



# Hayeswater Pipeline, Bankwood to Raisbeck, Cumbria

## Archaeological Evaluation and Survey Report



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Mark Bagwell, Arran Ferguson, Hannah Gajos, and Paul Gajos carried out the archaeological evaluation with the assistance of Nicola Gaskell, Martin Sowerby, Christina Clarke and Jason Clarke. Vix Hughes carried out the topographic and photographic surveys. David Tonks, Matt Town and Paul Gajos carried out the watching brief. Mark Bagwell, Arran Ferguson, Paul Gajos and Vix Hughes wrote this report and the drawings were produced by Emma Carter. Jamie Quartermaine and Ian Miller edited the report, and the overall project management was by Jamie Quartermaine.



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## SUMMARY

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Oxford Archaeology North (OA North) was requested by United Utilities to examine the archaeological implications of the construction of sections of a proposed pipeline route in central Cumbria. One section extended through the areas around Pooley Bridge, Askham, Helton, Bampton and Shap (NY 4781 2492–5615 1256). The other section ran between Bankwood and Raisbeck, across the Eden valley (NY 6437 0758–7317 1948). Both areas comprise extensive landscapes containing a rich range of archaeological monuments extending from the Neolithic period through to the present. Some of the sites are Scheduled Monuments, deemed to be of national importance, and as such are protected from any disturbance. Following on from, and informed by, an initial rapid assessment and the walk-over survey, an archaeological evaluation of the proposed route of the pipeline between Bankwood and Raisbeck was carried out between January and February 2004, the evaluation work in the Pooley Bridge to Shap section is covered by a separate report. In conjunction with this, an archaeological survey was undertaken of selected earthwork monuments. Following on from the evaluation, selected sections of the route of particular significance, were examined by watching brief. This report outlines the findings of the evaluation, the survey and the watching brief.

During the course of the evaluation, four areas of archaeological interest were located. The first area of potential, east of Little Asby, produced a small quantity of medieval pottery, which is thought to be associated with a large sub-rectangular platform (Site **141**) extant as an earthwork to a height of 100mm, approximately 10m from the proposed route of the pipeline. Within this same field, approximately 100m west of the platform discussed above, was a circular feature with an earthen bank (Site **140**) extant to a height of 80mm. A possible entrance was situated at the north-western end of the feature, which was located approximately 35m south of the proposed corridor of the pipeline. It was, therefore, decided that further archaeological investigation needed to take place prior to construction in this area. Three trenches (Trenches 94–6) were excavated within the easement of the pipeline as near as possible to these earthworks. No features were discovered, although medieval pottery and flint artefacts were recovered from the topsoil.

A second area of archaeological potential was identified in the environs of Bleatarn Common. Aerial photography of the field immediately west of the proposed pipeline indicated a large rectilinear enclosure, visible as a crop mark. Extensive trial trenching in this area revealed a single pit, within which a flint waste flake was recovered. The morphology of the enclosure indicated a possible prehistoric date, which is further supported by the feature located during trial trenching and the associated lithic find. Additional trenching was undertaken in this area so as to explore fully the area adjacent to the cropmark site, but this did not reveal any further features.

A third area was located to the north-west of Sandford, where a shallow ditch with a rounded profile was revealed within the base of Trench 50 (Fig 15). Although no dating evidence was recovered, it was aligned differently from the present field boundaries, suggesting an earlier field system associated with the settlement of Sandford. Because of the potential for further field system remains a watching brief was maintained around the north-west side of the village, but this did not reveal additional features.

The fourth area was to the south of the A6 road, near Dike Nook Farm. Here a further boundary ditch was recorded in Trench 58 (Figs 15 and 17), which was aligned

perpendicular to the line of the A66. The A66 is on the line of the Roman road between Carlisle and York, and therefore the ditch has the potential of being part of a field system within the hinterland of the road. A watching brief was maintained during the topsoil strip for this section and revealed two further boundary ditches which were part of a similar field system.

A topographic survey, carried out in March / April 2004, recorded a total of nine sites; these included Site **8** in the area of Sandford Village; Site **96** (Fig 7), a linear field boundary earthwork; Site **100** (Plate 2), a hedgerow along Newlands Road; Site **105** (Plates 3-4), an extensive area of ridge and furrow near Bleatarn Common; Site **108** (Plate 5), an earlier trackway along Hag Lane north of Warcop; Site **111** (Plate 6), a possible lynchet again near Sandford Village; an area of ridge and furrow (Site **142**) (Plate 1), near Gallansay; and a ring feature (Site **140**) and platform (Site **141**) near Little Asby. The remaining sites, Sites **18**, **21** and **109** were all found to be well away from any direct or indirect impact from the pipeline and were therefore not recorded.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 **Initial Assessment:** a proposal by United Utilities to lay sections of new pipeline between Ullswater and the Eden valley would necessitate the below ground disturbance of a large area of land. It was considered that there was a high probability of archaeological deposits being disturbed during this work. It was therefore requested by the Cumbria County Council Archaeological Service (CCCAS) and the Lake District National Park Authority that a programme of archaeological assessment be undertaken in advance of the works. This assessment comprised a rapid appraisal in conjunction with a rapid identification survey (OA North 2003), and was intended to appraise the likely archaeological value of the specified area, and to locate and record potentially important features in the landscape, whether or not they were visible as surface remains. This examined two sections of pipeline route, that between Bankwood and Raisbeck (NY 6437 0758–7317 1948) (Fig 1), and that between Pooley Bridge and Shap (NY 471 220 – NY 561 126). Following on from this CCCAS required that a programme of archaeological evaluation be undertaken to examine the below ground potential of the pipeline route and a topographic survey to provide a mitigative record of the surface features that will be affected by the pipeline. To this end a project design was prepared by OA North (*Appendix 1*) defining the programme and this was sanctioned by CCCAS. The present report incorporates the results of the evaluation for the Bankwood to Raisbeck section of pipeline route only.
- 1.1.2 **Topographic Survey:** following on from the assessment and walkover survey, the project design recommended the recording of 11 earthwork sites by topographic survey before their potential destruction. In the event some of these were preserved by re-routing or were not going to be affected by the proposed pipe laying (Sites **7, 18, 21** and **109**) and therefore were not surveyed. Others were disturbed by topsoil stripping before the survey could be undertaken and two additional sites were surveyed. This entailed the overall survey of nine sites.
- 1.1.3 **Evaluation:** following on from, and informed by, the rapid assessment and walkover survey, a programme of evaluation trenching was implemented. This was targeted primarily on sites identified by the appraisal, and was defined by a project design produced by OA North in conjunction with CCCAS (*Appendix 1*). This proposed the excavation of 123 20m x 1.7m trenches (Figs 2–4), which aimed to examine the areas around the documented sites, but also included a lower density of trenches in-between the documented sites to investigate the potential for previously undiscovered sites. Following the identification of areas of high archaeological potential in the initial programme of evaluation trenching, a further three trenches (Trenches 94-6) were required to be excavated in the area of Little Asby. In the event, some trenches could not be excavated because of access and topographic restrictions, and a total of 96 trenches were eventually excavated.
- 1.1.4 **Watching Brief:** following the evaluation programme, a select number of sites were recommended for investigation by watching brief, either because of features identified during the course of the ground works or because of the proximity of

sections of the pipeline to significant documented sites. In particular, a watching brief was maintained during groundworks on the south side of the A66 road where there was the potential for Roman field systems extending out from the line of the Roman road. A watching brief was also maintained around Sandford village where there was the potential for remains of medieval field systems.

- 1.1.5 The evaluation, and topographic survey were all carried out between February and April 2004, and the watching brief continued through to September 2004. This report presents the results of the evaluation, survey and watching brief.

## 1.2 RAISBECK TO BANKWOOD SECTION

- 1.2.1 The Raisbeck to Bankwood section of the pipeline starts in the west at Raisbeck village (NGR NY 699 098), in the upper reaches of the Lune valley and extends across the marginal uplands of the Crosby Ravensworth fells at Little Asby. From here it drops into the low-lying lands of the Eden valley, crossing the River Eden at Sandford. It extends across to the north-eastern side of the Eden valley crossing the Roman road on the line of the modern A66 and continues up onto the marginal lands of Warcop Fell, terminating at the village of Bankwood (NGR NY 731 194). The pipeline extends across the flat Eden valley which has been a focus for settlement since the early prehistoric period, but also onto the surrounding marginal lands, which have been less intensively exploited, allowing the survival of earlier settlement remains.

## 1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 **Mesolithic:** there is clear evidence for human activity in the area during the Mesolithic period, particularly on the marginal uplands on the western side of the Eden Valley. There is also evidence of small-scale exploitation of the fells during the late Mesolithic period identified through artefactual surveys (Cherry and Cherry 2002, 4) on Orton, and Great and Little Asby fells, in the vicinity of Gamelands Stone Circle, Tarn Moor and Rayseat Pike long cairn.
- 1.3.2 **Neolithic:** during the Neolithic period, there appears to have been a shift in the emphasis towards more established settlement on the West Cumbrian coastal plain, the marginal uplands of the Lake District hills and the Eden Valley (Hodgkinson *et al* 2000, 37) as evidenced by the numbers of large funerary monuments. From this period there is, close to the south edge of the study area, the classic long cairn at Rayseat Pike (Crosby Garrett Fell), which is 55m long and contained six or seven disarticulated skeletons (Greenwell 1877). At the nearby Orton parish is the large embanked stone circle of Gamelands, which is undated but typologically probably of the late Neolithic period (Waterhouse 1985, 141). The artefactual evidence is more widespread and around the area there have been found clustered flint scatters, some with pottery of Peterborough Ware (Cherry and Cherry 1993, 13; Cherry and Cherry 2002, 12); finds of this date have been found in the area of Little Asby Fell.
- 1.3.3 **Bronze Age:** the area of uplands, through which the study corridor extends, the Crosby Garrett, Orton and Asby Fells, has a considerable wealth of Bronze Age remains (RCHM(E) 1936). There are a number of funerary monuments across the extent of these uplands, particularly round cairns of the Bronze Age; notable of these is a large ring cairn at Hardendale, with dates of 1940–1525 cal BC (3430±80

BP, OxA 2127) and 1870–1529 cal BC (3360±60 BP, OxA1834) (Howard-Davis and Williams forthcoming). There is also the ring cairn at Oddendale, near to the Hardendale ring cairn, which was of early Bronze Age date but overlay a large Neolithic post-hole structure (Turnbull and Walsh 1997). In addition, close to the proposed pipeline are two large funerary cairns, a round cairn at Mazonwath (NY 69220 08480) and a probable kerbed cairn, Howes Well (NY 68051 08378), both on Little Asby Fell (OA North 2004a). The surrounding area also included a number of Bronze Age stone circles, such as that at Oddendale (NY 592129) and White Hag (NY 607116) (Waterhouse 1985, 136–9). In addition, the artefactual surveys of Cherry and Cherry (1987) have identified further sites of Bronze Age date from across the limestone uplands of the Asby, Orton and Crosby Ravensworth fells. The Bronze Age flint scatters, with occasional sherds of beaker pottery, are smaller in extent but more widespread than those from earlier periods, and are found at a greater altitude than the Neolithic scatters suggesting a greater exploitation of resources in the uplands during the Bronze Age (Cherry and Cherry 2002, 13). While the Eden Valley was undoubtedly a focus for early and subsequent settlement, the land has been so intensively exploited that few remains of prehistoric date survive on the surface in this area; however, this does not exclude the possibility that sub-surface remains survive.

- 1.3.4 **Iron Age:** there is a general paucity of discernible Iron Age sites throughout the North West, and there is a lack of definable and distinct ‘Iron Age’ material culture in the region, in part because of the lack of a clear distinction between Iron Age and Romano-British settlements based purely on typological grounds. The Iron Age and Romano-British period are typified by enclosed settlements, of which there is a particularly large number within the parishes of Asby, Crosby Ravensworth and Crosby Garrett (RCHM(E) 1936; Jones 1975). Only a minority of enclosures are typologically dated to the Iron Age, notably the hillfort at Castle Folds on Great Asby Scar (RCHM(E) 1936), which is both naturally defended and has a large defensive wall with hut circles set into its internal face. Similarly, there is an enclosed settlement at Gilts Farm, south of Crosby Ravensworth (*ibid*) which has typologically dated to the Iron Age. The characteristics of the latter is that it has a simple sub-circular enclosure, defined by what appears to be a rampart, and contains a series of round houses but no stock pounds.
- 1.3.5 The majority of enclosed settlements have been typologically ascribed to the Romano-British period; however, few in the North West have been reliably dated and some, or many, may have had their origins in the Iron Age or indeed could be post-Roman. The most notable from the area is the very large enclosed settlement at Ewe Close (south-west of Crosby Ravensworth), which was excavated by Collingwood and produced Romano-British pottery (Collingwood 1909) and was dated accordingly. However, as radiocarbon dates were not available at the time of the excavation and the material culture of both the Iron Age and the early Medieval period was not rich, then inevitably there would have been a bias towards the Roman period, even if the occupation at the site had extended beyond the period of Roman occupation. More recently the excavation of a rectangular enclosed settlement at Broadwood, near Ingleton, North Yorkshire has produced some radiocarbon dates that range from 88 CalBC - CalAD 66 (2010±028 BP; KIA 22910) to CalAD 78-383 (1805±64 BP; KIA 22913) and indicate an occupation of the site from the late Iron Age into the first part of the Roman period (Johnson 2004, 60). The implication is that other complex enclosed settlements may also have their origins in the Iron Age.

- 1.3.6 **Roman:** there is considerable evidence for military activity in the Eden valleys during the Roman period (Shotter 1997). There was a chain of forts extending down along the Eden valley from Maiden Castle to Brougham, including Kirkby Thore and Brough along the Trans-Pennine Roman road following the line of the modern day A66, which is directly traversed by the pipeline alignment, north of Sandford (Margary 1973, 433 (Road 82)). A further road extends north/south along the Lune valley from Burrow-in-Lonsdale to Low Borrow Bridge then joining the road at Brougham and heading towards Carlisle. The presence of such communications would have enabled a significant traffic in goods and people through the region, travelling to and from the northern frontier forts established in the first and second century, and would also have encouraged agricultural settlement in the area to supply the forts. The evidence of settlement would appear to be reflected in the considerable numbers of complex enclosed settlements prevalent in this region, that are considered typologically to be of Roman date.
- 1.3.7 **Early Medieval:** as is the case throughout Cumbria, evidence for early medieval activity is limited. Once the administration of the Roman occupation was finally rescinded in cAD 410 (although there had been a gradual diminishing of government organisation for some time prior to this), the 'native' Britons reverted to autonomy. The region is thought to have been part of the kingdom of Rheged, which was under the control of the British King Urien at the end of the sixth century AD (Higham 1986, 266). From the seventh century onwards the area came under the sway of the expanding Anglian kingdom of Northumbria (Kirkby 1962). By the tenth century Hiberno-Norse cultural and political influences began to affect the area; documentary evidence is almost non-existent (Newman 1984), although the place-name evidence indicates the presence of people of Hiberno-Norse extraction in the landscape throughout Cumbria (Fellows-Jensen 1985). More tangible evidence comes from the few known sites and finds from the area, such as an Irish-Viking pennanular brooch and silver torque discovered on the north end of Orton Scar in 1847 (Edwards 1998, 31) and a hoard of pre-Conquest metalwork recently found on Asby Winderwath common that was found amongst several undated stone structures (Edwards 2002). Recently a small Norse cemetery has been identified from Cumwhitton, Cumbria, comprising six burials and provisionally dated to the early tenth century AD (Newman forthcoming).
- 1.3.8 Recently a number of excavations have suggested some early medieval activity within the region, notable amongst this is a sunken house settlement at Fremington, near Brougham (Oliver *et al* 1996, 127–70), which was of early medieval date. Nearby at Whinfell was a further settlement comprising a series of overlying timber long houses, which produced no valid finds, but which has been dated to the early medieval period on typological grounds. A further timber long house was recently recorded from Parker's Croft, Shap, and which was probably of early medieval date (Heawood and Howard-Davis 2002).
- 1.3.9 **Medieval:** this period is best represented by the villages of Little Asby, Raisbeck and Sandford (Sites 26, 7, and 8 respectively); the pipeline alignment infringes on the Hazard Areas for these villages. Their layout is typical of medieval planned, nucleated settlements, and the settlement morphology and surviving earthworks of many villages within the Eden Valley catchment have thus been interpreted as representing evidence of medieval origins (CCCAS nd). Many show a rectangular plan, sometimes around a green, but often apparently based around a narrow street

(Roberts 1993, 131–3); the village fields were laid out at right angles to this street. The former extent of the village fields is often now reflected by a few narrow fields, which appear to represent the enclosure of groups of strips. Several of the settlements are characterised by areas, sometimes individual plots (tofts), in which there are earthwork remains of former buildings (crofts) (CCCAS nd). This has been interpreted as demonstrating that the villages were larger during the medieval period, or that the focus of settlement has shifted. It has been argued that ‘the quality and number of such remains is remarkable, and must be regarded as of national significance’ (*ibid*).

- 1.3.10 The foundation date for the villages remains problematic and speculative, and to some extent rests on the assumption that they must have been settled before the disasters of the fourteenth century, which included plague, diseases of livestock, and Scottish raids (Winchester 1987, 44–5). It has been suggested that many of the Villages of the Eden valley (eg Melkinthorpe, Maulds Meaburn, and Temple Sowerby), being planned nucleated settlements, have been tentatively dated to the early post-Conquest period, particularly from the twelfth century onwards in Cumbria (Roberts 1993). Although the rapid appraisal did not reveal any information about the founding of the villages, it established, through references in medieval documents that there were settlements at these locations from at least the twelfth to thirteenth centuries (CCCAS nd). Research into the village plans has identified visible earthworks on either side of the main streets of Raisbeck and Sandford villages. Such earthworks are moderately extensive around the villages and can be seen clearly on aerial photographs and also at ground level (CCCAS nd).
- 1.3.11 **Field Systems:** there are many villages in the Eden Valley which have the fossilised remains of a former ‘open-field’ system around them (Butlin 1993, 173); this consisted of large open arable fields of three or four in number, which were communally managed and rotated in terms of produce grown, grazing use or lying fallow. Such areas using this farming practice were usually larger areas of fertile, arable land in lowland regions. The characteristic features of this landscape are the long narrow, reversed ‘S’-shaped strips within the large fields, which represent individual working plots within the field. The ridge-and-furrow undulations within the fields result from the use of animals, mostly oxen, to plough the land and the necessarily long turning circle for these animals. Where areas that were in use in this way have been subsequently used as grassland, the ridge-and-furrow and field layouts remain fossilised in the landscape. When the open fields were eventually enclosed, the field boundaries followed the lines of the internal cultivation strips, and so the resultant strip fields often fossilise the sinuous (aratal) shape of the oxen-ploughed ridge-and-furrow. This type of landscape can be seen in many areas of Britain today, but it must be emphasised that not all ridge-and-furrow is of medieval date. Some are the result of later ploughing, although there are differences in the layout of fields and nuances in the size and shape of the ridge-and-furrow, which may indicate the date of its formation.
- 1.3.12 For all the villages affected by the pipeline, the modern field systems around the centres have demonstrably developed from former open field systems around the village. The reason for the preservation of the field pattern and earthworks within the village relates to the well-established pattern of shrunken villages within the

Eden Valley, an inevitable result of population decrease, resulting from the plague and periods of murrain.

- 1.3.13 **Post-Medieval:** the areas between Raisbeck and Little Asby village are dominated by numerous quarry sites and associated limekilns, some of which survive in good condition to the present day. There were at least 12 main quarries and 16 limekilns recorded in the SMR and seen on the OS First Edition 6" to 1 mile maps (OA North 2003; Figs 2–4). There is plentiful evidence from surviving remains, landscape features, maps and documentary sources to demonstrate the effects of the lime industry in the area. Limestone was quarried either for use as stone or tile (Marshall and Davies-Shiel 1977, 159) or, once burnt, producing lime.
- 1.3.14 The North and Eastern Railway line, Eden Valley Branch, through Warcop and Sandford (Site **80** (Plate 7)), will be directly affected. Although the site is of relatively recent date, being built in the nineteenth century, railway heritage is a significant part of the post-medieval development of Britain (Jones 1996, 300). Within the surrounding landscape, existing embankments and cuttings of railways may still be found with the traces of the methods of construction and the remains of the navy camps, which were occupied by those involved in the construction of the railways (*op cit*, 253).



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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 A project design (*Appendix 1*) was submitted by OA North to United Utilities for an archaeological evaluation, topographic survey and watching brief along one section of the Hayeswater pipeline, within a corridor 20m wide centred on the proposed route which extended from Raisbeck to Bankwood (NY 699 098–NY 731 194) a total distance of c14km. The project design was produced in accord with a verbal brief from Jeremy Parsons, Cumbria County Council Archaeology Service.

