Post-Excavation Assessment

Kirtling Green to Wixoe Pipeline

Post-Excavation Assessment and Updated Project Design

Volume 1

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Kirtling Green to Wixoe Pipeline

Post-Excavation Assessment and Updated Project Design

Volume 1

By Thomas Lyons BA

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Summary

Between March and June 2011 Oxford Archaeology East conducted a series of archaeological excavations and watching briefs prior to the laying of a water pipe between Kirtling Green and Wixoe, Suffolk. The route was directly to the east of the River Stour, mostly on relatively high land within Till and it passed close to several small non nucleated villages.

The archaeology revealed was multi-period with the earliest comprising only occasional sparse background scatter of Mesolithic/Early Neolithic flintwork along the pipeline. The first main evidence of activity and occupation started in c.Late Neolithic. The most significant remains was a Late Neolithic or Bronze flint extraction/working and possible associated occupation area between Lower Cotton Farm and Water Hall Farm (WIX021). Flint had been quarried from a former river channel and cores had begun to be worked on-site. This was an extremely rare discovery and is of regional importance. Sparse Late Neolithic activity was recorded at Little Bradley (BRL026) and this included a single pit from which a significant pottery assemblage as well as flint working evidence was recovered.

A probable Late Neolithic or Bronze Age field system was found at Great Bradley (BYG030) including up to two unurned cremations which are likely to be prehistoric. A Middle Bronze Age cremation area at Great Wratting (WTL010) was recorded over a c.15m distance within the 4m wide excavation area and comprised an urned cremation and up to six unurned cremations. More than 300m from this cemetery was part of a Bronze Age to Early Iron Age settlement recorded over a c.175m distance. A separate area of Bronze Age/Early Iron Age pits were found at Great Wratting (WTL010) and probably represents part of a different settlement. A further possible Middle Bronze Age cemetery was found north of Water Hall Farm (WIX021) and comprised an urned and an adjacent unurned cremation but these were isolated features. Possible sparse Bronze Age ditches were recorded at Great Bradley (BYG029) and may have been part of a field system. Likewise, Late Bronze Age or Early Iron Age ditches at Little Thurlow (TUL021) probably also represent part of a field system with another three field systems possibly from these periods, but were more tentatively assigned, comprising ditches at Little Bradley (BRL026), and within two areas at Kedington (KDG037 and KDG038).

A small part of an Early to Mid Iron Age settlement consisting of pits and a ditch was found at Little Bradley (BRL026). A single Late Iron Age to Early Roman settlement was uncovered at Little Wratting (WTL010). This relative lack of Late Iron Age remains along the pipeline was in contrast with far more numerous Roman remains revealed. Parts of at least two separate Roman rural settlements were found at WIX021 with occupation starting in both from the Early Roman period. At Great Bradley (BYG030) there was part of a 2nd to 4th century Roman settlement.

A single Early to Middle Saxon pit at Wixoe (WIX021) was the only feature dating to this period within the pipeline. It is also possible that there were no Late Saxon features either with the Saxo-Norman to Late medieval features at Little Thurlow (TUL021) adjacent to Broad Road probably dated to post-Conquest. Remains here included a post-built structure which may be domestic or an outbuilding, ditches and a cobbled surface. A few medieval to late medieval remains were uncovered at Little Wattling (WTL010) as well as sparse medieval features found at Great Bradley (BYG029) and Great Wratting (WTG018). The lack of many medieval remains was

largely due to the pipe line being routed to pass present villages (and these areas were also just beyond the medieval settlement areas). Probable medieval furrows were far more common and were postulated within several areas.

1 INTRODUCTION

1.1 Project Background

1.1.1 Between March and June 2011 Oxford Archaeology East (OA East) conducted a series of excavations between Wixoe and Kirtling Green a distance of circa 11 miles, along the route of the Abberton water pipeline, prior to construction. The project was commissioned by URS on behalf of Essex and Suffolk Water.

1.1.2 These archaeological excavations were conducted in accordance with a Written Scheme of Investigation (WSI) produced by URS Archaeological Consultants (Finch, 2010) approved by the Suffolk County Council Archaeology Service.

1.1.3 This followed an earlier environmental statement assessing the likely effects of the proposed works on the historic & cultural environment, prepared by Entec, and an archaeological trial trench evaluation, field walking and geophysical survey undertaken by Birmingham Archaeology.

1.1.4 This first volume deals with all the archaeological excavations within the Suffolk section of the pipeline apart from the excavation of Wixoe Roman town which is reported in volume 2 (Atkins 2012). The excavations within the Essex part of the pipeline has also been reported separately (Stocks-Morgan 2012).

Assessment

1.1.5 This assessment has been conducted in accordance with the principles identified in English Heritage's guidance documents *Management of Research Projects in the Historic Environment,* specifically *The MoRPHE Project Manager's Guide* (2006) and *PPN3 Archaeological Excavation* (2008).

1.2 Geology and Topography

1.2.1 The underlying geology consists of Alluvium, river Glacial Sand and Gravel, Glacial Silt and Head along the valley floor, with Till along the higher ground (British Geological Survey (GPS) 1991 and 2002).

1.2.2 The pipeline runs mostly through the relatively high ground to the east of the River Stour and its associated valley bottom except at BYG029 on the far northern part of the route where the pipeline dives across the valley. The pipeline does not traverse many streams, brooks, and tributaries feeding into the River Stour. All excavation sites except BYG029 were within Till (British Geological Survey (GPS) 1991 and 2002). BYG029 was recorded crossing three different underlying geology areas with different parts of these excavations within Alluvium, River Terrace Deposits and Till (GPS 2002).

1.3 Archaeological and Historical Background

1.3.1 The archaeological and historical background detailed below is drawn from the WSI produced by URS Scott Wilson archaeological consultants (Finch 2010).

Palaeolithic

1.3.2 An isolated find of a Palaeolithic flint axe (MN 379338) was found during ploughing at Kedington (TL 7059 4692) in 1970

Mesolithic

1.3.3 Evidence for Mesolithic activity has been recovered from gravel terraces along the River Stour. These include previous fieldwalking projects (BRL 009) as well as isolated recorded finds (BYG 010), both of which have come from within 500m of the river Stour near Little Thurlow.

1.3.4 A Mesolithic flint scatter (consisting of more than two thousand flints) and a Neolithic causewayed enclosure were identified on the east side of a meander on the River Stour, immediately north of Kedington and to the west of the current development area (KDG006, MSF6018 TL). A curvilinear ditch was seen to enclose an existing area of the flood plain bounded on three sides by the river Stour; such an embellishment of a prominent and attractive natural place attests to the significance of the location for early local sedentary communities. The cropmarks appear on aerial photographs as a single arc of 12 segmented ditches visible for some 118 metres across the width of the promontory. First recorded in 1976, the area was subsequently fieldwalked by the Haverhill and District Archaeological Group (HDAG). Mesolithic and Neolithic flints were recovered, as well as a range of material of Iron Age and later date.

Neolithic

1.3.5 Evidence for Neolithic settlement is generally indicated by the retrieval of worked flint. Several find spots close to the pipeline have been recorded at Great Bradley (HER BRL 005, BRL 006, BRL 008) and also from the bank of the River Stour at Kedington (KDG002, MSF6012) where a Neolithic polished stone axe was recovered. A Neolithic polished stone axe of camptonite was also found on a gravel bank by the river Stour, Kedington (MN 379339, TL 7040 4689). A crop mark describing of a ring ditch is also recorded in the field immediately to the east of Field 4 and in the eastern part of Field 5, MN 1057662 (TL 715 448).

Bronze Age

1.3.6 Evidence for settlement is rare within the county although this is quite possibly more a reflection of the lack of fieldwork conducted in the region as numerous pottery and metal artefact finds are recorded which attest to a presence here throughout the Bronze Age (Medlycott, 2011).

1.3.7 Several find spots are recorded within 1km of the pipeline route, these include worked flints (HER BRL 005, BRL 006 and BRL 009) and also a bronze palstave (HER TUG 005). A socketed bronze axe dating from the Late Bronze Age (*c*.1000bc) was also recovered from a field 'immediately south of the village' of Kedington (WTG007, MSF6064). In the south western corner of Field 4 (MN 868917, TL 711 440) a putative Bronze Age flint scatter comprising six scrapers and nine blades was found.

1.3.8 As noted above, the evidence for settlement within the county is sparse. However, a number of examples are recorded and these include a ring ditch with associated field boundary crop marks and surface flints, dating from the Bronze Age onwards, described in MN 868914 (TL 708 477). At Wicken a Later Bronze Age unenclosed settlement was observed. At Withersfield, north of Haverhill and approximately 5km to the west of Great Wratting, a Late Bronze Age sub-rectangular enclosure was discovered. The enclosure ditches contained 'flint-gritted pottery', flint implements and a decorated bronze pin (HER no. WTH011; MSF 13160). Further pits and boundary ditches were also excavated.

Iron Age

1.3.9 Hitherto there is little direct evidence for Iron Age occupation recorded in the vicinity of the pipeline. This is probably more a reflection of a lack of archaeological investigation within the Stour Valley rather than a result of a lack of occupation.

1.3.10 An archaeological evaluation in the grounds of Risbridge hospital (TL702 470) discovered Iron Age and Late Iron Age pits and ditches containing a large quantity of continental style (Belgic) pottery along with a 1st century Roman brooch (KDG019, MSF14200). The metalwork finds that are known from the region, which include horse fittings, are suggestive of a relatively wealthy population. (Bryant 1997)

Roman

1.3.11 The Roman town of Wixoe, which lies on the putative Colchester to Cambridge road, lies at the southern end of the part of the pipeline covered by this assessment. It is one of several substantial settlements, or small towns, known throughout the county which have been identified largely from aerial photographs, fieldwalking, ploughing and metal detecting finds rather than excavation. The known Roman settlements within the region are spaced at regular intervals, no more than ten miles apart, which may suggest that they served as local market centres in the absence of larger scale urban settlements. These settlements do not necessarily fit the definition of a town as we might understand it as they do not appear to be laid out on a street grid or be bounded by wall or earthen enclosures.

1.3.12 To the south of Kirtling Green pottery scatters were recorded close to a rectangular cropmark (HER No: BYG003 & BYG004). Near Little Thurlow a concentration of pottery scatters have been recorded (HER Nos: BRL007, TUL007 and BRL011) and several metal detecting finds, including 72 coins, have been reported in the vicinity.

1.3.13 A possible Roman settlement has been identified close to Great Thurlow, where rubbish pits have been recorded (TUG004) in association with numerous metal detecting finds (TUL 003). To the north west of Cotton Hall, beside the River Stour, a scatter of Roman pottery, roof and box tile were discovered in conjunction with the remains of a flint wall and occupation and destruction layers (KDG007, MSF6019).

1.3.14 HER No. KDG011 (TL 71 44) is described as a Roman Villa and artefact scatter. Building debris including roof tile, box tile and tesserae, pottery, a coin and a pin/nail were recovered fieldwalking by HDAG. This record also includes the tip of a socketed bronze spearhead dating to the Bronze Age. MN 1142323 also refers to the Roman Villa and artefacts described above and gives a date range for the pottery that spans the Late Iron Age to 4th Century AD.

1.3.15 MN 379331 (TL 7050 4703) describes Roman foundations, a hypocaust, a mosaic pavement and plaster found under the nave and the south aisle of St Peter and St Paul's Church, Kedington, in 1934. Large quantities of Roman brick are also present in the fabric of the church walls. An Early Medieval stone cross (MN 379334) dating from *c*. 900AD is present in the church, which is described of 12th century origins.

Anglo-Saxon

1.3.16 Little excavation has taken place near to the river Stour, however fieldwalking in the area has recorded three distinct find spots in the southern part of the pipe route. These include pottery scatters (HER BRL 006) and a Bronze stirrup (TUG015). Near to Great Thurlow an inhumation dating to the Saxon period has been recorded (HER TUG004), which is thought to be interred within an earlier Roman settlement.

Medieval

1.3.17 During the medieval period there was an increase in the population up until the 14th century. However the settlement pattern which is based around non-nucleated villages appears to have endured and this is typical of relatively sparsely populated regions and the economy of the region continued to be pastoral, though greater emphasis was given to wool production.

1.3.18 At Great Bradley there is a known deserted Medieval village (HER BRL001). Kedington Hall (MN 379301, TL 7053 4713) is described as a medieval and post-medieval house. A fragmentary Medieval and post-medieval moat (MN 379306) is also described at this location. The artificial mound, dating from the 13th century, on which the Hall stood is also visible although all traces of the building have disappeared.

1.3.19 Other than chance finds and metal detecting finds there is little immediate evidence for medieval activity within the various parishes along the route, as little development has taken place. Part of the house at Malting Farm, immediately to the east of Great Wratting, dates from the 16th century and it is expected that other farms within or adjacent to the pipeline easement may be expected to have medieval or possible Saxon antecedents. MN 379390 (TL 7097 4388) is located at Water Hall Farm itself and describes a stretch of medieval moat that was visible until at least the 1950s when it was destroyed by the construction of a large pond.

Post-medieval

1.3.20 The medieval landscape of Suffolk is still very much in evidence into the present day and is characterised by non nucleated settlements, with little open-field agriculture practised. This is characterised by many small hamlets and irregular field boundary and roads / tracks. Wooded commons, comprised of open pasture land with pollarded trees, are also widespread (Rackham, 1986). There are numerous examples of agricultural practise within the vicinity including the footings of a windmill at Little Thurlow (HER TUL 006), a brick kiln recorded on the first OS map at Great Bradley. (http://www.old-maps.co.uk/maps.html) and two mills recorded in Kedington. The first (located at TL 7021 4688) is described as a post-medieval tower mill. The second (located at TL 7043 4693) is listed as a post-medieval cornmill/watermill.

Previous Archaeological work on the Pipeline Route

Prior to this stage of archaeological excavation a phase of archaeological works were carried out to define the character and extent of any archaeological remains along the proposed pipeline route.

These works included a fieldwalking survey, conducted along the route by Birmingham Archaeology. This survey was comprised of fifty six fields, twelve of which cover the area discussed in this report, all of which was undertaken on ploughed land.

A geophysical survey, comprising of a magnotometer survey and a resistance survey, was undertaken on four areas, These sites were selected in order to target areas of cropmarks highlighted during the fieldwalking stage and on aerial photographs.

A further phase of evaluation, comprising of thirty-eight trial trenches was conducted along the proposed pipeline route. These were targeted to investigate finds scatters recovered during fieldwalking and anomalies identified by the geophysical survey. Further trenches were excavated to clarify the depth of topsoil and subsoil along the route. The results of these three stages of archaeological survey are presented below.

Fieldwalking Survey

1.3.21 The fieldwalking survey recovered small amounts of Roman, medieval and post-medieval pottery and medieval tile. Which were distributed evenly across fields 19, 20, 22, 25 & 26. This suggests that their deposition was the result of manuring practices rather than evidence for underlying archaeological features. A small concentration of Roman, Medieval and post-medieval pottery and tile were also recovered from the south end of Field 15, whilst in Field 4 a concentration of medieval pottery was recorded along with small quantities of Roman pottery and tile.

1.3.22 Evidence for prehistoric activity comprised two securely identified pieces of prehistoric pottery recovered from Fields 52 and 56. Worked flint was also recovered from the pipeline route; this included a concentration at the south end of Field 4, the remainder of the flint recovered being a general background distribution. The results from Field 4 suggested a potential for encountering previously unknown site(s). Notable finds included a flint knife and scraper recovered from Field 15. Flint artefacts were recovered from along the full length of the pipe route in Field 5. The concentration of flint in Field 4 was recovered in close proximity to a series of possible prehistoric cropmarks; this complements the nearby scatter which is recorded on the HER(NMR No. 868917). Small quantities of worked flint, mostly debitage, were also recorded in Fields 25 and 26. The prehistoric flints recovered were not generally diagnostic, but the majority of the assemblage was assigned a Neolithic or Bronze Age date (Birmingham Archaeology PN:1873, Archaeological Fieldwalking 2008).

Geophysical Survey

1.3.23 Geophysical survey in Field 26 revealed the presence of possible rectilinear field systems as well as several probable discrete features.

1.3.24 The 230m x 50m survey in Field 13 revealed a ditch-like feature oriented north-south. Other weaker anomalies were detected and interpreted as the remains of earlier ploughing regimes. The two areas surveyed in Field 15 were obscured by a spread of ferrous material. Despite this, small amorphous patches of increased magnetic response were observed and tentatively interpreted as being archaeological features (Birmingham Archaeology PN: 1873, Geophysical Survey 2008).

1.3.25 The cropmarks identified during the fieldwalking of Field 4 were also investigated. The survey, which comprised a 280m x 50m strip, revealed sub-linear anomalies in the northern part of the field that were oriented east to west and, in the centre of the field north to south. Pit type features, some of which appeared to be paired, were identified towards the southern end. (Birmingham Archaeology PN: 1873, Geophysical Survey 2008).

Archaeological Evaluation

1.3.26 Prior to excavation by open area an trench evaluation was undertaken by Birmingham Archaeology. Thirty eight trenches were located along the proposed route. These revealed a significant number of artefacts and archaeological sites in the area around Kedington and Gt Wratting which are suggestive of settlement within and around the shallow valleys of the meandering River Stour .

1.3.27 In the southern part of the proposed pipeline route a single trench at the southern end of Field 4, revealed archaeology. This was a small ditch oriented north-east to south-west which contained a small amount of animal bone and tile (Birmingham Archaeology PN: 1969, Archaeological Evaluation 2010).

1.3.28 Two small concentrations of prehistoric struck flints were recovered near Great Wratting. Four flints were recovered within ditch fills (10305, 10307) and the subsoil layer (10301) of Trench 103, situated at the base of the slope towards the north west end of Field 23 whilst Trench 112, located at the south east end of Field 26 yielded thirteen flints within a ditch fill (11205).

1.3.29 Flint tempered prehistoric pottery, presumed to be typical of the Late Bronze Age and Early Iron Age vessels of the region, was recorded in two trenches. Trench 108, which was located in the middle of Field 25 yielded nine sherds from series of pit fills (10803,10805,10806) and Trench 112, lying at the top of the same slope in Field 26, yielded forty one sherds from ditch fills (11202,11204,11206). In Field 15 a total of six ditches were recorded, one of which yielded prehistoric pottery.

1.3.30 Evidence for Roman activity was recorded in Field 23 in the form of one hundred and sixty sherds of local coarse wares that were recovered from four separate ditch fills.

1.3.31 Two trenches in Field 13 contained archaeological features including two ditches and a pit. Medieval pottery sherds were recovered from one of the ditches. A total of forty one sherds of medieval pottery were also recovered from features in Trench 118, located towards the north west end of Field 26.

1.3.32 A series of post-medieval field boundaries dated to the 19th century were recorded within trenches 260 and 263, near Great Bradley. These were found to contain earlier finds and may in fact have had their origins in the early post-medieval period.

1.4 Acknowledgements

1.4.1 This project was funded by Essex and Suffolk Water; URS were their archaeological contractors. Jess Tipper from Suffolk County Council Archaeology Service monitored the excavations and Nick Finch from URS archaeological consultants acted as the client's representative and ensured the work progressed smoothly. The project was managed by James Drummond-Murray. The site field work was conducted by Anthony Haskins, Lucy Offord, Chris Thatcher, Nick Pankhurst, James Fairbairn, Steve Porter, Tom Eley, Pat Moan, Lindsey Kemp, John Diffey, Kate Clover, Lianne Waring, Yvonne Heath, Dennis Morgan, Steve & Liz Collison, Jools Newman, Brent Culshaw, Nick Cox, Mike Green, Vickie Jamieson, Al Zochowski, Graeme Clarke, Kat Hamilton, Nick Gilmour and Tom Lyons.

2 Project Scope

2.1.1 This document presents the results of fieldwork carried out by Oxford Archaeology East. This was in order to mitigate the impact of the pipeline on the archaeological remains and assess their significance so that further analysis can be targeted at specific research agenda topics.

2.1.2 The results from the previous stages of work have been used, where appropriate, to supplement this assessment and the initial conclusions reached.

2.1.3 This post-excavation assessment report will be distributed to the client via its consultants (URS) for comment and approval. The document will then be distributed to Suffolk County Council (Dr Jess Tipper).

3 Interfaces, Communications and Project Review

3.1.1 Archaeological evaluation of the route was conducted by Birmingham Archaeology. This will form part of the synthesis of all work and their results will be incorporated wherever relevant; it may also be necessary to consult their original project archive.

3.1.2 Internal OA East Communication (between specialists, management and report author(s)) and will be maintained by regular email contact and team meetings.

3.1.3 Post Excavation meetings will be held between URS, OA East, Anglian and Suffolk Water and reviewed on a regular basis; progress will be monitored by URS, with invitations to Suffolk County Council Archaeology Service and other stakeholders to attend.

4 Original Research Aims and Objectives

4.1 National Research Objectives

4.1.1 The WSI recorded the Research Agenda for the project by period (Finch 2010)

- Any *in-situ* Palaeolithic or Mesolithic features or artefacts have the potential to greatly improve chronological understanding as well as providing material to aid paleoenvironmental reconstruction.
- Neolithic and Bronze Age remains should be investigated with a view to contributing to national research objectives, specifically, the relationships between field systems and identifiable patterns of land use, settlement type and development as well as monuments and burial practices.
- Themes of national research on the Iron Age and early Roman periods pertinent to the proposed development include:
    - The identification of rural settlement and associated agrarian economy with reference to its chronology and development.
    - Settlement form and function in the early and middle Iron Age periods and how they differ from any Bronze Age precursors.
    - Understanding of the Late Iron Age to early Roman transition at the end of the 1st millennium BC and beginning of the 1st century AD with particular regard to identifiable patterns of social and economic development.
- Excavation and analysis of any Saxon and medieval archaeology should address the issues of population studies, settlement characterisation and changing land use, agricultural & craft production as well as the impacts of external populations and Christianity.
- Important research issues relating to post-medieval and modern archaeology include:
    - The development of the rural landscape with reference to enclosure, field systems and historic parklands;
    - Archaeological evidence can also be used to identify changes in crop and animal husbandry practices.

4.1.2 The updated research aims and objectives are recorded in Section 7 below

5 Summary of Results

5.1 Methodology

The methodology for the excavation was written by URS with sites identified for detailed excavation, sample excavation and watching brief with the latter areas having archaeological work if remains were encountered (Finch 2010, section 6.3-6.24). There were eleven areas where the were archaeological remains were given Suffolk site codes according to County Parish and are listed and described below (Fig. 1; BYG029, BYG030, BRL026, TUL021, WTG017, WTG018, WTL010, KDG037, KDG038, WIX021 and WIX022). This report records ten areas investigated whereas the detailed excavation of the Roman town of Wixoe (WIX022) is recorded in volume 2 (Atkins 2012).

5.1.1 These ten areas were either excavated to a 4m or 20m width depending on the depth of the subsoil. A 20m wide excavation area was carried out if the subsoil was below 0.25m coverage as it was deemed inadequate to protect archaeological deposits and features from heavy plant and groundworks. Conversely, where subsoil or colluvial material had been shown to be sufficiently deep (above 0.25m thickness) to protect archaeological remains from plant and machinery, a 4m wide area where the pipe were to be laid were only investigated for archaeology. The topographic context was important in designing the size and scope of those 20m wide areas to be opened by machine as the depths of soil horizons was considered to be variable with slopes and low ground thought to contain a greater depth of material.

5.1.2 The length of the areas investigated was decided by where archaeological features were exposed. If features were found on any part of the route, the ground was stripped under archaeological supervision for a further 30m beyond them, after which point unless further remains had been found archaeological monitoring of the machine excavation ceased. The separate areas were excavated over six months with some of the excavations running concurrently by separate teams of archaeologists.

5.1.3 All work took place using tracked 360° machine under constant archaeological supervision. In certain areas dumpers were used to remove the topsoil and subsoil. All sites were metal detected.

Environmental sampling

5.1.4 The environmental sampling strategy along the pipeline followed the WSI recommendations (Finch 2010, sections 6.47-6.51). The English Heritage Regional Advisor for Archaeological Science was notified at the commencement of the project and although did not visit, was verbally consulted. Ninety-four samples were taken across the different areas with ninety-three for bulk flotation and one monolith (from site WIX021). The flotation samples ranged from 1L to 160L samples (see Section 6 for breakdown by site). The very small sized samples were mainly from specific deposits such as contents of vessels. A wide range of features were sampled and the size of the bulk samples varied from cremations (100% sampled), to post holes (mostly 100%), to a representative quantity taken from pits, ditches and wells.

BYG029 (Fields 54-56)(Figs.2 & 3)

5.1.5 Located immediately to the south-west of the village of Kirtling Green, this excavation comprised three open areas. Two areas either side of the boundary between Fields 55

and 56 were investigated in a trench approximately 20m wide. In Field 54 the area was stripped to a width of 4m.

BYG030 (Fields 48 & 49)(Fig. 5)

5.1.6 The site lay immediately to the east of the village of Great Bradley, close to the River Stour, a short distance away from St Mary's Church. Two areas were investigated in Fields 49 and 48. Field 49 was stripped of overburden for most of its length and to the full 20m width of the easement. In Field 48 excavations were limited to the 4m wide pipe trench and comprised two separate lengths.

BRL026 (Fields 41, 44 & 47)(Figs. 6, 7 & 8)

5.1.7 This site spanned seven fields between the villages of Great Bradley and Little Bradley. The 4m wide pipe trench was excavated in six areas.

TUL021 (Fields 36-40)(Figs. 9, 10, 11 and 12)

5.1.8 Located to the east of the villages of Great and Little Thurlow, this excavation comprised six areas. The majority of the work was concentrated around roads leading to the villages and to their respective Parish Churches. The areas in Fields 38, 39 & 40 were stripped of overburden to an approximate width of 20m with the exception of Field 36 which was stripped to 4m.

WTG017/WTG018/WTL010/KDG037 (Fields 18-28)(Figs. 13, 14, 15, 16, 17 & 18)

5.1.9 The excavations to the east of the village of Great Wratting comprised the longest stretch of almost continuous fieldwork. The majority of the route lay on higher ground, less than 1km from the River Stour. The full working width of the easement was investigated in Fields 22, 23, 25, the south end of Field 26 (all WTL010) and the north end of Fields 27 and 28 (WTG018). Areas in Fields 18, 19 (KDG037), the northern part of Field 26 (WTL010) and Fields 29 & 30 (WTG017) were excavated to the 4m width of pipe route only.

KDG038 (Fields 13-16)(Figs. 19, 20 & 21)

5.1.10 Excavation to the east of the village of Kedington took place in Fields 13-16. The route of the pipe trench only was investigated in Fields 13-15; in Field 16 an area was stripped to the full 20m width of the easement.

WIX021 (Fields 4 & 5)(Figs, 22, 23, 24, 25, 26 & 27)

5.1.11 The excavations here were located to the north of Water Hall Farm on high ground, a short distance to the east of the River Stour. The 4m wide route of the pipe trench was investigated in Fields 4 and 5, with the exception of the northern half of Field 5, which was excavated to the full 20m width of the easement

5.2 Period Divisions, Preliminary Phasing of Features & Feature Groups

5.2.1 Evidence for human activity comprised features, deposits and material remains spanning the Late Neolithic to post-medieval periods. As with many rural sites very little complex stratigraphy was present, although several areas of inter-cutting ditches and pits were recorded across the excavations.

5.2.2 The preliminary phasing presented in this work is largely based on stratigraphic relationships and spatial associations (including alignment of linear features). Where

possible this has been combined with dating evidence provided by stratified artefacts, primarily pottery.

5.2.3 The archaeological features recorded during the fieldwork relate to six main periods, which have been provisionally identified below, although these may be subject to refinement for analysis and publication: Archaeological features assigned to these periods do not necessarily span the entire date ranges listed for each period.

- Late Neolithic to Bronze Age *c.* 2500 - 600BC
- Iron Age *c*. 600 - 50 BC
- Roman *c.* AD 50 - 400
- Anglo Saxon *c.* AD 400-1050
- Medieval *c*. AD 1050 - 1500
- Post-medieval *c.* AD 1500 to c.1800
- Modern c. AD 1800 onwards

5.2.4 The preliminary findings of the excavations are presented below, first by site (see Fig 1 for sites location) and then either by Period or by Field whichever is more convenient. Where appropriate archaeological features have been grouped together when they are considered to be part of a single structure or directly associated with each other. In these instances a single context number has been arbitrarily used from one of the features to describe the grouped features as a whole.

5.3 BYG029

5.3.1 The excavated features in BYG029 comprised 28 ditches, three post holes and two substantial pits (interpreted as possible wells), three pits and four possible tree throws and these were located over a 1km distance but in no major concentrations although a few may be tentatively grouped (Figs. 2, 3 and 4). These features all lay beneath a subsoil, unless stated otherwise. The archaeology revealed represents at least two phases of activity and probably several, with the majority of the archaeology interpreted as probably being prehistoric with a few of these features likely to be of Bronze Age date. A smaller medieval and post-medieval component was also present.

5.3.2 The dating of the majority of the features to a prehistoric date is very tentative. The dispersed nature of most of the features with little apparent focus and an overall lack of artefacts recovered shows these features do not directly represent permanent settlement. They are likely to have been the remains of several different activities over an unknown period and several or even most of the features are likely to have been part of field systems from nearby settlement(s). Several of the features contained backfill deposits most likely to date to the prehistoric period (such as burnt flint deposits), and the artefact dating almost all derived from a few of the ditches (one had a Bronze Age pottery sherd whilst a few had small concentrations of struck flint likely to date from the Late Mesolithic to the Bronze Age (App. B.1). There were no Late Iron Age or Roman artefacts found, so whilst it is possible one or a few of the features are Later Iron Age or Roman in date, it is less likely as often features of that period (even from field systems) would be expected to contain a background scatter of artefacts.

?Prehistoric (Fields 55 and 56; Fig. 2)

5.3.3 In these two fields several features over a *c*.200m distance have been tentatively assigned a prehistoric date. It is noticeable that none of the features within these fields contained struck flint but it is uncertain its significance (App. B.2).

5.3.4 A re-cut ditch (**132** & **134**) was recorded on a south-east to north-west alignment at the southern end of Field 55 (Fig. 2). Ditch **132** was over 1m wide and 0.35m deep and superseded ditch **134**, which was found to contain a sherd of Bronze Age flint tempered pottery (App. B.3).

5.3.5 In the centre of the area pit/well **130** was substantial, measuring 1.5m wide by 1.4m deep (Fig. 2, S.12 & Plate). It contained three fills that were largely devoid of artefacts and inclusions apart from small quantities of animal bone recovered from the upper fill. The water table was encountered *c.*0.8m below the excavated level. Feature **115**, *c*.50m to the south-west, was a heavily truncated pit which contained a significant quantity of charcoal and burnt clay.

5.3.6 Three undated post holes were recorded in Field 56 (**111**, **119** & **121**), 30m to the north-east of pit/well **130**. They lay several metres apart and there was no obvious spatial relationship between them but as no other post holes were recovered from the whole site, their position was therefore possibly significant. All three were located adjacent to the limit of excavation and as a result it was not possible to ascertain whether or not they were discrete features or associated with structures lying beyond the site limit. Post holes **111** and **119** were of a similar size, being approximately 0.2m in diameter and up to 0.15m deep. Post hole **121** was slightly larger and deeper. No finds were recovered from any of the post holes and they have extremely tentatively given a possible prehistoric date.

Medieval/post-medieval and unphased (Fields 55 and 56; Fig. 2)

5.3.7 Four ditches at the northern part of Field 56 were all probably medieval or later in date. Ditch **113** was located towards the north end of Field 56 and oriented east to west, in contrast with the other ditches located immediately adjacent to the north. It was recorded as being cut by ditch **103** and yielded seven sherds of late medieval pottery (App. B.3). The three ditches revealed at the far north end of Field 56 (**103**, **105** & **135**). were aligned south-east to north-west. Ditch **135** was particularly substantial at over 1m deep and is likely to have been a field boundary.

5.3.8 To the south of these four ditches was feature **123** located at the edge of excavation and extended beyond the west facing limit of the excavation. As a result it was not fully exposed but it was at least 0.80m wide and 0.25m deep and may have represented either a shallow pit or a ditch terminus. No artefacts were recovered from its fill. A possible tree throw (**117**) was recorded 10m to the north-east of **123.**

5.3.9 In the southern end of the trench three ditches (**125**, **127** & **140**) roughly on the same alignment may be related. Ditches **125**, **127** & **140** were approximately 1m deep and 0.3m wide. A single piece of copper alloy (SF 1) was recovered from context 126 of ditch **125** and was of probable post-medieval date (App. B.1). A large, sub-circular feature (**143**) was recorded truncating ditch **140**.

? Prehistoric in Field 54 (Figs. 3 and 4)

5.3.10 Features tentatively assigned a prehistoric date were found over a c.0.8km distance. All 41 struck flint from BYG029 were found in features from this field (App. B.2).

5.3.11 In the central part of Field 54 there was a pit (**180**) which contained a burnt deposit that included 20g cremated bone probably from animal(s). Only a single piece of mammal phalange was identifiable from this material and this had not been sufficiently heated to be attributable to a cremation deposit; as a result it was interpreted as domestic hearth waste (App. C.1). Seven struck flints including two cores were also found in pit **180** (Table 33). More than 400m to the south of **180** there was a relatively large sub-circular pit or well (**161**) measuring 1.4m by 1.75m (Fig. 4, S.24) and more than 0.81m deep (excavation stopped for health and safety reasons). This feature had very steep sides but contained no artefacts. Feature **153**, located at the south end of Field 54, was a shallow pit or tree throw, it contained a charcoal rich dark fill and yielded burnt flint as well as two retouched flakes which may be partially manufactured arrowheads of possible leaf shape form (App. B.2).

5.3.12 Three ditches (**156**, **158** and **164**), within a 50m distance, were located between pit/well **161** and pit **180**. No other ditches were located within a 0.5km of these three and it is therefore possible that they may be related. Adjacent parallel ditches **156** and **158** were aligned north-west to south-east with the former containing a struck flake likely to be Neolithic/Early Bronze Age in date whilst the latter was undated. Forty metres to the north lay an east to west ditch **164** which contained nine struck flint including two blades and an awl with the latter possibly dating to the Late Neolithic/Bronze Age (App. B.2).

5.3.13 Four ditches (**178**, **189**, **187** and **183**) which lay on a variety of alignments within a 200m area in the north-eastern area of Field 54, may have been part of a related field system (Fig. 3). Ditch **189**, which yielded prehistoric pottery when investigated in the evaluation stage, was found to contain five struck flint including a blade and ditch **178** had 11 struck flint including a flaked nodule, two retouched blades, two retouched flakes and a notched flake (probably Late Neolithic/Early Bronze Age date). The flake were caused by a hard hammer technology associated with a Late Neolithic/Bronze Age date (App. B.2). A further ditch (**147**), 150m to the north contained five struck flints including three cores but also a sherd of post-medieval redware (12g) dating to the *c*.18th century (Carole Fletcher, pers. comm). It is uncertain if this small sherd is intrusive.

Medieval/post-medieval and unphased in Field 54 (Figs. 3 and 4)

5.3.14 A concentration of activity was identified at the north end of Field 54 with the possible exception of ditch **147** are likely to be post-medieval ore later. At the far northern end there were three ditches, oriented broadly north-south (**149**, **150** and **166**). Of these, **149** & **150** contained late medieval pottery. These ditches were up to 1.8m wide and no deeper than 0.2m.

5.3.15 Less than 50m to the south-west of these three ditches were a group of four features (**169**, **171**, **173** and **175**). Ditch **171** was of a similar date and contained late medieval pottery (App. B.3). Tree throw **173**, contained brick dating to at least the late 18th. Ditch 171 and tree throw **173** were cut by ditch **169**/**175** which contained 12 pottery sherds dating to the 19th/20th century as well as late brick.

5.3.16 To the south-west were two ditches **185** and **191** (not on plan) and both were seen to cut through the subsoil and therefore interpreted as post-medieval. Two residual sherds of late Medieval pottery were recovered from ditch **185** (App. B.3).,

5.4 BYG030

5.4.1 There was a range of archaeological remains on this site. Two natural features were probably the earliest and consisted of two adjacent west south-west to east north-east palaeochannels in the centre of the site with the River Stour adjacent to the site and was perpendicular to the channels. A few worked flint are likely to date to the Mesolithic/Early Neolithic and implies activity in this period here. Many more artefacts date from the Late Neolithic/Early Bronze Age with the bulk of the 667 worked flint from the site relate to this period and these were presumably contemporary with Beaker period and possibly some of the other "Bronze Age" pottery found. It is uncertain when the first features of the settlement was established - and it is probably safer to be non specific and call it *c*.Late Neolithic to *c*.Late Bronze Age. Field systems were recorded comprising at least four ditches (as well as at least one recut), and these were aligned on the same direction as the palaeochannels, and other probable contempory features include at least one pit and a possible cremation. Most of the prehistoric pottery could only be dated as "Bronze Age" and it is likely the 'site' continued into *c*. Mid or even Late Bronze Age with a minority of the worked flint dating to this period.

5.4.2 The latest prehistoric artefacts on site probably consist of a few sherds of pottery dating to *c*. Early/Middle Iron Age with no Late Age remains within the excavation area suggesting 'minimal' activity/occupation in this period. Part of a Roman settlement lay within the furthest northern part of the site (Field 49), over an area of 50m and continuing beyond the excavation area. There were at least two phases of Roman remains dating from the *c*.2nd to 4th century AD including possible enclosures seeming respecting a cobbled surface as well as three throws. Two medieval ditches were also recorded in Field 48 (Fig.5).

c.Late Neolithic to c.Late Bronze Age

Palaeochannels/ water courses

5.4.3 Field 48 contained two hollows which may have represented former natural water courses or palaeochannels (**181** & **190**); these were oriented west south-west to east north-east, perpendicular to the present course of the River Stour lying within 100m of the pipeline. They were filled by a series of sandy silts and silty clays and investigated by a combination of excavated slots and test pits which revealed prehistoric artefacts.

5.4.4 A 1m slot was excavated across the width of feature **190** that revealed it to be 14m wide and up to 0.86m deep with moderate sides and an irregular base. It contained a sterile primary fill in the lowest half metre; the remainder was filled by a series of sandy clays from which were recovered significant assemblages of prehistoric pottery, worked flint and animal bone. There was 268 worked flints from 10 different layers (contexts 192-202). The pottery (46 sherds weighing 0.382kg) dated from the Late Neolithic/Early Bronze Age to Early/Middle Iron Age and was recovered from five different layers (representing a *c*.1500 year+ time difference). It is likely the feature was backfilled by the *c*.Middle Iron Age but the different aged pottery was mixed in the backfills suggesting the earlier material had derived from nearby features, presumably entering the flayers due to such activities as ploughing.

5.4.5 Feature **181**, which was 20m wide, was located *c*.25m to the south of **190**. A total of nine 1m² test pits (contexts 181-189) were excavated through a single sandy clay silt fill to a maximum depth of 0.46m (Fig. 5, Plate). No pottery was found within the test pits, however the 99 worked flints recovered did include a 'barbed and tanged' Early Bronze Age arrowhead (App. B.2). The circumstances of deposition of the flints remains

unknown but it is likely that they represent fortuitous survival within an existing hollow rather than deliberate deposition.

Ditches

5.4.6 Four ditches (**111**, **174**/ recut **176**, **120** and **161**), possibly dating to the Bronze Age, were found within the excavation area aligned west south-west to east north-east, roughly parallel to channels **181** and **191** and perpendicular to the River Stour. They have been assigned this period dated as only prehistoric artefacts were found in them and due to the fact there were no Roman or later artefacts.

5.4.7 The former (**111**) was within the northern part of Field 49 and was 150m to the north of channel **190**, it extended from the western edge of excavation for 20m before terminating. Two 1m slots (**111** and **115**) were excavated through it, which revealed it to be up to 0.60m wide and 0.24m deep. Seven worked flints were recovered from the excavated slots.

5.4.8 Located immediately south of ditch **111**; was a second, more substantial ditch (**174**) on the same alignment that continued across the full width of the excavation. Ditch **174** was 2m wide and 0.9m deep, on its north side it was recut by Ditch **176**. A large number (76) of struck flint and animal bone were recovered from both ditch fills. At the southern end of Field 49, ditch (**120**), was *c*.50m to the north of channel **190**. Twenty struck flint and animal bone were recovered from both of the sections excavated through this feature. Ditch **161** was located at the southernmost end of the pipe trench in Field 48, neatly 100m to the south of channel **190**. It was 1.7m wide by 0.35m deep. contained two worked flint and 11 small sherds (25g) of flint tempered prehistoric pottery dating to the Bronze Age.

*Cremation **169** and pit **180***

5.4.9 Cremation **169** was located in the central part of Field 48, between channels **181** & **190**. It was completely excavated to a depth of 0.3m and contained two fills (Fig. 5, S.21). Within the uppermost there was part of the cremated remains of a single adult with 1.296kg of cremated bone (probably about half the cremated remains of a person) whereas the primary deposit contained just 18g of cremated bone (App. C.1); no artefacts were recovered. Pit **169** is presumed to be prehistoric, as it lies between two areas of known prehistoric activity with no Roman remains within *c*.200m of it. Two environmental samples from the two fills (2 and 3) collectively found a few charred grain fragments and sparse charcoal (App. C.2).

5.4.10 In the southern part of Field 48 a second pit was recorded (**180**) that was 0.8m wide and 0.25m deep and contained worked flint.

Roman

Cobbled surface

5.4.11 A cobbled surface (127/140) cut into natural clay at the northern part of the site but it is uncertain what it represented, perhaps a hollow way or route way aligned north-west-south-east. The cobbles were chalk, flint and sandstone were 0.06-0.1m in size, sub-angular and sub-rounded but were inconsistently arranged. The cobbles were within a hollow (**124**) in the northern part of the site which was more than 20m long and 10m wide and 0.45m deep and contained a late Roman 3rd/4th century pottery sherd. Two slots were excavated through it and found the cobbles were sealed by a dark silty clay (138 and 102). Three coins dating from Trajan to Valentinian and a moderate

assemblage of 2nd century Roman pottery, including a stamped Samian pot base, was found within this material (App. B.3).

Two possible enclosures seemly respecting cobbled surface 127/140

5.4.12 At the north end of Field 49 was (**125**) which was directly to the north, roughly parallel to cobbled surface 127. It extended from the eastern edge of excavation on a north-east to south-west alignment for 20m before turning onto a northerly course (**145**). It was up to 1.1m wide and 0.52m deep and investigated in five slots although pottery was only found in four (**156**, **128**/**130**, **125** & **143**), dating to the 2nd and 3rd centuries (26 sherds weighing 0.12kg) as well as a small fragment of possible intrusive medieval pottery (2g) . Ditch **156** seemingly respected ditch **145** by abutting up to it and was 0.92m wide and 0.44m deep.

5.4.13 Approximately 10m to the south of ditched enclosure **125**, and to the south of cobbled surface 127/140 was a 'L' shaped ditch which may have been part of another enclosure (**103**) was recorded. It was an east - west aligned ditch which extended from the western baulk of the excavation for 15m before turning northwards, stopping before the cobbled surface. Ditch **103** was excavated in five slots (**103**, **105**, **107**, **109** and **205**), it was up to 1.1m wide and 0.52m deep with a single grey silty backfill deposit which collectively contained four sherds (0.037kg) of pottery dating c.2nd century AD from four of the slots as well as some animal bone. No features were recorded within the enclosure.

Hollows and tree throws

5.4.14 Three small hollows (146, 147 and 155) were located to the north and all contained Roman pottery dating up to the 3rd century+ and were presumably natural filling up of uneven land. The hollows were presumably infilled reasonably early as layer 147 was cut by ditch **145**.

5.4.15 Three tree throws were revealed towards the north end of Field 49 (**149**, **150** & **113**). These were sub-circular in plan and up to 1.7m in diameter. Upon excavation all displayed irregular edges and contained mixed grey and brown silty clays. Residual struck flint was recovered from **113** and **150**, with the latter containing sixteen sherds of 2nd century pottery weighing 0.084kg (App. B.3).

Medieval

5.4.16 Two ditches (**165** & **171**) were revealed within the pipe trench in the central part of Field 48. They were very similar in dimensions, being 0.8m wide with a depth of 0.3m and were aligned south-east to north-west and south-west to north-east respectively. Ditch **171** terminated at the south-west facing limit of excavation but continued beyond the trench to the south-east. Ditch **165** was located to the south and continued beyond both limits of excavation. Both ditches contained a single silty backfill with only a single sherd of medieval pottery recovered from **165** and part of a possible stone dish or grinding surface was recovered from ditch **171** as well as a possible late Roman pottery sherd. It is tentatively suggested that these ditches represented two sides of the same enclosure.

Undated

5.4.17 Four undated pits (**133**, **135**, **137** and **154)** pits were located in the north end of Field 49 (Fig. 5) and are likely to be either prehistoric or Roman in date. The first three were adjacent to tree throw **150**, were sub-circular and measured up to 1.7m in diameter and 0.17m deep. All contained a pale grey silty clay fill; no artefacts were recovered from

the pits. Pit **154** was undated located between ditches **120** and **174** and was not associated with any other features. It contained a charcoal rich fill and was 0.14m deep.

5.4.18 Ditch **164** was located immediately south of Ditch **171** in Field 48. It was almost 3m wide and 0.72m deep. A piece of struck flint was recovered from the upper fill which was possibly residual. It was oriented north-west to south-east and aligned with a substantial field boundary extending to the north east of Hall Road. A land drain was inserted in to the upper part of the fill.

5.5 BRL026

Introduction

5.5.1 Excavations at BRL026 comprised a 4m wide excavation over three fields (Fields 47, 44 and 41; Figs. 6-8). In Field 41 (Fig. 8) there was evidence for short stay occupation in the Late Neolithic period with a pit (**130**) producing a significant assemblage of pottery as well as evidence of flint blades being made in this location. A concentration of contemporary flint of this period was found adjacent to this pit as residual items in later features.

5.5.2 Part of a Early to Middle Iron Age settlement was found in the middle of the excavation area with pits and a ditch dating to this phase. Three Early to Middle Iron Age pits (**137**, **139** and **141**) produced moderate to significant assemblages of pottery and/or worked flint.

5.5.3 In Field 44 there were three ditches were very tentatively dated from LBA/EIA and Roman periods over a 15m distance but there was only a minute quantity of artefacts recovered from all three (Fig. 7). In Field 47 there was a very low density of archaeological remains with three undated ditches over a c.100m distance (Fig. 6). Ditches were the most numerous of the features (eight of the fourteen) in Fields 41 and 44 which may suggest that fields were being laid out in the Late Bronze Age to Early Iron Age periods (Table 1).

Cut	Fill	Width (m)	Depth (m)	Description	Phase/ Date
109	110	1.55	0.36	ditch	Roman (2nd-3rd century)
111	112	0.85	0.45	ditch, parallel to **113**	?LBA/EIA
113	114	1.45	0.43	ditch, parallel to **111**	?LBA/EIA
120	119	1.1	0.45	ditch	?ROM / MED
116	115	1.3	0.6	ditch	?BA/LIA
122	121	1	0.6	ditch	?Med
125	124	1.85	1	ditch, cut **122**	UND
131	132	1.4	0.5	ditch	Post-medieval

Table 1: BRL026 ditches in Fields 41 and 44

Neolithic & Bronze Age to Middle Iron Age

Ditches

5.5.4 Three ditches (**111**, **113** and **116**) have been tentatively dated to the Bronze Age or Early Iron Age periods. Ditches **111** & **113** were adjacent and aligned east to west within Field 44 towards the north end of the excavated area (Fig. 7). Both ditches yielded tiny single sherds of Late Bronze Age to Early Iron Age pottery (2g and 1g

respectively). The two ditches also produced five and six worked flint chunk and flakes respectively.

5.5.5 In Field 41, ditch **116** was located in the central part of the excavation and was oriented east to west. Three tiny sherds (3g) of flint tempered Bronze Age or Early Iron Age pottery and two worked flint flakes were recovered during excavation (Apps. B.2 and 3). This ditch is close to an isolated probable Late Bronze Age cremation (**19404**) found in the evaluation in trench 194 (Krawiec and Mann 2010, 41).

Pits

5.5.6 On the southern side of ditch **116** a relatively substantial Late Neolithic pit (**130**) was recorded extending beyond the limit of excavation. Pit **130** was 1m in diameter and 0.6m deep. Its lower deposit (134) produced 150 sherds (0.846kg) of late Neolithic Grooved Ware pottery (App. B.3) and 64 worked flint including 13 classified to as core technology and 17 blades (App. B.2). This deposit also produced burnt weed seeds (Sample 3) and this was probably used as fuel in a fire (App. C.3). This deposit also produced a fire cracked stone. The upper deposit (129) of the pit had only two worked flint pieces.

5.5.7 Three pits (**137**, **139** & **141**) *c*.10m to the north of ditch **116** may have been contemporary. The pits were intercutting and measured 2.7m across and were less than 1m deep. Pit **137** produced 250 pottery sherds (1.854kg) dating from the Early to Middle Iron Age, 37 worked flints including three true blades and 12 animal bone fragments. In pit **139** there were 16 pottery sherds (0.053kg) dating to the Late Bronze Age/Early Iron Age, 18 worked flint including a Late Neolithic/Early Bronze Age core and 24 animal bone fragments. Pit **141** produced three sherds (0.018kg) of Early to Middle Iron Age pottery and 13 worked flints.

5.5.8 Pit **128**, which was 0.5m in diameter and 0.17m deep, was located 20m to the south of Pit **130**. No pottery was recovered but it was found to contain fire cracked stone and is likely to be prehistoric in date.

Roman

5.5.9 Two possible ditches have been very tentatively dated as Roman (**109** and **120**). The former (**109**), was recorded in the northern part of Field 44 and contained seven small pottery sherds (0.025kg) with four dating to the 2nd to 3rd centuries AD and the remainder was residual flint tempered pottery, of putative Bronze Age date. Three worked flint including a core was also recovered from the ditch. Ditch **120** directly to the south of the three intercutting pits (**137**, **139** & **141**) in Field 41 contained two scraps of possible Roman or medieval pottery (2g) as well as eight worked flint pieces including two cores.

Medieval, post-medieval/ undated

5.5.10 In Field 47 ditches **103**, **106** and **108** were undated but are likely to be post-medieval in origin. Ditch **131**, recorded at the northern end of Field 41 was also thought to be post-medieval as a result of its dark fill and location, close to and parallel with the rear of extant buildings. Further to the south, ditches **122** and **125** were adjacent and parallel with the former containing six pottery sherds (12g) which four are LAB-EIA, two probably medieval and fired clay fragment (2g) (pers. comm Alice Lyons and Carole Fletcher)later containing three flints. It is possible they were part of a field system of the Early to Middle Iron Age settlement to the north.

5.6 TUL021

5.6.1 The excavation at TUL021 took place over five fields (Field 40 (Fig. 8); Fields 37 and 38 (Fig. 11); Field 39 (Fig. 10) and Field 36 (Fig. 12)). Most of the excavations were *c*.20m wide except within Field 38 which was 4m wide. The earliest evidence for occupation probably dated to the Late Bronze Age/Early Iron Age period and was found in two different fields (36 and 40). This comprised a possible field system and probable related large watering hole (recut twice) within Field 36. Artefacts from the watering hole feature(s) suggest a settlement was nearby. A single pit in Field 40 probably dated to this period. In this latter area, part of an Early to Middle Iron Age settlement was uncovered including a roundhouse. The next evidence for occupation was from Field 39 where part of a Saxo-Norman to late medieval settlement was uncovered.

Late Bronze Age/Early Iron Age

*Ditches **1045**, **1127**/**1139** and **1126**/**1143**/**1145** and watering holes **1122**/**1123**/**1124** (Field 36)* (Fig. 12)

5.6.2 A probable Late Bronze Age/Early Iron Age field system was found within the excavation area. This comprises three ditches which run up to each other but all three stopping within a few metres and seemingly therefore respecting each other. The three ditches comprised a north to south ditch **1126**/**1143**/**1145** at least 45m in length, between 0.36m and 0.61m wide and between 0.17m and 0.21m deep. Ditch (**1127**/**1139**) aligned east to west ditch on its southern side was larger at between 1.14m and 1.3m wide and 0.41m and 0.48m deep whilst **1045** was 1.8m wide and 0.16m deep. All three ditches were sterile and contained no artefacts or ecofacts. The probable field system was dated by the fact ditch **1126**/**1143**/**1145** was cut by probable watering hole or pond (**1122**/**1123**/**1124**) on its southern side. A sequence of three intercutting waterholes pits was revealed collectively sub-circular in plan and measured 11.75m by 7.5m. The earliest of the watering hole (**1122**) was in the corner between ditch **1126**/**1143**/**1145** and **(1127/1139)** with all three respecting each and may have been contemporary. Waterhole **1123** cut the southern side of ditch **1126** but it is uncertain whether the rest of this ditch (and postulated field system) continued to be in use at this time and during the final recut of the waterhole (**1124**). The identified animal bones from the watering holes consisted of cattle and sheep/goat bones (App. C.2).

5.6.3 The watering holes were investigated by excavating two opposing quadrants which revealed a relatively deep cut into natural chalk which became more shallow and irregular as it rose towards ground level. The earliest 'pit' in the sequence (**1122**) had mostly been truncated but is estimated to have been up to *c*.3m in diameter and at least 1.5m deep. It was filled with a light grey clay which contained 14 worked flints, a Bronze Age/Early Iron Age pottery sherd (5g) and four animal bone fragments. It was recut on two occasions by 'pits' **1123** & then **1124**. Pit **1123**, covered the whole area (11.75m by 7.5m) but was shallower than **1122**. It had initial shallow sides (presumably allowing cattle easy access) which then became much steeper. It was infilled by three deposits (1156, 1153 and 1149). with the earliest two (collectively just over 1m deep) being sterile. The middle fill (1153) was soil sampled (1009, App. C.3) and contained wetland species of molluscs suggesting the feature had contained water. The upper fill (1149) had a moderate collection of artefacts comprising 35 worked flints, seven pottery sherds dating to the Bronze Age and 22 animal bone fragments. The final pit (**1124**) cut the centre of 1123, was *c*.2.5m by *c*.2m and 2.6m deep with steep sides. The initial 1.5m was hand excavated and then stopped due to health and safety reasons. It was then augered to its full depth. Within the hand excavated sequence there were three backfill deposits (1150, 1151 and 1152). The lowest fill (1152) was a sterile deposit

which sealed by 1151 which contained eight flints and 17 pottery sherds (0.11kg) dating to the Late Bronze Age/Early Iron Age and six animal bone fragments whilst the upper deposit was sterile.

5.6.4 The last watering hole was sealed by two layers (1148 and 1147), presumably after it had fallen out of use. The lowest deposit 1148, 0.36m deep, may have been contemporary with the upper backfill of **1124** as 25 Early to Middle Iron Age pottery sherds (0.187kg) was found in it, but it also a significant quantity of residual worked flint (79) and 62 animal bone fragments (cattle, pig and sheep/goat). The upper deposit (1147) may have been far later in date, possibly Roman as it contained as it contained a single samian sherd (26g) as well as six very small LBA/EIA sherds (19g) and one piece of intrusive dense, ferrous tap slag (0.12kg). The slightly glassy nature of the slag, along with the density, suggest that it was from a blast furnace and therefore later medieval in date. This deposit also contained 38 worked flints and 20 animal bone fragments.

Field 40 ?Late Bronze Age/Early Iron Age (Fig. 9)

5.6.5 There was a single pit (**1098**) which seems to date to the LBA/EIA period. It was 1.8m in diameter and 0.55m deep and contained four LBA/EIA pottery sherds and two worked flint pieces. All the other features where dated by pottery are likely to be EIA/MIA in date.

Field 40 Early Iron Age/Middle Iron Age (Fig. 9)

5.6.6 The *c*.Early to Middle Iron Age features were seen over a distance of 80m north to south and continued beyond the excavation area. They consisted of up to two phases of occupation within this area. It is noticeable that Field 40 yielded far fewer worked flints than Field 36 with relatively few found and this seems to support the suggested Iron Age date as on the whole less worked flint was being produced in this period.

5.6.7 The earliest sequence may include Early to Middle Iron Age ring gully **1008** with internal post hole structure **1100** and a sterile rectilinear ditched enclosure with internal features which comprised ditches **1014** and **1027**/**1032** oriented north-west to south-east and south-west to north-east respectively. This supposed dating is by association due to being roughly equal distance from both ditches.

5.6.8 Two segments of a ring ditch with an internal diameter of 15m were recorded in Field 40 that are thought to represent an 'eaves drip gully' for a round house,. Four sections (**1008**, **1135**, **1010** & **1012**) were excavated through the southern segment with a further three (**1092**, **1129** & **1132**) excavated in the northern part (Fig. 9). These revealed it to be between 0.3m and 0.5m wide and up to 0.5m deep. Immediately adjacent to the west, a third feature (**1132**) was recorded that may have represented an additional segment; this could not be determined with any certainty as **1132** extended beyond the limit of excavation. The east side of the feature was open and may have formed an entrance way. The ring ditch contained three worked flints but also a relatively large quantity of Early to Middle Iron Age pottery from four of the sections with the largest assemblage (totalling 309g) derived from ditch **1094** (a recut of **1092**) and was part of a single jar (App. B.3). There was also a single intrusive fragment of a late medieval vessel (3g). In the ring ditch there was a little cremated bone (84g) from two contexts (1009 and 1013) with the only identified human bone being from a tooth but there was also a animal bone vertebra (App. C.1). In addition there were 18 unburnt animal bone from the ring ditch including cattle and pig bones (App. C.2). Charred wheat grain was also recovered from the ring ditch within an environmental bulk sample (sample 1001, App. C.3).

5.6.9 The partial remains of a timber structure (**1100**) were found within the interior of ring ditch **1008**. The remains of this structure comprised four post holes (**1100**, **1102**, **1104** & **1106**), three of which formed a line, oriented east to west. They were 0.3m wide and up to 0.2m deep and two sherds (13g) of Early or Middle Iron Age pottery was recovered from post hole **1106**.

Rectilinear enclosure

5.6.10 Ditch **1014** was substantial in size at 2.3m wide 0.9m deep and contained three worked flints 115 animal bone fragments including cattle and pig. The specialist report on this assemblage suggests the bones may derive from middens (App. C.2). It is possible that ditch **1027/1032** was not part of ditch **1014** as it was substantially smaller at 1.10m wide and 0.65m deep. The only finds from the ditch comprised eight worked flint including three cores (App. B.1). This ditch was recut (**1036**/**1034**) and was even smaller in size at up to 0.84m wide and 0.38m deep. In this recut was a presumably intrusive very small medieval pottery sherd (2g) and six worked flints.

*Pits and ditch **1023***

5.6.11 At least two undated pits (**1096** and **1110**) were within the postulated enclosure and may date to this period. A group of five undated pits/treethrows or post holes (**1025**, **1030**, **1041**, **1066** and **1074**) were *c*.40m to the south of it and were up to 0.8m wide and 0.25m deep Two further pits were at the far side of the excavation area (**1003** and **1017**) were less than 0.3m deep with the former containing 78 animal bone fragments. An undated ditch **1023** directly to the west of these two pits was on the same north-west to south-east alignment as ditch **1014** but it is uncertain whether this ditch is a continuation of the settlement.

*Ditches **1088, 1076, 1070/1072** and **1078/1084***

5.6.12 Four ditches (**1088**, **1076**, **1070**/**1072** and **1078**/**1084**), least than 20m apart were revealed in Field 40 oriented east-west and may denote a second phase of occupation in this period or may even be medieval in date. Ditch **1088** cut the ring ditch and the southernmost ditch (**1078**) continued across the full width of the excavation and cut ditch **1027**. The three most northern ditches terminated in the central part of the trench. The ditches were between 0.6m and 0.9m wide and up to 0.4m deep. A single sherd (13g) of Middle Iron Age pottery was recovered from ditch slot **1070**.

Saxo-Norman to late medieval settlement and field system (Figs. 9 to 10)

5.6.13 Part of a Saxo-Norman to late medieval settlement was seen in a small excavation over less than 40m area within Field 39. This focussed in the area between Little Thurlow and Little Thurlow Green and also close to St Peter's Church, located on Church Road to the west.

5.6.14 There was no Middle Saxon pottery found with the earliest artefacts possibly comprised St Neots type wares dating to AD *c*.850-1150. There were no Stamford or Thetford wares recovered and it is possible that this part of the settlement in the excavation area was post-Conquest in date. There was at least two or three phases of occupation recovered but the only structure within the excavation area could not be closely dated but seems to have been on the same east-west alignment as the 'early'' features within the site. The latest features in the settlement were dated as later medieval i.e. 14th or 15th century in date. It is likely the end date is mid 14th century in date, a period when the population in the country halved.

5.6.15 The earliest phase seems to consist of an east to west ditch **561**/**569**/**591** just within the northern edge of excavation, and continued beyond the site to the east and west. It was 0.7m wide and up to 0.4m deep, and one of the three excavation slots through it contained a sherd of Saxo-Norman pottery (3g). Lying to the south of ditch **561**/**569**/**591** was an L-shaped ditch (**577**/**585**/**539**) that was 0.85m wide, 0.3m deep and approximately 10m in length, with a southerly right angle turn at its eastern end. Three sections were excavated through it and an assemblage of fifteen Saxo-Norman pottery sherds (29g) was recovered from the southern terminus (**577**) and three residual Iron Age sherds (3g) from **585**.

5.6.16 Ditch **577** appeared to enclose a sub-rectangular structure surviving to *c*.10m by 4m in size. This structure only partly survived and a full plan was not recovered and it is possible that it was originally larger. It is therefore uncertain whether is that a domestic structure or an out-building. The remains consisted of eight post holes or small pits (**530**, **547**, **549**, **551**, **553**, **522**, **526** & **575**) and a possible *c*.3m long slot (**520**/**524**) which were loosely arranged on an east to west alignment. They ranged from from 0.4m to over 1m in diameter and between 0.09m to 0.22m in depth. No datable artefacts were recovered from any of the post holes although post hole **528** contained a fragment of lava quern.

5.6.17 It is likely at least two contemporary pits (**502** and **568**) to the south of this structure and these were up to 1m in diameter and 0.2m deep. Pit **502** contained nine sherds of Saxo-Norman pottery (23g), a collection of primary butchery waste comprising 78 sheep/goat bones and a further 73 bones not specifically identifiable representing at least two animals (App. C.2 including Table 73) as well as charred wheat seeds from an environmental bulk sample (App. C.3 (sample 500)). Pit **568** contained a single Saxo-Norman sherd (6g). A further pit **542**, to the east of the structure contained five sherds of earlier medieval pottery (30g).

5.6.18 In the *c*.13th or 14th century there was a re-organisation of the site with the former Saxo-Norman ditch **561**/**569**/**591** cut by four of pits (**571**, **517**, **519** and **584**) with the later three pits intercutting. They were sub-circular in plan and ranged between 0.7m and 2m in diameter and 0.51m (pit **517**) to 0.82m deep (pit **584**). The pits were filled by brown and orangey brown silty clays and clays and pottery was recovered from all of the features. The earliest may be pit **519** which contained 90 pottery sherds (1.062kg) dated as 13th to 14th centuries. It was cut by pit **517** which contained 61 later medieval sherds (0.366kg). Pits **571** and **584** contained 1 sherd (9g) and 13 sherds (0.141kg) of later medieval pottery respectively. Four smaller pits to the south of these four (**578**, **514**, **544** and **511**) were stratigraphically late or contained up to 13 sherds of pottery dating to the *c*.13th or 14th centuries.

5.6.19 It is likely the post hole structure itself went out of use in this period as a ditch (**509**/**534**), 2.4m wide and 0.7m deep aligned roughly east to west and was within 0.5m of the structure. This ditch contained two later medieval pottery sherds (2g) and four animal bone fragments.

