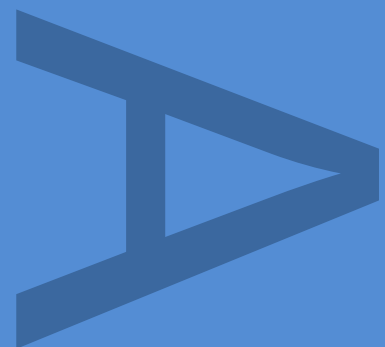


**LAND SOUTH OF MAIN ROAD,
MARTLESHAM, SUFFOLK:
ARCHAEOLOGICAL
EXCAVATION AND MONITORING**

**POST-EXCAVATION
ASSESSMENT**

OCTOBER 2014




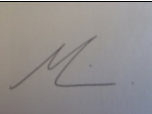
**PRE-CONSTRUCT ARCHAEOLOGY
R11803**

LAND SOUTH OF MAIN ROAD, MARTLESHAM, SUFFOLK: ARCHAEOLOGICAL EXCAVATION AND MONITORING

POST-EXCAVATION ASSESSMENT

Quality Control

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Land South of Main Road, Martlesham, Suffolk:

Archaeological Excavation and Monitoring. Post-Excavation Assessment

Local Planning Authority: Suffolk Coastal District Council

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ABSTRACT

This report describes the results of archaeological excavation and monitoring carried out by Pre-Construct Archaeology on land south of Main Road, Martlesham, Suffolk, IP12 4SW (centred on NGR TM 2475 4636) between 15th April and 22nd May 2014. The archaeological work was commissioned by CgMs Consulting on behalf of Bloor Homes Ltd, in response to a planning condition attached to the construction of 180 new homes with associated access roads, services and landscaping. The aim of the work was to preserve by record any archaeological remains which would be damaged or destroyed by the new development.

The excavation of Area 1 identified several phases of field system defined by boundary ditches. The earliest of these was located on the higher ground in the north of the site and comprised several adjoining small square and rectangular enclosures with associated trackways. Finds were scarce owing to the agricultural character of the enclosures. However, small quantities of predominantly flint-tempered pottery, combined with stratigraphic and spatial relationships, suggest a Middle to Late Bronze Age date. The site adds to a growing body of evidence for the laying out of extensive subdivided agricultural landscapes across much of the Suffolk coast and river valleys during the later Bronze Age. Middle to Late Iron Age and post-medieval field boundaries were also identified, the former providing an important contextual backdrop to previously identified early Roman activity in the locality.

Ten 'fire pits' with scorched sides and bases and charcoal-rich fills were scattered across the site, mainly in the north. None contained finds. Radiocarbon-dating of charcoal from three of the pits indicates a Middle Saxon (7th-9th-century AD) date. Similar burnt pits have now been identified on numerous sites in south-east Suffolk, as well as on similar sand and gravel soils in Norfolk; radiocarbon-dating of the pits on two sites south-east of Ipswich has also produced Early to Middle Saxon dates, in addition to possible evidence for an association with iron-smithing.

Two additional targeted excavations (Areas 2 and 3) are due to take place in the eastern half of the site, in line with the developer's construction programme.

1 INTRODUCTION

- 1.1 An archaeological excavation and monitoring were undertaken by Pre-Construct Archaeology Ltd (PCA) on land south of Main Road, Martlesham, Suffolk, IP12 4SW (centred on Ordnance Survey National Grid Reference (NGR) TM 2475 4636) between 15th April and 22nd May 2014 (Figure 1; Plate 1).
- 1.2 The site is located on the eastern outskirts of Ipswich, 9km from the town centre and c. 4km south-west of Woodbridge town centre. Martlesham village itself is centred just under 1km to the north-east, with residential development spreading south-westwards along Main Road. The site is bounded to the north by Main Road, to the west by a belt of trees and heath alongside the A12 dual carriageway, to the south by a band of heathland, beyond which is an out-of-town supermarket, to the east by Felixstowe Road and Mill Farm and to the north-east by modern houses in Crown Close, accessed off Main Road. It has an overall area of approximately 11.5ha and occupies arable agricultural land to the west and an area of deciduous woodland to the east.
- 1.3 The archaeological work was commissioned by CgMs Consulting on behalf of Bloor Homes Ltd, in response to an archaeological planning condition attached to the construction of 180 new homes with associated access roads, services and landscaping (Planning Reference C/10/1906).
- 1.4 A trial trench evaluation of the site, carried out by Suffolk County Council Archaeological Service in two phases between July and November 2012, revealed two or more phases of field system, one possibly prehistoric (earlier Iron Age?) and one Roman, although finds with which to date the ditches were limited (Cass 2013). Finds from within the site, recorded in the Suffolk Historic Environment Record (HER), also suggest the possible presence of a high-status Roman building, most likely within the tree-covered area to the south of Mill Farm. The footings of a windmill shown on early-19th-century maps and an extant WWII pillbox also survive in the eastern and central areas of the site, respectively.

1.5 The excavation was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by Mark Hinman of PCA (Hinman 2013) in response to written advice (letter dated 21st February 2013) from Jude Plouviez of Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT). This advice states that, in accordance with paragraph 141 of the National Planning Policy Framework, any planning permission granted for development of the site should be subject to the following archaeological conditions:

1. No development shall take place within the area indicated [the whole site] until the implementation of a programme of archaeological work has been secured, in accordance with a Written Scheme of Investigation which has been submitted to and approved in writing by the Local Planning Authority.

The scheme of investigation shall include an assessment of significance and research questions; and

- a. The programme and methodology of site investigation and recording
- b. The programme for post-investigation assessment
- c. Provision to be made for analysis of the site investigation and recording
- d. Provision to be made for publication and dissemination of the analysis and records of the site investigation
- e. Provision to be made for archive deposition of the analysis and records of the site investigation
- f. Nomination of a competent person or persons/ organisation to undertake the works set out within the Written Scheme of Investigation
- g. The site investigation shall be completed prior to development, or in such other phased arrangement, as agreed and approved in writing by the Local Planning Authority.

2. No building shall be occupied until the site investigation and post-investigation assessment has been completed, submitted to and approved in writing by the Local Planning Authority, in accordance with the programme set out in the Written Scheme of Investigation approved under Condition 1 and the provision made for analysis, publication and dissemination of results and archive deposition.
- 1.6 Following discussion between the developer's archaeological consultant (CgMs Consulting) and the SCCAS Archaeological Officer, it was agreed that the programme of archaeological work would initially focus on the excavation of three areas of the site (Areas 1, 2, 3; Figure 2), in addition to archaeological monitoring of stripping for the new estate roads. In line with the developer's groundworks and construction schedule, the initial excavation was of Area 1, with targeted excavation of Areas 2 and 3, in the east of the site, to follow at a later date. This report describes the results of the excavation of Area 1.
- 1.7 The main aims of the excavation were to 'preserve by record' any archaeological remains present in those areas of the site which would be affected by groundworks associated with the new development, to assess the significance of those remains in a local, regional or national research context, as appropriate, to realise the site's research potential through a programme of post-excavation analysis and research, and to disseminate the results of the project through publication.
- 1.8 This Post-Excavation Assessment (PXA) describes the results of the excavation and their significance, presents questions and methods for further analysis and research during the post-excavation phase of the project, and provides a proposal for dissemination of the project results through publication in *Proceedings of the Suffolk Institute of Archaeology and History* ('PSIAH'). Following completion of the project, the site archive will be deposited at Suffolk County Council Archaeology Store.

2 GEOLOGY AND TOPOGRAPHY

- 2.1 The geology of the site is Red Crag Formation Sand overlain by Lowestoft Formation sand and gravel (British Geological Survey 2014). In the south of the site, the drift deposits belong to the Kesgrave Catchment, comprising fluvial sands and gravels deposited along the pre-Anglian (c. 450,000 years BP) course of the river Thames. Terrace sands and alluvium lie along Martlesham Creek and the other narrow channels that lead off the heathlands, for example, adjacent to Howe's Farm, 1km to the south-east.
- 2.2 The Lowestoft Formation sand and gravel (3) was present in the excavation area at depths between c. 0.40m and 0.70m below present ground level, generally becoming more deeply buried to the south-west, downslope. The natural geology was overlain by plough-soil (4), the interface between the two having been disturbed and mixed by modern agricultural activity.
- 2.3 The site is on gently-sloping ground (Figure 6), falling away to the south and south-west and continuing to rise slightly to the north, to a high point on the opposite side of Main Road (which occupies a slight ridge), beneath the existing houses. The surface of the natural geology was recorded at elevations ranging from 31.94m OD in the north of the site to 28.14m OD in the south, a fall of just under 4m.
- 2.4 There are springs 600m north of the site which feed into the River Fynn and join the Deben at Martlesham Creek, 1.5km north-east of the site (Figure 1). Other springs 1km to the south-east also issue via an unnamed creek into the River Deben, approximately 3km east of the site.
- 2.5 The site has an overall area of approximately 11.5ha. At the time of the excavation, the western half of the site was arable farmland, mainly used for growing root vegetable crops well-suited to its free-draining soils. The north-eastern half was occupied by deciduous woodland, which became increasingly open towards the eastern edge of the site. A large number of trees in this area are to be retained within the development. Land immediately to the south was formerly part of Martlesham airfield (RAF Martlesham Heath), in use between 1917 and 1963 but now occupied by a

business and science park and housing. Martlesham Heath is now an industrial and dormitory satellite of Ipswich, characterised by the retail outlets and light industrial/ warehouse buildings in this business park, in addition to the large British Telecom facility at Adastral Park and the Suffolk Constabulary Headquarters on the opposite side of the A12. Historically, however, Martlesham and the surrounding parishes were dominated by lowland heath with acid grassland, gorse and heather, part of the distinctive landscape of the Suffolk coast ('the Sandlings'). Land to the east of the site remains undeveloped in character, with arable farmland, remnants of surviving heathland, small areas of deciduous woodland and some modern coniferous plantations.

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The site lies in an area of known archaeological significance, as recorded in the Suffolk Historic Environment Record (HER). The surviving areas of heathland in and around Martlesham are particularly notable for their prehistoric archaeology, including barrows or burial mounds, several of which survive as above-ground earthworks. A detailed desk-based assessment of the site's archaeological potential was compiled by Cambridgeshire County Council Archaeological Field Unit in 2005 (Kemp 2005).
- 3.2 The sites of three round barrow monuments are located just beyond the south-western boundary of the development site (HER MRM 016), with additional barrows further to the west and south on Martlesham Heath (HER MRM 018, 014, 015, 001 and 017). The nearest group of burial mounds are recorded in the HER as Saxon but their form is otherwise typical of Bronze Age monuments seen in similar topographical and geological locations throughout the county. It is, of course, possible that they were reused during the Anglo-Saxon period. Excavations of barrows in the parish, mainly conducted in the 1970s, have found stone tools, Early Bronze Age Beaker pottery and postholes suggestive of structures, in addition to burials of Bronze Age date (Martin 1976; discussed by Kemp 2005, 5).
- 3.3 Trial trenching at the Martlesham Park and Ride, 500m to the west of the site, has found pits containing Bronze Age Beaker pottery and numerous ditches, possibly part of a contemporary field system, although one ditch also contained Roman pottery (HER MRM 075).
- 3.4 Suffolk HER records the development site as the possible location of a Roman villa (HER MRM 039). Gilded glass *tesserae*, likely to be from a mosaic, were discovered in 1929 and Roman building material was found in test pits dug by a local archaeological group in the eastern part of the site in 2001. Subsequent attempts to verify the location of this putative villa via limited intrusive fieldwork and the surveys conducted in connection with the present development proposals have not been successful. The site of a

small updraught-type Roman kiln found in 1952, and finds including a Roman bronze vase, are recorded in the former grounds of St Mary's House, on the opposite side of Main Road (HER MRM 007 and 008, respectively). The chance find of a blue glass bead (HER MRM 020), 200m to the west of the site, suggests additional Roman activity in the wider area. Iron Age pottery has been found 200m north-east of the site (HER MRM 005).

- 3.5 A post-medieval mill (HER MRM 038) is located in the eastern part of the site. It is marked on the 1832 tithe map and 1838 1st Edition Ordnance Survey. Previous investigation of the mill site suggests that although the majority of the surface structure is gone, the near-ground and below-ground preservation may be quite high. A wheel track was seen after limited clearance of a portion of the undergrowth and surface soil by a local amateur historical research group (Suffolk Mills Study Group) in 2001 (discussed by Kemp 2005, 4).
- 3.6 A WWII pillbox or battle headquarters (HER MRM 152) associated with RAF Martlesham Heath (1917-1963) is located at the eastern edge of the western cultivated field, approximately centrally within the development site.
- 3.7 An aerial photographic assessment of the site was carried out by Rog Palmer as part of the archaeological desk-based assessment in 2005 (Palmer 2005). No archaeological features were identified within the site.
- 3.8 A geophysical survey (HER MRM101) and fieldwalking and metal-detector survey (HER MRM144) of the western, cultivated, field were also carried out prior to the trial trench evaluation. The former identified magnetic anomalies suggestive of a system of small enclosures in the northern half of the field, bounded to the south by a trackway flanked by parallel ditches, which widened to the north-east. Additional, stronger, ditch-type anomalies were present close to the eastern edge of the field (Roseveare and Lewis 2010, 6-7, 12-13; see Figures 9-10). The fieldwalking survey identified only one concentration of finds: a low density of Middle Bronze Age flints and possibly associated burnt flint in the eastern part of the field (Brooks 2010, 6, 7 fig. 3).

- 3.9 The site was subject to a trial trench evaluation, carried out by Suffolk County Council Archaeological Service (SCCAS) in two phases between July and November 2012 (HER MRM 144; Cass 2013). A total of 73 linear trial trenches (totalling 2200m) were excavated, revealing ditches thought to include field boundaries, internal subdivisions and irrigation ditches, in addition to plough furrows and a smaller number of discrete pits and postholes. A number of the ditches were thought to form a regularly aligned Roman field system, possibly with an area of underlying later prehistoric activity, and with overlying medieval field usage.
- 3.10 In the eastern part of the site (Trenches 1-19), the evaluation revealed a series of regularly-spaced north-west to south-east-aligned ditches, usually with a gap of c. 3m between each ditch, and with occasional ditches orientated approximately perpendicular to these regular ones. Dating evidence was sparse and it could not be established with any degree of certainty whether this system of ditches is related to Roman agriculture (for example, 'lazy beds' for high-value crops such as fruit or asparagus) in the hinterland of a villa complex, medieval ridge and furrow cultivation, or modern irrigation.
- 3.11 The trenches on the west side of the site revealed a less coherent ditch system, with signs of a regularly arrayed field system with corners and straight ditches adhering to broadly north-south and east-west axes (see Figure 8). There were also other ditches which did not match these alignments and which were considered to possibly be evidence of a less formalised, prehistoric subsistence farming regime (Cass 2013, 50). None of the ditches appeared to relate to roads shown on the 1st Edition Ordnance Survey map, suggesting that they are not the remains of medieval or more recent land use.
- 3.12 Only small quantities of finds were present in the features identified during the evaluation (Cass 2013, 43-50). Three contexts contained groups of relatively unabraded Iron Age pottery: the fills of two pits in Trench 21, close to the southern edge of the site, and another pit in Trench 56, in the central northern area. The majority of the 122 sherds are flint-tempered, though

some are in a sandy fabric with organic inclusions. Two wheel-thrown grog-tempered sherds, dating from the Late Iron Age to c. AD 60/70, were found in a ditch and a posthole in Trench 8, in the eastern part of the site. Eighteen sherds of slightly abraded Roman pottery, in a mix of black-surfaced and grey micaceous fabrics and probably representing parts of two vessels, were found in a ditch in Trench 56 (central northern area of site). Other finds, including struck flint, were extremely scarce. Bulk soil samples contained few charred plant macrofossils.

- 3.13 Overall, the evaluation indicated the likely presence on the site of two or possibly three different periods of field system, one possibly prehistoric and one Roman in date. The site thus had potential to contribute to knowledge of landscape organisation and agriculture in this part of the Suffolk coast and heaths during these periods. However, the scarcity of pottery or other dateable finds in the identified ditches was a problem.

4 METHODOLOGY

4.1 General (Figure 2)

- 4.1.1 Excavation Area 1 (c. 1.42ha) occupied part of the western, cultivated field. It was roughly rectangular in plan, widening to the north. It encompassed two of the main areas of probable prehistoric and Roman field boundary ditches which were identified during the trial trench evaluation. In practice, Area 1 had to be reduced to the north in order to allow space for cabins and turning space for cars and plant, and to the east to allow continued access to a public right of way which was aligned along the wooded boundary between the western and north-eastern halves of the site. However, a contingency area adjoining the north-western edge of Area 1 was excavated in full and further prehistoric enclosure ditches were recorded immediately alongside this in the initial stage of estate road monitoring.
- 4.1.2 Excavation Area 2 (974 sq. m) (not yet excavated) is to be located in the north-east of the development site. It is targeted on the field ditches and closely-spaced ditches/ cultivation beds which were identified in the trial trenches in this area.
- 4.1.3 Excavation Area 3 (551 sq. m) (not yet excavated) is to be located in the east of the site, adjacent to Mill Farm. It is targeted on the remains of the windmill recorded in this area on historic maps and partially investigated by an amateur archaeological group in 2001.

4.2 Excavation Methodology

- 4.2.1 Ground reduction during the excavation was carried out under archaeological supervision using a 21-ton 360° tracked mechanical excavator fitted with a 2m-wide toothless ditching bucket. Topsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded. With the exception of a single ditch (DITCH 45; see below), no features or deposits of archaeological interest survived above the level of the natural geology.
- 4.2.2 Exposed surfaces were cleaned by trowel and sand-hoe as appropriate and

all further excavation was undertaken manually using hand tools.

4.3 Recording and Finds Recovery

4.3.1 The limits of excavations, heights above Ordnance Datum (m OD) and the locations of archaeological features and interventions were recorded using a Leica 1200 GPS rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better. A contour survey was also undertaken, with spot heights taken at regular intervals (c. 5m spacing) across the excavation area using GPS.

4.3.2 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus]. Where more than one slot was excavated through an individual feature, each intervention was assigned additional numbers for the cutting event and for the deposits it contained (these deposits within cut features being referred to here as 'fills'). Multiple sections excavated across a single feature were later grouped together by unique 'group numbers', signified here by capitals: e.g. DITCH 1. The record numbers assigned to cuts, deposits and groups are entirely arbitrary and in no way reflect the chronological order in which events took place. All features and deposits excavated during the excavation are listed in Appendix 2. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved.

4.3.3 Metal-detecting was carried out during the topsoil stripping and throughout the excavation process. Archaeological features and spoil heaps were scanned by metal-detector periodically. Only objects of modern date were found and were not retained for accession.

4.3.4 High-resolution digital photographs were taken of all relevant features and

deposits, and were used to keep a record of the excavation process. In addition, monochrome photographs were taken of significant features.

4.4 Sampling Strategy

4.4.1 Discrete features were 100% excavated, having first been half-sectioned, photographed and recorded by a cross-section scaled drawing at an appropriate scale (either 1:10 or 1:20). Some features found to be modern or of natural origin (e.g. the result of tree rooting or frost-cracking) were only half-sectioned.

4.4.2 As machining progressed, it quickly became apparent that the principal potential of the site was for evidence of prehistoric field systems. Recent experience of excavating these sorts of agricultural boundaries at other sites in Ipswich, on the Trimley Peninsula, and elsewhere in Suffolk and Norfolk, suggested that finds would be extremely scarce and that high levels of sampling would be necessary to maximise the chances of recovering dating evidence. As such, regularly-spaced slots, generally measuring 2m in length and normally amounting to approximately 25% of a ditch's total fill, were excavated and recorded. In the cases of several of the Middle to Late Bronze Age enclosure ditches (see below), 100% of the remaining fill (*i.e.* between the excavated slots) was then dug over to search for finds. Investigations of ditches concentrated on areas away from junctions or intersections in order to recover uncontaminated dating evidence. Where the stratigraphic relationship between features could not be discerned in plan, relationship slots were also excavated and these were recorded as part of the GPS survey and noted on the relevant record sheets. Excavation also focused on ditch terminals as these are known to have often been focal points for deliberate deposits of artefacts, particularly on prehistoric sites.

4.5 Environmental Sampling

4.5.1 A total of 35 bulk samples (normally 40 litres in volume unless insufficient material was available due to the size of the feature) were taken to extract and identify micro- and macro-botanical remains. The aim of this sampling was to investigate the past environment and economy of the site, and particularly to identify any evidence relating to the nature of the agricultural

regime(s) in which the field system(s) operated. An additional aim of the sampling was to recover small objects that are not readily recovered by hand-collection, such as hammer-scale and other metalworking debris, which might potentially be present in the fire pits (see below). These samples were taken from sealed deposits. In order to assess any spatial or functional patterning in the deposition/ presence of plant remains, a range of different feature types (ditches, pits and natural features), distributed across the excavation area, were sampled.

- 4.5.2 Three charcoal samples for radiocarbon dating were taken from potentially interesting features (the undated fire pits), where no diagnostic finds were present but large pieces of charcoal suitable for sub-sampling under laboratory conditions were found within the fill. These samples were excavated and removed from deposits by trowel and immediately wrapped in aluminium foil in order to avoid contact with any organic material which might contaminate the sample and render dates unsafe.

4.6 Monitoring

- 4.6.1 As part of the agreed programme of archaeological mitigation, stripping of estate roads was to be subject to archaeological monitoring. However, it soon became apparent that except in the far northern part of the estate road, the archaeological horizon was below the impact level of the road, which only involved reduction of the existing ground level by c. 0.25-0.30m. Therefore, the estate road monitoring was abandoned with the agreement of the SCCAS Archaeological Officer. Instead, two extensions to the west side of Area 1 were stripped in order to reveal the full extents of several prehistoric enclosures and to facilitate further investigation of two possible Roman boundary ditches (DITCHES 43 and 44; actually post-medieval; see below).

5 ARCHAEOLOGICAL SEQUENCE

5.1 Overview (Figure 4)

5.1.1 The excavation revealed enclosure and field boundary ditches which can be assigned on grounds of stratigraphy, spatial associations and, to some extent, finds evidence, to three chronological periods. The earliest and most significant of these is likely to belong to the Middle to Late Bronze Age, possibly continuing in use into the Early Iron Age. In the Middle to Late Iron Age, a new set of boundaries on different alignments entirely superseded the earlier enclosure and field system. The latest ditches were post-medieval field boundaries. The character of the site in all periods remained agricultural, with little evidence for more intensive occupation-related activity, although there are indications that the later Bronze Age enclosures were agricultural 'infield' on the periphery of a settlement a short distance further to the north/ north-west. Natural features and ten 'fire pits' with scorched sides and bases, and charcoal-rich fills, were also identified. Significantly, three of the latter have been radiocarbon-dated to the Middle Saxon period (7th to 9th century AD).

5.2 Natural Features (listed from west to east and north to south: [206], [200], [197], [158], [5], [23], [28], [14], [31], [40], [26], [111], [400], [393], [402], [130], [74], [79], [87], [392], [404], [397], [220], [120]=[122], [378], [390], [391], [375], [377], [379], [356], [358], [317], [332], [339], [341], [260], [255], [231]) (Figure 4)

5.2.1 Thirty-nine features recorded during the excavation were natural in origin, often with irregular shapes in plan and profile, diffuse edges, no finds and frequently pale/ leached sandy or silty fills which merged imperceptibly with the natural geology. Most were hollows resulting from the roots of trees and underbrush; a few represent variations in the sand and gravel geology or were probably the result of processes such as frost-cracking. Based on the natural origin and absence of finds in these features, a number of other similar silty patches with irregular appearances were planned and investigated but not recorded in detail.

5.2.2 Fourteen of the tree hollows ([197], [393], [402], [130], [404], [220], [390],

[391], [375], [377], [379], [356], [339], [255]) contained red-stained sand fills, possibly indicating that the trees/ undergrowth had been burned down. One ([375]) also contained a central dark charcoal lens where a large root had burned in-situ. However, in the cases of the other features, it is possible that the red staining was actually the result of mineralisation of the natural sand caused by decaying organic material.

5.2.3 Natural features were present across the excavation area, with a slight concentration towards the north-east. There was a cluster of burnt/ mineralised tree hollows in the corner of the field formed by Ditches 31 and 34 (see below). The majority of the natural features were discrete (*i.e.* they had no stratigraphic relationships with other features). Where stratigraphic relationships did exist between natural features and the probable later Bronze Age ditches, the natural features were mainly earlier (e.g. [158], [14], [120]=[122], [397]), possibly indicating a phase of tree clearance prior to the laying-out of the first field system on the site. However, tree hollows postdating the ditches (e.g. [378]), including burnt/ mineralised examples ([130]), were also present.

5.3 Middle to Late Bronze Age Enclosures (DITCHES 1-29) (Figure 5; Plates 2-6)

5.3.1 The northern part of the excavation area contained a regular system of south-west- to north-east- and north-west- to south-east-aligned boundary ditches which together formed a series of adjoining small square and rectangular enclosures with associated trackways.