### 2.2 TOPOGRAPHIC SURVEY

- 2.2.1 **Instrument Survey:** an OA North level 2b survey was undertaken of the sites identified by the appraisal, which is equivalent to RCHM(E) level 2. All topographic detail was recorded to provide an appropriate context for the archaeological detail.
- 2.2.2 Survey control was established over the site by closed traverse and was internally accurate to +/- 15mm; the control network was located onto the Ordnance Survey National Grid by the use of Global Positioning Survey (GPS), which is accurate to +/- 0.25m.
- 2.2.3 The surface features were surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation being appropriate for a 1:500 output. The digital data was transferred onto a portable computer for manipulation and later transferred to other digital or hard mediums. Film plots were outputted via a plotter. The archaeological detail was drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. The survey drawings were generated within a CAD system and were merged with existing topographic data, and with the results from the earlier survey.
- 2.2.4 **GPS Survey:** in lower order sites detailed survey was undertaken using a post-processed differential GPS, which is accurate to 150mm. The data was then plotted and subjected to manual enhancement.

### 2.3 TRIAL TRENCHING

- 2.3.1 The programme of trial trenching aimed to establish the presence or absence of archaeological deposits and, if established, test their date, nature and quality of preservation. The evaluation assessed the character of archaeological deposits to the depth of the natural topsoil.
- 2.3.2 The project design (*Appendix 1*) proposed the excavation of 123 trenches, which was to examine the areas around documented sites, but also intended a lower density of trenches in-between the documented sites to investigate the potential for previously undiscovered sites (Figs 2–4). Following the identification of areas of high archaeological potential in the initial program of evaluation trenching, a further three trenches were required to be excavated in the area of Little Asby (Figs 2 and 3). In the event some trenches could not be excavated because of access and

topographic restrictions, and a total of 96 trenches were eventually excavated. The trenches were typically 20m x 1.7m, though some were of varied length to suit the needs of the investigation and the local topography. An assessment of service plans was undertaken so that live services could be avoided.

- 2.3.3 The trenches were excavated mechanically with a toothless ditching bucket 1.7m wide to the level of the natural subsoil or to the level of identified archaeological deposits under close archaeological supervision. Where potential archaeological deposits were encountered, the trenches were hand cleaned and the deposits were manually excavated in order to test their date, character and extent. The trenches were accurately located by GPS (accurate to +/- 0.25m).
- 2.3.4 **Recording:** the trial trenching results were recorded using a system devised from that used by the English Heritage Centre for Archaeology. The archive includes both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:10 and 1:20). Recording was principally in the form of a *pro-forma* Trench Record sheet for each trench, which notes the orientation, dimensions and description of the topsoil and subsoil present in the trench. Features thought to be of possible archaeological potential were recorded using *pro-forma* Context Record sheets.

## 2.4 WATCHING BRIEF

- 2.4.1 A watching brief was maintained during the groundworks for selective sections of the pipeline, and was undertaken during and immediately following the initial topsoil strip. This entailed the removal of no more than a 0.25m depth of soil, down to the level of the subsoil, but did not expose the underlying natural. The topsoil was excavated with a 360° mechanical excavator. Observation of the work was undertaken, as well as examination of any soil horizons exposed, and the accurate recording of all archaeological features, horizons and any artifacts found during the excavations.
- 2.4.2 The watching brief was undertaken on selective sections of the pipeline route which had been highlighted as having archaeological potential by the evaluation and the earlier assessment (OA North 2003). In particular, the areas around Sandford village, and on either side of the A66 Roman road were examined.
- 2.4.3 **Recording:** the recording comprised a full description and preliminary classification of features or materials revealed, on OA North *pro-forma* sheets, and their accurate location, either on plan and/or section. Records were kept of all the sections of the watching brief even if the results were negative. All areas of archaeological interest were fully photographed, both in general terms and in specific details.

## 2.5 FINDS

- 2.5.1 **Artefacts:** all finds recovered were bagged and recorded by context number, retained for assessment, processed and stored according to current standard practice based on guidelines set by the Institute of Field Archaeologists (IFA 1992). The finds have been analysed by the OA North in-house specialist (*Section 4.4*).

## **2.6 ARCHIVE**

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

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### 3. TOPOGRAPHIC SURVEY RESULTS

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#### 3.1 SURVEY RESULTS

3.1.1 A total of 11 sites were recommended as requiring further topographic survey work within the project design (*Appendix 1*):

- Site **7** - Medieval Village
- Site **8** - Medieval Village
- Site **18** - Earthwork Settlement
- Site **21** - Earthworks
- Site **26** - Medieval Village
- Site **96** - Earthwork
- Site **100** - Hedgerow
- Site **105** - Ridge-and-Furrow
- Site **108** - Trackway
- Site **109** - Ridge-and-Furrow
- Site **111** - Lynchet

3.1.2 Of these, four sites (Sites **07**, **18**, **21** and **109**) were in areas that were in the event unaffected by the pipeline easement, usually on the opposite side of a track to the pipeline, or in an area where the pipe extended through the road, and were therefore not surveyed as there was no direct impact. A further two sites (Sites **140** and **141**) were recorded on the eastern side of Little Asby, being sites in the environs of the proposed pipeline and potentially subject to vehicle damage. At three of the sites, Sites **26**, **100** (Plate 2), and **105** (Plates 3-4), topsoil stripping had already commenced and this disrupted the effectiveness of the survey. In the case of Site **26**, the topsoil stripping removed any surface features from a considerable area and nothing could be detected in the small areas either side of the stripped length (*Section 4.3.1*). Site **105** (Plates 3-4) was partially disturbed by the recent establishment of the site compound, which had damaged an area of ridge-and-furrow within the field. In the same field as Site **99**, an area of previously unidentified ridge-and-furrow (Site **142**) (Plate 1) was observed and surveyed, again part of the area had already been subjected to the topsoil strip. In the event, nine sites were eventually surveyed.

3.1.3 The area of Site **8** was carefully examined, which revealed that in the immediate vicinity of the pipeline easement, there were no distinguishable features. However, within the wider corridor of the scheme, and just outside the easement corridor, was a small bank which was surveyed (Fig 3). The bank was 38m long, and 5.7m wide in the west, but only 3.3m wide at its eastern end. The bank had a down-slope edge only and was set up against a present day field boundary. It was probably a negative lynchet and reflects the line of former cultivation extending up to the field boundary, and is a vestige of the agricultural field system extending around the village of Sandford.

- 3.1.4 Site **96** (Fig 7) was a low linear bank visible in the field to the west of Newclose Lane; it is within the wider pipeline corridor but predominantly outside the topsoil stripped easement; it was aligned approximately west-north-west/east-south-east (Fig 4). As previously noted (OA North 2003), there was a slight continuation of the alignment seen as several large aligned stones below the present track, currently being used as an access route for pipeline activity. This was also observed as a line of larger stones within the area of the easement corridor. This suggests that the alignment was a field boundary that existed prior to the present track. In the field wall, at the point where the alignment crosses the wall, was a clear rebuilt section of wall (Plate 2), which would suggest that this was a former entranceway into the field to the west of the lane.
- 3.1.5 Site **100** (Plate 2), was a hedgerow extending north/south along Newlands Road (Plate 4). Trees and hedge shrubs grew from the top of a prominent embanked earthwork that was 1.2m in width and in places up to 0.5m in height (Fig 9). The topsoil strip for the pipeline was set no closer than 3m from the hedgerow which was only impacted at the point where the pipeline crosses the road.
- 3.1.6 Ridge and furrow Site **105** (Plates 3-4), covered a considerable area and was recorded in the fields on both the eastern and western sides of the road (Fig 10). The ridge-and-furrow was somewhat variable and had been disturbed by later field drains which cut across it and in places made it difficult to follow, as did the light conditions on the day of survey (Plates 5 and 6). The distance from ridge crest to ridge crest varied from over 6m to about 9m in distance, and the overall profiles were smooth, with an average depth of between 0.3m and 0.4m. In the field to the west of the road the ridge-and-furrow did not extend along the full length of the field, suggesting that there had perhaps been a field boundary, since lost, which determined the northern limit of ploughing. A long, low, intermittent mound was seen along the eastern edge of the same field, which was on the same orientation as the modern field boundary and, significantly, extends north-west from the most north-easterly extent of the ridge and furrow. The line of the ridge and furrow is continued on both sides of the road, which would suggest that the road cut through an area of earlier cultivation. The field boundaries on the eastern side of the road are parallel to the ridge and furrow which would suggest that they were related to some extent. The low bank in the western field has the same alignment as the road side boundary, which would suggest that even though the road apparently cut the ridge and furrow it is itself of some antiquity, having had more than one phase of boundary. The ridge and furrow is relatively broad and is typical of oxen ploughing, most commonly practised in the medieval period. The implication is that the ridge and furrow was of medieval date.
- 3.1.7 Site **108** (Plate 5), is the original alignment of Hag Lane, marked on the map as a track to the west of the modern, military road on Warcop Range (Figs 11 and 12). The lane was 4m wide, and bounded on its western side by a boundary bank / dry stone wall and had intermittent ditches on either side (Plate 7). At the extreme southern end a bank was also evident on the eastern side, as well as a roadside ditch, which may be more recent as it was associated with the present road. The track surface is grassed over, but a metalled surface exists approximately 0.04m below the surface. This early track survives for much of the length of Hag Lane, always to the west of the modern road and bounded on the west by a low bank. The modern road is built up by approximately 1.5m relative to the early lane. Further

north, beyond the surveyed area, there were intermittent traces of the track continuing but large areas were disrupted by modern army activity and only in one section (not recorded being removed from the pipeline) could the track way be seen to survive as well as that at the southern end of the track.

- 3.1.8 Site **111** (Plate 6), was a single linear feature, running west-north-west/east-south-east, just north of an existing hedged field boundary (Fig 13). The site is in part formed as a result of cultivation against the line of the field boundary, but may have been enhanced by erosion along the adjacent sheep track (Plate 8). The site is somewhat unusual in that along the western part of the field there was a clear low bank, which terminated at the field gate/entrance part way along the southern boundary. To the east of this the earthwork took the form of a large negative lynchet extending south from the line of the hedged boundary. This suggests that perhaps, originally, there was a field boundary separating the area into two smaller fields. While the hedgerow marks the line of the present field boundary the earlier line of boundary is indicated by the line of the bank / lynchet, which is in part overlain by the hedgerow.
- 3.1.9 Site **140** was a ring bank feature surviving within an area of pasture land. It had an external diameter of 9.6m, and the bank was 1.6m across; the earthwork was degraded, but at its maximum was 0.45m in height. There was an indication of a gap / entrance in the northern side of the feature which was 2.4m across. Although the feature was eroded there was a slight suggestion that the bank on the upslope side (southern side) had a slightly greater internal height than that on the downslope side, which would suggest that the interior of the ring bank was internally terraced. The suggestion is that it was a small round house, but this cannot be confirmed without the benefit of excavation.
- 3.1.10 At a distance of only 96m to the north-east of the ring bank (Site **140**) was a rectilinear platform, Site **141**. It was 25m in length and 9m in width, and was divided into two individual components, with a narrow linear hollow in-between. The northern platform edge was c0.3m in height above the surrounding ground surface, and had a uniform upper surface, which appeared to be of artificial origin.
- 3.1.11 In the same field as Site **99**, opposite Gallansay House, an area of ridge-and-furrow was visible (Site **142**) (Plate 1); as it was under threat from the pipeline, it was surveyed (Fig 8). The ridge-and-furrow was aligned south-west/north-east and at the eastern edge of the field three possible lynchets were seen. The ridge-and-furrow extended beyond the easement into the remaining area of the field (Plate 3) and had regular smooth profiles, measuring roughly 8m from ridge to ridge. The lynchets were remote from the adjacent field boundary and were overlain by it. There is an apparent relationship between the ridge and furrow and the lynchets, as the lynchets mark the edge of the area of ridge and furrow cultivation. The lynchets and ridge and furrow are cut by the boundary for the road to the north. The ridge and furrow is relatively broad, which is consistent with oxen ploughing and, as such, is normally associated with medieval cultivation. From all the evidence it would appear that the earthworks are indicative of an area that had been subject to intensive cultivation, which pre-dates the present field system, and probably dates from the medieval period.

## 3.2 PHOTOGRAPHIC SURVEY

3.2.1 A further three sites were subject to a brief photographic survey and these included:

Site **25** - Earthwork (Quarry)

Site **80** - Railway

Site **99/142** – Pond / Ridge and Furrow

3.2.2 At Site **25** photographs of the general area were taken (Plate 9), but there was no depression identified that would correspond with the quarry originally defined in the SMR (SMR 1517) (OA North 2003). Site **80** (Plate 7) was the railway and bridge just north of Sandford, and a photographic record was made of the site of the proposed crossing (Plate 10). At Site **99**, an area of ridge-and-furrow (Site **142**) (Plate 1), was surveyed and photographed, but the pond was not identified.

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## 4. EVALUATION AND WATCHING BRIEF RESULTS

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### 4.1 INTRODUCTION

- 4.1.1 In total, 96 trenches were excavated, giving a combined total length of approximately 2km. The vast majority of the trenches were dispersed evenly along the proposed pipeline and in the area of the two works compounds. Typically, the trenches were 20m long x 1.7m wide, though trench lengths varied on occasion where circumstances dictated. Trial trenches were located, where possible, in areas regarded as being of high archaeological potential based on the results from the initial assessment and subsequent walkover survey. In two areas of particularly high potential, around the medieval settlement of Sandford and along the line of the A66 (thought to be in the proximity of the Roman road between Penrith and Brough), evaluation trenches were more densely concentrated. Three additional trenches (Trenches 94-6) were excavated in the vicinity of Little Asby following the recovery of medieval pottery from Trench 8 (Plate 8), and the identification of adjacent earthworks (Sites **140** and **141**). The locations of two trenches (Trenches 19 and 20), in the vicinity of Sandford, were moved because ground conditions did not permit their placement in their proposed locations.
- 4.1.2 Subsequent to the evaluation three areas were subjected to a watching brief (Figs 2-4), the first of which was to the west of Sandford village, the second to the north-east of Sandford village and the third was during the course of the topsoil strip adjacent and to the north of the A66.

### 4.2 TRIAL TRENCHING RESULTS

- 4.2.1 **Little Asby Area:** Trenches 1–8 were located in the environs of Little Asby. The stratigraphy throughout this area remained constant, with only a thin deposit of topsoil and subsoil (150mm maximum) overlying the natural limestone bedrock. Trenches 1–7 did not identify any layers or deposits of an archaeological nature. Trench 8 (Plate 8) was located adjacent to (within the pipeline corridor) a large (12m x 16m) sub-rectangular platform earthwork (Site **141**) and slightly further away a putative hut circle Site **140**. These features were not noted in the assessment or in the subsequent walkover survey report, but may be an indication of settlement activity in the area. Trench 8 produced two sherds of early post-medieval pottery and a single handle sherd from a medieval jug (*Section 4.4*).
- 4.2.2 Following the discovery of medieval pottery in Trench 8 (Plate 8), a further three trenches (Trenches 94–96) were excavated in the same area, to the east of Little Asby, after the removal of topsoil from the easement. Trench 94 (measuring 12m by 45m) and Trench 95 (measuring 12m by 52m) were adjacent to (within the easement) the possible house platform (Site **141**) and the putative hut circle (Site **140**) respectively. Trench 96 (Fig 7) was located immediately to the east of Trench 94, and measured 12m by 115m. No features or finds were seen in any of the trenches, although medieval pottery and three pieces of worked flint were recovered from the interface of the topsoil and subsoil in the immediate vicinity.



- 4.2.3 **Wander Bank to Grassgill Lane:** Trenches 9–18 were located in the vicinity of Wander Bank reservoir, east of Newclose Lane. All trenches measured between 20 and 25m in length and 1.7m in width. Limestone bedrock was evident at a typical depth of 210–300mm, underlying a thin deposit of topsoil and reddish-brown sandy subsoil. No finds, features or deposits of archaeological significance were identified in any of the trenches excavated.
- 4.2.4 **Grassgill Lane to Tarn Moor:** Trenches 23–28 were evenly spread in an area of gently sloping pasture fields. The natural typically comprised orange and greyish-brown sandy- and silty-clays at depths of between 0.20m and 0.40m below ground level, sealed beneath thin deposits of topsoil and greyish-brown sandy-clay subsoil. Trench 27 revealed a c0.70m diameter by 0.20m deep sub-circular feature, **8**, with a rounded profile, filled with brown silty clay, **7**, with manganese fragments. Root holes, filled with a similar material, were evident in the base of the feature, which, together with the absence of any anthropogenic material, suggests that it may have been a tree hole. Trench 24 revealed three stone-filled field drains, which were each 0.3m wide and were probably of post-medieval date.
- 4.2.5 **Bleatarn Common:** Trenches 30–37 were concentrated around Site **19** in the area of Bleatarn Common; the area was identified as being of high archaeological potential due to the proximity of a large rectilinear cropmark (Site **19**) directly west of the pipeline, and to the west of the Appleby road. The excavation of one of the initial trenches, Trench 33 (Fig 15; Plate 9), revealed a small, shallow pit, the cut of which, **5** (Plate 10), had gradually sloped sides and a rounded base. A single fill, **6**, was present within the feature and comprised a reddish-brown sandy-clay with occasional inclusions of small rounded and angular stone. A single flint waste flake was recovered from fill **6**. Given the high potential of the site, because of the adjacent cropmark and the excavated pit feature, a series of five additional evaluation trenches was excavated so as to provide a comprehensive exploration of the area immediately east of the cropmark site; this was in place of a watching brief which would have had a lower potential for identifying further remains. In the event, no further finds, features or deposits were noted within the remaining five trenches that were located in this field.
- 4.2.6 **Bleatarn Common to Blacksyke:** Trenches 38–44, located in the vicinity of Birks Farm, north-east of Bleatarn Common, contained no evidence for extant archaeological remains. The geology in this area had changed significantly and greater depths of reddish-brown, sandy-clay subsoil were encountered overlying the natural clay subsoil. Trench 44, adjacent to beck Black Sike, was excavated to a depth of 3.8m to expose a light grey-blue boulder clay.
- 4.2.7 **Sandford:** Trenches 45–48, located north-west of Blacksyke Farm and to the south-west of Sandford, were excavated to an average depth of 0.30m; no finds, features or deposits of an archaeological nature were recorded in any of these trenches. A total of 11 trenches, Trenches 19–21, and 49–56, was excavated around the north-western side of Sandford, The trenches revealed natural deposits comprising orangey-yellow silty-sand at a typical depth of 0.50m below ground level, sealed by grey, silty-sand subsoil and topsoil. Trench 50 (Fig 15), revealed a north-west/south-east-aligned linear feature, **13**, (Plate 15) probably a field boundary ditch, which ran across the width of the trench, 8.70m from its southern end. It was sealed by the topsoil and subsoil deposits and comprised a linear cut with a gradual rounded profile measuring 0.70m wide by 0.24m deep, filled with light grey silty-

sand, **12**. At its south-east end it was truncated by a twentieth century field drain. The ditch was not on the same alignment as any of the existing field boundary fences and therefore probably represented an earlier field system. Although no dating evidence was recovered from the ditch, it has the potential to be part of a medieval field system around Sandford.

- 4.2.8 **Dike Nook to Moor House:** Trenches 57–76 were concentrated along the line of the pipeline route that runs parallel to the A66 between Sandford and Moor House Lane. This section of the A66 is on the line of the Roman road that ran from Carlisle to York, and there is a considerable archaeological potential for field systems or settlements in the area on either side of this road. In particular, there is a large rectilinear cropmark thought to be of Romano-British origin that is located to the west of the junction between the A66 and Moor House Lane. While this site will not be directly impacted by the proposed pipeline route, it raises the possibility that there could be other comparable settlements or associated field systems in the environs of the road. The trenches revealed natural subsoils typically at 0.50m below ground level, comprising orange and greyish-yellow clayey-sand, sealed by thin sandy orangey-brown subsoil and topsoil deposits. Trench 58 (Fig 15) revealed a north-east/south-west-aligned linear shallow ditch, **11** (Plate 11), probably a field boundary, which ran across the width of the trench 5m from its western end (Fig 17). It was sealed by topsoil and subsoil deposits and comprised a linear cut with a rounded profile measuring 0.80m wide by 0.20m deep, filled with light-brown silty-sand, **10**. Although no dating evidence was recovered, examples of such ditches which have a notable absence of any finds have been found to have a Roman origin (OA North 2004b), and given that the ditch was perpendicular to a Roman road, the possibility exists that it was part of a Roman roadside field system.
- 4.2.9 **Moorhouse to Bankwood:** Trenches 77–93 were evenly spaced along the western edge of Moor House Lane and, with the exception of Trench 93, were located on the Ministry of Defence estates land. The trenches revealed natural deposits at between 0.30m and 0.50m below ground level, generally comprising greyish-yellow and orange silty sand, and overlain by shallow subsoil and topsoil deposits. In many of the trenches, the natural was disturbed by modern service trenches. The only feature revealed in this block of trenching along Moor House Lane was in Trench 90, and comprised a 3m by 0.80m wide by 0.25m deep linear north/south-aligned feature, **15**. It was in the northern end of the trench, and extended north/south beyond the trenches limits. A portion of the feature was excavated, revealing gradual sloping sides and a gently rounded base. Its fill, **14**, comprised sand, similar in composition to the natural and subsoil, with no inclusions. The feature may represent a naturally silted stream or a drainage ditch given the trenches location on low lying wet marshy ground.

