

## Long Marston to Stratford Rising Main

Post-excavation Assessment and Updated Project Design



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#### Summary

Wessex Archaeology was commissioned by NMC Nomenca on behalf of Severn Trent Water to carry out a programme of archaeological strip, map and record along the line of the 5,243 m long Stratford Rising Main, located between Long Marston and Milcote, Warwickshire. The strip, map and record occurred as part of a programme of archaeological works, and was preceded by a desk-based assessment (MOLA 2017) and archaeological evaluation trenching (Trent and Peak 2018).

The earliest archaeological features exposed in the excavation included an area of hollows associated with possible prehistoric burnt mounds. Two parallel pit alignments and a cluster of pits provided evidence for Iron Age settlement activity. Several pits and ditches indicated Romano-British agricultural and settlement activity, with the main focus of occupation in the late 2nd century, but with hints of earlier Roman activity in the vicinity. Several eroded furrows represented components of a medieval agricultural landscape. A scattering of postholes is likely to have been associated with the disused 19th-century Midland Railway.

A moderate finds assemblage was recovered from the excavation (8 kg+). The material has a clear chronological focus in the Iron Age and Romano-British period. Pottery and animal bone are the only material types to occur in any significant quantities, with other material types represented by small or negligible quantities.

Two fragments of human bone were present in Iron Age features. These were found in domestic settings, rather than formal funerary contexts. A fragment of human skull was found in a posthole and the tibia of a neonate was deposited in an Iron Age pit.

The environmental evidence retrieved from the site was very sparse and poorly preserved. The charred plant remain assemblages are indicative of background crop processing activities, which are broadly consistent with an Iron Age or Romano-British chronology due to the presence of hulled wheats such as emmer and spelt. A couple of samples had rye and naked wheat remains, suggesting post-Romano-British activity in the area also.

This post-excavation assessment describes the archaeological results of the strip, map and sample excavation and presents the results of the initial assessment of the artefactual and palaeoenvironmental assemblages. Updated questions to guide ongoing analysis are identified; recommendations for further work are presented, leading to the publication of the site, and deposition of the archive at an appropriate local museum.

#### **Acknowledgements**

Wessex Archaeology would like to thank NMC Nomenca and Severn Trent Water for commissioning the archaeological mitigation work. Wessex Archaeology is also grateful for the advice of Anna Stocks, who monitored the project for Warwickshire County Council.

The fieldwork was directed by Simon Brown, with the assistance of Rob Jones, Michael Keech and Owen Jenkins. The environmental samples were processed by Fiona Eaglesham, sorted by Liz Chambers and assessed by Inés López-Dóriga. The finds report was prepared by Lorraine Mepham with contributions from Jenny Crangle, Jane Evans and Lorrain Higbee. The human bone was assessed by Kirsten Egging Dinwiddy. The aerial photographs were taken by Charlie Price of CADSITE services. This report was written by Catherine Douglas and edited by Patrick Daniel. The figures were produced by Kitty Foster. The project was managed by Richard O'Neill on behalf of Wessex Archaeology.



# Long Marston to Stratford Rising Main - Archaeological Mitigation

## Post-excavation Assessment and Updated Project Design

#### 1 INTRODUCTION

## 1.1 Project and planning background

- 1.1.1 Wessex Archaeology was commissioned by NMC Nomenca to undertake archaeological mitigation works comprising a strip map and record program along the route of the Stratford Rising Main between Long Marston and Milcote, Warwickshire between NGR 415917 248838 (south-west end) and 418151 252730 (north-east end), hereafter 'the scheme'. The northern part of the pipeline route followed the course of the dismantled Midland Railway and the southern end lay on the north side of Broad Marston (Fig. 1).
- 1.1.2 The excavation followed earlier archaeological works, which included a desk-based assessment (DBA) (MOLA 2017) and archaeological evaluation trenching (Trent and Peak 2018). During the evaluation, the northern half of the scheme was found to contain dense areas of archaeological activity dating from the prehistoric period onwards, whereas the southern half of the route proved largely devoid of archaeology.
- 1.1.3 The findings were submitted to Warwickshire County Council (WCC) as part of an Environmental Impact Assessment (EIA) for the scheme. Comments received from the WCC Planning Archaeologist indicated the need for a programme of archaeological mitigation in advance of construction of the main. The mitigation comprised the excavation, investigation and recording of a 2 m-wide strip along 3.5 km of the scheme. The route of the rising main measured approximately 5 km in length, but there were two stretches of pipeline where directional drilling was carried out instead of surface excavation, therefore these areas were not archaeologically monitored.
- 1.1.4 The excavation was undertaken in accordance with a Written Scheme of Investigation (WSI), which detailed the aims, methodologies and standards to be employed, for both the fieldwork and the post-excavation work (Wessex Archaeology 2018). A contingency was included in the WSI for the expansion of the archaeological trench should any features be identified that could not be adequately recorded within the trench. Anna Stocks approved the WSI, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing. The excavation was undertaken 18/06/2018 to 14/09/2018.

## 1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the excavation, to assess the potential of the results to address the research aims outlined in the WSI. It will, where appropriate, recommend a programme of further analysis work, and outline the resources needed, to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.



## 1.3 Location, topography and geology

- 1.3.1 The excavation area is located across 5,243 m of arable farmland within Warwickshire. The northern extent of the scheme is located 3.2 km south-west of Stratford-upon-Avon and 1.5 km east of Luddington; the southern extent is 0.5 km east of Long Marston.
- 1.3.2 The scheme follows the line of a former railway, now the Greenway footpath, on a relatively level route, at an elevation of *c.* 40 m OD, running generally north and east and skirting the floodplain of the River Avon at its northern end.
- 1.3.3 The underlying geology is mapped as Blue Lias and Charmouth Mudstone Formations (British Geological Survey 2018).
- 1.3.4 The superficial deposits vary in the northern portion of the site, being formed mostly of Wasperton Sand and Gravel Member. Alluvium deposits are present to a lesser extent. There are no superficial deposits recorded in the southern portion of the site (British Geological Survey 2018).

## 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 2.1 Introduction

- 2.1.1 The following information is largely taken from the DBA prepared by MOLA Northampton (MOLA 2017) with due acknowledgement. The results of the evaluation carried out by Trent and Peak Archaeology are also summarised (Trent and Peak 2018).
- 2.1.2 There are no scheduled monuments, registered battlefields or registered parks and gardens within 1 km of the site; however, there are several Grade II Listed Buildings in Broad Marston and Long Marston, Three Grade II\* Listed Buildings close by to the route and one Grade I Listed Building, the Church of St James, is situated in Long Marston. Areas of archaeological potential were identified at the northern end of the proposed route. Mesolithic flints and two Neolithic or Bronze Age ring ditches have been discovered at Milcote and Bronze Age flints have been found at Clifford Hill. An Iron Age enclosure complex has been identified to the south-west of Luddington and a probable settlement lies in Long Marston. Roman settlements have been located at the northern end of the site and to the south of Station Road. The site bypasses the known medieval settlements of Pebworth, Long Marston. Lower Milcote, Luddington and Upper Milcote, but the southern end lies on the north side of Broad Marston, close to medieval moats belonging to The Priory. Extensive areas of ridge and furrow have been identified through LIDAR and HER data at the southern end of the route but it has not survived well at the northern end near Stratford Milcote. Cartographic evidence suggests that the majority of the site lay within open farmland.

## 2.2 Previous works related to the development

Archaeological evaluation (Trent and Peak 2018)

2.2.1 An archaeological trial-trench evaluation was undertaken by Trent and Peak along the route of the scheme between Long Marston and Milcote (Trent and Peak 2018). The southern section of the pipeline route was mostly sterile. A variety of potential features were investigated and recorded. These generally ranged from amorphous silty hollows to shallow parallel and regularly spaced linear features interpreted as remnant ridge and furrow earthworks. Greater archaeological potential was apparent in the northern part of the scheme where there were areas with a greater density of archaeological activity dating from the prehistoric period onwards. A number of undated features were also identified.



## 2.3 Archaeological and historical context

#### Prehistoric

- 2.3.1 A possible Neolithic to Bronze Age ring ditch (MWA1413) has been identified to the north of Stratford Milcote sewage treatment works as a cropmark visible in aerial photographs. A second ring ditch (MWA6077) has been identified through aerial photography between the Upper Avon Navigation and the Midland Railway at the northern end of the site which is thought to be of Neolithic or Bronze Age date and a Neolithic flint arrowhead (MWA4444) was also found in the same location.
- 2.3.2 Flint debitage (MWA5315) dating to between the early Mesolithic period and the late Bronze Age were discovered during a cropmark survey close to the west of the northern end of the rising main route. A sherd of pottery (MWA4506) dating to between the early Neolithic and the late Bronze Age was found to the east of the rising main route and to the south-west of Milcote sewage treatment works on the line of the Severn Trent pipeline.
- 2.3.3 Prehistoric crop marks (MWA4680) have been identified through aerial photography to the south-west of Luddington and east of Weston Farm. The complex includes a ring ditch, an enclosure and linear features.

#### Roman

2.3.4 A Roman pottery lamp (MWA5849) dating to the late 1st century AD was found in the gardens of Milcote Manor. Samian pottery sherds and a coin of Domitian (MWA1299) dating to the Roman period have been found close to the north-east of Knobbs Farm.

#### Saxon

2.3.5 The site of a cemetery (MWA1328) that probably dates to the late Saxon period lies to the east of the northern end of the proposed rising main route at the north-eastern edge of Milcote Park (MWA8692), which dates to the post-medieval period.

## Medieval

- 2.3.6 Long Marston, Luddington and Milcote are all recorded in the Domesday Book and likely originated in the Anglo-Saxon period. The medieval settlement of Luddington (MWA9050) lies to the west of the northern end of the proposed route of the rising main. Lower Milcote deserted medieval settlement (MWA1295) is visible on aerial photographs and is located 400m east of the church in Luddington. The shrunken village earthworks of Long Marston (MWA6450) survive to the west of the railway line but analysis of aerial photographs suggests that the medieval village (MWA6459) occupied a greater area than the current village, extending a little further to the north-east and to the west of the church.
- 2.3.7 A moat (MWA1293) survives surrounding Milcote Manor as an earthwork and dates to the medieval period, although the manor is post-medieval and would imply that a medieval manor once stood at the same location. The majority of the moat has now either been destroyed or incorporated into a landscape garden.
- 2.3.8 Medieval and post-medieval ridge and furrow ploughing has been recorded across the area by the English Heritage National Mapping Programme.

#### Post-medieval and modern

2.3.9 The deserted post-medieval settlement of Upper Milcote lies to the east of Milcote Sewage Treatment Works with Milcote Park (MWA8692) nearby. Post-medieval pottery has been found in a field adjacent to the west of the northern end of the site and cartographic evidence suggests that two or three houses lay in the same location until the



- construction of the Midland Railway (MWA7840). Much of the rising main route lies adjacent to the east side of the railway. Milcote Bridge (MWA20057) stands over the Marchfont Brook close to the western side of the railway line.
- 2.3.10 Milcote Park (MWA8692) is noted in association with Milcote Hall in 1770 although it was named Sishes Park at this time and was still extant in 1811. The site of the deserted post-medieval settlement of Upper Milcote (MWA1330) has been identified on the eastern side of Milcote Park and is shown by a hollow way linking the hall with the river. Other surviving earthworks may be house platforms and have remained visible on the ground. A church is recorded as demolished there in 1638. A smithy (MWA9321) is marked on the First Edition Ordnance Survey map of 1886 also on the north-east side of Milcote Park. The site of the manor house at Milcote (MWA1331) is also known as Milcote Castle and lies to the southwest of Milcote Park. In 1567 Ludovic Grevell obtained Royal Licence to build and embattle a new house at Milcote and call it Mountgrevell. However, the work was never completed and the ruins were still standing in 1730. The house may have been destroyed by Parliamentary troops in 1644 during the Civil War, the purpose of which was to make the house unfit for a Royalist garrison under the command of Major Joseph Hawkesworth.
- 2.3.11 Post-medieval pottery (MWA5198) was found during a field survey adjacent to the west of the northern end of the site in 1964 which may suggest that the area was occupied during the 17th century.
- 2.3.12 Milcote Manor House (MWA1340, DWA2660) at Lower Milcote is a 17th-century Grade II Listed Building with an 18th-century south frontage and stonework reputedly from Lodovic Grevell's house was used in its construction.
- 2.3.13 A possible moat (MWA12478) has been identified through aerial photography to the south of Milcote Manor, which is noted as a wide feature, extending under the farmyard and with possible buildings in the centre.
- 2.3.14 Milcote post-medieval deserted settlement (MWA1294) lies adjacent to the east side of the proposed route of the rising main. Although no earthworks indicative of desertion survive, it is marked on 18th century maps.
- 2.3.15 The Second World War RAF airfield of Long Marston (MWA8029) lies on the east side of the railway to the north-east of Long Marston. It was a satellite to RAF Honeybourne and was in use until 1944 and intermittently thereafter until the late 1960s.

#### Undated

- 2.3.16 Two areas of cropmarks (MWA1290 and MWA1297) including enclosures and linear features have been identified at the northern end of the proposed rising main route and occupy most of the land between Stratford Milcote STW and Chambers Crossing. Each area lies on either side of the site, having been truncated by the railway. Analysis of aerial photography has revealed that the northernmost area (MWA1290) is a rectangular enclosure with an internal boundary ditch at right angles to the enclosure boundary. The majority of the southernmost complex (MWA1297) lies to the west of the railway line but the continuation of linear features is visible on the eastern side.
- 2.3.17 An undated human burial (MWA1289) was found at Stratford Milcote sewage treatment works, comprising 46 pieces of long bones, skull fragments and teeth.



- 2.3.18 An undated ditch was found during a watching brief at Milcote Manor Farm near the northern end of the site (EWA2449) and undated cropmark features have been identified through aerial photography to the east of Milcote Manor House (MWA12477). A second small area of cropmark features (MWA12479) also seen to the east may be the western part of the larger complex recorded further to east (MWA1297).
- 2.3.19 An undated settlement (MWA1296) has been identified to the south of Luddington adjacent to the railway line through aerial photography and includes enclosures, trackways, a ring ditch of Neolithic to Bronze Age date (MWA6077) and a linear feature. However, on morphological grounds the settlement could be Roman. Cropmarks (MWA1298) have also been identified immediately to the west and include enclosures, linear features and a pit but the features are of uncertain date.
- 2.3.20 An undated enclosure containing trackways and linear features (MWA4684) has been identified close to the south-east of the series of prehistoric cropmarks (MWA4680) to the south-east of Weston-on-Avon at Weston Sands Farm. Further areas of cropmarks have been identified close to the south and to the south-east, adjacent to the Marchfont Brook. To the south-east, a rectangular enclosure and linear features (MWA6743) have been identified through aerial photography and a D-shaped enclosure and several short linear features (MWA6742) can be seen to the south. The site of a possible rectangular enclosure and a linear feature (MWA4683) lies close by to the rest of this group but on the east side of the railway line.

#### 3 AIMS AND OBJECTIVES

#### 3.1 Aims

- 3.1.1 The general aims of the excavation, as stated in the WSI (Wessex Archaeology 2018) and in compliance with the ClfA's *Standard and guidance for archaeological excavation* (ClfA 2014a), were:
  - To examine the archaeological resource within a given area or site within a framework of defined research objectives;
  - To seek a better understanding of the resource;
  - To compile a lasting record of the resource; and
  - To analyse and interpret the results of the excavation and disseminate them.

## 3.2 Research objectives

- 3.2.1 Following consideration of the archaeological potential of the site and the regional research framework (Watt 2011), the research objectives of the excavation defined in the WSI (Wessex Archaeology 2018) were to:
  - Investigate the architecture of the Late Neolithic to Early Bronze Age to determine design and spatial development;
  - Determine the date, extent and character of landscape organisation, and its development from the Middle Bronze Age to the Romano-British period; and,
  - Assess the potential for the recovery of artefacts to assist in the development of type series within the region.



#### 4 METHODS

#### 4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2018) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The methods employed are summarised below.

#### 4.2 Fieldwork methods

#### General

- 4.2.1 The route of the rising main was set out by the contractor. Following the excavation, the locations of the archaeological excavation areas and features were surveyed using a differential GPS. The area was tied in to the Ordnance Survey (OS) National Grid and Ordnance Datum (OD) (Newlyn), as defined by OSGM15 and OSTN15 (Fig. 1).
- 4.2.2 The fieldwork comprised the excavation, investigation and recording of a 2 m wide easement along 3.5 km of the scheme. The route of the rising main measured approximately 5 km in length, but there were two stretches of pipeline where directional drilling was carried out instead of surface excavation, therefore these areas were not archaeologically monitored.
- 4.2.3 The topsoil/overburden was removed in level spits using a 360° excavator equipped with a toothless bucket working under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded in level spits until the archaeological horizon or the natural geology was exposed.
- 4.2.4 Where necessary, the surface of the archaeological deposits was cleaned by hand to aid visual definition. All archaeological features and deposits identified were hand-excavated, sufficient to address the aims of the excavation. A sample of natural features such as tree-throw holes were also investigated.
- 4.2.5 Spoil derived from both machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval. A metal detector was also used. Where found, artefacts were collected and bagged by context. All artefacts from excavated contexts were retained, although those from features of modern date (19th century or later) were recorded on site and not retained.

#### Recording

- 4.2.6 A sample of the archaeological features and deposits were recorded using Wessex Archaeology's pro forma recording system. A complete drawn record of excavated features and deposits was made including both plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid. The Ordnance Datum (OD: Newlyn) heights of all principal features were calculated, and levels added to plans and section drawings.
- 4.2.7 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data was recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSGM15 and OSTN15, with a threedimensional accuracy of at least 50 mm.
- 4.2.8 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed



quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

#### 4.3 Artefactual and environmental strategies

General

4.3.1 Appropriate strategies for the recovery, processing and assessment of artefacts and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2018). The treatment of artefacts and environmental remains was in general accordance with: Guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b) and Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (English Heritage 2011).

#### Human remains

4.3.2 The human remains were removed under the terms of a Licence for the Removal of Human Remains held by Wessex Archaeology (Ref: 19-0049 dated 28/02/19). The excavation and post-excavation assessment of human remains was in accordance with Wessex Archaeology protocols and undertaken in-line with current guidance documents (eg, McKinley 2013) and the standards set out in CIfA Technical Paper 13 (McKinley and Roberts 1993).

