

Land Adjacent to Bagworth Road, Newer Nailstone.

Nailstone, Hinckley and Bosworth,
Leicestershire.

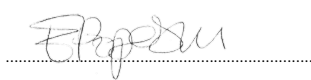
Post-Excavation Assessment and Updated Project Design

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Land Adjacent to Bagworth Road, Newer Nailstone

Post-Excavation Assessment and Updated Project Design

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SUMMARY

Between 28th August and 5th September 2023 Oxford Archaeology carried out fieldwalking on the proposed site of a solar farm at Nailstone, Leicestershire. Immediately following this work, two excavation areas were opened. The final excavation area (Area 2) was investigated between 22nd and 31st July 2024.

The fieldwalking was largely negative. A scatter of largely post-medieval pottery was recovered, along with a small assemblage of struck flints. The flints are typologically mixed and typical of a background scatter. The pottery is typical of a low-density scatter from manuring.

Excavation Area 1 covered a total area of c.0.27ha. A single post-medieval ditch and the remains of a ridge and furrow cultivation were recorded in this area. These features overlay natural deposits that are likely to have been formed as a result of a spring (or seepage) in the area. A Middle Bronze Age palstave axe was recovered from one of these deposits. In addition, a Bronze Age copper alloy bead was found in the post-medieval ditch.

Excavation Area 2 measured 30m long and 30m wide. There were several features, but the majority were of natural origin. A very truncated probable eves-drip gully of a later prehistoric roundhouse was recorded along with several possible postholes and some features of natural origin. These remains yielded two small sherds of Middle Iron Age pottery.

Excavation Area 3 measured 30m long and 1.8m wide. This area revealed several features that may be related to a post-medieval trackway.

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The project was managed for Oxford Archaeology by Nicholas Gilmour. The first phase of fieldwork was directed by Steve Graham and the fieldwalking by Lawrence Billington and Nick Cox, who were supported by Ro Booth, Liz Jefferies, Claire Hayes, Rachael Hunt and Jacob Brader. Survey and digitising were carried out by Katherine Waring. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the supervision of Natasha Dodwell, processed the environmental remains under the supervision of Rachael Fosberry, and prepared the archive under the supervision of Katherine Hamilton.

1 INTRODUCTION

1.1 Background

- 1.1.1 Oxford Archaeology (OA) was commissioned by RPS on behalf of JBM Solar Projects to undertake fieldwalking and an excavation at land adjacent to Bagworth Road, Newer Nailstone, Nailstone, Leicestershire (Fig. 1; NGR SK 422 067).
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 21/01395/FUL) to inform the Planning Authority in advance of a submission of a Planning Application. A brief was set by Will Kelly of the Leicestershire Historic and Natural Environment Team (LHNET) outlining the Local Authority's requirements for work necessary to inform the planning process. A written scheme of investigation was produced by RPS detailing the methods by which OA proposed to meet the requirements of the brief.
- 1.1.3 This assessment has been conducted in accordance with the principles identified in Historic England's guidance documents *Management of Research Projects in the Historic Environment*, specifically *The MoRPHE Project Manager's Guide* (2015) and *PPN3 Archaeological Excavation* (2008).

1.2 Location, topography and geology

- 1.2.1 The village of Nailstone is located in the south-western edge of Leicestershire, close to the Leicestershire and Warwick border, about 16.5km to the west of Leicester and 16.5km north-east of Nuneaton.
- 1.2.2 The area of proposed development consists of c.100 ha of mixed arable and pastureland situated within a valley between the parishes of Nailstone and Barlestone (centred on SK 422 067). The site is bounded by Nailstone to the north and further agricultural fields to the east, Barlestone to the south and the A447 (Hinckley Road) to the west. A brook (The Booson) flows through the base of the valley which rises to c.140m AOD towards Nailstone and c.135m AOD towards Barlestone.
- 1.2.3 The bedrock geology of the site is Gunthorpe Member Mudstone (<https://geologyviewer.bgs.ac.uk> accessed 05/10/23) overlain with clay, silt, sand and gravel alluvium following the brook and sand, gravel and silt clays elsewhere on the site. The soils at the site have been defined as slowly permeable, seasonally wet, slightly acidic but base rich loam and clayey soils (<https://www.landis.org.uk/soilscapes> accessed 05/10/23).

1.3 Archaeological and historical background

- 1.3.1 The archaeological and historical background of the site is based on a 1km search of the Leicestershire and Rutland Historic Environment Record (HER) supplemented by information from available historic maps and other documentary evidence.

1.4 Prehistoric (c.7000 BC to c.100 BC)

- 1.4.1 During the 1970s, a Mesolithic pebble hammer was found which had been ploughed up at approximately NGR SK 425 075. It was in a fine-grained stone and was 100mm in diameter, the hole being 30mm in diameter, max thickness 25mm (MLE7061).
- 1.4.2 Fieldwalking in 2002, north of Grange Lane, Nailstone (SK 414 084) recovered a large quantity of Late Neolithic and Early Bronze Age flint (MLE16531)

1.5 Late Iron Age and Roman (c. 100 BC to AD 410)

- 1.5.1 Trial trenching north of Nailstone in 2012 revealed two Iron Age ditches, one running north/south, one north-west to south-east. Ten sherds of Scored Ware pottery were found (MLE20182). A possible Iron Age Quern (MLE6543) was recovered at Crown Farm, Nailstone (SK 42 07).
- 1.5.2 Fieldwalking in 2002 north of Grange Road, Nailstone (SK 414084) recovered a large quantity of Roman pottery (MLE16532).

1.6 Anglo-Saxon (c. AD 410 to 1066)

- 1.6.1 A sherd of late 5th/6th century Saxon pottery was found whilst trenching in 2017 at the rear of the Bulls Head public House, Main Street, Nailstone (MLE23175).

1.7 Medieval (AD 1066 to 1500)

- 1.7.1 Both Nailstone and Barlestone probably became established during the early medieval period. The historic settlement core of Nailstone (SK 415 072) has been deduced using landscape maps and dated from the early medieval period onwards with a windmill being mentioned in 1279 (MLE2968). A medieval boundary ditch (MLE22895) was found in the High Street of Nailstone (SK 4156 0709). A medieval deer park (MLE 2967) no longer evident was mentioned being in the vicinity (SK 42 07) in 1266 as belonging to Henry de Hastings.
- 1.7.2 Two L-shaped earthworks (MLE 19790) of probable early medieval were noted south-west of Yew Tree Farm, Nailstone (SK 416 073) and a bank and enclosure (MLE 2964) west of Smithy Farm, Nailstone (SK 412 068).
- 1.7.3 The Church of All Saints, Church Road, Nailstone (MLE 12091) has a 13th century chancel with two lancet windows preserved (both blocked). The west tower is early 14th century with diagonal buttresses. The church has an early 14th century north aisle under a separate gable. It was restored in 1853.

1.8 The Geophysical survey and 2022 Evaluation

- 1.8.1 A geophysical survey (Carrozzo and Wilkinson 2021) recorded mainly weak anomalies that were as likely to be of natural origin as archaeological. A hexagonal arrangement of linear features may possibly have indicated a plough-truncated enclosure along with other small enclosures, including a possible circular feature just north of the evaluation area. The survey also recorded ridge and furrow ploughing and field boundaries.

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- 1.8.2 A programme of evaluation trenching was carried out by Archaeology Warwickshire in 2022 (Frederick and Griffiths 2023), of the 268 trenches excavated, 20 trenches contained a total of 27 archaeological features. A small assemblage of prehistoric worked flint was found in the plough zone in the northern part of the site. The Mesolithic, Neolithic and Bronze Age flints may have related to other examples found to the north of the site near Nailstone. A curving gully that yielded a sherd of Iron Age pottery indicated a potential roundhouse towards the southern edge of the site. A focus of undated activity that included ditches and charcoal spreads was noted that included heat cracked pebbles. These features were located a short distance south of a circular geophysical signature in the field to the north outside of the evaluation area. The few Roman period pottery sherds recovered were most likely the result of manuring across the agricultural fields. Evidence of medieval and post-medieval agriculture was evident, with ridge and furrow particularly prominent across the northern half of the site. Parts of a post-medieval water meadow system were recorded along the valley floor.
- 1.8.3 A number of disused post-medieval field boundaries that could be traced on Ordnance Survey mapping from 1900 to 1913 were also recorded.

2 EXCAVATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims were as follows:

2.1.2 The overall aim of the excavation was intended to determine as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains associated with a potential Mesolithic to Bronze Age flint scatter, the possible prehistoric features in Trenches 113 and 214 and the undated metal surface.

2.1.3 The excavation sought to clarify the nature and extent of any existing disturbance and intrusions, assess the artefactual and environmental potential of any archaeological deposits encountered and assess the degree of archaeological survival of any buried remains of archaeological significance. The archaeological work was to produce a site archive for deposition with an appropriate museum and to provide information for accession to the Leicester and Rutland Historic Environment Record.

2.2 Research Framework

2.2.1 The excavation was conducted within the general research parameters and objectives defined by the East Midlands Historic Environment Research Framework (available online at <https://researchframeworks.org/emherf/>).

2.2.2 A number of project specific Research Aims were formulated from the research framework and set out in the Written Scheme of Investigation (Jacklin 2023), and are as follows:

- enhance understanding of the environmental background to Mesolithic activity;
- characterise the regional and local evidence for Mesolithic activity;
- investigate further the earlier Mesolithic lithic resource;
- was it possible to discern continuities or discontinuities in the distributions of later Mesolithic and earlier Neolithic lithic scatters?; and
- characterise the Bronze Age and Iron Age settlement resource and investigate intra-regional variability.

2.3 Fieldwork Methodology

2.3.1 The methodology used followed that outlined in the LHNET brief and Written Scheme of Investigation (Jacklin 2023).

2.3.2 The work was carried out in accordance with the Written Scheme of Investigation and with the Chartered Institute for Archaeologists' (2014a) *Standard and guidance for archaeological excavation*. Fieldwork was also undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming).

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- 2.3.3 The work was initially planned to be carried out in two distinct phases.
- 2.3.4 The first phase of work was a fieldwalking survey of two fields at the northern end of the site which was carried out in 10m transects (Fig. 1). The fieldwalking survey followed by a second phase of work consisting of: the excavation of a 30m x 1.8m area (Area 3) directly northeast of evaluation Trench 49 to confirm the extent of the mettled surface; the excavation of a 50m x 50m area (Area 1) focused on evaluation Trench 113; and the excavation of a 30m x 30m area (Area 2) focused on feature 21902 recorded in evaluation Trench 219.
- 2.3.5 Following the recovery of a possible Middle Bronze Age Palstave (SFI) and potential prehistoric deposits related to a spring or seepage, in consultation with RPS and LHNET, the north-western corner of Area 1 was extended by a further 311m² (0.03ha). The fieldwalking took place from the 4th to the 11th of September 2023. Area 1 was stripped and investigated between the 13th to 29th of September 2023. It was originally envisioned that Area 2 would be stripped and investigated at the same time. However, it became apparent that access was not possible for the plant to the area, until an access track is created by the developers. Therefore, work on Area 2 was postponed to a later phase.
- 2.3.6 All excavated areas were first scanned using a CAT and Genny by a suitably qualified operator to determine the presence of services within the excavated area.
- 2.3.7 Machine excavation was carried out by a tracked 360-type mechanical excavator and a 20-tonne dumper truck. Topsoil and subsoil were removed to the top of the natural soils or to the top of archaeological features, whichever was encountered first. All machine excavation was monitored by a suitably qualified and experienced archaeologist.
- 2.3.8 Exposed surfaces were cleaned by hand or trowel where necessary. Features were investigated and recorded to provide an accurate assessment of their character and contents, except those of obviously modern date. Apparently natural features (such as tree throws) were sampled sufficiently to establish their character. No human burials, cremations and other deposits relating to funerary activity were revealed.
- 2.3.9 Archaeological features and excavated slots were recorded using a Leica GS08 GPS with Smartnet capabilities, which was supplemented by Total Station survey and detailed hand drawn plans of inter-cutting features. Geo-rectified photogrammetry using an unmanned aerial vehicle (UAV) was also utilised.
- 2.3.10 A register of all features, photographs, survey levels, small finds, and human remains was kept. All features, layers and deposits were recorded on OA East *pro-forma* sheets comprising factual data and interpretative elements. Sections of features were drawn at 1:10 or 1:20 depending on the relative size or significance. The photographic record comprises high resolution digital photographs including both general site shots and photographs of specific features.
- 2.3.11 Artefacts were collected by hand and metal detector and were retained for inspection, other than those which were obviously modern. All finds were bagged and labelled according to the individual deposit from which they were
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recovered, ready for later cleaning and analysis. 'Special/small finds' were located more accurately by GPS where they had been collected by metal detecting and not associated with a specific context.