Undated features in the settlement

5.6.20 Within the area of the Saxo-Norman to medieval settlement there were a few undated features (ditches **537**, **535**/**545** and **500**/**564**, pits **565**, **558** and **587**) which are likely to be from these periods. Pit **558** was located at the north end of the excavated area was 1.15m in diameter, 0.6m deep and charred wheat and charcoal was recovered from it (environmental sample 502, App. C.3). Ditch **535** was located at the northern limit of excavation in Field 39 and was similar in character and shape to Ditch **577**, attributed to

the Saxon-Norman period. Excavation yielded no artefacts and it was cut by Ditch **537** which continued beyond the northern limit of excavation and was only seen in plan for 5m.

*Medieval/post-medieval furrows? (ditches **1005/1020**, **1038/1040** and **1116/1119**)*

5.6.21 It is likely three east to west aligned ditches more than 50m to the north of the settlement (Figs. 9 and 10) were part of the field system of the settlement. Only the former had pottery from its backfill with a small sherd of medieval pottery (1g) although the later two each had a worked flint piece.

Post-medieval, modern and undated in Fields 37 and 38 (Fig. 11)

5.6.22 In Field 37, four east to west aligned ditches were recorded (**1047**, **1049**, **1051** & **1053**). Ditch **1051** was found to contain 19th/20th century pottery; the others were undated but are likely to be post-medieval or modern. They were between 0.37m and 0.87m wide and 0.14m and 0.32n deep.

5.6.23 Tree throw **1043** was the only feature revealed within Field 38. Its shape in plan was irregular and it was 0.2m deep with no finds recovered from the fill.

5.7 WTG017 and WTG018

5.7.1 The two sites (WTG017 and WTG018) were adjacent and comprised excavations within Fields 27-29 (Figs. 13 and 14). WTG017 relates to two 4m wide excavation areas within Field 29 and one 4m wide excavation area within the the northern part of Field 28 (Fig. 13). No archaeological remains were found in Field 29 and a single undated ditch in the latter. Site WTG018 was a c.20m wide excavation area to the north of Great Wratting on either side of a road called The Street and directly to the east of existing buildings fronting this road (Fig. 14). The features within the southernmost c.100m part of this excavation area were on either side of The Street are likely to relate to this settlement as they date from the late medieval to modern periods. Further away to the north-west of these, ditches uncovered may be furrows. To the north-west of the postulated furrows, a possible 4-post structure could be of any date. There were only 26 sherds (0.257kg) of late medieval and post-medieval pottery recovered perhaps signifying that the features largely relate to field systems. Only six animal bones (0.417kg) were recovered from the site (See App. C.2) also signifying the site was away from domestic occupation.

Medieval (WTG018)

5.7.2 The excavation areas fronted onto both sides of The Street but no structural features were uncovered. A large discrete quarry pit or pond (**637**) was revealed to the south of The Street (Field 27). It was *c*.8m by 3.75m in size and more than 1.3m deep with near vertical sides (stopped for health and safety reasons). It contained late medieval pottery in its upper fill (631). This feature was cut two east-west ditches (**552** and **554**) which may date to the late or post-medieval periods. They were oriented south-west to north-east, were 1m and 1.9m wide respectively and 0.3m and 0.54m deep. Small quantities of medieval pottery were recovered from these features.

Post-medieval to modern

5.7.3 Three curvilinear ditches (**585**, **597** & **595**) in Field 27 cut ditches **552** and **554** and contained post-medieval pottery dating from the 16th to 18th centuries. These were

broadly oriented south-east to north-west and apparently enclosed an area beyond the eastern limit of the excavation; their function was not immediately apparent.

5.7.4 A concentration of late post-medieval and modern archaeology was revealed to the north of The Street, at the top of the slope and consisted of several ditches (**677**, **641**, **621**, **619**, **642**, **573**, **674**/**676** and **592**) and pits (**614** and **682**) (Field 28). These features were of at least two phases were filled with dark grey silty clays which contained large quantities of post-medieval and modern artefacts. Brick and tile were recovered from **619** and **621** (App. B.4) consisting of nine brick (1.513kg), four roof tile (0.133kg) and a large quantity of pottery (70 sherds weighing 0.753kg) dating after AD 1830 though there were also three residual medieval sherds from **641** (Carole Fletcher, pers comm). Clay pipe stem and three brick fragments as well as two possible Roman pottery sherds came from **671,** a clay pipe stem and from **676**. Pit **682** produced a large quantity of late post-medieval artefacts comprising 34 clay pipe stems and one bowl (the later dates to after *c.*AD 1710), 14 pottery sherds (0.695kg) including a significant part of an 18th century PMRW vessel (and two medieval sherds; Carole Fletcher, pers. comm), 9 bricks including part-bricks (2.173kg) dating to the 17th to 18th centuries and 4 roof tile fragments (76g).

5.7.5 Further to the north-west in Field 28 a series of regularly spaced, uniformly sized ditches (**665**, **669**, **626**/**646**, **639** & **652**) were encountered. With the exception of ditch **665**, which ran from north to south, intersecting with ditch **669**, they were aligned east to west and appeared to form part of a field system. Ditch **652** had two worked flint pieces.

4-post structure

5.7.6 Within the north-western part of the WTG018 found a square '4-post structure' *c*.5.5m square. The post holes (**657**, **659**, **661** & **663**) were found to be consistent in size, up to 0.3m in diameter and 0.15m deep. All fills were charcoal rich and 100% excavated and found to be devoid of finds. A single undated ditch (**680**) was revealed in the northern part of Field 28 (Fig.13), was oriented north-east to south-west.

5.8 WTL010

5.8.1 This encompassed all archaeology in Fields 22, 23, 25 and 26 and is described from north to south by period (Fig.15, 16, 17). The furthest north-western excavations were c.275m in length and due to the protection of subsoil were 4m wide (Fig. 15). Within the north-western part of this area a tight group of *c*.seven significant Bronze Age to Early Iron Age cremations found within a c.15m distance. Over the next *c*.800m there were three separate excavation areas between c.12m and up to *c*.25m wide (Figs. 15-17). In these larger excavation areas there was firstly a substantial Bronze Age to c.Early Iron Age settlement over a *c*.175m distance. In this same area, on the north-western side of this site, a Late Iron Age to Early Roman settlement was uncovered over a c.75m distance. A separate BA/EIA settlement was found in the middle of WTL010 with an area of intercutting pits. To the south-east of these pits there was part of a medieval to late medieval settlement.

? Bronze Age Cremations

5.8.2 At the far north-west end of Field 26 a group of seven cremation burials was recorded over a distance of *c*.15m by 4m (Fig.15). The cemetery was situated at the base of a shallow natural basin, immediately south-east of a boundary between Fields 26 and 27 which also serves as the parish boundary. Seven pits were recorded and of these, three

were found to definitely contain human cremation remains with a further containing between <1g to 17g of cremated bone (Table 2). The cremations were revealed within the 4m wide pipe trench only; no evidence for the limit of the cemetery to the north or south was revealed. Consequently, it was not possible to determine the full extent of the cemetery or whether it had been enclosed.

5.8.3 Cremation pits were clearly identifiable on the ground with dark fills and often containing flecks of cremated bone. Where the cremation deposits were contained within a ceramic vessel, the vessel was removed with its contents untouched in order to be excavated under controlled conditions (Fig. 15, Plate). The remaining unurned cremation deposits were excavated within soil samples. All soil samples of the cremations produced large quantities of charcoal (App. C.3).

5.8.4 A variety of cremation methods and rites appeared to be represented. Only one of the cremations was contained within a burial urn (**511**). This was the largest and deepest pit at 0.7m in diameter and 0.35m deep with steep sides and a flattish base. The vessel was upright roughly in the centre at the base of the pit and seems to be a Deverel-Rimbury urn dating to the Middle Bronze Age (Sarah Percival, pers. comm). The vessel proved to have more than half the cremated remains of a single adult (1.348kg) which was by far the greatest quantity of human remains found on the site (Table 2). Analysis of the cremated remains recovered from both the pit fill (510) and that found within the vessel (692), suggests that deliberate selection of different skeletal elements took place in each context; the interior of the vessel contained a greater number of small bones, while larger bones appear to have been placed above the vessel in fill 510 (App. C.1). A soil sample of the soil around the vessel recovered a substantial quantity of 223 worked flint including 40 blades and 57 flakes/blade shatters, a core and a large quantity of flakes as well as five burnt flints (See App. B.2). Antony Dickson tentatively dated the flints to the Late Neolithic and Early Bronze Age. Two Beaker pottery sherds (12g) were seemingly contemporary with the flint. This soil sample also found some weed seeds as well as large quantities of charcoal (App. C.3).

5.8.5 Two examples of 'paired cremation pits' (**515**/**517** & **519**/**521**) were located to the south-east of **511**. In each case two small pits were cut immediately adjacent to each other, one of which contained a selection of cremated human remains with the other containing charcoal rich material but significantly less cremated bone, possibly a sample of pyre material (App. C.1). This may represent a different form of burial rite whereby seemingly burnt material from the putative funeral pyre, deliberately containing a token of burnt bone, is buried in pits alongside more substantial cremation pits. Cremations 517 and 521 contained 560g and 276g respectively whilst the others had up to 17g of burnt bone (Table 2).

Pit	Diameter (m)	Depth (m)	Comments
511	0.7	0.35	1348g of adult; Contained urned cremation vessel; 2 sherds (12g) of Beaker pottery (LNEO/EBA); 223 worked flints; some charred weed seeds. Cremation vessel probably Middle Bronze Age (Deverel-Rimbury) (pers. comm Sarah Percival)
513	0.16	0.11	17g of ? Contained unurned cremation deposit; charred cereal and weed seeds
515	0.25	0.18	<1g of ? Contained unurned cremation deposit; 1 worked flint

517	0.35	0.24	560g of adult. Contained unurned cremation deposit; a few charred cereal and weed seeds
519	0.28	0.1	4g of ? Contained unurned cremation deposit; a single charred cereal grain
521	0.49	0.18	276g of adult. Contained unurned cremation deposit; large quantities of charred weed seeds
523	0.43	0.16	Contained no cremated bone, poss natural feature
569	0.25	0.15	<1g of ? Contained unurned cremation deposit

Table 2: WTL010 cremation pits

Medieval and post-medieval in Field 26 (Fig. 15)

5.8.6 A series of ditches to the south-east of the cremations are likely to be medieval or post-medieval in date. Four ditches (506, 536, 538 and 575) were in a 10m area (Fig. 15). They were aligned perpendicular to the trench and the River Stour and were of different sizes from 0.4m wide to 1.75m and 0.07m to 0.43m deep. Two of these contained later medieval pottery (**575** & **538**). Further to the south-east ditch **600**/**625** also contained medieval pottery.

5.8.7 In the central part of Field 26 four ditches were recorded. Three of these were intercut (**602**, **604** & **606**) and traversed the entire width of the excavation on a south-west to north-east alignment, perpendicular to the excavation trench. The fourth (**608**) terminated in the trench, extending beyond the north-east facing limit of excavation. Considering these ditches were on the same orientation as the identified medieval ditches further to the north-west in Field 26

Settlement dating to the c.Bronze Age and c.Early Iron Age (Figs. 15 and 16)

5.8.8 More than 300m to the south-east of the cemetery were a large quantity of features dating to *c*.Bronze Age to possibly the Early Iron Age although most of the pottery was dated to the *c*.Mid to Late Bronze Age (App. B.3). This settlement covered a *c*.175m distance, possibly starting along and to the north-west of former possible palaeochannels (Fig. 16). It is noticeable that no contemporary features were to the south-east of the channels. There were at least two phases of occupation with several of the features in the settlement cut. It is uncertain whether the cremation cemetery (above) derived from this settlement or whether their relative closeness was a co-incidence. The settlement is described by area from north-west to south-east:

5.8.9 The first possible feature of this settlement on the north-western site may be pit **526** located on the north-west facing slope of Field 26. It was sub-rectangular in plan and measured 5.5m by 2.18m and contained a yellowish brown silty clay, 0.55m deep. Two small pieces of probable prehistoric pottery (1g) and small quantities of animal bone were recovered from fill 525.

5.8.10 Fifty metres to the south-east of pit **526** was a substantial boundary ditch (**543**/**565**) and possible recut (**545**) and five pits (**528**, **532**, **547**. **555** and **557**). The earliest may have been pit **557**, more than 1.28m long, 0.75m+ wide and 0.23m deep which contained a Mid to Late Bronze Age pottery sherd (20g). Pit **557** was cut by ditch **543**/**565** which was oriented north-east south-west and investigated in two excavation slots (Fig.15). It was found to be up to 2.5m wide and 1.03m deep with moderate sides and a slightly irregular base. The ditch contained a minimum of three fills with 11 sherds of Middle to Late Bronze Age (32g) and five sherds (12g) of Bronze Age to Early Iron Age pottery

respectively in the two slots. The later also produced five struck flints. Ditch **543**/**565** was cut by possible undated recut (**545**) 1.29m wide and 0.53m deep.

5.8.11 Three pits (**528**, **532** & **550**) were recorded immediately to the north of Ditch **565**, two of which were seen to extend beyond the limit of excavation. These three pits were up to 1.6m in width or diameter and a maximum of 0.42m deep. All were filled by a pale yellowish brown sandy clay with pit **532** containing two Middle to Late Bronze Age pottery sherds (37g) and a worked flint flake whereas pit **528** had a single Bronze Age sherd (15g) and **550** was undated. Shallow pit **547** on the north-western side was also undated.

5.8.12 Approximately 25m to the south-east lay another pit (**535**), which was sub-circular in plan with a maximum diameter of 1.6m. It was 0.2m deep and contained a charcoal rich dark grey upper fill from which prehistoric pottery was recovered.

5.8.13 Fifty metres further to the south-east, near the top of the slope in Field 25, was two pits **109** and **131** (Table 4). Pit **109** had poor edge definition and appeared to have been disturbed by plough action (and was cut by later ditch **106** (below). It was 0.29m deep and contained two substantial pottery vessels, a Late Bronze Age vessel (125 sherds weighing 1.144kg) and two worked flints in its lower deposit (108) whilst in its upper fill was a Late Neolithic to Middle Bronze Age jar (653 sherds weighing 0.779kg; App. B.3). It is probable that these vessels had been placed deliberately within the feature. Pit **131** was shallow, 0.15m deep, and undated but was cut by undated north-east to south-west ditch **104,** which was at least 0.8m wide and 0.6m deep (Fig. 16, Plate). Ditch **104** was recut by ditch (**106**/**129**), which was up to 1.25m wide and 0.56m deep and contained 16 pottery sherds (74g) of Late Bronze Age pottery.

5.8.14 Over a 25m distance, directly to the south-east of ditch (**106**/**129**) and up to the first palaeochannel there were four pits **147**, **150**,**152** and **154** all isolated (Fig. 16). The former was the only pit containing dating evidence and unlike the other three which were shallow it was of moderate to large size (Table 3). It is likely pit **147** dated to the Bronze Age but this is not certain. The ten worked flints included two blades and a retouched flint as well as seven flakes (is some of this material residual?), but the pottery seems to include two Bronze Age scraps and a Roman and medieval sherd. It is likely the latter two sherds were intrusive.

Cut	Fill	Width (m)	Depth (m)	Description	Period
109	107; 108	1	0.29	Sub-circular in plan, contained two ?complete ceramic vessels; two worked worked flints	M-LBA?
131	130	0.5	0.15	Undated - stratigraphically 'early'	
147	146; 180	2.1	0.7	Circular in plan, contained 10 worked flints and 4 pottery sherds (10g) (comprising 2?Bronze Age, a small?Roman sherd and a medieval sherd. The latter two ?intrusive)	?Bronze Age
150	149	0.6	0.18	Circular in plan, no artefacts recovered	
152	151	0.2	0.1	Circular in plan, no artefacts recovered	
154	153	0.4	0.15	Circular in plan, no artefacts recovered	
156	158; 157	0.6		Circular in plan, no artefacts recovered	cut palaeochannel
159	155	0.8 x	0.18	Sub-circular in plan, contained pottery (ten sherds)	LBA?

		0.6		and two worked flint	
167	166	0.4		Partially visible in plan, contained pottery (five sherds) and one struck flint	LBA?
169	168	1	0.15	Circular in plan, slightly irregular with asymmetrical profile, no artefacts recovered	cut palaeochannel
171	170	1.3		Sub-circular in plan, no artefacts recovered	cut palaeochannel
173	172	0.5		Circular in plan, no artefacts recovered	cut palaeochannel

Table 3: WTL010 pits in Field 25

Palaeochannels (Fig. 16)

5.8.15 Two distinct deposits were preserved in hollows or were possible palaeochannels were located within the south-eastern part of Field 25; these occupied a south-east facing slope overlooking a brook flowing in to the River Stour and were both oriented south-west to north-east along the contour of the slope of Field 25 (Fig.16). The deposits were both *c*.15m wide and were filled by a sterile and relatively fine brown silt which was less than 1m deep. During machine stripping the upper parts of the northern palaeochannel yielded 78 worked flints as well as four burnt flints. These flints included debitage, cores, blades and part of a leaf shape arrowhead. Roman pottery (38 sherds weighing 0.225kg) was also recovered but were thought to be intrusive.

Pits and post holes in area of former palaeochannels

5.8.16 A series of pits and post holes were dug through the upper backfill of both palaeochannels whilst some other post holes were adjacent to them. Three distinct post hole groups were identified along with a variety of pits, some of which may have been associated with structures (Fig. 16). Post hole group **111** was located between the two palaeochannels and consisted of four post holes (**111**, **113**, **115** & **117**) in a sub-square arrangement covering an area approximately 1.8m x 1.8m (Fig. 16, Plate). These post holes are likely to represent a single 4-post structure, which is typically interpreted as a grain store. The post holes were undated and between 0.1m and 0.22m wide and were between 0.04m and 0.12m deep.

5.8.17 Post hole group **120** comprised at least seven post holes (**120, 122**, **124**, **126**, **161**, **163** & **165**) lay partly within the north-western part of the palaeochannel and adjacent to the site baulk. The group measured *c*.7m by 4m area with presumably further post holes lay beyond the excavation area. Post holes **120**, **122**, **124** & **126** may represent a 4-post structure but this is uncertain. The seven suggested post holes were between 0.15m and 0.22m wide and 0.15m and 0.2m deep. They were filled by a mid brown compact clay and pottery was recovered from one post hole (**163**) which contained five sherds of Late Bronze Age pottery (35g). Within the area of this group there may be a further addition as possible pit (**159**), far larger at 0.8m by 0.6m in area could have been a large post hole. This feature contained ten sherds (0.11kg) of Late Bronze Age pottery and two worked flints. Two further post holes or small pits (**167** and **179**) were directly to the south and south-west of this group. The former contained five Bronze Age pottery sherds (35g) and a worked flint piece whilst the latter had four Late Bronze Age or Early Iron Age pottery sherds (15g).

5.8.18 Post hole Group **133** was located lay partly within the north-eastern part of the palaeochannel and adjacent and at the eastern limit of excavation. It consisted of seven post holes (**133**, **135**, **137**, **139**, **141**, **143** & **145**) filled with a dark greyish brown clay silt

and between 0.03 and 0.16m deep and 0.16m and 0.35m wide. No artefacts were recovered from any of the post holes. Post holes **139**, **141**, **143** and **145** formed a straight line aligned east to west that may have formed part of a building or structure, the remainder of which either has not survived or lies beyond the excavated area. The remaining three post holes were located to the south-west of the group.

5.8.19 Three pits or post holes (**169**, **171** and **173**) cut the southernmost palaeochannel. No artefacts were recovered from any of these features.

Late Iron Age and Early Roman (Fig. 16)

5.8.20 Late Iron Age and Early Roman features were recorded at the far north-western part of Field 23 over a *c*.75m distance (Fig. 16). It is possible the settlement began further to the north-west beyond the excavation area where there is presently a road, but significantly no definite features of these periods were found to the north-west of this road in Field 24. A significant quantity of artefacts dating mostly post-Conquest dating to the mid-late 1st century AD within this area suggest that domestic occupation had taken place within the excavation area or adjacent to it.

5.8.21 It is possible that the settlement originated slightly earlier as a single possible Middle Iron Age pottery sherd (14g) was found in an ephemeral sub-rectangular pit (**246**), 1.06m by 0.6m in size. This pit was just within the excavation area near the southern baulk. Feature (**248**) adjacent to it was a slightly curvilinear gully, 0.58m wide. Not enough survives to determine whether it was the remains of a round house gully but it contained eight pottery sherds (29g) dated AD1-70.

5.8.22 A 1.45m wide and 0.4m deep north to south ditch (**218**) was seen to the south of gully **248**. It extended from the southern baulk before seemingly cut by a probable enclosure (though the relationship was not seen in the excavation and was planned as running/abutting into it). It has tentatively been dated earlier as it contained 10 sherds of Late Iron Age pottery (64g) whereas all pottery from the enclosure was post-Conquest.

5.8.23 The south-western corner of a probable enclosure was the main feature of the settlement within the excavation area. It was located at the north-western end of Field 23, towards the bottom of the slope and close to the brook feeding the River Stour (Fig.16). It consisted of a north to south aligned ditch (**239**/**222**/**220**) running into the site for more than 30m, turning at right angles eastwards for nearly 20m (**216**/**214**), terminating to form a *c*.3m wide entrance and then continuing for 20m (**212**/**210**) before running into the site baulk. The ditch was all fairly shallow (up to 0.29m deep) except at **220** near the corner of the enclosure where it was 0.52m deep (Table 4). The enclosure may have started in the Late Iron Age but was backfilled with a significant quantity of artefacts dating post-Conquest (AD 43-70; Table 4) although the artefacts from slot **239** at the far northern side needs to be taken with caution as a separate ditch (**237**/**224**) aligned roughly parallel joins the enclosure at this area and only one cut was recorded.

Cut	Fill	Width (m)	Depth (m)	Comments
210	209	0.75	0.11	39 sherds (0.235kg) dated AD43-70; 3 pieces of fired clay (7g) two have lining surviving
212	211	1.08	0.28	No artefacts

214	213	0.44	0.05	No artefacts
216	215	0.61	0.13	15 sherds (0.15kg) dated AD43-100
220	219	1.39	0.52	3 sherds (5g) dated AD 43-70
222	221	0.91	0.25	80 sherds (0.586kg) dated AD 43-70; 1 piece fired clay (3g)
239	238	0.9	0.29	* this section seems to be where there were two ditches but only one cut recorded. Fill 238 contained 28 sherds (0.28kg) dated AD 43-70; fill 240 contained 191 sherds (1.08kg) dated AD 43-70; four pieces of slag (0.135kg)

Table 4: WTL010 enclosure ditches in Field 23

5.8.24 Ditch **224**/**237**, largely running directly to the west of the enclosure, continued into the southern site baulk on and was between 0.62m and 0.74m wide and between 0.36m and 0.38m deep. The stratigraphic relationship with the enclosure is uncertain as the pottery recovered was of the same period (six pottery sherds dated AD 43-100) although there was also two struck flints.

5.8.25 Directly to the west of ditch **224**/**237** was a ditch (**235**) which recut near the northern baulk (**226**). Ditch **235** presumably ran from the northern baulk for more than 20m before terminating on its southern side within the excavation area. It was 0.6m wide and 0.23m deep. A large slot 1.8m in length was excavated because of the large quantity of artefacts recovered. Two partial vessels were recovered comprising a LIA perforated jar base (SF 205; two sherds weighing 0.176kg) and 2m to the north in an unexcavated part of the ditch an Early Roman jar (SF 206; 83 sherds weighing 0.818kg). In the excavated slot there were also 32 sherds of Roman pottery (2.934kg). The northern 3.7m of the ditch was recut (**226**) with the terminus excavated and this area produced a deliberate deposit of pottery (context 225; Fig. 16, Plate). This assemblage consisted of several dozen sherds, laid flat at the terminus of the ditch consisting of at least three vessels (171 sherds weighing 1.224kg) dated as AD 43-70. In the other part of the excavated slot there were 66 sherds weighing 0.487kg dating to the same period. Three undiagnostic fragments of fired clay (0.145kg) and a single oyster shell (7g) was also recovered from the deposit.

5.8.26 Four pits (**206**, **208**, **228** and **230**) were within the enclosure. Two adjacent pits were near the western ditch (**228** and **230**) and two were adjacent to the southern ditch (**206** and **208**). Pit **208** was the earlier, it was 0.6m in diameter and 0.18m deep and contained 16 sherds (80g) of pottery dated as AD 43-70. Pit **206** cut **208**, was 1.2m in diameter and 0.6m deep. It contained three small finds (App.B.1) comprising a bow brooch (SF 204) provisionally identified as an Aucissa type (1st century) as well as a bangle (SF 203) which is likely to be 1st century and a D-shaped nailed object (SF 208). Pottery recovered from its two fills comprised 87 sherds (0.817kg) and nine sherds (91g) respectively both dated to AD 43-70. The pit also had part of a probable fired clay triangular loomweight and five fired clay fragments including one with lining. Pit **230** was 1m by 0.55m and 0.22m deep and contained 33 sherds (0.44kg) of pottery dated AD 43-70 and two fired clay pieces with lining (15g). It was cut by undated pit **228**. A further two intercutting pits (**242** and **244**) were located directly to the west of the enclosure. The former was a pit or treethrow measuring 2m by 1.12m in diameter and 0.31m deep. A Roman pottery sherd (1g) as well as seven worked flints including blades were recovered from it. A shallow small pit (**242**), 0.56m in diameter and 0.1m

cut pit **244** and contained a residual BA/EIA small sherd (1g) as well as three worked flints including two blades.

?Bronze Age/Early Iron Age Pit Cluster in Field 23 (Fig. 16)

5.8.27 A cluster of intercutting pits in a *c*.5m² area were located more than 50m to the south-east of the LIA to Early Roman settlement towards the south east end of Field 23 near the top of the north-west facing slope (Fig.16). The cluster consisted of seven pits (**232**, **252**, **254**, **258**, **260**, **262** and **264**). Six pits (**252**, **254**, **258**, **260**, **262** and **264**) were fairly shallow and were between 1m and 2m in diameter and up to 0.3m deep. They were filled by a pale brown chalky clay; some of them were conceivably tree throws. Pit **254** contained six pieces of prehistoric struck flint including two flint knapping cores as well as three burnt flints and a single sherd of Bronze Age to Early Iron Age pottery; Pit **252** contained half of a ?beehive quern stone (SF 207).

5.8.28 Pit **232** cut pit **252** (and possible further features although this can not be determined conclusively due to the poor definition of the feature edges). It was sub-circular in plan and approximately 2m in diameter and 0.8m deep. It contained four fills which yielded six pieces of prehistoric struck flint and four pieces of prehistoric pottery (10g) dated as BA/EIA. It is possible that this pit was post-medieval as there was a tile (34g) and a brick (60g) from its second fill.

Palaeochannel and medieval settlement in Field 22 (Fig. 17)

5.8.29 A 25m wide palaeochannel aligned east to west was also revealed at the north-west end of Field 22. It was investigated by machine and found to be over 1m deep and filled with a sterile brown silt. No finds were recovered from it.

5.8.30 Medieval features were within the southern c.50m of Field 22. Three undated features were seen on the north-western side (**305**, **307** and **318**). Ditches **307** and **318** were oriented north-west to south-east and extended for 20m. Ditch **305** appeared to truncate ditch **307** and was oriented south-west to north-east, and extended beyond both limits of excavation. These ditches were approximately 1m wide and less than 0.3m deep and were filled by a greyish brown silty clay.

5.8.31 Ditch **303**, c.20m to the south-east of these ditches was recorded during the evaluation trenching phase. It was oriented east to west continuing beyond excavated area. It was no wider than 1m and up to 0.25m deep and contained four sherds (36g) of late 12th to early 14th century pottery.

5.8.32 Three features (**309**, **316** & **332**) were located immediately adjacent to the a cobbled surface. Ditch **309** lay immediately to the west and had an uncertain relationship with ditch **316**. It lay on an east to west alignment and continued beyond the limit of excavation to the west. A single greyish brown silty clay (308) deposit filled the feature and this yielded a horseshoe fragment, 16 sherds (0.146kg) of late 12th to early 14th century pottery and residual piece of prehistoric flint (App. B.3) and two fragments of undiagnostic fired clay (18g). Ditch **316** was oriented south-west north-east was 3m wide and 1.26m deep. Its lower fill contained eight sherds (52g) of Late Pre Roman Iron Age (AD 43-70) pottery although the upper fill produced five sherds (73g) of pottery dating up to the later medieval period and 6 undiagnostic fired clay fragments (10g). Ditch **316** was intercut with another undated feature of uncertain shape and date (**332**) though it contained undiagnostic fired clay (18g). Both feature **332** and ditch **316** were sealed by layer 331 which overlies the cobbles.

5.8.33 The cobbled surface (310, 327 and 337) was investigated in a series of hand dug slots which covered an area approximately 15m long by 5m wide and 0.1 to 0.15m deep. The surface comprised medium sized rounded cobbles of inconsistent size and shape. As the cobblestones (0.2m below excavated level) were only investigated in a limited number of slots their full extent was not ascertained. It was not clear whether this was a deliberately laid working surface surface or simply the infilling of a hollow or possible boggy depression. No artefacts were recorded from these cobbles. The layers sealing the cobbles in the different slots (311, 312, 325, 326, 328, 331, 335 and 336) produced a variety of medieval objects comprising collectively 56 pottery sherds (0.385kg) dating up to the later medieval period, 16 nail fragments, a horseshoe fragment, a 15th century buckle, a small staple or carpenter's dog, 19 struck flints, small fragments of lava quern from three deposits (collectively 27 fragments (0.265kg), six roof tile fragments from three deposits (56g), a Roman box flue fragment (41g), nine fired clay fragments (one with withie impression 7mm diameter) but also one intrusive post-med glass fragment from context 336.

5.9 KDG037

5.9.1 Excavations took place over a *c*.250 by 4m area with all features bar one within Field 19 (Fig. 18). The excavations found a possible palaeochannel and very tentatively, part of a possible Bronze Age field system with the dating resting entirely on worked flints recovered.

?Bronze Age

5.9.2 In total four ditches and a discrete feature were recorded in Field 19 (Fig.18). Ditches **404**; **416**; **421** & **411** were oriented broadly north to south. Feature **403** appeared to extend beneath the north facing limit of excavation and therefore was not conclusively identifiable as a discrete feature or ditch terminus ; it was 0.4m deep. No pottery was recovered from any of the excavated features, however worked flints (usually dating to at least the Bronze Age) were recovered which suggests a prehistoric date and is why they are assigned to Bronze Age (**403** & **411** both contained pieces of struck flint). No Roman or medieval pottery was found whereas the Roman and medieval archaeology excavated in Fields 23 and 22, respectively, included diagnostic pottery assemblages). The ditches may represent the repeated cutting of a linear boundary.

5.9.3 A probable palaeochannel was revealed towards the west end of Field 19; this was oriented north-south and was filled with the same material as the palaeochannels previously identified in Fields 25 and 22. No artefacts were recovered from this and it was not investigated by excavation. It may be significant that probable prehistoric archaeological features were oriented respecting it.

5.10 KDG038

5.10.1 Excavations at KDG038 took place over four fields (13-16; Figs. 19-21). In Field 16 the excavation was c.95m long and c.25m wide whereas the excavations within Fields 13-15 were over a *c*.400m distance and were *c*.4m wide. The archaeological features were found scattered across the excavation areas in no real concentrations with the only possible structure was very tentatively dated as ?Late Bronze Age or Iron Age. The relatively few features encountered were most undated and where features contained pottery there were only small quantities.

Late Neolithic to Bronze Age

5.10.2 The earliest features at KDG038 were probably at the northern end of Field 15 (Fig. 20) and comprised adjacent pits (**60**) and (**73**) and ditch **63**. The former was sub-circular in shape measured up to 1.5m in diameter and 1.3m deep. Its backfill was a very dark grey clay silt which yielded worked flint. Immediately to the north-east lay pit **73** which was circular in plan and measured 0.85m wide and 0.45m deep and was dated to the Late Neolithic or Early Bronze Age by four sherds of Beaker pottery (15g). Ditch **63** was situated immediately adjacent, to the north and was 0.7m wide and 0.3m deep; four animal bones and worked flint were recovered from its backfill. As these features were only revealed in a 4m wide pipe trench interpretations pertaining to their function and significance are severely limited.

Possible post hole structure

5.10.3 A total of eight possible post holes (**4**, **9**, **11**, **13**, **15**, **17**, **19** & **21**) were recorded at the south end of Field 16. They were arranged in a rough rectangular shape, covering an area of 8m x 5m. It is possible that this represents the (incomplete) remains of a Late Bronze Age or Iron Age structure. Most of the post holes were approximately 0.5m in diameter although feature 4 was far larger (1.6m in length and 0.4m wide) and they between 0.08m and 0.28m deep. Two adjacent post holes (**11** and **13**) on the south-western side contained prehistoric pottery with the former having two sherds (6g) dating to the Bronze Age or Early Iron Age and post hole **13** had five possible Late Neolithic or Bronze Age sherds (5g). Postulated rectangular structures of this period are rare and the plan at KDG038 is incomplete with the dating evidence not at all conclusive. That being said in the excavation area (up to 25m wide) there was only a single discrete feature near by (**6**) which contrasts with the eight possible post holes of the possible structure.

5.10.4 Approximately 8m to the south-west possible post hole or small pit (**6**), 0.42m in diameter and 0.13m deep. Sixteen sherds (64g) of Bronze Age or early Iron Age pottery, burnt flint, charcoal, two unburnt animal bones and some cremated animal bone (two sheep's teeth (5g)) were recovered from the feature.

5.10.5 An isolated oval pit **42**, 0.88m long, 0.55m wide and 0.1m deep was located approximately half way along the excavation in Field 13. It contained a mid yellow brown clay with some charcoal and thirteen sherds (65g) of pottery ranging in date from sometime between the Late Bronze Age to the Middle Iron Age periods. No further evidence for contemporary archaeological features was seen in the excavation around the feature.

Medieval

5.10.6 Ditch **39** was located in Field 13. It was oriented east to west and contained medieval pottery; it was a possible boundary ditch measuring over 1m wide and was almost 0.5m deep.

Post-medieval

5.10.7 In the northern part of Field 15 a ditch (**57**) aligned parallel with Hundon Road was recorded. It was 2.35m wide and 0.3m deep and contained a piece of post-medieval glass. To the south, a modern north to south aligned ditch (**70**) was recorded that was shown on 19th century OS maps. A residual piece of Roman tile was recovered from its fill.

5.10.8 Ditch **40** was found to contain post-medieval pottery and was located at the north end of Field 14 oriented east to west. In the centre of Field 13 Ditches **44** and **46** were aligned with existing field boundaries and also shown on 19th century OS maps. Ditches **33** and **35** were located towards the south end of Field 13 and oriented north to south, both contained modern artefacts including wood and glass.

Undated

5.10.9 Pit **51**, which was located at the north end of Field 14, was circular in plan and measured 1.3m in diameter and 0.4m deep. Its single pale brown clay fill contained no finds. Also at the northern end of Field 14, Ditch **49** terminated within the pipe trench and was slightly curvilinear in plan. It was 0.25m deep and no artefacts were recovered from its fill.

5.10.10 In Field 13 Ditch **55** was oriented north to south and was a substantial boundary ditch measuring 2.6m wide by 1.26m deep. It contained three fills, with the uppermost containing fragments of pottery of possible Roman or medieval date. It was recut along its west side by Ditch **69** which was 1.85m wide and 0.6m deep; no artefacts were recovered from its fill.

5.11 WIX021

5.11.1 Excavations at WIX021 took place over two large fields (4 and 5; Figs. 22-27). At the far northern area the excavation area was c.160m by 25m in size whereas the majority of the work took place in an area *c*.900m by 4m. Features were found along this excavation area dated from c.Neolithic to post-medieval periods. The excavations found some important sites including a possible settlement located around the mining of natural flint nodules in one area in the Neolithic and/or Bronze Age period, two Middle Bronze Age cremations in another, two Roman rural settlements and an Early to Mid Saxon pit.

Early prehistoric to Bronze Age

Early prehistoric palaeochannel, Neolithic/Bronze Age quarry pit & associated ditches and pits in the southern part of Field 5 (Fig. 23)

5.11.2 An early prehistoric palaeochannel (**266**) was recovered at the southern end of Field 5 (Fig. 23). This comprised a former water course oriented north-east to south-west, perpendicular to the course of the River Stour. It continued beyond both limits of excavation and was investigated by machine and found to be 20m wide and 3m deep. Feature **266** was filled with successive phases of eroded chalk, clay and gravels. These deposits contained significant quantities of large flint nodules, especially deposit 269. It was infilled with 11 undated deposits (267-277). Palaeochannel **266** was cut by quarry pit **232** on its northern side.

5.11.3 Quarry pit **232** was 10m wide and 0.45m deep and had been filled by four thin lenses of silt, which probably represent gradual infilling over an extended period: (231, 245-7). There was 1561 worked flint pieces and 39 burnt pieces were recovered within these four lenses (Table 38). These flints were stylistically dated to the Late Neolithic and Bronze Age periods with some possibly early Neolithic examples (App. B.2). It's likely that the primary function of the pit was to provide the raw materials necessary (flint nodules) for the production of flint tools & artefacts; as the flints recovered from pit **232** were mostly debitage and waste flakes rather than finished tools, it can be plausibly

inferred that only initial core reduction took place on site and cores were taken off-site for further working and specific tool production.

5.11.4 It is possible that there was occupation within the site in this period and the flint working was one of several different contemporary activities in the area as there were several other features in this area. Two adjacent pits or treebowls (**233** and **235**) were located directly to the south of the palaeochannel. Pit **233** was more than 0.73m long, 0.70m wide and 0.06m deep and contained 58 worked flints and 21 burnt flints whereas pit 235 was sub-rounded 0.5m in diameter and 0.07m deep and produced 41 worked flint and 20 burnt flint pieces.

5.11.5 Two shallow ditches (**220** and **222**) were located on either side of, and parallel to, palaeochannel **266** and continued beyond both limits of excavation. Ditch **220** was 0.65m wide and 0.15m deep and was undated while **222**, 2m wide and 0.2m deep contained 23 worked and two burnt flints. Palaeochannel **266**, quarry pit **232,** ditches **220** & **222** and pits or treebowls (**233** and **235**) were sealed by two buried soil layers (225 & 224) which comprised pale brown silty sands. Layer 225 continued to the south-east end of the trench and was investigated in a 1m sq test pit. One hundred and twenty worked and 14 burnt flint was recovered from this layer. These layers are stratigraphically significant as they seal these features which may suggest that they are all broadly contemporary.

5.11.6 Two intercutting pits or treebowls (**242** and **244**) lay directly to the north of quarry pit **132** may also date to this period. The earliest (**242**), was more than 2.6m long, 1.71m wide and 0.45m deep contained 54 worked and one burnt flint whilst **244** was 2.8m long, 1.84m wide and 0.64m deep and had 50 worked and one burnt flint.

Middle to Late Bronze Age pit in the northern part of Field 5 (Fig. 22)

5.11.7 A possible Mid to Late Bronze Age pit (**249**) lay c.80m to the north of pits **242** and **244**. It was sub-circular, 3.5m in diameter and up to 0.65m deep. It was 100% excavated and from its two deposit it produced 24 sherds (76g) of pottery dated as Bronze Age and 33 sherds (96g) dated as Mid to Late Bronze Age respectively. There were also 19 worked flints including two cores and four blades as well as 40 animal bone fragments.

Middle Bronze Age cremations in the middle of Field 4 (Fig. 25)

5.11.8 Two cremation pits **155** & **157** were situated 8m apart, to the south of the central part of Field 4. Pit **155** was circular and 0.75m in diameter and 0.2m deep. A complete upturned cremation vessel probably of the Middle Bronze Age period (pers. comm. Sarah Percival) was recorded within pit **155** and this contained a small quantity of cremated bone (37g). None of the bone could be definitively identified as human due to the small size of the fragments and the only identifiable skeletal element was that of a juvenile pig (App. C.1). However, the charcoal rich fill of the pit contained five small pieces of human skull (153), 12 worked flints including six blades and four burn flints as well as four animal bone fragments. Pit **157** was 0.95m in diameter and 0.15m deep and contained a small amount of cremated bone (5g) within the dark brown sandy silt fill (156), none of which was identifiable. A small fragment of unburnt human skull was found in the fill (App. C.1).

Three isolated features within the northern, central and southern part of Field 4 (Figs. 23, 24 and 26)

5.11.9 In the northern part of Field 4 (Fig. 23), a probable Late Bronze Age or Early Iron Age

pit (**218**) lay 60m to the south of the palaeochannel (**266**). It was oval, 1m by 0.65m and 0.25m deep and contained two sherds of pottery (11g) dating to the Late Bronze Age/Early Iron Age.

5.11.10 In the central part of Field 24, a ditch (**126**), located c.50m to the south of cremation 157 has been tentatively dated to the Bronze Age. Ditch **126** terminated to the west and was 1.15m wide and 0.2m deep; one worked flint and one sherd (10g) of Bronze Age pottery were recovered from the fill.

5.11.11 Pit **3** at the southernmost end of Field 4 was sub-circular in plan, more than 2.2m long, 1.6m wide and 0.49m deep (Fig. 27). It contained a worked broken blade and 75 burnt flints as well as a large quantity of charcoal. It is likely to date to the prehistoric period.

Two or more possible Roman settlements

5.11.12 There was at least two Roman settlements within the WIX021 excavation area. The limited area opened up (4m wide) has made it very uncertain limits to these postulated settlements. It is interesting to note that while there were many Roman remains, no Middle of Late Iron Age features (and artefacts) were uncovered across the whole of the excavation areas and it is therefore uncertain whether these settlements had an Iron Age precursor. If this were the case, it is possibly pertinent to note that Wixoe Roman town, directly to the south, was possibly a planned Roman settlement with seemly no Iron Age antecedents.

5.11.13 There were Roman features within the southern half of Field 4 covering a distance of 400m (Figs. 25-27). Unfortunately features with Roman remains were spaced fairly consistently across this area in no apparent concentrations and it is possible there were two separate settlements here. The features are described south to north.

5.11.14 In the extreme southern part of the excavation (Fig. 27) there was a north to south ditch (**9**/**12**/**15**) which terminated within the excavated pipe trench on the northern side after *c*.30m. It was 2m wide and 0.85m deep and contained one small fragment of residual LBA/EIA pottery (2g), 20+ lava quern fragments (133g), eight animal bone fragments including roe deer and three worked flints. In the 50m to the north of (**9**/**12**/**15**) there were two or more features which may date to this Roman period (feature **10** had a tile or brick fragment (27g) and feature **16** a copper-alloy scrap) but most were undated.

5.11.15 Roman ditch **23**/**73** aligned south-west to north-east stopped after c.20m on its north-eastern side. It is possible it was associated with ditch **36** to the north to form an entranceway *c*.15m wide. Ditch **23**/**73** was up to 0.5m wide and 0.4m deep and contained two lava quern fragments (0.23kg), three residual LBA/EIA pottery scraps (4g), three worked flint, 2 fired clay/daub (10g) and 12 hand collected animal bone fragments as well as a further 27 fragments from a soil sample. Ditch **36** was 0.4m wide and 0.25m deep and contained a sherd of Roman or medieval pottery sherd (2g), an oyster shell, six worked flints and four animal bones.

5.11.16 About 50m to the north there were two adjacent Roman features (Fig. 26; pits **31** and ditch **33**). The former was 1.7m in diameter and 0.53m deep and contained lava quern fragments (220g), a worked flint and three animal bones (Fig. 26). Ditch **33** was aligned east to west, 0.7m wide and 0.27m deep. Within its backfill was a fragment of Roman tile, probably a tegula (0.248kg) and seven animal bone fragments. An undated

curvilinear ditch (**35**), 0.6m wide and 0.1m deep, directly to the north may have been a ring gully.

5.11.17 In the 40m to the north of ditch **35** there was a probable routeway defined by parallel ditches **76** and **72** (and recut **70**) as well as a structure directly to the south of it. The routeway was *c*.6m wide with ditches **76** and **72**, 1.35m and 1.4m wide and 0.6m and 0.8m deep respectively. In the backfill of ditch **76** there were two Roman tile fragments (40g), three oyster shells, three human bone fragments (distal end of a humerus, of a ulna and radius) and 10 animal bone fragments whist ditch **72** had only nine animal bones. Ditch **70** was a recut of **72**, was 1.95m wide and 0.38m deep and contained two Roman tiles (140g), two worked flints and two animal bones. The structure (**46**) directly to the south of the routeway was seen over a c.8m distance and consisted of ten post holes (**46**, **48**, **50**, **52**, **54**, **56**, **58**, **60**, **62** & **64**) within the excavation area. They were between between 0.25m and 0.75m in diameter and 0.4m to 0.5m in depth with their single fill deposits consisted of a brown sandy silt with some gravel. Very few artefacts were found in the post holes with **50** containing a possible early medieval pottery sherd (7g) and three worked flints, **48** had four worked flints and **64** a fired clay with lining fragment from part of an oven or hearth (10g).

5.11.18 Seventy metres to the north of the routeway was pit **79** which was oval in shape 1.15m long, 0.6m wide and 0.5m deep with near vertical sides and a slightly concave base (Fig. 26). It contained a double ended bone bin beater (SF 28), a sherd of Roman pottery (3g), a Roman tile fragment (88g), a worked flint, 32 hand collected animal bone fragments with a further 16 recovered in the soil sample from the pit (which also produced a pea seed). An adjacent undated structure (**102**) to the pit is likely to be of this period. It comprised of ten post holes (**102**, **104**, **106**, **108**, **110**, **112**, **114**, **116**, **118** & **120**) encompassing an area 10m x 4m in size (Fig. 26). They were between 0.14m and 0.6m wide and up to 0.7m deep and their sterile backfills comprised a compact brown sandy silt with some gravel.

5.11.19 There were two adjacent groups of post holes, *c*.10m apart, located more than 30m to the north of structure **102** (Figs. 25 and 26). The first group (structure **82**) has only very tentatively been assigned a Roman date and could be Bronze Age or Early Iron Age in date as none of the post holes had any Ronan artefacts within them. A total of eight post holes (**82**, **84**, **86**, **88**, **90**, **92**, **94** & **99**) were recorded covering an area approximately 4m x 3m in Field 4. The post holes were between 0.3m and 0.54m wide and up to 0.15m deep. Their backfills consisted of compact brown sandy silt with gravel inclusions. A single sherd of Bronze Age pottery (4g) was recovered from both post hole **88**, a Bronze Age or Early Iron Age scrap (5g) as well as a worked flint from post hole **92** and three worked flint from post hole 84. Structure **146** comprised eight post holes **137**, **138**, **140**, **142**, **144**, **146**, **148** and **150** within a c.8m distance. They were between 0.25m and 0.7m wide and up to 0.25m deep. Their single backfill deposits consisted of compact brown sandy silt with occasional gravel. Two sherds of 2nd century Samian pottery were recovered from post hole **150** (App. B.3).

5.11.20 Ten metres to the north of structure 146 was ditch **128**. It was a substantial boundary ditch, 3.4m wide and 1m deep and contained a Late Roman needle or pin (App. B.1). Directly to the north of this ditch was pit **78**. This was 3.15m long, more than 1.55m wide and 0.12m deep. Its lower fill comprised a layer of rounded cobbles and the upper deposit contained 11 sherds (56g) of Roman pottery.

5.11.21 In the subsoil and topsoil across this Roman settlement 10 Roman coins were

recovered by metal detecting and these dated dated from the late 3rd to late 4th centuries (App. B.1). The subsoil layer (127) sealing the features also produced seven Roman pottery sherds (67g) dating to the late 3rd and 4th centuries, two fired clay fragments (11g), three worked flints and a little cremated bone (11g).

5.11.22 It is probable there was a second Roman settlement, 200m to the north of pit **78** (Fig. 24). The settlement includes a structure **169** consisted of thirteen post holes (**169**, **171**, **173**, **175**, **177**, **179**, **181**, **183**, **185**, **187**, **189**, **191** & **193**) in a north to south alignment, over a c.14m distance and presumably represents one half of a building (Fig.24). The post holes were roughly equi-distance apart and were between 0.4m and 0.6m in diameter and 0.06m and 0.2m in depth. The fills consisted of compact pale orange brown sandy silt with frequent gravel. A bow brooch from post hole **189** dated to the 1st century date AD but before AD 75 and two post holes had one and two worked flints respectively. This structure was sealed by subsoil layer 163 which contained a cast figure of a probable female (SF 31) and if this provisional identification is confirmed it will date to the Roman period (App. B.1).

5.11.23 Features either side of the structure are likely to be Roman in date but no artefacts of this period were recovered. Undated ditch **196** and possible intercutting tree throws (**161** and **166**) lay to the south of the structure with the two intercutting tree throws only containing five and six animal bones respectively. To the north lay a segmented curvilinear ditch (**204**/**206** & **208**/**210**/**212**) collectively *c*.30 in length with a gap of 1.5m between them. They were c.1m wide and 0.34m deep with only a small scrap of Bronze Age pottery (2g) from the northern segment.

Early to Mid Anglo Saxon pit

5.11.24 A single Early to Mid Saxon pit (**44**) was found in the middle of Field 4 partly within the excavation area (Fig.26). It was 1.3m in length and 0.25m deep with moderate sides and a flat base and contained.a mid grey brown sandy silt backfill within which there was three Early to Mid Saxon pottery sherds as well as a single worked flint.

Medieval or post-medieval

5.11.25 A possible medieval pit **38** was recorded in the southern part of Field 4 at the west facing edge of the pipe trench (Fig. 27). It was only partially visible in plan with the exposed section measuring 5.5m long, at least 2.8m wide and 0.7m deep. A single possible early medieval pottery sherd was found in its backfill as well as two worked flints and five animal bone fragments.

5.11.26 A post-medieval pit **135** was located in the central part of Field 4 (Fig. 25). It was backfilled with four deposits all containing artefacts and ecofacts dating to the 17th and 18th century. The relatively large quantity of these finds suggest a former building near by. There were 34 pottery sherds (0.007kg), six peg roof tile fragments (0.281kg), 11 probable brick fragments (0.207kg), fired clay (one burnt) with lining from oven or hearth (0.386kg), three clay pipe fragments and 17 animal bones.

Undated

5.11.27 A few undated pits, post holes and ditches found in WIX021 could date to any period. Several lay within the postulated Roman settlement within the middle and southern parts of Field 4 and may date to this period (ditch **22**, ?treethow **20**, ?natural feature **67**, post holes **40** and **42** and ditch **28** (Figs.25-27).

5.11.28 Elsewhere along the excavation areas, the undated features were spread out in no real concentrations. A putative ditch terminus (**159**) was also visible in this part of the field, apparently in association with a shallow post hole (**165**) (Figs. 24 and 25). Post holes **198** and **215** lay in different parts of the centre/north parts of Field 4, isolated from other features (Fig. 24).

5.11.29 At the northern end of Field 4 there were two ditches (**202** & **213**). Ditch **213** was oriented east to west and was 0.8m wide by 0.22m deep and approximately 50m to the south, Ditch **202** was also aligned east to west and was 2.3m wide by 0.7m deep, several large flint nodules but no artefacts were recovered from its fill.

5.11.30 In Field 5 there was a large ditch **237**/**250**/**251**, directly to the north of the Late Neolithic or Bronze Age quarrying area (Fig. 23). The ditch was large and is unlikely to date to this period. It slightly meandered in a north-west to south-eastern direction and may be of natural origin. It was at least 2.7m wide and 0.75m deep. It was cut on its northern side by ditch **248** which contained a copper alloy ring which couldn't be dated (SF 18; App. B.1). It is possible these features may be part of a further Roman settlement?

6 Factual Data and Assessment of Archaeological Potential

6.1 Stratigraphic and Structural Data

The Excavation Record

6.1.1 The site archive, comprising hand written registers, records and drawings has been entered in to an MS Access Database. Type and quantities of records are summarised by site (Tables 5-11).

BYG029

Context Registers (pages)	3
Plan Registers (pages)	1
Section Registers (pages)	1
Environmental Sample Registers (pages)	1
Small Finds Registers (pages)	1
Photographic Registers (pages)	4
Context Records	94
Digital Context Records & Group Numbers	
Feature Plans at 1:10	3
Feature Plans at 1:20	29
Feature Sections at 1:10	27
Feature Sections at 1:20	8
Black & White Prints	25
Colour Slides	35
Digital Photographs	73

Table 5: BYG029 (type and quantities of records)

BYG030

Context Registers (pages)	3
Plan Registers (pages)	1
Section Registers (pages)	1
Environmental Sample Registers (pages)	1
Small Finds Registers (pages)	
Photographic Registers (pages)	4
Context Records	213
Digital Context Records & Group Numbers	
Plans at 1:20	29
Sections at 1:10	24

Sections at 1:20	9
Black & White Prints	72
Colour Slides	0
Digital Photographs	112

Table 6: BYG030 (type and quantities of records)

BRL026

Context Registers	
Plan Registers	1
Section Registers	1
Environmental Sample Registers	1
Small Finds Registers	1
Photographic Registers	1
Context Records	140
Digital Context Records & Group Numbers	142
Plans at 1:20	11
Sections at 1:10	6
Sections at 1:20	6
Black & White Prints	
Colour Slides	
Digital Photographs	27

Table 7: BRL026 (type and quantities of records)

TUL021

Context Registers (pages)	10
Plan Registers (pages)	33
Section Registers (pages)	
Environmental Sample Registers (pages)	2
Small Finds Registers (pages)	2
Photographic Registers (pages)	4
Context Records	
Digital Context Records & Group Numbers	261
Plans at 1:10	11
Plans at 1:20	66
Plans at 1:50	1
Sections at 1:10	74
Sections at 1:20	12
Black & White Prints	100

Colour Slides	100
Digital Photographs	124

Table 8: TUL021 (type and quantities of records)

WTG017 / WTG018 / WTL010 / KDG017

Context Registers (pages)	13
Plan Registers (pages)	4
Section Registers	6
Environmental Sample Registers (pages)	3
Small Finds Registers (pages)	1
Photographic Registers (pages)	6
Context Records	
Digital Context Records & Group Numbers	692
Plans at 1:10	5
Plans at 1:20	87
Plans at 1:50	4
Plans at 1:100	1
Sections at 1:10	74
Sections at 1:20	29
Black & White Prints	200
Colour Slides	67
Digital Photographs	132

Table 9: WTG017/WTG018/WTL010/KDG017 (type and quantities of records)

KDG038

Context Registers (pages)	2
Plan Registers (pages)	1
Section Registers (pages)	1
Environmental Sample Registers (pages)	1
Photographic Registers	2
Context Records	73
Digital Context Records & Group Numbers	73
Plans at 1:10	1
Plans at 1:20	20
Sections at 1:10	26
Sections at 1:20	1
Black & White Prints	33

Colour Slides	33
Digital Photographs	38

Table 10: KDG038 (type and quantities of records)

WIX021

Context Registers (pages)	11
Plan Registers (pages)	2
Section Registers (pages)	3
Environmental Sample Registers (pages)	7
Small Finds Registers (pages)	1
Photographic Registers (pages)	5
Context Records	277
Digital Context Records & Group Numbers	277
Plans at 1:10	4
Plans at 120	46
Plans at 1:50	1
Sections at 1:10	103
Sections at 1:20	7
Sections at 1:50	1
Black & White Prints	117
Colour Slides	110
Digital Photographs	179

Table 11: WIX021 (type and quantities of records)

Finds and Environmental Quantification (Tables 12-18)

BYG029

Pottery (kg)	0.3
Animal Bone (kg)	0.17
Worked / Burnt Flint (kg)	0.79
Environmental samples: one at 4L, one at 5L, two at 10L and one at 30L	5

Table 12: BYG029 (finds and environmental qualification)

BYG030

Pottery (kg)	1.83
Animal Bone (kg)	2.64
Worked / Burnt Flint (kg)	14.38
Environmental Samples: one at	3

20L and two at 40L	

Table 13: BYG030 (finds and environmental qualification)

BRL026

Pottery (kg)	0.79
Animal Bone (kg)	0.23
Worked / Burnt Flint (kg)	3.3
Environmental Samples: two at 6 litres and one at 10 litres	3

Table 14: BRL026 (finds and environmental qualification)

TUL021

Pottery (kg)	6.39
Animal Bone (kg)	2.56
Worked / Burnt Flint (kg)	3.88
Environmental Samples: five at 10L, two at 20L, two at 30L and five at 40L	14

Table 15: TUL021 (finds and environmental qualification)

WTG018 / WTL010 / KDG037

Pottery (kg)	13.76
Animal Bone (kg)	3.08
Worked / Burnt Flint (kg)	1.11
Environmental samples: three at 2.5L, four at 4L, three at 5L, one at 7L, one at 15L, one at 18L and three at 30L	16

Table 16: WTG018/WTL010/KDG037 (finds and environmental qualification)

KDG038

Pottery (kg)	0.25
Animal Bone (kg)	0.27
Worked / Burnt Flint (kg)	0.02
Small / Registered Finds (No.)	
Environmental samples: two at 20L and one at 30L	3

Table 17: KDG038 (finds and environmental qualification)

WIX021

Pottery (kg)	1.34
Animal Bone (kg)	1.09
Worked / Burnt Flint (kg)	39

Small / Registered Finds (No.)	
Environmental samples: three at 1L, one at 4L, one at 5L, thirteen at 10L, fifteen at 20L, twelfth at 30L, one at 160L, three at least 10L and one monolith	50

Table 18: WIX021 (finds and environmental qualification)

Range and Variety

6.1.2 Archaeology revealed along the length of the pipeline comprised multi-period remains but the majority was prehistoric, probable evidence for which was found along most of the route; Roman and medieval remains were found but not in abundance or concentrated closer together.

6.1.3 The most common features represented were ditches, of the post hole recorded, a significant number have been attributed to structural remnant (Table 19).

Feature Type	***No.***
Ditch	136
Pits	47
Post Holes	113
Structures (partial or complete)	12
Cremations	11

Table 19: Feature Types

Condition

6.1.4 The survival of the archaeological features on site was on the whole good. Overall very little modern disturbance down to the underlying geology was recorded.

6.2 Documentary Research

Cartographic Evidence

6.2.1 Enclosure maps and early OS maps will be consulted to identify parts of the pipeline route likely to have medieval or post-medieval origins, as seen in the orientation of roads, trackways and field boundaries. This would allow a comparison between prehistoric land divisions and any more recent field systems.

Topographic Evidence

6.2.2 Analysis of topographic and geological maps would aid interpretation of particular sites and artefacts, considering the route of the pipeline followed the River Stour relatively closely and traversed several small valleys with streams and brooks.

6.2.3 The location of prehistoric sites and activity are likely to have been influenced by their proximity to water, the cardinal direction of any slopes and local geological deposits.

6.3 Artefact Summaries

Metalwork (Appendix B.1)

Summary

6.3.1 Small fragments of ironwork were recovered from excavation at BYG030, TUL021 and WTG018; these were incomplete, in poor condition and displayed no diagnostic features. Excavations at WTL010 produced two copper alloy objects dating to the 1st century AD (Field 23) as well as horseshoe fragments, nails and a buckle dating from the late an/or post-medieval periods (Field 22).

6.3.2 Statement of potential

6.3.3 The Copper alloy artefacts are relatively diagnostic and with further conservation have potential to contribute to more accurate dating and interpretation of their respective sites. The remains of iron artefacts offer no potential for further analysis.

Worked Flints (Appendix B.2)

6.3.4 The flint assemblages from the sites were assessed separately and so are summarised individually (Table 20). Following these summaries overall conclusions are given incorporating all of the assemblages.

6.3.5 Each of the excavation sites along the Suffolk section of the pipeline produced an assemblage of worked flints. The quantities are listed in in the table below. Analysis was on a preliminary level *i.e.* basic quantification and the assessment of technological traits and chronological indicators. Recommendations regarding further study are stated in the individual reports (see Appendix B) and summarised in this section.

Site	**WTL010**	**BYG029**	**TUL021**	**WIX021**	**BYG030**	**BRL026**
No. of Flints	303	41	210	2343	772	159
No. of Contexts	28	8	20	46	50	12

Table 20: Lithic Quantifications

WIX021

Summary

6.3.6 An assemblage comprising a total of 2343 worked flints was recovered from this site. The majority of the cores recovered are of the relatively simple single platform technique characteristic of Late Neolithic / Early Bronze Age practice. Two flakes from the lower fill of quarry Pit **232** showed evidence for being struck from Levallois type cores which is typical for the late Neolithic. However, some multiple and opposed platforms, as well as two examples of possible crested blades recovered from Pit **232**, are more characteristic of late Mesolithc or early Neolithic techniques.

6.3.7 Up to 86% of the assemblage comprised debitage, suggesting that core preparation is likely to have been the primary task undertaken on site and that the site was primarily for raw material extraction and preliminary reduction rather than the production of finished tools. The high ratio of waste to cores suggests that most cores were taken off site following initial reduction.

Statement of potential

6.3.8 The flint recovered from excavations at Waterhall Farm, Wixoe is of national and regional importance as it 'offers a unique opportunity to study a potential Late Neolilthic / Bronze Age raw material extraction site in detail and at source' (Dickson; Appendix B).

6.3.9 The assemblage has excellent potential to contribute towards the original Research Aims of the project (Section 4.1).

BYG030

Summary

6.3.10 An assemblage of 772 lithics were recovered from this site, much of which is representative of secondary deposition within hollows or palaeochannels. Several pieces display signs of damage, which is to be expected for flint *ex-situ*. The most common type of core technique is the single platform type. The careful removal of blades and narrow flakes from two of the cores is indicative of Late Mesolithic and Early Neolithic workings.

6.3.11 Despite the presence of blade and narrow flake type cores, the assemblages seem to represent partial reduction sequences of different nodules with tools and edge utilised pieces comprising only 10% of the total assemblage.

Statement of potential

6.3.12 Further analysis of the lithic assemblage has good potential to contribute to the Research Aims of the project (Section 4.1).

BYG029

Summary

6.3.13 An assemblage of 41 lithics was recovered from this site that dated primarily to the Late Neolithic and Bronze Ages. Several blades are conceivably from the Early Neolithic or Late Mesolithic periods and partially worked early Neolithic arrowheads were recovered from Feature **152**.

Statement of Potential

6.3.14 No further work on this assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

TUL021

Summary

6.3.15 An assemblage of 210 lithics dating from the Late Neolithic to Early Bronze Age was recovered from the site. This material showed few sign of post depositional disturbance or damage. The majority of the assemblage was debitage (62%) and was dominated by secondary removal flakes, reflecting intermediate stages of core reduction. Blades and finished tools were uncommon and only one definite core was identified.

Statement of potential

6.3.16 A limited programme of further analysis is recommended for this assemblage. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

WTL010

Summary

6.3.17 An assemblage of 303 lithics was recovered from the site. Up to 75% of this material was recovered from a single context in Field 25. The assemblage is dominated by flake and blades, a greater proportions of which were smaller, thinner and narrower than comparable assemblages from other sites. This suggests the material is a result of core

reduction with associated tool production and maintenance, which is characteristic of Late Mesolithic and Early Neolithic technologies.

Statement of potential

6.3.18 A limited programme of further analysis is recommended for this assemblage. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

BRL026

Summary

6.3.19 An assemblage of 159 struck flints were recovered from this site. The assemblage is relatively small in size and typical other examples in the region in its technological composition.

Statement of Potential

6.3.20 A limited programme of further analysis is recommended for this assemblage. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

Pottery (Appendix B.3)

6.3.21 A total of 3327 sherds of pottery, weighing 24kg, were recovered during the excavations (this does not include two cremation vessels). The assemblages are summarised by period below.

Prehistoric pottery

Summary

6.3.22 The majority of the assemblage consisted of flint tempered fabrics, both coarse and fine; some were sand tempered, although this was less common. As most of the pottery represented body sherds, vessel forms were rarely identified.