#### 5 STRATIGRAPHIC RESULTS

#### 5.1 Introduction

Summary of archaeological features and deposits

- 5.1.1 The earliest archaeological features exposed in the excavation included an area of hollows associated with possible prehistoric burnt mounds. Two parallel pit alignments and a cluster of pits provided evidence for Iron Age settlement activity. Several pits and ditches indicated Romano-British agricultural and settlement activity, with the main focus of occupation in the late 2nd century, but with hints of earlier Roman activity in the vicinity. Several eroded furrows represented components of a medieval agricultural landscape. A scattering of postholes is likely to have been associated with the disused 19th-century Midland Railway.
- 5.1.2 The burnt mounds were in the south-west to central part of the site (Area 2). Twenty-one Iron Age pits were clustered together in two parallel alignments at the north-east end of the scheme, and another small cluster of Iron Age pits was located 45m to the south-west (Area 6). The Roman ditches were mainly concentrated in three areas: one towards the south-west end of the pipeline route (Area 1) and two at the north-east end (Areas 3 and 4). The medieval furrows were recorded throughout most of the excavation, but particularly in the south-west and central areas. The post-medieval postholes were in the north-east part of the scheme (Area 5). A number of undated ditches and gullies were also recorded in the north-east part of the scheme (Area 7).

Methods of stratigraphic assessment and quantity of data

5.1.3 All hand written and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into an Access database for assessment, which can be updated during any further analysis. The archaeology is discussed under provisional date-phased headings determined primarily through assessment of the dateable artefacts, predominantly the pottery, and secondarily through the creation of relative chronologies where stratigraphic relationships exist.



- 5.1.4 Within each phase, there are large stretches of the pipeline where no archaeological features were encountered. For this reason, under each provisional date-phased heading, the archaeology is discussed within a series of areas of more concentrated archaeological activity, numbered Areas 1 to 7. The areas are discussed in geographical order, starting from the south-west end of the site near Long Marston and moving north-eastwards along the excavation towards Milcote. The area numbers were created during the post-excavation analysis, solely to ease the discussion of the report. Isolated features are discussed individually under the relevant date-phased heading.
- 5.1.5 All contexts are summarised in Appendix 2. This also shows the areas in which they were recorded, where applicable.
- 5.1.6 **Table 1** (below) provides a quantification of the records from the excavation.

Туре	Quantity
Context records	429
Context registers	20
Graphics (A4 and A3)	106
Graphics (A1)	4
Graphics registers	7
Environmental sample registers	1 (3 pages)
Object registers	1
Digital photographs	1076

Table 1 Quantification of excavation records

## 5.2 Soil sequence and natural deposits

- 5.2.1 The geological substrate comprised superficial deposits of Wasperton Sand and Gravel Member, consisting of yellowish-brown sand and gravel. This was encountered at slightly varying levels across the site, with the lowest point at 33.70 m OD in the north-east curving part of the scheme, and the highest at 41.95 m in the south-west end of the scheme.
- 5.2.2 An alluvial layer, 2204, consisting of light bluish-grey silty clay was present along a 50 m-stretch of the northern part of the Scheme. It is likely to be an old stream-bed associated with the River Avon, which lies 1.6 km to the north-west. A much smaller layer of alluvium, 204, consisting of bluish-grey clay and measuring 3 m wide was identified in the south-west end of the site, 160 m north-west of Area 1. Twenty-four sherds of Iron Age pottery were recovered from 204, indicating Iron Age activity in the surrounding area.
- 5.2.3 A palaeochannel, 1206, was identified in the central part of the site, on an east–west orientation. It measured 0.60 m wide and 0.24 m deep.
- 5.2.4 Excavations in all parts of the site revealed a typical stratigraphic sequence of 0.20 m— 0.30 m of yellowish-brown silty clay subsoil, overlain by 0.20 m of mid greyish-brown silt topsoil. Twenty-eight sherds of Roman pottery were recovered from the topsoil in the south-west end of the scheme.
- 5.2.5 Thirty-four tree-throw holes were identified across the central and northern part of the site. These were all excavated and recorded but did not contain any evidence of archaeological activity. The tree-throw holes were generally 1–2 m in diameter. No



archaeological finds were recovered from the fills. A shallow linear feature, 406, is likely to be an old hedgerow.

## 5.3 Residual prehistoric material

5.3.1 There was limited evidence for Neolithic/Bronze Age activity in the northern part of the scheme. Four waste flint flakes, broadly dated as Neolithic/Bronze Age, were recovered from alluvium 2204. A possible arrowhead roughout of Neolithic date was found unstratified in the backfill of an evaluation trench.

## 5.4 Prehistoric

Area 2 - Figure 2, Plates 1 and 2

- 5.4.1 The truncated remains of one or more burnt mounds were recorded in Area 2, which was located 1.24 km m from the south-west end of the scheme. The remains comprised four depressions (cuts 607, 609, 610 and 612) containing charcoal-rich fills, which were clustered together, 0.5 m apart. Their irregular shapes and undulating bases suggested they were natural hollows which had filled in with possible burnt mound material, perhaps through ploughing activity, rather than pits. Depressions 610 and 612 were immediately next to each other, measuring a combined length of 5 m by 1.9 m wide, twice the size of 607. All four features had similar shallow depths of 0.15 m and contained black silty clay fills rich in charcoal. Several environmental samples were taken from the features, but no plant macrofossils were identified during the analysis. It is possible that nearby burnt mounds had been destroyed during ploughing, resulting in the redistribution of burnt material into the natural hollows. Alternatively, these features could be the pits/troughs or smaller truncated parts of the mound itself within a natural depression or hollow. A monolith taken from one of the burnt mounds is recommended for subsampling for micromorphology to gain a better understanding of the formation processes.
- 5.4.2 No further archaeology was encountered for the next 1.83 km to the north-east, although this included a break in the excavation area measuring 884 m long, where directional drilling was carried out and no archaeological monitoring was required.

## 5.5 Iron Age

Area 6 - Figure 3, Plates 8, 9, 10, 11, 12, 13 and 14

- 5.5.1 Area 6 was located towards the north-east end of the excavation area, 265 m north-east of Area 4. This was the most intensive area of archaeological activity, therefore the easement was widened by 4 m (to 6 m wide in total) for a 25 m-long stretch in this location, in order to adequately record the archaeological features being impacted by the pipeline insertion, in accordance with the methodology proposed in the WSI (Wessex Archaeology 2018).
- Two rows of pits were arranged on a north-east to south-west orientation. There were a total of 22 pits (2106, 2107, 2112, 2113, 2116, 2120, 2125, 2126, 2129, 2134, 2137, 2142, 2145, 2148, 2152, 2153, 2156, 2159, 2145, 2166, 2169, 2172), which covered an area of 20 m long by 5.5 m wide, although the full extent of the alignment was not exposed as the rows continued beyond the western limit of the excavation area. The pits were mostly consistent in size and shape, generally having steep sides and flat bases, with diameters of 1.40–2 m and depths of 0.20–0.40 m. Two of the pits were truncated by neighbouring pits: the upper fill of 2145 was truncated by pit 2134, and the upper fill of 2156 was cut by pit 2159. The majority of the pits contained two or three fills, consisting of primary silting followed by fills associated with the use of the pits. Six of the pits (2107, 2116, 2142,



2145, 2159 and 2172) contained Iron Age pottery. The most diagnostic sherd was a Scored ware bowl from secondary fill 2118 of pit 2116. Scored ware has a broad date range of 4th century BC to the late Iron Age. The other Iron Age sherds were less diagnostic. Pit 2134 contained heat-affected stone and charcoal, possibly suggesting hearth/cooking activities were taking place. A total of 129 fragments of animal bone were recovered from 14 of the pits and from ditch 2122, discussed below. All of the bones were from livestock, with the majority from cattle. Pits 2144, 2154, 2162 and 2163 contained scapula bones that exhibited signs of trimming and filleting, providing evidence that the shoulder joints of beef were routinely cured to preserve the meat for longer-term storage. Pit 2107 contained several bones from a left hindquarter that might have been deposited in articulation. Charred plant remains recovered from environmental samples from the pits included hulled wheats such as emmer and spelt, indicating crop processing was also taking place in the vicinity. A fragment of crucible from the secondary fill of pit 2144 is likely to be a triangular crucible, typically associated with Iron Age copper working.

- 5.5.3 The secondary fill 2141 of pit 2137 contained a human neonatal left tibia. The discovery of human neonatal remains within Iron Age non-funerary contexts is not uncommon; The very youngest deceased members of these communities are often buried within domestic or agricultural settings, rather than formal funerary contexts.
- 5.5.4 Pit 2120 appeared to be truncated by the north-west terminal of a north-west to south-east oriented ditch, 2122 (1.4 x 0.7 m). It was only partially visible in plan and was mainly seen in the north-west facing section of the trench. Cattle rib and sheep bone were recovered from ditch fill 2121.
- 5.5.5 An undated ditch (2173: 2 x 0.21 m) located 40 m north-east of the pits crossed the easement on a north-west to south-east orientation.
- 5.5.6 A cluster of three postholes (2036, 2043, 2045) and two pits (2038 and 2041) was recorded 42 m south-west of the linear pit alignments (Pl. 14). The post holes were ranged from 0.45–0.84 m in diameter, with depths of 0.10–0.20 m. They had 'U'-shaped profiles and flat bases, and each contained a single fill, with the exception of posthole 2045, which contained two fills. There are no obvious patterns to indicate the plan of an individual building, but the excavation area was only 2 m wide at this point. Pit 2038 was truncated by posthole 2036 and posthole 2043 was truncated by posthole 2045, perhaps indicating repair or rebuilding. Two sherds of Iron Age pottery were recovered from the secondary fill, 2040, of a clay-lined pit, 2038, along with a roughly triangular fragment of shelly limestone, which could have been used as building material. Three sheep/goat bones and a horse mandible were also collected from pit 2038. It is possible that it functioned as a refuse pit.
- 5.5.7 A fragment of human skull deriving from an individual aged over 35 years was found redeposited in posthole 2043.
- 5.5.8 No archaeological features of any date were identified to the north-east of Area 6 throughout the rest of the scheme.
  - Residual Iron Age finds
- 5.5.9 Residual Iron Age pottery was recovered from three Roman ditches in Area 1 (327, 329 and 335). A sherd of Iron Age pottery was also recovered from the single fill of ditch 2033 in Area 5. Fired clay fragments from this feature may be oven lining (Fig. 6).



#### 5.6 Romano-British

Area 1 - Figure 4, Plates 3, 4 and 5

- 5.6.1 Area 1 represents a 75 m-long stretch towards the south-west end of the scheme, characterised by nineteen ditches, thirteen of which crossed the easement on a north-west to south-east orientation (ditches 304, 311, 314, 316, 318, 322, 333, 335, 337, 339, 322, 408, 410). The remaining six ditches (308, 327, 329, 343, 345, 405) (Pls. 3 and 4) were oriented east—west. Roman pottery was recovered from eight ditches (308, 311, 316, 322, 327, 329, 333, and 335), indicating a broadly 2nd to 3rd-century date. A tankard sherd from ditch 316 (fill 317) could be more closely dated to the later 2nd century. A mortaria sherd from ditch 343 (fill 342) indicated a mid-2nd century date at the earliest. The ditches are likely to be field boundaries and drainage ditches, indicative of Romano-British farming. The ditches were 0.52–1.54 m wide by 0.35–0.50 m deep, although it is likely they would originally have been deeper, as the upper parts were probably truncated by later ploughing. A much wider ditch, 314, measured 4 m across by 0.68 m deep. Several hand-excavated sondages revealed the ditches had similar concave profiles and flat bases.
- 5.6.2 A deposit of light brownish-grey silty clay, 321, may be an area of poaching created by livestock grazing in the fields. It measured 2.50 m long by greater than 1 m wide and had a depth of 0.36 m. Four sherds of Roman pottery were recovered from the deposit. It was truncated by ditch 322 to the north-east.
- 5.6.3 Three pits were identified within 15 m of each other (309, 325, 332) (Pl. 5) each containing similar grey-brown silty clay fills. Pits 309 and 325 were of a similar size with diameters of 0.62 m and 0.76 m respectively and depths of 0.40 m and 0.32 m. Both fills (310 and 313) in pit 309 contained several sherds of Romano-British pottery. Pit 309 was truncated by ditch 311, which also contained Roman pottery, indicating the pit was roughly contemporary with the Roman field system, although it was slightly earlier than the ditch. An abundant quantity of charred plant remains was recovered from pit 309, dominated by cereal grains such as emmer and spelt. No dating evidence was recovered from pit 332, which had a diameter of 1.20 m but was shallower than the other pits (0.22 m deep).
- 5.6.4 No further Romano-British features were identified for the next 965 m along the pipeline route, although this included a gap of 400 m where directional drilling was carried out and no archaeological monitoring was required.

Area 3 – Figure 5, Plates 6 and 7

- 5.6.5 Area 3 was defined by nine ditches (1204, 1210, 1214, 1216, 1218, 1220, 1222, 1224, 1226) (Pls. 6 and 7) which crossed a 50 m long stretch of the central part of the pipeline. The ditches were all aligned north-west to south-east, and included the south-east terminal of a ditch, 1218. They were similar in size, with widths of around 1 m and depths of 0.5 m and most had 'V'-shaped profiles. Ditch 1210 was twice the width of the other ditches, but it had a similar depth of 0.42 m. All of the ditches contained similar single fills of greyish-brown silty sand. Roman pottery was recovered from ditches 1204, 1210 and 1216. Three sherds of 15th–16th-century pottery were also recovered from ditch 1210, but these are likely to be intrusive. A single fragment of cattle scapula was recovered from ditch 1204, and an unidentifiable fragment of bone was collected from ditch 1210.
- 5.6.6 Ditch 1226 was later recut by ditch 1216, suggesting the ditches were cleaned out or recut periodically in order to maintain the field system. (Figure 5)



5.6.7 No features were identified for the next 500 m, with the exception of three undated gullies, which are discussed in Section 5.7.

Area 5 – Figure 6

- 5.6.8 Area 5 represented a 70 m long stretch of the pipeline, located towards the north-east end of the scheme, where two shallow ditches, 2008 and 2016, crossed the easement on a north-west to south-east orientation. Two east-west ditches, 2030 and 2033 were also recorded. Ditch 2030 terminated and ditch 2033 was truncated by a north-south gully 2035. A few fragments of cattle, sheep/goat and horse bone were identified in ditches 2016 and 2033. One of the horse bones had been chopped mid-shaft, providing evidence that horse meat was occasionally eaten.
- 5.6.9 A number of post-medieval postholes in close proximity to the ditches are discussed in Section 5.8.1.

#### 5.7 Medieval

5.7.1 Nineteen eroded furrows (504, 506, 604, 704, 804, 806, 905, 1004, 1006, 1505, 1612, 1615, 1627, 1705, 1807, 1813, 1821, 1831, 1917) provided evidence for extensive medieval and post-medieval farming across the site. The furrows were spaced sporadically along the site, generally 8–10 m apart, with a slightly greater concentration in the central and south-western areas. They were oriented north-west to south-east, matching the orientation of the surrounding post-medieval field boundaries shown on the First Edition Ordnance Survey map of 1884 (MOLA 2017). The furrows were 1.50 m wide by 0.05–0.20 m deep; the majority were very shallow, having been ploughed out during more recent farming practices. Much of the ridge and furrow is visible on the LIDAR data and has been mapped by the Historic Environment National Mapping Programme.

#### 5.8 Post-medieval

Area 5 - Figure 6, Plate 15

5.8.1 Area 5 was mainly characterised by a rough line of 11 postholes (2005, 2007, 2015, 2023, 2025, 2027, 2029, 2036, 2041, 2043, 2045) and two pits, 2021 and 2038. The postholes had similar concave profiles, with diameters of 0.40 m and depths of 0.15 m. All contained single blackish-brown silty clay fills, which were unlike the fills of the Romano-British features. The line of postholes was oriented north-east to south-west on the same alignment as the disused Great Western Railway. The railway was on an orientation askew of the field boundaries that existed when it was built, therefore the post-holes may have been part of a fence line associated with the railway. An irregularly shaped ditch, 2012, to the north-east of the postholes, may also by associated with the railway. It was on the same north-east to south-west alignment and contained a similar blackish-brown sandy silt fill.

#### 5.9 Undated

Area 4 - Figure 8, Plate 16

5.9.1 A number of undated ditches and gullies were encountered in Area 4. Four gullies ran parallel to each other, on a north-east to south-west orientation (1909, 1911, 1927, 1933) and two postholes (1905 and 1907) were in a line perpendicular to gully 1909. There was an area of intercutting ditches, where north-west to south-east ditch, 1924, was recut by a later ditch 1931, which in turn was cut by ditch 1933.



5.9.2 Another north-west to south-east boundary ditch, 1938, ran parallel to ditch 1933, and was truncated by a north-south boundary ditch, 1944. There was also an east-west gully,1913, and a north-south boundary ditch, 1941. All of the features appear to continue into the field to the north, where an undated cropmark enclosure has been recorded by the HER.

Area 7 - Figure 8, Plates 17, 18 and 19

- 5.9.3 Area 7 was characterised by a scattering of ditches, gullies and a posthole across a 90 m stretch of the excavation area, south-east of Luddington and less than 1 km from the River Avon.
- Two gullies, 1605 and 1607 (Pl. 17) and a ditch, 1611 (Pl.18), ran parallel to each other on a north-west to south-east orientation, 0.5 m apart from each other. The gullies measured widths of 0.45 m and 0.70 m, respectively, and had depths of 0.10 m and 0.20 m. A third gully, 1625, which was the same size, shape and orientation, lay 50 m to the north-east, and a small posthole was located nearby to the south-west. Ditch 1611 was a similar depth, but was wider, measuring 1.7 m across. All of the features contained single fills consisting of mid brownish-grey silty sand. No dating evidence was recovered from the gullies or the ditch, so it is difficult to understand how they fit into the general site chronology, although it is worth noting that a complex of cropmarks has been identified in the field immediately to the west of Area 7 (south of Milcote Road) and prehistoric cropmarks have been identified to the south-west of Luddington, indicating the presence of a ring ditch and an enclosure.
- 5.9.5 A possible old hedgerow, 1638, on a north-east to south-west orientation, measured 1 m wide by 0.44 m. It does not appear on the First Edition Ordnance Survey map of 1884, or any later mapping, suggesting it may be earlier than 18th century.
- 5.9.6 A further three undated gullies, 1305 (Pl. 19), 1308 and 1310, were identified 73 m to the north-east of Area 3, on a north-west to south-east orientation. The gullies had similar shallow concave profiles and measured widths of 0.44–1.00 m and depths of 0.10–0.50 m. The single fills consisted of mid greyish-brown silty clay and were most likely wind/rain-washed deposits.