2.3.12 A total of 22 bulk samples were taken from a range of features and deposits.

3 RESULTS

3.1 Introduction and presentation of results

- 3.1.1 The results of the excavation are presented below and include a stratigraphic description of the archaeological remains. Details of all contexts are included in Appendix A, with finds and environmental data presented in Appendices B and C respectively. Overall plans of excavation Areas 1-3 are provided in Figs 2-4.
- 3.1.2 Throughout the text cut numbers appear in **bold** type. Where multiple interventions were excavated in a single feature the feature as a whole is generally referred to by the lowest cut number assigned to it. In some cases, individual features have also been assigned to groups, including enclosures made up of multiple ditches and groups of pits; these groups are also referred to by the lowest cut number attributed to their constituent features.
- 3.1.3 Where relevant, the results of the trial trenching (Frederick and Griffiths 2023) have been integrated into the results of the excavation and are referred to in the text, with contexts numbers assigned during the trenching prefixed with an 'E'.

3.2 Dating evidence

- 3.2.1 Artefacts relating to the Middle Bronze Age, post-medieval and modern periods were recovered from naturally laid deposits and post-medieval/modern features. However, most of the discrete tree throws, pits and ditches revealed by the excavations did not produce dateable finds.

3.3 General soils and ground conditions

- 3.3.1 The natural geology of sands and gravels was overlain by a sandy silt subsoil, which in turn was overlain by topsoil/ploughsoil with an average thickness of 0.15m to 0.30m.
- 3.3.2 Ground conditions throughout the excavation were generally good, and the site remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology. However, ground water seeped into the deeper features.

3.4 Area 1 (Fig. 2)

- 3.4.1 Situated in the northern half of the site, Area 1 was initially a rectangular 0.24ha area which was later extended by a further 0.03ha at its north-western corner after consultation with the consultants and the LHNET. All the features of note were concentrated in the northern half of the area with the southern half being completely devoid of any archaeology except traces of ridge and furrow running down the slope southwards. Running parallel to the northern extent of the excavation area were a series of sub-circular features (**7, 121, 136, 142, 145, 161, 164, 172 and 182**) all of which upon investigation were found to be the remains of trees with rooting and degraded organic material at their bases.

- Further tree throws were identified further southwards down the slope (167, 178, 180).
- 3.4.2 Two pits (154 and 276) were recorded halfway down the slope, although they contained no datable finds, they clearly cut into the peat layer directly below and are most probably modern in date.
- 3.4.3 Three ditches were noted in the eastern half of the excavation area. Ditch 152 was recorded running across the excavation area from the north to the south cutting through the peat layer beneath. Clearly a modern drainage ditch, this feature was cut into an east to west running ditch (3) which also cut across two of the tree throws. This ditch was in turn cut across by a north-west to south-east running ditch that was clearly a modern drainage ditch.

Possible spring flush or hill seep deposits

- 3.4.4 These features were all cutting into two earlier layers, a peak sand silt layer (133) and a series of mid green-grey sand silts (132, 134 and 138). Above the natural sands and gravels. To characterise these layers three north to south sondages and several 1m-by-1m test pits were cut into them to the sands and gravels below, before both layers were then machined off to confirm any further features below them, there were none. A further two sections were cut into the north-eastern edge of excavation to ascertain the sequence of these layers.
- 3.4.5 The earliest recorded layer (149) was a 0.1m thick mid-grey clay identified as the weathered upper surface of Oadby Diamicton Member. Directly above this was a 0.15m thick layer (139) which was a reddish/orange brown sandy clay loam. The layer was defined as a heavily weathered/eroded upper surface of Gunthorpe Mudstone Member, incorporating large amounts of sand and gravel washed out from the upslope to the north.
- 3.4.6 Layers 132, 134 and 138 were all part of the same layer extending across the northern half of the site the north-western corner of the excavation area to the north-east covering an area of 1032m² or 0.10ha. This layer possibly represents the extent of a prehistoric spring. A metal detecting sweep of the layer produced a complete copper palstave from the Middle Bronze Age (SF1) which was possibly a votive offering. Cutting across this layer was post-medieval drainage ditch 152 which produced a copper bead (SF2) inlaid with gold; an item probably reworked from the underlying natural deposit.
- 3.4.7 Overlying these deposits was a band of very dark brown/blackish peaty silt loam (138). This material extended across the northern half of the site in a broad east to west alignment covering an area of 626m² (0.06ha). Whilst no finds were recovered from this layer to date it, the trees, pits, and ditches all cut across it. Above this layer in section was a very dark brown/blackish peaty silt loam (133) 0.20 to 0.30m thick. This layer was in turn overlain by a mid-/light grey clay colluvium (137).

Natural tree throws

- 3.4.8 Cutting into the natural spring deposits (138) or adjacent natural were 11 natural tree throws (7, 121, 136, 142, 145, 161, 164, 172, 178, 180 and 182).

Pits

- 3.4.9 Situated between three throws were two pits (**154** and **176**). Sub-rectangular pit **176** cut into peat layer 133 and was 1.44m in length, 0.91m in depth and 0.49m in depth. It was very steep sided with a u-shaped profile. Its fill (177) was a dark brown greenish grey silt clay with a strong suggestion of organic cess within it. One possibility was that this feature was originally cut for an industrial/agricultural purpose such as quarrying and later used for dumping of cess.
- 3.4.10 South of this feature (11.94m) and outside the peat layer range was a circular pit (**154**) cutting into the natural sands and gravels. The is shallow concave feature with moderately steep sides was U-shaped in profile, with a diameter of 1.6m and a depth of 0.27m. The pit was possibly the remains of a (modern?) post. There was evidence of a degraded post pipe (155) containing very compact and tightly packed small stones and gravel. Surrounding this was a light grey-brown clay sand (156). Both were overlain by dark red-brown sand clay (157) containing charcoal flecks and some evidence of burning. Although the feature produced no datable finds, this may represent a form of modern industrial process or burnt out post.

Ditches

- 3.4.11 Cutting across the site in a broad north to south alignment through the natural sands and gravels and layers 133 and 138 was ditch **152**. This ditch was 1.26, wide and 0.22m deep. Its single fill (153) was a dark red brown silty sand containing modern CBM, a pipe stem and a possible Bronze Age copper bead (inlaid with gold) SF2. This small find was probably washed down the slope by the ditch cutting into the possible natural spring deposits to the north of the excavated slot.
- 3.4.12 Cutting across ditch **152** close to the northern edge of excavation was a broad east to west running ditch **3** (interventions **3**, **5**, **9**, **150**, **185**). The ditch was recorded from the north-eastern edge of excavation in a broad north-west alignment for 12.17m before veering off towards the south-west for a further 16.66m before terminating. Shallow with a single fill (4, 6, 10, 151, 186) of light grey silty sand, this ditch was U shaped in profile with gently sloping sides cutting across ditch **152** and tree throws **7** and **145**.
- 3.4.13 Ditch **189** (fill 190) was clearly a modern drainage ditch, 0.59m wide, cutting across the north-eastern corner of the site for 17.11m and truncating ditch **3**.

3.5 Area 2 (Fig. 3)

- 3.5.1 Area 2 was opened as a separate deployment to the site in July 2024, once a new access track had been constructed. It lay in the southern of the site and measured 30m by 30m across. There was greater truncation in this area than observed elsewhere, with very little subsoil present. The remains of a circular feature were uncovered which probably represents the plough-truncated eves-drip gully of a later prehistoric roundhouse. Several possible postholes and feature of natural origin were also present.

Ring-gully

- 3.5.2 A single, highly truncated ring-gully, initially recorded during the evaluation, was located in the northern part of Area 2. This feature was fully excavated (interventions **214**, **216**, **218**, **220**, **222**, **224**, **226**, **231**, **233**, **243**, **249**). Two small postholes (233 and 247) which lay along the projected circuit of the ring-gully were also excavated resulting in the recovery of two small sherds (8g) of Middle Iron Age pottery.
- 3.5.3 Only two features were evident within the interior of the ring-gully. Located at its centre was a possible pit (**241**). This subcircular feature was 1.36m in diameter and 0.12m deep. It was U-shaped in profile with gently sloping sides and a gradual break of slope. It contained a single fill (242) of sandy clay which produced no finds or any indication of burning usually associated with a hearth. The feature may have been a natural hollow or tree throw.

Other postholes

- 3.5.4 A further five potential postholes were recorded of which three (**205**, **207**, **212**) were reasonably convincing as being archaeological features and not natural in origin. Situated 1.6m to the east of ring-gully intervention **226** was subcircular posthole **207** with a diameter of 0.24m and a depth of 0.2m. It was U-shaped in profile with moderately sloping sides and a single fill of silt clay (208) containing no finds. A further 1.73m to the north-east lay subcircular posthole **205** with a diameter of 0.68m and a depth of 0.26m. It was U-shaped in profile with moderately sloping sides and a single fill of silt clay (206) containing no finds. The alignment of these two features and their proximity to the ring-gully suggest these postholes may represent a structure abutting or extending from the roundhouse.
- 3.5.5 Directly 11.38m south of the ring-gully was isolated subcircular posthole **212** with a diameter of 0.8m and a depth of 0.10m. It was U-shaped in profile with moderately sloping sides and a single fill of silt clay (213) containing no finds. An environmental sample of its fill produced some charcoal. This feature was truncated by a modern field drain.
- 3.5.6 Situated directly west of the ring-gully were two potential subcircular postholes (**237** and **239**). However, neither feature displayed any evidence of postpipes, packing or charcoal within their fills. Posthole **239** lay 3.9m west of the ring-gully and had moderately sloping sides and a U-shaped profile. It was 0.4m in diameter and 0.08 m deep with a single fill of clayey silt containing no finds. Approximately 4.6m to the south-west of posthole **239** was subcircular posthole **237**. This feature had moderately sloping sides and a U-shaped profile, and measured 0.4m in diameter by 0.10 m deep with a single fill of clayey silt containing no finds.

Other features

- 3.5.7 Within the excavated area were three sub-circular features which were similar in size, depth and composition to probable tree throws recorded in Area 1. Situated 7.6m south-east of the ring-gully, feature **202** was 1.42m in diameter and 0.29m deep. It was U-shaped in profile with moderately sloping sides and

contained two fills: a primary fill (203) of silt clay and a secondary fill (204) of silt clay.

- 3.5.8 Located at the south-western corner of the excavation area and west of posthole **212** was feature **209**. It measured 1.42m in diameter by 0.29m deep with a U-shaped, and moderately sloping sides. It contained two fills: a primary fill (203) of silt clay and a secondary fill (204) of silt clay. Directly to the west was feature **228** which measured 0.9m in diameter and 0.3m deep. It had a U-shaped profile with moderately sloping sides and contained two fills: a primary fill (229) of silt clay and a secondary fill (230) of silt clay.

- 3.5.9 Running parallel to each other at the southern end of the site were two linear features of light grey clay. Both features were investigated. However, each intervention revealed only a shallow, irregular profile containing sterile heavy clay indicative of a natural/geological origin.