6.3.23 The pottery ranged in date from the Late Neolithic to the Late Iron Age. A significant assemblage of Late Neolithic Grooved Ware pottery was recovered from Pit **130** at BRL026. Two Middle Bronze Age cremation vessels (WTL010 and WIX021) are of particular importance.

Statement of Potential

6.3.24 Further analysis of the prehistoric pottery assemblage has good potential to contribute to the Research Aims of the project (Section 4.1).

Roman Pottery

Summary

6.3.25 The majority of the Roman pottery recovered dates from the 1st and 2nd centuries; none was recovered from beyond 250AD. Significant assemblages from WTL010 (Field 23) had a narrow date range of 50-75AD.

Statement of potential

6.3.26 Further analysis of the pottery assemblage has good potential to contribute to the Research Aims of the project (Section 4.1), especially with regards enhancing our understanding of ceramic supply and use on a regional level, in conjunction with similar published assemblages.

Post Roman pottery

Summary

6.3.27 Two Early to mid Saxon pottery sherds was found in a pit at WIX021. Small quantities of St Neots type wares dating to AD *c*.850-1150 were recovered from excavations at TUL021. It is possible these were all post-Conquest. Early medieval pottery (up to the 12th century) was mostly shelly ware but the majority of the medieval pottery was dominated by sandy coarse wares which are typical within the region at this time.

Statement of potential

6.3.28 A limited programme of further analysis is recommended for this assemblage. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

Other Artefacts

6.3.29 A small quantity of other artefacts were recovered comprising slag, quern, a bone pin beater, a fired clay object, brick and tile (Roman to post-medieval), fired clay and clay pipe.

Statement of potential

6.3.30 A very limited programme of further analysis is recommended for this assemblage with the bin beater, one of the querns and the fired clay object to be analysed further.

6.4 Environmental Summaries

Human Skeletal Remains (Appendix C.1)

BYG030

Summary

6.4.1 Cremated human bone was recovered from excavations at Kirtling Green (BYG030); Pit **167** contained substantial remains of a single adult. The date of this context could not be conclusively identified but it is though to date to the Bronze Age.

Statement of potential

6.4.2 No further work on the assemblage is recommended, however the bone may be used for radiocarbon dating. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

TUL021

Summary

6.4.3 Small quantities of mostly unidentifiable and undiagnostic cremated bone were recovered from the excavation of Ring Ditch **1008**. A single piece was identified as human with some pieces of animal bone present. It is likely that this represents domestic waste rather than any ritual practice.

Statement of potential

6.4.4 No further work on the assemblage is recommended, however the bone may be used for radiocarbon dating. The results of the assessment will be included in the publication

report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

WTL010

Summary

6.4.5 A total of 2.20kg of cremated human remains were excavated that represent at least three cremation burials and two deposits of pyre debris. The cremations are likely to be part of a wider cemetery or cluster of cremation pits and, therefore, extend beyond the limits of the excavated pipe trench.

Statement of potential

6.4.6 Further analysis of the cremated human remains recovered from WTL010 has good potential to contribute to the Research Aims of the project (Section 4.1).

Faunal Remains (Appendix C.2)

Summary

6.4.7 An assemblage totalling 1203 fragments of animal bone, weighing 7.43kg was recovered during the excavation. Little articulated bone or evidence for butchery was recovered which suggests that most of the material represents background deposition from general activity rather than deliberate deposition.

Statement of potential

6.4.8 A limited programme of further analysis has good potential to contribute to the Research Aims of the project (Section 4.1).

6.4.9 No further work on the remainder of the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

Environmental Remains (Appendix C.3)

BYG029

Summary

6.4.10 Five bulk samples were taken from excavations at Kirtling Green. One sample from Pit **130** was found to contain charred plant remains indicative of small scale crop processing.

Statement of potential

6.4.11 No further work on the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has limited potential to address the project's Research Objectives (Section 4.1).

BYG030

Summary

6.4.12 Pit **169** was a pit containing substantial cremated human remains; the samples recovered contained little charcoal suggesting the bone fragments had been favoured over burnt remains.

Statement of potential

No further work on the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

TUL021

Summary

6.4.13 Environmental samples were taken from Ring Ditch **1008** in Field 40, the watering hole in Field 36 and ditches in Field 39.

Statement of potential

6.4.14 No further work on the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has limited potential to address the project's Research Objectives (Section 4.1).

WTL010

Summary

6.4.15 Preservation of charred plant remains was poor across all of the samples taken from excavations near Great Wratting. The environmental remains recovered from the cremation deposits were notable as they contained grassland plants which suggests that turf might have been used on a pyre.

Statement of potential

6.4.16 No further work on the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives (Section 4.1).

WIX021

Summary

6.4.17 Fifty bulk samples were taken from excavation at Waterhall Farm. Charred seeds were dominated by cereal grains, although the low density of plant remains means that the samples are largely uninformative.

Statement of potential

6.4.18 No further work on the assemblage is recommended. The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has limited potential to address the project's Research Objectives (Section 4.1).

Shell (App. C.4)

6.4.19 Just 23 oyster shells were recovered from Roman and post-medieval contexts. There is no potential for further analysis.

7 Updated Research Aims and Objectives

7.1.1 The excavations within the pipeline have found Neolithic to modern features. This chapter only analyses areas where the archaeological work along this pipeline will answer research objectives.

7.1.2 The completion of the post-excavation assessment has shown that only a few of the original aims and objectives of the excavation (Section 4) are relevant. There were no *insitu* Palaeolithic or Mesolithic remains found. The Neolithic and Bronze Age objectives still stand (see below). For the Iron Age, the original objectives are not so relevant with the exceptions being that some Bronze Age field boundaries may have continued into the Early Iron Age and these have therefore been included in the Bronze Age research objectives. A single small part of an Early to Mid Iron Age settlement was also found but its value is severely limited by only a few pits and a ditch being recovered - this means the objective of comparing its form with the Bronze Age settlements recovered is not obtainable. A single Late Iron Age to Early Roman settlement was uncovered and this will only slightly help in understanding the transition from the two periods.

7.1.3 The post-Roman objectives in Section 4 can not be answered as only one Early/Middle Saxon pit and sparse Saxo-Norman to modern remains were recovered across the pipeline route. Importantly only a single medieval post hole structure was found from this period but it is uncertain whether it was domestic or an out-building (TUL021). The few Saxo-Norman to late medieval features (pits, ditches and a cobbled surface) from four sites (TUL021, WTL010, BYG029 and WTG018) collectively produced few artefacts. The post-Roman features therefore do not meet any of the Regional Research Objectives and so it is recommended that no further work is carried out on the post-Roman remains within the pipeline.

7.1.4 The following research objectives draw upon the regional (Medlycott 2011) research assessments and agendas. These will supplement the original Research Objectives outlined in Section 4 above (where relevant).

7.2 Regional Research Objectives

Introduction

7.2.1 The excavations along the pipeline have uncovered two period areas where results will help answer Regional Research Objectives:

Late Neolithic/Bronze Age to ?Early Iron Age

Neolithic and Bronze Age settlements including burials

7.2.2 A number of regional research framework objectives described by Medlycott are relevant to the sites along the pipeline (Medlycott 2011, 13 and 20). These objectives are:

"apparent scarcity of Middle Bronze Age settlement evidence needs examination."

"Testing the David Yates model for Late Bronze Age Settlement and field systems would be of considerable interest.

"Patterns of burial need further exploration. This should include the relationship between settlement and burial..."

"It would be useful to understand why second millennium cal.BC field systems developed in some parts of the region, but not others. There remains a dearth of them to the north of the Stour and east of the fens, with Brandon a rare exception"

"Examination of the inter-relationships between settlements...as well as the inter-relationships between settlements and monuments"

These objectives on Neolithic and Bronze Age settlements and burials can be amalgamated as the results along the pipeline allows a landscape overview. The present archaeological work along the pipeline found significant Late Neolithic to Bronze Age remains, with settlement, field systems, flint working and cremation areas. These results will complement the detailed landscape studies of the Neolithic and Bronze Age in the Stour Valley already begun (Medlycott 2011, 13 and 15). A synthesis of cropmark data from the Stour Valley has already provided insights into the nature and development of the remarkable cropmark landscapes of monument cropmark complexes and fields which exist there (Brown *et al* 2002). The work along the present pipeline will complement this study as it is adjacent to the east of the River Stour.

There were five areas in four sites (BYG029, BYG030, WTL010 (x2) and TUL021) where there were likely to be parts of settlements and/or field systems with another three possible areas of field systems (BRL026, KDG037 and KDG038). They are all likely to date to the Bronze Age although at BYG030 the origins may be Late Neolithic whilst some of the settlements and field systems may have continued into the Early Iron Age (*e.g.* TUL021).

The most important settlement in terms of size and number of features was the main site at WTL010 where over a c.175m distance there were a was part of a significant Bronze Age to Early Iron Age settlement. It is possible a cremation area probably dating to the Mid Bronze Age, *c*.300m from this settlement, relates to it and seems to have been deliberately placed next to a palaechannel. Elsewhere at two other sites, tentative associations between field systems and cremations may be made (BYG030 and BRL026) although the Mid Bronze Age cremations at WIX021 seem to have been deposited away from the settlement and related field systems.

Bayesian modelling

7.2.3 "The appearance of artefact and pottery types" (Medlycott 2011, 20). Medlycott suggests that there should be the application of Bayesian modelling to radiocarbon dates based on rigorously selected samples will help to refine Neolithic and Bronze Age chronologies (*ibid*, 13 and 20). There was a single Late Neolithic pit (**130**) at BRL026 which produced a primary assemblage of grooved ware pottery (and flintworking) which will help in this dating (see Table 23 task 19). In addition, radiocarbon dates for the two Middle Bronze Age urned cremations, one of Deverel-Rimbury type (WTL010 and WIX021) will help answer this (see Table 23 task 19).

Flint working

7.2.4 "(Neolithic) flint-working sites.... are under-represented in the NMP/HER dataset. More work is needed to try to reduce or compensate for this bias" (Medlycott, 2011, 14)

"Study of the development, frequency and significance of flint-working throughout the Bronze Age would be useful, together with the identification of particular trends and

characteristics that may help in dating and relationships with other artefact types" (Medlycott 2011, 21)

- Further study and site comparison of the regionally important Late Neolithic/Bronze Age raw material extraction site and possible associated settlement at WIX021. This includes obtaining two radiocarbon dates from two of the pits (see Table 23 task 19).
- Further analysis and site comparison of those features within the routeway which produced evidence for significant flintworking. This includes a Late Neolithic pit (**130**) at Little Bradley (BRL026) where a relatively small assemblage included a significant quantity of cores and blades - its significance is enhanced as there was an unabraded pottery assemblage within the pit (see above). The probable Middle Bronze Age urned cremation pit **511** at WTL010 also produced a significant (223) worked flint assemblage including 40 blades and a radiocarbon date is also proposed for this pit.
- The other worked flint across the pipeline in Suffolk (including the small Roman at WIX022) merits further work. It will be useful to incorporate the flint assemblages recovered from different locations on the pipeline with dating evidence (stratigraphic relationships, dated pottery assemblage and scientific dating) in order to further chronological and typological understanding.

Roman

7.2.5 Four Roman sites were found along the pipeline (not including the Roman town of Wixoe itself). These comprised a Late Iron Age to Early Roman settlement found at Little Wratting (WTL010), parts of at least two separate Roman settlements uncovered at WIX021 with occupation from the Early Roman period possibly up to the end of the Roman period and at Great Bradley (BYG030) there was part of a 2nd to 4th century Roman settlement. All four sites produced relatively few features and artefacts (with a couple of exceptions) and none would merit further work (publication) on their own. The importance of these four Roman sites rests largely on their relationship with the Roman town of Wixoe as they are all within its *c*.10km hinterland (see vol 2 of this report in relation to work at Wixoe Roman Town and the defining of the town's hinterland (Atkins 2012, Section 7.2.3)).

The Regional Research Objectives stipulate that small towns need to be examined with their hinterland. Relatively little archaeological work has been carried out in the town's hinterland and the results from these four sites will add to the understanding. They will answer several areas of research as the LIA/ER site at WTL010 is the only Roman settlement uncovered along the pipeline whose origins seem to start in the Late Iron Age period and this is also seemingly in contrast to Wixoe town itself which may have been a planned Roman settlement. Other questions resolve around this issue such as the other two Roman sites at WIX021 also seemly begun in the Early Roman period - were they a direct result of the establishment of the town?

These four Roman sites will therefore be analysed and published as part of the report on the Roman town by Rob Atkins (see volume 2).

8 Methods Statements for Analysis

8.1 Stratigraphic Analysis

8.1.1 Contexts and features will be dated wherever possible and assigned to separate phases and sub-phases; these will be to a greater chronological resolution than those provided in this assessment. Contexts will be grouped together and assigned numbers on the basis of type, date, stratigraphic and spatial distribution.

8.1.2 Stratigraphic analysis will be integrated with further detailed analysis of pottery and lithic assemblages to provide a comprehensive understanding of the development of any given site, based upon stratigraphy, diagnostic lithics, ceramics and artefact typologies.

8.2 Illustration

8.2.1 Plans have been digitised and relevant figures produced. Sections pertinent to analysis and interpretation have been digitised and will be reproduced where necessary at the report stage.

8.2.2 Phase plans will be created to highlight contemporary features and activity and to illustrate the chronological development of sites.

8.2.3 Figures will be created to show the location and distribution of other known sites which are relevant to those discussed in the text of the report.

8.2.4 A variety of artefact illustrations (primarily lithics and ceramics) will be included in the more substantial artefact reports which will accompany the final report.

8.3 Documentary Research

8.3.1 In order to understand the Neolithic to Early Iron Age remains, there will be research of comparison sites in the area including the published reports on cropmarks in the Stour Valley.

8.4 Artefactual Analysis

Lithics

8.4.1 The lithic assemblages from flint-working quarry WIX021 is of regional importance and other assemblages from other sites are also important (see 7.2.4 above). It is recommended that a two-fold process be undertaken:

- a detailed synthesis of the results from the preliminary lithic assessment should be integrated with further stratigraphic analysis, associated artefact studies and the results of any scientific dating.
- If the results of this analysis prove effective then targeted metrical and technological lithic analysis (including refitting studies where appropriate) should be employed to clarify further the technological, spatial and temporal resonance of stone working activity at the site.

Ceramics

8.4.2 Further analysis of the assemblages recovered from the excavations has the potential to enhance understanding of the regional and local ceramic typologies and/or sequences.

- The prehistoric pottery will be recorded with reference to established guidelines and standards (PCRG 2011). A representative selection of pottery, particularly the Beaker and Grooved Ware vessels, will be illustrated.
- The Late Neolithic and Bronze age pottery from the entire route should be described and published in order to further elucidate aspects of regional pottery variation and would be best undertaken with scientific dating of deposits and/or artefacts.
- The Roman pottery (to be integrated within the Wixoe Roman town report) will be fully recorded to OA standard (Booth, nd), and quantified by sherd count, weight and estimated vessel equivalents (EVE). Forms and fabrics will be correlated with regional series, notably Going's Chelmsford typology (Going 1987) and the Colchester series (Symonds and Wade 1999). A representative selection of pottery, along with a few pieces of intrinsic interest, will be illustrated.

8.5 Ecofactual Analysis

Human Skeletal Remains & Cremated bone

8.5.1 No recommendations for further analysis have been made. However, it is recommended that some of the pits with cremated bone will be submitted for radiocarbon dating.

Faunal Remains

8.5.2 Some further work should be done to identify the small mammal bones to species.

Environmental Remains

8.5.3 No further analysis of environmental remains is recommended.

9 Report Writing, Archiving and Publication

9.1 Report Writing

9.1.1 A full report will be compiled from the results of the further analysis, summarised in the Table 21 below. The recommendations revolve work on the Neolithic to Early Iron Age remains (the Roman sites will be incorporated into the volume on Wixoe Roman town). The work on these prehistoric sites comprise further work on excavation areas at BYG029, BYG030, WTL010, TUL021, BRL026, KDG037, KDG038 and WIX021. In most cases the further work will be relatively small with, for example, only a few possible field system ditches were recovered at the Kedington sites. In contrast most of the work to publication will take place at three areas (WTL010, BRL026 and WIX021)

Site	Archaeology / artefacts	No. of Days
WTL010	Two settlements and a separate cremation area. Neolithic & Bronze Age ceramic assemblage particularly interesting	10
BRL026	Prehistoric ceramic and flintworking assemblage from pit **130**	3
WIX021	Lithic flint working and possible associated domestic area. Nearby up to 2 cremations.	18
Others		5

Table 21: Site specific further work

9.1.2 A full list of tasks associated with report writing is provided in Table 23.

9.2 Storage and Curation

9.2.1 Excavated materials and physical records will be deposited with and curated by Suffolk County Council under the site codes: BYG029; BYG030; BRL026; TUL021; WTG017; WTG018; WTL010; KDG037; KDG038 & WIX021, and the county HER code. The digital archive will deposited with OA Library/ADS. During analysis and report preparation, OA East will hold all material and reserves the right to send material for specialist analysis.

9.2.2 The archive will be prepared in accordance with current OA East guidelines, which are based on current national guidelines

9.3 Publication

9.3.1 It is proposed that the results of this part of the project should be published in a local archaeological journal: *Proceedings of the Suffolk Institute of Archaeology and History* is the local journal for Suffolk archaeological work.

9.3.2 The article will set the results from each period of activity within its setting in the Stour Valley. Themes within the publication, which include:

- Late Neolithic to Early Iron Age settlement, field systems and burials
- Neolithic/Bronze Age flint quarrying and exploitation
- Roman settlement in the Wixoe hinterland (with Roman town publication)

9.3.3 It is envisaged that the article length will be *c.*25 pages, with *c.*15 illustrations and *c.*10 tables.

9.3.4 Just after the draft PXA was written, Tom Lyons left OA East to pursue post-graduate studies at London University. Rob Atkins re-evaluated the draft PXA after comments from the consultant and curators. The Roman remains along this pipeline will be included in the Wixoe Roman Town publication by Rob Atkins. It is presently undecided who will write up the separate proposed prehistoric article.

10 Resources and Programming

10.1 Project Team Structure

Name	Initials	Project Role	Establishment
James Drummond-Murray	JDM	Project Manager	OA East
To be confirmed (TBC)		Author	OA East
Elizabeth Popescu	EP	Editor	OA East
Andy Bates	AB	Faunal Remains	OA North
Anthony Dickson	AD	Lithics / Worked Flint	OA North
Ed Biddulph	EB	Prehistoric Pottery	OA South
Alice Lyons	AL	Roman Pottery	OA East

Table 22: Project team

10.2 Stages, Products and Tasks

Task No.	Task	Product No.*	Staff
Project Management			
1	Project management	1	JDM + EP
2	Team meetings	1	
3	Liaison with relevant staff and specialists, distribution of relevant information and materials	1	
Stage 1: Stratigraphic analysis			
4	Integrate ceramic/artefact dating with site matrix	1	TBC
5	Update database and digital plans/sections to reflect any changes	1	TBC / LO
6	Finalise site phasing	1	TBC
7	Add final phasing to database	1	TBC
8	Compile group and phase text	1	TBC
9	Compile overall stratigraphic text and site narrative to form the basis of the full/archive report	1	TBC
10	Review, collate and standardise results of all final specialist reports and integrate with stratigraphic text and project results	1	TBC
Illustration			
11	Digitise selected sections		LO
12	Prepare draft phase plans, sections and other report figures	1	TBC
13	Select photographs for inclusion in the report	1	TBC
Artefact studies			
15	Undertake full analysis & produce report for all *Ceramic*	1	EB

Task No.	Task	Product No.*	Staff
	assemblages – this includes: Cataloguing & quantification Analysis by fabric & form Illustration (where appropriate)		
16	*Lithic* analysis – this includes: Targeted metrical and technological analysis Refitting exercises Illustration	1	AD
17	Cleaning & Conservation of Cu objects	1	
18	Illustrated metalworking reports	1	
19	7 radiocarbon dates: Undated cremation (**169**) from BYG030 Late Neolithic pit **130** (BRL026) 2 cremation deposits from WTL010 (Deverel-Rimbury vessel in cremation pit (**511**) and unurned cremation pit **517** Urned cremation pit **155** from WIX021 2 radiocarbon dates from WIX021 flintworking area (quarry pit **232**) and pit **235**		
Stage 2: Report Writing			
20	Write historical and archaeological background text	1	TBC
21	Edit phase and group text	1	TBC
22	Compile list of illustrations/liaise with illustrators	1	TBC / LO
23	Write discussion and conclusions	1	TBC
24	Prepare report figures	1	LO
25	Collate/edit captions, bibliography, appendices etc	1	TBC
26	Produce draft report	1	TBC
27	Internal edit	1	EP
28	Incorporate internal edits	1	TBC
29	Final edit	1	TBC
30	Send to publisher for refereeing	1	EP
31	Post-refereeing revisions	1	TBC/EP
32	Copy edit queries	1	
33	Proof-reading	1	
Stage 3: Archiving			
	Compile paper archive	2	TBC
	Archive/delete digital photographs	2	TBC
	Compile/check material archive	2	TBC

Table 23: Task list

* See Appendix D for product details and Appendix E for the project risk log.

11 OWNERSHIP

11.1.1 The ownership of the archive (paper and artefacts) will pass to Suffolk County Council after the project has been published.

Appendix A. Context Summary with Provisional Phasing

Key to Period abbreviations:

NEO = Neolithic BA = Bronze Age IA = Iron Age ROM = Roman

MED = medieval P MED = post-medieval UND= Undated

BYG029

Context	Cut / Contains	Field	Category	Feature Type	Description	Period
100			layer		topsoil	
101			layer		subsoil	
102	103	56	fill	ditch	Single fill	
103	102	56	cut	ditch	boundary	Med+
104	105	56	fill	ditch	Single fill	
105	104	56	cut	ditch	boundary	Med+
106	107	56	fill	natural	Single fill	
107	106	56	cut	natural	Tree throw	Unphased
108	109	56	fill	ditch	Single fill	
109	108	56	cut	ditch	boundary	Unphased
110	111	56	fill	Post hole	Single fill	
111	110	56	cut	Post hole		?Prehistoric
112	113	56	fill	ditch	Single fill	
113	112	56	cut	ditch	boundary	Med+
114	115	55	fill	pit	Single fill	
115	114	55	cut	pit		?Prehistoric
116	117	56	fill	natural	Single fill	
117	116	56	cut	natural	Tree throw	Unphased
118	119	56	fill	Post hole	Single fill	
119	118	56	cut	Post hole		?Prehistoric
120	121	56	fill	Post hole	Single fill	
121	120	56	cut	Post hole		?Prehistoric
122	123	55	fill	natural	Single fill	
123	122	55	cut	natural	Tree throw	Unphased
124	125	55	fill	ditch	Single fill	
125	124	55	cut	ditch	boundary	Post-medieval
126	127	55	fill	ditch	Single fill	
127	126	55	cut	ditch	boundary	Unphased
128	130	55	fill	pit	Secondary fill	
129	130	55	fill	pit	Primary fill	
130	128, 129	55	cut	pit	well	?Prehistoric

131	132	55	fill	ditch	Single fill	
132	131	55	cut	ditch	boundary	?Bronze Age
133	134	55	fill	ditch	Single fill	
134	133	55	cut	ditch	boundary	?Bronze Age
135	136, 137, 138	56	cut	ditch	boundary	Med+
136	135	56	fill	ditch	Primary fill	
137	135	56	fill	ditch	Secondary fill	
138	135	56	fill	ditch	Tertiary fill	
139	140	55	fill	ditch	Single fill	
140	139	55	cut	ditch	boundary	Unphased
141		55	cut	ditch	boundary	Unphased
142		55	fill	ditch	Single fill	
143	144	55	cut	pit		Unphased
144	143	55	fill	pit	Single fill	
145	147	54	fill	ditch	Secondary fill	
146	147	54	fill	ditch	Primary fill	
147	145, 146	54	cut	ditch	boundary	?Prehistoric
148	149	54	fill	ditch	Single fill	
149	148	54	cut	ditch	boundary	Med+
150	151, 152	54	cut	ditch	boundary	Med+
151	150	54	layer	ditch	Primary fill	
152	150	54	fill	ditch	Secondary fill	
153	154	54	cut	natural	Tree throw	?Neolithic
154	153	54	fill	natural	Single fill	
155	156	54	fill	ditch	Single fill	
156	155	54	cut	ditch	boundary	?Prehistoric
157	158	54	fill	ditch	Single fill	
158	157	54	cut	ditch	boundary	?Prehistoric
159	161	54	fill	pit	Secondary fill	
160	161	54	fill	pit	Primary fill / weathering	
161	159, 160	54	cut	pit	well	?Prehistoric
162	164	54	fill	ditch	Secondary fill	
163	164	54	fill	ditch	Primary fill	
164	162, 163	54	cut	ditch	boundary	?Prehistoric
165	166	54	fill	ditch	Single fill	
166	165	54	cut	ditch	boundary	Medieval?
167	169	54	fill	ditch	Secondary fill	
168	169	54	fill	ditch	Primary fill	

169	167, 168	54	cut	ditch	boundary	Modern
170	171	54	fill	ditch	Single fill	
171	170	54	cut	ditch	boundary	Medieval+
172	173	54	fill	natural	Single fill	
173	172	54	cut	natural	Tree throw	Medieval+
174	175	54	fill	ditch	Single fill	
175	174	54	cut	ditch	boundary	Modern
176	178	54	fill	ditch	Secondary fill	
177	178	54	fill	ditch	Primary fill	
178	176, 177	54	cut	ditch	boundary	?Prehistoric
179	180	54	fill	pit	Single fill	
180	179	54	cut	pit		?Prehistoric
181	183	54	fill	ditch	Secondary fill	
182	183	54	fill	ditch	Primary fill	
183	181, 182	54	cut	ditch	boundary	?Prehistoric
184	185	54	fill	ditch	Single fill	
185	184	54	cut	ditch	boundary	Post-medieval
186	187	54	fill	ditch	Single fill	
187	186	54	cut	ditch	boundary	?Prehistoric
188	189	54	fill	ditch	Single fill	
189	188	54	cut	ditch	boundary	?Prehistoric
190	191	54	fill	ditch	Single fill	
191	190	54	cut	ditch	boundary	modern
192	193	54	cut	ditch		
193	192	54	fill	ditch		

Table 24: BYG029 context summary

BYG030

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
100	0		layer		Topsoil	
101	0		layer		Subsoil	
102	124	49	fill	natural	Buried soil / Palaeochannel	ROM
103	104	49	cut	ditch	Enclosure ditch	ROM
104	103	49	fill	ditch	Single fill	
105	106	49	cut	ditch	Enclosure Ditch	ROM
106	105	49	fill	ditch	Single fill	
107	108	49	cut	ditch	Enclosure Ditch	ROM
108	107	49	fill	ditch	Single fill	
109	110	49	cut	ditch	Enclosure ditch	ROM
110	109	49	fill	ditch	Single fill	
111	112	49	cut	ditch	boundary	BA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
112	111	49	fill	ditch	Single fill	
113	113	49	cut	natural	Tree throw	
114	113	49	fill	natural	Single fill	
115	116, 117	49	cut	ditch	boundary	BA
116	115	49	fill	ditch	Secondary fill	
117	115	49	fill	ditch	Primary fill	
118	120	49	fill	ditch	Secondary fill	
119	120	49	fill	ditch	Primary fill	
120	118, 119	49	cut	ditch	Boundary = **123**	BA
121	123	49	fill	ditch	Secondary fill	
122	123	49	fill	ditch	Primary fill	
123	123	49	cut	ditch	Boundary = **120**	BA
124	0	49	cut	natural		ROM
125	126	49	cut	ditch	enclosure	ROM
126	125	49	fill	ditch	Single fill	
127		49	layer	surface (external)	Rough cobbled surface	ROM
128	129	49	cut	ditch	enclosure	ROM
129	128	49	fill	ditch	Single fill	
130	131	49	cut	ditch	enclosure	ROM
131	130	49	fill	ditch	Single fill	
132	133	49	fill	pit	Single fill	
133	132	49	cut	pit	Possible natural feature	UND
134	135	49	fill	pit	Single fill	
135	134	49	cut	pit	Possible natural feature	UND
136	137	49	fill	pit		
137	136	49	cut	pit		UND
138	124	49	fill	hollow		
139	143	49	fill	ditch	Tertiary fill	
140	0	49	layer	surface (external)		ROM
141	143	49	fill	ditch	Secondary fill	
142	143	49	fill	ditch	Primary fill	
143	139, 141, 142	49	cut	ditch	enclosure	ROM
144	145	49	fill	ditch	Single fill	
145	144	49	cut	ditch	enclosure	ROM
146	0	49	layer	buried soil	Buried soil / colluvial material	ROM
147	0	49	layer	buried soil	Buried soil / colluvial material	ROM
148	149	49	fill	natural	Single fill	
149	148	49	cut	natural	Tree throw	ROM
150	151	49	cut	natural	Tree throw	ROM
151	150	49	fill	natural	Single fill	
152	154	49	fill	pit	Secondary fill	

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
153	154	49	fill	pit	Primary fill	
154	152, 153	49	cut	pit	discrete	UND
155	0	49	layer	buried soil	Buried soil / colluvial material	ROM
156	157, 158	49	cut	ditch	enclosure	ROM
157	156	49	fill	ditch	Secondary fill	
158	156	49	fill	ditch	Primary fill	
159	161	48	fill	ditch	Secondary fill	
160	161	48	fill	ditch	Primary fill	
161	159, 160	48	cut	ditch	boundary	BA
162	164	48	fill	ditch	Secondary fill	
163	164	48	fill	ditch	Primary fill	
164	164	48	cut	ditch	boundary	UND
165	166	48	cut	ditch	enclosure	MED
166	165	48	fill	ditch	Single fill	
167	169	48	fill	pit	Secondary fill	
168	169	48	fill	pit	Primary fill	
169	169	48	cut	pit	Cremation	?BA
170	171	48	fill	ditch	Single fill	
171	170	48	cut	ditch	enclosure	MED
172	174	48	fill	ditch	Secondary fill	
173	174	48	fill	ditch	Primary fill	
174	172, 173	48	cut	ditch	boundary	BA
175	176	48	fill	ditch	Single fill	
176	176	48	cut	ditch	boundary	BA
177	178	48	fill	ditch	Single fill	
178	177	48	cut	ditch	boundary	BA
179	180	48	fill	pit	Single fill	
180	0	48	cut	pit		BA
181	0	48	layer	buried soil	Palaeochannel / test pit	BA
182	0	48	layer	buried soil	Palaeochannel / test pit	BA
183	0	48	layer	buried soil	Palaeochannel / test pit	BA
184	0	48	layer	buried soil	Palaeochannel / test pit	BA
185	0	48	layer	buried soil	Palaeochannel / test pit	BA
186	0	48	layer	buried soil	Palaeochannel / test pit	BA
187	0	48	layer	buried soil	Palaeochannel / test pit	BA
188	0	48	layer	buried soil	Palaeochannel / test pit	BA
189	0	48	layer	buried soil	Palaeochannel / test pit	BA
190	190	48	cut		Palaeochannel or hollow	BA
191	190	48	fill	buried soil	Palaeochannel or hollow	BA
192	190	48	fill	buried soil	Palaeochannel or hollow	BA
193	190	48	fill	buried soil	Palaeochannel or hollow	BA
194	190	48	fill	buried soil	Palaeochannel or hollow	BA
195	190	48	fill	buried soil	Palaeochannel or hollow	BA
196	190	48	fill	buried soil	Palaeochannel or hollow	BA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
197	190	48	fill	buried soil	Palaeochannel or hollow	BA
198	190	48	fill	buried soil	Palaeochannel or hollow	BA
199	190	48	fill	buried soil	Palaeochannel or hollow	BA
200	190	48	fill	buried soil	Palaeochannel or hollow	BA
201	190	48	fill	buried soil	Palaeochannel or hollow	BA
202	190	48	fill	buried soil	Palaeochannel or hollow	BA
203	190	48	fill	buried soil	Palaeochannel or hollow	BA
204	205	48	fill	ditch	Single fill	
205	0	48	cut	ditch	Enclosure – part of Ditch **103**	ROM
206	207	48	fill	natural	Hollow	
207	207	48	cut	natural	Hollow	ROM
208	0	49	cut	ditch	Excavation master number	ROM
209	0	49	cut	ditch	Excavation master number	
210	0	48	cut	ditch	Excavation master number	
211	0	48	cut	ditch	Excavation master number	
212	0		layer	natural		ROM
213	0		layer	natural		

Table 25: BYG030 context summary

BRL026

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
100			layer	natural	Topsoil	
101	2		layer	natural	Subsoil	
102	103		fill	ditch		
103	102	47	cut	ditch	boundary	UND
104	106		fill	ditch		
105	106		fill	ditch		
106	104, 105	47	cut	ditch	boundary	UND
107	108		fill	ditch		
108	107	47	cut	ditch	boundary	UND
109	110	43	cut	ditch	boundary	?ROM
110	109		fill	ditch		
111	112	43	cut	ditch	boundary	LBA-EIA
112	111		fill	ditch		
113	114	43	cut	ditch	boundary	LBA-EIA
114	113		fill	ditch		
115	116		fill	ditch		
116	115	41	cut	ditch	boundary	BA-EIA
117			layer	natural		
118	0		layer	natural	subsoil	
119	120		fill	ditch		
120	119	41	cut	ditch	boundary	?ROM/MED
121	122		fill	ditch		
122	121	41	cut	ditch	boundary	UND
123	125		fill	ditch		
124	125		fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
125	123, 124	41	cut	ditch	boundary	UND
126	0		layer	natural	subsoil	
127	128		fill	pit		
128	127	41	cut	pit		?Prehistoric
129	130		fill	pit		
130	129, 134	41	cut	pit		Late NEO
131	132	41	cut	ditch	boundary	P MED
132	131		fill	ditch		
133	0		layer	buried soil		
134	130		fill	pit		
136	137		fill	pit		
137	136		cut	pit	intercutting	E-MIA
138	139		fill	pit		
139	138		cut	pit	intercutting	E-MIA
140	141		fill	pit		
141	140		cut	pit	intercutting	E-MIA
142	0		layer	natural		

Table 26: BRL026 context summary

TUL021

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
500	501	39	cut	ditch		Unc
501	500	39	fill	ditch		
502	503, 504	39	cut	pit		Saxo-Norman
503	502	39	fill	pit		
504	502	39	fill	pit		
505	509	39	fill	ditch		
506	509	39	fill	ditch		
507	509	39	fill	ditch		
508	509	39	fill	ditch		
509	505-08	39	cut	ditch	boundary	Later med
510	511	39	fill	pit	Contained pottery	
511	510	39	cut	pit		13th-14th
512		39	layer			
513	514	39	fill	pit		
514	513	39	cut	pit	Pit cluster	Later med
515	517	39	fill	pit		
516	517	39	fill	pit		
517	515, 516	39	cut	pit	Pit cluster	Later med
518	519	39	fill	pit		
519	518	39	cut	pit	Pit cluster	13th-14th
520	521	39	cut	gully	Slot = **524**	?Saxo-Norman

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
521	520	39	fill	gully		
522	523	39	cut	pit		
523	522	39	fill	pit		
524	525	39	cut	gully	Slot = **520**	?Saxo-Norman
525	542	39	fill	gully		
526	527	39	cut	pit		
527	526	39	fill	pit		
528	529	39	cut	Post hole	Timber structure	?Saxo-Norman
529	528	39	fill	Post hole		
530	531	39	cut	Post hole	Part of structure	?Saxo-Norman
531	530	39	fill	Post hole		
532	534	39	fill	ditch		
533	534	39	fill	ditch		
534	532, 533	39	cut	ditch		Later Med
535	536	39	cut	ditch		Unc
536	535	39	fill	ditch		
537	538	39	cut	ditch		Unc
538	537	39	fill	ditch		
539	540	39	cut	gully		
540	539	39	fill	gully		?Saxo-Norman
541	542	39	fill	pit		
542	541	39	cut	pit		Earlier med
543	544	39	fill	pit		
544	543	39	cut	pit		Later med
545	546	39	cut	gully		Unc
546	545	39	fill	gully		
547	548	39	cut	Post hole	Part of structure	?Saxo-Norman
548	549	39	fill	Post hole		
549	550	39	cut	Post hole	Part of structure	?Saxo-Norman
550	549	39	fill	Post hole		
551	552	39	cut	pit	Part of structure	?Saxo-Norman
552	551	39	fill	pit		
553	554	39	cut	pit	Part of structure	?Saxo-Norman
554	553	39	fill	pit		
555	556	39	fill	pit		
556	555	39	cut	pit		
557		39	cut	pit		Unc
558	559, 560	39	cut	pit	Discrete feature	Unc

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
559	558	39	fill	pit		
560	558	39	fill	pit		
561	562	39	cut	ditch	Boundary = **569**	Saxo-Norman
562	561	39	fill	ditch		
563	564	39	fill	ditch		
564	563	39	cut	ditch		Unc
565	566	39	cut	pit		Unc
566	565	39	fill	pit		
567	568	39	fill	pit		
568	567	39	cut	pit		Saxo-Norman
569	570	39	cut	ditch	Boundary = **561**	Saxo-Norman
570	569	39	fill	ditch		
571	572, 573	39	cut	pit		Later med
572	571	39	fill	pit		
573	572	39	fill	pit	Contained pottery	
574	575	39	fill	pit		
575	574	39	cut	pit/post-pad		
576	577	39	fill	ditch	Contained pottery	
577	576	39	cut	ditch	enclosure	Saxo-Norman
578	579	39	cut	pit		Later med
579	578	39	fill	pit		
580	581	39	cut	gully		?Saxo-Norman
581	580	39	fill	gully		
582	584	39	fill	pit		
583	584	39	fill	pit		
584	582, 583	39	cut	pit	Pit cluster	Later med
585	586	39	cut	gully		Saxo-Norman
586	585	39	fill	gully		
587	588, 589	39	cut	pit		Unc
588	587	39	fill	pit		
589	587	39	fill	pit		
590	591	39	fill	ditch		
591	590	39	cut	ditch	Boundary = **561**	Saxo-Norman
592	593	39	fill	pit		
593	592	39	cut	pit	Pit cluster	Later med
1000		40	layer	natural		
1001		40	layer	natural		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1002		40	layer	natural		
1003	1004	40	cut	pit		Unc
1004	1003	40	fill	pit		
1005	1006, 1007	40	cut	ditch	Boundary = **1020**	?Med
1006	1005	40	fill	ditch		
1007	1005	40	fill	ditch		
1008	1009	40	cut	gully	Round house gully	E-MIA
1009	1008	40	fill	gully		
1010	1011	40	cut	gully	Part of structure 1008	E-MIA
1011	1010	40	fill	gully		
1012	1013	40	cut	gully	Part of structure 1008	E-MIA
1013	1012	40	fill	gully		
1014	1015, 1019	40	cut	ditch	boundary/enclosure	E-MIA
1015	1014	40	fill	ditch		
1016		40	cut	ditch	Group number for RD	E-MIA
1017	1018	40	cut	pit		Unc
1018	1017	40	fill	pit		
1019	1014	40	fill	ditch		
1020	1021, 1022	40	cut	ditch	Boundary = **1005**	?Med
1021	1020	40	fill	ditch		
1022	1020	40	fill	ditch		
1023	1024	40	cut	ditch		?E-MIA
1024	1023	40	fill	ditch		
1025	1026	40	cut	pit		Unc
1026	1025	40	fill	pit		
1027	1028	40	cut	ditch	Boundary = **1032**	E-MIA
1028	1027	40	fill	ditch		
1029	1036	40	fill	ditch		
1030	1031	40	cut	pit		Unc
1031	1030	40	fill	pit		
1032	1033	40	cut	ditch	Boundary = **1027**	E-MIA
1033	1032	40	fill	ditch		
1034	1035	40	cut	ditch	boundary	E-MIA
1035	1034	40	fill	ditch		
1036	1029,1037, 1038	40	cut	ditch	boundary	E-MIA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1037	1036	40	fill	ditch		
1038	1036	40	fill	ditch	Boundary = **1040**	?Med
1039	1040	40	fill	ditch		
1040	1039	40	cut	ditch	Boundary = **1038**	?med
1041	1042	40	cut	pit		
1042	1041	40	fill	pit		
1043	1044	38	cut	pit		Unc
1044	1043	38	fill	pit		
1045	1046	40	cut	ditch		
1046	1045	40	fill	ditch		
1047	1048	37	cut	ditch		?post-med
1048	1047	37	fill	ditch		
1049	1050	37	cut	ditch		?post-med
1050	1049	37	fill	ditch		
1051	1052	37	cut	gully		Mod
1052	1051	37	fill	gully		
1053	1054	37	cut	ditch		?post-med
1054	1053	37	fill	ditch		
1066	1067	40	cut	natural		
1067	1066	40	fill	natural		
1068	1069	40	cut	ditch		E-MIA
1069	1068	40	fill	ditch		
1070	1071	40	cut	ditch	boundary	?MIA or med
1071	1070	40	fill	ditch	Contained pottery	
1072	1073	40	cut	ditch	Boundary = **1070**	?MIA or med
1073	1072	40	fill	ditch		
1074	1075	40	cut	pit		Unc
1075	1074	40	fill	pit		
1076	1077	40	cut	ditch	Boundary = **1090**	?MIA or med
1077	1076	40	fill	ditch		
1078	1079	40	cut	ditch	Boundary = **1082**	?MIA or med
1079	1078	40	fill	ditch	Contained pottery	
1080	1081	40	cut	natural		
1081	1080	40	fill	natural		
1082	1083	40	cut	ditch	Boundary = **1078**	?MIA or med
1083	1082	40	fill	ditch		
1084	1085	40	cut	ditch		?MIA or med
1085	1084	40	fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1086	1087	40	cut	ditch		?MIA or med
1087	1086	40	fill	ditch		
1088	1089, 1118	40	cut	ditch	Boundary = **1134**	?MIA or med
1089	1088	40	fill	ditch		
1090	1091	40	cut	ditch	Boundary = **1076**	?MIA or med
1091	1090	40	fill	ditch		
1092	1093	40	cut	ditch	Part of structure	E-MIA
1093	1092	40	fill	ditch		
1094	1095	40	cut	ditch		E-MIA
1095	1094	40	fill	ditch		
1096	1097	40	cut	natural		
1097	1096	40	fill	natural		
1098	1099	40	cut	pit		LBA-EIA
1099	1098	40	fill	pit		
1100	1101	40	cut	Post hole	Timber structure	E-MIA
1101	1100	40	fill	Post hole		
1102	1103	40	cut	Post hole	Part of structure **1100**	E_MIA
1103	1102	40	fill	Post hole		
1104	1105	40	cut	Post hole	Part of structure **1100**	E-MIA
1105	1104	40	fill	Post hole		
1106	1107	40	cut	Post hole	Part of structure **1100**	E-MIA
1107	1106	40	fill	Post hole	Contained pottery	
1108	1109	40	cut	natural		
1109	1108	40	fill	natural		
1110	1111	40	fill	natural		
1112	1113, 1121	40	cut	ditch		?MIA or med
1113	1112	40	fill	ditch		
1114	1115	40	cut	ditch		E-MIA
1115	1114	40	fill	ditch		
1116	1117	40	cut	ditch	Boundary = **1119**	?MIA or med
1117	1116	40	fill	ditch		
1118	1088	40	fill	ditch		
1119	1120	40	cut	ditch	Boundary = **1116**	?MIA or med
1120	1119	40	fill	ditch		
1121	1112	40	fill	ditch		
1122	1123, 1154	36	cut	pit	Watering Hole	LBA-EIA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1123	1122	36	cut	pit	Watering Hole	LBA-EIA
1124	1150, 1151, 1152	36	cut	pit	Watering Hole	LBA-EIA
1125		36				
1126	1155	36	cut	ditch	Drainage	LBA-EIA
1127	1128	36	cut	ditch		LBA_EIA
1128	1127	36	fill	ditch		
1129	1130, 1131	40	cut	ditch	Part of structure	E-MIA
1130	1129	40	fill	ditch		
1131	1128	40	fill	ditch		
1132	1133	40	cut	Pit / ditch	Part of structure	E-MIA
1133	1132	40	fill	Pit / ditch		
1134	1136, 1137	40	cut	ditch	Boundary = **1088**	?MIA or med
1135	1138	40	cut	ditch		?MIA or med
1136	1134	40	fill	ditch		
1137	1134	40	fill	ditch		
1138	1135	40	fill	ditch		
1139	1140	36	cut	ditch		LBA-EIA
1140	1139	36	fill	ditch		
1141	1142	36	cut	Post hole		
1142	1141	36	fill	Post hole		
1143	1144	36	cut	ditch	Drainage = **1126**	LBA-EIA
1144	1143	36	fill	ditch		
1145	1146	36	cut	ditch	Drainage = **1126**	LBA-EIA
1146	1145	36	fill	ditch		
1147		36	layer	Buried soil		?MIA or Roman
1148		36	layer	Buried soil		?E-MIA
1149	1123	36	fill	pit		
1150	1124	36	fill	pit		
1151	1124	36	fill	pit		
1152	1124	36	fill	pit		
1153	1123	36	fill	pit		
1154	1122	36	fill	pit		
1155	1126	36	fill	ditch		
1156	1123	36	fill	pit		
1157			cut	ditch	Excavation master numbers	

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1159			cut	ditch	Excavation master numbers	
1160			structure		Excavation master numbers	
1161			cut	ditch	Excavation master numbers	
1162			cut	ditch	Excavation master numbers	
1163			cut	ditch	Excavation master numbers	
1164			cut	ditch	Excavation master numbers	
1165			cut	gully	Excavation master numbers	
1167			cut	ditch	Excavation master numbers	
1168			cut	ditch	Excavation master numbers	

Table 27: TUL021 context summary

WTG017 and WTG018

Context	Cut/ Fill	Field	Category	Feature Type	Description	Period
551	552	27	fill	ditch		
552	551	27	cut	ditch	Adjacent to 554	Late med-early p-med
553	554	27	fill	ditch		
554	553	27	cut	ditch	Adjacent to 552	Late med-early p-med
555	556	27	cut	pit		
556	555	27	fill	fill	pit	
570	573	27	fill	ditch		
571	573	27	fill	ditch		
572	573	27	fill	ditch		
573	570, 571, 572		cut	ditch	Post med boundary adjacent to road	P MED
581	582	27	cut	ditch		P MED
582	581	27	fill	ditch		
583	584	27	cut	ditch		P MED
584	583	27	fill	ditch		
585	586	27	cut	ditch		P MED
586	585	27	fill	ditch		
587	588	27	cut	ditch		P MED
588	587	27	fill	ditch		
589	592	28	fill	ditch		
590	592	28	fill	ditch		
591	592	28	fill	ditch		
592	589-591	28	cut	ditch		P MED
593	594	27	cut	ditch		

594	593	27	fill	ditch		
595	596	27	cut	ditch		P MED
596	595	27	fill	ditch		
597	598, 599	27	cut	ditch		P MED
598	597	27	fill	ditch		
609	610	27	cut	ditch		P MED
610	609	27	fill	ditch		
611	612	27	cut	ditch		P MED
612	611	27	fill	ditch		
613	614	27	fill	Tree throw		
614	613	27	cut	Tree throw		
615	619	28	fill	ditch		
616	619	28	fill	ditch		
617	619	28	fill	ditch		
618	619	28	fill	ditch		
619	615-18	28	cut	ditch	Post med boundary	P MED
620	621	28	fill	ditch	Hedge line	
621	620	28	cut	Ditch	Hedge line	P MED
622	623	28	fill	ditch		
623	622	28	cut	ditch		P MED
624	625	26	fill	ditch		
625	624	26	cut	ditch	Same as [600]	
626	627-30	28	cut	ditch	Post med boundary = **646**	P MED
627	626	28	fill	ditch		
628	626	28	fill	ditch		
629	626	28	fill	ditch		
630	626	28	fill	ditch		
631	637	27	fill	pit	Quarrying?	
632	637	27	fill	pit		
633	637	27	fill	pit		
634	637	27	fill	pit		
635	637	27	fill	pit		
636	637	27	fill	pit		
637	631-36	27	cut	pit		Late Med
638	639	28?	fill	ditch		
639	638	28?	cut	ditch		P MED
640	641	28	fill	ditch		

641	640	28	cut	ditch		P MED
642	643-45	28	cut	ditch	Cut of big ditch	
643	642	28	fill	ditch		
644	642	28	fill	ditch		
645	642	28	fill	ditch		
646	647, 648, 679	28	cut	ditch	Pm ditch = [626]	
647	646	28	fill	ditch	Upper ?	
648	646	28	fill	ditch	Lower ?	
649	646	28	fill	ditch	Lower?	
650	651	28			VOID	
651					VOID	
652	653-55	28	cut	ditch		
653	652	28	fill	ditch		
654	652	28	fill	ditch		
655	652	28	fill	ditch		
656	657	28	fill	Post hole		
657	656	28	cut	Post hole	Timber structure	Unc
658	659	28	fill	Post hole		
659	658	28	cut	Post hole	Part of structure 657	Unc
660	661	28	fill	Post hole		
661	660	28	cut	Post hole	Part of structure 657	Unc
662	663	28	fill	Post hole		
663	662	28	cut	Post hole	Part of structure 657	Unc
664	665	28	fill	ditch		
665	664	28	cut	ditch	Same as [671]	
666					Excavation master no.	
671	672	28	cut	ditch	Same as [665]	
672	671	28	fill	ditch		
673	674	28	fill	ditch		
674	673	28	cut	ditch	Same as [676]	Post-med
675	676	28	fill	Ditch		
676	675	28	cut	ditch	Same as [674]?	Post-med
677	678	28	cut	ditch		
678	677	28	fill	ditch		
679	646	28	fill	ditch		
680	681	28	cut	ditch	Located to the north?	Unc

681	680	28	fill	ditch		
682	683-89	28	cut	pit	modern	
683	682	28	fill	pit		
684	682	28	fill	pit		
685	682	28	fill	pit		
686	682	28	fill	pit		
687	682	28	fill	pit		
688	682	28	fill	pit		
689	682	28	fill	pit		
690	691	28	fill	pit		
691	690	28	cut	pit		
692		26			No assigned for cremation pot contents	

Table 28: WTG017 and WTG018 context summary

WTL010

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
101		25	layer		Topsoil	
102	104	25	fill	ditch	Upper fill of ditch	
103	104	25	fill	ditch	Lower fill of ditch	
104	103	25	cut	ditch	Boundary = **129**	LBA
105	106	25	fill	ditch	Single fill of ditch	
106	105	25	cut	ditch	(Re)cut of ditch	LBA
107	109	25	fill	pit	Upper fill of shallow pit	
108	109	25	fill	pit	Lower fill of shallow pit	
109	107, 108	25	cut	pit	Cut of pit, cut by **104**	?M-LBA
110	111	25	fill	Post hole	Single fill	
111	110	25	cut	Post hole	Part of structure	LBA/EIA
112	113	25	fill	Post hole	Single fill	
113	112	25	cut	Post hole	Part of structure	LBA/EIA
114	115	25	fill	Post hole	Single fill	
115	116	25	cut	Post hole	Part of structure	LBA/EIA
116	117	25	fill	Post hole	Single fill	
117	116	25	cut	Post hole	Part of structure	LBA/EIA
118						
119	120	25	fill	Post hole	Single fill	
120	119	25	cut	Post hole	Part of structure	LBA/EIA
121	122	25	fill	Post hole	Single fill	

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
122	121	25	cut	Post hole	Part of structure	LBA/EIA
123	124	25	fill	Post hole	Single fill	
124	123	25	cut	Post hole	Part of structure	LBA/EIA
125	126	25	fill	Post hole	Single fill	
126	125	25	cut	Post hole	Part of structure	LBA/EIA
127		25		Post hole		
128	129	25	fill	ditch		
129	128	25	cut	ditch	Same as **104**	LBA
130	131	25	fill	pit	Single fill	
131	130	25	cut	pit		?LBA
132	133	25	fill	Post hole	Single fill	
133	132	25	cut	Post hole		LBA/EIA
134	135	25	fill	Post hole	Single fill	
135	134	25	cut	Post hole	Part of structure	LBA/EIA
136	137	25	fill	Post hole	Single fill	
137	136	25	cut	Post hole	Part of structure	LBA/EIA
138	139	25	fill	Post hole	Single fill	
139	138	25	cut	Post hole	Part of structure	LBA/EIA
140	141	25	fill	Post hole	Single fill	
141	140	25	cut	Post hole	Part of structure	LBA/EIA
142	143	25	fill	Post hole	Single fill	
143	142	25	cut	Post hole	Part of structure	LBA/EIA
144	145	25	fill	Post hole	Single fill	
145	144	25	cut	Post hole	Part of structure	LBA/EIA
146	147	25	fill	pit	Secondary fill	
147	146,	25	cut	pit	Large circular pit	?BA
148						
149	150	25	fill	pit	Single fill	
150	149	25	cut	pit		LBA/EIA
151	152	25	fill	Post hole	Single fill	
152	151	25	cut	Post hole		LBA/EIA
153	154	25	fill	Post hole	Single fill	
154	153	25	cut	Post hole		LBA/EIA
155	159	25	fill	pit	Single fill	
156	157, 158	25	cut	pit		LBA/EIA
157	156	25	fill	pit	Secondary fill	
158	156	25	fill	pit	Primary fill	

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
159	155	25	cut	pit		LBA/EIA
160	161	25	fill	Post hole	Single fill	
161	160	25	cut	Post hole	Part of structure	LBA/EIA
162	163	25	fill	Post hole	Single fill	
163	162	25	cut	Post hole	Part of structure	LBA/EIA
164	165	25	fill	Post hole	Single fill	
165	164	25	cut	Post hole	Part of structure	?BA
166	167	25	fill	Post hole	Single fill	
167	166	25	cut	Post hole	Part of structure	?BA
168	169	25	fill	pit	Single fill	
169	168	25	cut	pit		LBA/EIA
170	171	25	fill	pit		
171	170	25	cut	pit		LBA/EIA
172	173	25	fill	pit		
173	172	25	cut	pit		LBA/EIA
174	175	25	fill	pit		
175	174	25	cut	pit		LBA/EIA
176	177	25	fill	Post hole		
177	176	25	cut	Post hole		LBA/EIA
178	179	25	fill	Post hole		
179	178	25	cut	Post hole		LBA/EIA
180	147	25	fill	pit		
181	182	25	fill	Post hole		
182	181	25	cut	Post hole		LBA/EIA
183		25	layer	Buried soil	Palaeochannel / hollow	
202	203	23	fill	pit		
203	202	23	cut	pit	Small pit	ERoman
204	206	23	fill	pit	Secondary fill	
205	206	23	fill	pit	Lower fill	
206	204, 205	23	cut	pit	Pit within enclosure	ERoman
207	208	23	fill	pit	Single fill	
208	207	23	cut	pit	Intercut with 206	ERoman
209	210	23	fill	ditch	Single fill	
210	209	23	cut	ditch	enclosure	ERoman
211	212	23	fill	ditch		
212	211	23	cut	ditch	enclosure	ERoman
213	214	23	fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
214	213	23	cut	ditch	enclosure	ERoman
215	216	23	fill	ditch		
216	215	23	cut	ditch	enclosure	ERoman
217	218	23	fill	ditch		
218	217	23	cut	ditch		?LIA
219	220	23	fill	ditch		
220	219	23	cut	ditch	enclosure	ERoman
221	222	23	fill	ditch		
222	221	23	cut	ditch	enclosure	ERoman
223	224	23	fill	ditch		
224	223	23	cut	ditch	enclosure	ERoman
225	226	23	fill	ditch		
226	225	23	cut	ditch	enclosure	Roman
227	228	23	fill	pit		
228	227	23	cut	pit		Roman
229	230	23	fill	pit		
230	229	23	cut	pit		Roman
231	232	23	Fill	pit		
232	231, 249, 250	23	cut	Pit	Large circular pit, within cluster	ERoman
233	226	23	fill	ditch		
234	235	23	fill	ditch		
235	234	23	cut	ditch	enclosure	ERoman
236	237	23	fill	ditch		
237	236	23	cut	ditch	Intercut with	ERoman
238	239	23	fill	ditch		
239	238	23	cut	ditch	Enclosure	ERoman
240	239	23	fill	ditch		
241	242	23	fill	pit		
242	241	23	cut	pit		?Roman
243	244	23	fill	pit		
244	243	23	cut	pit		Roman
245	246	23	fill	pit		
246	245	23	cut	pit		?MIA
247	248	23	fill	ditch		
248	247	23	cut	ditch		LIA or Roman
249	232	23	fill	pit	Lower fill of large pit	

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
250	232	23	fill	pit	Lower fill of large pit	
251	252	23	fill	pit		
252	251	23	cut	pit		BA/EIA
253	254	23	fill	pit		
254	253	23	cut	pit		BA/EIA
255	256	23	fill	ditch		
256	255	23	cut	ditch		
257	258	23	fill	pit		
258	257	23	cut	pit	Pit or tree throw	BA/EIA
259	260	23	fill	pit		
260	259	23	cut	pit	Pit or tree throw	BA/EIA
261	262	23	fill	pit		
262	261	23	cut	pit	Cut of pit / tree throw	BA/EIA
263	262	23	fill	pit		
264	263	23	cut	pit	Cut of pit / tree throw	BA/EIA
265	232	23	fill	pit	Upper pit fill	
266	264	23	fill	pit	Lower fill	
302	303	22	fill	ditch		
303	302	22	cut	ditch		MED
304	305	22	fill	ditch		
305	304	22	cut	ditch		MED
306	307	22	fill	ditch		
307	306	22	cut	ditch		MED
308	309	22	fill	ditch		
309	308	22	cut	ditch		MED
310		22	layer	surface	cobbles	MED
311		22	layer	accumulation	Overlies cobbles	MED
312		22	layer	accumulation	Overlies cobbles	MED
313	314	22	fill	Post hole		
314	313	22	cut	Post hole		
315		22			Trackway?	
316	329, 330	22	cut	ditch	Deep ditch	MED
317	318	22	fill	ditch		
318	317	22	cut	ditch		MED
319	320	22	fill	pit		
320	319	22	cut	pit		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
321	322	22	fill	pit		
322	321	22	cut	pit	Real?	
323	324	22	fill	ditch	Real?	
324	323	22	cut	ditch	Real?	
325		22	layer	accumulation	Overlies cobbles = 326	MED
326		22	layer	accumulation	Overlies cobbles = 325	MED
327		22	layer	surface	cobbles	MED
328		22	layer	accumulation	Overlies Cobbles (redep. natural)	
329	316	22	fill	ditch	Lower fill	
330	316	22	fill	ditch	Secondary fill	
331		22	layer	accumulation	Overlies cobbles	
332	333	22	cut	pit	Intercut with 316	ROMAN / MED
333	332	22	fill	pit	Sealed by 331	
334		22				
335		22	layer	accumulation	As 325	
336		22	layer	accumulation	As 325	
337		22	layer	surface	cobbles	MED
338		22	layer	subsoil	Buried subsoil	
339		22	layer	Subsoil	Buried subsoil	
503	504	26	fill	pit		LBA
504	503	26	cut	pit		LBA
505	506	26	fill	ditch		MED
506	505	26	cut	ditch		MED
507	508	26	fill	ditch		LBA
508	507	26	cut	ditch		LBA
510	511	26	fill	pit	Fill of cremation pit	
511	510	26	cut	pit	Contained cremation vessel	?MBA
512	513	26	fill	pit	Fill of cremation pit	
513	512	26	cut	pit	cremation	M-LBA
514	515	26	fill	pit	Fill of cremation pit	
515	514	26	cut	pit	cremation	M-LBA
516	517	26	fill	pit	Fill of cremation pit	
517	516	26	cut	pit	cremation	M-LBA
518	519	26	fill	pit	Fill of cremation	
519	518	26	cut	pit	cremation	M-LBA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
520	521	26	fill	pit	Fill of cremation	
521	520, 541	26	cut	pit		
522	523	26	fill	Tree throw/pit		
523	522	26	cut	Tree throw/pit	?Cremation	?M-LBA
524	517	26	fill	pit		
525	526	26	fill	pit		
526	525	26	cut	pit		BA
527	528	26	fill	pit		
528	527	26	cut	pit		BA
529	530	26	fill	Tree throw		
530	529	26	cut	Tree throw		BA
531	532	26	fill	pit		
532	531	26	cut	pit		BA
533	535	26	fill	pit		
534	535	26	Fill	pit		
535	533, 534	26	cut	pit		?BA
536	537, 540	26	cut	ditch		MED
537	536	26	fill	ditch		
538	539	26	cut	ditch		MED
539	538	26	fill	ditch		
540	536	26	fill	ditch		
541	521	26	fill	pit		
542	543	26	fill	ditch		
543	542, 574, 544	26	cut	ditch	Boundary ditch = **565**	BA
544	543	26	fill	ditch	Secondary fill	
545	546	26	cut	ditch	Recut of **543**	BA
546	545	26	fill	ditch		
547	548	26	cut	pit	On edge of ditch	?BA
548	547	26	fill	pit		
549	550	26	fill	pit		
550	549	26	cut	pit	Part of pit cluster	?BA
557	558, 559	26	cut	pit	cut by **543**	BA
558	557	26	fill	pit		BA
559	557	26	fill	pit		BA
560	565	26	fill	ditch	Tertiary fill	BA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
561	565	26	fill	ditch	Tertiary fill	BA
562	565	26	fill	ditch	Tertiary fill	BA
563	565	26	fill	ditch	weathering	BA
564	565	26	fill	ditch	Primary fill	BA
565	560-64, 566	26	cut	ditch	Boundary = **543**	BA
566	565	26	fill	ditch		BA
567						
568	569	26	fill	pit		
569	568	26	cut	pit	Small pit adjacent to cremations	?BA
574	547	26				
575	576-79	26	cut	ditch		MED
576	575	26	fill	ditch		
577	575	26	fill	ditch		
578	575	26	fill	ditch		
579	575	26	fill	ditch		
580	543	26	Fill	ditch		
599	600	26	fill	ditch		
600	599	26	cut	ditch		MED
601	602	26	fill	ditch		
602	601	26	cut	ditch		MED
603	604	26	fill	ditch		
604	603	26	cut	ditch		MED?
605	606	26	fill	ditch		
606	605	26	cut	ditch		MED?
607	608	26	fill	ditch		
608	607	26	cut	ditch		?Med
624	625	26	fill	ditch		
625	624	26	cut	ditch	Same as [600]	MED
692		26			No assigned for cremation pot contents	

Table 29: BYG029 context summary

KDG037

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
400	401	19	fill	ditch		
401	400	19	cut	ditch		BA?
402	403	19	fill	ditch		
403	402	19	cut	ditch	Ditch terminal	BA?