## 6 ARTEFACTUAL EVIDENCE

## 7 FINDS

- 7.1.1 A finds assemblage of moderate size was recovered, consisting almost entirely of animal bone and pottery; other material types occurred in negligible quantities. The date range focuses on the Romano-British period, with some earlier material.
- 7.1.2 All finds have been quantified by material type within each context, and the results are presented in Table 2.

**Table 2** All finds by context (number / weight in grammes)

Context	Animal Bone	Pottery	Other Finds
101		28/179	
204	2/264	24/112	
304	7/34		
306	3/10	4/34	



<u></u>	1	Г	T
310		6/14	
312		3/65	1 stone
313	1/19	10/54	
317		10/333	
321		4/27	
323	3/10	17/137	
326		5/56	
328		8/118	
331		1/9	
334	1/5	1/12	
336	9/232	44/603	
342	4/44	26/368	6 fired clay
407	6/189		2 iron
411	1/1	1/13	
507	5/8		
509		1/3	
1205	3/86	1/6	1 fired clay
1210	14/305		
1211		2/15	
1217		1/8	
1315	6/314		
1402			4 fired clay
2018	11/191		
2032	6/30		1 fired clay
2040	9/79	2/26	1 stone
2044			1 human bone; 1 stone
2104	36/349		
2109	33/694	1/10	
2110	5/154		
2115	6/13		
2118	4/6	2/53	
2121	6/33		
2131	3/2		
2136	9/63		
2141	62/895		1 human bone
2144	12/339		1 crucible
2150	2/1		
2154	47/466		2 stone
2162	22/256	6/53	
2163	52/287	3/81	
2165	1/1		
2167	2/1		
2171	6/40	2/8	



2204	28/347		4 flint
unstratified			1 flint
Total	438/5780	213/2397	

## 7.2 Pottery

7.2.1 The finds work reported here conforms to the following guidance: for finds work by ClfA (2014) and for pottery analysis by PCRG *et al* (2016). The pottery assemblage examined comprises 213 sherds (2397 g), plus one ceramic crucible fragment.

#### Aims

- 7.2.2 The aims of the assessment were:
  - To identify, sort, spot date, and quantify all artefacts;
  - To describe the range of artefacts present;
  - To preliminarily assess the significance of the artefacts.

#### Methods

7.2.3 The pottery was quantified by count and weight and dated to period. For the purposes of assessment only broad fabric groups were recorded (oxidised, reduced, BB1, samian etc), but the Warwickshire fabric series is referenced where appropriate in the discussion. A terminus post quem date was produced for each stratified context to assist with phasing (Table 6). All information was recorded on a Microsoft Access database.

#### Results

7.2.4 The pottery assemblage was predominantly Roman, though some later prehistoric, and occasional late medieval to post-medieval sherds were also recorded (Table 3). The crucible was Iron Age. The ceramic finds came from five of the areas excavated (Table 4). Well over half came from Area 1, the largest groups of Roman pottery coming from two ditch cuts (cuts 335 and 343). The finds derived from 30 stratified contexts; predominantly ditch fills, with smaller quantities from pit fills, and subsoil/topsoil deposits. The pottery was abraded and fairly fragmentary, with an overall average sherd weight of 11 g.

**Table 3** Summary of the pottery by period

period	material subtype	object specific type	count	Wt. (g)	Average Wt. (g)
Iron Age	earthenware	pot	47	395	8
Iron Age	fired clay	crucible	1	15	15
early Roman	earthenware	pot	4	13	3
Roman	earthenware	pot	160	1977	12
late med/early post-med	earthenware	pot	1	3	3
post-medieval	earthenware	pot	1	9	9

**Table 4** Summary of the pottery by area and period

Area/	period	object specific type	count	Wt. (g)
trench				



1	Iron Age	pot	31	164
	Roman	pot	160	1961
	post-medieval	pot	1	9
2	Roman	pot	1	3
3	Roman	pot	3	26
	late med/early post-med	pot	1	3
5	Iron Age	pot	2	26
6	Iron Age	crucible	1	15
	Iron Age	pot	14	205

## The pottery

- 7.2.5 The prehistoric pottery comprised a range of handmade fabrics that fell into two groups: well fired, sand-tempered wares, and coarser shell-tempered wares. This range is broadly consistent with the evidence from other Warwickshire sites. The most diagnostic piece was the rim from an Iron Age, scored ware bowl in a sandy fabric, from a pit in Area 6 (2116, fill 2118). Scored wares were produced from the 4th century BC, becoming common from the mid-3rd and continuing in use into the late Iron Age (Elsdon 1992). The other prehistoric body sherds were less diagnostic. This, and the fact that key Warwickshire assemblages, such as Wasperton, remain unpublished, makes their dating more difficult. Evidence from Beckford, to the south in Worcestershire, has indicated that shell-tempered wares went out of use by the earlier Middle Iron Age. This may also be the case in this area of Warwickshire; something to be explored if more detailed analysis is undertaken. Like the Scored ware, the shell-tempered wares were associated with pits, in Area 6 (2145, 2159 and 2172) and Area 5 (2038).
- 7.2.6 Romano-British pottery made up the bulk of the assemblage. The great majority came from ditch fills or layers in Area 1, with a handful of sherds from Areas 2 and 3. Oxidised wares, predominantly Severn Valley ware, dominated the assemblage. Relatively few rims were recorded, but those present indicated a broadly 2nd to 3rd-century AD date. The most diagnostic form was a tankard from ditch 316 (fill 317), dating to the later 2nd century (Webster 1976, fig 7.42, 43). A few sherds of organic and other more coarsely tempered Severn Valley ware from Area 1 (pit 309, fill 313; ditch 335, fill, 336 and subsoil 101) are indicative of earlier Roman activity. The reduced wares, comprising a range of sandy fabrics, were not very diagnostic but are broadly consistent with a 2nd to 3rd century AD date.
- 7.2.7 The best dating evidence came from the more widely traded and imported wares. Black burnished ware (BB1), all from Area 3, provided a *tpq* of *c* AD 120 for some deposits. The most closely dated form came from ditch 329 (fill 328); a rim from a jar dating to the mid to late 2nd century AD (Gillam 1976, fig 1.4). A sherd of Mancetter-Hartshill mortaria was recovered from ditch 343 (fill 342), the grits on which suggest a mid-2nd-century date at the earliest. The assemblage also included seven sherds of samian, all from Area 1. Most were Central Gaulish ware bowls dating to the 2nd century AD, including forms Dr 33, Dr 37 and a Dr 31. One sherd may be East Gaulish, indicating a slightly later date from the late 2nd to early 3rd century AD.
- 7.2.8 Very little post-Roman pottery was recovered. A sherd of sandy ware with an internal green glaze was found in the secondary fill of Area 3 ditch 1210 (fill 1211); most likely dating to the 15th to 16th century (Soden and Rátkai 1998, class SG). An abraded body



sherd in a black glazed, post-medieval red ware was found in the only fill of Area 1 pit 332 (fill 331); dating to the 17th–18th century.

**Table 5** Summary of the pottery by period and fabric class

period	fabric group	count	Wt. (g)
Iron Age Calcareous (Warwickshire Class P50)		1	3
	Sand (Warwickshire Class P10)	34	245
	Shell (Warwickshire Class P50)	4	102
	shell & sand (Warwickshire Class P50)	8	45
Roman	BB1 (Warwickshire fabric B11)	6	20
	Mortaria (Warwickshire fabric M22)	1	43
	Oxidised (Warwickshire Class O)	115	1281
Reduced (Warwickshire Class R)		31	485
	Samian (Warwickshire Class S)	7	148
early Roman	Oxidised (Warwickshire Class O)	4	13
late med/early post-med	Sandy glazed (Warwickshire Class SG)	1	3
post-medieval	post medieval red ware (Warwickshire Class MB)	1	9
total		213	2397

#### Crucible

7.2.9 The only other significant ceramic find was a fragment of crucible from the secondary fill of an Area 6 pit 2142 (fill 2144). The rim curves at a marked angle, suggesting it is likely to be from a triangular crucible. These are typically associated with Iron Age copper working; the wall thickness, which varies between 5–15mm, is consistent with this identification (Dungworth 2015, 43).

 Table 6
 Summary of context dating based on pottery

context	count	weight(g)	period	start date	end date	context terminus post quem date
101	28	179	Roman	AD 100	mid-late 2nd C	2nd C
204	24	112	Iron Age			Iron Age
306	4	34	Roman	AD 120	AD 410	AD 120
310	6	14	Roman			Roman
312	3	65	Roman			Roman
313	10	54	Roman	AD 100	mid-late 2nd C	2nd C
317	10	333	Roman	2nd C	3rd C	2nd-3rd
321	4	27	Roman			Roman
323	17	137	Roman			Roman
326	1	3	Iron Age			Roman
	4	53	Roman			
328	2	13	Iron Age			Roman



	6	105	Roman			
331	1	9	post-medieval	1600	1800	1600-1800
334	1	12	Roman			Roman
336	4	13	early Roman	late 1st C	early 2nd C	mid-late 2nd C
	4	36	Iron Age			
	36	554	Roman	mid 2nd C	late 2nd C	
342	26	368	Roman	mid 2nd C	late 2nd-early 3rd C	late 2nd-early 3rd C
411	1	13	Roman			Roman
509	1	3	Roman			Roman
1205	1	6	Roman			Roman
1211	1	12	Roman			15th-16th C? (or
	1	3	late med/early post-med	15th C	16th C	intrusive?)
1217	1	8	Roman			Roman
2040	2	26	Iron Age			Iron Age
2109	1	10	Iron Age			Iron Age
2118	2	53	Iron Age			Iron Age
2144	1	15	Iron Age			Iron Age
2162	6	53	Iron Age			Iron Age
2163	3	81	Iron Age			Iron Age
2171	2	8	Iron Age			Iron Age

## 7.3 Fired clay

7.3.1 Fourteen fragments of fired clay were recovered. These fragments are undiagnostic; small quantities came from Area 1 ditch 343 (fill 342), Area 3 subsoil and ditch 2033 (fill 2032), and Area 5 ditch 2032 (fill 2033). The latter may perhaps be oven lining.

#### 7.4 Human bone

- 7.4.1 Two bones, found redeposited within an undated posthole and an undated (possibly Iron Age) pit, were analysed. Bone condition was recorded following McKinley (2004). Age and sex were assessed using standard methodologies (Bass 1987; Buikstra and Ubelaker 1994; Scheuer and Black 2000). Due to the nature of the assemblage, the scope for analysis was very limited.
- 7.4.2 The assemblage comprises two bones, a fragment of the fronto-parietal portion of an adult skull from posthole 2043 (fill 2044) and a neonatal left tibia from pit 2137 (fill 2141). The skull fragment is in excellent condition (grade 0), with a slight sheen on both surfaces that may be related to the burial environment, or possibly to post-mortem manipulation/curation eg, repeated handling. Breaks are old and some are consistent with occurrence whilst the bone still maintained some plasticity (ie, was semi-green). The complete tibia is also well-preserved, exhibiting only slight erosion of the ends (grade 1).
- 7.4.3 A minimum of two individuals are represented, a neonate (approximately 34–38 weeks gestation) and an unsexed adult probably over 35 years. Pathological changes comprise faint remnants of pitting within the orbital roof (*cribra orbitalia*) indicative of a former



- anaemic state, most often caused by a deficiency in iron and/or Vitamin B12 (Lewis and Roberts 1997; Walker et al. 2009).
- 7.4.4 The discovery of neonatal remains within Iron Age and Romano-British non-funerary contexts is not uncommon; the well-recognised phenomenon where very youngest deceased members of these communities are more typically buried within domestic or agricultural settings, rather than formal funerary contexts, and the potential reasons why have been discussed elsewhere (Struck 1993; Scott 1999, 115; Philpott 1991, 101).
- 7.4.5 It is not unusual to find evidence for curation and/or manipulation of human remains, particularly (but not exclusively) during the prehistoric period. The reasons for, and forms of which, have been debated elsewhere and remain open to discussion (eg, Brück 1995, 2001; McKinley 2014, 211). Alternatively, the skull fragment might have derived from an inadvertently disturbed primary burial location.

#### 7.5 Animal bone

7.5.1 A total of 438 fragments (or 5780 kg) of animal bone came from deposits of Iron Age, Romano-British, medieval and post-medieval/modern date in four areas of the pipeline route (Table 7). Most (70%) came from Area 6, with smaller amounts from Areas 1, 3 and 5, and alluvial deposits at the north and south ends of the pipeline route. Once conjoins are considered the total falls to 205 fragments (Table 8).

 Table 7
 Animal bone: quantity by Area

Area	Fragment count	Weight (g)	Period
1	46	556	Romano-British, post-medieval/modern
3	17	391	Romano-British
5	37	622	Iron Age, post-medieval/modern
6	308	3600	Iron Age
Alluvium	30	611	Undated
Total	438	5780	

#### Methods

7.5.2 The assemblage was rapidly scanned following current guidelines for best practice (Baker and Worley 2014). The information quantified includes species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

#### Results

#### Preservation and fragmentation

7.5.3 Bone preservation is generally good and consistent within individual contexts however fragmentation rates are quite high. Poorly preserved bones, that had been subjected to physical weathering, were however recovered from alluvial deposits 204 and 2204. Gnaw marks are apparent of just 12 post-cranial bones (or 40%), the low occurrence suggests that the assemblage has not been significantly affected by the bone chewing habit of scavenging carnivores, although it is worth noting that gnawing can completely obliterate bones, particularly those of immature animals.



## Area 1

7.5.4 Animal bone fragments came from Romano-British features including pit 309 and several ditches, and from a post-medieval/modern hedgerow 406. The identified bones from Iron Age features include a few cattle and sheep/goat bones. The sheep/goat bones, a humerus and radius, from pit 309 are both burnt and probably came from the same joint of meat.

#### Area 3

7.5.5 A single fragment of cattle scapula came from Romano-British ditch 1204, and unidentifiable fragment from ditch 1210.

## Area 5

7.5.6 Three sheep/goat bones and a horse mandible came from Iron Age pit 2038. A few fragments of cattle, sheep/goat and horse bone came from undated features, gully 1312 and ditches 2016 and 2032. One of the horse bones, a femur, had been chopped midshaft, providing evidence that horsemeat was occasionally eaten. A sheep/goat humerus was also recovered from a post-medieval/modern furrow at this location.

**Table 8** Animal bone: number of identified specimens present (or NISP) by Area and period (IA = Iron Age, RB = Romano-British, PM/M = post-medieval/modern, UD = undated)

Species	Area 1		Area 3	Area 5		Area 6	Alluvium	Total
	RB	PM/M	RB	IA	PM/M or UD	IA	UD	
Cattle	5	1	1	-	-	32	6	45
Sheep/goat	4	-	-	3	4	15	-	26
Pig	-	-	-	-	-	6	-	6
Horse	-	-	-	1	3	-	-	4
Red deer	-	-	-	-	-	-	1	1
Total identified	9	1	1	4	7	53	7	82
Total unidentified	18	-	-	4	6	76	19	123
Overall total	27	1	1	8	13	129	26	205

## Area 6

- 7.5.7 A total of 129 fragments of animal bone came from 14 pits in the Iron Age pit alignment at the north-east end of Area 6, and from ditch 2122. The identified bones are all from livestock. Cattle bones dominate, and the majority are from pit 2107 with small amounts from eight other pits. The identified bones from pit 2107 comprise several bones from a left hindquarter that might have been deposited in articulation. A skull from pit 2141 has a depressed fracture in the central part of the frontals, clear evidence that the animal was despatched by poleaxe. Several other pits (2144, 2154, 2162 and 2163) include scapula that exhibit signs of trimming and filleting. These types of evidence are indicative that shoulder joints of beef were routinely cured to preserve the meat for longer-term storage.
- 7.5.8 Sheep/goat bones are also common although the range of elements is restricted to fragments of skull, mandible, metapodia and distal tibia. These elements can be classified as butchery waste. The assemblage also includes a few pig bones, mostly loose teeth, but also a few post-cranial bones including a femur from a neonatal animal.



#### Alluvium

7.5.9 The identified bones from alluvial deposits 204 and 2204 are mostly from cattle, they include fragments of mandible, tibia, humerus and two fragments of radius. The only other bone is a fragment of proximal metacarpal from a red deer.

#### 7.6 Other finds

- 7.6.1 Other finds were very limited; they comprise five pieces of struck flint, five pieces of stone and two iron objects.
- 7.6.2 The struck flint includes four waste flakes, one of them broken (all from alluvium 2204). These are not chronologically distinctive and are broadly dated as Neolithic/Bronze Age. The fifth piece was an unstratified find from the backfill of an evaluation trench; this is possibly an arrowhead roughout of Neolithic date, although the precise form intended is impossible to determine.
- 7.6.3 None of the five pieces of stone is definitely worked. A roughly triangular fragment of shelly limestone from Iron Age pit 2038 could have been used as building material. A rounded cobble from Iron Age posthole 2043 has been burnt, but there is no other sign of working/utilisation, and the same is true of a fragment of a rounded pebble from undated pit 2153. A very small, irregular fragment from the same feature, retrieved from a sieved soil sample, has a small circular perforation partially penetrating the fragment, but this is not definitively man-made (slightly irregular, no definite tool marks). The fifth piece is an orange-red micaceous, fine-grained rock (Romano-British linear feature 311), unworked but retained for possible geological identification.
- 7.6.4 The two iron objects (from undated feature 406) could be part of one object; they comprise a figure-of-eight loop and a looped pin attachment. Its date and function are unknown.

## 8 ENVIRONMENTAL EVIDENCE

#### 8.1 Introduction

8.1.1 Fifty-one bulk sediment samples were taken from a range of features such as pits, hollows and ditches, and were processed and assessed for the presence of environmental evidence (Table 9).