### 4.3 WATCHING BRIEF RESULTS

- 4.3.1 **Sandford West:** a watching brief was maintained during the topsoil strip around the western side of Sandford village. The archaeological potential for this section was enhanced by the finding of a possible medieval boundary ditch within Trench 50 (Fig 15), which lies to the north-west of the village. It was recognised that there was the potential for the recovery of further remains of the field system, so a watching brief was implemented to examine this section of the pipeline route, around the

north-western part of the village, in the course of the topsoil strip for the pipeline. No features or additional artefacts were identified in this section of watching brief.

- 4.3.2 **Dike Nook:** the easement between a point to the north of Sandford village and Moor House Farm was stripped of topsoil with an archaeological presence though visibility varied greatly throughout the 10m wide easement (Fig 17). Two ditches (**101** (Plate 12) and **108** (Plate 13)), were seen within the easement to the south of Dike Nook (Fig 14). The first of these, **101**, (Fig 15a) was aligned north-west / south-east and extended for 18m across the full width of the easement. The ditch was 1.5m wide with a maximum depth of 0.65m and had a gently sloping profile at the top becoming much steeper towards the base (Fig 16). The nature of the fills within the ditch suggest that the initial filling of the ditch was quite rapid. No finds were recovered from the ditch and so its date remains uncertain.
- 4.3.3 The second ditch identified in the watching brief, **108** (Plate 13) (Fig 17), was located 17m (at its nearest point) to the east of ditch **101** (Plate 12). This ditch was aligned north-east / south-west and extended for 15m across the width of the easement. The ditch was 2.15m wide by 0.4m deep and had a much more rounded profile (Fig 16), than **101**. The ditch only had a single fill which, may indicate that it filled rapidly or that the upper fills were lost as a result of the truncation of the feature by ploughing; again no artefacts were recovered. Post-medieval ceramics are typically abundant within any cultivated ground, presumably as a result of night-soiling, and the apparent absence of post-medieval artefacts within the these ditch fills, may therefore be an indication that they pre-date the post-medieval period.
- 4.3.4 **Moor House:** two possible gullies were noted in the stripped area to the immediate north of the A66, approximately 40m from the road, and running north-west/south-east. Both features were broadly parallel, approximately 2m apart, and measured approximately 0.9m across by 0.2m deep with a rounded profile. The edges of the features were not clearly defined and were somewhat diffuse. No finds were recovered from either, and there exists the possibility that they were of natural origin, possibly solution hollows, because of the diffuse nature of the edges and the sterility of the fills.

#### 4.4 FINDS

- 4.4.1 **Introduction:** a moderate-sized assemblage of artefacts, which was dominated by fragments of pottery, was produced from the various elements of the project. However, the bulk of the pottery assemblage was of a late post-medieval or modern date, and comprised small and abraded fragments that were recovered from the topsoil, indicative of night-soiling activity. Consequently, most of the fragments were recorded in the field, and only a selected sample retained for analysis. In summary, the majority of the discarded material comprised small fragments of coarseware vessels, representing typical nineteenth century kitchenware forms, such as dark-glazed earthenware jars. The discarded material also included a few fragments of dinnerware and teaware forms, including transfer-printed and white-glazed earthenware bowls and plates. Pottery indicative of a late seventeenth or eighteenth century date, such as Blackwares, Mottled wares and Tin-Glazed Earthenwares, was absent.

4.4.2 In total, 25 artefacts recovered from the site were retained for further analysis, and these comprised pottery, flint and chert (see Table 1). All of the finds were recovered from the topsoil in the vicinity of Trenches 8 (Plate 8), and 94-96, with the exception of a single piece of worked flint recovered from feature 5 (Plate 10), in Trench 33 (Fig 15, Plate 9).

Context	Trench	Material	Quantity	Description	Date range
<i>I</i>	8	Pottery	2	Delft earthenware	Early eighteenth century
<i>I</i>	8	Pottery	1	Green glazed partially reduced medium sandy wares. Fragment of jug handle	Mid thirteenth to fourteenth century
<i>I</i>	94-6	Pottery	9	Northern gritty wares	Mid twelfth to mid thirteenth century
<i>I</i>	94-6	Pottery	8	Green glazed partially reduced medium sandy wares	Mid thirteenth to fourteenth century
<i>I</i>	94-6	Pottery	2	Medium sandy oxidised wares	Late twelfth to fourteenth/?fifteenth century
<i>5</i>	33	Flint	1	One waste flake	Undated
<i>I</i>	94-6	Flint	3	Two flakes, one tip of plano-convex knife	Late Neolithic early Bronze Age
<i>I</i>	94-6	Chert	1	Fragment	Prehistoric

Table 1: Type of finds from different contexts

4.4.3 **Pottery:** the finds assemblage was dominated by fragments of pottery (21 sherds), all of which may be dated to the medieval period. The pottery was not in very good condition, the gritty wares being particularly badly abraded and rolled, suggesting that they had been subject to disturbance within ploughsoil. Analysis of the pottery was based solely on visual inspection of individual sherds, and has been described using the terminology developed by Orton *et al* (1993) and the Medieval Pottery Research Group (1998).

4.4.4 The pottery may be divided into three groups, based on clear variations in the fabric types, and is described accordingly. The date ranges suggested for these fabrics are approximate, and are based on parallels from excavations in Carlisle (McCarthy 1990, 2000) and Penrith (Brooks 2000). For the most part, the absence of rims or other diagnostic sherds has precluded the confident identification of vessel forms, however, two of the Fabric 2 sherds are jug handles, one with incised decoration.

4.4.5 **Fabric 1:** a hard, coarse fabric with rough surfaces and a hackly fracture. It contains moderate, ill-sorted, sub-rounded to sub-angular quartz inclusions up to 1mm across, fragments of rock, and abundant mica. Wall surfaces are a pale brown with no evidence of a glaze, and the core is reduced to a dark grey. It is described as

being of the Northern Gritty Tradition, which has a date range of approximately later twelfth to mid-thirteenth centuries.

- 4.4.6 *Fabric 2*: this is a fairly fine sandy, partially-reduced grey to dark grey fabric with an irregular fracture. It has frequent tiny inclusions with sparse larger sub-rounded quartz inclusions up to 0.5mm across, and moderate mica. The exterior surfaces have been oxidised to orange with a yellow to olive-green lead glaze. The date range is approximately mid-thirteenth to fourteenth centuries.
- 4.4.7 *Fabric 3*: this is a hard, oxidised fabric with rough surfaces and an irregular fracture. It has moderate sub-rounded quartz inclusions up to 0.5mm across, and sparse mica. The surfaces are orange with a yellow lead glaze and it has a date range of approximately later twelfth to fourteenth /?fifteenth centuries.
- 4.4.8 **Lithics**: the flint recovered from feature 5, in Trench 33 consists of an undiagnostic waste flake in grey flint. The three flints and one chert piece recovered from the topsoil in the vicinity of Trenches 94–96 demonstrate prehistoric activity in the area. Two of the flints are waste flakes, although some use-wear on one of the pieces indicates that it may have been used as a tool, though neither can be closely dated. The third flint artefact measures 17mm by 14mm and has been worked to a slightly rounded point at the distal end. The re-touch on this piece is well executed and confined to the dorsal surface. It is thought likely that this piece is the broken tip of a plano-convex knife of late Neolithic or early Bronze Age date. The remaining lithic artefact is an undiagnostic chunk of black chert, which appears to have been removed from an irregular core.
- 4.4.9 **Conclusion**: the likely sources of pottery used in Cumbria during the medieval period are as yet not well known, and the fabrics present in the assemblage cannot be ascribed to a specific source. It is likely, however, that they are the product of a local source, and it is interesting to note that all three fabrics contained micaceous inclusions. It is also interesting to note that two of the sherds represent jug handles from two separate vessels one of which with some incised decoration. This is a piece of moderately high status suggesting that it came from a reasonably affluent owner. The pottery recovered from Trenches 8 (Plate 8), 94-6 and the surrounding topsoil may be associated with the sub-rectangular platform earthwork (Site 141) situated approximately 15m south of the proposed pipeline corridor.
- 4.4.10 The lithic assemblage is very small and only one piece can be ascribed to a specific period. The source of the flint remains unclear but the colour and inclusions are typical of a Cheshire plains source. It should be noted, however, that un-worked nodules of flint were seen in the till deposits in the area of Trenches 94-96 from which three worked pieces were recovered. Black chert, from which one of the artefacts was made, is known to occur in association with the limestone of the area and therefore could be locally sourced.

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## 5. CONCLUSIONS

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### 5.1 CONCLUSION

- 5.1.1 Archaeological evaluation of the proposed pipeline from Raisbeck to Bankwood revealed a limited quantity of archaeological data, which was concentrated in four areas of archaeological potential (see below). As a consequence these areas were subject to further investigation by watching brief during the course of the topsoil strip. The remaining areas were archaeologically sterile and required no further study.
- 5.1.2 **Little Asby – East:** the first of these areas of archaeological potential was to the east of the village of Little Asby, an area of raised spur above the valley of Potts Beck. Trench 8 (Plate 8), which produced a single sherd of medieval pottery, was located adjacent to a large (12m x 15m) raised platform earthwork (Site **141**), to the south and north of these were ditch-like cropmarks evident on a north / south axis (OA North 2003). This raised the possibility that there was medieval settlement or similar activity within the environs. Within this same field was a 9.6m diameter circular ring feature (Site **140**), approximately 35m south of the proposed pipeline corridor. While a reliable interpretation of the feature cannot be made purely on the morphological characteristics, it raises the possibility that this was a prehistoric round house. The evident archaeology in the area prompted the excavation of three large trenches (Trenches 94-6) which did not reveal any structural features but did produce further medieval pottery and some flint. On this limited evidence it would appear that there was activity in the local area during both the prehistoric and medieval periods, but despite the extensive trenching along the line of the pipe no physical features were identified.
- 5.1.3 **Bleatarn Common:** the second area of archaeological interest was located in the area of Bleatarn Common, adjacent to a large rectilinear cropmark on the west side of the main Appleby road (Site **19**). Despite extensive trenching in the field adjacent to the crop mark (Trenches 32–35) the only archaeological feature identified was a single small pit, **5** (Plate 10), within which a single flint waste flake was recovered. Following on from this a watching brief was undertaken but did not reveal additional features.
- 5.1.4 **Sandford:** a third area considered to be of high archaeological potential was the vicinity of Sandford, because of the potential for remains of medieval field systems. The pipeline skirts the west and north edges of the settlement, and although the pipeline corridor was probably too far from the settlement's historic core to encounter medieval occupation, Trench 50 (Fig 15), did reveal a shallow ditch, **13**. This would appear to be the line of a former field boundary, but it's alignment bears no relationship with the present field boundaries, suggesting that it may have been a part of an earlier field system. The feature was undated but has the potential to be a component of a medieval or early post-medieval field system associated with the settlement.
- 5.1.5 **A66 Roman Road:** the fourth zone of archaeological potential is the pipeline corridor to the south of the A66 between Dike Nook and the crossing of the A66 and then the section to the north of the road as far as Moor House Farm. The A66

follows the route of the Roman road that ran from Carlisle to York, and would have served as a focus for settlement activity, and there was the potential for uncovering parts of the road itself, field systems, and/or settlements within its hinterland. There is certainly one large rectilinear cropmark located to the west of the junction between the A66 and Moor House Lane, which was potentially a settlement of Roman origin (Site **04**). While this was unaffected by the pipeline, the putative settlement may have been the focus for field systems on both sides of the road which had the potential to be affected by the pipeline. Trench 58 (Fig 15), revealed a shallow field boundary ditch, **II** (Plate 11), which may form part of a roadside field system and the watching brief identified two further ditches, which may be part of the same field system. While none of the ditches produced artefacts, it is perhaps significant that no post-medieval material was revealed as such material of this date is normally fairly prevalent within any arable ground surface or field ditch. Coupled with the fact that the boundaries do not relate to the existing field system, this negative evidence may be an indication that the field system pre-dated the post-medieval period.

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## APPENDIX 1: PROJECT DESIGN

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**Oxford  
Archaeology  
North**

**June 2003**

### **Hayeswater Pipeline Between Raisbeck And Bankwood**

Cumbria

Evaluation

#### ***Proposals***

*The following project design is offered in response to a request from Barbara Cardie, United Utilities, for an evaluation of the proposed route for a pipeline between Raisbeck and Bankwood, Cumbria.*

## **1.1 CONTRACT BACKGROUND**

1.1.1 Oxford Archaeology North has been invited by Barbara Cardie, United Utilities, to submit a project design and costs for an evaluation on the line of a proposed Hayeswater pipeline between Raisbeck and Bankwood (OA North 2003). This follows on from an earlier appraisal and walkover survey which made recommendations for the evaluation of selected sites.

1.1.2 This pipeline is made up of two sections: the Raisbeck to Asby section extends almost entirely along the line of roads, which in some instances will have already been disturbed by services. When the pipes extend along the road there is no need for a wide topsoil stripped easement corridor and consequently will have a much reduced impact on any archaeology than routes extending across open fields. This section will therefore not need to be subject to evaluation. The Asby to Bankwood section will, for the most part extend across fields and there is considerable potential for the impacting of archaeological monuments. The evaluation will be targeted on those sites of the route, which will be directly affected by the proposed pipeline.

## **1.2 Oxford Archaeology North**

1.2.1 Oxford Archaeology North (OA North) has considerable experience of the archaeological survey and evaluation of sites and monuments of all periods, having undertaken a great number of small and large projects during the past 20 years. Projects have been undertaken to fulfil the different requirements of various clients and planning authorities, and to very rigorous timetables. OA North has considerable experience of the recording of historic buildings together with the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 20 years. Fieldwork has taken place within the planning process and construction programmes, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.

1.2.2 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.

## **2.1 OBJECTIVES**

2.1.1 The following programme has been designed, in accordance with a verbal brief by Cumbria County Council Archaeology Service (CCCAS) to provide an evaluation and topographic of selected sites in advance of the laying of the proposed pipeline. The required stages to achieve these ends are as follows:

### **2.2 Evaluation Trenching**

2.2.1 To implement a programme of trial trenching examining 5% of a 20m wide corridor centred on the location of selected sites. To provide an investigation of the background areas where archaeological sites have not yet been investigated.

### **2.3 Topographic Survey**

2.3.1 To implement a programme of mitigative topographic survey of a series of earthwork sites.

### **2.3 Report**

2.3.1 A written report will assess the significance of the data generated by this programme within a local and regional context. It will present the evaluation and would make an assessment of the archaeological potential of the area, and would make recommendations for further work.

## **3. METHOD STATEMENT**

### **3.1 Evaluation Trenching**

- 3.1.1 **Methods:** the programme of 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. The evaluation will be undertaken within a 20m wide easement corridor which will be of varying length subject to the size and character of the site to be examined. The evaluation will examine 5% of each evaluation areas and it is proposed to excavate 20m x 2m trenches which will be excavated in accordance with the recommendation of the appraisal report.

Site No	Site Type	NGR	Corridor Length For Evaluation	Area of Evaluation	No of Trenches
01/102/101	Former Standing Stone	NY 7220 1151	200m	4800m <sup>2</sup>	5
03 / 112	Roman Road	NY 7399 1673 - 7433 1656	600m	12000 m <sup>2</sup>	15
04	Roman Camp?	NY 7399 1673- 7417 1660	350m	7000 m <sup>2</sup>	9
08	Medieval Village	NY 7288 1616	390m	7800 m <sup>2</sup>	10
18	Earthwork Settlement	NY 7146 1010	250m	5000 m <sup>2</sup>	6
19	Cropmark Enclosure	NY 7169 1407	240m	4800 m <sup>2</sup>	6
21	Earthworks	NY 738 186	350m	7000 m <sup>2</sup>	9
26	Medieval Village	NY 698 098	370m	7400 m <sup>2</sup>	9
96	Earthwork	NY 7167 1076	210m	5200 m <sup>2</sup>	5

- 3.1.2 The layout of the trenches will be configured with predominant trenches along the line of the corridor in conjunction with a series of trenches across the line of the pipeline. The arrangement will be adjusted so as to target surface features of particular significance.
- 3.1.3 In addition it is proposed to examine those areas where archaeological features have yet to be discovered, in between the areas of more intensive evaluation. Excluding those sections of pipeline which have previously been examined, this comprises an overall length of 8000m of pipeline. It is proposed to examine 10% of this length and would entail the excavation of forty 20m x 2m trenches. These would be uniformly scattered along the line, but targeting any sites or surface features of archaeological potential as identified by the walk-over surveys and the proposed topographic surveys would be further targeted by the evaluation trenches.
- 3.1.4 The trenches will be excavated by a combination of mechanised and manual techniques; the topsoil will be removed by mechanical excavator, fitted with a 1.7m wide toothless bucket, and archaeological deposits beneath will be first manually cleaned and then any features identified will be manually excavated. The machine excavation will not intrude into any potential archaeological stratigraphy and all machine excavation will be undertaken under careful archaeological supervision. Following mechanical excavation the floor of the trench will be cleaned by hoe and Manual excavation techniques will be used to evaluate any sensitive deposits, and will enable an assessment of the nature, date, survival and depth of deposits and features. The trenches will not be excavated deeper than 1.25m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting.

- 3.1.5 The trench will be excavated in a stratigraphical manner, whether by machine or by hand. The trench 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. Archaeological features within the trenches will be planned by manual techniques.
- 3.1.6 **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). Subject to the results of the excavation an assessment of any environmental samples will be undertaken by the in-house palaeoecological specialist, who will examine the potential for further analysis. The assessment would examine the potential for macrofossil, arthropod, palynological and general biological analysis. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good waterlogged deposits are identified and will be subject to the agreement of CCCAS and the client.
- 3.1.7 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeozoological specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.1.8 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, 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.
- 3.1.9 Results of the field investigation will be recorded using a paper system, adapted from that used by Centre for Archaeology of English Heritage. The 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.

### 3.2 Topographic Survey

- 3.2.1 **Instrument Survey:** it is proposed to undertake a level 2b survey (see OA North survey levels, *Appendix 1*) of the sites identified by the appraisal, which is equivalent to RCHM(E) level 2. All appropriate topographic detail will be recorded to provide an appropriate context for the archaeological detail. Depending on the character of the site, the survey will either be recorded using a total station or a differential GPS.

#### 3.2.2 *Sites for Survey*

Site 7 - Medieval Village

Site 8 - Medieval Village

Site 18 - Earthwork Settlement

Site 21 - Earthworks

Site 26 - Medieval Village

Site 96 - Earthwork

Site 100 - Hedgerow

Site 105 – Ridge and Furrow

Site 108 - Trackway

Site 109 – Ridge and Furrow

Site 111 – Lynchet

- 3.2.3 **GPS Survey:** in lower order sites detail survey will be undertaken using a post-processed differential GPS, which is accurate to 150mm. The data will then be plotted up and will be subject to manual enhancement.
- 3.2.4 **Total Station Survey:** survey control will be established over the site by closed traverse and internally will be accurate to +/- 15mm; the control network will be located onto the Ordnance Survey National Grid by the use of Global Positioning Survey (GPS), which will locate to an accuracy of +/- 0.5m.
- 3.2.5 The surface features will be surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation being appropriate for a 1:500 output. The digital data will be transferred onto a portable computer for manipulation and later transfer to other digital or hard mediums. Film plots will be output via a plotter. The archaeological detail will be drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. Most topographic detail will also be surveyed, particularly if it is archaeologically significant or is in the vicinity of archaeological features. The survey drawings will be generated within a CAD system and will be merged with existing topographic data, and will also be merged with the results from the earlier survey. The results can be output at any scale.
- 3.2.6 **Site Gazetteer:** the survey would be accompanied by a gazetteer description of individual archaeological features, which will relate directly to the survey mapping.
- 3.2.7 **Photographic Survey:** in conjunction with the archaeological survey a photographic archive will be generated, which will record significant features and general landscapes. It will be undertaken in 35mm black and white and colour slide film. For the following sites it is proposed only to undertake a photographic survey, and will omit any instrument recording beyond that necessary to locate the features.

Site 25 - Earthwork (Quarry)

Site 80 - Railway

Site 99 - Pond

### 3.3 REPORT

- 3.3.1 **Archive:** the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The 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. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context. This archive can be provided in the English Heritage Centre for Archaeology format and a synthesis will be included in the Cumbria Sites and Monuments Record. A copy of the archive can also be made available for deposition with the National Archaeological Record. OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate 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.
- 3.3.2 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further two copies will be submitted to the Cumbria County Council SMR. 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 present an assessment of the sites history; the report will include photographs of any significant features. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The report will include a description of the methodology and the results. A list of the finds, and a description of the collective assemblage. Details of any environmental work undertaken.
- 3.3.3 The report will include a frontispiece showing the planning number and the grid reference. It will have a summary and a methodological statement, and it will define any variations to the defined programme. It will include recommendations for further work.