404	405-410	19	cut	ditch		BA?
405	404	19	fill	ditch		
406	404	19	fill	ditch		
407	404	19	fill	ditch		
408	404	19	fill	ditch		
409	404	19	fill	ditch		
410	404	19	fill	ditch		
411	412	19	cut	ditch		BA?
412	411	19	fill	ditch		
413		19	layer		Overlies **411**	
414		19	layer		Overlies **411**	
419	421	19	fill	ditch		
420	421	19	fill	ditch		
421	419, 420	19	cut	ditch		UND

Table 30: KDG037 context summary

KDG038

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1			layer	natural		
2			layer	natural		
3			layer	natural		
4	5		cut		?Timber structure	?LBA / IA
5	4		fill			
6	7, 8		cut	pit		?LBA / IA
7	6		fill	pit	upper/lower?	
8	6		fill	pit	upper/lower?	
9	10		cut	Post hole	?Part of structure	?LBA / IA
10	9		Fill	Post hole		
11	12		Cut	Post hole	?Part of structure	?LBA / IA
12	11		fill	Post hole		
13	14		cut	Post hole	?Part of structure	?LBA / IA
14	13		fill	Post hole		
15	16		cut	Post hole	?Part of structure	?LBA / IA
16	15		fill	Post hole		
17	18		Cut	Post hole	?Part of structure	?LBA / IA
18	17		Fill	Post hole		
19	20		Cut	Post hole	?Part of structure	?LBA / IA
20	19		fill	Post hole		
21	22		cut	Post hole	?Part of structure	?LBA / IA

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
22	21		fill	Post hole		
23	24		cut	ditch		
24	23		fill	ditch		
25	26		cut	ditch		
26	25		fill	ditch		
27			cut	Post hole		
28	29		fill	ditch		
29	28		cut	ditch		
30	31		fill	ditch		
31	30		Cut	ditch		
32	33		Fill	ditch		
33	32		cut	ditch		P MED
34	35		fill	ditch		
35	34		cut	ditch		P MED
36	37		fill	ditch		
37	36		cut	ditch		
38	39		fill	ditch	Contained pottery	
39	38		cut	ditch		MED?
40	41		cut	ditch		P MED
41	40		fill	ditch		
42	43		cut	pit		LBA/MIA
43	42		fill	pit		
44	45		cut	ditch		P MED
45	44		fill	ditch		
46	47, 48, 56		cut	ditch		P MED
47	46		fill	ditch		
48	46		fill	ditch		
49	50		cut	ditch		
50	49		fill	ditch		
51	52, 53		cut	natural		
52	51		fill	natural		
53	51		fill	natural		
54	55		fill	ditch		
55	54, 65-67		cut	ditch		
56	46		fill	ditch		
57	58, 59		cut	ditch		P MED
58	57		fill	ditch		
59	57		fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
60	61, 62		cut	pit		?BA / NEO
61	60		fill	pit		
62	60		fill	pit		
63	64		Cut	ditch		?BA
64	63		Fill	ditch		
65	55		fill	ditch		
66	55		fill	ditch		
67	55		fill	ditch		
68	69		fill	ditch		
69	68		cut	ditch		
70	71		cut	ditch		P MED
71	70		fill	ditch		
72	73		fill	pit	Contained pottery	
73	72		cut	pit		LNEO/EBA

Table 31: KDG038 context summary

WIX021

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
1			layer	natural		
2			layer	natural		
3	4, 5, 6, 7	4	cut	pit		?Prehistoric
4	3	4	fill	pit		
5	3	4	fill	pit		
6	3	4	fill	pit		
7	3	4	fill	pit		
8	9	4	fill	ditch		
9	8	4	Cut	ditch		Roman
10	11	4	cut	pit or ?natural		?Roman
11	10	4	fill	natural		
12	13	4	cut	ditch		Roman
13	12	4	fill	ditch		
14	15	4	fill	ditch		
15	14	4	cut	ditch		Roman
16	17	4	cut	pit		?Roman
17	16	4	fill	ditch		
18		4	layer	Buried soil		
19	20	4	fill	natural		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
20	19	4	cut	natural	Tree throw	Undated
21	22	4	fill	ditch		
22	21	4	cut	ditch		Undated
23	24-26	4	cut	ditch		Roman
24	23	4	fill	ditch		
25	23	4	fill	ditch		
26	23	4	fill	ditch		
27	28	4	fill	ditch		
28	27	4	cut	ditch		Undated
29	31	4	fill	pit		
30	31	4	fill	pit		
31	29, 30	4	cut	pit		Roman
32	33	4	fill	ditch		
33	32	4	cut	ditch		Roman
34	35	4	fill	ditch		
35	34	4	cut	ditch		?Roman
36	37	4	cut	ditch		Roman
37	36	4	fill	ditch		
38	39	4	cut	pit		Medieval?
39	38	4	fill	pit		
40	41	4	cut	Post hole		Undated
41	40	4	fill	Post hole		
42	43	4	cut	Post hole		Undated
43	42	4	fill	Post hole		
44	45	4	cut	pit		Early-Mid Saxon
45	44	4	fill	pit		
46	47	4	cut	Post hole	Timber Structure	Roman
47	46	4	fill	Post hole		
48	49	4	cut	Post hole	Part of structure 46	Roman
49	48	4	fill	Post hole		
50	51	4	cut	Post hole	Part of structure 46	Roman
51	50	4	fill	Post hole		
52	53	4	cut	Post hole	Part of structure 46	Roman
53	52	4	fill	Post hole		
54	55	4	cut	Post hole	Part of structure 46	Roman
55	54	4	fill	Post hole		
56	57	4	cut	Post hole	Part of structure 46	Roman
57	56	4	fill	Post hole		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
58	59	4	cut	Post hole	Part of structure 46	Roman
59	58	4	fill	Post hole		
60	61	4	cut	Post hole	Part of structure 46	Roman
61	60	4	fill	Post hole		
62	63	4	cut	Post hole	Part of structure 46	Roman
63	62	4	fill	Post hole		
64	65	4	Cut	Post hole	Part of structure 46	Roman
65	64	4	fill	Post hole		
66		4		Structure	Excavation master number	Roman
67	68	4	cut	natural		Undated
68	67	4	fill	natural		
69	70		fill	ditch		
70	69		cut	ditch	Routeway	Roman
71	72	4	fill	ditch		
72	71	4	cut	ditch	Routeway	Roman
73	74	3	cut	ditch		Roman
74	73	3	fill	ditch		
75	76	4	fill	ditch		
76	75	4	cut	ditch	Routeway	Roman
77	78	4	fill	pit		
78	77, 98	4	cut	pit		Roman
79	80, 81, 96, 97	4	cut	pit		
80	79	4	fill	pit		
81	79	4	fill	pit		
82	83	4	cut	Post hole	Timber Structure	Roman or prehistoric
83	82	4	fill	Post hole		
84	85	4	cut	Post hole	Part of structure 82	Roman or prehistoric
85	84	4	fill	Post hole		
86	87	4	cut	Post hole	Part of structure 82	Roman or prehistoric
87	86	4	fill	Post hole		
88	89	4	cut	Post hole	Part of structure 82	Roman or prehistoric
89	88	4	fill	Post hole		
90	91	4	cut	Post hole	Part of structure 82	Roman or prehistoric
91	90	4	fill	Post hole		
92	93	4	cut	Post hole	Part of structure 82	Roman or prehistoric
93	92	4	fill	Post hole		
94	95	4	cut	Post hole	Part of structure 82	Roman or prehistoric

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
95	94	4	fill	Post hole		
96	79	4	fill	pit		
97	79	4	fill	pit		
98	78	4	layer	surface		
99	100	4	cut	Post hole	Part of structure 82	Roman or prehistoric
100	99	4	Fill	Post hole		
101		4	cut	structure	Excavation master number	?Roman
102	103	4	cut	Post hole	Timber Structure	?Roman
103	102	4	fill	Post hole		
104	105	4	cut	Post hole	Part of structure 102	?Roman
105	104	4	fill	Post hole		
106	107	4	cut	Post hole	Part of structure 102	?Roman
107	106	4	fill	Post hole		
108	109	4	cut	Post hole	Part of structure 102	?Roman
109	108	4	fill	Post hole		
110	111	4	cut	Post hole	Part of structure 102	?Roman
111	110	4	fill	Post hole		
112	113	4	Cut	Post hole	Part of structure 102	?Roman
113	112	4	fill	Post hole		
114	115	4	cut	Post hole	Part of structure 102	?Roman
115	114	4	fill	Post hole		
116	117	4	cut	Post hole	Part of structure 102	?Roman
117	116	4	Fill	Post hole		
118	119	4	cut	Post hole	Part of structure 102	?Roman
119	118	4	fill	Post hole		
120	121	4	cut	Post hole	Part of structure 102	?Roman
121	120	4	fill	Post hole		
122		4		structure	Excavation master number	
123	126	4	fill	ditch		
124	126	4	fill	ditch		
125	126	4	fill	ditch		
126	123-25	4	cut	ditch	Terminates within trench	?BA
127			layer	Buried soil		
128	129, 130	4	cut	ditch	boundary	Roman
129	128	4	fill	ditch		
130	128	4	fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
131	135	4	fill	pit		
132	135	4	fill	pit		
133	135	4	fill	pit		
134	135	4	fill	pit		
135	131-134	4	cut	pit		P -med (17th/18th)
136	137	4	cut	Post hole	Part of structure 146	Roman
137	136	4	fill	Post hole		
138	139	4	cut	Post hole	Part of structure 146	Roman
139	138	4	Fill	Post hole		
140	141	4	cut	Post hole	Part of structure 146	Roman
141	140	4	fill	Post hole		
142	143	4	cut	Post hole	Part of structure 146	Roman
143	142	4	fill	Post hole		
144	145	4	cut	Post hole	Part of structure 146	Roman
145	144	4	fill	Post hole		
146	147	4	cut	Post hole	Timber Structure	Roman
147	146	4	fill	Post hole		
148	149	4	cut	Post hole	Part of structure 146	Roman
149	148	4	fill	Post hole		
150	151	4	cut	Post hole	Part of structure 146	Roman
151	150	4	fill	Post hole		
152		4		structure	Excavation master no.	Roman
153	155	4	fill	pit	Cremation deposit	
154	155	4	fill	pit	Cremation deposit	
155	153, 154, 160, 199, 200	4	cut	Pit	Cremation pit	MBA
156	157	4	fill	pit		
157	156	4	cut	pit		MBA
158	159	4	fill	ditch		
159	158	4	cut	ditch	boundary	Undated
160	155	4	fill	pit	Cremation pit	
161	162	4	cut	natural		Undated
162	161	4	fill	natural		
163			layer	Buried soil		?Roman
164	165	4	fill	post hole		
165	164	4	cut	post hole		Undated
166	167	4	cut	ditch	boundary	?Roman

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
167	166	4	fill	ditch		
168	169	4	fill	Post hole		
169	168	4	cut	Post hole	Timber structure	Roman
170	171	4	fill	Post hole		
171	170	4	cut	Post hole	Part of structure 94	Roman
172	173	4	fill	Post hole		
173	172	4	cut	Post hole	Part of structure 94	Roman
174	175	4	fill	Post hole		
175	174	4	cut	Post hole	Part of structure 94	Roman
176	177	4	fill	Post hole		
177	176	4	cut	Post hole	Part of structure 94	Roman
178	179	4	fill	Post hole		
179	178	4	cut	Post hole	Part of structure 94	Roman
180	181	4	fill	Post hole		
181	180	4	cut	Post hole	Part of structure 94	Roman
182	183	4	fill	Post hole		
183	182	4	cut	Post hole	Part of structure 94	Roman
184	185	4	fill	Post hole		
185	184	4	cut	Post hole	Part of structure 94	Roman
186	187	4	fill	Post hole		
187	186	4	cut	Post hole	Part of structure 94	Roman
188	189	4	fill	Post hole		
189	188	4	cut	Post hole	Part of structure 94	Roman
190	191	4	fill	Post hole		
191	190	4	cut	Post hole	Part of structure 94	Roman
192	193	4	fill	Post hole		
193	192	4	cut	Post hole	Part of structure 94	Roman
194		4		structure	Excavation master number	Roman
195	196	4	fill	ditch		
196	195	4	cut	ditch	boundary	?Roman
197	198		fill	pit		
198	197		cut	pit		
199	155	4	fill	pit	Cremation deposit	
200	155	4	fill	pit	Cremation deposit	
201	202	4	fill	ditch		
202	201	4	cut	ditch		?Roman
203	204	4	fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
204	203	4	cut	ditch		?Roman
205	206	4	fill	ditch		
206	205	4	cut	ditch		?Roman
207	208	4	fill	ditch		
208	207	4	cut	ditch		?Roman
209	210	4	fill	ditch		
210	209	4	cut	ditch		?Roman
211	212	4	fill	ditch		
212	211	4	cut	ditch		?Roman
213	214	4	cut	ditch		?Roman
214	213	4	fill	ditch		
215	216	4	cut	natural		
216	215	4	fill	natural		
217	218	4	fill	?pit		
218	217	4	cut	?pit		LBA/EIA
219			Layer	Buried soil	Agricultural soil	
220	221	5	cut	ditch	Adjacent to Palaeochannel **266**	?Late Neolithic/BA
221	220	5	fill	ditch		
222	223	5	cut	ditch	Adjacent to Palaeochannel **266**	?Late Neolithic/BA
223	222	5	fill	ditch		
224		5	layer	Buried soil		
225		5	layer	Buried soil		
226		5	layer	Buried soil		
227	228	5	cut	natural		
228	227	5	fill	Natural		
229	230	5	cut	natural		
230	229	5	fill	natural		
231	232	5	fill	pit		
232	231, 245-47	5	cut	pit	Quarry pit	LNeolithic/BA
233	234	5	cut	?pit		LNeolithic/BA
234	233	5	fill	?pit		
235	236	5	cut	?pit		LNeolithic/BA
236	235	5	fill	?pit		
237	238-40	5	cut	ditch		Undated
238	237	5	fill	ditch		
239	237	5	fill	ditch		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
240	237	5	fill	ditch		
241	242	5	fill	?pit		
242	241	5	cut	?pit		LNeolithic/BA
243	244	5	fill	?pit		
244	243	5	cut	?pit		LNeolithic/BA
245	232		fill	pit		
246	232	5	fill	pit		
247	232	5	fill	pit		
248	252-55	5	cut	ditch		Undated
249	258, 259	5	cut	pit		Mid to Late BA
250	251	5	fill	ditch		
251	250	5	cut	ditch		Undated
252	248	5	fill	ditch		
253	248	5	fill	ditch		
254	248	5	fill	ditch		
255	248	5	fill	ditch		
256	257, 260	5	cut	ditch		Undated
257	256	5	fill	ditch		
258	249	5	fill	natural		
259	249	5	fill	natural		
260	256	5	fill	ditch		
261					Master No	
262	266	5	fill	natural		
263	266	5	fill	natural		
264	266	5	fill			
265		5			Chalk natural	
266	262-64, 268-77	5	cut	natural	Palaeochannel	Earlier prehistoric
267	266	5	fill	natural		
268	266	5	fill	natural		
269	266	5	fill	natural		
270	266	5	fill	natural		
271	266	5	fill	natural		
272	266	5	fill	natural		
273	266	5	fill	natural		
274	266	5	fill	natural		
275	266	5	fill	natural		
276	266	5	fill	natural		

Context	Cut / Fill	Field	Category	Feature Type	Description	Period
277	266	5	fill	natural		

Table 32: WIX021 context summary

APPENDIX B. FINDS REPORTS

B.1 Metalwork

Coins & Jeton

By Nina Crummy

B.1.1 Excavations at Great Bradley (BYG030) produced three coins. They were recovered from context 102, a topsoil/subsoil?

B.1.2 All three coins from the site are both worn and poorly preserved, with little or nothing of the legends remaining. One is a sestertius of Trajan (AD 98-117), with the reverse worn smooth and the only part of the obverse legend that remains being the titles Germanicus and Dacicus. This dates the coin within the reign to later than AD 102. The other two coins are both late issues. One is illegible, the other is an AE3 of the House of Valentinian (AD 364-78).

B.1.3 So few coins reveal little about any Romano-British occupation, but they do conform to the low-early high-late pattern of coin loss found on other sites in Suffolk and Cambridgeshire and on rural sites across southern and central Britain generally (Reece 1995, 197, fig. 21; Mackreth 2001, 39; Guest 2003; Plouviez 2004; Evans et al. 2007, 52, 68-9).

- SF 1. (102). Worn copper-alloy sestertius of Trajan: obverse, -/GER DAC/-; reverse worn smooth. Diameter 32 mm; weight 20.62 g. Date: AD 102-117.
- SF 2. (102). House of Valentinian, copper-alloy AE3. Obverse legend missing; reverse, SECVRITAS REIPVBLICAE, Victory left, OF in left field, rest of mint-mark missing. Diameter 17 mm; weight 1,83 g. Date: AD 364-78.
- SF 3. (102). Worn and illegible late 3rd or 4th century copper-alloy issue. Diameter 17 mm; weight 1.17 g.

B.1.4 Excavations at Lower Cotton Hall, Wixoe (WIX021) produced a further eleven coins.

B.1.5 Ten of the eleven coins from the site are late Roman issues, many of them worn, corroded and illegible; the eleventh is a worn 17th century token.

B.1.6 One of the Roman coins is a late 3rd century barbarous copy with the reverse image showing the emperor Claudius II mounted (SF 15). This is a comparatively rare type, the official issue, *Adventvs Avg*, having been struck in Rome to celebrate the emperor' accession to the purple (*RIC* 13).

B.1.7 While the Roman assemblage is too small to be used for a coin loss profile for the site, it conforms to a pattern seen on many rural sites in southern Britain, with no coins dating to before *c.* AD 270. This points to a local economy based on barter rather than cash until the late 3rd century or later, and even when coinage does appear on a site it need not have been used for the purchase of goods and services (Reece 2002, 97-8). Comparable sites in the eastern region are Haddon, near Peterborough, and the Trinity Lands and Hurst Lane reservoir sites at Ely (Guest 2003; Evans *et al.* 2007, 52, 68-9). The absence of coins of the House of Constantine dating to 330-45 may be more apparent than real, as some of the illegible issues may be of that date. This was generally a period of high coin loss in Suffolk, and the Wixoe region is no exception (Plouviez 2004, fig. 60).

B.1.8 The 17th century token is very worn; it may be a farthing token of James I or Charles I, dating to the first half of the century, or a merchant's trade token from the middle of the century (SF 12).

B.1.9 SF 15. Barbarous radiate copying the ADVENTVS AVG issue of Claudius II (as *RIC* 13, AD 260), with emperor's bust right on obverse and emperor riding left on reverse. Diameter 15 mm; weight 1.60 g. Date: *c.* 270-90.

- SF 6. Worn and illegible barbarous radiate with irregular flan. Diameter 15 mm; weight 0.73 g. Date c. 270-90.
- SF 2. Gratian, Arles mint.Obverse, DN GRATIANvS PF AVG, bust right; reverse, SECVRITAS REIPVBLICAE, Victory left, mint-mark PCON. Diameter 17 mm; weight 2.19 g. Date: 375-8. Reference: CK 533.
- SF 3. House of Valentinian. Obverse legend illegible; reverse legend illegible, image obscure, probably Victory left (Secvritas Reipvblicae), mint-mark illegible. Diameter 103 mm; weight 1.38 g.
- SF 8. House of Valentinian, ?Arles mint. Obverse legend illegible; reverse, SECVRITAS REIPVBLICAE, Victory left, mint-mark illegible. Diameter 17 mm; weight 1.63 g. Date: 364-78.
- SF 7. Worn and illegible 3rd or 4th century issue. Diameter 15 mm, weight 1.18 g (corrosion products).
- SF 11. Worn and illegible 3rd or 4th century issue. Diameter 20 mm, weight 3.06 g (corrosion products).
- SF 13. Worn and illegible 3rd or 4th century issue. Diameter 21 mm, weight 2.28 g.
- SF 4. Worn and illegible 4th century issue. Diameter 16 mm; weight 1.43 g.
- SF 10. Worn and illegible 4th century issue. Diameter 18 mm; weight 2.40 g (corrosion products).
- SF 12. Worn token, 17th century. Diameter 15 mm; weight 81 g.

The jeton

B.1.10 Excavations at (WTL010) produced a post-medieval jeton.

B.1.11 A worn early-mid 17th century Nuremberg jeton came from context 100. Used for reckoning accounts on a counting board, jetons of this type were sometimes fraudulently passed off as coinage (Mitchiner 1988, 17, 20-1; Mernick & Algar 2001, 213-15. They are fairly common as site finds in eastern England, particularly in towns, such as King's Lynn, Norwich and Colchester (Rigold 1977; Margeson 1993, 208-9; Davies 2007; Crummy 1987, 68).

- SF 102. (100). Worn early-mid 17th century rose/orb Nuremberg jeton, otherwise illegible. Diameter 22 mm; weight 0.94 g.

Metal Arefacts

By Chris Howard-Davis

B.1.12 Metalwork was recovered from six of the sites on the route of the pipeline. Artefacts were iron, other than BYG029, WTL010 and WIX021 which produced copper-alloy objects.

B.1.13 The artefacts were examined, assigned a preliminary identification and, where possible, date range. An outline database was created, using Microsoft Access 2000 format, and the data recorded (context, small finds number, material, category, type, quantity,

condition, completeness, maximum dimensions, outline identification, brief description, and broad date) serve as the basis for the comments below. The state of preservation (condition) was assessed on a broad four point system (namely poor, fair, good, excellent).

Metalwork from BYG029

Quantification

B.1.14 A single fragment of copper alloy was recovered. Although incomplete, it was in good condition.

Date range and distribution

B.1.15 The single object examined is probably of medieval or later date.

Evaluation

B.1.16 This is a small part of a cast copper alloy square or rectangular buckle frame, from context 126 (SF 1). It is probably of early post-medieval date.

Conservation

B.1.17 The object is well packed and in general requires no further conservation.

Potential

B.1.18 This object has no potential for further analysis.

Proposed further work

B.1.19 Archival catalogue entries should be completed, and a brief comment prepared for inclusion into any proposed publication.

The Ironwork from BYG030

Quantification

B.1.20 Four small fragments of ironwork were recovered. All are incomplete, and in poor condition.

Date range and distribution

B.1.21 None of the objects recovered are chronologically diagnostic.

Evaluation

B.1.22 Parts of three small nails came from contexts 155, 157, and 141 (SFs 6, 7, and 10 respectively). A fragment of (probably) drawn wire, possibly deliberately bent into a hook, came from context 102 (SF 4). None can be closely dated.

Conservation

B.1.23 The objects are well packed, and in general require no further conservation.

Potential

B.1.24 These objects have no potential for further analysis.

Proposed further work

B.1.25 Archival catalogue entries should be completed, and a brief comment prepared for inclusion into any proposed publication.

The Ironwork from TUL021

Quantification

B.1.26 Two small fragments of ironwork were recovered. Both are incomplete, and in poor condition.

Date range and distribution

B.1.27 One of the objects recovered could be of Late Iron Age or Romano-British date, but would require cleaning for confident identification.

Evaluation

B.1.28 A small fragment of iron was recovered unstratified (SF 2), x-radiography did not aid its identification. A slender, now T-shaped, object (SF 5) came from context 1147. Ostensibly of fine wire, it has been tentatively identified as a brooch, possibly of Late Iron Age or Romano-British date.

Conservation

B.1.29 Both objects are well packed, and in general require no further conservation. If a more confident identification of SF5 should be required, however, cleaning and conservation is recommended.

Potential

B.1.30 These objects have no potential for further analysis.

Proposed further work

B.1.31 Archival catalogue entries should be completed, and a brief comment prepared for inclusion into any proposed publication.

The Ironwork from WTG018

Quantification

B.1.32 Two small fragments of ironwork were recovered. Both are incomplete, and in poor condition.

Date range and distribution

B.1.33 Neither of the objects is chronologically diagnostic.

Evaluation

B.1.34 A single nail was recovered from context 610 (SF600), and a small staple from context 615 (SF 601). Both are associated with woodworking and carpentry, but as simple and long-lived forms, neither is closely datable.

Conservation

B.1.35 Both object are well packed, and in general require no further conservation.

Potential

B.1.36 These objects have no potential for further analysis.

Proposed further work

B.1.37 Archival catalogue entries should be completed, and a brief comment prepared for inclusion into any proposed publication.

The Metalwork from WTL010

Quantification

B.1.38 Six objects of copper alloy, 21 fragments of ironwork, and one of lead were recovered. The copper alloy and iron objects are largely complete and in fair to poor condition, whilst that of lead is complete, and in good condition.

Date range and distribution

B.1.39 The small assemblage of metalwork from the site has a broad date-range, from the Romano-British period to at least the early post-medieval period. There are no particular trends in the group.

Evaluation

B.1.40 A bow brooch of Romano-British date came from context 204 (SF204). It can be provisionally identified as an Aucissa-type brooch of first-century date (see for instance Hattatt 2000, fig 76.43, Mackreth 2011, pl 89), but requires cleaning and conservation before a final identification can be made. What appears to be part of a bangle, again of Romano-British date, was from the same context (204; SF203). It finds a parallel amongst material from Balkerne Lane in Colchester (Crummy 1983, fig 40.1586), described as 'early', and is of a type subsequently identified by Crummy (2005) as military *armillae*, probably of first-century date. Again the object requires conservation before this identification can be confirmed. A D-shaped nailed object from context 204 (SF208) cannot be further identified at this point.

B.1.41 A well-preserved annular buckle of probably later fourteenth to fifteenth-century date was from context 326. A strap-end from context 201 is also of medieval date. A relatively large rumbler or crotal bell was recovered from context 108 (SF100) and is a typically early post-medieval artefact.

B.1.42 Most of the ironwork was associated with building, 16 nail fragments, representing almost the same number of nails, came from contexts 311 (SFs 301, 302), 325 (SF308), 326 (SF304), and 336 (SF309), with six nails each in contexts 311 and 326. The former also produced a small staple or carpenter's dog, strongly suggesting an association with structural woodwork, whilst the latter had what appears to be a small hook or catch, of a size appropriate to closing a door or shutter.

B.1.43 Two horseshoe fragments came from 308 and 336 (SFs 303 and 307), the irregular counter-sunk nail holes and uneven 'wavy' edge of SF303 points to a medieval date, from the tenth to the thirteenth century (Clark 1995, 96), and an unidentifiable fragment came from context 335 (SF 310).

B.1.44 A single, well-preserved lead spindle whorl of sub-conical form came from context 201 (SF201) and is probably of medieval date.

Conservation

B.1.45 the object are well packed, and in general require no further conservation, but a small number of copper alloy objects will require cleaning and conservation for confident identification

Potential

B.1.46 These objects have limited potential for further analysis. The small assemblage of copper alloy contains some objects which will contribute to the dating and interpretation of the site.

Proposed further work

B.1.47 Archival catalogue entries should be completed, an illustrated report prepared for inclusion into any proposed publication, and some contribution be made to the incorporation of comment on the relevant classes of finds into the main stratigraphic test.

The metalwork from WIX021

Quantification

B.1.48 Seven objects of copper alloy and two of lead were recovered. The copper alloy objects are largely complete and in fair to good condition, whilst those of lead are complete, and in good condition.

Date range and distribution

B.1.49 The small assemblage of metalwork from the site can probably be consigned, in the main to the Romano-British period, with later objects confined to unstratified finds. There are no particular trends in the group.

Evaluation

B.1.50 A bow brooch of Romano-British date came from context 188 (SF32). It can be identified as a Nauheim derivative type with a three-turn spring (see for instance Crummy 1983, fig 2.9; Mackreth 2011, pl 10), and can be dated to the first century AD, before c AD 75 (ibid). A needle of typically Roman type came from context 130 (SF29), it falls into Crummy's type 3 (op cit, 67), regarded as a late type, and she raises the likelihood that this type could have remained in use beyond the Roman period. A small, somewhat asymmetrical ring comes from context 155 (SF18) and cannot be dated with any precision.

B.1.51 Although the fragment is small, it is possible that SF31, from context 163, is part of a small cast figure, perhaps a fitting rather than a free-standing statuette. It appears to be a rather crudely modelled right hand and part of the hip of perhaps a female figure. If this identification can be confirmed, than the figure is undoubtedly Romano-British in date. An unidentifiable fragment was from context 17 (SF26).

B.1.52 Two well-preserved square-framed buckles were found unstratified. SF 14 is incomplete, whilst SF 16 is complete but deformed. Both seem most likely to be of post-medieval date. A fragment of decorative strip, also found unstratified, is also most likely to be post-medieval.

B.1.53 Two small rolled ties, made from rolled rectangles of lead sheet, were recovered unstratified. These are relatively common finds on Romano-British sites, and must have served a wide range of purposes.

Conservation

B.1.54 The objects are well packed, and in general require no further conservation, but the brooch will require cleaning and conservation for confident identification

Potential

B.1.55 These objects have limited potential for further analysis. The small assemblage of copper alloy contains some objects which will contribute to the dating and interpretation of the site.

Proposed further work

B.1.56 Archival catalogue entries should be completed, an illustrated report prepared for inclusion into any proposed publication, and some contribution be made to the incorporation of comment on the relevant classes of finds into the main stratigraphic test.

B.2 Lithics

By Anthony Dickson

Methodology

B.2.1 For the purposes of this report individual artefacts were scanned and then assigned to a category within a simple lithic classification system (see individual site tables). Unmodified flakes were assigned to an arbitrary size scale in order to identify the range of debitage present within the assemblage. Formal tools and utilised pieces were also characterised. Beyond this no detailed metrical or technological recording was undertaken during the preliminary analysis. The results of this report are therefore based on a rapid assessment of the assemblage and could change if further work is undertaken.

BYG029

Introduction

B.2.2 An assemblage of 41 lithics was submitted for assessment from the above site. This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators.

Quantification

B.2.3 A total of eight individual contexts contain worked stone (Table 33). Five contexts contain between 1-5 struck lithics accounting for 34% of the assemblage (14 pieces), while three contexts contain between 7-11 struck lithics: 66% of the assemblage amounting to 27 individual lithic pieces. The small quantity of lithic material recovered from the contexts suggests that some of the material could well be residual. How these deposits relate to each other, and with non lithic bearing deposits from the site area, in spatial and stratigraphical terms is not discussed any further within this report.

Assessment

B.2.4 In terms of raw material good quality black flint dominates the assemblage. This material is relative free of thermal flaws but this could relate to assemblage size rather than the quality of the material as a whole. The cortex on the black flint varies from a thin smooth grey covering to a thick, coarse material, with angular ridges, which is whitish yellow in colour. The latter is relatively rare and only present in contexts 179 and 188. The difference in the coarseness and colour of the cortex indicates that raw material was procured from a variety of resources, including alluvial and possibly primary chalk flint deposits, that may have been local to the site area

B.2.5 Re-cortification varied from context to context. Most contain at least one piece which has light patination, although all the pieces from context 179 have a medium greyish white re-cortification. The incidence of edge damage is quite high across the assemblage as a whole and is particularly prevalent in context 146 where all the pieces have suffered extensive chipping and rounding of prominent edges. The presence of burnt flint is also poorly represented with only one context containing heat effected pieces (Table 33).

B.2.6 There are four recognisable cores within the assemblage along with a flaked nodule, an irregularly flaked chunk and a core fragment from a possible keeled core (17% of the assemblage; table). The multi-platform cores are flake cores and can be reconciled with

other similar forms from Late Neolithic/Early Bronze Age sites within the region (Bishop forthcoming). The single platform core represents a nodule which has been consistently worked back into the body of the material exhibiting evidence for systematic flake removals and is likely to date to the same period.

B.2.7 Unmodified flake and blade debitage makes up 51% of the assemblage, with just under a quarter of the pieces broken. The flake debitage is dominated by secondary and tertiary removals (Table 33) indicating that the majority of the flakes were removed during the intermediate and final stages of reduction. The flakes are generally small in dimensions and morphologically they tend to be broad and squat in form. Platforms vary between simple, broad and thin types and only one example shows evidence for platform preparation. A few flakes have corticated platforms and they are chiefly from context 177. The dorsal flake scars on the complete flakes indicate a trend towards working in a single direction and the majority have feathered terminations. These attributes suggest a hard hammer technology mainly geared towards the production of flakes and can be attributed to reduction technologies associated with a Late Neolithic/Bronze Age date.

B.2.8 The three broken blades appear to be parallel sided pieces and could represent fragments of true blades. This suggests that they may be earlier in date than the majority of the assemblage and could be the by-products of Late Mesolithic/Early Neolithic reduction strategies.

B.2.9 Formal tools and edge utilised pieces are present in significant numbers comprising 27% of the total assemblage (Table 33). It should be noted that due to the fact that edge damage is prevalent across the assemblage some of the more irregular retouch could be the product of post-depositional processes rather than deliberate modification. Nevertheless, among the formal retouched tools are an awl, a finely executed notch and a side scraper. The awl is made on a thermal chunk and has been manufactured by applying minimal retouch to a sharp angle on the edge of the chunk in order to create a blunted point. The same edge is also abraded indicating that the piece has also been edge utilised. Similarly manufactured awls have been identified in Late Neolithic/Bronze Age contexts within the region (Bishop 2000). The notch could represent a concave scraper made on the end of a flake and is probably of a Late Neolithic/Early Bronze Age date. The scraper is made on a primary flake and has quite irregular retouch on one lateral edge and is likely to be Neolithic/Early Bronze Age in date. Among the miscellaneous retouched pieces, that could be confidentially recorded as such, are two flakes with limited semi invasive retouch from context 152. It is possible that these two pieces represent partially manufactured arrowheads of possible leaf shaped form, however the flakes they are made on are, in one instance, quite thick and, in the other, irregular in form. Furthermore, one of the retouched blades has blunting along the surviving edge and probably represents a backed blade.

B.2.10 In summary it can be postulated that the majority of the assemblage is likely to represent stone working activity dating to the Late Neolithic and or the Early Bronze Age. Alongside this a few blades exhibit technological and typological affinities with reduction strategies dating to earlier periods: the Late Mesolithic/Early Neolithic. Also potentially dating to the Early Neolithic are the possible partially worked arrowheads from context 152. Incidentally no other lithic material was recovered from that context.

Potential

B.2.11 The struck flint assemblage from BYG029 is relatively small in size and comparable in its technological composition with assemblages of a Neolithic and/or Early Bronze Age

date from the region (Bishop 2000; Bishop 2008; Bishop forthcoming). Due to its small size it is unlikely that further detailed analysis would add any significant detail towards the technological and chronological understanding of the assemblage. Therefore no further work on the assemblage is recommended. However the results of the assessment report should be included in any forthcoming publication.

Context Number			**146**	**152**	**155**	**162**	**165**	**177**	**179**	**188**	**Tot**
Type	***Sub type***	***Classification***									
core technology	*core*		2						2		4
	flaked nodule							1			1
	partially flaked chunk					1					1
		core fragment	1								1
flakes (>50mm)	*primary*										n/a
	secondary								1		1
	tertiary										n/a
	broken										n/a
flakes (>25mm <50mm)	*primary*					1					1
	secondary		1			1				2	4
	tertiary								1		1
	broken								1		1
flakes (>10mm <25mm)	*primary*							1			1
	secondary					1	1				2
	tertiary					2					2
	broken							1			1
small flakes (<10mm)								2			2
blades (all sizes)	*primary*										n/a
	secondary										n/a
	tertiary										n/a
	broken					2				1	3
flake/blade shatter								1		1	2
retouched tools		*awl*				1					1
		misc retouched blade						2			2
		misc retouched flake	1	2				2			5
		notched flake						1			1
		scraper			1						1
edge utilised blades and flakes		*worn edge*								1	1
burnt flint (all types)									2		2
TOTAL			5	2	1	9	1	11	7	5	**41**

Table 33: BYG029 lithic assessment table

BYG030

Introduction

B.2.12 An assemblage of 772 lithics were submitted for assessment from the above site (Table 34). This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report advances recommendations for the further work needed to enhance the interpretation of the assemblage in relation to its site specific and wider contextual significance.

Quantification

B.2.13 Of the total assemblage 105 pieces are natural thermal flakes, which exhibit no evidence for having being worked on any of their faces, leaving a total of 667 struck lithics (Table 34). The natural pieces will not be considered any further in this report.

B.2.14 A total of 48 individual contexts contain lithics including context 99999 which represents topsoil deposits. Therefore the 78 lithics (12% of the assemblage) associated with context 99999 can be deemed residual. Of the remaining contexts, 27 contain between 1-10 struck lithics accounting for 16% of the assemblage(107 pieces). A further 19 contexts contained between 11-39 struck lithics: 64% of the assemblage amounting to 427 individual lithic pieces. Only context 195 contained over 50 struck lithics (Table 34): 8% of the assemblage. This effectively means that the greater part of the assemblage is contained within just over 40% of the lithic bearing deposits. How these deposits relate to each other, and with non lithic bearing deposits from the site area, in spatial and stratigraphical terms is not discussed any further within this report.

Assessment

B.2.15 Nodular flint cobbles of varying size are the only raw material used for the production of struck lithics. The material varies in colour across a range of black, dark brown, dark reddish brown and, to a much lesser extent, varying shades grey. The quality of the raw material also varies, with the darker coloured flint being of better quality while the greyer material tends to contain more inclusions and flaws. The overall good quality of the flint is perhaps reflected in the general lack of angular shatter within the assemblage although when this is considered in relation to the number of thermal flakes present other processes may account for these discrepancies. Cortex, when present varies between a smooth, thin brownish white to a thicker light brown covering. Thermal fractures of varying size showing evidence for intentional flaking on their surfaces are common throughout the assemblage as a whole and represent the shatter of struck lithics. Burnt flint, comprising a mixture of struck pieces and natural flakes and chunks, is present within 17 context assemblages, although not in any significant quantities in any one (Table 34).

B.2.16 Most context assemblages contain re-cortified lithics, however the number of pieces and the degree of surface alteration is variable within them. For example all the material from contexts 191 and 192 are re-cortified but the degree of such varies considerably from pieces with a thin bluish white patina to others with a thick white dense re-cortification. Similarly, contexts 173 and 177 have few re-corticated pieces but again the degree of surface alteration is variable. Context 188 contains a blade, a flake, a possible retouched flake and a broken blade that stand out from the rest of the context assemblage in that they have a thick creamy surface alteration. This phenomenon of mixed and varying degree of re-cortification could mean differential soil conditions prevailed within depositional contexts or, conversely, the possible mixing of older struck lithics within deposits.

B.2.17 The majority of the context assemblages contain edge damaged pieces and like the situation with surface alteration the degree of damage both in terms of intensity and extent is variable between context assemblages: contexts 118 and 172 contain heavily edge damaged pieces in relation to the relatively lighter damage recorded for other context assemblages. This implies that some context assemblages were subjected to a higher degree of post depositional processes than others. This brings into question the stratigraphic integrity of some of the context assemblages.

B.2.18 Core technology revolved around the reduction of small to medium sized flint nodules of varying shape. A variety of reduction technologies were used during stone working activity. The most common is the reduction of nodules from single platforms: six of the 19 cores (table; 2% of the assemblage). This is closely followed by multi-platform and discoidal cores which are five and four in number respectively. While most of the single platform cores are associated with the removal of flakes with very little attention paid to platform maintenance and preparation, probably representing Late Neolithic/Bronze Age stone working traditions, two showed different approaches to their reduction. A single platform core from context 138 is conical in form and only partially worked in the production of narrow flakes. A second example from context 193 also showed evidence for the careful removal of blades and narrow flakes. The technological signature of these two cores suggests affinities with Late Mesolithic/Early Neolithic reduction strategies. In addition, two opposed platform cores from contexts 121 and 172 showed evidence on their flaked surfaces for the systematic production of blades and narrow flakes and it is likely that they are assignable to the same chronological horizon. Further evidence for Late Neolithic/Bronze Age core technology is represented by two keeled cores. Additionally, at least two of the discoidal cores may represent Levallois type forms of a Late Neolithic date (Ballin 2011): the discoidal core from context 197 showed evidence for a main flake removal.

B.2.19 Beyond the recognisable core forms there are 72 partially worked chunks (table; 11% of assemblage). These pieces represent a mixture of shatter from core reduction and the ad hoc flaking of irregular thermally shattered chunks. The latter exhibit no evidence for the structured removal of flakes and no evidence for platform maintenance and preparation. On the whole, the pieces take the form of irregular chunks, however several represent flaked flakes and some could be reworked core fragments. Furthermore, the intensity of flaking varies from piece to piece with some showing removals from several ridges while others represent the partial working of one face, although both methods involved the removal of flakes that were struck well back into the body of the piece. Most of the partially worked chunks were discarded before their full potential had been realised and they appear to represent the opportunistic flaking of material attributable to stone working activity in the Late Neolithic/Bronze Age (Bishop 2009; Bishop forthcoming).

B.2.20 Core maintenance pieces are poorly represented in the overall assemblage with only three instances of trimming flakes identified (Table 34). One from context 138 could also represent a core fragment while a second example from context 195, which was struck along the edge of a flaking platform, could represent a guide piece (Ballin and Johnson 2005).

B.2.21 The unmodified flake debitage (48% of assemblage) mainly comprises pieces with lengths between 25mm to 50mm (table 16). On the whole these flakes tend to be broad and squat in form. The majority are fairly thin, but some are quite thick and angular. Platform preparation is rare and generally platforms tend to be simple and relatively broad, quite often corticated, and in the case of the flakes from context 121 associated with incipient cones. The dorsal flake scars on the complete flakes indicate a trend towards working in a single direction and the majority of the flakes have feathered terminations; although hinge terminations are present, but in smaller numbers. In addition to the regular flakes some context assemblages also contain blade like flakes (table; 5% of assemblage). Beyond the fact that these pieces are of blade like proportions they exhibit the same technological characteristics as the flakes. The technological traits exhibited by the flakes and blade like flakes suggest a chiefly hard

hammer technology mainly geared towards the production of flakes which can be attributed to reduction technologies associated with a Late Neolithic/Bronze Age date.

B.2.22 Beyond the conventional flake debitage there are at least two examples of flakes with faceted platforms, from context 108 and 191, suggesting that they may have been struck from Levallois type cores. There are also a small number of thin flakes with multi directional/opposed flake scars and curving long profiles. These flakes could represent the debitage from biface thinning, but as noted their number is extremely limited and therefore does not suggest in-situ biface maintenance/production.

B.2.23 The flake debitage is dominated by secondary removals (Table 34). This indicates a focus on the intermediate stages of core reduction. However, secondary flakes are probably over represented due to the presence of flakes with cortical platforms and remnants of cortex on their lateral margins.

B.2.24 The number of blades (7% of assemblage) is limited within each context assemblage and they represent mainly fragments. There is a small number of true blades, in the overall assemblage, displaying parallel lateral edges and carefully prepared platforms. However their overall number is somewhat in disparity with the evidence from the blade and narrow flake cores indicating that complete reduction sequences associated with those types of cores are not present. This point is also true for the flakes whereby only seven contexts contain between 15 and 25 complete and broken flakes (Table 34). Only four of those contexts contain recognisable cores although each does include a number of partially worked chunks, but this probably serves to emphasise the inequality between core/partially flaked chunk and flake ratios. This appears to back up the evidence from the true blades: that the context assemblage represent partial reduction sequences of several different flint nodules. That said, context 177 contains a multi platform core comprising a nodule of distinctive reddish brown flint and several flakes of the same raw material type. A few flakes, very similar in colour and texture to the core, are present in several other context assemblages. Therefore it is possible that the core and the flakes represent elements of the same reduction sequence spread over several different context assemblage. This, again, serves to emphasise the mixed nature of some of the context assemblages.

B.2.25 Formal tools and edge utilised pieces make up 10% of the assemblage and they represent a range of different implement types (Table 34). The arrowhead is a barbed and tanged form which is damaged at the tip of the tang and at the point, but is probably comparable to Green's (1984) Green Low or Sutton type and is likely to be Early Bronze Age in date. The awl from context 181 is made on a large thermal flake, the retouch on this piece is rather crude and irregular and the piece may be Bronze Age in date. The use of thermal flakes as blanks for tools is quite common with several scrapers, one of the knives and some of the miscellaneous retouched pieces produced on them. The recycling of older material for tool manufacture is also represented by a couple of miscellaneous retouched pieces where the modification has cut through the re-corticated surfaces of previously struck flakes and blades. The bifacially flaked fragment is the point from a large projectile which is probably Neolithic in date. The knife forms have been produced on a variety of different sized and shaped flakes. One example from context 195 has semi invasive retouch applied to the distal end and right lateral edge of a large D shaped flake and could conceivably be Early Neolithic in date (Clark 1960). The scrapers represent a range of forms including miscellaneous, side and end and end. Some of the scrapers are finely made on large thick, often cortical, flakes and can be reconciled with horseshoe forms of a Late Neolithic/Early Bronze Age date (Butler 2005). Conversely one end scraper comprises fine abrupt retouch applied

to a thin flat flake. The denticulate comprises a thermal flake with a row of regularly spaced notches applied to a lateral edge. The crudeness of the retouch suggests that this piece could be Bronze Age in date. Finally it should be noted that several of the partially flaked chunks and thermal flakes have heavily abraded edges signifying that they have been utilised. These pieces appear to represent the opportunistic use of pieces for chopping and pounding activities. These pieces are difficult to date given the potential expedient nature of their use but they could be attributable to Bronze Age activity.

B.2.26 In summary it can be postulated that a small proportion of the assemblage exhibits technological affinities with reduction strategies dating to the Late Mesolithic/Early Neolithic. However, the bulk of the assemblage is likely to reflect stone working activity dating to the Late Neolithic/Early Bronze Age. Alongside this it is conceivable that elements of the assemblage could relate to the use of flint in the Mid/Late Bronze Age. A number of technological traits identified from the analysis of later Bronze Age assemblages from elsewhere in the country (Ballin 2002; Butler 2005; Bishop 2009; McLaren 2010) appear to be present albeit on a small scale: the reuse of earlier flaked material, a relatively high number of irregularly flaked chunks probably representing unidentifiable cores and the presence of blade like flakes and flakes with broad platforms, prominent and multiple bulbs and dorsal faces which still retain a high coverage of cortex. Furthermore, some of the more robust tools, edge utilised pieces and the miscellaneous retouched flakes and blades could also be associated with this later activity.

Potential

B.2.27 The struck flint assemblage from BYG030 is relatively small in size for the region (Edmonds et al 1999) and is chronologically disparate in terms of its technological and typological composition. It also appears that given the edge damage present in some of the context assemblages that a proportion of the assemblage represents the secondary deposition of lithic material. Additionally most contexts contain only part of any one particular reduction strategy indicating that the in-situ production of struck lithics did not take place. That said it may be possible to build on the results of the preliminary assessment in order to clarify the spatial and stratigraphic distribution of the different technological elements of the assemblage, particularly the Late Neolithic/Early Bronze Age component. This could be achieved in a two fold iterative process. Firstly a detailed synthesis of the the results from the preliminary lithic assessment should be integrated with the site stratigraphic analysis, associated artefact studies and the results of scientific dating. If the results of this analysis prove productive then targeted metrical and technological lithic analysis could be employed to clarify further the technological, spatial and temporal resonance of stone working activity at the site.

B.2.28 Finally the assemblage should also be contextualised with similarly dated sites from the wider landscape in order to place it within the broader patter of Neolithic and Bronze occupation in the region.

B.2.29 To that end it is recommend that the assessment report is used as the basis to produce a more detailed report which discusses the assemblage in relation to the site stratigraphy, artefact analysis dating and wider significance. This report should then be integrated with the site report and or publication with associated illustrations.

Cont			102	104	106	108	110	112	114	116	117	118	119	121	122	129	131	138	146	147	151	155	157	160	166	172	173	175	177	179	181	182	183	184	185	186	187	188	189	191	192	193	194	195	196	197	198	201	202	U/S	TOT
Type	**Sub type**	**Classification**																																																
core technology	*core*		1											1				2							1	1			1		2										1	1	1			1	1	2	3		19
		partially flaked chunk	1					1		1	1	3	1			1		1					1			4	3				1				2	1	1	2		4		7	1	10	6	1	3	5	1	9	72
		core trimming													1			1																											1						3
flakes (>50mm)	*primary*																																																	n/a
	secondary																	2			1																												2	5
	tertiary																										1																						1	2
	broken																																																	n/a
flakes (>25mm <50mm)	*primary*																1																							2		2	1		1			1		1	9
	secondary		5	1	3	1	1					2		2	1			4						1		10	1		2		5			1	1	3	2	3	1	5		7	1	9	8	5	1	4	2	18	110
	tertiary					1	1				1	2	1					3								2	2					1	2	1	1		1		1	1	3	3	1	2		1	5	3	5	44
	broken		1			1			1				1				1	5		1						5	1		4			1			1	1		1		1		5	2	3	1	1	1	3		6	48
flakes (>10mm <25mm)	*primary*				1																																	1						1						3
	secondary			4			3			1				2				2								1			2	2	3				1	2	2		1	5	2	1		4	2	2	1	2		4	49
	tertiary		1			3	1	1				1						3		1				1		2			2		3			1	1		1			1		3	2	3	2	1	2			3	39
	broken					1								1																1				1				1					1	2			1	1	1		11
small flakes (<10mm)																														1																				1
blade like flakes	*primary*																																																1		1
	secondary		1										1																	1			2			2			3				5	1	1			2		19
	tertiary											1		2																				1									1						3	8
	broken				1								1		1																					1					2								1	7
blades (all sizes)	*primary*																																																	n/a
	secondary			1														1																					1		1		1	3	1	1		1				11
	tertiary																									1		1									1	1					1				1			7
	broken		1				2											1			1					1	1		4		1	1	1					1					1	4					6	26
flake/ blade shatter																										2	3		3		1		1	2	1	1	1				1								7	23

chunks/angular shatter (>50mm)																										1																									1
chunks/angular shatter (<50mm)																											1		1									2		1		1			1	1	2	1		1	12
retouched tools		*arrowhead*																																								1									1
		awl																									1				1																				2
		bifacially flaked fragment																																			1														1
		knife form																										1																2							3
		misc retouched blade																																							1		1								2
		misc retouched flake					1					1			1			2	1			1	1			2	1				2		2					1	2					1	1		2				2	24
		notched flake																													1											1									2
		scraper	*1*											1								1			1		3									1	1					2						2		1	14
		denticulate														1																																			1
utilised blades and flakes		*utilised edge*					1					1			1			2								2	2										2						1					1		1	14
thermal flakes (flaked surfaces)										1		4						2								2	5										1	2	1		1	1	1	2	2	1	2	2		6	36
burnt flint (all types)					1	1										1										3					1			2				2		4	1	3	1	7	4	1	1	2	1	1	37
Total			12	6	6	8	10	2	1	3	2	15	5	9	5	3	2	31	1	2	2	2	2	2	2	39	25	2	19	4	22	2	5	12	8	11	16	19	4	30	7	41	22	55	34	17	17	32	13	78	**667**

Table 34: BYG030 lithic assessment table

BRL026

Introduction

B.2.30 An assemblage of 177 lithics were submitted for assessment from the above site (Table 35). This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report recommends a small amount of further work to enhance the interpretation of the assemblage in relation to its site specific and wider contextual significance.

Quantification

B.2.31 Of the total assemblage 18 pieces are natural thermal flakes, which exhibit no evidence for having being worked on any of their faces, leaving a total of 159 struck lithics (Table 35). The natural pieces will not be considered any further in this report.

B.2.32 A total of 12 individual contexts contain worked stone. Of these, 8 contexts contain between 1-8 struck lithics accounting for 17% of the assemblage (27 pieces). Three contexts contain between 13-37 struck lithics: 43% of the assemblage amounting to 68 individual lithic pieces. Only context 132 contained over 50 struck lithics (Table 35) which comprised 40% of the assemblage. This effectively means that 83% of the assemblage is contained within four deposits. How these deposits relate to each other, and with non lithic bearing deposits from the site area, in spatial and stratigraphical terms is not discussed any further within this report.

B.2.33 Assessment: Nodular flint cobbles of varying size are the only raw material used for the production of struck lithics. The material varies in colour across a range of black, dark brown, brownish grey and, to a much lesser extent, varying shades of grey. The quality of the raw material also varies with the darker coloured flint being of better quality while the grey tends to contain more inclusions and flaws; this is evidenced by the partially worked single platform core from context 135 which has several linear flaws running through the nodule. Cortex, when present varies between a smooth, thin brownish white to a thicker light brown covering. This suggests that the raw material was recovered from secondary sources, which may have been local to the site. Thermal fractures of varying size and showing evidence for intentional flaking on undamaged surfaces, representing the natural shatter of struck lithics, form a small component of the assemblage (Table 35).

B.2.34 The number of re-cortified struck lithics within the assemblage is low. When surface alteration is present it chiefly takes the form of a thin bluish white patina. Interestingly in the context assemblages where true blades are recorded these pieces stand out from the rest of the material in that they are often the only re-corticated pieces. Edge damage is also negligible across the assemblage as a whole which suggests there has been little effects from post depositional processes. The presence of burnt flint is also poorly represented with only two contexts containing heat effected pieces (Table 35).

B.2.35 There are three recognisable cores within the assemblage (Table 35) and they include a keeled, a multi-platform and a single platform core (2% of the assemblage). The keeled and multi-platform cores are flake cores and can be reconciled with other similar forms from Late Neolithic/Early Bronze Age sites within the region (Bishop forthcoming). The single platform core is only partially worked due to the poor quality of the material but does exhibit evidence for systematic flake removals and is likely to date to the same

period. Additionally a possible core fragment from an opposed flake core is also present.

B.2.36 Alongside the cores are a number of undiagnostic partially flaked chunks (11% of the assemblage; Table 35). These pieces defy categorisation to a recognisable core reduction strategy. Some are shatter from cores which have fragmented along thermal flaws during reduction. Others appear to represent the ad hoc removal of flakes from irregular thermal shattered pieces often utilising thermal scars as platforms. The latter exhibit very little evidence for the systematic removal of flakes and little in the way of maintenance and platform preparation. On the whole the pieces utilised take the form of irregular chunks of varying sizes, however several represent flaked flakes. Furthermore the intensity of flaking varies from piece to piece with some showing removals from several ridges while others represent the partial working of one face often comprising the removal of flakes which were struck well back into the body of the nodule. Most of these partially worked chunks were discarded prior to their full potential had been realised and they probably represent the opportunistic flaking of material attributable to flint working traditions dating to the Late Neolithic/Bronze Age.

B.2.37 Core maintenance pieces are poorly represented with only two trimming flakes recorded (Table 35). Both pieces were struck across the edge of the striking platform to remove areas of irregular flake scars.

B.2.38 Unmodified flake and blade debitage makes up 64% of the assemblage with just over a quarter of the 101 pieces broken. Just under two thirds of the flake debitage is represented by pieces with lengths between 25mm to 50mm (Table 35). On the whole these flakes tend to be broad and squat in form. The majority are thin and show little evidence for platform preparation. Platforms vary between broad and thin simple types and a few are corticated. The dorsal flake scars on the complete flakes indicate a trend towards working in a single direction and the majority have feathered terminations. The smaller flakes also show a similar pattern of technological traits. These attributes suggest a chiefly hard hammer technology mainly geared towards the production of flakes and can be attributed to reduction technologies associated with a Late Neolithic/Bronze Age date.

B.2.39 The flake debitage is dominated by secondary removals (Table 35). This indicates a focus on the intermediate stages of core reduction. However, that said secondary flakes are probably over represented due to the presence of flakes with remnants of cortex on their lateral margins.

B.2.40 Blades are limited to the larger context assemblages and there are nearly equal numbers of broken and complete pieces (Table 35). For the majority of the blades their technological attributes can be reconciled with the flakes, however three fragments of true blades were identified in context 136. Those pieces have parallel lateral edges and, when surviving, carefully prepared platforms. They are also patinated whereas the rest of the material from the same context assemblage shows no evidence for surface alteration. This suggests that there could be chronological mixing of material at least from this context.

B.2.41 Evidence for materials used as percussors during the working of flint consists of a flint pebble with a pecked and abraded surface indicating that one end of the nodule had been used as a hammerstone (Table 35).

B.2.42 Formal tools and edge utilised pieces are poorly represented and comprise 5% of the total assemblage (Table 35). The knife form is made on a corticated thermal flake as is a miscellaneous retouched flake, while another thermal flake has heavy edge utilisation.

These pieces probably date to the Neolithic/Bronze Age. The scrapers comprise a finely retouched side and end form on a thin cortical flake, that is likely to be Late Neolithic/Early Bronze Age in date, and a miscellaneous form consisting of a heavy irregular retouched distal edge which is slightly concave in plan that could be later in date than the latter. The deeply notched flake is likely to be of a Late Neolithic/Early Bronze Age date.

B.2.43 In summary it can be postulated that the majority of the assemblage is likely to represent stone working activity dating to the Late Neolithic and or the Early Bronze Age (and possibly later). Alongside this a few blades exhibit technological and typological affinities with reduction strategies dating to earlier periods: the Late Mesolithic/Early Neolithic.

CONTEXT NO.			**105**	**110**	**112**	**114**	**115**	**119**	**123**	**129**	**134**	**136**	**138**	**140**	**Total**
TYPE	**SUB TYPE**	**Clasification**													
core technology	*core*							1			1		1		3
		partially flaked chunk				1		1			11	3	1		17
		core fragment									1				1
		core trimming		1								1			2
flakes (>50mm)	*primary*													1	1
	secondary														n/a
	tertiary														n/a
	broken							1			1				2
flakes (>25mm <50mm)	*primary*					1							2		3
	secondary			1	1			2	1		6	4	2	2	19
	tertiary										7	2		1	10
	broken					1	2			1	6	1	1		12
flakes (>10mm <25mm)	*primary*														n/a
	secondary								1			8	1	1	11
	tertiary			1	1			1			8	3			14
	broken											1			1
small flakes (<10mm)											1				1
blade like flakes	*primary*														n/a
	secondary										1	3		2	6
	tertiary														n/a
	broken														n/a
blades (all sizes)	*primary*														n/a
	secondary										4		1	1	6
	tertiary									1	4				5
	broken										4	3	1	2	10
flake/blade shatter											5	2	5	1	13
chunks/angular shatter (>50mm)								1							1
chunks/angular shatter (<50mm)						2								2	4
retouched tools		*knife form*										1			1
		misc retouched flake	1									2			3
		notched flake						1							1
		scraper							1		1				2
utilised blades and flakes		*utilised edge*											1		1

thermal flakes (flaked surfaces)						1					1	1	1		4
hammerstone													1		1
burnt flint (all types)											2	2			4
TOTAL			1	3	2	6	2	8	3	2	64	37	18	13	**159**

Table 35: BRL026 lithic assessment table

Potential

B.2.44 The struck flint assemblage from BRL026 is relatively small in size and fairly comparable in its technological composition with assemblages from the region (Bishop 2009; Bishop forthcoming). Due to its small size it is unlikely that further detailed lithic analysis would add any significant detail towards the technological and chronological understanding of the assemblage. However, an attempt should be made to understand the contextual and stratigraphic significance of the assemblage in relation to the results of other artefact studies and the stratigraphic analysis of the site. Furthermore if the results of any scientific dating become available for any of the lithic bearing deposits these should also be integrated into a more detailed report. Finally the assemblage should also be contextualised with similarly dated sites from the wider landscape in order to place it within the broader patter of Neolithic and Bronze occupation in the region.

B.2.45 To that end it is recommend that the assessment report is used as the basis to produce a more detailed report which discusses the assemblage in relation to the site stratigraphy, artefact analysis dating and wider significance. This report should then be integrated with the site report and or publication.

TUL021

Introduction

B.2.46 An assemblage of 210 lithics were submitted for assessment from the above site (Table 36). This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report recommends a small amount of further work to enhance the interpretation of the assemblage in relation to its site specific, and wider, contextual significance.

Quantification

B.2.47 Of the total assemblage six pieces were identified as natural thermal flakes, which exhibited no evidence for having being worked on any of their faces, leaving a total of 204 struck lithics (Table 36). The natural pieces will not be considered any further in this report.

B.2.48 A total of 19 individual contexts contain worked stone. Of these 16 contexts contain between 1-8 struck lithics accounting for 20% of the assemblage (40 pieces). Three contexts contain between 14-37 struck lithics: 42% of the assemblage amounting to 86 individual lithic pieces. Only context 1148 contained over 50 struck lithics (Table 36) which comprised 38% of the assemblage. This effectively means that 80% of the assemblage is contained within four deposits. How these deposits relate to each other in terms of spatial and stratigraphical associations is not discussed further within this report.

Assessment

B.2.49 Nodular flint is the only raw material used for the production of struck lithics. The material varies in colour across a range of black and dark brown with a few flakes of grey material. The quality of the raw material is generally very good with the black and brown flint constituting the better quality material. Cortex, when present varies between a smooth, thin brownish white to a thicker light brown covering. This suggests that the raw material was recovered from secondary sources which may have been local to the site. In addition, there is a number of flakes and chunks with deep re-corticated surfaces which are generally white in colour. Thermal fractures of varying size and showing evidence for intentional flaking on undamaged surfaces, representing the natural shatter of struck lithics, form a small component of the assemblage (Table 36 16).

B.2.50 The surface alteration of the struck lithics within the assemblage is high and ranges from a thin bluish patina through to a medium white re-cortification. As noted above the densest surface alteration has taken place on thermal scars on some of the flakes and the chunks. This takes the form of a dense white surface alteration. Interestingly this is more common on the struck lithics from the larger context assemblages and is mainly absent or thinly formed on the context assemblages containing few lithic pieces.

B.2.51 Edge damage is also minimal across the assemblage as a whole which suggests there has been little effects from post depositional processes. The presence of burnt flint is poorly represented within the small contexts assemblages but its presence rises significantly within the larger context groups (Table 36).

B.2.52 The only recognisable core from the assemblage is a single platform type made on a small nodule. Flakes have been removed sequentially around the face of the core by striking on the platform well back into the body of the material leaving a heavily indented, unprepared platform edge. This trait is also common to many of the partially flaked chunks, to the point where it can be regarded as a defining feature of the flaking process for those pieces. In addition to the core there are two fragments that are reconcilable with conventional single platform core reduction strategies. Both have been detached from the parent nodule as thermal fractures. The three trimming pieces represent a limited approach to core maintenance and they include two blade like flakes struck down the faces of cores to remove areas of irregular flake scars. The example from context 1033 has been struck in an opposed direction to the main direction of working, depicted by the dorsal flake scars on the piece, probably to remove a pronounced overhang on the striking platform.

B.2.53 Alongside the cores are a number of partially flaked chunks (9% of the assemblage). These pieces defy categorisation to a recognisable core reduction strategy and represent a mixture of shatter from reduced cores and the ad hoc removal of flakes from, predominantly, irregular thermal shattered pieces, often utilising thermal scars as platforms.

B.2.54 Unmodified flake and blade debitage makes up 62% of the assemblage. Interestingly very little of this material is broken which may indicate that little in the way of post depositional processes has taken place. Just under two thirds of the flake debitage comprise pieces with lengths between 25mm to 50mm (Table 36). On the whole these flakes tend to be broad and squat in form, although a small number of the pieces at the larger end of the spectrum are slightly irregular. The majority are thin and show little evidence for platform preparation. Platforms thickness varies but on the whole they tend to be broad and several are corticated. The dorsal flake scars on the complete flakes indicate a preference towards working in a single direction and the majority have

feathered terminations, although some hinge types are present. The smaller flakes also show a similar pattern of technological traits. These attributes suggest a chiefly hard hammer technology mainly geared towards the production of flakes and can be attributed to reduction technologies associated with a Late Neolithic/Bronze Age date.

B.2.55 The flake debitage is dominated by secondary removals (Table 36). This indicates a focus on the intermediate stages of core reduction. However, that said secondary flakes are probably over represented due to the presence of flakes with remnants of cortex on their lateral margins. While this trait has been recognisable as a common trait within assemblages of a middle to later Bronze age date (Butler 2005; Bishop 2009) in this instance the shape of the original nodule is likely to be the main contributive factor.

B.2.56 Blades are few in number (Table 36) with only a couple of instances of true blades recorded. The blade like flakes are broad and often irregular in form and carry evidence for flake removals on their dorsal faces and they tend to show technological similarities with the flakes.

B.2.57 Beyond the use of flint a medium sized, fine grained, rounded cobble had also been utilised (Table 36). One end the cobble has a flattened and worn surface suggesting it has been utilised as a rubber while at the opposite end the piece has a pecked and shattered surface suggesting that it was also used as a hammerstone.

B.2.58 In terms of formal tools the axe roughout is of significance, although it should be noted that there is no evidence within the assemblage for the manufacture of the piece. The axe is only partially prepared with one end remaining unworked. The roughout was burnt before it was completed and this has severely effected the quality of the piece which has sustained severe damage to one end and weakened the lateral edges. Beyond the axe roughout conventional formal tools are conspicuous by their absence (4% of the assemblage). The only recognisable form is a thermal flake with possible denticulation applied to an edge. Some of the miscellaneous retouched flakes may represent scraping edges, however the more conventional forms usually associated with Late Neolithic/Early Bronze Age assemblages are absent.