**Table 9** Sample provenance summary

Trench/Area	No of samples	Volume (litres)
В	1	0.8
3B	1	40
6A	17	110.9
13A	1	40
3	1	21
16C	4	56
16B	1	40
16D/E	1	30
19A	2	9
20A	1	40
20E	4	85
21C	1	40
21B	17	643
22	1	40
Totals		



#### 8.2 Aims and Methods

- 8.2.1 The purpose of this assessment is to determine the potential of the environmental remains preserved at the site to address project aims and to provide archaeobotanical data valuable for wider research frameworks.
- 8.2.2 The size of the bulk sediment samples varied between 0.8 and 40 litres, and on average was around 30 litres. A series of twelve small bulk samples of about 0.5 litres was taken from a possible burnt mound. The samples were processed by standard flotation methods on a Syraf-type flotation tank or by bucket flotation; the flot retained on a 0.25 mm mesh, residues fractionated into 4 mm and 1 mm fractions and dried. The coarse fractions (>4 mm) were sorted by eye and discarded. A fraction of a selection of the fine residue fractions and the flots were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of environmental remains. Different bioturbation indicators were considered, including the percentage of roots, the abundance of modern seeds and the presence of mycorrhizal fungi sclerotia (eg, Cenococcum geophilum) and animal remains, such as earthworm eggs and insects, which would not be preserved unless anoxic conditions prevailed on site. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as molluscs, animal bone and insects (in cases of anoxic conditions for their preservation), was recorded.
- 8.2.3 Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals. Abundance of remains is qualitatively quantified (A\*\*\* = exceptional, A\*\* = 100+, A\* = 30-99, A = >10, B = 9-5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa.

#### 8.3 Results

- 8.3.1 The flots from the bulk sediment samples were generally small (Appendix 4), with generally high numbers of roots and modern seeds that may be indicative of some stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material was rare and poorly preserved, often iron coated, suggesting intermittent waterlogged conditions on site, which are often detrimental for the preservation of charred organic matter. Wood charcoal was noted in generally small quantities, with the exception of two samples which provided moderate amounts. Remains of terrestrial molluscs and small animal bones were also present. No other environmental evidence was preserved in the bulk sediment samples.
- 8.3.2 The best-preserved environmental evidence was retrieved from Romano-British pit 309, which had an abundant quantity of charred plant remains, dominated by cereal grains (emmer, *Triticum dicoccum*, and spelt, *Triticum spelta*) and vetch (Vicieae) seeds and roots from indeterminate taxa. One of the grains was sprouted and a detached embryo with coleoptile was also present.
- 8.3.3 The remainder of the samples had little environmental evidence, restricted to a few cereal grains and seeds from wild plants. The cereal taxa was generally identified to hulled wheats (emmer or spelt) and barley (*Hordeum vulgare*). A possible naked wheat (*Triticum* cf. aestivum/turgidum) grain was present in one of the samples, as well as a rye (*Secale cereale*) rachis.



### 8.4 Discussion

8.4.1 The environmental evidence retrieved from the site is very sparse and poorly preserved. The charred plant remain assemblages are indicative of background crop processing activities, which are broadly consistent with an Iron Age or Romano-British chronology due to the presence of hulled wheats such as emmer and spelt. A couple of samples had rye and naked wheat remains, suggesting later activity in the area also, since none of these later taxa became widespread until post-Roman times.

#### 9 STATEMENT OF POTENTIAL

## 9.1 Realisation of the original research aims

Original aim

- To examine the archaeological resource within a given area or site within a framework of defined research objectives;
- 9.1.1 All features exposed during the excavation at Stratford Rising Main between Long Marston and Milcote, Warwickshire, were excavated and recorded and have been discussed in this report. The archaeological potential of the site is examined in relation to the West Midlands regional research framework (Watt 2011) in Sections 9.1.8 to 9.1.17 below.

Original aim

- To seek a better understanding of the resource
- 9.1.2 Investigations at the Stratford Rising Main between Long Marston and Milcote, Warwickshire, identified burnt mounds, pits and ditches indicative of prehistoric occupation of the site, mainly during the Iron Age period. Further pits and ditches provided evidence for Roman agricultural activity, largely within the 2nd to 3rd century, although there was also evidence for earlier Roman activity in the vicinity. Several eroded furrows represented components of a medieval agricultural landscape. A scattering of postholes is likely to have been associated with the disused 19th-century Midland Railway. The archaeology was primarily concentrated within seven different areas along the scheme, with large stretches in between where no archaeological features were encountered.
- 9.1.3 Burnt mounds of probable prehistoric origin were located in the south-west to central part of the site (Area 2), to the west of Hobbs Farm. Parts of the West Midlands are renowned for burnt mounds, which are potentially of great importance for the reconstruction of the palaeoenvironment, as they are usually associated with the survival of charcoal and other environmental indicators. Additionally they may preserve colluvial or alluvial deposits underneath and so provide an extended prehistoric sequence (Watt 2011).
- 9.1.4 The Iron Age activity was predominantly in the north-east part of the site, where two parallel pit alignments incorporating twenty-one pits were situated 175 m south-east of the River Avon, and another small cluster of Iron Age pits was located 45 m to the south-west (Area 6). However, a large concentration (24 sherds) of Iron Age pottery was also recovered from alluvium in the south-west part of the site. Although there are no surrounding Iron Age features visible, it is important to remember the excavation area is only 2 m wide, therefore it is likely that Iron Age features exist outside of the excavation area in the nearby vicinity. This would be a prominent position for Iron Age settlement, as



it is close to a water source; A small tributary of the River Avon is located c.100 m to the east, leading to the Marchfront Brook to the north-east.

- 9.1.5 The Romano-British ditches were mainly concentrated in three parts of the site: one towards the south-west end of the pipeline route (Area 1) and two at the north-east end (Areas 3 and 4). A number of undated ditches and gullies were also recorded in the north-east part (Area 7).
- 9.1.6 Medieval furrows were recorded throughout most of the excavation, but particularly in the south-west and central areas. They were oriented north-west to south-east, matching the orientation of the surrounding post-medieval field boundaries shown on the First Edition Ordnance Survey map of 1884 (MOLA 2017). Much of the ridge and furrow is visible on the LIDAR data and has been mapped by the Historic Environment National Mapping Programme.

Original aim

- To compile a lasting record of the resource; to analyse and interpret the results of the excavation and disseminate them.
- 9.1.7 This report discusses all archaeological finds and features identified during the investigation. A copy of this report will be submitted to the Warwickshire Historic Environment Record and the project archive to Warwickshire Museum Service.

Research objective

- Investigate the architecture of the Late Neolithic to Early Bronze Age to determine design and spatial development
- 9.1.8 No archaeological features of Neolithic/Bronze Age date were encountered during the investigation, so there is little scope to improve understanding of the architecture of this period. The only Neolithic/Bronze Age dating came from waste flint flakes recovered from alluvium in the northern part of the scheme, and an unstratified context in the backfill of an evaluation trench. The artefact distribution correlates with the HER records, which list aerial photographs of a possible Neolithic to Bronze Age ring ditch (MWA1413) to the north of Stratford Milcote sewage treatment works, and another between the Upper Avon Navigation and the Midland Railway at the northern end of the site.
- 9.1.9 No dating evidence was recovered from the burnt mounds, however it is worth noting that most burnt mound sites investigated in the West Midlands are Middle Bronze Age in date (Watt 2011), so the possibility of a Bronze Age date for the features cannot be discounted. It would be useful to carry out micromorphology and radiocarbon dating in order to obtain the date and a chronology of formation for one of the burnt mounds.

Research objective

 Determine the date, extent and character of landscape organisation, and its development from the Middle Bronze Age to the Romano-British period

Iron Age

9.1.10 The Iron Age pit alignment in Area 6 is characteristic of the increasing subdivision of landscape in the Iron Age period and of the new types of boundaries being represented by



- pits and posthole alignments. The exact date of the pit alignment is unknown; therefore it would be useful to carry out radiocarbon dating of wood charcoal from the pits, or of the articulated cattle hindquarter from pit 1027.
- 9.1.11 LiDAR data shows the pit alignment to be on a relatively low area of ground, 1.8 km to the south-east of the River Avon. The pits are roughly on the same orientation as the river (north-east to south-west) running parallel to the river. A study of pit alignments in Warwickshire by John Thomas highlighted many examples of the relationship between rows of pits and watercourses. Thomas found that at Ryton-on-Dunsmore and Old Milverton, (20 miles and 13 miles, respectively, to the north-east of the Long Marston pits) pit alignments were positioned to effectively demarcate bends in nearby rivers (Thomas 2008).
- 9.1.12 Undated linear features and enclosures have been identified through crop marks in the field both to the east and west of the pit alignment, suggesting the pits may be part of a larger prehistoric landscape. There is evidence that cattle, sheep and goats were kept at the site, presumably to provide, meat, milk, wool, dung and other by-products, therefore the surrounding crop marks may indicate enclosures used for management of livestock. The bulk of the food waste appears to have been provided by cattle and there was evidence for curing and preservation of meat for longer-term storage, suggesting it is likely there was a settlement nearby. The presence of cereal grains such as emmer and spelt provided evidence for crop processing. Fired clay fragments from an Iron Age ditch in Area 5 may be oven lining.
- 9.1.13 The presence of a crucible in pit 2142, within the pit alignment, appears to be evidence for Iron Age copper working. It is thought that raw materials for metal working are most likely to have been mainly imported from outside the region (Watt 2011).
- 9.1.14 It is unclear whether the human skull fragment in posthole 2043 was a deliberate deposition, or whether it derived from an inadvertently disturbed primary burial location. This was located within the smaller cluster of pits, 0.45 m away from the pit alignment, where a human neonatal tibia was encountered. The material evidence from the pit alignment shows it lay within an area where agricultural, horticultural and domestic activities were carried out. The presence of neonatal remains within this domestic setting fits with other known Iron Age burial practices where the very youngest deceased members of communities have been found buried within domestic or agricultural settings, rather than in formal funerary context.
- 9.1.15 It is possible that some of the undated ditches and gullies in the northern part of the site may also be part of the Iron Age activity at the site.

#### Romano-British

9.1.16 The was evidence for further sub-division of land during the Romano-British period and much more-widespread agricultural activity, in the form of *c*.30 ditches and occasional small clusters of associated pits. Although the orientations of ditches varied, the majority were oriented north-west to south-east, on the same alignment as the field system which still exists today along the length of the scheme. The pottery assemblage indicates that the site was occupied sometime in the latter half of the 2nd century, although there were hints of earlier Roman activity in the vicinity, suggesting there may have been some small-scale continuation of land use from the Iron Age through to the early Romano-British period. There was no evidence for settlement immediately within the site, but pottery and animal bone concentrations suggest domestic activities were occurring nearby.



#### Research objective

- Assess the potential for the recovery of artefacts to assist in the development of type series within the region
- 9.1.17 It would be useful to compare the Iron Age pottery assemblage with other published Warwickshire assemblages. Evidence from Beckford, to the south of Worcestershire has indicated that shell-tempered wares went out of use by the earlier Middle Iron Age. A more detailed analysis of the Long Marston Assemblage would have the potential to explore whether this is also the case in areas of Warwickshire. Further analysis of the seven sherds of samian pottery and comparison with other sites in the area is also recommended.

## 9.2 Stratigraphic potential

9.2.1 Further stratigraphic analysis is not recommended.

## 9.3 Finds potential

Pottery

- 9.3.1 The pottery has provided general dating evidence (Table 6). The largest quantity of finds came from Area 1 ditches. These produced a predominantly Roman assemblage, with a small quantity of Iron Age pottery. The handfuls of Roman pottery recovered from Areas 2 and 3 comprised less diagnostic material, making them harder to date with any certainty. The samian has the potential to provide more precise dating.
- 9.3.2 Overall, the Roman assemblage indicated that the site was most likely occupied sometime in the latter half of the 2nd century, although there were also hints of some earlier Roman activity in the vicinity. The small assemblages from pits in Areas 5 and 6 also indicate some level of Iron Age activity. Of particular interest is the crucible from Area 6, which suggests metal working was taking place nearby.

#### Human bone

9.3.3 The recovery of two redeposited human bones (skull fragment and neonatal tibia) is of interest, but not uncommon in Iron Age or Romano-British contexts. Radiocarbon dating may help to set the skull fragment in its temporal setting. Otherwise the assemblage has been fully recorded and requires no further osteoarchaeological work.

#### Animal bone

9.3.4 Of the faunal assemblage, the most informative group of bones came from the Iron Age pit alignment in Area 6. This material should be fully analysed to record the information quantified in Table 10 and supplemented by radiocarbon dating on articulated bone from pit 2107. The data will form the bases for a publication report that summarises the analysis results and attempts to make broad comparisons with assemblages from other pit alignments. These monuments are common in the Midlands, but their economic, social and political role is little understood (Knight *et al* 2012) and the small animal bone assemblage from Area 6 will add to the corpus of evidence.

 Table 10
 Animal bone: quantity and type of detailed information available for livestock

Species	Iron age	Romano-	Medieval, post-	Total
		British	medieval and	
			undated	



Cattle							
Age – fusion	16	-	6	22			
Age – mandibles 2+	2	-	-	2			
Biometry	1	-	-	1			
Butchery	8	2	4	14			
Sheep/goat							
Age – fusion	1	1	-	2			
Age – mandibles 2+	2	-	-	2			
Biometry	1	1	-	2			
Butchery	4	-	-	4			
Pig	Pig						
Age – fusion	1	-	-	1			
Age – mandibles 2+	-	-	-				
Biometry	-	-	-				
Butchery	1	-	-	1			

#### Other finds

9.3.5 The very small quantity of other material types, and the lack of any items of intrinsic interest, severely limits their potential to contribute further to an understanding of the site, and no further work on these is proposed.

## 9.4 Environmental potential

- 9.4.1 Due to the poor preservation, the assemblages recovered so far have little potential and require no further analysis but should be included in prospective reports and publications. Many of the samples had suitable material for radiocarbon dating should this be required to better understand the chronology of the site use. The flots with charred plant remains are recommended for retention while the sterile samples are suggested for discard.
- 9.4.2 A monolith taken from one of the burnt mounds is recommended for subsampling for micromorphological analysis (2 thin sections) to gain a better understanding of the feature's formation processes. Radiocarbon dating is recommended for obtaining a chronology of formation for the feature. At least two, but an ideal number of four, radiocarbon samples from different short-lived items should be submitted, since burnt mounds often form over a relatively long span of time. The four dates, two from the bottom and two from the top, would allow for basic Bayesian modelling to assess the reliability and the consistency of the results with relation to the formation of the feature.

#### 9.5 Radiocarbon dating

9.5.1 Radiocarbon dating is also recommended for obtaining a chronology of formation for the burnt mound. Four radiocarbon samples from different short-lived items should be submitted, since burnt mounds often form over a relatively long span of time. The four dates, two from the bottom and two from the top, would allow for basic Bayesian modelling to assess the reliability and the consistency of the results with relation to the formation of the feature.



9.5.2 A radiocarbon date for the articulated cattle hindquarter from pit 2107 will provide a more specific date for the Iron Age pit alignment in Area 6. Radiocarbon dating of the human skull fragment will help to place it in its temporal setting.

## 9.6 Summary of potential

9.6.1 Burnt mounds of probable prehistoric origin, located in the south-west to central part of the site, have the potential to increase understanding of the date, formation, function and distribution of burnt mounds in the West Midlands. The Iron Age pit alignment has the potential to inform on Iron Age settlement activity and metal working practices in the area. The Roman ditches are typical of Roman agricultural activity in the West Midlands, and indicate the site was occupied sometime in the latter half of the 2nd century, although there are hints of earlier activity. The samian has the potential to provide more precise dating for the Roman activity.

#### 10 UPDATED PROJECT DESIGN

## 10.1 Summary of recommendations for analysis

10.1.1 Further work is required to better place the archaeology of the development area within its local, regional and national context. A stage of analysis and publication will allow the results of the fieldwork to contribute to the relevant established research aims and questions outlined above.

#### Summary of finds recommendations

- 10.1.2 The pottery should be recorded in detail, by fabric and form, for comparison with other sites in the area. The samian should be reported on by a samian specialist. Further analysis of the Iron Age pottery fabrics, and comparison with other published Warwickshire assemblages, should also provide closer dating. A small selection of vessels may be illustrated.
- 10.1.3 It is recommended that a sample of the human skull fragment from pit 2044 should be submitted for radiocarbon dating.
- 10.1.4 The Iron Age animal bone should be analysed following established methods and guidelines (Baker and Worley 2014) and consider current research priorities (Hambleton 1999; Knight *et al* 2012).
- 10.1.5 It is recommended that a sample of bone from the articulating cattle hindquarter recovered from pit 2107 is selected for radiocarbon dating. This will provide an absolute date for the Iron age pit alignment in Area 6.

#### 10.2 Updated project aims

- 10.2.1 This section combines those research aims that the site archive has the potential to address with any new research aims identified in the assessment process, by stratigraphic, finds and environmental specialists to produce a set of revised research aims that will form the basis of any future research agenda. In forming these, reference was made to the West Midlands Research Framework (Watt 2011).
  - Is it possible to carry out radiocarbon dating on charcoal from any of the environmental samples taken from the burnt mounds, in order to establish the date of these features? How can this contribute to our understanding of the use and occupation of the site in prehistory?



- What can micromorphology tell us about the formation of the burnt mounds and the chronology of these features? How can this increase our understanding of burnt mounds in the West Midlands?
- There is limited information on the palaeoenvironment in the region across all periods. What can micromorphology of the burnt mounds tell us about the palaeoenvironment? (If radiocarbon dating is successful, the micromorphology should be able to inform on the palaeoenvironment at a specific time during the prehistoric period).
- How far can comparative studies of other Iron Age sites in the region increase our understanding of the extent and character of landscape organisation during the Iron Age period?
- How far can comparative studies of other Iron Age pit alignments increase understanding of the economic, social and political role of these features? What can we learn from the relationship between Iron Age pit alignments and water courses? How far can further study of the animal bone assemblage contribute to the overall understanding of these features?
- Can further study of the Iron Age pottery provide a more accurate date for the Iron Age activity at the site?
- How does the Iron Age pottery assemblage compare to other published Warwickshire assemblages? It has been suggested that shell-tempered wares in Worcestershire went out of use by the earlier Middle Iron Age. Is this also the case in areas of Warwickshire?
- Can further study of the Roman pottery provide a more accurate date for the Roman occupation of the site?
- How far can further study of the Roman pottery improve understanding of distribution and trade in the West Midlands in the 2nd century? What can the vessel types tell us about aspects of Roman-style practices making headway in the region, in domains such as the storage, preparation and consumption of foodstuffs and beverages?

