

**Bidwell West Employment Site
Houghton Regis
Central Bedfordshire**

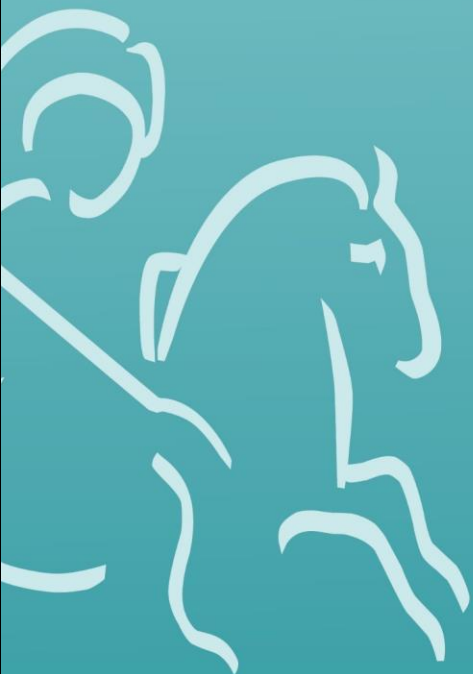
Archaeological Excavation



for:
Wrenbridge Ltd

CA Project: MK0598
CA Report: MK0598_2
HER reference: LTNMG: 1545

May 2023



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SUMMARY

Project name:	Bidwell West Employment Site, Houghton Regis, Central Bedfordshire
Location:	Houghton Regis, Central Bedfordshire
NGR:	499784 224517
Type:	Excavation and Strip Map and Sample Investigation
Date:	October – November 2021
Planning reference:	CB/21/01242/FULL
Location of Archive:	To be deposited with Luton Culture Trust and the Archaeology Data Service (ADS)
Accession Number :	LUTNM 2021/18
Site Code :	BWEL21

From 4 October to 8 November 2021, Cotswold Archaeology carried out an archaeological investigation at Bidwell West Employment Site North of Thorn Road, Thorn Road, Houghton Regis, Central Bedfordshire. Prior to this excavation, part of the site had been investigated in advance of construction of the A5-M1 Link Road; and the site was therefore investigated in two areas: an excavation area comprising 0.39ha and a strip, map and sample (SMS) excavation area comprising 0.28ha.

Predating the Iron Age activity was a small number of discrete early prehistoric pits, one of which contained a worked antler tool and several aurochs bones C14 dated to the very end of the Early Bronze Age (Late 17th – 16th centuries BC). Early Iron Age occupation comprised a large pit cluster, several isolated discrete features, a boundary ditch and possible enclosure. During the Middle Iron Age, a small stock enclosure, three penannular ditches representing roundhouses, and several associated features were established. A large rectilinear enclosure potentially dates to the Late Iron Age; internal features included possible four-post structures and storage pits. The Iron Age pottery assemblage was dominated by domestic wares typical of a rural settlement and indicated that activity at the site probably didn't begin much before the start of the 6th century BC. Other finds included fragments of an Early Iron Age bow brooch, fired clay, a small fragment of ceramic building material and a Roman stone *tessera*. Features post-dating the Iron Age comprised elements of a previously identified Roman field system and the remains of medieval to post-medieval ridge-and-furrow cultivation.

1. INTRODUCTION

- 1.1. Between October and November 2021, Cotswold Archaeology (CA) carried out an archaeological investigation, comprising an area of excavation and an area of strip, map and sample (SMS) investigation at the Bidwell West Employment Site North of Thorn Road, Thorn Road, Houghton Regis, Central Bedfordshire (centred at NGR: 499784 224517; Fig. 1). The excavation was carried out as part of a wider set of investigations carried out in advance of a residential-led development known as 'Bidwell West' (Houghton Regis North 2 (HRN2)). The Employment Site excavation was undertaken for Wrenbridge Ltd.
- 1.2. Central Bedfordshire Council had granted outline 'hybrid' planning permission (planning ref. CB/15/00297/OUT) for a residential-led development site known as Bidwell West, located to the north-west of Houghton Regis, between Watling Street (A5) and Bedford Road (B5120) (Fig. 1). Condition 12 of this planning permission required the implementation of a programme of archaeological work in accordance with an approved written scheme of investigation (WSI).
- 1.3. The Bidwell West development was undertaken in phases; the Employment Site was located in the north-western part of the overall development (Fig. 2). Full planning permission (Planning Ref. CB/21/01242/FULL) was granted for development of the site and condition 13b of this planning permission also required the implementation of a programme of archaeological work in accordance with an approved written scheme of investigation (WSI).
- 1.4. The scope of this excavation was defined by Martin Oake, Central Bedfordshire Council Archaeology Team (CBCAT). The excavation was carried out in accordance with a WSI prepared by CA (2021) and approved by Martin Oake. The fieldwork was monitored by Slawek Utrata and Hannah Firth, from the CBC Archaeology Team.
- 1.5. The excavation was also in line with the *Standard and Guidance for Archaeological Excavation* (ClfA 2014a; updated October 2020), *Management of Research Projects in the Historic Environment (MoRPHE) PPN 3: Archaeological Excavation* (Historic England 2015a) and *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England 2015b).

The site

- 1.6. The site comprised excavation and SMS areas totalling approximately 0.67ha, located to the west of Bidwell, Houghton Regis, approximately 1.5km to the north of

Dunstable town centre (Fig. 1). Prior to development, the site comprised a triangular block of arable farmland, bounded by residential housing to the east, Thorn Road to the south, and the A5-M1 link road to the north and west (Fig. 1). An adjacent area of the site had been investigated in advance of construction of the A5-M1 Link Road (Site D, Brown 2020; Figs 2-5).

- 1.7. The bedrock geology of the area is mapped as the West Melbury Marly Chalk Formation, a sedimentary bedrock formed approximately 94 to 101 million years ago in the Cretaceous Period. There are no recorded superficial deposits within the site (BGS 2023).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1. The archaeological and historical background of the Bidwell West development area, including the site, has been presented in detail in the Heritage Desk-Based Assessment (DBA) prepared by CA (2014a). This has been supplemented by the results of numerous archaeological investigations undertaken on land to the north of Houghton Regis between 2014–2021, some of which were ongoing during the production of the DBA. These investigations include the wider Bidwell West development (MOLA 2022 and CA 2014b, 2018, 2022, and forthcoming a and b; Fig. 2), excavations in advance of the construction of the A5–M1 Link Road, including Site D which was excavated within the Bidwell West Employment Site (Brown 2020) and investigations at Thorn Turn (AA 2018, 2019a). Further investigations have also been undertaken to the east and south-east of the development site in association with the Houghton Regis North 1 development (AA 2019b; Luke and Barker 2021; Fig. 2). Collectively, this work has helped to identify extensive evidence of settlement and land-use spanning the early prehistoric to the post-medieval period, including early prehistoric pit and post-alignments; round barrows and human burials; dispersed Bronze Age/Early Iron Age settlement remains; Iron Age and Roman farmsteads, and medieval and post-medieval field systems.

- 2.2. The closest investigations to the development site were those undertaken in advance of the construction of the A5–M1 Link Road (specifically Sites D, G and M; Brown 2020) and Bidwell West housing development (specifically Parcel L; MOLA 2022 and CA 2018, 2022, 2023 and forthcoming a (Figs 2 and 5). The following section provides a summary of this information and the archaeological background of the wider area.

A5–M1 link road archaeological works

- 2.3. In 2007 an archaeological evaluation comprising a geophysical survey (NA 2008a) and trial-trench evaluation (NA 2008b) was undertaken within the Bidwell West Employment Site and immediately to the north of the site along the route of the A5–M1 Link Road. Trenches were excavated along the scheme footprint followed by mitigation works undertaken in 2014 and 2015 in advance of construction of the road. Of particular note was the archaeological excavation of sites D, G, and M situated at the western end of the road corridor, and immediately north, west and south of the development site, and Parcel L which directly borders the site to the north (Brown 2020 and MOLA 2022) (sites D and G and Parcel L, see Fig.5).
- 2.4. Archaeological excavations at site M revealed a Middle to Late Bronze Age boundary in the form of a pit alignment, comprising 22 north-west/south-east aligned pits (Brown 2020).
- 2.5. At site D a series of Early Iron Age pits and Middle Iron Age ditches were revealed (Brown 2020). These formed a series of enclosures or fields to the south of a contemporary settlement identified at site G, which was defined by dispersed unenclosed roundhouses, pits and postholes. This settlement developed in the later Middle Iron Age into an enclosed settlement comprising rectilinear enclosures and field boundaries (Brown 2020).
- 2.6. Roman remains were also discovered along with a rectilinear field system within Parcel L (MOLA 2022 and Brown 2020).

Bidwell West – evaluation and AIW investigations

- 2.7. Between March and April 2014 Cotswold Archaeology undertook a trench-based evaluation of the wider Bidwell West development (CA 2014b). This was preceded by a geophysical survey that identified a range of anomalies pertaining to ditches, pits and enclosures (PCG 2014). Evidence for human activity was identified on the site, ranging from the Early Neolithic to the post-medieval periods. Following on from the evaluation works, archaeological excavation was undertaken in a number of areas within the Bidwell West development.
- 2.8. No archaeology pre-dating the Bronze Age was identified in the development area, but Neolithic pits were discovered at Puddlehill quarry, approximately 1.2km south-east of the site (HER687; CA 2014b; Fig. 2). A Bronze Age pit alignment, along with scattered Iron Age and Roman features including pits, ditches and an isolated

cremation burial were recorded (CA forth. a). Iron Age settlement and activity has been identified along the northern edge of the greater development area, predominately to the north of Thorn Road and within the footprint of the A5–M1 Link Road (Brown 2020). A series of Iron Age enclosures and roundhouses were recorded within Parcel L to the north of the site, along with pit clusters of the same date (MOLA 2022). Similarly, an Iron Age ditch system comprising several enclosures, ditches and associated pits was located near the junction of Thorn Road and Watling Street (HER18290; CA 2014b; Fig. 2). A similar settlement, which also featured the remains of Romano-British activity, was encountered c.600m to the north-east, near Thorn (HER16541; CA 2014b; Fig. 2).

- 2.9. A previously unknown Roman settlement was discovered during the 2014 evaluation, in a small field to the east of Thorn Spring, along with likely Roman agricultural ditch systems near the eastern edge of the greater development area (CA 2014b). Additionally, a large amount of Roman activity in the form of enclosure ditches, field systems, and pits was identified during an evaluation (IA 2017) and subsequent archaeological works at Bury Spinney (CA 2022).
- 2.10. Excavations at Bidwell West Plots H and I and Bidwell West (CA 2023 and forthcoming a), located approximately 1.2km west and 800m north-west of the site respectively, have produced further evidence for Iron Age, Roman and medieval settlement. These remains included pits, enclosure ditches and post-built structures.
- 2.11. The site of the medieval hamlet of Thorn (HER16888; Fig. 2) is located at the northern end of the Bidwell West development. The Scheduled remains of a moated site constructed in the 12th–13th centuries are located at Thorn Spring (HER140; NHLE 1013519; Fig. 2), c.230m to the north-east of the site of the former hamlet. The remains of an exterior bank survive in part, while traces of building platforms within the enclosure have also been recorded (CA 2018). A further possible moated enclosure has been identified to the south of Thorn Road, at Bury Spinney (HER147; Fig. 2).
- 2.12. Medieval and post-medieval field boundaries and the remains of ridge-and-furrow field systems were also identified across the greater development area, comprising blocks of parallel plough furrows on varying alignments (CA 2014b and 2022, and Brown 2020). Post-medieval activity within the Bidwell development site also comprises two quarries, one of which was served by a mineral railway (HER12255, HER 15318; Fig. 2), located on the chalk scarp in the southern part of the Bidwell

West development. Linear earthworks cutting through medieval ridge and furrow are recorded to the west of Thorn Farm (HER12268; Fig 2).

3. AIMS AND OBJECTIVES

3.1. The general objectives of the archaeological excavation were to:

- preserve the archaeological evidence contained within the site by record and to attempt a reconstruction of the history and use of the site;
- record the nature of the main stratigraphic units encountered;
- recover artefactual evidence to date any evidence of past settlement that may be identified;
- via a geoarchaeological and environmental sampling approach, gain evidence to model the past landscape and environment of the site and any change and transformation brought about by the settlement's inhabitants and natural events;
- to contribute to an understanding of the archaeological remains of the area with regard to local and regional research frameworks (see below); and
- more fully determine the nature of the Iron Age and Roman remains identified by the Link Road excavations and how they relate to other known areas of Iron Age and Roman settlement in the vicinity.

3.2. The broader aims of the project in terms of the landscape setting of the archaeological remains were to:

- consider the relationship between the Iron Age and Roman field systems and local centres of contemporary rural settlement, to identify changes in the pattern of land-use, so that agricultural practises can be characterised and compared against evidence from other sites in the region, which appear to show an increasingly sedentary pattern of settlement throughout the 1st millennium BC (Oake et al. 2007, 11; Medlycott 2011, 31).
- attempt to establish if there is a recognisable change in the pattern of land use during the transitional period between the Iron Age and Roman periods, and how these changes may relate to changes in the local pattern of settlement (Medlycott 2011, 31); and
- Relate the remains of the open field system (furrows) with the foci of local medieval settlement (particularly the site of the former hamlet at Thorn Farm and the moated site at Thorn Spring) to contribute to an understanding of the

pattern of agricultural land-use and land-holding in the area (Oake et al. 2007, 14; Medlycott 2011, 70)

3.3. The research objectives for the project were formulated with reference to the results of the evaluation (CA 2014), the results of the A5–M1 Link Road investigations (Brown 2020), and the research agendas and strategies outlined in the following documents:

- Medlycott, M (ed.), 2011. *'Research and Archaeology Revisited: a Revised Framework for the East of England'*, East Anglian Archaeology Occasional Papers **24**;
- the online East of England Regional Research Framework Review: Period Summary and Priorities Papers (<http://eaareports.org.uk/algaoeast/regional-research-framework>);
- Oake, M, Luke, M, Dawson, M, Edgeworth, M and Murphy, P, 2007. *'Bedfordshire Archaeology. Research and Archaeology: Resource Assessment, Research Agenda and Strategy'*, Bedfordshire Archaeological Council Monograph **9**;
- Brown, N and Glazebrook, J (eds), 2000. *'Research and Archaeology: a Framework for the Eastern Counties 2: Research Agenda and Strategy'*, East Anglian Archaeology Occasional Papers **8**; and
- Glazebrook, J (ed.), 1997. *'Research and Archaeology: a Framework for the Eastern Counties 1. Resource Assessment'*, East Anglian Archaeology Occasional Papers **3**.

3.4. The research objectives identified above have been refined as part of the post-excavation and reporting process with particular regards to *Research and Archaeology Revisited: A Revised Framework for the East of England* (Medlycott 2011) and the East of England Regional Research Framework Review Period Summary and Priorities Papers.

4. METHODOLOGY

4.1. The fieldwork followed the methodology set out within the WSI, with the location of the two excavation areas agreed with Martin Oake (CBCAA) informed by the preceding DBA (CA 2014a), geophysical survey (PCG 2014) and trial-trench evaluation (CA 2014b).

- 4.2. The site comprised two areas located in agreement with the CBCAA (Fig. 2); an excavation area to the north (Area B) and a programme of strip, map and sample excavation to the south (Area A):
- Area A (0.28ha): located to investigate late Iron Age/early Roman field boundaries; and
 - Area B (0.39ha): located to investigate a series of late Iron Age/early Roman enclosures.
- 4.3. The excavation and SMS areas were set out on OS National Grid co-ordinates using Leica GPS. Overburden was stripped from the excavation areas by a mechanical excavator fitted with a toothless grading bucket. All machining was conducted under archaeological supervision to the top of the natural substrate, which was the level at which archaeological features were first encountered.
- 4.4. Archaeological features/deposits were investigated, planned, and recorded in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*. Each context was recorded on a pro-forma context sheet by written and measured description. All discrete features (e.g. postholes and pits) were sampled by hand excavation by at least 50%. All linear boundary features were sampled by at least 5% and all linear features associated with settlement were sampled by at least 25%. All excavated sections through linear features were at least 1m wide. All archaeological features identified were recorded in plan using a Leica GPS.
- 4.5. Deposits were assessed for their palaeoenvironmental potential, and samples were taken in accordance with *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.
- 4.6. Artefacts were processed in accordance with *CA Technical Manual 3: Treatment of Finds Immediately after Excavation*.
- 4.7. CA will make arrangements with the Culture Trust Luton for the deposition of the project archive and, subject to agreement with the legal landowner(s), the artefact collection. A digital archive will also be prepared and deposited with the Archaeology Data Service (ADS). The archives (museum and digital) will be prepared and deposited in accordance with *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (ClfA 2014; updated October 2020).

4.8. A summary of information from this project, as set out in Appendix N, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS

5.1. This section provides an overview of the excavation and SMS results which are discussed together by period; the majority of archaeological features were encountered in Area B and unless otherwise stated, the results below refer to these.

5.2. Detailed summaries of the recorded contexts are given in Appendix A. Details of the artefactual material recovered from the site are given in Section 6 and Appendices B-I. Details of the environmental samples (palaeoenvironmental evidence) and radiocarbon dating results are given in Section 7 and Appendices J-M.

5.3. Artefactual dating evidence, in combination with the result of previous archaeological excavations (Brown 2020, MOLA 2022, Fig. 5) indicate that the majority of the archaeological activity on the site dates to the Iron Age period, with some limited evidence of broader prehistoric (including two Early Bronze Age C14 dates) and post-Iron Age activity. Stratigraphic analysis of the features indicates six periods of activity:

- Geology and soils
- Period 1: Neolithic to Bronze Age (4000 BC – 700 BC)
- Period 2: Early Iron Age (700 BC – 400 BC)
- Period 3: Middle Iron Age
 - Phase 3.1 Middle Iron Age (400 BC – 100 BC)
 - Phase 3.2 Middle Iron Age (400 BC – 100 BC)
- Period 4: Late Iron Age (100 BC – AD 43)
- Period 5: Iron Age (700 BC – AD 43)
- Period 6: Roman (AD 43 – AD 410)
- Undated

Geology and soils

5.4. The natural geological substrate (layer 1002/2002) was consistent between Areas A and B and comprised a light-grey silty chalk. The natural substrate was sealed by a dark-greyish brown, clay-silt subsoil (layer 1001/2001). The subsoil was sealed in turn by layer 1000/2000, an agricultural plough soil.

- 5.5. Two undated tree throws were identified in Area B (Fig. 4). Tree throw 1575 measured 4.2m by 0.86m and had a depth of 0.34m. It was filled by a mixed dark greyish brown / mid-greyish brown silty clay. Tree throw 1616 measured 2.9m by 2m and had a depth of 0.2m. It was filled by a mid-greyish brown silty clay.

Period 1: Neolithic to Bronze Age (4000 BC – 700 BC; Figs 3, 6, 12 and 13)

- 5.6. Several isolated discrete features (pits 2011 (Area A), 1007, 1107 and 1250/1252 (Area B)) that were dispersed across the site contained prehistoric (probably Neolithic or Bronze Age) dating evidence.
- 5.7. A single sherd of prehistoric pottery was recovered from the upper fill of pit 2011 in Area A (Fig. 6, Section AA). Pit 2011 measured 0.61m by 0.55m and had a depth of 0.25m with a steep slightly concave profile and a flat base. Two mid-brown silty clay fills were the result of natural silting processes.
- 5.8. Pit 1007 (Fig. 6, Section BB) at the west of Area B measured 1.56m long by 1.25m wide and was 0.34m deep. The pit contained three fills, with two sherds of prehistoric pottery and animal bone present in the upper fill. One of the sherds probably represents a barrel-shaped jar of the Middle Bronze Age Deverel-Rimbury tradition (c.1700–1200 BC) (Fig. 12, A).
- 5.9. To the south-west of pit 1007 was pit 1107 (Fig. 6, Section CC), which contained a small sherd of early prehistoric pottery alongside a small sherd of late prehistoric pottery, a worked antler tool, probably a pick (Fig. 13) and several exceptionally large cattle bones that are likely to be from an aurochs (large wild cattle; Appendix H). The antler tool and an auroch bone returned C14 determinations of 1618-1506 cal BC (SUERC-110492, 95.4% probability) and 1619-1506 cal BC (SUERC-110493, 95.4% probability) respectively (Appendix M). Pit 1107 measured 1.41m long by 1.24m wide and was 0.63m deep.
- 5.10. The pit contained two fills, with the artefacts all recovered from the upper fill. Palaeoenvironmental sampling of this fill produced a small quantity of charred material comprising an indeterminate cereal and oat grain. The mixed assemblage of mollusc shells from open country, intermediate and shade-loving species indicated a well-established open environment, with some areas of longer grass and a suggestion of some woodland edge/hedgerow/scrub nearby.
- 5.11. Early prehistoric pottery and probable aurochs bones were also recovered from pit 1252 at the north-eastern boundary of the site. Pit 1252 (Fig. 6, Section DD)

measured 1.8m wide by 0.28m deep and cut into a smaller earlier pit (1250) which contained no artefactual material but is likely to be broadly contemporary in date. Mollusc shells recovered from a palaeoenvironmental sample of the upper pit fill also comprised a mix of open country, intermediate and shade-loving species. A small quantity of hazelnut shell fragments was also recovered from the sample.

Period 2: Early Iron Age (700 BC – 400 BC) (Figs 3, 4, 7, 8 and 12)

- 5.12. Early Iron Age occupation is represented by Ditches 1, 2 and 3 (Area B), Pit cluster 1 (Area A), and six dispersed pits (1113, 1191, 1247, 1264, 1320 and 1332) (Area B).

Ditch 1 (Figs 4, 8 and 12)

- 5.13. Ditch 1 (Fig. 8, Section GG) was 'L' shaped in plan and ran into Area A from the southern boundary in a north-east direction for 8.5m before turning to run 8.3m in a north-west direction before terminating. The ditch measured between 0.26m and 0.65m wide and between 0.27m and 0.4m deep, shallowing to approximately 0.16m deep towards the north-western terminal. The ditch profile exhibited steep sides with a shallow concave base. This ditch likely formed the corner of an Early Iron Age boundary. Pottery recovered from the ditch was primarily only broadly dateable to the Iron Age, although Early Iron Age material was present in the upper fill. The former included a sherd with an incised chevron decoration (Fig. 12, no. 5). Fired clay was also recovered from the fill.

Ditch 2 (Figs 4 and 8)

- 5.14. Ditch 2 (Fig. 8, Section HH), which probably formed a boundary, was visible extending for a distance of 10m on a north-east/south-west alignment before being truncated away entirely by Period 4 Enclosure 2 and probably had a full length of approximately 40m. The southern ditch terminus was visible extending beyond the edge of the south-west corner of Enclosure 2, approximately 40m to the south-west of the northern terminus. A possible recut (ditch 1566) was identified in the southern terminus, but the ditch was too heavily truncated at the northern end to determine if this originally continued along the entire length. Ditch 2 measured 0.4m wide at its widest point and exhibited a moderately sloped concave side along the visible south-eastern side and rounded concave base. It contained two fills, a primary fill of light-greyish brown sandy clay, overlain by a mid-greyish brown clayey silt. A small quantity of Early Iron Age pottery was recovered from the upper fill of the recut.

Ditch 3 (Fig. 4)

- 5.15. Curvilinear Ditch 3 was located inside the space enclosed by Ditch 1, along the south-western boundary of Area A; it measured 5.3m long and curved to the south-east. The ditch had moderately sloped concave sides and a rounded concave base. The ditch was filled by a blackish brown silty clay. Pottery of a broadly Iron Age date was recovered from this single fill, though a more refined date within the Iron Age period is not possible. Ditch 3 was truncated by the Period 3.1 Penannular ditch 1 and has a possible spatial association with Ditch 1, suggesting it could have been part of the Early Iron Age phase of activity, although it could also be Middle Iron Age in date.

Pit cluster 1 (Figs 3, 7 and 12)

- 5.16. Pit cluster 1 (Fig. 7, Section EE) was located in the western part of Area A and comprised large irregular pit 2040/2048 and pit 2036. The profile of pit 2040/2048 exhibited multiple breaks and undulations, indicating the presence of multiple pits intercut to form one large, irregular feature measuring 5.8m by 5.6m and 1.2m deep. Despite suggesting the presence of multiple pits, the feature contained relatively uniform fills throughout. The lower fill consisted of a light-greyish brown fine silty clay. This was overlain in places at the edge of the pit cluster by a dark-brownish grey silty clay. Sealing both fills was a mid-brownish grey fine silty clay. Pit cluster 1 was similar in form to several other pit clusters identified in the vicinity, which were interpreted as natural chalk clay (marl) extraction pits (Brown 2020, MOLA 2022).
- 5.17. Early Iron Age pottery was recovered from the middle and upper fills of the pit. Diagnostic sherds included a carinated bowl (Fig. 12, no. 9), round shouldered jar with flat-topped upright rim (Fig. 12 no. 10) and two lug handled vessel fragments (Fig. 12, no. 7–8). Also present was a sherd decorated with an impressed 'rosette' motif, comprising four annulated impressed dots (Fig. 12, no. 6) for which there are no known close comparisons. The animal bone assemblage from the pit cluster was consistent with the deposition of food waste rather than butchery by-products, e.g., several right cattle radii from at least five animals from the upper fill, which implies that the remains of several shoulder joints, indicating the consumption of a large quantity of meat, were present.
- 5.18. Immediately north-west of pit 2040 was pit 2036. The pit measured 2m by 2.6m, was 0.6m deep, and contained four fills. The lowest fill consisted of a dark brown compact clay. This was overlain by two fills, consisting of a light-greyish brown chalky clay. Overlying these was a mid-grey chalky clay. The final fill of pit 2036 was a dark

greyish-brown silty clay. All fills exhibit characteristics of natural infilling and slumping. Four small fragments originating from the bow and head of an Early Iron Age bow brooch were recovered from fill 2037 alongside animal bone.

Discrete features (Figs 4, 7 and 12)

- 5.19. In Area B six dispersed pits of unclear function were identified (1113, 1191, 1247, 1264, 1320 and 1332). The pits had no discernible pattern and were located on both sides of Ditch 2. The pits varied in length between 1.56m and 0.61m and in width between 1.25m and 0.55m. The maximum and minimum depths were 0.34m and 0.05m respectively. Notable amongst these features was pit 1332 (Fig. 7, Section FF), from which a complete, but fractured, Early Iron Age pot (Ra. 6, Fig. 7) was recovered. The pot almost entirely filled the cut, lining its base, and appears to represent a placed deposit. The pot was block lifted and returned to CAs offices for excavation and paleoenvironmental sampling which revealed that it contained a dark brown grey silty clay fill from which a small quantity of charcoal and burnt animal bone was recovered.
- 5.20. Other notable finds from the pits included a sherd from a jar with fingertip decoration from pit 1264 (Fig. 12, no. 12) and an exceptionally large, poorly preserved cattle vertebra fragment in pit 1113. The fragment was similar in condition and size to other bones found on the site that are likely to be from wild cattle (aurochs) but was too fragmentary to be definite. The early Iron Age pottery recovered from the fill suggest that if the bone was that of an aurochs it was potentially incorporated into the pit fill as residual material, which may explain the poor preservation.
- 5.21. Palaeoenvironmental samples from several of the discrete features (pits 1247, 1320 and 1332), as well as Pit cluster 1 and Ditch 3, produced sparse plant remains including those of barley, hulled wheat and oat/brome grass and a range of open country, intermediate and shade-loving mollusc species.

Period 3: Middle Iron Age (400 BC – 100 BC) (Figs 4, 5, 9, 10, 12)

- 5.22. The pottery excavated from Period 3 features was typically of fairly broad Iron Age date but the stratigraphic relationships of the features and their association with features previously excavated on surrounding sites (Brown 2020, MOLA 2022; Fig. 5) means they can be sub-divided into two phases: Phase 3.1 Middle Iron Age 1 and Phase 3.2 Middle Iron Age.

Phase 3.1 (Figs 4, 5 and 9)

- 5.23. Phase 3.1 occupation in Area B is represented by the partial remains of two previously identified enclosures (Parcel L, MOLA 2022) which extended into the site (Enclosure 1 and Ditch 4; Figs 4 and 5). Additionally, two large ovoid pits are associated with this phase of occupation.

Enclosure 1 (Figs 4 and 9)

- 5.24. Enclosure 1 (Fig. 9, Section II), which comprised the south-eastern section of a sub-square enclosure, was located along the north-western boundary of Area B. The majority of this feature was uncovered during previous archaeological works by MOLA (2022, Parcel L; Fig. 4). The current section of the enclosure measured between 1.9m and 3m wide, had a maximum depth of 0.85m and contained only naturally derived fills.
- 5.25. Animal bone and pottery of a broad Iron Age date and Middle to Late Iron Age date was recovered from the fills, including two sherds from vessels that are common amongst Middle Iron Age assemblage in the Bedfordshire region (Appendix B, Fig. 12, nos. 14 and 15). The animal bone assemblage included the articulated vertebrae and pelves of an adult cow, representing possible butchery waste, and implying the disposal of a group of bones at an early stage of carcass reduction (Appendix K).
- 5.26. Also recovered from a middle fill of the ditch were fragments of an adult human cranium and scapula. It is relatively common to find disarticulated human skeletal remains in the fills of ditches in the Middle Iron Age (Appendix J).
- 5.27. The previous investigations determined the feature was a relatively early one, possibly even extending back into the Early Iron Age, although phased by the presence of Middle Iron Age pottery in the recut (*ibid.*). Enclosure 1 was recut in Period 3.2 suggesting some longevity of use.

Ditch 4 (Figs 4 and 9)

- 5.28. Ditch 4 (Fig. 9, Section JJ) comprised a small section of ditch running north-west to south-east. The visible segment of the ditch measured approximately 2m and was truncated by Penannular ditch 1. The ditch measured between 0.44m and 0.67m wide and appears to be the continuation of a possible enclosure feature identified during previous works (*ibid.*). Datable material from Ditch 4 consisted of broadly Iron Age pottery, however stratigraphic relationships with earlier Period 2 Ditch 3 which it

truncates and later Period 3.2 Penannular ditch 1 which truncates it, suggest it relates to this phase of occupation.

Ovoid pits (Fig. 4)

- 5.29. To the north-east of Ditch 4 lay two parallel elongated oval pits (1354 and 1606) both of which contained Middle to Late Iron Age pottery, as well as residual prehistoric pottery in pit 1354. The westernmost pit (pit 1606) truncated earlier Period 2 Ditch 1 and was in turn truncated by the later Period 3.2 Penannular ditch 1. Pit 1354 is phased by spatial association. Pit 1606 truncated pit 1354 and also either cut into or was a recut of an earlier pit (1352) which did not extend as far as the Penannular ditch 1. The function of these pits is not clear, but their location suggests they may have been associated with the use of the enclosure formed by Ditch 4.
- 5.30. Ovoid pit 1352 measured 0.5m wide and 0.28m deep, though the full extent of the feature is unknown. The possible re-cut, 1606, measured 4m by 1.25m and 0.4m deep. Ovoid pit 1354 measured at least 0.3m wide and 0.39m deep. The pits typically had steep, convex sides and rounded bases.

Phase 3.2 (Figs 4, 9, 10 and 12)

- 5.31. During Period 3.2 Enclosure 1 was recut and Penannular ditches 1, 2 and 3 were established. The penannular ditches probably represent roundhouse eavesdrip gullies. Three small internal pits are possibly associated with this phase of use of Enclosure 1. Whilst several internal features were present within Penannular ditches 1 and 2, these were either undated or only broadly Iron Age in date so cannot be definitively attributed to this period of occupation and are discussed as part of the broad Iron Age phase below (see Period 5). A ditch (Ditch 13) at the south-west of the site is related to the Middle Iron Age occupation, although it is unclear which phase it is associated with and so is phased as part of the more intensive Period 3.2 occupation.

Enclosure 1 recut (Figs 4, 9 and 12)

- 5.32. The Enclosure 1 re-cut (Fig. 9, Section II) was shallower than the primary enclosure ditch, with a maximum depth of 0.38m, and was cut on the inner edge of the original enclosure ditch indicating that the enclosure reduced in size over time. Middle to Late Iron Age pottery, including a sherd from a vessel common amongst Middle Iron Age assemblages in Bedfordshire (Appendix B, Fig. 12, no. 13) was recovered from the natural silt fills of the ditch.

Enclosure 1 pits (Fig. 4)

- 5.33. Pits 1050, 1054 and 1080 were located along the internal edge of Enclosure 1 and although the exact function is unclear, they are likely to be associated with the use of the enclosure. No dating evidence was present in any of the pits so they could possibly be associated with the Period 3.1 use of the enclosure instead. The pits measured between 0.74m and 0.4m long and between 0.7m and 0.4m wide and were 0.15m deep on average. All contained a single naturally-derived fill.

Penannular ditch 1 (Figs 4, 9 and 12)

- 5.34. Penannular ditch 1 (Fig. 9, Section JJ), which was located at the south of the site, truncated earlier Period 3.1 pit 1606 and was truncated by the later Period 4 Ditch 5 and Enclosure 2. The ditch measured approximately 12.5m in diameter, with a south-east facing entrance. It was between 0.43m and 0.94m wide with an average depth of 0.26m and had moderately sloped, rounded concave sides and a rounded concave base.

- 5.35. In the northern portion of the ditch a thin primary fill was present, comprising a light-grey silty clay representing an initial slumping or erosion fill following the initial digging of the ditch. Over this, and present throughout the remainder of the feature was a secondary fill of dark-greyish brown silty clay. A moderate assemblage of artefactual material was recovered from the ditch; datable finds from the upper fill included both Early Iron Age and Middle to Late Iron Age pottery (Fig. 12, no. 16), the former likely residual in nature. Other material recovered from the ditch included animal bone and slag. Sparse quantities of charred plant remains, which included barley grains, oat/brome grass seeds and hazelnut shell fragments, were recovered from palaeoenvironmental samples from the ditch fills.

Penannular ditch 2 (Figs 4 and 10)

- 5.36. Penannular ditch 2 (Fig. 10, Section KK) was located 8m to the east of Penannular ditch 1. The ditch measured approximately 9.8m in diameter, between 0.2m and 0.5m wide, with an average depth of 0.11m. The ditch contained a single fill of light-brownish grey silty clay. An entrance measuring approximately 6m was present to the south-east. Artefacts recovered from the ditch comprised a small quantity of broadly Iron Age pottery and animal bone. The palaeoenvironmental samples from this ditch produced similar assemblages to those seen in Penannular ditch 1 and comprised barley grains, oat/brome grass seeds and hazelnut shell fragments.

Penannular Ditch 3 (Figs 4 and 10)

5.37. Penannular ditch 3 (Fig. 10, Section LL) was located 10m to the south-east of Penannular ditch 2 and was truncated by later Period 4 Enclosure 2. This ditch had two opposing entrances facing broadly east and west. The western entrance measured approximately 4.25m but the eastern section of the ditch was impacted by later ploughing, resulting in the partial loss of the ditch and the full extent of the entrance. The ditch measured approximately 12.5m in diameter and between 0.23m and 0.45m wide, with an average depth of 0.09m. It had moderately to gently sloped concave sides with a rounded concave base and contained a single naturally derived fill of mid-brownish grey silty clay. Due to truncation, it was not clear if the entrance was located to the north-west or north-east. Datable finds from Penannular ditch 3 consisted of a small quantity of broadly Iron Age pottery.

Ditch 13 (Fig. 4)

5.38. Ditch 13 was located at the south-west of the site and extended for a distance of approximately 7m on a north-west/south-east alignment before continuing beyond the site limits. Ditch 13 was not identified during the previous investigation (Brown 2020, Area D; Figs 4 and 5), so it probably did not originally extend much further. The ditch appeared to respect the terminus of the earlier Period 2 Ditch 2, suggesting it may possibly still have been visible in the landscape at this time. Ditch 13 measured 0.32m wide and between 0.11m and 0.07m deep. The ditch contained a single fill, with animal bone and slag recovered alongside a small sherd of Late Prehistoric pottery. Radiocarbon dating of a cattle tooth provided a Middle Iron Age date, 361–167 cal. BC (SUERC-109064, 95.4% probability).

5.39. Although Ditch 13 formed part of the Middle Iron Age occupation of the site, the lack of stratigraphic relationships means it is not evident which phase of the Period 3 activity it was associated with. The ditch has been phased as part of the Period 3.2 activity as this saw a more intensive occupation of the site, although the function of the relatively short ditch is not clear. Two undated ditches in close proximity (Ditches 14 and 15) were potentially associated with the use of Ditch 13 but due to a lack of dating material and stratigraphic relationships this is unclear, and they are phased as part of the undated activity (see below).

Period 4: Late Iron Age (100 BC – AD 43) (Figs 3, 4, 5 and 11)

5.40. Late Iron Age activity is represented by two pairs of ditches (Ditches 5 and 6, and Ditches 7 and 8, Area B) which predated rectilinear Enclosure 2. Other features

dating to this period of occupation comprised Pit Cluster 2, Post Structures 1 to 6 in Area B and Ditch 10 in Area A.

Ditches 5 and 6 (Fig. 4)

- 5.41. Parallel Ditches 5 and 6 were located to the north-west of Penannular ditch 1 (which Ditch 5 truncated) and appear in plan to represent two arms of a small sub-square open sided enclosure. Alternatively, the south-eastern extent may have been demarcated by a feature that has left no archaeological trace, such as a hedgerow or fence line. The ditches were truncated by Enclosure 2, which would have removed any potential continuation between them, so it remains unclear if they were associated, however their shared morphology suggests they were probably part of a larger feature. Pottery of broadly Iron Age date was recovered alongside animal bone in both ditches, and in addition, Middle to Late Iron Age pottery was recovered from Ditch 5.
- 5.42. Ditches 5 and 6 extended approximately 7.3m before terminating. Both ditches exhibited steeply sloping concave sides and rounded concave bases with steeply rising termini.

Ditches 7 and 8 (Fig. 4)

- 5.43. Located to the north of the site, parallel north-west/south-east Ditches 7 and 8 were also truncated by Enclosure 2 and potentially formed a short trackway or similar feature.
- 5.44. Ditch 7 measured between 0.9m and 0.25m wide and had an average depth of 0.18m. The ditch was observed to become thinner and shallower to the south-east, with the overall depth reducing from 0.3m to 0.15m, suggesting that plough activity may have removed the upper portion of the ditch over time. The ditch had moderately sloping concave sides and a rounded concave base. To the north-west the ditch contained two fills. The earlier of these comprised a light-brownish grey silty clay. This was overlain by a mid-brownish grey silty clay that continued for the full length of the ditch. Animal bone was recovered from the upper fill but no dateable artefacts.
- 5.45. Like Ditch 7, the dimensions of Ditch 8 varied considerably, becoming thinner and shallower towards the south-east. Ditch 8 measured between 1.1m and 0.4m wide and between 0.44m and 0.2m deep. The sides of the ditch were moderately sloped with a rounded concave base. In the north-west the ditch yielded two fills. The lower of these fills comprised a light-brownish grey silty clay. This was covered by a mid-

brownish grey silty clay that extended south-east throughout the rest of the ditch, becoming the only fill. Pottery recovered from Ditch 8 was of broad Iron Age date.