3.6 Area 3 (Fig. 4)

- 3.6.1 In addition to the 268 trial trenches excavated during the evaluation, a further trench, Area 3 (30m long by 1.8m wide) was excavated. The trench was adjacent to evaluation Trench 49. A pebble-metalled surface (E4903) aligned N/S across the centre of Trench 49, was recorded being 7.41m wide by 0.15m deep. It comprised frequent small, rounded pebbles that had been pressed into a matrix of dark brown silty sand (E4904). Three fragments of handmade roof tile and six sherds of pottery were found, along with a residual sherd dated 1400–1650 and others late 17th to the early 19th century. One iron horseshoe was also found on top of the gravel layer (4901).
- 3.6.2 Trench 269 was aligned north-west to south-east. Natural undisturbed geology was reached between 0.50m to 0.65m below the surface of the trench. The natural geology was overlain by a layer of clayey sand (188) between 0.15m and 0.20m thick. Above this was a topsoil of sandy silt (187) between 0.20m to 0.30m thick. The trench followed the slope of the field downwards towards the south-east with the topsoil and subsoil getting much thicker further down the slope.
- 3.6.3 The north-western end of the trench contained a spread of grey brown silt sand (126 and 129) and a spread of reddish brown silt sand (125 and 128) containing very tightly packed and compact stones with a fragment of modern CBM. This spread was interpreted as a ploughed out modern field lynchet.
- 3.6.4 At the south-eastern end of the trench were traces of a densely packed silt sand (131) containing compacted stones and pebbles forming a metalled surface (130). This was 1.02m wide and 0.15m deep. This deposit probably represented the surviving trace of the modern trackway identified in evaluation Trench 49. Directly above the trackway was a single sherd of Iron Age pottery and a small flint flake, these were not contemporaneous with the trackway but most likely residual.

3.7 Finds summary

Fieldwalking

Fieldwalking

- 3.7.1 Finds were limited, a quantification (with spot dates) is given in Appendix B. The worked flint recovered during fieldwalking was thinly distributed and chronologically mixed in nature, dating between the Mesolithic and Bronze Age periods. Most of the recovered ceramics are post-medieval in origin.

Excavations

- 3.7.2 During the excavations, two sherds (8g) of Middle Iron Age pottery was recovered from a posthole associated with the probable later prehistoric roundhouse in Area 3. The most significant finds were a copper alloy axe (SF1) from the spring flush/hill seep deposits and a copper alloy bead (SF2) from a post-medieval or later ditch (152) in Area 1. The axe is a looped palstave and of Middle Bronze Age date. The bead is decorated and is also believed to be of Middle Bronze Age origin.

3.8 Environmental summary by Martha Craven

- 3.8.1 Bulk samples taken from peat deposits associated with a Bronze Age palstave found in Area 1 were processed according to standard Oxford Archaeology methodology. Plant matter is preserved in the form of reed stems, rootlets and occasional seeds, but the quality of preservation is generally poor, indicating fluctuating water levels have caused degradation of these fragile remains. There is better preservation in the lower deposits with a small leaf retrieved from layer 132=134=138 at 0.4m depth. Cereal chaff from upper deposits is most likely to be modern. Fragments of waterlogged wood were found in several of the deposits and may be suitable for species identification.
- 3.8.2 Occasional carbonised remains were recovered consisting of two cereal grains in layer 135 negligible quantities of comminuted charcoal. It is not clear whether these items are contemporary with the deposits sampled and radiocarbon dating of single grains is not generally recommended.

3.9 Geoarchaeology summary by David Kay and Elizabeth Stafford

- 3.9.1 Two representative baulk sections across peat deposits in Area 1 were chosen for recording and sampling (Sections 4 and 5). Priority was given to the best-preserved profiles captured within the eastern baulk of Area 1, offering the greatest potential for reconstructing the depositional/environmental history for the site. A preliminary assessment of Sections 4 and 5 (represented by the sequences in monolith samples 11 and 2,) reveals a broad sedimentary history comprising four defined lithostratigraphic units (Units 2-5) overlying weathered diamicton/mudstone.
- 3.9.2 The deposits revealed in Area 1, associated with a Middle Bronze Age palstave, are of interest. They demonstrate that this area was, very likely, wet in the past, due to groundwater seepage. However, the potential of these deposits to provide further information (for example on the environment in this location in

the past), is limited by the likelihood that the deposits have undergone some mixing. The top of the darker deposits was just c.0.5m below the modern surface of a ploughed field. The relationship between these deposits and the bronze axe (SF1), is also uncertain. It may have been deposited during the formation of the darker 'peaty' sapric histosol, or prior to this, or after their formation and migrated down through them (due to its relative weight).

4 STATEMENT OF POTENTIAL

4.1 Stratigraphy

The excavation records

- 4.1.1 The stratigraphic record was generated by OA's Digital Recording System (DRS) which forms part of the digital archive of the project, including digital photographs. The DRS, written and drawn elements of the contextual record form the main components of the excavation data and are sufficient to form the basis of the site narrative. This record has good potential to further understand the Roman archaeological remains.

Condition of the primary excavation sources and documents

- 4.1.2 The records are complete and have been checked for internal accuracy. Written and drawn records have been completed on archival quality paper and are indexed. All paper archives have been inputted into the individual site Access database. Site drawings have been digitised in AutoCAD and/or GIS.
- 4.1.3 All primary records are retained at the Cambridge office of OA. The site code X.A93.2023 is allocated, and all paper and digital records, finds and environmental remains are stored under this code. The site code will also act as the Accession Numbers for Leicestershire County Council Museum Collections.
- 4.1.4 The site data is of sufficient quality to address all of the project's Research Objectives and form the basis of further analysis and targeted publication of the key features, finds and environmental assemblages. Further analysis will concentrate on the spring flush or hill seep deposits and remains of the later prehistoric roundhouse. The natural tree throws and post-medieval and later ditches have no potential to address the Research Aims.

Range and variety of features and deposits

- 4.1.5 Features on the site included possible spring flush or hill seep deposits, remains of a later prehistoric roundhouse and post-medieval and later ditches.

Condition of features and deposits

- 4.1.6 The archaeological features were heavily plough truncated with only a 0.15-0.2m thick protective layer of intervening subsoil between the natural geological horizon and the plough horizon. Ploughing and erosional processes have partially truncated/disturbed the peaty spring flush/hill seep soils from which the Middle Bronze Age palstave axe (SF1) was recovered.

Iron Age pottery

- 4.1.7 The pottery sherds from the posthole associated with the later prehistoric roundhouse are fragmentary and small and cannot be closely dated, but the character of the fabric is typical of pottery dating from the Middle Iron Age in

the region. The pottery is therefore significant in dating the roundhouse to the Middle Iron Age period.

Worked flint

- 4.1.8 The fieldwalking only recovered a small, chronologically mixed, worked flint assemblage dominated by unretouched debitage, with only a small blade-based element indicative of Mesolithic to Early Neolithic activity but largely consisting of simple flake-based material probably of Late Neolithic and Bronze Age date. The flint was widely scattered and has very low potential to enhance the understanding of Mesolithic and Early Neolithic periods in the local area.

Environmental samples

- 4.1.9 The general low density and diversity of both carbonised and waterlogged plant remains within the samples means that there is limited potential for these remains to significantly contribute to the regional Research Aims of the site or indeed the region itself. Further examination is unlikely to provide additional information and as such no additional work is recommended.
- 4.1.10 If material is required for radiocarbon dating suitable material may be selected from the larger fragments of waterlogged wood within Sample 25, layer 135. Other waterlogged plant remains within the deposits may potentially be suitable for this purpose as they are generally fairly well preserved, exhibiting moderate deterioration of the cell structure and a relatively low percentage of fragmentation (see Table 5: Score 2 of Historic England's *Preserving Archaeological Remains Appendix 2- Preservation Assessment Techniques* 2016, 18) however frequent rootlets were noted which could suggest that some of this material may be intrusive. Caution should also be exercised when utilising the carbonised cereal grains found within samples 6 and 8, deposit 135, as these are present as individual specimens and as such may not be contemporary to the deposit.

Geoarchaeological samples

- 4.1.11 The dark 'peaty' soil evident across the northern edge of Area 1 appears indicative of a period of relative sedimentary stability and sustained vegetation growth under at least partially waterlogged conditions as a result of sustained groundwater seepage, bracketed both before and after by episodes of higher energy slope erosion, deposition and illuviation from exposed diamicton deposits upslope. It remains unclear at present whether the recovered Middle Bronze Age palstave was deposited within the top of the lower, clayey sediments, or at the base of the overlying 'peat' and has subsequently sunk lower within the profile due to its relative weight. Dating these sediments, in particular the 'peat', may clarify the chronology of deposition through radiocarbon and/or OSL dating.
- 4.1.12 The two sampled sedimentary profiles offer some potential to further investigate the site formation processes and prevailing environmental conditions. Soil micromorphological analysis of thin sections produced from block samples 12-14 and 21-24 has potential to explore in greater detail the sedimentary processes and palaeohydrology which led to the initial formation

of these deposits, as well as their post-depositional alteration. An initial stage of pollen assessment may also be considered to clarify the level of preservation and suitability of assemblages for detailed analysis of past vegetation and hydrology alongside plant macrofossils (see Appendix D). Given the existing associations between Bronze Age ritual deposition and watery contexts (e.g., Beck et al. 2023; Dunkin et al. 2020; Stevens 2009), this isolated findspot thus has great potential to add to the detailed interpretation of how certain ritualised behaviours were enacted in different kinds of landscapes.

4.2 Overall potential

4.2.1 When considered together, the stratigraphic data along with the potential offered by the geoarchaeological samples and the copper alloy palstave axe (SF1) and bead (SF2) is of sufficient quality to address one of the project's Research Aims related to:

- Characterisation of the Late Bronze Age and Early Iron Age settlement resource (spring flush/hill seep deposits associated with Middle Bronze Age copper alloy palstave axe (SF1) and bead (SF2) and remains of later prehistoric roundhouse)

4.2.2 There is not sufficient potential for the recovered flintwork to address the Research Aims relating to enhancing our understanding of local or regional Mesolithic and Early Mesolithic activity.

4.2.3 Overall, the project data provides a firm base on which to progress an archive report and short publication.

5 UPDATED PROJECT DESIGN

5.1 Revised Research Aims

5.1.1 The Middle Bronze Age metalwork (palstave axe (SF1) and bead (SF2) associated with spring flush/hill seep deposits and the later prehistoric roundhouse remains of probable Middle Iron Age origin address the following original Research Aim set out in Section 2.2.2:

- To characterise the Bronze Age and Iron Age settlement resource and investigate intra-regional variability.

5.1.2 As set out in the previous section, the worked flint assemblage recovered from fieldwalking has no potential to address the remaining Research Aims relating to enhancing understanding of previous surface finds of Mesolithic and Early Neolithic worked flint in the local area.

5.1.3 No additional aims have been identified.

5.2 Interfaces

5.2.1 The Post-Excavation Assessment and Updated Project Design has been undertaken principally by Steven Graham (ME) and edited, augmented, checked and quality assured in-house by Post-Excavation Manager Graeme Clarke (GC), Senior Project Manager Nicholas Gilmour (NG) and Head of Post-Excavation and Publications Elizabeth Popescu (EP). It will be distributed to the Client (RPS for JBM Solar Projects) and LHNET for comment and approval.

5.2.2 Following approval of the Post-Excavation Assessment and Updated Project Design, discussions will be held between SG, GC, NG, EP, the Client and LHNET to progress the archive report and short publication.

5.2.3 Meetings will be arranged at relevant points during the post-excavation analysis with the Client and LHNET or be conducted via email or telephone as appropriate.

5.3 Methods statement

Stratigraphic analysis

5.3.1 Context, artefactual and environmental data will be analysed using a *Microsoft Access* database in combination with AutoCAD and GIS applications. The specialist information will be integrated to aid dating and complete more detailed grouping and phasing of the site. A full stratigraphic narrative will be produced based on that presented in this report and integrated with the results of the specialist analysis and will form the basis of the archive report. Final phase plans will be produced and illustrations prepared in *Adobe Illustrator*.

Illustration

5.3.2 The existing plans and sections will be updated with any amended phasing and additional sections of features digitised. Report/publication figures will be generated using QGIS and Adobe Illustrator. Finds recommended for

illustration will be drawn by hand and then digitised, or where appropriate, photography of certain finds-types will be undertaken (see below).

Documentary research

- 5.3.3 Research will be undertaken to place the site within its wider context. This will involve consulting the HER in addition to published and unpublished reports on contemporary sites in the vicinity and wider region.