## 10.3 Proposals for publication

- 10.3.1 It is suggested that the results of the excavation should be published as a short article in the journal *Transactions of the Birmingham and Warwickshire Archaeological Society*. Consideration will be given to the results of the evaluation (Trench and Peak 2018). The text will include supporting specialist information, figures, and photographs as necessary and attempt to place the site in its local context and also within its regional context. The article will also address the research questions identified in this post-excavation assessment.
- 10.3.2 This report will present a detailed chronological narrative of the site sequence, attempt to address the questions posed in the revised research agenda following the suggested structure:
- 10.3.3 Provisional synopsis of The Long Marston to Stratford Rising Main publication:



Working title: Burnt mounds, Iron Age pit alignments and Roman ditches along the Long Marston to Stratford Rising Main. By Catherine Douglas, with principal specialist contributions from Ian Anderson, Kirsten Egging Dinwiddy, Jane Evans, Lorrain Higbee, Inés López-Dóriga and Lorraine Mepham

Introduction500 wordsResults2000 wordsFinds and environmental reports1000 wordsDiscussion1000 words

#### Introduction (500 words)

- Circumstances of the project
- The landscape setting
- · Archaeological and historical background
- Methods

## Excavation results (2000 words)

- The prehistoric burnt mounds
- The Iron Age pits
- The Romano-British field systems

## Specialist reports summary (1000 words)

A project page will be hosted on the Wessex Archaeology website, where copies of full specialist analysis reports will be freely available to download.

- The Iron Age pottery
- The Iron Age animal bone
- The Roman pottery
- Environmental material

#### Discussion (1000 words; to relate to regional research agenda)

- Overview
- A comparative study of burnt mounds in the West Midlands
- Pit alignments and landscape organisation during the Iron Age period
- Trade and distribution during the Roman period
- Conclusion

Total: approximately 4500 words, 6 figures, 6 plates, 4 tables

## 10.4 Web-based publication

10.4.1 A project page will be hosted on the Wessex Archaeology website, where copies of full specialist analysis reports will be freely available for download.

## 10.5 Programme for analysis and publication

10.5.1 Upon acceptance of this post-excavation assessment report a programme will be established for analysis and publication of the site.

#### 10.6 Personnel and resources

10.6.1 The following Wessex Archaeology core staff are scheduled to undertake the work as outlined in the task list for post-excavation analysis and publication (Table 11).



## 10.7 Management structure

- 10.7.1 Wessex Archaeology operates a project management system. The team will be headed by a Post-excavation Manager, who will assume ultimate responsibility for the implementation and execution of the project specification as outlined in the Updated Project Design, and the achievement of performance targets, be they academic, budgetary, or scheduled.
- 10.7.2 The Post-excavation Manager may delegate specific aspects of the project to other key staff, who will both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report, and the museum named as the recipient of the project archive. The Post-Excavation Manager will have a major input into how the publication report is written. They will define and control the scope and form of the post-excavation programme.
- 10.7.3 The Post-excavation Manager will be assisted by the Senior Research Manager, who will help to ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines

#### 11 STORAGE AND CURATION

#### 11.1 Museum

11.1.1 The archive resulting from the excavation is currently held at the offices of Wessex Archaeology in Sheffield. Warwickshire Museum Service has agreed in principle to accept the archive on completion of the project, under a reference number to be assigned. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

## 11.2 Preparation of the archive

Physical archive

- 11.2.1 The physical archive, which includes paper records, graphics, artefacts and ecofacts, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Warwickshire Museum Service, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011).
- 11.2.2 All archive elements will be marked with the accession code, and a full index will be prepared. The physical archive comprises the following:
  - 4 cardboard boxes or airtight plastic boxes of artefacts and ecofacts, ordered by material type (2 boxes animal bone; 1 box pottery; 1 box miscellaneous finds)
  - 2 files of paper records and A3/A4 graphics
  - 1 file/document case of A1 plans

## Digital archive

11.2.3 The digital archive generated by the project, which will include born-digital data (survey data, databases and spreadsheets, photographs and reports) as well as a scanned security copy of the physical records (see below, Section 11.4), will be deposited with the Archaeology Data Service (ADS) to ensure its long-term curation. Digital data will be



prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by full metadata.

#### 11.3 Selection policy

- 11.3.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4), with the aim of retaining only those finds with further research potential, or which fulfil other criteria within the Museum's collecting policy.
- 11.3.2 In this instance, the following categories could be targeted for selective retention, on the basis of small quantities and lack of intrinsic interest:
  - Fired clay: very small quantities, undiagnostic, intrinsically undatable although dated by association with pottery (Iron Age/Romano-British); no retention recommended;
  - Worked flint: only five pieces, four of which are waste flakes which are not chronologically distinctive. Retention recommended for possible arrowhead roughout only;
  - Stone: five pieces, none of which is definitively worked; no retention recommended;
  - Iron: two objects, undated and of uncertain function; no retention recommended.
- 11.3.3 All other materials (pottery, animal bone, human bone) should be retained *in toto*.
- 11.3.4 The selection policy will be agreed with the museum and will be fully documented in the project archive.

#### 11.4 Security copy

11.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

#### **11.5 OASIS**

11.5.1 An OASIS online record (http://oasis.ac.uk/pages/wiki/Main) has been initiated (wessexar1-322413), with key fields and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.

## 12 COPYRIGHT

## 12.1 Archive and report copyright

12.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act* 1988 with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations* 2003. In some instances, certain regional museums may



- require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.
- 12.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

## 12.2 Third party data copyright

12.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of such material



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#### **APPENDICES**

## Appendix 1: OASIS form

OASIS ID: wessexar1-322413

**Project details** 

Project name Long Marston to Stratford Rising Main

Short description of

the project

Wessex Archaeology has been commissioned by NMC Nomenca, on behalf of Severn Trent Water, to carry out a programme of archaeological strip, map and record along the line of the 5,243m length Stratford Rising Main being constructed between Long Marston and Milcote, Warwickshire. The strip, map and record was the final stage in a programme of archaeological works, which included a desk-based assessment (MOLA 2017) and archaeological evaluation trenching (Trent and Peak 2018). The earliest archaeological features exposed in the excavation included an area of hollows associated with possible prehistoric burnt mounds. Two parallel pit alignments and a cluster of pits provided evidence for Iron Age settlement activity. Several pits and ditches indicated Romano-British agricultural and settlement activity, with the main focus of occupation in the late 2nd century, but with hints of earlier Roman activity in the vicinity. Several eroded furrows represented components of a medieval agricultural landscape. A scattering of postholes is likely to have been associated with the disused 19th-century Midland Railway.

Project dates Start: 18-06-2018 End: 14-09-2018

Previous/future

work

Yes / No

Any associated project reference

codes

207430 - Sitecode

Type of project Recording project

Site status None

Current Land use Cultivated Land 2 - Operations to a depth less than 0.25m

Monument type PIT Roman

Monument type DITCH Roman

Monument type RIDGE AND FURROW Medieval

Monument type POSTHOLES Post Medieval

Significant Finds POTTERY Roman

Investigation type "Open-area excavation"

Prompt National Planning Policy Framework - NPPF

**Project location** 

Country England

Site location WARWICKSHIRE STRATFORD ON AVON WESTON ON AVON Long

Marston to Stratford Rising Main



Postcode CV37 8JW

Study area 5.2 Kilometres

Site coordinates 417118 251595 417118 00 00 N 251595 00 00 E Point

Site coordinates SP 415917 248838 51.920487698375 -1.39516348318 51 55 13 N 001 23

42 W Point

Site coordinates SP 418151 252730 51.923970392719 -1.391867656695 51 55 26 N 001 23

30 W Point

Height OD / Depth Min: 33.7m Max: 41.95m

**Project creators** 

Name of Organisation

Wessex Archaeology

Project brief originator

Wessex Archaeology

Project design originator

Wessex archaeology

Project

director/manager

R. O'Neill

Project supervisor Michael Keech
Project supervisor Simon Brown

Type of

sponsor/funding

body

Severn Trent Water

Name of sponsor/funding

body

**NMC Nomenca** 

**Project archives** 

Physical Archive

recipient

Warwickshire Museum Services

Physical Contents "Ceramics"

Digital Archive recipient

е

Warwickshire Museum Services

Digital Media available

"Database","GIS","Images raster / digital photography","Spreadsheets","Survey","Text"

Paper Archive recipient

Warwickshire Museum Services

Paper Media available

"Context sheet","Drawing","Plan","Report","Section"

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type



Title Long Marston to Stratford Rising Main Written Scheme of Investigation for

Archaeological Strip, Map and Record

Author(s)/Editor(s) Dabill, H

Date 2010

Issuer or publisher Wessex Archaeology

Place of issue or

publication

Sheffield

Description Written Scheme of Investigation for Archaeological Strip Map and Record

on behalf of NMC Nomenca.

Project bibliography 2

Grey literature (unpublished document/manuscript)

Publication type

Title Long Marston to Stratford Rising Main Post-excavation Assesment Report

Author(s)/Editor(s) Douglas, C.

Other bibliographic

details

Wessex Archaeology Report Number 207430

Date 2018

Issuer or publisher Wessex Archaeology

Place of issue or

publication

Wessex Archaeology North (Sheffield)

Description One A4 paper-bound report

Entered by Catherine Douglas (c.douglas@wessexarch.co.uk)

Entered on 19 November 2018

# Appendix 2: Context register

Deposit	Deposit Interpretation	Deposit Description	In Cut	Cut Interpretation	Cut Description	Area
101	topsoil	Brown grey silty clay				
102	Subsoil	Yellow brown silty clay				
103	Natural	Brownish yellow sandy silt				
201	topsoil	Grey brown silty clay				
202	Subsoil	Yellow brown silty clay	Yellow brown silty clay			
203	Natural	Yellow brown silty clay				
204	Alluvial Layer	Greyish blue clay layer running E-W - alluvium				
301	topsoil	Brownish grey silty clay				1
302	Subsoil	Yellow grey clay-silt				1
303	Natural	Yellow brown silty clay				1
305	Fill	Blue grey silty clay	304	Ditch	NW-SE cut of ditch	1
306	Secondary fill	Grey brown silty clay	308	Ditch	E-W ditch	1
307	Primary fill	Brownish yellow silty clay	308	Ditch	E-W ditch	1
310	Primary fill	Orange grey silty clay	309	Pit	Cut of pit containing fills 310 and 313, cut by ditch 311	1
312	Single fill	Yellow grey silty clay	311	Ditch	NW-SE ditch, cutting pit 309	1
313	Secondary fill	Greyish black silty clay	309	Pit	Cut of pit containing fills 310 and 313, cut by linear 311	1
315	Single fill	Brown grey clay	314	Ditch	NW-SE ditch	1
317	Primary fill	mid brown clay	316	Ditch	NW-SE running ditch	1
319	Primary fill	Greyish black clay	318	Ditch	NW-SE ditch	1
320	Secondary fill	Blueish grey clay	318	Ditch	NW-SE running ditch	1
321	Poaching deposit	Brownish grey silty clay layer 2.5m wide			Animal livestock poaching (trampling)	1
323	Secondary fill of ditch	greyish brown silty clay	322	Ditch	N-S possible drainage ditch filled with 341 and 323, cuts layer 321	1
324	Single fill	Brownish grey silty clay	325	Pit	Cut of small pit	1
326	Single fill	Brownish grey soft clay	327	Ditch	E-W ditch recut into RB ditch 329	1

328	Single fill	Yellowish brown silty clay	329	Ditch	E-W ditch	1
330	Deposit of natural silting	Yellowish brown compact silty clay cut by 329				1
331	Single fill	Yellowish grey silty clay	332	Pit	Small pit	1
334	Single fill	Yellow brown clay	333	Ditch	SW-NE ditch cut by 335	1
336	Single fill	Grey brown clay	335	Ditch	NW-SE ditch	1
338	Single fill	Greyish brown silty clay	337	Ditch	SE-NW ditch	1
340	Single fill	Mid greyish brown silty sand	339	Ditch	SE-NW ditch	1
341	Primary fill	Brownish grey with black hue silty clay	322	Ditch	N-S drainage ditch filled with 341 and 323, truncates poaching deposit 321	1
342	Single fill	Brownish grey moderately compact silty clay	343	Ditch	E-W ditch	1
344	Secondary fill	Brown clay	345	Ditch	E-W ditch, possible boundary ditch	1
401	topsoil	Compact brownish grey silty clay				1
402	Subsoil	moderately compact yellow-brown silty clay				1
403	Natural	Very compact yellowish brown silty clay				1
404	Single fill	Yellowish brown with grey mottling compact silty clay	405	Ditch	E-W V-shape drainage ditch	1
407	Single fill	Reddish brown silty clay	406	Hedgerow	NW-SE linear interpreted as hedgerow	
409	Secondary fill	Orange-brown compact silty clay	408	Ditch	SE-NW ditch filled with 409 and 412, cuts ditch 410	1
411	Secondary fill	Orange-grey brown compact silty clay, upper fill of ditch	410	Ditch	SE-NW ditch filled with 411, 413 and cut by 408	1
412	Primary fill	orange brown with yellow mottling, lower fill of ditch	408	Ditch	SE-NW ditch filled with 409 and 412, cuts ditch 410	1
413	Primary fill	yellowish brown with grey mottling silty clay, primary silting	410	Ditch	SE-NW ditch filled with 411, 413 and cut by 408	1
501	topsoil	Brownish grey moderately compact silty clay				
502	Subsoil	Brownish orange compact silty clay				
503	Natural	Compact greyish yellow silty clay				
505	Single fill	Orange grey compact silty clay	504	Furrow	NW-SE furrow	
507	Single fill	Yellowish brown compact silty clay	506	Furrow	E-W cut of furrow, cut by later field drain and cutting into fill of earlier drainage ditch 508	
509	Single fill	Blue grey compact silty clay	508	Ditch	E-W drainage ditch, possible earlier furrow recut by later	

					506	
601	Topsoil	Brownish grey moderately compact clay silt				2
602	Subsoil	Moderately compact yellowish grey silty clay				2
603	Natural	Compact brownish yellow silty clay				2
605	Single fill	Yellowish grey silty clay	604	Furrow	N-S very shallow furrow 3cm deep	2
606	Single fill	Burnt mound deposit: Blue grey compact silty clay	607	Natural hollow below burnt mound	NE-SW irregular discreet- possible burn mount remnant	2
608	Single fill	Burnt mound deposit: Dark blue grey silty clay	609	Cut of Burnt mound	Oval irregular feature possibly heavily ploughed burnt mount remnants	2
611	Single fill	Burnt mound deposit: Black silty clay with burnt stones	610	Cut of Burnt mound	SW-NE large irregular deposit associated with burnt mound	2
613	Single fill	Burnt mound deposit: Black silty clay	612	Cut of burnt mount or natural hollow	Cut of burnt mound	2
701	Topsoil	brownish grey moderately compact clay silt				
702	Subsoil	moderately compact mid yellowish grey silty clay				
703	Natural	compact brownish yellow silty clay				
705	Single fill	Light yellowish grey silty clay	704	Furrow	E-W furrow	
801	Topsoil	Brownish grey moderately compact clay silt				
802	Subsoil	Yellowish brown moderately compact silty clay				
803	Natural	Compact brownish yellow silty clay				
805	Single fill	Yellowish brown clay	804	Furrow	E-W irregular furrow	
807	Single fill	Yellowish brown clay	806	Furrow	E-W irregular furrow	
901	Topsoil	Brownish grey moderately compact clay silt				
902	Subsoil	Yellowish brown compact silty clay				
903	Natural	Compact light yellowish grey silty clay				
904	Single fill	grey brown compact silty clay	905	Furrow	E-W shallow furrow	
1001	Topsoil	moderately compact mid brownish grey silty clay				
1002	Subsoil	Compact yellowish brown silty clay				
1003	Natural	Brownish yellow compact clay				
1005	Single fill	Yellowish grey silty clay	1004	Furrow	E-W furrow	

1007	Single fill	Yellowish brown clay sand	1006	Furrow	E-W furrow	
1101	Topsoil	moderately compact brownish grey silty clay				
1102	Subsoil	yellowish brown silty clay				
1103	Natural	Compact brownish yellow silty clay with blue clay patches				
1201	Topsoil	Greyish brown sandy silt				3
1202	Subsoil	Compact mid brownish orange silty sand				3
1203	Natural	compact reddish brown silty sand				3
1205	Single fill	Reddish brown with a grey hue, silty sand	1204	Ditch	NW-SE ditch	3
1207	Single fill	Dark silty sand	1206	Palaeochannel		
1208	Single fill	greyish brown friable silty sand	1209	Tree bole	Cut of small tree bole	3
1211	Secondary fill	Brownish grey sandy silt	1210	Ditch	NW-SE ditch	3
1213	Single fill	Greyish brown silty sand	1212	Furrow	E-W linear, possible furrow	
1215	Single fill	Greyish brown with orange hue silty sand	1214	Ditch	SE-NW V shape ditch	3
1217	Single fill	Brownish grey silty sand	1216	Ditch	SE-NW linear ditch, cuts 1228	3
1219	Single fill	Brownish grey silty sand	1218	Ditch terminus	SE-NW linear, terminus	3
1221	Single fill	Brownish grey silty sand	1220	Ditch	NE-SW boundary ditch	3
1223	Single fill	Brownish grey silty sand	1222	Gully	E-W curvilinear gully, cuts 1225	3
1225	Single fill	Brownish grey silty sand	1224	Ditch	E-W linear ditch	3
1227	Primary fill	Brownish grey silty sand	1226	Ditch	E-W linear ditch	3
1228	Secondary fill	Mid-brownish grey silty sand	1226	Ditch	E-W linear ditch	3
1301	Topsoil	Friable mid greyish brown sandy silt				
1302	Subsoil	Moderately compact reddish brown sandy silt				
1303	Natural	Compact yellowish red silty sand				
1304	Single fill	Orange brown soft sandy silt	1305	Ditch	NW-SE drainage ditch	
1307	Single fill	Brownish grey silty sandy silt	1306	Gully	NW-SE curvilinear gully	
1309	Single fill	Greyish brown sandy silt	1308	Ditch	SE-NW boundary ditch	
1311	Single fill	Brownish yellow silty sand	1310	Gully	SW-NE gully	
1313	Single fill	Greyish brown sand	1312	Gully	NW-SE shallow gully	
1315	Single fill	Greyish brown sand	1314	Ditch	NW-SE ditch	
1401	Topsoil	Greyish brown with red hue sandy silt				