Enclosure 2 (Figs 4 and 8)

- 5.46. Rectangular Enclosure 2 (Fig. 8, Section HH) represents the north-west, south-east, and south-west arms of an enclosure ditch exposed during previous excavations (MOLA 2022). It is likely that the post-structures and the pit cluster, which were located internally, were contemporary with the enclosure.
- 5.47. In the north-west the ditch exhibited moderate to steep convex sides with a narrow concave base. This shape was mirrored in the south-west section of the enclosure. Widths for these sections varied between 2m and 3.8m, with depths from 1.15m to 1.28m. The south-eastern section of the enclosure measured between 2.2m and 2.7m wide and 0.95m to 1m deep. Along this section the sides were moderately sloped with and a rounded concave base.
- 5.48. Fill sequences across the enclosure were varied in character consisting primarily of natural infills and slumping, some of which were only present in isolated locations. The slumping fills do not provide any indication of an internal or external bank. Of note, was the lower fill, which comprised a dark-greyish brown silty clay, exhibiting a more organic characteristic than other fills encountered along the length of the enclosure. A small quantity of burnt animal bone recovered from this fill is possibly suggestive that the fill incorporated dumped material. Finds from Enclosure 2 consisted of both broadly Iron Age pottery, in addition to more securely dated Middle to Late Iron Age pottery recovered from a lower fill. Industrial waste fired clay and an intrusive sherd of 9th to 11th-century St-Neots-type ware were also recovered. The animal bone assemblage from the enclosure included both red and roe deer and goose; it is possible that they were discarded at an early stage of carcass processing (Appendix K).

Pit cluster 2 (Figs 4 and 11)

- 5.49. Located to the south-east of Area A, north-west of the internal edge of Enclosure 2 was a series of intercut pits (Fig. 11, Section MM). These pits (1486/1502, 1507, 1509, 1516) were cut in a linear series running north-east to south-west. The pits were all roughly oval in shape and varied in size from 2m by 1m to 1.2m by 0.65m. The depths of the pits also varied, with the shallowest (Pit 1507) measuring 0.37m deep and the deepest (Pit 1516) measuring 1.05m deep. The majority of the fills were natural silting or slumping, with the exception of two upper fills from Pit 1516, which

exhibited evidence of deliberate dumping. As the latest pits in the series, they may have been deliberately levelled following their disuse.

- 5.50. The pits varied in size, shape and profile; however, the profile of pit 1516 was similar to that of a typical Iron Age grain storage pit, with steep sides and a flat or slightly concave base, so it is possible it may have been used for storage although no evidence for this was recovered from the fill. Artefacts recovered from the pits comprised broadly Iron Age-dated pottery, a small quantity of Middle to Late Iron Age pottery, animal bone, slag and a Roman *tessera* of banded quartzite that is almost certainly intrusive. A moderate number of hazelnut shell fragments and a barley grain were recorded from pit 1509 and a single hazelnut shell fragment from pit 1516. The small to moderate mollusc assemblages recorded from these samples included a range of open country, intermediate and shade-loving species indicative of a well-established open landscape, with some areas of longer grass in the vicinity of the pit cluster.

Post structures 1 to 7 (Figs 4 and 11)

- 5.51. Located internally to Enclosure 2, and discernible from amongst the numerous dispersed postholes, were seven possible four-post structures (Post structures 1 to 7), which shared the same broadly north-east/south-west alignment as the enclosure. Although dating evidence from the structures was all broadly Iron Age in date, the location within Enclosure 2, which did not contain many other contemporary features, and the fact that Post structure 6 truncated the Period 3.2 Penannular ditch 2 suggest that they are associated with this phase of use. Four-post structures identified at Site G were also all Late Iron Age in date (Brown 2020).
- 5.52. Three had an internal area of 2.1m by 1.8m and comprised three postholes (1327, 1385 and 1409) although it is possible that a further posthole may have been more ephemeral and has been lost to subsequent ploughing. The postholes were all broadly circular in plan with diameters of between 0.3m and 0.36m and an average depth of 0.34m, and all contained two fills. Broadly Iron Age dated pottery and a large quantity of ironworking slag, which had probably been used as a packing material, were recovered from posthole 1385 (Fig. 11, Section NN). The only other dating evidence was a sherd of late prehistoric pottery in posthole 1409 and a residual leaf-shaped flint arrowhead in posthole 1327. Moderate quantities of slag were also recovered from posthole 1409 and may also have been utilised as packing material.

- 5.53. Post structure 2 had an internal area of 2.5m by 2.9m and comprised four sub-circular postholes (1336, 1339, 1358 and 1376) with diameters of between 0.48m and 0.42m and depths of between 0.21m and 0.16m. Secondary fills were present in postholes 1336 and 1376, the other two contained only a single fill. No dating material was present in any of the fills.
- 5.54. Post structure 3 had an internal area of 1.5m by 2.3m and comprised four sub-circular postholes (1171, 1173, 1175 and 1177) all of which contained a single fill. The postholes had diameters of between 0.26m and 0.14m and measured between 0.15m and 0.05m deep. No artefactual material was recovered from the fills.
- 5.55. Post structure 4 had an internal area of 2.5m by 1.3m and comprised four postholes (1179, 1181, 1183 and 1187) which also only contained single fills. The postholes measured between 0.42m and 0.27m wide and between 0.13m and 0.07m deep. Pottery that was only broadly dateable to the Iron Age was recovered from the fills of postholes 1179 and 1187.
- 5.56. Post structure 5 had an internal area of 2m by 2.2m and comprised three sub-circular postholes (1197, 1216 and 1218) although as with Post structure 1, it is possible that a further posthole may have been lost to ploughing. The postholes all contained a single fill and measured between 0.63m and 0.38m wide and between 0.27m and 0.21m deep. Broadly Iron Age dated pottery was recovered from the fill of posthole 1197.
- 5.57. Post structure 6 had an internal area of 2.3m by 1.2m and comprised four sub-circular and sub-oval postholes (1195, 1228, 1230 and 1236) which all contained a single fill. The postholes measured between 0.58m and 0.38m wide and between 0.28m and 0.15m deep. No artefactual material was recovered from any of the fills.
- 5.58. Post-structure 7 had an internal area of 2m by 1.3m and comprised three sub-oval postholes (1266, 1268 and 1296) which all contained a single fill. The postholes measured between 0.35m and 0.27m wide and between 0.25m and 0.18m deep. No artefactual material was recovered from any of the fills.

Ditch 10 (Figs 3 and 11)

- 5.59. Located in the southern part of Area A was Ditch 10 (Fig. 11, Section OO) which formed the continuation of a north-east/south-west boundary ditch that was identified in previous works (MOLA 2022 and Brown 2020, Fig. 5). Ditch 10 measured approximately 1.3m wide and 0.49m deep. It had steep sides and a concave base.

No datable artefacts were recovered from the fills, however the boundary ditch, which was truncated by a Roman field system, was determined to be late Iron Age in date during the previous work (*ibid.*).

Period 5: Iron Age (700 BC – AD 43) (Figs 4 and 12)

- 5.60. Located across the site were numerous features that contained artefactual material that could only be broadly dated to the Iron Age. These features largely lacked stratigraphic relationships that could assist with more refined phasing and are discussed as one group here. The features could relate to any of the previously discussed periods, although it is perhaps more likely that the majority are associated with the more intensive periods of activity in the Middle Iron Age phase 2 (Phase 3.2) and the Late Iron Age (Period 4). Given the relative lack of activity predating and post-dating the Iron Age occupation it is also likely that many of the undated features are also Iron Age in date (see Undated below).
- 5.61. A total of 28 dispersed pits, postholes and short ditch segments of unclear function were identified across the site, including three pits located within Penannular ditch 1 (1368, 1414 and 1417) which could be associated with the use of the building and a group of features near Penannular ditch 3 (1243, 1312 and 1567) which are either associated with the use of the ditch or the Period 3.2 Pit cluster 2.
- 5.62. Two pits (1043 and 1243) contained Middle to Late Iron Age pottery, so do not date to Period 2, but could relate to any of the Period 3 or 4 activity. Two pits (1368 and 1571) contained broadly late prehistoric pottery but are likely to be Iron Age in date given the absence of Bronze Age activity on the site. A small circular pit located outside Penannular ditch 1 (1543) was initially thought to be a cremation burial but upon identification the bone was found to be animal rather than human. This bone was recovered from a single mid grey brown silty clay fill and was found alongside pottery of Iron Age date and charred plant remains and cereal grains including a barley grain, emmer grain and glume base fragments.
- 5.63. Diagnostic pottery sherds, typical of Middle Iron Age assemblages were amongst the material recovered from pit 1043 and posthole 1243 (Appendix B, Fig. 12, nos. 1-3 and 11). Fragments of a copper alloy strip were also recovered from pit 1043 along with burnt animal bone. Pit 1043 also produced small numbers of charred plant remains, including barley, emmer grain and hulled wheat.

- 5.64. Sub-oval pit 1355 contained no dating evidence but produced an environmental assemblage suggestive of an Iron Age date. The recovered cereal remains included those of barley, emmer wheat and hulled wheat. Other remains included species found in arable environments and often brought in with the crops. The lack of spelt wheat in the assemblage (the dominant wheat in the Roman period) suggests it is likely to be associated with the Iron Age activity than the Roman or later activity on site (Appendix L). A red deer skull, which had both antlers removed, was also recovered from the lowest fill (Appendix K).

Period 6: Roman (AD 43 – AD 410) (Figs 4, 5, 8 and 12)

- 5.65. Field System 1 (Fig. 8, Section HH) forms the north-west corner of a Roman rectilinear field system, its full extent revealed during previous archaeological investigations to the east and south-west (Brown 2020, MOLA 2022, Fig. 5). This section directly links different ditches that were previously phased as Later Middle Iron Age and Roman, indicating they are in fact all part of the same Roman field system. The ditch exhibited moderate concave sides and a rounded concave base and was between 0.55m and 0.4m wide with an average depth of 0.2m. The ditch contained up to two silty clay fills. Finds from these fills dated broadly to the Iron Age, however these are likely to be residual having originated from the more substantial Iron Age occupation that the ditch cut through and include a sherd from a Middle Iron Age jar (Fig. 12, no. 4).
- 5.66. Part of the field system ditch had been recut on the south-western edge by Ditch 12 which measured 0.23m wide and between 0.2m and 0.11m deep. No artefacts were recovered from the single fill of the recut.
- 5.67. The archaeological remains were truncated by a series of north-west/south-east plough furrows of medieval or post-medieval date. No artefactual material was recovered from the plough furrows.

Undated (Figs 3, 4 and 5)

- 5.68. A large number of undated discrete features were present across Areas A and B. With activity predating the Iron Age comprising a very small number of discrete features, and the Roman and medieval features limited to field system ditches and agricultural furrows, it is probable that the majority of the discrete features in Area B are also Iron Age in date.

- 5.69. Notable amongst the undated features in Area B (Fig. 4) were Ditches 14 and 15 which lay in close proximity to the terminus of the Period 2 Ditch 2 and the Period 3.2 Ditch 13. Ditch 14 appeared to respect Ditch 2 suggesting that it may have been visible in the landscape when Ditch 14 was dug. Ditch 14 measured 0.37m wide and 0.16m deep and contained a single sterile fill. Ditch 15 measured between 0.8m and 0.56m wide and 0.1m deep and contained up to two fills. No artefactual material was recovered from either ditch.
- 5.70. In Area A, Ditches 9 and 11 (Fig. 3) are likely to relate to the Iron Age boundary ditches or Roman field systems.

6. THE FINDS

- 6.1. Finds recovered are listed in the table below. Details are to be found in Appendices B to I.

Type	Category	Count	Weight (g)
Pottery	Late Prehistoric	832	8691
	Early Prehistoric	6	46
	Late Iron Age (transitional)/Roman	4	46
	medieval	1	13
	Total	843	8796
Lithics	Worked	7	43.9
CBM	All	1	3
Fired clay	All	10	
Stone	Burnt Stone	1	-
	<i>Tessera</i>	1	7
	<i>Total</i>	2	-
Metalwork	Copper alloy	4	-
Worked Bone	Tool	1	124

Pottery

- 6.2. A pottery assemblage of 843 sherds, weighing 8796g, was recovered, representing a minimum of 35 vessels (MNV). The majority of the group consists of late prehistoric handmade pottery (832 sherds, 8691g) with very small early prehistoric (6 sherds, 46g), Late Iron Age (transitional)/Roman (4 sherds, 46g) and medieval (1 sherd, 13g) groups. Much of the diagnostic material is suggestive of a date towards the end of the Early Iron Age into the Middle Iron Age (c. 500–200 BC). The presence, in only small quantities, of flint and sandy grog-tempered fabrics indicates that activity at the site probably didn't begin much before the start of the 6th century BC. The scarcity of Late Iron Age/Early Roman grog-tempered fabrics indicates that activity did not

continue much beyond the 2nd or 1st centuries BC. The dominance of jars in the assemblage would point towards domestic activity with most vessels probably used for food storage or preparation.

Lithics

- 6.3. A total of seven worked flints (43.9g) were recovered, which were all residual. Moderate edge damage was observed on all the flints and two of the artefacts were broken, which is consistent with redeposition. The small assemblage comprises five flakes, one notched flake and a fragmentary leaf-shaped arrowhead (recovered from Period 4 posthole 1327).

Ceramic building material

- 6.4. One fragment (3g) of ceramic building material (CBM) was recovered. The fragment is small and does not exhibit any diagnostic features, and as such close dating was not possible.

Fired clay

- 6.5. The fired clay assemblage comprises ten fragments, weighing 76g. One fragment from the lower fill of Period 2 ditch 1 (cut 1273) is vitrified. The remainder of the fired clay fragments do not exhibit any diagnostic features and are of uncertain date.

Stone

- 6.6. A total of two pieces of utilised stone were recovered comprising a fragment of burnt stone and a single *tessera*.

Metalwork

- 6.7. A total of four metal objects were recovered, all of which are copper alloy. One item within the assemblage is classified as a dress accessory, comprising small fragments of the bow and head of an Early Iron Age bow brooch recovered from Period 2 (Early Iron Age) pit 2036. Additional metal objects recovered from the excavation comprise a single coin (a 1949 sixpence, Ra. 1), a metal-detecting find from the topsoil and two unidentified objects. The assemblage represents a very small group of material, which reflects an ephemeral background 'spread' of objects which were likely discarded or lost.

Worked Bone

- 6.8. One antler tool, possibly a pick (124g) radiocarbon dated to 1618-1506 cal. BC (SUERC-110492, 95.4% probability; Appendix M) was recovered from Period 1 pit 1107. The object is broken and in poor condition, however it is possible to discern

that it is not well worn from use, and therefore may have been discarded soon after its manufacture. Antler was utilised for the manufacture of picks from the Mesolithic period through into the Bronze Age; however, the stratigraphic context of this example combined with scientific dating demonstrates that it was probably made, used and deposited at the end of the Early Bronze Age.

7. THE BIOLOGICAL EVIDENCE

7.1. Biological evidence recovered is listed in the table below. Details are to be found in Appendices J to L.

Type	Category	Count	Weight (g)
Animal Bone	Fragments	2336	20,935
Human Bone	Disarticulated	c. 30	-
Environmental Samples	Bulk soil samples	31	-

Animal bone

7.2. A total of 2336 fragments (20,935g) of bone was recovered from prehistoric, Iron Age and Roman features across the site. These comprise just over 1033 refitted fragments of animal bones and teeth, of which 386 could be identified to taxon. Due to the small assemblage the patterns in zooarchaeology are speculative. The lack of vertebrae and phalanges suggests that the animal remains largely relate to the deposition of food waste, and that butchery took place elsewhere. There was no evidence for craft-working waste or symbolic deposits, though some spatial patterning was evident with the disposal of larger bones in larger features and smaller bones in domestic features.

7.3. The assemblage included several exceptionally large cattle bones, which though fragmentary, are likely from aurochs (wild cattle), and therefore of Early Bronze Age date at the latest. Radiocarbon dating on one of these bones demonstrated that it dated to 1619-1506 cal BC (SUERC-110493, 95.4% probability; Appendix M). Due to the small number of wild cattle bones within the assemblage little could be deduced regarding their role in the Prehistoric activity occurring at the site.

7.4. A larger proportion of sheep/ goats in the late Iron Age assemblage implies an emphasis on wool production and/ or a preference for lamb and may relate to changes in use of this part of the settlement. The mix of perinates, sub adult and adult cattle in the early Iron Age is consistent with a self-sufficient economy where animals were bred, raised and worked and were not taken away from the site. A limited range

of tooth wear stages in the middle and late Iron Age phases implies a change in emphasis to animals culled at prime meat age. This is more typically observed on consumer sites, where animals were bought in for food, rather than being produced on site. When combined with the evidence for food waste it suggests that the site could have been used to dispose of animal remains bought in as good quality cuts of meat rather than the natural herd profile that might be expected in a self-sufficient economy.

Human Remains

- 7.5. Approximately 30 fragments of human cranium and two fragments of human scapula were recovered from Middle Iron Age ditch 1590 (Enclosure 1). Diagnostic features of the cranium fragments indicate they all belong to the same individual who was likely male. It could not be determined whether the scapula fragments belonged to the same individual. It was common for human remains to be deposited in the middle or upper fills of enclosure ditches during the Iron Age, which is consistent with the assemblage from this site.

Plant macrofossils and Molluscs

- 7.6. A total of 31 bulk soil samples (580 litres of soil) were processed from a range of features and deposits of mainly Iron Age date. The samples were taken with the intention of recovering environmental evidence of domestic or industrial activity on the site, as well as providing information on the nature of the settlement and surrounding landscape during the Iron Age. The assemblage provides little information on the range of crops and processing activities during the Iron Age, but evidence from posthole 1355 does provide some indication of small-scale crop processing in the vicinity. The range of weed seeds recorded on the site include species generally typical of grassland, field margins and arable environments, and there is some indication of the exploitation of local hedgerows, scrub or woodland edge environments used as a wild food source during this period.
- 7.7. The mollusc assemblage indicates a well-established open environment with areas of long grass and the potential for a small amount of woodland edge or hedgerow in the vicinity. There appears to have been seasonal flooding and desiccation on the site during the Late Iron Age.

8. DISCUSSION

8.1. The Bidwell West Employment Site encompassed two land parcels within a wider area that had been subject to several previous investigations (MOLA 2022, Brown 2020, Fig. 5). The excavation of these land parcels allowed for the remaining area of archaeological features associated with an Iron Age settlement to be exposed and recorded, including the direct continuation of several previously identified features. As documented in the wider area, the archaeological remains on the current site were nearly entirely Iron Age in date and represented several phases of occupation, with a focus on the Middle Iron Age extending into the Late Iron Age. A small number of earlier prehistoric features, including a pit from which probable Middle Bronze Age pottery was recovered, along with a pit containing an antler tool and aurochs bones radio carbon dated to the Early Bronze Age attest to transitory activity on the site during this period. Post-Iron Age remains were limited to elements of a Roman field system and medieval/post-medieval ridge-and-furrow cultivation.

Neolithic to Bronze Age

8.2. The small number of identified features pre-dating the Iron Age occupation indicate the site was subject to transitory activity during the prehistoric period. Located on relatively low lying ground near the headwaters of the River Ouzel, the site would have occupied a position within a landscape suitable for seasonal hunting during the Mesolithic and Neolithic periods, when activity was typically concentrated around upland areas and in river valleys (Oake *et al.* 2007, 9).

8.3. Previously, this transitory activity had only been evidenced in the immediate environs of the site by the recovery of two pieces of residual indeterminate flint work from the Parcel K and L investigation (MOLA 2022).

8.4. The recovery of a diagnostic Early Neolithic leaf-shaped arrowhead as a residual find from a later (Period 4) feature on the current site shows a human presence during this period, even though none of the identified prehistoric features can be closely dated. Other evidence of Early Neolithic activity in the area includes isolated pits identified during the Bidwell West evaluation just over 1km to the south-east of the current site (CA 2014b), at Land east of B5120, Houghton Regis, just under 2km to the east (CA 2019), and at the Parcel 21 Bidwell West site approximately 1.25km to the south-west (CA 2023), as well as multiple pits identified at Puddlehill Quarry (HER 687) approximately 1.2km south-east of the current site.

- 8.5. The faunal and environmental assemblages from pits 1107 and 1252 in Area B indicate a well-established open environment, with some areas of longer grass and a suggestion of some woodland edge/hedgerow/scrub nearby. The presence of aurochs bones radiocarbon dated to the 17th-16th centuries BC suggest a date no later than the end of the early Bronze Age for these features. The aurochs bones and the recovery of hazelnut shell fragments from pit 1252 could indicate the exploitation of the local landscape for a wild food resource. Similar assemblages were noted during the trial trenching (CA 2014b), during the evaluation at Houghton Regis (CA 2019) and at the Parcel 21 Bidwell West site (CA 2023) where they were associated with Neolithic pits. Pits 1107 and 1252 date to the end of Early Bronze Age period at the latest based on the presence of aurochs bones, including one from pit 1107 which produced a radiocarbon date of 1619-1506 cal. BC (SUERC-110493, 95.4% probability; Appendix M), so it is possible they could be broadly contemporary with this dispersed activity.
- 8.6. The antler tool, recovered from pit 1107, which produced a radiocarbon date of 1618-1506 cal. BC (SUERC-110492, 95.4% probability; Appendix M) features a large perforation at the end, possibly the fitting for a handle or haft. The lack of wear on the tool suggests it may have been discarded when the haft fitting broke, perhaps during or soon after its manufacture. Antler was utilised in the manufacture of picks from the Mesolithic period through into the Bronze Age (Barclay *et al.* 1999, 236) and an example of a perforated antler pick is recorded in the Devizes museum catalogue (Annable and Simpson 1964, Durrington G50 Bowl Barrow cat. 49. 38; 87). The function of these simple tools is still uncertain and they are variously referred to as axes, adzes, wedges and picks (Childe 1942; Baron et al 2016, 44). The recovery of the tool alongside aurochs bone also radiocarbon dated to the end of the Early Bronze Age demonstrates an Early Bronze Age date at the latest, for this activity.
- 8.7. It is likely that pit 1007, from which a probable sherd of a barrel-shaped jar of the Middle Bronze Age Deverel-Rimbury tradition was recovered, may represent the latest of the prehistoric pits. In the immediate environs of the site, isolated Middle to Late Bronze Age pits were identified at sites D, G, M and Q of the A5-M1 link road scheme. An undated, but possibly Bronze Age, pit alignment was also present at site M (Brown, 2020). Further afield, at site H of the same scheme, a group of 115 prehistoric pits and postholes included many with Middle to Late Bronze Age pottery (*ibid.*). Bronze Age pits were also identified at the Parcel 21 site approximately 1km to the north-east (CA 2023).

Early Iron Age

- 8.8. Pit cluster 1 in Area A and the dispersed small pits across the site are typical of the Early Iron Age activity seen in the vicinity during previous investigations, where the landscape was characterised by intercutting pit clusters (Brown 2020, MOLA 2022). These pit clusters probably represent temporary or intermittent activity, perhaps excavated to access the natural chalk clays (marls) which could have been used for a variety of purposes such as the construction of kilns/ovens and production of ceramic artefacts. Investigation at the Parcels K and L site (MOLA 2022) suggested that the pits were most likely excavated when the natural clays were required, with the preceding pit being backfilled as each new one was excavated. The uniformity of the fills in Pit cluster 1 were potentially caused by the primary silting of each pit whilst it was open, covered by a main backfill of the natural material upcast from the subsequent pit, causing a homogenous appearance to the individual pit fills. The fine silty clay upper fill is likely to represent a washed in silting material filling the top of the feature after its abandonment.
- 8.9. Pit clusters are not a common feature at Early Iron Age sites in Bedfordshire; examples are known at Chatteris, Cambridgeshire (OAE 2012; Atkins and Percival 2014) and Newport, Essex (MOLA 2016). Contemporary ditches were not recorded at either and it is possible that the ditches on the current site may relate to a subsequent phase of Early Iron Age activity (see below).
- 8.10. The artefactual assemblage of domestic waste recovered from Pit cluster 1 fits into the trend recorded in the previously identified features, where a much greater concentration of material was present in the five pit clusters at sites D and G than in the two pit clusters at Parcels K and L (over 1000 sherds of pottery and 229 animal bones compared to 35 sherds of pottery and 197 animal bones respectively). This suggests the former lay closer to the source of the waste material, although no evidence for a contemporary settlement was identified (MOLA 2022, 146). The assemblage from the current site of 96 sherds of pottery and 402 fragments of animal bone recovered from a single pit cluster, also suggests that Area A lay closer to the associated settlement. Alternatively, settlement features such as post-built roundhouses may have been ephemeral and lost to subsequent ploughing.
- 8.11. The presence, in only small quantities, of flint and sandy grog-tempered pottery fabrics indicates that activity at the current site probably didn't begin much before the start of the 6th century BC.

- 8.12. The Early Iron Age faunal assemblage from the current site provides some evidence about the nature of the economy of any associated settlement; cattle were the dominant species and the mix of perinates, sub adults and adults are consistent with a self-sufficient economy where animals were bred, raised and worked and were not taken away from the site. However, the recovered remains largely relate to the deposition of food waste, indicating that primary butchery did not take place on the current site, but may possibly have occurred in the wider environs or at the settlement at Site G. However, the inhabitants of such a settlement are likely to have practised a mixed economy, which included arable agriculture involving the production and consumption of crops such as spelt wheat and barley and may also have been involved in the manufacture and exchange of pottery and other tools.
- 8.13. The presence of the north-east/south-west boundary ditch and possible enclosure formed by Ditches 1 and 2 are notable, as only two very short stretches of ditch dating to the Early Iron Age have previously been identified in the immediate vicinity. The relatively small finds assemblages and lack of domestic occupation features could suggest a function as a stock enclosure; it is possible that the open north-west side could have been closed by a means which has left no trace in the archaeological record. The short ditch segment (Ditch 3) may have been an internal division.
- 8.14. These features could potentially represent the latest activity during this period, marking the start of a transition across the wider area towards the more highly defined and at least partly enclosed settlements of the Middle and Late Iron Age. It was noted during the previous works that the earliest phase of Middle Iron Age occupation in site G appeared to be in a less developed state than the settlement in Parcel L (and the current site), despite it going on to become the larger settlement in later periods (MOLA 2022). This could possibly suggest the settlement on the current site was established first.

Middle Iron Age

- 8.15. During the Middle Iron Age in Bedfordshire, settlement numbers increased in density commensurate with an increase in population (Oake *et al.* 2007, 63) although unlike at the current site, it was common for new settlements to be established in locations with no explicit evidence of earlier activity (*ibid.* 62). The higher ground on the sides of river valleys above the flood plain or woodland clearings were the preferred location for such sites. Situated close to the headwaters of the River Ouzel, the current site, and the associated settlement at site G, were in just such a location.

Middle Iron Age settlements located adjacent to, but above, the river flood plain, were also identified at Biddenham Loop, approximately 23km to the north (Luke 2008, 38).

- 8.16. Middle Iron Age settlement in south-eastern England has been characterised as dominated by open villages, large farms and hamlets not surrounded by a large bank and ditch and made up of varying numbers of round buildings, sometimes tightly focused and sometimes more dispersed (Hill 2007, 19-20). Such settlements were often demarcated on one side by a track, ditch or pit alignment and contained D-shaped stock compounds, clusters of pits and four-post structures (*ibid.*). Despite the increase in small-scale enclosure since the Early Iron Age, the settlement at Bidwell West, and more particularly the Employment Site can be seen to fit this pattern very well.
- 8.17. The features at Parcel L (Fig. 5), of which the current site was a continuation, formed a farmstead settlement focused on a sub-rectangular enclosure (Enclosure 1), accompanied by boundary ditches, two roundhouses, refuse pits and postholes. Additionally, pits identified at the eastern end of site G are likely to have been related to this farmstead, rather than the dispersed unenclosed settlement (comprising three roundhouses, a small sub-rectangular enclosure, and several pits) that was identified across the remainder of site G. At the south of the current site, Ditch 4 probably formed a continuation of or was associated with a stock enclosure identified during the excavations at site D.
- 8.18. A subsequent phase of Middle Iron Age occupation saw the expansion of site G into a partially enclosed settlement with extensive south-western and south-eastern boundary ditches containing five roundhouses, three enclosures, internal boundaries, pits, and postholes. At the Employment Site/ Parcel L site, Enclosure 1 was recut, and the previous roundhouses were replaced by two at the north of the site and three to the south (represented by Penannular ditches 1-3). One of the roundhouses at the north should have extended within the current site but appears to have been lost to subsequent ploughing. A larger artefactual assemblage was recovered from Penannular ditch 1, suggesting it might represent a main dwelling, with Penannular ditches 2 and 3 forming ancillary buildings. Alternatively, the roundhouses may all have had a non-domestic function, situated at the periphery of the farmstead. They could also have feasibly been successive replacements, in occupation at different times.

- 8.19. It was previously thought that the large sub-rectangular enclosure at the Parcel L site (Enclosure 2) was associated with this second phase of Middle Iron Age occupation, and in use at the same time as the recut of Enclosure 1, before falling into disuse and being re-established in the Late Iron Age. On the current site, the fact that Enclosure 2 truncated Penannular ditches 1 and 3, contained a small quantity of Middle to Late Iron Age pottery and also truncated Ditches 7 and 8 (which themselves cut into the recut of Enclosure 1) all indicated that Enclosures 1 and 2 were not in use contemporaneously.
- 8.20. However, it is possible that the original Middle Iron Age Enclosure 2 ditch recorded in the previous works was not identified on the current site due to regular cleaning out and the recut exactly following the course of the earlier ditch. If this was the case then Penannular ditches 1 and 3 (and potentially 2) would have been associated with the earlier phase of Middle Iron Age occupation, post-dating the use of Ditch 4 but predating the establishment of Enclosure 2.
- 8.21. Dating evidence from Enclosure 2 was often broad. Moderate quantities of Middle Iron Age pottery recovered from the earlier ditch on the Parcel L site and Middle to Late Iron Age pottery from the lower fills of the ditch on the current site make accurate phasing of the enclosure (and subsequently the penannular ditches) difficult. What is apparent however, is that the enclosure contained much less substantive evidence for domestic occupation as the unenclosed farmstead of the earlier phase of Middle Iron Age occupation.
- 8.22. This farmstead on the Employment Site/Parcel L site would have been occupied by an extended family group, separate to the people on site G, although the two probably formed part of a broader and closely linked community (MOLA 2022, 147). Evidence from the Parcel L excavation indicated that the Employment Site/Parcel L site appeared typical of agrarian settlements during this period. Farm stock, grain production and processing were all in evidence (MOLA 2022, 155). At the same time the settlement at site G was developing into a pastoral economy, with an emphasis on cattle husbandry (Brown 2020, 153).
- 8.23. The artefactual and ecofactual assemblages from the current excavation are consistent with these results. The dominance of jars in the pottery assemblage points towards domestic activity with most vessels probably used for food storage or preparation. Cattle continued to be the dominant species and were most likely kept for a mixture of meat and small-scale secondary products, such as dairy, traction and

breeding, however a change in emphasis from the Early Iron Age self-sufficient economy to animals culled at prime meat age was noted. This is a mortality pattern more typically observed on consumer sites, where animals were bought in for food, rather than being produced on site. It is possible that the current site, which formed the periphery of the farmstead, could have been used to dispose of the remains of animals brought in as good quality cuts of meat, possibly even from the settlement at site G.

- 8.24. There is an indication of some probable small scale crop-processing activity in the Iron Age, from posthole 1355. The few recovered weed seeds are indicative of grassland, field margins and arable environments, and there is also an indication of the exploitation of local hedgerows/scrub/woodland edge environments as a wild food resource during this period. Although the evidence for a specifically arable component to the economy in this period is small-scale, nevertheless there are indications of the increasing scale of economic activity and intensity of connections between communities in the Middle Iron Age as opposed to the preceding Early Iron Age, which is entirely typical of the region in this period (Hill, 2007, 23-24).
- 8.25. The recovery of fragments of an adult human cranium and scapula from the middle ditch fills of the original Enclosure 1 ditch, whilst notable as the only human remains from the site, represent part of a common Iron Age practice. The second most common location for deposition of human remains in the Iron Age is in enclosure ditches (Harding 2016, 108), primarily in the middle or upper fills. Similar remains were recovered at sites D and G of the A1-M5 link road scheme (Brown 2020) and it is increasingly evident that some human remains were curated in the Iron Age, and it is only their final deposition that we see archaeologically.
- 8.26. Several Middle Iron Age sites were located in the wider vicinity of the current site, including the probable continuation of a north-west/south-east boundary ditch previously encountered in Parcel L and site D that corresponds to a boundary ditch in the Thorn Turn Employment Site excavation (AA 2020). This ditch may have formed a substantial boundary between the settlement at the Parcel L/ Employment Site and the land to the south-west. Several roundhouses of Early to Middle Iron Age date, that were not considered likely to be domestic dwellings, were also identified at Thorn Turn (ibid.).
- 8.27. At Parcel K, 500m to the north-east, a small group of features, a curvilinear gully and a boundary ditch were probably Middle Iron Age in date and may have represented

outlying activity associated with a settlement located outside of the site boundaries (MOLA 2022). Artefactual material recovered from one of the pits provided evidence of metalworking, cloth manufacture, grain processing and possible craft working in the form of a fragment of a sawn-off red deer antler representing waste debris (ibid. 154). A red deer skull which had both antlers removed was recovered from the current site, although no conclusive evidence for craft working was identified.

8.28. At the Parcel 21 site, approximately 1km to the north-east, the remains dated to the Middle to Late Iron Age and included an isolated roundhouse or stock enclosure and associated rectilinear field system (CA 2023).

8.29. The Late Iron Age typically saw an increase in settlement density across the region (Oake *et al.* 2007, 66) and this is true of the environs of the site, where a new settlement was established at site Q of the A5-M1 link road scheme (Brown 2020). The settlement at site G expanded but the settlement at the Employment Site/ Parcel L site saw a reduction in the concentration of features, although no associated contraction in size.

Late Iron Age

8.30. Evidence from the current site would suggest that Enclosure 2 was established in the Late Iron Age, after several earlier Late Iron Age features had already fallen out of use (Ditches 5-8). However, when coupled with the results of the Parcel L investigation, the phasing of the enclosure is unclear and it may potentially have originated in the latter part of the Middle Iron Age. What is clear, is that with the exception of two short parallel ditches, all of the identified Late Iron Age features on the current site were contained within the enclosure.

8.31. The parallel ditches (Ditches 7 and 8) at the north-west corner of the site, appear in plan to resemble a trackway or driveway, although the short length indicates they probably didn't function as such. Whilst it is highly unlikely that nearly the full length of any trackway/driveway would be ploughed away leaving just these two short segments, it is worth noting that the alignment of Ditches 7 and 8 is mirrored by the entranceway into Enclosure 2, and the potential terminus of a broadly north-east/south-west boundary ditch at the south of the settlement (recorded as Ditch 10 in Area A). Although the function of Ditches 7 and 8 is not clear, it is possible that they were a relatively short-lived or temporary feature which quickly filled in and was truncated by the enclosure.

- 8.32. Also truncated by the enclosure ditch were the short parallel Ditches 5 and 6, which resemble two arms of a small sub-square open sided enclosure. If Enclosure 2 did originate in the preceding period, then it is possible that the original cut was utilised as the north-western arm. If Enclosure 2 was established in the Late Iron Age, then it is possible that it removed all trace of this side of the feature. Alternatively, the two parallel ditches may have been unconnected and served an unclear function.
- 8.33. Enclosure 2 itself had an internal area of approximately 2550 sqm and contained at least seven probable four-post structures and a pit cluster but no substantive evidence for domestic dwellings.
- 8.34. The slag recovered from Post structure 1, although probably utilised as packing material rather than originating on the site, indicates that smithing took place in the vicinity. The number of smithing hearth cakes suggest that this was a reasonably sustained activity (at least two weeks?) rather than a one-off occurrence.
- 8.35. Rectangular enclosures, containing one or two circular buildings and ancillary structures, are considered to be typical of small farmsteads in the Middle and Late Iron Age (Cooper 2006, MOLA 2022) and after c. 150BC settlement characterised by what appear be 'smaller units, or single farmsteads that were often enclosed' is considered typical of the region (Hill, 2007, 26). However, despite appearing in plan to represent an enclosed or defended settlement, Enclosure 2 is more likely to have been a large agricultural enclosure, as evidenced by the lack of internal domestic structures and the placement of a roundhouse outside of the enclosure (identified to the north-west during previous investigations). The roundhouse, which had been recut twice, indicating some longevity of use, contained a finds assemblage typical of Iron Age domestic dwellings. Whereas multiple dwellings, ancillary structures and small stock enclosures were present during the Middle Iron Age occupation, this single roundhouse was probably the only dwelling at the Employment Site/ Parcel L settlement during the Late Iron Age. Conversely, at site G, the settlement both expanded and became fully enclosed. New enclosures, one of which contained a roundhouse, internal partitions, pits and postholes, including at least seven four-post structures and a six-post structure, were established over the abandoned Middle Iron Age activity (Brown 2022).
- 8.36. There is little evidence for crop processing on the current site, just the assemblage from posthole 1355, but the presence of possible four-post structures which are typically associated with raised granaries would suggest that crop processing was

occurring nearby with the grain being stored inside the enclosure. A small number of charred grains were recovered from the enclosure ditch during the previous works. It is possible that the enclosure also had other agricultural functions which have left no trace.

- 8.37. The Employment Site/ Parcel L was situated on the lower part of the river valley side, where the ground would be wetter than at site G, especially with seasonal flooding, making ground suitable as meadowland (MOLA 2020). The mollusc assemblage from the current site indicates seasonal flooding and desiccation on the site during the Late Iron Age. However, the recovered aquatic molluscs were limited to the deeper features (Enclosure 2 ditch and the pit cluster).
- 8.38. The faunal assemblage from the enclosure included the remains of red deer, roe deer and a goose that may have been discarded at an early stage of carcass processing. Across the Late Iron Age features, cattle were slightly more common than sheep/goats, followed by pigs and equids. Whilst the primary butchery took place elsewhere it is evident that cattle were culled at prime meat ages and sheep/goat were also kept for one or two fleeces and culled at the optimum age for meat. The assemblage implies a greater emphasis on wool production and/ or a preference for lamb and may relate to changes in use of this part of the settlement. Taken together with the evidence for crop processing and storage, the faunal evidence is suggestive of a greater focus on accumulation of food resources (raised granaries) and the use of secondary products (wool) in the Late Iron Age, which may have related to a greater extent/intensity of social relationship and/or a greater concern with display and building community than seen in the Early and Middle Iron Age periods.
- 8.39. In the wider environs of the site, the settlement at the Parcel 21 site (CA 2023) was likely occupied into the Late Iron Age. An isolated roundhouse was identified at site Q of the A5-M1 link road scheme approximately 800m to the north-east (Brown 2020) and a boundary ditch at Parcel K (MOLA 2022). At the Houghton Regis North 1 site, a Late Iron Age/Early Roman farmstead was established, possibly in the early 1st century BC (Luke and Barker 2021) although the scarcity of Late Iron Age/Early Roman grog-tempered fabrics on the current site indicates that activity did not continue much beyond the 2nd or 1st centuries BC.

Roman and medieval

- 8.40. As evidenced in the previous investigations at site G and Parcel L, the two associated settlements were probably abandoned by the time of the Roman Conquest.

Subsequently a distinctive Roman rectilinear field system was established across the current site, site D and Parcel L. Dating evidence was scarce, but it was in place by at least the mid 3rd century AD (Brown 2020.) The section identified on the current site directly links different ditches that were previously phased as Later Middle Iron Age (on site D) and Roman (on Parcel L), indicating they are in fact part of the same Roman field system. An extensive rectilinear Late Iron Age/Early Roman field system at the Thorn Turn Employment Site excavation (AA 2020) is likely to be part of the same feature.

