

**An Archaeological Evaluation by Trial Trenching
at the Long Moor Surface Mining Scheme,
Ravenstone with Snibstone,
Leicestershire
NGR: SP 5111 9958 (centre)**

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	<i>By Dr. P.N Clay and J.R.Harvey</i>

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An Archaeological Evaluation by Trial Trenching at the Proposed Long Moor Surface Mining Scheme, Ravenstone with Snibstone, Leicestershire (SK 390 130)

Summary

An archaeological field evaluation by trial trenching was undertaken at the proposed Long Moor Surface Mining scheme, Ashby Road, Ravenstone with Snibstone, Leicestershire by University of Leicester Archaeological Services in advance of the proposed coal extraction. Three archaeological sites dating between the Neolithic to the Romano-British period have been identified close by. The vicinity of the proposed development site to these sites was seen to necessitate prior archaeological investigation.

Thirty-five trenches were excavated across c. 2km of present arable farmland in order to evaluate the proposed line of the haul road, areas of potential alluvium/colluvium and an area immediately adjacent to a known flint scatter. Only Trenches 3 and 6, located on the proposed line of the haul road, identified any clear archaeological deposits that included two undated pits and a series of ditches. A single sherd of 13th century pottery was recovered from one of the excavated ditches.

The site archive will be held by Leicestershire County Council, Historic & Natural Environment Team (Accession No.X.A.99.2006).

1. Introduction

- 1.1 University of Leicester Archaeological Services (ULAS) were commissioned by UK Coal Mining Ltd. to carry out an archaeological evaluation of land south of Ashby Road, west of Ravenstone, Leicestershire (SK390 130, centre). The work was undertaken in advance of the proposed open cast coal extraction scheme, in order to allow proper consideration of the archaeological issues and the preparation of an appropriate mitigation strategy.
- 1.2 The proposed development area has been identified as an area of archaeological potential from information held in the Leicestershire and Rutland Historic Environment Record (HER). Subsequently a geophysical survey was conducted within the area (Stratascan 2006). This report presents the results of an archaeological evaluation by trial trenching carried out between the 4th-12th September 2006, by University of Leicester Archaeological Services (ULAS). The trial excavation followed the Project Design prepared by Patrick Clay/James Harvey (ULAS 2006, Appendix 6) that had been approved by the Senior Planning Archaeologist at Leicestershire County Council following his Brief for the site.

2. Site Description, Topography and Geology

- 2.1 The proposed site of the coal mine is located 0.75km south-west of the village of Ravenstone, 0.7km west of Normanton le Heath and 1km north of Heather (centred on SK 390 130; figs. 1 and 2). It consists of an area of c.70ha.
- 2.2 The Ordnance Survey Geological Survey of Great Britain Sheet 155 indicated that the underlying geology is varied over the proposed development area. These include coal and carboniferous sandstone in the east and north; Mercia Mudstone in the south and west; Bromsgrove Sandstone in several areas; Boulder Clay mainly in the west; sands and gravels in the south and alluvium along the course of Blowers Brook in the northeast. The proposed development area lies between a height of 125-156m OD. The land slopes down from Ashby Road southwards towards the middle of the site, rising again to the southwest.

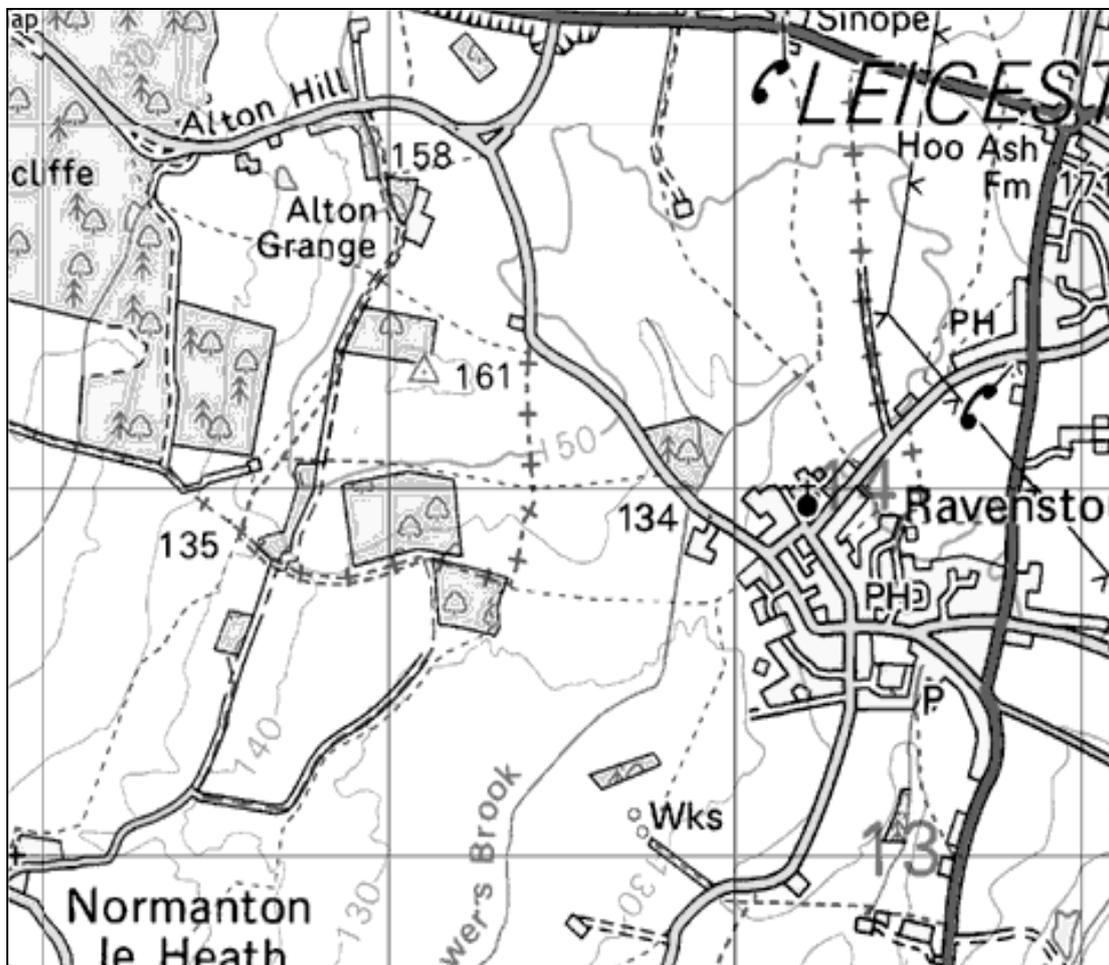


Figure 1: Site Location Plan (Scale 1:50000)

Reproduced from the OS map Land ranger 1:50000 map by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright 1994. All rights reserved. Licence number AL 10002186.

3. Archaeological and Historical Background (Taken from Marsden 1996)

- 3.1 The Domesday book records that the land of Countess Judith included in Heather land held by 'Earl Waltheof, and 1 Freeman Esbern'. Meanwhile Ravenstone is mentioned twice, with both William Bonvallet and Nigel of Stafford owning land there.
- 3.2 From studies of open cast sites in other locations at Lount, Coleorton and Measham there is a potential for early coal workings surviving in areas of North West Leicestershire. The 14th century workings at Coleorton are among the earliest deep coal mines found in Europe (using the pillar and stack method) and are of international importance. Coalfield Farm is located to the southeast of the site and may suggest post-medieval or medieval mining in the area although the depth of Triassic deposits overlying the coal measures within the proposed extraction area would suggest that early workings were unlikely to be present.
- 3.3 The desk-based assessment (Marsden 1996) reports of three known archaeological sites close to the proposed coal extraction site (fig. 2). These comprise of an Iron Age and Romano-British Enclosure System and Settlement northeast of Cattows Farm (Site 1). Ariel photographs showed a compact series of rectangular cropmark enclosures and associated double ditched linear features, indicating possible Iron Age settlement with droveways. Fieldwalking produced a small scatter of high quality flint at the centre of the cropmark site (Liddle 1990). The subsequent excavations of 1990 produced evidence of several phases of enclosures, a trackway, structures and buildings at the site dating to the mid-late Iron Age. There was also evidence of continuity of the site into the Roman period. This consisted of a large enclosure, metalling of the trackway and a semi-circular shelter or windbreak for the livestock (Thorpe, Sharman and Clay 1994). Also a Romano-British settlement has been located by fieldwalking south of Jubilee Plantation (Site 2). Three phases of activity were identified. Phase 1 dated to the late second – early third century and included an east-west ditch which may have formed the southern boundary of an enclosed settlement as well as forming the northern boundary of an associated enclosure. Phase 2 seemed to date to the mid-late third century and included a droveway, a rectangular structure and a kiln. The final phase related to the creation of a group of enclosures that dated to the late third – late fourth century. Finally a flint scatter has been identified, east of Normanton le Heath (Site 3) that may indicate a Neolithic settlement based on the flints recovered although geophysical survey failed to locate any archaeological anomalies.
- 3.4 Initial advice from Heritage and Natural Environment Team of Leicestershire County Council (HNET LCC) requested an archaeological evaluation of the site area by initial geophysical survey. The survey showed a number of features scattered across the site area that are potentially of archaeological origin. A basic interpretation of the features suggests gullies / ditches of uncertain date. However these areas are outside the current area of proposed development (to the east of the proposed haul road).
- 3.5 The wider area, within 1km of the proposed development site, includes an extensive range of recorded archaeological sites from the Leicestershire Sites and Monuments Record. These can be divided by broad period as follows:

Prehistoric

- Possible Mesolithic occupation, east of Melbourne Road based on fieldwalking. NGR: SK402124.
- Possible Mesolithic occupation, north of Kelham Bridge Farm based on fieldwalking SK404122.
- Bronze Age (?) ring ditch (cropmark), north of Jubilee Plantation. SK387141.
- Iron Age (?) enclosure (cropmark), north of Jubilee Plantation. SK392142.
- Two Iron Age gold stater (coin) found north of Hall farm. SK378109.
- Bronze Age (?) features (cropmarks) including enclosures, a linear feature, 3-4 circular features and pit alignment, west of Heather Hall. SK378107.
- Iron Age (?) enclosure (cropmark), west of Sparkenstone estate. SK384 08.
- Two Iron Age (?) enclosures (cropmarks), north of Hall Farm. SK380 113.

Roman

- Roman occupation, south of Normanton le Heath. Finds have included pottery, metal objects and other artefacts. SK 376 119.
- Roman settlement, north of Highfield Farm, Ravenstone. Excavations by LAU revealed three pottery kilns and a tile kiln. Other features included potholes, graves, ditches and buildings dating to the third-fourth century. SK 303 115.
- Roman quern and stone mortar found in Normanton le Heath. SK378127.

Medieval and Post-medieval

- Holy Trinity Church, Normanton le Heath, dated to 1220. SK377127.
- Medieval windmill located north of Jubilee Plantation. SK388141.
- Earthworks of a DMV located west of Alton Cottages, extensive closes and quarry activity also observed. SK390148.
- Medieval Church, Heather SK390108.
- Medieval and post-medieval manor house, Heather. SK389108.
- A papal Bulla of Innocent IV (1243-1254) found east of Normanton le Heath. SK388112.
- Foil Die found north of Sparkenstone Estate that may date to the seventh century SK38751105.
- St. Michaels Church, Ravenstone, some of the church may be pre-14th century. SK402139.
- Ravenstone medieval village. SK400138.
- Medieval Grange, Ravenstone.
- Ravenstone Hall, built around 1750. SK400139.
- Post-medieval watermill at Mill Farm. SK399117.

