Land at Oakington Road, Cottenham, Cambridgeshire, CB24 8TW

An Archaeological Trial Trench Evaluation

May 2016

PRE-CONSTRUCT ARCHAEOLOGY
R12276

LAND AT OAKINGTON ROAD, COTTENHAM, CAMBRIDGESHIRE, CB24 8TW

AN ARCHAEOLOGICAL EVALUATION

Quality Control

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Land at Oakington Road, Cottenham, Cambridgeshire, CB24 8TW:

An Archaeological Trial Trench Evaluation

Local Planning Authority:	**South Cambridgeshire District Council**
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Central National Grid Reference:	**TL 44161 66965**
HER Number:	**ECB 4564**
Site Code:	**ECB 4564**
Report No.	**R12276**
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ABSTRACT

This report describes the results of a 28 trench archaeological evaluation carried out by Pre-Construct Archaeology on Land at Oakington Road, Cottenham, Cambridgeshire, centred on Ordnance Survey National Grid Reference (NGR) TL 44161 66965) from the 5th to the 12th October 2015. The archaeological work was commissioned by Persimmon Homes in response to an archaeological brief issued by the Cambridgeshire County Council Historic Environment Team (CCCHET). The aim of the work was to characterise the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the site's archaeology.

The earliest activity on the site was present to the north-west of the site focused around Trenches 14-18. Middle Iron Age pottery was recovered from a number of contexts suggesting Middle Iron Age settlement in the immediate vicinity. The excavated features consisted of Roman ditches, pits, post-holes, and a kiln. The morphology of the ditches and the presence of pits, post-holes and a large assemblage of pottery and bone are indicative of settlement. A system of north-west to south-east aligned post-medieval furrows was also identified in the eastern part of the site (Trenches 5-7).

The ditches located in Trenches 14-18 are associated with a Roman settlement present in the adjoining fields to the north and east of the site located on an area higher ground. The ditches on the site consisted of a variety of boundary, enclosure and drainage ditches associated with a large assemblage of finds including Middle Iron Age and Roman pottery, animal bone, worked stone and a vitrified slag like material commonly associated with settlements referred to here as 'Iron Age Grey'. A Romano-British kiln was identified in Trench 16 which was photographed and recorded then left in-situ. The presence of 'Iron Age Grey' in Ditch [126] in Trench 18 could suggest the presence of further, failed, kilns or ovens suggesting an area of potential industry on the periphery of the settlement.

1 INTRODUCTION

1.1 An archaeological trial trench evaluation was undertaken by Pre-Construct Archaeology Ltd (PCA) on land at Oakington Road, Cottenham Cambridgeshire, CB24 8TW centred on Ordnance Survey National Grid Reference (NGR) TL 44161 66965) from the 5th to the 12th October 2015 (Figure 1).

1.2 The archaeological work was commissioned by Persimmon Homes in advance of a planning application for residential development and carried out in accordance with a Written Scheme of Investigation (WSI) prepared by Shannon Hogan of PCA (Hogan 2015). The project was monitored by Kasia Gdaniec of Cambridgeshire County Council Historic Environment Team (CCCHET).

1.3 The broad aim of the evaluation was to identify, excavate and record the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the site's archaeology.

1.4 Further aims of the evaluation were to provide sufficient information to enable the formulation of a suitable management/investigation strategy for the site's heritage assets, in light of the current development proposals and to provide a predictive model of the archaeological remains present and likely to be present on the site and include an appraisal of their significance.

1.5 28 trial trenches totalling c. 880m were excavated and recorded during the evaluation (Figure 2).

1.6 This report describes the results of the evaluation and aims to inform the design of an appropriate archaeological mitigation strategy. The site archive will be deposited at the Cambridgeshire Archaeological Stores.

2 GEOLOGY AND TOPOGRAPHY

2.1 Geology

2.1.1 The underlying bedrock geology of the site comprises Sandstone (mud, silt, sand and gravel) of the Woburn Sands Formation, a sedimentary bedrock formed approximately 100-125 million years ago (British Geological Survey).

2.1.2 Topsoil deposits (100) were identified as dark grey-brown silty sand, while subsoil deposits (101) were identified as mid-reddish brown silty sand.

2.1.3 The natural geological horizon (102) was identified as light orange brown silty clay with gravel inclusions in places.

2.2 Topography

2.2.1 The site is located on the south-western edge of the Cambridgeshire village of Cottenham (Figure 1).

2.2.2 The site was bounded along its southern edge by Oakington Road. A residential estate was located to the north-east of the site whilst the rest of the site was bounded by agricultural farmland.

2.2.3 The site was formally used as agricultural land and is currently covered by grass and scrub with young birch trees planted throughout.

2.2.4 The site is broadly flat, sloping gradually from north to south, located at between 11.53 (Trench 15) and 9.4m (Trench 28) Over Datum (OD). A slight rise to the north and west was identified during the evaluation. This information is taken from survey data generated during the evaluation.