- 8.41. A series of north-west/south-east aligned medieval to post-medieval agricultural plough furrows cut across the earlier archaeology. The site is located in close proximity to the medieval hamlet of Thorn (HER16888) and a former extensive green to the south and east (HER12242), in the vicinity of Thorn Farm approximately 250m to the north-east. The medieval open field system evidenced by the ridge-and-furrow cultivation would have been associated with Thorn hamlet.

9. CA PROJECT TEAM

- 9.1. Fieldwork was undertaken by Dale Langford and Andrew Whelan, assisted by Eilidh Barr, Rory Bateman, Nick Botschin, Sian Bramble, Charlotte Brown, Sophie Byrne, Eduardo Cabrera, Marina Chorro-Giner, Bevan Cope, Trudy Craig, Gemma Deaney, Alex Foley, Mary Foulger, Frances Hall, Jake Hewson, Ildiko Kalnoky, Giorgios Karadimos, Kezia Kirkland, Mia Long, Georgina Matthews, Harry Mixer, Charley Morgan, Bethan Morgan, Liam O'Kelly, Charlotte Robbins, Kyle Rolph, and Callum Warr. This report was written by Dale Langford, Jessica Cook and Grace Griffith. The artefactual evidence reports were written by Jacky Sommerville, Ruth Shaffrey, Alex Bliss, Pete Banks, Laura Pearson, David Dungworth and Claire Collier. The biological evidence reports were written by Matilda Holmes, Sharon Clough and Sarah F. Wyles. The report illustrations were prepared by Ryan Wilson. The project archive has been compiled by Dale Langford and prepared for deposition by Molly Agnew-Henshaw. The project was managed for CA by Adrian Scruby and the post-excavation by Daniel Stansbie.

10. STORAGE AND CURATION

- 10.1. The archive is currently held at CA offices, Milton Keynes, whilst post-excavation work proceeds. Upon completion of the project, CA will make arrangements with the Culture Trust Luton (accession number: LUTNM 2019/55) for the deposition of the

site archive and, subject to agreement with the legal landowner(s), the artefact collection. The Culture Trust Luton has agreed in principle to accept the archive upon completion of the project.

- 10.2. A digital archive will be deposited with the Archaeology Data Service (ADS). This archive will be compiled in accordance with the ADS Guidelines for Depositors (ADS 2021).
- 10.3. The archives (museum and digital) will be prepared and deposited in accordance with *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (ClfA 2014b; updated October 2020).

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APPENDIX A: CONTEXT DESCRIPTIONS

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1000	Layer		Topsoil		
B	1001	Layer		Subsoil		
B	1002	Layer		Natural		
B	1003	Cut		Cut of pit	5	
B	1004	Fill	1003	Lower fill of pit	5	
B	1005	VOID		VOID		
B	1006	Fill	1003	Upper fill of pit	5	
B	1007	Cut		Cut of pit	1	
B	1008	Fill	1007	Lower fill of pit	1	
B	1009	Fill	1007	Middle fill of pit	1	
B	1010	Fill	1007	Upper fill of pit	1	
B	1011	Cut		Cut of pit	U	
B	1012	Fill	1011	Fill of pit	U	
B	1013	Cut		Cut of pit	5	
B	1014	Fill	1013	Fill of pit	5	
B	1015	Cut		Cut of pit	5	
B	1016	Fill	1015	Fill of pit	5	
B	1017	Cut		Cut of pit	U	
B	1018	Fill	1017	Fill of pit	U	
B	1019	Cut		Cut of pit	U	
B	1020	Fill	1019	Fill of pit	U	
B	1021	Cut		Cut of pit	U	
B	1022	Fill	1021	Fill of pit	U	
B	1023	Cut		Cut of pit	5	
B	1024	Fill	1023	Fill of pit	5	
B	1025	Cut		Cut of pit	U	
B	1026	Fill	1025	Fill of pit	U	
B	1027	Cut		Cut of pit	U	
B	1028	Fill	1027	Fill of pit	U	
B	1029	Cut		Cut of pit	U	
B	1030	Fill	1029	Fill of pit	U	
B	1031	Cut		Cut of pit	U	
B	1032	Fill	1031	Fill of pit	U	
B	1033	Cut		Recut of NE/SW ditch 1035	3.2	Enclosure 1 recut
B	1034	Fill	1033	Fill of ditch recut	3.2	Enclosure 1 recut
B	1035	Cut		Cut of NE/SW curvilinear ditch	3.1	Enclosure 1
B	1036	Fill	1035	Lower fill of ditch	3.1	Enclosure 1
B	1037	Fill	1035	Middle fill of ditch	3.1	Enclosure 1
B	1038	Fill	1035	Upper fill of ditch	3.1	Enclosure 1

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1039	Cut		Cut of posthole	U	
B	1040	Fill	1039	Fill of posthole	U	
B	1041	Cut		Cut of posthole	U	
B	1042	Fill	1041	Fill of posthole	U	
B	1043	Cut		Cut of pit	5	
B	1044	Fill	1043	Lower fill of pit	5	
B	1045	Fill	1043	Upper fill of pit	5	
B	1046	Cut		Cut of NW/SE ditch	6	Field System 1
B	1047	Fill	1046	Fill of ditch	6	Field System 1
B	1048	Cut		Cut of pit	5	
B	1049	Fill	1048	Fill of pit	5	
B	1050	Cut		Cut of pit	3.2	
B	1051	Fill	1050	Fill of pit	3.2	
B	1052	Cut		Cut of posthole	U	
B	1053	Fill	1052	Fill of posthole	U	
B	1054	Cut		Cut of pit	3.2	
B	1055	Fill	1054	Fill of pit	3.2	
B	1056	Cut		Cut of posthole	5	
B	1057	Fill	1056	Fill of posthole	5	
B	1058	Cut		Cut of pit	5	
B	1059	Fill	1058	Fill of pit	5	
B	1060	Cut		Cut of ditch	2	Ditch 2
B	1061	Fill	1060	Lower fill of ditch	2	Ditch 2
B	1062	Fill	1060	Upper fill of ditch	2	Ditch 2
B	1063	Cut		Cut of NE/SW ditch	4	Enclosure 2
B	1064	Fill	1063	Lower fill of ditch	4	Enclosure 2
B	1065	Fill	1063	Middle fill of ditch	4	Enclosure 2
B	1066	Fill	1063	Middle fill of ditch	4	Enclosure 2
B	1067	Fill	1063	Middle fill of ditch	4	Enclosure 2
B	1068	Fill	1063	Middle fill of ditch	4	Enclosure 2
B	1069	Fill	1063	Middle fill of ditch	4	Enclosure 2
B	1070	Fill	1063	Upper fill of ditch	4	Enclosure 2
B	1071	Cut		Cut of NE/SW ditch	6	Field System 1
B	1072	Fill	1072	Fill of ditch	6	Field System 1
B	1073	Cut		Cut of pit	5	
B	1074	Fill	1073	Fill of pit	5	
B	1075	Cut		Cut of posthole	U	
B	1076	Fill	1075	Fill of posthole	U	
B	1077	Cut		Cut of N/S curvilinear ditch	3.2	Enclosure 1 recut
B	1078	Fill	1077	Lower fill of ditch	3.2	Enclosure 1 recut
B	1079	Fill	1077	Upper fill of ditch	3.2	Enclosure 1 recut

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1080	Cut		Cut of pit	3.2	
B	1081	Fill	1080	Fill of pit	3.2	
B	1082	Cut		Cut of SE/NW ditch	4	Ditch 8
B	1083	Fill	1082	Lower fill of ditch	4	Ditch 8
B	1084	Fill	1082	Upper fill of ditch	4	Ditch 8
B	1085	Cut		Cut of pit	U	
B	1086	Fill	1085	Fill of pit	U	
B	1087	Cut		Cut of pit	U	
B	1088	Fill	1087	Fill of pit	U	
B	1089	Cut		Cut of pit	U	
B	1090	Fill	1089	Fill of pit	U	
B	1091	Cut		Cut of NW/SE ditch	4	Ditch 7
B	1092	Fill	1091	Lower fill of ditch	4	Ditch 7
B	1093	Fill	1091	Upper fill of ditch	4	Ditch 7
B	1094	Cut		Cut of pit	U	
B	1095	Fill	1094	Fill of pit	U	
B	1096	Cut		Cut of NE/SW gully	U	Ditch 15
B	1097	Fill	1096	Fill of gully	U	Ditch 15
B	1098	Cut		Cut of posthole	U	
B	1099	Fill	1098	Fill of posthole	U	
B	1100	Cut		Cut of NW/SE ditch	4	Ditch 8
B	1101	Fill	1100	Fill of ditch	4	Ditch 8
B	1102	Cut		Cut of NW/SE ditch. Same as 1109	U	Ditch 14
B	1103	Fill	1102	Fill of ditch	U	Ditch 14
B	1104	Cut		Cut of NE/SW ditch	U	Ditch 15
B	1105	Fill	1104	Lower fill of ditch	U	Ditch 15
B	1106	Fill	1104	Upper fill of ditch	U	Ditch 15
B	1107	Cut		Cut of pit	1	
B	1108	Fill	1107	Upper fill of pit	1	
B	1109	Cut		Cut of NW/SE gully	U	Ditch 14
B	1110	Fill	1109	Fill of gully	U	Ditch 14
B	1111	Cut		Cut of pit	U	
B	1112	Fill	1111	Fill of pit	U	
B	1113	Cut		Cut of pit	2	
B	1114	Fill	1113	Fill of pit	2	
B	1115	Cut		Cut of NE/SW gully	U	Ditch 15
B	1116	Fill	1115	Fill of gully	U	Ditch 15
B	1117	Cut		Cut of posthole	U	
B	1118	Fill	1117	Fill of posthole	U	
B	1119	Cut		Cut of pit	U	
B	1120	Fill	1119	Fill of pit	U	

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1121	Cut		Cut of pit	U	
B	1122	Fill	1121	Fill of pit	U	
B	1123	Cut		Cut of posthole	U	
B	1124	Fill	1123	Fill of posthole	U	
B	1125	Cut		Cut of NE/SW ditch	6	Field System 1
B	1126	Fill	1125	Fill of ditch	6	Field System 1
B	1127	Cut		Bioturbation		
B	1128	Fill	1127	Fill of bioturbation		
B	1129	Cut		Cut of NW/SE ditch	5	Ditch 13
B	1130	Fill	1129	Fill of ditch	5	Ditch 13
B	1131	Cut		Cut of NW/SE ditch	6	Field System 1
B	1132	Fill	1131	Lower fill of ditch	6	Field System 1
B	1133	Cut		Cut of NW/SE ditch	4	Ditch 8
B	1134	Fill	1133	Fill of ditch	4	Ditch 8
B	1135	Cut		Cut of NE/SW ditch	4	Enclosure 2
B	1136	Fill	1135	Fill of ditch	4	Enclosure 2
B	1137	Cut		Cut of NW/SE ditch	5	Ditch 13
B	1138	Fill	1137	Fill of ditch	5	Ditch 13
B	1139	Cut		Cut of ring ditch terminus	3.2	Penannular ditch 2
B	1140	Fill	1139	Fill of ring ditch terminus	3.2	Penannular ditch 2
B	1141	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1142	Fill	1141	Fill of ring ditch	3.2	Penannular ditch 2
B	1143	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1144	Fill	1143	Fill of ring ditch	3.2	Penannular ditch 2
B	1145	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1146	Fill	1145	Fill of ring ditch	3.2	Penannular ditch 2
B	1147	Cut		Cut ring ditch	3.2	Penannular ditch 2
B	1148	Fill	1147	Fill of ring ditch	3.2	Penannular ditch 2
B	1149	Cut		Cut ring ditch	3.2	Penannular ditch 2
B	1150	Fill	1149	Fill of ring ditch	3.2	Penannular ditch 2
B	1151	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1152	Fill	1152	Fill of ditch	3.2	Penannular ditch 2
B	1153	Cut		Cut of ring ditch	3.2	Penannular ditch 2

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1154	Fill	1153	Fill of ring ditch	3.2	Penannular ditch 2
B	1155	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1156	Fill	1155	Fill of ring ditch	3.2	Penannular ditch 2
B	1157	Cut		Cut of ring ditch	3.2	Penannular ditch 2
B	1158	Fill	1157	Fill of ring ditch	3.2	Penannular ditch 2
B	1159	Cut		Cut ring ditch	3.2	Penannular ditch 2
B	1160	Fill	1159	Fill of ditch	3.2	Penannular ditch 2
B	1161	Cut		Cut of ditch	4	Ditch 5
B	1162	Fill	1162	Fill of ditch	4	Ditch 5
B	1163	Cut		Cut of NW/SE ditch	6	Ditch 12
B	1164	Fill	1164	Fill of ditch	6	Ditch 12
B	1165	Cut		Cut of NW/SE ditch	6	Field System 1
B	1166	Fill	1165	Lower fill of ditch	6	Field System 1
B	1167	Fill	1165	Upper fill of ditch	6	Field System 1
B	1168	Cut		Cut of pit	5	
B	1169	Fill	1168	Lower fill of pit	5	
B	1170	Fill	1168	Upper fill of pit	5	
B	1171	Cut		Cut of posthole	4	Post Structure 3
B	1172	Fill	1171	Fill of posthole	4	Post Structure 3
B	1173	Cut		Cut of posthole	4	Post Structure 3
B	1174	Fill	1173	Fill of posthole	4	Post Structure 3
B	1175	Cut		Cut of stakehole	4	Post Structure 3
B	1176	Fill	1175	Fill of stakehole	4	Post Structure 3
B	1177	Cut		Cut posthole	4	Post Structure 3
B	1178	Fill	1179	Fill of posthole	4	Post Structure 3
B	1179	Cut		Cut of posthole	4	Post Structure 4
B	1180	Fill	1179	Fill of posthole	4	Post Structure 4
B	1181	Cut		Cut of posthole	4	Post Structure 4
B	1182	Fill	1181	Fill of posthole	4	Post Structure 4
B	1183	Cut		Cut of posthole	4	Post Structure 4
B	1184	Fill	1183	Fill of posthole	4	Post Structure 4
B	1185	Cut		Cut of pit	U	
B	1186	Fill	1185	Fill of pit	U	
B	1187	Cut		Cut of posthole	4	Post Structure 4
B	1188	Fill	1187	Fill of posthole	4	Post Structure 4
B	1189	Cut		Cut of posthole	U	
B	1190	Fill	1189	Fill of posthole	U	
B	1191	Cut		Cut of pit	2	

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1192	Fill	1191	Fill of pit	2	
B	1193	Cut		Cut of posthole	U	
B	1194	Fill	1193	Fill of posthole	U	
B	1195	Cut		Cut of posthole	4	Post structure 6
B	1196	Fill	1195	Fill of posthole	4	Post structure 6
B	1197	Cut		Cut of pit/posthole	4	Post structure 5
B	1198	Fill	1197	Fill of pit/posthole	4	Post structure 5
B	1199	Cut		Cut of pit	U	
B	1200	Fill	1199	Fill of pit	U	
B	1201	Cut		Cut of pit	3.2	Penannular ditch 2
B	1202	Fill	1201	Fill of pit	3.2	Penannular ditch 2
B	1203	Cut		Cut of NW/SE ditch	6	Field System 1
B	1204	Fill	1203	Lower fill of ditch	6	Field System 1
B	1205	Fill	1203	Upper fill of ditch	6	Field System 1
B	1206	Cut		Cut of NW/SE ditch	6	Ditch 12
B	1207	Fill	1206	Fill of ditch	6	Ditch 12
B	1208	Cut		Cut of pit	5	
B	1209	Fill	1208	Lower fill of pit	5	
B	1210	Fill	1208	Upper fill of pit	5	
B	1211	Cut		Cut of pit	5	
B	1212	Fill	1211	Lower fill of pit	5	
B	1213	Fill	1211	Middle fill of pit	5	
B	1214	Fill	1211	Upper fill of pit	5	
B	1215	Fill	1208	Middle fill of pit	5	
B	1216	Cut		Cut of pit/posthole	4	Post structure 5
B	1217	Fill	1216	Fill of pit/posthole	4	Post structure 5
B	1218	Cut		Cut of pit/posthole	4	Post structure 5
B	1219	Fill	1218	Fill of pit/posthole	4	Post structure 5
B	1220	Cut		Cut of pit/posthole	U	
B	1221	Fill	1220	Fill of pit/posthole	U	
B	1222	Cut		Cut of pit/posthole	U	
B	1223	Fill	1222	Fill of pit/posthole	U	
B	1224	Cut		Cut of pit	U	
B	1225	Fill	1224	Fill of pit	U	
B	1226	VOID		VOID		
B	1227	VOID		VOID		
B	1228	Cut		Cut of pit/posthole	4	Post structure 6
B	1229	Fill	1228	Fill of pit/posthole	4	Post structure 6
B	1230	Cut		Cut of pit	4	Post structure 6
B	1231	Fill	1230	Fill of pit	4	Post structure 6

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1232	Cut		Cut of pit. Same as 1234	U	
B	1233	Fill	1232	Fill of pit. Same as 1235	U	
B	1234	Cut		Cut of pit. Same as 1232	U	
B	1235	Fill	1234	Fill of pit. Same as 1233	U	
B	1236	Cut		Cut of posthole	4	Post structure 6
B	1237	Fill	1236	Fill of posthole	4	Post structure 6
B	1238	VOID		VOID		
B	1239	Fill	1240	Upper fill of ditch	4	Ditch 6
B	1240	Cut		Cut of NW/SE ditch	4	Ditch 6
B	1241	Fill	1240	Middle fill of ditch	4	Ditch 6
B	1242	Fill	1240	Lower fill of ditch	4	Ditch 6
B	1243	Cut		Cut of posthole	5	
B	1244	Fill	1243	Upper fill of posthole	5	
B	1245	Fill	1243	Middle fill of posthole	5	
B	1246	Fill	1243	Lower fill of posthole	5	
B	1247	Cut		Cut of pit	2	
B	1248	Fill	1247	Lower fill of pit	2	
B	1249	Fill	1247	Upper fill of pit	2	
B	1250	Cut		Cut of pit	1	
B	1251	Fill	1250	Fill of pit	1	
B	1252	Cut		Cut of pit. Cuts 1250/1251	1	
B	1253	Fill	1252	Lower fill of pit	1	
B	1254	Fill	1252	Upper fill of pit	1	
B	1255	Cut		Cut of NE/SW ditch	4	Enclosure 2
B	1256	Fill	1255	Lower fill of ditch	4	Enclosure 2
B	1257	Fill	1255	Middle fill of ditch	4	Enclosure 2
B	1258	Fill	1255	Middle fill of ditch	4	Enclosure 2
B	1259	Fill	1255	Upper fill of ditch	4	Enclosure 2
B	1260	Cut		Cut of pit	U	
B	1261	Fill	1260	Fill of pit	U	
B	1262	Cut		Cut of pit	U	
B	1263	Fill	1262	Fill of pit	U	
B	1264	Cut		Cut of pit	2	
B	1265	Fill	1264	Fill of pit	2	
B	1266	Cut		Cut of posthole	U	
B	1267	Fill	1266	Fill of posthole	U	
B	1268	Cut		Cut of posthole	U	
B	1269	Fill	1268	Fill of posthole	U	
B	1270	Cut		Cut of NE/SW ditch. Same as 1273	2	Ditch 1
B	1271	Fill	1270	Lower fill of ditch. Same as 1274	2	Ditch 1
B	1272	Fill	1270	Upper fill of ditch. Same as 1275	2	Ditch 1

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1273	Cut		Cut of NE/SW ditch. Same as 1270 and 1276	2	Ditch 1
B	1274	Fill	1273	Lower fill of ditch. Same as 1271 and 1277	2	Ditch 1
B	1275	Fill	1273	Upper fill of ditch. Same as 1272 and 1278	2	Ditch 1
B	1276	Cut		Cut of NW/SE ditch. Same as 1270 and 1273	2	Ditch 1
B	1277	Fill	1276	Lower fill of ditch. Same as 1271 and 1274	2	Ditch 1
B	1278	Fill	1276	Upper fill of ditch. Same as 1272 and 1275	2	Ditch 1
B	1279	Cut		Cut of SW/NE ditch	3.1	Ditch 4
B	1280	Fill	1279	Fill of ditch	3.1	Ditch 4
B	1281	Cut		Cut of SW/NE ring ditch	3.2	Penannular ditch 1
B	1282	Fill	1281	Fill of ring ditch	3.2	Penannular ditch 1
B	1283	Cut		Cut of NW/SE ring ditch terminus	2	Ditch 3
B	1284	Fill	1283	Fill of ring ditch terminus	2	Ditch 3
B	1285	Cut		Cut of NE/SW ring ditch	3.2	Penannular ditch 1
B	1286	Fill	1285	Fill of ring ditch	3.2	Penannular ditch 1
B	1287	Cut		Cut of NW/SE ring ditch	2	Ditch 3
B	1288	Fill	1287	Fill of ring ditch	2	Ditch 3
B	1289	Cut		Cut of E/W ditch	3.1	Ditch 4
B	1290	Fill	1289	Fill of ditch	3.1	Ditch 4
B	1291	Cut		Cut of pit	U	
B	1292	Fill	1291	Upper fill of pit	U	
B	1293	Fill	1291	Lower fill of pit	U	
B	1294	Cut		Cut of pit/posthole	5	
B	1295	Fill	1295	Fill of pit/posthole	5	
B	1296	Cut		Cut of posthole	U	
B	1297	Fill	1296	Fill of posthole	U	
B	1298	Cut		Cut of stakehole	U	
B	1299	Fill	1298	Fill of stakehole	U	
B	1300	Cut		Cut of posthole	U	
B	1301	Fill	1300	Fill of posthole	U	
B	1302	Cut		Cut of NE/SW ring ditch	3.2	Penannular ditch 1
B	1303	Fill	1302	Lower fill of ring ditch	3.2	Penannular ditch 1
B	1304	Fill	1302	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1305	Cut		Cut of NW/SE ditch terminus	4	Ditch 5
B	1306	Fill	1305	Lower fill of ditch terminus	4	Ditch 5
B	1307	Fill	1305	Middle fill of ditch terminus	4	Ditch 5
B	1308	Fill	1305	Middle fill of ditch terminus	4	Ditch 5
B	1309	Fill	1305	Upper fill of ditch terminus	4	Ditch 5
B	1310	VOID		VOID		

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1311	VOID		VOID		
B	1312	Cut		Cut of pit	5	
B	1313	Fill	1312	Fill of pit	5	
B	1314	Cut		Cut of NE/SW ditch terminus	5	
B	1315	Fill	1314	Fill of ditch terminus	5	
B	1316	Cut		Cut of NW/SE ditch	4	Enclosure 2
B	1317	Fill	1316	Upper fill of ditch	4	Enclosure 2
B	1318	Fill	1316	Middle fill of ditch	4	Enclosure 2
B	1319	Fill	1316	Lower fill of ditch	4	Enclosure 2
B	1320	Cut		Cut of pit	2	
B	1321	Fill	1320	Upper fill of pit	2	
B	1322	Fill	1320	Lower fill of pit	2	
B	1323	Cut		Cut of posthole	U	
B	1324	Fill	1323	Fill of posthole	U	
B	1325	Cut		Cut of posthole	U	
B	1326	Fill	1325	Fill of posthole	U	
B	1327	Cut		Cut of posthole	4	Post structure 1
B	1328	Fill	1327	Lower fill of posthole	4	Post structure 1
B	1329	Fill	1327	Upper fill of posthole	4	Post structure 1
B	1330	Cut		Cut of stakehole	U	
B	1331	Fill	1330	Fill of stakehole	U	
B	1332	Cut		Cut of pit	2	
B	1333	Fill	1332	Fill of pit	2	
B	1334	Cut		Cut of pit	U	
B	1335	Fill	1334	Fill of pit	U	
B	1336	Cut		Cut of posthole	4	Post structure 2
B	1337	Fill	1336	Upper fill of posthole	4	Post structure 2
B	1338	Fill	1336	Lower fill of posthole	4	Post structure 2
B	1339	Cut		Cut of posthole	4	Post structure 2
B	1340	Fill	1339	Fill of posthole	4	Post structure 2
B	1341	Cut		Cut of N/S ring ditch terminus	3.2	Penannular ditch 1
B	1342	Fill	1341	Fill of ring ditch terminus	3.2	Penannular ditch 1
B	1343	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 1
B	1344	Fill	1343	Fill of ring ditch	3.2	Penannular ditch 1
B	1345	Cut		Cut of NW/SE ditch	4	Enclosure 2
B	1346	Fill	1345	Fill of ditch	4	Enclosure 2
B	1347	Cut		Cut of pit/posthole	U	
B	1348	Fill	1347	Fill of pit/posthole	U	
B	1349	Cut		Cut of pit/posthole	U	

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1350	Fill	1349	Lower fill of pit/posthole	U	
B	1351	Fill	1349	Upper fill of pit/posthole	U	
B	1352	Cut		Cut of pit	3.1	
B	1353	Fill	1352	Fill of pit	3.1	
B	1354	Cut		Cut of pit	3.1	
B	1355	Cut		Cut of posthole	U	
B	1356	Fill	1355	Upper fill of posthole	U	
B	1357	Fill	1355	Lower fill of posthole	U	
B	1358	Cut		Cut of posthole	4	Post structure 2
B	1359	Fill	1358	Fill of posthole	4	Post structure 2
B	1360	Cut		Cut of E/W ditch	U	
B	1361	Fill	1360	Lower fill of ditch	U	
B	1362	Fill	1360	Upper fill of ditch	U	
B	1363	Cut		Cut of SE/NW ditch	4	Ditch 6
B	1364	Fill	1363	Lower fill of ditch	4	Ditch 6
B	1365	Fill	1363	Middle fill of ditch	4	Ditch 6
B	1366	Fill	1363	Middle fill of ditch	4	Ditch 6
B	1367	Fill	1363	Upper fill of ditch	4	Ditch 6
B	1368	Cut		Cut of pit	5	
B	1369	Fill	1368	Fill of pit	5	
B	1370	Cut		Cut of pit	U	
B	1371	Fill	1370	Fill of pit	U	
B	1372	Cut		Cut of NW/SE ditch terminus	2	Ditch 1
B	1373	Fill	1372	Fill of ditch terminus	2	Ditch 1
B	1374	Cut		Cut of pit	U	
B	1375	Fill	1374	Fill of pit	U	
B	1376	Cut		Cut of posthole	4	Post structure 2
B	1377	Fill	1376	Lower fill of posthole	4	Post structure 2
B	1378	Fill	1376	Upper fill of posthole	4	Post structure 2
B	1379	Cut		Cut of pit. Same as 1380	U	
B	1380	Cut		Cut of pit. Same as 1379	U	
B	1381	Fill	1379	Fill of pit 1379 /1380	U	
B	1382	Fill	1379	Fill of pit 1379/1380.	U	
B	1383	Fill	1379	Fill of pit 1379/1380.	U	
B	1384	Fill	1379	Fill of pit 1379/1380.	U	
B	1385	Cut		Cut of posthole	4	Post structure 1
B	1386	Fill	1385	Lower fill of posthole	4	Post structure 1
B	1387	Fill	1385	Upper fill of posthole	4	Post structure 1
B	1388	Cut		Cut of pit	5	
B	1389	Fill	1388	Lower fill of pit	5	
B	1390	Fill	1388	Upper fill of pit	5	

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1391	Cut		Cut of pit	4	
B	1392	Fill	1391	Fill of pit	4	
B	1393	Cut		Cut of ditch	6	Field System 1
B	1394	Fill	1393	Fill of ditch	6	Field System 1
B	1395	Cut		Cut of posthole	U	
B	1396	Fill	1395	Fill of posthole	U	
B	1397	Cut		Cut of posthole	U	
B	1398	Fill	1397	Fill of posthole	U	
B	1399	Cut		Cut of NE/SW terminus	U	
B	1400	Fill	1399	Fill of ditch terminus	U	
B	1401	Cut		Cut of NE/SW ditch	U	
B	1402	Fill	1401	Fill of ditch	U	
B	1403	Cut		Cut of NE/SW terminus	U	
B	1404	Fill	1403	Fill of ditch terminus	U	
B	1405	Cut		Cut of stakehole	U	
B	1406	Fill	1405	Lower fill of stakehole. Same as 1407	U	
B	1407	Fill	1405	Lower fill of stakehole. Same as 1406	U	
B	1408	Fill	1405	Upper fill of stakehole	U	
B	1409	Cut		Cut of posthole	4	Post structure 1
B	1410	Fill	1409	Lower fill of posthole	4	Post structure 1
B	1411	Fill	1409	Upper fill of posthole	4	Post structure 1
B	1412	Cut		Cut of pit	U	
B	1413	Fill	1412	Fill of pit	U	
B	1414	Cut		Cut of pit. Cuts pit 1417	5	
B	1415	Fill	1414	Lower fill of pit	5	
B	1416	Fill	1414	Upper fill of pit	5	
B	1417	Cut		Cut of pit. Cut by pit 1414	5	
B	1418	Fill	1417	Fill of pit	5	
B	1419	Cut		Cut of N/S ring ditch	3.2	Penannular ditch 1
B	1420	Fill	1419	Fill of ring ditch	3.2	Penannular ditch 1
B	1421	Cut		Cut of N/S ring ditch	3.2	Penannular ditch 1
B	1422	Fill	1421	Fill of ring ditch	3.2	Penannular ditch 1
B	1423	Cut		Cut of NW/SE ring ditch	3.2	Penannular ditch 1
B	1424	Fill	1423	Lower fill of ring ditch	3.2	Penannular ditch 1
B	1425	Fill	1423	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1426	Cut		Cut of NW/SE ring ditch	3.2	Penannular ditch 1
B	1427	Fill	1426	Lower fill of ring ditch	3.2	Penannular ditch 1

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1428	Fill	1426	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1429	Cut		Cut of NW/SE ring ditch	3.2	Penannular ditch 1
B	1430	Fill	1428	Lower fill of ring ditch	3.2	Penannular ditch 1
B	1431	Fill	1428	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1432	Cut		Cut of NE/SW ring ditch	3.2	Penannular ditch 1
B	1433	Fill	1432	Lower fill of ring ditch	3.2	Penannular ditch 1
B	1434	Fill	1432	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1435	Cut		Cut of NE/SW ring ditch	3.2	Penannular ditch 1
B	1436	Fill	1435	Fill of ring ditch	3.2	Penannular ditch 1
B	1437	Cut		Cut of N/S ring ditch	3.2	Penannular ditch 1
B	1438	Fill	1437	Lower fill of ring ditch	3.2	Penannular ditch 1
B	1439	Fill	1437	Upper fill of ring ditch	3.2	Penannular ditch 1
B	1440	Cut		Cut of E/W ditch	U	
B	1441	Fill	1440	Fill of ditch	U	
B	1442	Cut		Cut of E/W ditch terminus	U	
B	1443	Fill	1442	Fill of ditch terminus	U	
B	1444	Cut		Cut of NE/SW ditch	5	
B	1445	Fill	1444	Fill of ditch	5	
B	1446	Cut		Cut of NE/SW ditch	4	Ditch 7
B	1447	Fill	1446	Fill of ditch	4	Ditch 7
B	1448	Cut		Cut of E/W ditch	4	Enclosure 2
B	1449	Fill	1448	Fill of ditch	4	Enclosure 2
B	1450	Cut		Cut of NNE/SSW ditch	4	Enclosure 2
B	1451	Fill	1450	Upper fill of ditch	4	Enclosure 2
B	1452	Fill	1450	Middle fill of ditch	4	Enclosure 2
B	1453	Fill	1450	Lower fill of ditch	4	Enclosure 2
B	1454	Cut		Cut of pit	U	
B	1455	Fill	1454	Fill of pit	U	
B	1456	Cut		Cut of stakehole	U	
B	1457	Fill	1456	Fill of stakehole	U	
B	1458	Fill	1331	Upper fill of ditch	U	
B	1459	Cut		Cut of E/W curvilinear ditch	4	Ditch 6
B	1460	Fill	1459	Fill of curvilinear ditch	4	Ditch 6
B	1461	Cut		Cut of NE/SW ditch	4	Enclosure 2
B	1462	Fill	1461	Lower fill of ditch	4	Enclosure 2

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1463	Fill	1461	Upper fill of ditch	4	Enclosure 2
B	1464	Cut		Cut of pit	U	
B	1465	Fill	1464	Fill of pit	U	
B	1466	Cut		Cut of N/S ring ditch	3.2	Penannular ditch 3
B	1467	Fill	1466	Fill of ring ditch	3.2	Penannular ditch 3
B	1468	Cut		Cut of pit	U	
B	1469	Fill	1468	Fill of pit	U	
B	1470	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 3
B	1471	Fill	1470	Fill of ring ditch	3.2	Penannular ditch 3
B	1472	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 3
B	1473	Fill	1472	Fill of ring ditch	3.2	Penannular ditch 3
B	1474	Cut		Cut of NE/SW ring ditch	3.2	Penannular ditch 3
B	1475	Fill	1474	Fill of ring ditch	3.2	Penannular ditch 3
B	1476	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 3
B	1477	Fill	1476	Fill of ring ditch	3.2	Penannular ditch 3
B	1478	Cut		Cut of N/S ring ditch	3.2	Penannular ditch 3
B	1479	Fill	1478	Fill of ring ditch	3.2	Penannular ditch 3
B	1480	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 3
B	1481	Fill	1480	Fill of ring ditch	3.2	Penannular ditch 3
B	1482	Cut		Cut of E/W ring ditch	3.2	Penannular ditch 3
B	1483	Fill	1482	Fill of ring ditch	3.2	Penannular ditch 3
B	1484	Cut		Cut of NE/SW ring ditch terminus	3.2	Penannular ditch 3
B	1485	Fill	1484	Fill of ring ditch terminus	3.2	Penannular ditch 3
B	1486	Cut		Cut of pit	U	
B	1487	Fill	1486	Fill of pit	U	
B	1488	Cut		Cut of NE/SW ditch	4	Enclosure 2
B	1489	Fill	1488	Fill of ditch	4	Enclosure 2
B	1490	Cut		Cut of NE/SW ditch	2	Ditch 1
B	1491	Fill	1490	Fill of ditch	2	Ditch 1
B	1492	Cut		Cut of NE/SW ditch	4	Ditch 5
B	1493	Fill	1492	Fill of ditch	4	Ditch 5
B	1494	Cut		Cut of NW/SE ditch	4	Enclosure 2

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1495	Fill	1494	Fill of ditch	4	Enclosure 2
B	1496	Cut		Cut of possible pit/posthole	U	
B	1497	Fill	1496	Fill of possible pit/posthole	U	
B	1498	Cut		Cut of possible pit/posthole	U	
B	1499	Fill	1498	Fill of possible pit/posthole	U	
B	1500	Cut		Cut of possible posthole	U	
B	1501	Fill	1500	Fill of possible posthole	U	
B	1502	Cut		Cut of pit	4	Pit cluster 2
B	1503	Fill	1502	Lower fill of pit	4	Pit cluster 2
B	1504	Fill	1502	Middle fill of pit	4	Pit cluster 2
B	1505	Fill	1502	Middle fill of pit	4	Pit cluster 2
B	1506	Fill	1502	Upper fill of pit	4	Pit cluster 2
B	1507	Cut		Cut of pit	4	Pit cluster 2
B	1508	Fill	1507	Fill of pit	4	Pit cluster 2
B	1509	Cut		Cut of pit	4	Pit cluster 2
B	1510	Fill	1509	Middle fill of pit	4	Pit cluster 2
B	1511	Fill	1509	Lower fill of pit	4	Pit cluster 2
B	1512	Fill	1107	Lower fill of pit	1	
B	1513	Cut		Cut of N/S gully	U	
B	1514	Fill	1513	Fill of gully	U	
B	1515	Fill	1509	Upper fill of pit	4	Pit cluster 2
B	1516	Cut		Cut of pit	4	Pit cluster 2
B	1517	Fill	1516	Lower fill of pit	4	Pit cluster 2
B	1518	Fill	1516	Middle fill of pit	4	Pit cluster 2
B	1519	Fill	1516	Middle fill of pit	4	Pit cluster 2
B	1520	Fill	1516	Middle fill of pit	4	Pit cluster 2
B	1521	Fill	1516	Upper fill of pit	4	Pit cluster 2
B	1522	Cut		Cut of pit	3.1	
B	1523	Fill	1522	Upper fill of pit	3.1	
B	1524	Fill	1522	Middle fill of pit	3.1	
B	1525	Layer		Layer covering pits 1502, 1507 and 1509	4	Pit cluster 2
B	1526	Fill	1522	Lower fill of pit	3.1	
B	1527	Cut		Cut of E/W ditch	2	Ditch 1
B	1528	Fill	1528	Fill of ditch	2	Ditch 1
B	1529	Cut		Cut of N/S ditch	4	Enclosure 2
B	1530	Fill	1529	Lower fill of ditch	4	Enclosure 2
B	1531	Fill	1529	Middle fill of ditch	4	Enclosure 2
B	1532	Fill	1529	Middle fill of ditch	4	Enclosure 2
B	1533	Fill	1529	Middle fill of ditch	4	Enclosure 2
B	1534	Fill	1529	Middle fill of ditch	4	Enclosure 2
B	1535	Fill	1529	Upper fill of ditch	4	Enclosure 2

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1536	Cut		Cut of pit	4	
B	1537	Fill	1536	Lower fill of pit	4	
B	1538	Fill	1536	Upper fill of pit	4	
B	1539	Cut		Cut of pit	5	
B	1540	Fill	1539	Lower fill of pit	5	
B	1541	Fill	1539	Upper fill of pit	5	
B	1542	Fill	1545	Fill of furrow	7	
B	1543	Cut		Cut of pit/possible cremation	5	
B	1544	Fill	1543	Fill of pit/possible cremation	5	
B	1545	Cut		Cut of ESE/WNW furrow	7	
B	1546	Cut		Cut of E/W ring ditch terminus	2	Ditch 1
B	1547	Fill	1546	Fill of ring ditch terminus	2	Ditch 1
B	1548	Cut		Cut of pit	5	
B	1549	Fill	1548	Fill of pit	5	
B	1550	Cut		Cut of pit	5	
B	1551	Fill	1550	Fill of pit	5	
B	1552	Cut		Cut of N/S furrow	7	
B	1553	Fill	1552	Fill of furrow	7	
B	1554	Cut		Cut of NW/SE ring ditch	3.2	Penannular ditch 3
B	1555	Fill	1554	Fill of ring ditch	3.2	Penannular ditch 3
B	1556	Cut		Cut of stakehole	U	
B	1557	Fill	1556	Fill of stakehole	U	
B	1558	Cut		Cut of NE/SW ditch terminus	2	Ditch 2
B	1559	Fill	1558	Fill of ditch terminus	2	Ditch 2
B	1560	Fill	1566	Lower fill of ditch terminus	2	Ditch 2 recut
B	1561	Fill	1566	Upper fill of ditch terminus	2	Ditch 2 recut
B	1562	Cut		Cut of NW/SE ditch terminus	6	Ditch 12
B	1563	Fill	1562	Fill of ditch terminus	6	Ditch 12
B	1564	Cut		Cut of pit	5	
B	1565	Fill	1564	Fill of pit	5	
B	1566	Cut		Cut of NE/SW ditch terminus	2	Ditch 2 recut
B	1567	Cut		Cut of possible posthole	5	
B	1568	Fill	1567	Fill of possible posthole	5	
B	1569	Cut		Cut of posthole/pit	U	
B	1570	Fill	1569	Fill of posthole/pit	U	
B	1571	Cut		Cut of pit	5	
B	1572	Fill	1571	Fill of pit	5	
B	1573	Cut		Cut of NW/SE ring ditch	3.2	Penannular ditch 1
B	1574	Fill	1573	Fill of ring ditch	3.2	Penannular ditch 1