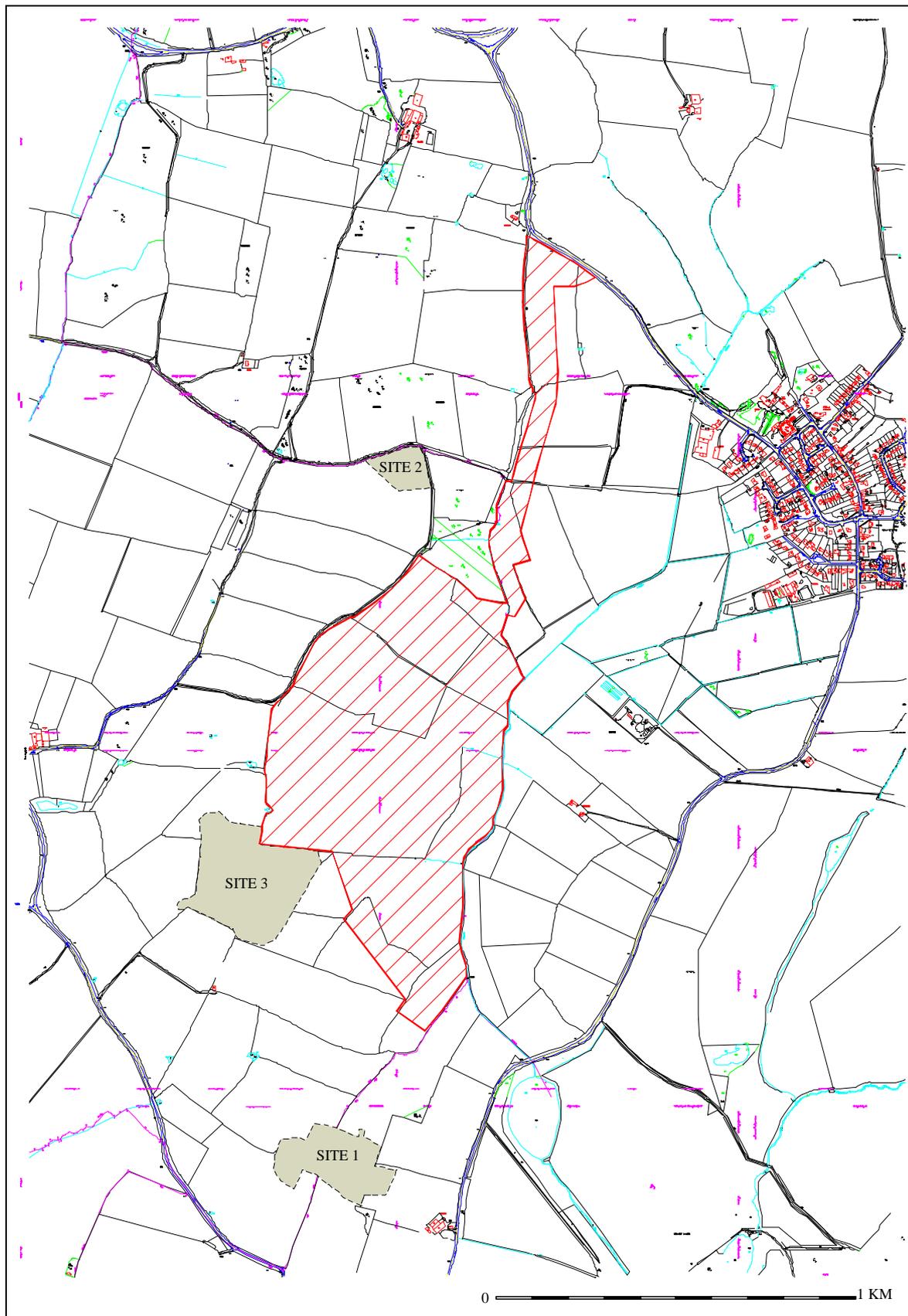


Figure 2: Site Location (incorporating known archaeological sites)

4. Aims and Objectives

4.1 The main objectives of the evaluation were:

- To identify the presence/absence of any archaeological deposits in areas where the survey did not reveal possible archaeological anomalies.
- To provide information on the extent, character and date of archaeological deposits within the application area.
- The archaeological evaluation, once the above information has been gathered, will help to determine a decision being made on planning permission regarding archaeological issues. Potentially further stages of archaeological investigation will be required as a condition of planning permission.
- To produce an archive and report of any results.

4.2 Within the stated project objectives, the principal aim of the evaluation was to establish the nature, extent and significance of archaeological deposits on the site in order to determine the potential impact upon them from proposed development.

5. Methodology

5.1 The Specification stated that thirty-five trenches, 30m x 1.8m in length were to be located in order to evaluate the three areas of the application area highlighted by the archaeological brief. Nineteen trenches were to be located in Area 2 (fig.4), along the line of the proposed haul road. This runs from the northern end of the site, adjacent to Ashby Road, towards the centre of the site on a south-southwest orientation. Eight trenches were to be located in Area 1 (fig. 3), highlighted as an area of potential alluvial and/or colluvial coverage within Fields 12, 15 and 29. Also eight trenches were to be located in Area 3 (fig. 9), an area immediately adjacent to Site 3 within the southwest corner of Field 12. The trenches were positioned using a Garmin Global Positional System (GPS) 12 parallel channel receiver. The GPS accuracy ranged between 2 to 10 metres.

5.2 The trenches were excavated using a JCB 310C tracked machine equipped with a 2.1m wide toothless ditching bucket (not 1.8m as stated by the Specification). The topsoil and overlying layers were removed under full archaeological supervision until either the top of archaeology or natural undisturbed ground was reached, or to a depth of 1.20m.

5.3 The bases of the trenches were hand cleaned and examined for archaeological remains. Where archaeological remains existed they were planned to scale and recorded. Limited excavation of archaeological features was carried out to determine the character and date of any remains. Archaeological features were recorded with reference to the ULAS recording manual.

5.4 The trenches were located using a Leica single frequency GPS survey system in conjunction with an Electronic Distance Measurer linked to a hand-held Psion data logger. The data was processed using N4ce survey software and the final plans completed with the aid of TurboCAD version 11 design software.

5.5 All work followed the Institute of Field Archaeologists (IFA) *Standard and Guidance for Archaeological Field Evaluations*, and the *Guidelines and Procedures*

for Archaeological Work in Leicestershire and Rutland (Leicestershire Museums, Arts and Records Service).

6. Results (See Appendix I for Trench summaries)

Note: Archaeological contexts as a cut are indicated by: [], those that are deposits are indicated by: ().

- 6.1 A total of thirty-five trenches were excavated within the proposed development area. These vary slightly in position from the trench plan shown in the design specification and this is due to the accuracy of the GPS receiver. Trenches 16 and 27 were altered in order to keep access routes clear. A total of 1015m of trenching was undertaken. (equalling an area of 2130m²)



Figure 3: Trench Location Plan

AREA 1 (Trenches 20-27)

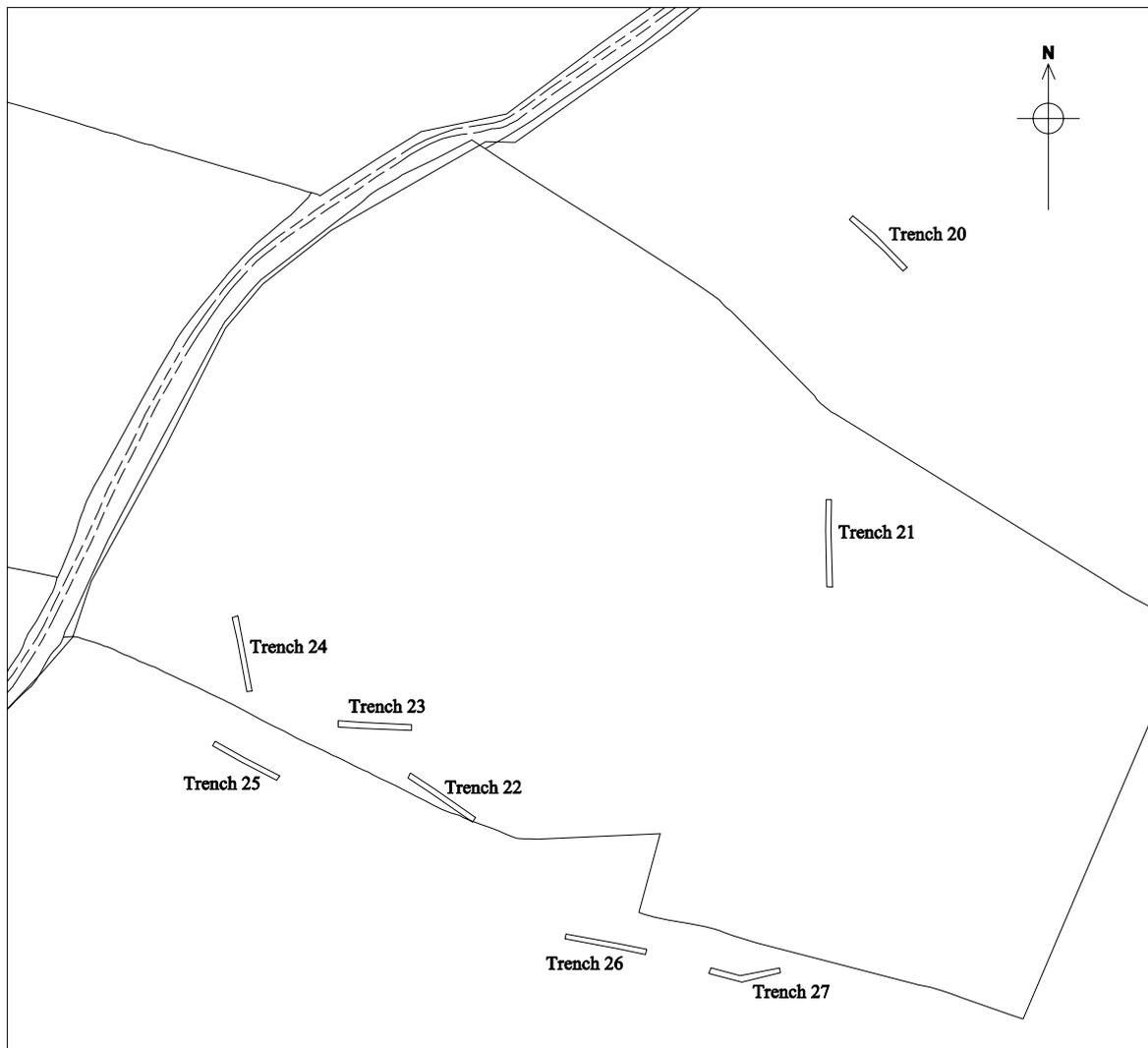


Figure 4: Plan of Trenches 20-27

6.2 *Trench 20*

6.2.1 Trench 20 was located *c.*60 m north of the southern boundary of Field 29 on a northwest-southeast alignment. The topsoil varied in thickness between 250-350mm and the subsoil varied between 0-200mm. A single northeast-southwest orientated ceramic field drain was observed. No archaeological finds or features were located in this trench.

6.3 *Trench 21*

6.3.1 Trench 21 was located *c.*30m south of the northern boundary of Field 15 on a north-south alignment. The topsoil varied in thickness between 200-300mm and the subsoil varied between 0-100mm. A single northeast-southwest orientated ceramic field drain was observed. No archaeological finds or features were located in this trench.

6.4 *Trench 22*

6.4.1 Trench 22 was located directly adjacent to the southern boundary of Field 15 on a northwest-southeast alignment. The topsoil varied in thickness between 250-300mm and the subsoil varied between 0-50mm. A single north-south orientated ceramic field drain was observed. No archaeological finds or features were located in this trench.

6.5 *Trench 23*

6.5.1 Trench 23 was located *c.*17m northwest of Trench 22 on an east-west alignment. The topsoil varied in thickness between 250-400mm and the subsoil varied between 0-200mm. No archaeological finds or features were located in this trench.