1402	Subsoil	Reddish brown sandy silt				
1403	Natural	Reddish brown gritty silty sand				
1404	Single fill	Yellowish grey soft silty sand	1405	Furrow	E-W linear furrow	
1501	topsoil	Greyish brown sandy silt				
1502	Subsoil	Greyish yellow sandy silt				
1503	Natural	Brownish yellow sandy silt				
1504	Single fill	Brownish orange silty sand	1505	Furrow	NW-SE shallow furrow	
1601	Topsoil	Greyish brown sandy silt				7
1602	Subsoil	Greyish yellow sandy silt				7
1603	Natural	Brownish orange sandy silt				7
1604	Single fill	Brownish grey compact silty sand	1605	Ditch	NW-SE curvilinear ditch	7
1606	Single fill	Brownish grey moderately compact sandy silt	1607	Ditch	NNW-SE curvilinear ditch	7
1609	Single fill	Light greyish brown mottled with orangey red	1608	Tree bole	Irregular discreet- tree bole	7
1610	Single fill	Brownish grey moderately compact sandy silt	1611	Ditch	NW-SE curvilinear ditch	7
1613	Single fill	Greyish brown sandy silt	1612	Furrow	NW-SE furrow	7
1614	Single fill	Orange brown compact sandy silt	1615	Furrow	SE-NW furrow	7
1616	Single fill	Brownish orange silty sand	1617	Tree throw	Irregular oval possible tree throw	7
1619	Single fill	Brownish grey sandy silt	1618	Tree bole	Irregular shaped tree bole	7
1620	Single fill	Brownish grey soft silty sand	1621	Ditch	NE-SW curvilinear ditch	7
1622	Single fill	Yellowish grey loose silty sand	1623	Posthole	Circular posthole	7
1624	Single fill	Orange grey silty sand	1625	Gully	NE-SW linear gully	7
1626	Single fill	Greyish brown silty sand	1627	Furrow	SE-NW shallow furrow	7
1629	Primary fill	Reddish brown silty sand	1628	Tree throw	Ovoid/ irregular cut of large tree throw	7
1630	Fill	Greyish white with rusty flakes, silty sand	1628	Tree throw	Ovoid/ irregular cut of large tree throw	7
1631	Upper fill	yellowish grey sandy silt	1628	Tree throw	Ovoid/ irregular cut of large tree throw	7
1633	Fill	Yellowish grey sandy silt	1632	Tree throw	Irregular ovoid tree throw	7
1635	Fill	Yellowish grey sandy silt	1634	Tree throw	Ovoid/ irregular tree throw	7
1636	Middle fill	Grey with rusty flecks	1628	Tree throw	Ovoid/ irregular cut of large tree throw	7
1637	Single fill	Orange brown friable sandy silt	1638	Ditch	NE-SW curvilinear ditch	7
1701	Topsoil	Yellowish grey silty clay				

1702	Subsoil	Yellowish brown silty sand				
1703	Natural	Yellowish brown silty sand				
1704	Single fill	Brownish grey moderately compact silty clay	1705	Furrow	E-W furrow	
1706	Fill	Brownish grey compact silty sand	1707	Tree bole	NE-SW irregular tree bole	
1708	Fill	Brownish grey soft silty sand	1709	Tree throw	E-W irregular oval tree throw	
1710	Fill	Brownish grey soft silty sand	1711	Tree throw	N-S irregular tree throw	
1801	topsoil	moderately compact mid greyish brown sandy silt				
1802	Subsoil	Compact brownish yellow silty sand				
1803	Natural	Yellowish brown silty sand				
1804	Single fill	Brownish grey moderately compact sandy silt	1805	Tree throw	E-W irregular tree throw	
1806	Single fill	Greyish yellow soft silty sand	1807	Furrow	E-W furrow	
1809	Single fill	Yellowish grey sandy silt	1808	Natural hollow	Irregular natural hollow	
1811	Single fill	Greyish brown with a black hue sandy silt	1810	Tree bole	Irregular tree bole	
1812	Single fill	Orange-brown moderately compact sandy silt	1813	Furrow	E-W linear furrow	
1814	Single fill	Brownish grey moderately compact sandy silt	1815	Tree bole	Circular tree bole	
1816	Single fill	Grey brown moderately compact sandy silt	1817	Gully	N-S linear gully, truncated by 1815	
1818	Single fill	Grey-brown moderately compact sandy silt	1819	Tree bole	circular/ irregular tree bole	
1820	Single fill	Orange brown moderately compact sandy silt	1821	Furrow	E-W irregular linear furrow, cut by tree bowls 1815 and 1819	
1823	Single fill	Reddish brown sandy silt	1822	Tree throw	Subcircular tree throw	
1824	Single fill	Brownish grey moderately compact sandy silt	1825	Gully	NE-SW shallow drainage gully	
1827	Single fill	Brownish grey sandy silt	1826	Gully	NE-SW shallow gully	
1829	Single fill	Brownish grey sandy silt	1828	Tree bole	Irregular	
1830	Single fill	Greyish brown moderately compact sandy silt	1831	Furrow	N-S furrow	
1901	topsoil	Greyish brown sandy silt				4
1902	Subsoil	Brownish grey sandy silt				4
1903	Natural	brownish yellow silty sand				4
1904	Single fill	Brownish grey loose silty sand	1905	Posthole	Circular posthole - part of fenceline associated with the railway/Greenway	4
1906	Single fill	Brownish grey loose silty sand	1907	Posthole	Circular posthole - part of fenceline associated with the railway/Greenway	4

1908	Single fill	Brownish grey loose sandy silt	1909	Gully	NE-SW	4
1910	Single fill	greyish brown silty sand	1911	Gully	NE-SW	4
1912	Single fill	Brownish grey friable silty sand	1913	Gully	E-W	4
1915	Single fill	Greyish black sandy silt	1914	Modern intrusion	SE-NW irregular feature associated to disused railway line	4
1916	Single fill	Yellowish brown moderately compact sandy silt	1917	Furrow	E-W	4
1918	Single fill	Reddish brown soft sandy silt	1919	Gully	E-W drainage gully cut by later med furrow 1917	4
1921	Single fill	Blackish grey silt	1920	Post hole	NW-SE irregular discrete	4
1923	Single fill	Blackish grey silt	1922	Tree throw	NW-SE irregular tree throw	4
1925	Primary fill	Orange brown silty sandy clay	1924	Ditch	SE-NW ditch, cut by 1931	4
1926	Secondary fill	Orange brown silty sand	1924	Ditch	SE-NW ditch, cut by 1931	4
1928	Primary fill	Greyish black silty clay	1927	Ditch	SW-NE ditch filled with 1928, 1929, 1930	4
1929	Secondary fill	Grey black sandy silt	1927	Ditch	SW-NE ditch filled with 1928, 1929, 1930	4
1930	Tertiary fill	Orange brown silty sand	1927	Ditch	SW-NE ditch filled with 1928, 1929, 1930	4
1932	Single fill	Brownish grey silty clay	1931	Ditch	SE- NW recut of ditch 1924	4
1934	Primary fill	Brownish orange silty clay	1933	Ditch	NE-SW re-cut ditch	4
1935	Secondary fill	Orange grey silty clay	1933	Ditch	NE-SW re-cut ditch	4
1936	Tertiary fill	Brownish orange silty sand	1933	Ditch	NE-SW re-cut ditch	4
1937	Quaternary fill	Greyish brown clayey silt	1933	Ditch	NE-SW re-cut ditch	4
1939	Secondary fill	Brownish orange silty sand	1938	Ditch	NW-SE boundary ditch	4
1940	Tertiary fill	Brownish grey silty clay	1933	Ditch	NE-SW re-cut ditch	4
1942	Primary fill	Brownish grey silty sand	1941	Ditch	N-S boundary ditch	4
1943	Secondary fill	Dark brownish grey silty clay	1941	Ditch	N-S boundary ditch	4
1945	Single fill	Greyish brown silty clay	1944	Ditch	SE-NW possible furrow cuts ditch 1941	4
1946	Secondary fill	Brownish grey moderately compact silty sand	1948	Modern intrusion	E-W modern (poss machine cut) associated with railway	4
1947	Primary fill	Yellowish grey soft silty sand	1948	Modern intrusion	E-W modern (poss machine cut) associated with railway	4
2001	Topsoil	Moderately compact greyish brown sandy silt				6
2002	Subsoil	Compact brownish grey sandy silt				6
2003	Natural	compact brownish yellow silt sand				6

2004	Single fill	Brownish grey moderately compact sandy silt	2005	Posthole	Associated with disused railway line	6
2006	Single fill	Brownish grey soft sandy silt	2007	Posthole	Associated with disused railway line	6
2009	Single fill	Brownish black sandy silt	2008	Ditch	NW-SE	6
2011	Secondary fill	Brownish grey sandy silt	2010	Tree bole	Irregular	6
2013	Single fill	Blackish brown sandy silt	2012	Ditch	W-E	6
2014	Single fill	Brownish grey soft sandy silt	2015	Posthole	NE-SW oval, associated with railway?	6
2017	Primary fill	Yellowish grey silty sand	2016	Ditch	SE-NW	6
2018	Secondary fill	Brownish grey sandy silt	2016	Ditch	SE-NW ditch	6
2019	Secondary fill	Brownish grey friable sandy silt - redeposited topsoil	2021	Pit	Modern pit, associated with railway?	6
2020	Primary fill	Greyish brown soft silty sand	2021	Pit	Circular modern pit	6
2022	Single fill	Brownish grey soft sandy silt	2023	Posthole	Associated with modern railway	6
2024	Single fill	Brownish grey soft sandy silt	2025	Posthole	Associated with 2023, 2027 and 2029, part of modern railway	6
2026	Single fill	Brownish grey soft sandy silt	2027	Posthole	Associated with modern railway, same as 2023, 2029	6
2028	Single fill	Brownish grey sandy silt	2029	Posthole	Associated with modern railway and post holes 2023, 2025, 2027	6
2031	Single fill	Greyish black sandy silt	2030	Ditch	E-W	6
2032	Single fill	Greyish brown silty sand	2033	Ditch	E-W ditch. Cut by gully 2035	6
2034	Single fill	Orangey-brown silty sand	2035	Gully	N-S running gully, cutting ditch 2031	6
2037	Single fill	Brownish grey clay silt	2036	Posthole	Sub-oval posthole cut by later pit 2038	6
2039	Primary fill	Blue-grey clay	2038	Pit	Sub-circular clay lined pit cutting 2037	6
2040	Secondary fill	Brownish grey silty clay	2038	Pit	Sub-circular clay lined pit cutting 2037	6
2042	Single fill	Brownish grey silty clay	2041	Posthole	Sub-oval	6
2044	Single fill	Dark brownish grey silty clay	2043	Posthole	Subcircular, cut by posthole 2045	6
2046	Primary fill: post packing	Yellowish orange silty sand	2045	Posthole	Sub-circular. Filled with 2046 (lower) and 2047 (upper fill). Cuts 2044	6
2047	Secondary fill	Brownish grey silty clay	2045	Posthole	Sub-circular. Filled with 2046 (lower) and 2047 (upper fill). Cuts 2044	6
2101	Topsoil	Moderately compact reddish brown silty sand				5
2102	Subsoil	Moderately compact yellowish brown sandy silt				5
2103	Natural	Mixed yellowish brown clay silt and dense gravel				5

		patches				
2104	Secondary fill	Dark grey brown soft silty sand- upper fill	2106	Pit	Circular pit filled with 2105, 2104	5
2105	Primary fill	Yellowish brown soft silty sand - lower fill of pit	2106	Pit	Circular pit filled with 2105, 2104	5
2108	Primary fill	Orange-yellow silty sand- lower fill	2107	Pit	Sub-circular pit filled with 2108, 2109	5
2109	Secondary fill	Greyish brown silty sand	2107	Pit	Sub-circular pit filled with 2108, 2109	5
2110	Secondary fill	Grey brown soft sandy silt- upper fill	2112	Pit	Circular pit filled 2110, 2111	5
2111	Primary fill	Brownish grey soft silty sand	2112	Pit	Circular pit filled 2110, 2111	5
2114	Primary fill	Brownish orange silty sand	2113	Pit	Shallow irregular pit in alignment other pits running E-W	5
2115	Secondary fill	Greyish brown sandy silt	2113	Pit	Shallow irregular pit on same alignment as other pits running E-W	5
2117	Primary fill	Yellowish orange silty sand, lower fill	2116	Pit	Sub circular pit in alignment	5
2118	Secondary fill	Dark greyish brown sandy silt upper fill	2116	Pit	Sub circular pit in alignment	5
2119	Single fill	Greyish brown silty sand, cut by 2122	2120	Pit	Irregular E-W pit cut by ditch 2122	5
2121	Single fill	Greyish brown silty sand	2122	Ditch	NW-SE ditch cutting pit 2120	5
2123	Secondary fill	Greyish brown soft silty sand- upper fill	2125	Pit	Part of alignment of pits, containing fills 2124, 2123	5
2124	Primary fill	Brownish yellow friable silty sand lower fill of pit	2125	Pit	Part of alignment of pit, containing fills 2124, 2123	5
2127	Primary fill	Greyish yellow silty sand	2126	Pit	Sub-oval shape. Part of alignment of pits	5
2128	Secondary fill	Greyish brown silty sand	2126	Pit	Sub-oval shape, part of alignment of pits	5
2130	Primary fill	Yellowish grey silty sand	2129	Pit	Sub-circular, in alignment with other pits	5
2131	Secondary fill	Brownish grey sandy silt	2129	Pit	sub circular pit, in alignment with other pits	5
2133	Single fill	Yellowish brown silty sand	2132	Ditch	SW-NE ditch associated with railway disturbance	5
2135	Primary fill	Brownish grey sandy silt	2134	Pit	Circular pit, within alignment of pits, containing heat affected stone	5
2136	Secondary fill	Greyish brown silty sand	2134	Pit	Circular pit, part of pit alignment	5
2138	Primary fill	Greyish yellow silty sand primary fill	2137	Pit	Subcircular pit, filled with 2138, 2139, 2140, 2141	5
2139	Primary fill	Greyish brown friable silty sand - silting from initial digging of pit			Subcircular pit filled with 2138, 2139, 2140, 2141	5
2140	Primary fill	Reddish brown silty sand mixed with initial primary fill 2138	2137	Pit	Subcircular pit filled with 2138, 2139, 2140, 2141	5
2141	Secondary fill	Brownish grey silty clay - backfilling event	2137	Pit	Subcircular pit filled with 2138, 2139, 2140, 2141	5
2143	Primary fill	Greyish yellow silty sand	2142	Pit	Sub circular pit- possible recut of 2137	5

2144	Secondary fill	Brownish grey silty clay	2142	Pit	Sub circular pit- possible recut of 2137	5
2146	Primary fill	Orangey brown sand - redeposited natural	2145	Pit	Cut by later pit 2134	5
2147	Secondary fill	Brownish grey sandy silt	2145	Pit	Cut by later pit 2134	5
2149	Primary fill	Greyish yellow silty sand	2148	Pit	Sub-circular pit at west end of pit alignment	5
2150	Secondary fill	Greyish brown silty sand	2148	Pit	Sub-circular pit at west end of pit alignment	5
2151	Single fill	Brownish grey silty sand	2152	Pit	Part of E-W alignment of pits	5
2154	Secondary fill	Reddish brown sandy silt- upper fill	2153	Pit	Part of double pit alignment	5
2155	Primary fill	Yellowish brown sand	2153	Pit	Part of double pit alignment	5
2157	Primary fill	Greyish yellow silty sand	2156	Pit	In alignment of pits, cut by2159	5
2158	Secondary fill	Brownish grey silty sand	2156	Pit	In alignment of pits, cut by 2159	5
2160	Primary fill	Yellowish grey silty sand	2159	Pit	Sub circular pit cutting 2156	5
2161	Secondary fill	Greyish yellow silty sand	2159	Pit	Sub circular pit cutting 2156	5
2162	Tertiary fill	Brownish grey sandy silt	2159	Pit	Sub circular pit cutting 2156	5
2163	Secondary fill	Greyish brown sandy silt	2145	Pit	Cut by later pit 2134	5
2164	Primary fill	Brownish orange sandy silt	2166	Pit	In E-W pit alignment	5
2165	Secondary fill	Yellowish grey sandy silt	2166	Pit	In E-W pit alignment	5
2167	Secondary fill	Reddish brown friable silty sand	2169	Pit	Oval pit in alignment of other pits- cut of pit in double pit 2172	5
2168	Primary fill	Orange brown soft sandy silt- lower fill of pit	2169	Pit	Oval pit in alignment of other pits- cut of pit in double pit 2172	5
2170	Secondary fill	Greyish brown friable sandy silt, upper fill of pit	2172	Pit	Part of alignment of pits	5
2171	Primary fill	Orange brown moderately compact sandy silt-lower fill of pit	2172	Pit	Part of alignment of pits	5
2174	Single fill	Reddish brown sandy silt	2173	Ditch	N-S possible field boundary	5
2201	topsoil	Greyish brown silty sand				
2202	Subsoil	Brownish orange silty sand				
2203	Natural	Blue-grey clay				
2204	Alluvium	Compact greenish blue silty clay possible pond. Not ex due to water table				
2301	Topsoil	greyish brown silty sand				
2302	Subsoil	Greyish yellow sandy silt				

2303	Natural	Silty sand	
2401	Topsoil	Moderately compact greyish brown sandy silt	
2402	Subsoil	Compact greyish orange sandy silt	
2403	Natural	Compact yellow orange sand	
2501	Topsoil	Moderately compact grey brown silty sand	
2502	Subsoil	Compact yellowish grey sandy silt	
2503	Natural	Compact bands of yellow and grey silty clay	