- 3.3.3 Illustrative material will include a location map, site map, a trench location map, trench plans, and also pertinent photographs. It can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion.
- 3.3.4 **Publication:** a summary report of the results will be submitted to a regional journal, and information from the project will be fed into the OASIS project (On-line Access to Index of Archaeological Investigation).

### 3.4 OTHER MATTERS

- 3.4.1 **Health and Safety:** OA North conforms to all health and safety guidelines as contained in the Lancaster University Manual of Health and Safety and the safety manual compiled by the Standing Conference of Archaeological Unit Managers. The work will be in accordance with Health and Safety at Work Act (1974), the Council for British Archaeology Handbook No. 6, *Safety in Archaeological Fieldwork* (1989).
- 3.4.2 Full regard will, of course, be given to all constraints (services etc) during the watching brief and fabric survey, as well as to all Health and Safety considerations. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. A risk assessment will be completed in advance of the project's commencement. If there is a requirement to excavate trenches deeper than 1.25m the trenches will be stepped out to minimise section collapse. As a matter of course the Unit uses a U-Scan device prior to any excavation to test for services. It is assumed that the client will provide any available information regarding services within the study area, if available.
- 3.4.4 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with the unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North, in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies the insurance cover of £2m for any one occurrence or series of occurrences arising out of one event.
- 3.4.5 **Confidentiality:** the report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.
- 3.4.6 **Project Monitoring:** OA North will consult with the client regarding access to the site. Whilst the work is undertaken for the client, the County Archaeologist will be kept fully informed of the work and its results. Any proposed changes to the project design will be agreed with CCCAS in consultation with the Client.
- 3.4.7 **Contingency:** costs are defined for the provision of a palaeoenvironmental assessment, and faunal remains analysis. The palaeoenvironmental analysis would be subject to an assessment by the OA North palaeoenvironmental specialist (E Huckerby), the faunal remains would be subject to an assessment by the OA North animal bone specialist (A Bates).

## 4. WORK PROGRAMME

- 4.1 The following programme is proposed:

### **Evaluation Trenching**

25 days will be required to complete this element



**Topographic Survey**

7 days will be required to complete this element

**Report**

A 15 day period would be to complete this element

- 4.2 OA North can execute projects at short notice once an agreement has been signed with the client.
- 4.3 The project will be managed by **Jamie Quartermaine BA Surv Dip MIFA** (Unit Project Manager) to whom all correspondence should be addressed. OA North adheres by the IFA's Code of Conduct and the Code of Approved Practice for the regulation of Contractual Arrangements in Field Archaeology.

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## APPENDIX 2: TRENCH DESCRIPTIONS

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**Trench No:** 1  
**Location:** Little Asby  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.23m) and subsoil, **2**. The subsoil was light reddish-brown sandy-clay with no inclusions to a depth of 0.3m. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 2  
**Location:** Little Asby  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.65m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.3m) and subsoil, **2**. The subsoil was light reddish-brown sandy-clay with to a depth of 0.4m. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 3  
**Location:** Little Asby  
**Alignment:** North/south  
**Length:** 25m  
**Depth:** 0.40m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.04m) and subsoil, **2**. The subsoil was light reddish-brown sandy-clay to a depth of 0.3m below surface. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 4  
**Location:** Little Asby  
**Alignment:** North/south  
**Length:** 25m  
**Depth:** 0.9m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.05m), which overlay 0.10m of subsoil, **2**. The natural consisted of sporadic limestone bedrock. No finds, features or deposits of archaeological interest were noted in the trench.

**Trench No:** 5  
**Location:** Little Asby  
**Alignment:** East/west  
**Length:** 25m  
**Depth:** 0.9m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.07m), which overlay 0.09m of subsoil, **2**. The natural consisted of limestone bedrock. No finds, features or deposits of archaeological interest were noted in the trench.

**Trench No:** 6  
**Location:** Little Asby

**Alignment:** North/south  
**Length:** 25m  
**Depth:** 0.25m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, light reddish-brown sandy-clay. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 7  
**Location:** Little Asby  
**Alignment:** South-west/north-east  
**Length:** 25m  
**Depth:** 0.2m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.20m) and the subsoil, **2**, was mid-orange-brown sandy-clay. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 8  
**Location:** Little Asby  
**Alignment:** North/south  
**Length:** 22m  
**Depth:** 0.43m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.22m) and subsoil, **2**. The subsoil was light reddish-brown sandy-clay to a depth of 0.21m below surface. The natural, **3**, comprised mid-orange-brown clay overlying limestone. No structural features of an archaeological nature were encountered in this trench, although a single sherd of medieval pottery was recovered from this trench.

**Trench No:** 9  
**Location:** Wander Bank Reservoir  
**Alignment:** East/west  
**Length:** 25m  
**Depth:** 0.35m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**. The subsoil was light reddish-brown sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange-brown clay with rare inclusions of limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 10  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 25m  
**Depth:** 0.15m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.15m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 11  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 25m  
**Depth:** 0.20m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.20m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 12  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 30m  
**Depth:** 0.46m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.46m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 13  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 24m  
**Depth:** 0.22m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.22m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 14  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 22m  
**Depth:** 0.25m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.25m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 15  
**Location:** Newclose Lane  
**Alignment:** North-east/south-west  
**Length:** 22m  
**Depth:** 0.40m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.20m), which directly overlay the limestone bedrock. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 16  
**Location:** Newclose Road  
**Alignment:** North-east/south-west  
**Length:** 21m  
**Depth:** 0.40m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.24m) and subsoil, **2**. The subsoil was mid-reddish-grey silty clay to a depth of 0.16m. The natural, **3**, comprised reddish-brown clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 17  
**Location:** Newclose Road  
**Alignment:** North-east/south-west  
**Length:** 17m  
**Depth:** 0.60m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**. The subsoil was mid-grey-brown sandy-clay to a depth of 0.30m. The natural, **3**, comprised mid-reddish-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 18  
**Location:** Newclose Road

**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.23m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.23m), which overlay the natural comprising light-grey-brown clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 19  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising brown silty sand to a depth of 0.15m. The natural, **9**, comprised variable dark orange-brownish pink clayey-silty-sand with c10% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 20  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** North-north-west/south-south-east  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, comprising brown silty sand to a depth of 0.20m. The natural, **9**, comprised variable dark orange-brownish pink clayey silty sand with c10% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 21  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** West north-west/east-south-east  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.2m) and subsoil, **2**, comprising brown silty sand to a maximum depth of 0.50m. The natural, **9**, comprised a variable dark orange-brownish-pink clayey-silty-sand with c10% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 23  
**Location:** Grassgill Bottom  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.28m

**Description:**

The trench, situated on north/south sloping ground, was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, comprising mid-grey brown sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange soft silty sandy-clay with light grey mottled patches and occasional root holes. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 24  
**Location:** Tewfill Hill  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.37m

**Description:**

The trench, situated on level ground to the west of Grassgill Rigg, was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, comprising mid-grey-brown sandy-clay to a depth of 0.18m. The natural, **3**, comprised light-orangey-yellow soft silty clay, and truncated by three 0.30m wide stone-lined drain on east/west and north/south orientations. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 25  
**Location:** Tewfill Hill  
**Alignment:** North-east/south-west  
**Length:** 20m  
**Depth:** 0.30m

**Description:**

The trench, situated on south/north sloping ground, was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, comprising mid-yellow-grey sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange soft silty clay with *c* 20% small-medium sub-angular and sub-rounded stones, light-grey- yellow mottled patches and occasional root holes. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 26  
**Location:** Sawbridge Hall, Bleatarn Common  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.40m

**Description:**

The trench, situated on north-west/south-east sloping ground, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown-grey sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange soft silty clay with *c*20% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 27  
**Location:** Bleatarn Common  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.20m

**Description:**

The trench, situated on north-west/south-east sloping ground, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown-grey sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange soft silty clay with *c*5% small-medium sub-angular and sub-rounded stones. In the north of the trench the natural was truncated by a 0.70m diameter by 0.20m deep sub-circular feature, **8**, with a rounded profile, filled with brown silty clay, **7**, with manganese fragments. Root holes filled with a similar material were evident in the base of the feature, which together with the absence of any anthropogenic material, suggests the feature may have been a tree hole. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 28  
**Location:** Bleatarn Common  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.30m

**Description:**

The trench, situated on north-west/south-east sloping ground, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown-grey sandy-clay to a depth of 0.10m. The natural, **3**, comprised mid-orange soft silty clay with *c*20% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 30  
**Location:** Bleatarn Common  
**Alignment:** South-east/north-west

**Length:** 41m  
**Depth:** 0.35m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, light to mid-greyish-brown silty clay to a depth of 0.33m. The natural, **3**, comprised reddish-brown and orange-brown compact clay. No features, finds or deposits of an archaeological nature were encountered in this trench. A single land drain was extant 3.5m from the north-west end of the trench.

**Trench No:** 31  
**Location:** Bleatarn Common  
**Alignment:** North-west/south-east  
**Length:** 25m  
**Depth:** 0.32m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, light to mid-reddish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised reddish compact clay with occasional inclusions of small rounded and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 32  
**Location:** Bleatarn Common  
**Alignment:** North/south  
**Length:** 25m  
**Depth:** 0.40m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.13m) and subsoil, **2**, light to mid-reddish-brown silty clay to a depth of 0.35m. The natural, **3**, comprised reddish compact clay with sporadic patches of light yellow sand. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 33  
**Location:** Bleatarn Common  
**Alignment:** North/south  
**Length:** 25m  
**Depth:** 0.28m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.13m) and subsoil, **2**, light to mid-greyish-brown silty clay to a depth of 0.25m. The natural, **3**, comprised reddish-brown and orange-brown compact clay. A single feature was located in this trench, 4.5m from the south baulk and 19m from the north baulk. The cut of the pit, **5** (Plate 10), had gradually sloped sides and a rounded base. A single fill was present within the pit, **6**, comprising a light reddish-brown silty sand. A single flint waste flake was recovered from the fill of this feature. No further features were located in this trench.

**Trench No:** 34  
**Location:** Bleatarn Common  
**Alignment:** East/west  
**Length:** 15m  
**Depth:** 0.30m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, light to mid-reddish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised red compact clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 35  
**Location:** Bleatarn Common  
**Alignment:** North/south  
**Length:** 29m  
**Depth:** 0.45m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.14m) and subsoil, **2**, light to mid-greyish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised mid-brown and orange-brown silty clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 36  
**Location:** Bleatarn Common  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.35m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, light to mid-greyish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised mid-reddish-brown clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 37  
**Location:** Birk Farm  
**Alignment:** North/south  
**Length:** 23m  
**Depth:** 0.20m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.08m) and subsoil, **2**, light to mid-reddish-brown silty clay to a depth of 0.30m. The natural, **3**, consisted of red clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 38  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 25m  
**Depth:** 0.32m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.13m) and subsoil, **2**, greyish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised orange clay with rare inclusions of large limestone boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 39  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 25m  
**Depth:** 0.33m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.11m) and subsoil, **2**, yellow-brown silty clay to a depth of 0.32m. The natural, **3**, comprised orange clay with occasional inclusions of small and medium rounded and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 40  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 25m  
**Depth:** 0.30m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.13m) and subsoil, **2**, contained greyish-brown silty clay to a depth of 0.30m. The natural, **3**, comprised orange clay with rare inclusions of small rounded and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 41  
**Location:** Birk Farm



**Alignment:** East/west  
**Length:** 24m  
**Depth:** 0.32m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.11m) and subsoil, **2**, greyish-brown silty clay with occasional small and medium rounded stones to a depth of 0.25m. The natural, **3**, comprised orange clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 42  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 22m  
**Depth:** 0.30m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, comprised an orange- brown silty clay to a depth of 0.30m. The natural, **3**, comprised light reddish-brown sticky clay with rare inclusions of small and medium sized stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 43  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.30m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.15m) and subsoil, **2**, reddish-brown silty clay to a depth of 0.29m. The natural, **3**, comprised orange clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 44  
**Location:** Birk Farm  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.32m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, reddish-brown silty clay to a depth of 0.29m. The natural, **3**, comprised light grey sticky clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 45  
**Location:** Blacksyke Farm  
**Alignment:** South-east/north-west  
**Length:** 20m  
**Depth:** 0.65m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.13m) and subsoil, **2**, pinkish-brown silty clay to a depth of 0.60m. The natural, **3**, comprised light brown sticky clay. The depth of subsoil in this trench is accounted for by its location in the flood plain of the Eden River. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 46  
**Location:** Blacksyke Farm  
**Alignment:** South-west/north-east  
**Length:** 22m  
**Depth:** 0.35m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, reddish-brown sandy-clay to a depth of 0.35m. The natural, **3**, comprised light-brownish-red sandy-clay. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 47  
**Location:** Blacksyke Farm  
**Alignment:** South-east/north-west  
**Length:** 10m  
**Depth:** 0.20m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.12m) and subsoil, **2**, reddish-brown sandy-clay to a depth of 0.20m. The natural, **3**, comprised light brownish-red sandy-clay. No features, finds or deposits of an archaeological nature were encountered in this trench. This trench was shortened at the request of the landowner.

**Trench No:** 48  
**Location:** Blacksyke Farm  
**Alignment:** South-east/north-west  
**Length:** 10m  
**Depth:** 0.25m

**Description:**

The area was stripped of topsoil, **1** (maximum depth 0.10m) and subsoil, **2**, reddish-brown sandy-clay to a depth of 0.25m. The natural, **3**, comprised light brownish-red sandy-clay. No features, finds or deposits of an archaeological nature were encountered in this trench. This trench was shortened at the request of the landowner.

**Trench No:** 49  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.45m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.10m) and subsoil, **2**, comprising brownish-orange silty sand to a depth of 0.25m. The natural, **9**, comprised mid-orangy-brown clayey-silty-sand with c20% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 50  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** North-north-east/south-south-west  
**Length:** 20m  
**Depth:** 0.48m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.24m) and subsoil, **2**, comprising light grey silty sand to a depth of 0.25m. The natural, **9**, comprised mottled orange-greyish yellow clayey silty sand with c20% small-medium sub-angular and sub-rounded stones. The natural was cut by a north-west/south-east aligned linear feature, **13**, probably a field boundary ditch, which ran across the width of the trench 8.70m from its southern end. It was sealed by the topsoil and subsoil deposits and comprised a linear cut with a gradual rounded profile measuring 0.70m wide by 0.24m deep, filled with a light grey silty sand, **12**. At its south-east end it was truncated by a twentieth century field drain. The ditch was not on the same alignment as any of the existing field boundary fences and therefore probably represents an earlier field system. Although no dating evidence was recovered from the ditch, it has potential to be part of a medieval field system around Sandford.

**Trench No:** 51  
**Location:** Roseleigh Farm, Sandford  
**Alignment:** East/west  
**Length:** 20m

**Depth:** Between 0.50m and 0.7m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising greyish-mid-brown silty sand to a depth of 0.20m. Beneath the subsoil a 0.20m thick layer of soft mid-grey silty clay was revealed. The natural, **9**, comprised mid-orangey-brown with yellow mottled clayey silty sand with c20% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 52

**Location:** Roseleigh Farm, Sandford

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.55m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising greyish-mid-brown silty sand to a depth of 0.20m. Beneath the subsoil a 0.20m thick layer of soft mid-grey silty clay was revealed. The natural, **9**, comprised mid-orangey-yellow mottled clayey silty sand with c10% small-medium sub-angular and sub-rounded stones. The subsoil and natural were truncated by a 0.20m diameter field drain located across the centre of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 53

**Location:** Roseleigh Farm, Sandford

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.40m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising brownish-orange silty sand to a depth of 0.25m. The natural, **9**, comprised soft mid-grey with orangey-brown mottled silty clay sand with c10% small-medium sub-angular and sub-rounded stones. The subsoil and natural were truncated by a 0.10m diameter field drain located across the centre of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 54

**Location:** Roseleigh Farm, Sandford

**Alignment:** East/West

**Length:** 20m

**Depth:** 0.40m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising yellow-grey silty clayey sand to a depth of 0.07m. The natural, **9**, comprised soft orangey-greyish-yellow silty sand with c 10% small-medium sub-angular and sub-rounded stones. The subsoil and natural were truncated by a 0.10m diameter field drain located across the centre of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 55

**Location:** Roseleigh Farm, Sandford

**Alignment:** East/West

**Length:** 20m

**Depth:** 0.52m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.35m) and subsoil, **2**, comprising patchy dark orange and dark-brown silty sand to a depth of 0.07m with c20% black silty root holes. The natural, **9**, comprised soft-brownish-orangey-red silty sand with c5% small-medium sub-angular and sub-rounded stones. The subsoil and natural were truncated by a 0.10m diameter field drain located across the centre of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 56

**Location:** Sandford  
**Alignment:** North-east/south-west  
**Length:** 20m  
**Depth:** 0.40m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising patchy dark-orange-brown silty sand to a depth of 0.12m with *c* 30% patches of small sub-angular stones. The natural, **9**, comprised bands of soft variable orange and brownish-grey silty coarse sand with *c*5% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 57  
**Location:** Braithwaites, North-east of Sandford  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.40m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised variable dark orange-greyish-yellow clayey sand with *c*10% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 58  
**Location:** Braithwaites, North-east of Sandford  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.35m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised mottled orange-greyish-yellow clayey sand with *c*15% small-medium sub-angular and sub-rounded stones. The natural was cut by a north-east/south-west aligned linear feature, **11**, probably a field boundary ditch, which ran across the width of the trench, 5m from its western end. It was sealed by the topsoil and subsoil deposits and comprised a linear cut with a rounded profile measuring 0.80m wide by 0.20m deep, filled with light-brown silty sand, **10**. The ditch was on the same alignment as existing field boundary fences, which run perpendicular to the A66 road, and therefore probably represents an earlier field system.