Artefactual analysis

Later prehistoric finds

- 5.3.4 The Middle Bronze Age palstave axe (SF1) and bead (SF2) will be fully reported on and contextualised alongside the other fully reported finds such as the later prehistoric flintwork and Middle Iron Age pottery to support the overall analysis and discussion of the spring flush/hill seep deposits in Area 1 and roundhouse in Area 3. The palstave axe and bead will be drawn and photographed.

Post-medieval and modern finds

- 5.3.5 Reports on the post-medieval and modern metalwork, pottery and glass found during fieldwalking and from the excavation areas will also be included in the full archive report.

Environmental samples

- 5.3.6 No further work other than incorporation into archive report and publication.

Micromorphology

- 5.3.7 Soil micromorphological analysis of thin sections produced from block Samples 12-14 and 21-24 has potential to explore in greater detail the sedimentary processes and palaeohydrology which led to the initial formation of the spring flush/hill seep deposits, as well as their post-depositional alteration. Up to seven thin section slides will be prepared and reported on at an external laboratory.

Pollen

- 5.3.8 An initial stage of pollen assessment will be carried out by an external laboratory to clarify the level of preservation. If suitable, up to eight pollen samples will be prepared for detailed analysis to determine the past vegetation and hydrology of the site.

Scientific dating

- 5.3.9 Dating the 'peat', may clarify the chronology of deposition of the spring flush/hill seep deposits associated with the Middle Bronze Age palstave axe through radiocarbon and/or Optically Stimulated Luminescence (OSL) dating.
- 5.3.10 Firstly, two suitable radiocarbon dating material will be selected from:
- i) the larger fragments of waterlogged wood within the soil layer overlying the peat (Sample 25, context 135 [which is probably an equivalent deposit to context 132=134=138]); and

- ii) waterlogged plant remains from the peat (Samples 10 and 26, context 133).
- 5.3.11 If the radiocarbon dating provides anomalous results, it can be assumed the peat and overlying/underlying deposits have probably been disturbed and are therefore not suitable for OSL dating.
- 5.3.12 If the radiocarbon dating provides normal results, it can be assumed the peat and overlying/underlying deposits are undisturbed. In this scenario, a total of three OSL samples will be taken across the peat and adjacent soil units for dating.
- 5.4 Archive report**
 - 5.4.1 Following approval of the Post-Excavation Assessment and Updated Project Design by LHNET, the report will be lodged with the HER and made available online through the Archaeological Data Service and on the OA Library (<https://knowledge.oxfordarchaeology.com/library>).
 - 5.4.2 A full archive report will then be prepared; tasks associated with this are identified in the task list below (Table 2). This archive report will include results of all further stratigraphic and finds analyses.
- 5.5 Publication**
 - 5.5.1 It is proposed that the results of the excavation are published as a short article in Leicestershire Archaeological and Historical Society's *Transactions* journal. A publication proposal will be submitted to the journal editor following approval of the full archive report.
- 5.6 Retention and disposal of finds and environmental evidence**
 - 5.6.1 The Middle Bronze Age palstave axe and bead, the prehistoric flintwork and Middle Iron Age pottery will be retained for deposition with the site archive in due course (see below). The post-medieval and modern metalwork, ceramics and glass are recommended for disposal/dispersal.
- 5.7 Ownership and archive**
 - 5.7.1 All artefactual material recovered will be held in storage by OA and ownership of all such archaeological finds will be given over to the relevant authority to facilitate future study and ensure proper preservation of all artefacts. During analysis and report preparation, OA will hold all material and reserves the right to send material for specialist analysis. It is Oxford Archaeology Ltd's policy, in line with accepted practice, to keep site archives (paper and artefactual) together wherever possible.
 - 5.7.2 The archive will be prepared in accordance with current OA guidelines, which are based on current national guidelines. It is anticipated that the archive will comprise two documentary boxes, one finds box for the Middle Iron Age pottery and two Stewart boxes for the metalwork.
 - 5.7.3 Excavated material and records will be deposited with, and curated by, Leicestershire County Council Museum Collections under the Site

Code/Accession Number X.A93.2023. A digital archive will be deposited with OA Library/ADS. Leicestershire County Council requires transfer of ownership (Transfer of Title) prior to deposition.

6 TEXT RESOURCES AND PROGRAMMING

6.1 Project team structure

6.1.1 The project team is set out in the table below:

Name	Organisation	Role
Elizabeth Popescu (EP)	OA	Head of Post-Excavation and Publications
Nicholas Gilmour (AG)	OA	Senior Project Manager
Graeme Clarke (GC)	OA	Post-excavation Project Manager
Elizabeth Stafford	OA	Head of Geoarchaeology
Rachel Fosberry	OA	Environmental Manager & Archaeobotanist
Natasha Dodwell	OA	Finds Manager
Carole Fletcher (CF)	OA	Finds Manager & Post-Roman pottery and glass specialist
Steven Graham (SG)	OA	Project Supervisor and Author
Denis Sami (DS)	OA	metalwork specialist
Carlotta Marchetto (CM)	OA	Iron Age pottery specialist
Lawrence Billington (LB)	OA	Flint specialist
Karen Barker (KB)	OA	Conservator and X-radiography
David Kay	OA	Geoarchaeologist
Martha Craven	OA	Archaeobotanist
-	External lab	Micromorphology
-	External lab	Pollen
-	External lab	Optically Stimulated Luminescence (OSL) dating
-	SUERC	Radiocarbon dating
David Brown (DB)	OA	Illustrator
James Fairbairn (JF)	OA	Finds photography
Katherine Hamilton (KH)	OA	Archivist
Archives Assistant (AA)	OA	Archive preparation

Table 1: Project Team

6.2 Task list and programme

6.2.1 The final archive report is due to be completed by October 2025.

6.2.2 A publication proposal will be submitted to Leicestershire Archaeological and Historical Society's *Transactions* journal in November 2025 at the earliest, with the aim of publishing a short article summarising the Bronze Age and Iron Age remains.

6.2.3 A task list is presented below:

Task no.	Description	Performed by	Days/cost
Project Management			
1	Project Management	EP/NG/GC/ND/CF/RF/LS	3
Grey Lit. report tasks			
2	Initial tasks: site records/plans, tasking etc	SG	0.5
3	Grouping and preliminary phasing	SG	0.5
4	Report figures	DB	2.5
5	Illustrate CuA axehead & bead (& flint?)	DB	1.5
6	Write report	SG	4
7	In-house editing	GC/EP	1.5
Specialists			
8	Metalwork	DS	1
9	Pottery (prehistoric)	CM	0.5
10	post-med./Mod. Finds: ceramics/glass)	CF	0.5
11	Flint	LB	1
12	Conservation	KB	1
Science			
13			
14	Micromorphology	External lab	£7,455
15	Pollen	External lab	£6,005
16	OSL	External lab	£4,000
17	Update Geoarchaeology report	DK	0.5
18	Update Environmental report	MC	0.5
19	C14	SUERC	£1100
Publication			
20	Publication text	SG	2
21	Publication graphics	DB	1
Archive			
22	Preparation		
	Finds marking	AA	1
	Finds reboxing and lists	AA	1
	Paper reboxing and lists	AA	1.5
	Overview time	AA	1
23	Analogue archive		
	Finds boxes	na	£50
	Stewart boxes	na	£50
	Documentary boxes	na	£60
	Stationary/sundry requirements	na	£72
	Delivery	AA	1
24	Digital archive		
	Digital archive preparation & upload to ADS	AA	2

Table 2: Task list

APPENDIX A CONTEXT INVENTORY

Context No.	Context type	Fill of	Area	Interpretive Category
1	layer	1	EX 1	Topsoil
2	layer	2	EX 1	Subsoil
3	cut		EX 1	Ditch
4	fill	4	EX 1	Secondary Fill
5	cut		EX 1	Ditch
6	fill	5	EX 1	Secondary Fill
7	cut		EX 1	Tree Throw
8	fill	7	EX 1	Secondary Fill
9	cut		EX 1	Gully
10	fill	9	EX 1	Secondary Fill
11	group		Field A	Other Layer
12	group		Field B	Other Layer
121	cut		EX 1	Tree Throw
122	fill	121	EX 1	Secondary Fill
123	fill	121	EX 1	Secondary Fill
124	cut		EX 3	Other Cut
125	fill	124	EX 3	Secondary Fill
126	fill	124	EX 3	Secondary Fill
127	cut		EX 3	Other Cut
128	fill	127	EX 3	Secondary Fill
129	fill	127	EX 3	Secondary Fill
130	layer	130	EX 3	Metalled Surface
131	layer	131	EX 1	Other Layer
132	layer	132	EX 1	Colluvial Layer
133	layer	133	EX 1	Peat
134	layer	134	EX 1	Other Layer
135	layer	135	EX 1	Other Layer
136	cut		EX 1	Tree Throw
137	layer	137	EX 1	Colluvial Layer
138	layer	138	EX 1	Colluvial Layer
139	layer	139	EX 1	Natural
140	fill		EX 1	Primary Fill
141	fill		EX 1	Secondary Fill
142	cut		EX 1	Pit
143	fill	142	EX 1	Primary Fill
144	fill	142	EX 1	Secondary Fill
145	cut		EX 1	Pit

Context No.	Context type	Fill of	Area	Interpretive Category
146	fill	145	EX 1	Primary Fill
147	fill	145	EX 1	Secondary Fill
148	fill	145	EX 1	Secondary Fill
149	layer	149	EX 1	Natural
150	cut		EX 1	Ditch
151	fill	150	EX 1	Secondary Fill
152	cut		EX 1	Ditch
153	fill	152	EX 1	Secondary Fill
154	cut		EX 1	Pit
155	fill	154	EX 1	Primary Fill
156	fill	154	EX 1	Secondary Fill
157	fill	154	EX 1	Secondary Fill
158	cut		EX 1	Natural Feature
159	cut		EX 1	Natural Feature
160	cut		EX 1	Tree Throw
161	cut		EX 1	Tree Throw
162	fill	161	EX 1	Secondary Fill
163	fill	161	EX 1	Secondary Fill
164	cut		EX 1	Tree Throw
165	fill	164	EX 1	Secondary Fill
166	fill	164	EX 1	Secondary Fill
167	cut		EX 1	Pit
168	fill	167	EX 1	Secondary Fill
169	cut		EX 1	Tree Throw
170	fill	169	EX 1	Secondary Fill
171	fill	169	EX 1	Secondary Fill
172	cut		EX 1	Tree Throw
173	fill	172	EX 1	Primary Fill
174	fill	172	EX 1	Primary Fill
175	fill	172	EX 1	Secondary Fill
176	cut		EX 1	Pit
177	fill	176	EX 1	Secondary Fill
178	cut		EX 1	Tree Throw
179	fill	178	EX 1	Primary Fill
180	cut		EX 1	Tree Throw
181	fill	180	EX 1	Primary Fill
182	cut		EX 1	Tree Throw
183	fill	182	EX 1	Secondary Fill
184	fill	182	EX 1	Secondary Fill
185	cut		EX 1	Ditch

Context No.	Context type	Fill of	Area	Interpretive Category
186	fill	185	EX 1	Secondary Fill
187	layer	187	EX 3	Topsoil
188	layer	188	EX 3	Subsoil
189	cut		EX 3	Ditch
190	fill	189	EX 3	Deliberate Backfill
200	layer		EX 2	Topsoil
201	layer	201	EX 2	Subsoil
202	Cut		EX 2	Tree Throw
203	Fill	202	EX 2	Primary Fill
204	Fill	202	EX 2	Secondary fill
205	Cut		EX 2	Posthole
206	Fill	205	EX 2	Primary fill
207	Cut		EX 2	Posthole
208	Fill	207	EX 2	Primary fill
209	Cut		EX 2	Tree Throw
210	Fill	209	EX 2	Primary Fill
211	Fill	209	EX 2	Secondary fill
212	Cut		EX 2	Pit
213	Fill	212	EX 2	Primary fill
214	Cut		EX 2	Ring-gully
215	Fill	214	EX 2	Primary fill
216	Cut		EX 2	Ring-gully
217	Fill	216	EX 2	Primary fill
218	Cut		EX 2	Ring-gully
219	Fill	218	EX 2	Primary fill
220	Cut		EX 2	Ring-gully
221	Fill	220	EX 2	Primary fill
222	Cut		EX 2	Ring-gully
223	Fill	222	EX 2	Primary fill
224	Cut		EX 2	Ring-gully
225	Fill	224	EX 2	Primary fill
226	Cut		EX 2	Ring-gully
227	Fill	226	EX 2	Primary fill
228	Cut		EX 2	Tree Throw
229	Fill	228	EX 2	Primary Fill
230	Fill	228	EX 2	Secondary fill
231	Cut		EX 2	Ring-gully
232	Fill	231	EX 2	Primary fill
233	Cut		EX 2	Posthole
234	Fill	233	EX 2	Primary fill