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1575	Cut		Cut of tree throw	U	
B	1576	Fill	1575	Fill of tree throw	U	
B	1577	Cut		Cut of E/W furrow	7	
B	1578	Fill	1577	Fill of furrow	7	
B	1579	Cut		Cut of E/W ditch	3.1	Enclosure 1
B	1580	Fill	1579	Lower fill of ditch	3.1	Enclosure 1
B	1581	Fill	1579	Middle fill of ditch	3.1	Enclosure 1
B	1582	Fill	1579	Upper fill of ditch	3.1	Enclosure 1
B	1583	Cut		Cut of E/W ditch	3.2	Enclosure 1 recut
B	1584	Fill	1583	Lower fill of ditch	3.2	Enclosure 1 recut
B	1585	Cut		Cut of posthole	U	
B	1586	Fill	1583	Upper fill of ditch	3.2	Enclosure 1 recut
B	1587	Fill	1585	Fill of posthole	U	
B	1588	Cut		Cut of posthole	5	
B	1589	Fill	1588	Fill of posthole	5	
B	1590	Cut		Cut of NE/SW ring ditch	3.1	Enclosure 1
B	1591	Fill	1590	Lower fill of ring ditch	3.1	Enclosure 1
B	1592	Fill	1590	Middle fill of ring ditch	3.1	Enclosure 1
B	1593	Fill	1590	Middle fill of ring ditch	3.1	Enclosure 1
B	1594	Fill	1590	Middle fill of ring ditch	3.1	Enclosure 1
B	1595	Fill	1590	Middle fill of ring ditch. Cut by 1596	3.1	Enclosure 1
B	1596	Cut		Recut of ditch 1590 with a NE/SW alignment	3.2	Enclosure 1 recut
B	1597	Fill	1596	Fill of ditch recut	3.2	Enclosure 1 recut
B	1598	VOID		VOID		
B	1599	Fill	1596	Upper fill of recut	3.2	Enclosure 1 recut
B	1600	Fill	1596	Upper fill of recut	3.2	Enclosure 1 recut
B	1601	Cut		Cut of E/W curvilinear ditch	4	Ditch 7
B	1602	Fill	1601	Fill of curvilinear ditch	4	Ditch 7
B	1603	Cut		Cut of NE/SW furrow	7	
B	1604	Fill	1603	Fill of furrow	7	
B	1605	Fill	1354	Fill of pit	3.1	
B	1606	Cut		Cut of pit	3.1	
B	1607	Fill	1606	Fill of pit	3.1	
B	1608	Cut		Cut of posthole	U	
B	1609	Fill	1608	Fill of posthole	U	
B	1610	Cut		Cut of E/W ditch	4	Enclosure 2
B	1611	Fill	1610	Lower fill of ditch	4	Enclosure 2
B	1612	Fill	1610	Upper fill of ditch	4	Enclosure 2
B	1613	Cut		Cut of pit	U	
B	1614	Fill	1613	Lower fill of pit	U	
B	1615	Fill	1613	Upper fill of pit	U	

Area	Context	Type	Fill of	Description	Period	Feature Label
B	1616	Cut		Cut of tree throw	U	
B	1617	Fill	1616	Fill of tree throw 1616	U	
A	2000	Layer		Topsoil		
A	2001	Layer		Subsoil		
A	2002	Layer		Natural		
A	2003	Cut		Cut of NE/SW ditch	U	Ditch 9
A	2004	Fill	2003	Lower fill of ditch	U	Ditch 9
A	2005	Fill	2003	Upper fill of ditch	U	Ditch 9
A	2006	Cut		Cut of NW/SE ditch	U	Ditch 9
A	2007	Fill	2006	Fill of ditch	U	Ditch 9
A	2008	Cut		Cut of NE/SW ditch	U	Ditch 9
A	2009	Fill	2009	Lower fill of ditch	U	Ditch 9
A	2010	Fill	2009	Upper fill of ditch	U	Ditch 9
A	2011	Cut		Cut of pit	1	
A	2012	Fill	2011	Lower fill of pit	1	
A	2013	Fill	2011	Upper fill of pit	1	
A	2014	Cut		Cut of NE/SW ditch	U	Ditch 11
A	2015	Fill	2015	Fill of ditch	U	Ditch 11
A	2016	Cut		Cut of NW/SE ditch	U	Ditch 11
A	2017	Fill	2016	Fill of ditch	U	Ditch 11
A	2018	Cut		Cut of NE/SW ditch	4	Ditch 10
A	2019	Fill	2018	Lower fill of ditch	4	Ditch 10
A	2020	Fill	2018	Upper fill of ditch	4	Ditch 10
A	2021	Cut		Cut of posthole	U	
A	2022	Fill	2021	Fill of posthole	U	
A	2023	Cut		Cut of pit	U	
A	2024	Fill	2024	Fill of pit	U	
A	2025	Cut		Cut of N/S ditch	U	
A	2026	Fill	2025	Fill of ditch	U	
A	2027	Cut		Cut of NW/SE furrow	7	
A	2028	Fill	2027	Fill of furrow	7	
A	2029	Cut		Cut of N/S ditch	U	
A	2030	Fill	2029	Fill of ditch	U	
A	2031	Cut		Cut of E/W furrow	7	
A	2032	Fill	2031	Fill of furrow	7	
A	2033	Cut		Cut of posthole	U	
A	2034	Fill	2033	Lower fill of posthole	U	
A	2035	Fill	2033	Upper fill of posthole	U	
A	2036	Cut		Cut of pit	2	Pit cluster 1
A	2037	Fill	2036	Upper fill of pit	2	Pit cluster 1
A	2038	Fill	2036	Middle fill of pit. Same as 2043	2	Pit cluster 1

Area	Context	Type	Fill of	Description	Period	Feature Label
A	2039	Fill	2036	Lower fill of pit	2	Pit cluster 1
A	2040	Cut		Cut of pit	2	Pit cluster 1
A	2041	Fill	2040	Lower fill of pit	2	Pit cluster 1
A	2042	Fill	2040	Upper fill of pit	2	Pit cluster 1
A	2043	Fill	2036	Middle fill of pit	2	Pit cluster 1
A	2044	Fill	2036	Middle fill of pit	2	Pit cluster 1
A	2048	Cut		Cut of pit	2	Pit cluster 1
A	2049	Fill	2048	Lower fill of pit	2	Pit cluster 1
A	2050	Fill	2048	Middle fill of pit	2	Pit cluster 1
A	2051	Fill	2048	Upper fill of pit	2	Pit cluster 1

APPENDIX B: POTTERY

By Peter Banks

Introduction and methodology

A pottery assemblage of 843 sherds, weighing 8796g, was recovered by hand from 132 deposits and ten bulk soil samples (73 sherds, 330g). The EVE is 2.44 representing a minimum of 35 vessels (MNV). The majority of the group consists of late prehistoric handmade pottery (832 sherds, 8691g) with very small early prehistoric (6 sherds, 46g), Late Iron Age (transitional)/Roman (4 sherds, 46g) and medieval (1 sherd, 13g) groups (Table B1).

The pottery was recorded direct to an Access database using the CA recording system and forms part of the archive. Recording of the assemblage was in accordance with or exceeding the basic levels set out in the national guidelines (Barclay *et al.* 2016) and those of the Prehistoric Ceramics Research Group (PCRG 2010). The pottery was examined using a x10 binocular microscope and quantified according to sherd count (number of sherds/NOSH) and weight per fabric. The fabric codes used are described below (Table B2) and where relevant a concordance with Bedfordshire fabrics series (summarised in Partminter and Slowikowski 2004 and Slowikowski 2013) and the National Roman Fabrics Reference Collection has been provided (Tomber and Dore 1998). Vessel and rim forms have been recorded and rim diameters have been measured (mm) together with estimated vessel equivalents (EVE) and a minimum number of vessels (MNV) where the material has allowed for this. The minimum vessel number is based on the number of rims discounting similar sherd families/fabrics. Surface residues on sherds have been recorded when present.

Condition and provenance

The majority of the assemblage is in poor condition; surfaces and fractures exhibit signs of heavy abrasion and sherd size is small. The mean sherd weight for the assemblage is 10.4g.

Most of the early prehistoric pottery (over 80% by both count and weight) is derived from pit fills. A single sherd was recovered from Period 4 Enclosure 2 ditch 1316. Early prehistoric pottery was recorded from Period 1 pit 2011, Period 1 pit 1007 and Period 1 pit 1252. The remainder of the early prehistoric pottery is residual in features containing later pottery.

The late prehistoric pottery is evenly distributed between pits (35% by count) and ditches (36% by count). The material recorded from ditches is more broken up and represents 25% of the group by weight, compared with 35% from pits. Penannular ditches also produced a significant

proportion of the late prehistoric group (20% by count, 29% by weight). Pottery from postholes accounts for 5% of the group by count but material from them is not overly fragmented (10% by weight). Layers also produced late prehistoric pottery but only in nominal quantities ($\leq 2\%$ by count and weight).

Period 4 Enclosure 2 ditch 1529 and Period 5 pit 1023 produced isolated sherds of Late Iron Age and Roman pottery.

The only medieval sherd is likely intrusive in Period 4 Enclosure 2 ditch 1316 and was recovered together with 53 sherds (244g) of prehistoric pottery.

Assemblage range – early prehistoric

Six sherds (46g) of early prehistoric pottery were recorded from six deposits. The EVE is 0.06.

Fabrics (Table B2)

The majority of the early prehistoric group (five sherds, 30g) is made in flint-tempered fabrics (FL2/FL3/FLGR3). The use of flint tempered fabrics is known in the Bedfordshire region during the Neolithic, Bronze Age and Early Iron Age periods (Edwards 2007). A single sherd of grog-tempered pottery (GRC1) was also recorded. The pottery is most likely of local manufacture; the flint used as temper would have been available from the chalk formations which surround much of the site (BGS 2023).

Fabric Descriptions

Flint-tempered fabrics (5 sherds; 30g; (83.3% NOSH))

FL2 Sparse to moderate, poorly sorted, angular medium flint. Brown ext. Grey/black int. or buff throughout. Flint $\leq 3\text{mm}$. 3 sherds; 11g.

FL3 Moderate, poorly sorted, angular, coarse flint. Buff/grey brown throughout. Flint $\leq 5\text{mm}$. 1 sherd; 10g.

FLGR3 Sparse, poorly sorted, angular coarse flint and common, moderately sorted, sub-angular, medium grog. Orange ext. Light grey int. Flint $\leq 6\text{mm}$, orange grog $\leq 3\text{mm}$. 1 sherd; 9g.

Grog-tempered fabrics (1 sherds; 16g; 0.06 EVE (16.7% NOSH))

GRC1 Sparse, moderately sorted, fine shell or calcareous inclusions and moderate, poorly sorted, sub-angular, medium grog. Occasional flint. Buff surfaces. Black core. Shell/calcareous $\leq 1\text{mm}$, orange/buff grog $\leq 3\text{mm}$. 1 sherd; 16g.

Forms

An internally expanded rim sherd (0.06 EVE) has been assigned an early prehistoric date. The sherd (GRC1) is possibly decorated with impressed lozenges along the top and inside of the rim (Fig. 12, A). It may represent a barrel-shaped jar of the Middle Bronze Age Deverel-Rimbury tradition (c.1700–1200 BC) however the sherd is in poor condition and positive identification is uncertain.

Illustration catalogue (Fig. 12)

1. Internally expanded rim with impressed ?lozenge decoration. Fabric GRC1. Period 1 pit 1007.

Assemblage range – late prehistoric

The late prehistoric, handmade component of the assemblage is the largest at 832 sherds (8691g). The group was recovered by hand from 128 deposits and eight bulk soil samples (71 sherds, 315g). The late prehistoric EVE is 2.23 representing a minimum of 32 vessels (MNV).

Fabrics (Table B2)

The range of fabrics recorded is diverse although sandy fabrics (Q1/Q2/Q3) including those containing iron rich inclusions (QI1/QI2/QI3) dominate the assemblage. Together these prominent fabric types account for just under two thirds of the late prehistoric group (63% by count and 66% by weight). Sandy fabrics which also contain organic voids (QV2/QVM1/QVM2), caused by the carbonisation of organic material within the fabric during firing, are also moderately common accounting for 15% of the assemblage by count (14% by weight). Other sandy fabrics with calcareous (QC1), flint (QFL1/QFL2), grog (QGR1/QGR2/QGRV1), micaceous (QM1/QM2) or shell (QSH1/QSH2) inclusions individually account for small proportions of the assemblage ($\leq 5\%$ by count or weight). Shell-tempered fabrics (SH1/SH2/SH3) are also uncommon and comprise 6% of the group by weight (3% by count). Fabrics containing organic voids (V2) and flint-tempered (FL4/FLGR4/FLV4), shelly grog-tempered (SHGR1) and grog-tempered (GRM1/GRV2) fabrics are all recorded but make up less than 2% of the assemblage each by both count and weight. The late prehistoric assemblage is most likely of local production. Micaceous and ferrous fabrics are common and

clays containing these inclusions most likely derive from the Gault clays, under 5km to the west of the site (BGS 2023). The flint used as temper and the calcareous inclusions, most likely chalk, found in several fabrics are probably derived from the chalk formations which surround much of the site (*ibid.*).

Fabric Descriptions

Flint-tempered fabrics (5 sherds; 48g (0.5% NOSH))

- FL4 Sparse, moderately sorted, angular, fine flint. Orange surfaces. Black core. Flint $\leq 1\text{mm}$. 2 sherds; 31g.
- FLGR4 Sparse, moderately sorted, angular, fine flint and common, moderately sorted, sub-angular, fine grog. Buff ext. Dark grey int. Flint $\leq 1\text{mm}$, buff/orange grog $\leq 1\text{mm}$. 1 sherd; 7g.
- FLV1 Sparse, moderately sorted, angular, fine flint and sparse, poorly sorted, medium organic voids. Dark reddish brown throughout. Flint $\leq 1\text{mm}$, organic voids $\leq 3\text{mm}$. 2 sherds; 10g.

Grog-tempered fabrics (3 sherds; 24g (0.3 % NOSH))

- GRM1 Sparse, moderately sorted, sub-round, medium grog and common, well-sorted, fine mica. Orange ext. black int. Grog $\leq 2\text{mm}$, mica $\leq 0.2\text{mm}$. 1 sherd; 14g.
- GRV2 Moderate, moderately sorted, sub-round, medium grog and common, moderately sorted, medium organic voids. Buff/grey-brown surfaces. Grey-brown core. Buff/brown grog $\leq 2\text{mm}$, organic voids $\leq 3\text{mm}$. 2 sherds; 7g.

Quartz sand and calcareous (inc. shell) fabrics (51 sherds; 398g; 0.14 EVE (6.1% NOSH))

- QC1 Common, moderately sorted, sub-round, medium quartz sand and sparse, moderately sorted, sub-round, fine calcareous inclusions. Light brown/buff ext. black int. Quartz sand $\leq 1\text{mm}$, calcareous $\leq 1\text{mm}$. 6 sherds; 71g.
- QSH1 Common, moderately sorted, sub-round medium quartz sand and sparse, moderately sorted, fine shell or plate like voids. Reddish/dark brown ext. Dark grey/black int. Quartz sand $\leq 1\text{mm}$, shell $\leq 1\text{mm}$. 30 sherds; 19g; 0.14 EVE.
- QSH2 Common, moderately sorted, sub-round medium quartz sand and sparse moderately sorted, medium shell or plate like voids. Reddish brown ext./core. Dark grey int. Quartz sand $\leq 1\text{mm}$, shell $\leq 3\text{mm}$. 15 sherds; 137g.

Quartz sandy fabrics (308 sherds; 2627g; 1.05 EVE (37% NOSH))

- Q1 Common, well-sorted, sub-round, fine quartz sand. Dark brown/grey throughout. Quartz sand $\leq 0.5\text{mm}$. 22 sherds; 199g; 0.07 EVE.
- Q2 Common, moderately sorted, sub-round, medium quartz sand. Buff/brown ext. grey int. or dark brown/grey throughout. Quartz sand $\leq 1\text{mm}$. 277 sherds; 2331g; 0.91 EVE.
- Q3 Moderate to common, poorly sorted, sub-round, coarse quartz sand. Dark brown ext. Dark grey int. Quartz sand $\leq 2\text{mm}$. 9 sherds; 97g; 0.07 EVE.

Quartz sand and flint-tempered fabrics (26 sherds; 237g; 0.08 EVE (3.1% NOSH))

- QFL1 Moderate, moderately sorted, angular, fine flint and moderate moderately sorted, sub-round medium quartz sand. Light-mid brown surfaces, grey core or red throughout. Flint $\leq 1\text{mm}$, quartz sand $\leq 1\text{mm}$. 17 sherds; 117g.
- QFL2 Sparse, poorly sorted, angular, medium flint and moderate, moderately sorted, sub-round, medium quartz sand. Light-mid grey throughout. Flint $\leq 3\text{mm}$, quartz sand $\leq 1\text{mm}$. 9 sherds; 120g; 0.08 EVE.

Quartz sand and grog-tempered fabrics (21 sherds; 127g; (2.5 % NOSH))

- QGR1 Moderate, moderately sorted, sub-round, medium quartz sand and moderate, moderately sorted, sub-round, fine grog. Buff/brown surfaces black core. Quartz sand $\leq 1\text{mm}$, buff/orange grog $\leq 1\text{mm}$. 15 sherds; 59g.
- QGR2 Moderate, moderately sorted, sub-round, medium quartz sand and moderate, moderately sorted, sub-angular, medium grog. Occasional calcareous inclusion. Red brown ext. Grey/brown int. Quartz sand $\leq 1\text{mm}$, red grog $\leq 2\text{mm}$, calcareous $\leq 3\text{mm}$. 4 sherds; 45g.
- QGRV1 Moderate, well-sorted, sub-round, fine quartz sand, sparse, poorly sorted, sub-round, fine grog and sparse, moderately sorted, fine organic voids. Reddish brown throughout. Quartz sand $\leq 0.5\text{mm}$ red grog $\leq 1\text{mm}$ organic voids $\leq 1\text{mm}$. 2 sherds; 23g.

Quartz sand and ferrous fabrics (215 sherds; 3100g; 0.33 EVE (25.9% NOSH))

- QI1 Common, moderately sorted, sub-round medium quartz sand and common, well-sorted, sub-round, fine black/red iron rich particles. Dark brown/grey throughout. Quartz sand $\leq 0.5\text{mm}$, iron rich particles $\leq 0.5\text{mm}$. 4 sherds; 36g.
- QI2 Common, moderately sorted, sub-round medium quartz sand and common, well-sorted, sub-round, medium black/red iron rich particles. Orange ext. brown int. or dark brown/reddish brown throughout. Quartz sand $\leq 1\text{mm}$, iron rich particles $\leq 1\text{mm}$. 207 sherds; 2847g; 0.25 EVE.

QI3 Common, moderately sorted, sub-round medium quartz sand and common, well-sorted, sub-round, coarse black/red iron rich particles. Buff brown ext. dark brown int. Quartz sand $\leq 1\text{mm}$, iron rich particles $\leq 4\text{mm}$. 4 sherds; 217g; 0.08 EVE.

Sandy micaceous fabrics (112 sherds; 1078g; 0.33 EVE (13.5% NOSH))

QM1 Moderate, well-sorted, sub-round, fine quartz sand and common, well-sorted, fine mica. Orange surfaces black core or grey throughout. Quartz sand $\leq 0.5\text{mm}$, mica $\leq 0.5\text{mm}$. 22 sherds; 198g.

QM2 Moderate, moderately sorted, sub-round, medium quartz sand and common, well-sorted, fine mica. Brown surfaces, black/dark grey core or grey throughout. Quartz sand $\leq 1\text{mm}$, mica $\leq 0.5\text{mm}$. 18 sherds; 158g.

QVM1 Sparse, well-sorted, sub-round, fine quartz sand, common, well-sorted, fine mica and sparse, moderately sorted, fine organic voids. Light brown ext. black int. Grey throughout. Quartz sand $\leq 0.5\text{mm}$, mica $\leq 0.5\text{mm}$, organic voids $\leq 2\text{mm}$. 66 sherds; 675g; 0.27 EVE.

QVM2 Moderate, moderately sorted, sub-round medium quartz sand, moderate, well sorted fine mica and sparse, moderately sorted, medium organic voids. Dark brown/Dark grey throughout. Quartz sand $\leq 1\text{mm}$, mica $\leq 0.5\text{mm}$, organic voids $\leq 3\text{mm}$. 6 sherds; 47g; 0.06 EVE.

Quartz sand fabrics with organic voids (59 sherds; 475g; 0.12 EVE (7.1 % NOSH))

QV2 Common, moderately sorted, sub-round medium sand and sparse to moderate, poorly sorted, medium organic voids. Dark brown or dark reddish brown throughout. Quartz sand $\leq 1\text{mm}$, organic voids $\leq 3\text{mm}$. 59 sherds; 475g.

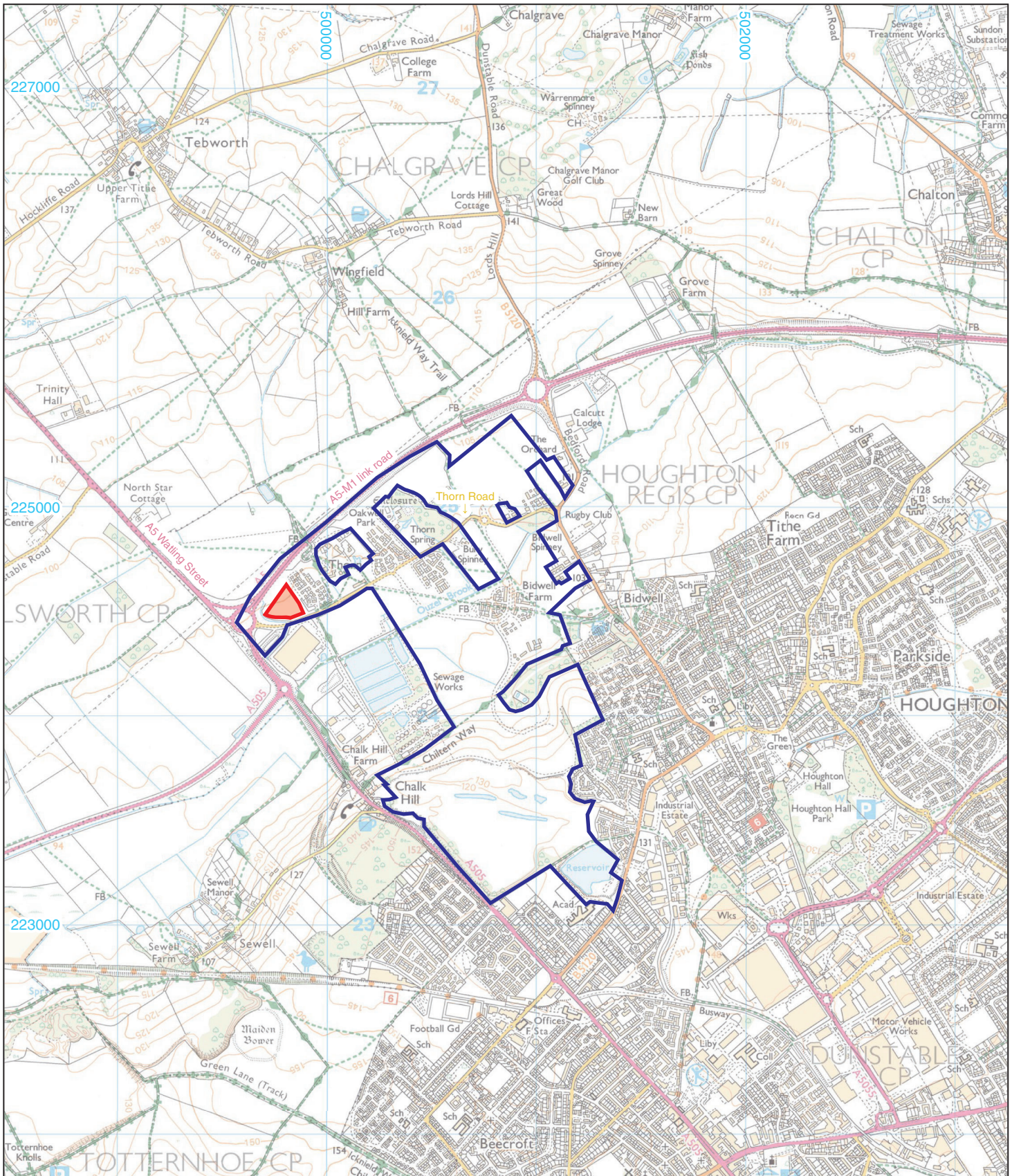
Shell-tempered fabrics (30 sherds; 576g; 0.18 EVE (3.6 % NOSH))

SH1 Very common to abundant, moderately sorted, fine shell or plate like voids. Reddish brown ext. dark brown int. Shell $\leq 1\text{mm}$. 17 sherds; 134g; 0.13 EVE.

SH2 Very common to abundant, moderately sorted, medium shell or plate like voids. Buff ext. grey core. Shell $\leq 3\text{mm}$. 5 sherds; 61g.

SH3 Moderate, poorly sorted, coarse shell or plate like voids. Buff ext. grey core. Shell $\leq 5\text{mm}$. 5 sherds; 326g.

SHGR1 Very common, poorly sorted, medium shell or plate like voids and moderate, poorly sorted, sub-round, medium grog. Grey surfaces. Brown core. Shell $\leq 3\text{mm}$, red grog $\leq 3\text{mm}$. 3 sherds; 55g; 0.05 EVE.



- Site boundary
- Bidwell development area

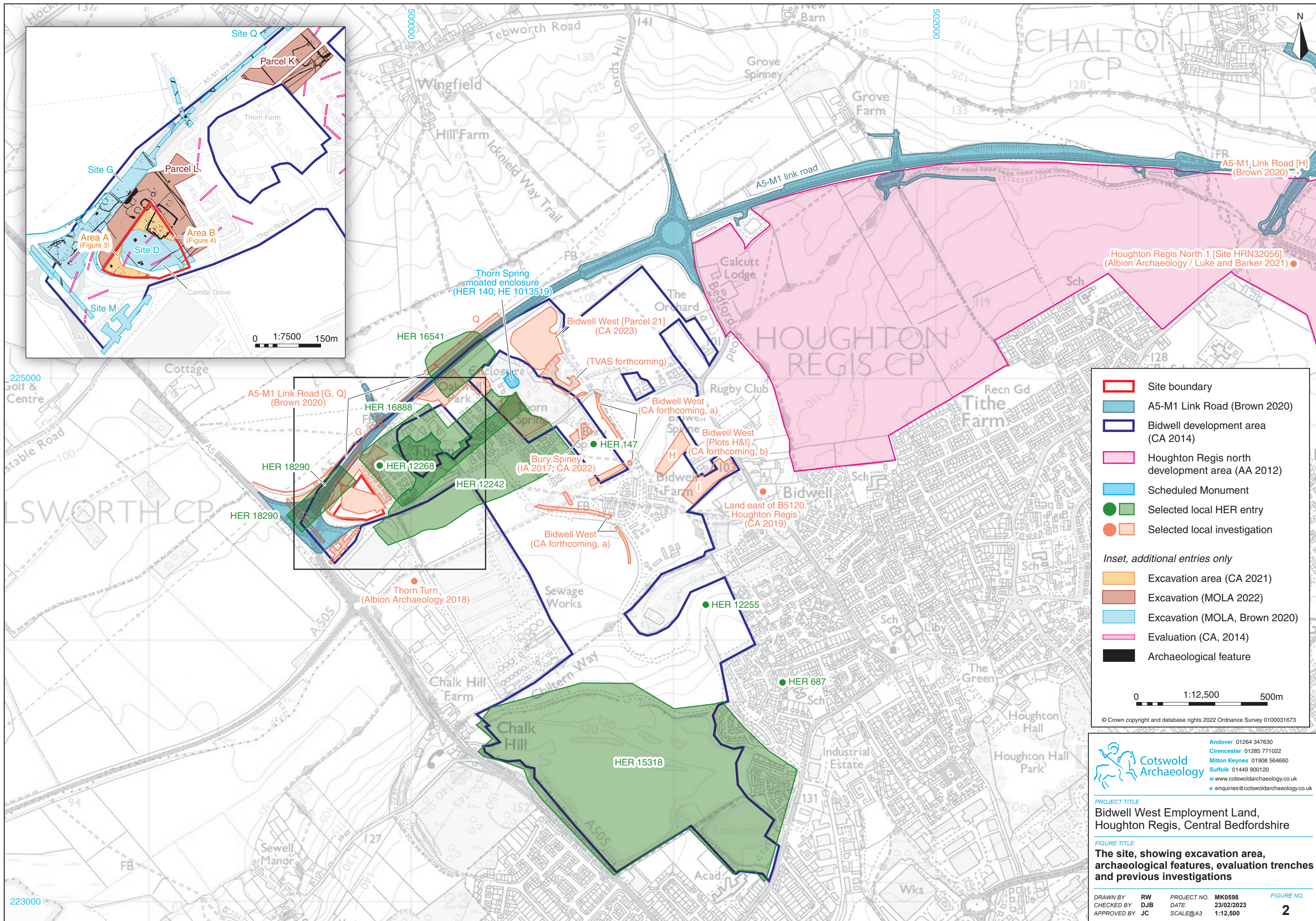


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FIGURE TITLE
 Site location plan

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Legend

- Site boundary
- A5-M1 Link Road (Brown 2020)
- Bidwell development area (CA 2014)
- Houghton Regis north development area (AA 2012)
- Scheduled Monument
- Selected local HER entry
- Selected local investigation

Inset, additional entries only

- Excavation area (CA 2021)
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Evaluation (CA, 2014)
- Archaeological feature

0 1:12,500 500m

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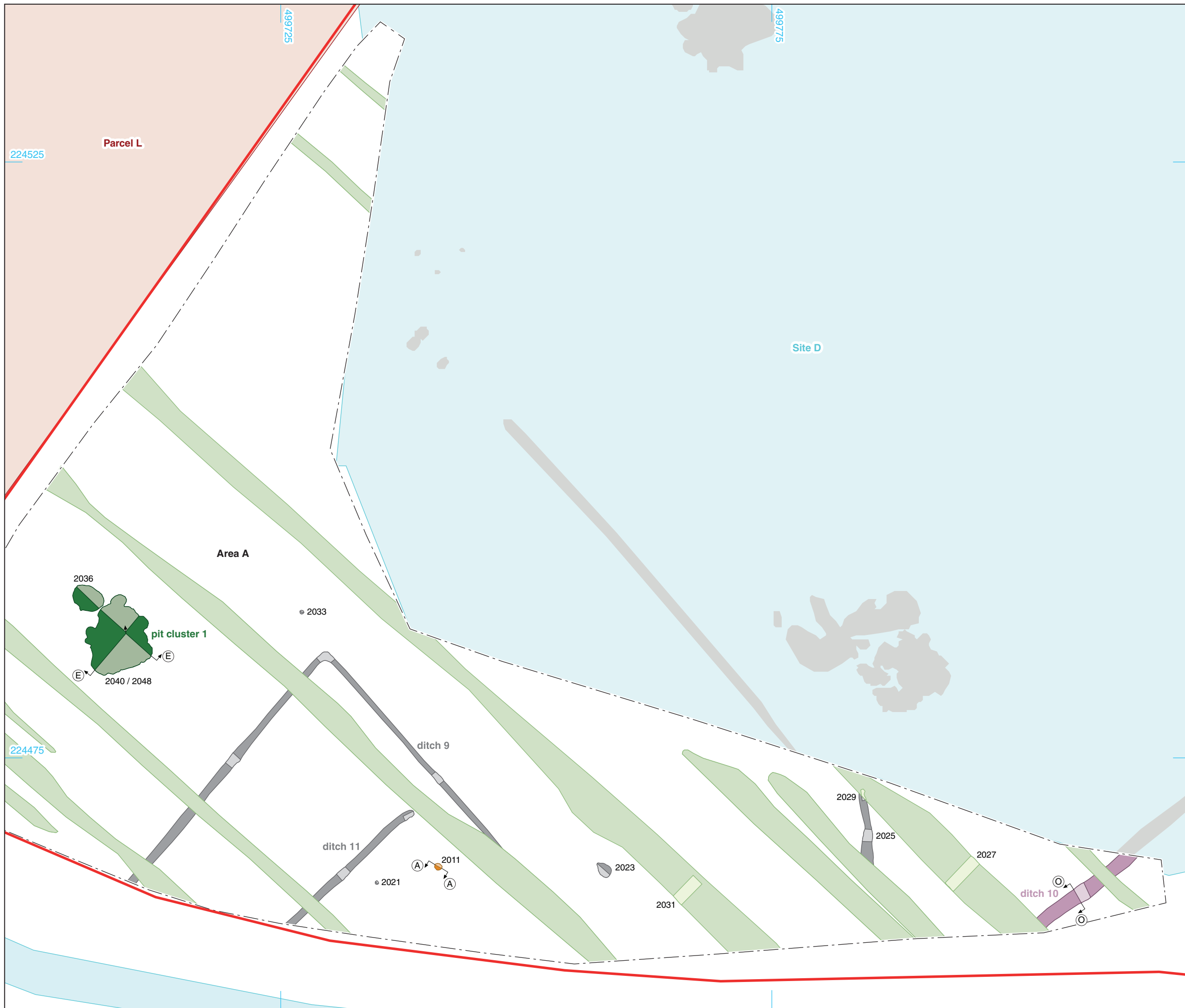
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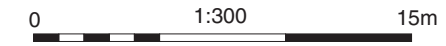
PROJECT TITLE
 Bidwell West Employment Land,
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FIGURE TITLE
 The site, showing excavation area,
 archaeological features, evaluation trenches
 and previous investigations

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APPROVED BY	JC	SCALE@A3	1:12,500	



- Site boundary
- Excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Previous excavation features
- Period 1: prehistoric (excavated / unexcavated)
- Period 2: Early Iron Age
- Period 4: Late Iron Age
- Undated
- Furrow
- Section location



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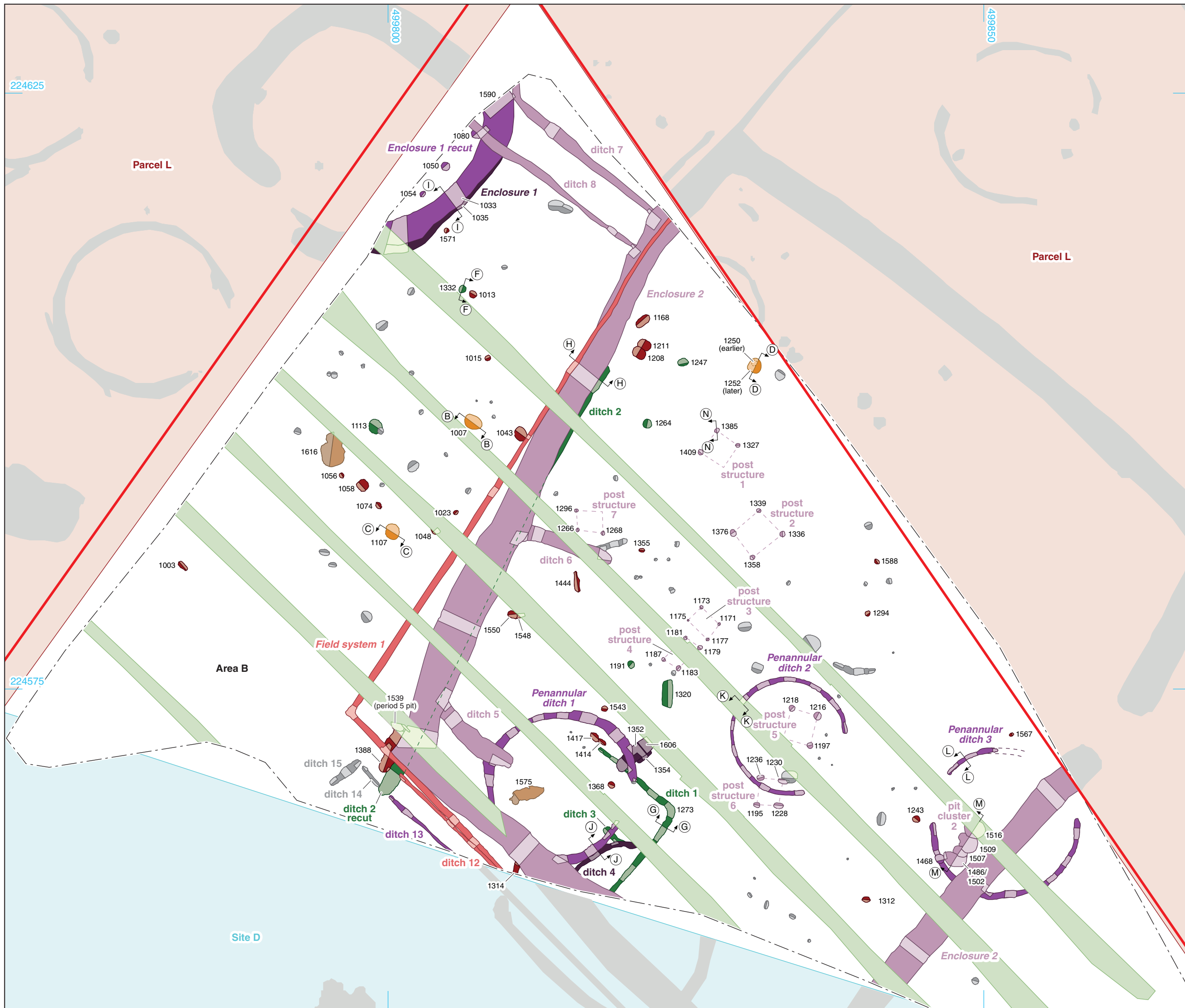
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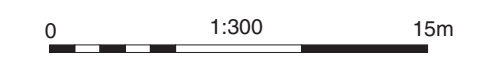
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FIGURE TITLE
 Area A phased plan

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CHECKED BY	DJB	DATE	23/02/2023	3
APPROVED BY	JC	SCALE@A3	1:300	



- Site boundary
- Excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Previous excavation features
- Period 1: prehistoric (excavated / unexcavated)
- Period 2: Early Iron Age
- Phase 3.1: Middle Iron Age I
- Phase 3.2: Middle Iron Age II
- Period 4: Late Iron Age
- Period 5: Iron Age
- Period 6: Roman
- Undated
- Furrow
- Natural
- A Section location