5.3.2 Finds were extremely sparse but some of the ditches belonging to this system contained small abraded sherds/ 'crumbs' of pottery (mean sherd weight just 2.8g). The small size of the assemblage and lack of diagnostic features means that no precise typological identification can be made. However, the pottery is consistently handmade and mainly (though not exclusively) flint-tempered, characteristics which, together with the generally coarse nature of the flint inclusions and lack of decoration, are most consistent with a later prehistoric (Middle Bronze Age to Late Iron Age) date (see Tinsley, Section 6.2).

- 5.3.3 Contextual considerations probably allow this broad chronological range to be narrowed. First, the enclosure system was cut by later Iron Age (3rd- to 1st-century BC) boundary ditches which followed entirely different alignments and were of different appearance to the enclosure ditches, indicating a complete reorganisation of the earlier agricultural landscape by this time. Secondly, morphologically similar ditched field systems have recently been excavated at several sites around Ipswich and the Trimley Peninsula and have been dated to the Middle to Late Bronze Age/ Early Iron Age (e.g. Stump 2013; Stump and Hinman under review; Woolhouse 2014; Woolhouse 2013; Woolhouse and Hinman under review). Thus, a Middle to Late Bronze Age date, potentially continuing in use into the Early Iron Age, is considered most likely for the enclosures at Martlesham. Although not all of the ditches contained pottery, it is nevertheless possible to assign other ditches to this period based on their shared morphology (generally shallow and 'sinuous' in appearance) and the coherence of the overall system of enclosure ditches, both dated and undated, when viewed as a whole.
- 5.3.4 In addition to the ceramic evidence, the excavation yielded a small but homogenous assemblage of struck flint which is also, with one possible exception, characteristic of later prehistoric (later-2nd- to 1st-millennium BC) flint-working (see Bishop, Section 6.1). Although small, this group adds to the picture of later Bronze Age to Iron Age activity at the site. The struck flint was found in two of the enclosure ditches (DITCHES 8 and 11), one of the set of field boundary ditches which are thought to be a slightly later extension to the enclosure system (DITCH 31; see below), and unstratified in the topsoil. A clustering of finds of Middle Bronze Age flint tools, albeit at a low density, was noted during the fieldwalking survey in an area approximately corresponding with Area 1 (Brooks 2010, 6, 7 fig. 3).
- 5.3.5 In broad terms, the enclosure system seems to have been dug from west to east, with the stratigraphically earliest ditches in the west and progressively later ditches as the system extended eastwards. However, these relationships might simply reflect the order in which the ditches were last scoured out or recut in response to infilling with silt and wind-blown sand

(though it should be noted that, with the exception of DITCHES 17, 19 and 20, there was rarely any direct evidence for the ditch lines having been recut or reinstated). The ditches almost all exhibited a simple sequence of infilling through natural processes, with the very limited quantities of cultural material likely reflecting the distance of the enclosures from contemporary settlement areas. A few of the ditches had two distinguishable fills but in these cases both fills were the result of natural accumulation of washed-in silt or wind-blown sand rather than deliberate dumping of anthropogenic waste. The ditches in the central northern part of the site were mainly narrow, shallow and heavily-truncated by ploughing; those further to the west were somewhat more substantial. In several cases the ditches had a perforated appearance, with stretches of ditch separated by short breaks. It was not always possible to tell whether these breaks were 'real' entranceways or the result of ploughing completely destroying the shallow ditches at certain points, but the latter is likely in many cases (where breaks in ditch lines are considered to be due to truncation, the missing sections of ditch have been dashed-in on the phase plans; Figures 4 and 5).

5.3.6 The small size of the enclosures makes it unlikely that they were in arable use. Nor would the enclosed spaces (306m² and 441m² in the cases of the two more-or-less complete enclosures (1 and 2)) have provided sufficient grazing for livestock for more than a few days. In addition, the topographic position of the enclosures, on dry, locally high ground some distance from the nearest water (streams located 600m to the north and 1km to the south-east) is unsuitable for pasturing cattle. A more likely use for enclosures on this scale, particularly in view of the associated trackways controlling access to them, is for temporarily corralling animals for short periods of time, for example, for inspection, milking, shearing or slaughter. This function for the enclosures – *i.e.* bringing livestock in from outlying fields – combined with the relative complexity of the system of ditches defining them and the effort involved in laying them out and maintaining them – implies that this was the agricultural infield, on the periphery of occupation areas, rather than the more distant outfield. As the geology of the site is free-draining sand and gravel, the ditches would not have been necessary for drainage (that is, to

help drain surface water from the enclosed areas). Rather, their layout seems more concerned with controlling movement and/ or separating different groups of animals.

5.3.7 The excavation was only a small window on part of this agricultural landscape and it is clear from the plan of the enclosure system that it continues, at least to the north and west (Figures 4 and 5). There are hints that to the east, the small square enclosures give way to larger ditched fields, with which DITCH 21 may have been an associated boundary. The infield character of the enclosures suggests proximity to a settlement, a likely location for which is on the locally high ground beneath the modern Main Road and the houses on its north side (Figure 6). However, it should be noted that trial trench evaluation of a site around 350m to the west-north-west revealed only undated (probably later prehistoric) ditches, with no evidence for more intensive settlement-related activity (MRM154; Schofield 2012).

5.3.8 The magnetometer survey of the site picked up significant elements of this later prehistoric enclosure system, with a number of the excavated ditches corresponding exactly with linear geophysical anomalies (see Figures 9 and 10). This close match allows for some extrapolation of the excavation results beyond the confines of Area 1: it is clear, for instance, that the two more-or-less parallel south-west- to north-east-aligned boundaries formed (respectively) by DITCHES 17, 18, 19, 20 and 21 (to the north), and 30, 31, 32 and 33 (to the south) continue to the south-west, narrowing into a ditched trackway (TRACKWAY 2 on Figure 10). Although it was not highlighted in the original geophysical interpretation (Roseveare and Lewis 2010, fig. 3), it is apparent in the light of the excavation results that there are also linear magnetic anomalies representing a south-westward continuation of TRACKWAY 1 (See Figure 10). There were thus two parallel trackways 'funnelling' towards the enclosure system from the south-west.

ENCLOSURE 1 (DITCHES 4, 7, 8, 9, 10 and 24) and TRACKWAY 1
(DITCHES 4 and 5)

5.3.9 ENCLOSURE 1 was located in the north-west of the excavation area. It was

square in plan, measuring 17m x 18m internally, and was surrounded by double ditches (spaced 1.50 - 2.00m apart) on its north-west (DITCHES 4 and 8), north-east (DITCHES 4 and 8; Plate 2) and south-east (DITCHES 9 and 10) sides. It had a 2m-wide entrance to the south-west, located between the terminals of DITCHES 8 and 5, which opened out into a trackway (TRACKWAY 1) defined by parallel ditches (DITCHES 4 and 5), leading away from the enclosure. The interior of the enclosure was empty apart from a small tree hollow ([197]) and two fire pits ([52] and [187]; see below), all of which were located close to the edges of the enclosure.

DITCH 4 (Slots [35], [30], [57], [61], [1], [156], [167], [184], [204], [274])

DITCH 4 (Figure 7, Section 1) was aligned east-south-east to west-north-west, extending for 22m and forming the outer north-eastern boundary of ENCLOSURE 1, before turning through 90° and extending south-westwards for 36m+, continuing beyond the limit of the excavation. It was narrower and shallower where it delineated the north-east side of the enclosure, measuring c. 0.90 wide x 0.25m deep, with a rounded profile. The north-east- to south-west-aligned part of the ditch (forming the north-west side of the enclosure and TRACKWAY 1) was generally larger, measuring up to c. 1.50m wide x 0.55m deep, with a steep, straight-sided profile. Two small sherds of pottery (one without visible inclusions, the other with voids from leached-out material) were found in Slot [30]; a flint-tempered sherd was found on the surface of the natural geology just east of the ditch terminus ([35]).

DITCH 8 (Slots [207], [178], [199], [212], [160], [214], [65], [67], [69])

DITCH 8 was aligned parallel to the arms of DITCH 4, extending east-south-east to west-north-west for 19m and forming the inner north-eastern boundary of ENCLOSURE 1, before turning through 90° and extending south-westwards for 16m, forming the inner north-western boundary of the enclosure. At its south-west end, the ditch again turned a right angle and extended east-south-eastwards for 4m before terminating. This final section of the ditch, together with the parallel northern part of DITCH 5, to the south (see below), formed a 2m-wide entranceway into the enclosure. DITCH 8 was less substantial than the outer enclosure boundary (DITCH 4), consistently measuring around 0.60-0.80m wide by c. 0.20m deep, with a gently-sloping rounded profile. A small sherd of flint-tempered pottery was found in Slot [69]; a retouched struck flint flake fragment came from adjacent Slot [67] (Bishop, Section 6.1).

DITCH 9 (Slots [33], [71], [46], [42], [175], [218], [191], [113], [143])

DITCH 9 was aligned north-east to south-west, parallel to the western arms of DITCHES 4 and 8. It extended from north-east to south-west for 25m, forming the inner south-eastern boundary of ENCLOSURE 1, before turning through 90° and extending south-eastwards for 15m before being cut by DITCH 11 (see below). This south-eastern section of the ditch formed the south-western boundary of ENCLOSURE 5 (see below). The north-eastern terminus of DITCH 9 (Slot [33]) cut the terminus of DITCH 4 (Slot [35]); just south-west of this, DITCH 9 was cut by the terminus of DITCH 8. Further south-west along its length, DITCH 9 was also cut by the terminals of DITCHES 7 and 10. DITCH 9 had steep rounded sides and was 0.70-1.00m wide and 0.25-0.45m deep. No finds were present.

DITCH 10 (Slots [50], [48], [44])

DITCH 10 extended from north-east to south-west for 22m, parallel to DITCH 9, which it cut at its south-western end. It formed the outer south-eastern boundary of ENCLOSURE 1. It was shallow, measuring 0.54-0.82m wide and 0.07-0.10m deep, with gently-sloping sides and a rounded/ flattish base. No finds were present.

DITCH 7 (Slots [170], [185], [173])

DITCH 7 extended on a west-north-west to east-south-east alignment for 12.5m, parallel to the eastern arms of DITCHES 4 and 8. It formed the south-western boundary of ENCLOSURE 1. To the east, it cut DITCH 9 and then terminated. To the west, it was cut by the northern part of DITCH 5. It was up to 1.30m wide and 0.60m deep at its south-east end, with moderately-steep concave sides, becoming smaller to the west (0.73m wide x 0.24m deep in Slot [170]). No finds were present.

DITCH 24 (Slots [59], [63])

DITCH 24 was a short (3m long) ditch cutting across DITCHES 4 and 8 on the north-east side of ENCLOSURE 1, on a perpendicular north-east to south-west alignment. It had a moderately-sloping rounded profile and was 0.60-0.80m wide and 0.21-0.38m deep. No finds were present.

DITCH 5 (Slots [182], [168], [179])

DITCH 5 was aligned south-west to north-east, parallel to and 8-11m away from the south-western part of DITCH 4, together with which it formed TRACKWAY 1. It extended north-eastwards from the limit of excavation for 25m, turning a right angle at its north-east end and continuing north-west for a further 5m before terminating. This north-western section of the ditch was aligned parallel to the south-east end of

DITCH 8, just to the north, with the two ditch terminals forming a 2m-wide entrance into ENCLOSURE 1. DITCH 5 was 0.70-1.00m wide and 0.30m deep, becoming shallower towards its terminus, with steep rounded sides and a concave or flattish base. No finds were present.

ENCLOSURE 2 (DITCHES 11, 12, 16, 18, 25 and 26)

5.3.10 ENCLOSURE 2 was located in the central northern part of the excavation area. It measured 21m square. Its north-west and south-west sides were defined by right-angled DITCH 11 (Plate 3), its south-east side was defined by DITCH 18 and its north-east side was formed by DITCHES 12 and 16. There was a 1.6m-wide entranceway to the south between DITCH 18 and the south-eastern terminus of DITCH 11. Apart from a natural hollow ([120]=[122]; cut by DITCH 11), there were no features inside ENCLOSURE 2. It is possible that ENCLOSURE 2 was originally slightly smaller, as DITCH 12 curved south-westwards at its south-eastern end and appeared to begin heading towards the terminus of DITCH 11. However, this area was heavily disturbed by ploughing and any further continuation of DITCH 12 in this direction had been lost. DITCH 18 (and short DITCH 16, continuing the line of DITCH 12) would in this case represent a later demarcation of the south-east side of the enclosure, c. 2m south-east of the original boundary.

DITCH 11 (Slots [134], [162], [145], [139], [215], [118], [446])

DITCH 11 extended from north-east to south-west for 18m, before turning through 90° and continuing south-east for 18m and ending in a rounded terminus. At its north-east end, there was a gap between DITCH 11 and the end of DITCH 12, but this gap appeared to be the result of truncation rather than an entrance and originally the two would have been continuous. DITCH 11 was ephemeral, generally being only 0.50-0.70m wide and between 0.12 and 0.25m deep, with a shallow rounded profile in most slots. Slot [145] contained two small sherds of flint-tempered pottery; Slots [139] and [215] contained struck flint flakes (Bishop, Section 6.1).

DITCH 12 (Slots [140], [95], [94], [132])

DITCH 12 was orientated north-west to south-east and extended for 18m in total; at its north-west and south-east ends it began to curve westwards towards the ends of DITCH 11 but both continuations in this direction had been truncated by ploughing.

It was sinuous in plan, with an irregular profile. It was 0.50-0.60m wide and only 0.08m deep in places. No finds were present.

DITCH 18 (Slots [434], [452], [430])

DITCH 18 extended south-west to north-east for 18m, parallel to the north-western arm of DITCH 11, continuing beyond the limit of excavation to the south-west. To the north-east, it had been truncated and may originally have continued to join DITCH 19, from which it was separated by a gap of 5m. It was generally more substantial than DITCHES 11 and 12, being over 1.10m wide and 0.30-0.40m deep, with a concave to 'v'-shaped profile in the northern two slots, though narrower and more irregular in the south due to shallower overburden and heavy root disturbance. No finds were present.

DITCH 16 (Slot [421])

DITCH 16 was linear in plan and aligned north-west to south-east, cutting and continuing the line of DITCH 12. Its south-east end was cut by DITCH 20 (see below) but it does not appear to have originally continued much further. It probably would have intersected with perpendicular DITCH 18 to the south-east, together forming a slight enlargement of the original ENCLOSURE 2. It was narrow and shallow (0.23 x 0.07m) with a gently-sloping concave profile. No finds were present.

DITCH 25 (Slots [96], [423])

DITCH 25 was orientated north to south, cutting the north-western part of DITCH 12. It was offset from the north-west to south-east alignment of DITCH 12 (and indeed from the regular rectilinear layout of the later Bronze Age enclosure system as a whole). It had fairly steep concave sides and a flat base. It contained no finds and has been assigned to this period on the basis of its stratigraphic relationships, cutting DITCH 12 but in turn being cut by DITCH 13 (see below).

DITCH 26 (Slots [137], [164])

DITCH 26 extended north-westwards for 1.8m from DITCH 11, on the north-west side of ENCLOSURE 2. It was narrow and shallow with gradually-sloping sides and a slightly rounded base (0.45m wide x 0.10m deep); it contained no finds.

ENCLOSURE 3 (DITCHES 1, 2, 3 and 4)

5.3.11 ENCLOSURE 3 was located in the north-west corner of the excavation area, adjoining the north-west side of ENCLOSURE 1 and sharing one of its

boundaries (DITCH 4). It was only partially revealed within the limits of the excavation and the absence of any evidence of a north-eastern boundary makes the identification of ENCLOSURE 3 tentative. It was demarcated on its north-west side by parallel double DITCHES 1 and 2, to the south-west by DITCH 3 and to the south-east by DITCH 4. There were two fire pits ([262] and [263]) inside the enclosure, as well as a few tree hollows and other natural features. One of the fire pits ([263]) has been radiocarbon-dated to the Middle Saxon period (see below). The enclosure was 18m across from north-west to south-east; the absence of a north-eastern boundary precludes measurement of its size in this direction.

DITCH 1 (Slot [249])

DITCH 1 was linear in plan and orientated south-west to north-east. The exposed part of the ditch was 13m long, extending in both directions beyond the limits of the excavation. It had fairly steep concave sides and a flat base and measured 0.88m wide and 0.22m deep. No finds were present in the excavated slot.

DITCH 2 (Slot [264])

DITCH 2 was linear in plan and orientated south-west to north-east, parallel with and 2m away from DITCH 1, to the north. The observed part of the ditch was 14m long, continuing beyond the excavation area in both directions. It had steep sides and a flattish base and measured 0.96m wide and 0.34m deep. A small sherd of pottery was present.

DITCH 3 (Slots [202], [273])

DITCH 3 was linear in plan and aligned north-west to south-east. To the north-west it continued beyond the limit of excavation, but it is likely to have intersected and formed a right-angled corner with DITCH 2. To the south-east, it ended in a terminus which was cut by DITCH 4 and in turn by later DITCH 45 (see below). It had a steep-sided concave profile and measured c. 1.00m wide and 0.40m deep. A sherd of flint-tempered pottery was present in Slot [202].

ENCLOSURE 4 (DITCHES 5, 6, 7, 9 and 11)

5.3.12 The label ENCLOSURE 4 has been assigned to the space to the south of ENCLOSURES 1 and 2, which was bounded by DITCH 5 to the north-west and by DITCH 7 and the south-eastern arms of DITCHES 9 and 11 to the

north-east. These ditches have already been described in relation to those enclosures. To the south, this conjectured field/ enclosure would have extended beyond the excavation area. It is possible that DITCH 6, identified in isolation in the road corridor watching brief, formed part of the west side of ENCLOSURE 4, although its alignment was slightly offset from that of the majority of the enclosure system. The only feature within the space enclosed by these ditches was a tree hollow ([220]).

DITCH 6 (Slot [279]) was identified in one arm of the road corridor adjacent to the western edge of the main excavation, 25m south of DITCH 5. It extended for 8m+ on a roughly north to south alignment, continuing beyond the limits of excavation in both directions. It was 0.84m wide and 0.40m deep, with steep rounded sides. No finds were present. It was on a similar alignment to DITCHES 27, 28 and 29, 100m to the east. Like these stratigraphically-early ditches, it could have been an early component of the enclosure system.

ENCLOSURE 5 (DITCHES 9, 11, 12, 13, 14 and 15)

5.3.13 ENCLOSURE 5 was located between ENCLOSURES 1, 2 and 6 in the central northern part of the excavation area. It was partially bounded by right-angled DITCH 9 on its north-west and south-west sides, by DITCHES 11, 12 and 13 to the south-east and by DITCHES 14 and 15 to the north-east. It was roughly rectangular in plan, with its long axis aligned north-east to south-west, and measured 35 x 19m at its greatest extent, narrowing to 14m wide in its south-western half. There were several tree hollows and other natural features inside the enclosure, the majority of them clustered in the north-eastern half. Several of the ditches surrounding ENCLOSURE 5 have already been described.

DITCH 13 (Slots [108], [85], [91])

DITCH 13 was aligned south-west to north-east. To the south it cut DITCH 25 (ENCLOSURE 2) and ended in a rounded terminus; to the north it was cut by DITCH 14 but does not appear to have ever continued any further in this direction. It was 19m long, 0.40-0.70m wide and 0.09-0.22m deep, with a gently-sloping concave profile. No finds were present.

DITCH 14 (Slots [114], [126], [104], [124])

DITCH 14 (Figure 7, Section 20) was aligned north-west to south-east, perpendicular to DITCH 13, which it cut. It was 16m long, petering-out into tapering terminals to the south-east and north-west, neither of which was convincing as a genuine terminus, and it is probable that the ditch originally (prior to plough damage) continued further in both directions. DITCH 14 was 0.44-0.71m wide and 0.13-0.22m deep, with steep rounded sides and a flat, sometimes narrow base. A small sherd of flint-tempered pottery was found in Slot [104].

DITCH 15 (Slots [106], [38], [89], [102])

DITCH 15 was 2m away from DITCH 14 and was aligned parallel to it. It extended from north-west to south-east on a slightly meandering alignment for 23m, tapering out in either direction in what were, again, unconvincing as genuine terminals and are more likely to indicate truncation of an originally longer ditch. DITCH 15 was 0.50-0.70m wide and usually a little over 20cm deep, with moderate to steep concave sides and a flat base. No finds were present.

ENCLOSURE 6 (DITCHES 13, 14, 15, 20, 17, 19, 16, 12 and 25)

5.3.14 ENCLOSURE 6 was located in the central northern part of the excavation area, adjoining ENCLOSURE 5 to the north-west, ENCLOSURE 2 to the south-west and ENCLOSURE 7 to the south-east. It was roughly square in plan, measuring 18 x 20m internally, and was bounded by DITCH 13 to the north-west, DITCHES 14 and 15 to the north-east, DITCHES 20, 17 and 19 to the south-east (Plate 4), and DITCHES 12, 16 and 25 to the south-west. Its north-eastern limit was not fully defined, probably because of truncation of DITCHES 14 and 15 by ploughing. A burnt pit ([110]) cutting DITCH 13, and several tree hollows, were the only features inside the enclosure. Most of the ditches of ENCLOSURE 6 have previously been described.

DITCH 20 (Slots [413], [419], [384], [372], [374])

DITCH 20 was aligned south-west to north-east. To the south-west, it cut DITCH 16 (ENCLOSURE 2) and then terminated; to the north-east it ended in a tapering terminus after 28m and, after a gap of 3.5m, continued as DITCH 21 (see below). DITCH 20 was 0.43-0.68m wide and 0.08-0.25m deep; its profile varied from steep-sided and flat-based to gently-sloping and rounded. No finds were present.

DITCHES 17 (Slots [411], [417]) and 19 ([409], [415])

Surviving at the south-west end of DITCH 20 were remnants of two earlier

demarcations of the same boundary (Plate 4). The earliest of these was DITCH 17, which extended from south-west to north-east for just under 4m before being cut by DITCH 19. DITCH 19 was parallel and just south of DITCH 17, and continued north-eastwards for a similar distance before being cut by DITCH 20. Although the area in between the two had been truncated by ploughing, it is possible that DITCH 19 was a continuation of DITCH 18 (ENCLOSURE 2). DITCHES 17 and 19 were both ephemeral features, being only c. 0.40-0.60m wide and 0.10-0.20m deep. A flint-tempered potsherd was found in Slot [415].

DITCH 21 (Slots [389], [380], [395])

After a gap of 3.5m, probably forming an entranceway to a field, DITCH 21 continued the south-west to north-east alignment of DITCH 20 for a further 18m+, continuing beyond the eastern limit of the excavation. It was 0.61-0.65m wide and 0.14-0.19m deep, becoming larger to the north-east (1.12m wide x 0.26m deep), with a moderately-sloping concave profile and a flattish base. A sherd of flint-tempered pottery was found in Slot [389]. The ditch was cut by later Iron Age DITCH 39.

ENCLOSURE 7 (DITCHES 18, 19, 20, 22 and 23)

5.3.15 ENCLOSURE 7 (Plate 6) was located in the central part of the excavation area. It was bounded to the north-west by DITCHES 18, 19 and 20 (described above), to the south-west by DITCH 22 and to the south-east by DITCH 23. The enclosure was open to the north-east, but on the assumption that the end of DITCH 23 indicates its north-western limit, it was rectangular in plan, measuring approximately 17m from north-east to south-west and 11m north-west to south-east. Apart from a tree hollow there were no internal features within the enclosure.

DITCH 22 (Slots [428], [447])

DITCH 22 extended from north-west to south-east for 11m. To the north-west, it cut DITCH 18 and terminated. To the south-east, it was cut by a geotechnical pit, obscuring its relationship with perpendicular DITCH 23. It was a narrow, shallow feature measuring just over 0.50m wide and little more than 0.10m deep, with a gently-sloping concave profile.

DITCH 23 (Slots [426], [406], [408])

The south-west end of DITCH 23 and its relationship with DITCH 22 was obscured

by a geotechnical pit. The ditch extended north-eastwards from this point for 14m. It was 0.45m wide and only 0.07m deep in the north-eastern part of its length, widening and deepening slightly to the south-west (0.84m wide x 0.16m deep in Slot [426]). Both DITCH 23 and DITCH 22 are likely to have been damaged by ploughing.

DITCHES 27 (Slots [343], [336], [334], [315]), 28 (Slot [352]) and 29 (Slot [354])

5.3.16 DITCHES 27, 28 and 29 crossed the central eastern part of the excavation area, together forming a boundary aligned roughly north to south (Plate 5). The dating of these ditches is uncertain as none of them contained finds and their north to south alignment was at odds with the north-east to south-west by north-west to south-east alignments of the Middle to Late Bronze Age enclosure system. They have been provisionally assigned to this period for three reasons: first, the principal ditch forming part of this boundary line (DITCH 27) was stratigraphically earlier than any of the other ditches with which it intersected. Secondly, although at odds with the orientation of the majority of the later Bronze Age boundary system, their north to south alignment may have been mirrored by the southern part of DITCH 5 (100m to the west), which appeared to curve to a north to south alignment as it extended southwards. Both these outlying ditches at either edge of the exposed enclosure system may have been dug with reference to the slope of the landscape rather than rigidly adhering to the axes of the enclosure system. Thirdly, DITCHES 27, 28 and 29 shared the narrow and shallow morphology of the majority of the Middle to Late Bronze Age ditches, further suggesting that they were contemporary.