B.2.59 In summary it can be postulated that the majority of the assemblage is likely to represent stone working activity dating to the Late Neolithic and or the Early Bronze Age (or possibly later). Alongside this a few blades exhibit technological and typological affinities with reduction strategies dating to earlier periods: the Late Mesolithic/Early Neolithic.

B.2.60 It should be noted that in some aspects this small assemblage is very similar to that assessed for BRL026 from the same project. The range of debitage and its technological characteristics is very similar between the two assemblages suggesting that the they are broadly of a similar date. However, that said there are some differences in the range and number of formal tools and the variance in the type and quality of raw material use. There is also some discrepancy in the number of pieces associated with core reduction activity: both with conventional core forms and the partially flaked chunks.

CTEXT NO.			**1009**	**1015**	**1018**	**1019**	**1029**	**1033**	**1035**	**1037**	**1039**	**1079**	**1099**	**1117**	**1130**	**1133**	**1147**	**1148**	**1149**	**1151**	**1154**	**TOT**
TYPE	**SUB TYPE**	**CLASSIFICATION**																				
core technology	*core*																	1				1
		partially flaked chunk					1	3									1	7	4	1	1	18
		core fragment																1		1		2

		core trimming																1	1			2
flakes (>50mm)	*primary*																					n/a
	secondary																1					1
	tertiary																					n/a
	broken																					n/a
flakes (>25mm <50mm)	*primary*											1					3	5	3			12
	secondary			1				1						1		1	10	20	5	2	5	46
	tertiary								1		1						4	11	2			19
	broken									1		1						1	1			4
flakes (>10mm <25mm)	*primary*																1					1
	secondary							1									1	6	3			11
	tertiary							1									2	3	3		2	11
	broken												1				2		1			4
small flakes (<10mm)																						n/a
blade like flakes	*primary*															1						1
	secondary																2	3		1	1	7
	tertiary														1							1
	broken														1							1
blades (all sizes)	*primary*																					n/a
	secondary																1		1			2
	tertiary																	1	1			2
	broken												1				2	2				5
flake/blade shatter								2												1		3
angular shatter																				1		1
retouched tools		*axe roughout*															1					1
		denticulate																	1			1
		misc retouched flake			1					1						1		1		1		5
utilised blades and flakes		*utilised edge*		1		1																2
thermal flakes (flaked surfaces)																		1	2			3
hammerstone																		1				1
burnt stone			1																			1
burnt flint (all types)							3										7	13	7		5	35
TOTAL			1	2	1	1	4	8	1	2	1	2	2	1	2	3	38	78	35	8	14	**204**

Table 36: TUL021 lithic assessment table

Potential

B.2.61 The struck flint assemblage from TUL021 is relatively small in size and comparable in its technological composition with similarly dated assemblages from the region (Bishop 2009; Bishop forthcoming). Due to its small size it is unlikely that further detailed lithic analysis would add any significant detail towards the technological and chronological understanding of the assemblage. However, an attempt should be made to understand the contextual and stratigraphic significance of the assemblage in relation to the results of other artefact studies and the stratigraphic analysis of the site. Furthermore if the results of any scientific dating become available for any of the lithic bearing deposits these should also be integrated into a more detailed report. Finally the assemblage

should also be contextualised with similarly dated sites from the wider landscape in order to place it within the broader patter of Neolithic and Bronze occupation in the region.

B.2.62 To that end it is recommend that the assessment report is used as the basis to produce a more detailed report which discusses the assemblage in relation to the site stratigraphy, other artefact analysis, dating and wider significance. This report should then be integrated with the site report and or publication.

WTL010

Introduction

B.2.63 An assemblage of 303 lithics was submitted for assessment from the above site (Table 37). In addition there were 82 flints from palaeochannel 183 which were not assessed by the author (these will be included at publication stage). This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report recommends a small amount of further work to enhance the interpretation of the assemblage in relation to its site specific, and wider, contextual significance.

Quantification

B.2.64 Of the total assemblage two pieces were identified as natural thermal flakes, which exhibited no evidence for having being worked on any of their faces, leaving a total of 301 struck lithics (Table 37). The natural pieces will not be considered any further in this report.

B.2.65 A total of 27 individual contexts contain worked stone. Of these 26 contexts contain between 1-9 struck lithics accounting for 25% of the assemblage (73 pieces). Additionally, 88% of the 26 contexts contained five or less struck lithics. This effectively means that 75% of the assemblage was contained in context 510 (Table 37). How these deposits relate to each other, and with non lithic bearing deposits from the site area, in spatial and stratigraphical terms is not discussed any further within this report.

Assessment

B.2.66 Nodular flint is the only raw material used for the production of struck lithics. The material varies in colour across a range of dark grey (occasionally mottled), brownish grey and a few flakes of pale grey flint with mottling/inclusions. This range is supplemented with mottled dark grey material and a few flakes and blades made on brown semi translucent material from context 501. It is possible that the latter material was procured from sources beyond the general region. The quality of the raw material varies with the darker material and brown flint constituting the better quality material. Cortex, when present varies between a smooth, thin brownish white to a thicker light brown covering. This suggests that the majority of the raw material was recovered from secondary sources which may have been local to the site. Thermal fractures of varying size and showing evidence for intentional flaking on undamaged surfaces, representing the natural shatter of struck lithics, form a small component of the assemblage (Table 37).

B.2.67 The surface alteration of the struck lithics within the assemblage is prevalent and ranges from a thin bluish patina through to a medium white re-cortification. The degree of surface alteration varies between context assemblages, however it is notable for its near absence on the material from context 510.

B.2.68 Edge damage is minimal across the assemblage as a whole, but is more common on pieces from context 510 which suggests that the material has suffered from a higher degree of post depositional processes than the rest of the assemblage. The presence of burnt flint is low with only three contexts containing any (Table 37).

B.2.69 Interestingly there are no cores within the assemblage but there is evidence for their maintenance in the form of two trimming flakes (Table 37). The example from context 325 represents a large thick flake with evidence for opposed flaking on its dorsal face which may have been struck to remove a larger irregular ridge on the core face. The second example represents a more conventional form, originally struck along the edge of the striking platform probably in an attempt to refresh the flaking angle of the platform. Beyond these the only other core related piece is an irregularly worked partially flaked chunk.

B.2.70 The assemblage as a whole is dominated by unmodified flake and blade debitage (including angular shatter, small flakes and flake and blade shatter: 92% of the assemblage), although some distinctions can be drawn between the material from context 510 and the rest of the assemblage. The flakes from the latter show technological characteristics which are in some respects comparable with the flake component of assemblages from other sites from the same project, however there is a difference in their overall morphology in that they tend to be smaller and thinner in form. Alongside this, platform preparation is more common and platforms tend to be narrow. This suggests a more careful approach to flake manufacture and this point is emphasised further by the blades whereby the majority are parallel sided with finely prepared platforms.

B.2.71 The flakes and blades from context 510 display comparable technological attributes, however there is a greater emphasis on smaller, thinner and narrower tertiary flakes with well prepared platforms (occasionally represented as punctiform butts) along with parallel ridges on dorsal faces. Although the blades include a small number of irregular pieces the majority represent true blades of varying size. Broad blades with widths between 8-16mm dominate but there is also at least 12 narrow blades (with widths between 5-8mm) and one bladelet. These characteristics indicate that there is an emphasis towards the production of thin narrow flakes and parallel sided blades utilising a hard and soft hammer technology. Although we do not have any diagnostic or typological distinct pieces to back up the assumption it is likely that context 510 and a significant part of the rest of the broader assemblage is technological comparable with reduction strategies utilised during the Late Mesolithic/Early Neolithic (Butler 2005).

B.2.72 Furthermore, while it is inevitably a consequence of the recovery process, the assemblage from context 510 also contains a significant number of small flakes (with lengths <10mm) and flake and blade shatter. This suggests that the material from this context is related to core reduction and possibly finer working associated with tool production and maintenance. However the fact that there is at least four different types of raw material present within the context assemblage; a relatively high number of broken blades and flakes and many edge damage pieces, it appears that this was not undertaken in-situ and the material has been moved from its primary depositional environment.

B.2.73 There are no formal tools within the assemblage with only three flakes carrying miscellaneous retouch on lateral edges representative of deliberate edge modification. Alongside these, three flakes also show evidence for continuous irregular scarring along their lateral edges which can be deemed indicative of edge utilisation (although the true incidence of this is likely to be higher but unidentifiable at a macroscopic level of

analysis). Therefore none of the retouched or edge utilised pieces can be dated with any assurance on typological and diagnostic grounds.

B.2.74 In summary it can be postulated that the majority of the assemblage is likely to represent stone working activity dating to the Late Mesolithic and or the Early Neolithic. However this provisional date is based on a technological consideration of the flake and blade component of the assemblage and there are no typological diagnostic struck lithics in the assemblage which can offer some form of back up to this assumption.

Context			107	146	155	166	180	223	231	241	243	250	253	265	267	308	311	325	326	331	335	336	402	413	510	514	531	566	578	Tot
Sample No.																									502	504				
TYPE	SUB TYPE	Classification																												
core technology		*partially flaked chunk*											1																	1
		core trimming																1							1					2
flakes (>25mm <50mm)	*primary*							1																	1					2
	secondary					1			1				2												7			1		12
	tertiary		2								1			1	1			1						1	5			1		13
	broken								1		3								1				1		4		1	1		12
flakes (>10mm <25mm)	*primary*			1																					1					2
	secondary				1		1						1				1			2					6					12
	tertiary			1				1				1	1				1	1		1		1			19					27
	broken			2			1			1															30					34
small flakes (<10mm)							1																		51					52
blade like flakes	*primary*																													n/a
	secondary																													n/a
	tertiary											1																		1
	broken																													n/a
blades (all sizes)	*primary*																													n/a
	secondary								1		2		1											1	6					11
	tertiary									1															5					6
	broken			2							1									1					29			1	1	35
flake/blade shatter																	1								57					58
angular shatter																					1									1
retouched tools		*misc retouched flake*					1												1									1		3
utilised blades and flakes		*utilised edge*														1									1	1				3
thermal flakes (flaked surfaces)					1													2		1										4
burnt flint (all types)										2			3												5					10
TOTAL			2	6	2	1	4	2	3	4	7	2	9	1	1	1	3	5	2	5	1	1	1	2	226	1	1	5	1	301

Table 37: WTL010 lithic assessment table

Potential

B.2.75 The struck flint assemblage from WTL010 is relatively small in size and fairly conventional in its technological composition. Due to its small size it is unlikely that further detailed analysis would elaborate significantly on the technological and chronological interpretation of the assemblage already put forward in this report. Metrical analysis of the flake and blade debitage at this stage would only seek to confirm the assumptions already made, although if a secure date becomes available for context 510 then perhaps such work would be warranted as the results would then

provide a comparable dataset for any metrical analysis undertaken on the other assemblages from the project.

B.2.76 However, an attempt should be made to understand the contextual and stratigraphic significance of the assemblage in relation to the results of other artefact studies and the stratigraphic analysis of the site. Furthermore if the results of any scientific dating become available for any of the lithic bearing deposits these should also be integrated into a more detailed report. Finally the assemblage should also be contextualised with similarly dated sites from the wider landscape in order to place it within the broader patter of prehistoric occupation in the region.

B.2.77 To that end it is recommend that the assessment report is used as the basis to produce a more detailed report which discusses the assemblage in relation to the site stratigraphy, artefact analysis dating and wider significance. This report should then be integrated with the site report and or publication.

WIX021

Introduction

B.2.78 The assemblage comprises a total of 2343 lithic and other artefacts (see associated Table 38). This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report advances recommendations for the further work needed to provide an depth technological and chronological understanding of the assemblage and its wider contextual significance.

Quantification

B.2.79 Of the total assemblage 16 fragments and nodules of flint and stone and 21 thermal flakes are natural (Table 38) and will not be considered any further beyond this section of the report. In addition to these a single fragment of possible marine shell was also recorded and will not be discussed in the assessment section of this document.

B.2.80 A total of 46 individual contexts contain lithics (including a context with no number but issued with sample number four, table). Of those, 29 contexts contain less than 10 lithic pieces comprising 77 (3%) of the total assemblage (including context 1 which is recorded as topsoil deposits indicating that at least four pieces, including an awl, a miscellaneous retouched flake and an edge utilised piece, are unstratified). A further 13 contexts contain between 11 and 80 lithics: 555 pieces (24% of the assemblage). This effectively means that 73% (1711 pieces) of the assemblage was recovered from four contexts: 225, 231, 246 and 247. Furthermore, context 246 contains 682 struck lithics: 29% of the total assemblage.

Assessment

B.2.81 The site summary (REF) indicates that the raw material used for stone working was probably procured from a palaeochannel situated within the excavation area and the preliminary analysis has identified that nodular flint cobbles of varying size are the only resource utilised. The quality of the raw material varies across the assemblage and on some of the flakes and angular shatter coarse inclusions and thermal flaws can be identified. Additionally the presence of irregular chunks/angular shatter within the assemblage also highlights the variable quality of the raw material as some of these pieces are likely to reflect the disintegration of nodules along internal flaws during reduction.

B.2.82 Almost all of the assemblage has suffered from patination or recortification. This chiefly takes the form of a well developed, dense white surface staining. The lithic material from contexts 225 and 231 differed from this general occurrence whereby the former also contains material which has a thinner patchy milky patination while the latter contains a small number of pieces of unaltered semi translucent dark brown flint. Almost all the small flakes (<10mm in length), from context 231, comprise the same dark brown flint and their size and shape indicates that they are probably pressure thinning flakes. Many of flaked lithics also have a patchy, hard calcareous concretion on cortical and struck faces alike.

B.2.83 Where edge damage has chipped the surface of the lithics the colour of the original flint can be identified as mainly black or blackish grey, but overall the assemblage has suffered lightly from post depositional processes. This suggests that the majority of the assemblage is likely to be *in-situ* or had not been moved far from its primary depositional context. Cortex, when present varies between a smooth, thin brownish white to a thicker light brown covering. Thermal fractures are common throughout the assemblage, especially on the larger pieces, and in several cases they represent frequent flake scars on some of the chunks/angular shatter.

B.2.84 Core technology revolved around the reduction of large to medium sized flint nodules of varying shape including lugged rounded to thin flattish pieces. A variety of reduction technologies were used during stone working activity. The most common is the reduction of nodules from single platforms: 12 of the 24 cores (Table 38). At least eight of the single platform cores show evidence for the removal of flakes by working back into the body of the nodule in one direction. Most of these cores are fairly large in size and were only partially flaked before being discarded before their full potential was realised. A similar reduction technology has been recorded from other sites in the region and is likely to represent Late Neolithic/Bronze Age stone working traditions (Bishop forthcoming). Two single platform cores, one from context 2 and one from 258 (Table 38), display evidence for the systematic removal of blades and narrow flakes from their principle faces utilising a more controlled method to their reduction. These two cores are smaller than the other single platform examples and are likely to represent reduction technologies attributable to a Late Mesolithic/Early Neolithic date. Alongside the single platform cores there are also four with multiple platforms, four with opposed platforms, a large irregular two platform and a large keeled core. In comparison to the majority of the single platform cores the opposed platform cores tend to be of smaller dimensions. Two of the latter had been struck for the removal of blades and narrow flakes and they could also be of a Late Mesolithic/Early Neolithic date. A flat nodule with two platforms a right angles to one another has been partially flaked before discard and it is possible that this is a rough out for a tool, although it was unlikely to be for an axe. Finally a large flake had been unsystematically worked from its lateral edges. Although not a core *per se* this piece possibly represents the reworking of earlier debitage.

B.2.85 Nine partially flaked nodules were also recorded (Table 38). These differed from the cores in that they had fewer flake removals and showed very little structure or patterning to their removal. They probably represent discarded tested nodules or the ad hoc flaking of raw material for the opportunistic production of usable flakes.

B.2.86 Core maintenance pieces are poorly represented with only eight instances of trimming flakes identified at this stage of the analysis (Table 38). These flakes were struck down or across the flaked surface of cores in order to remove irregular areas of flake scarring. One example from context 231 comprises a blade which had been struck along the edge of a core striking platform. This kind of trimming piece is quite often associated

with Late Mesolithic/Early Neolithic reduction strategies and could represent a guide piece: a form of crested blade (Ballin and Johnson 2005). A second possible crested blade from context 246 could represent a core trimming piece as it has been flaked unilaterally from a central ridge which could represent part of a striking platform. A core tablet (from context 247) is also present.

B.2.87 The unmodified flake debitage contains a range of different sized pieces (Table 38). On the whole the larger flakes (lengths >50mm) tend to be narrow in form with broad platforms and pronounced bulbs of percussion. There is evidence for platform trimming on some of these flakes indicating an attempt to introduce some measure of control towards flake removals and this trait continues throughout the assemblage across all flake sizes, becoming more prevalent on the smaller flakes and blades. There are also a few examples of flakes with cortical platforms and two flakes from context 231 have incipient cones at the point of hammer impact. These traits suggest a hard hammer technology mainly geared towards the unsystematic production of flakes and can be attributed to reduction technologies associated with a Late Neolithic/Bronze Age date.

B.2.88 Some of the medium flakes (lengths between 25mm and 50mm) are broader in form however they tend to display similar technological traits to the larger examples. The majority of the smaller flakes (with lengths between 10mm and 25mm) are likely to be part of the same reduction process as their larger counterparts, although some, which are more carefully prepared with narrower platforms, could represent elements of a different approach to reduction that could be chronologically earlier. Two flakes from context 246 have faceted platforms indicating that they may have been removed from Levallois type cores. This method of core reduction is known to have been utilised in the Later Neolithic (Dickson and Edmonds 2009; Ballin 2011, Bishop Forthcoming).

B.2.89 Large flakes with lengths greater than 50mm are dominated by secondary pieces as are the flakes with lengths between 25 and 50mm (Table 38). This suggests that the large and medium sized flakes were predominantly associated with the early and intermediate stages of nodule reduction possibly to prepare them as cores. The smaller flake category, with lengths between 10mm and 25mm, is dominated by tertiary pieces, which indicates that they were associated with the later stages of reduction. Furthermore, it is likely that context 243 contains part of the reduction of the same nodule: there are a number of flakes with the same thin creamy cortex present within the context assemblage.

B.2.90 Contexts 246 and 247 contain a small number of thin flakes with curving long profiles (Table 38). These flakes also have fine narrow ridged or faceted platforms and their dorsal flake scars tend to show an opposed or multi directional pattern. These traits suggest that they are thinning flakes associated with the production of bifaces. Along side these are three flakes which may have also been struck from the edges of bifaces (table 16, edge trimming flakes), although one of these from context 246 is more blade like in form and could represent a core trimming piece from a Levallois type core.

B.2.91 The blade component of the assemblage contains a variety of different sized pieces (varying from 10mm to over 140mm in length and up to 40mm in width). They mainly range from very large to medium sized, slightly irregular pieces which are better described as blade like flakes. Alongside these are several, thin parallel sided true blades which have been carefully prepared prior to being struck from their parent nodules. Beyond these there is a number of complete and broken narrow blades (blades with widths between 5-8mm) and bladelets. While the majority of the blades are likely to represent Late Neolithic/Bronze Age reduction strategies, the thin parallel sided blades including the narrow blades and bladelets probably represent earlier stone

working activity possibly associated with the earlier cores mentioned above. There appears to be a particular concentration of these blades in context 246, but other than this they are randomly distributed through out the assemblage.

B.2.92 The relatively small number of retouched and edge utilised blades and flakes within the assemblage is of note and they also represent a restricted range of forms with miscellaneous retouched flakes and blades dominating the retouched tool types (Table 38). The microlith is an obliquely blunted point form and the miscellaneous retouched blade from context 225 probably represents an unfinished microlith. The awl from context 1 is made on a large recorticated flake and the retouch is later and cuts through the surface alteration. The scrapers include two side and end, two end and two side forms. The possible hammerstone is probably a flint cobble. One end of the cobble appears to be heavily battered but this is difficult to substantiate as it is partially covered with a cement like concretion. A flaked nodule from context 246 has also been used as a hammerstone.

B.2.93 Just over half of the thermal flakes represent flakes detached from worked pieces by natural processes, while the burnt flint includes a range of flakes, blades (both broken and complete) and irregular shatter which have been subjected to the effects of heat after they were produced. While most of the larger context assemblages contain several pieces of burnt flint contexts 234 and 236 differ in that burnt material makes up 27% and 34% of the assemblages respectively (table 16), while the assemblage from context 6 is almost exclusively comprised of burnt flint pieces.

B.2.94 In summary it can be postulated that the majority of the assemblage is likely to represent stone working activity dating to the Late Neolithic and or the Early Bronze Age (or possibly later). Alongside this a smaller proportion of the assemblage exhibits technological and typological affinities with reduction strategies dating to earlier periods: the Late Mesolithic/Early Neolithic. At this stage in the analysis the full extent and spatial representation of this early activity has not been quantified.

B.2.95 It is likely that the site was used for the extraction of raw material with the focus of this activity taking place in the Late Neolithic and the Early Bronze Age. The duration of this process is difficult to determine and although the assemblage is of a fairly large size it is unlikely to represent continuous activity. It appears that activity at the site involved the selection and initial reduction of nodules to produce usable cores. There is additional evidence to indicate that some of the prepared nodules were worked further for the possible production of bifaces, however this more specialised activity seems to be limited in its extent and spatial setting. That core production was undertaken in-situ is evidenced by the large quantity of debitage recorded, making up approximately 86% of the total assemblage. The majority of this material consists of knapping waste, especially the larger material, with often obtuse lateral edges which would have been unsuitable for utilisation.

B.2.96 Although the further reduction of some cores took place on site it is likely that others were transported into the wider landscape. This is evidenced by the high ratio of waste to cores. While it is acknowledged that the reduction of cores can produce significant amounts of debitage the fact that many of the cores from the assemblage had been discarded before they had been worked out suggests that all the debitage was not associated with on site core working.

B.2.97 In addition to this, the small number of formal tools and utilised flakes and blades indicates that tool production and use was not the overriding means of production and it was secondary to the specialised tasks of raw material extraction and reduction.

Potential

B.2.98 The struck flint assemblage from Waterhall Farm offers a unique opportunity to study a potential Late Neolithic/Bronze Age raw material extraction site in detail and at source. While flint quarries and shallow mining sites are known from the region (Barber et al 1999) the majority are assumed to be earlier in date than the site considered here. It has also been acknowledged in the former Regional Research and Archaeological Framework (Glazerbrook 1997) that there is a need to study other types of extraction sites beyond mines and quarries in order to understand the production and distribution of lithics within the region.

B.2.99 It is therefore recommended that this assessment report is used as the basis from which to build upon the interpretation and dating of the Waterhall Farm lithic assemblage. Further detailed metrical analysis of complete flakes and blades, the analysis of dorsal face flake scars and termination types associated with an in depth stratigraphic analysis of lithic bearing deposits would serve to refine the assumptions regarding technology and chronology and further understand the reduction strategies employed. No refitting studies were undertaken during the assessment and this should also be attempted as part of the further analysis to further understand reduction processes. This work should also be carried out in conjunction with other specialist studies of artefacts and ecofacts from the site. The scientific dating of lithic bearing deposits should also be attempted in order to try and understand the chronological resonance of activity at the site. The results of the site specific analysis should then be contextualised with similarly dated sites from the wider landscape in order to place them within the broader patter of Neolithic and Bronze occupation in the region.

B.2.100 The results of the analysis should then be published along with illustrations in a relevant journal or academic publication.

Context No.			n/a	1	2	6	7	13	26	29	37	39	44	49	51	69	74	81	85	93	100	123	127	141	143	149	151	153	163	170	180	223	225	228	230	231	231	234	236	240	241	243	245	246	246	247	247	250	258	260	U/S	Total
Sample No.			4			7				3	5			14	15	16	8	10	19	17	18		20	23	24	27	26	30	38	33	34			42		45			44					47		46			49			
TYPE	SUB TYPE	CLASSIFICATION																																																
core technology	*core*				2																											2				7	1		2	1	1	2		3			1	1		1	24
	flaked nodule				1																															1					1			5		1					9
		core fragment																														1	1						2							1		1			6
		core rejuvenation																																												1					1
		core trimming																													1				1				1	1	1		2		1					8
		crested pieces																																										1							1
flakes (>50mm)	*primary*				1																											1		1	2	2			1	1	2		1	8		1		1			22
	secondary				4																										2	6	1		4	22	1		2	6	4	7		26		13			1	2	101
	tertiary				2																						1					3			2	4			1	1	1			6		7					28
	broken				2																										1	3			4	5	1		5	4	1	1		23		17					67
flakes (>25mm <50mm)	*primary*																														1	2			3	9			1	4	6	2	3	16	1	10					58
	secondary		2		3							1																2				1	21			6	30	1		8	16	11	3	4	76	1	40				6	232
	tertiary							1				2		1						1											2	8	2	2	7	25	4		7	1	8	1	4	44		41	2	2		1	166
	broken							1																				2				1	11			11	18		4	4	5	3	4	5	46	1	23		1		4	144
flakes (>10mm <25mm)	*primary*																																		3		1				1		2	2		1					10
	secondary																											1				6			4	10	3						3	14		9					50
	tertiary		1										1				1				1			2						1	2	7			17	13	10	6		3			14	11	2	19		2		1	114
	broken																														3	2	1		9	6	3						9	1	2	7		2		1	46
small flakes (<10mm)																																	1		12	40	2	3					13		6	2				79
blades (all sizes)	*primary*																															1				3								5						9
	secondary																									1					2	8	2	1	2	17	4	3	2		2		1	28		16		3	1	1	94
	tertiary		1	1							2			2					1		1		1					3				1	4			4	26	2	3	5	3		4	6	19	2	8			1	1	101
	broken						1			1		3							2						1			3		1		1	15	4		19	23	11	6	4			1	24	40	3	29		2	1		195
thinning flakes																																														17		2				19
edge trimming flakes																																														1		2				3
flake/blade shatter			1			1								1									1					1				2	9	1		38	31	10	13	4	1	3		115	33	67	21	1	2		2	358
chunks/angular shatter					3																											6			7	4	3		6	3	4	1		4		3	1			6	51

(>50mm)																																																				
chunks/angular shatter (<50mm)														1																	1				19	3		3	2				2	10		8				6	55
retouched tools		awl		1																					1					1																						3
		microlith																																			1															1
		misc retouched blade																										1				1				1																3
		misc retouched flake		1											1	1		1						1		1														2				4		1		1		2	16
		notched blade							1														1																					1							3
		scraper												1	1							1											1							1												1	6
edge utilised blades and flakes		*worn edge*		1												1																									1			1				1			5
hammerstones																																																				1	1
thermal flakes					3			1																							2	1				5			2	2		6	1	14	1	10	1			1	50
burnt flint (all types)						75						1					1											4				2	14	1		16	13	21	20	2	1	1		2	2		6	3			2	187
other		*natural flint and stone*																													1	1							1			1		10		1				1	16
		shell																																																	1	1
TOTAL			5	4	21	76	1	3	1	1	2	7	1	5	3	2	2	1	3	1	2	1	3	3	1	3	1	16	1	1	2	26	134	14	4	190	318	79	61	62	55	51	34	209	473	86	301	9	19	4	41	**2343**

Table 38: WIX021 lithic assessment table

B.3 Ceramic Assessment

By Edward Biddulph

Introduction and Methodology

B.3.1 A total of 3327 sherds of pottery, weighing 24kg, were recovered from 13 sites along the Abberton Pipeline route. The two cremation vessels from sites WTL010 and WIX021 were not sent off and preliminary identification of these has been done by Sarah Percival. For this assessment, a uniform methodology was adopted for all sites and periods. Each context group was quantified by weight and sherd count. The pottery was rapidly scanned to identify diagnostic forms and fabrics and provide a group or spot date. The data were recorded on an Access database. Forms and fabrics were briefly described, with reference made where necessary to regional series. For the Roman period, for example, reference was made to Going's Chelmsford typology (Going 1987) and Hawkes and Hull's *Camulodunum* series (Hawkes and Hull 1947).

B.3.2 Tables 47-53 list the pottery spot dates by site and are included at the end of this assessment.

BYG029 (Table 39)

B.3.3 A single sherd of flint-tempered pottery, tentatively dated to the Bronze Age, was recovered from context 131, Ditch **132**. A sandy coarseware from context 152 may have an early medieval date, though identification is uncertain. Twelve sherds of pottery were attributed to the later medieval period, though again comprised sandy coarsewares. Glazed white earthenware or china from contexts 168 and 174 was 19th or 20th century in date.

Phase	Count	Weight (g)
Bronze Age	1	1
Early medieval	1	10
Later medieval	12	61
19th/20th century	12	241
TOTAL	26	313

Table 39: Quantification of pottery from BYG029 by ceramic phase

BYG030 (Table 40)

B.3.4 Beaker fragments, dating to the late Neolithic/early Bronze Age, were recovered from contexts 193 and 195, Feature **190**. Context 194 contained a vessel in a mixed-tempered coarse fabric that is broadly dated to the later Neolithic or earlier Bronze Age. Bronze Age pottery was represented by flint-tempered body sherds from contexts 159, 160 and 191. A fine flint-tempered fabric from context 202 has been tentatively dated to the earlier Iron Age, though it is possible that the pottery is earlier in date.

B.3.5 A hiatus in pottery deposition is evident until the mid Roman period (*c* AD 120-250). Pottery from groups assigned to this period accounted for 21% of the assemblage by weight. All groups contained Central (or East) Gaulish samian. Forms included a Drag. 33 cup (stamped MACRINVS), and Drag. 18/31 and 18 dishes. The samian was accompanied by sandy grey wares in which oval-bodied jars (Going 1987, type G24) were available. Context 102 contained a buff ware (?Colchester) bead-and-flanged

mortarium. Late Roman pottery is represented by a base from a pedestal jar (*Cam* 296) and Late Roman shelly ware. Medieval pottery comprised body sherds in sandy coarseware fabrics.

Phase	Count	Weight (g)
Late Neolithic-Early Bronze Age or Beaker	38	349
Bronze Age	14	32
Early/middle Iron Age	5	26
Mid Roman	39	331
Mid/late Roman	4	23
Late Roman	28	476
Roman	28	345
Medieval	2	18
TOTAL	158	1600

Table 40: Quantification of pottery from BYG030 by ceramic phase

BRL026 (Table 41)

B.3.6 Pottery dated to the late Neolithic accounted for 30% of the site's assemblage by weight, but this consisted of a single Grooved Ware vessel from Pit **130**. Two per cent of pottery was from groups dated to the late Bronze Age or early Iron Age. Coarse and fine flint-tempered fabrics, and to a lesser extent sandy fabrics, were present. No forms were recognised. Groups dated to the early/middle Iron Age took a 67% share of the assemblage by weight. This material included a substantially complete jar with an everted rim in a sandy fabric from context 136. Body sherds in a sandy fabric were recovered from context 140. One Roman-period group was recorded. Context 110 contained a white-ware mortarium that dated to the second half of the 2nd century or first half of the 3rd century. The context also contained residual flint-tempered sherds.

Phase	Count	Weight (g)
Late Neolithic	150	846
Bronze Age or early Iron Age	3	3
Late Bronze Age/Early Iron Age	18	56
Early/Middle Iron Age	253	1872
Mid Roman	7	25
Roman or medieval	2	2
TOTAL	433	2804

Table 41: Quantification of pottery from BRL026 by ceramic phase

TUL021 (Table 42)

B.3.7 Bronze Age pottery is represented by coarse and fine flint-tempered fabrics. Groups that also contained sandy fabrics are likely to date to the later Bronze Age, or possibly the early Iron Age. No forms were recognised. Sandy fabrics were more important compared with flint-tempered pottery in groups dated to the earlier Iron Age. Context 1115 contained a slack-shouldered jar; a jar of uncertain form was recovered from context 1095. A grey ware beaker from context 573 and a base from a South Gaulish

samian ware cup (context 1147, SF4), probably Ritterling 8, date to the later 1st century AD.

B.3.8 In Field 39 late Saxon or early medieval pottery was characterised by shelly wares or St Neot's-type ware. Later medieval pottery (late 12th-14th century), however, made the largest contribution to the assemblage, 68% by weight. Pottery of this period was dominated by sandy coarsewares, particularly Essex/Suffolk grey wares. Green-glazed earthenwares were also recorded. Forms included a jar with a frilled or 'pie-crust' rim and twist-like strips applied vertically on the body and a jug handle with stamped decoration.

Phase	Count	Weight (g)
Bronze Age	7	94
Late Bronze Age/early Iron Age	28	143
Early/middle Iron Age	110	609
Early Roman	2	29
Roman	1	11
Late Saxon-early medieval	38	124
Later medieval	227	2126
Medieval	4	6
Modern	1	3
TOTAL	418	3145

Table 42: Quantification of pottery from TUL021 by ceramic phase

WTG018 (Table 43)

B.3.9 The medieval pottery comprised sandy coarsewares that date anywhere within the medieval period, up to about the 14th century. The post-medieval pottery included glazed red earthenwares of 17th/18th century date. The blue-and-white pattern ceramic from context 615 is likely to date to the 19th/20th century.

Phase	Count	Weight (g)
Medieval	14	87
Post-medieval	12	270
Modern	2	9
TOTAL	28	366

Table 43: Quantification of pottery from WTG018 by ceramic phase

WLT010 (Table 44)

B.3.10 Pottery from groups dated to the late Neolithic or earlier Bronze Age accounted for 6% of the assemblage by weight, but 34% by sherd count, as the material was very fragmented. However, the pottery was sufficiently well preserved to identify a Beaker in context 510 and a jar coarsely tempered with flint, limestone/clay pellets and pebbles from context 107. Bronze Age pottery from groups dated to the Bronze Age or early Iron Age contributed 12% of the assemblage. The pottery was almost exclusively flint-tempered. No forms were recognised, but on fabric grounds a later Bronze Age date is likely for much of the material.

B.3.11 Middle Iron Age pottery, represented by body sherds in a sandy fabric, was recovered from context 245. Pottery dated to the late Iron Age was collected from two contexts. A grog-tempered jar with a perforated base (SF 205) was retrieved from context 234. Context 217 contained a coarse grog-tempered ware jar. A cordoned jar (*Cam* 218 or Going type G16) in a fine grog-tempered fabric from context 247 may date to the late Iron Age, but typologically the could extend into the later 1st century AD.

B.3.12 Pottery recovered from groups dated to the early Roman period took a 48% share of the assemblage. The material was characterised by wheel-thrown sandy fabrics, usually black-surfaced, but also sandy grey wares, which were available in the form of cordoned jars or bowls (e.g. Going 1987, types G16 and G19) and butt-beakers. These were accompanied by grog-tempered ware, oxidised wares, and to a lesser extend North Gaulish white ware. The oxidised fabrics and the white ware were both fine fabrics and available as butt-beakers. A highly micaceous reduced fabric was also encountered. Overall, the early Roman pottery fits within the third quarter of the 1st century AD.

B.3.13 Shelly and sandy fabrics from context 599 are likely to date to the 10th-12th century. Later medieval pottery (*c* late 12th-14th century) accounted for 7% of the assemblage by weight. Essex/Suffolk sandy fabrics dominated. Forms included a jar with wavy line decoration on its rim. Post-medieval pottery comprised glazed red earthenwares of 17th/18th century date.

Phase	Count	Weight (g)
Late Neolithic/mid Bronze Age and Beaker	655	791
Bronze Age/early Iron Age	193	1549
Middle Iron Age	1	14
Late Iron Age	12	240
Late Iron Age/early Roman	16	81
Early Roman	827	6240
Roman	74	3166
Earlier medieval	5	88
Later medieval	97	738
Medieval	7	22
Post-medieval	12	163
Undated	2	1
TOTAL	1901	13093

Table 44: Quantification of pottery from WLT010 by ceramic phase

KDG038 (Table 45)

B.3.14 The late Neolithic/early Bronze Age is represented by Beaker fragments from context 72 and a provisionally identified limestone-tempered fabric. Later Bronze Age or early Iron Age pottery was recovered in the form of flint-tempered and sand-tempered pottery. Sand-tempered fabrics from contexts 48 and 54 are of Roman or medieval date.

Date	Count	Weight (g)
Late Neolithic/Early Bronze Age	9	20
Bronze Age/Early Iron Age	31	135

Roman or medieval	3	6
TOTAL	43	161

Table 45: Quantification of pottery from KDG038 by ceramic phase

WIX021 (Table 46)

B.3.15 Some 16% of the assemblage from WIX021 by weight was from groups dated to the Bronze Age or early Iron Age. No forms were recognised; the material comprised flint-tempered fabrics and to a lesser extent sandy fabrics, which together point to a later Bronze Age or early Iron Age date. There was a gap in pottery deposition until the Roman period; pottery so dated accounted for 11% of the assemblage. Central Gaulish samian ware, dating to the 2nd century, was recovered from context 151. Context 127, dated to the late Roman period, contained a dish with a dropped flange (Going 1987, type B6) and a sandy oxidised ware sherd with wavy-line decoration. A necked bowl in a sandy fabric, collected from context 44, was alone in the assemblage in dating to the early-mid Saxon period. Medieval and post-medieval pottery is poorly represented. Sandy coarsewares from contexts 39 and 51 are typical of early medieval groups.

Phase	**Count**	**Weight (g)**
Bronze Age/early Iron Age	67	210
Mid Roman	2	20
Late Roman	7	67
Roman	12	59
Roman or medieval	1	2
Early-mid Saxon	3	31
Early medieval	2	15
Medieval	1	13
Post-medieval	34	905
TOTAL	129	1322

Table 46: Quantification of pottery from WIX021 by ceramic phase

Statement of Potential

B.3.16 The prehistoric pottery has been rapidly scanned to characterise the assemblage in terms of chronology and function. It is necessary to record the pottery in more detail in order to confirm or refine the dating, and to identify forms and fabrics to a greater resolution. The significance, origin and cultural affiliations of the assemblage will be assessed with reference to contemporaneous groups in the region, among them Beaker and early Iron Age pottery from Little Bealings in East Suffolk (Martin 1993), and Bronze Age pottery recovered from graves at Ardleigh, Essex (Brown 1999). As highlighted in the updated research framework for the Eastern Region (Medlycott 2011, 21), typological studies, linked with scientific dating, is key to understanding regional variation. The publication and description of the late Neolithic and Bronze Age pottery from the Abberton pipeline will provide a valuable contribution towards achieving this aim.

B.3.17 The later Iron Age and Roman pottery will potentially make a useful contribution to the understanding of ceramic supply and use in the region. Detailed recording will allow the dating of context groups and the site sequence to be refined. It will provide data which will address questions of the introduction and survival of forms and fabrics, as well as

their origin and relative importance at given sites. As the research framework of the Eastern Regions notes, the social analysis of pottery assemblages has become an important part of ceramic studies, but such work requires well quantified data (Medlycott 2011, 30). The data will be enhanced with comparison with assemblages from sites in north Essex and Suffolk, notably Colchester (Symonds and Wade 1999).

B.3.18 The post-Roman pottery will be more fully recorded to refine the dating and identify the full range of pottery present. Comparison with other assemblages in the region, not least around Colchester (Cotter 2000), will help place the groups in their local and regional context.

Method Statement

B.3.19 The prehistoric pottery will be recorded with reference to established guidelines and standards (PCRG 2011). A representative selection of pottery, particularly the Beaker and Grooved Ware vessels, will be illustrated.

B.3.20 The Roman pottery will be fully recorded to OA standard (Booth, nd), and quantified by sherd count, weight and estimated vessel equivalents (EVE). Forms and fabrics will be correlated with regional series, notably Going's Chelmsford typology (Going 1987) and the Colchester series (Symonds and Wade 1999). A representative selection of pottery, along with a few pieces of intrinsic interest, will be illustrated.

B.3.21 The post-Roman pottery will be recorded in accordance with Medieval Pottery Research Group standards (MPRG 2001). Forms and fabrics will be correlated with regional series (eg Cunningham 1985). Reference to Cotter 2000 will be crucial.

BYG029

Context	Count	Weight (g)	Comments	Date
112	7	32	Sandy coarseware	Later medieval
131	1	1	Flint-tempered fabric	BA
148	2	17	Sandy coarseware	Later medieval
152	1	10	Sandy coarseware	?Early medieval
168	4	22	Glazed white earthenware; residual St Neots-type ware	19th/20thC
172	1	5	Sandy coarseware	Later medieval
174	8	219	Glazed white earthenware - single vessel	19th/20thC
184	2	7	Sandy coarseware	Later medieval

Table 47: BYG029 ceramic spot dates

BYG030

Context	Count	Weight (g)	Comments	Date
102			Sandy grey ware; Drag. 33, Drag. 18/31 or 31 (CG samian); bead-and-flanged mortarium (buff ware)	AD160-200
102	1	15	SF5 Complete base from Drag. 33 (CG samian ware - stamped MACRINVS	AD120-200
104	1	1	Central Gaulish samian	AD120-200
106	1	1	Grey ware	?Roman
108	1	18	Sandy grey ware	Roman
110	1	15	Dish sherd CG samian ware	AD120-200
126	4	35	Drag. 31 (E/CG samian), sandy grey ware	AD160-250
127	13	110	Fine grey ware, rim from sandy grey ware jar,	AD120-250

			sandy oxidised ware, chip from ?CG samian ware	
129	6	48	Narrow-necked jar or flask (fine oxidised ware), sandy grey ware	AD100-410
131	1	2	Sandy grey ware	?Medieval
138	3	65	Sandy grey ware base and body sherds	Roman
138	9	82	Sandy grey ware	Roman
140	10	420	Pedestal from large pedestal jar	AD250-410
141	4	23	Sabdy grey ware, black-surfaced ware, Hadham oxidised ware	AD200-410
146	3	71	Drag. 18/31 or 31 (CG samian ware), sandy grey ware, storage jar/CBM fragment	AD160-200
147	18	56	Colchester colour-coated ware (2nd cent), shelly ware (?late Roman), sandy grey ware	AD300-400
151	16	84	Necked jar G24 (sandy grey ware), ?CG samian	AD120-200
155	5	51	Rim and body sherds (sandy grey ware)	Roman
157	1	7	Sandy grey ware	Roman
158	1	7	Sandy grey ware	Roman
159	9	18	Flint-tempered fabric	BA
160	2	7	Flint-tempered fabric	BA
166	1	16	Sandy coarseware	Medieval
170	1	66	Neck/shoulder sherd from narrow-necked storage jar	Roman/?late Roman
191	3	7	Flint-tempered fabric	BA
193	16	131	Beaker	Beaker
193	1	14	Bowl in flint-tempered fabric	LBA
194	17	194	Sand-and-flint-tempered fabric	LBA/EIA
195	4	10	Beaker (LBA/EIA)	Beaker
202	5	26	Fine flint-tempered fabric	E/MIA

Table 48: BYG030 ceramic spot dates

BRL026

Context	Count	Weight (g)	Comments	Date
110	7	25	White ware mortarium, residual flint-tempered sherds	AD160-250
112	1	2	Fine flint-tempered fabric	LBA/EIA
114	1	1	Sandy fabric	LBA/EIA
115	3	3	Flint-tempered fabric	BA/EIA
119	2	2	Tiny sherds - sand tempered	Roman or medieval
134	150	846	Grooved ware	Late Neolithic
136	250	1854	Jar with everted rim in sand-and-flint-tempered fabric; rim from ?tripartite angled jar	E/MIA
138	16	53	Fine flint-tempered fabric	LBA/EIA
140	3	18	Sandy fabric	E/MIA

Table 49: BRL026 ceramic spot dates

TUL021

Context	Count	Weight (g)	Comments	Date
504	9	23	St Neots-type shelly ware	Late Saxon
505	18	92	Sandy coarsewares, green-glazed earthenware	Later medieval
506	2	42	Jar in sandy coarseware	Later medieval
507	2	25	Sandy reduced coarseware jar with short everted rim; base sherd	13th-e14thC

508	2	12	Sandy coarseware	Later medieval
510	14	70	Greyware body sherds; shelly ware; fine sandy oxidised ware base with frilly edge	13th-e14thC
512	7	33	Fine sandy orange ware	Earlier medieval
513	3	20	Sandy coarsewares	Later medieval
515	51	316	Shelly ware bowl, oxidised ware jug handle, green-glazed oxidised ware, sandy coarseware jug	13th-14thC
516	10	50	Sandy coarseware body and base sherds; sandy orange ware	Later medieval
518	90	1062	Essex/Suffolk sandy greyware jars (one with faint 'pie-crust' rim and applied 'twist' strips on body; shelly ware; sandy oxidised ware base with frilly edge	13th-e14thC
532	2	2	Sandy reduced coarseware body sherds	Later medieval
541	5	30	Shelly ware, sandy coarseware	Earlier medieval
543	3	23	Sandy coarseware jar and body sherd	Later medieval
555	1	2	Sandy oxidised body sherd	Medieval
562	1	3	St Neots-type shelly ware	Late Saxon
567	1	6	St Neots-type shelly ware	Late Saxon
572	1	9	Sandy grey ware jar	Later medieval
573	1	3	Sandy greyware beaker with everted rim	AD43-100
576	15	29	St Neots-type shelly ware	Late Saxon
582	11	81	Sandy coarseware jar and body sherds	Later medieval
583	2	60	Sandy grey ware base and body sherd	Later medieval
586	3	3	Sherds with clay pellets or grog	Iron Age
1001	15	259	Sandy coarsewares; green-glazed oxidised body sherd; grey ware jug handle with ?stamped decoration	13th-14thC
1009	4	23	Sandy/organic fabric	MIA
1022	1	1	Sandy coarseware	Medieval
1037	1	2	Sandy oxidised ware	Medieval
1052	1	3	Blue-and-white-striped white earthenware	Modern
1071	1	13	Coarse sandy fabric (E30)	MIA
1095	67	309	Jar body sherds in sandy fabric - single vessel	MIA
1099	4	9	Sandy fabric; flint-tempered fabric	LBA/EIA
1107	2	13	Sandy fabric	E/MIA
1115	7	32	Body sherds in sand-and-organic fabric	E/MIA
1130	1	3	Sandy coarseware	Later medieval
1137	1	1	Fine sandy grey ware	Medieval
1138	1	29	Slack-shouldered jar in sandy fabric	MIA
1147	1	26	SF4 - South Gaulish samian ware base, probably Ritterling 8. Very abraded name stamp - identification uncertain	AD43-70
1147	6	19	Body sherds in sandy and flint-tempered fabrics	LBA/EIA
1148	25	187	Body sherds in flint-tempered fabric; coarse sandy fabric	E/MIA
1149	7	94	Coarse flint-tempered pottery; one sherd has scored decoration	BA
1151	17	110	Body sherds in flint-tempered fabric	LBA/EIA
1154	1	5	Flint-tempered fabric	BA/EIA
1162	1	11	Narrow-necked jar in sandy grey ware. Tentative Roman date.	100-410

Table 50: TUL021 ceramic spot dates

WTL010

Context	Count	Weight	Comments	Date
101	6	16	Sandy grey ware (medieval); flint-tempered fabric (Bronze Age)	Medieval
107	653	779	Jar tempered with flint, limestone/clay pellets, pebbles	Late Neo/mid BA
108	125	1144	SF1 Flint-tempered	LBA
128	16	74	Flint-tempered	LBA
146	3	6	Fine grey ware; flint-tempered fabric (?Bronze Age)	Roman
155	10	110	Flint-tempered	LBA
162	5	39	Flint-tempered	LBA
166	5	35	Coarse flint-tempered ware	BA
178	4	15	Flint-tempered	LBA/EIA
180	1	6	Sandy grey ware jar	Medieval
183	38	225	Neckless sandy grey ware jar, as Going G5.5, but without the lid-seating. Bronze Age flint-tempered fabric	AD100-250
204	87	817	Butt-beaker in fine oxidised ware, necked jar G23 (black-surfaced ware), micaceous grey ware, coarse grog-tempered ware, North Gaulish white ware	AD43-70
205	9	91	North Gaulish white ware, jar (grog-tempered ware), butt beaker (fine oxidised ware)	AD43-70
207	16	80	Coarse grog-tempered ware, fine oxidised ware	AD43-70
209	39	235	Grog-tempered ware, sandy grey ware, fine oxidised ware, ?amphora fabric, necked jar G23 fine grey ware	AD43-70
215	15	150	Buff ware flagon (?Colchester), butt beaker (black-surfaced ware), sandy oxidised ware	AD43-100
217	10	64	Coarse grog-tempered ware jar	LIA
219	3	5	Grog-tempered ware, fine oxidised ware	AD43-70
221	80	586	Grog-and-shell-tempered base and body sherds; MIA slack-shouldered jar in sandy fabric, necked jar (sandy grey ware	AD43-70
225	66	487	Cordoned jar G16-type (black-surfaced ware), storage jar sherd, coarse grog-tempered ware	AD43-70
229	33	344	High-shouldered necked jar G19 (sandy grey ware), butt-beaker (fine oxidised ware), North Gaulish white ware, black-surfaced ware	AD43-70
233	171	1224	Storage jar, high-shouldered necked jar G16, ?butt-beaker (black-surfaced ware), cordoned jar(s) (black-surfaced ware)	AD43-70
234	83	818	SF206 - High-shouldered necked jar (G20/G23) in sandy grey ware; some grog in fabric	AD43-120
234	2	176	SF205 Perforated jar base (grog-tempered ware)	LIA
234	32	2934	Storage jar (Going G45-type) - stamped 'rosette' decoration on shoulder; fine red-slipped micaceous oxidised ware - beaker (?butt-beaker; ?globular funnel-necked beaker)	AD100-300
236	6	42	Cordoned bowl or jar (black-surfaced ware)	AD43-100
238	28	281	Cordoned jar (black-surfaced ware) - joins vessel in 240	AD43-70
240	191	1080	Perforated base, cordoned jar resembling G19 but with shorter neck and less pronounced shoulder (black-surfaced ware - grog in fabric), butt beaker (sandy oxidised ware), red-surfaced grog-tempered ware	AD43-70

241	1	1	Flint-tempered fabric	BA/EIA
243	1	1	Black-surfaced ware	Roman
245	1	14	Sandy fabric	MIA
247	8	29	Cam 218/G16 - small fine version (grog-tempered ware)	AD1-70
250	4	10	Flint-tempered fabric	BA/EIA
253	1	2	Flint-tempered fabric	BA/EIA
302	4	36	Sandy grey ware jar	L12th-e14thC
308	16	146	Sandy jar with wavy line decoration on rim	L12th-e14thC
311	7	20	Sandy coarsewares	Later medieval
311	4	18	Sandy coarsewares	Later medieval
312	1	5	Glazed earthenware	Later medieval
313	2	10	Sandy coarsewares	Later medieval
325	3	16	Sandy coarsewares	Later medieval
325	3	13	Sandy coarsewares	Later medieval
325	3	31	Sandy coarsewares	Later medieval
325	4	19	Sandy coarsewares	Later medieval
326	4	21	Sandy coarsewares	Later medieval
329	8	52	Grog-tempered ware jar	LIA/43-70
330	2	34	Sandy coarsewares	Later medieval
330	3	39	Sandy grey ware jar	L12th-e14thC
331	23	233	Sandy coarsewares, including jar rim	L12th-e14thC
335	2	8	Sandy coarsewares	Later medieval
336	3	7	Sandy coarsewares	Later medieval
339	3	20	Sandy coarsewares	Later medieval
510	2	12	Beaker (L Neo/EBA)	Beaker
525	2	1	Tiny fragments	Undated
527	1	15	Flint-tempered	BA
531	2	37	Flint-tempered	M/LBA
535	5	27		?BA
539	2	4	Sandy coarsewares	Late medieval
546	11	32	Flint-tempered	M/LBA
553	2	4	Fine sandy oxidised ware	?Later medieval
558	1	20	Flint-tempered	M/LBA
562	2	3	Flint-tempered	BA/EIA
566	3	10	Flint-tempered	BA/EIA
566	2	2	Flint-tempered	BA/EIA
570	4	42	Glazed earthenware	17th-18thC
572	5	66	Glazed red earthenware	17th-18thC
578	3	20	Sandy coarsewares	Later medieval
586	1	5	Glazed red earthenware	16th-8thC
596	2	50	Glazed red earthenware	17th-18thC
599	5	88	Shelly ware, sandy coarseware	Earlier medieval
631	3	34	Sandy coarsewares	Later medieval

Table 51: WTL010: ceramic spot dates

KDG038

Context	Count	Weight (g)	Comments	Date
7	16	64	Flint-tempered fabric	BA/EIA
12	2	6	Flint-tempered fabric	BA/EIA
14	5	5	?Limestone-tempered sherds - uncertain date	??Late Neo-BA
43	13	65	Sandy fabric	LBA-MIA
48	1	5	Sandy oxidised ware	Roman or medieval
54	2	1	Fine oxidised ware - uncertain date	Roman/medieval
72	4	15	Beaker sherds (LNeolithic/EBronze Age	Beaker

Table 52: KDG038 ceramic spot dates

WIX021

Context	Count	Weight (g)	Comments	Date
14	1	2	Flint-tempered fabric	BA/EIA
18	1	13	Sandy coarseware base	Medieval
26	3	4	Sandy fabric	LBA/EIA
37	1	2	Fine sandy grey ware	Roman or medieval
39	1	8	Sandy fabric	?Early medieval
44	3	31	Necked bowl in hard-fired sandy fabric.	Early-mid Anglo-Saxon
51	1	7	Sandy fabric	?Early medieval
77	11	56	Sandy grey ware; sandy oxidised ware	Roman
81	1	3	Sandy oxidised ware	Roman
88	1	4	Flint-tempered fabric	BA
93	1	5	Flint-tempered sherd	BA/EIA
123	1	10	Flint-tempered fabric	BA
127	7	67	Dropped flange dish Going B6 (sandy grey ware), sandy oxidised ware with wavy line decoration; residual flint-tempered fabric	AD260-410
131	4	350	Red earthenwares; complete tripod base from pipkin	17th/18thC
132	17	425	Red earthenwares; one sherd with internal brown glaze	17th/18thC
132	11	92	Red earthenwares	17th/18thC
134	2	38	Bowl in red earthenware	17th/18thC
151	2	20	Central Gaulish samian; body sherd in sandy fabric (MIA)	AD120-200
209	1	2	Flint-tempered fabric	BA
217	2	11	Flint-tempered fabric, sandy fabric	LBA/EIA
258	24	76	Flint-tempered fabric	BA
259	33	96	Flint-tempered body and base sherds	M/LBA

Table 53: WIX021 ceramic spot dates

B.4 Other Artefacts

By Rob Atkins

Introduction

B.4.1 There were a small quantity of 'other artefacts' comprising slag (0.135kg), quern fragments from four contexts in WTL010 and three contexts in WIX021, a worked bone pin beater from WIX021, a probable fired clay loomweight from WTL010, relatively small quantities of Roman to post-medieval brick and tile, small quantities of fired clay and daub and clay pipe in five contexts.

Slag

B.4.2 *WLT010*

Context 240 4 fragments (0.135kg)

Querns

B.4.3 WTL010

Context 251 Part quern in three fragments. ?Beehive type (SF 207). Diameter *c*.260mm. *c*.53mm thick. Stone is of uncertain origin.

Context 311 13 v.small lava fragments (54g)

Context 325 2 lava quern fragments (25g)

Context 331 12 v.small lava fragments (0.186kg)

WIX021

Context 14. 20+ v.small lava quern fragments (0.133kg)

Context 26 2 lava quern fragments (SF27) (0.23kg)

Context 29 20+ v.small lava quern fragments (0.22kg)

Worked bone object

B.4.4 WIX021

Context 81 Complete double ended pin beater (SF 28). 120mm long. Polished

Fired clay object

B.4.5 *WTL010*

Context 205 Probable loomweight fragment (83g). Probable triangular loomweight with perforated corner (Alice Lyons, pers. comm). Part of two sides survive (65mm by 60mm) and hole is *c*.18mm diameter. Late prehistoric.

Brick and tile

BYG029

Context 168 1 yellow brick (0.314kg). 45mm thick. Very well made Late 18th century+

Context 172 1 red brick (0.239kg). 60mm thick. Well made. Late 18th century+

WTG018

Context 615 3 brick fragments (0.212kg). Sanded. Well made. 18th century+ 2 roof tile fragments (86g). Well made *c*.18th century+

Context 618 1 brick (0.117kg). Sanded. Poorly made. Late med++ 2 roof tile fragments (64g)

Context 620 3 brick (0.175kg). Sanded. ?Post-med+ 1 roof tile (0.146kg) med+

Context 640 9 brick (1.513kg) Late 18th century + and 4 roof tile (0.133kg) 18th+

Context 672 3 brick (10g). Undiagnostic

Context 684 1 brick (48g). Undiagnostic

Context 687 7 brick (2.128kg) *c*.17th-18th century. 3 roof tile fragments (55g) including peg hole *c*.18th century

Context 688 2 brick (45g). Undiagnostic. 1 tile (21g). Undiagnostic

WTL010

Context 231 1 ?brick (60g) and 1 tile (34g) ?post-medieval

Context 267 1 ?brick (85g) ?post-medieval

Context 311 Tile (12g) Undiagnostic

Context 326 Tile (7g) Undiagnostic

Context 331 5 tiles (78g) comprising 1 box flue tile (41g) 4 others (37g) Undiagnostic

Context 267 1 ?brick (85g) ?post-medieval

Context 586 4 tile (29g) Post-medieval

Context 631 1 brick (0.238kg). 2¼" (57mm) thick. Poorly made arises. Sanded. Later med to early-post-medieval. 4 roof tile (0.198kg) *c*.18th century.

WIX021

Context 11 1 brick or tile (27g) Undiagnostic

Context 32 1 ?Tegula or flat tile (0.248kg) Roman

Context 69 2 flat tile (0.140kg) Roman

Context 75 2 flat (40g) Roman

Context 81 1 flat tile (88g) Roman

Context 131 3 roof tile (0.216kg). One with sub-rounded peg hole. Mortar on one. Well made -*c*.18th century

Context 131 11 small ?brick fragments (0.307kg). Undiagnostic

Context 132 3 roof tile fragments (0.211kg). Well made - *c*.18th century

Context 132 1 ?brick fragment (65g). Burnt. Undiagnostic

Fired Clay/daub

WTL010

Context 204 5 pieces (20g) One with a smoothed side ?lining

Context 210 3 pieces (7g). One with a smoothed side ?lining

Context 221 1 piece (3g). Undiagnostic

Context 225 3 pieces (0.145kg). Undiagnostic

Context 229 2 pieces (15g). Both have a smoothed side ?lining

Context 308 2 pieces (18g). Undiagnostic

Context 311 1 piece (18g). Undiagnostic

Context 325 2 pieces (6g). Undiagnostic

Context 326 1 piece (4g). Undiagnostic

Context 329 5 pieces (18g). Undiagnostic

Context 330 6 pieces (6g). Undiagnostic

Context 331 5 pieces (22g). 1 fragment has a 7mm diameter withie impression

Context 333 1 piece (12g). Undiagnostic

Context 339 1 piece (3g) heavily burnt (undiagnostic)

WIX021

Context 37 1 piece (3g) Undiagnostic (3g)

Context 65 1 fired clay fragment (10g). Smoothed side ?lining

Context 74 2 pieces (10g). Undiagnostic

Context 127 3 pieces (13g). Undiagnostic

Context 132 1 piece (0.16kg). Burnt black on one side. Smoothed side. More than 40mm thick. Oven/hearth.

Context 134 2 pieces (0.226kg). Both have one smoothed side. Up to 55mm thick. Oven/hearth

Context 180 1 piece (1g). Undiagnostic

Context 240 1 piece (6g). Undiagnostic

Clay pipe

WTG018

Context 675 1 stem

Context 684 1 stem

Context 688 34 stem and 1 bowl (dates after AD 1710)

WTL010

Context 570 1 clay pipe bowl *c*.18th century

WIX021

Context 131 3 stem fragments

Recommendations

B.4.6 At publication stage it is recommended that further work should be limited to three objects within this report, the prehistoric quern stone, the bone pin beater and the triangular loom weight fragment.

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Human Skeletal Remains

By Zoë Ui Choileàin

Introduction and and Methodology

Cremated bone was found in six sites and are recorded below.

C.1.1 The unurned cremation deposits were excavated on site, placed in environmental sample buckets and wet sieved in the lab. The bone was then separated into three different fraction sizes using a 5mm and 2mm sieve. Bone from the >10mm, 5-10mm and 2-5mm fractions was separated and examined by the osteologist. Bone from the <2mm fraction was not examined due to its small size but the residue was retained for the permanent record.

C.1.2 The urned cremations were lifted on site with surrounding earth and sent to the lab where it was excavated in spits and the contents placed through the same process as above.

C.1.3 Analysis of the bone was undertaken in accordance with the guidelines laid out by McKinley (2004). Animal bone was identified by macroscopic appearance where possible. All human bones identified were separated into the following four categories: upper limb, lower limb, axial and skull.

C.1.4 The minimum number of individuals (mni) represented was determined using repetition of skeletal elements and any obvious age difference between the bones. The cremated bone was weighed in order to determine how much of the body was present. The amount of the body collected was calculated using the weight of each cremation as a percentage of the average weight of a human body. A properly cremated human adult body generally produces between 1600g and 3500g of bone, with an average weight of approximately 3000g (McKinley 1989). In addition to weighing the deposit and recording bone fragment sizes, the bones were sorted (as described), to explore whether there had been any bias towards the collection of particular parts of the individual for burial following their cremation.

C.1.5 Variation in the colour of bone fragments was noted to explore the efficiency of the cremation process. The colour of bone ranges from a reddish orange to black and through to pure white depending on the heat of the pyre; black or brown bone for example suggests a temperature between 300-400 degrees while white or bluish bone occurs when the temperature exceeds 650 degrees. The larger fragments also showed signs of distortion and splitting. It has been observed in modern crematorium that when temperatures exceed 8000 C the flat ignites and the jet flames can be turned off. The warping and splitting of bones suggests that firstly the bodies were burned while there was still flesh and fat attached to the bone and secondly that these parts of the body were in the centre and therefore hottest part of the fire. It has also been suggested that the reason for this warping and splitting of the bone is due to the weight of the pyre on the body (O' Donnabháin 1997, 69).

C.1.6 Condition (surface preservation) of the bone was scored as either excellent, good, poor or destroyed, and graded on a scale of 0 (no erosion) to 5+ (extensive erosion), in accordance with the criteria set out by McKinley (2004, 16).

C.1.7 The age of the individuals was determined by observing cranial suture closure, epiphyseal long bone fusion and cranial thickness (Gejvall 1947). The most accurate age categories possible were that of adult 18+ and child.

BYG029

C.1.8 A small deposit of cremated bone was recovered from a pit (context **180**) during the excavations at BYG029 (Table 54). The remains were thought to be within possible hearth material and no identifiable fragments of human bone could be observed.

Results

Context	Weight	colour	max frag size mm	>10mm	5-10mm	2-5mm	Mni	Interpretation
179	49g	black-blue white	20g	21g	22g	6g	1	Human/animal

Table 54: BYG029 cremated bone results

C.1.9 The cremated bone contained very little recognisable bone other than a phalange from a small mammal. The bone varied in colour from the white associated with completely oxidised bone to a two tone appearance with the outside being blue-white and the inside, where the heat would take longer to reach being black. Given that there are no identifiable fragments and that this material was found within a possible hearth deposit it seems likely that it represents domestic waste and not a burial of human remains.

Further Work and Methods Statement

C.1.10 No further analysis on the remains is necessary.

BYG030

Introduction

C.1.11 This report presents the results of a single unurned cremation found within Pit **169** during the excavations on the site of BYG030 (Tables 55 and 56). This was the only cremation found on the site and the pit contained no finds with which to date the remains.