6.6 *Trench 24*

6.6.1 Trench 24 was located *c.*40m northwest of Trench 23 on a north northwest-south southeast alignment. The topsoil varied in thickness between 150-400mm and the subsoil varied between 50-200mm. Three ceramic field drains were observed that were orientated northeast-southwest. No archaeological finds or features were located in this trench.

6.7 *Trench 25*

6.7.1 Trench 25 was located *c.*15 m south of the northern boundary of Field 12 on a northwest-southeast alignment. The topsoil varied in thickness between 250-300mm and the subsoil varied between 0-200mm. No archaeological finds or features were located in this trench.

6.8 *Trench 26*

6.8.1 Trench 26 was located *c.*20m south of the northern boundary of Field 12 on an east southeast- west northwest alignment, where an unusual angle was observed within boundary. The topsoil varied in thickness between 200-400mm and the subsoil varied between 150-300mm. A modern backfilled boundary ditch was observed that matched the angle observed within the field boundary, *c.*7m from the east southeast end of the trench. No archaeological finds or features were located in this trench.

6.9 *Trench 27*

6.9.1 Trench 27 was located *c.*25m east of Trench 26. It was kinked from a west northwest-east southeast alignment to northeast-southwest in order to avoid a track that was being used by the farmer. The topsoil varied in thickness between 200-300mm and the subsoil varied between 100-300mm. No archaeological finds or features were located in this trench.

AREA 2 (Trenches 1-19)

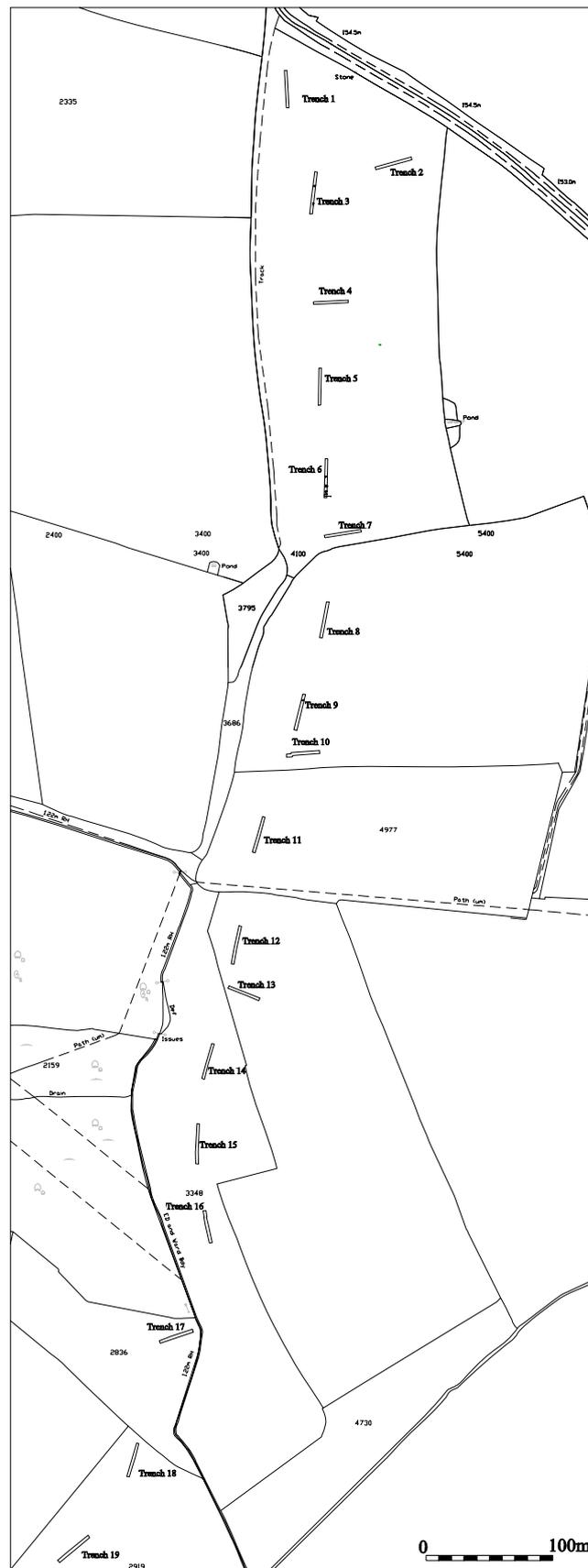


Figure 5: Plan of Trenches 1-19

6.10 Trench 1

6.10.1 Trench 1 was located *c.*40m south of Ashby Road on a north-south alignment. The topsoil varied in thickness between 190-330mm and the subsoil varied between 50-80mm. A brick drain was observed on an east-west orientation that cut an earlier ceramic drain that was on a roughly north-south orientation. No archaeological finds or features were located in this trench.

6.11 Trench 2

6.11.2 Trench 2 was located *c.*50m south of Ashby Road on a northeast-southwest alignment. The topsoil varied in thickness between 240-340mm and the subsoil varied between 60-220mm. A single north-south orientated ceramic field drain was observed. No archaeological finds or features were located in this trench.

6.12 Trench 3 Contexts (1),(2),[3],[6],[7] and (17) (Fig.6)

6.12.1 Trench 3 was located *c.*50m southeast of Trench 1 on a north-south alignment. The topsoil varied in thickness between 220-320mm and the subsoil varied between 20-150mm. Two sub-circular features, [3] and [7] were located and sampled excavated within the trench. Feature [3] was located *c.*10m from the northern end of the trench. It was sub-circular, measuring 940mm x 1450mm and was 260mm deep. The sides and base of the feature were concave and it was filled by three clearly discernable deposits. The primary fill was a dark grey clayey silt deposit (2) that contained rare charcoal fleck inclusions. This had a maximum thickness of 70mm This was overlaid by a band of pure charcoal (17) that had a maximum thickness of 60mm. The latest fill consisted of a light grey clayey silt deposit (1) that had a maximum thickness of 160mm and contained occasional inclusions of small-large sub-rounded stones.

6.12.1 A second feature [7] was partially exposed *c.*7m from the southern end of the trench. This feature was sub-circular/partially irregular in plan, the exposed area measured 1600 x >80mm and it was 190mm deep. The sides of the feature were shallow and undulating and the base was pitted. It was filled by a dark greyish brown silty clay deposit (6) that contained common inclusions of pebbles varying between 10-100mm in size. The southern end of the deposit was also rich in charcoal. Unfortunately no datable no material was recovered from either of the recorded features.

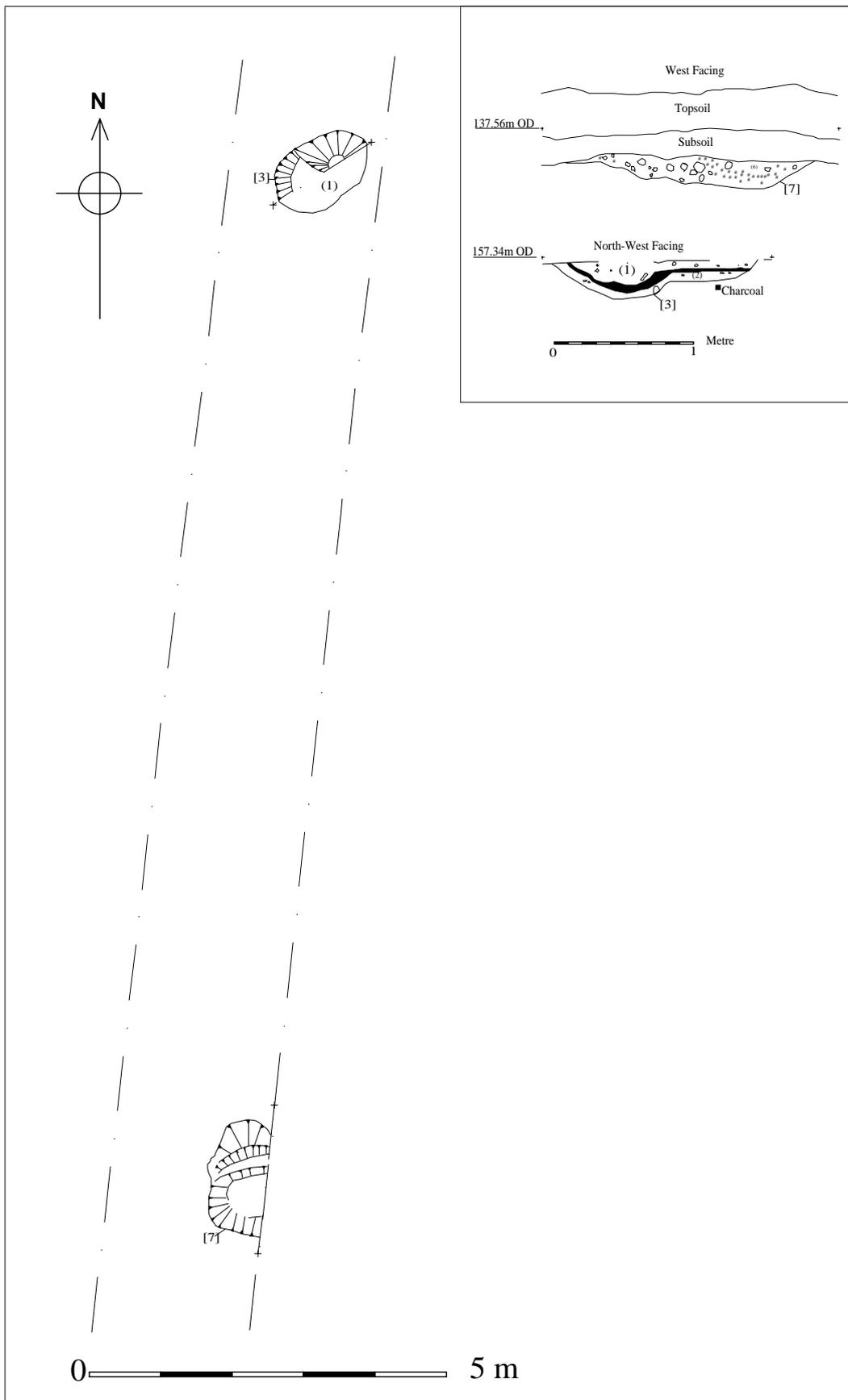


Figure 6: Features in Trench 3

6.13 Trench 4

6.13.1 Trench 4 was located *c.*70m south of Trench 3 on an east-west alignment. The topsoil varied in thickness between 240-390mm and the subsoil varied between 0-140mm. Three parallel linear features were observed cutting the natural substratum. These were approximately the same width, *c.* 1.5 m wide and equally distant, *c.* 8 m from one another and were aligned north-south. These features represent the filled in furrows of medieval or early post medieval ridge and furrow ploughing. No other archaeological finds or features were located in this trench.

6.14 Trench 5

6.14.1 Trench 5 was located *c.*50m south of Trench 4 on a north-south alignment. The topsoil varied in thickness between 240-340mm and the subsoil varied between 50-210mm. No archaeological finds or features were located in this trench.

6.15 Trench 6 Contexts [4],(5), [10],(11),[14],(15), and (16) (Fig. 7)

6.15.1 Trench 6 was located was located *c.*40m south of Trench 5 on a north-south alignment. The topsoil varied in thickness between 270-340mm and the subsoil varied between 10-400mm. Three linear features, [4], [10] and [14] were recorded and sample excavated within this trench. Feature [4] was located 14m from the northern end of the trench. It was aligned east-west and spanned the width of the trench. The feature measured 830mm wide and 300mm deep. Its sides were steep and straight with an incline of *c.* 60° that broke to a base which was slightly concave. It was filled by a dark brownish grey clayey silt deposit (5) that contained occasional medium sub-rounded stones. No datable material was recovered from this feature.