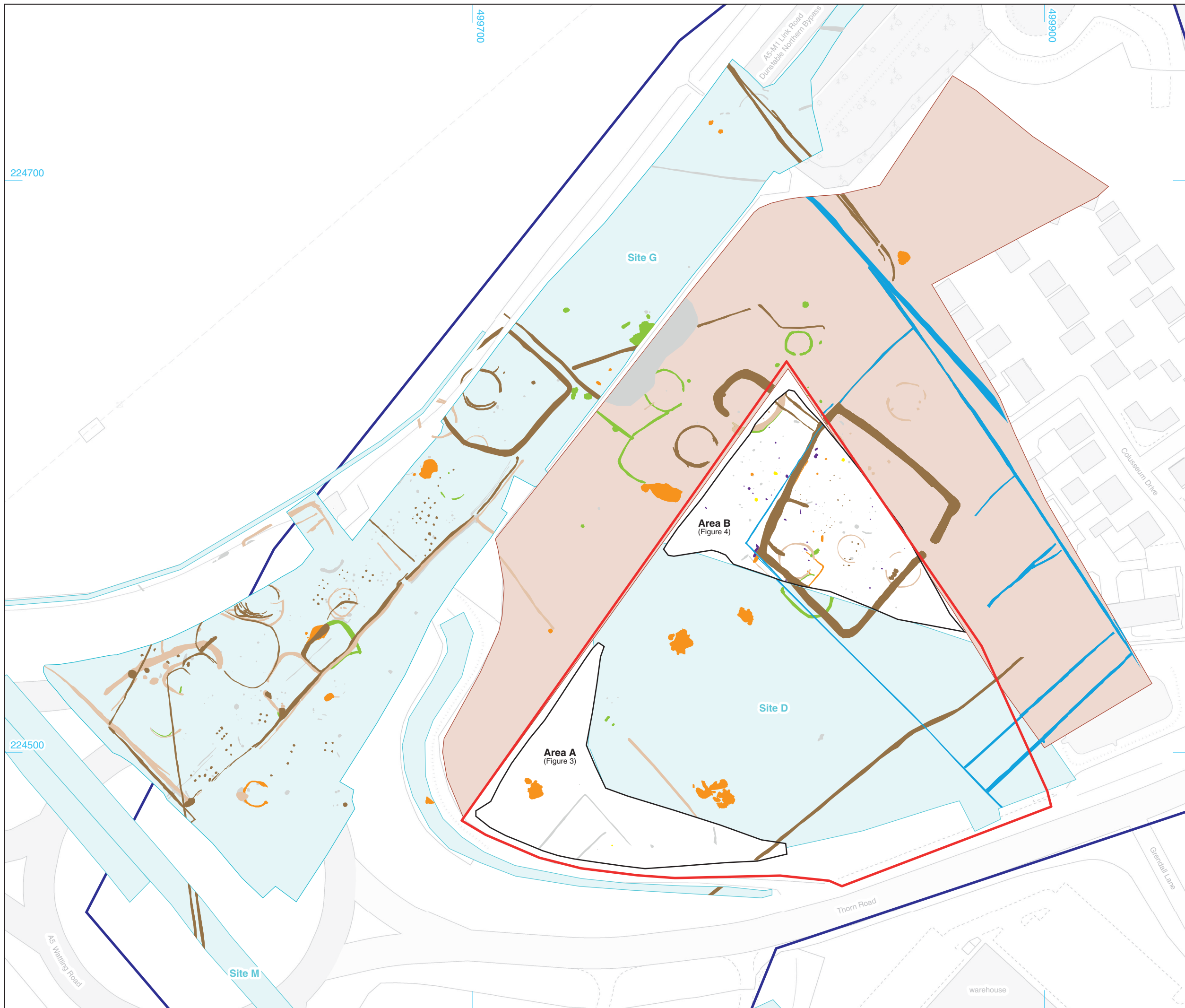


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FIGURE TITLE
 Area B phased plan

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APPROVED BY	JC	SCALE@A3	1:300	



- Site boundary
- Bidwell development area (CA 2014)
- CA excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Period 1: prehistoric
- Period 2: Early Iron Age
- Phase 3.1: Middle Iron Age I
- Phase 3.2: Middle Iron Age II
- Period 4: Late Iron Age
- Period 5: Iron Age
- Period 6: Roman
- Undated

[1] Phasing outside of the site boundary: after Brown 2020
 [2] Phasing colours differ to other figures in this report or clarity



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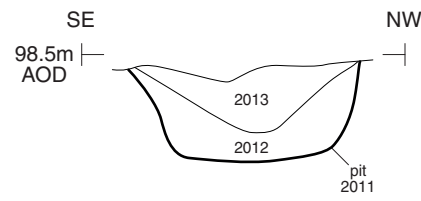
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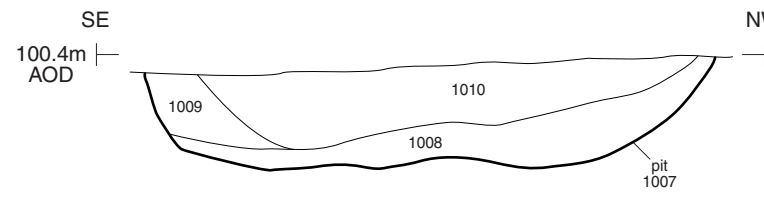
FIGURE TITLE
 The site, phased plan showing
 adjacent previous investigations

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CHECKED BY DJB	DATE 23/02/2023	5
APPROVED BY JC	SCALE@A3 1:1250	

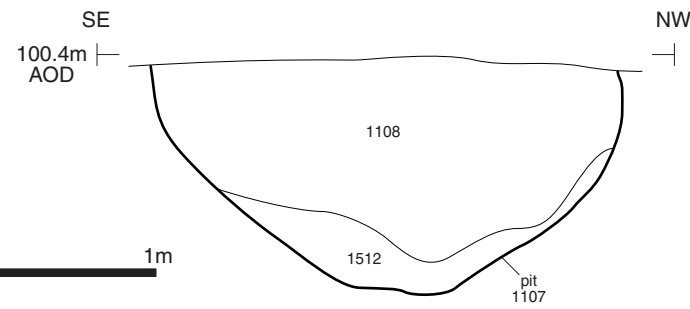
Section AA



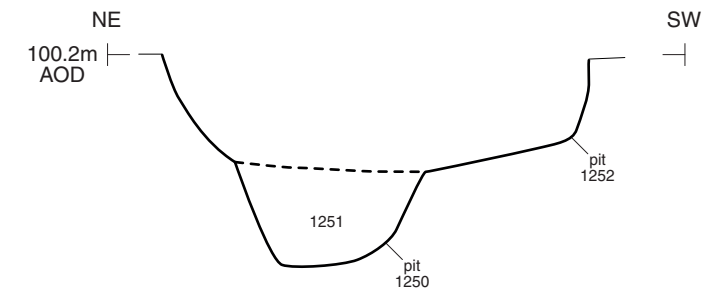
Section BB



Section CC



Section DD



Pit 2011, looking south-west (0.5m scale)



Pit 1007, looking south-west (1m scale)



Pit 1107, looking south-west (1m scale)



Pits 1250 and 1252, looking south-east (1m scale)

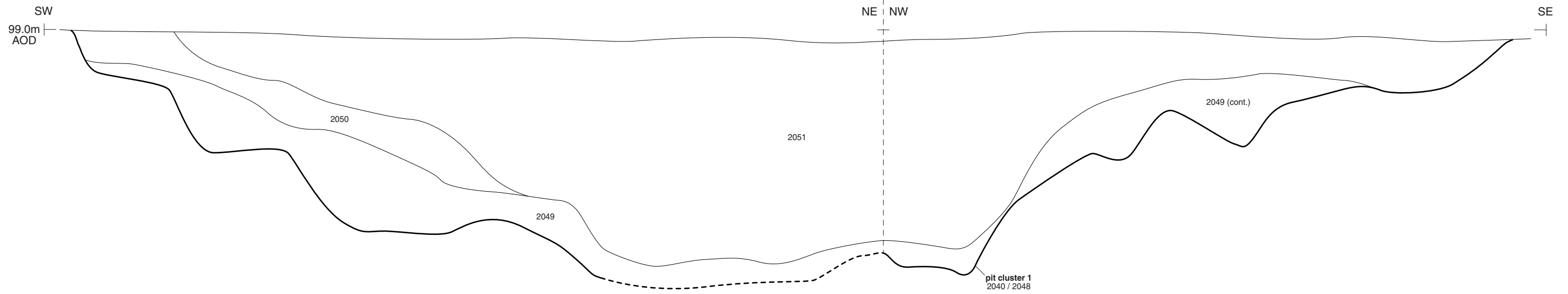

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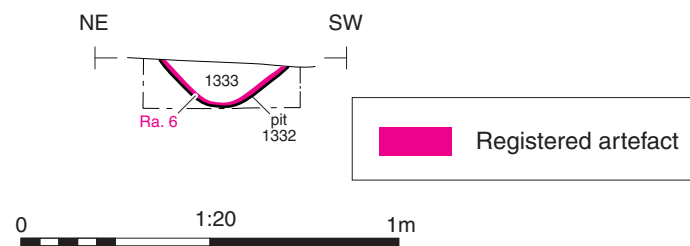
FIGURE TITLE
Period 1: sections and photographs

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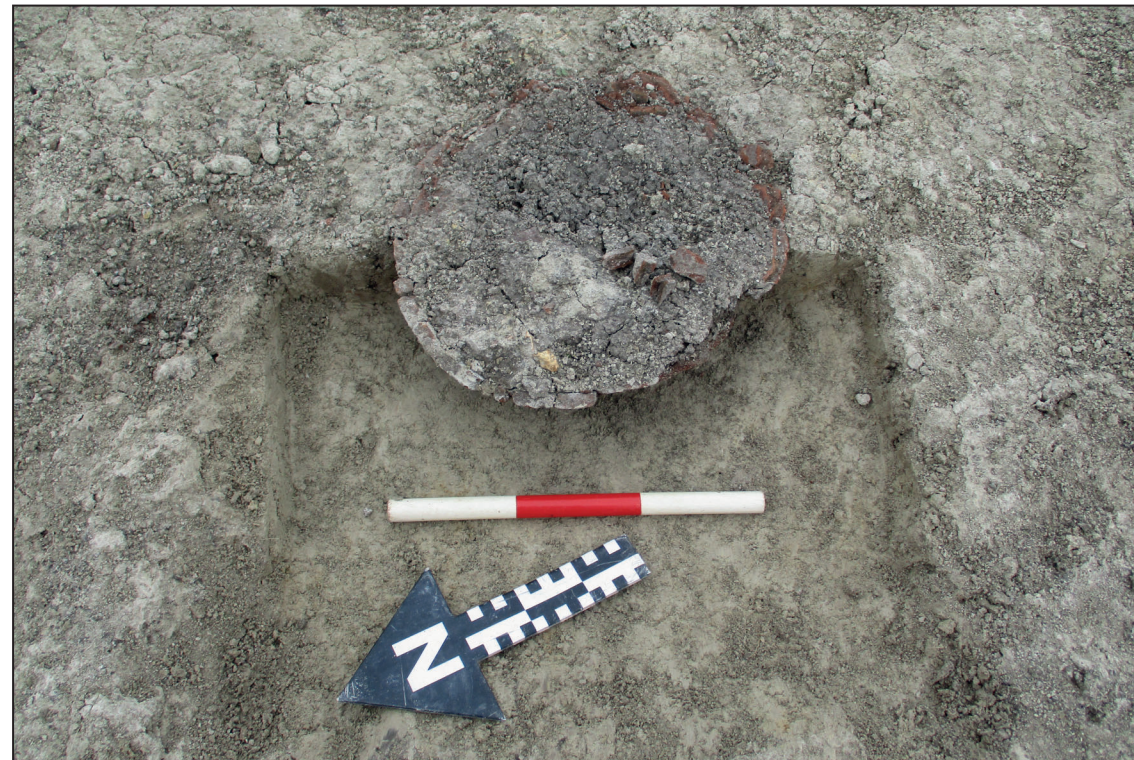
Section EE



Section FF



Pit cluster 1, looking south-east (2m scale)



Pit 1332 and Ra. 6, looking south-east (0.3m scale)

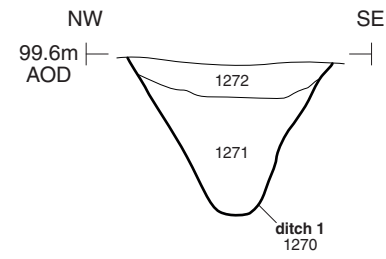

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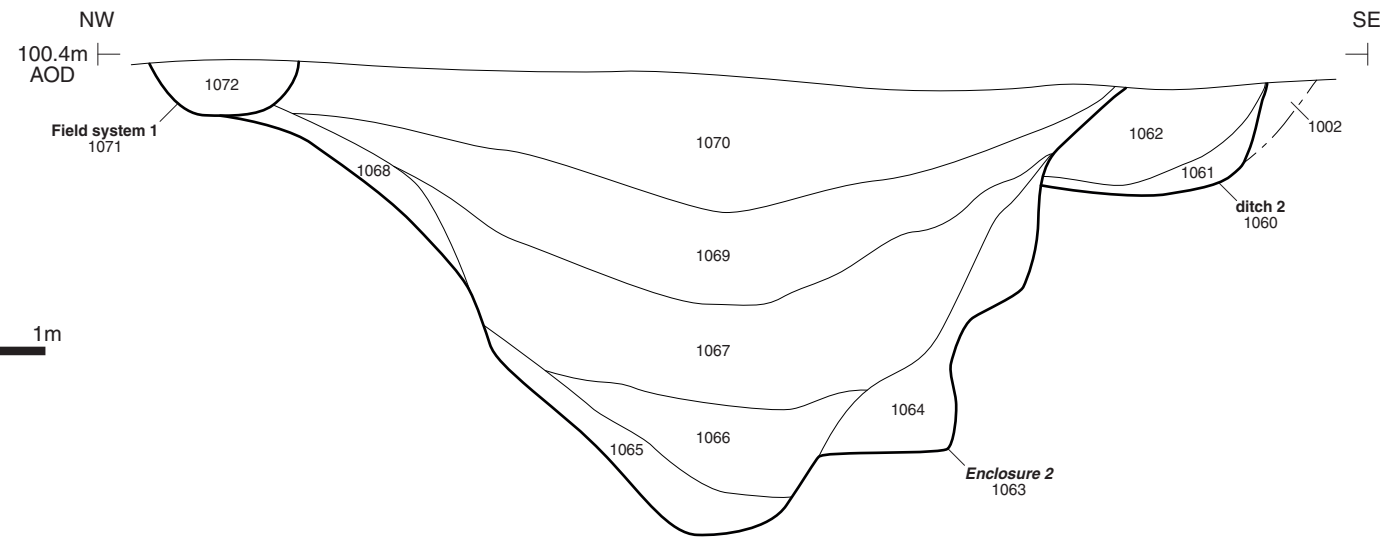
FIGURE TITLE
 Period 2: sections and photographs

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CHECKED BY	DJB	DATE	23/02/2023	7
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Section GG



Section HH



Period 2 Ditch 1 (cut 1270), looking north-east (0.3m scale)



Period 6 Field system 1 (cut 1071; left), period 4 Enclosure 2 (cut 1063; centre), and period 2 ditch 2 (cut 1060), looking south-west (1m scale)

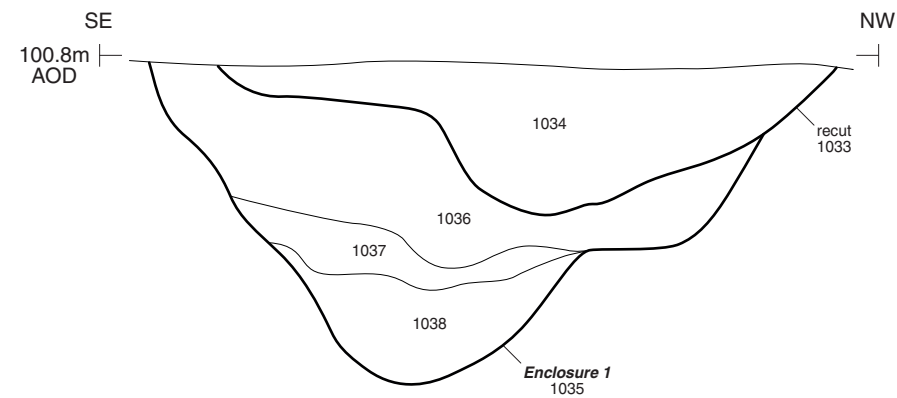

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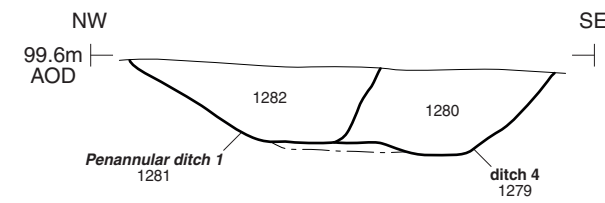
FIGURE TITLE
Period 2: sections and photographs

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Section II



Section JJ



Phase 3.1 Enclosure 1 (cut 1035; left) and Phase 3.2 recut (cut 1033; right), looking south-west (1m scale)

Phase 3.2 Penannular ditch 1 (cut 1281; left) and Phase 3.1 ditch 4 (cut 1279; right), looking north-east (0.5m scale)

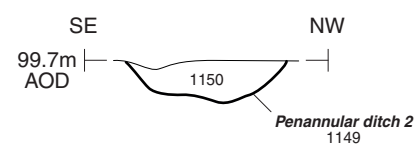

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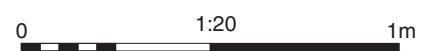
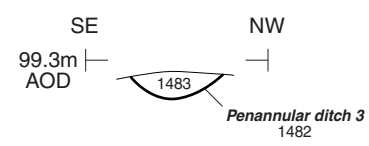
FIGURE TITLE
Phase 3.1: sections and photographs

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Section KK



Section LL



Penannular ditch 2 (cut 1149), looking south-west (0.2m scale)



Penannular ditch 3 (cut 1482; oblique shot), looking west (0.2m scale)

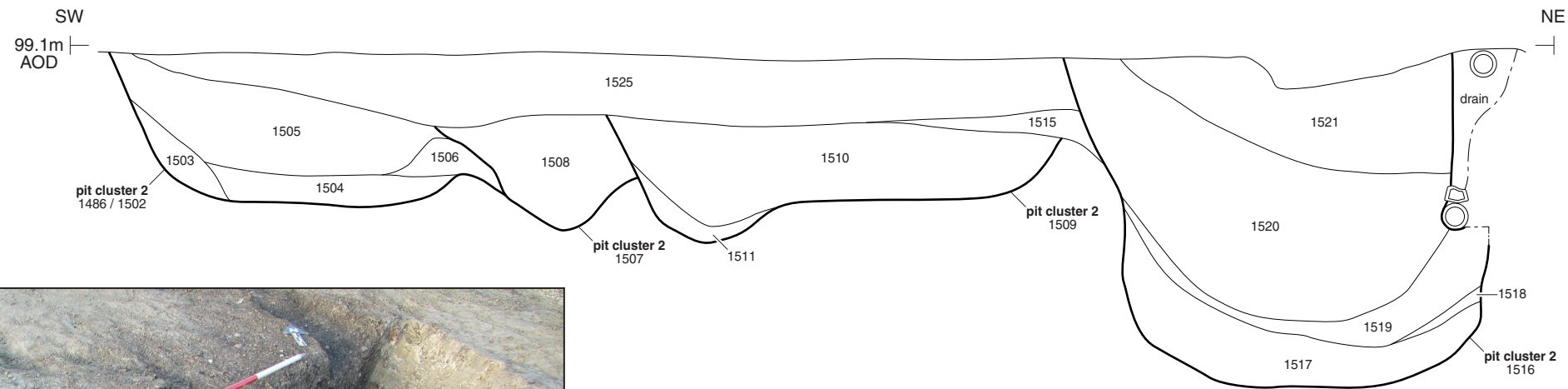

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FIGURE TITLE
Phase 3.2: sections and photographs

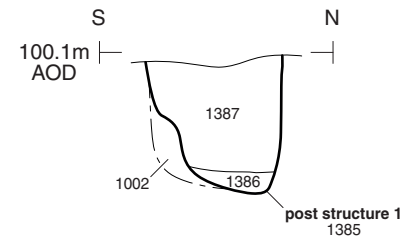
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APPROVED BY	JC	SCALE@A3	1:20	

Section MM

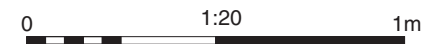
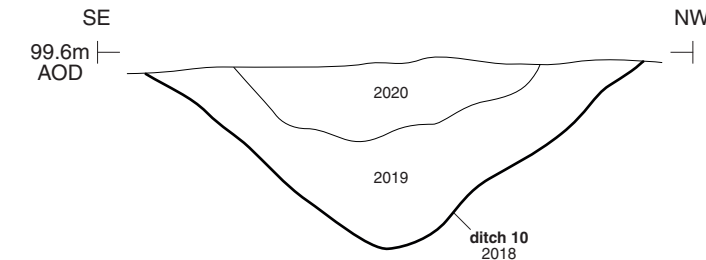


Pit cluster 2, looking north (2m scale)

Section NN



Section OO



Ditch 10 (cut 2018), looking south-west (1m scale)



Post structure 1 (posthole 1385), looking north-west (0.3m scale)


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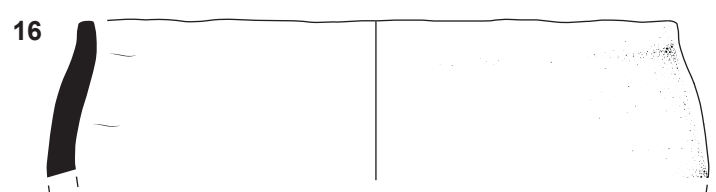
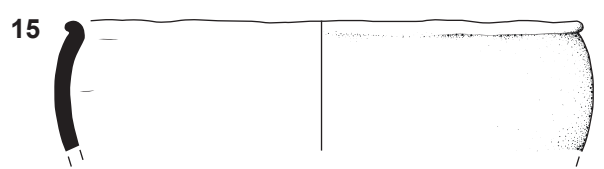
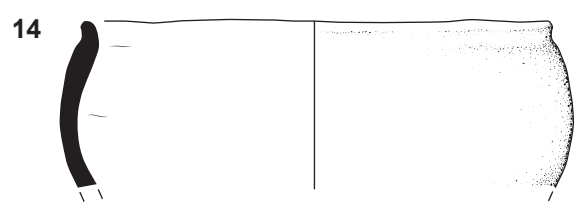
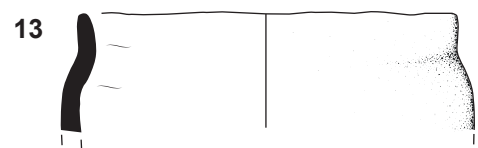
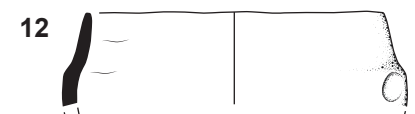
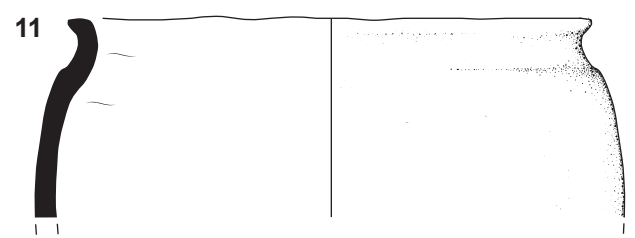
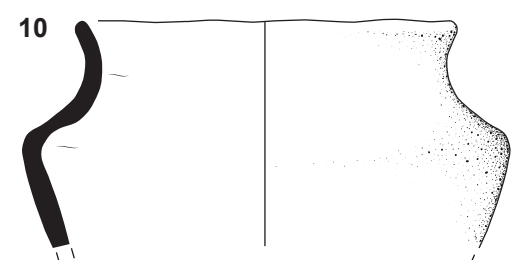
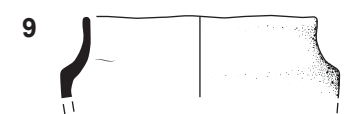
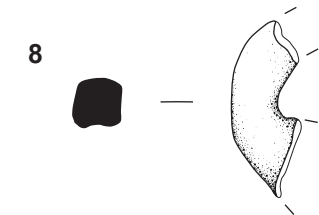
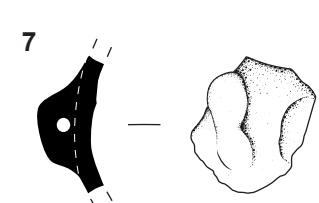
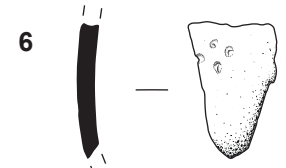
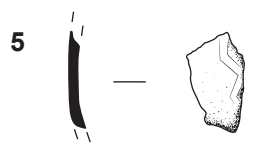
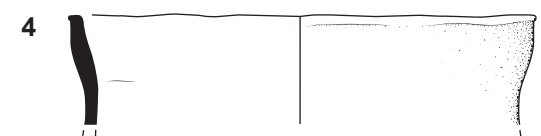
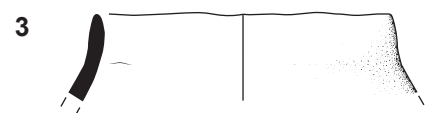
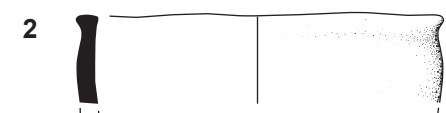
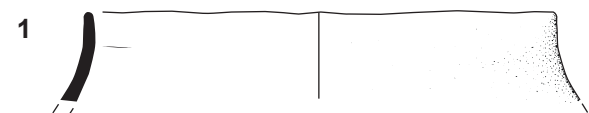
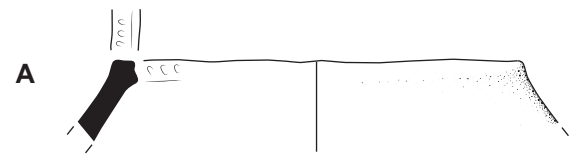
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FIGURE TITLE
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Early Prehistoric pottery

Late Prehistoric pottery



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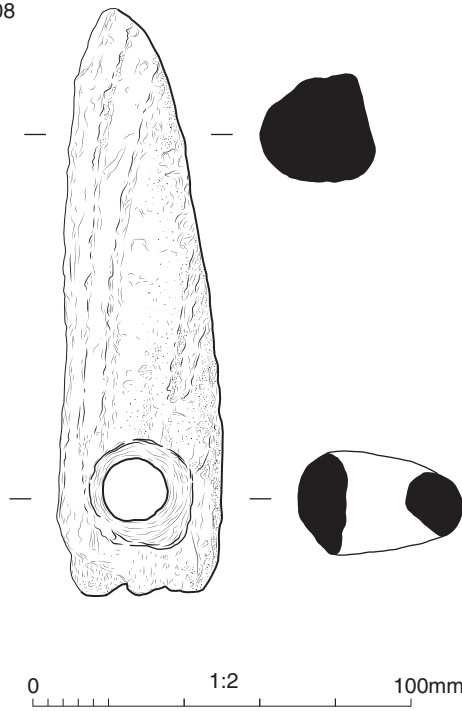
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FIGURE TITLE
Early and Late Prehistoric pottery

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PROJECT TITLE

Bidwell West Employment Land,
Houghton Regis, Central Bedfordshire

FIGURE TITLE

Worked antler find

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FIGURE NO.

13

Organic-tempered fabrics (2 sherds; 4g; (0.2% NOSH))

V2 Moderate, moderately sorted, medium organic voids. Grey throughout. Organic voids $\leq 3\text{mm}$. 2 sherds; 4g.

Forms (Table B3)

A minimum of 32 late prehistoric vessels (MNV) were recorded (2.23 EVE). In instances where vessel type could not be positively identified a generic jar/bowl category has been assigned. The most common vessel type is jars. Vessels that could be identified as bowls with any certainty are rare. Tall necked jars (V1) are one of the most common jar forms (Fig. 12, nos. 1-2 and 4). Strong shouldered jars (V2) with rounded or angular shoulders are also a common element (Fig. 12, no. 10). Both tall necked and shouldered jars (Period 2 pit 2048, Period 3.1 Enclosure 1 ditch 1035, Period 3.2 penannular ditch 1 (cut 1302), Period 5 pit 1043 (Fig. 12, no 3) and posthole 1243 and Period 6 Field System 1 ditch 1071) are representative of Early Iron Age activity (c. 700–400 BC) and similar vessels dated to this period are recorded from Salford, Bedfordshire (Slowikowski 2005, 28, fig. 2.21, nos 53 and 49 respectively). A carinated bowl (V6) from Period 2 pit 2048 is also likely to date to the same period (Fig. 12, no. 9). Comparable vessels are also known from Early Iron Age deposits at Salford (*ibid.*, fig.2.28, no. 102). Period 2 pit 2048 also produced two lug handled vessel, although the vessels are incomplete lug handles are indicative of Early Iron Age activity, although they are also known on Middle Iron Age vessels (Fig. 12, no. 7–8). Globular (V4) and slack-shouldered jar (V3) with simple upright rims are also common features of the late prehistoric group (Period 2 pit 1264, Period 3.1 Enclosure 1 ditch 1035, Period 3.2 penannular ditch 1 (cut 1426), Enclosure 1 re-cut ditches 1583 and 1596, Period 4 Enclosure 2 ditch 1063). These vessels (Fig. 12, nos. 11–16) are common amongst Middle Iron Age assemblage in the Bedfordshire region (Webley 2007, 224). Comparable vessels are recorded from Middle Iron Age deposits at Great Barford, Bedfordshire (*ibid.* 223, fig.8.4, nos. 13 and 15).

Jars (17 MNV; 1.51 EVE)

- V1 Tall necked jars with flat-topped, simple or externally expanded upright rims. 5 MNV; 0.4 EVE
- V2 Jars with marked rounded or angular shoulders with flat-topped or externally expanded upright rims. 2 MNV; 0.29 EVE.
- V3 Slack-shouldered jars with simple upright rims. 4 MNV; 0.36 EVE.
- V4 Globular jars with simple upright rims. 4 MNV; 0.31 EVE.
- V5 Jar with simple upright rims. 2 MNV; 0.15 EVE.

Bowls (1 MNV; 0.06 EVE)

V6 Carinated bowls with simple upright rims. 1 MNV; 0.06 EVE.

Jar/Bowls (14 MNV; 0.66 EVE)

R1 Flat-topped upright rims. 3 MNV; 0.13 EVE.

R2 Simple upright rims. 9 MNV; 0.41 EVE.

R11 Everted rims. 2 MNV; 0.12 EVE.

Decoration and surface treatment

Decorated sherds are uncommon (13 sherds). Of those, fingertip impressed body (3 sherds) or rim sherds (2 sherds) are the most frequently recorded. The former is a style of decoration most commonly associated with Early Iron Age activity, the latter begins during the Early Iron Age, but its use continues in the Middle Iron Age (Webley 2007, 222, fig.8.3, nos. 8 and 10). Incised linear decorations are noted on several vessels (3 sherds). In particular a body sherd decorated with incised chevrons was recovered from Period 2 ditch 1276 (Fig. 12, no. 5). This style of decoration is consistent with Cunliffe's Chinnor-Wandlebury style (Cunliffe 2009) and Early Iron Age vessels from Salford, Bedfordshire, are decorated with similar motifs (Slowikowski 2005, 24, fig. 2.16, no. 39). A single sherd in fabric Q2 is decorated with an impressed 'rosette' motif, comprising four annulated impressed dots (Fig. 12, no. 6). No close comparative material could be found for this style of decoration. Burnishing is the most common form of surface treatment (91 sherds). Although sherds in a diverse range of fabrics exhibit signs of burnishing it is most common on those made in fine (Q1/QVM1) and medium sandy fabrics (Q2/QV2), suggesting a closer link to finewares. Sherds with scored surfaces, consistent with the East Midlands Scored Ware tradition, are relatively rare (3 sherds). This type of surface treatment dates to the 5th century BC to mid 1st century AD (Knight 2002, 133).

Dating and stratigraphy (Table B4)

The majority of the late prehistoric assemblage (663 sherds, 7136g) is in features dated to Periods 2, 3 and 4. A small proportion is residual in features dated to Periods 5 and 6 (162 sherds, 1518g). The relative scarcity of flint-tempered (FL4/FLV1/FLGR4) and sandy grog-tempered fabrics (QGR1/QGR2/QGRV1), may be chronologically significant. Equivalent fabric types are common from Early Iron Age deposits at Salford, Bedfordshire (Slowikowski 2005, 106) and their scarcity at Bidwell West, may be indicative here of relatively later dating. The use of sandy fabrics at Salford began in the Early Iron Age but continued into the Middle Iron

Age and their use here together with heavily micaceous fabrics, which are only recorded from Middle Iron Age deposits at Salford (*ibid.*), suggests activity spanning both periods.

Period 3.2 penannular ditch 1

This penannular ditch produced a moderately sized assemblage (157 sherds, 2424g). Most are body sherds. Material that conclusively dates to the Early Iron Age is rare but includes the rim of a tall necked jar (V1) and five body sherds in flint (QFL1) or sandy grog-tempered fabrics (QGR1). The majority of the group comprises sandy (Q1/Q2/QI2) and fine micaceous fabrics (QM1/QVM1). The latter are most likely of Middle Iron Age date (Slowikowski 2005, 106). Overall, the group is suggestive of a date towards the end of the Early Iron Age into the Middle Iron Age.

Illustration Catalogue (Fig. 12)

1. Tall necked jar with simple upright rim. Fabric Q3. Form V1. Period 5 pit 1043.
2. Tall necked jar with flat-topped rim. Fabric QI2. Form V1. Period 5 pit 1043.
3. Jar with simple upright rim. Fabric Q2. Form V5. Period 5 pit 1043.
4. Tall necked jar with externally expanded rim. Fabric QVM2. Form V1. Period 6 ditch 1071.
5. Incised chevron decoration. Fabric Q2. Period 2 ditch 1276.
6. Impressed 'rosette' decoration. Fabric Q2. Period 2 pit 2048.
7. Lug handle. Fabric QM2. Period 2 pit 2048.
8. Lug handle. Fabric Q2. Period 2 pit 2048.
9. Carinated bowl with simple upright rim. Fabric QI2. Form V6. Period 2 pit 2048.
10. Round shouldered jar with flat-topped upright rim. Fabric Q2. Form V2. Period 2 pit 2048.
11. Slack shouldered jar with externally expanded rim. Fabric Q2. Form V3. Period 5 posthole 1243.
12. Slack shouldered jar with simple upright rim and fingertip decorated shoulder. Fabric Q2. Form V3. Period 2 pit 1264.
13. Slack shouldered jar with simple upright rim. Fabric Q1. Form V3. Period 3 Phase 3.2 ditch 1596.
14. Globular jar with simple upright rim. Fabric QVM1. Form V4. Period 3 Phase 3.1 ditch 1035.
15. Globular jar with simple upright rim. Fabric QVM1. Form V4. Period 3 Phase 3.1 ditch 1035.

16. Globular jar with simple upright rim. Fabric Q2. Form V4. Period 3 Phase 3.2 penannular ditch 1426.

Assemblage range – Late Iron Age (transitional)/Roman

Four sherds (46g) of Late Iron Age or Roman pottery was recorded from four deposits. The EVE value is 0.1, representing a minimum of one vessel.

Three sherds (43g) occur in wheelthrown grog-tempered fabric **SOB GT**, a type common to the Late Iron Age/Early Roman (transitional) period (Period 4 Enclosure 2 ditch 1529). A single lid-seated jar (**SOB GT**) was recovered from Period 4 Enclosure 2 ditch 1529. The vessel can be dated to the 1st century AD (Thompson 1982, 244). A single sherd of possible Roman reduced coarseware (**UNS GW**) was also noted. The origin of these fabrics is not known but they have, most likely, been produced locally.

Fabric Descriptions (Table B2)

Late Iron Age/Early Roman (transitional) fabrics (3 sherds; 43g; 0.1 EVE)

SOB GT Southern British grog-tempered ware. 3 sherds; 43g; 0.1 EVE.

Reduced coarsewares (1 sherd; 3g)

UNS GW Unsourced sandy grey ware. 1 sherd; 3g.

Assemblage range – medieval

The T-shaped rim from a bowl, made in St-Neots type ware (**STNE**), was recovered from Period 4 Enclosure 2 ditch 1316. St Neots wares can be dated to the 9th to 11th centuries and were produced in the St Neots region of Cambridgeshire (Addyman 1973).

Fabric Descriptions (Table B2)

Shell-tempered fabrics (1 sherd; 13g; 0.05 EVE)

STNE St Neots type wares. 1 sherd; 13g; 0.05 EVE.

Discussion

The pottery provides limited evidence for activity in the vicinity of the site during the early prehistoric, Middle Bronze Age, Late Iron Age/Roman and medieval periods. Although some of the early prehistoric group is most likely residual in later features a small number of sherds

may be contemporary in isolated discrete features (Period 1 pit 2011, Period 1 pit 1007 and Period 1 pit 1252). The few Roman and medieval sherds are generally intrusive in features which also contain larger quantities of Iron Age pottery. The focus of activity, however, took place during the late prehistoric period and much of the diagnostic material is suggestive of a date towards the end of the Early Iron Age into the Middle Iron Age (c. 500–200 BC). The presence, in only small quantities, of flint and sandy grog-tempered fabrics indicates that activity at the site probably didn't begin much before the start of the 6th century BC. The scarcity of Late Iron Age/Early Roman grog-tempered fabrics indicates that activity did not continue much beyond the 2nd or 1st centuries BC. The dating evidence from the fabrics is supported by those vessel forms identified. The presence of tall-necked and shouldered jars, both Early Iron Age forms, together with Middle Iron Age slack-shouldered and globular forms supports the fabric dating evidence. The dominance of jars in the assemblage would point towards domestic activity with most vessels probably used for food storage or preparation, although residues (limescale or burnt food) were only recorded on a small number of sherds (5 sherds).

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Table B1: Summary of pottery by period.

Period	Count	Weight (g)	EVEs	MNV
Early prehistoric	6	46	0.06	1
Late prehistoric	832	8691	2.23	32
LIA/Roman	4	46	0.1	1
Medieval	1	13	0.05	1
Grand Total	843	8796	2.44	35

Table B2: Summary of pottery by fabric type.

Period	Fabric Codes*	Beds Fabric Series**	Count	% of Count	Weight (g)	% of Weight	EVE	MNV
Early prehistoric pottery	FL2	X05	3	50	11	23.9		
	FL3	X05	1	16.7	10	21.7		
	FLGR3		1	16.7	9	19.6		
	GRC1		1	16.7	16	34.8	0.06	1
<i>Subtotal</i>			6	100	46	100	0.06	1
Late prehistoric pottery	FL4	F01B	2	0.2	31	0.4		
	FLGR4	F02	1	0.1	7	0.1		
	FLV1		2	0.2	10	0.1		
	GRM1	F39	1	0.1	14	0.2		
	GRV2		2	0.2	7	0.08		
	Q1	F28	22	2.6	199	2.3	0.07	2
	Q2		277	33.3	2331	26.8	0.91	10
	Q3	F29	9	1.1	97	1.1	0.07	1
	QC1	F30	6	0.7	71	0.8		
	QFL1	F01C	17	2.0	117	1.3		
	QFL2	F01C	9	1.1	120	1.4	0.08	1
	QGR1	F03	15	1.8	59	0.7		
	QGR2	F03	4	0.5	45	0.5		
	QGRV1	F22	2	0.2	23	0.3		
	QI1	F28	4	0.5	36	0.4		
	QI2		207	24.9	2847	32.8	0.25	4
	QI3	F29	4	0.5	217	2.5	0.08	1
	QM1	F35	22	2.6	198	2.3		
	QM2		18	2.2	158	1.8		
	QSH1		30	3.6	190	2.2	0.14	2
	QSH2		15	1.8	137	1.6		
	QV2	F19	59	7.1	475	5.5	0.12	2
	QVM1		66	7.9	675	7.8	0.27	5
	QVM2		6	0.7	47	0.5	0.06	1
	SH1	F16B	17	2.0	134	1.5	0.13	2
	SH2	F07	5	0.6	61	0.7		
SH3	F16	5	0.6	326	3.8			
SHGR1	F05	3	0.4	55	0.6	0.05	1	
V2	F04	2	0.2	4	0.05			
<i>Subtotal</i>			832	100	8691	100	2.23	32
LIA/Roman pottery	SOB GT		3	75.0	43	93.5	0.1	1
	UNS GW	R06C	1	25.0	3	6.5		
<i>Subtotal</i>			4	100	46	100	0.1	1

Medieval pottery	STNE	B01	1	100.0	13	100.0	0.05	1
<i>Subtotal</i>			<i>1</i>	<i>100</i>	<i>13</i>	<i>100</i>	<i>0.05</i>	<i>1</i>
Total			843		8796		2.44	35

*National Roman Fabric Reference Collection in bold (Tomber and Dore 1998).