5.3.17 If this identification as contemporary is correct, then the boundary formed by DITCHES 27, 28 and 29 could have demarcated the original south-eastern limit of the enclosure system, with the area beyond it entirely empty of features and presumably either not in use for agriculture (e.g. remaining as heathland) or used in a non-intensive way that did not require cut boundary features, for example as grazing for sheep. Nevertheless, it remains possible that these ditches were not of the same date as the enclosure system, possibly being earlier and entirely unrelated. If so, then the south-

west to north-east boundary formed by DITCHES 18, 20 and 21, between 30 and 50m to the north, would have divided the infield enclosures from the unused/ outfield agricultural land to the south-east.

DITCH 27 entered the excavation area from the south-west and extended northwards for 27m, being cut by DITCHES 31 and 39 (see below). To the north of DITCH 39, there was a gap of 6m, after which the alignment of the boundary was continued by DITCH 28 and, after another gap of 2.5m, by DITCH 29, which continued beyond the north-eastern limit of the excavation area. DITCH 27 was between 0.35m and 0.63m wide and 0.13-0.20m deep, with steep concave sides and a narrow rounded or flat base; DITCHES 28 and 29 had similar profiles, though Slot [352] was marginally wider (0.70m).

5.4 Later Bronze Age Field Boundaries (DITCHES 30-37) (Figure 4; Plates 6-7)

5.4.1 In the south-eastern part of the excavation area was a set of perpendicular boundary ditches demarcating two or more adjoining fields. Stratigraphy suggests that these field boundaries postdate the Middle to Late Bronze Age enclosures, or at least their initial establishment, as DITCH 31 cut DITCH 27, which (together with DITCHES 28 and 29) is thought to have been the original south-eastern boundary of the enclosure system. However, the only ceramic finds associated with the field ditches were four sherds of pottery in a mixture of flint-tempered and non-flint-tempered fabrics, the latter without visible inclusions and both sherds having lightly incised decoration. These characteristics are too undiagnostic to assign anything more refined than a broad later prehistoric date, although the linear decoration is most redolent of either Early or Late Iron Age assemblages from Suffolk (see Tinsley, Section 6.2). In addition, DITCH 31 contained two pieces of struck flint of likely later prehistoric (later-2nd- to 1st-millennium BC) date (see Bishop, Section 6.1).

5.4.2 The north-east to south-west and south-east to north-west alignments of the field boundary ditches mirror those of the Middle to Late Bronze Age enclosures but, at least in the northern part of the field system, the field ditches were more substantial than those surrounding the enclosures.

Nevertheless, the shared alignments of these field boundaries with the Middle to Late Bronze Age enclosure system suggest that they were laid out with reference to them, at a time when the enclosures were still visible on the ground. Although the enclosure ditches are likely to have filled in quickly because of the loose sandy geology, unless they were regularly cleaned out (for which there was little direct evidence), they may originally have been accompanied by banks and hedges which were longer-lasting features in the landscape. The field ditches may thus represent a marginally later southward extension of this existing subdivided agricultural landscape, possibly formalising an existing division between intensively used infield enclosures in the north-west of the site and a less intensively utilised outfield to the south-east. Certainly, the fields demarcated by these boundary ditches were markedly larger than the small enclosures on the upper part of the slope, indicating a difference in function. It is interesting to note that DITCHES 34, 35, 36 and the south-eastern arm of DITCH 31 closely followed the 30.5m contour, with the perpendicular ditches (30, 32, 33, 37 and the northern arm of DITCH 31) aligned directly up/ down the slope.

- 5.4.3 On balance, taking into account the combined evidence of stratigraphy, spatial associations and ceramics, a tentative later Bronze Age date, potentially continuing in use into the Early Iron Age, is suggested, with the field boundaries thought to represent a marginally later extension to the system of small enclosures further up the slope. Although the associated pottery could equally be Late Iron Age in date, the field system was markedly different in layout to the well-dated Middle to Late Iron Age (3rd-1st-century BC) boundary (DITCH 38; see below) which superseded it, suggesting that the local landscape had been substantially reorganised by this time. Instead, the orientation and layout of the field boundaries seem much more directly associated with the Bronze Age enclosures to the north-west. A further piece of evidence to 'tie' the field boundaries to the Bronze Age enclosure boundaries to the north is the spatial/ functional relationship between the broadly parallel boundaries formed (respectively) by DITCHES 17, 18, 19, 20 and 21 (to the north) and 30, 31, 32 and 33 (to the south), which, when viewed against the geophysics results, together formed a

south-west- to north-east-aligned trackway (Figure 9; TRACKWAY 2 on Figure 10). Of course, one side of this trackway could have existed independently as a field boundary/ set of enclosure boundaries before the ditches forming its south side were added at a later date.

- 5.4.4 An earlier demarcation of one of the field boundaries survived in places alongside the northern part of DITCH 31 (DITCH 34) (Plate 7), indicating that the field boundary system was maintained and possibly in use for some time. A later ditch (DITCH 30), on the same alignment as DITCHES 31, 32 and 33, in turn cut DITCH 31, further attesting to the longevity of the field system (Plate 6). Several of the field boundaries had a segmented/ perforated appearance, with boundary lines being made up of several separate stretches of ditch with gaps of just a few centimetres between them. This implies that each ditch was dug in sections by different people working together. The later Bronze Age field ditches at Felixstowe Academy (Woolhouse 2013; Woolhouse and Hinman under review) had the same appearance.

DITCH 31 (Slots [351], [382], [363], [436], [441], [347], [312], [324], [326])

DITCH 31 (Figure 7, Section 118) was located in the centre of the excavation area. It extended from north-east to south-west for 27m, turning through 90° close to the western limit of the excavation and then continuing south-eastwards for 48m before ending in a rounded terminus. From this point onwards, the south-eastward alignment of the field boundary was continued by DITCH 35, the north-western terminus of which was cut by the end of DITCH 31. DITCH 31 was highly variable in size along its length. It was widest and deepest just south-east of its right-angled corner (up to 1.59m wide x 0.55m deep), but narrowed to only 0.50-0.70m wide and less than 0.20m deep as it continued south-eastwards. It generally had moderate to fairly steep concave sides and a rounded base, although it was more 'v'-shaped in its wider/ deeper stretches. Even in its deeper sections, the ditch had only a single homogenous fill, representing natural silting-up over time. A sherd of pottery in a well-fired, light grey fabric with no visible inclusions and lightly incised decoration was found in Slot [363]; two pieces of struck flint were found in Slot [347] (Bishop, Section 6.1).

DITCHES 35 (Slots [328], [330], [289], [293], [282]) and 36 (Slot [284])

DITCH 35 extended south-eastwards for 60m, being cut by later DITCHES 38 and 39, ending in a rounded terminus before the boundary line was resumed, after a gap of 2m, by DITCH 36, which continued beyond the excavation area. Based on the profiles of both terminals, this gap was probably a real entranceway rather than a result of truncation. DITCH 35 was less substantial than DITCH 31, generally measuring 0.80-1.00m wide and around 0.20m deep, with moderate concave sides and a flattish or rounded base. A sherd of flint-tempered pottery was found in Slot [330]. DITCH 36 was of similar size and profile to DITCH 35.

DITCH 37 (Slots [285], [252], [233], [229])

DITCH 37 was located in the far south of the site and extended from south-west to north-east for 40m, continuing beyond the limit of excavation in both directions. To the north-east, it may have turned a right angle and joined with DITCH 36. The ditch generally had steep straight sides and a flat base, though its profile became concave to the north-east (in Slot [285]). It gradually became wider and deeper to the north-east, being only around 0.50m wide and 0.20m deep in the south-westernmost slot but 1.14m wide by 0.43m deep to the north-east. The upper fill of Slot [285] (286) contained a single sherd of flint-tempered pottery.

DITCHES 32 (Slots [349], [365]) and 33 (Slot [387])

Immediately adjacent to the north-eastern terminus of DITCH 31, the line of the northern arm of the ditch was continued after a gap of just a few centimetres by DITCH 32, which extended north-eastwards for 12m before ending. There was then another gap of 1.7m before the field boundary alignment was continued by DITCH 33, which extended beyond the limit of excavation. This short break in the field boundary appeared to be a 'genuine' entranceway rather than a result of truncation. DITCHES 32 and 33 were both just over 0.90m wide and 0.10-0.13m deep, with moderately sloping concave sides and flattish bases. No finds were present.

DITCH 34 (Slots [438], [443], [368], [323])

An earlier cut of DITCH 31 survived in places underneath/ alongside its western, north-west- to south-east-aligned arm. DITCH 34 (Figure 7, Section 118) began 4m south of the corner of DITCH 31 and extended south-eastwards for 30m, beyond which it had been entirely destroyed by DITCH 31. It was truncated along its full length so its original dimensions and profile are uncertain but it appeared to have moderately-sloping concave or straight sides and was at least 0.80m wide by 0.30m

deep. A sherd of possibly grog-tempered pottery with lightly incised decoration, similar to that found in DITCH 31 Slot [363], 23m to the north, was found in Slot [368].

DITCH 30 (Slots [431], [449], [439], [455])

DITCH 30 extended from south-west to north-east for 22m+ on a meandering alignment, cutting across DITCH 31 to the north-east and continuing the boundary line formed by DITCHES 31, 32 and 33. It was a sizeable feature, similar in scale to the larger sections of DITCH 31 (1.45-1.92m wide x 0.36-0.49m deep), with a slightly variable but generally fairly steep rounded profile. Its 'snaking' alignment was markedly different to the rectilinear layout of the other ditches on the site, suggesting that it may have followed an existing hedge-line or avoided large trees (Plate 6). No finds were present in the excavated slots.

5.5 Middle to Late Iron Age Boundary Ditches (DITCHES 38-42) (Figure 4; Plate 8)

5.5.1 A large curving boundary ditch (DITCH 39) extended on a broadly north-west to south-east alignment for more than 200m across the site, cutting across the Bronze Age field system without reference to it, and continuing beyond the excavation area in both directions. It extended at an oblique angle across the hillside just above the 31m contour before turning down the slope at its south-east end (Figure 6). An earlier demarcation of the boundary survived in places along its east side (DITCH 38). Fifty metres to the west, an ephemeral and probably severely truncated set of ditches (DITCHES 40-42) appeared to adhere to the same curving alignment but petered-out after around 45m.

5.5.2 A moderate assemblage of pottery (20 sherds; 103g) from DITCH 38 (Slot [320]) probably all derives from one vessel. Although diagnostic sherds are scarce, it appears to have had a flat-topped rim and a shallow, relatively slack shoulder, and has affinities with Middle to Late Iron Age (3rd-1st-century BC) vessels recorded at West Stow and Barnham (see Tinsley, Section 6.2). The slot where the pottery was found and the adjacent slot through the ditch were both extended but no additional pottery was present, indicating that this was a localised dump. Its occurrence in a ditch that was otherwise entirely devoid of cultural material suggests that there is a focus of occupation or

other activity adjacent to this point. As this section of the ditch was close to the limit of the excavation, this focus could lie just to the east, outside the excavation area.

- 5.5.3 In all the slots excavated through DITCHES 38 and 39, the fills were the result of gradual silting-up, but they were consistently darker in colour and more clayey in composition than those of the later Bronze Age ditches. Although conjectural, this could indicate that the land crossed by the ditch was in cultivation by this time and that, consequently, more decayed organic matter from crops or manuring made its way into the ditch fill.
- 5.5.4 The function of this fairly large and meandering boundary is uncertain but it is possible that it, and the truncated parallel boundary line to the west, were two of the principal axes within a wider field system, perhaps with smaller transverse ditches or hedge-lines having been lost to plough damage. This system of land division made no reference to the later Bronze Age landscape that preceded it. The pottery found in DITCH 38 indicates that the boundary was in place by the Middle to Late Iron Age, but it was clearly recut at least once (DITCH 39) and may have been maintained for some time.
- 5.5.5 The boundary line showed up as a strong magnetic anomaly in the geophysical survey (Roseveare and Lewis 2010, fig. 3; see Figures 9 and 10) and can be seen extending some distance further southwards beyond the excavation area. Despite showing up fairly clearly, the central portion of the ditch was not highlighted in the original interpretation of the geophysics results. The curve northwards at the north-west end of DITCH 39 was not identified by the geophysics.

DITCH 39 (Slots [93], [370], [367], [361], [310], [297], [302], [322], [291], [299], [251], [247], [242], [239])

DITCH 39 (Figure 7, Section 101) crossed the east side of the excavation area on a slightly meandering alignment. It began close to the northern corner of the excavation and headed southwards for 24m before then curving to a south-eastward orientation. After around 80m, its alignment turned slightly to the south and it continued for a further 60m, before turning to the south-south-west and extending for 30m, leaving the excavation area. It was larger than the majority of

the earlier ditches on the site, usually measuring between 1.00m and 1.60m wide and 0.40-0.50m deep, generally with a steep, straight-sided profile and a narrow base. It had a single fill, except in the three slots towards its south-east end.

DITCH 38 (Slots [295], [300], [320], [338], [308])

In the central part of its length, there was evidence of an earlier cut of DITCH 39 partially surviving along its east side. The surviving portion of DITCH 38 (Figure 7, Section 101) was 56m long, extending from Slot [297] of DITCH 39 in the north to just short of Slot [251] in the south. The ditch is impossible to reconstruct from the small surviving portion but it appears to have been of similar size and profile to DITCH 39. Twenty sherds (103g) of Mid to Late Iron Age pottery were found in Slot [320].

DITCH 40 (Slots [10], [24], [13], [22])

DITCH 40 was located in the north of the excavation area. From an initial east to west orientation at its north-east end, it curved west and then southwards for 24m before ending, although its south end appears to have been truncated rather than being a 'real' terminus. It was up to 1.30m wide by 0.27m deep, with moderately-sloping concave sides and a rounded or flattish base, though it became narrower and shallower towards its ends. It had a single fill deriving from natural silting-up.

DITCH 41 (Slots [148], [129])

DITCH 41 was 10m long and aligned roughly north-north-west to south-south-east. It was separated from the south-east end of DITCH 40 by a gap of 10m, within which there were two shallow, broadly linear features ([23] and [28]) which were recorded as natural hollows but could possibly have been traces of a hedge line aligned along the boundary formed by DITCHES 40 and 41, or the heavily-truncated surviving base of part of the same ditch line. It was 0.28-0.40m wide and 0.07-0.11m deep, with an irregular profile. To the north and south, the ditch petered-out, neither end forming a convincing terminus. It was probably truncated and almost certainly originally continued further.

DITCH 42 (Slot [15])

DITCH 42 was aligned south-west to north-east and extended for 4m, continuing north beyond the excavation area. To the south-west, it ended in a tapering terminus, which was cut by DITCH 40. It was 0.61m wide and 0.21m deep, with a steep rounded profile. It was filled with silty sand (16) which contained a base sherd in a well-fired light grey fabric which could be a Roman greyware (see

Appendix 3). If so, DITCH 42, and DITCH 40 which cut it, would be Roman or later, thus postdating at least the initial establishment of the large boundary line to the east (DITCH 38).

5.6 Middle Saxon Fire Pits (7th-9th-century) (from north-west to south-east: [262], [263], [194], [187], [52], [6], [20], [80], [110] and [304]) (Figure 4; Plates 10-11)

- 5.6.1 Ten pits with burnt fills were identified, mainly in the north of the excavation area. With a few minor exceptions, they were all around 0.60-1.00m wide and 0.15-0.30m deep. All were circular or approximately circular in plan, with moderately-sloping rounded profiles. The pits all exhibited a similar sequence of fills. All (except Pit [187], which was small and probably truncated) had a shallow lower fill of red/ pink heat-discoloured natural sand. In some cases, this layer had also been hardened by incidental 'firing' of clay components present in the sand. In most of the pits, the scorching of the sand was sufficiently intense to indicate in-situ burning rather than just the disposal of burnt material from elsewhere which was still hot when dumped in the pit.
- 5.6.2 This heat-discoloured layer was overlain by a deeper ash deposit containing abundant charcoal, often including fragments up to c. 20-30mm in size. In some cases, there was then an overlying uppermost fill of mid to dark greyish-brown silty sand, identical to the fills of the prehistoric ditches on the site. This probably represents the natural silting-up of the remaining open hollow in the top of the pits after they had ceased to be used; alternatively these final fills could derive from the deliberate dumping of soil on the fire to extinguish the flames. Some of the better-preserved pits (*i.e.* those which were larger or without visible plough damage) also had a basal fill, underlying the scorched sand, consisting of silty sand or redeposited natural sand and indicating that the pit was open for a short time between being dug and there being a fire in it. However, on windy days, shallow features on the site filled in with wind-blown sand in a matter of a few hours, so the presence of this layer in some of the pits need not imply a long time interval between their original excavation and their use as fireplaces.

5.6.3 None of the pits contained any finds to indicate their function but their common morphology implies that they all had the same use.

5.6.4 One fire pit ([6]) was cut through a ditch which has been assigned on grounds of its spatial associations to the Middle to Late Iron Age (DITCH 40; see above). Another fire pit ([110]) was cut through later Bronze Age DITCH 13. Charcoal samples from three of the pits ([6], [263] and [80]) were sent for radiocarbon-dating. All three produced Middle Saxon (7th- to 8th-/9th-century AD) dates. Based on the identical character of the other fire pits to these dated examples, it is probable (though not proven) that they were also of Middle Saxon or similar date.

Pit [262] (Plate 11) was circular in plan with a gently-sloping rounded profile (0.85m wide x 0.15m deep). It contained two fills: a shallow (0.03m deep) lower fill of yellowish-red sand (269) and an upper fill of dark grey/ black charcoal-rich sand (268). Neither contained finds. Plough scars were visible cutting the top of the pit.

Pit [263] (Plate 11) was circular in plan with a gently-sloping concave profile (0.90m wide x 0.20m deep). It contained two fills: a shallow (0.03m deep) lower fill of greyish-red sand (271) and an upper fill of dark grey/ black charcoal-rich sand (270). Neither contained finds. Plough scars were visible cutting the top of the pit. Radiocarbon-dating of charcoal from fill (270) returned a date range (95.4% probability) of either 679-779 or 790-870 cal. AD (SUERC-55375; 1247±29 BP; Appendix 5).

Pit [194] was circular in plan with a gently-sloping concave profile (0.45m wide x 0.05m deep). It contained two fills: a (0.02m deep) lower fill of yellowy-/ greyish-red sand (192) and an upper fill of dark greyish/ black charcoal-rich sand (193). Neither contained finds.

Pit [187] was roughly circular in plan with a gently-sloping rounded profile (0.62 x 0.53m wide and 0.10m deep). It contained a single fill, consisting of mixed orangey-brown silty sand and dark greyish-brown/ black silty sand with abundant charcoal flecks and small pieces (188). It contained no finds.

Pit [52] (Figure 7, Section 14) was roughly circular or oval in plan with moderately-steep concave sides and a flattish base (1.08 x 1.45m wide and 0.25m deep). It contained three fills: a basal fill of light to mid brown slightly silty sand (55), a middle

fill of compact mid reddish-brown silty sand (54) and an upper fill of dark brownish-grey/ black charcoal-rich sandy silt (53). The feature contained no finds. The south side of the pit displayed evidence of having been disturbed by ploughing.

Pit [6] was circular in plan with steep concave sides and a rounded base (1.30m wide x 0.29m deep). It contained three fills: a shallow (0.06m deep) basal fill of firm mid reddish-yellow clayey sand (9), a middle fill of dark greyish-brown/ black sandy silt with abundant charcoal (8) and an upper fill of dark greyish-brown silty sand (7). The feature contained no finds. Radiocarbon-dating of charcoal from fill (8) returned a date range (95.4% probability) of either 637-712 or 745-765 cal. AD (SUERC-55374; 1351±29 BP; Appendix 5).

Pit [20] was circular in plan with a moderately-sloping concave profile (0.95m wide x 0.16m deep). It contained four fills: a basal fill of greyish-yellow scorched natural clayey sand (37), which was overlain by a shallow layer of loose greyish-white/ reddish-pink sand and ash (19), a middle fill of black charcoal-rich sand (18) and an upper fill of loose greyish-brown sandy silt (17). The feature contained no finds.

Pit [80] (Figure 7, Section 15) was circular in plan with a steep rounded profile (0.59m wide x 0.15m deep). It contained three fills: a shallow (0.04m deep) basal fill of compact mid reddish-yellow natural sand (83), a middle fill of dark greyish-brown/ black charcoal-rich sandy silt (82) and an upper fill of dark greyish-brown silty sand (81). No finds were present. Radiocarbon-dating of charcoal from fill (82) returned a date range (95.4% probability) of either 656-722 or 740-768 cal. AD (SUERC-55376; 1313±26 BP; Appendix 5).

Pit [110] was circular in plan with a moderately-steep rounded profile (0.82m wide x 0.16m deep). It contained three fills: a basal fill of mixed light to mid orangey-yellow redeposited natural sand (117), a middle fill of firm reddish-pink sand with frequent flints (116) and an upper fill of dark grey/ black charcoal-rich silty sand (109). The feature contained no finds.

Pit [304] (Plate 10) was circular in plan with a gently-sloping concave profile (0.76 x 0.73m wide and 0.14m deep). It contained two fills: a basal fill of reddish-pink sand (306) and an upper fill of dark grey/ black charcoal-rich silty sand (305). The feature contained no finds.

5.6.5 Similar burnt pits have been identified at numerous sites in south-east Suffolk and on similar sand and gravel soils in Norfolk. Recent work at

several sites has produced similar Anglo-Saxon radiocarbon dates for these features. At Nacton Road on the outskirts of Ipswich, 39 such pits were identified. Charcoal samples from five produced Middle Saxon radiocarbon dates; flotation residues from bulk soil samples contained possible hammerscale from iron-smithing, indicating that at least some of the pits there were associated with metal-working in the hinterland of the Middle Saxon emporia (Clover 2013; Richard Mortimer, pers. comm.). Two burnt pits at an adjacent site in Alnesbourn Crescent, Ipswich, produced Early Anglo-Saxon (5th- to 6th-century AD) radiocarbon dates (Woolhouse 2014), though none of the bulk soil samples there contained any metal-working residues.

5.6.6 An important research aim for the site is to investigate the function of the fire pits. However, given the absence of finds or plant macrofossils (see Fryer, Section 6.3) in any of the fire pits, this can only be addressed through comparison with similar features at other excavated sites and is unlikely to be resolved definitively.

5.7 Post-Medieval Field Boundary Ditches (DITCHES 43-45) (Figure 4; Plate 9)

5.7.1 With the exception of a communications cable associated with the WWII pillbox in the centre of the site, the most recent features identified during the excavation were three post-medieval field boundary ditches, two located in the far south of the excavation area (DITCHES 43 and 44) and one in the north-west (DITCH 45). During the excavation, it was thought that DITCHES 43 and 44 could be of Roman date. However, well-stratified sherds of modern china were found within the fill of the last slot excavated through DITCH 44. In addition, the ditches appear to correspond with two east- to west-aligned ditches identified in Trench 28 during the evaluation (see Figure 8), which both contained modern brick and concrete (Cass 2013, 20). Both ditches also had identical dark fills, which were markedly different in colour and composition to the fills of the prehistoric ditches on the site. It is notable that DITCHES 43 and 44 are not shown on the 1st Edition Ordnance Survey map of the area; nor do they respect the alignments of any of the

mapped boundaries at this time (Cass 2013, 51, fig. 9). They are therefore likely to predate the late 19th century. DITCH 45 was aligned parallel with the western boundary of the field in which the excavation area was located, and with a trackway shown just beyond this boundary on the 1st Edition OS map.

DITCHES 43 ([461], [459], [244], [224]) and 44 ([456], [236], [225], [227])

DITCHES 43 and 44 were located at the southern edge of the excavation area and extended from west-south-west to east-north-east for 28 and 38m, respectively, parallel to each other and spaced 3m apart, both continuing to the west beyond the site. To the east, DITCH 43 continued beyond the limit of excavation but must either have terminated or turned to the south-east or it would have reappeared beyond this unexcavated baulk; DITCH 44 terminated within the site. DITCH 44 (Slot [456]) contained several large 'fresh' sherds of blue-glazed white china no earlier than c. 18th-century in date. The pottery was well-stratified within the fill, with no evidence of truncation or disturbance to the ditch. Both ditches had identical dark fills, markedly different in colour and composition to the fills of the prehistoric ditches on the site. Both cut later Iron Age DITCH 39.