6.15.2 Feature [10] was located 2m from the southern end of the trench. It was aligned east northeast-west southwest and spanned the width of the trench. This feature measured 2.2m wide and was 300mm deep. The eastern end of the feature was curving inwards which did indicate that the feature may be terminating a short distance beyond the trench edge. The northern side of the feature was steep and straight with an incline of *c.* 70° that broke to a flat base. The southern side had been truncated by a later sandstone constructed drain. The feature was filled by a mid brownish grey sandy clayey silt deposit (11) that contained occasional pebble inclusions and rare charcoal flecks. A single sherd of 13th century sandyware pottery was recovered from this deposit although its stratigraphy has to be questioned due to the disturbance caused by the drain.

6.15.3 Feature [14] was located *c.*3.5m north of feature [10]. It was aligned east-west and spanned the width of the trench, although it was clearly terminating on the eastern edge of the trench. The south side was steep and straight with an incline of *c.*50° and the north side broke from a shallow slope of 30° to a slope of 60° half way down the feature. The base of the feature was flat. The feature contained two clearly discernable fills. The primary fill consisted of a light yellowish grey silty sand deposit (16) that was a maximum of 100mm thick. The secondary fill consisted of a light grey silty sand deposit (15) with orange mottling. This fill contained occasional angular stone inclusions. No datable material was recovered from this feature.

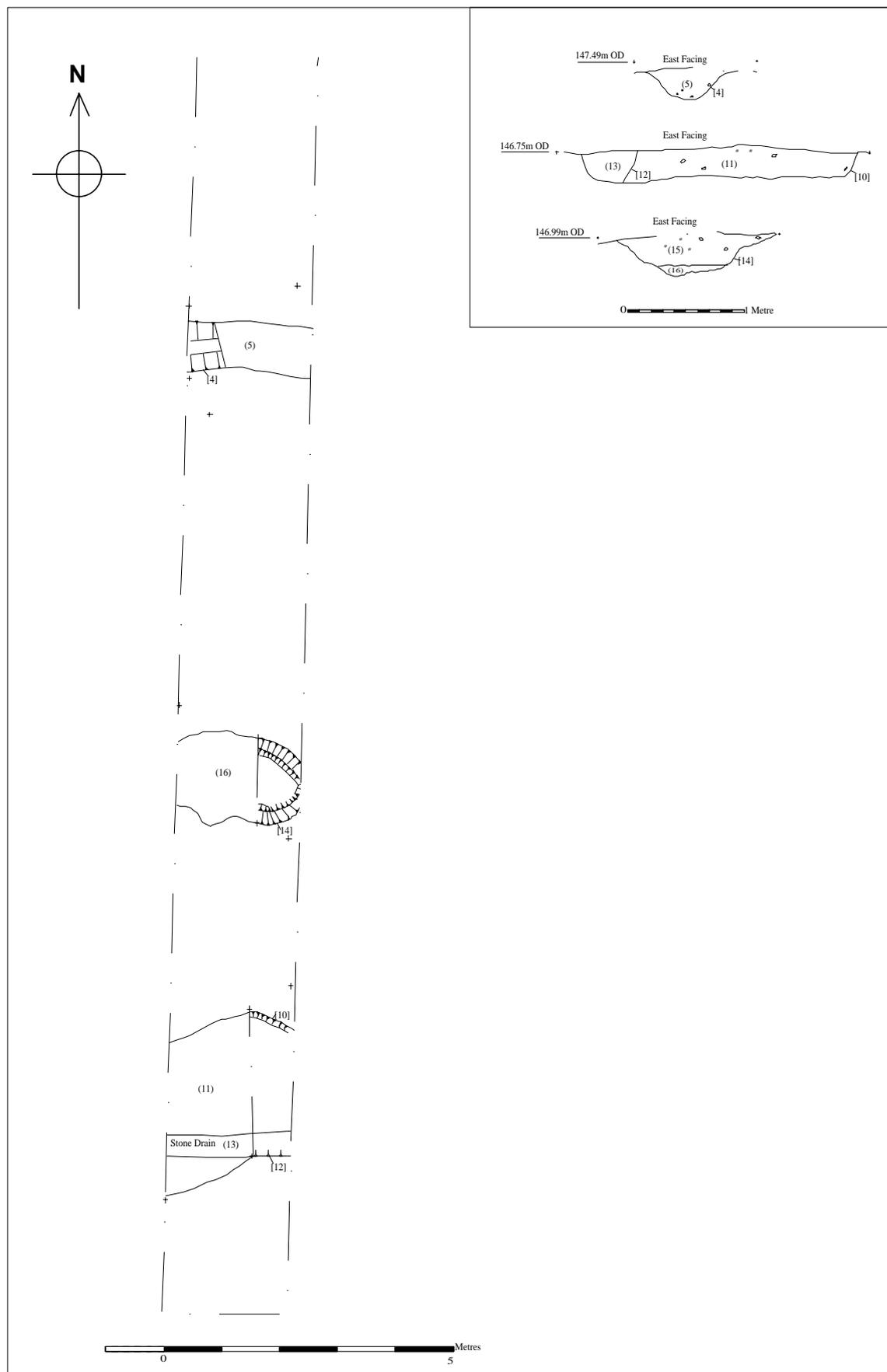


Figure 7: Features in Trench 6

Fi

6.16 *Trench 7*

6.16.1 Trench 7 was located *c.*30m south of Trench 6 on an east northeast-west southwest alignment. The topsoil varied in thickness between 200-330mm and the subsoil varied between 60-280mm. Two parallel linear features were observed cutting the natural substratum. These represent the continuation of the north-south orientated furrows seen in Trench 4. Two ceramic land drains were also observed that were east northeast-west northwest orientated. No other archaeological finds or features were located in this trench.

6.17 *Trench 8*

6.17.1 Trench 8 was located *c.*50m south of Trench 7 in the adjoining field on a north northeast-south southwest alignment. The topsoil varied in thickness between 190-320mm and the subsoil varied between 80-200mm. Here four ceramic field drains were observed that were east northeast-west southwest orientated. No archaeological finds or features were located in this trench.

6.18 *Trench 9 Contexts (8) and (9) (Fig. 8)*

6.18.1 Trench 9 was located *c.*50m southwest of Trench 8 on a north northeast-south southwest alignment. The topsoil varied in thickness between 220-480mm and the subsoil varied between 100-270mm. Here a single linear feature [9] was located and sample excavated *c.* 4m from the northeast end of the trench. The feature measured 330mm in wide, spanned the width of the trench on an east northeast-west southwest orientation and was 170mm deep. The sides of the feature were shallow although these broke vertically towards the base which was concave. It was filled by a reddish brown clayey silt deposit (8) that contained rare charcoal. The fill of the feature was very similar to the backfill of the ceramic drain observed in Trench 8. Considering the feature was on the same alignment as these field drains and the shape of the sides it is likely the feature represents a trench for a field drain which was not utilized.

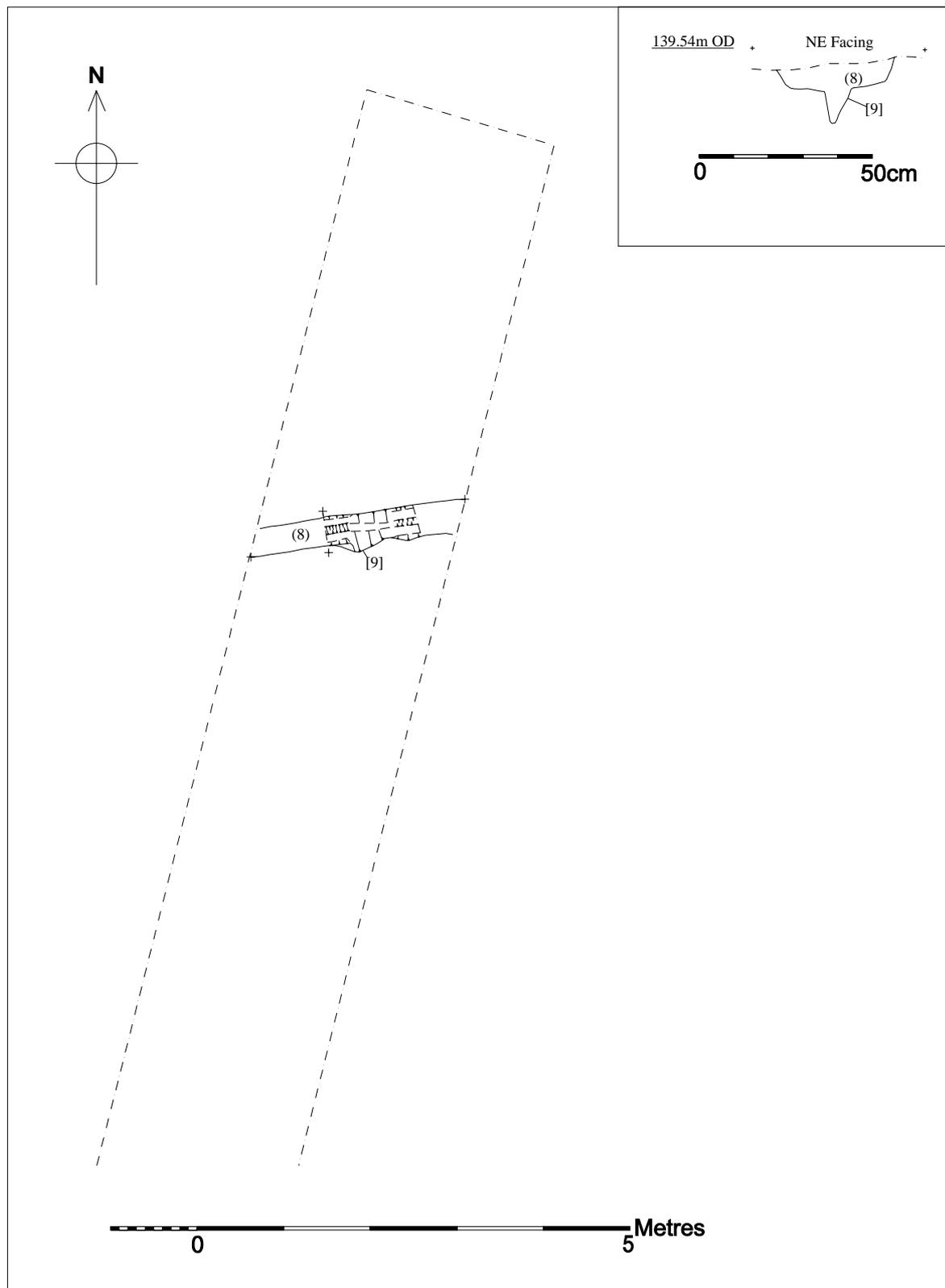


Figure 8: Likely field drain excavated in Trench 9

6.19 Trench 10

6.19.1 Trench 10 was located *c.*20m south of Trench 9 on an east northeast-west northwest alignment. The topsoil varied in thickness between 220-360mm and the subsoil varied between 80-210mm. The trench was kinked at the west northwest end in order to avoid a ceramic field drain that was running up the centre of the trench. No archaeological finds or features were located in this trench.

6.20 Trench 11

6.20.1 Trench 11 was located *c.*50m southwest of Trench 10 in the adjoining field on a north northeast-south southwest alignment. The topsoil varied in thickness between 270-360mm and the subsoil varied between 80-140mm. Three drains constructed of local sandstone were observed that were orientated east-west. No archaeological finds or features were located in this trench.

6.21 Trench 12

6.21.1 Trench 12 was located *c.*60m south of Trench 11 in the adjoining field on a north northeast-south southwest alignment. The topsoil varied in thickness between 260-380mm and the subsoil varied between 30-140mm. No archaeological finds or features were located in this trench.

6.22 Trench 13

6.22.1 Trench 13 was located *c.*16m south of Trench 12 on a west northwest east-southeast alignment. The topsoil varied in thickness between 160-380mm and the subsoil varied between 0-370mm. No archaeological finds or features were located in this trench.

6.23 Trench 14

6.23.1 Trench 14 was located *c.*40m southwest of Trench 13 in the adjoining field on a north northeast-south southwest alignment. The topsoil varied in thickness between 190-290mm and the subsoil varied between 0-90mm. No archaeological finds or features were located in this trench.

