% of pebbles</td>
</tr>
<tr>
<td>213</td>
<td>19</td>
<td>Cut of ditch</td>
<td>A shallow ‘U’-shaped cross section linear with central step at the base; it is aligned north-east/south-west</td>
</tr>
<tr>
<td>214</td>
<td>16</td>
<td>Subsoil</td>
<td>A mid-brownish-grey, sand, with 5% rounded cobbles/gravel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>215</td>
<td>16</td>
<td>Cut of gully/possible wheel rut</td>
<td>A shallow U-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>216</td>
<td>16</td>
<td>Cut of hedgerow</td>
<td>A shallow U-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>217</td>
<td>16</td>
<td>Cut of furrow/possible wheel rut</td>
<td>A shallow U-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>218</td>
<td>18</td>
<td>Subsoil</td>
<td>A mid brownish-grey, sand, 5% of rounded cobbles/gravel</td>
</tr>
<tr>
<td>219</td>
<td>18</td>
<td>Cut of gully/possible wheel rut</td>
<td>A ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
<tr>
<td>220</td>
<td>18</td>
<td>Cut of gully/possible wheel rut</td>
<td>A shallow ‘U’-shaped cross section linear, aligned north-west/south-east</td>
</tr>
</tbody>
</table>
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