DITCH 45 (Slots [149], [210], [151], [153], [273])

DITCH 45 was located in the north-west of the site. It was aligned north-north-west to south-south-east and extended across the excavation area for 70m+, continuing beyond the limit of excavation in both directions. It cut the prehistoric enclosure ditches in this area. It was cut from a high stratigraphic level in the modern topsoil and contained an iron nail (Slot [151]).

6 THE FINDS

6.1 Struck Flint

By Dr Barry Bishop

Introduction

6.1.1 The archaeological investigations at the above site resulted in the recovery of six struck flint flakes. This report describes the material and assesses its archaeological significance. The material was recovered mostly from the fills of probable prehistoric enclosure and field ditches, with one piece coming from topsoil deposits. All metrical descriptions follow the methodology established by Saville (1980).

6.1.2 Description

Context (4). Topsoil. Retouched flake in a chipped condition made from a fine-grained translucent black flint. It has a 7mm deep cortical striking platform, a pronounced bulb of percussion and a retouched distal termination. The retouch consists of a series of 4-5 relatively large flakes forming a steep convex but denticulated edge. Its dorsal face is formed by two flake scars, both struck in the same direction as the flake was detached, and 30% consists of ancient and heavily recorticated thermal surface. It measures 35mm long by 25mm wide and is 11mm thick.

Fill (66), Ditch Slot [67]. DITCH 8. Retouched flake fragment in a good condition made from a fine-grained translucent brown flint. Its striking platform, along with much of its proximal end, is missing and it has fine semi-abrupt retouch along its extant left margin, around its convex distal end and extending partly along its right margin. The left side of its dorsal surface consists of a flake scar and the right is covered with thin rough cortex. It measure >17mm long by 18mm wide and is 4mm thick.

Fill (138), Ditch Slot [139]. DITCH 11. Decortication flake in a slightly chipped condition made from a fine-grained semi-opaque grey flint. It has a 5mm deep flake-scar striking platform, a pronounced bulb of percussion and hinged distal termination. Its dorsal face is formed by two flakes, both struck in the same direction as the flake was detached, and 70% consists of a pre-flaking thermal scar. It appears to have split laterally along a thermal flaw located along its right margin.

It measures 32mm long by >30mm wide and is 7mm thick.

Fill (216), Ditch Slot [215]. DITCH 11. Flake in a good condition made from a fine-grained translucent black flint. It has a 5mm deep cortical striking platform, a pronounced bulb of percussion and a stepped distal termination. Its dorsal face is formed by two flake scars, both struck in the same direction as the flake was detached. It measures 24mm long by 22mm wide and is 4mm thick.

Fill (346), Ditch Slot [347]. DITCH 31. Decortication flake in a chipped condition made from a medium-grained mottled semi-translucent black flint. It has an 8mm deep flake-scar striking platform, a pronounced bulb of percussion and a slightly hinged distal termination. Its dorsal face is formed by two flakes, both struck in the same direction as the flake was detached, and 70% consists of thin, rough cortex. It measures 40mm long by 39mm wide and is 10mm thick.

Fill (346), Ditch Slot [347]. DITCH 31. Flake in a good condition made from a fine-grained mottled translucent grey flint. It has a 5mm deep flake-scar striking platform, a pronounced bulb of percussion and a hinged distal termination. Its dorsal surface is formed from six or more flake scars, all struck in the same direction as this flake was detached. It has split laterally along a thermal flaw located towards its left margin. It measures 56mm long by >28mm wide and is 5mm thick.

Discussion

- 6.1.3 The struck flint was recovered from four features scattered across the excavated area; only field boundary DITCH 24 (Slot [347] (346)) contained more than a single piece. A retouched flake was also recovered from topsoil deposits close to DITCH 39. The condition of the pieces is variable but most have experienced some post-depositional damage, suggestive of redeposition, and there is certainly no evidence for in-situ knapping or any deliberate acts of deposition. The flint used is of a variety of colours and textures but it is all fine-grained and of good knapping quality. The struck pieces are mostly small, however, and cortex, where present, is mostly thin and weathered; some thermal surfaces are also present and internal thermal flaws are common. This indicates that the raw materials were obtained as pebbles and small cobbles from derived deposits, most likely from the glacial tills that form the drift geology across most of the area. No diagnostic pieces

are present but most of the flakes are thick and crudely struck, often of 'squat' appearance, and technologically are typical of later prehistoric assemblages, particularly those from the later 2nd and 1st millennia BC (e.g. Herne 1991; Young and Humphrey 1999; Humphrey 2003; McLaren 2009). These include the irregularly retouched denticulated flake from the topsoil. Denticulated implements are often the most common types of tool found on later prehistoric sites; it is not known precisely how they were used but it is perhaps likely that as a group they fulfilled a number of different tasks, including plant processing and wood and / or bone working. The position of the retouch on the piece here may even suggest it was intended as backing, with the flake being used as a cutting implement. The other retouch piece, from the fill of enclosure DITCH 8, appears to be a shallow edge scraping-type tool, and although fragmented it may have been made on a much narrower and finely struck flake, possibly even a blade. If so, it is possible that this piece is earlier than the rest, perhaps of Mesolithic or Neolithic date.

Significance and Recommendations

- 6.1.4 The struck assemblage indicates flint-using activity at the site during the later prehistoric period and can be added to the small similarly dated lithic assemblage recovered from the site during earlier investigation (Pendleton 2010). Although the assemblage is mostly residual and cannot be directly related to the features, it is likely that most pieces are at least broadly contemporary with the considerable evidence for agricultural land division recorded during the excavation. Unfortunately, the assemblage is too small to contribute to understanding of the precise chronology or nature of the occupation, but it is consistent with the occasional and ad hoc use of flint such as is frequently documented within Middle Bronze Age to Iron Age settlements and field systems.
- 6.1.5 This report is all that is required of the assemblage for the purposes of archiving and no further analytical work is proposed. As the assemblage can contribute to a broader understanding of landscape use in the region and complement the findings from other archaeological investigations conducted in the vicinity, it should be noted in the Suffolk Historic Environment Record

and a short description included in any published account of the investigations.

6.2 Prehistoric Pottery

By Dr Adam S. Tinsley

Introduction

- 6.2.1 A small assemblage of prehistoric sherds from the excavation at Martlesham was examined during July 2014 on behalf of Pre-Construct Archaeology Ltd. While largely consisting of small and undiagnostic body sherds, the assemblage was analysed in order to develop an appreciation of the potential form, character and probable chronology of the assemblage and its constituent vessels, in order to better inform interpretations of the setting of its recovery.

Methodology

- 6.2.2 All sherds were set out by context and the quantity and weight of individual items was recorded, with diagnostic features such as rim and body form, decorative treatment, fabric type, colour and wall thickness also noted. The following discussion of the assemblage focuses upon, and is arranged according to, key diagnostic areas as identified in guidelines for the analysis and publication of prehistoric pottery as set out by the Prehistoric Ceramic Research Group (PCRG 2010).
- 6.2.3 Examination of material to determine fabric groups was carried out using a handheld x10 magnifying glass with details relating to the type, frequency and character of any deliberately included temper agents, as well as the general colour and consistency of paste, recorded and used to formulate relevant fabric types and codes (see Table 1). On the basis of variation in the diagnostic features identified above, sherd material was divided according to the minimum number of vessels represented. The material so grouped was then further examined for the occurrence of adjoining sherds in order to check against any potential replication of vessel groupings and develop a firmer impression of original vessel numbers and form.

Quantity and quality

6.2.4 The assemblage consists of a total of 42 sherds and various small crumbs, weighing approximately 175.5g in total. No complete vessels are present and partial vessel profiles are also rare. Based upon variation in fabric, decoration, morphology and context of recovery, the assemblage comprises a minimum of approximately 15 vessels or more. The majority of these vessels are represented by one or two sherds only, with the exception of Vessel 14, which comprises nearly half the assemblage (19 sherds and several smaller crumbs) but is mainly represented by plain body sherds. No adjoining sherds have been identified and a number of individual pieces display signs of wear attributable to pre-depositional taphonomic processes, although the larger part of the assemblage is relatively fresh. A summary of information relating to individual sherds is provided in the catalogue (Appendix 3).

Form

6.2.5 The fragmentary nature of the assemblage prevents a detailed assessment of the constituent vessel forms, the majority of which are represented by plain body sherds possessing few diagnostic characteristics. The exceptions to this include Vessel 4, which is represented by a single base sherd (Sherd 6) that probably derives from a small, flat-based jar or urn of indeterminate type. Sherd 15 (Vessel 12) may also derive from a base but is too small to provide any further information.

6.2.6 Vessel 14, while comprising the better portion of the total assemblage, is also poorly represented by diagnostic features. Sherd 17 is the only rim represented and possesses a flat top and an externally projecting edge, with a diameter of approximately 14cm. Sherd 18 displays a change in the angle of the external surface which is suggestive of a shallow and relatively slack shoulder. All other sherds from the vessel (grouped by virtue of similar fabric and colouration) are probably body sherds, although a greater thickness in the width of several may suggest they derive from near the base of the vessel. While a limited investigation of comparable assemblages from the immediate area produced no exact matches for the vessel, similar forms were identified within the Iron Age assemblage from West Stow, Suffolk,

(West 1990), particularly among the Phase 1 vessels (*ibid.*, fig. 46, 63). Material from this phase at West Stow was aligned by the author with an assemblage from Barnham (Martin 1993a), for which a date in the 3rd to 1st century BC (Middle to Late Iron Age) was advanced. It is therefore possible that Vessel 14 and, by extension, at least part of the Martlesham assemblage, is of similar date.

Fabric

6.2.7 A total of seven fabric types were identified within the assemblage and are detailed in Table 1. These types condense into two equally represented main groups: a series of variably coarse, flint-tempered fabrics and a series of comparatively fine fabrics in which no temper agent was employed. In addition, a single sherd is in a fabric characterised by small voids within the surface and section. This may indicate that a mineral component has since leached out of the fabric.

6.2.8 The flint-tempered fabrics are distinguished by variation in the quantity and treatment of the flint temper and include both burnt (calcined) and, to a much lesser extent, un-burnt flint. These fabrics are well-fired but tend to be slightly friable and display colour variation between the core and both external and internal surfaces. Among the vessels in which no temper agents were recognised, the fabric tends to be very well-fired, hard and predominantly grey in colour, with some slight variation. In this group rare mica granules were observed in some sherds but are probably naturally-occurring within the source clay. Several sherds (Sherds 1 and 39) have a slightly soapy texture which may indicate the use of grog, although no evidence of its presence was directly observed.

Decoration

6.2.9 The vast majority of the assemblage comprises undecorated sherds, the exceptions being Sherds 37, 39 and 40. Within this group, decoration consists of either a single or multiple parallel, lightly incised lines. A fourth sherd (Sherd 20) also possesses several linear marks; however, in this case they probably relate to accidental scoring as the surface was smoothed down or wiped, probably with grass, prior to firing. In none of the cases can

an overarching motif be discerned. While incised decoration occurs among ceramic forms from the Early Neolithic onwards, the decoration is more redolent of that found in the Early Iron Age assemblage (9th to 8th century BC) from a pit at Little Bealings, Suffolk (Martin 1993b, fig. 37, 56), or in Late Iron Age pottery, as, for example, within the assemblage from Phase 3 at West Stow, for which a date of AD 30-60 has been advanced (West 1990, fig. 50, 67). It is also notable that all examples of decoration are restricted to sherds executed in the finer fabric type and do not feature among the coarse flint-tempered material.

Discussion

- 6.2.10 Given the limitations of the assemblage, it is obviously very difficult to provide a precise statement as to the chronological and typological affinities of the material from Martlesham. However, the limited diagnostic features that are available tentatively indicate a Middle to Late Iron Age date, from the 3rd century BC to the 1st century AD, at least in relation to components of the non-flint-tempered element of the corpus.
- 6.2.11 For the remaining flint-tempered component of the assemblage, a definitive statement is even more strained, given that the fabric type provides the only diagnostic feature of this sub-corpus. This is because flint is ubiquitous as a temper agent among ceramic forms ranging from the Early Neolithic through to the Middle Iron Age (Gibson 2002). In the immediate vicinity of the site, flint temper has been recorded in relation to an example of Middle Neolithic Mortlake Ware at Little Bealings (Martin 1993b), it is a major component of fabrics associated with the Early Bronze Age Beaker tradition, as found at numerous sites such as Little Bealings and at Martlesham itself (*ibid.* and various unpublished find spots listed in the Suffolk HER), and features among Middle to Late Bronze Age to Early Iron Age Deverel Rimbury (Barrett 1980; 1991) and Post-Deverel-Rimbury pottery, as found, for example, at Barham, Suffolk (Martin 1993c). It also features among explicitly Iron Age assemblages, for example as found at Barham (*ibid.*), Great Bealings and Little Bealings (Martin 1993b) and Framlingham, Suffolk (Flemming 1993). It cannot therefore be taken as a conclusive indicator of

typology or chronology. Having said this, the lack of decoration among the flint-tempered sherds probably rules out an association with Peterborough Ware sub-forms such as Mortlake Ware, upon which impressed techniques are ubiquitous and generally extensively applied across the surface of any individual pot (Tinsley 2013). The same lack of decoration as well as the largely coarse nature of the inclusions probably also rules out an association with Beaker ceramics, although affinities with rusticated Beaker pottery cannot be entirely negated. On this basis an earlier prehistoric residual derivation for the flint-tempered component is less likely than a late prehistoric origin.

- 6.2.12 If residuality can be ruled out, then the flint-tempered element of the assemblage may more readily be associated with the Middle to Late Bronze Age to Early Iron Age Deverel-Rimbury or Post Deverel-Rimbury ceramic traditions. In this regard, the association of such forms with the foundation of early agricultural field systems is a well-documented and definitive depositional characteristic (Barrett 1980). In this scenario, the distinction between flint-tempered and non-flint-tempered fabrics at Martlesham may well be a reflection of a chronological divide between the Bronze Age inception of the agricultural field system and the later stages of its development and use. However, due to the lack of any further diagnostic features, there remains the possibility that this distinction alternatively reflects a potential functional or cultural division between coarse wares and fine wares of a similar and therefore probable later Iron Age date. In this regard it can be noted that a distinction between coarse and fine wares was evident among the Iron Age assemblages from sites such as Burgh, Suffolk (Martin 1988), and Darmsden, Suffolk (Balkwill 1979), part of which is defined by a choice of flint or non-flint-tempered fabrics.

Conclusions

- 6.2.13 The lack of definitive diagnostic characteristics is a considerable obstacle to the typological and consequent chronological identification of the assemblage from Martlesham. However, based upon the scant diagnostic features evident, a date in the Middle to Late Iron Age may be applied to at

least part of the assemblage. With this said, a qualitative division between sparsely decorated and un-tempered fabric groups, representing a potential fine ware component identified above with the Late Iron Age, and a series of potentially undecorated vessels executed in a comparatively coarse, flint-tempered series of fabrics, may indicate a chronological division. Such coarse wares may be more redolent of a possible earlier Deverel-Rimbury tradition dating to the Middle to Late Bronze Age or Early Iron Age, which is widely recognised as being associated with the inception of subdivided agricultural landscapes. Alternatively, the distinction in wares may reflect a contemporary functional or cultural division within a primarily Iron Age assemblage.

Fabric Code	Description	Sherd Numbers
F1	Common (>10%) calcined flint, angular, well-sorted (0.2-0.4cm) erupting from the surface. Rare (<1%) mica. Friable	2, 3, 13, 41, 42
F2	Rare (<5%) calcined flint, angular, well-sorted (0.4-0.6cm). Friable	4, 5, 10, 16
F3	Rare (<1%) calcined flint, well-sorted and finely crushed (0.1cm)	9
F4	Rare (<5%) calcined flint, well-sorted and finely crushed (0.1cm). Rare (<1%) coarse calcined flint (>0.4cm)	11, 12, 38
F5	Rare (<1%) un-burnt flint (>0.2cm)	14
N	No visible inclusions. Most hard and well-fired. Some contain rare (<1%) mica Sherds 1 and 39 have a slight soapy texture possibly indicative of grog	1, 7, 15, 17-37, 39, 40
V1	Rare (<5%) voids (>0.3cm). Rare (<1%) mica. Hard, well-fired	6, 8

Table 1: Summary of fabric groups

6.3 Charred Plant Macrofossils and Other Remains By Val Fryer

Introduction and Method Statement

6.3.1 The excavations recorded ditches delineating enclosure and field systems of probable Middle to Late Bronze Age and Iron Age date. A small number of

other features, including distinctive fire pits, were also noted, but none could be dated by artefact association. Samples for the retrieval of plant macrofossil assemblages were taken from across the excavated area and eleven were submitted for initial assessment.

6.3.2 The samples (or sub-samples thereof) were processed by manual water flotation/ washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in Appendix 4. Nomenclature within the table follows Stace (1997). All plant remains are charred. Modern roots, seeds, arthropod remains and fungal sclerotia were also present within most assemblages.

6.3.3 The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ ecofacts will be retained for further specialist analysis.

Results

6.3.4 Although the three assemblages from the fire pits (Samples 5 (Pit [52]), 24 (Pit [262]) and 34 (Pit [80])) are large and charcoal-rich, the remaining assemblages are mostly small (*i.e.* <0.1 litres in volume) and extremely limited in composition. Sample 28, from Late Bronze Age DITCH 37 (286), includes a fragmentary goosegrass (*Galium aparine*) seed and Sample 30, from Middle to Late Iron Age DITCH 38 (319), includes a small fragment of what appears to be sloe (*Prunus spinosa*) fruit stone, along with a number of fragments of heather (*Ericaceae*) stem. Otherwise, the assemblages contain only comminuted and abraded charcoal/ charred wood fragments along with occasional pieces of charred root/ stem and possible indeterminate seeds or fruit fragments. The fire pit assemblages are somewhat different in that much of the charcoal has a distinctive flaked appearance, almost certainly indicating that it was subjected to extremely high temperatures during combustion. However, all three samples also include some charcoal/ charred wood fragments which are large (*i.e.* >10mm) and robust.

6.3.5 Other remains are scarce and it appears very likely that most are intrusive

within the contexts from which the samples were taken. Small pieces of coal (coal 'dust') are present within nine assemblages, along with black porous and tarry residues and small vitreous globules. Although some of these residues may be derived from the combustion of organic remains at very high temperatures, most are very hard and brittle and it is thought most likely that they are bi-products of the combustion of the coal. Such material is frequently recorded from sites where the stratigraphy is shallow, the soil structure is open or the land has been intensively used over a considerable period, and it is thought most likely that the remains are derived from either night soil, which was spread on the land during the post-medieval period, or from the use of steam ploughs during the early modern era.

6.3.6 In summary, the assemblages from the Middle to Late Bronze Age enclosures are very sparse, containing little other than scattered detritus (all of which was probably accidentally incorporated within the feature fills) and intrusive contaminants. This is consistent with the enclosures being entirely peripheral to any focus of either domestic or agricultural activity. The assemblages of Iron Age date are also limited in composition, although two samples do contain plant remains which may possibly be derived from either midden waste or from plant materials which were burnt in situ during an episode of land clearance. The three fire pit assemblages are enigmatic, as the features from which the samples were taken appear to have no specific purpose within the landscape where they occur. Similar pits, recorded within an Iron Age field system at Spixworth Road, Old Catton, Norwich (Fryer 2012), also appear to have little direct relationship with the field boundaries, although in this instance it was tentatively suggested that they may have been used as a means of warding off marauding animals. If, as suggested by the excavator, the Martlesham fields did act as temporary animal pens, the fire pits may have served a similar purpose, although it should be noted that they could equally be related to other pastoral activities, for example the branding/ marking or de-horning of livestock.

Conclusions and Recommendations for Further Work

6.3.7 Recommendations for further work are very limited. Identification of the

charcoal from the fire pits may provide some limited data regarding the local environment and resource management. However, such work would need to be outsourced as the author does not currently have access to a sufficiently high-powered microscope. None of the remaining assemblages contain a sufficient density of material for quantification (*i.e.* 100+ specimens) and, therefore, no further analysis is recommended. However, a summary of this assessment should be included within any publication of data from the site.

7 DISCUSSION AND UPDATED RESEARCH AIMS

7.1 Discussion

- 7.1.1 The principal interest of the excavation is the recording of part of a subdivided agricultural landscape of Middle to Late Bronze Age date. Although the associated finds are of limited value as chronological indicators, when they are viewed alongside other evidence, such as the stratigraphic and spatial relationships between the enclosure ditches and (comparatively well-dated) Middle to Late Iron Age boundaries at the site, it is possible to make a case for later Bronze Age origins.
- 7.1.2 Evidence for the dividing-up of large tracts of the Suffolk and Norfolk landscape for agriculture in the Middle to Late Bronze Age has recently been found at a number of sites, including Ipswich Academy (Stump 2013; Stump and Hinman under review), Felixstowe Academy (Woolhouse 2013; Woolhouse and Hinman under review), Alnesbourn Crescent, Ipswich (Woolhouse 2014), and Ormesby St Michael in the Norfolk Broads (Gilmour, Horlock, Mortimer and Tremlett under review). The Martlesham excavation thus adds to a developing picture. The small size, layout and topographical position of the enclosures at Martlesham are suggestive of a function as temporary corrals for livestock, brought in for short periods from outlying pastures and grazing land. The enclosures are thus likely to have been the agricultural 'infield' of a settlement on the high ground to the north and north-west. Although partial, in that the enclosures and field system were clearly only part of a wider subdivided agricultural landscape extending beyond the excavation area, their layout in plan is remarkably coherent, especially when viewed in conjunction with the geophysics to allow extrapolation of the boundary and trackway alignments over a somewhat larger area.
- 7.1.3 The Middle to Late Iron Age boundary ditches are of interest as a contextual backdrop to previously identified high-status early Roman activity in the vicinity (Jude Plouviez, pers. comm.) and will help to characterise the nature of land-use in Martlesham at this time.
- 7.1.4 The fire pits are significant in view of their Middle Saxon date. Identical

features have recently been recorded and radiocarbon-dated to the Early to Middle Anglo-Saxon period at several other sites in south-east Suffolk, in one case also having possible artefactual evidence for an association with iron-smithing. Given the absence of finds or environmental evidence in the fire pits at Martlesham, their precise function cannot be identified. However, there is scope for suggestions to be made based on comparison with similar features at other excavated sites, and contextualization against what is known about the landscape of the Suffolk coast and heaths, and the social, political and economic character of this area, during the Anglo-Saxon period.

- 7.1.5 These results are of local to regional significance.
- 7.1.6 The excavation results broadly fit what was anticipated based on the evaluation of this part of the site. One notable discrepancy which is apparent between the two stages of fieldwork is an (early?) Roman ditch (0198, fill 0199) identified in Trench 56 in the central northern area of the site (Cass 2013, 29, 35 fig. 5 and 44) which was not found in the excavation. Based on its position, this ditch is most likely to be part of DITCH 20 (see Figure 8). However, as DITCH 20 formed an integral part of a coherent enclosure system which had no finds (despite 100% excavation of its fill) or stratigraphic relationships to indicate anything other than a later prehistoric date (most likely predating the Middle Iron Age), this assemblage of Roman pottery (18 sherds; 171g) is anomalous.
- 7.1.7 With the possible exception of a single small sherd of Roman grey ware, no Roman pottery was found anywhere in the excavation area, despite the excavation of numerous large slots through each of the identified ditches and, in some cases, the subsequent turning-over of the entire remaining ditch fill in order to search for finds. The recovery of a reasonably large group of Roman pottery from a ditch during the evaluation is thus out of keeping with the excavation results and the possibility must be considered that this assemblage did not originate here, that is, it could result from mislabelling of a finds bag on site or during processing.

7.2 General Aims

- 7.2.1 To investigate the research questions, below, in order to realise the site's research potential.
- 7.2.2 To disseminate the significant results of the project by publication (see publication proposal in Section 8, below).
- 7.2.3 To prepare the site archive for long-term storage and deposit it at Suffolk County Council Archaeology Store in order to facilitate future research.

7.3 Specific Research Questions

The Middle to Late Bronze Age Enclosure and Field System

- 7.3.1 To what extent can the enclosure/ field system add to current knowledge of later Bronze Age agricultural landscapes in Suffolk?

-Search for and assess any cropmark evidence from the landscape around the site to see whether the excavated enclosures and field boundaries can be linked with or aid in dating them.

-Investigate any other excavated evidence for prehistoric field systems in and around Martlesham, for example, at Martlesham Park and Ride (HER MRM 075) and Main Road, Martlesham (Schofield 2012), and compare/ contrast with the evidence from this site.

-Compare and contrast the enclosure/ field system with other later prehistoric field systems excavated in Suffolk and Norfolk (e.g. Ipswich Academy (Stump 2013; Stump and Hinman under review), Felixstowe Academy (Woolhouse 2013; Woolhouse and Hinman under review), Game Farm, Brandon (Gibson 2004), Ormesby St Michael (Gilmour *et al.* under review)).

-Examine how the later Bronze Age enclosures and field system relate to other components of the local natural (the River Deben and creeks feeding into it, topography) and human landscape (e.g. the numerous barrows).