** Bedfordshire fabric series (Parminter and Slowikowski 2004 and Slowikowski 2013).

Table B3: Summary of late prehistoric pottery by vessel form.

Vessel Code	EVEs	MNV
<i>Bowls</i>		
V6	0.06	1
<i>Jars</i>		
V1	0.4	5
V2	0.44	3
V3	0.21	3
V4	0.31	4
V5	0.15	2
<i>Jar/bowl</i>		
R1	0.13	3
R2	0.41	9
R11	0.12	2
Total	2.23	32

Table B4: Summary of late prehistoric pottery by period.

Fabric Code	Unphased		Period 2		Phase 3.1		Phase 3.2		Period 4		Period 5		Period 6		Total	
	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)	Ct.	Wt (g)
FL4			1	12	1	19									2	31
FLGR4									1	7					1	7
FLV1			1	4	1	6									2	10
GRM1					1	14									1	14
GRV2									1	3	1	4			2	7
Q1			2	22	1	8	3	44	2	22	14	103			22	199
Q2	2	9	96	882	9	155	24	245	76	495	63	508	7	37	277	2331
Q3			6	55					1	19	1	17	1	6	9	97
QC1			1	10					5	61					6	71
QFL1	2	18	6	24	1	10	1	8	5	41	2	16			17	117
QFL2									7	102	2	18			9	120
QGR1			6	14			4	24	2	17	3	4			15	59
QGR2			1	5							3	40			4	45
QGRV1			1	4							1	19			2	23
QI1			2	14			1	14	1	8					4	36
QI2			50	305	2	18	107	1992	31	213	15	314	2	5	207	2847
QI3			1	13					2	51	1	153			4	217
QM1			4	55	1	5	5	57	6	43	5	26	1	12	22	198
QM2			17	146							1	12			18	158
QSH1			1	7	3	30	6	30	17	104	2	9	1	10	30	190
QSH2			2	14	1	8			11	114			1	1	15	137
QV2	3	10	10	45	4	153	8	29	18	141	15	92	1	5	59	475
QVM1			9	68	10	245	19	166	18	143	8	46	2	7	66	675
QVM2			4	30					1	3			1	14	6	47
SH1			1	2	2	44	3	25	5	28	3	16	3	19	17	134
SH2			2	55			1	1	1	3	1	2			5	61
SH3			1	12					3	311			1	3	5	326
SHGR1					1	45			2	10					3	55
V2									2	4					2	4
Total	7	37	225	1798	38	760	182	2635	218	1943	141	1399	21	119	832	8691

APPENDIX C: LITHICS

By Jacky Sommerville

Introduction

A total of seven worked flints (43.9g) was recovered from the hand excavation and bulk soil sampling of seven separate deposits. The artefacts were recorded according to broad debitage/artefact type as defined by Butler (2005) and catalogued into a Microsoft Access database. A reduced level of recording was undertaken, due to the very small assemblage size. The flint is variable in quantity, ranging from fine-grained to slightly coarse. Cortex is present on three items, and it is chalky on all of these. The underlying bedrock at the site is chalk of the West Melbury Marly Chalk Formation (BGS 2022), so good quality chalk flint would have been available locally. The lithics were all retrieved as residual finds in deposits of Phase 3.1 (Middle Iron Age 1), 4 (Late Iron Age) and 5 (Iron Age) date. Moderate edge damage was observed on all the flints, consistent with redeposition, and two items are broken.

Results

The lithics comprise five flakes, one notched flake and a fragmentary leaf-shaped arrowhead. The notch on the notched flake has been formed on the left ventral edge with fine, regular, abrupt retouch. The arrowhead fragment was recovered from bulk soil sampling of upper fill 1329 of posthole 1327 in Period 4 post structure 1. Only the narrow, pointed tip is present and it features bifacial retouch. This arrowhead most closely matches Green's leaf-shaped arrowhead Type 2C (Green 1980, 71, fig. 28) and is a diagnostic Early Neolithic tool. Other evidence of Early Neolithic activity in the area includes a pit identified during the evaluation of Bidwell West, Houghton Regis North 2, just over 1km to the south-east of the current site (CA 2014), a pit at Land east of B5120, Houghton Regis, just under 2km to the east (CA 2019) and pits at Puddlehill Quarry (HER 687).

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APPENDIX D: CERAMIC BUILDING MATERIAL

By Laura Pearson

Introduction and methodology

One fragment (3g) of ceramic building material (CBM) was recovered from undated pit 1031 (fill 1032). It was examined using a x10 binocular microscope and recorded direct to an Ms Access database.

Assemblage range

Undated

The CBM fragment was made in an oxidised fine sandy fabric containing clay pellets. The fragment is small and does not exhibit any diagnostic features, and as such close dating was not possible.

APPENDIX E: FIRED CLAY

By Laura Pearson

Introduction and methodology

The fired clay assemblage comprises ten fragments, weighing 76g. It was recovered by hand from six deposits: three ditches, two pits and the upper fill of Period 3 Phase 3.2 penannular ditch 1 (cut 1426). The assemblage was examined using a x10 binocular microscope and recorded direct to an Access database. This now forms part of the archive. The group was quantified by fragment count and weight per context.

Assemblage Range (Table E1)

Miscellaneous

The assemblage is in a variety of mainly hard fired fine sandy fabrics (fs), some with clay pellet (cp), ferrous (fe), micaceous (m), grog (gr) or quartzite inclusions (qz). Surface and interior colouring ranges from white/cream to pink/orange to black. One fragment of from the lower fill of Period 2 ditch 1 (cut 1273) is vitrified. The remainder of the fired clay fragments do not exhibit any diagnostic features and are of uncertain date. Due to their fragmentary nature, it is not possible to determine their form or function with any certainty.

Table E1: Summary of fired clay by fabric.

Period/Phase	Fabric	Count	Weight (g)
Period 4	fscp	2	6
Period 4	fscpfe	1	6
Phase 3.1	fsfem	4	32
Phase 3.2	fsgfe	1	10
Period 2	fsqz	1	3
Period 2	fsxm	1	19
Total		10	76

APPENDIX F: STONE

By Ruth Shaffrey PhD, MCI(A), FSA

A total of two items of utilised stone were recovered. One of these is a fragment of burnt stone that is reddened on one side and blackened on the other (recovered from fill 1167 of Period 6 Field System 1 ditch 1165); it shows no other signs of use. Fill 1510 (of Period 4 pit 1509) contained a single tessera of banded quartzite measuring 11 x 14 x 16mm and weighing 7g.

APPENDIX G: METALWORK

By Alex Bliss

Introduction

Quantification and recording

A total of four metal objects were recovered during excavation. All are manufactured of copper alloy and have been recorded directly into an MS Excel spreadsheet, being analysed in accordance with guidelines set out in the ClfA Toolkit for Specialist Recording (ClfA 2021). In addition to visual analysis, they have been examined with the assistance of low powered magnification and digital x-ray plates that will be deposited alongside the site archive. Three were recorded as registered artefacts (Ra.), while the fourth was recovered in an environmental sample.

The report produced below serves an all-encompassing purpose in detailing all metal objects found at the site and duly interpreting them in full. Identifications, suggestions for dating and any future actions applicable to the objects are all set out.

Distribution, dating and character of the assemblage

The finds from BWEL originate from two archaeological deposits in addition to the topsoil (Table G1), with one object from each context and two unstratified. These features consist of two pits – one phased to Period 2 (Early Iron Age) and the other to Period 5 (Iron Age). Only two metal items recovered could be dated accurately, one being Early Iron Age onwards and the other 20th century. The remaining two finds are somewhat undiagnostic in appearance and challenging to assign to specific periods.

Within the scope of this report, the metalwork assemblage has been categorised into functional groupings adapted from those devised by Crummy (1983), facilitating an overview of this entire element of the site finds (Table G1). Each of these is dealt with and discussed in turn, with conclusions based on a synthesis of the entire assemblage set out in the final section of this report.

Context	Period	Dress accessories	Coins, tokens and jetons	Unidentified objects
u/s	-			
u/s	-		1	1
Pit 1043 (fill 1045)	5			1
Pit 2036 (fill 2037)	2	1		

Table G1: BWEL finds per category and context

The Finds

Dress accessories

Only one item within the assemblage can be identified as a dress accessory (no. 1, Ra. 5).

1. Bow brooch, copper alloy. Incomplete, four fragments present - originating from the bow and head sections. Bow fragment is the largest, this being low-arched and decorated with incised decoration on its front face. X-ray analysis of a second piece reveals the presence of two tightly wound wire coils relating to the spring, while the two smallest remaining fragments cannot be identified exactly but are undoubtedly also part of this object. *La Tene* B series (Hull and Hawkes 1987), Adams type 1B or 1C (Adams 2015, 2; Hull and Hawkes 1987). Date: Early Iron Age, c.400-300 BC. Dimensions of bow fragment: Length: 24.81mm. Width: 5.88mm. Thickness at midpoint: 2.33mm. Combined weight of all pieces: 1.23g. Period 2, pit cluster 1, fill 2037 of pit 2036. Ra. 5.

Brooches of these forms seem to have been produced in quite large numbers – with Adams recording 230 of type 1B in 2013 (Adams 2015, 1; Adams 2013). These objects are quite widespread as finds across England, though major concentrations are particularly visible in the southern and eastern parts of the country.

Coins, tokens and jetons

A single coin was recovered during excavation of the site (Ra. 1) this originating from unstratified topsoil. Heavily corroded and encrusted, it can be identified as a milled cupro-nickel sixpence of George VI dated 1949.

Unidentified objects

Two metal items could not be identified within this small assemblage. The first was recovered as an unstratified topsoil find, this being a small piece of copper alloy approximately 14mm wide and 7.31mm wide (Ra. 3). One end is flat with an accompanying broken rivet hole, while the other is pointed. Though somewhat undiagnostic and heavily corroded, this item does bear resemblance to medieval book fittings of Howsam's type A.6.2 (Howsam 2016, 35, figs. 2-4), which were utilised as catch-plates to secure accompanying hooked fittings intended to hold the covers shut. However, the similarity in appearance may be purely coincidental. The second find was recovered from environmental sample 1 from Period 5 (Iron Age) pit 1043 – this being four very small fragments of rectangular sectioned, thin copper alloy strip some 1.93mm in width. These four fragments likely conjoin, though their function is unknown – a brooch pin represents just one possibility out of many.

Discussion

The single item of interest from this small assemblage is brooch Ra. 5. The recovery of this object represents an addition to the body of evidence indicating a very much southern (specifically, Thames Valley and Wessex) focus for brooches of Adams' type 1B/C – perhaps reflecting an early example of intensive production of a specific object type used widely across the region as everyday dress accessories.

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APPENDIX H: WORKED BONE

by Claire Collier

One antler tool, weighing 124g, radiocarbon dated to 1618-1506 cal. BC (SUERC-110492, 95.4% probability; Appendix M) was recovered from Period 1 pit 1107 (fill 1108), which also contained prehistoric pottery and probable auroch remains, suggesting an early Bronze Age date at the latest. It is broken and the surface condition is poor. The tool has been made from the stem of an antler and has an obliquely cut point. The end features a large perforation, possibly the fitting for a handle or haft (Fig. 13). Antler was utilised for the manufacture of picks from the Mesolithic period through into the Bronze Age (Barclay *et al.* 1999, 236); however, the stratigraphic context of this example combined with scientific dating demonstrates that it was probably made, used and deposited at the end of the Early Bronze Age. An example of a perforated antler pick is recorded in the Devizes museum catalogue (Annable and Simpson 1964, Durrington G50 Bowl Barrow cat. 49. 38; 87). The function of these simple tools is still uncertain, and they are variously referred to as axes, adzes, wedges and picks (Childe 1942; Baron *et al* 2016, 44). This item does not appear well worn from use and may have been discarded when the haft fitting broke, perhaps during or soon after its manufacture.

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Table H1: Worked bone summary

Context	Date	Type	Ct.	Wt.(g)	Comments
1108	Prehistoric	Tool	2	124	Obliquely cut antler tine, perforated haft fitting

APPENDIX I: SLAG

By David Dungworth

Introduction

The excavation yielded just over 7.4kg of slag. The material was examined visually and recorded following standard guidance (Historic England 2015). The material was divided into several categories based on size, shape, surface morphology, density, porosity, colour, etc, and weighed. Selected samples have been photographed and drawn.

Results of the Visual Examination

The slag assemblage comprises 7.2kg of ironworking slag (Table I1). This includes a high proportion of smithing hearth cakes (4.4kg of SHC). In addition, 1.6kg out of the 2.8kg of non-diagnostic ironworking (NDFe) slag includes fragments of possible smithing hearth cakes (SHC). The remaining material includes a small amount of vitrified ceramic lining (VCL) from a hearth structure, as well as an unstratified lump of mortar, and one fragment that is too small to be certain what sort of material it is.

Table I1. Summary of slag from Bidwell West (Employment Site)

Context	Sample No.	SF	Phase	Type	Comment	Weight
1138			Undated	NDFe		22
1293			Undated	NDFe		84
1304			3.2: MIA	NDFe		17
1329			4: LIA	NDFe	inc poss frags of SHC	690
1357	18		Undated	UID	cinder-NDFe?	0.2
1387			4: LIA	NDFe		1082
1387			4: LIA	SHC	Irregular surface; Fayalitic; LWD: 110x95x63mm	488
1387			4: LIA	SHC	Irregular surface; Fayalitic; LWD: 95x79x45mm	318
1387			4: LIA	SHC	Fragment; Fayalitic; LWD: 93x66+x36mm	284
1387			4: LIA	SHC	SHC#1	1029
1387			4: LIA	SHC	SHC#2	529
1387			4: LIA	SHC	SHC#3	946
1387			4: LIA	VCL	inc slag with VCL	133
1411			4: LIA	NDFe	inc poss frags of SHC	264
1411			4: LIA	SHC	SHC#4	540
1411			4: LIA	SHC	SHC#5	302
1469			?	NDFe	inc poss frags of SHC; weathered and corroded	631
1510	30		4: LIA	NDFe		20
1525			4: LIA	NDFe		10
u/s		4		Mortar		44

The diagnostic ironworking slag includes a high proportion of smithing hearth cakes (SHC) and five of these are illustrated (Figures I1–I5) and described below. Smithing hearth cakes are believed to accumulate inside a blacksmith's hearth within the hottest zone, close to where the air was blasted into the hearth (using a tuyère and bellows). The slag is assumed to form

from reactions between the iron/steel that was being heated (and perhaps most importantly the hammerscale that would form on the surface of the iron/steel) and other materials, especially fuel ash, ceramic hearth lining, slag inclusions within the metal, and any flux that was employed (McDonnell 1983; 1991; Serneels 1993; Serneels and Perret 2003). SHC are approximately circular or oval in plan and plane-convex or concave-convex in profile. They vary in size: some of the smallest are little more than 50mm across and 20mm thick, while larger examples can be up 250mm across and 100mm deep. In some cases, the slag is dense (*i.e.* low porosity) and surfaces are smooth, suggesting that the slag has at some stage been hot enough that it could flow under its own weight and that air bubbles could largely escape. In other cases, the slag is quite light and can be seen to contain charcoal inclusions (and voids). These slags tend to have rather irregular (or convoluted) surfaces, suggesting that they have not been molten. The full variability in form and nature of smithing slags (and their significance) is not yet fully understood.

The first smithing hearth cake (SHC#1, Figure I1) is large (LWD: 95x79x45mm; 1029g) with a mostly irregular (and rusty) surface, although there is a small patch of rather smooth (flowed?) slag on the upper surface. The upper surface is slightly concave and the lower surface is convex. The apparent density (heft) is consistent with this cake being composed of fayalite with moderate porosity/charcoal inclusions.

The second (SHC#2, Figure I2) is large (LWD: 123x107x39mm; 529g) with a mostly smooth (but rusty) upper surface. The upper surface is almost plane and the lower surface is convex. There are numerous voids visible on the upper surface, and around some of the edges of the SHC, and some of these contain traces of charcoal. Nevertheless, the apparent density (heft) of the smithing hearth cake suggests that it is fayalitic with low to moderate porosity.

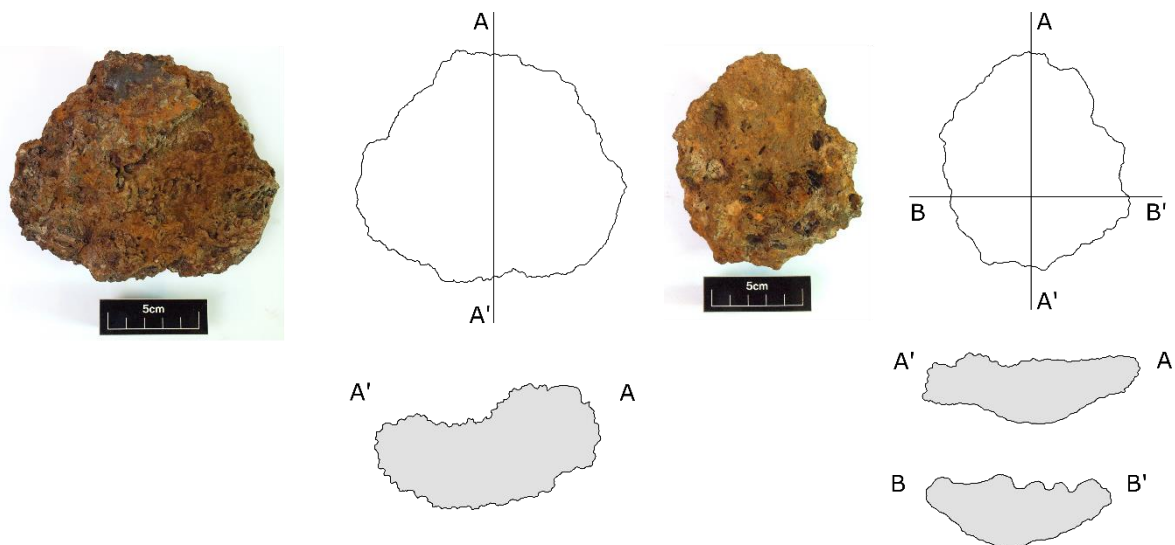


Figure 11. Photograph (plan) and drawings of SHC#1

Figure 12. Photograph (plan) and drawings of SHC#2

The third (SHC#3, Figure I3) is large (LWD: 133x104x58mm; 946g) with a mostly smooth (but rusty) upper surface. The upper surface is essentially plane and the lower surface is convex. There are numerous voids visible around some of the edges of the SHC. Nevertheless, the apparent density (heft) suggests that it is fayalitic with low porosity.

The fourth (SHC#4, Figure I4) is a fragment (~20%) of a very large (LWD: 99+x75+x64+mm; 540g; original diameter estimated as 0.2–0.3m) cake. The surfaces are mostly free of corrosion and are a mixture of smooth and irregular. The fracture surfaces display almost no visible porosity. The heft suggests it is fayalitic with negligible porosity. This concave-convex cake would originally have been quite large and it is not impossible that this was actually a 'furnace bottom' leftover from smelting iron (although most furnace bottoms are much deeper and contain charcoal inclusions).

The fifth (SHC#5, Figure I5) is a possible smithing hearth cake. The lump of slag is relatively small (LWD: 89x75+x47+mm; 302g) with an irregular shape. The shape is interpreted as the result of two separate phases of slag formation; in between, the first piece was slightly dislodged from the hot zone and the second piece of slag subsequently grew as an apparent addition to the first. The first (lower) portion of slag is fayalitic (based on heft and colour) but the second, uppermost portion of this smithing hearth cake tends to colours typical of cindery material: yellow, beige, etc, sometimes weathering to a creamy colour (McDonnell 1983). The surfaces are largely free of corrosion and are a mostly irregular. The fracture surfaces display a small degree of visible porosity. The upper, cindery surface has numerous fractures through bubbles. Highly porous cindery material is weak and is often fractured/abraded, before and during deposition.

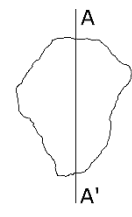
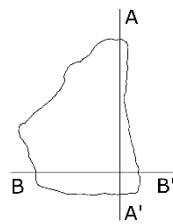
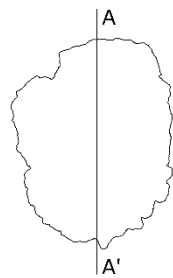


Figure 13. SHC#3

Figure 14. SHC#4

Figure 15. SHC#5

There are several more SHC in this assemblage but the five catalogued examples demonstrate limited variability that appears to be typical for the site assemblage. Only one example (SHC#5) has a slight area of cindery material, and one example (SHC#4) appears to be very dense. The low proportion of cindery material suggests that heating was always accompanied by iron. None of these SHC contain high proportions of charcoal/voids. Most of these SHC appear to have been heated for enough time for them to consolidate to a high degree, and in one case to undergo almost complete melting. These aspects of the SHC can be interpreted in terms of the types of smithing that were carried out; however, deposition practices may also have played a role in this assemblage.

The non-diagnostic ironworking (NDFe) slags comprise fayalitic slags that were produced by ironworking but which lack a distinctive shape/morphology that would indicate how it formed (Historic England 2015). Like the smithing hearth cakes, most of the NDFe is at least partially obscured by iron corrosion products. Nevertheless, the visual examination suggests that much of this material comprises *fragments* of SHC. The proportion of VCL is very low and suggests that any hearth was located some distance away.

Most of the smithing slag was recovered from contexts (1387) and (1411), both of which are phased to the Late Iron Age (Period 4). A small amount of material was recovered from other Late Iron Age contexts. The Middle Iron Age material could indicate that the iron smithing took place over a long period of time, or it could be intrusive. (1387) and (1411) are fills from two postholes from a four-post structure (Structure 1; Group 11), although this structure appears to only have three postholes. The 4.8kg of slag from posthole (1387) might not represent unconscious disposal of industrial detritus. The high proportion of large and relatively dense

lumps of slag suggests that this might have been selected by hand; it is possible that these lumps were used as post-packing.

Conclusions

The assemblage of slag indicates that smithing took place and probably in the Late Iron Age. The number of smithing hearth cakes suggest that this was a reasonably sustained activity (at least two weeks?) rather than a one-off occurrence. The character of the assemblage (large dense lumps of material) and its context (postholes) suggest that it may have been deliberately selected for use as post-packing material.

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APPENDIX J: HUMAN REMAINS

By Sharon Clough

Summary

Fragments of an adult human cranium and scapula were recovered from fill 1595 of ditch 1590, Enclosure 1. The fill dates to the Middle Iron Age (Phase 3.1) and it is common to find disarticulated human skeletal remains in fills of ditches in this period.

Methodology

All skeletal material was examined and recorded in accordance with national guidelines (Mitchell and Brickley 2017; Mays *et al.* 2018).

Results

Phase 3.1: Middle Iron Age

From fill 1595 of ditch 1590 (Enclosure 1) was recovered from amongst the animal bone c.30 fragments of human cranium. Although only some of the fragments re-fit, they are clearly all from the same individual. The cranial fragments comprised: frontal bone including the left and right superior orbits, occipital including the left suture and nuchal crest, parietal fragments, temporal squamous portion fragments and bilateral mastoid process with external auditory meatus. In addition to the cranial fragments there were two fragments of left and right scapula. The left included part of the glenoid fossa with lower of the coracoid process and the right was only the acromion where it fitted to the main body.

The cranium had three areas which suggested a male individual: the nuchal crest, mastoid processes and brow ridge. The size and development were consistent with an adult individual, but there were no other features to suggest young or old. The scapula fragments as far as could be observed were adult sized.

It is not possible to determine whether the cranial and scapula fragments were from the same individual. The colour and taphonomic changes were consistent with them having lain in the same burial environment. The bone surface was grade 2 (McKinley 2004) with old and new breaks.

Discussion

Only part of Enclosure 1 was excavated during the current phase of works, previously the rest of the enclosure had been excavated (MOLA 2022) and no human remains were recovered from this part nor any of the features in that area of investigation.

Further afield archaeological works at the western end of the M1 Junction 12 improvements and A5-M1 Link Road (Brown 2020) sites D and G had disarticulated human bone recovered from pits. These comprised a neonate humerus and skull fragments from early Iron Age pits and a single fragment of frontal bone from a middle pit fill which contained early and Middle Iron Age pottery. A fragment of occipital bone came from a surface fill of ditch G, settlement perimeter, dating to the later Middle Iron Age. It is notable that the most frequently occurring bone is from the cranium and similarly to the present site one came from a middle fill and one from an enclosure ditch.

The second most common location for deposition of human remains in the Iron Age is in enclosure ditches (Harding 2016, 108). Either whole, parts or single bones they are most commonly found in the middle or upper fillings, rather than the bottom of the ditch (ibid). This appears to have been the case at Bidwell Employment Site, where the cranium and scapula fragments were recovered from a middle fill of a ditch forming Enclosure 1. The presence in the enclosure ditch is therefore not unusual and part of a commonly observed practice in the Iron Age. It is increasingly evident that human remains were curated in the Iron Age, and it is only their final deposition that we see archaeologically.

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APPENDIX K: ANIMAL BONE

By Matilda Holmes

Introduction

A total of 2336 fragments (20,935g) of hand-collected bone and bone from sieved samples was recovered from prehistoric, Iron Age and Roman features across the site. These comprise just over 1033 refitted fragments of animal bones and teeth, of which 386 could be identified to taxon. This report characterises the nature of the zooarchaeology and provides a basic analysis of likely diet and economy for the larger Early, Middle and Late Iron Age assemblages. The small sample is consistent with food waste from an animal economy based on small-scale, self-sufficient production, with a possible move to a preference for animals culled at prime meat age.

Methodology

Bones were identified using the author's reference collection. Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/ goat', unless a definite identification (Zeder and Lapham 2010a; Zeder and Pilaar 2010b) could be made. Horses, donkeys and mules and dogs/ foxes were separated based on long bone measurements and morphology (Davis *et al.* 2008; Eisenmann 1986; Johnson 2015; Johnstone 2006; Ratjen and Heinrich 1978), and frogs/ toads, and micro-mammals were separated following morphological criteria (Johnson 2016; Ratnikov 2001; Yalden 2020). Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (micro – rat/ vole size; small – cat/ rabbit size; medium – sheep/ pig/ dog size; or large – cattle/ horse size). Ribs were identified to size category where the head was present, vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments. A number of sieved samples were collected but because of the highly fragmentary nature of such samples a selective process was undertaken, whereby fragments were recorded only if they could be identified to species and/ or element or showed signs of taphonomic processes.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Payne (1973), as were bone fusion, metrical data (von den Driesch 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988) and working. The condition of bones was noted on a scale of 0-5, where 0 is fresh bone and 5, the bone is falling apart (Behrensmeyer in Lyman 1994, 355). Other taphonomic factors included the incidence of burning, gnawing, recent breakage and refitted fragments. All fragments were recorded,

although articulated or associated fragments were entered as a count of 1, so not to bias the relative frequency of species present. Details of Associated Bone Groups (ABGs) were recorded in a separate table.

Bones were included in analysis if they came from features securely dated to a single phase. Quantification of taxa and anatomical element used a count of all fragments (NISP – number of identified specimens). Mortality profiles were constructed based on tooth eruption and wear (Grant 1982; Jones 2006; Jones and Sadler 2012) and bone fusion (O'Connor 2003). Horse ages were calculated from crown heights (Levine 1982). Cattle and sheep/ goats were sexed by the morphology of pelves (Davis 2000; Greenfield 2006) and metapodials (Albarella 1997; Davis 2000), and pigs and horses by their canines (Schmid 1972).

Taphonomy and Condition

Bones were generally in good to fair condition (Table K1), though fragmentary, with approximately a quarter to a half of all bones refitted and/ or subject to recent breakage. A number of loose and broken teeth further implies that bones were friable, and that there may have been a delay in burial. A low level of canid (dog or fox) gnawing was recorded in all but the Roman periods (Table K1), providing further indication that bones were not always buried quickly following discard. Butchery marks were not abundant implying that processing was not intensive or heavy-handed. There was very little evidence for burning, only two hand-collected bones and two groups of small, unidentified fragments of calcined and burnt bones from the Iron Age samples (Period 5, contexts 1045 and 1544), suggesting that bones were not routinely exposed to fire as a means of disposal, cooking or fuel.

There were no obvious deposits of skin-processing or craft-working waste, although a middle Iron Age (Phase 3.1) cattle humerus from Enclosure 1 (context 1582) had stippling marks on the medial aspect of the distal shaft, consistent with it being struck repeatedly by a sharp implement. The only ABG also came from Middle Iron Age Enclosure 1 (context 1594), comprising the vertebrae (four thoracic and four lumbar) and pelves of an adult female cattle. This provides evidence of a primary context that saw little post-depositional movement, but also represents possible butchery waste, and implies the disposal of a group of bones at an early stage of carcass reduction.

Most butchery marks were observed on cattle bones, but also isolated equid bones in the Middle and Late Iron Age periods, and a Late Iron Age red deer metatarsal. One sheep/ goat tibia had been singed and then broken in the midshaft area, which most likely relates to marrow extraction. Several bones with organic waste attached (probably cess) were recovered from pit 2048.

Period 1: Neolithic to Bronze Age

Several exceptionally large cattle bones were recovered from pits 1107 (scapula, zygomatic and lumbar vertebra) and 1252 (second phalanx). Unfortunately, they were too fragmentary to compare biometrically with known examples of aurochs (large wild cattle), but Fig. K2 illustrates the size of these bones compared to a modern adult animal. Given their size and condition it is likely that they were from aurochs, and therefore of Early Bronze Age date at the latest. Radiocarbon dating on one of these bones from pit 1107 demonstrated that it dated to 1619-1506 cal BC (SUERC-110493, 95.4% probability; Appendix M).

Period 2: Early Iron Age (700 BC – 400 BC)

Most of the animal remains were recovered from pit cluster 1 (Table K2), with smaller quantities recovered from six dispersed pits and ditches 2 and 3. Cattle were most common, followed by smaller quantities of sheep/ goats and pigs (Table K3) and a few equids (horse or donkey) and canids (probably dog). Further finds of micro-mammals, including field vole were produced from the samples (Table K3). The trend of high cattle and lower sheep/ goat and pig quantities is reflected in all features, though the large number of pig remains in pit cluster 1 can be explained by a group of five loose teeth from context 2037 that were most likely from the same animal.

Head and meat-bearing long bones were most often recovered (Table K4), consistent with the deposition of food waste rather than butchery by-products such as vertebrae and foot bones (e.g. phalanges). This is exemplified by pit 2048 (fill 2051; pit cluster 1) that produced several right cattle radii from at least five animals, which implies that the remains of several shoulder joints were present. The sole faunal fill of pit 1113 (fill 1114) was an exceptionally large, poorly preserved cattle first cervical vertebra fragment, which was similar in condition and size to other bones found on the site that are likely to be from wild cattle (aurochs). The bone was too fragmentary to be definite, but it may suggest an earlier date for this deposit.

Cattle were recorded at all ages in the tooth wear and fusion data (Tables K5 and K6), including calves, young- and sub-adults and older adults. Two pelvises were morphologically indicative of females and two 3rd molars had a reduced hypoconulid, which is a congenital trait. This is not an unusual pattern for the period, suggesting that animals were culled as required; those surplus to requirements were raised for meat and culled as they neared maturity and some were kept back for milking, draught and breeding.

There were little mortality data for the other major taxa, although a pig wear stage E was calculated from a mandible, indicating an animal that died at c. 21–27 months.

Period 3: Middle Iron Age (400 BC – 100 BC)

A small assemblage of animal remains was recovered from features associated with middle Iron Age phase 1 (Phase 3.1), including Enclosure 1 and four dispersed pits (Table K2). Animal bone recovered from Middle Iron Age phase 2 (Phase 3.2) was spread between Enclosure 2, penannular ditches 1 and 2, and two dispersed pits (1050 and 1054). As in the Early Iron Age, cattle remains were most common in features associated with the enclosure, while sheep/ goats were more likely to be found in the penannular ditches. Although these are small samples, the finding is not unexpected as it was common practice in this period for the bones of smaller animals to be disposed of closer to the domestic areas near the centre of a settlement and the larger bones of cattle and equids to be discarded towards the periphery (Wilson 1996).

Sheep/ goats were more common in Phase 3.2 (Table K3), although this may be a consequence of small sample sizes and the presence of more animal remains from domestic structures. As in the previous period, though again based on a small sample, there was a dearth of vertebrae and foot bones (Table K4), which implies that processing of carcasses took place away from this area of the site.

Although the fusion data suggest that some cattle were mature at death (Table K6), tooth wear data came from sub adults at wear stages D and E, which would have been between c.1.5 and 3 years when culled (Table K5). Cattle were therefore most likely kept for a mixture of meat and small-scale secondary products (dairy, traction and breeding).

Individual sheep/ goat and pig mandibles produced wear stages of E, implying the presence of animals between two and three years of age, culled at prime meat age as they neared maturity. There were very few fusion data.

An equid scapula had polish on the shaft, acromion and spine, and it is possible it was used for an unidentified, repeated action. Two horse mandibles included second premolars with a bevel, indicating they were bitted (Bendrey 2007). Tooth heights from these mandibles suggest that the animals were c. 7–10 and 10 years old when they died.

Period 4: Late Iron Age (100 BC – AD 43)

A moderate assemblage was recovered from this period, nearly all from features associated with Enclosure 2, a few smaller quantities coming from pit cluster 2 and ditches 5, 6 and 7 (Table K2). Sample sizes were too small from the latter to compare spatially. Cattle were slightly more common than sheep/ goats (Table K3) followed by pigs and equids. The remains of canids, red and roe deer and a goose were also recovered, and further finds of micro-

mammals and frogs/ toads were produced from the samples. This is a diverse assemblage for the period, all the deer remains derived from the autopodia (red deer metatarsal (butchered) and second phalanx and roe deer tibia), the red deer and goose came from the middle fills of ditch 1063 (Enclosure 2), suggesting that they relate to a similar if not the same depositional event and the roe deer came from the lower fill of ditch 1316 (Enclosure 2). None of these bones have high meat value and it is possible that they were discarded at an early stage of carcass processing.

The main domesticates were mostly represented by upper fore limb bones, heads (mandibles and teeth), tibiae and metapodials (Table K4). The relative absence of vertebrae and phalanges implies that primary butchery took place elsewhere.

Cattle were culled at prime meat ages, between 1.5 and 3.5 years of age at wear stages D to F (Table K5), and all long bones were fused, reflecting the presence of skeletally mature animals (Table K6). Three sheep/ goat mandibles were recovered at wear stage E, suggesting an emphasis on animals kept for one or two fleeces and culled at the optimum age for meat (c.20–36 months).

A canid skull and mandible were recovered from the upper fill of ditch 1450 (Enclosure 2). An equid maxilla with the third incisor just coming into wear suggests the animal was around 4–5 years old (Bennett 2008), and a likely male equid was identified from the morphology of a canine.

Period 5: Iron Age (700 BC – AD 43)

A few animal remains were recovered from dispersed pits across the excavation area (Table K2), of these, pit 1543 was of particular note. Pit 1543 produced several small fragments of animal bone of which a sheep/ goat humerus and ulna, a broken sheep/ goat mandible and a fragment of pig humerus (gnawed) could be identified. It is unlikely that they were deliberate depositions. Cattle and sheep/ goats were most common with a few pigs and equids. Micromammals (including vole and mouse), a passerine and frogs/ toads were also recorded from the samples (Table K3). As in other Iron Age periods the animal remains came mostly from the head and limb bones (Table K4).

Cattle tooth wear stages of D and E (Table K5) and a sheep/ goat at wear stage D reflect the general pattern of animals culled at prime meat age rather than being kept for secondary products.

Period 6: Roman (AD 43 – AD 410)

A few cattle, sheep/ goat and pig remains came from field system 1 (Table K2).

Undated

A few animal remains were recovered from ditches 13, 14 and 15 as well as dispersed pits and postholes (Table K2), of which several deposits were worthy of note. A red deer skull (RA7) was produced from the lower fill of posthole 1355 (context 1357), which had both antlers removed and was missing the front of the skull (Fig. K1).

Summary

This is a small sample, and patterns in the zooarchaeology are therefore speculative. The lack of vertebrae and phalanges suggests that the animal remains largely relate to the deposition of food waste, and that primary butchery took place elsewhere. In some cases, the consumption of a large quantity of meat is implied, for example the five right cattle radii from Early Iron Age pit 2048. There was no evidence for craft-working waste or symbolic deposits, though some spatial patterning was evident with the disposal of larger bones in larger features and smaller bones in domestic features.

While cattle were dominant in the Early and Middle Iron Age economy, a greater proportion of sheep/ goats and wild taxa were recorded in the Late Iron Age. This implies a greater emphasis on wool production and/ or a preference for lamb and may relate to changes in use of this part of the settlement. Mortality data were only present in large enough samples for cattle to provide potentially reliable information on the economy. The mix of perinates, sub adult and adult cattle in the early Iron Age is consistent with a self-sufficient economy where animals were bred, raised and worked and were not taken away from the site. A limited range of tooth wear stages in the Middle and Late Iron Age phases (Table K5) implies a change in emphasis to animals culled at prime meat age. This is a mortality pattern more typically observed on consumer sites, where animals were bought in for food, rather than being produced on site. When combined with the evidence for food waste it suggests that this area of the site could have been used to dispose of the remains of animals bought in as good quality cuts of meat rather than the natural herd profile that might be expected in a self-sufficient economy.