## Appendix 3: Animal bone assessment data

Area	Context	Sample	Cut	Feature	Date	Unid	Pres	Gn	Burn	Cattle N	Element	ш	M 2+	Butch	Meas	Sheep N	Element	L	M 2+	Butch	Meas	Pig N	Element	ш	M 2+	Butch	Meas	Eq N	comm	Deer N	comm	Dog N	comm	Cat N	comm	Bird N	шшоо	Amp	Kodem
1	204			alluvial layer	IA		1																					1	fem sh										
5	2040	33	2038	pit	IA	2	1									2	Tvert, 2nd phal	1		1																			
3	2040	33	2036	ріі	IA.		<u> </u>										mc																					+	$\dashv$
5	2040		2038	pit	IA	2	1									1												1	mand										
6	2104		2106	pit	?I A					2	sk/h c, man d		1																										
							1				(m3 = E)																											_	
6	2109		2107	pit	IA	6	1			1	L hindl imb	7																											
6	2110	36	2112	pit	?I A	1	1																																
6	2110		2112	pit	?I A		1			1	scap	1																											
6				P.,			<u> </u>				2006	•					mand						m a															$\top$	
	2118	37	2116	pit	IA	2	1									1	mat		1			1	X															4	_
6	2121	34	2122	ditch	?I A	1	1	1		1	rib					1	mt																						
6	2131		2129	pit	?I	1	1															1	t																

		1	1		Ι .	1	1	1	1						-			-	_	_		-	-	1	 	1	1	1 1			$\neg$
					Α															0											
6	0400	44	0404	:4	?	_																									
6	2136	44	2134	pit	Α	1	1									2x tib	-			h						-				+	-
					?I															u											
_	2136		2134	pit	A	5	1	1							2		_		1	m		1	-							+	4
6	2141	43	2137	pit	?I A	10	1																								
6				I Provi							sk					tib, rad															
	2141		2137	pit	?I A	3	1	2		4		2	1	1	2																
6	2144		2142	pit	IA	5	1	1		4	scap (cuts dors al blad e), pel, mt, cal	2	3		2	m1/2, tib															
6	2150	45	2148	pit	?I A	2	1																								
6					?											max frag															
6	2154 2154	50	2153	pit	A	16	1	1		4	2x	2	2		1				2		1									3 1	-
			2153	pit	?I A						scap (trim med spin e), pel, mt									n c i s o r , f e m (n e											

																						o )							
6	2162	47	2159	pit	IA	3	1																						
6	2162		2159	pit	IA	1	1			3	scap (trim med ), man d, tib		1	2	1	mt													
6	2163	48	2145	pit	IA	9	1								1	to													
6	2163		2145	pit	IA	1	1			2	2x scap (mul tiple cuts on vent ral blad e)	2			1	mc	1		1	1									
6	2167		2169	pit	?I A	2	1																						
6	2171	52		pit	IA																1	t o							
6	2171		2172	pit	IA	2	1	1	1							mand, 2x tib		1	2										

# Appendix 4: Environmental data

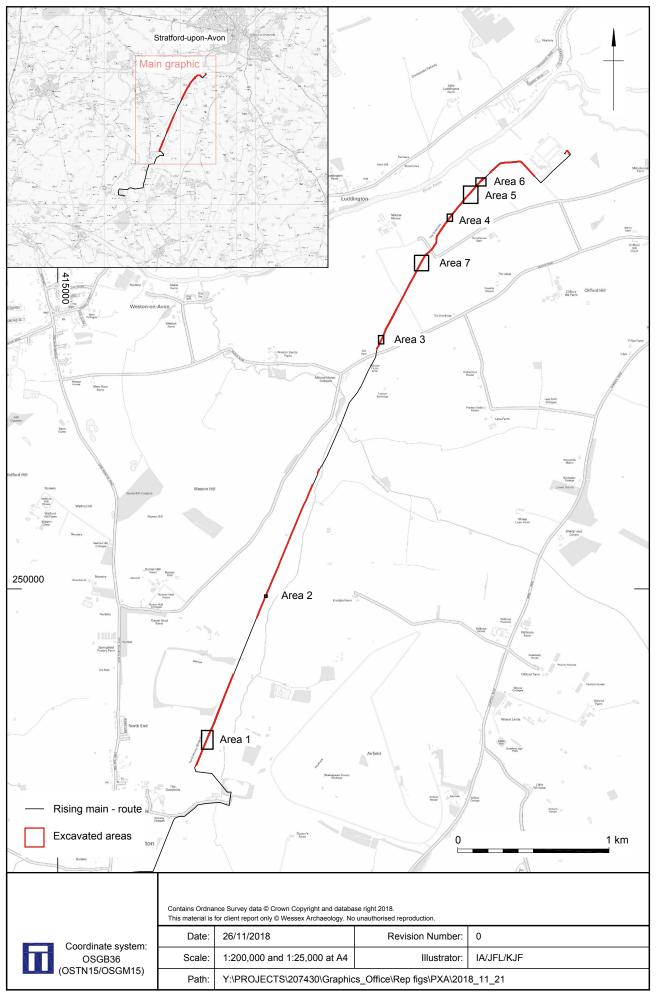
Feature	Context	Sample	Vol (I)	Flot (ml)	Sub-sample (fine residue)	Bioturbatio n proxies	Grain	Chaff	Gereal Notes	Charred Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other
			0.	0.	100									
0	204	1	8	5	%	90%, C	-	-	-	-	-	-	-	-
30	040	_	4	10	100	90%, A*, F,	•	_	Triticum sp. grains (inc. dicoccum and spelta, some sprouted) and chaff (glume bases), Hordeum		Indet. roots,	.4		Moll-t
9	313	2	0	0	%	E, I	Α	С	vulgare, Triticeae embryo with coleoptile	Α	Vicieae	<1	Mature	(C)
61	C11	2	3	F0	25	80%, A, F,						-	N.4 - +	
0	611	3	5	50	%	E	-	-	-	-	-	5	Mature	-
60 7	606	4	3 0	40	25 %	650/ D 5						30	Mature	
	000	4	4	40	25	65%, B, F	-	-		-	-	30	iviature	-
60 8	609	5	0	20	23 %	70%, B, F					_	5	Mature	
61	009	J	U	20	/0	70%, 6, 1	-	-		_	-	J	iviature	-
0	613	6	0											
61	611-	U	U											
0	613	7	_	_										
61		-	0.		100									
0	611	8	5	3	%	0.4	_	_	-	С	Culm	<1	Mature	_
61			0.		100									
0	611	9	5	1	%	90%, C	-	-	-	-	-	-	_	
61		1	0.	0.	100									
0	611	0	5	5	%	80	-	-	-	-	-	-	-	
61		1	0.		100									
0	611	1	5	3	%	0.2	-	-	-	-	-	1	Mature	
61		1	0.		100									
0	611	2	5	1	%	50%, C	-	-	-	-	-	<1	mature	
61		1	0.		100									
0	611	3	5	1	%	0.5	-	-	•	-	-	-	-	-
61		1	0.		100									
0	611	4	5	2	%	0.3	-	-	-	-	-	<1	Mature	-
61		1	0.	•	100	100/ 0								
0	611	5	5	3	%	10%, C	-	-	-	-	-	1	Mature	-
61	C11	1	0.	4	100	0.3						-11	N.4=4=	Moll-t
0	611	6	4	1	%	0.2	-	-		-	-	<1	Mature Roundwo	(C)
61		1	0.	0.	100								od +	
0	613	7	5	5	%	10%, C, E	-	-	-	-	-	<1	mature	-

Feature	Context	Sample	Vol (I)	Flot (ml)	Sub-sample (fine residue)	Bioturbatio n proxies	Grain	Chaff	Cereal	Charred Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other
61		1	0.		100									
0	611	8	5	1	%	50%, C	-	-		-	-	-	-	-
61 0	613	1 9	0. 5	2	100 %	0.1						<1	Mature	
U	013	9	3	2	70	0.1	-	-		-	-	<b>\1</b>	Roundwo	-
13		2	4			50%, A, F,					Vicieae, indet.		od +	
14	1315	0	0	5		E, I	С	-	Triticum sp., Triticeae	С	root	<1	mature	Slag (C)
12		2	2			60%, A, F,								
10	1211	1	1	15		E, I	С	-	Triticum dicoccum	-	-	<1	Mature	Sab (C)
16		2			100									
23	1622	2	3	1	%	2%, F, E	-	-	-	С	Culm	-	-	-
16		2		0.	100									
32	1633	3	3	5	%	1%, C, F, E	-	-	-	-	-	-	-	-
16		2	1											
28	1636	4	0	1		1%, B, F, E	С	-	Triticeae	-	-	-	-	-
16		2	4			30%, A, F,								Moll-t
32	1633	5	0	10		E, I	-	-	-	-	-	1	Mature	(C)
16	1620	2	4	_		F0/ A F F						-1	N.4 - +	
21 16	1620	6 2	0 3	5		5%, A, F, E	-	-	-	-	-	<1	Mature Roundwo	
38	1637	7	0	5		1%, A, F						<1	od	
19	1037	2	U	J	100	170, A, I	-	-		-	-	<b>\1</b>	ou	
27	1928	8	4	2	%	30%, B, E, I	_	_	_	_	_	_	_	_
19	1320	2	7	-	100	3070, D, L, 1								
31	1932	9	5	5	%	20%, A, F, I	_	_	-	_	-	_	_	_
						. , , ,							Roundwo	
20		3	4			20%, A, F,					Poaceae,		od +	Moll-t
16	2018	0	0	10		E, I	С	-	Triticum sp., Hordeum vulgare	С	Vicieae, indet.	1	mature	(B)
20		3	3			80%, A, F,								Moll-t
36	2037	1	5	20		E, I	С	-	Triticum sp. (inc. dicoccum), Hordeum vulgare	-	-	<1	Mature	(C)
20		3	1		100									
38	2039	2	0	5	%	90%, C	-	-	-	-	-	-	-	-
20		3	1											
38	2040	3	0	25		85%, B, E, I	С	-	Triticum sp.	-	-	<1	Mature	Sab (C)
20		3	3		25									Moll-t
43	2044	4	0	30	%	90%, A, E, I						1	Mature	(B)
21	2104	3	4	8		70%, A, F,	-	-	-	-	-	<1	Mature	Moll-t

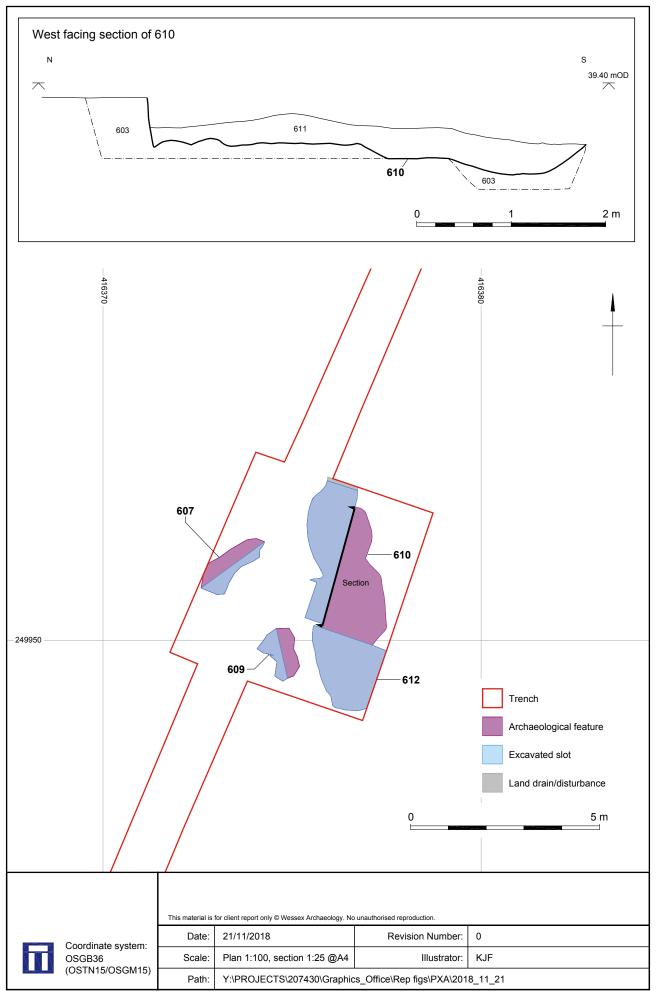
Feature	Context	Sample	Vol (I)	Flot (ml) Sub-sample (fine residue)	Bioturbatio n proxies	Grain	Chaff	Cereal	Charred Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other
06		5	0		E, I								(A)
21		3	4							Galium sp.,			Moll-t
12	2110	6	0	40	70%, A, F, I	Α	-	Triticum dicoccum + spelta	С	Cyperaceae	<1	Mature	(A)
21		3	4		80%, A, F,								Moll-t
16	2118	7	0	40	E, I	С	-	Triticum sp.	С	Poaceae	2	Mature	(A)
21		3	4		85%, A, F,								Moll-t
25	2123	8	0	8	E, I	-	-	-	-	-	-	-	(A)
21		3	4		90%, A*, F,								Moll-
22	2121	9	0	15	E, I	С	-	Triticum sp., Triticeae	-	-	<1	Mature	t(A*)
21		4	4										Moll-t
13	2115	0	0	50	90%, A, I	С	-	Triticum sp., Hordeum vulgare, Triticeae	С	Vicieae	1	Mature	(A)
21		4	2										Moll-t
26	2128	1	0	30	90%, A, E	С	-	Triticum sp.	-	-	<1	Mature	(A)
21		4	4		90%, A**,								Moll-t
29	2131	2	0	20	F, E, I	С	-	Triticeae	С	Poaceae	<1	Mature	(A*)
												Roundwo	
21		4	4									od +	Moll-t
37	2141	3	0	40	75%, A, E, I	С	-	Triticum dicoccum + spelta	-	-	<1	mature	(A)
21		4	4	10									Moll-t
34	2136	4	0	0	85%, C, F	С	-	Triticum sp., Triticeae	-	-	<1	Mature	(A*)
													Moll-t
21		4	4		85%, A*, F,								(A*)
48	2150	5	0	20	E, I	С	-	Triticum sp. (inc. cf. aestivum/turgidum), Triticeae	C	Bromus sp.	<1	Mature	Sab C
21		4	2										Moll-t
52	2151	6	5	10	75%, A, E, I	С	-	-	-	-	<1	Mature	(B)
21		4	4										Moll-t
59	2162	7	0	50	85%, A, F, I	С	-	Triticum sp. (inc. sprouted)	С	Vicieae, Poaceae	1	Mature	(A)
21		4	4										Moll-t
45	2163	8	0	40	85%, A, I	С	-	Triticeae	С	Indet.	2	Mature	(A)
21		4	3										Moll-t
66	2165	9	8	20	85%, A, F, I	С	-	Triticum cf. dicoccum	-	-	<1	Mature	(A)
												Roundwo	Moll-t
21		5	4									od +	(A)
56	2154	0	0	60	85%, A, F, I	С	С	Triticum sp. (inc. spelta) grains, Secale cereale rachis	-	-	1	mature	Sab (C)
21		5	4										Moll-t
69	2167	1	0	50	90%, A, E, I	С	-	Triticum sp., Triticeae	-	-	1	Mature	(B)
21	2171	5	4	60	90%, A, I	С	-	Triticum sp., Triticeae	С	Poaceae, indet.	3	Mature	Moll-t

Feature	Context	Sample	(I) lov	正	Sub-sample (fine residue)	Bioturbatio n proxies	Grain	Chaff	Cereal	<b>Charred</b> Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other
72		2	0								stalk			(A)
		5	4		100							<1		
0	2204	3	0	20	%	90%, A, I	-	-	-	-		ml	Mature	-

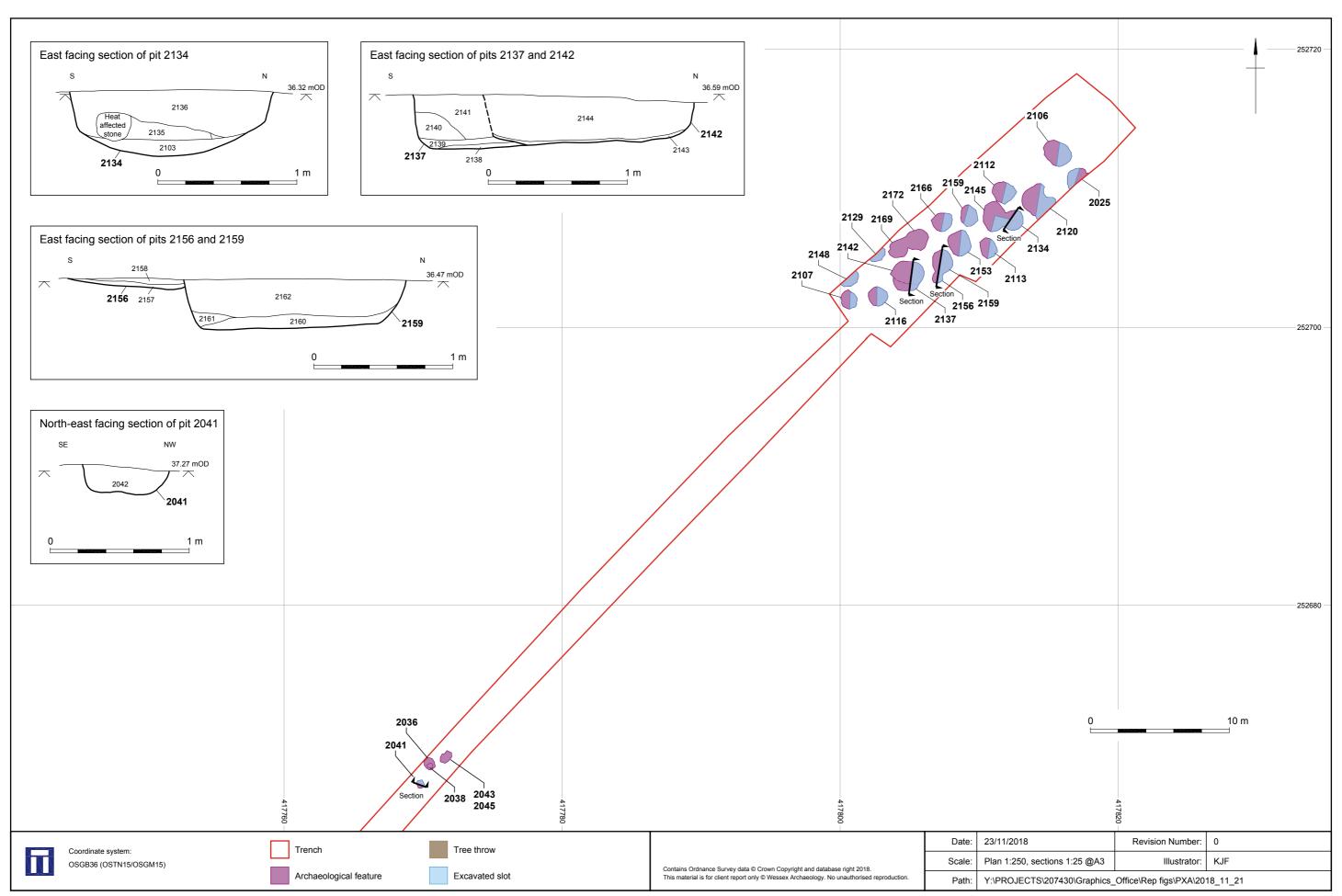
Key: A\*\*\* = exceptional, A\*\* = 100+, A\* = 30-99, A = >10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhyzal fungi sclerotia, E = earthworm eggs, I = insects; Sab = small animal bones, Moll-t = terrestrial molluscs