-Does this investigation provide any insights into the way that land was organised and farmed in Suffolk during this period, and on what scale (cf. Medlycott 2011, 20-21)?

The Fire Pits

7.3.2 How does the evidence for the date and function of the fire pits at Martlesham compare/ contrast with that from other sites in the Suffolk coast and heaths (e.g. Nacton Road (Clover 2013), Ipswich Academy (Stump 2013; Stump and Hinman under review), Alnesbourn Crescent, Ipswich (Woolhouse 2014)) and further afield in East Anglia (Spixworth Road, Old Catton, Norwich (Percival 2012; Percival under review); Laurel Farm, Thorpe St Andrew, Norfolk (Bishop and Proctor 2011))?

7.3.3 How does the Middle Saxon craft/ industrial activity fit in with what is known about the local landscape and environment at this time, and with the known social, economic and political context of this area in the Middle Saxon period?

The Middle to Late Iron Age Boundaries

7.3.4 What do the later Iron Age boundaries reveal about Late Iron Age/ Roman land-use in Martlesham?

-Look at the location of the boundary ditches in relation to other known later Iron Age/ early Roman sites and finds in the local area (c. 2km radius)

8 PUBLICATION PROPOSAL

8.1 General

8.1.1 It is proposed to publish the results of the project as a short article in the county archaeological journal, *Proceedings of the Suffolk Institute of Archaeology and History* ('PSIAH'), entitled 'A Bronze Age agricultural landscape at Martlesham'.

8.1.2 A separate note will be prepared discussing the Middle Saxon fire pits (see below).

8.2 Estimated Report Statistics

Estimated Word Count

8.2.1 Approximately 1500 words.

Figures (see Table 2)

8.2.2 Figures will use colour.

Figure No.	Title	Content
1	Site Location	<p>Showing location in region, locality, and detailed plan showing position of current site and excavation area.</p> <p>Relevant local sites and finds recorded in the Suffolk HER, and any relevant cropmarks, will be plotted on the detailed plan.</p> <p>The main local landscape features, including Martlesham Creek and the natural topography, will also be highlighted.</p>

2	Plan of the Bronze Age Field System	Plan of the field boundaries, based on Assessment Report Figs. 4 and 5, and including the contour survey data and extrapolation from the geophysical survey. Each period to be represented by a colour, with a key. Labelling will be kept to a minimum so that the figure does not become cluttered at this scale.
3?	Comparative Plans of Middle to Late Bronze Age Enclosures	If parallels with similar morphology can be found. Comparative sites shown in the same style and at the same scale, alongside a copy of the plan of the small, early enclosures at Martlesham, in order to allow direct comparison.

Table 2: Proposed publication figures

8.3 Report Structure and Headings (approximate word count)

Introduction and Background (300 words)

- 8.3.1 Site location, geology and topography, the previous phases of survey and trenching, reason for current fieldwork, where to access 'grey' report and site archive.

The Bronze Age Enclosures and Field System (c. 700 words)

- 8.3.2 Brief physical description of the enclosure boundary ditches, focusing on their overall layout and alignments, supported by a plan, rather than the specifics of each ditch and enclosure. Discussion of the dating evidence (pottery and struck flint) and its limitations. Discussion of probable function. Relationship of the enclosure and field systems with topography and the main natural landscape features, discussion of any links to recorded cropmarks or other known sites in the local area. Mention absence of evidence for the agricultural economy/ contemporary environment in the plant macrofossil assemblage. Include discussion of development of the boundary system over time.

Context and Significance (500 words)

- 8.3.3 Contextualisation against the growing body of excavated evidence for large-scale Bronze Age rectilinear field systems in Suffolk and Norfolk. Discussion of any identified parallels for the small later Bronze Age enclosures, with comparative plans. Wider observations – apparent lack, until recently, of Bronze Age field systems in northern East Anglia is more a result of limited large-scale fieldwork and lack of recognition rather than absence.

Acknowledgements

- 8.3.4 Client, consultant, planning archaeologist, manager, CAD Department and officer, site team, site manager, others.

Bibliography

- 8.3.5 List of sources consulted.

8.4 Note on the Fire Pits (1000 words, including an illustration and photo)

- 8.4.1 The fire pits will be described and discussed in a short note, alongside the identical Saxon features recently excavated and radiocarbon-dated at Alnesbourn Crescent, Ipswich (Woolhouse 2014).
- 8.4.2 The note will begin with a brief paragraph describing the context of each piece of fieldwork and indicating the whereabouts of the archive reports and site archives, for further information.
- 8.4.3 A physical description of a ‘typical’ fire pit (including a composite figure comprising a sample photo and section drawing) will be given, with a discussion of the five radiocarbon dates and lack of finds/ environmental evidence apart from charcoal and incidental inclusions of burnt flint.
- 8.4.4 The note will proceed to a comparison with similar features found at adjacent sites and those further afield, and contextualization against what we know of Saxon settlement and other activity in this locality (*i.e.* how the pits and whatever industrial/ craft/ other process they represent fit into the natural and human landscape of the area), and in the south-east Suffolk ‘sub-region’, particularly against the backdrop of the Middle Saxon trading centre at Ipswich, the River Deben, the East Anglian royal vill at Rendlesham etc.

8.5 Task List

Task	Comments
Generate bibliography for library/ HER research	
Library research (Cambridge University Library)	<ul style="list-style-type: none"> -Parallels for the small Middle to Late Bronze Age enclosures. -Parallels for later Bronze Age subdivided agricultural landscapes in Suffolk and Norfolk. -Published reports on fieldwork in the area. -Any articles on Anglo-Saxon charcoal burning/ iron-working.
HER research (Bury St Edmunds)	<ul style="list-style-type: none"> -Any cropmarks from landscape around the site. -Grey reports on unpublished fieldwork in the area, including that at Martlesham Park and Ride.
Report writing	Cutting down, reordering and changing emphasis of existing text into publication format + writing expanded discussion of the significant elements.
Illustrations	Re-working of Assessment Report figures for publication New figures x c. 2-3

Table 3: Task list for post-excavation analysis and publication

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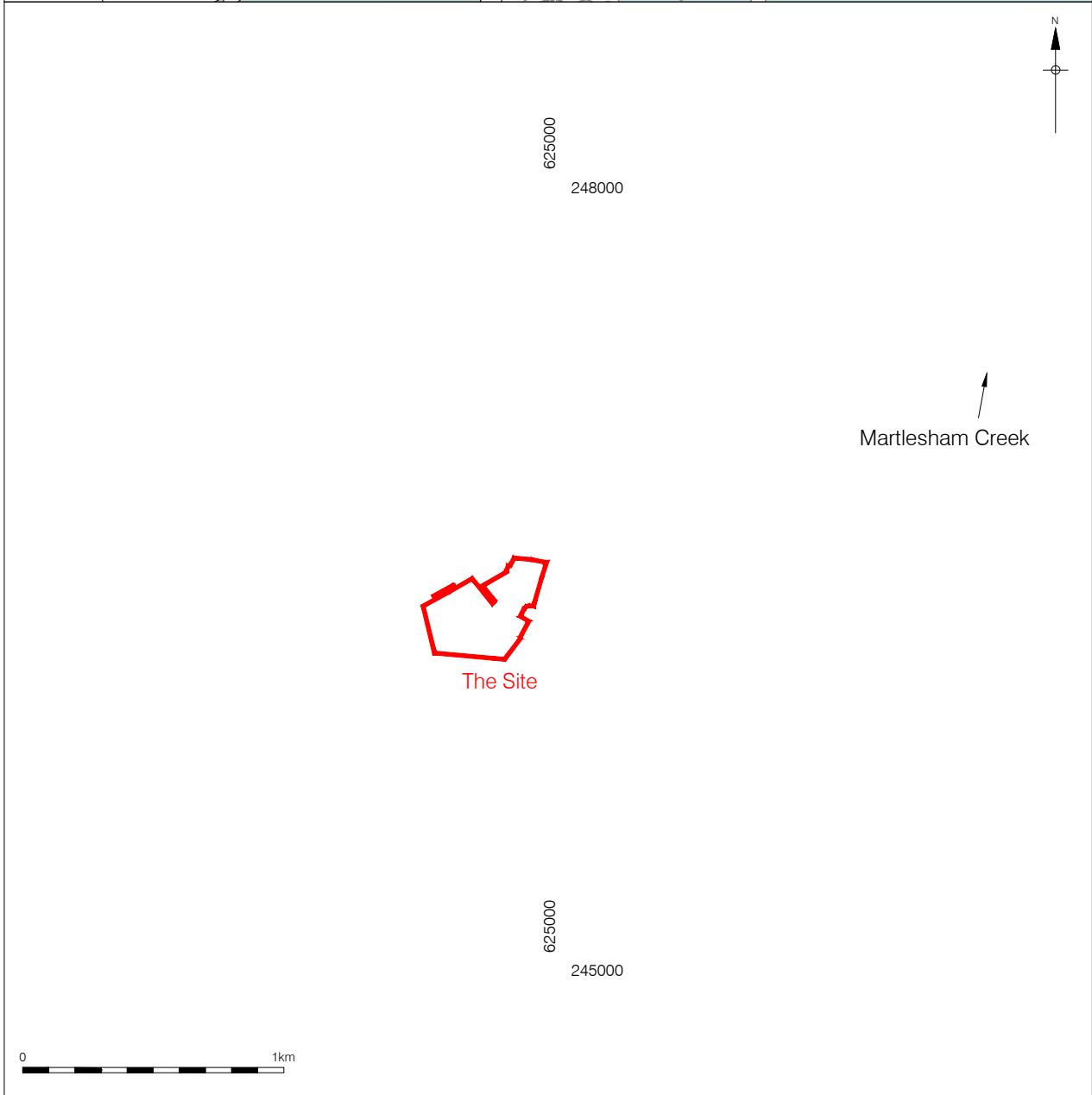
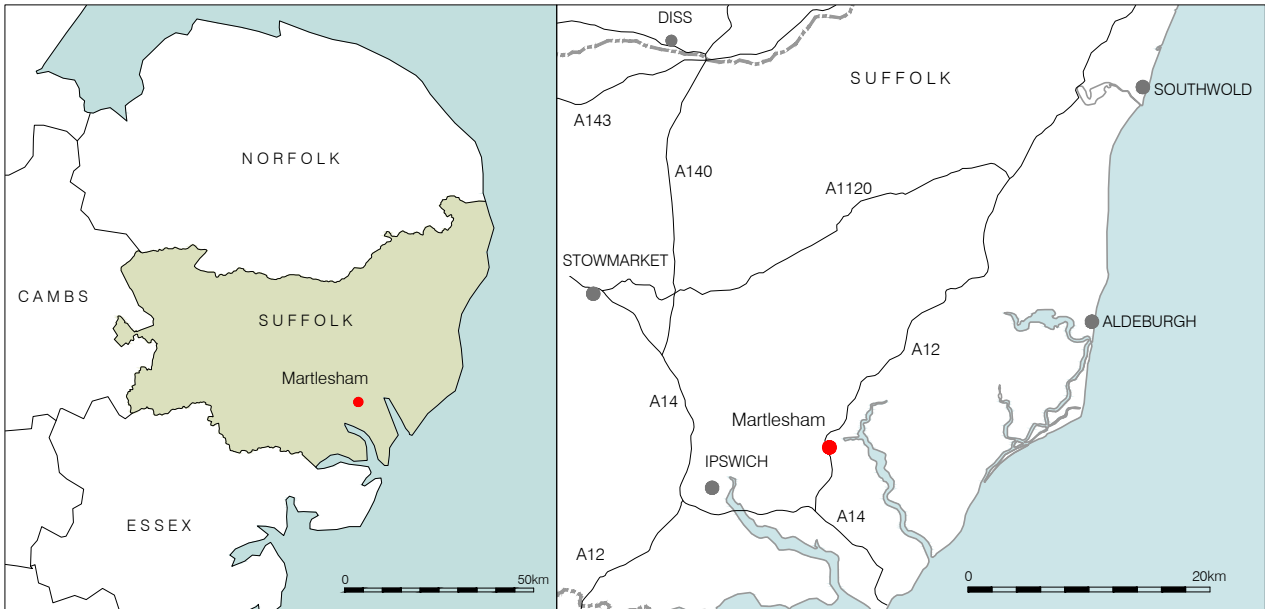
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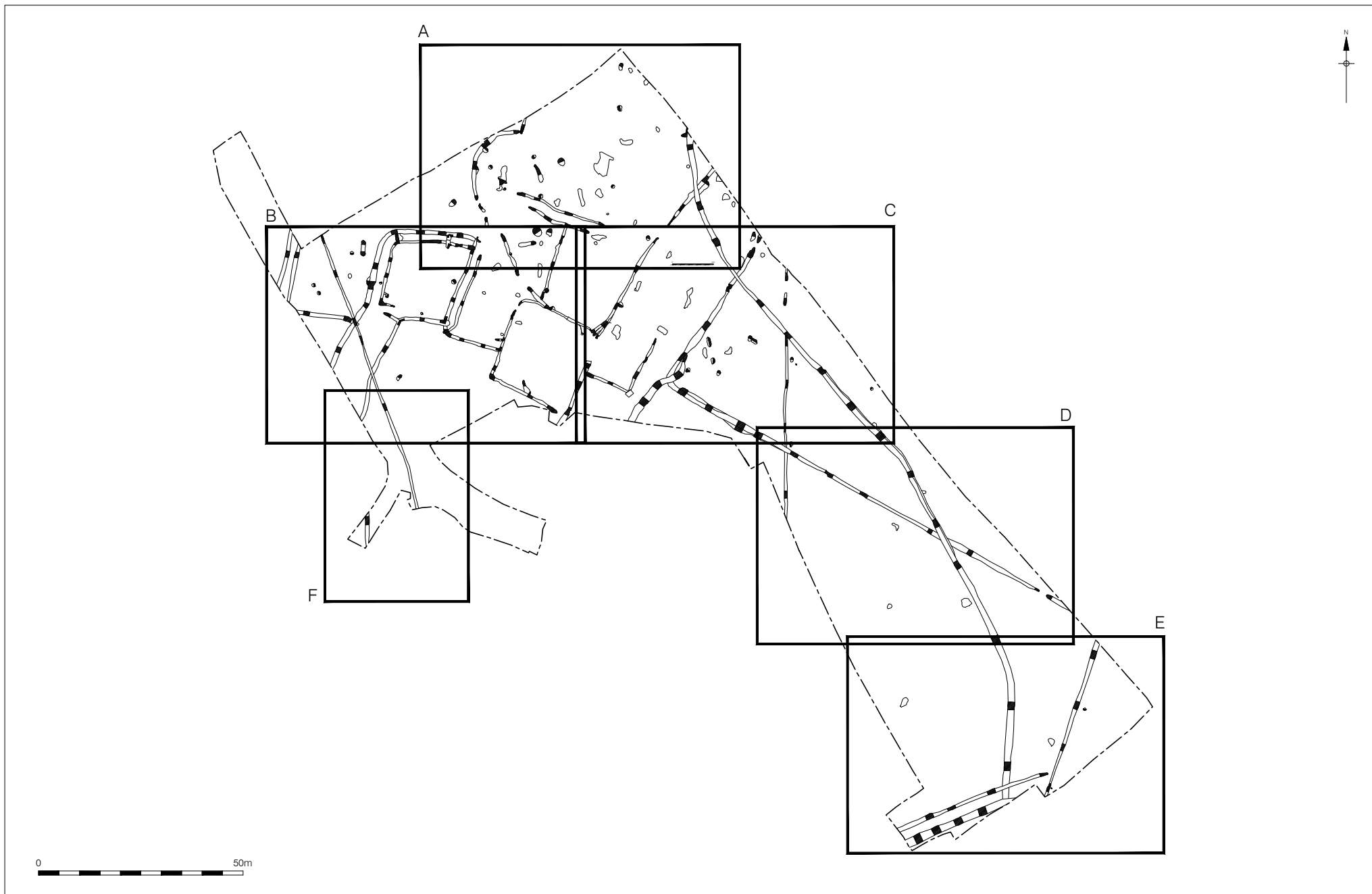
Figure 1
 Site Location
 1:2,000,000; 625,000 & 25,000 at A4



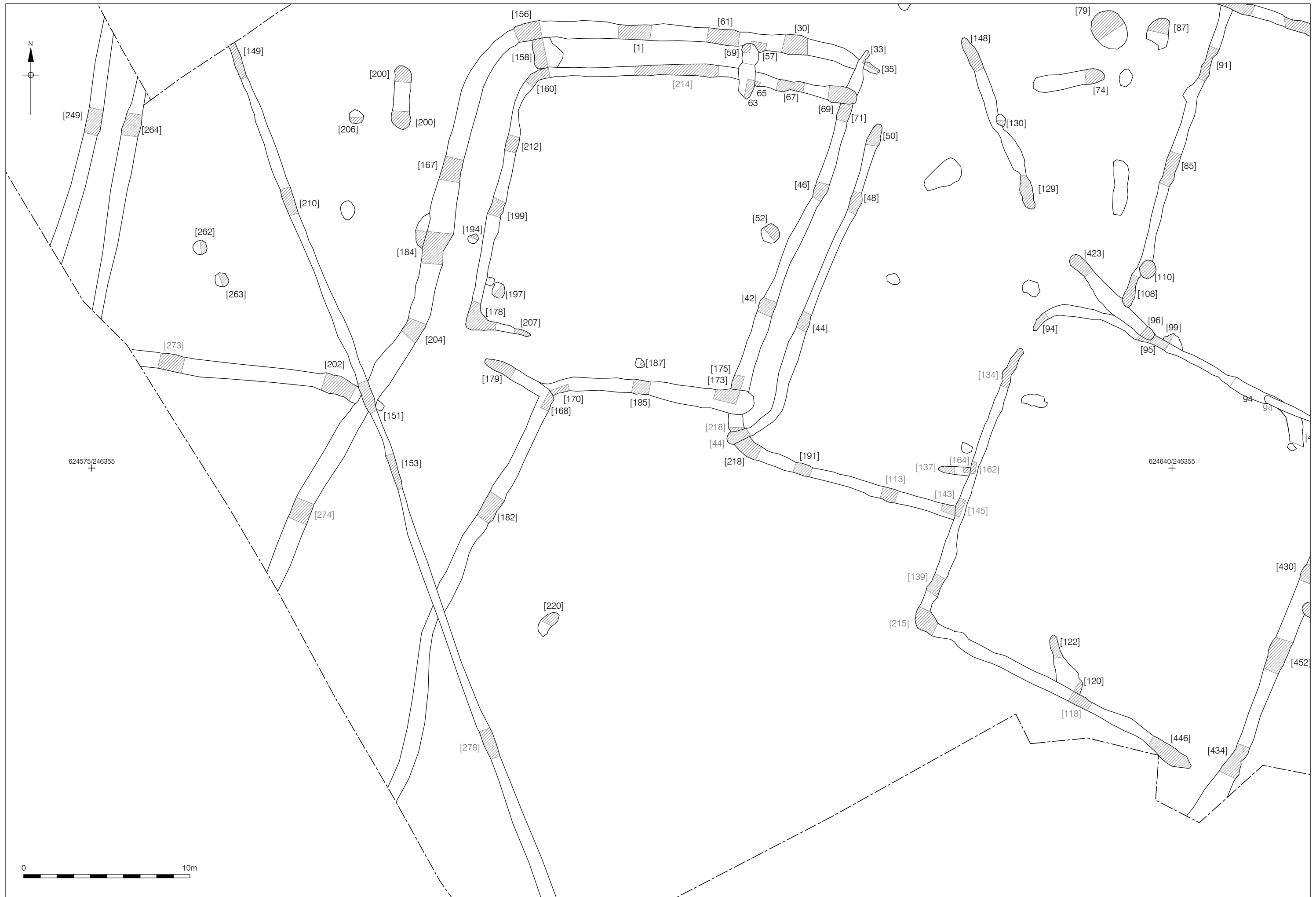
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Figure 2
Trench Location
1:2,500 at A4