Results

C.1.12 The results are summarised below

Context	Cut	Weight (g)	colour	max frag size	>10	5-10mm	2-5mm	Mni	age	Description
167	169	1296	primarily yellow white	73.43	553	580	163	1	adult.	human,full unurned cremation
168	169	18	yellow white	5		16	2	1	unknown	human/ animal

Table 55: BYG030 cremation bone

Context	Cut	Axial	Upper limb	Lower limb	Skull	Teeth	long bones
167	169	16 frag, 19 rib	18 upper, 1 frag humerus head,	42 frag, 1 frag	122	24	313

			3 distal phalanges	femur head,			
168	169	0	0	0	2		6

Table 56: catalogue of identifiable fragments from pit **169**

Cremation pit **169**

C.1.13 This was a single unurned cremation recovered from pit 169 (context 167); a smaller deposit of bone was recovered from the lower layer of this pit (context 168) and it is probable that the two are from the same individual. Cremated human remains were often placed in organic containers such as a wooden box or a cloth bag. These rarely survive giving the impression upon excavation that the remains are 'loose' in the soil, however it is possible one was present in this instance. The cremated bone weighed 1314g implying that almost half of the body was collected. The bone fragments ranged in colour from black to blue-white. This indicates that the temperature of the pyre was not consistent throughout. Some warping and cracking was apparent on the larger fragments implying that the body still had some flesh and fat remaining and that in some areas of the fire the temperature may have reached 800C.

C.1.14 The fragment size was roughly equal in weight between those fragments that were >10mm and those that fell into the 5-10mm category. In comparison there was a much smaller amount of 2-5mm fragments suggesting that there was no secondary crushing of the bones here. The total weight of bone present was 1314g implying that just under half the body had been collected. The largest percentage of identifiable fragments were from the long bones with the skull being second. This would imply that these elements were those favoured when gathering the remains after the pyre had cooled.

C.1.15 The surviving phalanges and the large number of skull fragments provided enough evidence to age the individual as an adult (18+). There were no sexually diagnostic fragments present meaning that it was not possible to identify this individual as either male or female.

Summary and comment

C.1.16 The cremated remains from this site represent a single individual. The weight of the cremation burial suggests that a substantial attempt had been made by the mourners to collect the remains of the individual as it equated to around half the weight of a full adult. No evidence of burning was seen on the material around the remains indicated that the bones had been allowed to cool before deposition into the pit.

C.1.17 The degree of fragmentation seen in this cremation is approaching the average suggested by McKinley (1994a, 340-1) who observed in a study of over 4000 cremation burials that over 50% of the bone was >10mm with an average maximum size being 45.2mm. Around 50% of cremation (167) was >10mm with the maximum size being around 50mm. A common secondary funerary rite is a process of crushing the cremated bone into smaller fragments (Brück 2006) however the large fragment size implies that this was not employed here.

C.1.18 Cremated bone may range from hues of brown to black to the brilliant white created by complete oxidisation (McKinley 2000, 405). Complete oxidisation of the bone is dependent on several factors: the construction of the pyre and quantity of wood, the position of the body, tending of the pyre and maintenance of an optimal temperature. Weather, duration of the cremation, oxygen supply, amount of body fat and the age of

the individual also play a part in the efficiency of this process (McKinley 2000a, 407; McKinley 1994b, 82-84). The majority of the remains present were between yellow white and blue white indicating that near complete oxidisation had occurred. A small percentage of bone was black to grey blue in colour suggesting that these fragments were on the margins of the pyre and did not burn at such a high temperature. As the majority of the bone was completely oxidised it seems that complete cremation of the corpse was important to the mourners. It would appear from the evidence present that effective pyre technology involving the factors listed above was employed by the mourners.

Further Work and Methods Statement

C.1.19 While no further analysis on the remains is necessary it is recommended that a carbon date on the cremated bone may be useful in determining an accurate date for the human remains.

TUL021

Introduction

C.1.20 A small amount of cremated bone was recovered from the excavations at TUL 021. The remains were recovered from two slots of a prehistoric ring ditch **1008**. There were no definitively identifiable human remains within the bone other than a tooth root (Table 57).

Results

Context	Cut	Weight (g)	Colour	max frag size	>10	5-10mm	2-5mm	Mni	Comments
1009	1008	16	black-blue white	10	2	14		1	Human/Animal
1013	1012	68	black-blue white	12	6	62		1	Human/Animal

Table 57: TUL021 cremated bone

Context 1009

C.1.21 A small scatter of cremated bone was found in slot **1008** of the ring ditch. The bone weighed only 16g in total and only one fragment, a tooth root could be determined to be human. The only other diagnostic bone fragments were an animal rib and tooth.

Context 1013

C.1.22 This was the fill of a separate slot **1012** through the same Ring Ditch. The context contained a slightly larger quantity of bone but again no identifiable fragments remained to identify the bone as human. A fragment of animal vertebrae was identified however most of the bone fragments were not diagnostic.

Summary and Comment

C.1.23 The colour of the bone does not show the same bright white colour associated with completely oxidised bone, many of the bones showed a two tone effect with the fragments being blue-white on the inside and black on the inside where the heat would take longer to reach. It seems probable, as most identifiable fragments are animal, that this may actually represent domestic waste, which is nearly all animal bone, rather than a conscious deposit of human remains.

Further work and methods statement

C.1.24 No further analysis is necessary although a c14 dating may be useful in order to confirm the date of the ditch.

WTL010

Introduction

C.1.25 This report presents the results of a specialist assessment of seven cremated bone deposits found during excavation at WTL010 (Tables 58 and 59). The cremations are apparently part of a cemetery dating to the Bronze or early Iron Age. The deposits comprised one urned cremation, Pit **511**, and two further 'paired cremations'. The paired cremations both consisted of two larger pits which were immediately associated with adjacent smaller pits; in both instances the larger pit in the pair contained significant amounts of cremated human remains with the smaller of the pair containing probable pyre debris with negligible human remains.. Two smaller pits within the vicinity [**513** and **569**] also contained cremated human bone but these deposits were rather insubstantial weighing, respectively, 17g and 1g. The material from the pits therefore probably represents residual either human or animal material.

Results

Ctxt	Cut	Wt (g)	Colour	max frag size	>10	5-10mm	2-5mm	Mni	Age	Description
518	519	4	white and grey blue	5mm	0	2	2	1	unknown	Human or animal,
516	517	560	white and grey blue, some yellow white	20mm	127	353	80	1	adult	Unurned human cremation burial
510	511	1055	white and grey	55.98mm	230	640	185	1	adult	Unurned human cremation burial
520	521	276	white and blue grey	12mm	59	154	63	1	adult	Unurned human cremation burial
514	515	<1	yellow white	5mm	0	<1	<1	1	unknown	Human or animal
512	513	17	yellow white and some blue grey	2	0	9	8	1	unknown	Human or animal,
568	569	<1	white- grey	2	0	<1	<1	1	unknown	Human or animal
692	511	293	mainly white to grey but lots of orangey yellow particularly axial frags	30mm	188	42	28	1	adult	Urned human cremation burial within vessel

Table 58: WTL010 cremated bones

Context	Cut	Axial	Upper limb	Lower limb	Skull	Teeth	Indeterminate long bones
518	519	0	0	0	1	0	9
516	517	21	1 distal end humerus, 1 rib) 3 distal phalanges	0	42	1 upper canine	145
510	511	60	38 frag ,4 distal phlanges	32	90 frag	3	271
520	521	8	0	0	34	3 incisors	114
514	515	0	0	0	0	0	1
512	513	0	0	0	8	0	17
568	569	0	0	0	0	0	2
692	511	16, 1 ribs	11 upper , 1 distal end phalanges,	33	9	0	7

Table 59: WTL010 catalogue of cremated bone remains

The Paired Cremations

C.1.26 Two sets of paired cremations were excavated: a larger pit containing an unurned cremation burial was adjacent to a smaller pit containing a much less substantial amount of cremated bone. It seems probable that given the direct proximity of these pits to one another, the smaller pit contains pyre material from the primary cremation. The smaller deposits, in particular context 514 also contained a large amount of charcoal indicating that these may be pyre debris collected and buried besides the main cremation.

Cremation **517**

C.1.27 Cremation **517** was a full unurned cremation. Often cremations were deposited in organic containers which are not preserved making it appear that the bones were place loose into the soil. All of the cremations on this site (aside from context 692) were unurned therefore it is possible that they may originally have been contained in organic materials. The cremated bone in Pit **517** weighed in total 560g implying that around a fifth of the body was collected. The distal end of a humerus was noted as was the root of an upper permanent canine which identified this individual as an adult. The distal end of a cremated sheep humerus was also noted in the remains; it is probable that there are more fragments of animal bone within the pit fill however no other identifiable pieces were recovered. All of the bones were grey to grey-white suggesting that they had been subjected to a consistent temperature, most likely the fragments collected were in the same part of the fire. No particular preference for any particular part of the body appears to have been showed with the only unidentifiable bones being the ribs and vertebrae which would have been in the hottest part of the fire and are most likely among some of the smaller fragments. As described above, the larger fragments like

those in the other cremations were cracked and distorted suggesting that the body had been burned as part of a primary rite rather than the bones being initially de-fleshed.

Cremation **515**

C.1.28 This was an extremely insubstantial deposit weighing less than one gram in total and recovered from the fill of Pit **515**. The deposit (514) did however contain a large amount of charcoal; the combination of the cremated bone and charcoal suggests that this may indeed be material from the pyre of the cremated individual interred in Pit **517**. The deposit also contained a single flint however this is not necessarily associated with the cremation.

Cremation **521**

C.1.29 As with Pit **517** this was a full unurned cremation. The cremated bone (context 520) weighed 276g, just over half the weight of cremation deposit 516 in Pit **517** and representing approximately a tenth of the body. The difference in the amount of bone collected is possibly related to the conditions of the pyre which may be affected by external factors such as weather. The fragmentation size of these remains was much smaller meaning that it was not possible to distinguish between upper and lower limbs. Of the bones collected, the long bones seem to have been most favoured with the skull being second. The roots of three permanent incisors were recovered allowing the individual to be recognised as an adult. No axial elements were present most likely due to this part of the body being in the hottest area of the pyre and therefore being the most badly fragmented part. The colour of the bones ranged from a grey-blue to blue-white with the same deep cracks and striations as observed in bone from deposit 516; It can therefore be concluded that the temperature of the pyre reached 800 C. The evidence suggests that this was a primary funerary rite with fat and flesh remaining on the bones.

Cremation **519**

C.1.30 This comprised a small deposit of burnt bone recovered from Pit **519** which was paired with Pit **521**. Like that recovered from cremation Pit **515** the bone was an insubstantial deposit weighing only 4g. The bone was primarily a slightly grey-white colour matching that of from Pit **521**. This deposit also contained charcoal although in a much lower quantity than in context 514. The similarity of the cremated bone to material in deposit 520 as well as the proximity of the smaller feature to Pit **521** suggests that this is pyre material from the larger cremation which has been collected and deposited beside the primary burial.

Cremation **511**

C.1.31 Pit **511** which contained the only urned cremation discovered on site. It contained a complete prehistoric pottery vessel containing cremated human remains (context 692) which was backfilled by a further deposit (context 510). The remains from both deposits can be said to be adult, using the size of the bone and the cranial sutures visible to determine age. There are no repeated elements between the two deposits making it likely that 510 and 692 contain the remains of the same individual. Often an urned cremation is deposited within a pit and bone from the pyre piled up on top. In light of this, deposits 510 and 692 have been treated as one individual in this report.

C.1.32 The urn was block lifted in the field and excavated in three spits under laboratory conditions. The contents of the pot were assigned a separate context number in order

to differentiate them from the cremated bone around the urn which was recovered as a sample. Cremation 692, contained within a ceramic vessel, was the only urned cremation present and this may imply that the individual was of a higher status that the others. The combined weight of bone contained in contexts 510 and 692 was 1348g suggesting that almost half the remains of the individual had been collected for deposition.

C.1.33 A difference in fragmentation size can be seen between the interior and exterior contents of the pot; the maximum fragment size in context 692 reached 30mm whereas the largest fragment in 510 was 55.98. In total 188g of fragments > 10mm were collected from the pot contents whereas the external fill contained 230 > 10mm. It would seem in this case that the larger fragments were deliberately picked out to be placed on top of the urn and the smaller fragments of bone scooped up and placed inside. The bone within the urn seemed to have been placed in a specific order. Spit one (sample 515) contained the larger fragments, primarily of long bones, with four fragments of skull. The middle spit of the deposit (sample 514) contained smaller fragments, only four fragments of long bone were recovered which could be separated into upper and lower, with four skull fragments, one phalanx and 16 vertebrae fragments. Following the pattern the maximum fragment size of the lowest spit (sample 513) was only 2mm and only four fragments of skull were identifiable. It would seem that over all the long bones were favoured more than any other body part for placement within the urn. There was a greater percentage of skull in deposit 510 outside of the pot, however overall it would appear that the remains most concentrated on were those of the limbs and torso. As to the interior order of the bones while this may represent a ritual placement of the bones it is quite possible that the bones were merely arranged in this order for practical reasons; it is most sensible to place the larger bones at the top where the urn is widest with the smaller fragments lower in the more narrow area of the urn. In addition it should be remembered that over time the weight of these larger fragments would begin to crush those beneath it decreasing their size further.

C.1.34 The colour of the cremated remains was primarily a blue white although certain amount of yellow white bone was observed suggesting that bone from areas at the edge of the pyre had been collected. The same striations as could be observed in cremations 516 and 520 were present although they were not quite as deep here suggesting that the pyre was at a slightly lower heat.

C.1.35 Interestingly deposit 510 contained a large quantity of worked flint which probably dates from the late Neolithic and Bronze Age periods. The flint was not burnt indicating that had not been present on the funeral pyre. There have been examples of Bronze Age cremation burials containing flint flakes as grave goods although they are few in number (McKinley 1994b). While it is possible that the collection of flint is associated with the burial, due to its early date it may be the case that this cremation was deposited within an earlier pit.

Cremations **513** & **569**

C.1.36 A small amount of unidentified cremated bone was recovered from Pits **513** and **569**. Both deposits were extremely insubstantial with that from deposit 512 weighing only 17g and 568 being only four fragments that weighed less than 1g. The maximum fragmentation size of cremation 512 was 5mm and the fragments from 568 were only 2mm large. The bone within both deposits was yellow white indicating a temperature of over 650 degrees celcius. The small percentage of cremated bone in 512 and 568 suggests that these represent scattered or residual bone rather than a deliberate deposit.

Summary and comment

C.1.37 The cremated remains recovered from this site represent at least three cremation burials and two deposits of pyre debris. The remaining two deposits are probably residual and a microscopic examine would be required in order to determine whether they are human or animal.

C.1.38 The cremation deposits were found at the northern end of the site and the tendency to cluster here may suggest that there are more burials beyond the limits of the excavation. The weights of the cremation burials suggested that a substantial attempt had been made by the mourners to collect the remains of the individual although as only one equated to around half the weight of a full adult it is possible that only a token amount was required for burial. However, the survival of cremated bone, and hence, the weight of the surviving deposit can also be significantly affected by taphonomic factors.

C.1.39 Cremated bone may range from hues of brown to black to the brilliant white created by complete oxidisation (McKinley 2000, 405). Complete oxidisation of the bone is dependent on several factors: the construction of the pyre and quantity of wood and the position of the body. The maintenance of an optimal temperature will also affect the oxidisation of the bone. Weather and the duration of the cremation can effect the level of oxidisation; even the amount of body fat and the age of the individual contribute to the the efficiency of this process (McKinley 2000a, 407; McKinley 1994, 82-84). None of the cremated bone was the brilliant white associated with complete oxidisation however the vast majority of the cremation burials and pyre debris (aside from a small amount of the bone from cremation 501) was primarily grey-blue to blue-white in colour, suggesting that complete cremation of the corpse was important to the mourners. While the burials here represent only a small sample it would appear from the evidence that effective pyre technologies were employed.

C.1.40 The degree of fragmentation seen in these cremations is greater than the average suggested by McKinley (1994a, 340-1) who observed in a study of over 4000 cremation burials that over 50% of the bone was >10mm with an average maximum size being 45.2mm. The largest fragment size seen within this collection was 55.8mm however when the burials are observed as a collection the average fraction size was 5-10mm. The percentage of bone that is between 5-10mm and below 5mm suggests that some addition form of processing of the bone crushing the fragments to a smaller size may have been employed. The deliberate fragmentation of bone is a practice that was employed throughout the middle and late bronze age and may represent a symbolic act representing the end of a persons life (Bruck 2006). However enough larger fragments are present that when taphonomic factors affecting the survival of cremated bone are taken into consideration it can be assumed that the crushing of bones into smaller fragments while practised was not particularly important to the mourners.(Aegis).

C.1.41 Overall this sample is too small in size to make a significant comparison between this site and other bronze age sites in the area however examination of the bones suggest that these examples do fall into the trend of cremations most commonly practised across the country in prehistory.

Further Work and Methods Statement

C.1.42 While no further analysis on the remains is necessary it is recommended that a sample from cremation deposits (510) and (692) be sent for carbon dating in order to confirm that they do represent the same individual and to better define what relationship, if any, there is between the cremated bone and the worked flint in Pit **511**.

KDG038

C.1.43 A small scatter of cremated bone was recovered from a prehistoric pit (context **6)** during the excavations at KDG038 (Table 60). The deposit was extremely unsubstantial weighing only 5g in total and no human material was identified.

Results

Context	**Weight**	**colour**	**max frag sizemm**	**>10**	**5-10mm**	**2-5mm**	**Mni**	**Interpretation**
7	5	blue- white	5	0	5g	0	1	Human/animal

Table 60: KDG038 cremated bones

C.1.44 The cremated bone contained very little recognisable material other than two sheep teeth. Most of the bone was white or blue indicating that it had been almost fully oxidised however the small size of the deposit and the presence of the sheep teeth suggests that this is more likely domestic waste or residual bone from elsewhere rather than a cremation burial.

Further Work and Methods Statement

C.1.45 No further analysis on the remains is necessary.

WIX021

C.1.46 This report presents the results of a specialist examination of the human remains found during the excavation of WIX021 (Tables 61 and 62). The remains consisted of a small amount of cremated bone found with a complete pot (small find 30) in pit **155,** an unsubstantial deposit of cremated bone from pit **157** and a disarticulated human arm recovered from ditch slot **76**.

C.1.47 All of the cremated bone recovered was too badly fragmented to allow any determination of age or sex. The disarticulated remains were examined in order to examine the skeletal elements present. The minimum number of individuals represented was calculated by identifying the presence of repeated skeletal elements.

C.1.48 It was not possible to sex the remains as no sexually diagnostic pieces of bone were present. It was only possible to age the remains as adult (18+) based on the fusion of the ephiphyses and the size and robustity of the bone (Buikstra and Ubelaker 1994). No pathologies were observed.

Results

Context	Weight	colour	max frag size	>10	5-10mm	2-5mm	Mni	age/sex	Interpretation
153	37	Yellow white	5mm	8	22	7	1	unknown	human/animal
156	5	Yellow white	5mm	0	3	2	1	Unknown	human/animal
127	1	grey white	5mm	0	1	0	1	unknown	human/animal

Table 61: WIX021 cremated bones

Cremation **153**

C.1.49 Cremated bone was recovered from fill 153 in pit **155**. The pit contained a complete pot (small find 30). This was originally assumed to be a cremation urn and excavated in the lab. The only identifiable bone within the pot was that of a juvenile pig. There were no

repeated skeletal elements in the bone recovered from the fill around the pot suggestion that this represents a single individual. Five fragments of human skull were identified in the cremation however the only other identifiable fragments were animal. The majority of the fragments were too small to be able to determine whether they were human or animal. The small fragmentation size could represent a deliberate crushing of the bones which sometimes occurs as a secondary funerary rite however the insubstantial size of the sample makes it is impossible to say if this is the case. Taphonomic factors such as weathering, animal disturbance and the ph levels in the soil could explain both the small fragmentation size and the unsubstantial amount of bone remaining.

C.1.50 The bone only weighed 37g. Such a small amount often represents pyre material or residual bone rather than a cremation burial. The bone was a yellow white in colour indicating that a heat of over 800C had been acheieved during burning. It also suggests that this was a primary rite with fat and flesh remaining on the bones.

Cremation **156**

C.1.51 A small amount of cremated bone was recovered from pit 157. The bone weighed in total 5g and contained no diagnostic fragments. Fill 156 also contained a fragment of unburnt human skull but it is most likely that this is residual and not related to the cremation.

Cremation **127**

C.1.52 Three fragments of cremated bone were found in context 127 which was a layer of buried soil containing Roman pottery. This bone is most probably residual and not representative of a cremation burial.

The Disarticulated Remains

Element	Fill no.	Cut no.	No of fragments
Humerus	75	76	1
ulna	75	76	1
Radius	75	76	1
Skull	153	155	1

Table 62: WIX021 unburnt human bones (disarticulated)

C.1.53 A fragment of unburnt skull was recovered from pit **157** which contained cremated bone. The unburnt distal end of a humerus, and fragments of an ulna and radius were recovered from a ditch slot **76**. The preservation of the bones was scored as excellent and the bones were aged as adult (18+). No further remains were recovered and it is most likely that these bones are residual having originally been buried elsewhere.

Summary and Comment

C.1.54 The cremated bone from contexts 153 and 156 represent a minimum of two individuals. The majority of the remains present were between yellow white and blue white indicating that near complete oxidisation occurred. Complete oxidisation of the bone is dependent on several factors; The amount of flesh covering and the amount of oxygen (Holden, et al. 1995, cited in Thompson 1999: 20) both have an effect. The construction of the pyre and quantity of wood plays a part, as does the position of the body, and maintenance of an optimal temperature by whatever mourners were tending the fire

(McKinley 2000, 407). It would appear from the evidence present that effective pyre technology involving the factors listed above was employed by the mourners and that complete cremation of the corpse was important.

C.1.55 The complete pot present with the cremated bone suggests that this is more likely a deliberate deposit rather than residual remains as such a small weight often suggests. It is possible that only a token amount of bone was required by the mourners to satisfy the funerary rites.

Further Work and Methods Statement

C.1.56 No further analysis is necessary.

C.2 Faunal Remains

By Andy Bates

Introduction and Methodology

C.2.1 Animal bone was recovered from eight sites (Tables 63-83).

C.2.2 The material was identified using the reference collection held by the author. All parts of the skeleton were identified where possible, including long bone shafts, skull fragments, all teeth and fairly complete vertebrae. In the identification of species reference was made to Halstead and Collins (1995) and Schmid (1972). The age of animals as indicated by epiphysisial fusion was estimated following Silver (1969). Sheep/goat distinctions were made using reference material and published work by Boessneck (1969), Kratochvil (1969), and Prummel and Frisch (1986). Distinctions between Red and Fallow Deer were made following Lister (1996).

C.2.3 For each bone, the following information was recorded where appropriate: context reference; species or species group; element; number of bones; side; the diagnostic zone as either more than or less than half present; fusion state; butchery; measurements; tooth wear development; and other comments. Any pathology upon the bones was also recorded.

C.2.4 The recording of diagnostic zones for mammals followed Serjeantson (1996). Measurements followed those set out in von den Driesch (1976). Tooth wear development for mandibular teeth were recorded following Payne (1973) and (1987) for sheep, Grant (1982) and Halstead (1992) for pigs, and Grant (1982) and Halstead (1985) for cattle. Measurements followed those set out in von den Driesch (1976). The recording of diagnostic zones for mammals followed Serjeantson (1996), and for birds Cohen and Serjeantson (1996). The minimum number of elements (MNE) was calculated from the most frequently occurring diagnostic zone. The wither height of horse was calculated following von den Driesch and Boessneck (1974).

C.2.5 The condition and fragmentation of the bone was recorded by deposit, as represented by surface erosion, how robust the bone was, dulled or sharp edges, the percentage of the original bone present and the overall fragment size. Where the condition of the bone varied within a deposit was also recorded.

BYG029

Introduction

C.2.6 In total, 11 bone fragments weighing 170g were recovered from four features (Table 63). Of these bone fragments, only five rabbit bones from ditch ***175*** were identified to a species level.

Feature	NISP Identified to a Species Level or Low Order Group	Total NISP
Ditch **113**		1
Pit **130**		4
Ditch **169**		1
Ditch **175**	5	5
Total	**5**	**11**

Table 63: BYG029 Number of Individual Specimens (NISP) per feature

Discussion

C.2.7 The animal bone was in a robust condition, with less than 50% of the bone surface eroded, but fragmented so that less than 50% of the original bone was present. Table 64 quantifies the NISP by species and feature. The number of bones from each feature is very low, and their inclusion within them is most likely the result of the background deposition of faunal remains from activities in the vicinity, or the incidental inclusions of small mammals and amphibians. No acts of deliberate deposition were identified.

Species	**Ditch *113***	**Pit *130***	**Ditch *169***	**Ditch *175***	**Total NISP**
Rabbit				5	5
Cattle/Red Deer		3			3
Rodentia sp			1		1
Large Mammal		1			1
Frog/Toad	1				1
Total NISP	1	5	1	5	11
NISP identified to a species level or low order group				5	5

Table 64: BYG029 NISP by species and feature

C.2.8 Most of the bone from deposit 128 of Pit **130** had butchery marks upon the, including two cattle or red deer thoracic vertebras and three large mammal rib fragments. One fragment of vertebra body had been split longitudinally and transversely, to divide the carcass down the middle and to segment the spine. A second vertebra fragment, the spinous process of a thoracic vertebra, had been struck a longitudinal glancing blow. The intention would also appear to be to split the carcass in two, rather than just remove the tenderloin. In addition, the two rib fragments had been chopped to separate the rib slab from the sternum.

C.2.9 The five rabbit bones from Ditch **175** comprised elements of the forelimbs and a mandible, all most likely of the same animal. These bones are potentially intrusive to the feature.

BYG030

Introduction

C.2.10 In total, 195 bone and teeth fragments, or number of individual specimens (NISP), weighing 2.9kg were excavated (Table 65). All of this material was retrieved by hand collection. The animal bone is quantified and is discussed by feature or layer, using the feature, layer, or master number where one has been applied.

Master, feature or layer number	**NISP Identified to a Species Level or Low Order Group**	**Total NISP**
Ditch **174**		1
Ditch **178**	2	2
Ditch **208**	5	16
Ditch **210**	5	10

Ditch **211**	4	17
Fluvial hollow **190**	5	27
Hollow-way/palaeochannel 124/207	22	65
Colluvium 212	4	37
Tree throw **150**	3	20
Total NISP	**50**	**195**

Table 65: BYG030 NISP per feature

Quantification

C.2.11 Table 66 quantifies the NISP by species and feature or layer. The quantity of animal bone from each is very low, and in most cases the inclusion of bone within them is likely to be result of background deposition of faunal remains derived from activities in the vicinity, or the incidental inclusions of amphibians. The proportion of species identified in the archaeological bone is unlikely to representative of the live flocks and herds.

Species	**Ditches**					**Hollows/ Channels**		**Colluvium**	**Tree Throw**	**Total**
	174	**178**	**208**	**210**	**211**	**190**	**124 207**	**212**	**150**	
Equus sp			1		4		2	1	1	9
Cattle			3	5		5	9	2	1	25
Pig		1					6			7
Sheep/Goat		1	1				5	1		8
Deer								1		1
Red Deer									1	1
Cattle/Red Deer					1		9			10
Medium Mammal							2			2
Large Mammal			9	3	12	18	23	10	11	86
Unidentified Mammal	1		2	2		4	9	22	6	46
Total	**1**	**2**	**16**	**10**	**17**	**27**	**65**	**37**	**20**	**195**

Table 66: BYG030 NISP by species and feature

Condition

C.2.12 generally the animal bone is in a moderate to good condition being fairly robust, but highly fragmented with rarely more than 25% of the original bone surviving. The level of erosion to the surface of the bone varied between features from less than 50% to over 50% of the bone surface. Bone from fluvial hollow **190** was in a notably worse condition in comparison to those from the rest of the site.

C.2.13 The condition of bone also varied within the upper alluvial layer, **138**, of hollow-way 124/207. Although variation in the condition of bone may potentially indicate reworked material, in this instance it is perhaps more likely due to variations in the level of exposure and erosion of the bone prior to burial.

Discussion

C.2.14 One set of equine bones which could be articulated was recovered from intervention **123** of ditch 211, and are therefore of the same animal. They comprised the metatarsal, first phalanx and one of the two lateral metapodials of the right hind limb, of what is most likely a horse rather than an donkey or mule. The remainder of the animal, including the second and third phalanx of the same foot, was not recovered. These bones would not appear to have been deposited as articulating remains and their deposition in close proximity to each other maybe incidental, rather than a deliberate act. Measurements taken from the metatarsal were used to calculate a wither height of 1.36m or 13.5 hands for the animal, the size of a pony.

C.2.15 Eight mandibles had teeth from which the age of the stock could be estimated using the tooth wear pattern, detailed in Table 67. The number of mandibles is to few to make any interpretation on the husbandry strategies practised. However, the mandibles of sheep/goat appear to be have culled after or close to the animals achieving their optimum meat weight at around three years of age, with two cattle also apparently slaughtered before three years of age. The piglet from hollow-way or palaeochannel 124/204, less than a year old, is possibly as likely to be a natural fatality to the herd as much as it is to have been slaughtered for consumption.

Species	**Feature**	**Age Stage**	**Age**
Cattle	Hollow-way or palaeochannel 124/204	D-G	1.5 years to adult
		C	8 to 18 months
	Tree Throw ***150***	D	18 to 30 months
	Fluvial hollow ***190***	E	30 to 36 months
Sheep/ Goat	Hollow-way or palaeochannel 124/204	F	3 to 4 years
		F	3 to 4 years
	Colluvium 212	E-F	2 to 4 years
Pig	Hollow-way or palaeochannel 124/204	C	6 to 12 months

Table 67: BYG030 age estimates derived from the wear pattern of mandibular teeth

C.2.16 Three bones from deposits of the hollow-way/palaeochannel 124/207 had butchery marks upon them. They included two cattle mandibles, one from the lower colluvium **102** and one from the upper alluvium **138**, with knife marks upon them from the cutting loose the animals tongue. In addition, a cow or red deer scapulae also from deposit **138** had filleting marks upon it. Of two cow pelves from deposit **102**, one was of a female animal and one possibly of an ox.

C.2.17 Further butchery marks were present on a third cow mandible recovered from colluvium **212**, with heavier chop marks upon it from the removal of the tongue. A pathological a cow metacarpal was also recovered from colluvium **212**, with pitting upon its upper articular surface consistent with lesions of osteochrondrosis dissecans. Osteochrondrosis dissecans is the focal ischemic necrosis of the growth cartilage

initiated by necrosis of the cartilage canal blood vessel during growth of the bone (Ytrehus *et al* 2007, 445). Trauma to the bone, such impact or stresses upon the joint, is thought to play a major role in the development of osteochrondrosis (*ibid*).

BRL026

Introduction

C.2.18 In total, 53 bone or teeth fragments weighing 247g were recovered from five features (Table 68). All of this material was retrieved by hand collection. In total, six bones or teeth were identified to a species level or low order group (Table 68).

Phase	Feature	NISP Identified to a Species Level or Low Order Group	Total NISP
ROM	Ditch **109**	1	13
ROM / MED	Ditch **120**	1	1
UND	Ditch **125**		3
IA	Pit **137**	2	12
IA	Pit **139**	2	24
Total		6	53

Table 68: BRL026 Number of Individual Specimens (NISP) per feature

Discussion

C.2.19 The bone is highly fragmented, often with over 50% of its surface eroded, but fairly robust. Bone of a slightly better condition was recorded from ditches 120 and 125, suggesting bone was incorporated into these deposits more rapidly. No obviously residual animal bone was recorded, although the condition of the bone varied somewhat from pit 139.

C.2.20 Table 69 quantifies the NISP by species and features. In each the quantity of animal bone is low, with the maximum number of 16 bone fragments recovered from one deposit. The summary totals in Table 69 cannot, therefore, be considered representative of the domestic livestock maintained in each period. No articulating bone or associated bone groups were identified which may indicate deliberate acts of deposition. The material is most likely represents the background deposition of bone from activity in the general vicinity. The age of the animals could not be assessed, with the exception of a pig tibia from Ditch **120**, which was from an animal around three years of age.

Species	Ditch 109	Ditch 120	Ditch 125	Pit 137	Pit 139	Total NISP
Equus sp				1		1
Cattle	1			1	2	4
Pig		1				1
Cattle/Red Deer			1	2		3
Large Mammal	3			7	6	16

Unidentified Mammal	9		2	1	16	28
Total NISP	13	1	3	12	24	53
NISP identified to a species level or low order group	1	1		2	2	6

Table 69: BRL026 NISP by species and feature

TUL021

Introduction

C.2.21 531 bone and teeth fragments or number of individual specimens (NISP), weighing 2.5kg were excavated (Table 70). All of the bone was retrieved by hand collection. The animal bone is quantified and is discussed by feature or layer, either using the cut or layer number, or where appropriate the master number.

Phase	**Master, feature or layer number**	**NISP Identified to a Species Level or Low Order Group**	**Total NISP**
Late med	Ditch **509**	1	4
Saxo-Norman	Ditch ***577***		1
E-MIA	Ditch ***1014***	14	115
?E-MIA	Ditch ***1023***		2
Saxo-Norman	Pit ***502***	78	151
Late med	Pit ***514***		1
Later med	Pit ***517***		2
13th-14th	Pit ***519***	1	2
Unc	Pit ***558***		1
Saxo-Norman	Pit ***568***	1	3
Later med	Pit ***578***	1	1
Unc	Pit ***1003***	7	78
E-MIA	Pit ***1132***	11	18
?MIA or Roman	Layer ***1147***	3	20
?E-MIA	Layer ***1148***	14	62
E-MIA	Ring **1016**	3	18
LBA-EIA	Watering ***1122***	2	4
LBA-EIA	Watering ***1123***	2	22
LBA-EIA	Watering ***1124***	2	6
Total		144	

Table 70: TUL021 NISP per feature

Quantification

C.2.22 Table 71 quantifies the NISP by species and feature. In most features the quantity of bone or teeth fragments is very low, with the exception of a larger collection of sheep/goat bones from pit ***502*** and, to a lesser degree, the bone from ditch ***1014***. In all

other features, the inclusion of bone is thought to be the result of background deposition of faunal remains from activities in the general vicinity. Most bones recorded as sheep/goat are most likely to be of sheep, in-line with the nation norm (Maltby 1981, 159-161), although some of those of put ***502*** were identified as goat. Similarly, equine bones are likely to be of horse. Donkey and mule considered to be a Roman introduction to Britain, although their presence in Roman and later assemblages appears to have been underestimated in archaeozoological reports (Clutton-Brock 1992, 117; Johnson 2006, 183-4).

Condition

C.2.23 the bone is in a generally robust state, with approximately 50% or less of the bone surface eroded, but fragmented with normally less the 25% of the complete bone present. The exceptions to this is the more fragile material from ring gully 1016 and ditch 1033, and the greater level of surface erosion on material from watering hole 1154 and layer 1147. However, no obvious instance of reworked bone was identified. However, no obvious instance of reworked bone was identified.

Discussion

C.2.24 The proportion of species within the archaeological bone is unlikely to be representative of the live flocks and herds of each period. The age of five to six animals were estimated from the wear patterns of mandibular teeth, detailed in Table 72. The pig remains from pit ***1132*** are like to be the same individual. Only two rib fragments were recorded with butchery marks, of a large (cow) sized mammal and a medium (sheep) sized mammal. Both had knife marks upon them from filleting the meat from the rib.

Species	Feature	Element	Age
Cattle	Ring gully 1016	Loose third molar	18 to 30 months
	Watering hole ***1124***	Loose third molar	Old adult
Sheep/goat	Pit ***502***	Mandible	1-2 years
	Layer ***1147***	Mandible	4 to 8 years
Pig	Ditch ***1014***	Mandible	6 to 12 months
	Pit ***1132***	Loose third molar	Over 1 year
	Pit ***1132***	Mandible	Over 1 year

Table 71: TUL021 age estimates derived from the wear pattern of mandibular teeth

C.2.25 Two deposits of animal bone were identified as articulated or associated bone groups (ABG's) as defined in Hill (1995, 27-29), and are worthy of further discussion. They include:

Pit **502**

An oblong feature measuring 0.7m by 0.38m in size and 0.18m deep. Within the second of its two fills were 78 sheep or goat bones, with two first phalanxes (toe bones) identified as of goat. Although a number of fragments were present, the material was highly fragmented with only the phalanxes and some of the metapodials being complete or near complete. Figure 1 presents the minimum number of elements (MNE) of each bone present. The remains of at least two animals were deposited in the pit, based the metacarpal and metatarsal bones in Figure 1. In addition to the bones in Figure 1, 12 first phalanges, nine second phalanges and four third phalanges were present. These are excluded from Figure 1, as there is eight of each per individual. No rib or vertebra fragments, bar the upper two cervical vertebra (atlas and axis), were present. A fragment of a right sheep, goat or roe deer pelvis may also belong to one of the individuals.

Species	**Ditches**						**Pits**									**Layers**		**Ring Gully**	**Watering Holes**			**Tot**
	509	***577***	***1014***	***1023***	***1158***	**1166**	***502***	***514***	***517***	***519***	***558***	***568***	***578***	***1003***	***1132***	***1147***	***1148***	**1016**	***1122***	***1123***	***1124***	
Equus sp																	1					**1**
Cattle			7			1										1	11	2	2	1	2	**27**
Pig			7	1								1	1	7	10		1	1				**29**
Sheep/Goat	1					1	75			1					1	2	2			1		**85**
Goat							3															**3**
Cattle/Red Deer			16														5				1	**22**
Sheep/Goat/ Roe Deer							6															**6**
Medium Mammal	3	1		1		10	7		2			2		3	4	1	4		1			**39**
Large Mammal			57		1			1			1					11	16	11	1	14	3	**116**
Unidentified Mammal			28		1	5	60							68	3	5	22	4		6		**202**
Unidentified Bird										1												**1**
Total	4	1	115	2	2	17	151	1	2	2	1	3	1	78	18	20	62	18	4	22	6	**530**
NISP Identified to a Species Level or Low Order Group	**1**		**14**	**1**		**2**	**78**			**1**		**1**	**1**	**7**	**11**	**3**	**15**	**3**	**2**	**2**	**2**	**144**

Table 72: TUL021 NISP by species and feature

C.2.26 These bones would appear to be deposited as primary butchery waste, after initial processing of the carcasses, with the vertebrae, ribs and major limb with meat still attached removed elsewhere. The pattern of tooth wear on one mandible, probably of a goat, suggests that one of these animals would have been between one and two years of age. Epiphysial fusion suggests that a second animal was less than a year in age, probably a relatively new-born lamb or kid.

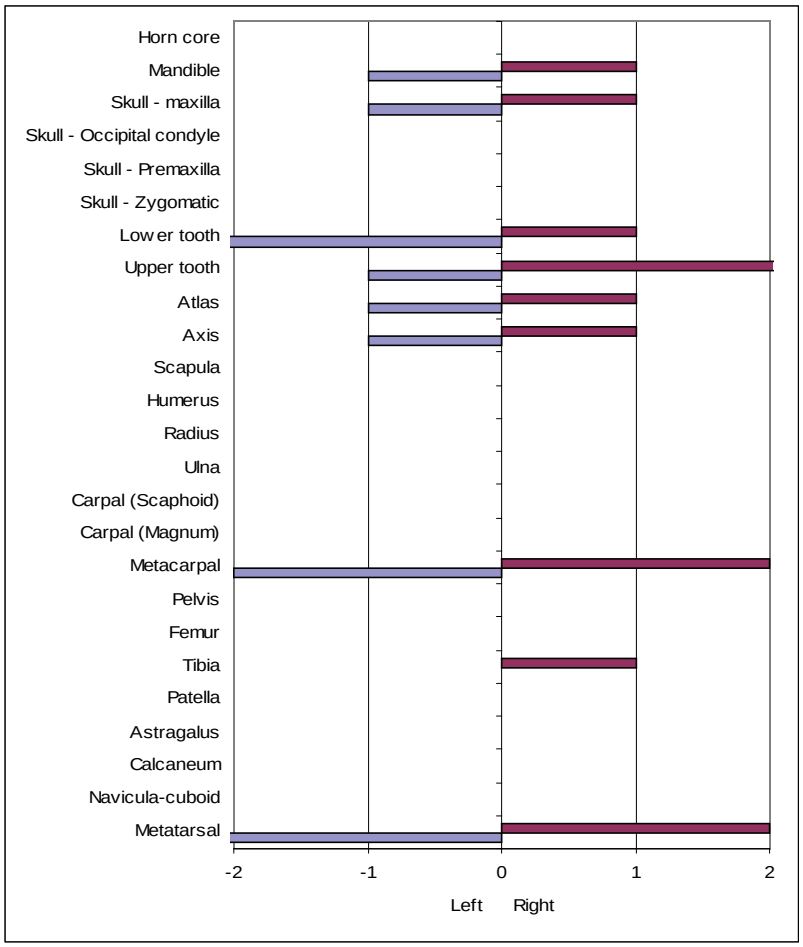


Table 73: TUL021 the MNE of sheep/goat bone from Pit **502**, excluding phalanxes

Ditch **1014**

C.2.27 A number of vertebra fragments attributed to cattle/red deer or large mammal were excavated from deposit 1015, the lower of two fills within ditch **1014**, detailed in Table 74. The NISP value in Table 74 maybe regarded as the maximum number of vertebra, and MNE as the minimum. The vertebrae were to fragmented for it to be seen if they originally articulated, but it is not infeasible that some or all of these vertebra came from a single animal. No butchery marks were observed upon these bones.

C.2.28 This material forms a tentative ABG, but may hint at middens in the vicinity. Other bones from this deposit include cattle maxillary and mandibular teeth, three fragments of pig mandible, and a fragment of pig ulna and skull.

Vertebra	NISP	MNE	Number in one cow or red deer
Cervical	5	3	7
Thoracic	3	2	13
Lumbar	1	1	6
Sacrum	1	1	1

Table 74: TUL021 NISP of cattle/red deer or large mammal vertebra from Ditch **1014**

WTG018

Introduction

C.2.29 Six animal bones weighing 417g were excavated from five deposits. The material was identified using the reference collection held by the author. Tooth wear development for mandibular teeth for cattle were recorded following Halstead (1985).

C.2.30 The condition and fragmentation of the bone was recorded, as represented by surface erosion, how robust the bone was, dulled or sharp edges, the percentage of the original bone present and the overall fragment size.

Discussion

C.2.31 The bone was in a moderate to good state or preservation. The level of erosion to the surface of the bone varied between deposits from over 50% to less than 50%. Deposit ***610*** contained most of a cow mandible and a sheep or goat mandibular molar. The mandible was from a young animal between 18 and 30 months old. It had a knife mark upon it from where the jaw had been removed from the skull. Similarly, deposit ***630*** contained a cow metatarsal with a chop mark mid-shaft, from the dismemberment of the lower hind leg. In addition, two large mammal (cow) sized bone splinters and a cow or red deer scapulae fragment and were recovered from deposits ***645*** and ***673*** respectively.

WTL010

Introduction

C.2.32 In total, 237 bone and teeth fragments, or number of individual specimens (NISP), weighing 2kg were excavated from 21 features or layers (Table 75). All of this material was retrieved by hand collection. The animal bone is quantified and discussed by period and feature or layer.

Period	NISP Identified to a Species Level or Low Order Group	Total NISP
Prehistoric	5	25
Prehistoric?	1	36
Late Bronze	1	1

Age		
Late Bronze Age/Iron Age	3	10
Late Iron Age/Roman	30	120
Undated	18	46
Total	58	238

Table 75: WTL010 NISP per period

Quantification

C.2.33 most of the material was attributed to the late Iron Age or Roman periods (Table 76). The total number of bones recovered from the site is very low, with a maximum of nine identifiable bones from one feature. The inclusion of bone within these features or layers is likely to be the result of background deposition of faunal remains, derived from activities in the vicinity, or the incidental inclusions of amphibians. No articulated or associated bone groups (ABG's), as defined by Hill (1995, 56-61), were identified within the animal bone, with the possible exception of two articulating cattle bones are discussed below.

Species	**Prehist**	**Prehist?**	**LBA**	**LBA/IA**	**LIA/ Roman**	**Undated**	**Total**
Equus sp	1				3	1	5
Cattle	1	1	1	2	17	7	29
Pig					2	2	4
Sheep/Goat	2			1	8	7	18
Dog						1	1
Cattle/Red Deer	1			3	2		6
Sheep/Goat/Roe Deer					1	1	2
Cat Sized Mammal						2	2
Medium Mammal	12				15	13	40
Large Mammal	3	35		4	66	1	109
Unidentified Mammal	4				6	9	19
Frog/Toad						2	2
Total	24	36	1	10	120	46	237
NISP Identified to a Species Level or Low Order Group	4	1	1	3	30	18	57

Table 76: WTL010 NISP by species and period

Condition

C.2.34 Table 76 presents summary data on the condition of the bone which is generally in a robust state, but highly fragmented and with consistently over 50% of bone surface eroded. The small number of bones attributed to the prehistoric period are generally in a worse condition than the remainder of the material.

Period	Robustness	Fragmentation	Surface Erosion	Butchered Bone	Burnt Bone
Prehistoric	0.48	0.17	>50%	-	-
LBA/IA	0.7	0.19	>50%	0.4%	-
LIA/Roman	0.62	0.236	>50%	-	0.4%

Table 77: WTL010 condition of the animal bone by period presented as normalised values, raw data or as a percentage of the total number of bones

Discussion

C.2.35 Most of the bones recorded as sheep/goat are most likely sheep, in-line with the national norm (Maltby 1981, 159-161). Similarly, equine bones are most likely to be of horse rather than donkey or mule, although the presence of donkey and mule in Roman and later assemblages has been underestimated in archaeozoloogical reports (Clutton-Brock 1992, 117; Johnson 2006, 183-4).

C.2.36 Of the late Iron Age/Roman period, 33 of the total NISP of this period were excavated from Ditch **222**. This number has most likely been exaggerated by what is probably part of a single cow skull broken into numerous fragments, three of which were identified as of cattle.

C.2.37 Two articulating cattle bones include the upper part of a metatarsal and a navicula-cuboid or the lower left leg, excavated from a late Iron Age/Roman Ditch **222**. These are not an obvious candidate for deliberate deposition, but may have been still attached to each other when they entered the ditch. A single bone had a butchery mark upon it, a cow radius with a dismemberment mark adjacent to the upper (proximal) articulation. The age of death of an animal, estimated from the wear pattern of mandibular teeth, could be undertaken in four cases detailed in Table 78. However, there are to few to make interpretative comments on husbandry of animals.

Period	Feature	Species	Age
Late Iron Age/Roman	Ditch 220	Cattle	Old adult
Prehistoric	Pit 232	Sheep/Goat	3-4 years
Late Iron Age/Roman	Pit 230	Sheep/Goat	1-3 years
Undated	Feature 226	Sheep/Goat	4-6 years

Table 78: WTL010 age estimates derived from the wear pattern of the mandibular teeth

KDG038

Introduction

C.2.38 In total, 53 bone fragments, or number of individual specimens (NISP), weighing 247g were recovered five feature (Table 79). Of these bone fragments, three were identified to a species level of low order group (Table 79). No butchered bones, teeth from which the age of the animals could be estimated, pathologies, or congenital traits were recorded.

Feature	NISP Identified to a Species Level or Low Order Group	Total NISP
Pit ***6***		**2**
Ditch ***40***	2	**5**
Ditch ***56***		**1**
Ditch ***55***	1	**1**
Ditch ***63***		**4**
Feature	**3**	**13**

Table 79: KDG038 NISP per feature

Discussion

C.2.39 Generally the bone was in a robust condition, but highly fragmented and with 50% or more of its surface eroded. The exception to this was the material from ditch ***63***, which was poorly preserved and more fragile.

C.2.40 Table 80 quantifies the NISP by species and feature. In each, the quantity of animal bone is low with the maximum number of five bone fragments from one feature. No articulating bone or associated bone groups were identified which might indicate deliberate acts of deposition. The material is likely to represent the background deposition of bone from activity in the general vicinity. The three identifiable bones comprised two equid metatarsals fragments from ditch ***40,*** and a cow metacarpal fragment from ditch ***55***.

Species	Pit	Ditches				**Total**
	6	***40***	***46***	***55***	***63***	
Equus sp		2				**2**
Cattle				1		**1**
Medium Mammal	1		1			**2**
Large Mammal		3				**3**
Unidentified Mammal	1				4	**5**
Total	2	5	1	1	4	**13**
NISP Identified to a Species Level or Low Order Group		**2**		**1**		**3**

Table 80: KDG038 NISP by species and feature

WIX021

Introduction

C.2.41 Excavation recovered 407 animal bone or teeth fragments, or Number of Individual Specimens (NISP), weighing 1.2kg. The bone was retrieved by hand collection and from soil samples. Most of the bone has not been phased, with the exception of the bone from Bronze Age ditch ***208*** and Roman post hole structures 152 and 194. Therefore, for the purposes of this assessment, the bone has been grouped together by cut number or master number where feasible. This assessment quantifies the potential of the bone for analysis, assess its potential to contribute to specific research questions, and makes recommendations for the analysis.

Quantification

C.2.42 of the 407 bone and teeth fragments, 59 (16%) were identified to a species level or low order group (Table 81 and 82). In total, 43% of the bone was collected from 18 soil

samples. The figures in Tables 81 and 82 present too small a sample size to be considered representative of the domestic livestock maintained in each period.

Condition

C.2.43 the animal bone was generally in a robust state, with the majority of bones having approximately 50% or less of its surface eroded, although normally fragmented with less than 25% of the complete bone present. The exception to this was bone from Bronze Age Ditch **208**, recorded as in a poor condition and highly eroded, and tree throw **249**, which was also highly eroded. This may have more to do with the level of exposure prior to burial than these bones being reworked from earlier periods. There were no bones with butchery marks upon them, and only one burnt bone (Table 83).

Conservation and Discard Policy

C.2.44 The animal bone requires no specialist conservation measures. The material should be stored in dry conditions in acid free bags with the relevant site code, context, small finds and sample number marked on the bag where appropriate. These in turn should be within acid free boxes, marked with the site code and material group and containing appropriate box lists, placed in a storeroom of a constant temperature and humidity.

C.2.45 All of the bone should be retained, with the exception of any modern or unstratified material which have no interpretative value.

Potential for Further Work

C.2.46 The number of potential data concerned with the mortality of the principal stock animals, in the form of records of tooth wear and epiphysial fusion states, biometric records, used to assess the size, differentiate between breeds and in some cases assess the male:female ratio of the stock, and butchery records are few to non existent (Table 83). One pathological specimen was present, a sheep or goat metacarpal with extensive exostosis around its proximal articulation. No articulated or associated bone groups (ABG's), as defined by Hill (1995, 56-61), were identified within the animal bone.

C.2.47 There is no real potential for the animal bone to contribute to a discussion of the husbandry strategy practised in the Bronze Age or Roman periods, although the record of the bone does contribute to a wider data set. The pig teeth measurements from three pig mandibles maybe compared to wild boar following the methodology set out in Payne and Bull 1988.

Recommendations

C.2.48 Some further work should be done to identify the small mammal bones to species where feasible, using the reference material held in the Department of Archaeology at the University of Sheffield.

C.2.49 A short report should be compiled for publication of the site. This would present a brief account of the bones present, the age of death of animals where possible, details of the pathological specimen, and a comparison of the pig teeth to those of wild boar.

Species	Ditches												Pits			post hole structures			Buried soils			Tree holes				Total
	9	*12*	*23*	*33*	*36*	*70*	*72*	*73*	*76*	148	*166*	*208*	*38*	*79*	*157*	66	152	194	*18*	*127*	*163*	*10*	*135*	*161*	*249*	
Cattle			1						1		1			2				1				1	4			**11**
Pig			1	4				1	1					10		4		1				3	6			**31**
Sheep/Goat								1	1					1		3	1						4			**11**
Sheep																				1						**1**
Dog														1												**1**
Roe Deer	1																									**1**
Sheep/Goat/Roe Deer											1															**1**
Cat Sized Mammal																2										**2**
Medium Mammal			1	3	1			5	1	4			1	6		7		1				2			11	**43**
Large Mammal		3				2	1	1	4		1			6	1	4							2	5		**30**
Unidentified Mammal		5	1						2		3	1		2	3	40		1			2		1		29	**90**
Dom. Fowl/Pheasant														1												**1**
Galliform														2												**2**
Bird														1												**1**
Frog/Toad																			3							**3**
Frog																			2							**2**
Total	**1**	**8**	**4**	**7**	**1**	**2**	**1**	**8**	**10**	**4**	**6**	**1**	**1**	**32**	**4**	**60**	**1**	**4**	**5**	**1**	**2**	**6**	**17**	**5**	**40**	**231**
NISP identified to a species level or low order group	**1**		**2**	**4**				**2**	**3**		**1**			**14**		**7**	**1**	**2**	**2**	**1**		**4**	**14**			**58**

Table 81: WIX021 NISP by species and feature collected by hand

Species	Ditches			Pits			Post holes				Buried soils			Tree hole	Total
	36	*72*	*73*	*31*	*38*	*79*	66	101	152	194	*18*	*163*	*127*	*235*	
Pig	1														**1**
Sheep/Goat					1		1								**2**
Sheep/Goat/Roe Deer					2										**2**
Rodentia sp							1								**1**
Medium Mammal						3	8								**11**
Large Mammal											1				**1**
Small Mammal			1		1		2					2			**6**
Unidentified Mammal	2	8	25	3		12	23	1	13	8	5		23	15	**138**
Frog/Toad						1	4				7				**12**
Frog			1								1				**2**
Total	**3**	**8**	**27**	**3**	**4**	**16**	**39**	**1**	**13**	**8**	**14**	**2**	**23**	**15**	**176**
NISP identified to a species level or low order group	**1**		**1**		**3**		**2**				**1**				**6**

Table 82: WIX021 NISP by species and feature collected from soil samples

Species	Tooth Wear	Fusion	Butchery	Biometric
Cattle	-	2	-	2
Sheep/Goat + Sheep	2	1	-	2
Pig	4	5	-	3

Table 83: WIX021 NISP from which tooth wear, epiphyseal fusion, butchery and biometric data may be obtained of the principal stock animals

C.3 Environmental Remains

By Rachel Fosberry

Introduction and methodology

C.3.1 Bulk samples were taken from features within the excavated areas of seven sites. The samples were processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted in the tables.

C.3.2 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51+ specimens

11.1.1 Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

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

BYG029

Introduction

C.3.3 Five bulk samples were taken from across the excavated area at Kirtling Green. The total volume (up to thirty litres) of each sample was processed. Features sampled include a boundary ditch, pits and a post hole that were all undated and a pit that is possibly modern.

Results

Sample No.	Context No.	Cut No.	Flot Volume (ml)	Preservation	Cereals	Chaff	Legumes	Weed Seeds	Snails	Small Bones	Charcoal <2mm	Charcoal > 2mm	Small animal bones	Large animal bones
1	110	111	10	charred	0	0	0	0	0	0	++	++	0	0
2	114	115	270	charred	0	0	0	0	0	0	+++	+++	0	0
3	128	130	50	charred	##	##	0	#	0	##	++	+++	## (bird)	0
4	138	135	20	waterloggged	0	0	0	#	####	0	0	0	0	0
5	179	180	5	charred	0	0	0	0	0	0	++	+	0	##

Table 84: BYG029 environmental samples

C.3.4 Five bulk samples were taken from across the excavated area at Kirtling Green. The total volume (up to thirty litres) of each sample was processed. Features sampled

include a boundary ditch, pits and a post hole that were all undated and a pit that is possibly modern.

C.3.5 The only sample to contain significant charred plant remains is Sample 3, fill 128 of pit **130; o**ccasional charred grains and chaff elements of barley (*Hordeum* sp.) and wheat (*Triticum* sp.) occur along with charred grass stems and several bones of a medium-sized bird. The remaining samples did not produce interpretive plant remains. Sample 2, fill 114 of possibly-modern pit **115** was entirely comprised of wood charcoal. Samples 1 (fill 110 of post hole **111**) and 5 (fill 179 of pit **180**) contain sparse charcoal only. Sample 5 was originally thought to be a cremation due to the presence of calcined bone. Identification of the bone has been inconclusive at determining whether it is animal or human.

C.3.6 Sample 4, fill 138 of boundary ditch **135**, contains plant material preserved by waterlogging predominantly roots, small twigs, leaf fragments and occasional seeds of bramble (*Rubus* sp.)

Discussion

C.3.7 The environmental samples from Kirtling green show that, where present, plant remains have been preserved by both carbonisation and by waterlogging. The few cereal grains and chaff recovered from Sample 3 suggest that fill 128 contains the burnt remains of small-scale crop processing. The waterlogged plant remains in Sample 4 indicate that boundary ditch 135 has remained wet although it is not clear whether the plant remains are contemporary or modern contaminants. The general lack of plant remains in most of samples precludes further interpretation.

Further Work and Methods Statement

C.3.8 In summary, the plant remains recovered are from undated features and do not contribute much to the interpretation of this site. No further work on this plant assemblage is required.

BYG030

Introduction and Methods

C.3.9 Three bulk samples were taken from features within the site.

Results

Sample	Context	Cut	Feature Type	Flot Contents
1	152	154	Pit	Abundant charcoal
2	168	169	Pit	Fragment of indet. Grain, sparse charcoal
3	167	169	Pit	Single wheat grain, sparse charcoal

Table 85: BYG030 environmental samples

C.3.10 Preservation is by charring. The flot of Sample 1, fill 152 of Pit **154** has a volume of 320ml and is entirely comprised of wood charcoal with fragments up to 1cm in size. Samples 2 (168) and 3 (167) of Pit **169** both contain single grain fragments, tentatively identified as wheat (*Triticum* sp.) and sparse charcoal. Sample 3 if from the lower fill of Pit **169** and contains more charcoal than Sample 2 but the volume (less than 1ml)

cannot be considered significant. Both sample residues from Pit **169** contained large quantities of cremated human bone.

Discussion

C.3.11 Samples 2 and 3 represent a human cremation that had been deposited in Pit **169**. The general lack of charred plant remains suggest that the bone had been carefully picked out of the cremation pyre as very little pyre material appears to have been included. The grain fragments could have been residual and accidentally included in the fill of the pit.

C.3.12 Sample 1 was taken from the upper fill of Pit **154**. The lower fill of this pit has been described as having evidence of burning but wasn't sampled. The upper fill is consistent with this interpretation; the charcoal being of wood derivation.

Further Work and Methods Statement

C.3.13 No further work is required on these samples.

BRL026

Introduction and Methods

C.3.14 Three bulk samples were taken from features within the excavated areas of the site at Little Bradley in order to assess the quality of preservation of plant remains. The features sampled include an undated pit and a pit that contained beaker pottery.

C.3.15 The total volume (up to ten litres) of each sample was processed by water flotation and the presence of any plant remains or other artefacts are noted on Table 86.

Results

Sample No.	Context	Cut	Feature Type	Flot Contents
1	127	128	Pit	Sparse charcoal
2	129	130	Pit	Sparse charcoal
3	134	130	Pit	Charred seeds

Table 86: BRL026 environmental samples

C.3.16 Preservation is by charring. Flot volumes were extremely small in volume (1ml). Charred seeds of parsley-piert (*Aphanes arvensis*), common sorrel (*Rumex acetosa*) and nettle (*Urtica dioica*) are present as single specimens.

Discussion

C.3.17 The three samples from this site were taken from two features; Pit 128 (Sample 1) was devoid of plant remains other than sparse charcoal. Pit 130 had two fills sampled; Sample 2, fill 129 contained a small amount of charcoal and Sample 3, the lower fill 134 of pit 130 contains charred seeds that are of weed plants commonly found on acidic soils. This fill has been interpreted as an intentional dump of waste material and it would appear that these plants have been accidentally burnt, probably with fuel in a fire.

Further Work and Methods Statement

C.3.18 No further work is required on these samples.

TUL021 (Little Thurlow)

Introduction and Methods

C.3.19 A total of fourteen bulk environmental samples were taken during excavations at Little Thurlow. The total volume (up to forty litres) of each sample was processed and the presence of any plant remains or other artefacts are noted on Table 87.

Results

Sample	Context	Cut	Field	Feature Type	Flot Contents
1006	1148	1125	36	Water hole	Sparse charcoal
1007	1150	1124	36	Water hole	Sparse charcoal
1008	1151	1124	36	Water hole	Sparse charcoal
1009	1153	1123	36	Water hole	Sparse charcoal, molluscs
1003	1067	1066	38	Tree throw	charcoal
500	504	502	39	Pit	Charred wheat grain, charcoal
501	535	535	39	Ditch	Sparse charcoal
502	560	558	39	Pit	Charred wheat grain, charcoal
503	563	564	39	Ditch	Single charred wheat grain, Charcoal
504	518	519	39	Pit	Single charred wheat grain, Charcoal
1001	1009	1008	44	Gully	Charred wheat grain, charcoal
1002	1013	1012	44	Gully	Sparse charcoal
1004	1095	1094	44	Ditch	Charcoal (abundant)
1005	1133	1132	44	Pit	Sparse charcoal

Table 87: TUL021 environmental samples

Field 36

C.3.20 Four samples from a series of intercutting waterholes were found to contain only charcoal with no evidence of preservation by waterlogging. Sample 1009, fill 1153 of waterhole **1123** did contain wetland species of molluscs as evidence that this feature did once contain water.

Field 38

C.3.21 A single natural feature, possibly a tree throw, produced charcoal only.

Field 39

C.3.22 Preservation is by charring. Charcoal is present in all of the samples in varying quantities; Sample 500, fill 504 of Pit **502** and Sample 503, fill 563 of Ditch **564** contain the most charcoal with volumes of approximately 50ml in each flot.

C.3.23 Charred cereal grains are present in most of the samples. The compact and rounded morphology of the wheat grains suggests bread/club wheat (Triticum aestivum-compactum). The grains are most common in Sample 502, fill 560 of pit 558 and to a lesser extent in Sample 500 which also contains a single barley (Hordeum sp.) grain and a fragment of pea (Pisum sp.).

C.3.24 Charred weed seeds are rare and consist of grass seeds (Poaceae) that occur as single specimens in Samples 500 and 502.

Field 40

C.3.25 Three samples from a ring gully of a possible Iron Age roundhouse and a single sample from an associated pit were found to contain only charcoal and sparse poorly-preserved wheat grains.

Discussion

Field 39

C.3.26 The pit fills are generally more productive than the ditch fills and they most likely represent the discard of domestic hearth waste. The charred plant assemblage is comprised of charcoal and cereal grains. Wheat is most likely to have been utilised as flour for making bread. Harvested and cleaned grain was precious and would only have been discarded if it had become spoilt by getting wet or if it had been accidentally burnt. There is no evidence of the grains having germinated and it is concluded that the charred plant assemblage from this site represents the discard of burnt domestic hearth waste.

Fields 36, 38 & 40

C.3.27 The charred plant assemblage from these samples is predominantly charcoal which provides evidence of burning only.

Further Work and Methods Statement

C.3.28 No further work is required on these samples.

KDG038

*Introduction and Method*s

C.3.29 Three bulk samples were taken from features within the excavated areas of the site (Fields 15 and 16) and in order to assess the quality of preservation of plant remains from an undated boundary ditch and for the retrieval of human remains from a possible prehistoric cremation pit.

C.3.30 The total volume (up to thirty litres) of each sample was processed and the presence of any plant remains or other artefacts are noted in the Table 88.

Results

Sample	Context	Cut	Feature Type	Flot Contents
1	7	6	Pit	Charcoal
3	65	55	Ditch	Sparse charcoal
4	68	69	Ditch	Sparse charcoal, elderberry seeds (untransformed)

Table 88: KDG038 environmental samples

C.3.31 Sample 1, fill 7 of Pit **6** in Field 16 contained a small volume (2ml) of charcoal, most likely derived from the burning of shrub wood due to the presence of a small twig. Calcined bone was recovered from the residue.