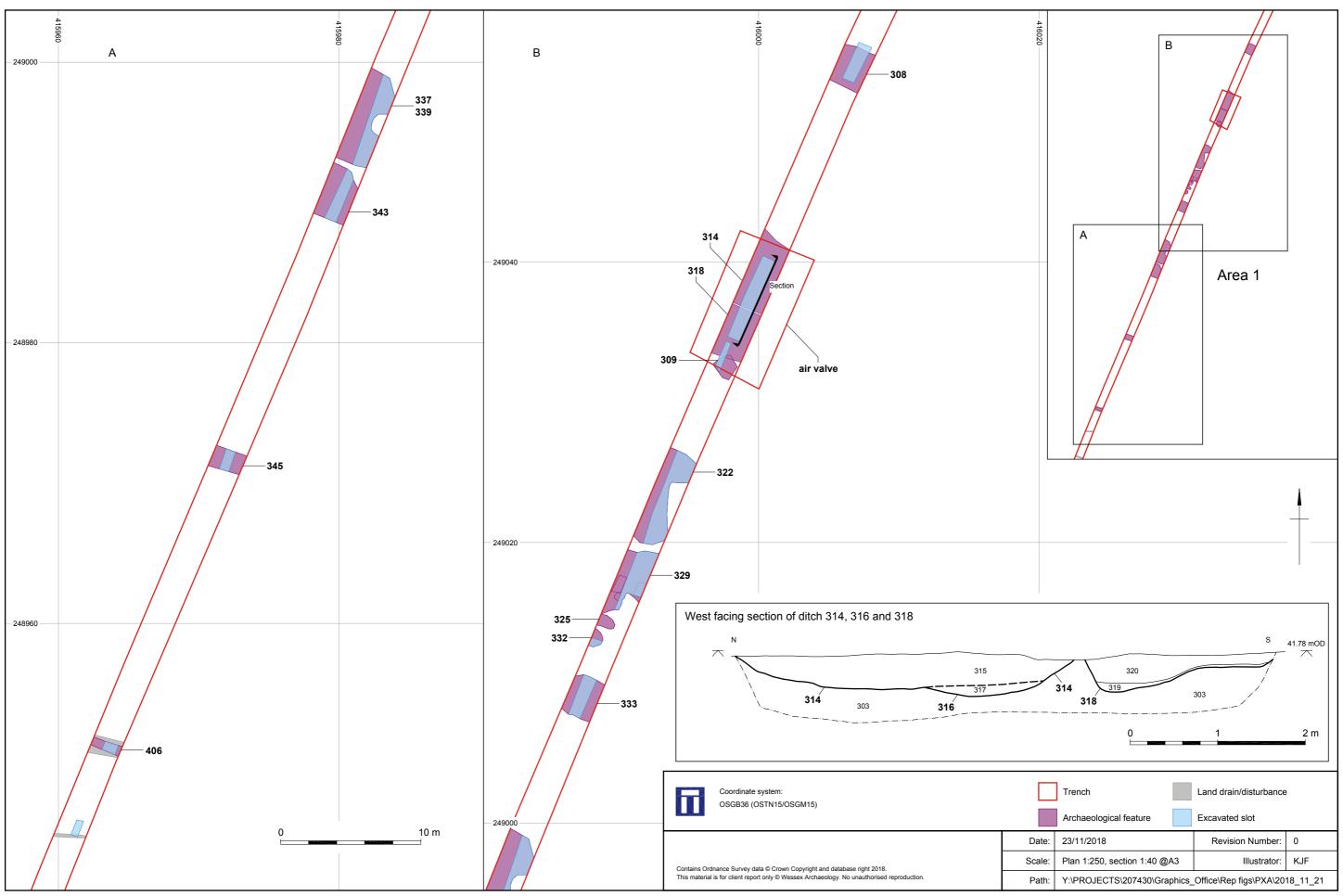
Site location Figure 1



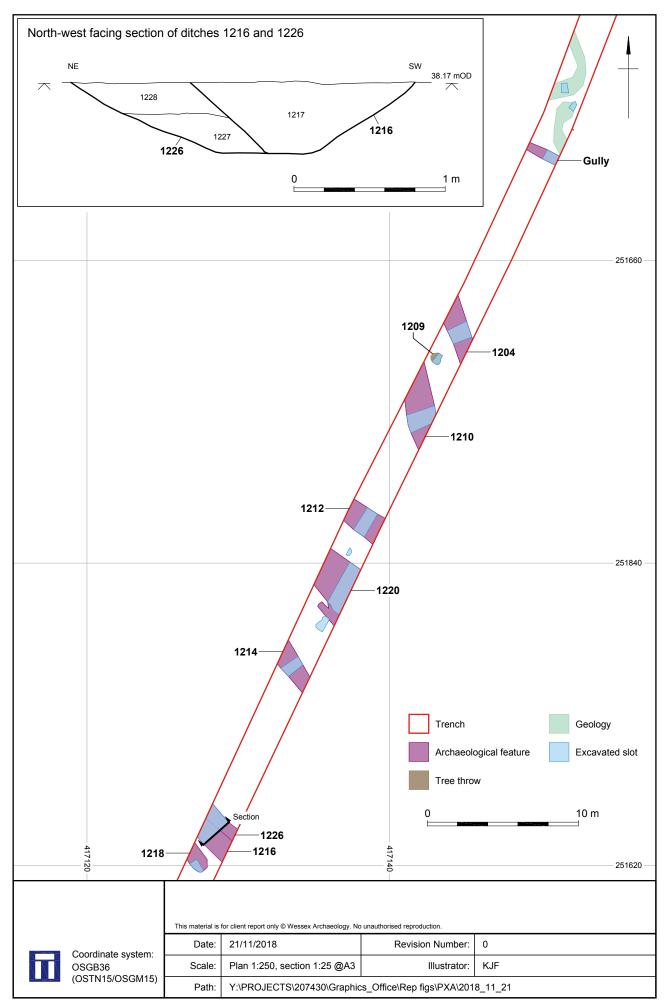
Area 2: Prehistoric features Figure 2



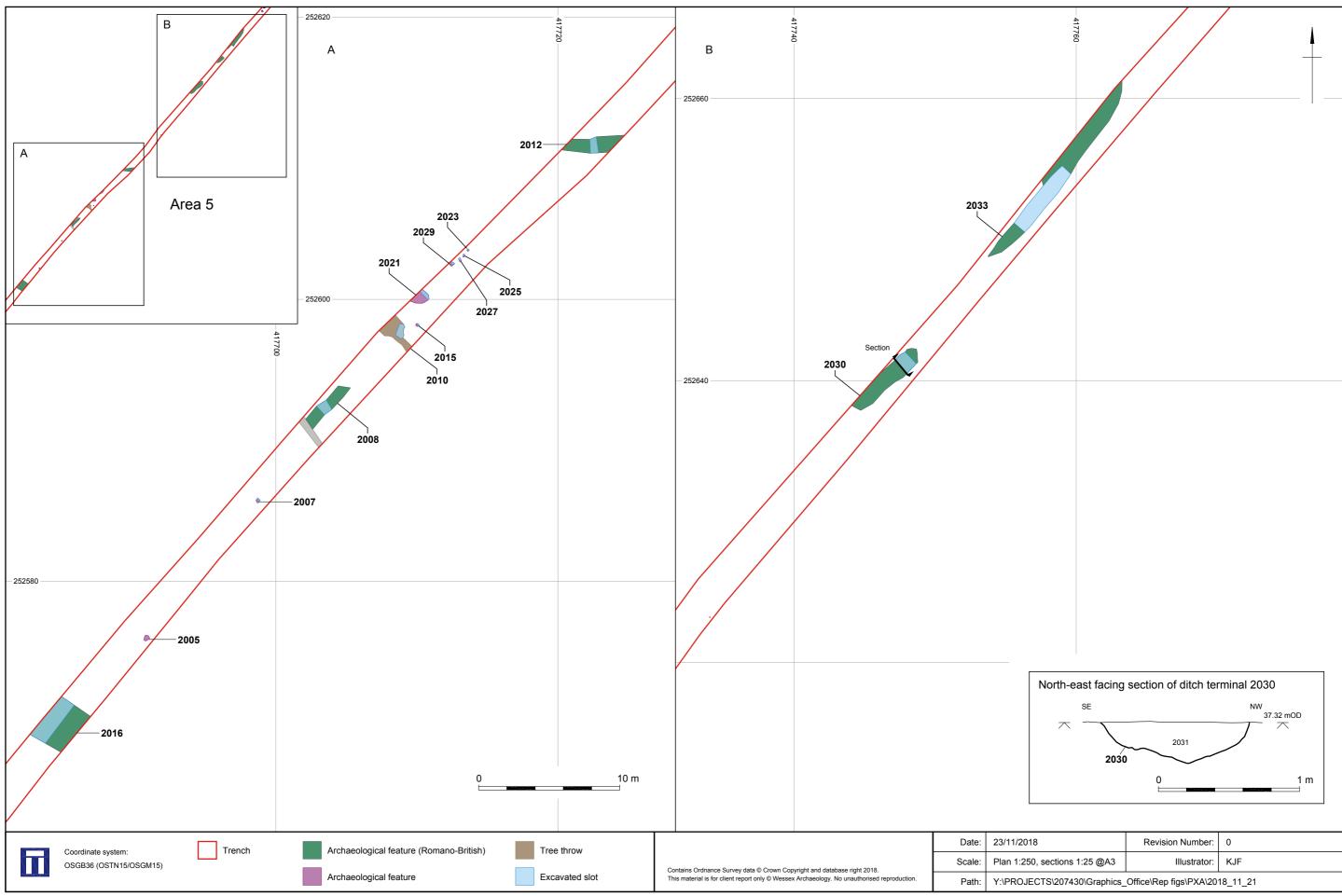
Area 6: Iron Age features



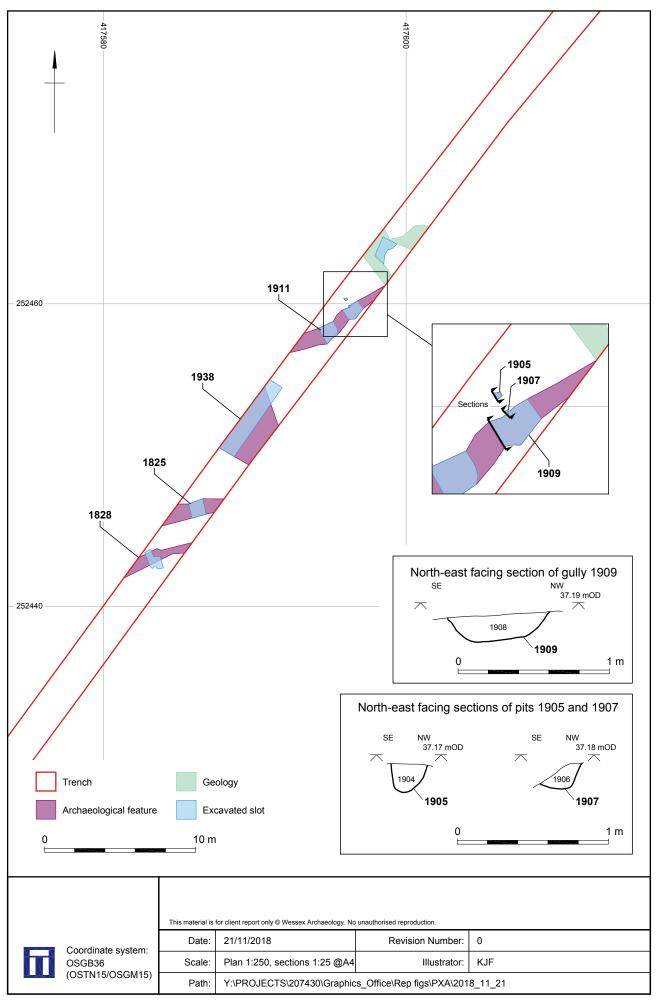
Area 1: Romano-British features



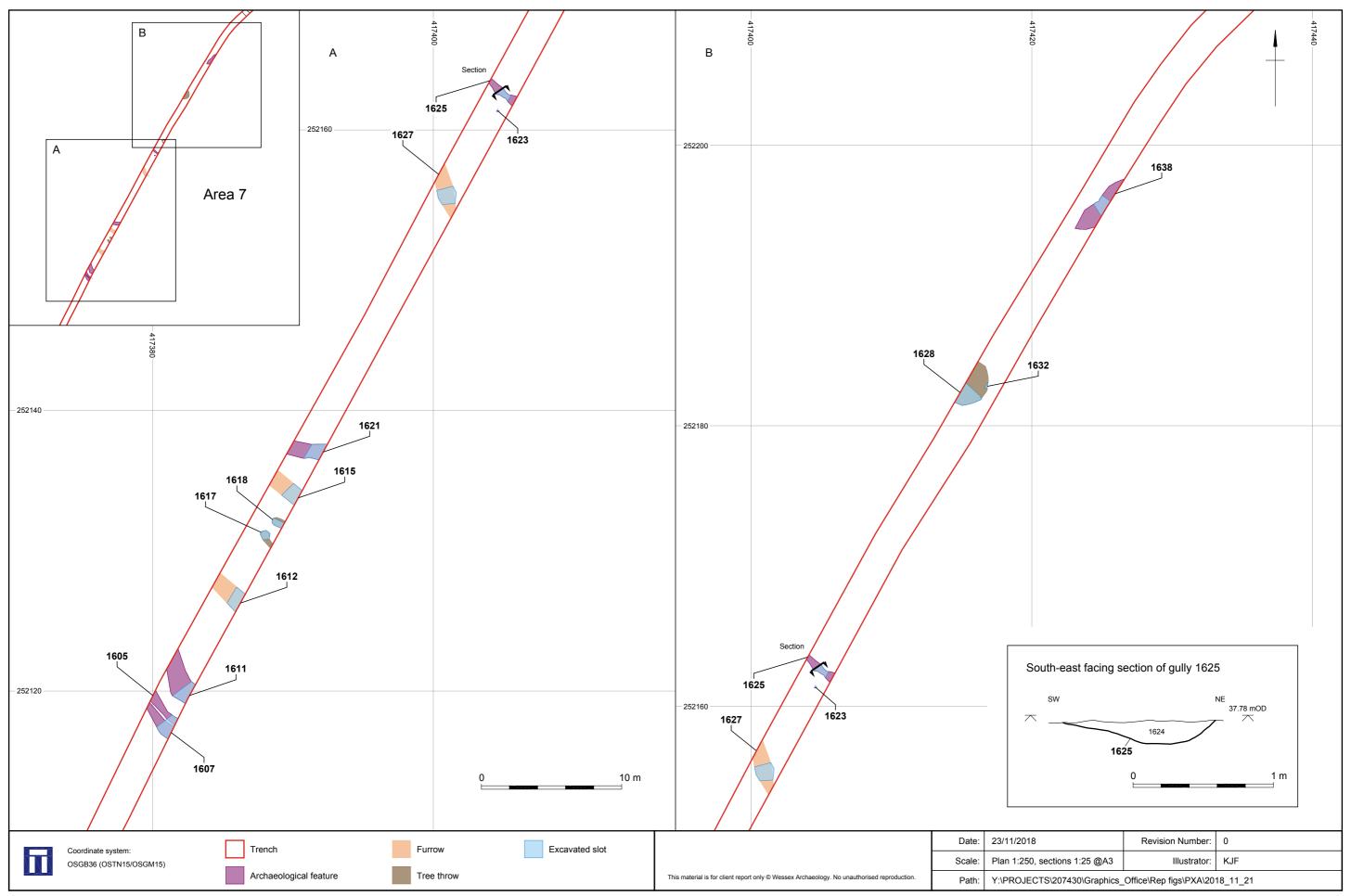
Area 3: Romano-British features



Area 5: Romano-British and post-medieval features



Area 4. Undated features Figure 7



Area 7: Undated features



Plate 1: South facing section of burnt mound/hollow 612 (1 m scale)



Plate 2: South-west facing section of burnt mound / hollow 609 (1 m scale)

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	Date:	26/11/2018	Revision Number:	0
<b>       </b>	Scale:	N/A	Illustrator:	KJF
	Path:	Y:\PROJECTS\207430\Graphics	_Office\Rep figs\PXA\2018	_11_21



Plate 3: Oblique view of ditch 308 from the south-east (2 m scale)



Plate 4: West facing section of ditch 345 (1 m scale)

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Plate 5: South-east facing section of pit 332 (1 m scale)



Plate 6: East facing section of ditch 1204 (1 m scale)

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Plate 7: West facing section of ditch 1216 (1 m scale)



Plate 8: Aerial view of pits in Area 6, viewed from the south (2 x 2 m scales), (photograph courtesy Charlie Price/CADSITE Services)

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Plate 9: Aerial view of pits in Area 6, viewed from the south-east (2 x 2 m scales), (photograph courtesy Charlie Price/CADSITE Services)



Plate 10: Half-sectioned pit 2116, viewed from the east (1 m scale)

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Plate 11: Working view of the excavation of pits in Area 6, viewed from the north-east (1 m scale)



Plate 12: East facing section of pit 2134 (1 m scale)

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Plate 13: Pre-excavation of pit 2120, viewed from the south (0.5 m scale)



Plate 14: West facing section of pit 2041 (0.5 m scale)

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Plate 15: Postholes 2023, 2025, 2027 and 2029, viewed from the north (1 m scale)



Plate 16: Gully 1909 and postholes 1907 and 1905, viewed from the south-east (0.5 m scale)

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Plate 17: East facing section of gullies 1605 and 1607 (1 m scale)



Plate 18: South-east facing section of ditch 1611 (1 m scale)

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Plate 19: South-east facing section of gully 1305 (0.3 m scale)

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