Context No.	Context type	Fill of	Area	Interpretive Category
235	Cut		EX 2	Posthole
236	Fill	235	EX 2	Primary fill
237	Cut		EX 2	Posthole
238	Fill	237	EX 2	Primary fill
239	Cut		EX 2	Posthole
240	Fill	239	EX 2	Primary fill
241	cut		EX 2	Pit
242	Fill	241	EX 2	Primary fill
247	Cut		EX 2	Posthole
248	Fill	247	EX 2	Primary fill
249	Cut		EX 2	Ring-gully
250	Fill	249	EX 2	Primary fill

Table 3: Context inventory

APPENDIX B FINDS QUANTIFICATION AND SPOT DATING

Context	Field walking Area /Exc. Area	Small Find No	Material	Object Name	Weight in kg	Count	Comments
7	Ex 3	0	Flint	Flint	0.02	1	
10	EX 3	0	Ceramic	Vessel	0	1	Post med
11	Field A	106	Ceramic	Vessel	0.01	2	Post med
11	Field A	113	Flint	Flint	0.01	1	
11	Field A	104	Ceramic	Vessel	0	1	Post med
11	Field A	116	Ceramic	Vessel	0	1	Post med
11	Field A	117	Ceramic	Vessel	0	1	Post med
11	Field A	119	Flint	Flint	0.01	1	
11	Field A	121	Ceramic	Vessel	0.01	1	Post-Med
11	Field A	120	Flint	Flint	0.04	1	
11	Field A	135	Ceramic	Vessel	0.02	1	Modern
11	Field A	124	Flint	Flint	0.01	1	
11	Field A	130	Ceramic	Vessel	0.01	1	Post-Med
11	Field A	126	Glass	Glass	0.02	1	Post med
11	Field A	134	Ceramic	Tobacco pipe	0	1	Post med
11	Field A	118	Glass	Glass	0.03	1	Modern
11	Field A	128	Ceramic	Vessel	0.01	1	Post-Med
11	Field A	125	Glass	Glass	0.01	1	Post med
11	Field A	132	Ceramic	Vessel	0.04	1	Post-Med
11	Field A	131	Ceramic	Vessel	0.01	1	Post med

Context	Field walking Area /Exc. Area	Small Find No	Material	Object Name	Weight in kg	Count	Comments
11	Field A	122	Ceramic	Vessel	0.01	1	Post-Med
11	Field A	123	Flint	Flint	0.02	1	
11	Field A	129	Glass	Glass	0.01	1	Post med
11	Field A	133	Flint	Flint	0.01	1	
11	Field A	127	Glass	Glass	0.01	1	Post med
11	Field A	115	Flint	Flint	0	1	
11	Field A	103	Ceramic	Vessel	0.01	1	Modern
11	Field A	109	Flint	Flint	0.07	1	
11	Field A	111	Flint	Flint	0.01	1	
11	Field A	110	Flint	Flint	0.02	1	
11	Field A	102	Glass	Glass	0.01	1	Post med
11	Field A	112	Glass	Glass	0	1	Post med
11	Field A	105	Ceramic	Vessel	0.02	1	Post med
11	Field A	114	Flint	Flint	0.01	1	
11	Field A	101	Ceramic	Vessel	0.01	1	Post Med
11	Field A	103	Ceramic	Tobacco pipe	0	1	Post med
12	Field B	5	Ceramic	Vessel	0	1	Post-med.
12	Field B	7	Ceramic	Vessel	0.01	1	Post med
12	Field B	12	Ceramic	Vessel	0.01	1	Post-med.
12	Field B	26	Flint	Flint	0.01	1	
12	Field B	20	Flint	Flint	0.01	1	
12	Field B	17	Flint	Flint	0.01	1	
12	Field B	36	Flint	Flint	0.01	1	
12	Field B	35	Ceramic	Vessel	0.01	1	Post med

Context	Field walking Area /Exc. Area	Small Find No	Material	Object Name	Weight in kg	Count	Comments
12	Field B	25	Flint	Flint	0.01	1	
12	Field B	11	Flint	Flint	0	1	
12	Field B	18	Flint	Flint	0.01	1	
12	Field B	15	Flint	Flint	0.03	1	
12	Field B	34	Ceramic	Vessel	0	1	Post med
12	Field B	4	Ceramic	Vessel	0.01	1	Post med
12	Field B	30	Ceramic	Vessel	0	1	Post med
12	Field B	27	Flint	Flint	0.02	1	
12	Field B	19	Flint	Flint	0.01	1	
12	Field B	33	Glass	Glass	0.03	1	Modern
12	Field B	39	Flint	Flint	0.02	1	
12	Field B	28	Flint	Flint	0	1	
12	Field B	10	Flint	Flint	0.04	1	
12	Field B	32	Ceramic	Tobacco pipe	0	1	Post med
12	Field B	22	Ceramic	Vessel	0.02	1	Post med
12	Field B	9	Flint	Flint	0.02	1	
12	Field B	6	Flint	Flint	0.01	1	
12	Field B	16	Flint	Flint	0	1	
12	Field B	24	Flint	Flint	0.03	1	
12	Field B	13	Fe (iron)	Artefact	0	1	
12	Field B	38	Flint	Flint	0	1	
12	Field B	2	Flint	Flint	0	1	Check sf number
132	EX 1	1	Cua (copper alloy)	Palstave axe (SF1)	0	1	Middle Bronze Age
153	EX 1	2	Cua;Au	Bead	0	1	Middle Bronze Age
12	Field B	3	Flint	Flint	0	1	
131	EX 3	0	Flint	Flint	0	1	

Context	Field walking Area /Exc. Area	Small Find No	Material	Object Name	Weight in kg	Count	Comments
131	EX 3	0	Ceramic	Vessel	0.01	1	Bronze Age
132	EX 3	0	Flint	Flint	0.01	1	
193	EX 3	0	Flint	Flint	0.01	4	
88888	Field B	0	Fe (iron)	Artefact	0	1	Metal detected (No SF)
88888	Field B	0	Pb (lead)	Artefact	0	1	Metal detected (No SF)
88888	Field B	0	Ceramic	Vessel	0.03	1	
88888	Field B	0	Pb (lead)	Artefact	0	1	
88888	Field B	0	Cua (copper alloy)	Artefact	0	2	

Table 4: Finds quantification and spot dating

APPENDIX C ENVIRONMENTAL SAMPLES

By Martha Craven

Introduction

- B.1.1 A total of seventeen bulk environmental samples were taken from a series of deposits associated with a Bronze Age palstave at Nailstone Solar Farm, Leicestershire. These samples have been processed and briefly assessed for their potential. The purpose of this assessment is to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regards to such topics as diet, industrial activities, trade and waste disposal.

Methodology

- B.1.1 The samples were processed by tank flotation using modified Siraf-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. A 1 litre sub-sample was taken from each bulk sample, processed and the resulting residue and flot was stored and examined wet. The remaining litres of the bulk sample were processed and examined following standard Oxford Archaeology procedure. The floating component (flot) of the samples was collected in a 0.25mm nylon mesh. The heavy residue fraction was collected within a 0.5mm nylon mesh and the heavy residue was then washed through a 10mm, 4mm, 2mm and a 0.5mm sieve.
- B.1.2 At least one bucket (approximately 10 litres) of each bulk sample was left unprocessed in case further specialist work is to be undertaken in the future. In the case of bulk samples that were 10 litres or less, a 1 litre sub-sample has been kept unprocessed.
- B.1.3 A magnet was dragged through each residue fraction for the recovery of magnetic material prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds.
- B.1.4 The flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 5.
- B.1.5 Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

- B.1.6 For the purpose of this assessment, items such as weed seeds have been scanned and recorded qualitatively according to the following categories:
- # = 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

- B.1.7 Items that cannot be easily quantified such as snails have been scored for abundance:

+ = rare, ++ = moderate, +++ = abundant

Key to table:

w=waterlogged

Results and Discussion

- B.1.8 Preservation of plant remains appears to primarily be through the process of waterlogging, but occasional carbonised material is also noted. The condition of the archaeobotanical material is variable; ranging from a poor to a fairly well-preserved state. Snail shells are generally absent within the samples or are recorded in low numbers and exhibit minimal diversity.
- B.1.9 Charcoal, where present within the sampled deposits, is recorded in negligible quantities and is highly comminuted. Carbonised cereal grains have been identified within two of the samples- taken from samples 6 and 8 from layer 135. These grains consist of a single barley (*Hordeum vulgare*) and a spelt/emmer (*Triticum spelta/dicoccum*) grain. These grains may derive from possible stubble burning or are perhaps a scatter of waste from domestic activity within the vicinity.
- B.1.10 Presumed waterlogged weed seeds are generally sparse and are predominantly taxa of arable/ruderal environments, such as sow-thistles (*Sonchus* sp.) and black bindweed (*Fallopia convolvulus*), alongside those more common in hedgerow/scrubland, such as elder (*Sambucus nigra*). Other waterlogged flora found within the samples include a single indeterminate leaf noted in Sample 31, layer 132=134=138 and fragments of reed (*Phragmites* sp.) within Sample 36, layer 138. The majority of the waterlogged wood found within the samples is highly fragmented however sizable fragments of wood have been recorded within Sample 25, layer 135, and these may be suitable for species identification. It should be noted that the waterlogged remains may include intrusive modern material as frequent rootlets are common, suggesting the movement of material between contexts. Free-threshing (*Triticum aestivum/turgidum*) wheat rachis fragments were identified within Sample 36, layer 138, but these elements are highly likely to be modern given their particularly well-preserved state.
- B.1.11 Finds within the sample residues are rare and include occasional fragments of burnt flint and small animal bone. A single fragment of pottery was found within Sample 7, layer 135.

Sample Number	Context Number	Feature Type	Volume Processed (L)	Flot Volume (ml)	Cereals	Chaff	Weed Seeds	Tree/Shrub Fragments	Wood Fragments	Roots/stems	Snail Shells	Charcoal Volume(ml)
2	132	Colluvial Layer	1	5	0	0	0	0	+w	+++w	0	<1
4	133	Peat	8	10	0	0	0	0	0	0	+	1
5	134	Other Layer	8	10	0	0	0	0	0	0	+	1
6	135	Other Layer	6	<5	#	0	0	0	+++w	+++w	0	1
7	135	Other Layer	7	5	0	0	#w	0	0	+++w	0	1
8	135	Other Layer	7	20	#	0	0	0	0	+++w	0	3
9	135	Other Layer	6	20	0	0	0	0	+w	+++w	0	<1
10	133	Peat	6	10	0	0	0	0	+++w	+++w	+/+	1
25	135	Other Layer	5	5	0	0	0	#w	+++w	+++w	+	<1
26	133	Peat	4	20	0	0	#w	#w	+++w	+++w	0	<1
30	132	Colluvial Layer	8	30	0	0	0	0	0	+++w	0	<1
31	132	Colluvial Layer	5	5	0	0	0	0	0	+++w	0	1

Sample Number	Context Number	Feature Type	Volume Processed (L)	Flot Volume (ml)	Cereals	Chaff	Weed Seeds	Tree/Shrub Fragments	Wood Fragments	Roots/stems	Snail Shells	Charcoal Volume(ml)
32	134	Other Layer	4	5	0	0	0	0	0	+++W	0	<1
33	133	Peat	9	40	0	0	0	#w	0	+++w	0	1
34	138	Colluvial Layer	6	20	0	0	#w	0	0	+++w	0	<1
35	138	Colluvial Layer	8	20	0	0	#w	0	+w	+++w	0	0
36	138	Colluvial Layer	7	20	0	#	0	0	+w	+++w	0	<1

Table 5: Selected bulk environmental samples

Statement of potential and recommendations for further work

- B.1.12 The general low density and diversity of both carbonised and waterlogged plant remains within the samples means that there is limited potential for these remains to significantly contribute to the regional Research Aims of the site or indeed the region itself. Further examination is unlikely to provide additional information and as such no additional work is recommended.
- B.1.13 If material is required for radiocarbon dating suitable material may be selected from the larger fragments of waterlogged wood within Sample 25, layer 135. Other waterlogged plant remains within the deposits may potentially be suitable for this purpose as they are generally fairly well preserved, exhibiting moderate deterioration of the cell structure and a relatively low percentage of fragmentation (see Table 5: Score 2 of Historic England's 'Preserving Archaeological Remains Appendix 2- Preservation Assessment Techniques' 2016, 18) however frequent rootlets were noted which could suggest that some of this material may be intrusive. Caution should also be exercised when utilising the carbonised cereal grains found within samples 6 and 8, deposit 135, as these are present as individual specimens and as such may not be contemporary to the deposit.