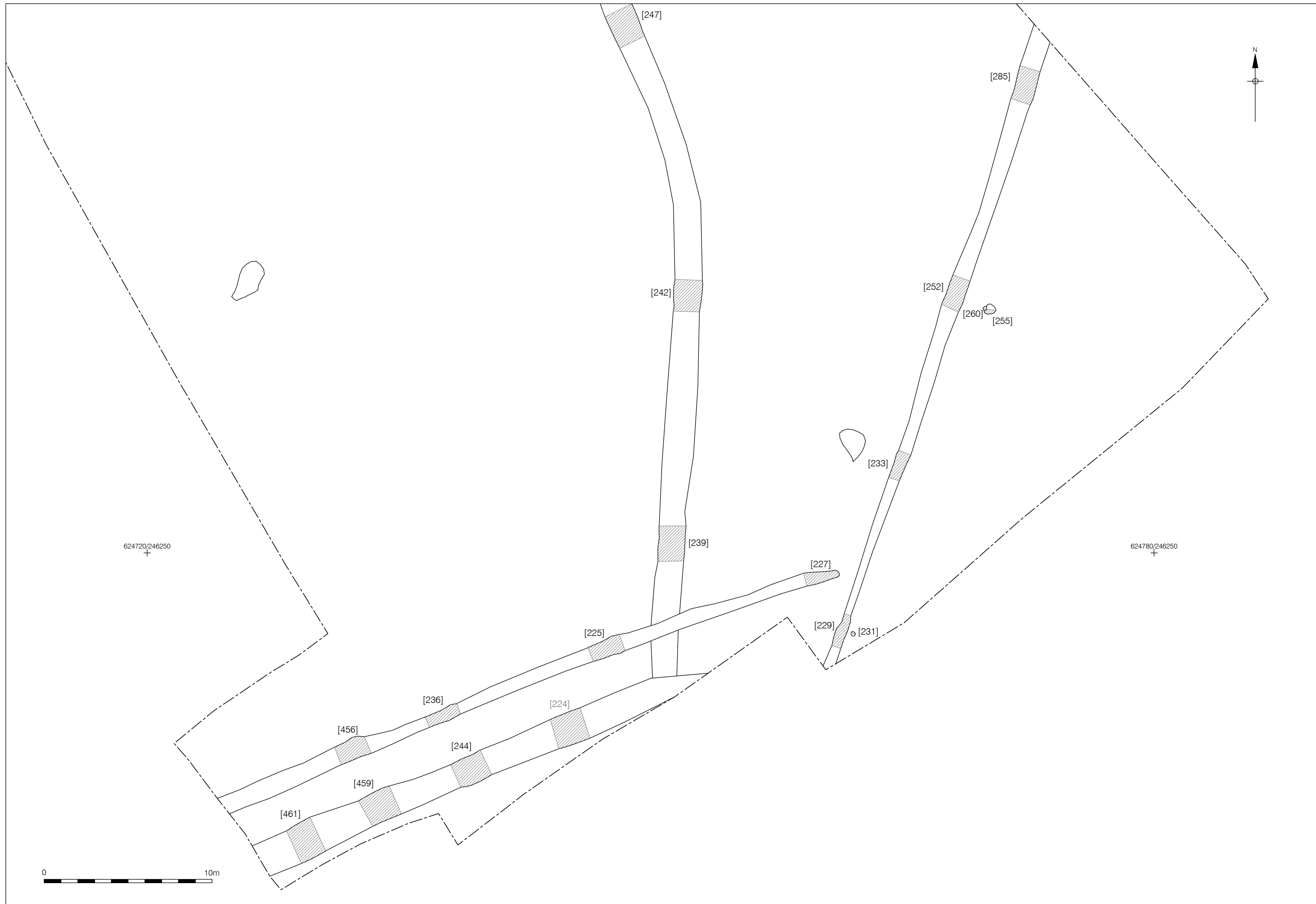


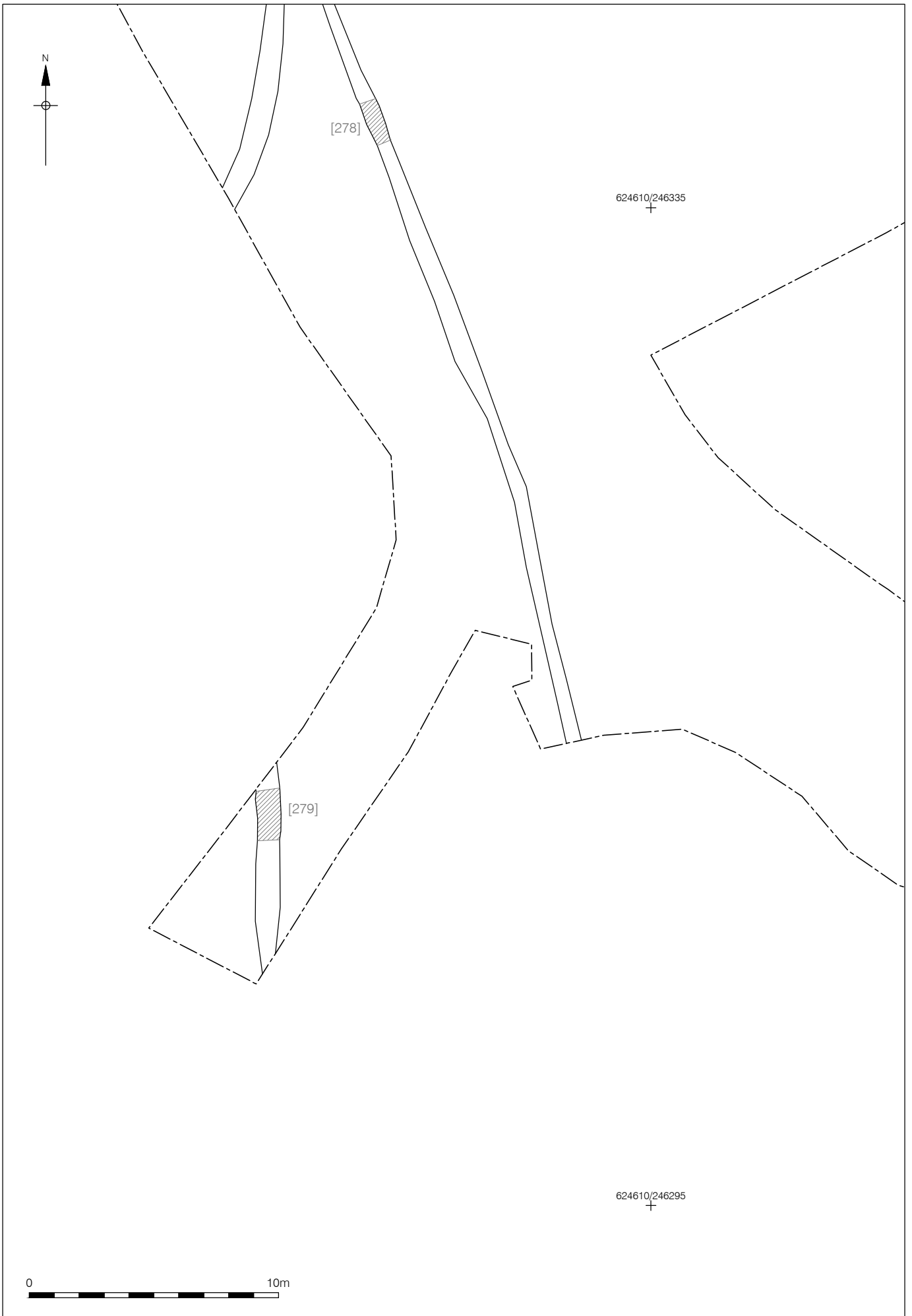


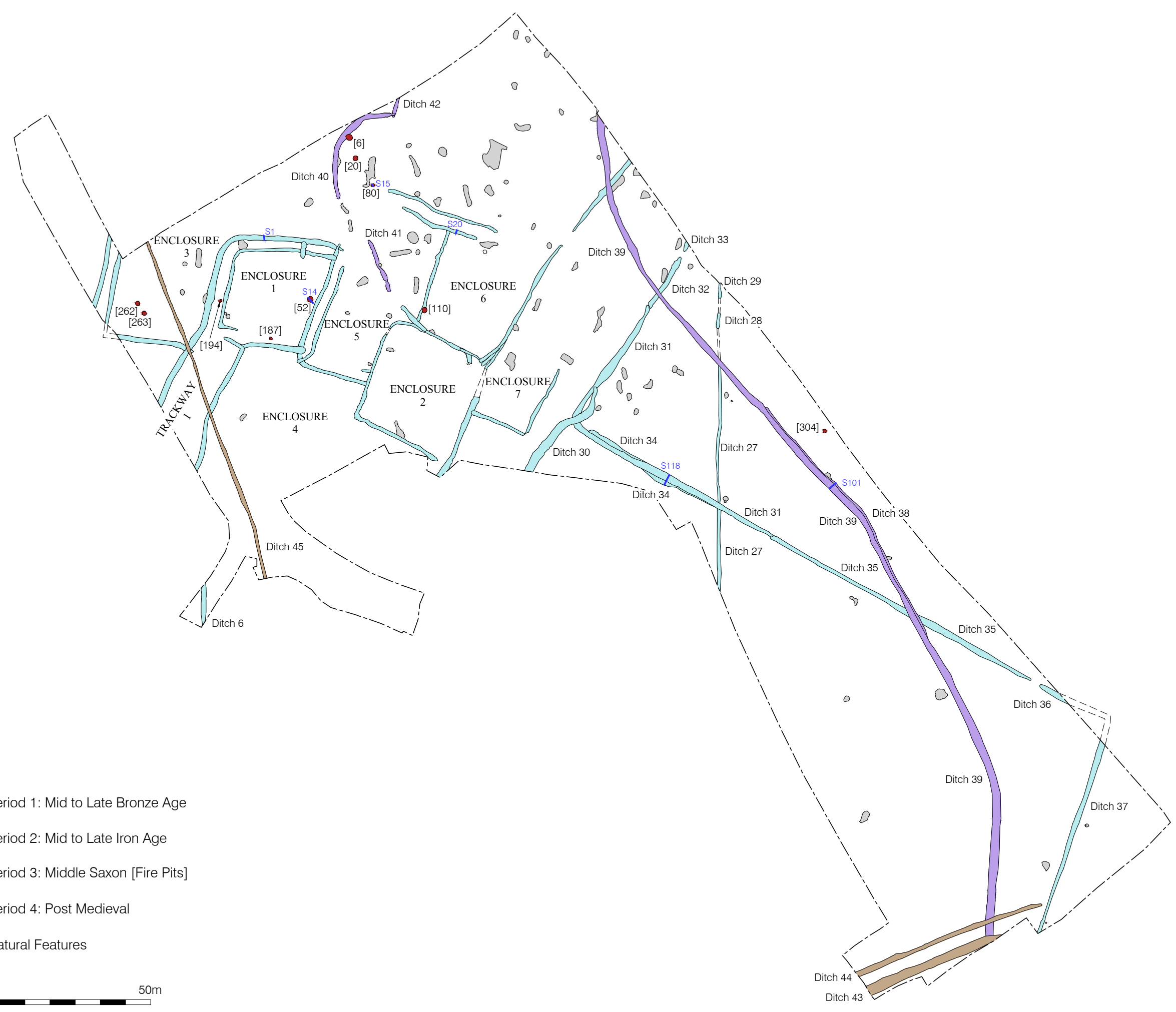












- Period 1: Mid to Late Bronze Age
- Period 2: Mid to Late Iron Age
- Period 3: Middle Saxon [Fire Pits]
- Period 4: Post Medieval
- Natural Features



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20/10/14 JS (revision 2)

Figure 4
Phase Plan
1:750 at A3

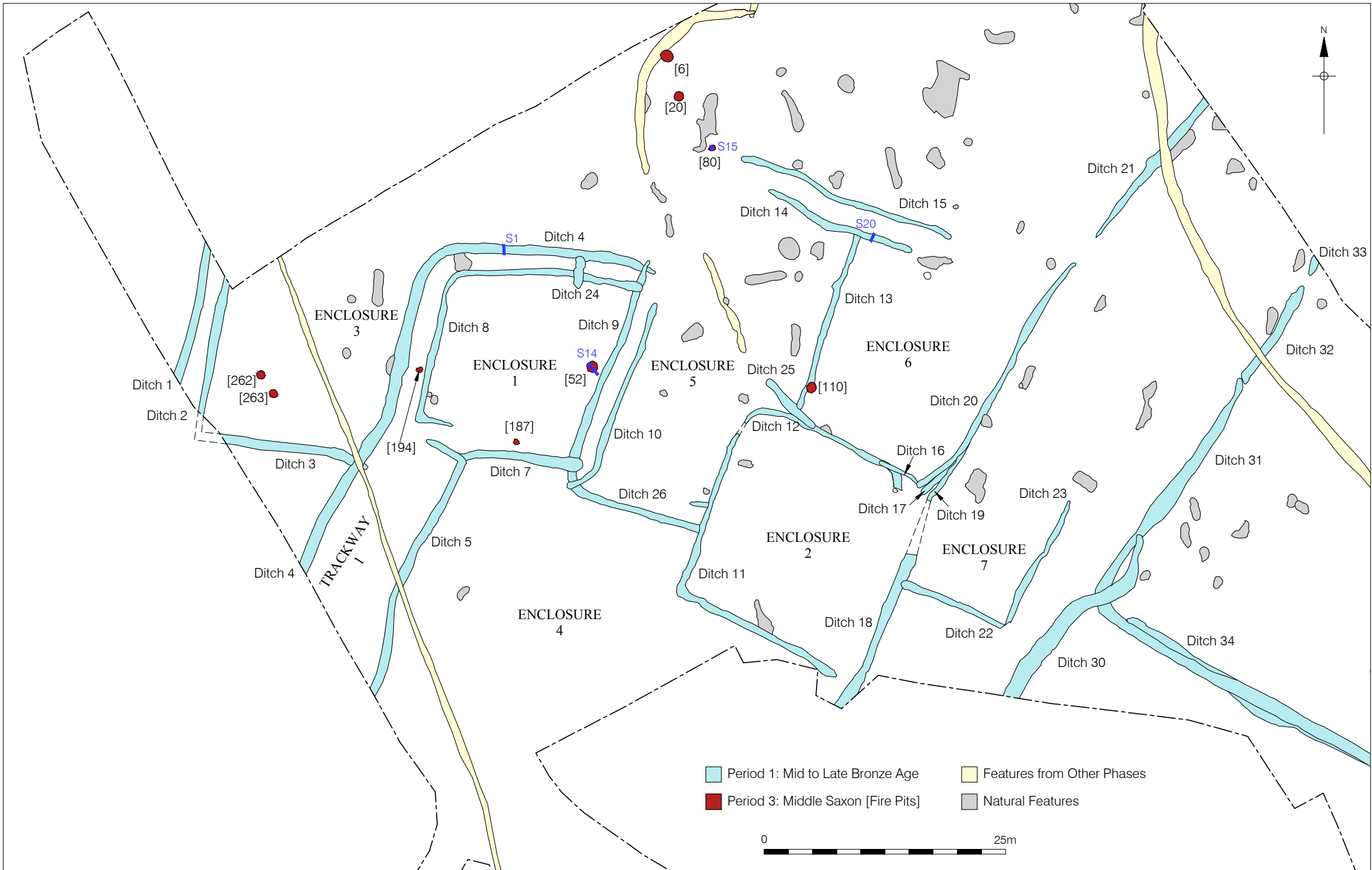
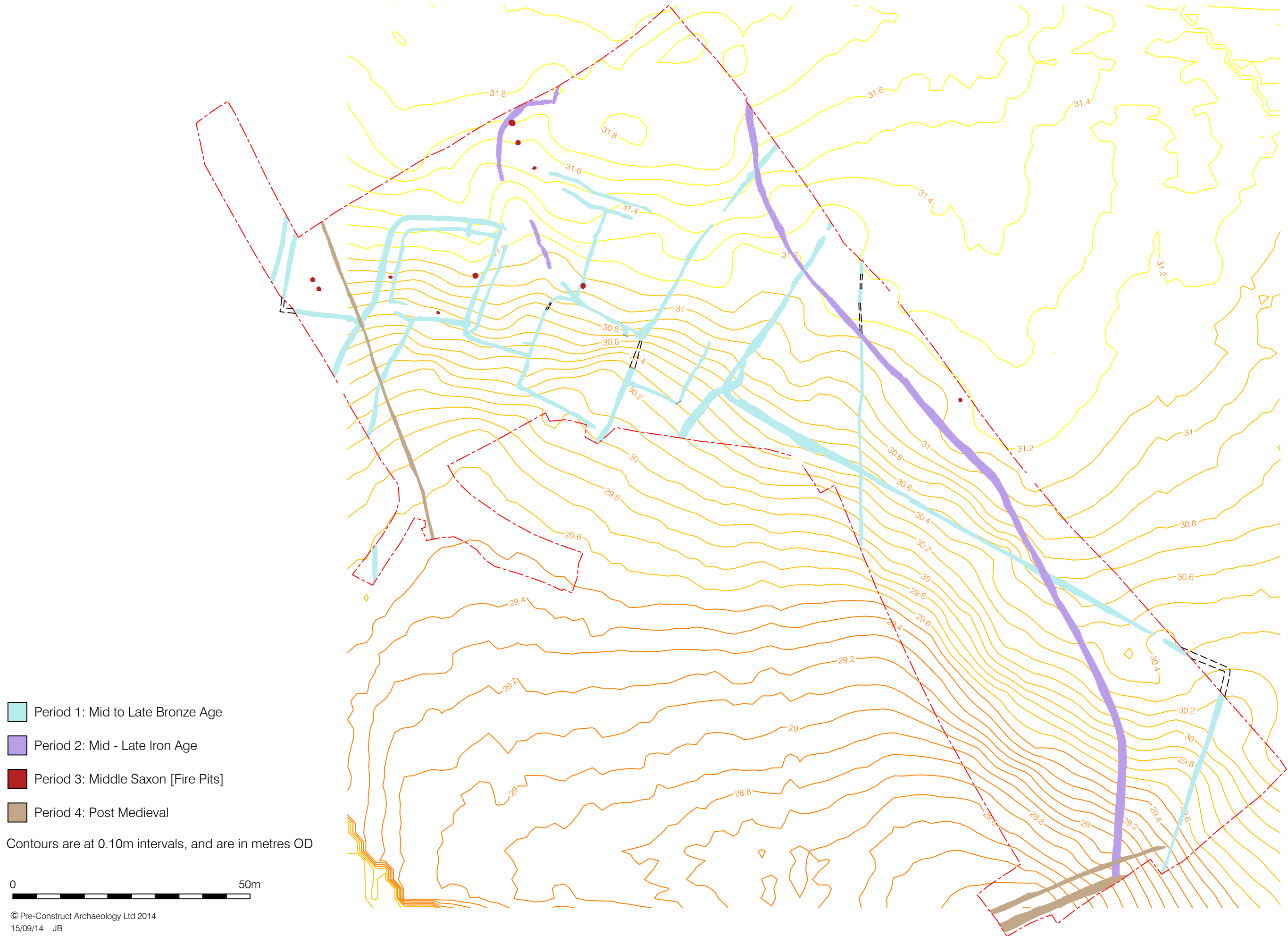


Figure 5
 Detail showing the Mid to Late Bronze Age enclosures
 1:500 at A4



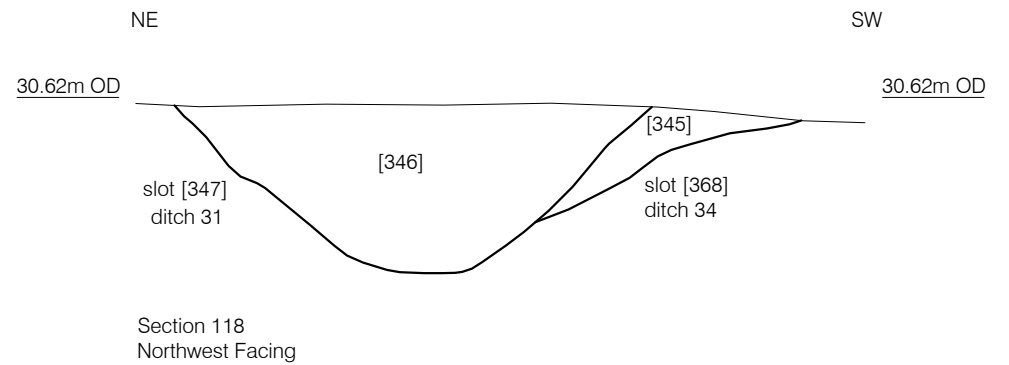
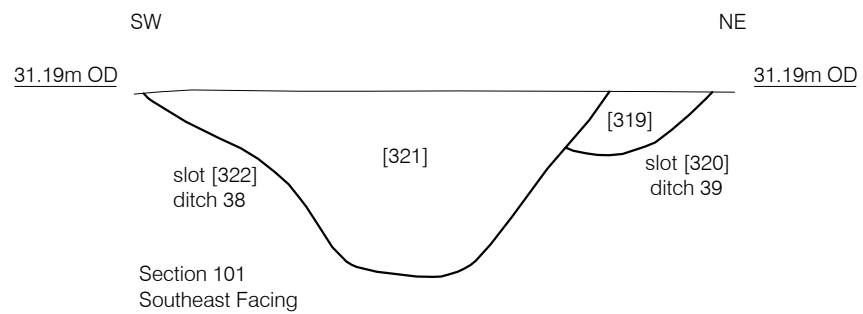
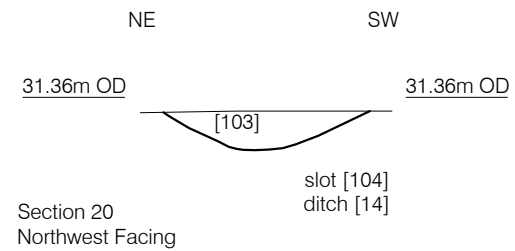
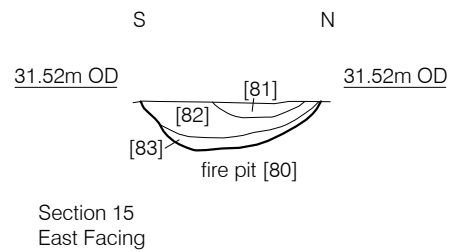
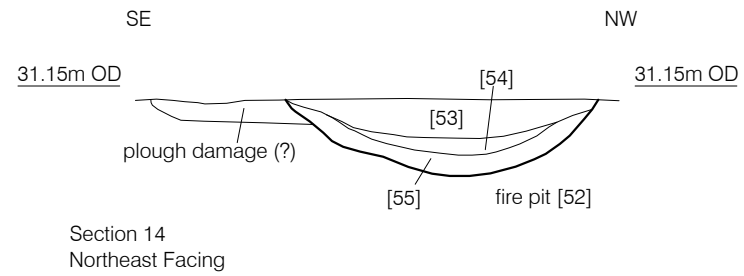
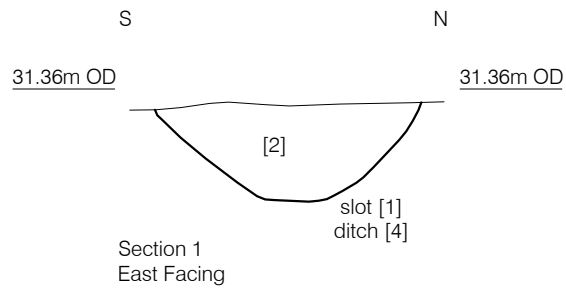
- Period 1: Mid to Late Bronze Age
- Period 2: Mid - Late Iron Age
- Period 3: Middle Saxon [Fire Pits]
- Period 4: Post Medieval

Contours are at 0.10m intervals, and are in metres OD

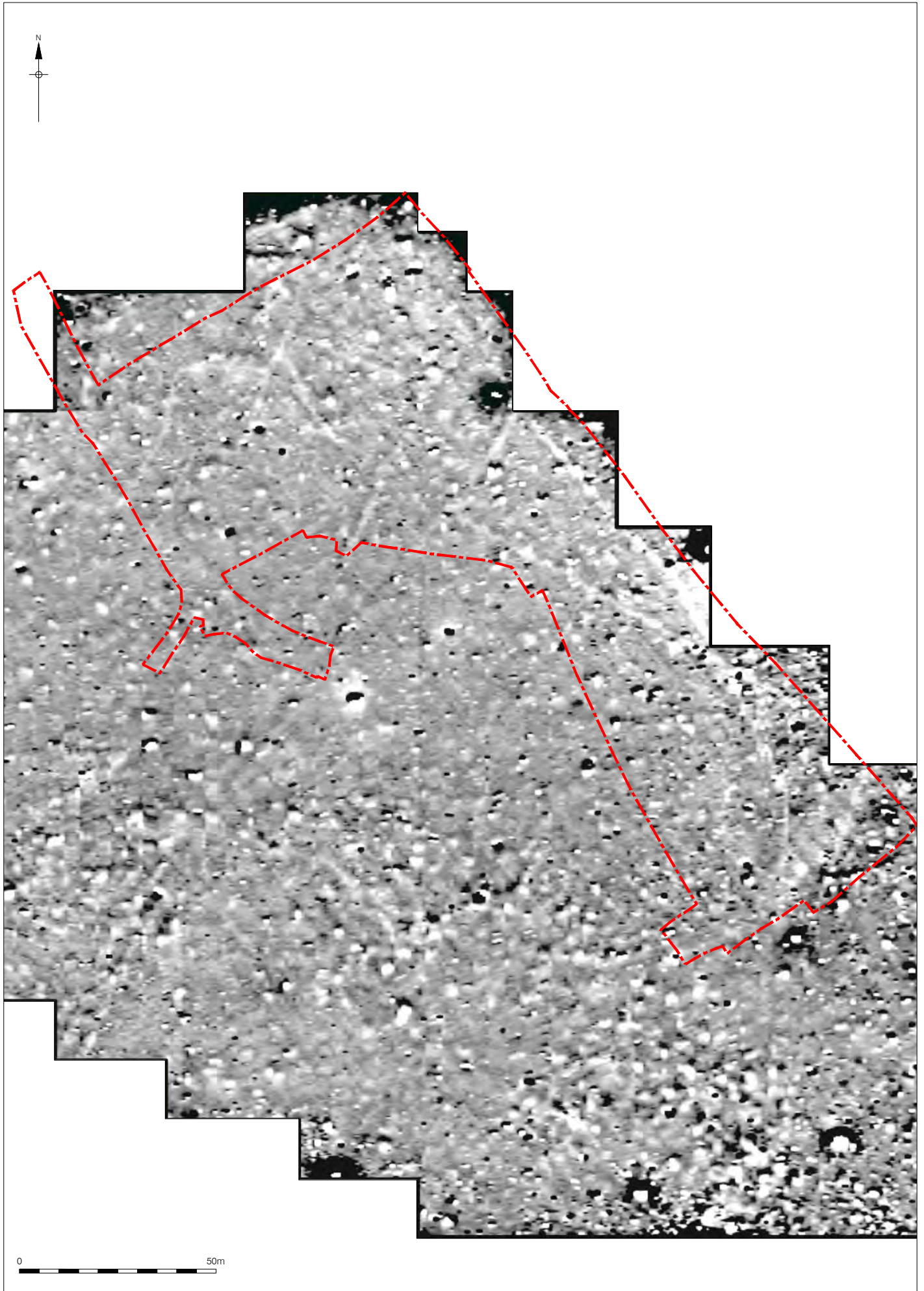


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Figure 6
Plan of phased features and topography
1:750 at A3

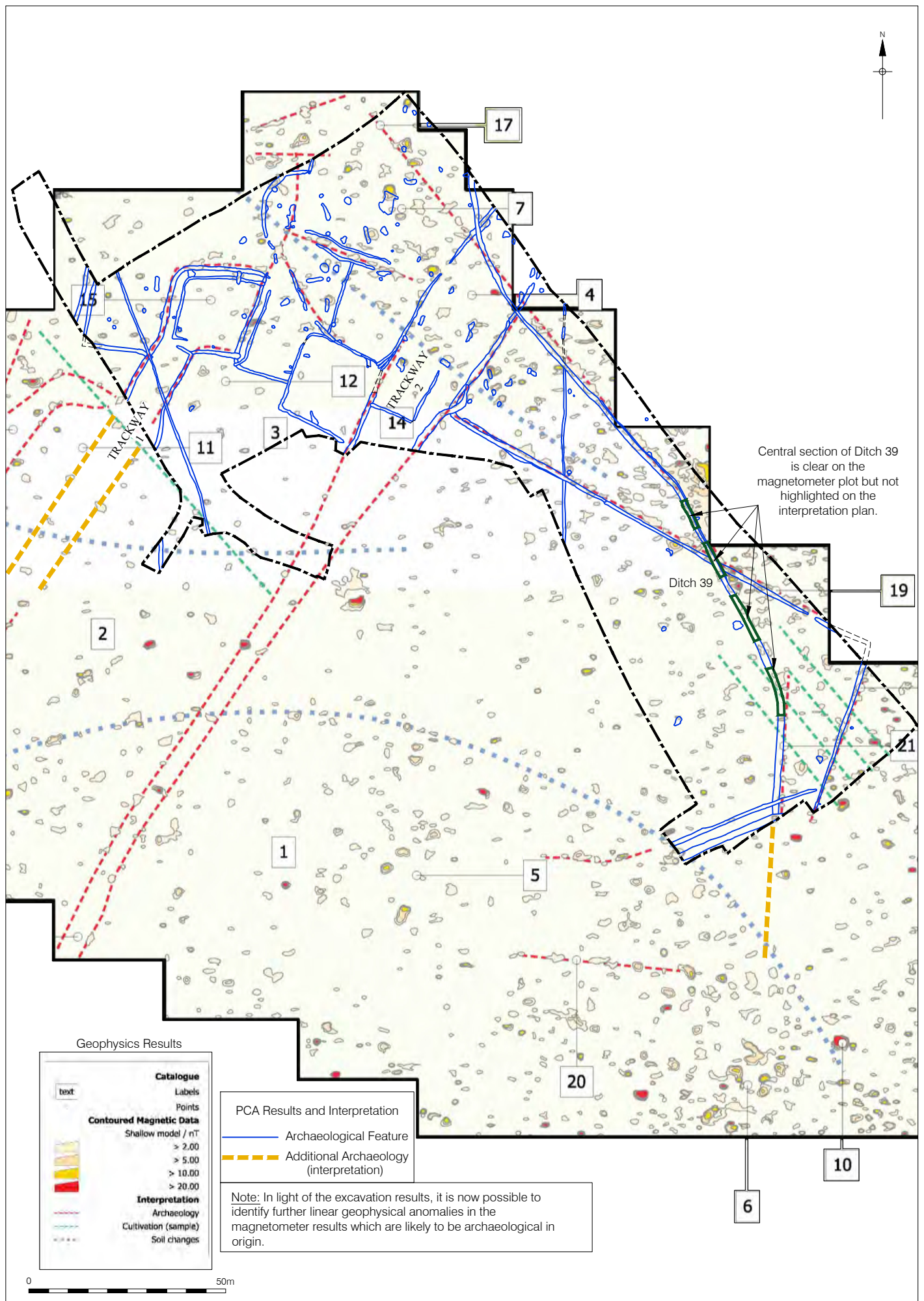






Magnetometer Results by Archaeophysica Ltd (Roseveare & Lewis 2010; Figure 2)
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Figure 9
Magnetometer Survey Results
1:1,250 at A4