**Trench No:** 59  
**Location:** Braithwaites, North-east of Sandford  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench, situated on north/south sloping ground to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised orange-greyish-yellow clayey sand with *c*10% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 60  
**Location:** Braithwaites, North-east of Sandford  
**Alignment:** North-east/south-west  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench, situated on north-east/south-west steeply sloping ground to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.15m. The natural, **9**, comprised orange-greyish-yellow clayey sand with *c*10% small-medium sub-angular and sub-

rounded stones. The natural was cut by a north/south stone-lined post-medieval field drain in the western end of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 61  
**Location:** Braithwaites, North-east of Sandford  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench, situated on north/south sloping ground to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised brownish-orange silty sand with c20% small-medium sub-angular and sub-rounded stones. The natural was cut by two east/west post-medieval ceramic field drains in the northern end of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 62  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench, situated on south/north sloping ground to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.40m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.08m. The natural, **9**, comprised mottled greyish-orange clayey sand with c20% small-medium sub-angular and sub-rounded stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 63  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.55m

**Description:**

The trench, situated to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.40m) and subsoil, **2**, comprising orangey brown silty sand to a depth of 0.10m. The natural, **9**, comprised mid-orange clayey sand with c30% small-medium sub-angular and sub-rounded stones. The natural was cut by an east/west post-medieval ceramic field drain in the southern end of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 64  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.45m

**Description:**

The trench, situated to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised mid- orange-grey clayey sand with c10% small-medium sub-angular and sub-rounded stones. An east/west aligned post-medieval ceramic field drain ran along the length of the base of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 65  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.60m

**Description:**

The trench, situated on south/north sloping ground along the southern boundary of the A66, was stripped of topsoil, **1** (maximum depth 0.40m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised mottled mid-orange-grey clayey sand with c20% small-medium sub-angular and sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 66  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.72m  
**Description:**

The trench, situated on south/north sloping ground along the southern boundary of the A66, was stripped of topsoil, **1** (maximum depth 0.45m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.15m. The natural, **9**, comprised mottled mid-orange-red clayey sand with c20% small-medium sub-angular and sub-rounded stones and occasional large rounded boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 67  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** East/west  
**Length:** 20m  
**Depth:** 0.55m  
**Description:**

The trench, situated on south/north sloping ground along the southern boundary of the A66, was stripped of topsoil, **1** (maximum depth 0.40m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised mottled mid-greyish-yellow clayey sand with c10% small-medium sub-angular and sub-rounded stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 68  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.35m  
**Description:**

The trench, situated on south/north sloping ground along the southern boundary of the A66, was stripped of topsoil, **1** (maximum depth 0.40m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.10m. The natural, **9**, comprised orangey-brown clayey sand with c5% small-medium sub-angular and sub-rounded stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 69  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.30m  
**Description:**

The trench, situated on west/east sloping ground to the south of the A66, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown silty sand to a depth of 0.08m. The natural, **9**, comprised orangey-grey-brown silty sand with c5% small-medium sub-angular and sub-rounded stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 70  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** East/west  
**Length:** 20m

**Depth:** 0.37m

**Description:**

The trench, situated to the west of the A66/Moor House Lane junction, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising orangey-brown silty sand with occasional small stones, to a depth of 0.10m. The natural, **9**, comprised orangey-red silty sand with occasional large stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 71

**Location:** Wheat Sheaf Farm, Warcop

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.30m

**Description:**

The trench, situated along the western boundary of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.21m) and subsoil, **2**, comprising light-greyish-brown silty sand to a depth of 0.09m. The natural, **9**, comprised orange grey silty sand with c10% small-medium sub-angular and sub-rounded stones. The natural was cut by three north/south post-medieval ceramic field drains. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 72

**Location:** Wheat Sheaf Farm, Warcop

**Alignment:** North-east/south-west

**Length:** 20m

**Depth:** 0.49m

**Description:**

The trench, situated along the western boundary of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.35m) and subsoil, **2**, comprising light-greyish-brown silty sand to a depth of 0.35m. The natural, **9**, comprised grey brown silty sand with c10% small-medium sub-angular and sub-rounded stones. The natural was cut by two north-west/south-east post-medieval ceramic field drains running across the northern end of the trench. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 73

**Location:** Wheat Sheaf Farm, Warcop

**Alignment:** North/south

**Length:** 20m

**Depth:** 0.50m

**Description:**

The trench, situated along the western edge of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising yellow-brown silty sand with occasional small stones, to a depth of 0.20m. The natural, **9**, comprised orangey silty sand with mottled grey-brown patches, with c20% small-medium sub-rounded stones and occasional large stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 74

**Location:** Wheat Sheaf Farm, Warcop

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.27m

**Description:**

The trench, situated along the western boundary of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising light-yellow-brown silty sand to a depth of 0.07m. The natural, **9**, comprised orange-grey silty sand with c10% small-medium sub-angular and sub-rounded stones, and occasional large stones. The natural was cut by a north-east/south-west modern drain. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 75

**Location:** Wheat Sheaf Farm, Warcop

**Alignment:** North/south

**Length:** 20m  
**Depth:** 0.40m

**Description:**

The trench, situated along the western edge of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising light-grey silty sand with occasional small stones, to a depth of 0.10m. The natural, **9**, comprised orangey silty sand with mottled red and brown patches, with occasional large stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 76  
**Location:** Wheat Sheaf Farm, Warcop  
**Alignment:** East/west  
**Length:** 10m  
**Depth:** 0.50m

**Description:**

The trench, situated along the western edge of Moor House Lane, was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orange-brown silty sand with c10% small stones, to a depth of 0.10m. The natural, **9**, comprised brownish-orange silty clay sand, with c 20% small-medium sub-rounded stones and occasional large stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 77  
**Location:** MOD training area, Warcop  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.60m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orange-brown silty sand with c10% small stones, to a depth of 0.20m. The natural, **9**, comprised brownish-orange soft silty sand, with c 10% small sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 78  
**Location:** MOD training area, Warcop  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising orange-brown soft silty sand with c10% small-medium sub-rounded stones, to a depth of 0.20m. The natural, **9**, comprised dark-orange clay sand, with c 5% small-medium sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 79  
**Location:** MOD training area, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.35m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising orange-brown soft silty sand with c 10% small-medium sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised dark-orange clay sand, with c10% small-medium sub-rounded stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 80  
**Location:** MOD training area, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.40m



**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising orange-brown soft silty sand with c20% small sub-rounded stones, to a depth of 0.08m. The natural, **9**, comprised dark-orange soft clay sand, with c20% small-medium sub-rounded and sub-angular stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 81**Location:** MOD training area, Warcop**Alignment:** North-west/south-east**Length:** 20m**Depth:** 0.60m**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising mid-grey soft clayey sand with occasional small sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised pinkish-orange soft clay sand, with c20% small-medium sub-rounded and sub-angular stones and occasional large sub-rounded stones. Two electricity cables ran along the length of the trench within narrow trenches which truncated the natural. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 82**Location:** MOD training area, Warcop**Alignment:** North-east/south-west**Length:** 20m**Depth:** 0.40m**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising brownish-grey soft clayey sandy silt, to a depth of 0.15m. The natural, **9**, comprised dark orange soft clay sand, with c20% small-medium sub-rounded and sub-angular stones and occasional large sub-rounded stones. An electricity cable ran across the trench within a narrow trench which truncated the natural. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 83**Location:** MOD training area, Warcop**Alignment:** North-west/south-east**Length:** 20m**Depth:** 0.40m**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.30m) and subsoil, **2**, comprising brownish-grey soft clayey sandy silt, to a depth of 0.08m. The natural, **9**, comprised greyish-orange soft clay sand with c 20% small-medium sub-rounded and sub-angular stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 84**Location:** MOD training area, Warcop**Alignment:** North-west/south-east**Length:** 20m**Depth:** 0.40m**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising orange-brown soft clayey sandy silt with c10% small sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised dark-orange soft clayey sand, with c20% small sub-rounded stones and occasional large sub-rounded stones. An electricity cable ran along the length of the trench within a narrow cut, which truncated the natural. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 85**Location:** MOD training area, Warcop**Alignment:** North-west/south-east**Length:** 20m

**Depth:** 0.35m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising dark grey-brown soft clayey sandy silt with *c*10% small sub-rounded stones, to a depth of 0.05m. The natural, **9**, comprised mid-orange soft clayey sand, with *c*15% small sub-rounded stones and occasional large sub-rounded stones. A modern service trench ran across the southern end of the trench truncating the natural. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 86

**Location:** MOD training area, Warcop

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.40m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.35m) directly onto natural, **9**, which comprised dark orange soft clay sand with *c* 20% small-medium sub-rounded and sub-angular stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 87

**Location:** MOD training area, Warcop

**Alignment:** North-west/south-east

**Length:** 20m

**Depth:** 0.35m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.20m) and subsoil, **2**, comprising dark grey-brown soft clayey sandy silt with *c*5% small sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised mid-orange soft clayey sand, with *c*15% small sub-rounded stones. The natural was truncated by modern manhole drain outlet pipe and a modern cable. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 88

**Location:** MOD training area, Warcop

**Alignment:** North/south

**Length:** 20m

**Depth:** 0.35m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising mid-greyish-brown soft humic silty sand, to a depth of 0.10m. The natural, **9**, comprised mottled grey-orange soft clay sand. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 89

**Location:** MOD training area, Warcop

**Alignment:** North/south

**Length:** 20m

**Depth:** 0.40m

**Description:**

The trench, situated immediately to the south of a stream, was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising brownish-grey soft silty sand with *c* 10% small sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised dark orange soft clayey sand, with *c*20% small sub-rounded stones and occasional large sub-rounded stones. An electricity cable ran along the length of the trench within a narrow cut which truncated the natural. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 90

**Location:** MOD training area, Warcop

**Alignment:** North/south

**Length:** 20m

**Depth:** 0.60m

**Description:**

The trench, situated immediately to the north of a stream, was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising brownish-grey soft silty sand with c10% small sub-rounded stones, to a depth of 0.10m. The natural, **9**, comprised dark orange soft clayey silty sand, with c 20% small sub-rounded stones and occasional large sub-rounded stones. The natural was truncated by a 3m long linear north/south aligned feature, **15**, recorded in the northern end of the trench, and extending north and south beyond the trenches limits. A portion of the feature was excavated revealing straight sides and a gently rounded base. Its fill, **14**, comprised redeposited natural sand with no inclusions. The feature may represent a naturally silted stream or a drainage ditch considering the trenches location on low lying wet marshy ground.

**Trench No:** 91  
**Location:** MOD training area, Warcop  
**Alignment:** North/south  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.10m) and subsoil, **2**, comprising mid-yellow-brown soft silty sand, to a depth of 0.20m. The natural, **9**, comprised dark orange soft clay sand. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 92  
**Location:** MOD training area, Warcop  
**Alignment:** North-west/south-east  
**Length:** 20m  
**Depth:** 0.50m

**Description:**

The trench, situated along the eastern edge of a disused track dating to around the Second World War, was stripped of topsoil, **1** (maximum depth 0.10m) along its eastern edge, and the track surface comprising small-medium sub-rounded and sub-angular stones within a silty sand context along its western edge. Underlying subsoil, **2**, comprising orange-brown soft silty sand with c20% small sub-rounded stones, to a depth of 0.15m was also removed. The natural, **9**, which comprised dark brownish-orange soft clay sand with c20% small-medium sub-rounded and sub-angular stones. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 93  
**Location:** Hag Lane, Brackenber  
**Alignment:** North-east/south-west  
**Length:** 20m  
**Depth:** 0.75m

**Description:**

The trench was stripped of topsoil, **1** (maximum depth 0.25m) and subsoil, **2**, comprising light reddish-brown soft humic silty sand, to a depth of 0.40m. The natural, **9**, comprised mottled-grey orange soft silty clay sand with c20% small-medium sub-rounded and sub-angular stones and occasional large boulders. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 94  
**Location:** Little Asby  
**Alignment:** East/west  
**Length:** 45m  
**Depth:** 0.2m

**Description:**

The area was stripped of topsoil prior to excavation. Subsoil, **2**, light-reddish-brown sandy-clay with occasional inclusions of small sub-rounded stones to a depth of 0.26m was then stripped. The natural, **3**, comprised dark-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 95

**Location:** Little Asby  
**Alignment:** East/west  
**Length:** 115m  
**Depth:** 0.2m

**Description:**

The area was stripped of topsoil prior to excavation. Subsoil, **2**, light reddish-brown sandy-clay with occasional inclusions of small sub-rounded stones to a depth of 0.26m was then stripped. The natural, **3**, comprised dark-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

**Trench No:** 96  
**Location:** Little Asby  
**Alignment:** East/west  
**Length:** 115m  
**Depth:** 0.2m

**Description:**

The area was stripped of topsoil prior to excavation. Subsoil, **2**, light-reddish-brown sandy-clay with occasional inclusions of small sub-rounded stones to a depth of 0.26m was then stripped. The natural, **3**, comprised dark-orange-brown clay overlying limestone. No features, finds or deposits of an archaeological nature were encountered in this trench.

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**APPENDIX 3: CONTEXT LIST**


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<b>Context</b>	<b>Trench</b>	<b>Description</b>
<i>1</i>	<b>All</b>	Topsoil
<i>2</i>	<b>All</b>	Subsoil
<i>3</i>	<b>All</b>	Natural (silty clays)
<i>4</i>	<b>1-7, 9-15</b>	Natural limestone bedrock
<i>5</i>	<b>33</b>	Cut of small pit
<i>6</i>	<b>33</b>	Fill of small pit <i>5</i>
<i>7</i>	<b>27</b>	Fill of small pit <i>8</i>
<i>8</i>	<b>27</b>	Cut of small pit
<i>9</i>	<b>19-20, 49-93</b>	Natural (silty sands)
<i>10</i>	<b>58</b>	Fill of ditch <i>11</i>
<i>11</i>	<b>58</b>	North-east/south-west ditch cut
<i>12</i>	<b>50</b>	Fill of ditch <i>13</i>
<i>13</i>	<b>50</b>	North-west/south-east ditch cut
<i>14</i>	<b>90</b>	Fill of <i>15</i>
<i>15</i>	<b>90</b>	North/south aligned watercourse
<i>101</i>	<b>WB</b>	North-west/south-east ditch cut
<i>108</i>	<b>WB</b>	North-east/south-west ditch cut

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## ILLUSTRATIONS

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### FIGURES

Figure 1: Location Map

Figure 2: Bankwood to Raisbeck Section, Gazetteer Sites and Trench Locations – North

Figure 3: Bankwood to Raisbeck Section, Gazetteer Sites and Trench Locations – Centre

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Figure 7: Site **96**, survey of relict field boundary

Figure 8: Site **142**, survey of ridge-and-furrow and lynchets

Figure 9: Site **100**, survey of hedgerow boundary

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Figure 14: Sites **140** and **141**, survey of ring bank, platform and trench locations

Figure 15: Plans of Trenches **33**, **50** and **58**

Figure 16: South-facing sections through ditches **101** and **108**

Figure 17: Plan of boundary features near Dike Nook – WB features **101** and **108** and **Trench 58**

### PLATES

Plate 1: Ridge and furrow Site **142**, looking east

Plate 2: Site **100**, hedgerow, looking north

Plate 3: Site **105**, ridge-and-furrow, eastern field, looking north

Plate 4: Site **105**, ridge-and-furrow, western field, looking north

Plate 5: Site **108**, trackway, looking north

Plate 6: Site **111**, lynchet, looking east

Plate 7: Site **80**, railway / road crossing north of Sandford, looking north

Plate 8: General view of Trench 8, looking east

Plate 9: General view of Trench 33, looking north

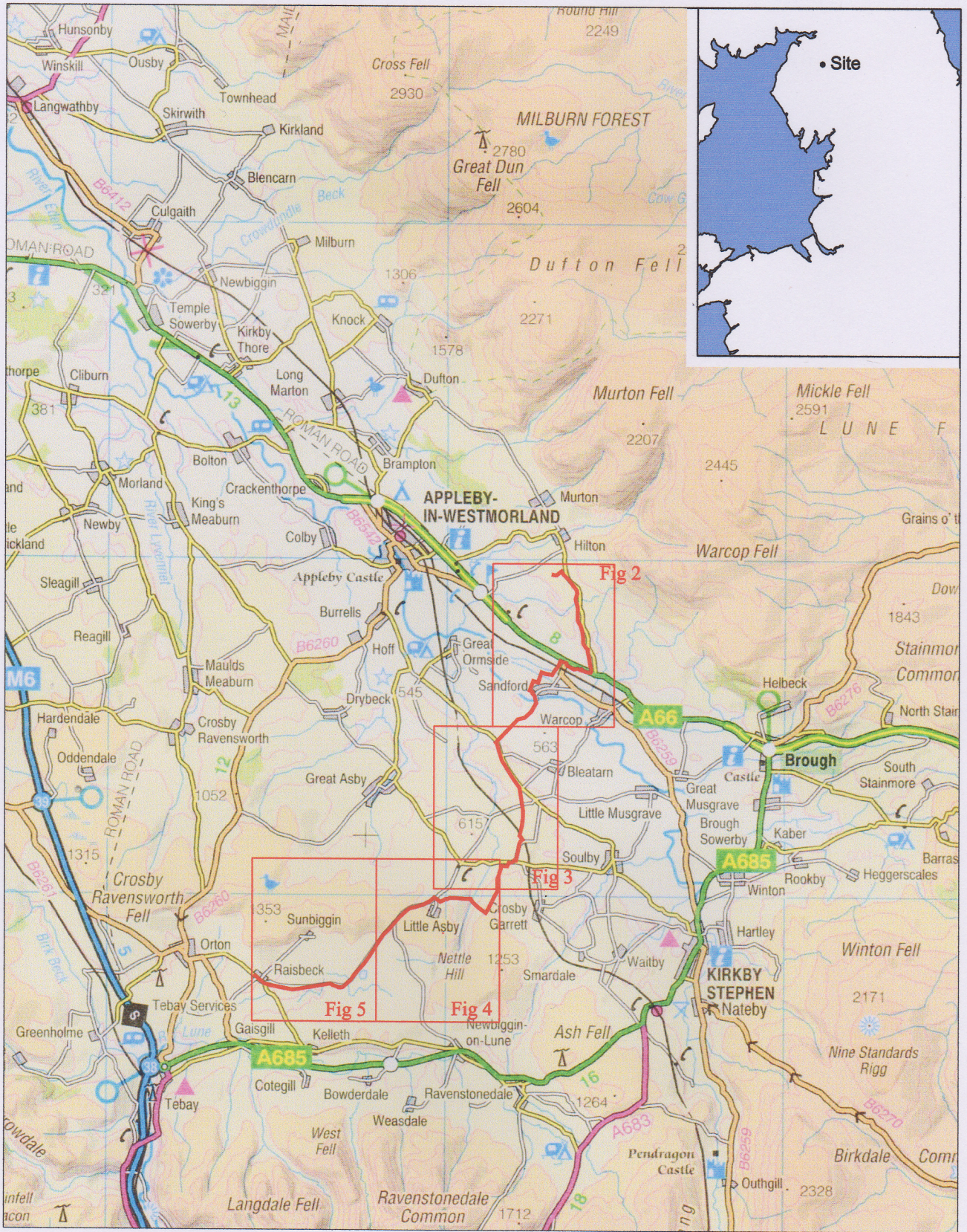
Plate 10: View of pit feature, **5**, in Trench 33

Plate 11: Ditch **11**, Trench 57, looking north

Plate 12: Ditch **101**, looking south

Plate 13: Ditch **108**, looking north





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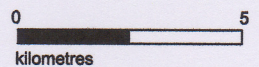
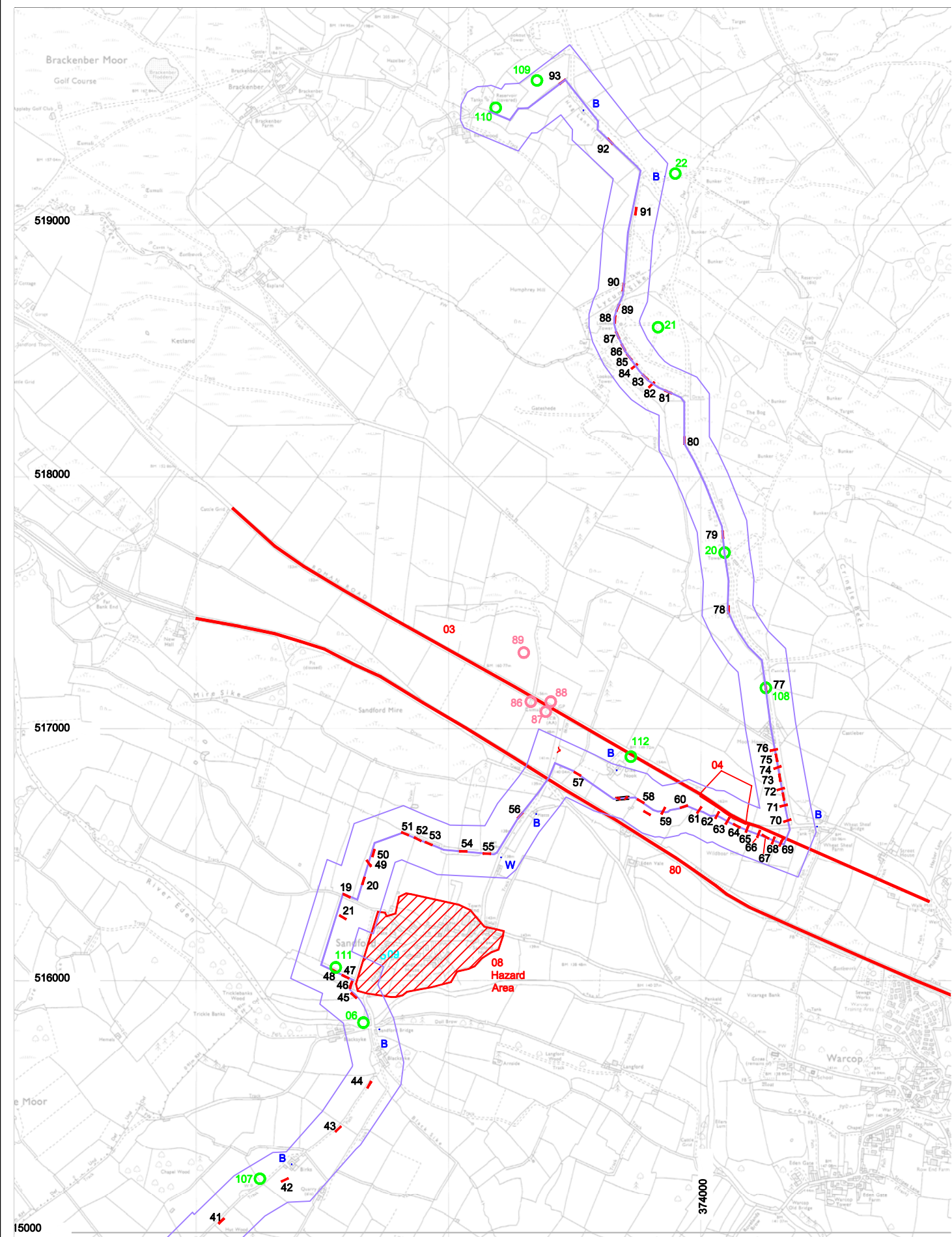