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Table K1: Condition and taphonomic factors affecting the hand-collected assemblage identified to taxa and/ or element. Teeth included where stated

Condition	2: Early Iron Age	3: Middle Iron Age	4: Late Iron Age	5: Unphased Iron Age	6: Roman	Unphased
Fresh						
Very good		5				
Good	30	20	43	10	1	1
Fair	44	20	30	11	4	8
Poor	15	5	4	3	2	6
Very poor						
Total	89	50	77	24	7	15
Refit	74=28	44=14	24=11	7=3	10=2	28=6
Recent break	46	22	33	6	1	6
Gnawed	18	8	20	10		2
Loose mandibular teeth*	6	4	11	4	1	1
Teeth in mandibles*	10	13	9	6		3
Butchery	9	4	4	2		1
Burning			1			

*deciduous and permanent 4th premolar and molars

Table K2: Summary of species identified from hand-retrieval by feature (NISP). D= ditch; DP= dispersed pits/postholes; E= enclosure; PD= penannular ditch; PC= pit cluster; FS= field system; P= pit(s); r= recut

	Early Iron Age					Middle Iron Age I		Middle Iron Age II				Late Iron Age				Iron Age	Roman		Unphased		
	PC1	D2	D2r	D3	DP	E1	DP	E2	DP	PD1	PD2	PC2	D5	D6	D7	E2	DP	FS1	DP	D13	D14 and 15
Cattle	58	4	2	1	8	27	5	4	1	5		5	2		2	39	15	5	7	1	
Sheep/ goat	9	3	1	4	6	4	5	1		7	3	4	2	3		31	20	5	5	1	2
Pig	14	1		2	1		1	1		1			2		1	8	8	2	3		
Equid	1				1	8						1			1	7	2		2		
Canid	1									1						4					
Fallow deer																1					
Red deer																2			1		
Goose																1					
Total	83	8	3	7	16	39	11	6	1	14	3	10	6	3	4	93	45	12	18	2	2

Table K3: Species representation (NISP) H= hand collected; S= samples

Taxa	EIA		MIA I		MIA II		LIA		IA		Roman		Unphased	
	H	S	H	H	S	H	S	H	S	H	H	S		
Cattle	73	5	32*	10	1	48	1	15		5	8	3		
sheep/ goat	23	4	8	10	6	39	6	20	2	5	8	11		
Sheep			1	1										
Goat						1								
Pig	18	1	1	2	1	11		8	2	2	3	3		
Equid	2	1	8			9	1	2			2			
Canid	1			1		4								
Red deer						2					1			
Roe deer						1								
Micro-mammal		6			4		1		12			1		
Vole									1					
Field vole		1												
Mouse									2					
Duck														
Goose						1								
Passerine									1					
Frog/ toad					2		3		10					
Total identified	117	18	50	24	14	116	12	45	30	12	22	18		
Unidentified mammal	37		21	4		46		36		5	48			
Large mammal	67		13	7		29		10		1	34			
Medium mammal	46		14	37		81		54		18	20			
Bird								1						
Total	267		98	72		272		146		36	124	18		

* Associated bone groups included as a count of 1

Table K4: Species representation by anatomical element (NISP). Hand collected bones. C= cattle; S/G= sheep/ goat; P= pig; E= equid

Element	EIA			MIA			LIA			IA			
	C	S/G	P	C	S/G	E	C	S/G	P	E	C	S/G	P
ABG				1									
Horn core	1				1		1						
Occipital	1				1								
Zygomatic				3									
Maxilla with teeth				1						1	1		
Mandible with teeth	3	2	2	3		2	1	2	1		2	1	1
Loose tooth	8	3	9	8	5	3	12	12	4	3	3	7	6
Vertebra	1												
1st cervical vertebra	1		1										
Cervical vertebra	1			2									
Thoracic vertebra	1						1						
Lumber vertebra				1									
Sacrum	1			1									
Scapula	5	2	2	2		1	2	1			1		
Humerus	6	2	2	11	1		6	1	2		1	3	1
Radius	9	2	1	2	2		6	6	1		1	2	
Ulna	6						3	2				2	
Carpal				1					1				
Pelvis	3			1						1			
Femur	5	1					1						
Tibia	10	6	1	3	6	1	9	11	2	1	2	3	
Astragalus											1		
Calcaneus	3						1				1		
Metacarpal	4	4			1		1	2		1	1	1	
Metapodial				1	1		1					1	
Lateral metapodial							1						
Metatarsal	3	1		1	2	1	1	3		2			
2nd phalanx	1						1				1		
Total	73	23	18	42	20	8	48	40	11	9	15	20	8

Table K5: Cattle tooth wear data

Stage	Age	EIA	MIA	LIA	IA
A	neonate	1			
B	0-6mth				
C	5-18mth				
D	16-28mth	1	1	1	2
E	26-36mth	1	1	2	1
F	34-43mth			1	
G	40m-6.5yrs	1			
GJ		1			
H	5-10yrs				
J	8-16yrs				
Total		5	2	4	3

Table K6: Cattle fusion data. U= unfused; F= fused

Stage	EIA		MIA		LIA	
	U	F	U	F	U	F
Neonatal		4		1		2
Early		15	1	4		7
Intermediate	2	4		1		3
Late	1	9	1	3		1
Final	3	3	2	4		1
Total	6	35	4	13		14



Figure K1: Red deer skull showing butchery of antlers

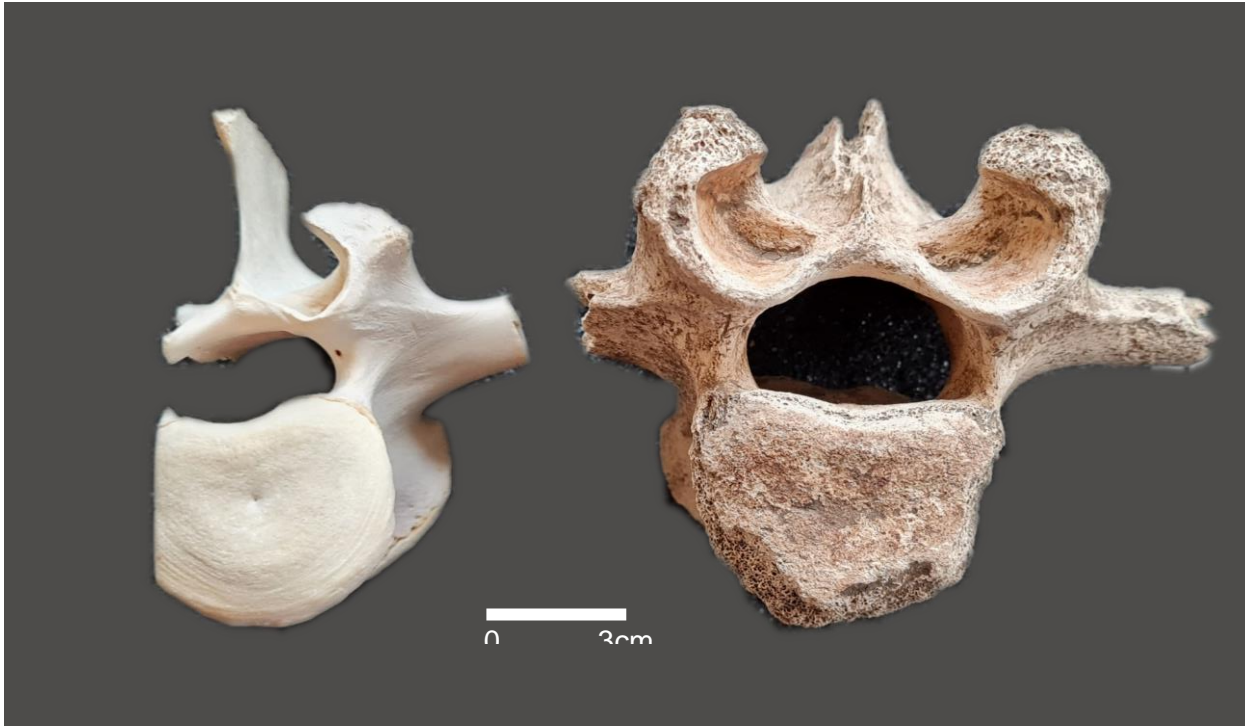


Figure K2: comparison of modern cattle lumbar vertebra (left) and large cattle vertebra from pit 1107, most likely aurochs

APPENDIX L: PLANT MACROFOSSILS AND MOLLUSCS

By Sarah F. Wyles

Introduction

A total of 31 bulk soil samples (580 litres of soil) were processed from a range of features and deposits of mainly Iron Age date. These samples were taken from across the site with the intention of recovering environmental evidence of domestic or industrial activity on the site. The breakdown of these samples by period and feature type can be seen in Table L1. Thirteen of these 31 samples were from Phase 3.2 (Middle Iron Age) penannular Ditch 1, penannular Ditch 2 and penannular Ditch 3. It was hoped these samples would provide some information on the nature of the settlement and surrounding landscape, the range of crops and the crop processing activities and techniques taking place on site during the Iron Age.

Table L1: Break down of the bulk samples by period.

Period/phase	Number of samples	Volume of samples (L)	Features
1 Neolithic to Bronze Age	2	54	Pits
2 Early Iron Age	5	88	Pit Cluster 1, Pits, Ditch 3
3.2 Middle Iron Age 2	14	214	Penannular Ditch 1, Penannular Ditch 2, Penannular Ditch 3, Pit
4 Late Iron Age	4	109	Pit Cluster 2, Post Structure 1, Enclosure 2
5 Iron Age	2	48	Pits
Undated	4	67	Pits, Posthole
Total	31	580	

Methodology

The bulk samples were processed following standard flotation methods, using a 250µm sieve for the recovery of the flot and a 0.5mm sieve for the collection of the residue. All identifiable plant remains were identified, and the results are recorded in Tables L2–L4. The plant identifications follow the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary *et al* (2012) for cereals. Mollusc shells were noted in the bulk samples and the range of species represented in them has also been recorded in Tables 5 and 6. Nomenclature for the mollusc assemblages follows Anderson (2005) and details of the ecological preferences of the species follow Evans (1972), Kerney (1999) and Davies (2008).

Results

Period 1 – Neolithic to Bronze Age

The sparse charred plant assemblage recovered from pits 1107 and 1252 included cereal and oat grains and hazelnut shells.

A range of open country, intermediate and shade-loving species mollusc shells were recorded in moderate numbers in these samples. The local environment suggested by these assemblages appears to be a well-established open environment, with some areas of longer grass. There is also a small hint of some woodland edge/hedgerow/scrub near pit 1107.

Period 2 – Early Iron Age

Low levels of charred material were recorded in the samples from this period. The sparse plant remains included those of barley (*Hordeum vulgare*), hulled wheat (emmer or spelt (*Triticum dicoccum/spelta*)) and oat/brome grass (*Avena/Bromus sp.*).

The small to moderate mollusc assemblages recorded from these samples included a range of open country, intermediate and shade-loving species. The assemblages appear to suggest a well-established open landscape, with some areas of longer grass during this period.

Phase 3.2 – Middle Iron Age 2

Sparse quantities of charred plant remains, which included barley grains, oat/brome grass seeds and hazelnut (*Corylus avellana*) shell fragments, were recovered from penannular ditch 1 and penannular ditch 2, while no charred plant remains were recovered in the samples from penannular ditch 3 and pit 1054.

The samples from these features contained low to moderate numbers of shells. The assemblages included a range of open country, intermediate and shade-loving species. The presence of *Acanthinula aculeata*, a species which thrives in open deciduous woodland, in two of the samples provides a small indication of some possible woodland edge, hedgerow or scrub environment in the vicinity. The assemblages appear to be indicative of a well-established open landscape, with some small areas of longer grass near the penannular ditches and possibly a small amount of woodland edge or scrub near penannular ditches 1 and 2.

Period 4 – Late Iron Age

A moderate number of hazelnut shell fragments and a barley grain were recorded from pit 1509 and a single hazelnut shell fragment from pit 1516, both part of Pit cluster 2. No charred plant remains were recovered in the samples from Post structure 1 and ditch 1063, part of Enclosure 2.

The small to moderate mollusc assemblages recorded from these samples included a range of open country, intermediate and shade-loving species. The assemblages appear to be indicative of a well-established open landscape, with some areas of longer grass in the vicinity of Pit cluster 2. The few shells of the amphibious species *Galba truncatula*, and the intermediate aquatic species *Gyraulus albus*, would tend to suggest a small amount of seasonal flooding and desiccation in this area during this period.

Period 5–Iron Age

The samples from undated pits 1043 and 1543 produced small numbers of charred plant remains, including a barley grain, emmer (*Triticum dicocum*) grain and glume base fragments and hulled wheat grain and glume base fragments.

The moderate to high numbers of mollusc shells recovered in these samples included a range of open country, intermediate and shade-loving species. The local environment suggested by these assemblages appears to be a well established open environment, with some areas of longer grass.

Undated

The sparse charred plant assemblage recovered from undated pits 1119, 1291, and 1379/1380 included a few cereal remains, an oat (*Avena* sp.) grain and hazelnut shell fragments.

A larger assemblage, dominated by cereal remains, was recorded from posthole 1355. The cereal remains included those of barley, emmer wheat and hulled wheat, with grains outnumbering the chaff elements. The other remains included seeds of bedstraw (*Galium* sp.) oats and brome grass (*Bromus* sp.), all species found in arable environments and often brought in with the crops. Emmer and spelt wheat are the typical wheat grains in Iron Age assemblage in the area (Greig 1991) and were both recorded in Iron Age assemblages from Queen's Street Stotfold (Sevens 2017) and although spelt becomes prevalent in the Roman period in Southern Britain there is still some presence of emmer in the area, as shown by assemblages from some sites such as Queen's Street Stotfold (Stevens 2017), Cheddington (Wyles 2019) and Renny Lodge Newport Pagnell (Stevens 2010). As there was no positively identified spelt in this assemblage, it would be more likely to be associated with the Iron Age activity than the Roman or later activity on site.

A range of open country, intermediate and shade-loving species mollusc shells were recorded in low to high numbers in these samples. The local environment suggested by these

assemblages appears to be a well established open environment, with some areas of longer grass. There is also a small hint of some woodland edge/hedgerow/scrub near pit 1119. These mollusc assemblages are compatible with those recorded from the Iron Age samples.

Summary

The charred remains recovered within these assemblages are compatible with the dates for these deposits but most of them are too sparse to add information to the wider dataset. These assemblages provide very little information on the range of crops and local crop processing activity during the Iron Age but there is an indication of some probable small scale crop processing activity from the assemblage from undated posthole 1355. The few weed seeds in the assemblages are those of species typical of grassland, field margins and arable environments and there is also an indication of the exploitation of local hedgerows/scrub/woodland edge environments as a wild food resource during this period. This scarcity of charred plant material was also observed in other Iron Age samples from other phases of work at Bidwell West (Wyles forthcoming).

The mollusc assemblages are indicative of a well-established open environment with areas of long grass and possibly a small amount of woodland edge/scrub/hedgerow in the vicinity. There appears to have been some very occasional seasonal flooding and desiccation on the site during the Late Iron Age. This is a similar environment to that indicated by assemblages from other phase of work at Bidwell West (Wyles forthcoming).

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Table L2: Charred plant remains from Period 1 and 2 samples

Area		B		A	B			
Period		1 Neolithic to Bronze Age		2 Early Iron Age				
Feature label				Pit cluster 1				Ditch 3
Feature Type		Pit	Pit	Pit	Pit	Pit	Pit	Penannular ditch
Feature		1107	1252	2048	1247	1320	1332	1283
Context		1108	1254	2049	1249	1321	1333	1284
Sample		4	12	28	11	15	17	13
Vol (L)		32	22	32	8	20	13	15
Flot size (ml)		35	70	15	5	15	15	10
Roots %		25	5	10	40	50	50	50
Cereals	Common Name							
<i>Hordeum vulgare</i> L. <i>sl</i> (grain)	barley	-	-	-	-	-	-	1
<i>Triticum dicoccum/spelta</i> (glume bases)	emmer/spelt wheat	-	-	-	-	1	-	-
Cereal indet. (grains)	cereal	1	-	1	-	1	-	1
Other Species								
<i>Corylus avellana</i> L. (fragments)	hazelnut	-	2	-	-	-	-	-
<i>Avena sp. L.</i> (grain)	oat grain	1	-	-	-	-	-	-
<i>Avena L./Bromus L. sp.</i>	oat/brome grass	-	-	-	-	2	-	-
Mineralised nodule		-	**	-	-	-	-	-
Charcoal (4/2mm)		**/**	***/**	**/**	**/**	**/**	**/**	**/**

Key: * = 1-4, ** = 5-19, *** = 20-49, **** = 50-99, ***** = 100+,

Table L3: Charred plant remains from Period 3.2 and 4 samples

Area	B																		
Period	3.2 Middle Iron Age phase 2														4 Late Iron Age				
Feature label	Penannular ditch 1			Penannular ditch 2				Penannular ditch 3				Pit			Pit cluster 2		Post structure 1	Enclosure 2	
Feature Type	Penannular ditch			Penannular ditch				Pit				Penannular ditch		Pit	Pit	Pit	Posthole	Ditch	
Feature	1423	1429	1437	1139	1143	1147	1157	1201	1466	1472	1474	1480	1484	1054	1509	1516	1327	1063	
Context	1425	1431	1439	1140	1144	1148	1156	1202	1467	1473	1475	1481	1485	1055	1510	1520	1329	1065	
Sample	20	21	22	6	7	8	9	10	25	27	24	23	26	2	30	31	16	3	
Vol (L)	15	17	16	9	18	20	20	6	30	20	17	4	15	7	40	31	6	32	
Flot size (ml)	15	10	25	5	10	10	20	50	10	5	2	5	10	5	15	5	5	10	
Roots %	40	50	70	75	60	60	50	10	65	35	50	35	70	50	50	70	20	50	
Cereals	Common Name																		
<i>Hordeum vulgare</i> L. sl (grain)	barley	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Cereal indet. (grains)	cereal	-	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Other Species																			
<i>Corylus avellana</i> L. (fragments)	hazelnut	-	1	-	-	-	1	2	-	-	-	-	-	-	35	1	-	-	-
<i>Avena</i> L./ <i>Bromus</i> L. sp.	oat/brome grass	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charcoal (4/2mm)		***	*/	*/**	*/	*/**	-/*	*/***	***	-/*	-/*	-	-	-/*	*/	***	-/*	-	-/*

Key * = 1-4, ** = 5-19, *** = 20-49, **** = 50-99, ***** = 100+,

Table L4: Charred plant remains from Period 5 and undated samples

Area	Period	B					
		5 Iron Age		Undated			
Feature Type		Pit	Pit	Pit	Pit	Pit	Post hole
Feature		1043	1543	1119	1291	1379/ 1380	1355
Context		1045	1544	1120	1292	1383	1357
Sample		1	29	5	14	19	18
Vol (L)		16	32	16	8	35	8
Flot size (ml)		30	25	20	5	110	15
Roots %		25	60	40	30	5	40
Cereals	Common Name						
<i>Hordeum vulgare</i> L. <i>sl</i> (grain)	barley	-	1	-	-	-	1
<i>Triticum cf. dicoccum</i> (Schübl) (grain)	emmer wheat	-	1	-	-	-	2
<i>Triticum dicoccum</i> (Schübl) (glume base)	emmer wheat	-	1	-	-	-	-
<i>Triticum dicoccum/spelta</i> (grain)	emmer/spelt wheat	1	-	-	-	1	17
<i>Triticum dicoccum/spelta</i> (glume bases)	emmer/spelt wheat	-	1	-	-	-	-
<i>Triticum sp.</i> (grain)	wheat	-	1	-	-	-	-
Cereal indet. (grains)	cereal	-	2	1	-	1	7
Cereal frag. (est. whole grains)	cereal	-	2	-	-	-	9
Other Species							
<i>Corylus avellana</i> L. (fragments)	hazelnut	-	-	1	1	-	-
<i>Galium sp.</i> L.	bedstraw	-	-	-	-	-	1
<i>Avena sp.</i> L. (grain)	oat grain	-	-	-	-	-	3
<i>Avena</i> L./ <i>Bromus</i> L. <i>sp.</i>	oat/brome grass	-	-	-	-	-	1
<i>Bromus sp.</i> L.	brome grass	-	-	-	-	-	2
Charcoal (4/2mm)		**/**	**/**	**/**	*/**	***/*****	**/**

Key: * = 1-4, ** = 5-19, *** = 20-49, **** = 50-99, ***** = 100+

Table L5: Molluscan remains from Periods 1, 2 and 3.2 samples

Area	B		A					B														
Period	1 Neolithic to Bronze Age		2 Early Iron Age					3.2 Middle Iron Age phase 2														
Feature label			Pit cluster 1				Ditch 3	Penannular ditch 1			Penannular ditch 2				Penannular ditch 3				Pit			
Feature Type	Pit	Pit	Pit	Pit	Pit	Pit	Ditch	Penannular ditch			Penannular ditch				Pit	Penannular ditch				Pit		
Feature	1107	1252	2048	1247	1320	1332	1283	1423	1429	1437	1139	1143	1147	1157	1201	1466	1472	1474	1480	1484	1054	
Context	1108	1254	2049	1249	1321	1333	1284	1425	1431	1439	1140	1144	1148	1156	1202	1467	1473	1475	1481	1485	1055	
Sample	4	12	28	11	15	17	13	20	21	22	6	7	8	9	10	25	27	24	23	26	2	
Vol (L)	32	22	32	8	20	13	15	15	17	16	9	18	20	20	6	30	20	17	4	15	7	
Land Snails	Habitat																					
<i>Pomatias elegans</i> (Müller)	I	X	X	-	-	-	-	X	X	-	X	X	X	-	-	-	X	-	-	-	-	
<i>Carychium tridentatum</i> (Risso)	S	X	-	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	X	
<i>Carychium</i> spp.	S	X	-	X	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-	-	X	
<i>Cochlicopa lubrica</i> (Müller)	I	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	
<i>Cochlicopa</i> spp.	I	X	X	-	-	X	-	-	-	X	-	-	X	X	-	-	-	-	-	-	-	
<i>Vertigo pygmaea</i> (Draparnaud)	O	X	X	-	X	X	-	X	-	-	X	X	X	X	X	-	X	X	X	-	X	
<i>Vertigo</i> spp.	O	X	-	X	-	X	-	X	X	-	-	-	X	X	X	-	X	X	X	X	X	
<i>Pupilla muscorum</i> (Linnaeus)	O	-	X	X	-	X	-	X	X	X	X	-	X	X	X	X	X	X	X	X	X	
<i>Vallonia costata</i> (Müller)	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Vallonia excentrica</i> Sterki	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Vallonia</i> spp.	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Acanthinula aculeata</i> (Müller)	S	-	-	-	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-	-	-	
<i>Merdigera obscura</i> (Müller)	S	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

<i>Punctum pygmaeum</i> (Draparnaud)	I	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Discus rotundatus</i> (Müller)	S	X	X	X	-	-	X	-	-	X	-	-	-	X	-	-	-	-	-	-	-	-	
<i>Vitrea sp.</i>	S	X	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	
<i>Aegopinella pura</i> (Alder)	S	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Aegopinella nitidula</i> (Draparnaud)	S	X	X	X	X	-	-	-	-	X	X	-	X	-	X	-	X	-	-	-	-	-	
<i>Oxychilus cellarius</i> (Müller)	S	X	-	-	-	X	-	-	-	X	-	-	X	X	-	-	-	-	-	-	-	-	
<i>Deroceras/Limax</i>	I	X	X	X	-	X	X	X	X	X	X	X	X	X	X	-	-	X	X	X	-	-	
<i>Cecilioides acicula</i> (Müller)	B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Cochlodina laminata</i> (Montagu)	S	X	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	
<i>Clausilia bidentata</i> (Ström)	S	X	X	X	X	X	-	-	X	X	X	-	-	X	X	-	-	X	-	-	X	-	
<i>Balea perversa</i> (Linnaeus)	S	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	
<i>Introduced Helicellids</i>	O	X	-	-	-	-	-	-	-	X	-	X	-	-	-	-	-	X	-	-	-	-	
<i>Helicella itala</i> (Linnaeus)	O	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	X
<i>Trochulus hispidus</i> (Linnaeus)	I	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	-
<i>Cepaea/Arianta sp.</i>	I	X	X	X	X	X	X	X	X	X	X	-	-	-	X	-	X	X	-	-	X	-	
Total Moll-t		****	****	****	**	***	**	***	***	****	****	**	***	***	***	***	***	***	***	**	***	**	
Total Moll-a		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Key: X = present, * = 1-4, ** = 5-19, *** = 20-49, **** = 50-99, ***** = 100+, O = open country species, I = intermediate species, S = shade-loving species, B = burrowing species, Moll-t = land snails,

Moll-a = aquatic snails

Table L6: Molluscan remains from Period 4, Period 5 and undated samples

Period	Feature label	4 Late Iron Age				5 Unphased Iron Age		Undated			
		Pit cluster 2		Post structure 1	Enclosure 2	Pit	Pit	Pit	Pit	Pit	Posthole
Feature Type		Pit	Pit	Posthole	Ditch	Pit	Pit	Pit	Pit	Pit	Posthole
Feature		1509	1516	1327	1063	1043	1543	1119	1291	1379/1 380	1355
Context		1510	1520	1329	1065	1045	1544	1120	1292	1383	1357
Sample		30	31	16	3	1	29	5	14	19	18
Vol (L)		40	31	6	32	16	32	16	8	35	8
Land Snails	Habitat										
<i>Pomatias elegans</i> (Müller)	I	X	X	-	-	-	-	X	-	X	-
<i>Carychium tridentatum</i> (Risso)	S	X	X	-	-	X	-	X	-	X	-
<i>Carychium</i> spp.	S	X	X	-	-	X	-	X	-	X	-
<i>Cochlicopa lubrica</i> (Müller)	I	-	-	-	-	-	-	-	-	X	-
<i>Cochlicopa</i> spp.	I	-	-	-	-	-	-	-	-	X	X
<i>Vertigo pygmaea</i> (Draparnaud)	O	X	X	-	X	X	-	-	-	X	X
<i>Vertigo</i> spp.	O	X	X	-	X	X	X	-	-	X	X
<i>Pupilla muscorum</i> (Linnaeus)	O	X	-	X	X	-	X	-	X	X	X
<i>Vallonia costata</i> (Müller)	O	X	X	X	X	X	X	X	X	X	X
<i>Vallonia excentrica</i> Sterki	O	X	X	X	X	X	X	X	X	X	X
<i>Vallonia</i> spp.	O	X	X	X	X	X	X	X	X	X	X
<i>Acanthinula aculeata</i> (Müller)	S	-	-	-	-	-	-	X	-	-	-
<i>Merdigera obscura</i> (Müller)	S	-	-	-	-	-	-	-	-	-	-
<i>Punctum pygmaeum</i> (Draparnaud)	I	-	-	-	-	-	-	-	-	-	-
<i>Discus rotundatus</i> (Müller)	S	X	X	-	-	-	X	X	-	X	-
<i>Vitrina pellucida</i> (Müller)	I	-	-	-	-	-	-	X	-	-	-
<i>Vitrea</i> sp.		X	-	-	-	-	-	-	-	-	-
<i>Aegopinella pura</i> (Alder)	S	-	-	-	-	-	-	-	-	X	-
<i>Aegopinella nitidula</i> (Draparnaud)	S	X	-	-	-	-	-	X	-	X	-
<i>Oxychilus cellarius</i> (Müller)	S	-	X	-	-	-	-	-	-	X	X
<i>Deroceras/Limax</i>	I	X	X	X	X	-	-	X	-	X	X
<i>Ceciloides acicula</i> (Müller)	B	X	X	X	X	X	X	X	X	X	X
<i>Cochlodina laminata</i> (Montagu)	S	-	X	-	-	-	-	-	-	X	-
<i>Clausilia bidentata</i> (Ström)	S	X	X	-	X	-	-	X	-	X	-
<i>Balea perversa</i> (Linnaeus)	S	X	-	-	-	-	-	-	-	-	-
<i>Introduced Helicellids</i>	O	-	-	-	-	-	X	-	-	-	-
<i>Helicella itala</i> (Linnaeus)	O	X	X	X	X	X	X	X	X	X	-
<i>Trochulus hispidus</i> (Linnaeus)	I	X	X	X	X	X	X	X	X	X	-

<i>Helicigona lapicida</i> (Linnaeus)	S	-	-	-	-	-	-	X	-	X	-
<i>Cepaea/Arianta sp.</i>	I	X	X	X	-	-	-	X	-	X	X
Aquatic Snails											
<i>Galba truncatula</i> (Müller)	A	X	-	-	X	-	-	-	-	-	-
<i>Gyraulus albus</i> (Müller)	IA	X	X	-	-	-	-	-	-	-	-
Total Moll-t		****	***	**	****	***	*****	****	**	*****	***
Total Moll-a		**	*	-	*	-	-	-	-	-	-

Key: X = present, * = 1-4, ** = 5-19, *** = 20-49, **** = 50-99, ***** = 100+, O = open country species, I = intermediate species, S = shade-loving species, B = burrowing species, A = amphibious species, IA = intermediate aquatic species, Moll-t = Land snails, Moll-a = aquatic snails

APPENDIX M: RADIOCARBON DATING

SUERC, summarised by Emma Aitken

Radiocarbon dating was undertaken in order to confirm the date of Ditch 13 and pit 1107. The samples were analysed during April and June 2023 at Scottish Universities Environmental Research Centre (SUERC), Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow, G75 0QF, Scotland. The methodology employed by SUERC Radiocarbon Laboratory is outlined in Dunbar *et al.* (2016).

The uncalibrated dates are conventional radiocarbon ages. The radiocarbon ages were calibrated using the University of Oxford Radiocarbon Accelerator Unit calibration programme OxCal v4.4.2 (Bronk Ramsey 2009, Bronk Ramsey 2020) using the IntCal20 curve (Reimer *et al.* 2020).

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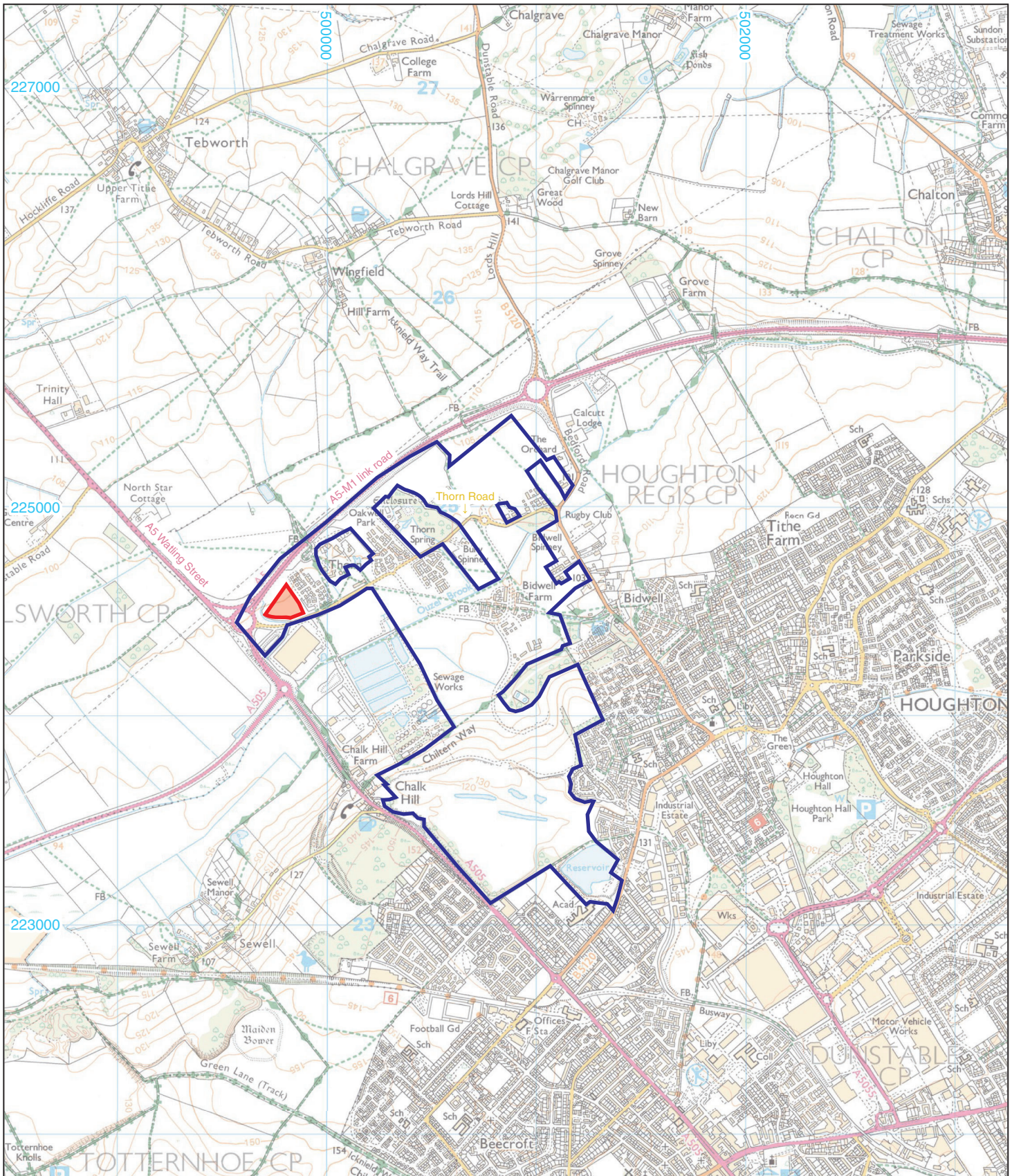
Table M1: Radiocarbon dating results

Feature	Lab No.	Material	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	C/N ratio	$\delta^{34}\text{S}$ (‰)	C/S ratio	N/S ratio	Radiocarbon age	Calibrated radiocarbon age 95.4% probability	Calibrated radiocarbon age 68.3% probability
Context 1138 Ditch 13 (cut 1137)	SUERC-109064	Animal bone: Cattle tooth	-22.5 ‰	6.1 ‰	3.2	-5.5 ‰	517	160	2187 ± 25 yr BP	361–167 cal. BC (95.4%)	353–286 cal. BC (46.6%) 228–217 cal. BC (6.3%) 211–195 cal. BC (11.3%) 186–178 cal. BC (4.1%)
Context 1108 Pit 1107	SUERC-110492	Animal bone: Antler tool	-23.3 ‰	6.3 ‰	3.3	-5.9 ‰	538	163	3295 ± 27 yr BP	1618–1506 cal. BC (95.4%)	1610–1575 cal. BC (32.3%) 1563–1518 cal. BC (35.9%)
Context 1108 Pit 1107	SUERC-110493	Animal bone: Auroch scapula fragment	-22.6 ‰	5.7 ‰	3.3	-0.7 ‰	564	174	3296 ± 27 yr BP	1619–1506 cal. BC (95.4%)	1611–1574 cal. BC (33.0%) 1564–1519 cal. BC (35.3%)

APPENDIX N: OASIS REPORT FORM

PROJECT DETAILS					
Project name	Bidwell West Employment Site, Houghton Regis, Central Bedfordshire				
Short description	<p>From 4 October to 8 November 2021, Cotswold Archaeology carried out an archaeological investigation at Bidwell West Employment Site North of Thorn Road, Thorn Road, Houghton Regis, Central Bedfordshire. Prior to this excavation, part of the site had been investigated in advance of construction of the A5-M1 Link Road; and the site was therefore investigated in two areas: an excavation area comprising 0.39ha and a strip, map and sample (SMS) excavation area comprising 0.28ha.</p> <p>Predating the Iron Age activity was a small number of discrete early prehistoric pits, one of which contained a worked antler tool and several aurochs bones C14 dated to the very end of the Early Bronze Age (Late 17th – 16th centuries BC). Early Iron Age occupation comprised a large pit cluster, several isolated discrete features, a boundary ditch and possible enclosure. During the Middle Iron Age, a small stock enclosure, three penannular ditches representing roundhouses, and several associated features were established. A large rectilinear enclosure potentially dates to the Late Iron Age; internal features included possible four-post structures and storage pits. The Iron Age pottery assemblage was dominated by domestic wares typical of a rural settlement and indicated that activity at the site probably didn't begin much before the start of the 6th century BC. Other finds included fragments of an Early Iron Age bow brooch, fired clay, a small fragment of ceramic building material and a Roman stone <i>tessera</i>.</p> <p>Features post-dating the Iron Age comprised elements of a previously identified Roman field system and the remains of medieval to post-medieval ridge-and-furrow cultivation.</p>				
Project dates	October – November 2021				
Project type	Excavation, and strip, map and sample				
Previous work	Desk-based assessment (CA 2014) Geophysical survey (Pre-Construct Geophysics 2014) Field evaluation (CA 2014)				
Future work	Unknown				
PROJECT LOCATION					
Site location	Land north of Thorn Road, Bidwell, Houghton Regis, Central Bedfordshire				
Study area (m ² /ha)	0.67ha				
Site co-ordinates	499784 224517				
PROJECT CREATORS					
Name of organisation	Cotswold Archaeology				
Project brief originator	N/A				
Project design (WSI) originator	Cotswold Archaeology				
Project Manager	Adrian Scruby				
Project Supervisor	Dale Langford and Andrew Whelan				
MONUMENT TYPE	Pit cluster – Iron Age Penannular Ditch – Iron Age Boundary Ditch – Iron Age Four-post structure – Iron Age Ditch- Roman				
SIGNIFICANT FINDS	Pottery – Iron Age Pottery – Roman Slag – Iron Age				
PROJECT ARCHIVES	<table border="1"> <thead> <tr> <th>Intended final location of archive</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Intended final location of archive	Content		
Intended final location of archive	Content				

Physical	Culture Trust Luton LUTNM 2021/18	Pottery, lithics, stone, metalwork, worked bone, animal bone, human remains, plant macrofossils and molluscs
Paper	Culture Trust Luton LUTNM 2021/18	Context sheets, section drawings, plans, report
Digital	Archaeology Data Service	Database, digital photos, digital survey, report
BIBLIOGRAPHY		
Cotswold Archaeology 2022 <i>Bidwell West Employment Lands, Houghton Regis, Central Bedfordshire: Archaeological Excavation Ca</i> typescript report MK0598_2		



- Site boundary
- Bidwell development area

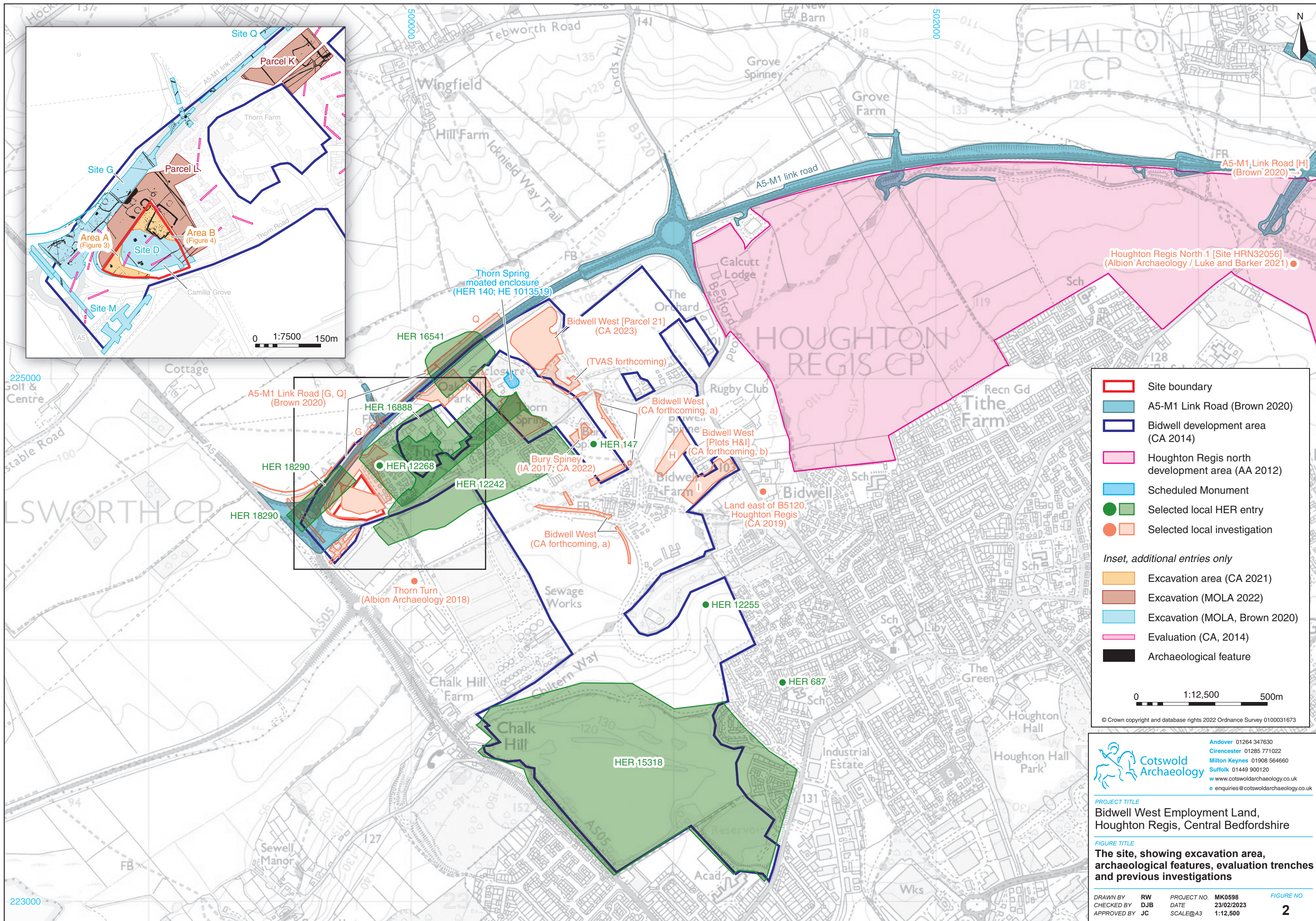


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PROJECT TITLE
 Bidwell West Employment Land,
 Houghton Regis, Central Bedfordshire