Magnetometer Interpretation by Archaeophysica Ltd (Roseveare & Lewis 2010; Figure 3)

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Figure 10
Excavation Plan with Geophysics Results Overlaid
1:1,250 at A4

11 APPENDIX 1: PLATES



Plate 1: The excavation area, view north-west



Plate 2: DITCHES 4 and 8, view north-east



Plate 3: DITCH 11, view north-east



Plate 4: (left to right) DITCHES 20, 17 and 19, view north-east



Plate 5: DITCH 27, view north



Plate 6: ENCLOSURE 7 (left) and DITCHES 30 and 31 (right), view east



Plate 7: DITCHES 31 and 34, view south-east



Plate 8: DITCH 39, view south



Plate 9: DITCHES 43 and 44, view east



Plate 10: Fire Pit [304], mid-excavation



Plate 11: Fire Pits [262] and [263] (Watching Brief area), mid-excavation

12 APPENDIX 2: CONTEXT INDEX

Context	Cut	Type	Category	Interpretation	Group
1	1	Cut	Ditch	Enclosure Boundary	Ditch 4
2	1	Fill	Ditch	Enclosure Boundary	Ditch 4
3	3	Layer	Geology	Drift Geology	Geology
4	4	Layer	Topsoil	Ploughsoil	Overburden
5	5	Fill	Natural	Tree Hollow	Natural Features
6	6	Cut	Pit	Fire Pit	Fire Pits
7	6	Fill	Pit	Fire Pit	Fire Pits
8	6	Fill	Pit	Fire Pit	Fire Pits
9	6	Fill	Pit	Fire Pit	Fire Pits
10	10	Cut	Ditch	Field Boundary	Ditch 40
11	10	Fill	Ditch	Field Boundary	Ditch 40
12	13	Fill	Ditch	Field Boundary	Ditch 40
13	13	Cut	Ditch	Field Boundary	Ditch 40
14	14	Fill	Natural	Tree Hollow	Natural Features
15	15	Cut	Ditch	Field Boundary	Ditch 42
16	15	Fill	Ditch	Field Boundary	Ditch 42
17	20	Fill	Pit	Fire Pit	Fire Pits
18	20	Fill	Pit	Fire Pit	Fire Pits
19	20	Fill	Pit	Fire Pit	Fire Pits
20	20	Cut	Pit	Fire Pit	Fire Pits
21	22	Fill	Ditch	Field Boundary	Ditch 40
22	22	Cut	Ditch	Field Boundary	Ditch 40
23	23	Fill	Natural	Natural Hollow	Natural Features
24	24	Cut	Ditch	Field Boundary	Ditch 40
25	24	Fill	Ditch	Field Boundary	Ditch 40
26	26	Fill	Natural	Tree Hollow	Natural Features
27	27	Void	Void	Void	Void
28	28	Fill	Natural	Natural Hollow	Natural Features
29	30	Fill	Ditch	Enclosure Boundary	Ditch 4
30	30	Cut	Ditch	Enclosure Boundary	Ditch 4
31	31	Cut	Natural	Natural Hollow	Natural Features
32	31	Fill	Natural	Natural Hollow	Natural Features
33	33	Cut	Ditch	Enclosure Boundary	Ditch 9
34	33	Fill	Ditch	Enclosure Boundary	Ditch 9
35	35	Cut	Ditch	Enclosure Boundary	Ditch 4
36	35	Fill	Ditch	Enclosure Boundary	Ditch 4
37	20	Fill	Pit	Fire Pit	Fire Pits
38	38	Cut	Ditch	Enclosure Boundary	Ditch 15
39	38	Fill	Ditch	Enclosure Boundary	Ditch 15
40	40	Cut	Natural	Natural Hollow	Natural Features
41	40	Fill	Natural	Natural Hollow	Natural Features
42	42	Cut	Ditch	Enclosure Boundary	Ditch 9

43	42	Fill	Ditch	Enclosure Boundary	Ditch 9
44	44	Cut	Ditch	Enclosure Boundary	Ditch 10
45	44	Fill	Ditch	Enclosure Boundary	Ditch 10
46	46	Cut	Ditch	Enclosure Boundary	Ditch 9
47	46	Fill	Ditch	Enclosure Boundary	Ditch 9
48	48	Cut	Ditch	Enclosure Boundary	Ditch 10
49	48	Fill	Ditch	Enclosure Boundary	Ditch 10
50	50	Cut	Ditch	Enclosure Boundary	Ditch 10
51	50	Fill	Ditch	Enclosure Boundary	Ditch 10
52	52	Cut	Pit	Fire Pit	Fire Pits
53	52	Fill	Pit	Fire Pit	Fire Pits
54	52	Fill	Pit	Fire Pit	Fire Pits
55	52	Fill	Pit	Fire Pit	Fire Pits
56	57	Fill	Ditch	Enclosure Boundary	Ditch 4
57	57	Cut	Ditch	Enclosure Boundary	Ditch 4
58	59	Fill	Ditch	Enclosure Boundary	Ditch 24
59	59	Cut	Ditch	Enclosure Boundary	Ditch 24
60	61	Fill	Ditch	Enclosure Boundary	Ditch 4
61	61	Cut	Ditch	Enclosure Boundary	Ditch 4
62	63	Fill	Ditch	Enclosure Boundary	Ditch 24
63	63	Cut	Ditch	Enclosure Boundary	Ditch 24
64	65	Fill	Ditch	Enclosure Boundary	Ditch 8
65	65	Cut	Ditch	Enclosure Boundary	Ditch 8
66	67	Fill	Ditch	Enclosure Boundary	Ditch 8
67	67	Cut	Ditch	Enclosure Boundary	Ditch 8
68	69	Fill	Ditch	Enclosure Boundary	Ditch 8
69	69	Cut	Ditch	Enclosure Boundary	Ditch 8
70	71	Fill	Ditch	Enclosure Boundary	Ditch 9
71	71	Cut	Ditch	Enclosure Boundary	Ditch 9
72	74	Fill	Natural	Tree Hollow	Natural Features
73	74	Fill	Natural	Tree Hollow	Natural Features
74	74	Cut	Natural	Tree Hollow	Natural Features
75	79	Fill	Natural	Tree Hollow	Natural Features
76	79	Fill	Natural	Tree Hollow	Natural Features
77	79	Fill	Natural	Tree Hollow	Natural Features
78	79	Fill	Natural	Tree Hollow	Natural Features
79	79	Cut	Natural	Tree Hollow	Natural Features
80	80	Cut	Pit	Fire Pit	Fire Pits
81	80	Fill	Pit	Fire Pit	Fire Pits
82	80	Fill	Pit	Fire Pit	Fire Pits
83	80	Fill	Pit	Fire Pit	Fire Pits
84	85	Fill	Ditch	Enclosure Boundary	Ditch 13
85	85	Cut	Ditch	Enclosure Boundary	Ditch 13
86	87	Fill	Natural	Tree Hollow	Natural Features
87	87	Cut	Natural	Tree Hollow	Natural Features

88	89	Fill	Ditch	Enclosure Boundary	Ditch 15
89	89	Cut	Ditch	Enclosure Boundary	Ditch 15
90	91	Fill	Ditch	Enclosure Boundary	Ditch 13
91	91	Cut	Ditch	Enclosure Boundary	Ditch 13
92	93	Fill	Ditch	Boundary	Ditch 39
93	93	Cut	Ditch	Boundary	Ditch 39
94	94	Cut	Ditch	Enclosure Boundary	Ditch 12
95	95	Cut	Ditch	Enclosure Boundary	Ditch 12
96	96	Cut	Ditch	Enclosure Boundary	Ditch 25
97	94	Fill	Ditch	Enclosure Boundary	Ditch 12
98	95	Fill	Ditch	Enclosure Boundary	Ditch 12
99	96	Fill	Ditch	Enclosure Boundary	Ditch 25
100	102	Fill	Ditch	Enclosure Boundary	Ditch 15
101	102	Fill	Ditch	Enclosure Boundary	Ditch 15
102	102	Cut	Ditch	Enclosure Boundary	Ditch 15
103	104	Fill	Ditch	Enclosure Boundary	Ditch 14
104	104	Cut	Ditch	Enclosure Boundary	Ditch 14
105	106	Fill	Ditch	Enclosure Boundary	Ditch 15
106	106	Cut	Ditch	Enclosure Boundary	Ditch 15
107	108	Fill	Ditch	Enclosure Boundary	Ditch 13
108	108	Cut	Ditch	Enclosure Boundary	Ditch 13
109	110	Fill	Pit	Fire Pit	Fire Pits
110	110	Cut	Pit	Fire Pit	Fire Pits
111	111	Fill	Natural	Tree Hollow	Natural Features
112	113	Fill	Ditch	Enclosure Boundary	Ditch 9
113	113	Cut	Ditch	Enclosure Boundary	Ditch 9
114	114	Cut	Ditch	Enclosure Boundary	Ditch 14
115	114	Fill	Ditch	Enclosure Boundary	Ditch 14
116	110	Fill	Pit	Fire Pit	Fire Pits
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118	118	Cut	Ditch	Enclosure Boundary	Ditch 11
119	118	Fill	Ditch	Enclosure Boundary	Ditch 11
120	120	Cut	Ditch	Natural Hollow	Natural Features
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123	122	Fill	Ditch	Natural Hollow	Natural Features
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127	126	Fill	Ditch	Enclosure Boundary	Ditch 14
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129	129	Cut	Ditch	Field Boundary	Ditch 41
130	130	Cut	Natural	Tree Hollow	Natural Features
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132	132	Cut	Ditch	Enclosure Boundary	Ditch 12

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169	168	Fill	Ditch	Trackway Boundary	Ditch 5
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188	187	Fill	Pit	Fire Pit	Fire Pits
189	185	Fill	Ditch	Enclosure Boundary	Ditch 7
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191	191	Cut	Ditch	Enclosure Boundary	Ditch 9
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213	214	Fill	Ditch	Enclosure Boundary	Ditch 8
214	214	Cut	Ditch	Enclosure Boundary	Ditch 8
215	215	Cut	Ditch	Enclosure Boundary	Ditch 11
216	215	Fill	Ditch	Enclosure Boundary	Ditch 11
217	218	Fill	Ditch	Enclosure Boundary	Ditch 9
218	218	Cut	Ditch	Enclosure Boundary	Ditch 9
219	220	Fill	Natural	Tree Hollow	Natural Features
220	220	Cut	Natural	Tree Hollow	Natural Features
221	224	Fill	Ditch	Field Boundary	Ditch 43
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224	224	Cut	Ditch	Field Boundary	Ditch 43
225	225	Cut	Ditch	Field Boundary	Ditch 44
226	225	Fill	Ditch	Field Boundary	Ditch 44
227	227	Cut	Ditch	Field Boundary	Ditch 44
228	227	Fill	Ditch	Field Boundary	Ditch 44
229	229	Cut	Ditch	Field Boundary	Ditch 37
230	229	Fill	Ditch	Field Boundary	Ditch 37
231	231	Cut	Natural	Tree Rooting	Natural Features
232	231	Fill	Natural	Tree Rooting	Natural Features
233	233	Cut	Ditch	Field Boundary	Ditch 37
234	233	Fill	Ditch	Field Boundary	Ditch 37
235	236	Fill	Ditch	Field Boundary	Ditch 44
236	236	Cut	Ditch	Field Boundary	Ditch 44
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239	239	Cut	Ditch	Boundary	Ditch 39
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243	244	Fill	Ditch	Field Boundary	Ditch 43
244	244	Cut	Ditch	Field Boundary	Ditch 43
245	247	Fill	Ditch	Boundary	Ditch 39
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248	249	Fill	Ditch	Enclosure Boundary	Ditch 1
249	249	Cut	Ditch	Enclosure Boundary	Ditch 1
250	251	Fill	Ditch	Boundary	Ditch 39
251	251	Cut	Ditch	Boundary	Ditch 39
252	252	Cut	Ditch	Field Boundary	Ditch 37
253	252	Fill	Ditch	Field Boundary	Ditch 37
254	252	Fill	Ditch	Field Boundary	Ditch 37
255	255	Cut	Natural	Tree Hollow	Natural Features
256	255	Fill	Natural	Tree Hollow	Natural Features
257	255	Fill	Natural	Tree Hollow	Natural Features
258	242	Fill	Ditch	Boundary	Ditch 39
259	244	Fill	Ditch	Field Boundary	Ditch 43
260	260	Cut	Natural	Tree Rooting	Natural Features
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262	262	Cut	Pit	Fire Pit	Fire Pits
263	263	Cut	Pit	Fire Pit	Fire Pits
264	264	Cut	Ditch	Enclosure Boundary	Ditch 2
265	264	Fill	Ditch	Enclosure Boundary	Ditch 2
266	266	Void	Void	Void	Void
267	266	Void	Void	Void	Void

268	262	Fill	Pit	Fire Pit	Fire Pits
269	262	Fill	Pit	Fire Pit	Fire Pits
270	263	Fill	Pit	Fire Pit	Fire Pits
271	263	Fill	Pit	Fire Pit	Fire Pits
272	273	Fill	Ditch	Enclosure Boundary	Ditch 3
273	273	Cut	Ditch	Enclosure Boundary	Ditch 3
274	274	Cut	Ditch	Trackway Boundary	Ditch 4
275	274	Fill	Ditch	Trackway Boundary	Ditch 4
276	274	Fill	Ditch	Trackway Boundary	Ditch 4
277	278	Fill	Ditch	Field Boundary	Ditch 45
278	278	Cut	Ditch	Field Boundary	Ditch 45
279	279	Cut	Ditch	Enclosure Boundary	Ditch 6
280	279	Fill	Ditch	Enclosure Boundary	Ditch 6
281	282	Fill	Ditch	Field Boundary	Ditch 35
282	282	Cut	Ditch	Field Boundary	Ditch 35
283	284	Fill	Ditch	Field Boundary	Ditch 36
284	284	Cut	Ditch	Field Boundary	Ditch 36
285	285	Cut	Ditch	Field Boundary	Ditch 37
286	285	Fill	Ditch	Field Boundary	Ditch 37
287	285	Fill	Ditch	Field Boundary	Ditch 37
288	289	Fill	Ditch	Field Boundary	Ditch 35
289	289	Cut	Ditch	Field Boundary	Ditch 35
290	291	Fill	Ditch	Boundary	Ditch 39
291	291	Cut	Ditch	Boundary	Ditch 39
292	293	Fill	Ditch	Field Boundary	Ditch 35
293	293	Cut	Ditch	Field Boundary	Ditch 35
294	295	Fill	Ditch	Boundary	Ditch 38
295	295	Cut	Ditch	Boundary	Ditch 38
296	297	Fill	Ditch	Boundary	Ditch 39
297	297	Cut	Ditch	Boundary	Ditch 39
298	299	Fill	Ditch	Boundary	Ditch 39
299	299	Cut	Ditch	Boundary	Ditch 39
300	300	Cut	Ditch	Boundary	Ditch 38
301	300	Fill	Ditch	Boundary	Ditch 38
302	302	Cut	Ditch	Boundary	Ditch 39
303	302	Fill	Ditch	Boundary	Ditch 39
304	304	Cut	Pit	Fire Pit	Fire Pits
305	304	Fill	Pit	Fire Pit	Fire Pits
306	304	Fill	Pit	Fire Pit	Fire Pits
307	308	Fill	Ditch	Boundary	Ditch 38
308	308	Cut	Ditch	Boundary	Ditch 38
309	338	Fill	Ditch	Boundary	Ditch 38
310	310	Cut	Ditch	Boundary	Ditch 39
311	310	Fill	Ditch	Boundary	Ditch 39
312	312	Cut	Ditch	Field Boundary	Ditch 31

313	312	Fill	Ditch	Field Boundary	Ditch 31
314	323	Fill	Ditch	Field Boundary	Ditch 34
315	315	Cut	Ditch	Field Boundary	Ditch 27
316	315	Fill	Ditch	Field Boundary	Ditch 27
317	317	Cut	Natural	Tree Hollow	Natural Features
318	317	Fill	Natural	Tree Hollow	Natural Features
319	320	Fill	Ditch	Boundary	Ditch 38
320	320	Cut	Ditch	Boundary	Ditch 38
321	322	Fill	Ditch	Boundary	Ditch 39
322	322	Cut	Ditch	Boundary	Ditch 39
323	323	Cut	Ditch	Field Boundary	Ditch 34
324	324	Cut	Ditch	Field Boundary	Ditch 31
325	324	Fill	Ditch	Field Boundary	Ditch 31
326	326	Cut	Ditch	Field Boundary	Ditch 31
327	326	Fill	Ditch	Field Boundary	Ditch 31
328	328	Cut	Ditch	Field Boundary	Ditch 35
329	328	Fill	Ditch	Field Boundary	Ditch 35
330	330	Cut	Ditch	Field Boundary	Ditch 35
331	330	Fill	Ditch	Field Boundary	Ditch 35
332	332	Cut	Natural	Tree Rooting	Natural Features
333	332	Fill	Natural	Tree Rooting	Natural Features
334	334	Cut	Ditch	Field Boundary	Ditch 27
335	334	Fill	Ditch	Field Boundary	Ditch 27
336	336	Cut	Ditch	Field Boundary	Ditch 27
337	336	Fill	Ditch	Field Boundary	Ditch 27
338	338	Cut	Ditch	Boundary	Ditch 38
339	339	Cut	Natural	Tree Rooting	Natural Features
340	339	Fill	Natural	Tree Rooting	Natural Features
341	341	Cut	Natural	Tree Rooting	Natural Features
342	341	Fill	Natural	Tree Rooting	Natural Features
343	343	Cut	Ditch	Field Boundary	Ditch 27
344	343	Fill	Ditch	Field Boundary	Ditch 27
345	368	Fill	Ditch	Field Boundary	Ditch 34
346	347	Fill	Ditch	Field Boundary	Ditch 31
347	347	Cut	Ditch	Field Boundary	Ditch 31
348	349	Fill	Ditch	Field Boundary	Ditch 32
349	349	Cut	Ditch	Field Boundary	Ditch 32
350	351	Fill	Ditch	Field Boundary	Ditch 31
351	351	Cut	Ditch	Field Boundary	Ditch 31
352	352	Cut	Ditch	Field Boundary	Ditch 28
353	352	Fill	Ditch	Field Boundary	Ditch 28
354	354	Cut	Ditch	Field Boundary	Ditch 29
355	354	Fill	Ditch	Field Boundary	Ditch 29
356	356	Cut	Natural	Tree Hollow	Natural Features
357	356	Fill	Natural	Tree Hollow	Natural Features

358	358	Cut	Natural	Tree Hollow	Natural Features
359	358	Fill	Natural	Tree Hollow	Natural Features
360	361	Fill	Ditch	Boundary	Ditch 39
361	361	Cut	Ditch	Boundary	Ditch 39
362	363	Fill	Ditch	Field Boundary	Ditch 31
363	363	Cut	Ditch	Field boundary	Ditch 31
364	365	Fill	Ditch	Field Boundary	Ditch 32
365	365	Cut	Ditch	Field Boundary	Ditch 32
366	367	Fill	Ditch	Boundary	Ditch 39
367	367	Cut	Ditch	Boundary	Ditch 39
368	368	Cut	Ditch	Field Boundary	Ditch 34
369	370	Fill	Ditch	Boundary	Ditch 39
370	370	Cut	Ditch	Boundary	Ditch 39
371	372	Fill	Ditch	Enclosure Boundary	Ditch 20
372	372	Cut	Ditch	Enclosure Boundary	Ditch 20
373	374	Fill	Ditch	Enclosure Boundary	Ditch 20
374	374	Cut	Ditch	Enclosure Boundary	Ditch 20
375	375	Cut	Natural	Tree Hollow	Natural Features
376	375	Fill	Natural	Tree Hollow	Natural Features
377	377	Fill	Natural	Tree Hollow	Natural Features
378	378	Fill	Natural	Tree Hollow	Natural Features
379	379	Fill	Natural	Tree Hollow	Natural Features
380	380	Cut	Ditch	Field Boundary	Ditch 21
381	382	Fill	Ditch	Field Boundary	Ditch 31
382	382	Cut	Ditch	Field Boundary	Ditch 31
383	380	Fill	Ditch	Field Boundary	Ditch 21
384	384	Cut	Ditch	Enclosure Boundary	Ditch 20
385	384	Fill	Ditch	Enclosure Boundary	Ditch 20
386	387	Fill	Ditch	Field Boundary	Ditch 33
387	387	Cut	Ditch	Field Boundary	Ditch 33
388	389	Fill	Ditch	Field Boundary	Ditch 21
389	389	Cut	Ditch	Field Boundary	Ditch 21
390	390	Fill	Natural	Tree Hollow	Natural Features
391	391	Fill	Natural	Tree Hollow	Natural Features
392	392	Fill	Natural	Natural Hollow	Natural Features
393	393	Cut	Natural	Tree Hollow	Natural Features
394	393	Fill	Natural	Tree Hollow	Natural Features
395	395	Cut	Ditch	Field Boundary	Ditch 21
396	395	Fill	Ditch	Field Boundary	Ditch 21
397	397	Cut	Natural	Tree Hollow	Natural Features
398	397	Fill	Natural	Tree Hollow	Natural Features
399	400	Fill	Natural	Natural Hollow	Natural Features
400	400	Cut	Natural	Natural Hollow	Natural Features
401	402	Fill	Natural	Tree Hollow	Natural Features
402	402	Cut	Natural	Tree Hollow	Natural Features

403	404	Fill	Natural	Tree Hollow	Natural Features
404	404	Cut	Natural	Tree Hollow	Natural Features
405	406	Fill	Ditch	Enclosure Boundary	Ditch 23
406	406	Cut	Ditch	Enclosure Boundary	Ditch 23
407	408	Fill	Ditch	Enclosure Boundary	Ditch 23
408	408	Cut	Ditch	Enclosure Boundary	Ditch 23
409	409	Cut	Ditch	Enclosure Boundary	Ditch 19
410	409	Fill	Ditch	Enclosure Boundary	Ditch 19
411	411	Cut	Ditch	Enclosure Boundary	Ditch 17
412	411	Fill	Ditch	Enclosure Boundary	Ditch 17
413	413	Cut	Ditch	Enclosure Boundary	Ditch 20
414	413	Fill	Ditch	Enclosure Boundary	Ditch 20
415	415	Cut	Ditch	Enclosure Boundary	Ditch 19
416	415	Fill	Ditch	Enclosure Boundary	Ditch 19
417	417	Cut	Ditch	Enclosure Boundary	Ditch 17
418	417	Fill	Ditch	Enclosure Boundary	Ditch 17
419	419	Cut	Ditch	Enclosure Boundary	Ditch 20
420	419	Fill	Ditch	Enclosure Boundary	Ditch 20
421	421	Cut	Ditch	Enclosure Boundary	Ditch 16
422	421	Fill	Ditch	Enclosure Boundary	Ditch 16
423	423	Cut	Ditch	Enclosure Boundary	Ditch 25
424	423	Fill	Ditch	Enclosure Boundary	Ditch 25
425	426	Fill	Ditch	Enclosure Boundary	Ditch 23
426	426	Cut	Ditch	Enclosure Boundary	Ditch 23
427	428	Fill	Ditch	Enclosure Boundary	Ditch 22
428	428	Cut	Ditch	Enclosure Boundary	Ditch 22
429	430	Fill	Ditch	Enclosure Boundary	Ditch 18
430	430	Cut	Ditch	Enclosure Boundary	Ditch 18
431	431	Cut	Ditch	Field Boundary	Ditch 30
432	431	Fill	Ditch	Field Boundary	Ditch 30
433	434	Fill	Ditch	Enclosure Boundary	Ditch 18
434	434	Cut	Ditch	Enclosure Boundary	Ditch 18
435	436	Fill	Ditch	Field Boundary	Ditch 31
436	436	Cut	Ditch	Field Boundary	Ditch 31
437	438	Fill	Ditch	Field Boundary	Ditch 34
438	438	Cut	Ditch	Field Boundary	Ditch 34
439	439	Cut	Ditch	Field Boundary	Ditch 30
440	439	Fill	Ditch	Field Boundary	Ditch 30
441	441	Cut	Ditch	Field Boundary	Ditch 31
442	441	Fill	Ditch	Field Boundary	Ditch 31
443	443	Cut	Ditch	Field Boundary	Ditch 34
444	443	Fill	Ditch	Field Boundary	Ditch 34
445	446	Fill	Ditch	Enclosure Boundary	Ditch 11
446	446	Cut	Ditch	Enclosure Boundary	Ditch 11
447	447	Cut	Ditch	Enclosure Boundary	Ditch 22