APPENDIX D GEOARCHAEOLOGICAL ASSESSMENT*By David Kay and Elizabeth Stafford**Introduction*

- D.1.1 A series of site visits was carried out by OA geoarchaeological specialists to advise on the site formation processes, record and sample the sedimentary sequences on Area 1. This included a swath of dark 'peaty soil', located at the top of the south facing slope. The deposit was observed to follow the contour line just below the upper break of slope, on the northern edge of a small riverine valley cutting Pleistocene glaciofluvial deposits and underlying Oadby Member glacial diamicton (till). A middle Bronze Age copper palstave (SF1) had been recovered from the lower interface of the peat and the natural geology. Whilst these superficial geological deposits extended across the landscape to the north/northwest, they were entirely absent (eroded) across the slope face to the immediate south, with the highly weathered surface of the local Gunthorpe Member mudstone bedrock directly underlying the modern top-/subsoil.
- D.1.2 Preliminary interpretation in the field suggested the peaty soil may comprise evidence of sedimentary build-up associated with a localised spring flush or hill seep. The British Geological Survey (BGS) maps a narrow band of gravelly glaciofluvial deposits along the top of the slope, which may facilitate groundwater flow above the less permeable underlying mudstone. Wetter ground conditions were observed cross the northern part of Area 1, in addition to the presence of numerous modern land drains. Gravelly slope deposits underlying the peaty soil were also found to be extensively waterlogged, containing moderate quantities of preserved wood and charcoal.

Methodology

- D.1.3 Two representative baulk sections were chosen for recording and sampling (Sections 4 and 5). Priority was given to the best-preserved profiles captured within the eastern baulk of Area 1, offering the greatest potential for reconstructing the depositional/environmental history for the site. Within that baulk, the two adjacent sample sections were selected as the slope descended to the south, so that changes in local taphonomic conditions could be assessed with regard to hydro-sedimentological and colluvial processes. Section 4 was thus placed a few metres downslope of Section 5, which was itself located within the far northeastern corner of Area 1. A further opportunistic block sample was lifted from immediately adjacent to the findspot of the axe itself (SF1; from within context 132, here presumed to correlate with context 138).
- D.1.4 Detailed sediment descriptions were made of each sampled sequence in the field and. This sequence was recorded on a summary proforma in accordance with *Historic England guidelines for geoarchaeology* (Historic England 2015), following standard methodologies based on Jones *et al.* (1999). This includes a description of colour, compaction, texture, sorting, structure and inclusions. Comment was also made on the nature of observable contacts/boundaries indicative of erosion or truncation.
- D.1.5 Monolith samples were taken from each section to enable further lab-based inspection of the sedimentary profiles, and to provide a repository for future subsampling should it be required. Block (Kubiena) samples were taken expressly for the purpose of soil micromorphology and OSL samples were taken to facilitate future dating strategies should radiocarbon assays prove insufficient.

Geoarchaeological sample summary

- D.1.6 A quantification of the samples recovered is presented in Table 6 and the full sample inventory in Table 7.

Section	Block/ Kubiena	Monolith	OSL	Total
4	3	1	2	6
5	3	1	3	7
SF.1 (findspot)	1			1
Total	7	2	5	14

Table 6: Quantification of geoarchaeological samples

Sample number	Sample type	Depth top (m bgl)	Depth base (m bgl)	Length (m)	Section no.	Contexts
11	Monolith	0.18	0.68	0.5	4	1, 2, 133, 137, 138, 139
12	Block/ Kubiena	0.33	0.47	0.14	4	133, 137
13	Block/ Kubiena	0.42	0.56	0.14	4	133
14	Block/ Kubiena	0.46	0.6	0.14	4	133, 138, 139
15	OSL	0.37	-	-	4	133
16	OSL	0.51	-	-	4	138
17	OSL	0.27	-	-	5	137
18	OSL	0.39	-	-	5	133
19	OSL	0.56	-	-	5	138
20	Monolith	0.16	0.65	0.5	5	1, 133, 137, 138, 149
21	Block/ Kubiena	0.31	0.45	0.14	5	133, 137
22	Block/ Kubiena	0.41	0.55	0.14	5	133
23	Block/ Kubiena	0.55	0.69	0.14	5	133, 138
24	Block/ Kubiena	-	-	0.14	SF.1 (findspot)	132

Table 7: Geoarchaeological sample inventory

N.B. depths of OSL samples are taken from centre points; depth bgl of sample 24 unknown due to location within centre of stripped area (but can be extracted from digital survey data).

Results

D.1.7 The sedimentary logs for monolith samples 11 and 20 (Sections 4 and 5 respectively) are provided in Table 8.

Sample	Top (m)	Base (m)	Lithology	Context	Description	Stratigraphy
Section 4						
11	0	0.035	Clay loam	1	Mid-greyish brown clay loam. Firm and pliable. Frequent rootlets. Common granules and subangular-subrounded pebbles. Diffuse contact. <i>Ploughed Aht-horizon subsoil under arable field.</i>	Subsoil
11	0.035	0.16	Clay loam	2	Mid-greyish brown clay loam. Firm and pliable. More compact than topsoil above. Common rootlets. Common granules and subangular-subrounded pebbles. Diffuse contact. <i>A/Bht-horizon subsoil directly underlying active ploughzone of modern ploughsoil.</i>	Subsoil
11	0.16	0.24	Clay/clay loam	137	Mid-/light grey clay, mixed with mid-greyish brown clay loam (especially so within sample itself). Firm and pliable. Few rootlets. Common granules. Few subangular-subrounded pebbles. Very few fragments of charcoal <2mm. Diffuse contact (clearer but highly irregular outside of sample itself). <i>Bt-horizon of clayey colluvium, likely derived from diamicton upslope, combined with heavy illuviation from groundwater seepage. Partially admixed with overlying subsoil.</i>	Colluvium
11	0.24	0.34	Peaty silt loam	133	Very dark brown/blackish peaty silt loam. Generally firm but somewhat friable. Few rootlets. Few granules. Very few subangular-subrounded pebbles. Clear contact, with clear evidence of rooting into	Peaty soil

Sample	Top (m)	Base (m)	Lithology	Context	Description	Stratigraphy
					underlying deposits. <i>Bh-horizon of remnant/truncated 'peaty' sapric histosol.</i>	
11	0.34	0.4	Sandy clay loam	138	Light grey sandy clay loam. Firm and pliable. Frequent granules. Common subangular-subrounded pebbles. Few fragments of charcoal <15mm. Clear contact. <i>Bt-horizon of slopewash colluvium originating from diamicton upslope, seemingly heavily illuviated by groundwater seepage.</i>	Slope deposit
11	0.4	0.5	Sandy clay loam	139	Reddish/orangey brown sandy clay loam. Few granules. Common subangular-subrounded pebbles. <i>Heavily weathered/eroded upper surface of Gunthorpe Member mudstone, incorporating sand and gravel washed out from diamicton upslope to north.</i>	Weathered diamicton/mudstone
Section 5						
20	0	0.03	Clay loam	1	Mid-greyish brown clay loam. Firm and pliable. Frequent rootlets. Common granules and subangular-subrounded pebbles. Clear contact. <i>Ploughed Aht-horizon subsoil under arable field.</i>	Subsoil
20	0.03	0.14	Clay	137	Mid-/light grey clay. Firm to stiff, overall pliable. Few rootlets. Common granules. Few subangular-subrounded pebbles. Very few fragments of charcoal <2mm. Clear contact. <i>Bt-horizon of clayey</i>	Colluvium

Sample	Top (m)	Base (m)	Lithology	Context	Description	Stratigraphy
					<i>colluvium, likely derived from of diamicton upslope, combined with heavy illuviation from groundwater seepage.</i>	
20	0.14	0.32	Peaty silt loam	133	Very dark brown/blackish peaty silt loam. Generally firm but somewhat friable. Few rootlets. Few granules. Very few subangular-subrounded pebbles. Clear contact, with clear evidence of rooting into underlying deposits. <i>Bh-horizon of remnant/truncated 'peaty' sapric histosol.</i>	Peaty soil
20	0.32	0.45	Clay	138	Light grey clay. Firm and pliable. Frequent granules. Common subangular-subrounded pebbles. Few fragments of charcoal <15mm. Diffuse contact. <i>Bt-horizon of slopewash originating from diamicton upslope, seemingly heavily illuviated by groundwater seepage.</i>	Slope deposit
20	0.45	0.5	Clay	149	Mid-grey clay. Firm and pliable. Common granules. Common subangular to subrounded pebbles. <i>Weathered upper surface of Oadby Member diamicton.</i>	Weathered diamicton/mudstone

Table 8: Sediment logs of monolith samples

Discussion

D.1.8 A preliminary assessment of Sections 4 and 5 (represented by the sequences in monolith samples 11 and 2,) reveals a broad sedimentary history comprising four defined lithostratigraphic units (Units 2-5) overlying weathered diamicton/mudstone (Unit 1) as follows.

Unit 1: Weathered diamicton/mudstone

- D.1.9 **Unit 2: Slope deposits.** The initial deposition of a clayey slope deposit (context 132/138) across the interface of the underlying weathered diamicton and mudstone geological units. Sustained groundwater flow, combined with possible periodic spring flushing, here appears to have facilitated the downslope erosion of gravelly material, with illuvially redeposited silts and clays intercalated amongst the larger clasts. Quantities of preserved wood and charcoal fragments prevalent throughout this layer attest to the sustained presence of (at least partially) waterlogged conditions since its initial deposition. The Middle Bronze Age palstave found in Area 1 was recovered from within a shallow depression in the top of this deposit. That said, it is unclear if the axe was actively deposited within this sediment itself, or conversely has settled slightly down profile from within the base of the overlying 'peaty' soil.
- D.1.10 **Unit 3: 'Peaty' soil.** This deposit subsequently appears to have accrued throughout a period of sustained vegetation growth under generally boggy ground conditions and relative sedimentary stability. The inclusion of some pebble inclusions may indicate occasional colluvial input and/or sedimentary reworking. Nevertheless, the prevailing peaty silt matrix is consistent with low-energy sedimentation and high organic cycling.
- D.1.11 Whilst the deposit does not represent a 'true' peat in that the organic material is very highly humified and incorporates significant quantities of mineral material (sand grains, etc.), it retains a somewhat spongy texture, high amorphous organic content, and elevated water retention properties relative to other surrounding sediments. To follow World Reference Base for Soil Resources (WRB) terminology, it would perhaps best be categorised as a 'sapric histosol', i.e., a predominantly organic soil where high levels of decomposition now prevent the identification of constituent plant parts.
- D.1.12 This deposit varied laterally, appearing thickest/darkest across the northeastern corner of the stripped area, and increasingly patchy towards the northwest. From inspection of the exposed baulks, this is likely due to later truncation/erosion. Whilst the preserved extent may be related to the location of a hedged field boundary and possible lynchet face to the immediate north, the depth of the modern top-/subsoil was much greater to the east than to the west (by approx. 0.35 to 0.2m bgl respectively). In areas of thinner overburden, subsequent erosion and ploughing are likely to have reworked and/or removed much of the underlying 'peaty' deposit. Whilst the Middle Bronze Age palstave was discovered beneath thinner, less developed 'peaty' sediments to the northwest, it seems likely that this organic-rich layer was originally far more uniform in its distribution.
- D.1.13 **Unit 4: Colluvium.** Sedimentation associated with context 137 suggests a renewal of clay-dominated slope wash, most likely as a result of erosion from glacial diamicton deposits upslope to the north/northwest. Erosional processes are likely to have partially truncated/disturbed the upper surface of the underlying peaty soil, although clear truncation horizons were not immediately visible within the exposed sections (though they may also have been obscured by more recent plough action). However, the greater stratigraphic integrity of context 137 within Section 5, and the correspondingly deeper preservation of

context 133 below, demonstrates that the best sedimentary preservation occurs along the northern edge of Area 1, i.e., in the lee of the hedge boundary and possible lynchet face running along the crest of the slope.