C.3.32 The samples from the ditches in Field 15 contain sparse charcoal and, in addition, Sample 4, fill 68 of Pit **69** also contains eight seeds of elderberry (Sambucus nigra). These seeds are not charred and are either modern contaminants or they have been

preserved by waterlogging despite the lack of any other waterlogged material being present.

Discussion

C.3.33 Sample 1 from Pit **6** was originally thought to have been a human cremation. Analysis of the calcined bone has shown that it is most likely to have been a sheep and the presence of charcoal in this sample suggests that the fill represents the discard of a fire used to cook the meat.

C.3.34 Sample 4 contains elderberry seeds that may have survived in the deposit by differential preservation. Elderberry seeds are known to be extremely durable and contain toxins that make them more resistant to microbial decay. Alternatively, they could be modern.

Further Work and Methods Statement

C.3.35 No further work is required on these samples.

WTL010

Introduction and Methods

C.3.36 Thirty five bulk samples were taken from features within the excavated areas of the site (Fields 18/19, 22, 23, 25 and 26) in order to assess the quality of preservation of plant remains from an undated boundary ditch and for the retrieval of human remains from a possible prehistoric cremation pit.

C.3.37 The total volume of the cremation samples and ten litres of the remaining bulk samples was processed (Table 89).

Sample No.	Context No.	Cut No.	Feature Type	Flot Volume (ml)	Preservation	Cereals	Weed Seeds	Charcoal <2mm	Charcoal > 2mm	Charcoal > 10mm	Flot comments
1	108	109	vessel fill			0	0	0	0	0	
2	10	109	pit			0	0	0	0	0	
3	103	104	ditch			0	0	0	0	0	
4	146	147	pit			0	0	0	0	0	
5	157	156	pit			0	0	0	0	0	
6	158	156	pit			0	0	0	0	0	
7	112	113	post hole			0	0	0	0	0	
8	114	115	post hole			0	0	0	0	0	
9	204	206	pit			0	0	0	0	0	
10	211	212	ditch			0	0	0	0	0	
11	229	230	pit			0	0	0	0	0	
12	241	242	pit			0	0	0	0	0	
13	213	214	ditch			0	0	0	0	0	
14	238	239	ditch			0	0	0	0	0	
15	225	226	ditch			0	0	0	0	0	
16	311		layer			0	0	0	0	0	
17	308	309	ditch			0	0	0	0	0	
18	325	315	layer			0	0	0	0	0	
19	409	404	ditch			0	0	0	0	0	
500	518	519	cremation	5	charred	#	0	+++	+++	0	single indet grain
501	516	517	cremation	20	charred	#	#	+++	+++	0	2 wheat grains, 5

											Arrhenatherum elatius tubers
502	510	511	cremation	190	charred	0	##	+++	+++	++	several A. elatius tubers, Chenopodium
503	520	521	cremation	60	charred	0	###	+++	+++	++	several A. elatius tubers, Chenopodium sp. , Montia sp.
504	514	505	cremation	170	charred	0	0	+++	+++	++	
505	533	535	pit	2	charred	0	0	+	+	+	charcoal only
506	510	511	vessel fill			0	0	0	0	0	
507	512	513	post hole	1	charred	#	#	++	+	0	A. elatius, ½ barley grain
508	568	569	pit	25	charred	#	0	+++	+++	++	single indet grain
509	656	567	post hole	2	charred	0	0	+++	++	0	charcoal only
510	658	659	post hole			0	0	0	0	0	
511	660	661	post hole	1	charred	0	0	++	+	0	charcoal only
512	662	663	post hole	1	charred	0	0	++	0	0	charcoal only
513	692	511	vessel fill			0	0	0	0	0	
514	692	511	vessel fill			0	0	0	0	0	
515	692	511	vessel fill			0	0	0	0	0	

Table 89: WTL010 environmental samples

Results

Field 18/19

C.3.38 A single sample (Sample 19) from fill 409 of prehistoric Ditch **404** contains sparse charcoal and occasional charred stems.

Field 22

C.3.39 Three samples were taken from medieval features. Preservation is by carbonisation and is generally poor. Sample 16, layer 311 is comprised of snails only. Sample 18, layer 315 contains charcoal and an abraded cereal grain. Sample 17, fill 308 of Ditch **309** contains cereal grains that have also been abraded.

Field 23

C.3.40 Preservation is by carbonisation with the addition of mineralised fly pupae remains in Sample 10, fill 211 of prehistoric Ditch **212**. Preservation is generally poor with cereal grains being mostly too abraded and fragmented for identification to species. Where cereal grains are whole they have been identified as wheat (Triticum sp.) grains. Sample 15, fill 225 of Ditch **226** is unusual in that the cereal grains appear to have been heated at a very high temperature and have been crushed into tiny fragments. They are only identifiable as cereal grains due to their characteristic honeycomb internal structure. Occasional weed seeds commonly found in cultivated fields were also noticed in this sample including vetches (Vicia sp.), rye-grass (Lolium sp.) and cleavers (Galium sp.).

Field 25

C.3.41 The samples in Field 25 were taken from prehistoric pits, ditches and post holes. Preservation is by carbonisation with charcoal present in most of the samples. Charred plant remains are scarce and consist of a single charred wheat grain, single specimens of prehistoric wheat glume bases and occasional seeds of cleavers.

Field 26

C.3.42 The samples from the cremation pits all contain substantial quantities of charred wood charcoal. Occasional charred cereal grains were noted in four of the deposits presumably as accidental inclusions when the pits were backfilled. Samples 501 (fill 516 of Pit **517**), 502 (fill 510 of Pit 511) and 503 (fill 520 of Pit **521**) charred tubers of false-oat/onion couch grass Arrhenatherum elatius subsp. bulbosus. Sample 503 also contains occasional seeds of blinks (Montia sp.), clover (Trifolium sp.) and goosefoot (Chenopodium sp.). Wood charcoal is most abundant in Samples 502 and 504 (fill 514 of Pit **505**).

Discussion

C.3.43 Preservation of charred plant remains across this site is generally poor. Where cereal grains have been recovered they have been abraded and difficult to identify. Their presence along with occasional crop weed seeds, indicates the disposal of domestic culinary activity.

C.3.44 The samples associated with the cremations are more interesting. The inclusion of grassland plants such as false-oat grass tubers, clover and blinks may be indicative of turf becoming charred at some point in the cremation process. Stevens (1998) proposes four scenarios in which this could have occurred; the bodies were burned directly on the ground thus charring the vegetation beneath, the pyres were turf clamped with cut turves used to increase the temperature of the pyre , dried turf was included as fuel and/or an area was de-turfed to create a fire break (necessary in area of dry, tall grass). In each case the pyre material could have been swept up with the cremated bone and deposited in the cremation pits.

Further Work and Methods Statement

No further work is required on these samples.

WIX021

Introduction

C.3.45 Fifty bulk samples were taken from features within the excavated areas of the site with Approximately ten litres (one bucket) of each sample was processed .

Results

C.3.46 Preservation is by charring with no evidence of preservation by waterlogging or mineralisation. Preservation of charred material is variable with some cereal grains appearing puffed and fragmented/abraded. Modern contaminants in the form of rootlets are present in many of the samples.

C.3.47 The charred plant remains in this assemblage are dominated by cereal grains which occur only sixteen of the samples, most of which are from deposits that have been dated to the Iron Age and Roman periods. Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) have been identified although preservation is generally poor and many of the cereal grains are abraded and fragmented making identification tentative. None of the samples contain significant numbers of cereal grains (less than ten grains per sample). A single glume base of either spelt/emmer (*T. spelta/dicoccum*) was noted in Sample 40, undated fill 223 of ditch **222**. No other chaff elements were recovered.

C.3.48 A single pea (*Pisum* sp.) was recovered from Sample 11, fill 80 (Roman) of pit **79**.

C.3.49 Weed seeds are also scarce. A tuber of false-oat grass (*Arrhentherum* sp) and a seed of sedge (*Carex* sp) was recovered from Sample 30, bronze Age cremation fill 153, of pit **155**.

C.3.50 Brome (Bromus sp.)seeds were noted in two samples from Sample 4, (pit **38**) and Sample14, (post hole **48**). A fragment of charred hazelnut (Corylus avellana) was noted in Sample 25, (post hole **144**) and a charred bramble (Rubus sp.) seed in Sample 39, buried soil 18.

Discussion

C.3.51 The plant assemblage from Waterhall Farm, Wixoe is poor with little interpretative value. The plants and associated remains of fish bones and scales from the post holes of structures Master number **66** and Master number **152** are most likely derived from the discard of culinary waste onto the open hearth which often accumulates in post holes as the dwelling is swept clean (Reynolds 1994).

C.3.52 The seeds of brome grass are often found in charred grain assemblages as the plants grow to the same height as the cereal crop and are a similar size to the cereal grain. They could have been tolerated as a crop contaminant as they are unlikely to greatly affect quality of flour.

C.3.53 Evidence for gathered food may be indicated by the fragment of hazelnut shell however although a foraged food, hazelnuts can occur in contexts of virtually any period and are of little interpretative significance.

C.3.54 The presence of tubers of false oat grass (also know as couch grass) in Bronze Age cremations is actually quite common. It is possible that the tubers have been incorporated into the pyre material by the creation of a fire-break formed by uprooting surrounding vegetation. The single sedge seed that became burnt may indicated the exploitation of wetland resources for fuel/kindling for the pyre.

Further work and methods statement

The low density of plant remains from the site is essentially uninformative, and is not considered to merit full analysis.

Sample No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Context No.	8	13	29	39	37	71	6	74	75	81	80	77	45	49	51	16	93	100	85	127	137	139	141	143	145	151	149	147	109	153	156	160	170	180	192	199	200	163	18	223	230	228	234	236	231	247	246		258	255
Cut No.	9	12	31	38	36	72	3	73	76	79	79	78	44	48	50	88	92	99	84		136	138	140	142	144	150	148	146	108	155	157	155	171	181	193	155	155			222	229	227	233	235	232	232	232		249	248
Sample Size (L)	20	20	20	20	20	20	20	20	20	30	30	30				20	4	5	20	30	10	10	10	10	10	10	20	10	10	30	20		10	10	10	1	1	30	30	30	20	10	20	10	160	30	30		30	30
Hordeum sp. (grains) (Barley)														#													#																							
Triticum sp. (grains) Wheat					#	#		#	#						#												#																							
Cereal indet. (grains)			#	#						#	#		#						#		#					#																							
Cereal indet. (glume base)																																								#										
Other food plants																																																		
Pisum sativum (Peas)											#																																							
Dry land herbs																																																		
Arhenatherum sp False oat grass																														#																				
Bromus sp. Brome				#										#																																				
Wetland/aquatic plants																																																		
Carex sp. Sedhe																														#																				
Tree/shrub macrofossils																																																		
Corylus avellana Hazel nut																									#																									
Rubus sp. Bramble																																							#											
Other plant macrofossils																																																		
Charcoal <2mm	+	+	++	+	++	+	+	+++	+	+++	+++	+	++	++	++	++	+	++	+	+		++	+	+	++	++	+++	++	+	+++	+++		+	++	++ +			+		+		+		+++	+++	+	+		+	+++
Charcoal >2mm			++		++	+	+++	+++	+	+++	+++	+	+	++	++	+		++				+			+	++	+++	+	+	+++	+++		+	++	++						+		+++	++	+	+		+	+++
Charcoal >10mm					++		+++	++		++	+++			+				+							+		++	+	+	+++	+++				++														++
Other remains																																																		
molluscs	##	##	#	###	#	##	##	#	##	##		#	#	#		#		#									##	#		#									##	###	##	#			#	#	#		##	#
Bone																																																		
Fishbone/fish scale										#				#	#								#/#																											
Volume of flot (litres)	2	2	2	10	10	1	10	20	5	20											1	1	1	1	1	1	20	1	1	50	105		1	2	25			1	10	2	5	2		10	2	1	1		1	45
% flot sorted																																																		

Table 90: WIX021 environmental samples

C.4 Shell

By Rob Akins

Introduction and Methodology

C.4.1 Shell was recovered from three sites:

WTG018

Context 673 1 oyster

WTL010

Context 225 1 oyster

Context 331 1 oyster

WIX021

Context 37 1 oyster

Context 75 3 oysters

Context 131 5 oysters

Context 132 10 oysters

Context 134 1 oyster

Appendix D. Product Description

Product number: 1
Product title: Full Report (Analysis and Publication)
Purpose of the Product: To interpret and analyse the archaeology and artefacts revealed and address the updated research aims of this assessment.
Composition: Published report in accordance with a relevant and appropriate journal and EH specified guidelines.
Derived from: Analysis and synthesis of the site archive in conjunction with specialist reports.
Format and Presentation: Monograph
Allocated to:
Quality criteria and method: Checked and edited by EP
Person responsible for quality assurance: EP
Person responsible for approval: EP
Planned completion date:

Product number: 2
Product title: Archive completion
Purpose of the Product: To collate all parts of the physical and paper archive and deposit with the relevant and appropriate body.
Composition: Site archive, photographs, artefacts & ecofacts.
Derived from: Primary site records and materials recovered from excavation.
Format and Presentation: Monograph
Allocated to:
Quality criteria and method:
Person responsible for quality assurance:
Person responsible for approval:
Planned completion date:

Appendix E. Risk Log

Risk Number: 1
Description: Specialists unable to deliver analysis report due to over running work programmes/ ill health/other problems
Probability: Medium
Impact: Variable
Countermeasures: OA has access to a large pool of specialist knowledge (internal and external) which can be used if necessary.
Estimated time/cost: Variable
Owner:
Date entry last updated:

Risk Number: 2
Description:non-delivery of full report due to field work pressures/ management pressure on Co-authors
Probability: Medium
Impact: Medium - High
Countermeasures: Liaise with OA Management team
Estimated time/cost: Variable
Owner:
Date entry last updated:

APPENDIX F. BIBLIOGRAPHY

Atkins, R.,	2012	*Excavations at Wixoe Roman Town (WIX022) Kirtling Green to Wixoe Pipeline Post-Excavation Assessment and Updated Project Design* OA East report 1283 vol 2 (unpublished)
Ballin, T. B.,	2002	Later Bronze Age Flint Technology: A Presentation and Discussion of Post Barrow Debitage from Monuments in the Raunds Area, Northamptonshire, Lithics, 23, 3-28
Ballin, T. B.,	2011	The levallois-like approach of Late Neolithic Britain: a discussion based on finds from the Stoneyhill Project, Arberdeenshire. In A. Saville (ed.) Flint and Stone in the Neolithic Period, 37-61, Oxford, Oxbow Books
Ballin, T. B. and Johnson, M.,	2005	Glentaggart, South Lanarkshire-Discussion of a Scottish Chert Assemblage and its Associated Technology, Lithics 26, 57-86
Barber, M., Field, D. and Topping, P	1999	The Neolithic Flint Mines of England, English Heritage
Barrett, J C and Bond, D,	1988	The pottery, in *Excavation at the North Ring, Mucking, Essex* (D Bond), East Anglian Archaeology **43**, Chelmsford, 25-37
Birmingham Archaeology	2008	PN:1873, Archaeological Fieldwalking
Birmingham Archaeology	2008	PN: 1873, Geophysical Survey 2008
Birmingham Archaeology	2010	PN: 1969, Archaeological Evaluation
Bishop, B.J.	2000	Excavations at Babraham Road, Cambridge. Site Code: CAM BAB 98. Unpublished Lithic Assessment
Bishop, B	2008	The Flint in Gilmore, N. ed. Excavation, Evaluation and Watching Brief at Linton Village College, Linton, Cambridgeshire, Post-Excavation Assessment, Unpublished Report OA East Report No: 1058
Bishop, B	2009	The Flint in Gilmore, N. ed. Excavation, Evaluation and Watching Brief at Linton Village College, Linton, Cambridgeshire, Post-Excavation Assessment, Unpublished Report OA East Report No: 1058
Bishop, B	Forth-coming	Lithic Report in Connor, A. and Mortimer, R. eds. Prehistoric and Roman Occupation Along the Fordham Bypass, Cambridge, East. Anglian Archaeological Report
Boesneck, J	1969	Osteological Differences between Sheep (Ovis aries Linne) and Goat (Capra hircus Linne), in D. Brothwell and E. Higgs (eds) 1969 *Science and Archaeology,* **2**, London
Booth, P.,	ND	Oxford Archaeology Roman pottery recording system: an introduction, revised 2007, unpublished document
Brickley, M and McKinley, J	2004	Guidelines to the standards for recording human remains IFA Paper No. 7 British Association for Biological Anthropology and Osteoarchaeology and the Institute of Field Archaeologists
British Geological Survey (GPS)	1991	1:50, 000 series England and Wales sheet 206 Sudbury Ordnance Survey of Great Britain
British Geological	2002	1:50, 000 series England and Wales sheet 205 Saffron Walden Ordnance Survey of Great Britain

Survey (GPS)		
Brown, N.,	1999	*The archaeology of Ardleigh, Essex: excavations 1955–1980*, East Anglian Archaeology **90**, Chelmsford
Brown, N. Knopp, D. and Strachan, D.,	2002	'The archaeology of Constable country: the cropmarks of the Stour Valley', *Landscape History* 24, 5-28
Brück, J	2006	Archaeological Research Fragmentation, Personhood and the Social Construction of Technology in Middle and Late Bronze Age Britain Cambridge Archaeological Journal 16:3, 297–315 McDonald Institute for Archaeological Research
Buikstra J.E and Ubelaker D.H.	1994	*Standards for Data Collection from Human Skeletal Remains. Arkansas Archaeological Survey Research Series No.44*
Butler, C	2005	Prehistoric Flintwork, Gloucestershire, Tempus
Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A.,	2006	Digital Seed Atlas of the Netherlands Groningen Archaeological Studies 4, Barkhuis Publishing, Eelde, The Netherlands.www.seedatlas.nl
Clark, J. G. D	1960	Excavations at the Neolithic Site at Hurst Fen, Mildenhall, Suffolk in the Proceedings of the Prehistoric Society 26, 202-245
Clark, J	1995	Horseshoes, in (ed) J Clark *The Medieval Horse and its Equipment,* c *1150*- c *1450*, Medieval Finds from Excavations in London, *5*, London, 75-123
Clutton-Brock, J	1992	*Horse Power*, London
Cohen, A, and Serjeantson, D.,	1996	*A manual for the identification of bird bones from archaeological sites*, London
Crummy, N.,	1983	*The Roman small finds from excavations in Colchester 1971-9*, Colchester Archaeological Report, 2, Colchester
Crummy, N.,	1987	*The post-Roman finds from the excavations in Colchester 1971-85* Colchester Archaeol. Rep. 5
Crummy, N.,	2005	From bracelets to battle-honours: military *armillae* from the Roman conquest of Britain, in N Crummy (ed), *Image, Craft and the Classical World. Essays in honour of Donald Bailey and Catherine Johns,* Monogr Instrumentum, **29**, Montagnac, 93-105
Cunningham, C M,	1985	A typology for post-Roman pottery in Essex, in *Post-medieval sites and their pottery: Moulsham Street, Chelmsford* (C M Cunningham and P J Drury), CBA Res. Rep. **54**, London, 1-16
Davies, J.,	2007	'The coins' in Emery, P., *Norwich Greyfriars:pre-Conquest town and medieval friary*, E. Anglian Archaeol. 120
Dickson, A. J. and Edmonds, M. E	2009	Flint and Other Stone Artefacts. In C. Fenton-Thomas (ed.) A Place by the Sea: Excavations at Sewerby Cottage Farm, Bridlington, 97-151, York, On-Site Archaeology Monograph No. 1.
Edmonds, M., Evans, C. and Gibson, D	1999	Assembly and Collection – Lithic Complexes in the Cambridgeshire Fenlands, in the Proceedings of the Prehistoric Society 65, 47-82
English Heritage	2006	Management of Research Projects,The MoRPHE Managers' Guide
English	2008	Management of Research Projects, PPN3: Archaeological Excavation

Heritage		
Evans, C, Knight, M. and Webley, L.,	2007	Iron Age settlement and romanisation on the Isle of Ely:the Hurst Lane reservoir site *Proc Cambridge Antiq. Soc.* XCV, 41-78
Finch, N	2010	Kirtling Green to Wixoe Pipeline Route Written Scheme of Investigation for Archaeological Works URS report (unpublished)
Gejvall, N-G	1947	*Bestämning av brända ben från forntida gravar. Fornvännen 42*, 39-47
Glazebrook, J. (ed.),	1997	*Research and archaeology: a framework for the Eastern counties 1. resource assessment E. Anglian Archaeol. Occ. Pap 3*
Going, C J,	1987	*The mansio and other sites in the south-eastern sector of Caesaromagus: The Roman Pottery*, CBA Res. Rep. **62**, London
Grant, A	1982	The use of toothwear as a guide to the age of domestic ungulates, in B Wilson, C Grigson, and S Payne (eds), *Ageing and sexing animal bones from archaeological sites*, BAR Brit Ser, **109**, Oxford, 91-108
Green, H. S	1984	Flint Arrowheads: Typology and Interpretation, in Lithics 5, 19-39
Guest, P.,	2003	'The Coins', in Hinman, M. *A late Iron Age farmstead and Romano-Brisish site at Haddon, Peterborough* BAR report 358 (British series)
Halstead, P, and Collins, P	1995	*Sheffield animal bone tutorial: Taxonomic identification of the principle limb bones of common European farmyard animals and deer: a multimedia tutorial,* Archaeology Consortium, TL TP, University of Glasgow
Halstead, P	1985	A study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, C French, D Cowther, D Gurney, G Simpson and M Taylor, *Fenland Project, No 1: Archaeology and Environment in the Lower Welland Valley, V1*, Cambridge, 219-24
Halstead, P	1992	Demi & DMP: faunal remains plus animal exploitation in late Neolithic Thassaly, *Annual of the British School of Athens*, **87**, 29–59
Hattatt, R	2000	*A Visual Catalogue of Richard Hattatt's Ancient Brooches*, Oxford
Hawkes, C F C and Hull, M R,	1947	*Camulodunum*, Soc. Antiq. Res. Rep. **14**, London
Hill, JD	1995	*Ritual and Rubbish in the Iron Age of Wessex: a study on the formation of a specific archaeological record* BAR Brit Ser **242**, Oxford
Holden, J.L., P.P. Phankey and J.G. Clement	1995	"Scanning electron microscope observations of heat-treated human bone." *Forensic Science International 74*: 29-45
Johnstone, C	2006	Those elusive mules: investigating osteometric methods for their identification, in M Mashkour *Equids in Time and Space*, Oxford
Kratochvil, Z	1969	Species Criteria on the Distal Section of the Tibia in *Ovis Ammon F. Aries* and *Capra Aegarus F. Hircus L.* , *Acta Veterinaria* (Brno), **389**, 483-90
Krawiec, K. and Mann, P.,	2010	*The Wixoe to Kirtling Green pipeline: archaeological evaluation report* Birmingham Archaeology report 1969 (unpublished)
Lister, AM	1996	The morphological distinction between bones and teeth of Fallow Deer (Dama dama) and Red Deer (Cervus elaphus), *Int Journ Osteoarchaeology*, **6**, 119-43
Mackreth, D.F.,	2001	*Monument 97, Orton Longueville, Cambridgeshire: a late pre-Rooman Iron Age and Early Roman farmstead* E. Anglian Archaeol. 97
Mackreth, D.F,	2011	*Brooches in Late Iron Age and Roman Britain* (two vols), Oxford

Maltby, JM	1981	Iron Age, Romano-British and Anglo-Saxon Animal Husbandry - A Review of the Faunal Evidence, in G Dimbleby and M Jones *The Environment of Man: the Iron Age to the Anglo-Saxon Period* Brit Archaeological Reports Brit Ser 87, 155-203
Margeson, S.,	1993	*Norwich households:the medieval and post-medieval finds from the Norwich survey excavations 1971-78* E. Anglian Archaeol. 58
Martin, E,	1983	*Settlements on hill-tops: seven prehistoric sites in Suffolk*, East Anglian Archaeology 65**,** Ipswich
McKinley, J.I.	1989	'Cremations: expectations, methodologies, and realities', in C.A. Roberts, F. Lee., and J. Bintliff, Burial Archaeology: *Current research, methods and developments*, Oxford, Brit. Archaeol. Rep. 211, 65-76
McKinley J	1994a	Bone fragment size in British cremation burials and its implications for pyre technology and ritual *Journal of Archaeological Science 21*: 339-342
McKinley, J	1994b	A pyre and grave goods in British cremation burials; have we missed something? *Antiquity 68*: 32- 4
McKinley, J	1997	Bronze Age 'barrows' and funerary rites and rituals of cremation in *Proceedings of the Prehistoric Society 63*: 129-145
McKinley, J	2000a	The analysis of cremated bone, in *Human Osteology in Archaeology and Forensic Science*, (eds M Cox and S Mays) 403-421 London
McLaren, A. P	2010	Household production in the Middle Bronze Age of southern and eastern England: the Mid Term Car Park (MTCP) assemblage, Stansted Airport, Essex, England, in Lithics, 31, 130-151
Medlycott, M.,	2011	Research and Archaeology Revisited: A Revised Framework for the East of England E.Anglian Occ Pap 24
Mernick, P., and Algar, D.,	2001	'Jettons or casting counters' in Saunders, P. (ed.) *Salisbury Museum Medieval Catalogue Part 3*
Mitchiner, M.,	1988	*Jetons, medalets and tokens:the medieval period and Nuremberg* (London: Seaby)
MPRG	2001	*Minimum standards for the processing, recording, analysis and publication of post-Roman ceramics*, Medieval Pottery Research Group Occasional Paper **2**
O'Donnabháin, B	1997	The Human Remains in A Bronze Age Cemetery Mound at Grange, Co. Roscommon Journal of Irish Archaeology Vol 8: 43-72
Payne, S	1973	Kill-off patterns in sheep and goat mandibles: the mandibles of Asvan Kale, *Anatolia Studies*, **23**, 281-303
Payne, S	1985	Morphological Distinctions between the Mandibular Teeth of Young Sheep, *Ovis*, and Goats, *Capra*, *Journal of Archaeological Science*, **12**, 139-47
Payne, S	1987	Reference codes for wear states in the mandibular cheek teeth of sheep and goats, in *Capra*, in *Journal of Archaeological Science*, **12**, 139-47
Payne, S, and Bull, G	1988	Components of variations of measurements of pig bones and teeth, and the use of measurements to distinguish wild from domestic pig remains, *Archaeozoologia*, **2(1,2)**, 27-66
PCRG	2011	*The study of later prehistoric pottery: general policies and guidelines for analysis and publications*, 3 edn, Occasional Paper No. 1 and No. 2, Prehistoric Ceramics Research Group
Plouviez, J.,	2004	'Discussion of the coins' in Blagg, T., Plouviez, J. and Tester, A., *Excavations at a large Romano-British settlement at Hacheston, Suffolk*, E. Anglian Archaeol. 106 (Ipswich), 83-5

Prummel, W, and Frisch, H-J	1986	A guide for the distinction of species, sex and body side in bones of sheep and goat, *J Archaeol Sci*, **13**, 567-77
Rackham, O	1986	The History of the Countryside: The Classic History of Britain's landscape, flora and fauna. Phoenix Press. London
Reece, R.,	1995	Site finds in Roman Britain *Britannia* XXVI, 179-206
Reece, R.,	2002	*The coinage of Roman Britain* (Stroud:Tempus)
Reynolds, P.,	1994	The life and death of a post hole, in *Interpreting Stratigraphy* (ed E Shepherd), Norfolk Archaeological Unit, Norwich, 21-25
Rigold, S.E.,	1977	'Jettons' in Clarke, H. and Carter, A., *Excavations in King's Lynn 1963-1970* The Society for Medieval Archaeology Monograph Series 7, 286-7
Schmid, E	1972	*Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists*, London
Serjeantson, D	1996	The animal bones, in S Needham and T Spence, *Refuse and Disposal at Area 16 East Runnymede: Runnymede Bridge research excavations, V2*, London, 194-223
Silver A	1969	The Ageing of Domestic Animals, in D Brothwell and E Higgs (eds), Science and Archaeology, 2, London, 283-301
Stace, C.,	1997	*New Flora of the British Isles*. Second edition. Cambridge University Press
Stevens, C	1998	Archaeobotanical remains in Evans, C. and Knight, M., 1998. The Butcher's Rise Ring-ditches: Excavations at Barleycroft Farm, Cambridgeshire, 1996. Cambridge Archaeological Unit, Barleycroft Farm/ARC Paper 6
Stocks-Morgan, H.,	2012	*The Wormingford to Abberton pipeline* OA East report 1277 (unpublished)
Symonds, R P and Wade, S,	1999	*Roman pottery from excavations in Colchester, 1971-86*, Colchester Archaeological Report **10**, Colchester
Thompson, T.J.U.	1999	A preliminary investigation into the influenceof burning on the ability to sex the pelvis. Unpublished MSc dissertation: Department of Archaeological Sciences, University of Bradford
von den Driesch, A, and Boessneck, J.,	1974	*Kritische Anmerkungen zur Widerristhöhenberechnung aus Langenmaßenvor- und frühgeschichtlicher Tierknochen, Säugetierkundliche Mitteilungen* **22**, 325–48
von den Driesch, A.,	1976	*A guide to the measurement of animal bones from archaeological sites*, Harvard
West, S. E.,	1985	*Suffolk: West Stow, the Anglo-Saxon Village* E.Anglian Archaeol. 24
Ytrehus B, Carlson C.S. and Ekman, S.,	2007	Etiology and Pathogenesis of Osteochrondrosis, in *Veterinary Pathology* 44, 429-48

APPENDIX G. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-133545		
Project Name	Excavations along the Kirtling Green to Wixoe Pipeline (vol 1)		
Project Dates (fieldwork) Start	01-03-2011	Finish	06-06-2011
Previous Work (by OA East)	Yes	Future Work	No

Project Reference Codes

Site Code	BRL026 etc	Planning App. No.	N/A
HER No.	various	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt: Water Act 1989 and subsequent code of practice

Please select all techniques used:

☐ Field Observation (periodic visits)	☐ Part Excavation	☐ Salvage Record
☒ Full Excavation (100%)	☐ Part Survey	☐ Systematic Field Walking
☐ Full Survey	☐ Recorded Observation	☐ Systematic Metal Detector Survey
☐ Geophysical Survey	☐ Remote Operated Vehicle Survey	☐ Test Pit Survey
☐ Open-Area Excavation	☐ Salvage Excavation	☐ Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Flintworking	Select period...	Domestic etc	Select period...
settlements	Select period...	Industrial	Select period...
cemeteries	Select period...	Funeral	Select period...

Project Location

County	Suffolk	Site Address (including postcode if possible)	
District	St Edmundsbury Borough	Pipeline route through many parishes	
Parish	Various		
HER	Suffolk County Council		
Study Area	Linear pipeline	National Grid Reference	Various

Project Originators

Organisation	OA EAST
Project Brief Originator	N/A
Project Design Originator	Nick Finch (URS-Scott Wilson)
Project Manager	James Drummond-Murray (OA East)
Supervisor	Various (OA East)

Project Archives

Physical Archive	Digital Archive	Paper Archive
Bury St Edmunds	OA East	Bury St Edmunds
Various	Various	Various

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☒	☒	☒
Human Bones	☒	☒	☒
Industrial	☒	☒	☒
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☒	☒
Survey		☒	☒
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☒	☒	☒
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media		Paper Media
☒ Database	☐ Aerial Photos	
☒ GIS	☐ Context Sheet	
☐ Geophysics	☐ Correspondence	
☒ Images	☐ Diary	
☒ Illustrations	☐ Drawing	
☐ Moving Image	☐ Manuscript	
☒ Spreadsheets	☐ Map	
☐ Survey	☐ Matrices	
☒ Text	☐ Microfilm	
☐ Virtual Reality	☐ Misc.	
	☐ Research/Notes	
	☐ Photos	
	☐ Plans	
	☐ Report	
	☐ Sections	
	☐ Survey	

Notes:

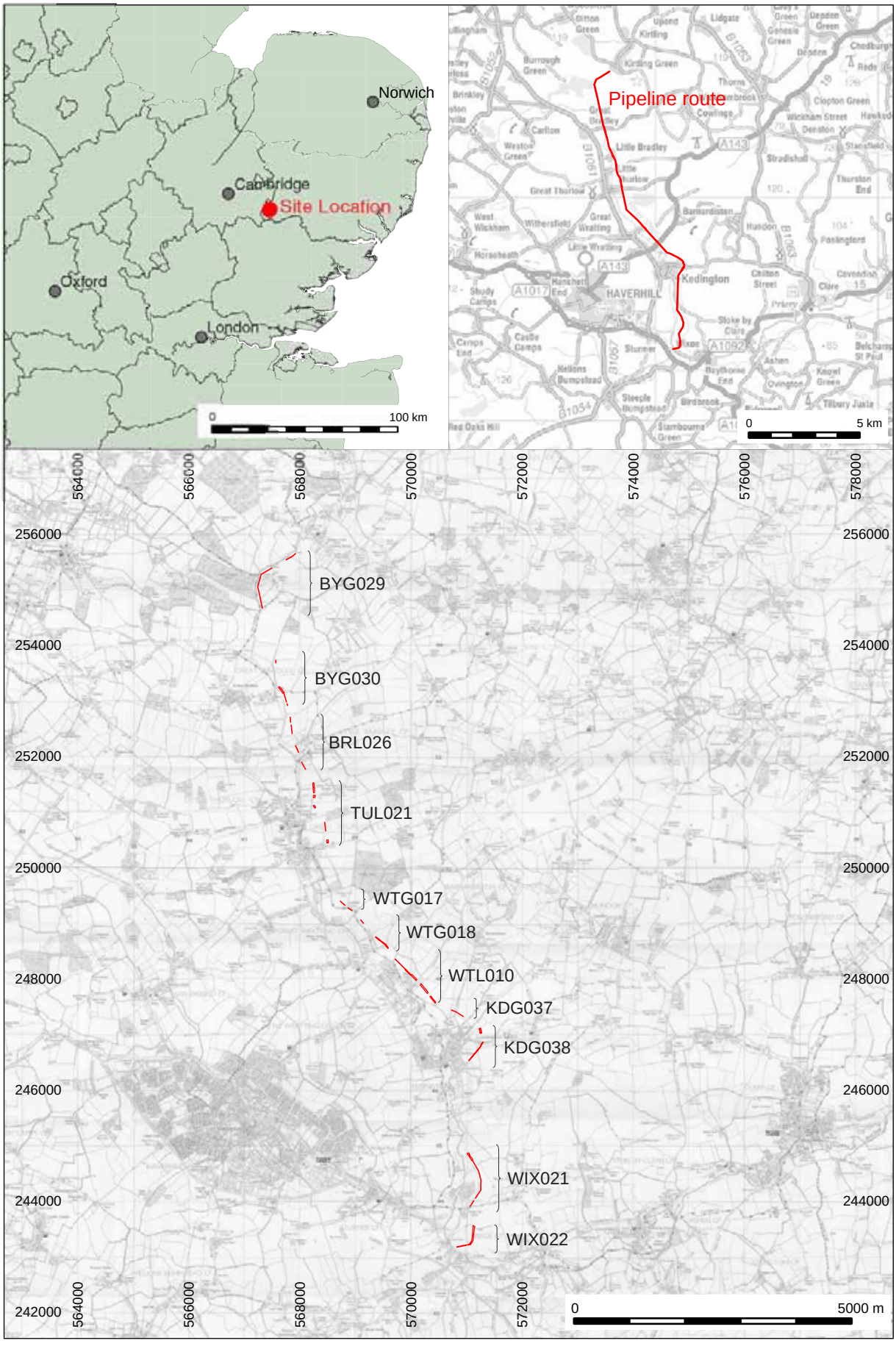


Figure 1: Site location

BYG029
BYG030
BRL026
TUL021
WTG017
WTG018
WTL010
KDG037
KDG038
WIX021
WIX022

N

Pit 130

567800
567850
567900
255600
255550
567750

56
55

135
105
S.13
103
109
113
117
119
121
123
111

130
S.12
115
140
127
143
125
132/134

Section 12

NE
SW
97.54 mOD
128
129
130

0
2 m
Section 1:40

0
20 m
Plan 1:500

Archaeological feature
Excavated segment
Section Line
S.12 Section number
130 Cut number
55 Field number

Figure 2: BYG029: Field 55 & 56

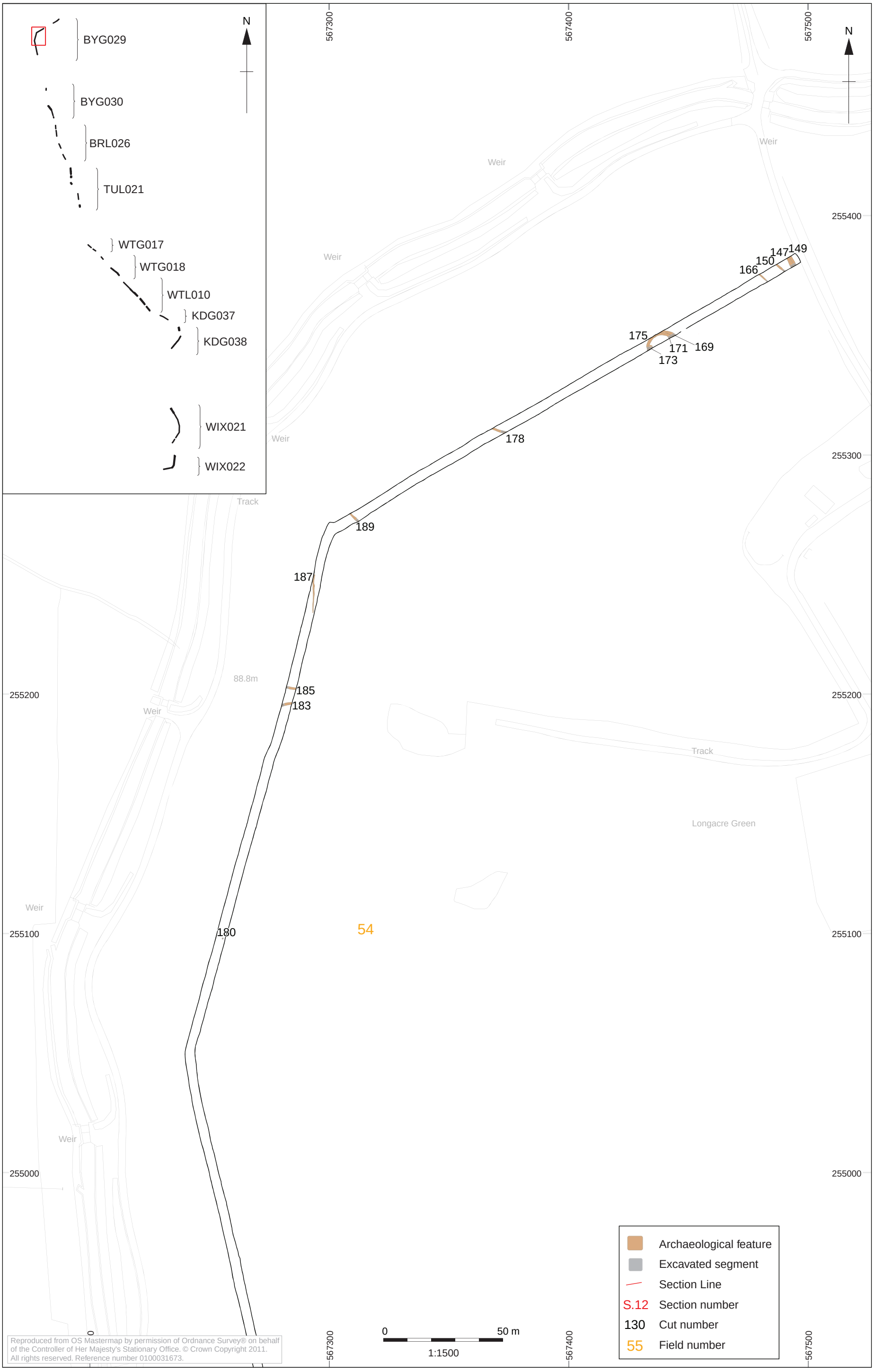


Figure 3: BYG029 : Field 54

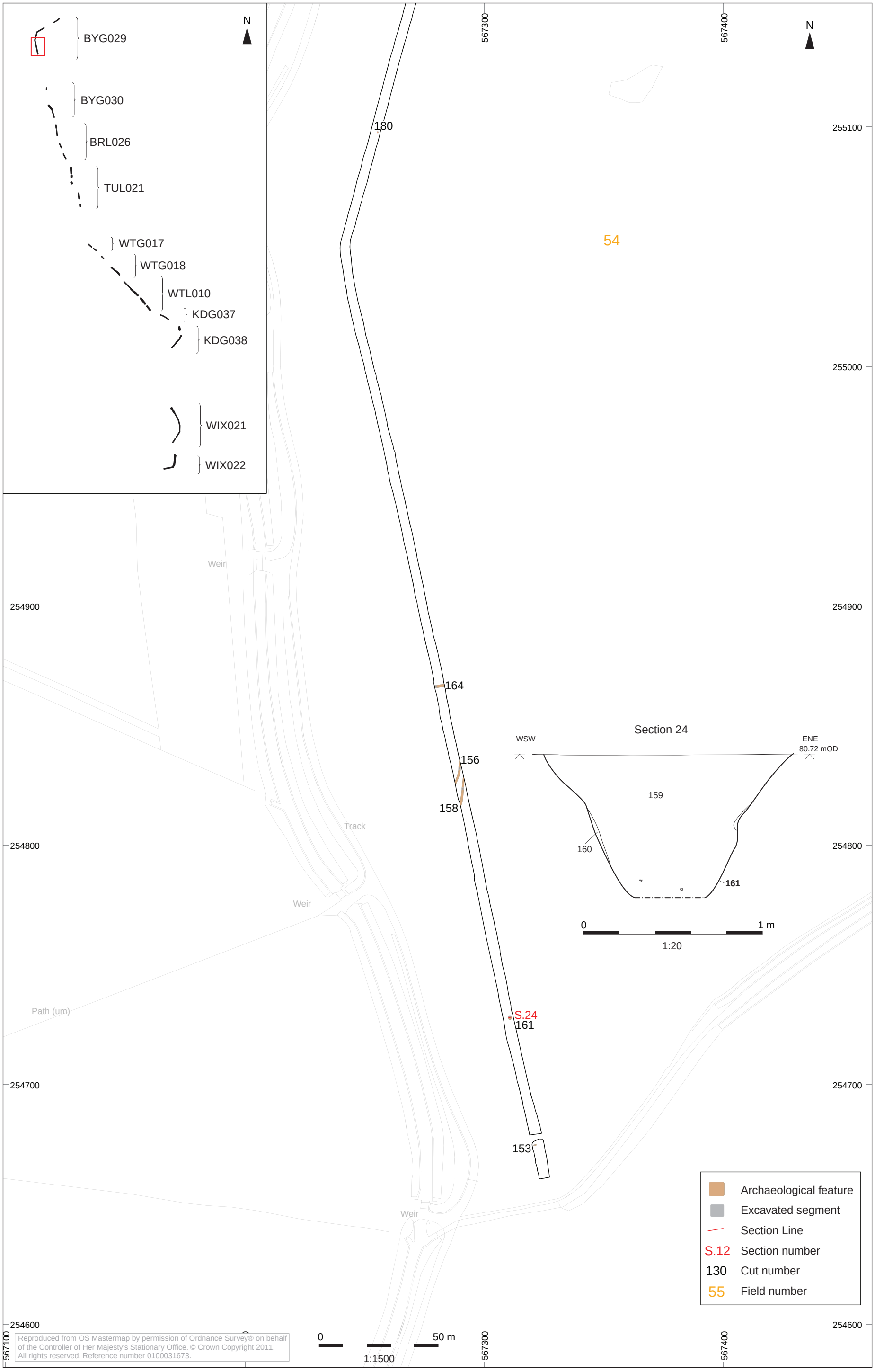
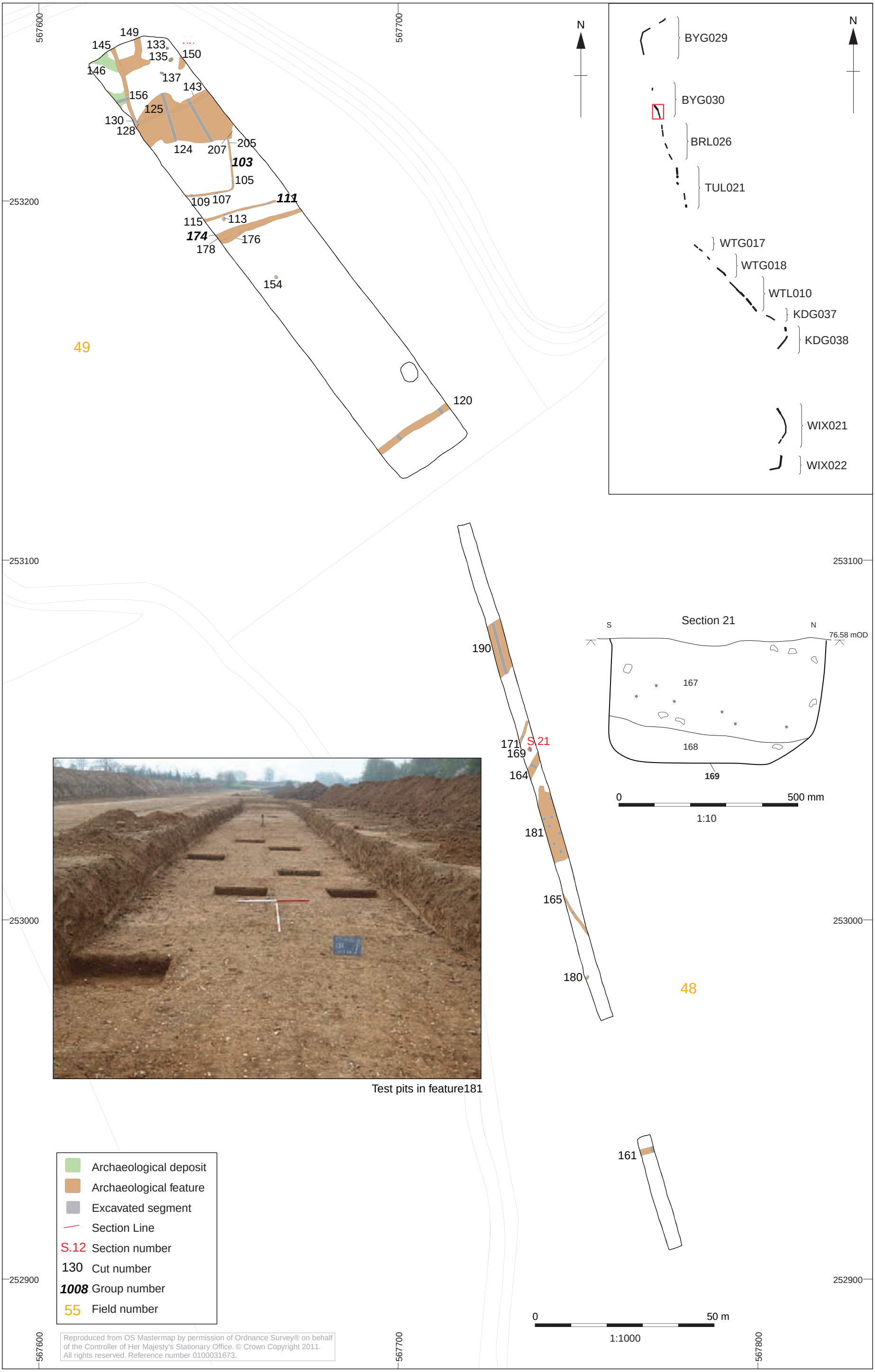