448	447	Fill	Ditch	Enclosure Boundary	Ditch 22
449	449	Cut	Ditch	Field Boundary	Ditch 30
450	449	Fill	Ditch	Field Boundary	Ditch 30
451	452	Fill	Ditch	Enclosure Boundary	Ditch 18
452	452	Cut	Ditch	Enclosure Boundary	Ditch 18
453	453	Structure	Infrastructure	WWII communication cable	Modern Features
454	455	Fill	Ditch	Field Boundary	Ditch 30
455	455	Cut	Ditch	Field Boundary	Ditch 30
456	456	Cut	Ditch	Field Boundary	Ditch 44
457	456	Fill	Ditch	Field Boundary	Ditch 44
458	459	Fill	Ditch	Field Boundary	Ditch 43
459	459	Cut	Ditch	Field Boundary	Ditch 43
460	459	Fill	Ditch	Field Boundary	Ditch 43
461	461	Cut	Ditch	Field Boundary	Ditch 43
462	461	Fill	Ditch	Field Boundary	Ditch 43
463	461	Fill	Ditch	Field Boundary	Ditch 43
464	464	Structure	Infrastructure	WWII Pillbox	Modern Features

13 APPENDIX 3: POTTERY CATALOGUE

Sherd No	Vessel No	Context		Weight (g)	Fabric Group	Wall Thickness (cm)	Decoration	Form	Notes
		Fill No	Cut No						
1	1	4		1	N	0.7	None	Body	Fairly worn. Medium grey brown throughout, slight soapy texture may indicate use of grog
2	2	4		3	F1	1.1	None	Body	Medium grey brown internal and external surface, medium orange brown core
3	2	4		2	F1	1.1	None	Body	Medium grey brown internal and external surface, medium orange brown core
4	3	4		2	F2	0.9	None	Body	Medium reddish brown outer surface, medium grey brown internal surface, dark grey core
5	3	4		0.5	F2	0.7	None	Body	Medium reddish brown outer surface, medium grey brown internal surface, dark grey core
6	4	16	15	10	V1	0.7	None	Base	Light grey.
7	5	29	30	3	N	1.1	None	Body	Light reddish brown internal and external surface, medium grey core
8	6	29	30	2	V1	1	None	Body	Rough worn surface. Light reddish brown. Includes 2 crumbs.
9	7	68	69	3	F3	0.6	None	Body	Light reddish brown external and internal surface, medium grey core
10	8	103	104	3	F2	1.1	None	Body	Medium grey brown
11	9	144	145	3	F4	0.5	None	Body	Medium grey brown, Hard well fired and thin walled
12	9	144	145	2	F4	0.5	None	Body	Medium grey brown, Hard well fired and thin walled
13	10	146	129	6	F1	1	None	Body	Medium brown external surface and core, medium grey brown internal surface
14	11	201	202	1	F5	0.8	None	Body	Light pinkish brown. Well fired
15	12	265	264	2	N	1.3	None	Base	Light brown internal surface, light reddish brown external surface, medium grey core. Possible base.
16	13	286	285	2	F2	0.8	None	Body	Medium grey brown
17	14	319	320	5	N	0.5	None	Rim	Medium grey brown. Flat topped externally projecting rim edge. Rim diameter approx 14cm

Sherd No	Vessel No	Context		Weight (g)	Fabric Group	Wall Thickness (cm)	Decoration	Form	Notes
		Fill No	Cut No						
18	14	319	320	11	N	0.7	None	Body	Light brown external surface and core, medium grey internal surface. Possible shoulder angle.
19	14	319	320	6	N	0.7	None	Body	Light brown external and core, medium grey internal surface
20	14	319	320	25	N	0.9	Linear markings, may be wipe marks	Body	Light brown external surface, medium grey core and internal surface
21	14	319	320	5	N	0.5	None	Body	Light brown external surface, medium grey core and internal surface
22	14	319	320	7	N	0.9	None	Body	Light brown external surface, medium grey core and internal surface
23	14	319	320	4	N	0.7	None	Body	Light brown external surface, medium grey core and internal surface
24	14	319	320	3	N	0.4	None	Body	Light brown external surface, internal surface missing
25	14	319	320	5	N	0.8	None	Body	Light brown external surface, medium grey core and internal surface
26	14	319	320	7	N	0.5	None	Body	Light brown external surface and core, medium grey internal surface
27	14	319	320	6	N	0.7	None	Body	Light brown external surface and core, medium grey internal surface
28	14	319	320	5	N	0.7	None	Body	Light brown external surface and core, medium grey internal surface
29	14	319	320	2	N	0.4	None	Body	Light brown external surface and core, medium grey internal surface
30	14	319	320	1	N	0.4	None	Body	Light brown external surface and core, medium grey internal surface
31	14	319	320	2	N	0.7	None	Body	Light brown external surface and core, medium grey internal surface
32	14	319	320	3	N	0.6	None	Body	Light brown external surface and core, medium grey internal surface
33	14	319	320	2	N	0.6	None	Body	Light brown external surface and core, medium grey internal surface
34	14	319	320	1	N	0.6	None	Body	Light brown external surface and core, medium grey internal surface

Sherd No	Vessel No	Context		Weight (g)	Fabric Group	Wall Thickness (cm)	Decoration	Form	Notes	
		Fill No	Cut No							
35	14	319	320	1	N	0.6	None	Body	Light brown external surface and core, medium grey internal surface	
36	14	319	320	3	N	0.6	None	Body	Light brown external surface and core, medium grey internal surface. Weight includes 7 crumbs	
37	15	321	320	2	N	0.4	Single horizontal line	Body	Light grey external surface, light brown internal surface and core	
38		331	330	6	F4	0.8	None	Body	Medium brown	
39		345	368	6	N	1	Lightly Incised decoration	Body	Light brown external and internal surface, light grey core. Slightly soapy texture may indicate use of grog	
40		362	363	3	N	0.5	Lightly Incised decoration	Body	Light grey throughout	
41		388	389	2	F1	0.8	None	Body	Light grey brown internal surface, light orange brown external surface	
42		416	415	7	F1	0.9	None	Body	Medium reddish brown external surface, medium grey brown internal surface and core	
Total Weight				175.5						

14 APPENDIX 4: CHARRED PLANT MACROFOSSILS AND OTHER REMAINS

Sample No.	8	13	15	26	28	32	33	30	5	24	34
Context No.	127	165	190	265	286	351	345	319	53	268	82
Feature No.	126	166	191	264	285	330	368	320	52	262	80
Feature type	ED	ED	ED	ED	FD	FD	FD	Ditch	FP	FP	FP
Group No.	Ditch 14	Ditch 4	Ditch 9	Ditch 2	Ditch 37	Ditch 35	Ditch 34	Ditch 38	Encl.1	Encl.3	
Date	M/LBA	M/LBA	M/LBA	M/LBA	EIA	EIA	EIA	M/LIA	M.Saxon?	M.Saxon?	M.Saxon
Plant macrofossils											
<i>Galium aparine</i> L.								x			
<i>Prunus spinosa</i> L. (fruit stone fragment)					xcf						
Ericaceae indet. (stem)								xx			
Charcoal <2mm	xx	x	xx	xxx	xxx	xx	xx	xxxx	xxxx	xxxx	xxxx
Charcoal >2mm	xxx	xx	xx	xxx	xxx	xx	xx	xxxx	xxxx	xxx	xxxx
Charcoal >5mm	x	x	x	x	x	x		xx	xxxx	xx	xxxx
Charcoal >10mm		x						x	xxx	x	xx
Charred root/stem	x	x	x	x	x	x		x		x	
Indet. seed/fruit	xcf			xfg	xcffg			x			
Other remains											
Black porous 'cokey' material	xx		x	x	x	x	xx	x			x
Black tarry material		x					x	x			
Burnt stone									x		
Small coal frags.	x	x	x	x	x	xx	x	x	x		
Vitreous material		x						x			
Sample volume (litres)	32	36	20	34	14	34	30	40	10ss	10ss	10ss
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	1	0.9
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	12.50%	10%	10%

Key to Table

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens

cf = compare fg = fragment ss = sub-sample

ED = enclosure ditch FD = field ditch FP = fire pit Encl = enclosure

M/LBA = Middle to Late Bronze Age EIA = Early Iron Age M/LIA = Middle to Late Iron Age M.Saxon = Middle Saxon

15 APPENDIX 5: RADIOCARBON-DATING



RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code SUERC-55374 (GU35101)

Submitter Aileen Tierney
Pre-Construct Archaeology Central
The Granary, Rectory Farm
Brewery Road
Pampisford
CB22 3EN

Site Reference Martlesham, Suffolk MRM157

Context Reference 8

Sample Reference 12

Material Charcoal

$\delta^{13}\text{C}$ relative to VPDB -26.7 ‰

Radiocarbon Age BP 1351 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

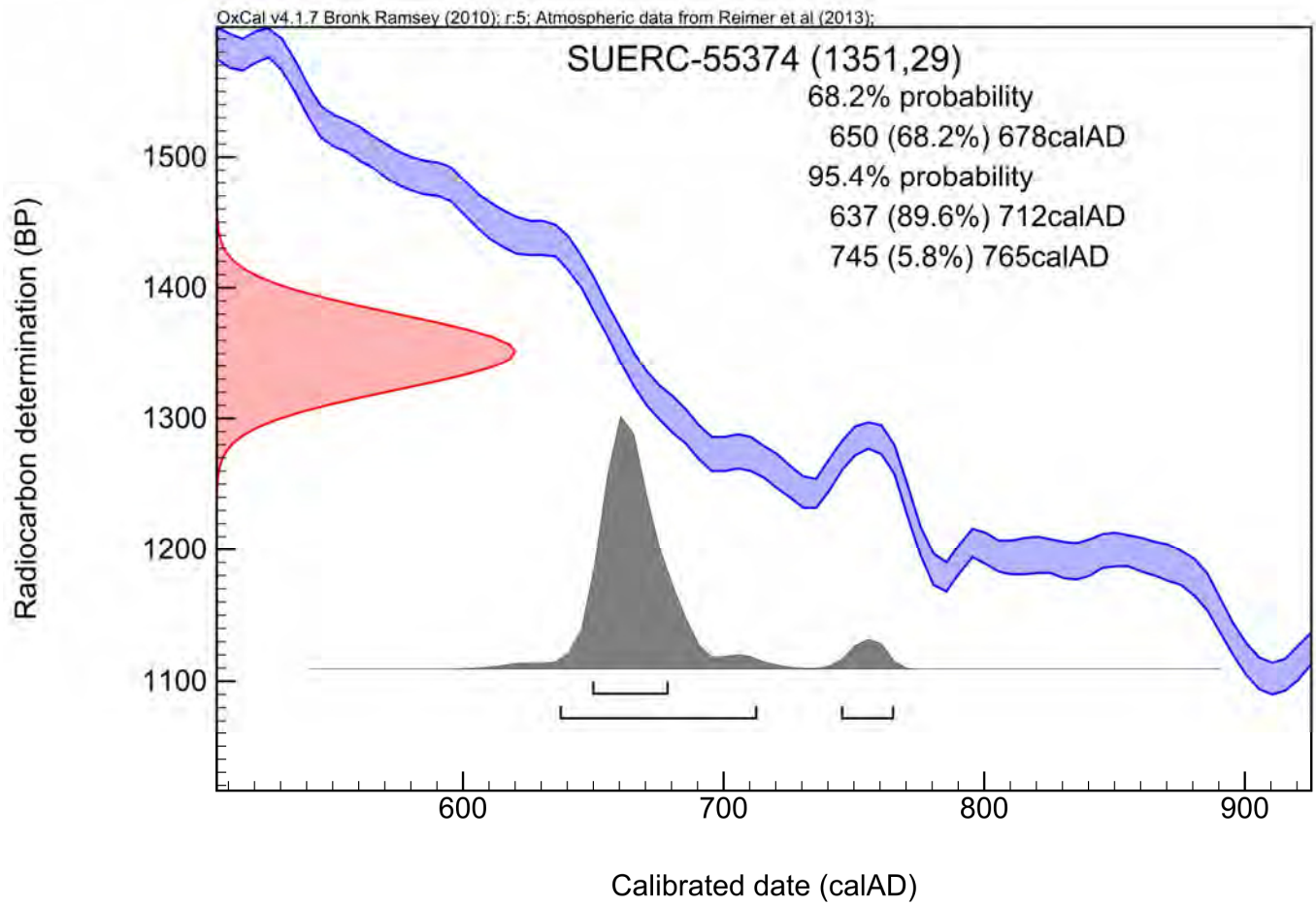
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar* Date :- 23/09/2014

Checked and signed off by :- *P. Naynab* Date :- 23/09/2014

Calibration Plot





RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code SUERC-55375 (GU35102)

Submitter Aileen Tierney
Pre-Construct Archaeology Central
The Granary, Rectory Farm
Brewery Road
Pampisford
CB22 3EN

Site Reference Martlesham, Suffolk MRM157
Context Reference 270
Sample Reference 25

Material Charcoal

$\delta^{13}\text{C}$ relative to VPDB -25.5 ‰

Radiocarbon Age BP 1247 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

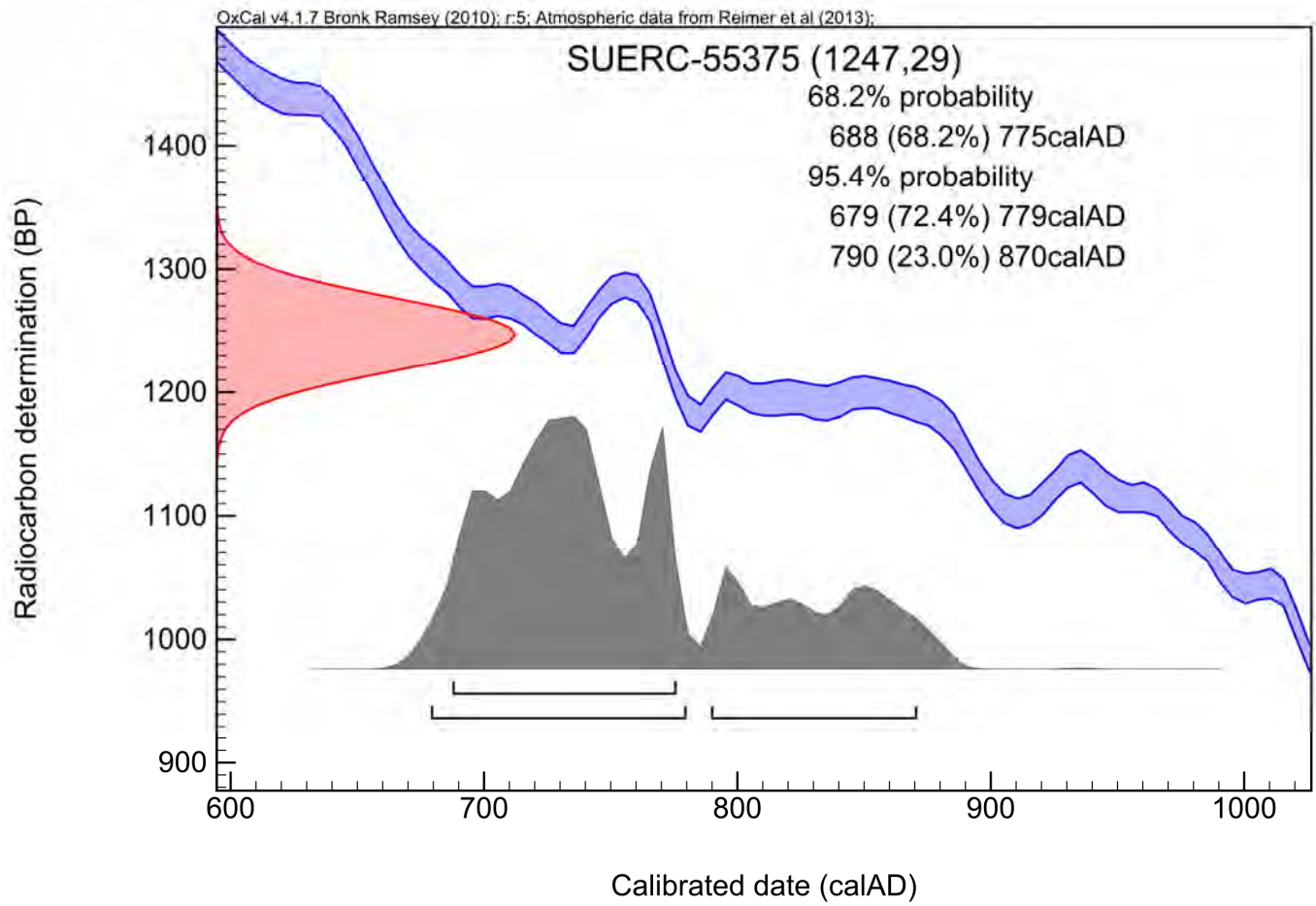
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar* Date :- 23/09/2014

Checked and signed off by :- *P. Naynamb* Date :- 23/09/2014

Calibration Plot





RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code SUERC-55376 (GU35103)

Submitter Aileen Tierney
Pre-Construct Archaeology Central
The Granary, Rectory Farm
Brewery Road
Pampisford
CB22 3EN

Site Reference Martlesham, Suffolk MRM157
Context Reference 82
Sample Reference 36

Material Charcoal

$\delta^{13}\text{C}$ relative to VPDB -24.1 ‰

Radiocarbon Age BP 1313 \pm 26

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

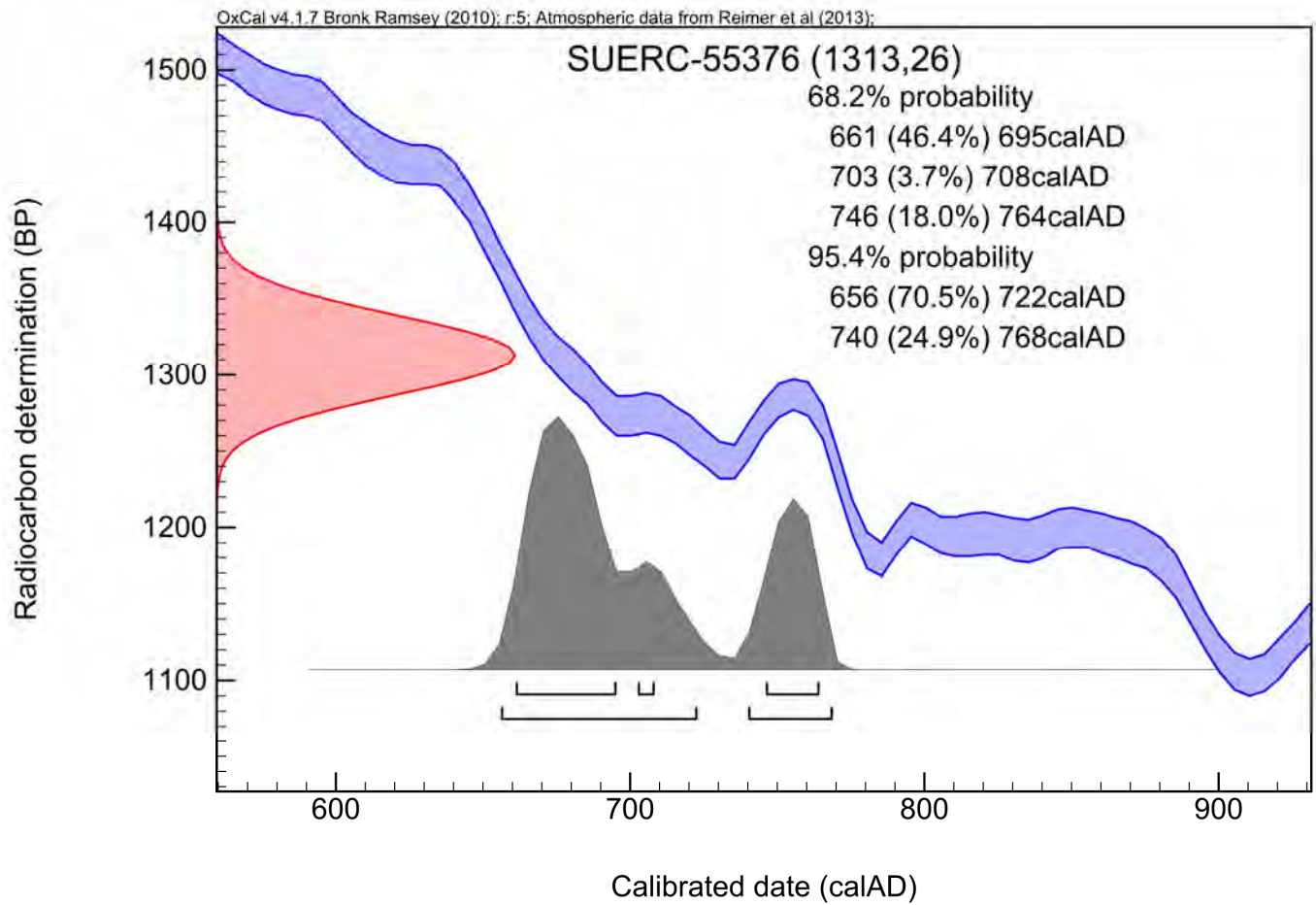
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar* Date :- 23/09/2014

Checked and signed off by :- *P. Naynab* Date :- 23/09/2014

Calibration Plot



16 APPENDIX 6: OASIS FORM

OASIS ID: preconst1-177008

Project details

Project name	Land South of Main Road, Martlesham, Suffolk: Excavation
Short description of the project	An excavation was carried out on land south of Main Road, Martlesham, Suffolk, in advance of housing development. The excavation of Area 1 identified several phases of field system defined by boundary ditches. The earliest of these was located on the higher ground in the north of the site and comprised several adjoining small square and rectangular enclosures with associated trackways. Finds were scarce owing to the agricultural character of the enclosures. However, small quantities of predominantly flint-tempered pottery, combined with stratigraphic and spatial relationships, suggest a Middle to Late Bronze Age/ Early Iron Age date. The site adds to a growing body of evidence for the laying out of extensive subdivided agricultural landscapes across much of the Suffolk coast and river valleys during the later Bronze Age. Middle to Late Iron Age and post-medieval field boundaries were also identified, the former providing an important contextual backdrop to previously identified early Roman activity in the locality. Two additional targeted excavations (Areas 2 and 3) are due to take place in the eastern half of the site, in line with the developer's construction programme.
Project dates	Start: 15-04-2014 End: 22-05-2014
Previous/future work	Yes / Yes
Any associated project reference codes	MRM157 - Sitecode
Any associated project reference codes	MRM144 - Related HER No.
Any associated project reference codes	C/10/1906 - Planning Application No.
Type of project	Recording project
Site status	None

Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	ENCLOSED FIELD SYSTEM Late Bronze Age
Monument type	BOUNDARY Late Iron Age
Significant Finds	POT Late Prehistoric
Significant Finds	LITHIC IMPLEMENT Late Prehistoric
Investigation type	"Open-area excavation","Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	SUFFOLK SUFFOLK COASTAL MARTLESHAM Land South of Main Road, Martlesham, Suffolk
Postcode	IP12 4SW
Study area	1.42 Hectares
Site coordinates	TM 2475 4636 52.0693676233 1.27966232613 52 04 09 N 001 16 46 E Point
Height OD / Depth	Min: 28.14m Max: 31.94m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Suffolk County Council's Archaeological Officer
Project design originator	Mark Hinman
Project director/manager	Mark Hinman
Project supervisor	Tom Woolhouse
Type of sponsor/funding body	Developer

Project archives

Physical Archive	Suffolk County Council
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recipient	
Physical Archive ID	MRM157
Physical Contents	"Metal", "Worked stone/lithics", "Ceramics", "Environmental"
Digital Archive recipient	Suffolk County Council
Digital Archive ID	MRM157
Digital Contents	"Ceramics", "Environmental", "Stratigraphic", "Survey", "Worked stone/lithics"
Digital Media available	"Database", "Images raster / digital photography", "Spreadsheets", "Survey", "Text"
Paper Archive recipient	Suffolk County Council
Paper Archive ID	MRM157
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