- D.1.14 **Unit 5: Topsoil/subsoil.** These sediments are associated with the development of the modern cultivated top-/subsoil. They appear deepest in this the vicinity of Section 5, before thinning out downslope and becoming increasingly admixed with the underlying buried horizons.

Significance and potential

- D.1.15 In summary, the dark 'peaty' soil evident across the northern edge of Area 1 appears indicative of a period of relative sedimentary stability and sustained vegetation growth under at least partially waterlogged conditions as a result of sustained groundwater seepage, bracketed both before and after by episodes of higher energy slope erosion, deposition and illuviation from exposed diamicton deposits upslope. It remains unclear at present whether the recovered Middle Bronze Age palstave was deposited within the top of the lower, clayey sediments, or at the base of the overlying 'peat' and has subsequently sunk lower within the profile due to its relative weight. Dating these sediments, in particular the 'peat', may clarify the chronology of deposition through radiocarbon and/or OSL dating.
- D.1.16 The two sampled sedimentary profiles offer some potential to further investigate the site formation processes and prevailing environmental conditions. Soil micromorphological analysis of thin sections produced from block samples 12-14 and 21-24 has potential to explore in greater detail the sedimentary processes and palaeohydrology which led to the initial formation of these deposits, as well as their post-depositional alteration. An initial stage of pollen assessment may also be considered to clarify the level of preservation and suitability of assemblages for detailed analysis of past vegetation and hydrology alongside plant macrofossils (see Appendix D). Given the existing associations between Bronze Age ritual deposition and watery contexts (e.g., Beck *et al.* 2023; Dunkin *et al.* 2020; Stevens 2009), this isolated findspot thus has great potential to add to the detailed interpretation of how certain ritualised behaviours were enacted in different kinds of landscapes.

APPENDIX E BIBLIOGRAPHY

- Beck, M.R. *et al.* 2023 "'Where water wells up": Revisiting a forgotten deposition tradition from the Late Bronze Age on Funen, Denmark' *Danish Journal of Archaeology*, 12 (1): 1-24
- Cappers, R.T.J, Bekker R.M, and Jans, J.E.A., 2006. *Digital Seed Atlas of the Netherlands Groningen Archaeological Studies 4*. Barkhuis Publishing, Eelde, The Netherlands. <https://www.plantatlas.eu/>
- Carrozzo, F. and Wilkinson, D. 2021 *Geophysical Survey Report, Stoneshollow Solar for JBM Solar*. Unpublished Magnitude Surveys Report MSSK987. 3rd November 2021
- Dunkin, D. *et al.* 2020 'The findspots of Bronze Age metalwork in lowland England: A new field study' *Oxford Journal of Archaeology*, 39 (1): 67-88
- English Heritage, 2008 Management of Research Projects in the Historic Environment. PPN 3: Archaeological Excavation
- Frederick, R. and Griffiths, A. 2023 *Stoneshollow, Nailstone, Leicestershire, Archaeological Evaluation*. Report 2310
- Historic England, 2015 Management of Research Projects in the Historic Environment. The MoRPHE Project Managers' Guide
- Historic England, 2016. *Preserving Archaeological Remains. Appendix 2- Preservation Assessment Techniques*. Historic England
- Jacklin, A. 2023 *Stoneshollow, Nailstone, Leicestershire. Written Scheme of Investigation*. RPS.
- Jacomet, S., 2006. *Identification of cereal remains from archaeological sites*: 2nd edition. IPNA, Universität Basel / Published by the IPAS, Basel University
- Jones, A.P. *et al.* 1999 'Guidelines and Recommendations' in A.P. Jones *et al.* (eds.) *Technical Guide No. 7: The Description & Analysis of Quaternary Stratigraphic Field Sections*. London: Quaternary Research Association, pp. 27-76
- Historic England 2015 *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Portsmouth: Historic England
- Stace, C., 1997. *New Flora of the British Isles: Second edition*. Cambridge University Press
- Stevens, F. 2008 'Elemental interplay: the production, circulation and deposition of Bronze Age metalwork in Britain and Ireland' *World Archaeology*, 40 (2): 238-252
- Olivier, A. 1996 *Frameworks for our Past: A review of research frameworks, strategies and perceptions*. English Heritage
- Zohary, D. and Hopf, M., 2000. *Domestication of Plants in the Old World – The origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley: 3rd edition*. Oxford University Press

APPENDIX F OASIS

Project Details

OASIS Number	oxfordar3-531395		
Project Name	Land Adjacent to Bagworth Road, Newer Nailstone. Nailstone, Hinckley and Bosworth, Leicestershire. Post-Excavation Assessment and Updated Project Design		
Start of Fieldwork	28/08/2023	End of Fieldwork	05/09/2023
Previous Work	Yes	Future Work	No

Project Reference Codes

Site Code	XLENSF23	Planning App. Number	21/01395/FUL
HER Number		Related Numbers	LS22, X.A93.2023
Prompt	National Planning Policy Framework (NPPF)		
Development Type	Other		

Techniques used (tick all that apply)

- | | | |
|--|--|---|
| ☐ Aerial Photography – interpretation | ☒ Open-area excavation | ☐ Salvage Record |
| ☐ Aerial Photography - new | ☐ Part Excavation | ☐ Systematic Field Walking |
| ☐ Field Observation | ☐ Part Survey | ☐ Systematic Metal Detector Survey |
| ☐ Full Excavation | ☐ Recorded Observation | ☐ Test-pit Survey |
| ☐ Full Survey | ☐ Remote Operated Vehicle Survey | ☐ Watching Brief |
| ☐ Geophysical Survey | ☐ Salvage Excavation | |

Monument	Period	Object	Period
Ditch	Late Prehistoric (- 4000 to 43)	Palstave axehead (CuA)	Bronze Age (- 2500 to - 700)
Posthole	Late Prehistoric (- 4000 to 43)	Bead (CuA)	Bronze Age (- 2500 to - 700)
Pit	Late Prehistoric (- 4000 to 43)	Pottery	Late Prehistoric (- 4000 to 43)
Deposit	Late Prehistoric (- 4000 to 43)	Flint	Late Prehistoric (- 4000 to 43)
Ditch	Modern (1901 to present)	Pottery	Post Medieval (1540 to 1901)
		Pottery	Modern (1901 to present)
		Glass	Modern (1901 to present)
		Metalwork	Modern (1901 to present)

Project Location

County	Leicestershire	Address (including Postcode)
District	Hinckley and Bosworth	Land adjacent to Bagworth Road,
Parish	Nailstone	Newer Nailstone,
HER office	Leicester	Leicestershire,
Size of Study Area	c.100ha	CV13 0QH
National Grid Ref	SK 422 067	

Project Originators

Organisation	OA
Project Brief Originator	Will Kelly (LHNET)
Project Design Originator	Adrian Jacklin (RPS)
Project Manager	Nicholas Gilmour (OA)
Project Supervisor	Stephen Graham (OA)

Project Archives

	Location	ID
Physical Archive (Finds)	Leicestershire County Council Museum Collections	X.A93.2023
Digital Archive	Leicestershire County Council Museum Collections /ADS	X.A93.2023
Paper Archive	Leicestershire County Council Museum Collections	X.A93.2023

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	☐	☐	☐
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☒	☒	☒
Human Remains	☐	☐	☐
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☐	☐
Survey		☐	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media

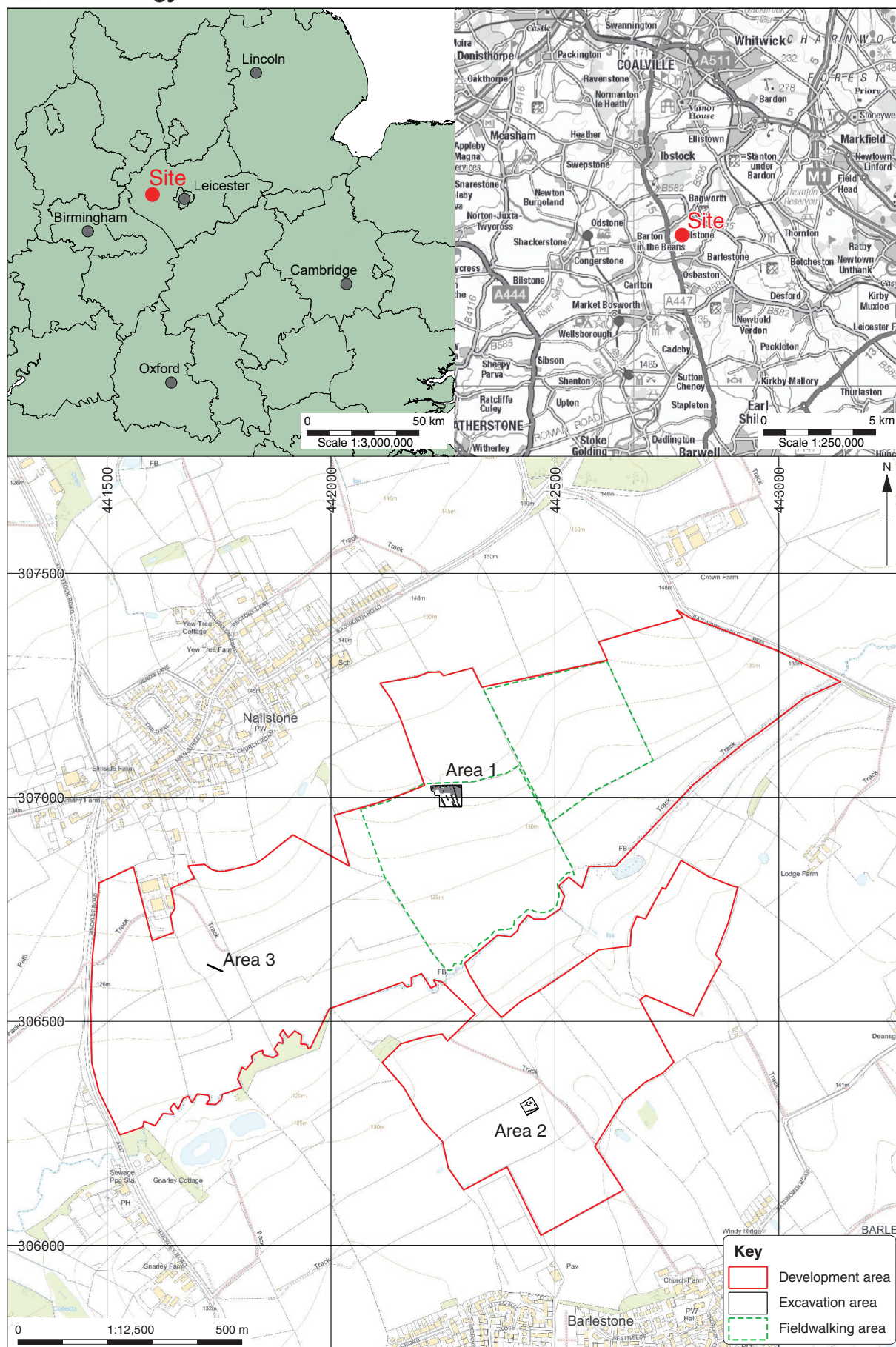
Database	☒
GIS	☒
Geophysics	☐

Paper Media

Aerial Photos	☐
Context Sheets	☒
Correspondence	☐

Images (Digital photos)	☒	Diary	☐
Illustrations (Figures/Plates)	☒	Drawing	☐
Moving Image	☐	Manuscript	☐
Spreadsheets	☒	Map	☒
Survey	☒	Matrices	☐
Text	☒	Microfiche	☐
Virtual Reality	☐	Miscellaneous	☒
		Research/Notes	☒
		Photos (negatives/prints/slides)	☐
		Plans	☒
		Report	☒
		Sections	☒
		Survey	☒