6.24 Trench 15

6.24.1 Trench 14 was located *c.*35m south of Trench 14 in the adjoining field on a north north-south alignment. The topsoil varied in thickness between 190-300mm and the subsoil varied between 70-90mm. Two ceramic field drain were observed that were northwest-southwest orientated. No archaeological finds or features were located in this trench.

6.25 Trench 16

6.25.1 Trench 16 was located *c.*35m south of Trench 15 on a north northwest-south southeast alignment. The topsoil varied in thickness between 190-360mm and the subsoil varied between 60-210mm. A ceramic field drain was observed that was northwest-southwest orientated. Also a sandstone drain was observed on an east-west orientation. No archaeological finds or features were located in this trench.

6.26 Trench 17

6.26.1 Trench 17 was located in the northeast corner of Field 31, *c.*75m southwest of Trench 16 on a northeast-southwest alignment. The topsoil varied in thickness between 230-390mm and the subsoil varied between 0-140mm. No archaeological finds or features were located in this trench.

6.27 Trench 18

6.27.1 Trench 18 was located in the northwest corner of Field 30, c.85m south of Trench 17 on a north northeast-south southwest alignment. The topsoil varied in thickness between 200-300mm and the subsoil varied between 0-210mm. A ceramic field drain was observed that was northwest-southeast aligned.

6.28 Trench 19

6.28.1 Trench 19 was located c.55m southwest of Trench 18 on a northeast-southwest alignment. The topsoil varied in thickness between 240-300mm and the subsoil varied between 0-210mm. No archaeological finds or features were located in this trench.

AREA 3 (Trenches 28-35)

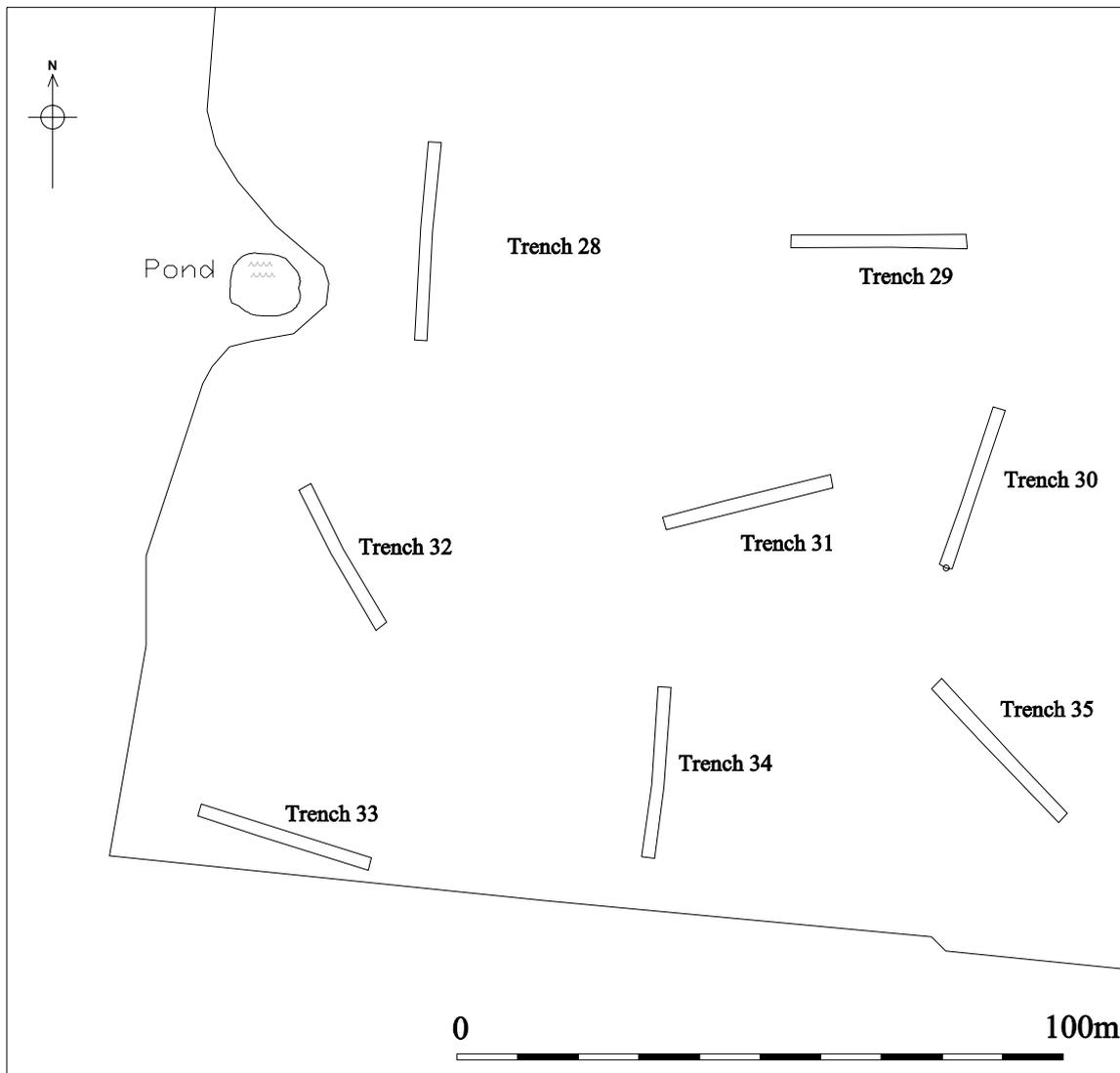


Figure 9: Plan of Trenches 28-35

6.29 Trench 28

6.29.1 Trench 28 was located *c.*10m east of the western field boundary of Field 12 on a north-south alignment. The topsoil varied in thickness between 240-320mm and there was no subsoil, although there was a thick interface of plough damaged natural substratum. An east southeast-west northwest orientated furrow and two east-west orientated ceramic fields drains were observed. No archaeological finds or features were located in this trench.

6.30 Trench 29

6.30.1 Trench 29 was located *c.*50m east of Trench 28 on an east-west alignment. The topsoil varied in thickness between 270-340mm and there was no subsoil, although there was a thick interface of plough damaged natural substratum. An east southeast-west northwest orientated furrow and two north-south orientated field drains were observed. No archaeological finds or features were located in this trench.

6.31 Trench 30

6.31.1 Trench 30 was located *c.*30m south of Trench 29 on a north northeast-south southwest alignment. The topsoil varied in thickness between 260-380mm and the subsoil varied between 10-280mm. Three furrows were observed crossing the trench. These were approximately the same width, *c.* 2.7 m wide and equally distant, *c.* 5.4 m from one another and were orientated east southeast- west north west. Also three ceramic field drains were observed on the same alignment, two of which ran up the middle of the furrows. No archaeological finds or features were located in this trench.

6.32 Trench 31

6.32.1 Trench 31 was located *c.*25m west of Trench 30 on an east northeast-west northwest alignment. The topsoil varied in thickness between 250-360mm and the subsoil varied between 0-560mm. Three ceramic field drains were observed that were orientated west northwest-east southeast. No archaeological finds or features were located in this trench.

6.33 Trench 32

6.33.1 Trench 32 was located *c.*50m west of Trench 31 on a northwest-southeast alignment. The topsoil varied in thickness between 240-300mm and there was no subsoil, although there was a thick interface of plough damaged natural substratum. Four ceramic field drains were observed that were orientated west northwest-east southeast. No archaeological finds or features were located in this trench.

6.34 Trench 33

6.34.1 Trench 33 was located *c.*40m south of Trench 32 on a west northwest-east south east alignment. The topsoil varied in thickness between 250-300mm and there was no subsoil, although there was a thick interface of plough damaged natural substratum. A ceramic field drain was observed that was orientated east northeast-west northwest. No archaeological finds or features were located in this trench.

6.35 Trench 34

6.35.1 Trench 34 was located *c.*50m east of Trench 35 on a north-south alignment. The topsoil varied in thickness between 180-300mm and the subsoil varied between 180-

410mm. Six ceramic field drains were observed that were orientated east northeast-west northwest. No archaeological finds or features were located in this trench.

6.36 Trench 35

6.36.1 Trench 35 was located *c.*45m east of Trench 34 on a northwest-southeast alignment. Three furrows were observed crossing the trench. These were approximately the same width, *c.* 1.9 m wide and equally distant, *c.* 10 m from one another and were orientated east southeast- west north west. Two ceramic field drains were also observed on the same orientation between the furrows. The continuation of the modern field boundary ditch from Trench 26 was also observed within this trench. No archaeological finds or features were located in this trench.

7. Discussion

7.1 The trial trenching at Long Moor has shown that a low density of archaeological deposits are located within the application area, although their depths suggest that they have been subject to moderate plough damage. Trenches 3 and 6, located on the higher ground (between 147.23-157.70m OD) revealed undated pits and ditches. One of the ditches did contain a sherd of 13th century pottery although this find could not be safely stratified. These remains are located *c.* 500m northeast of a known Romano-British settlement (Site 2). It is feasible that these remains may be associated with this settlement although the lack of dating means any interpretation remains speculative.

7.2 A number of furrows were recorded in the trenches in the northern area of the haul road that were aligned north-south. Further furrows were observed in Area 3 that were aligned east southeast-west northwest. Both sets of furrow remains have been observed in aerial photographs.

7.3 Boulder clay was exposed in the trenches that were located on an area of higher ground within the northeast corner of Area 3. This glacial material contained relatively abundant flint nodules as well as chalk fragments. Immediately to the west of this area a flint scatter has been identified (Site 3), suggesting that the site may have been utilized for small scale tool production, using the flint that would have been readily available there.

7.4 Possible areas of alluviation/colluviation had been identified within the proposed development area. However no clear evidence of this was observed within the suggested areas. Small pockets of colluvium were observed along the proposed haul road and within Area 3.

7.5 The large number of land drains observed in the trenches is evidence very poor drainage across the majority of the site. If the site has always been as wet this may indicate the lack any evidence of settlement or other usage.

8. Archive

- 8.1 The site archive will be held by Leicestershire County Council, Historic & Natural Environment Team (Accession No.X.A.99.2006). It consists of 35 trench record sheets, 17 context sheets, site indices, 2 permagraph sheets containing plans and sections, 3 sheets of Black and White contact prints, 3 hangers of black and white negatives, 3 sheets of digital contact prints and 1 CD of digital photographs.
- 8.2 A brief summary of this report will published in the Transactions of the Leicestershire Archaeological and Historical Society in due course.

9. Acknowledgements

- 9.1 The fieldwork was carried out by the author with assistance of Daniel Prior and Roy Pouter and Deborah Sawday identified the pottery. Dr. Patrick Clay managed the project. Also I would like to thank Mr. John Couling of UK Coal Ltd. for his assistance throughout the duration of the fieldwork.