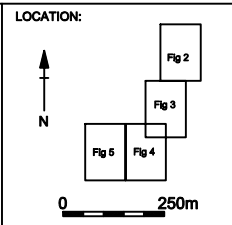
Figure 1: Location Map





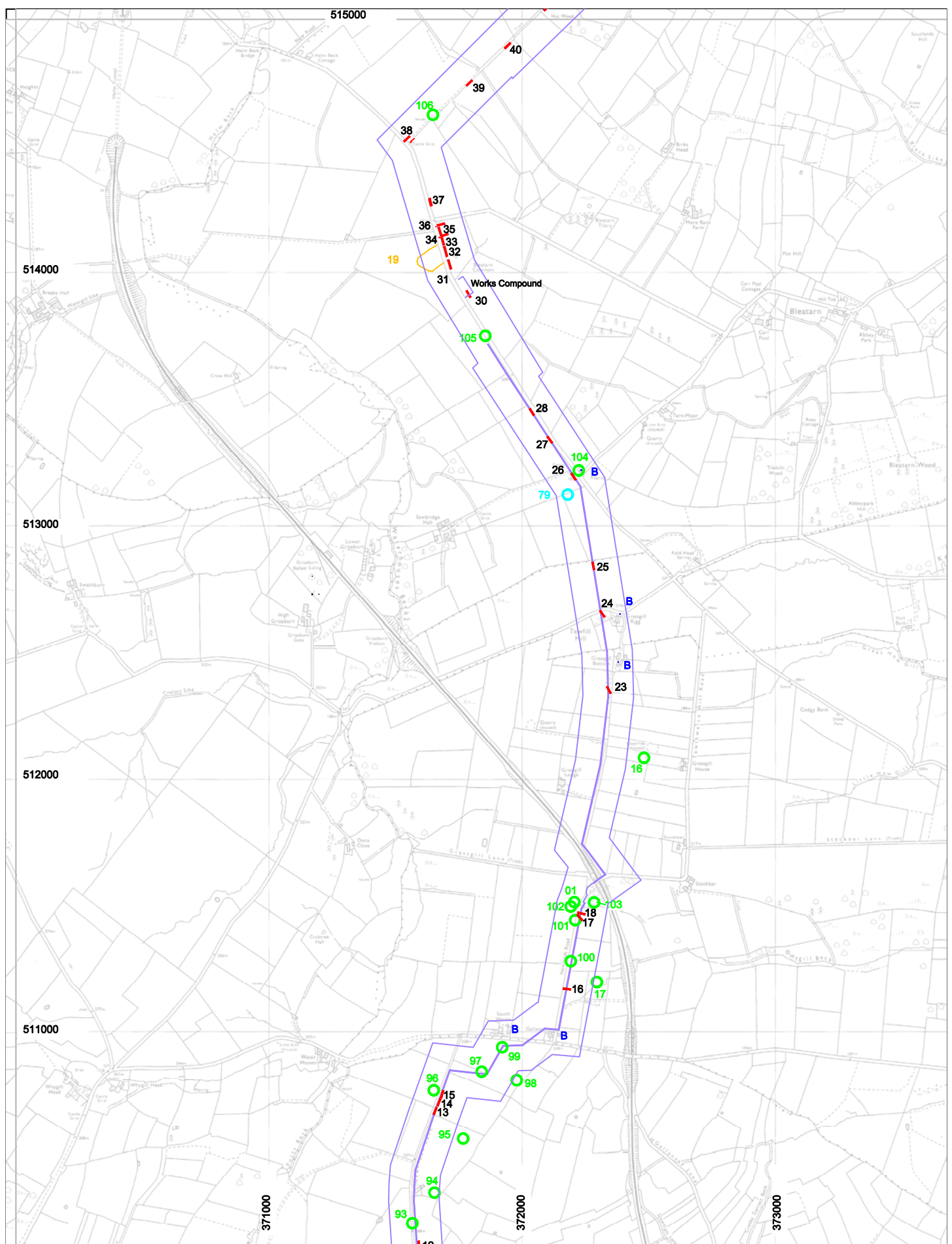

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PROJECT: Raisbeck to Bankwood, Cumbria  
 DRAWING No: 2  
 SCALE: 1:15,000  
 TITLE: Section 1 Trench locations  
 CLIENT: United Utilities  
 DRAWN BY: AJP/ELC  
 DATE: March 2004



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<span style="color: orange;">●</span> 00	high	W	well
<span style="color: green;">●</span> 00	medium	S	sheep fold
<span style="color: cyan;">●</span> 00	low	—	Watching Brief Areas
<span style="color: red;">—</span> 00	Schematic trench locations: actual size 20x1.7 m	<span style="color: blue;">—</span>	pipeline and corridor

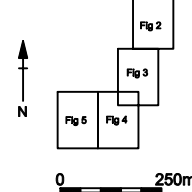
Figure 2: Bankwood to Raisbeck Section, Gazetteer Sites and Trench Locations - North



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PROJECT: Ralsbeck to Bankwood, Cumbria  
 DRAWING No: 3  
 SCALE: 1:15,000  
 TITLE: Section 1 Trench locations  
 CLIENT: United Utilities  
 DRAWN BY: AJP/ELC  
 DATE: March 2004

LOCATION:

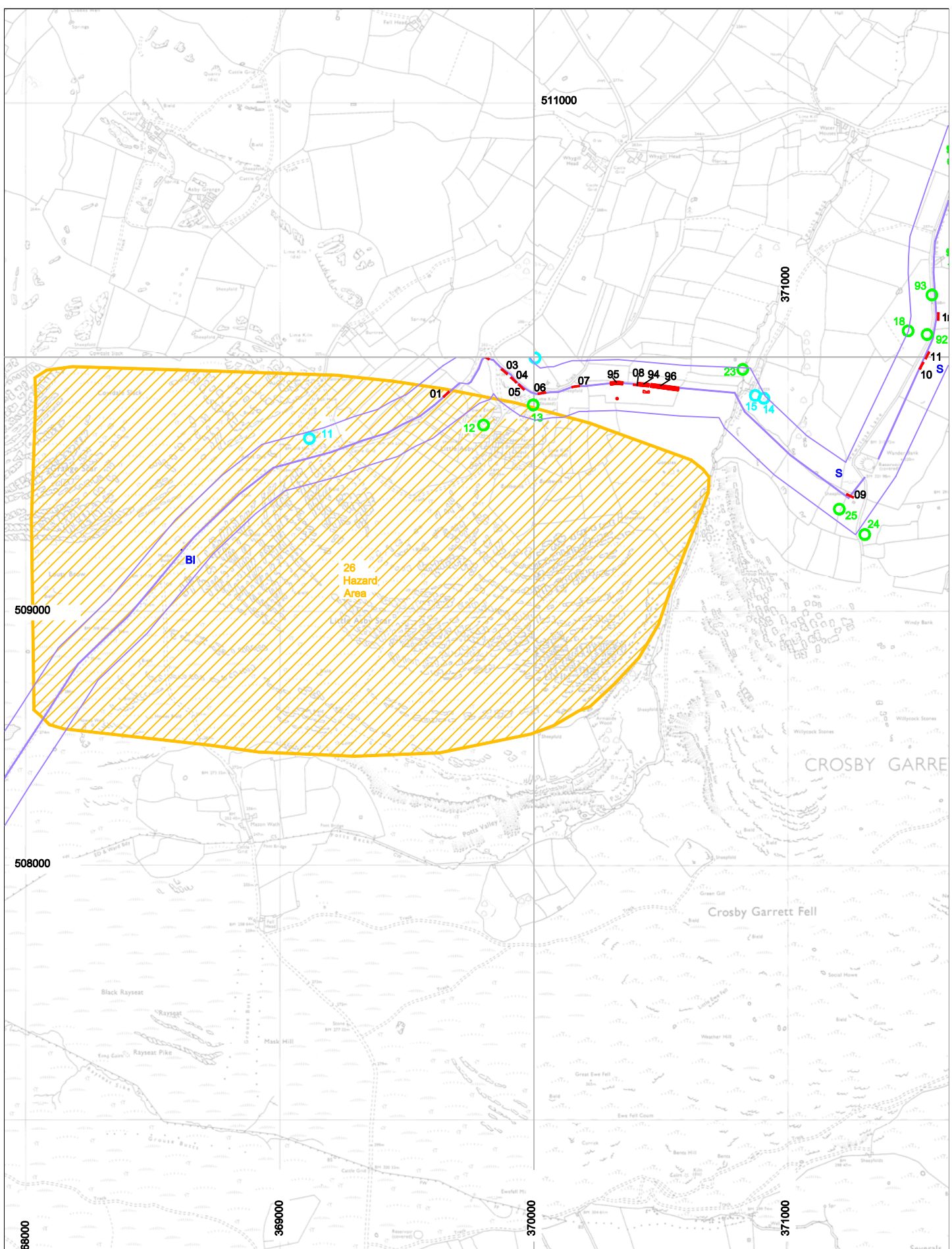


KEY

Hazard		1st Edition OS sites	
● 00	extreme	B	building
● 00	high	W	well
● 00	medium	S	sheep fold
● 00	low	—	Watching Brief Areas
— 00		—	Schematic trench locations: actual size 20x1.7 m
—		—	pipeline and corridor

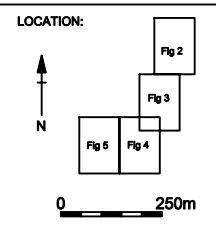
Figure 3: Bankwood to Raisbeck Section, Gazetteer Sites and Trench Locations - Centre






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**PROJECT:** Raisbeck to Bankwood, Cumbria  
**DRAWING No:** 4  
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**TITLE:** Section 1 Trench locations  
**CLIENT:** United Utilities  
**DRAWN BY:** AJP/ELC  
**DATE:** March 2004






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<span style="color: green;">●</span> 00	Hazard medium	<span style="color: blue;">S</span>	sheep fold
<span style="color: cyan;">●</span> 00	Hazard low		Watching Brief Areas
	Schematic trench locations: actual size 20x1.7 m		pipeline and corridor

Figure 4: Bankwood to Raisbeck Section, Gazetteer Sites and Trench Locations - South





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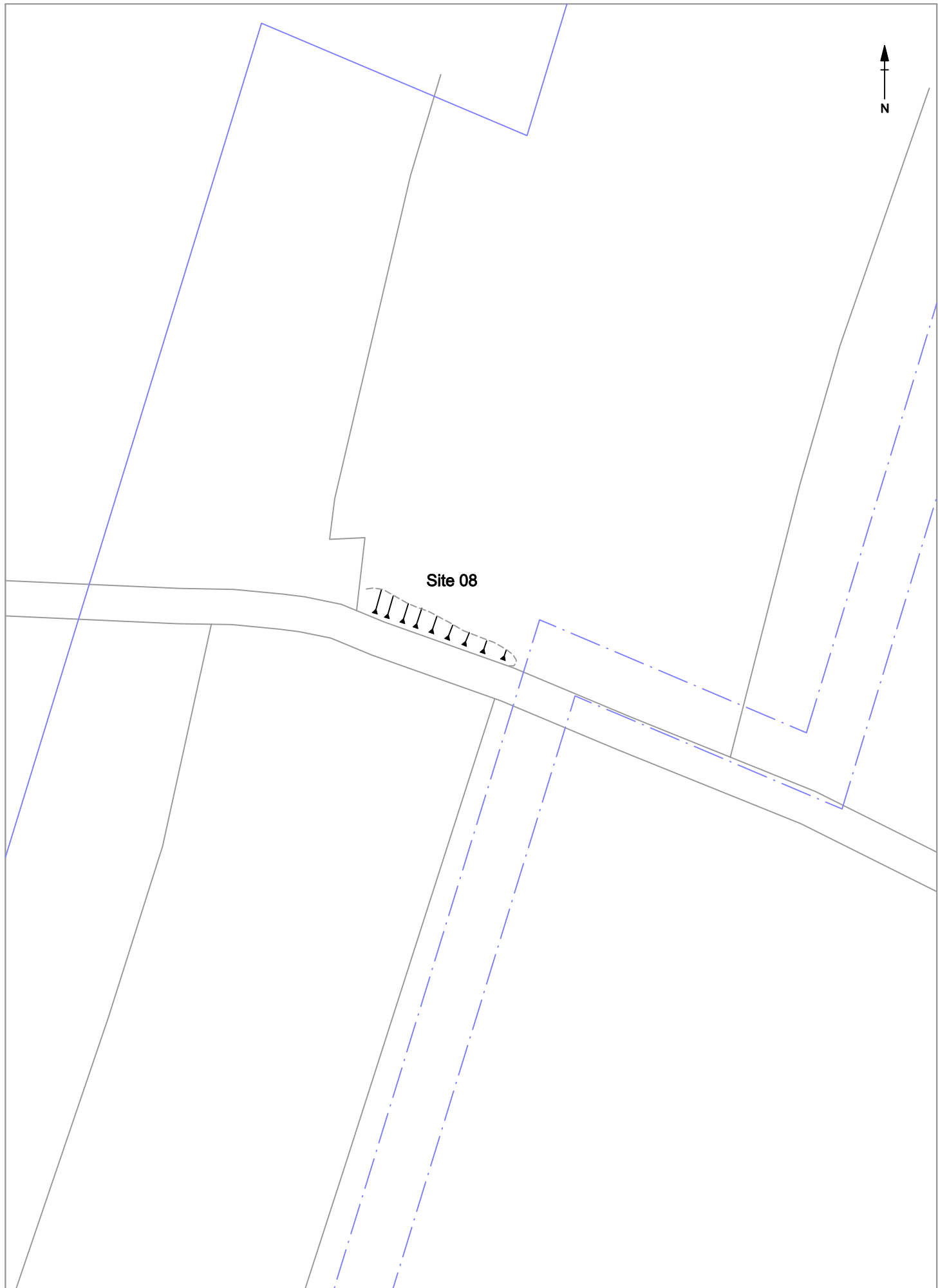
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Figure 5: Survey Areas Location Map





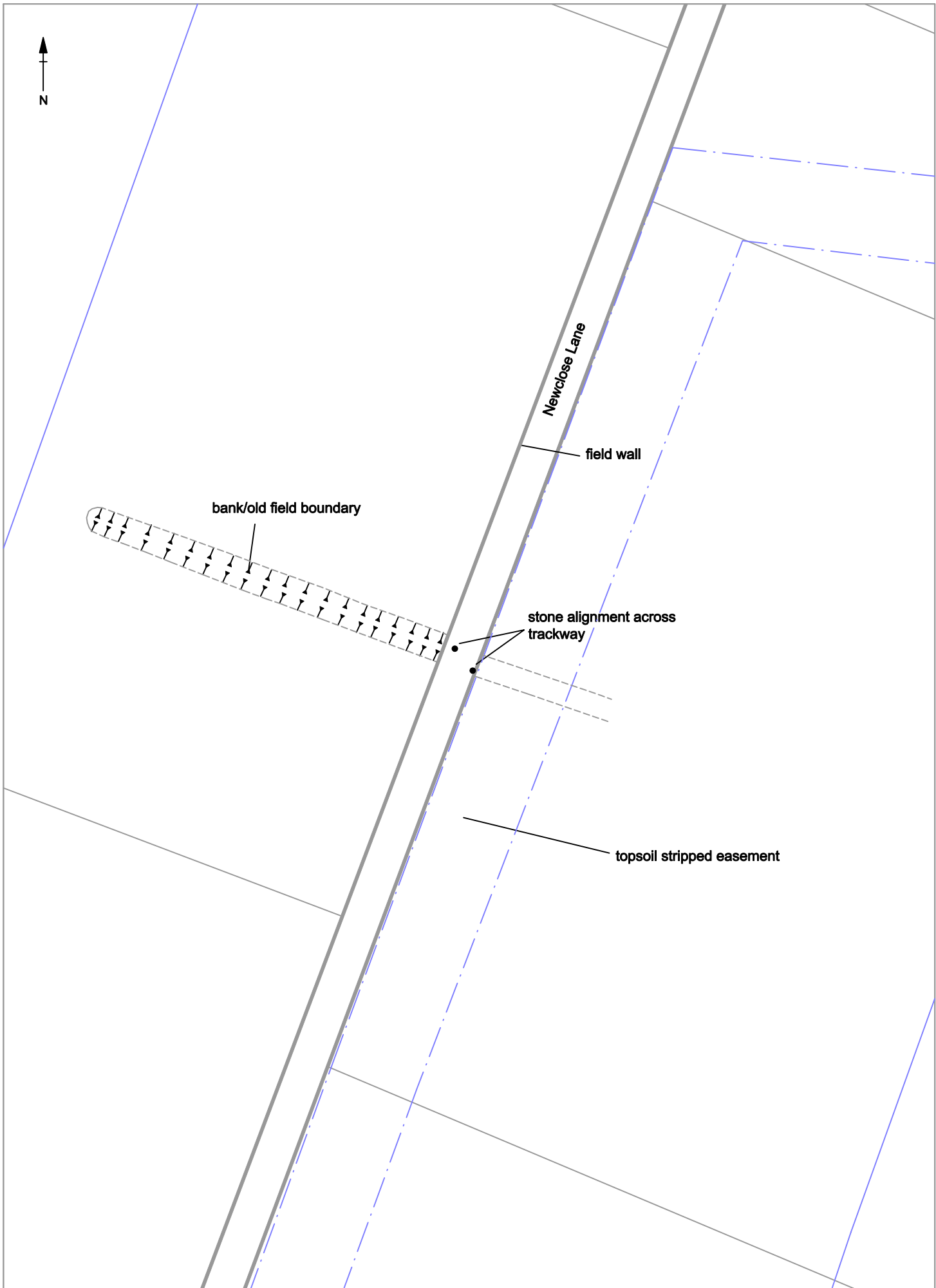
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 Pipeline

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Figure 6: Site 8, survey of lynchet bank



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 Pipeline


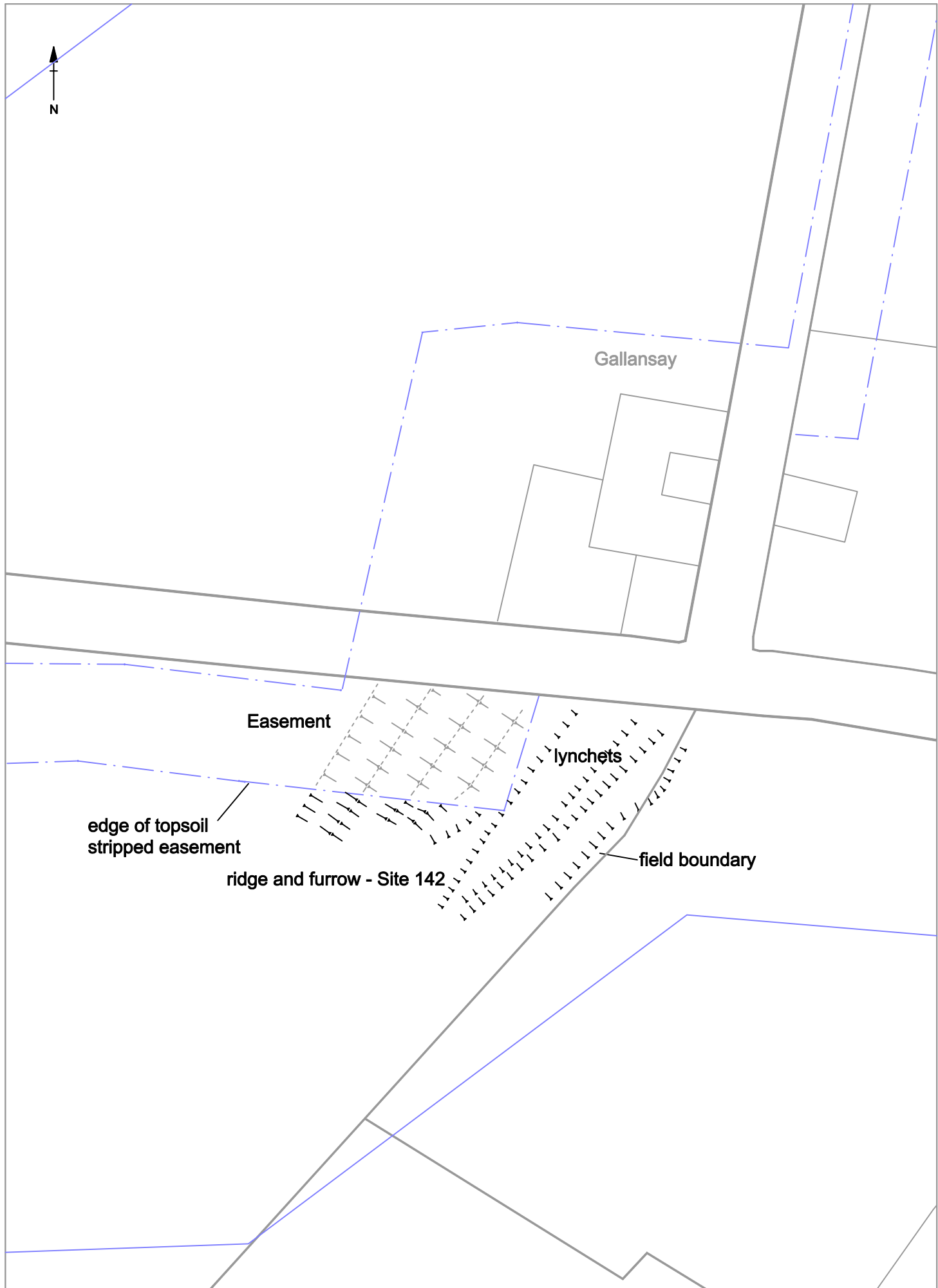
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Figure 7: Site 96, survey of relict field boundary