Further Comments



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Figure 1: Site location plan

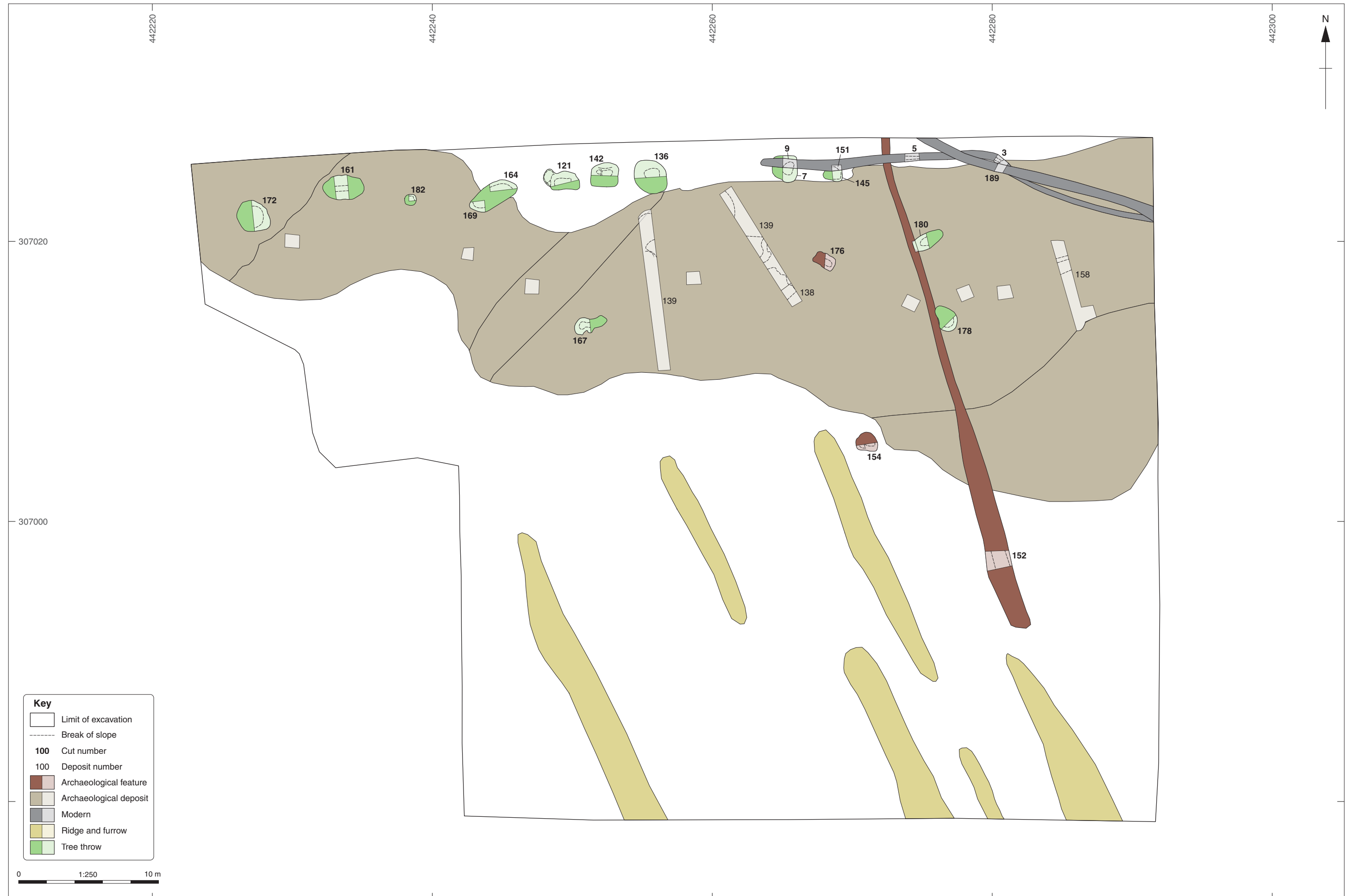


Figure 2: Plan of Area 1

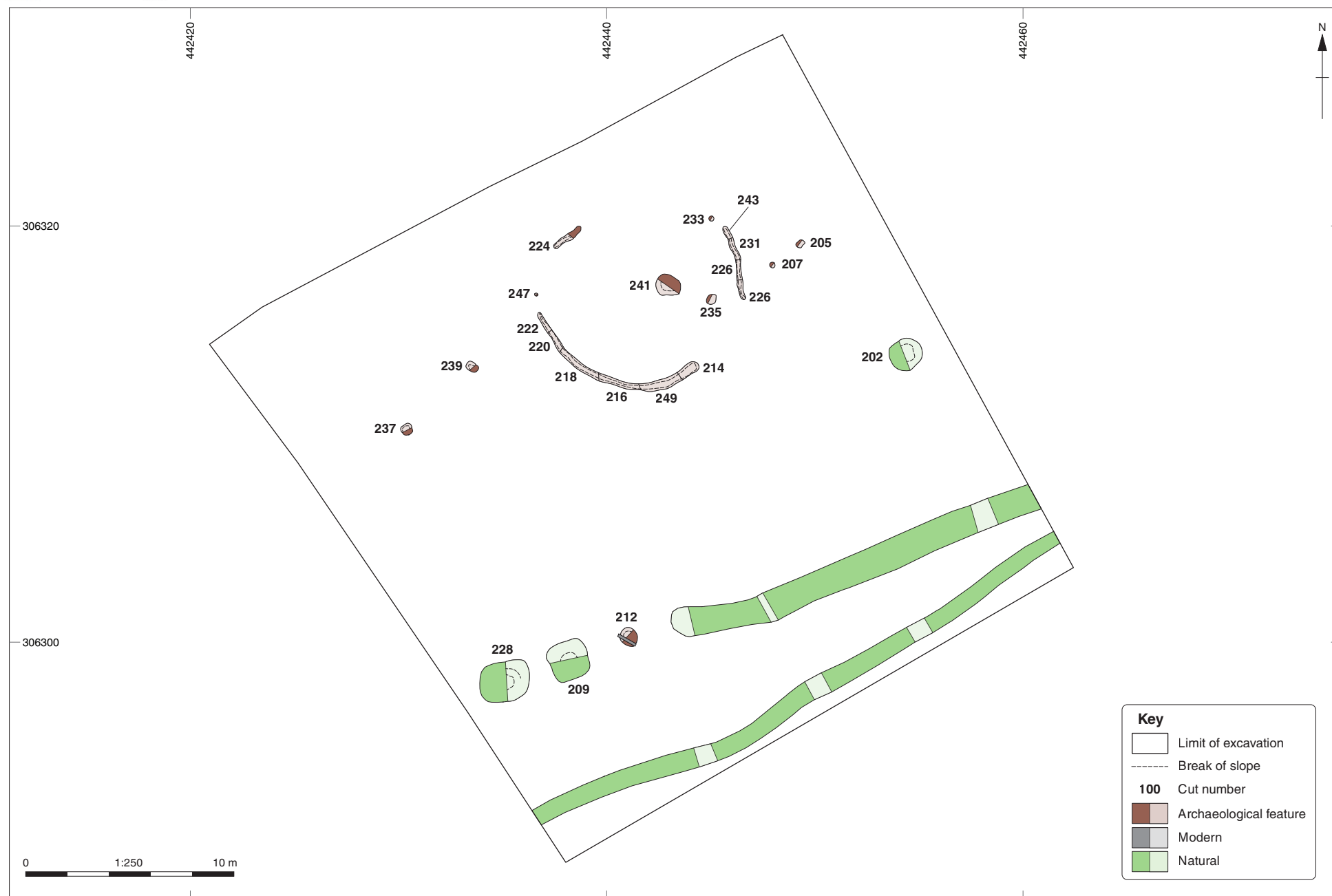


Figure 3: Plan of Area 2

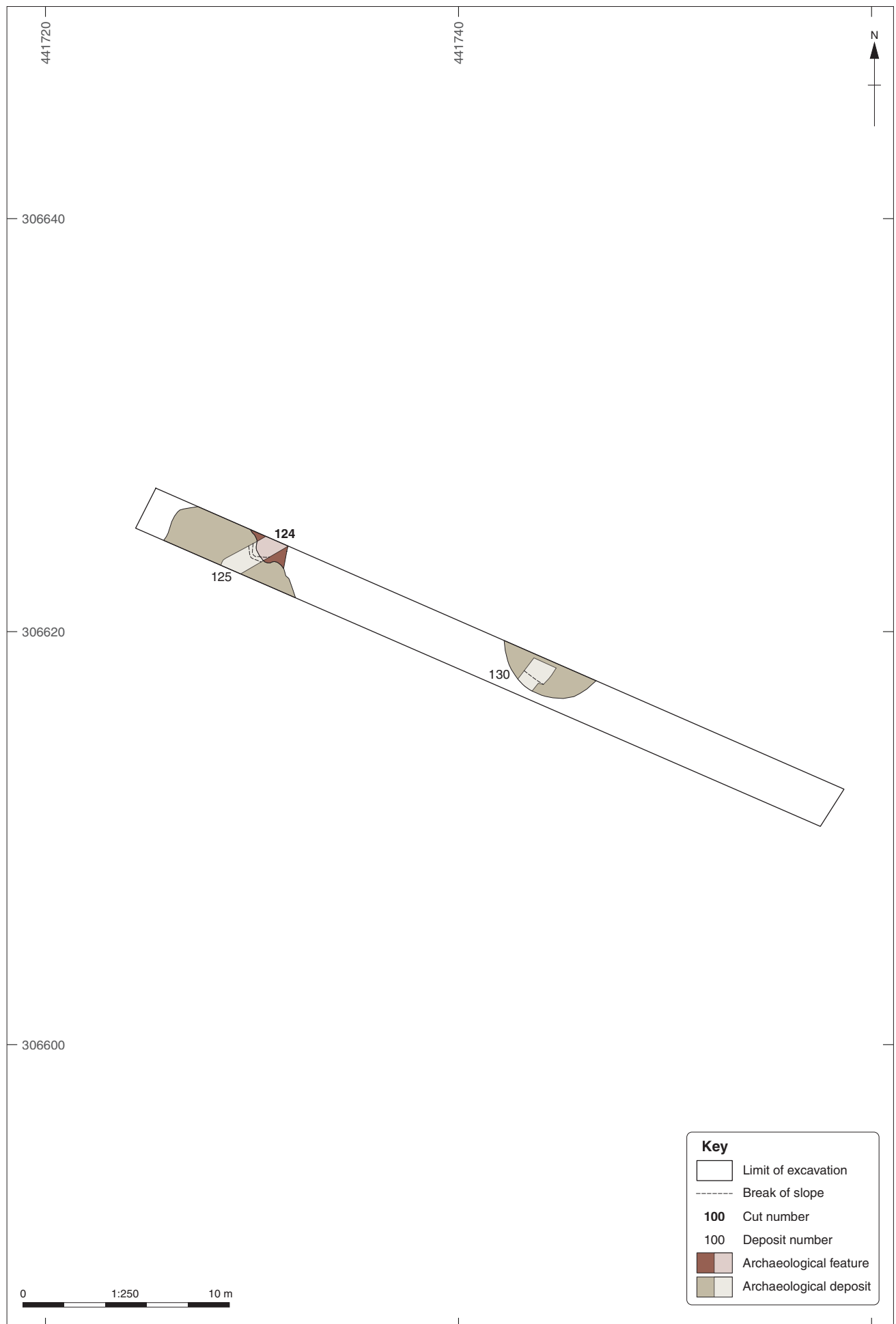


Figure 4: Plan of Area 3

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