10 Bibliography

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Appendix 1: Trench Summaries

Trench	Length (m)	Average Depth (m OD)*	Natural	Minimum depth to Substratum (m)	Maximum depth to Substratum (m)	Minimum depth to archaeology (m)	Notes
1	30.2	155.79	Dark orangey brown sandy clay	0.24	0.41		Different phases of ceramic field drains
2	30	155.45	Reddish brown clayey sand	0.32	0.48		Ceramic field drain
3	34.11	157.29	Orangey brown clay	0.28	0.42	0.33	Two pits; field drain
4	27.7	154.99	Reddish brown clay; yellowish brown clay	0.28	0.52		Possible N-S furrows
5	30.17	151.80	Dark reddish brown clay	0.33	0.49		
6	30	147.38	Yellowish brown clay	0.37	0.70	0.58	Three ditches, stone drain
7	29.7	145.50	Reddish brown clay; yellowish brown clay	0.30	0.56		Ceramic field drains
8	29.16	142.99	Reddish brown clay' orangey brown clay	0.48	0.48		Ceramic field drains
9	29.65	139.03	Reddish brown clay	0.33	0.61	0.39	Possible gully
10	26.97	137.82	Brownish pink clay	0.30	0.48		Ceramic field drain
11	29.85	135.28	Reddish brown clay	0.39	0.48		Ceramic field drains
12	30.66	133.10	Reddish brown clay; yellowish brown sandy clay	0.31	0.47		
13	26.75	132.39	Reddish brown clay; yellowish brown sandy clay	0.29	0.37		
14	29.18	130.92	Brownish yellow clayey sand; reddish brown clay	0.28	0.34		
15	31.11	128.08	Orangey brown clay	0.27	0.40		Ceramic field drains
16	26.17	126.70	Reddish brown clay; orangey brown sandy clay	0.25	0.48		Ceramic field drains
17	27.43	125.68	Reddish brown sandy clay	0.26	0.53		
18	27	124.59	Drift gravels overlying yellowish brown clay	0.27	0.51		Ceramic field drain

Trench	Length (m)	Average Depth (m OD)*	Natural	Minimum depth to Substratum (m)	Maximum depth to Substratum (m)	Minimum depth to archaeology (m)	Notes
19	30	124.74	Drift gravels overlying reddish brown clay; yellowish brown clay	0.29	0.51		
20	28	126.05	Reddish brown clay	0.25	0.50		Possible E-W furrow? Ceramic field drain
21	32	125.92	Reddish brown clay	0.20	0.40		Ceramic field drain
22	30	129.29	Reddish brown clay	0.20	0.35		Ceramic field drain
23	27	129.49	Reddish brown clay; yellow clay	0.25	0.60		
24	27	130.11	Sandstone; reddish brown clay	0.30	0.50		Ceramic field drains
25	27.5	130.30	Sandstone; reddish brown clay	0.25	0.50		
26	30.5	128.65	Sandstone; reddish brown clay	0.35	0.55		Modern in-filled field boundary ditch
27	27	127.39	Sandstone	0.35	0.50		
28	32	137.23	Mid brown clay; yellowish brown clay	0.25	0.32		Ceramic field drains; SE-NW furrow
29	29	132.65	Reddish brown gravelly clay; reddish brown clay	0.27	0.34		Ceramic field drains; SE-NW furrow
30	28	131.93	Mid yellowish brown gravelly clay overlying reddish brown clay	0.30	0.54		3 NW-SE furrows with ceramic field drains
31	28	133.81	Brown boulder clay (chalk and flint inclusions)	0.28	0.92		Ceramic field drains
32	26	138.26	Brown boulder clay (chalk and flint inclusions)	0.27	0.30		Ceramic field drains
33	29	138.26	Brown boulder clay (chalk and flint inclusions);	0.26	0.30		Ceramic field drains
34	28	135.18	Brown boulder clay (chalk and flint inclusions);	0.46	0.70		Ceramic field drains
35	30	131.95	Reddish brown clay; mid yellowish orange clayey sand	0.30	0.55		3 NW-SE furrows; Ceramic field drains; Modern in-filled field boundary ditch

Appendix II Design Specification

UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Design Specification for archaeological work

Proposed Long Moor Surface mining Scheme, Ravenstone with Snibstone, Leicestershire

NGR: SK 390 130

Client: UK Coal Mining Ltd.

Planning Authority: North-West Leicestershire District Council

Planning application No. 03/1790/7/FUL

1 Introduction

1.1 *Definition and scope of the specification*

This document is a design specification for an initial phase of archaeological field evaluation (AFE) at the above site, in accordance with DOE Planning Policy Guidance note 16 (PPG16, Archaeology and Planning, para.30). The fieldwork specified below is intended to provide preliminary indications of character and extent of any buried archaeological remains in order that the potential impact of the development on such remains may be assessed by the Planning Authority.

1.2 The definition of archaeological field evaluation, taken from the Institute of Field Archaeologists Standards and Guidance: for Archaeological Field Evaluation (IFA S&G: AFE) is a limited programme of non-intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.

1.3 The document provides details of the work proposed by ULAS on behalf of the client, and should be submitted to the Archaeological Advisor to the Planning Authority for approval before archaeological investigation by ULAS is implemented. The scheme includes the following:

- Evaluation by intrusive trial trenching.

2. Background

2.1 *Context of the Project*

2.1.1 UK Coal Mining Ltd. is proposing open cast coal extraction to the west of Coalville. The proposed site of the coal mine is located 0.75km south-west of the village of Ravenstone, 0.7km west of Normanton le Heath and 1km north of Heather (centred on SK 390 130; figs. 1 and 2). It consists of an area of c.70ha. The Leicestershire Sites and Monument Record indicates that the proposed site includes areas where archaeological sites are known and is therefore recognised as having a significant archaeological potential.

2.1.2 The area lies at a height of approximately 120-145m OD.

- 2.1.3 Initial advice from Heritage and Natural Environment Team of Leicestershire County Council (HNET LCC) requested an archaeological evaluation of the site area by initial geophysical survey, followed up by trial trench evaluation of the site area. The evaluation has been commissioned from University of Leicester Archaeological Services (ULAS), with the geophysical survey undertaken by Stratascan Limited on behalf of ULAS.
- 2.1.4 The survey has shown a number of features scattered across the site area that are potentially of archaeological origin. A basic interpretation of the features suggests gullies / ditches of uncertain date. However these areas are outside the current area of proposed development.
- 2.1.5 Based on the information gathered the Heritage and Natural Environment Team of Leicestershire County Council (HNET LCC) have now requested a field evaluation by trial trenching of three areas within the proposed development area in order to target areas of un-investigated colluvium and alluvium in the northern part of the site, and area to the northeast of site 3 (a known flint scatter) and the line of the haulage road.

2.2 *Geological and Topographical Background*

- 2.2.1 The Ordnance Survey Geological Survey of Great Britain Sheet 155 indicated that the underlying geology is varied over the proposed development area. These include coal and carboniferous sandstone in the east and north; Mercia Mudstone in the south and west; Bromsgrove Sandstone in several areas; Boulder Clay mainly in the west; sands and gravels in the south and alluvium along the course of Blowers Brook in the northeast.
- 2.2.2 The altitude of the site rises from the gentle valley of Blowers Brook at about 130 to 140m OD. The relief slopes gently down towards Blowers Brook.

2.3 *Archaeological and Historical Background (From Marsden 1996)*

- 2.3.1 The Domesday book records that the land of Countess Judith included in Heather land held by 'Earl Waltheof, and 1 Freeman Esbern'. Meanwhile Ravenstone is mentioned twice, with both William Bonvallet and Nigel of Stafford owning land there.
- 2.3.2 From studies of open cast sites in other locations at Lount, Coleorton and Measham there is a potential for early coal workings surviving in areas of North West Leicestershire. The 14th century workings at Coleorton are among the earliest deep coal mines found in Europe (using the pillar and stack method) and are of international importance. Coalfield Farm is located to the southeast of the site and may suggest post-medieval or medieval mining in the area although the depth of Triassic deposits overlying the coal measures within the proposed extraction area would suggest early workings are unlikely to be present.
- 2.3.3 The proposed open cast coal mine lies in an area of significant archaeological potential, although the site has not been subject to systemic archaeological investigation. Three sites are known from the surrounding area as well as a number of other archaeological monuments and findspots that reflect the wider potential of the development. The proposals are likely to include works that will detrimentally impact upon any buried archaeological remains. It is therefore recommended that a programme of archaeological evaluation is undertaken in advance of the development, to allow proper consideration of the archaeological issues and the preparation of an appropriate mitigation strategy.
- 2.3.4 The desk-based assessment (Marsden 1996) reports of three known archaeological sites close to the proposed coal extraction site. These comprise of an Iron Age and Romano-British Enclosure System and Settlement northeast of Cattows Farm (Site 1). Ariel photographs showed a compact series of rectangular cropmark enclosures and associated double ditched linear features, indicating possible Iron Age settlement with droeways. Fieldwalking produced a small scatter of high quality flint at the centre of the cropmark site (Liddle 1990). The subsequent excavations of 1990 produced evidence of several phases of enclosures, a trackway, structures and buildings at the site dating to the mid-late Iron Age. There was also evidence of continuity of the site into the Roman period. This consisted of a large enclosure, metalling of the trackway and a semi-circular shelter or windbreak for the livestock (Thorpe, Sharman and Clay 1994). Also a Romano-British settlement has been located by fieldwalking south of Jubilee Plantation (Site 2). Three phases of activity were identified. Phase 1 dated to

the late second – early third century and included an east-west ditch which may have formed the southern boundary of an enclosed settlement as well as forming the northern boundary of an associated enclosure. Phase 2 seemed to date to the mid-late third century and included a droveway, a rectangular structure and a kiln. The final phase related to the creation of a group of enclosures that dated to the late third – late fourth century. Finally a flint scatter has been identified, east of Normanton le Heath (Site 3) that may indicate a Neolithic settlement based on the flints recovered although geophysical survey failed to locate any archaeological anomalies.

2.3.5 The wider area, within 1km of the proposed development site, includes an extensive range of recorded archaeological sites from the Leicestershire Sites and Monuments Record. These can be divided by broad period as follows:

Prehistoric

- Possible Mesolithic occupation, east of Melbourne Road based on fieldwalking. NGR: SK402124.
- Possible Mesolithic occupation, north of Kelham Bridge Farm based on fieldwalking SK404122.
- Bronze Age (?) ring ditch (cropmark), north of Jubilee Plantation. SK387141.
- Iron Age (?) enclosure (cropmark), north of Jubilee Plantation. SK392142.
- Two Iron Age gold stater (coin) found north of Hall farm. SK378109.
- Bronze Age (?) features (cropmarks) including enclosures, a linear feature, 3-4 circular features and pit alignment, west of Heather Hall. SK378107.
- Iron Age (?) enclosure (cropmark), west of Sparkenstone estate. SK384 08.
- Two Iron Age (?) enclosures (cropmarks), north of Hall Farm. SK380 113.

Roman

- Roman occupation, south of Normanton le Heath. Finds have included pottery, metal objects and other artefacts. SK 376 119.
- Roman settlement, north of Highfield Farm, Ravenstone. Excavations by LAU revealed three pottery kilns and a tile kiln. Other features included potholes, graves, ditches and buildings dating to the third-fourth century. SK 303 115.
- Roman quern and stone mortar found in Normanton le Heath. SK378127

Medieval and Post-medieval

- Holy Trinity Church, Normanton le Heath, dated to 1220. SK377127
- Medieval windmill located north of Jubilee Plantation. SK388141
- Earthworks of a DMV located west of Alton Cottages, extensive closes and quarry activity also observed. SK390148.
- Medieval Church, Heather SK390108
- Medieval and post-medieval manor house, Heather. SK389108
- A papal Bulla of Innocent IV (1243-1254) found east of Normanton le Heath. SK388112.
- Foil Die found north of Sparkenstone Estate that may date to the seventh century SK38751105
- St. Michaels Church, Ravenstone, some of the church may be pre-14th century. SK402139
- Ravenstone medieval village. SK400138.
- Medieval Grange, Ravenstone.
- Ravenstone Hall, built around 1750. SK400139

- Post-medieval watermill at Mill Farm. SK399117

3 Archaeological Objectives

3.1 The main objectives of the evaluation will be:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

3.2 Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

3.3 Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

4. Methodology

4.1 *General Methodology and Standards*

4.1.1 All work will follow the Institute of Field Archaeologists (IFA) Code of Conduct and adhere to their *Standard and Guidance for Archaeological Field Evaluation* (1999).

4.1.2 Staffing, recording systems, health and safety provisions and insurance details are included below.

4.1.3 Internal monitoring procedures will be undertaken including visits to the site by the project manager. These will ensure that project targets are met and professional standards are maintained. Provision will be made for external monitoring meetings with the Senior Planning Archaeologist, the Planning authority and the Client.