FIGURE TITLE
 Site location plan

DRAWN BY	RW	PROJECT NO.	MK0598	FIGURE NO.
CHECKED BY	DJB	DATE	23/02/2023	1
APPROVED BY	JC	SCALE@A4	1:25,000	



Legend

- Site boundary
- A5-M1 Link Road (Brown 2020)
- Bidwell development area (CA 2014)
- Houghton Regis north development area (AA 2012)
- Scheduled Monument
- Selected local HER entry
- Selected local investigation

Inset, additional entries only

- Excavation area (CA 2021)
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Evaluation (CA, 2014)
- Archaeological feature

0 1:12,500 500m

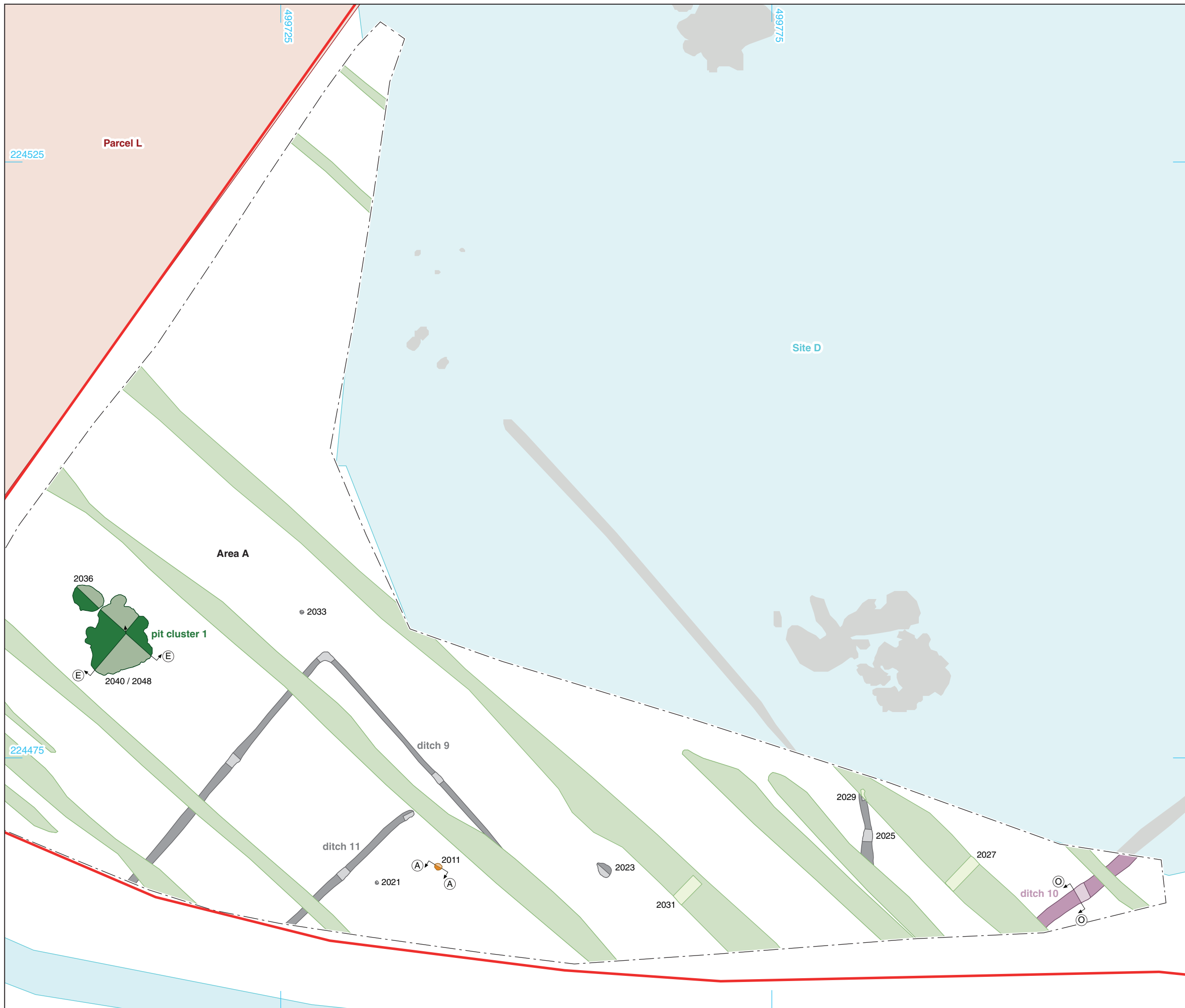
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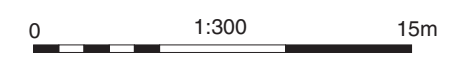
PROJECT TITLE
 Bidwell West Employment Land, Houghton Regis, Central Bedfordshire

FIGURE TITLE
 The site, showing excavation area, archaeological features, evaluation trenches and previous investigations

<small>DRAWN BY</small> RW	<small>PROJECT NO.</small> MK0598	<small>FIGURE NO.</small>
<small>CHECKED BY</small> DJB	<small>DATE</small> 23/02/2023	2
<small>APPROVED BY</small> JC	<small>SCALE@A3</small> 1:12,500	



- Site boundary
- Excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Previous excavation features
- Period 1: prehistoric (excavated / unexcavated)
- Period 2: Early Iron Age
- Period 4: Late Iron Age
- Undated
- Furrow
- Section location



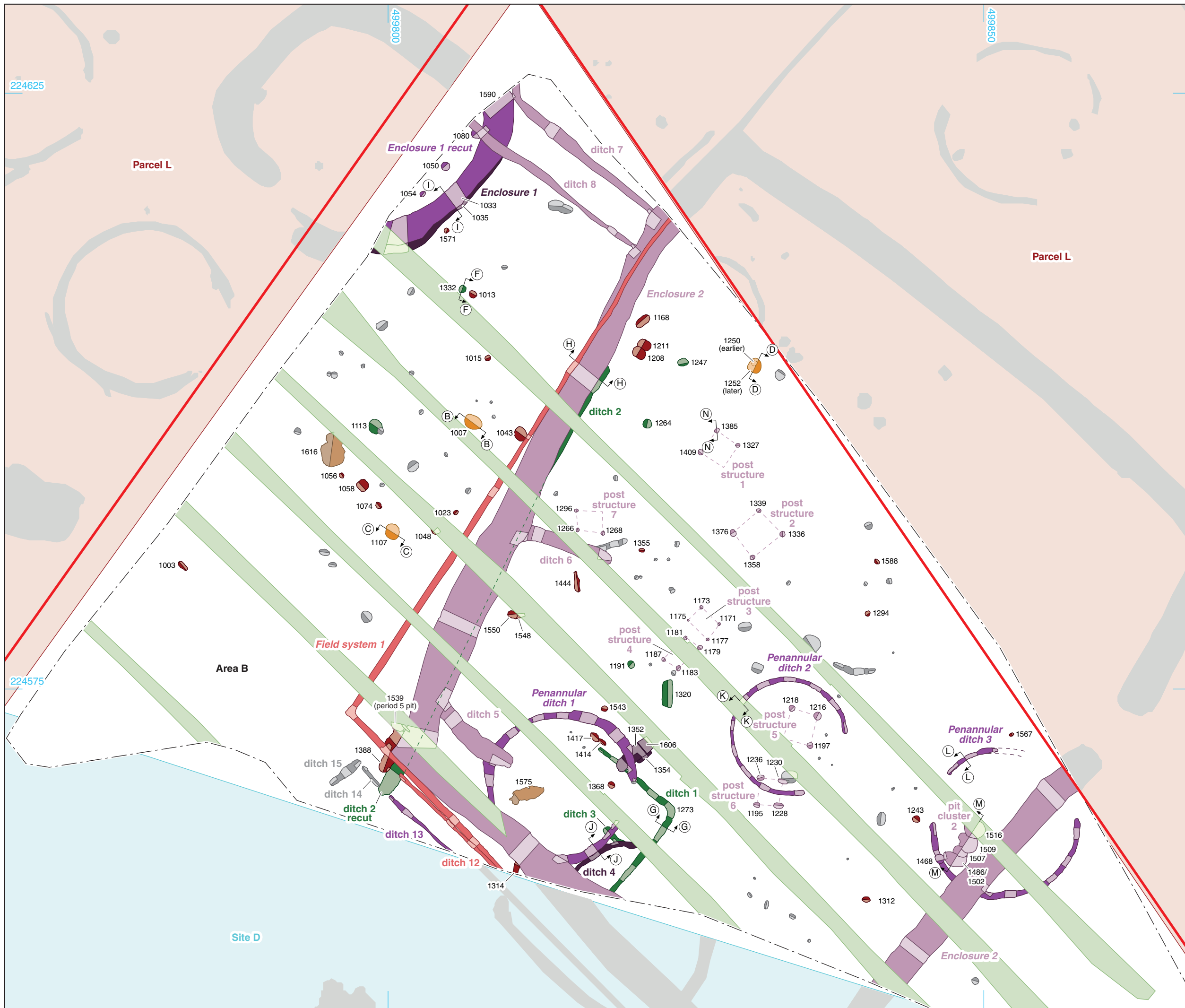
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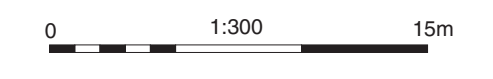
PROJECT TITLE
 Bidwell West Employment Land,
 Houghton Regis, Central Bedfordshire

FIGURE TITLE
 Area A phased plan

<small>DRAWN BY</small> RW	<small>PROJECT NO.</small> MK0598	<small>FIGURE NO.</small>
<small>CHECKED BY</small> DJB	<small>DATE</small> 23/02/2023	3
<small>APPROVED BY</small> JC	<small>SCALE@A3</small> 1:300	



- Site boundary
- Excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Previous excavation features
- Period 1: prehistoric (excavated / unexcavated)
- Period 2: Early Iron Age
- Phase 3.1: Middle Iron Age I
- Phase 3.2: Middle Iron Age II
- Period 4: Late Iron Age
- Period 5: Iron Age
- Period 6: Roman
- Undated
- Furrow
- Natural
- A Section location



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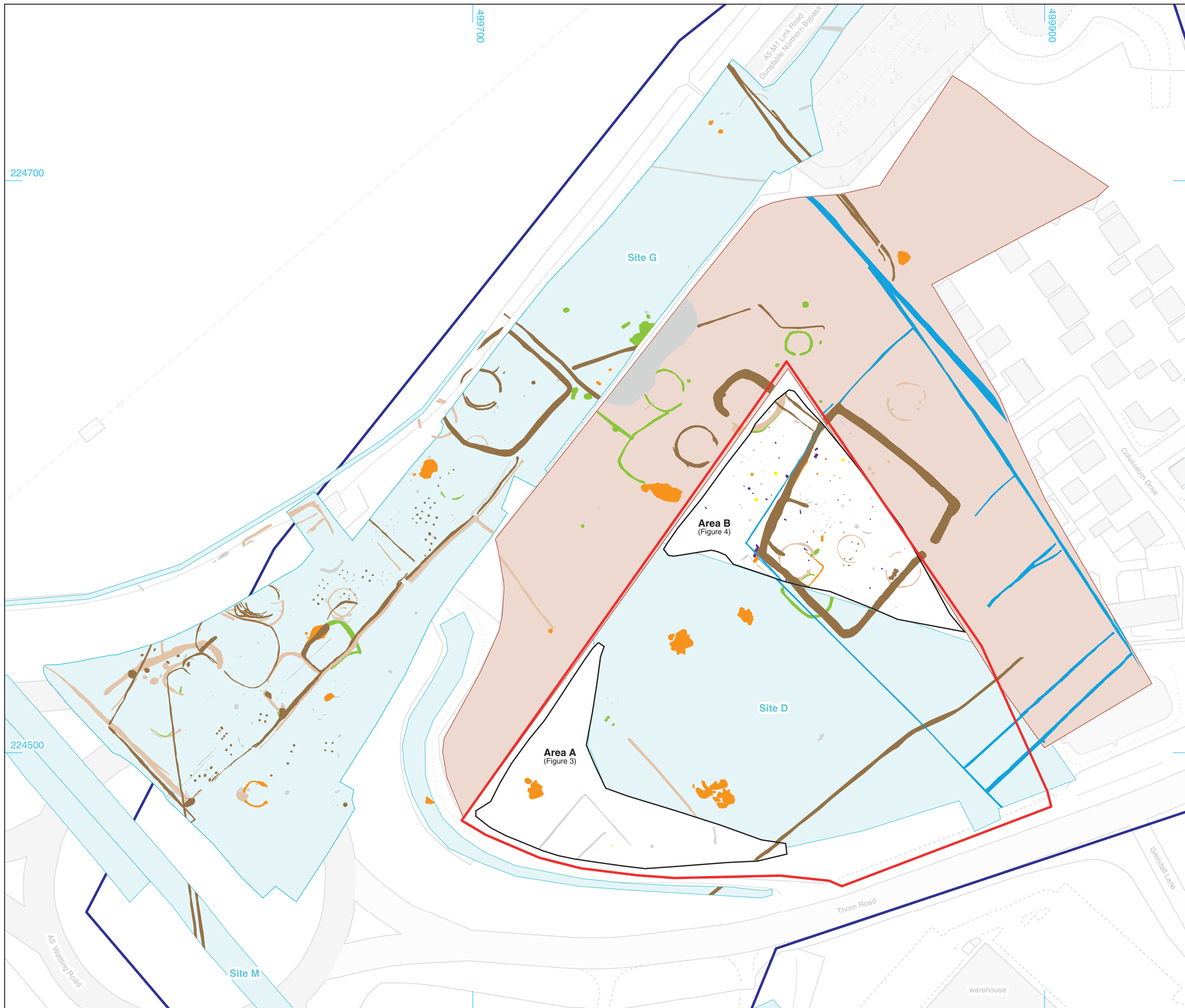
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PROJECT TITLE
 Bidwell West Employment Land,
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FIGURE TITLE
 Area B phased plan

DRAWN BY	RW	PROJECT NO.	MK0598	FIGURE NO.
CHECKED BY	DJB	DATE	23/02/2023	4
APPROVED BY	JC	SCALE@A3	1:300	



- Site boundary
- Bidwell development area (CA 2014)
- CA excavation limit
- Excavation (MOLA 2022)
- Excavation (MOLA, Brown 2020)
- Period 1: prehistoric
- Period 2: Early Iron Age
- Phase 3.1: Middle Iron Age I
- Phase 3.2: Middle Iron Age II
- Period 4: Late Iron Age
- Period 5: Iron Age
- Period 6: Roman
- Undated

[1] Phasing outside of the site boundary: after Brown 2020
 [2] Phasing colours differ to other figures in this report or clarity



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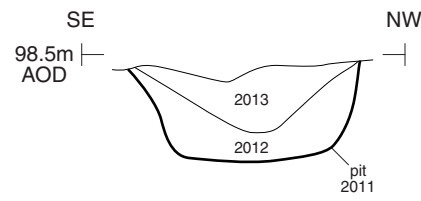
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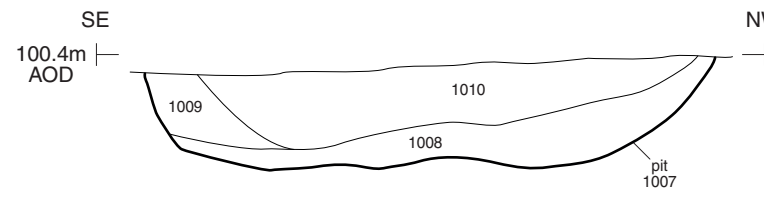
FIGURE TITLE
 The site, phased plan showing
 adjacent previous investigations

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CHECKED BY DJB	DATE 23/02/2023	5
APPROVED BY JC	SCALE@A3 1:1250	

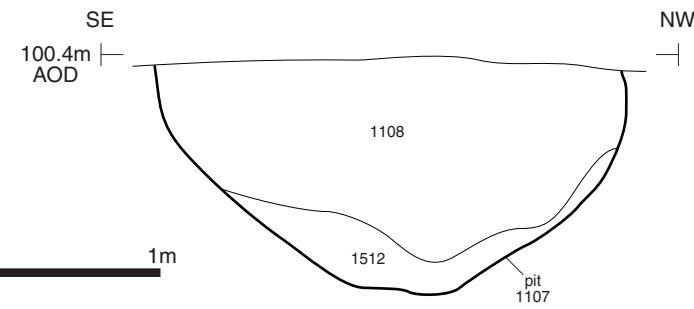
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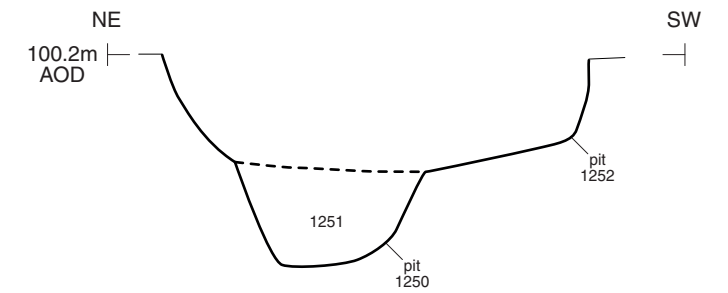
Section BB



Section CC



Section DD



Pit 2011, looking south-west (0.5m scale)



Pit 1007, looking south-west (1m scale)



Pit 1107, looking south-west (1m scale)



Pits 1250 and 1252, looking south-east (1m scale)

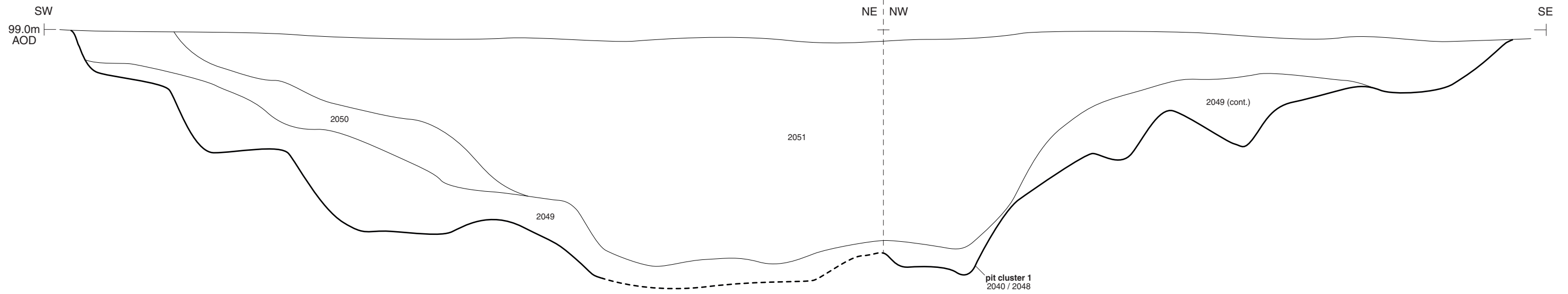

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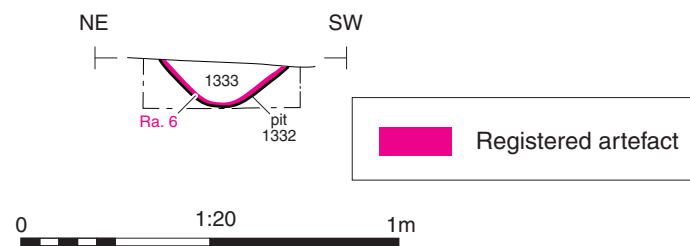
FIGURE TITLE
Period 1: sections and photographs

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CHECKED BY	DJB	DATE	23/02/2023	
APPROVED BY	JC	SCALE@A3	1:20	6

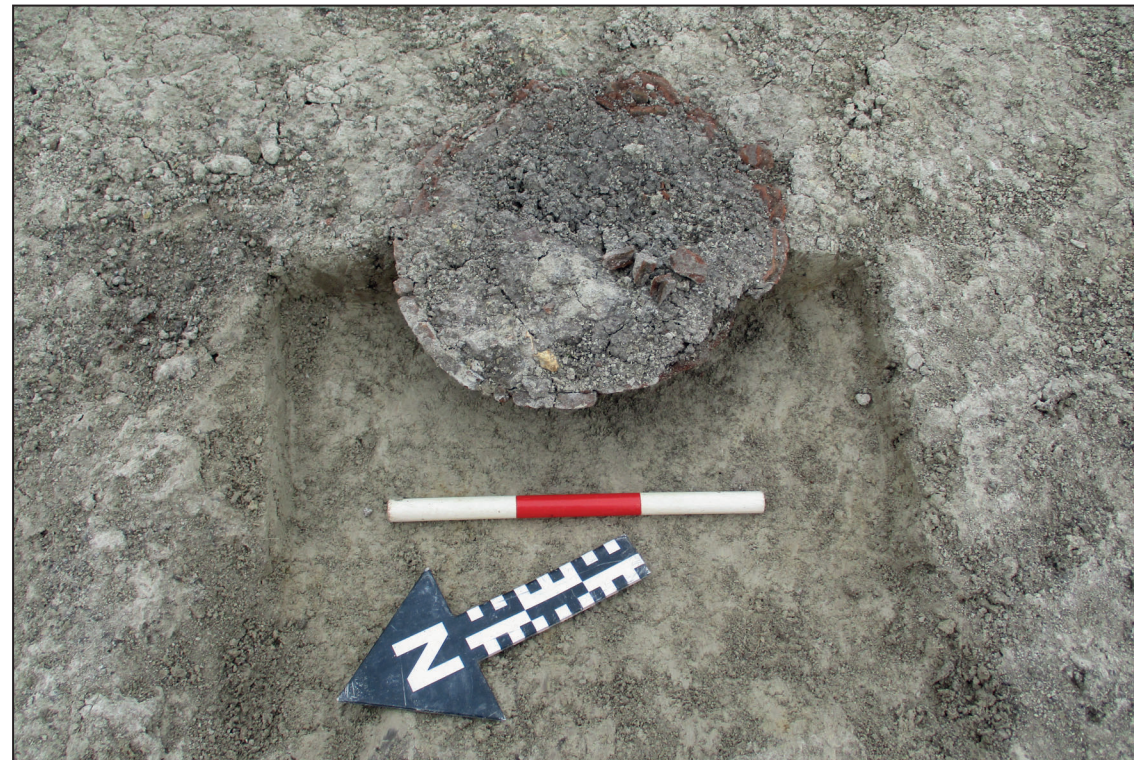
Section EE



Section FF



Pit cluster 1, looking south-east (2m scale)



Pit 1332 and Ra. 6, looking south-east (0.3m scale)

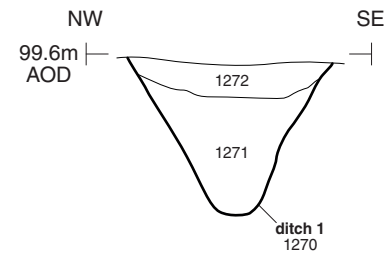

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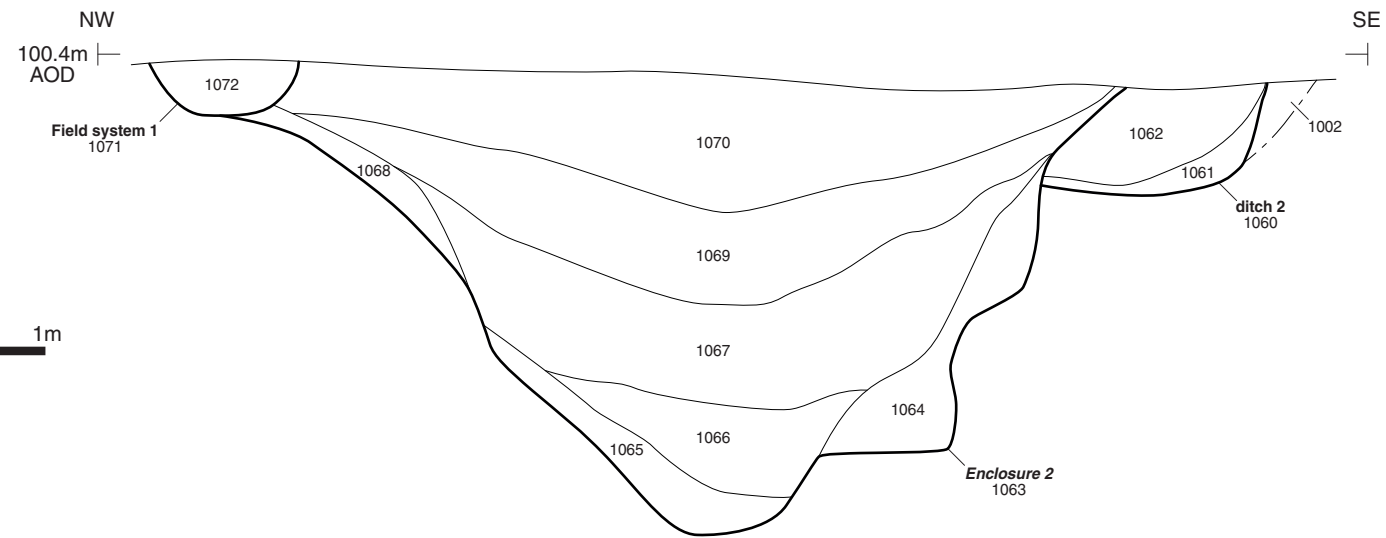
FIGURE TITLE
Period 2: sections and photographs

DRAWN BY	RW	PROJECT NO.	MK0598	FIGURE NO.
CHECKED BY	DJB	DATE	23/02/2023	7
APPROVED BY	JC	SCALE@A3	1:20	

Section GG



Section HH



Period 2 Ditch 1 (cut 1270), looking north-east (0.3m scale)



Period 6 Field system 1 (cut 1071; left), period 4 Enclosure 2 (cut 1063; centre), and period 2 ditch 2 (cut 1060), looking south-west (1m scale)

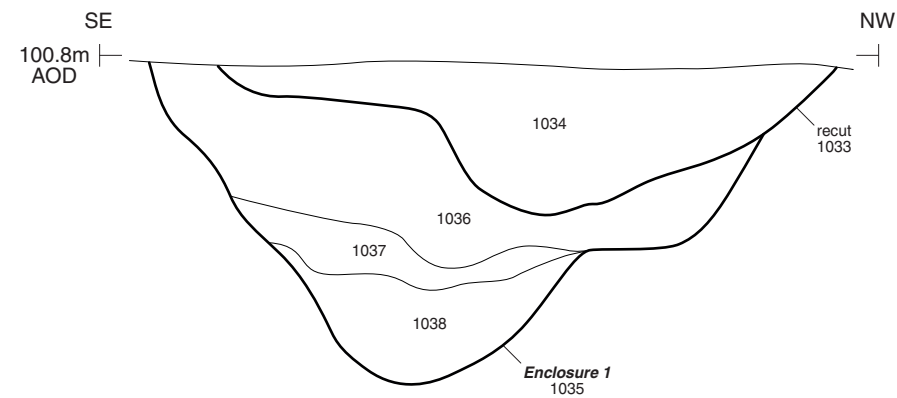

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PROJECT TITLE
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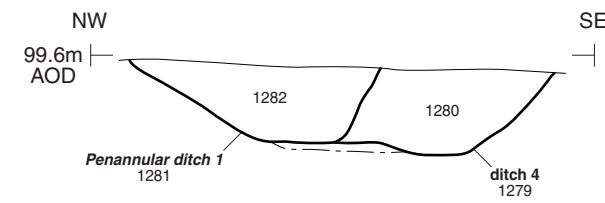
FIGURE TITLE
Period 2: sections and photographs

DRAWN BY	RW	PROJECT NO.	MK0598	FIGURE NO.
CHECKED BY	DJB	DATE	23/02/2023	8
APPROVED BY	JC	SCALE	@A3 1:20	

Section II



Section JJ



Phase 3.1 Enclosure 1 (cut 1035; left) and Phase 3.2 recut (cut 1033; right), looking south-west (1m scale)

Phase 3.2 Penannular ditch 1 (cut 1281; left) and Phase 3.1 ditch 4 (cut 1279; right), looking north-east (0.5m scale)

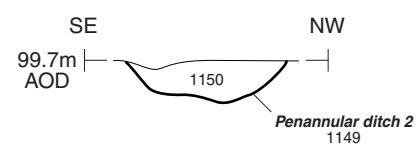

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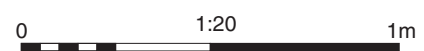
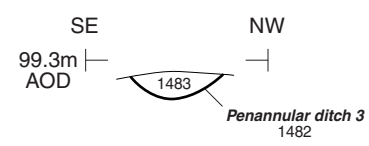
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Phase 3.1: sections and photographs

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CHECKED BY	DJB	DATE	23/02/2023	9
APPROVED BY	JC	SCALE	A3 1:20	

Section KK



Section LL



Penannular ditch 2 (cut 1149), looking south-west (0.2m scale)



Penannular ditch 3 (cut 1482; oblique shot), looking west (0.2m scale)

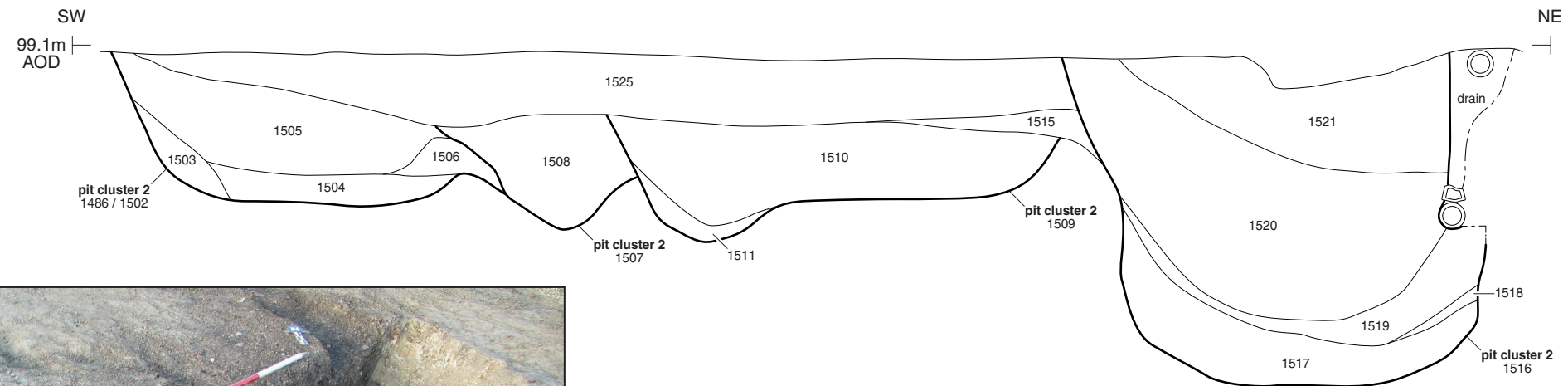

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PROJECT TITLE
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FIGURE TITLE
Phase 3.2: sections and photographs

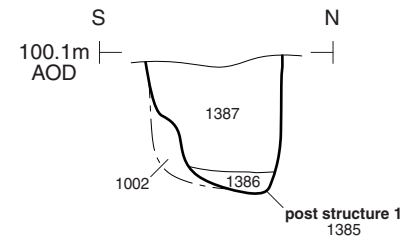
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Section MM

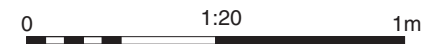
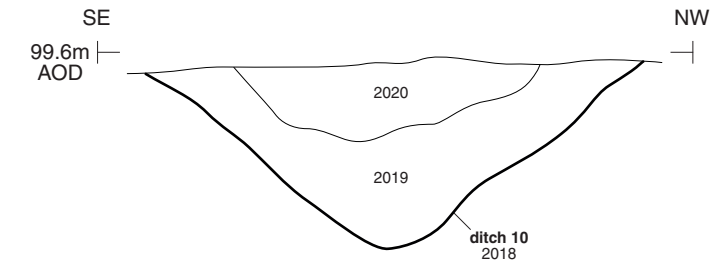


Pit cluster 2, looking north (2m scale)

Section NN



Section OO



Post structure 1 (posthole 1385), looking north-west (0.3m scale)



Ditch 10 (cut 2018), looking south-west (1m scale)

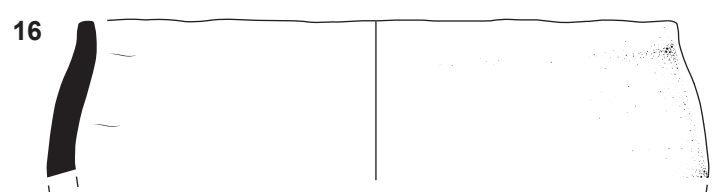
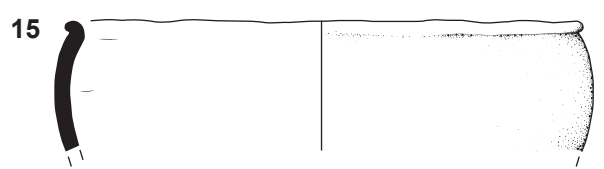
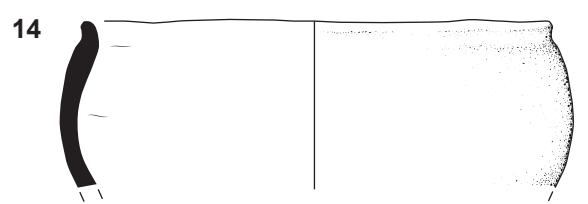
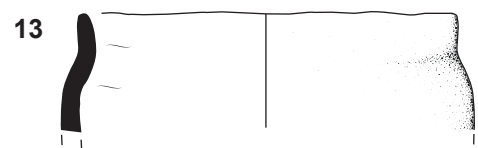
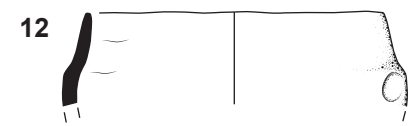
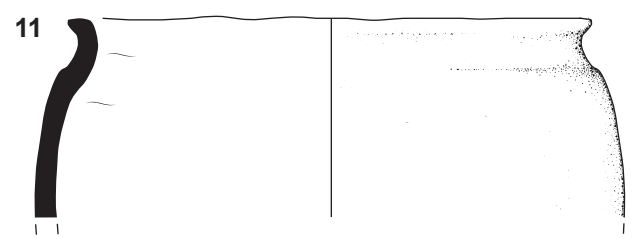
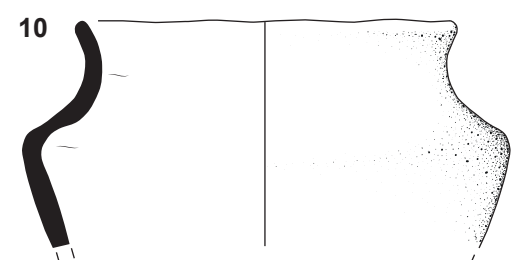
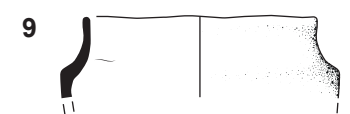
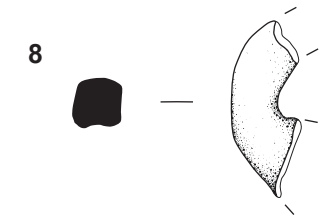
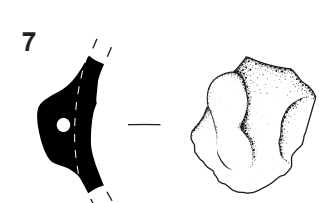
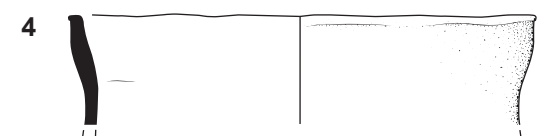
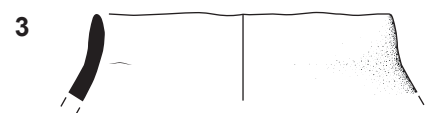
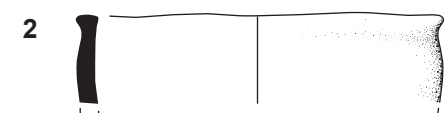
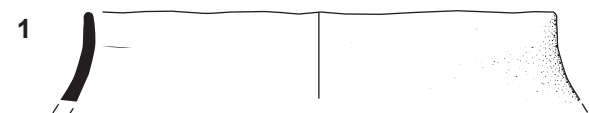
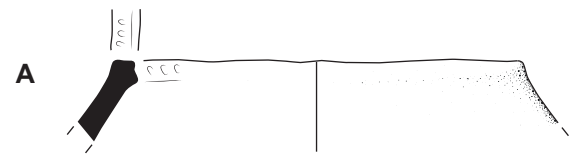
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PROJECT TITLE
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FIGURE TITLE
 Period 4: sections and photographs

Early Prehistoric pottery

Late Prehistoric pottery



0 1:3 150mm

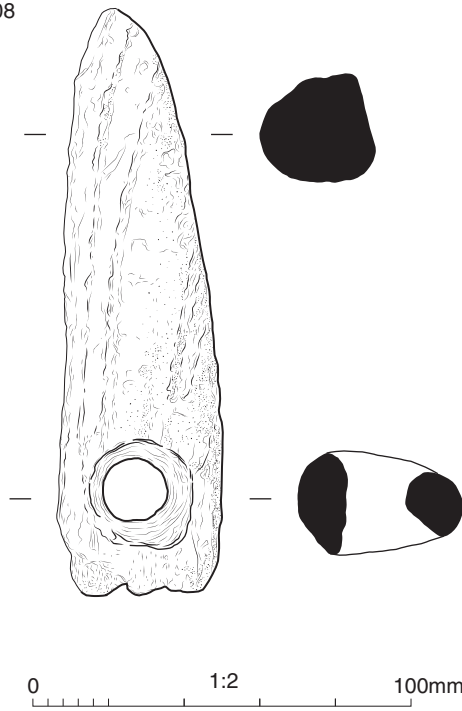
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PROJECT TITLE
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FIGURE TITLE
Early and Late Prehistoric pottery

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CHECKED BY DJB DATE 14/03/2023
APPROVED BY PB SCALE@A3 1:3 12

1108



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PROJECT TITLE

Bidwell West Employment Land,
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FIGURE TITLE

Worked antler find

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CHECKED BY DJB DATE 28/10/2022
APPROVED BY DS SCALE@A4 1:2

FIGURE NO.

13

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