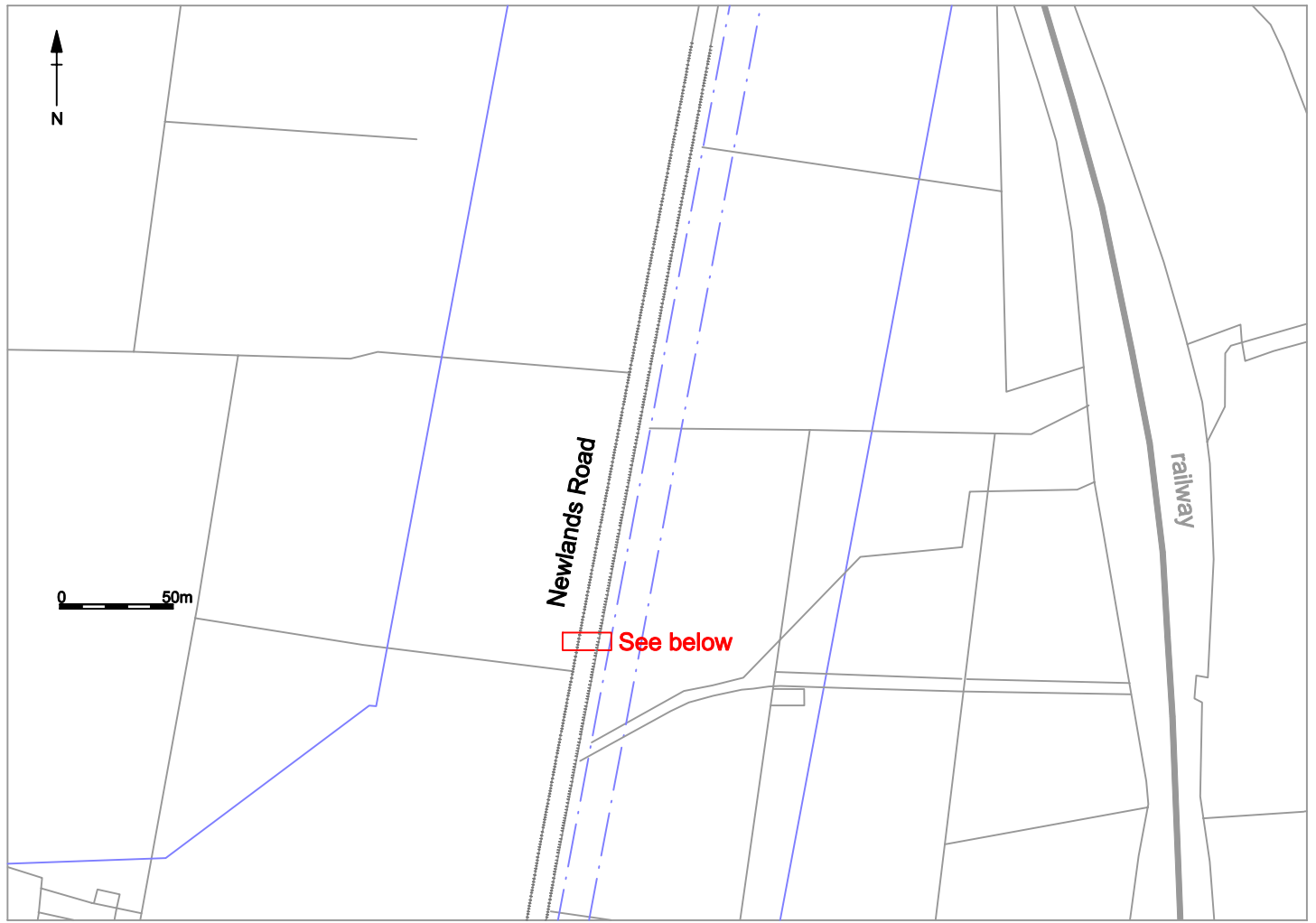
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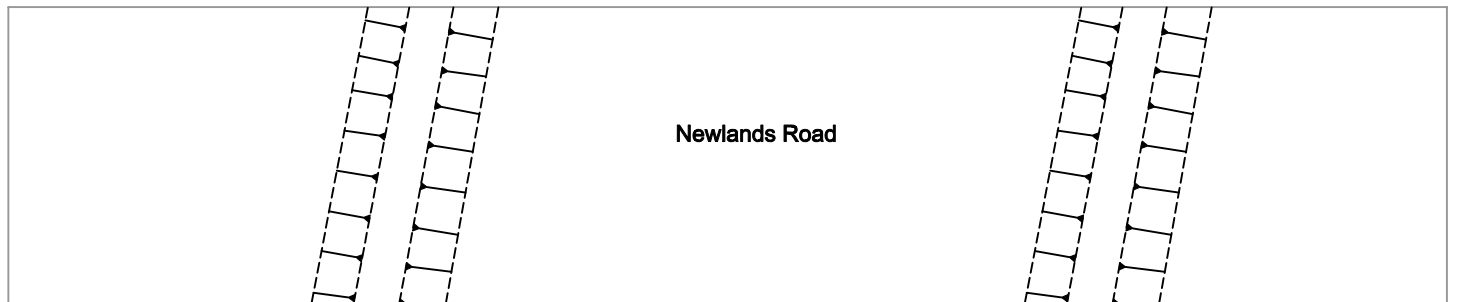
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 Scale 1:1000



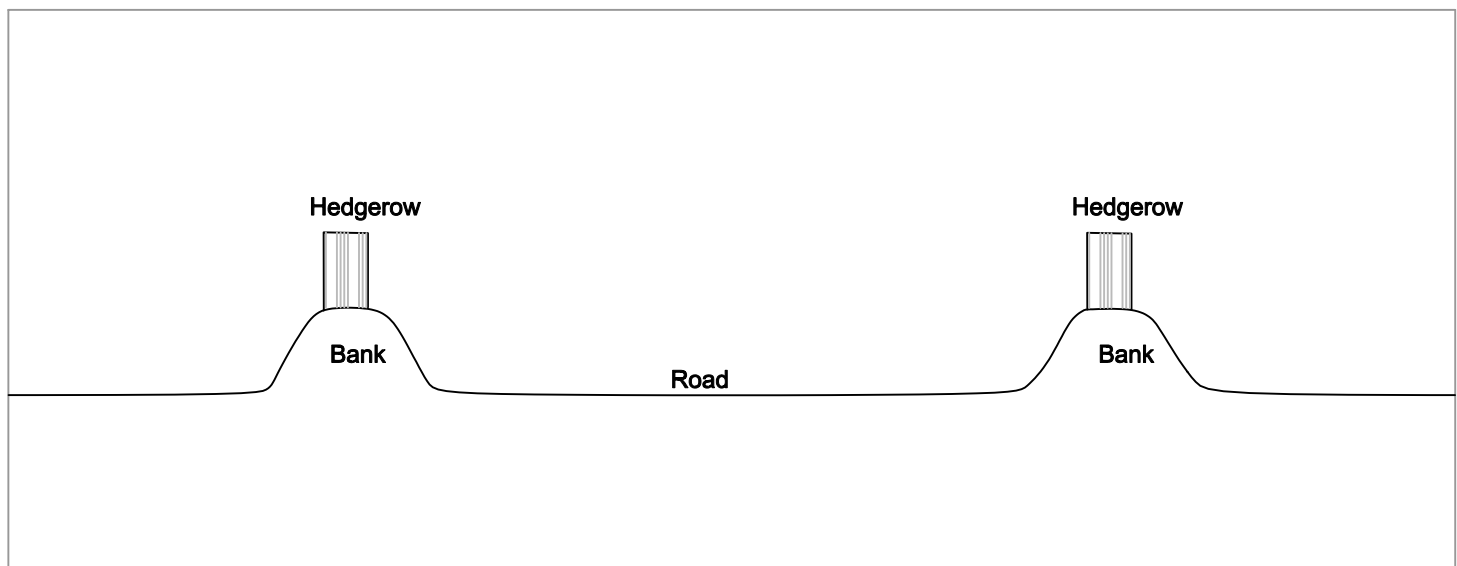
Figure 8: Site 142, survey of ridge and furrow and lynchets



Above - site location



Above - detailed plan of hedgerow banks

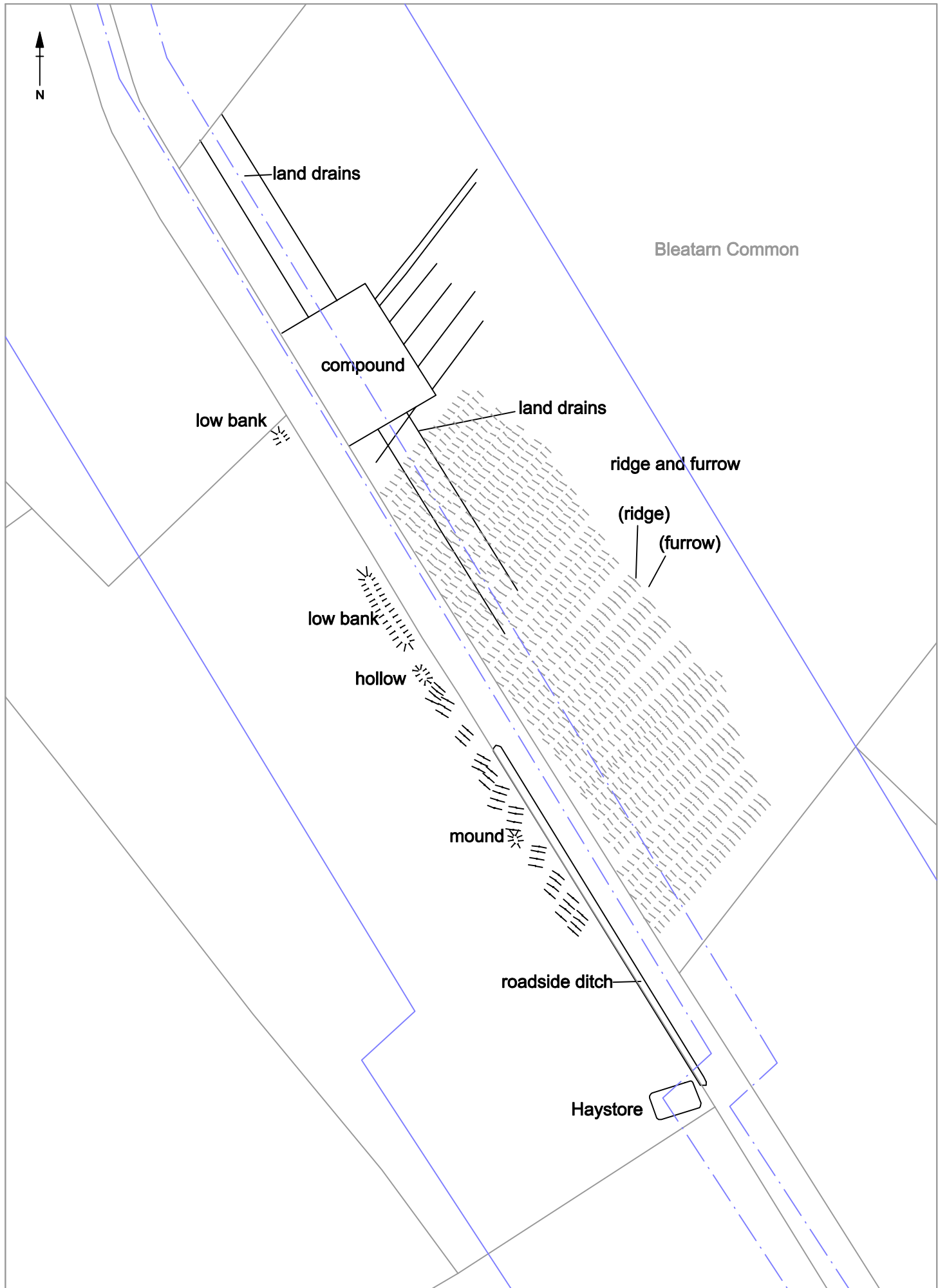


Above - sketch section through banks



Figure 9: Site 100, survey of hedgerow boundary bank





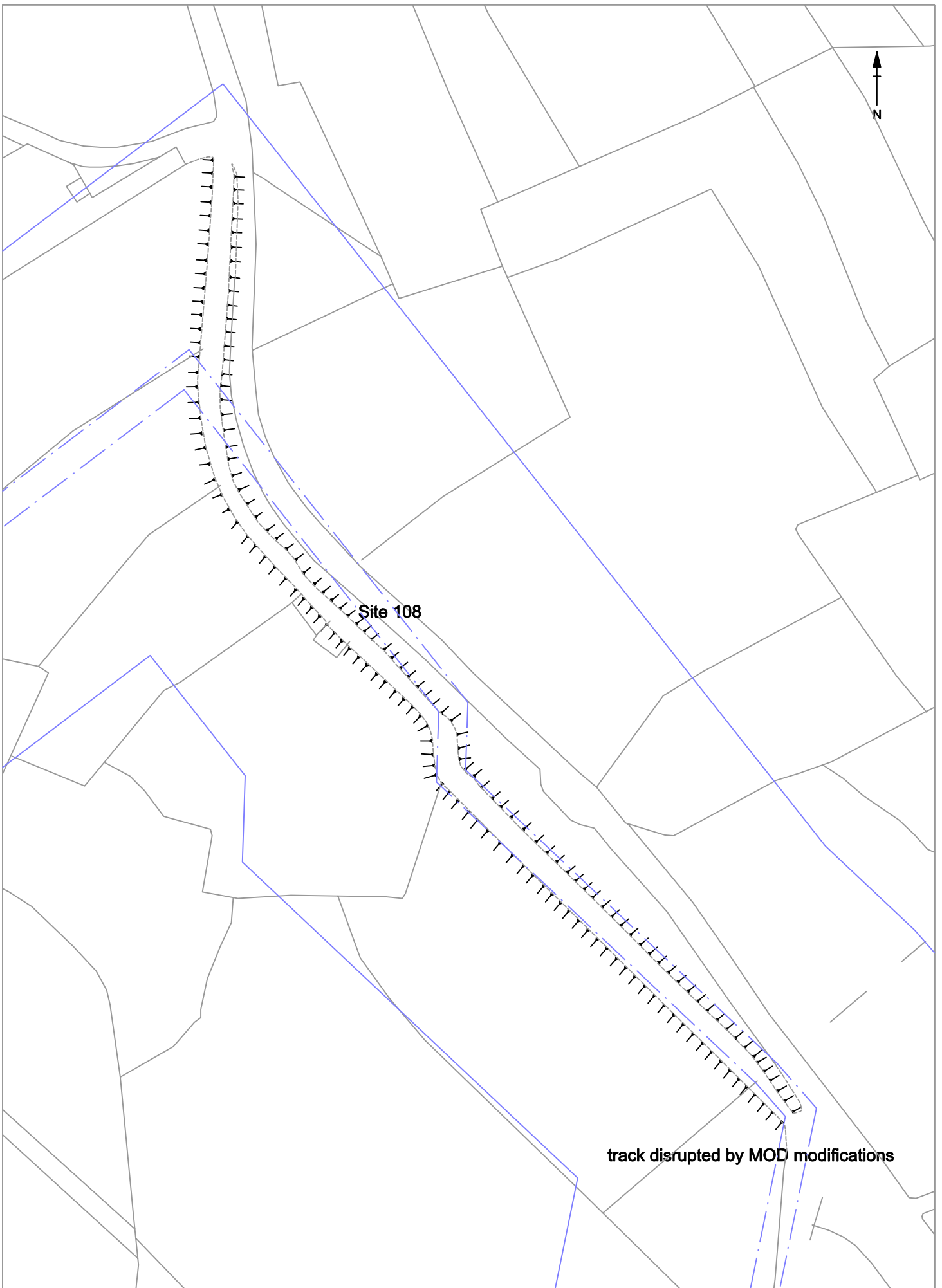
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— — — Pipeline

0 ————— 50m  
 Scale 1:2000



Figure 10: Site 105, survey of ridge and furrow



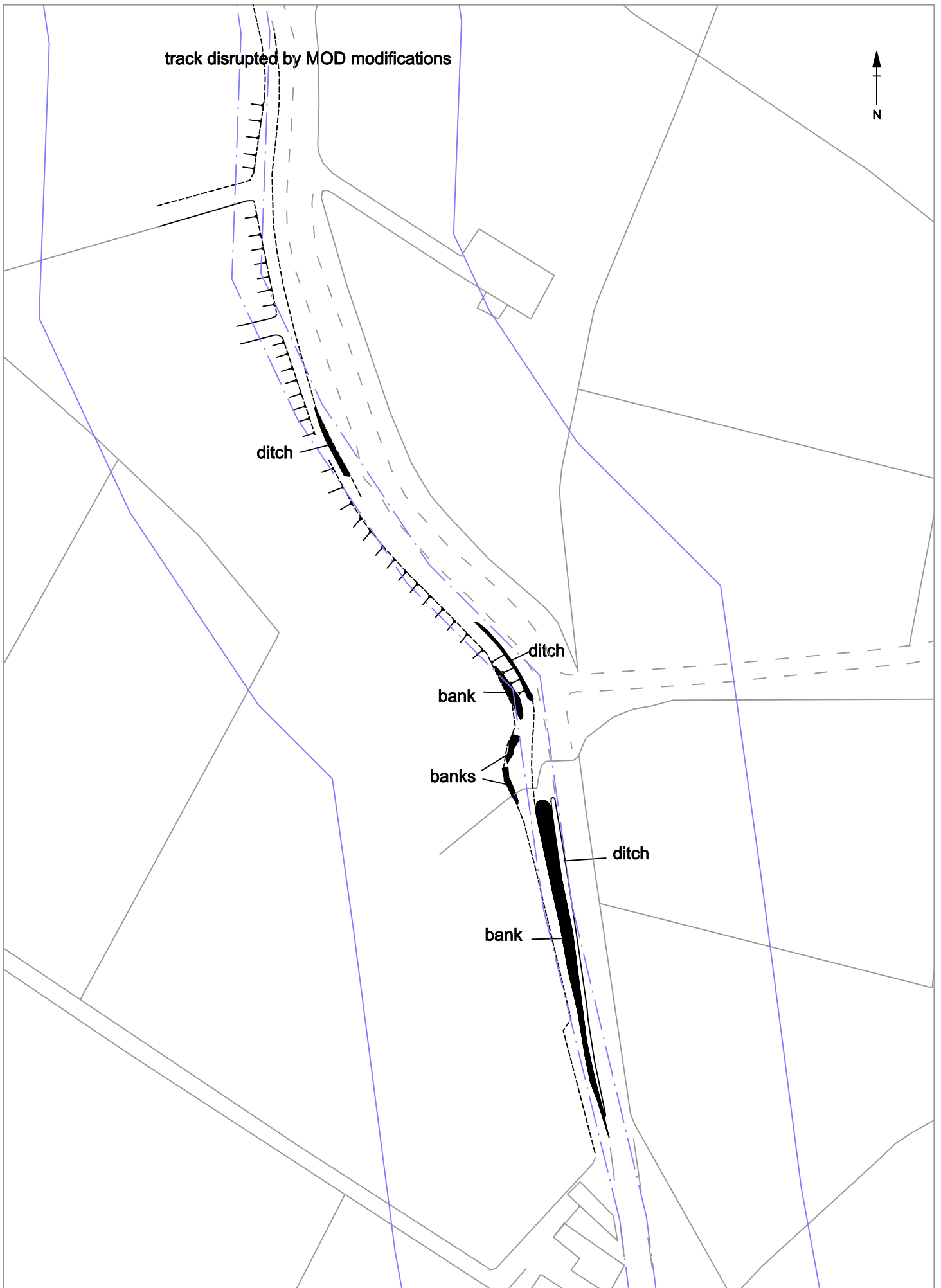
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— Pipeline