4.2 *Trial trenching methodology*

4.2.1 The brief stated that the trial trenching is required to target:

- Areas of un-investigated colluvium and alluvium with the proposed extraction area (Fields 12, 15 and 29).
- The line of the haulage road.
- A c. 2 ha. area in the south-west corner of Field 12, adjacent to Site 3.

4.2.2 Prior to any machining of trial trenches general photographs of the site areas will be taken.

4.2.3 Topsoil/modern overburden will be removed in level spits, under continuous archaeological supervision, down to the uppermost archaeological deposits by JCB 3C or equivalent using a toothless ditching bucket. Trenches will be excavated to a width of 1.5m and down to the top of archaeological deposits.

4.2.4 No trenches will be located within 20m of the Electrical cables or sewer main that cross the site.

4.2.5 The trenches will be backfilled and levelled at the end of the evaluation.

4.2.6 The archaeological brief has requested a 2% sample of each of the areas stated above. The areas of alluvium and colluvium cover an area of c.2 ha., this equated to 400 sq m of trenching. Eight 30m x 1.8m trenches are proposed for this part of the evaluation (fig. 3). Eight x 1.8m trenches are also proposed for the southwest corner of Field 12, adjacent to Site 2 (fig. 5). The haul road (including areas of subsoil storage) covers an area of c. 5 ha., this equated to c. 1000 sq m of trenching. Nineteen 30 x 1.8m trenches are proposed for this part of the evaluation (fig. 4). These trenches will be located using a Garmin Global Positional

System (GPS) 12 parallel channel receiver. The exact location of the trenches may need to be modified depending on constraints of the site.

- 4.2.7 Trenches will be examined by hand cleaning and any archaeological deposits located will be planned at an appropriate scale and sample-excavated by hand as appropriate to establish the stratigraphic and chronological sequence. All plans will be tied into the Ordnance Survey National Grid. Spot heights will be taken as appropriate.
- 4.2.8 Sections of any excavated archaeological features will be drawn at an appropriate scale. At least one longitudinal face of each trench will be recorded. All sections will be levelled and tied to the Ordnance Survey Datum, or a permanent fixed bench mark.
- 4.2.9 Precise trench locations will be recorded using an electronic distance measurer. These will then be tied in to the Ordnance Survey National Grid.
- 4.2.8 Any human remains will initially be left *in situ* and will only be removed if necessary for their protection, under a Home Office Licence and in compliance with relevant environmental health regulations.

4.3 **Recording Systems**

- 4.3.1 The ULAS recording manual will be used as a guide for all recording.
- 4.3.2 Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto pro-forma recording sheets.
- 4.3.3 A site location plan based on the current Ordnance Survey 1:1250 map (reproduced with the permission of the Controller of HMSO) will be prepared. This will be supplemented by a trench plan at appropriate scale, which will show the location of the areas investigated in relationship to the investigation area and OS grid.
- 4.3.4 A record of the full extent in plan of all archaeological deposits encountered will be made. Sections including the half-sections of individual layers of features will be drawn as necessary, typically at a scale of 1:10. The OD height of all principal strata and features will be recorded.
- 4.3.5 A photographic record of the investigations will be prepared illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.
- 4.3.6 This record will be compiled and checked during the course of the excavations.

5. **Finds and Samples**

- 5.1 The IFA *Guidelines for Finds Work* will be adhered to.
- 5.2 Before commencing work on the site, a Site code/Accession number will be agreed with the Planning Archaeologist that will be used to identify all records and finds from the site.
- 5.3 During the fieldwork, different sampling strategies may be employed according to the perceived importance of the strata under investigation. Close attention will always be given to sampling for date, structure and environment. If significant archaeological features are sample excavated, the environmental sampling strategy is likely to include the following:
 - i. A range of features to represent all feature types, areas and phases will be selected on a judgmental basis. The criteria for selection will be that deposits are datable, well sealed and with little intrusive or residual material.
 - ii. Any buried soils or well sealed deposits with concentrations of carbonised material present will be intensively sampled taking a known proportion of the deposit.
 - iii. Spot samples will be taken where concentrations of environmental remains are located.
 - iv. Waterlogged remains, if present, will be sampled for pollen, plant macrofossils, insect remains and radiocarbon dating provided that they are uncontaminated and datable. Consultation with the specialist will be undertaken.

- 5.4 All identified finds and artefacts are to be retained, although certain classes of building material will, in some circumstances, be discarded after recording with the approval of the Senior Planning Archaeologist. The IFA *Guidelines for Finds Work* will be adhered to.
- 5.5 All finds and samples will be treated in a proper manner. Where appropriate they will be cleaned, marked and receive remedial conservation in accordance with recognised best-practice. This will include the site code number, finds number and context number. Bulk finds will be bagged in clear self sealing plastic bags, again marked with site code, finds and context numbers and boxed by material in standard storage boxes (340mm x 270mm x 195mm). All materials will be fully labelled, catalogued and stored in appropriate containers.

6. Report and Archive

- 6.1 The full report in A4 format will usually follow within eight weeks of the completion of the fieldwork and copies will be dispatched to the Client, Senior Planning Archaeologist; SMR and Local Planning Authority.
- 6.2 The report will include consideration of:-
- The aims and methods adopted in the course of the evaluation.
 - The nature, location, extent, date, significance and quality of any structural, artefactual and environmental material uncovered.
 - The anticipated degree of survival of archaeological deposits.
 - The anticipated archaeological impact of the current proposals.
 - Appropriate illustrative material including maps, plans, sections, drawings and photographs.
 - Summary.
 - The location and size of the archive.
 - A quantitative and qualitative assessment of the potential of the archive for further analysis leading to full publication, following guidelines laid down in *Management of Archaeological Projects* (English Heritage).
- 6.3 A full copy of the archive as defined in *The Guidelines For The Preparation Of Excavation Archives For Long-Term Storage* (UKIC 1990), and *Standards In The Museum: Care Of Archaeological Collections* (MGC 1992) and *Guidelines for the Preparation of Site Archives and Assessments for all Finds* (other than fired clay objects) (Roman Finds Group and Finds Research Group AD 700-1700 1993) will usually be presented to within six months of the completion of fieldwork. This archive will include all written, drawn and photographic records relating directly to the investigations undertaken.

7 Publication and Dissemination of Results

- 7.1 A summary of the work will be submitted for publication in the *Transactions of the Leicestershire Archaeological and Historical Society*. A larger report will be submitted for inclusion if the results of the evaluation warrant it.
- 7.2 University of Leicester Archaeological Services supports the Online Access to the Index of Archaeological Investigations (OASIS) project. The online OASIS form at <http://ads.ac.uk/project/oasis> will be completed detailing the results of the project. ULAS will contact Leicestershire County Council's SMR prior to completion of the form. Once a report has become a public document following its incorporation into Leicestershire SMR it may be placed on the web-site. The Developer should agree to this procedure in writing as part of the process of submitting the report to Leicestershire SMR.'

8. Acknowledgement and Publicity

- 8.1 ULAS shall acknowledge the contribution of the Client in any displays, broadcasts or publications relating to the site or in which the report may be included.
- 8.2 ULAS and the Client shall each ensure that a senior employee shall be responsible for dealing with any enquiries received from press, television and any other broadcasting media and members of the public. All enquiries made to ULAS shall be directed to the Client for comment.

9. Copyright

- 9.1 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

10. Timetable

- 10.1 The evaluation is scheduled to start on 05.09.06 with two to three staff. Further staff will be added if archaeological remains are discovered.
- 10.2 The on-site director/supervisor will carry out the post-excavation work, with time allocated within the costing of the project for analysis of any artefacts found on the site by the relevant in-house specialists at ULAS.
- 10.3 An interim report on results of the evaluation can be prepared, if required, after the completion of the fieldwork.

11. Health and Safety

- 11.1 ULAS is covered by and adheres to the University of Leicester Archaeological Services Health and Safety Policy and Health and Safety manual with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is attached as Appendix 1. The relevant Health and Safety Executive guidelines will be adhered to as appropriate. The HSE has determined that archaeological investigations are exempt from CDM regulations.
- 11.2 A Risks assessment will be completed prior to work commencing on-site, and updated as necessary during the site works.
- 11.3 Plans supplied by the Client have highlighted the location of 11kv and 33kv overhead electric cable and a foul sewage main that cross the centre of the site. No trenches have been located within 20m of these services.

12. Insurance

- 12.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. The Public Liability Insurance is with St Pauls Travellers Policy No. UCPOP3651237 while the Professional Indemnity Insurance is with Lloyds Underwriters (50%) and Brit Insurances (50%) Policy No. FUNK3605.

13. Monitoring arrangements

- 13.1 Unlimited access to monitor the project will be available to both the Client and his representatives and Planning Archaeologist subject to the health and safety requirements of the site. At least one weeks notice will be given to the LCCHS Senior Planning Archaeologist before the commencement of the archaeological evaluation in order that monitoring arrangements can be made.
- 13.2 All monitoring shall be carried out in accordance with the IFA *Standard and Guidance for Archaeological Field Evaluations*.
- 13.3 Internal monitoring will be carried out by the ULAS project manager.

14. Contingencies and unforeseen circumstances

- 14.1 In the unlikely event, due to the non-intrusive nature of the evaluation techniques being employed, that unforeseen archaeological discoveries are made during the project, ULAS shall inform the site agent/project manager, Client and the Senior Planning Archaeologist and Planning Authority and prepare a short written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the Senior Planning Archaeologist, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.

15. Bibliography

- MAP 2 The management of archaeological projects 2nd edition English Heritage 1991
- MGC 1992 Standards in the Museum Care of Archaeological Collections 1992 (Museums and Galleries Commission)
- RFG/FRG 1993 Guidelines for the preparation of site archives (Roman Finds Group and Finds Research Group AD 700-1700 1993)
- SMA 1993 Selection, retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland 1993 (Society of Museum Archaeologists)

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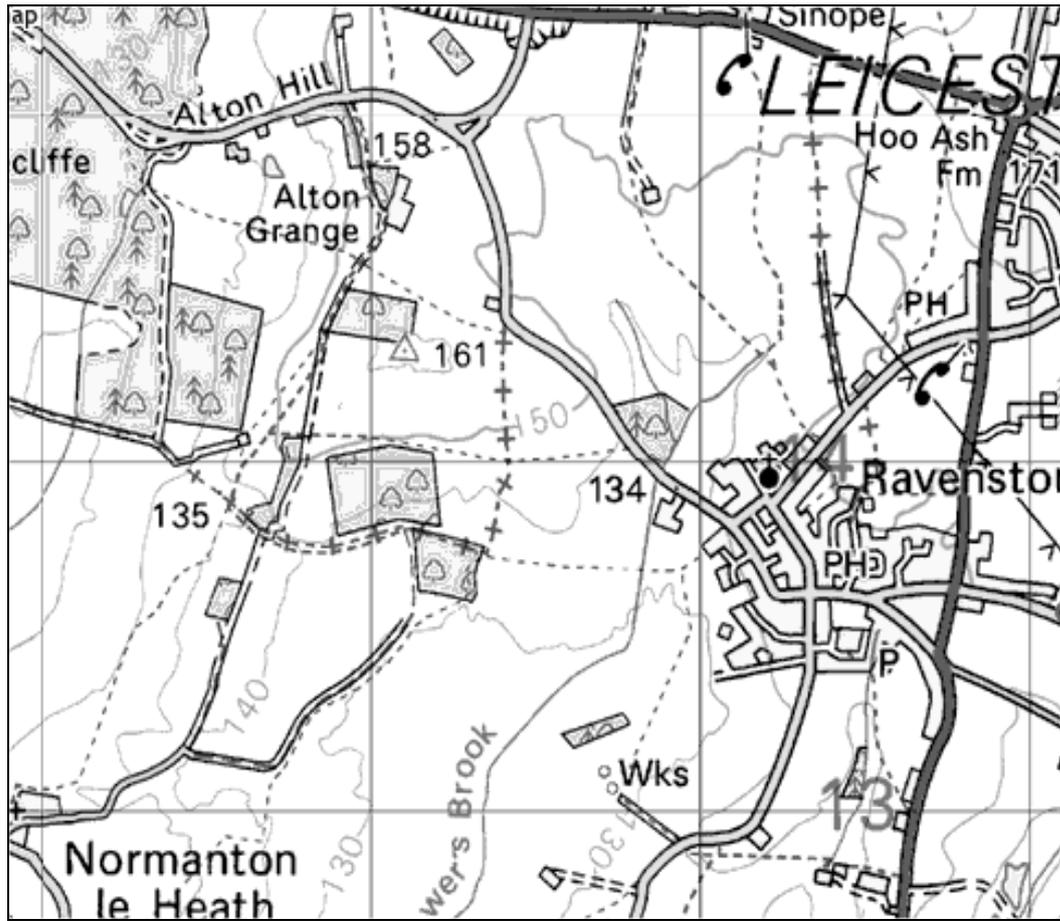