Figure 4: BYG029: Field 54



Test pits in feature181

Figure 5: BYG030: Fields 49 & 49

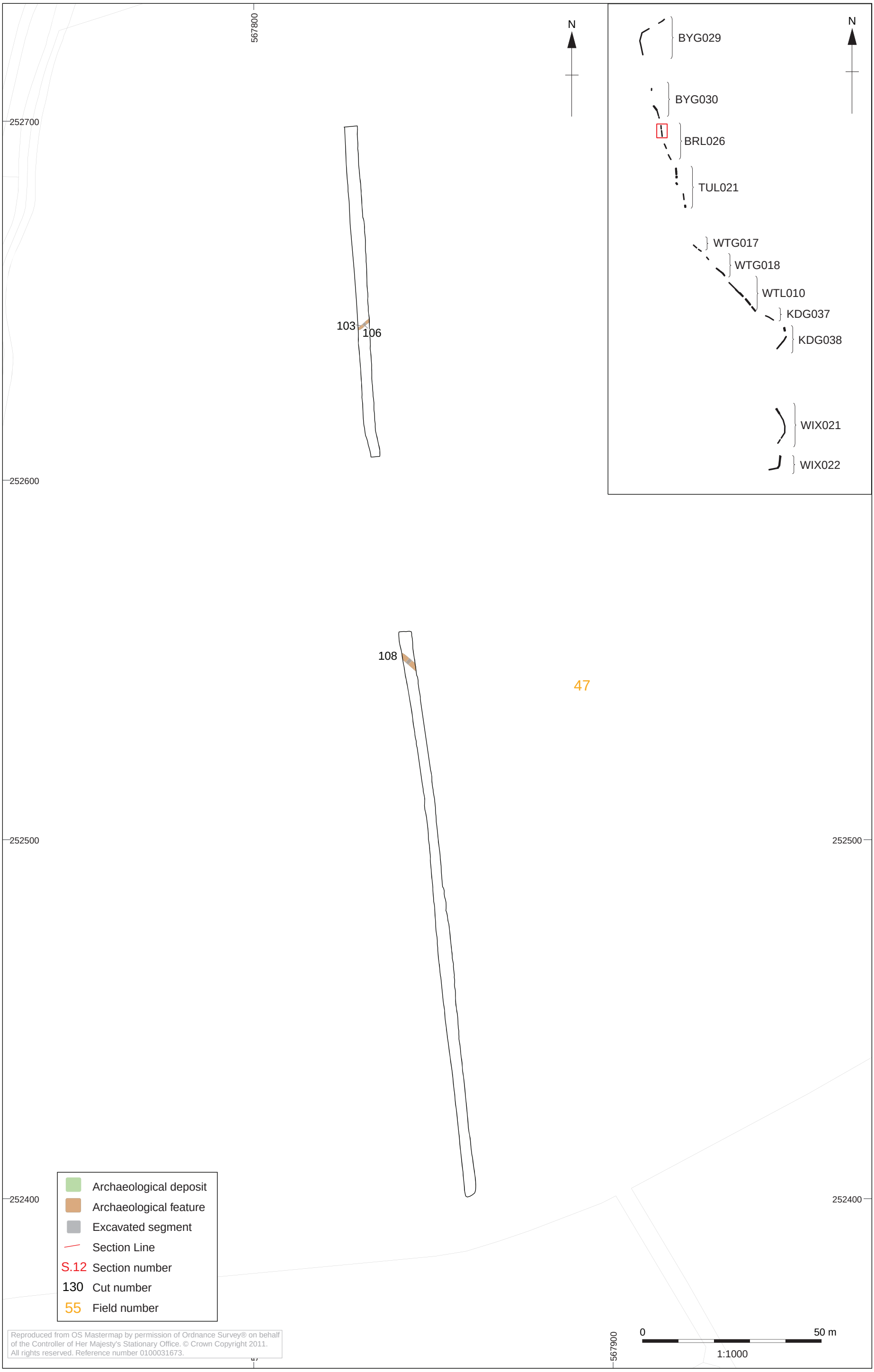


Figure 6: BRL026: Field 47

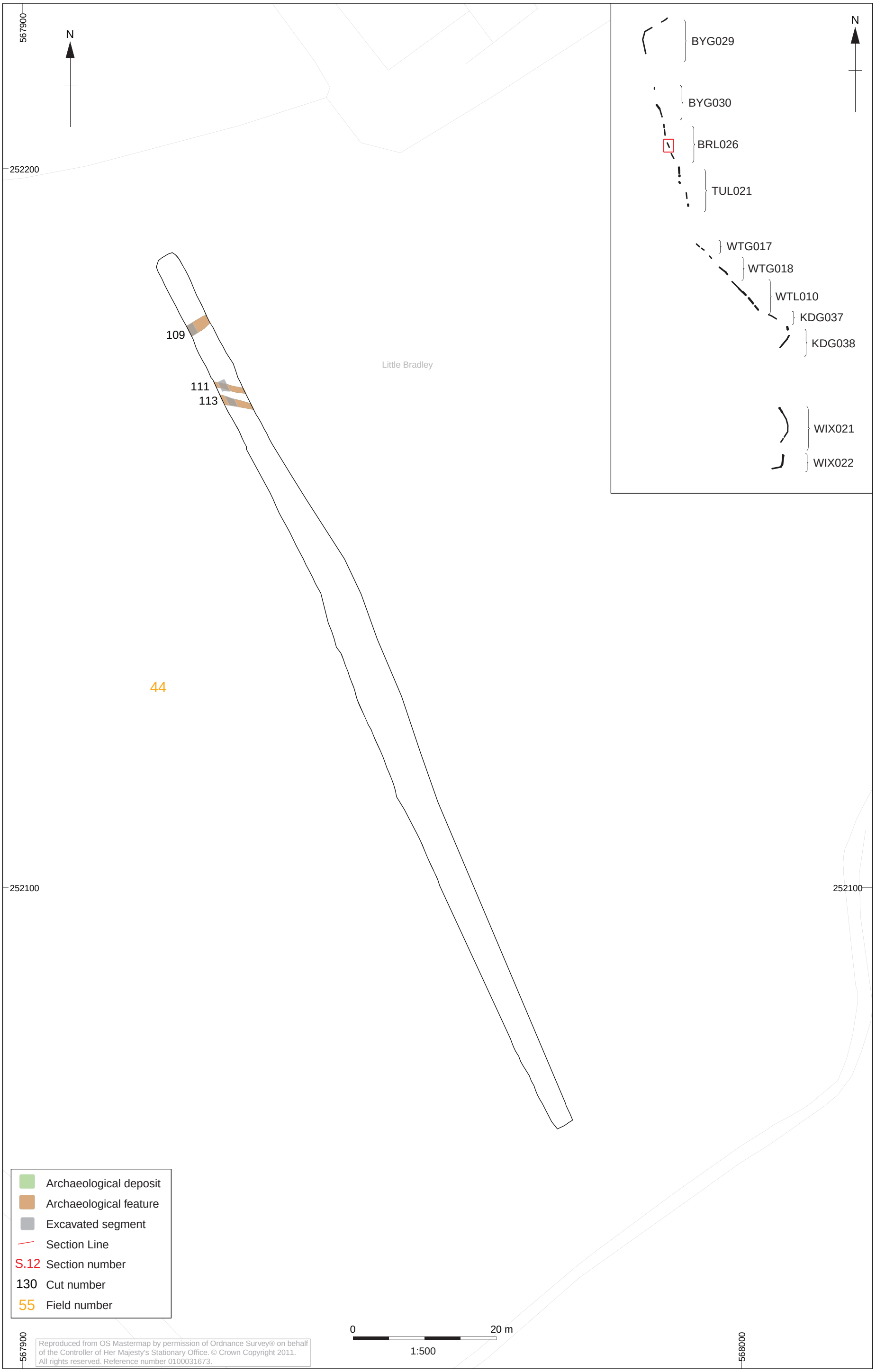


Figure 7: BRL026: Field 44

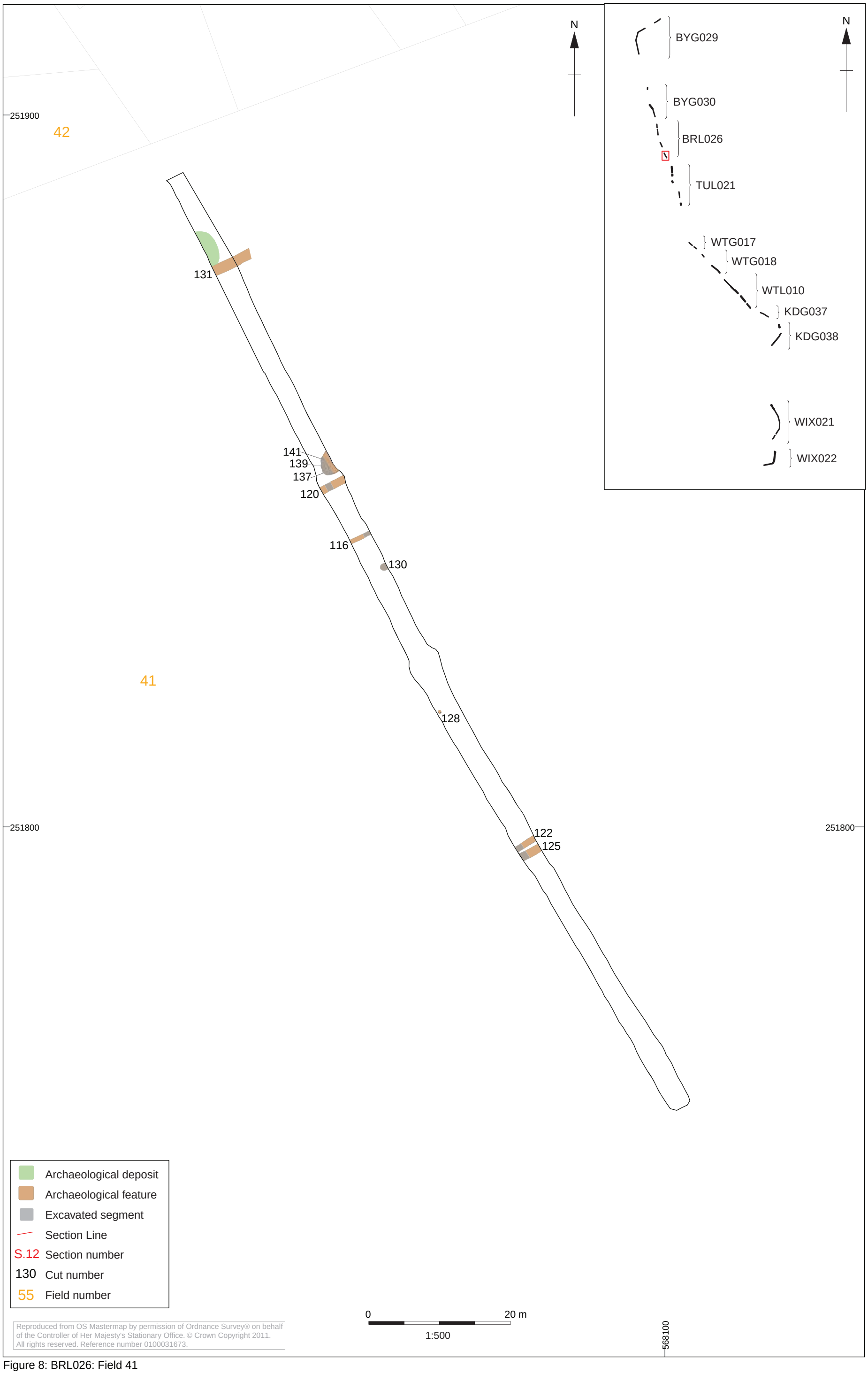


Figure 8: BRL026: Field 41

Figure 9: TUL021: Field 40

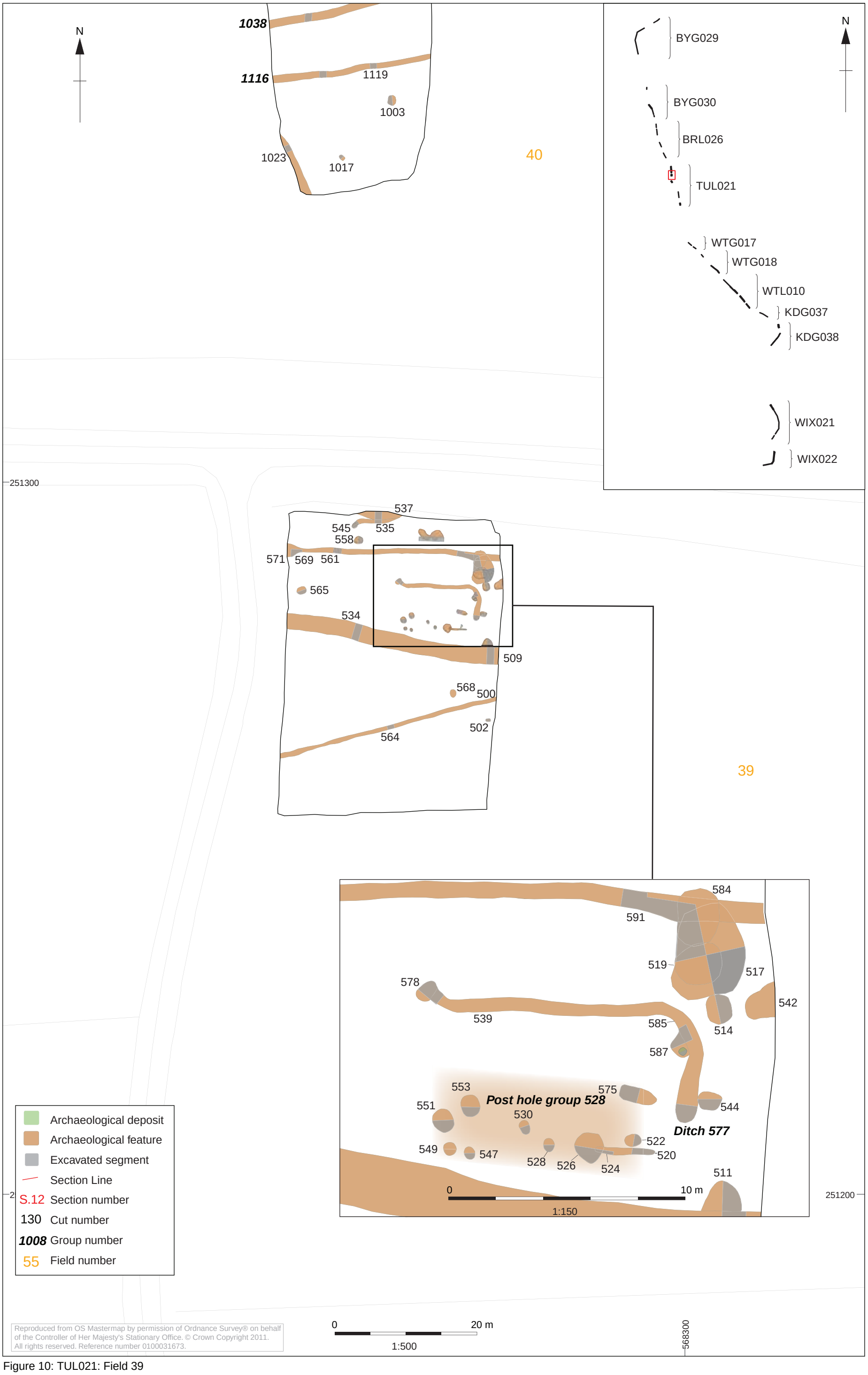


Figure 10: TUL021: Field 39

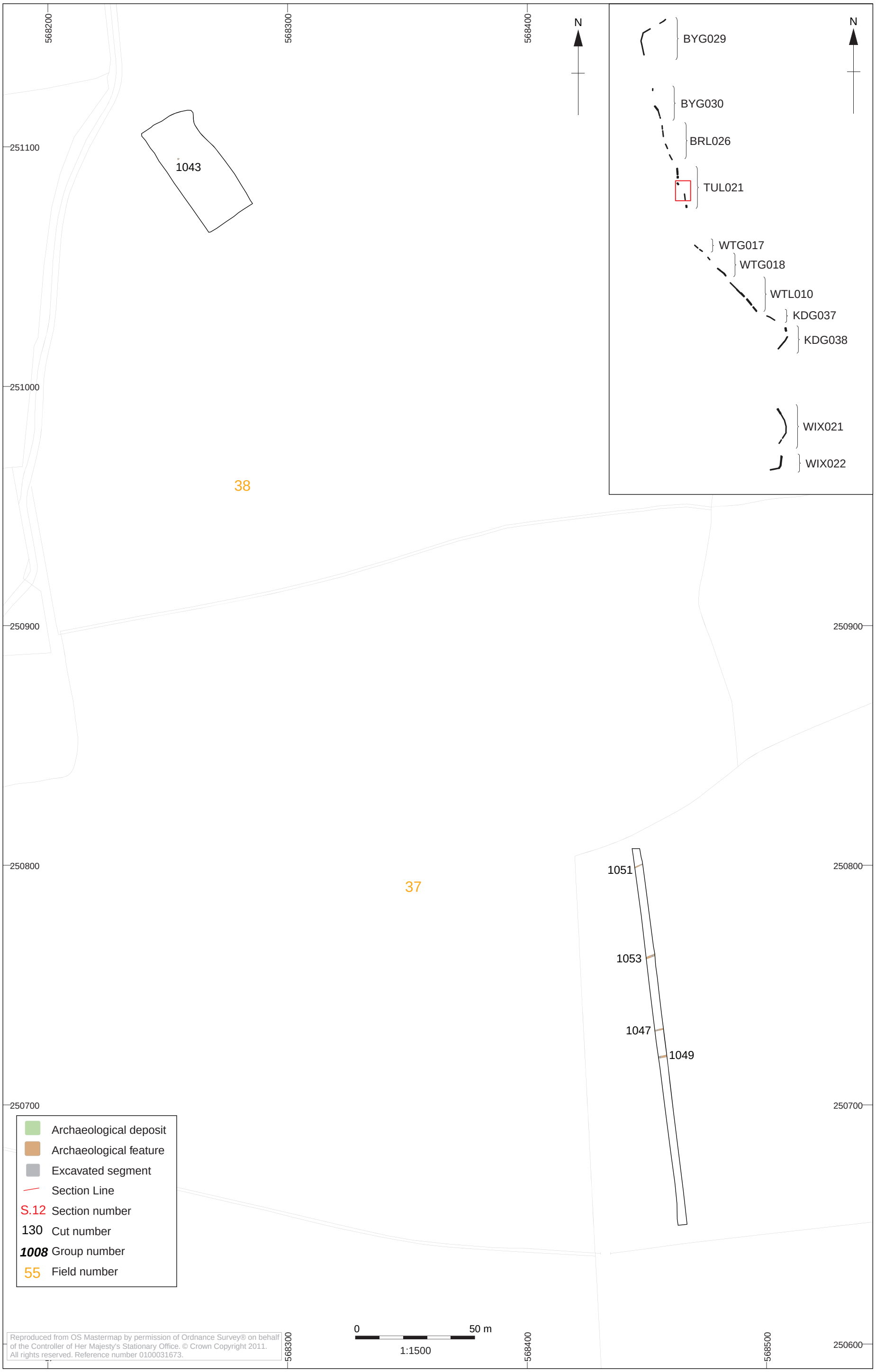


Figure 11: TUL021: Fields 37 & 38

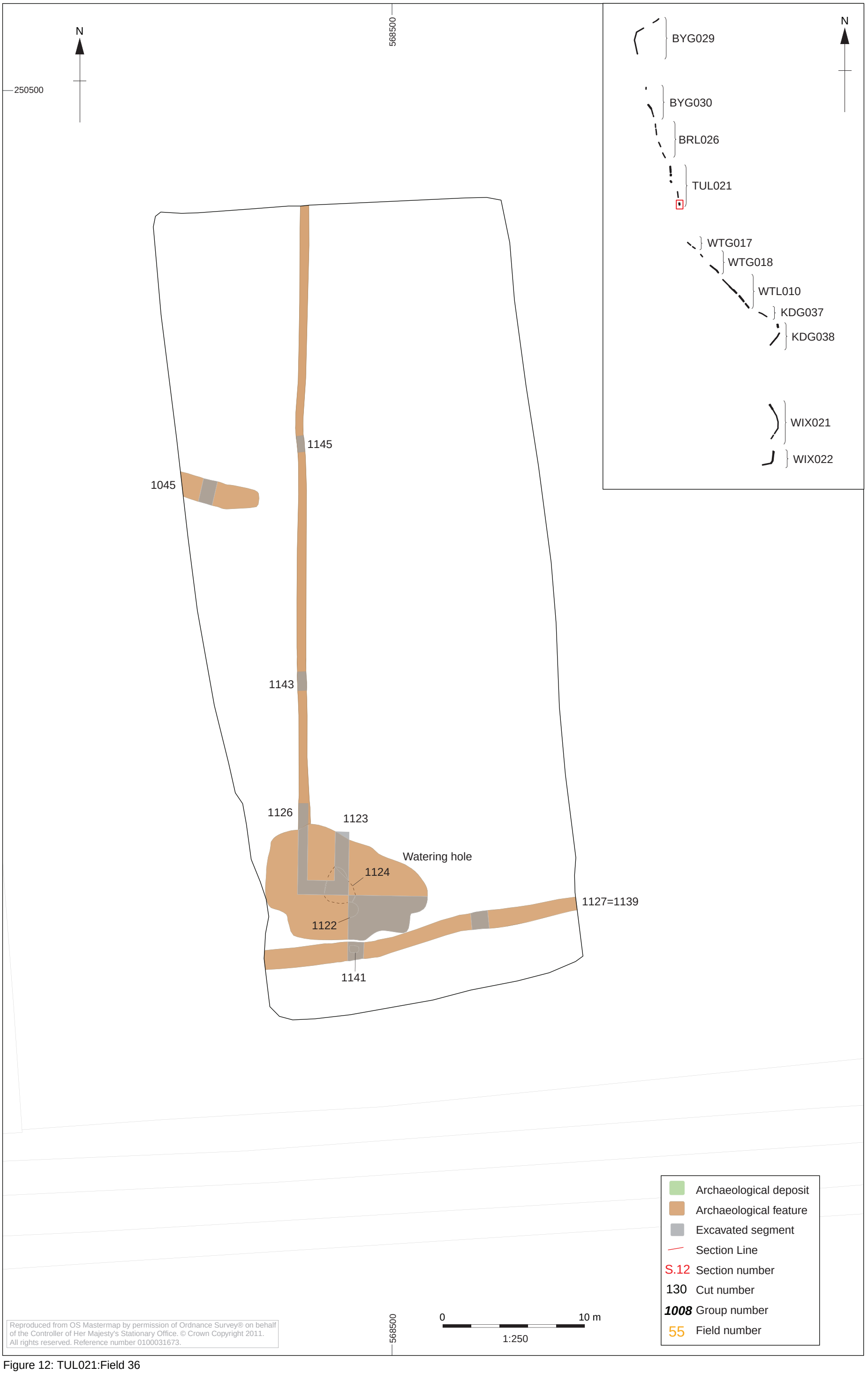


Figure 12: TUL021:Field 36

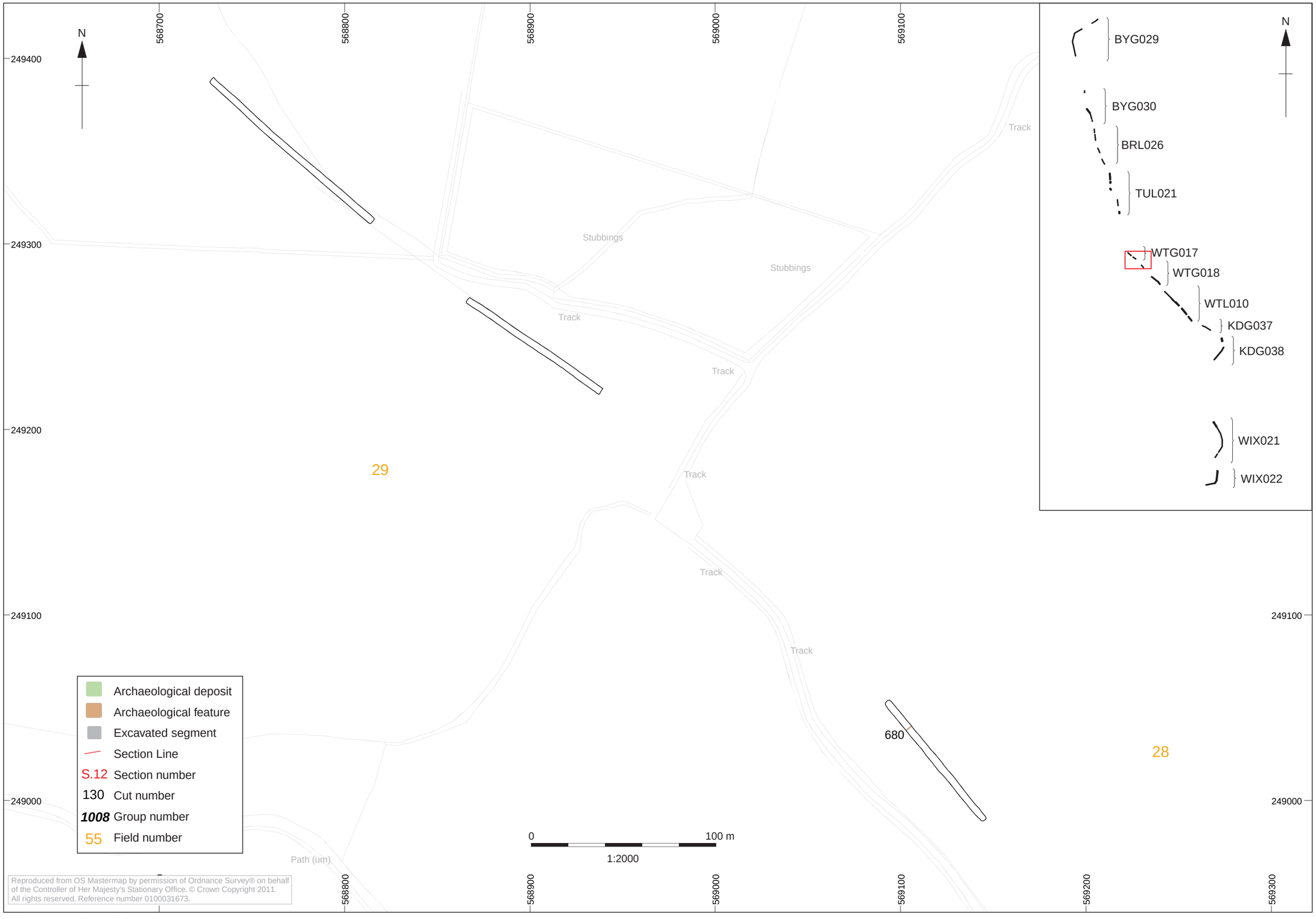


Figure 13: WTG017: Field 28 & 29

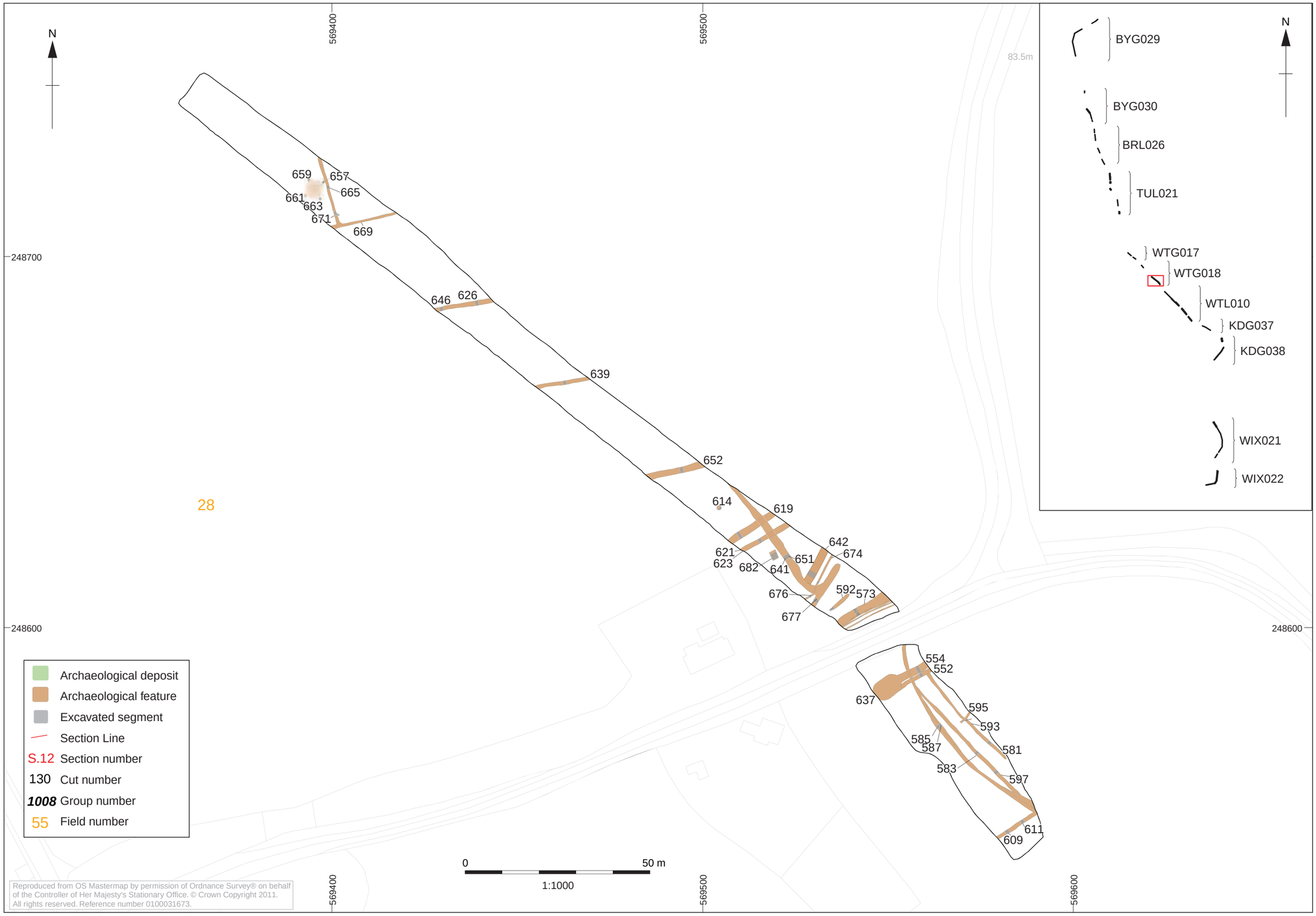


Figure 14: WTG018: Fields 28 &27

Cremation Pit 511

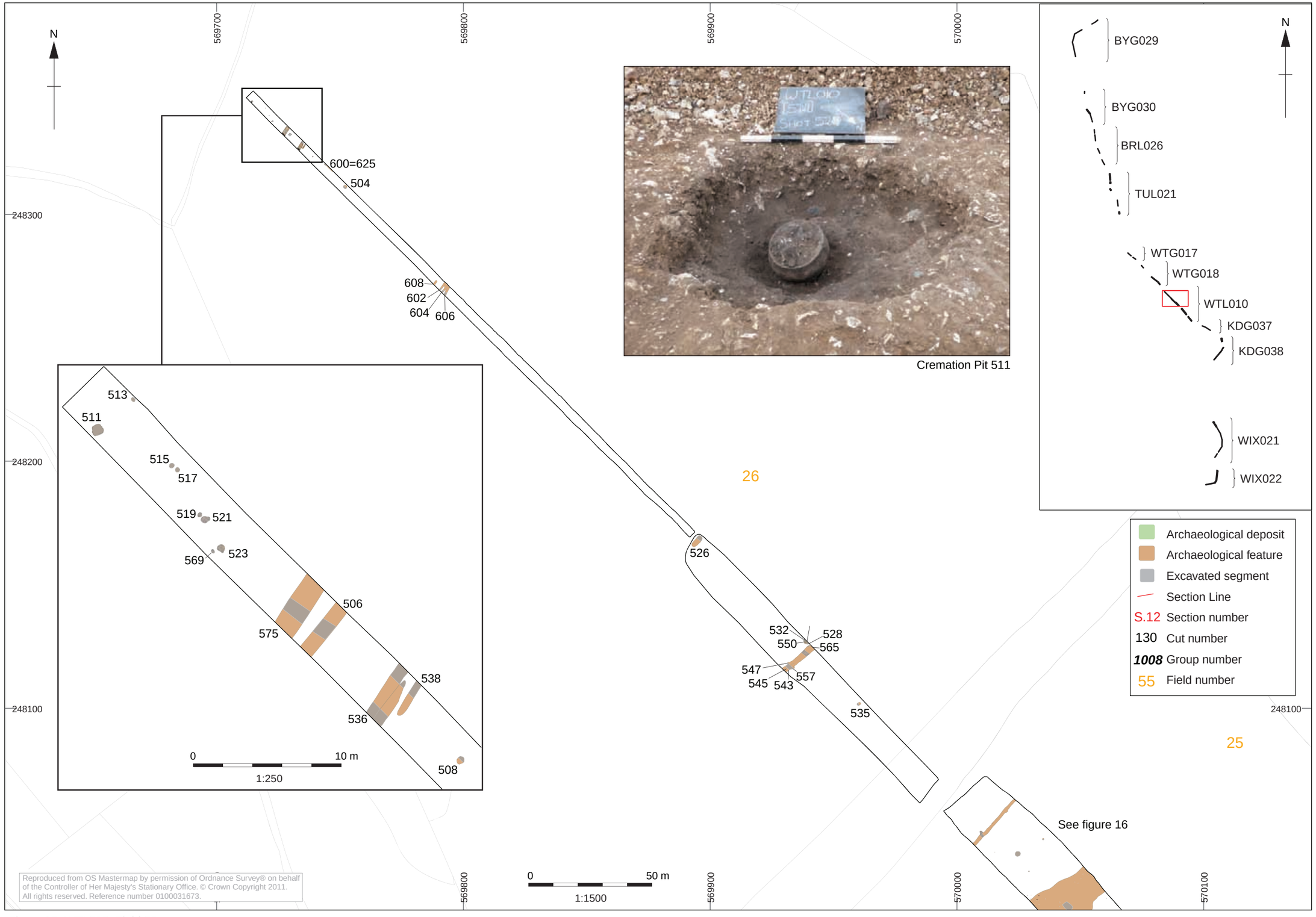


Figure 15: WTL010: Field 26

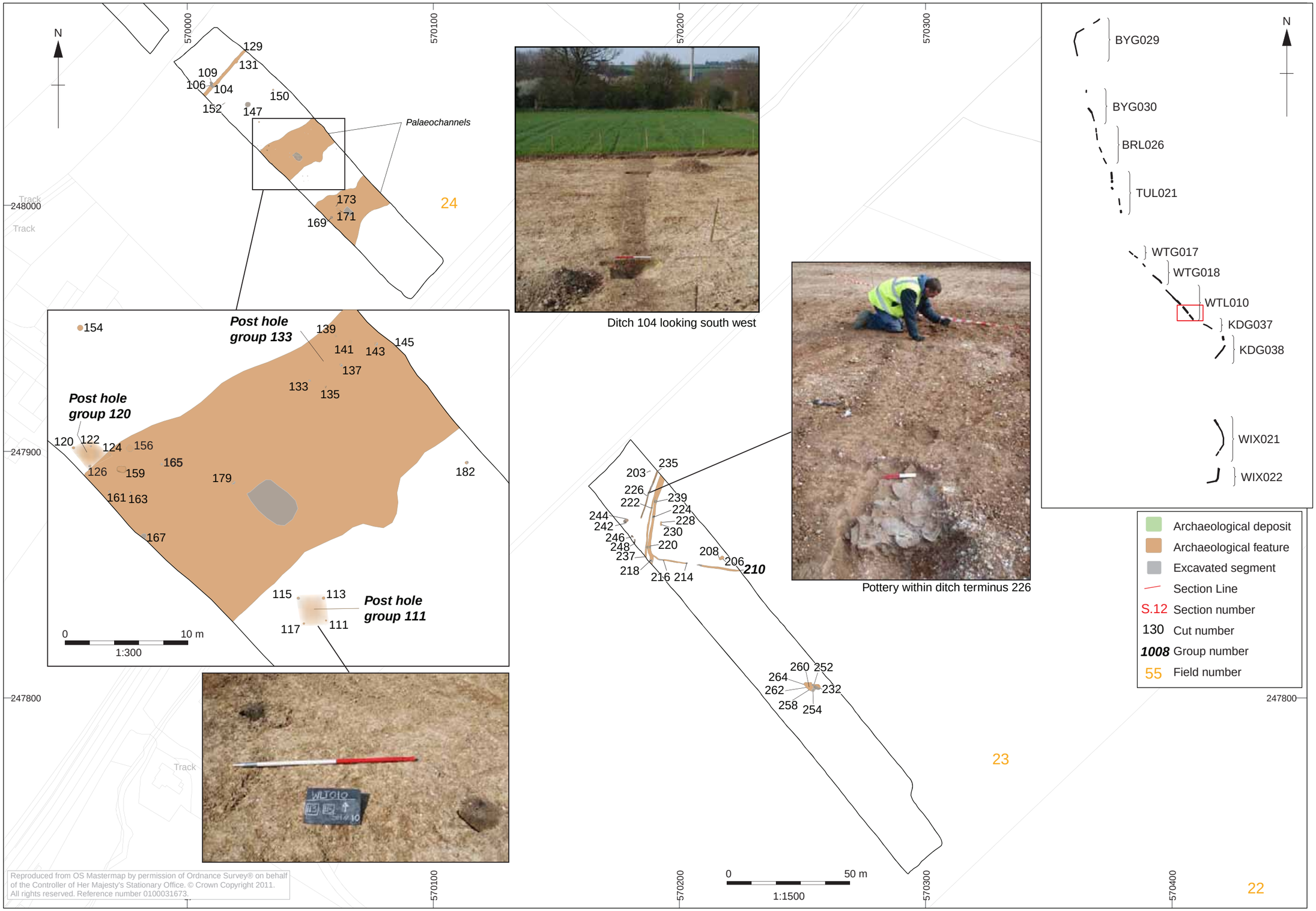


Figure 16 : WTL010: Fields 25 & 23

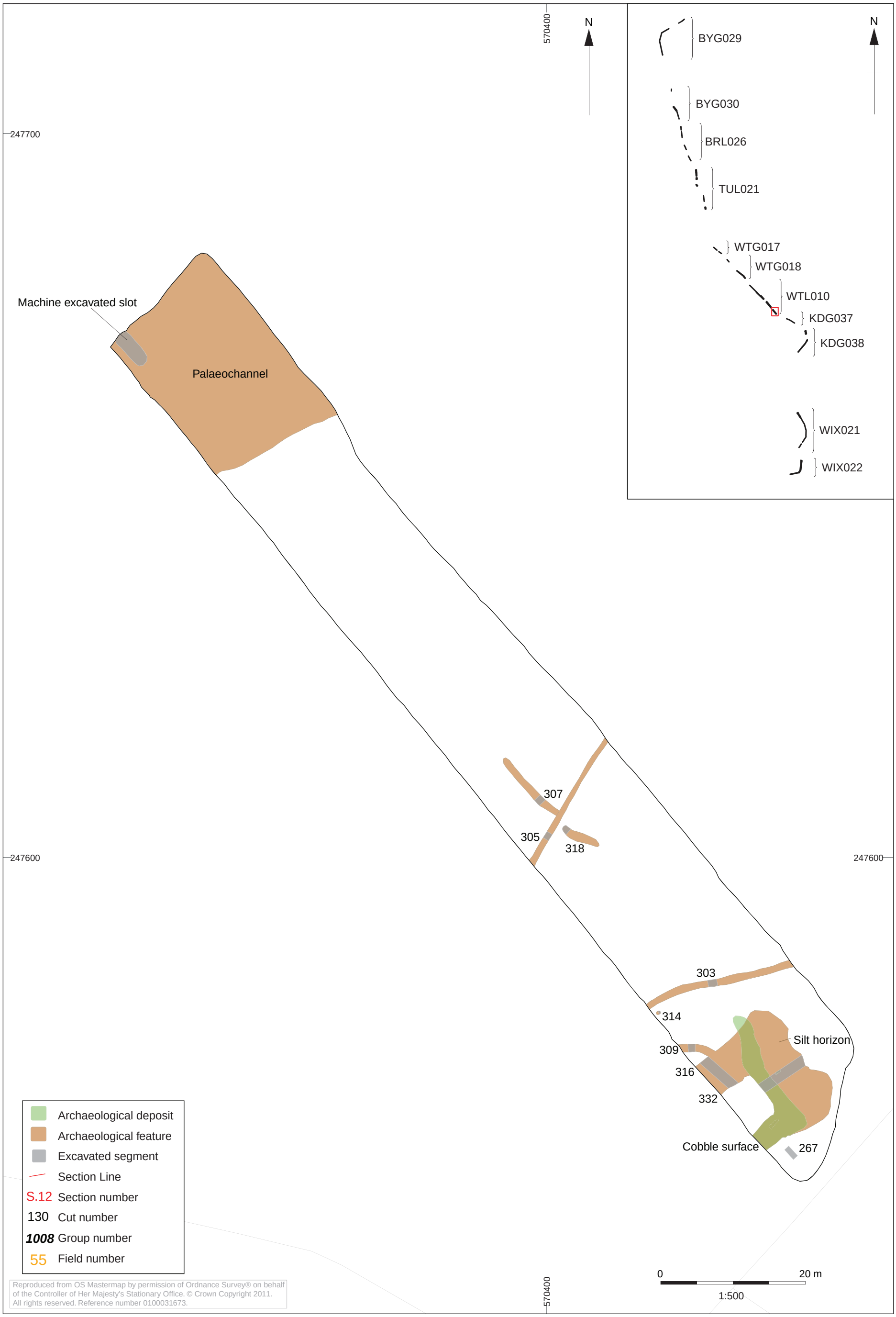


Figure 17: WTL010: Field 22

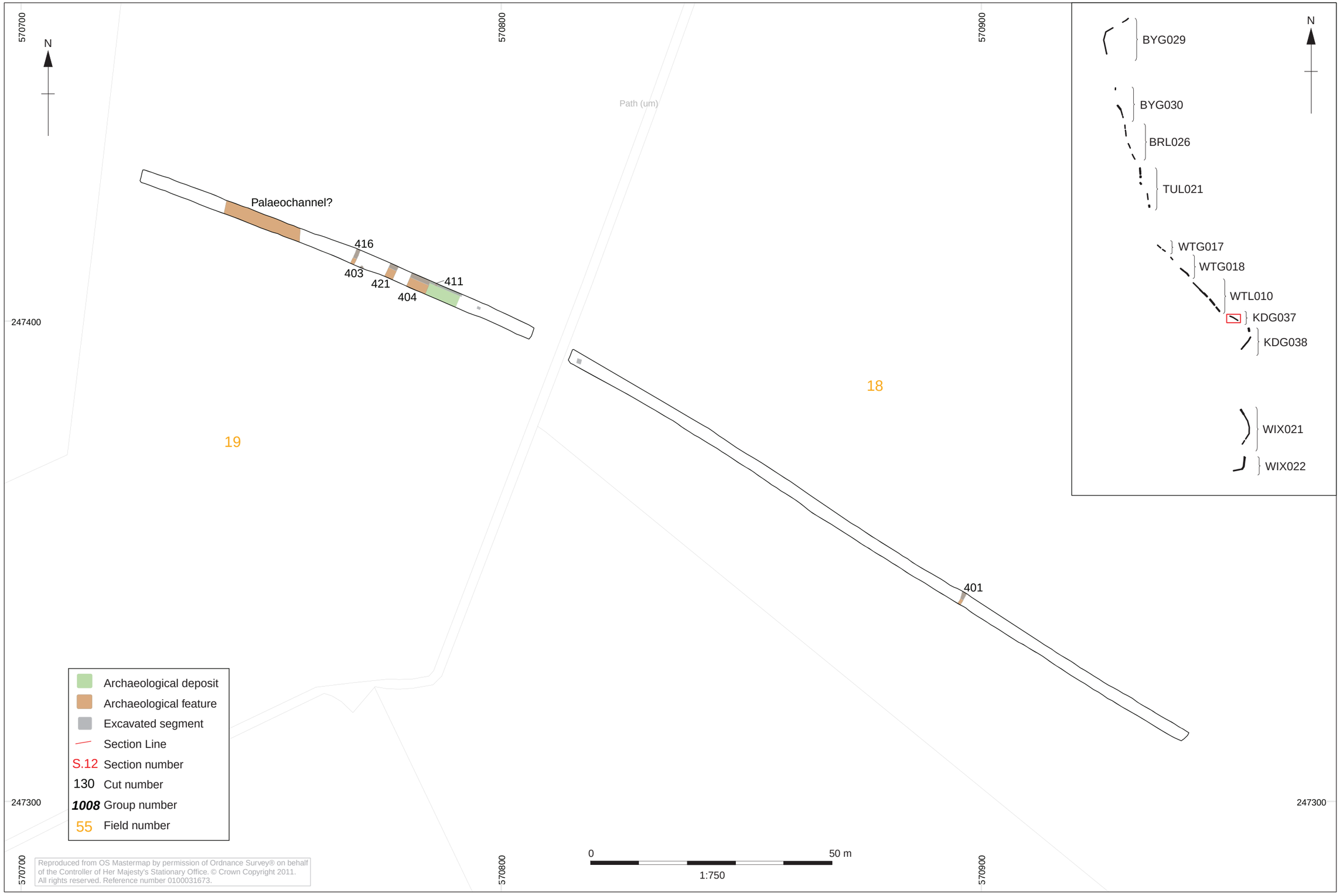


Figure 18: KDG037 : Fields 18 &19

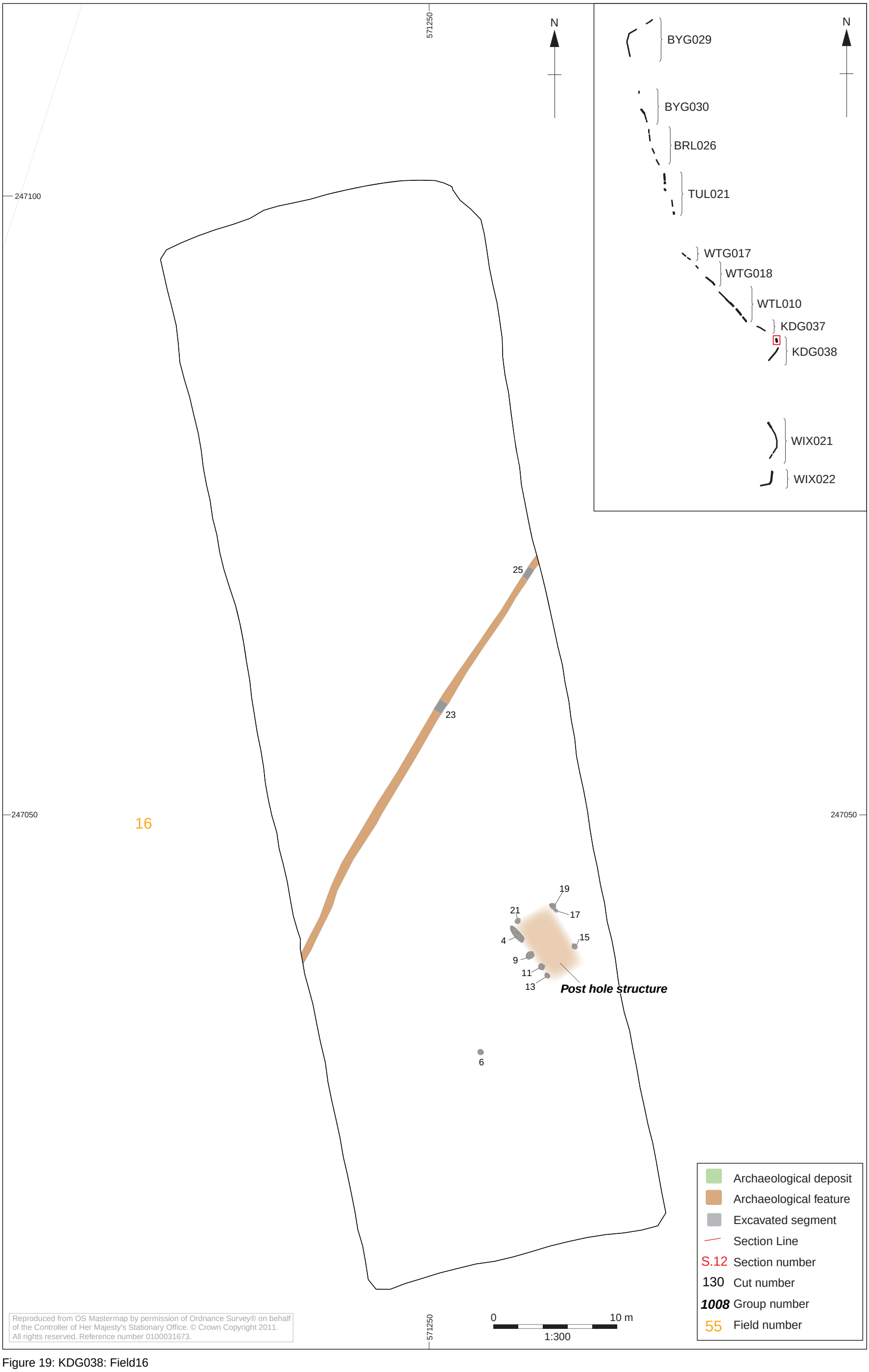


Figure 19: KDG038: Field16

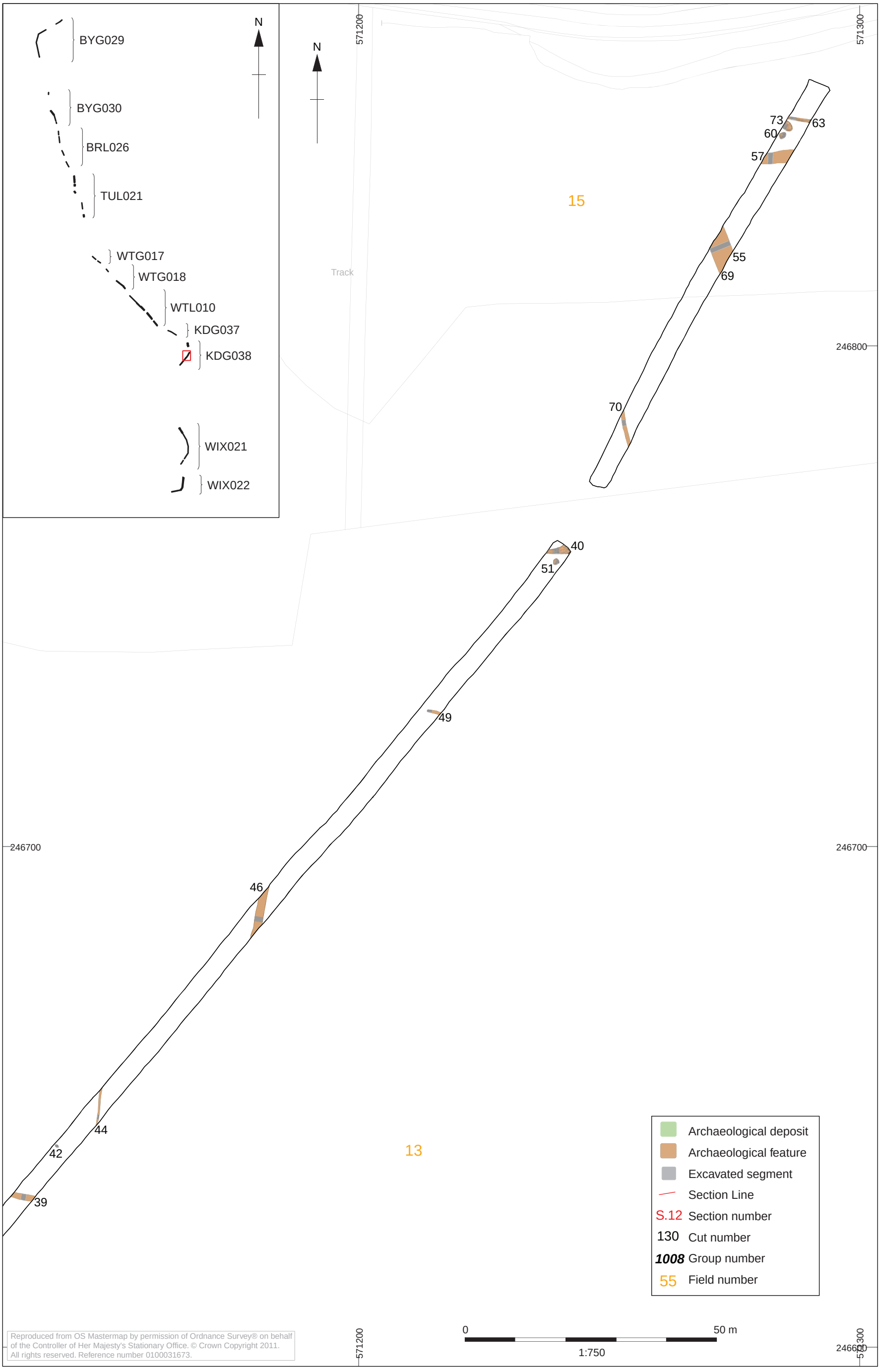


Figure 20: KDG038: Fields 13-15

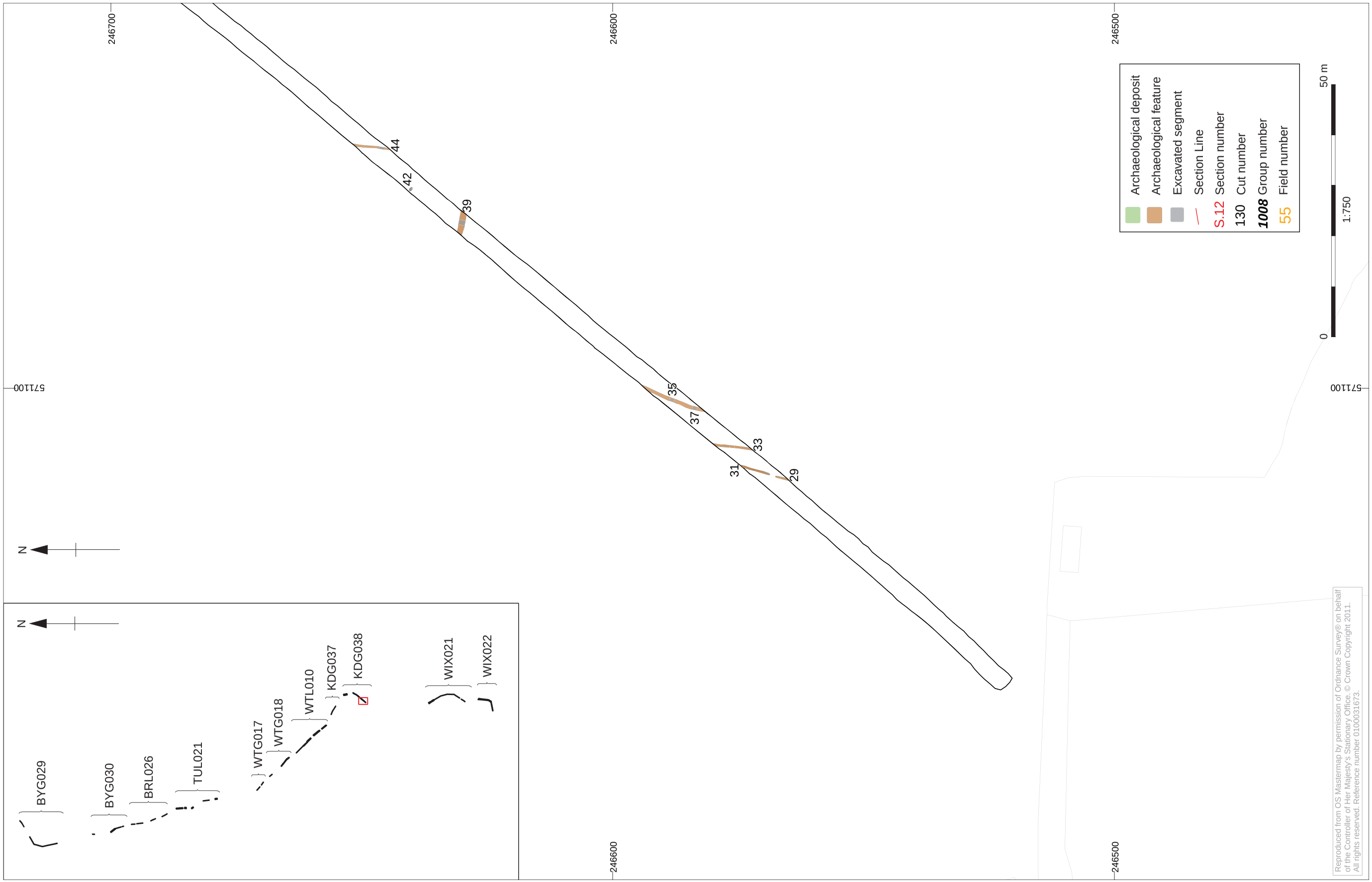


Figure 21: KDG038: Field 13

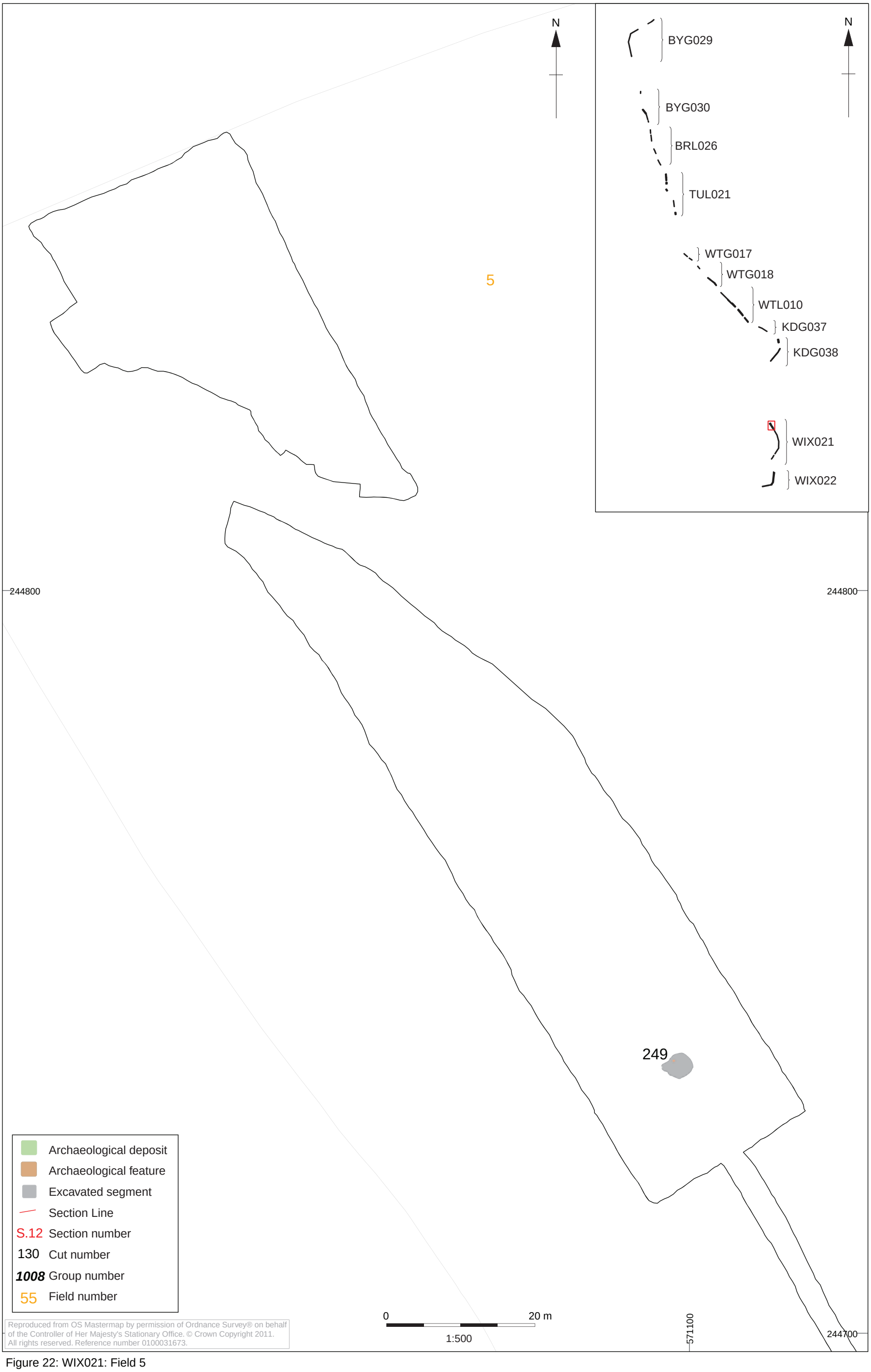


Figure 22: WIX021: Field 5

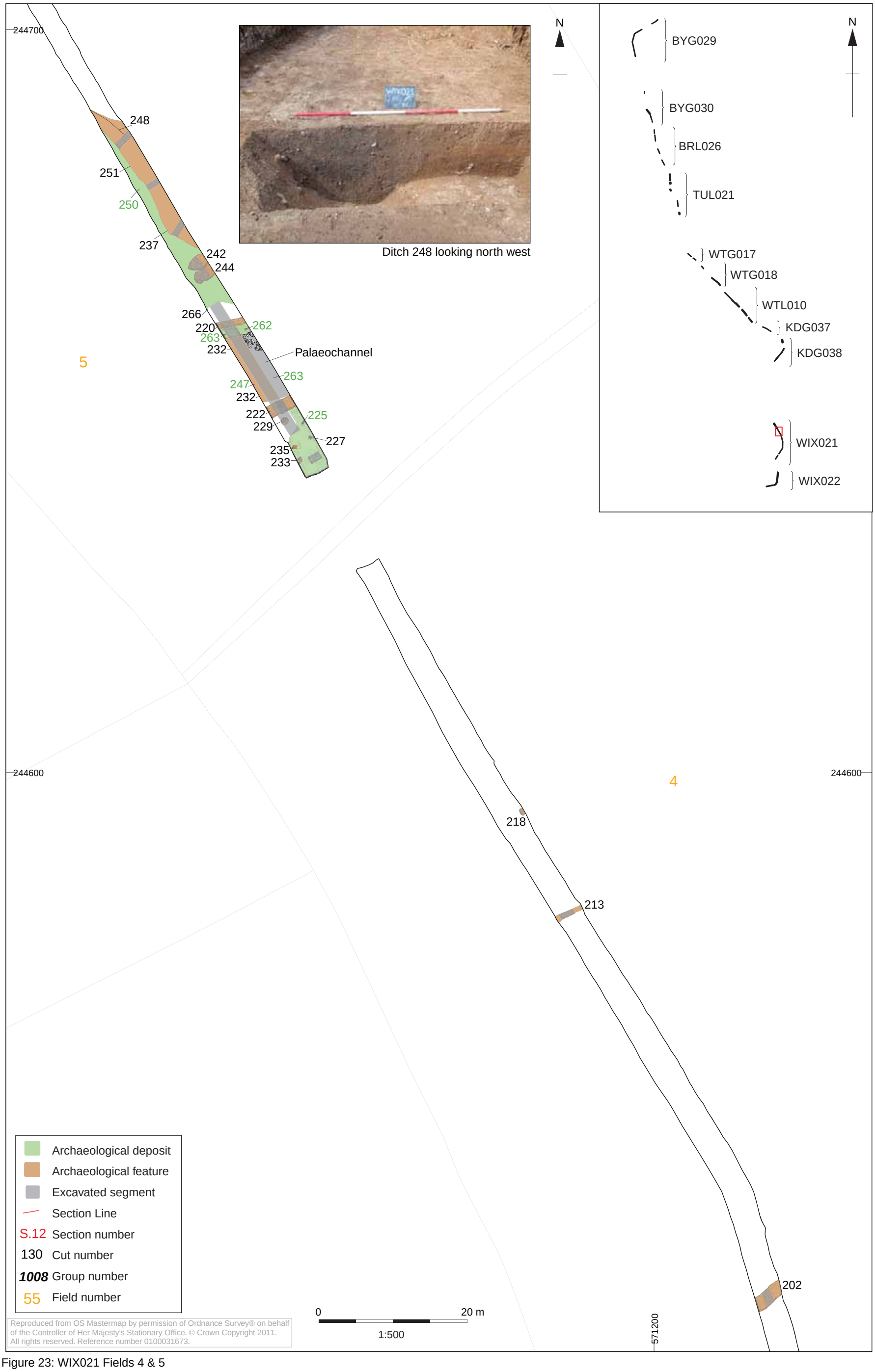


Figure 23: WIX021 Fields 4 & 5

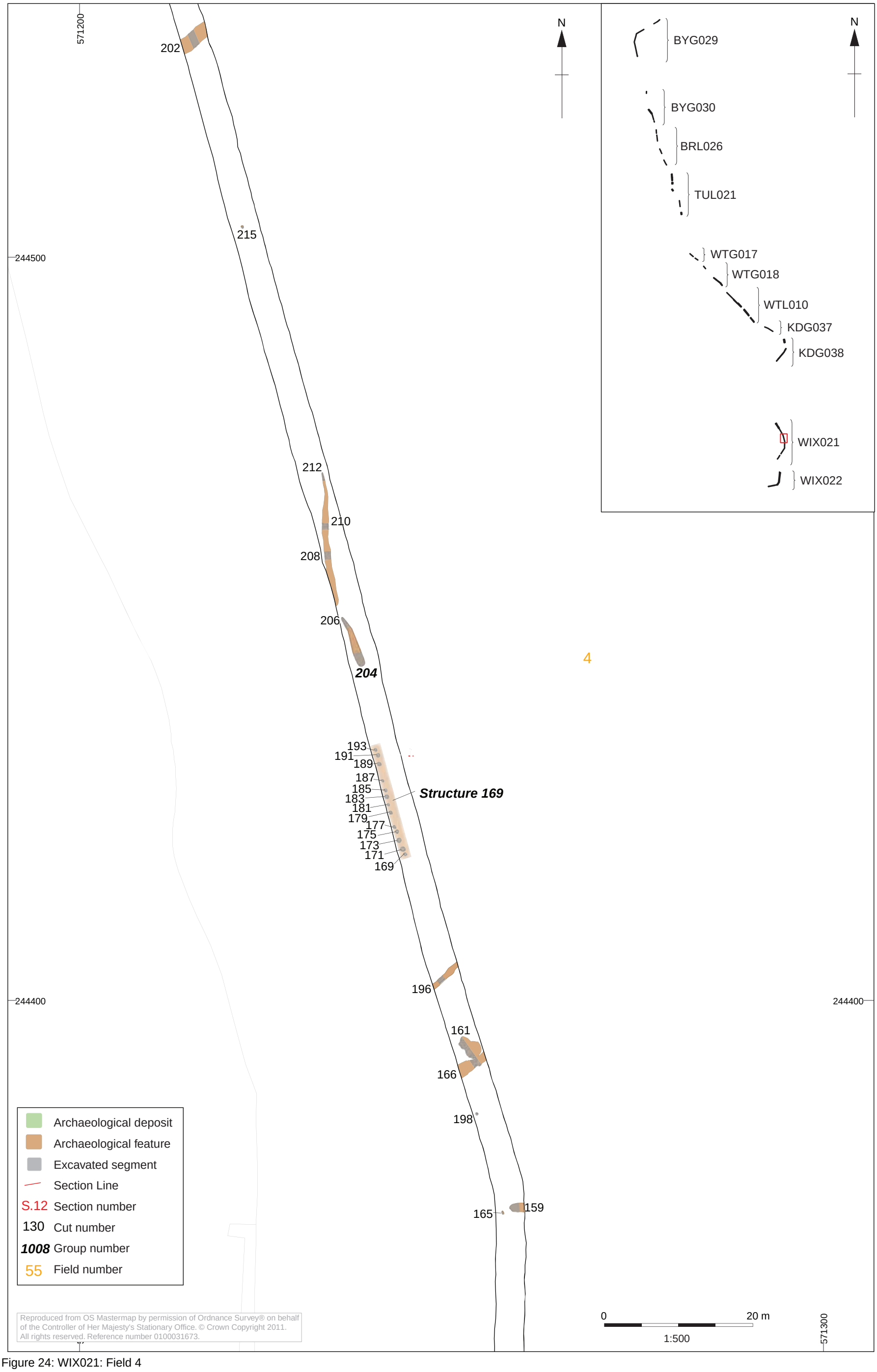


Figure 24: WIX021: Field 4

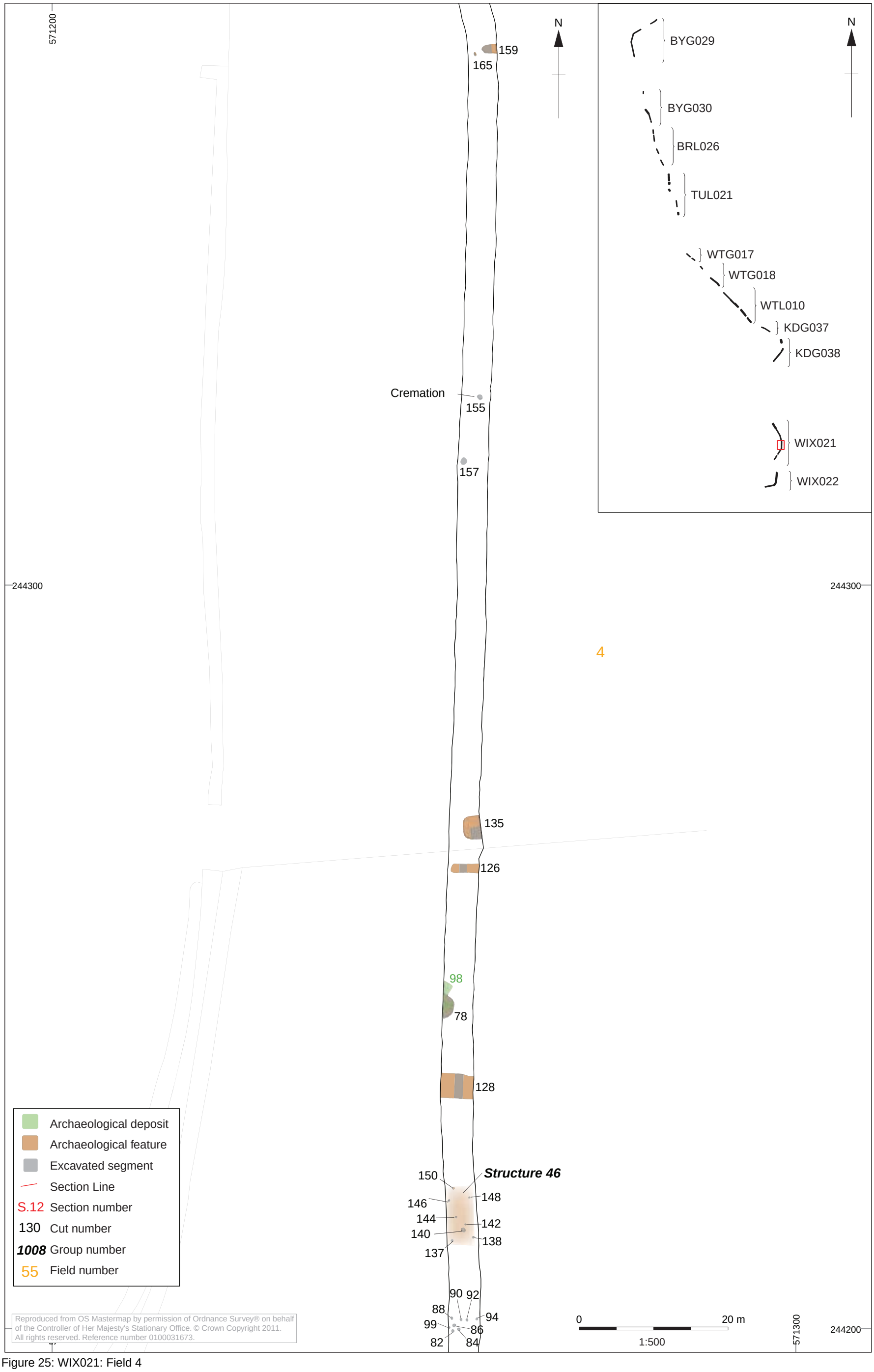


Figure 25: WIX021: Field 4

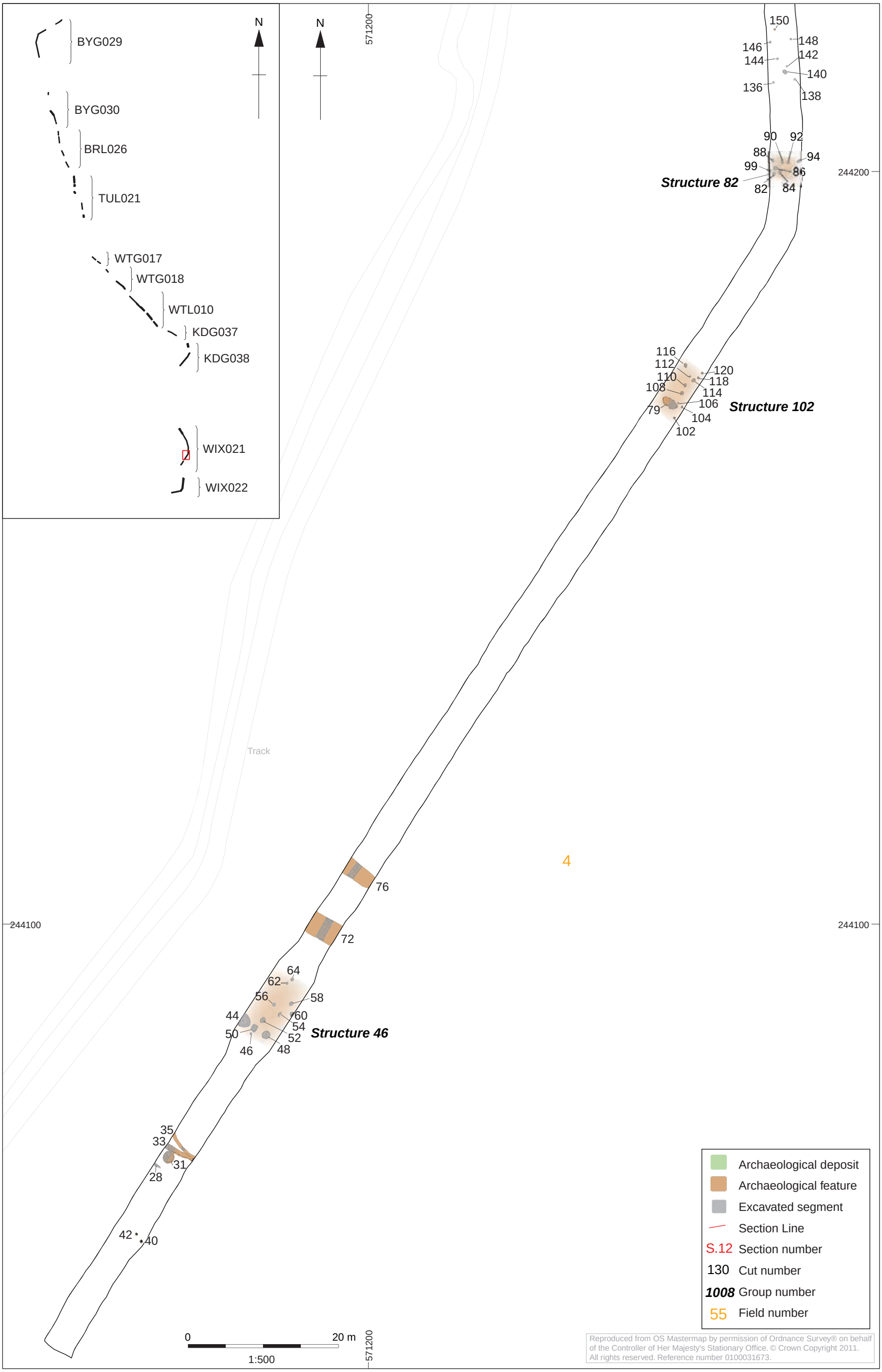


Figure 26: WIX021: Field 4

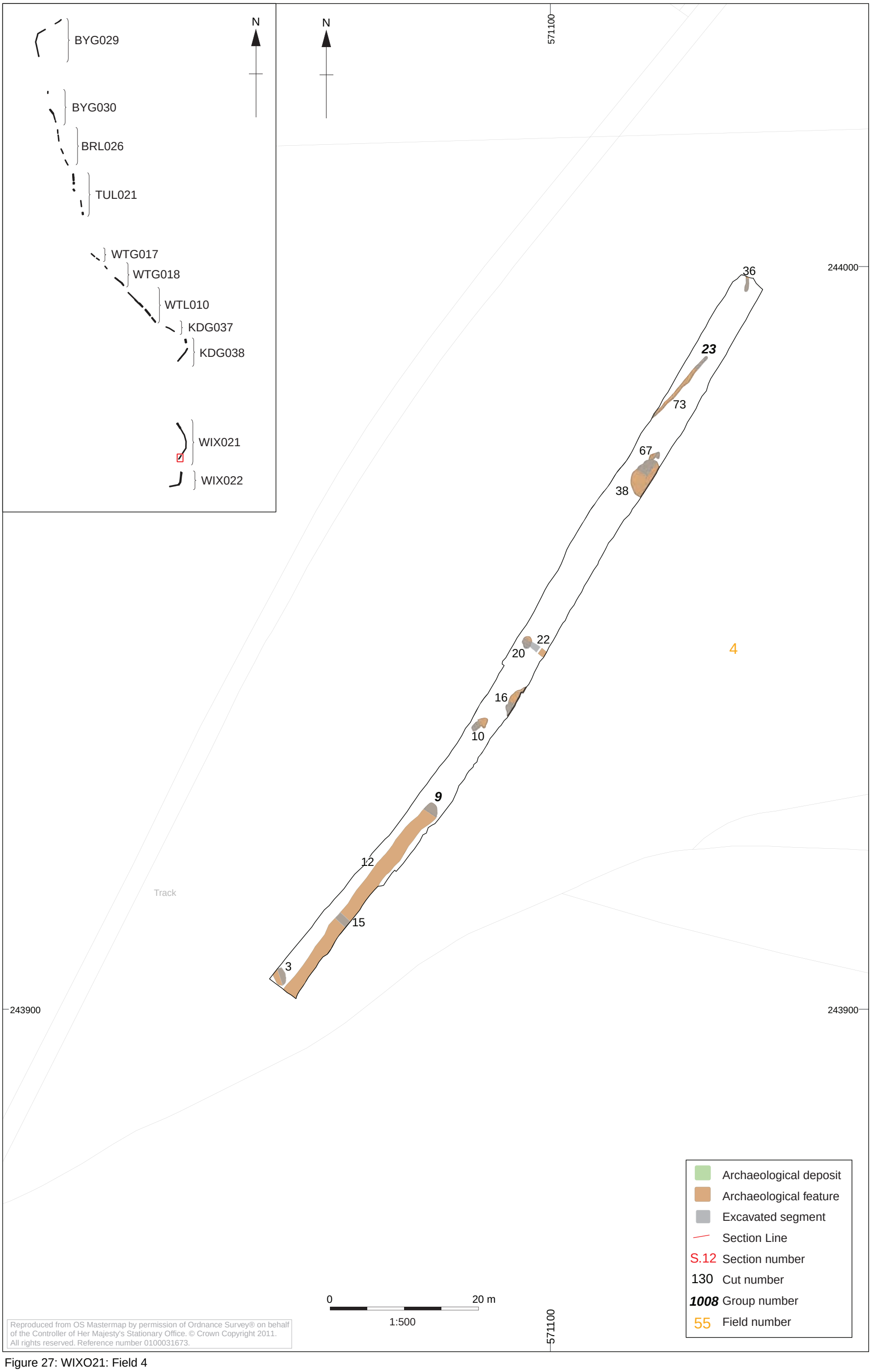


Figure 27: WIXO21: Field 4

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