0 50m  
 Scale 1:2500



Figure 11: Site 108, Survey of relict trackway - Northern Section



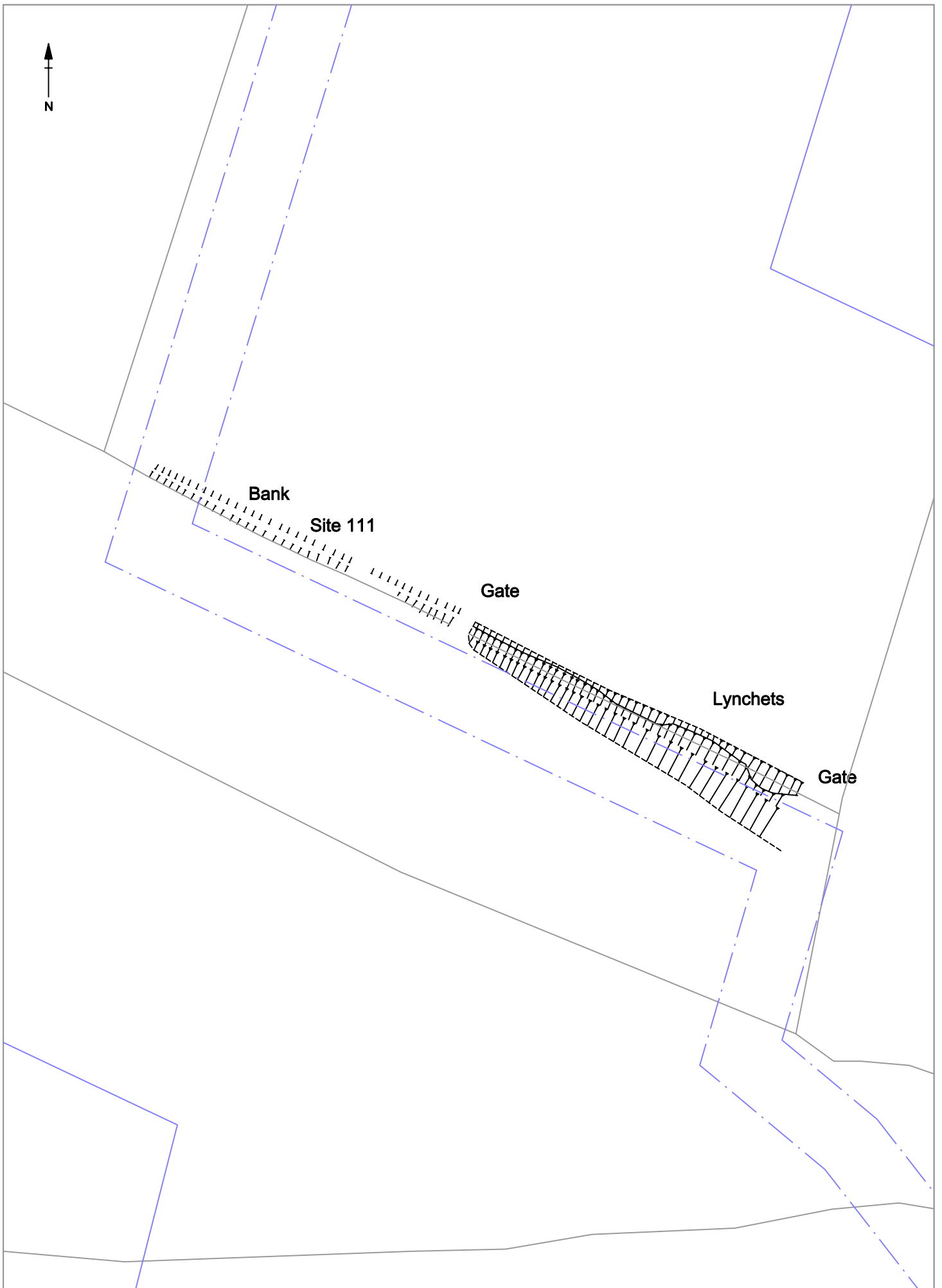
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— — — Pipeline

0 50m  
 Scale 1:2500



Figure 12: Site 108, survey of relict trackway - southern section



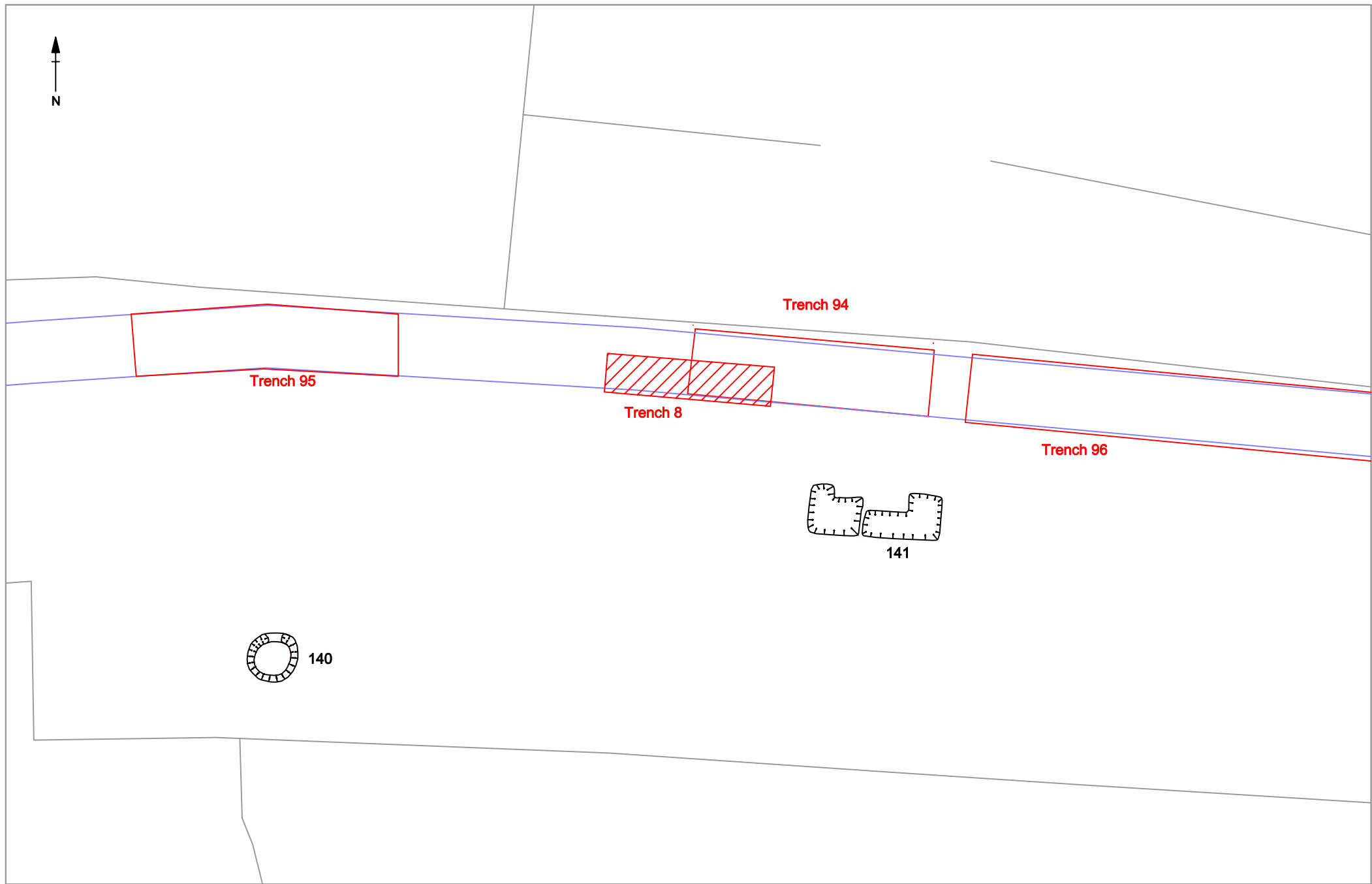
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— Pipeline

0 25m  
 Scale 1:1000



Figure 13: Site 111 field lynchet



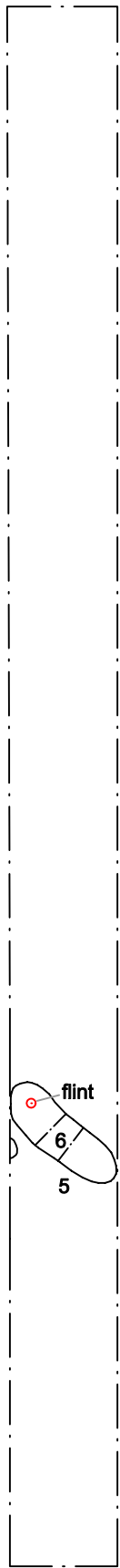
based upon the Ordnance Survey 1:50000  
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— Evaluation trench  
— Pipeline

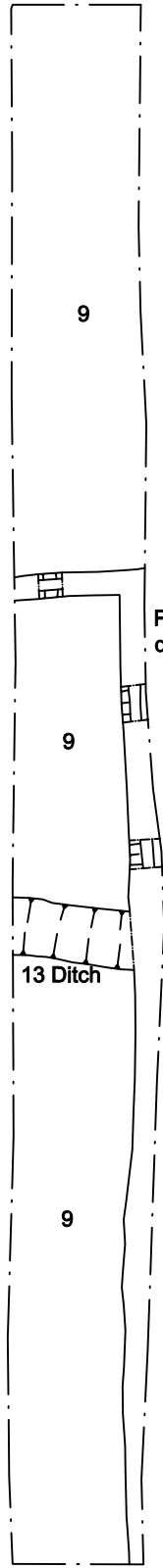
0 20m



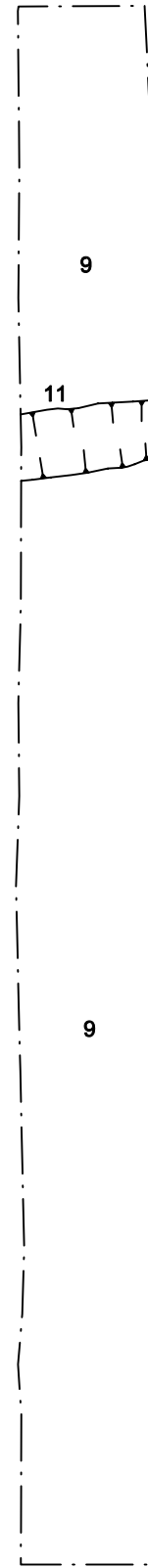
Figure 14: Sites 140 and 141, survey of ring bank and platform and trench locations



Trench 33



Trench 50



Trench 58

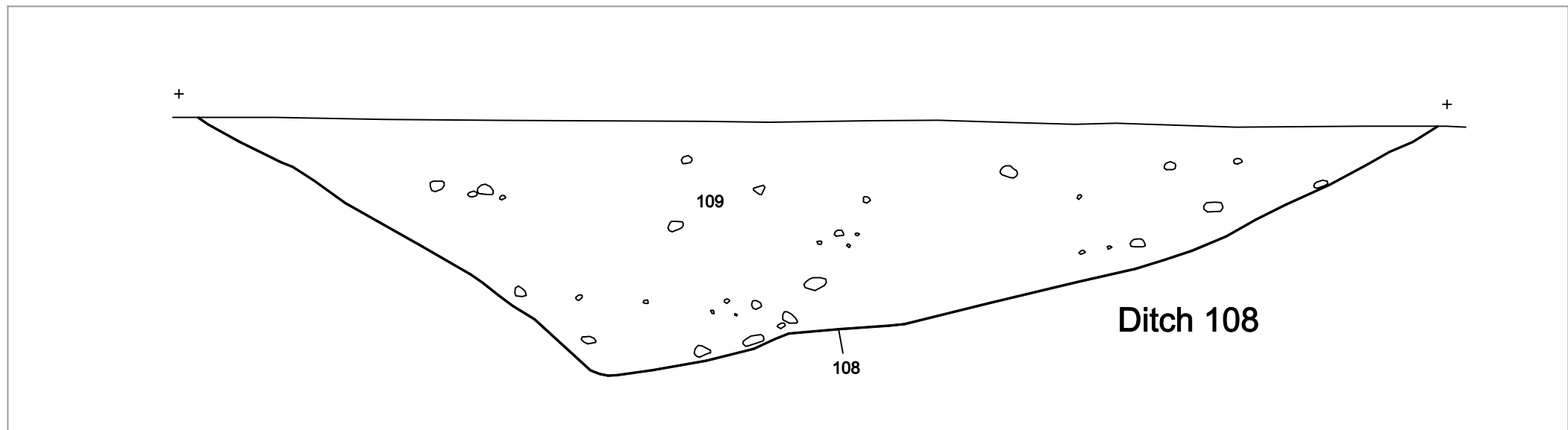
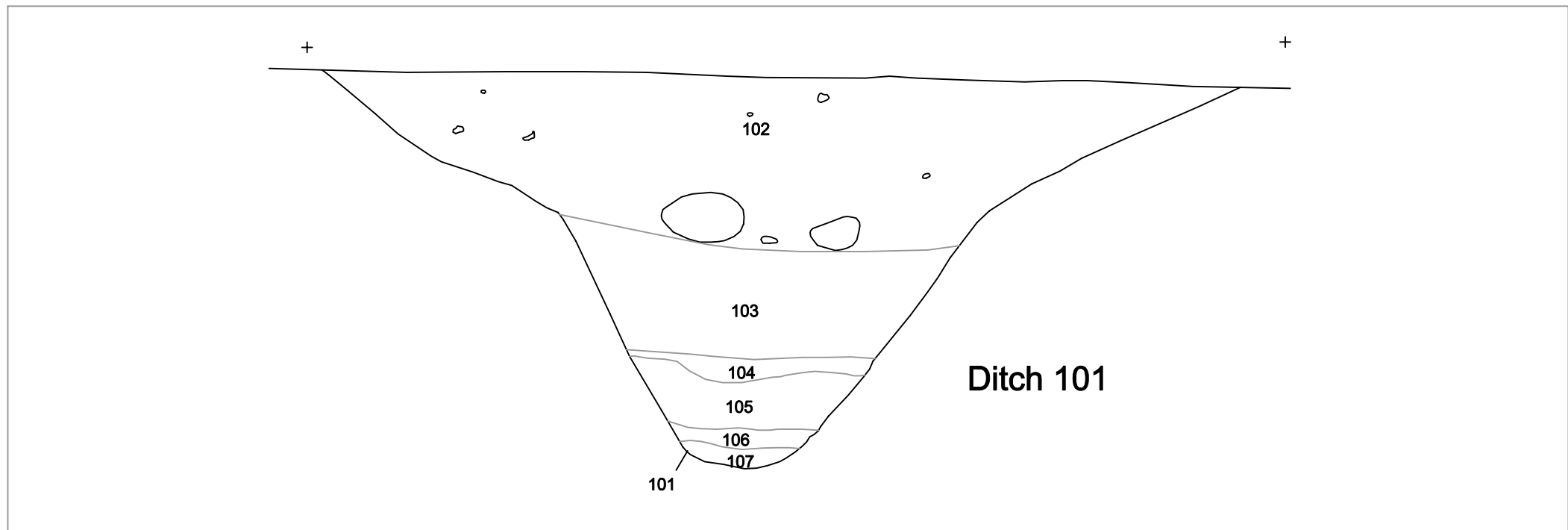


Scale 1:100 at A4

0 2.5m



Figure 15: Plans of Trenches 33, 50 and 58

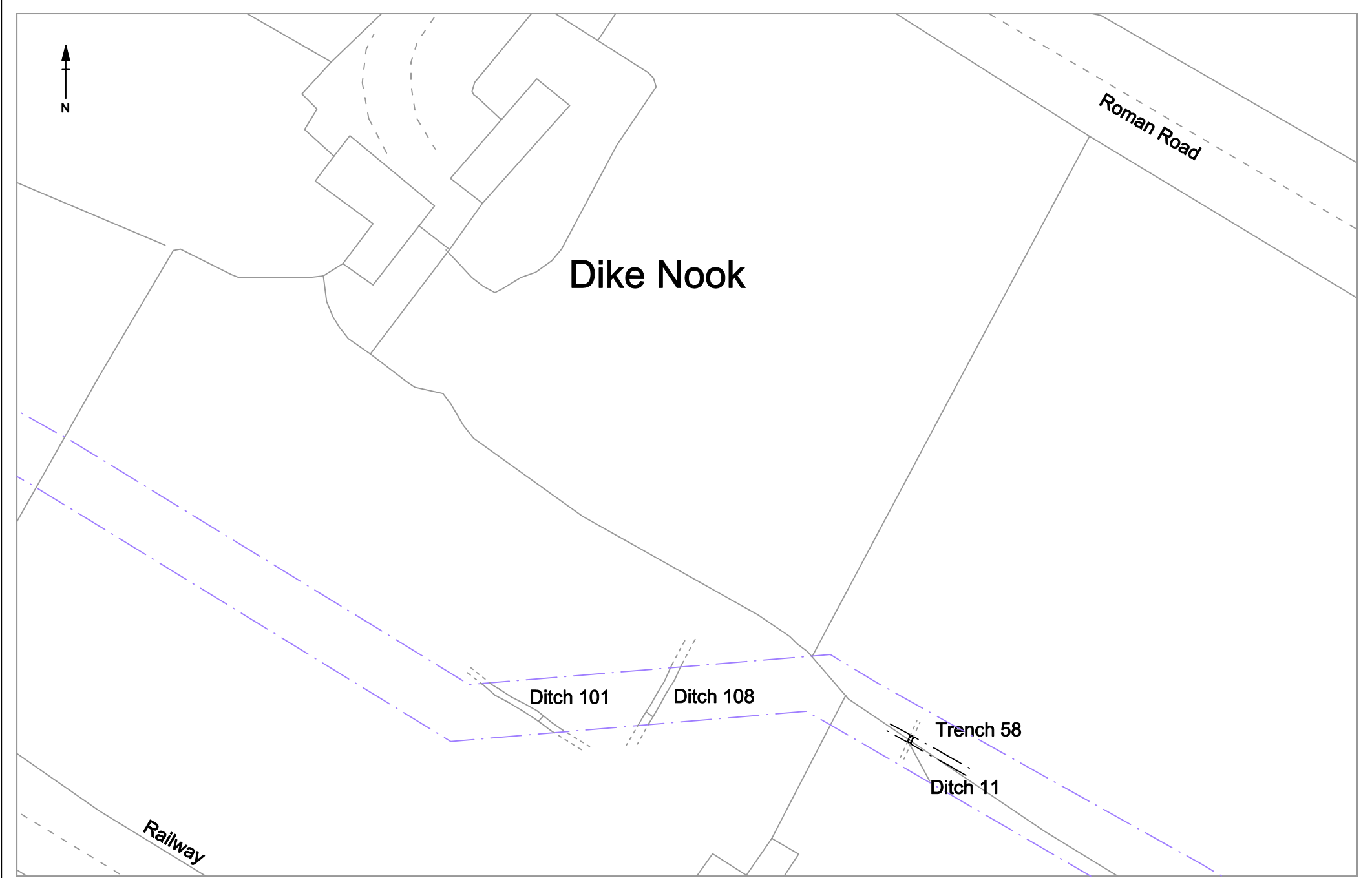


Scale 1:10

0 0.25m



Figure 16: South-facing sections through ditches 101 and 108



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0  20m  
 Scale 1:1250



Figure 17: Plan of boundary features near Dike Nook





Plate 1: Ridge and furrow Site **142**, looking east



Plate 2: Site **100**, hedgerow, looking north





Plate 3: Site **105**, ridge-and-furrow, eastern field, looking north



Plate 4: Site **105**, ridge-and-furrow, western field, looking north



Plate 5: Site **108**, trackway, looking north



Plate 6: Site **111**, lynchet, looking east





Plate 7: Site **80**, railway / road crossing north of Sandford, looking north



Plate 8: General view of Trench 8, looking east



Plate 9: General view of Trench 33, looking north

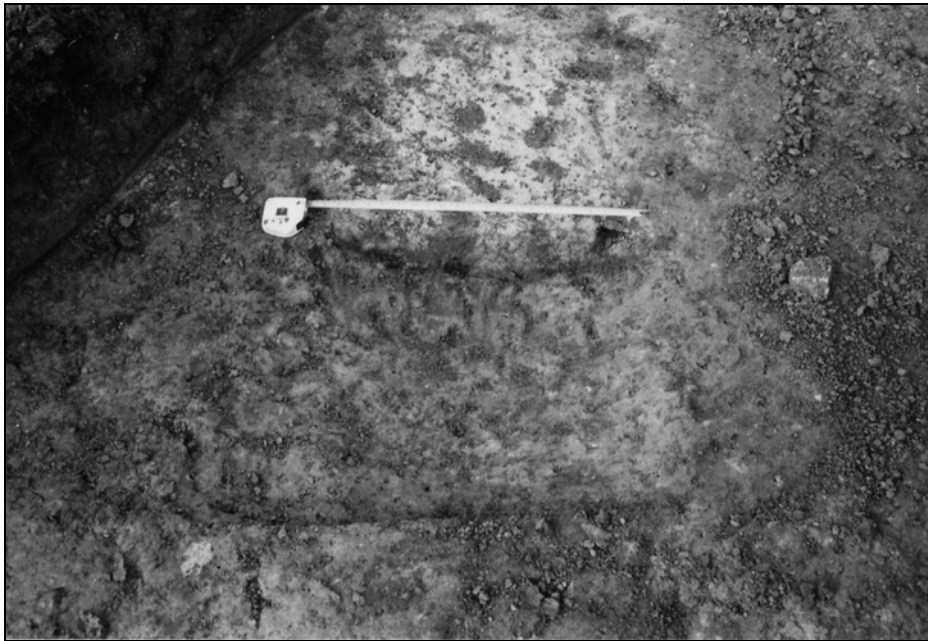


Plate 10: View of pit feature, 5, in Trench 33



Plate 11: Ditch *II*, Trench 58, looking north



Plate 12: Ditch *101*, looking south





Plate 13: Ditch *108*, looking north