Figure 1: Site Location Plan (Scale 1:50000)

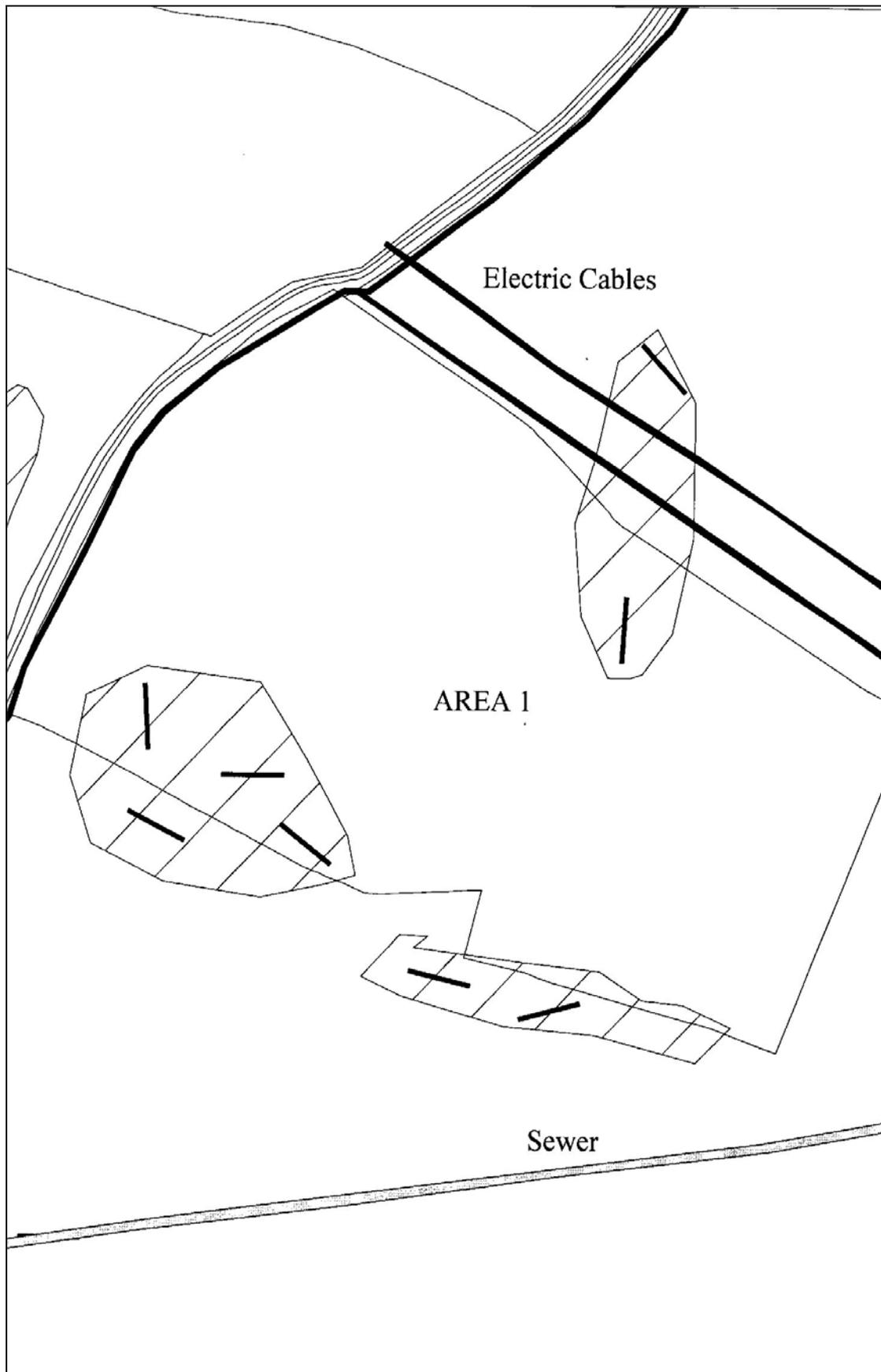


Figure 3: Proposed Trenches in Area 1 (Scale 1:2850)



Figure 4: Proposed Trenches on the Haul Road (Scale 1:5750)

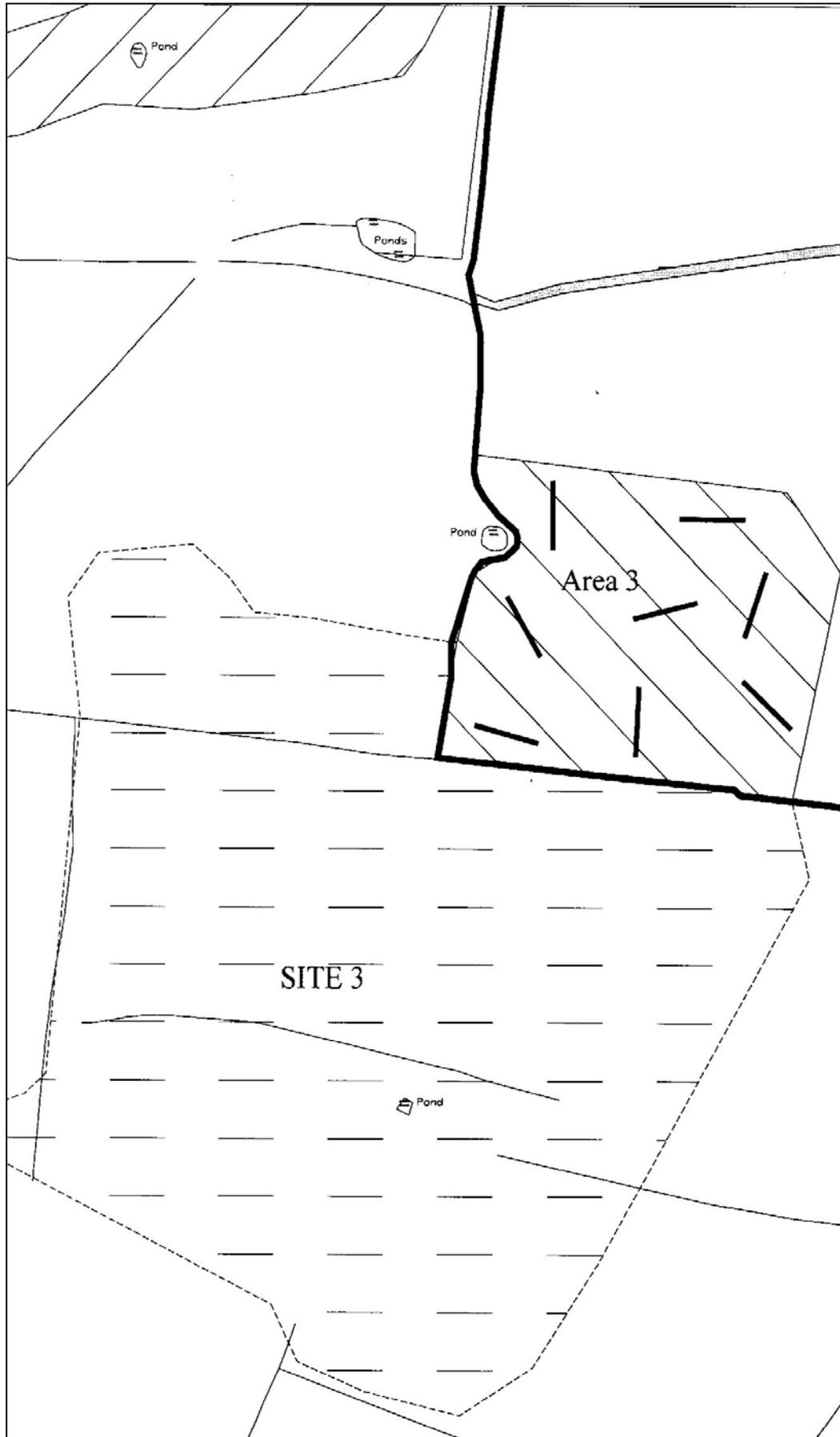


Figure 5: Proposed Trenches in Area 3

APPENDIX 1

Draft Project Health and Safety Policy Statement

A risks assessment will be produced by on-site staff, which will be updated and amended during the course of the evaluation.

1. Nature of the work

1.1 Brief description of the work involved e.g.

The work will involve machine excavation by JCB 3C or equivalent during daylight hours to reveal underlying archaeological deposits. Overall depth is likely to be c. 0.5 m with possible features excavated to a depth of another 1m. Trenches will not be excavated to a depth exceeding 1.2m. Spoil will be stockpiled no less than 1.5 m from the edge of the excavation, the topsoil and subsoil being kept separate. Remaining works will involve the examination of the exposed surface with hand tools (shovels, trowels etc) and excavation of archaeological features. Deeper features will be fenced with lamp irons and hazard tape. Two to three staff will be used on the evaluation.

2 Risks Assessment

2.1 *Working on an excavation site.*

Precautions. Trenches to not be excavated to a depth exceeding 1.2m. Spoil will be kept 1.5m away from the edge of the excavated area to prevent falls of loose debris. Loose spoil heaps will not be walked on. Protective footwear will be worn at all times. Hard hats will be worn when working in deeper sections or with plant. First aid kit to be kept in site accommodation/vehicle. Vehicle and mobile phone to be kept on site in case of emergency.

2.2 *Working with plant.*

Precautions. Archaeologists experienced in working with machines will supervise topsoil stripping at all times. Hard hats, protective footwear and hazard jackets will be worn at all times. Machine driver to be suitably qualified and insured. If services or wells are encountered machining will be halted until extent has been established by hand excavation or areas where it is safe to machine have been established. Overhead power lines are present to the middle of the areas to be evaluated. When the machine is required to cross the power lines two banksmen will be deployed to facilitate this procedure.

2.3 *Coal mine workings*

There is a potential for early coal mine workings to be uncovered within the proposed extraction area. If any remains relating to mine workings, e.g. redundant bell pits, galleries and shafts are located, advice shall be sought concerning any recording that would be required depending on safety. Coal workings will only be investigated at surface level in this evaluation.

2.4 *Working within areas prone to waterlogging.*

If waterlogging occurs on site preventing work continuing it is proposed to excavate a sump, suitably fenced and clearly marked to enable the water to drain away. If this is insufficient a pump will be used. The sump will be covered when not in use and backfilled if no longer required. Protective clothing will be worn at all times and precautions taken to prevent contact with stagnant water which may carry Weils disease or similar.

2.5 *Working with chemicals.*

If chemicals are used to conserve or help lift archaeological material these will only be used by qualified personnel with protective clothing (i.e. a trained conservator) and will be removed from site immediately after use.

2.6 *Other risks*

Precautions. If there is any suspicion of unforeseen hazards being encountered e.g. chemical contaminants, unexploded bombs, hazardous gases, work will cease immediately. The client and relevant public authorities will be informed immediately.