3 ARCHAEOLOGICAL BACKGROUND

3.1 General

3.1.1 There are no records of any archaeological surveys or investigations having being undertaken on the site.

3.1.2 A recent archaeological evaluation undertaken on land bordering the development area (PCA, Lees 2015) identified a series of Early Roman ditches, likely relating to the known Roman settlement located some immediately west of the development area and visible as a series of complex cropmarks. A series of post-medieval ditches representing land divisions were also encountered during the evaluation. Whilst the ditches revealed in the adjacent evaluation likely relate to field systems associated with the settlement, the present development area is located closer to the potential settlement core and therefore the evaluation will likely expose a greater number and perhaps more complex series of archaeological features relating to this Roman settlement.

3.1.3 A desk-based assessment (DBA) for the site was undertaken (Slater 2015) in advance of the work concluded the site has a low potential for prehistoric and Roman archaeological activity and a moderate potential for Saxon, medieval and post-medieval activity. However, it should be noted that visible cropmarks of a probable Roman settlement are located just to the northwest of the subject site.

3.1.4 A geophysical survey was undertaken at the site which demonstrated a concentration of enclosures and possible ovens/kilns in the northwest corner of the site (Masters 2015). However some areas of the site were not accessible and so could not be surveyed due to large rubble piles, still present upon evaluation, and areas of thick vegetation and brambles.

3.1.5 The following background has been summarised from the Desk-Based Assessment and the Written Scheme of Investigation for the site. The DBA provides a full and thorough assessment of the archaeological, historical and cartographic development of the site and the surrounding area.

3.2 Prehistoric

3.2.1 The Historic Environment Record (HER) contains no records of prehistoric remains within the site itself.

3.2.2 Prehistoric finds are recorded from archaeological excavations in the Lordship Lane area (HER reference: CB15521) and archaeological trial pits in Telegraph Street (HER MCB19210) – both around 900-1000m northeast of the proposal site.

3.3 Roman

3.3.1 Between the 2nd and 4th centuries the fen edge north of Cottenham contained numerous farms and perhaps a minor commercial and religious centre. The Roman Car Dyke, probably constructed in the early 2nd century to link the Cam with the Ouse at Earith, cut across the natural drainage of Cottenham (British History Online).

3.3.2 An extensive area of settlement remains (HER reference 09547) has been identified from aerial photographs 200m northwest of proposal site; this may represent a settlement site of Roman date.

3.3.3 The settlement site was located on a slightly elevated area in the landscape. It is likely that the settlement was located here as its relative elevation would have presented a more favourable location than the lower areas such as the study site. Parts of the cropmarks are aligned with the study site and were shown, through the evaluation trenches, to also be present within the development area.

3.4 Anglo-Saxon

3.4.1 Documentary evidence records that Ely Abbey's Cottenham Estate was built up in the late 10th and early 11th centuries. Land was given by Ufi of Willingham between 996 and 1001 and by Leofwine son of Aethulf between 1002 and 1016 (Victoria County History). An estate left by Athelstan Manneson (d.986), either to his son Godric or to Aethelwine, ealdorman of East Anglia, also came to Ely. In 1066 Ely had a manor of 10 hides, besides nearly 5 hides held by sokemen (VCH). The manor of Crowlands was given to Crowland Abbey in Lincolnshire by Thurcytel in the 10th century and by

1066 it held 11 hides of the 26 hide vill (VCH) Remains of an Anglo-Saxon settlement were identified at Lordship Lane (CB15522, CB15523), around 1000m northeast of the proposal site. Further Anglo-Saxon and medieval remains are known at Denmark Lane (CB15526), 600m northeast of the site.

3.4.2 The HER data suggests that significant Anglo-Saxon archaeological remains are located c.400-1000m to the northeast of the site, and are likely to represent the early core of Cottenham village.

3.5 Medieval

3.5.1 Cottenham has been one of the largest villages in Cambridgeshire since the 11th century. Sixty tenants were recorded in 1086 and by 1279 there were 134 landholders, excluding the lords (VCH). Settlement was almost exclusively on the dry ridge in the southern part of the parish and in the 11th century the settlements at the church and at Crowlands manor house may have been separate, one for each of the two 11th century manors. The main village street stretches south-west from the church to a large triangular green. The full length of the street, with two sharp bends, was occupied by the late 13th century. The High Street between the church and Crowlands manor house included at least four distinct blocks of tofts, possibly the result of piecemeal development between the 11th and 13th century. The stretch south of the southern bend has a regular plan and other regular tofts line Church Lane and Denmark Road.

3.5.2 By the 13th century Cottenham consisted of the manor of Crowlands and Ely abbey's Cottenham estate (which included the manors of Lisles, Burdeleys, Pelhams, Sames and the rectory manor). In the early 14th century there were ruinous houses in Cottenham, due to depopulation, but the village did not appear to shrink. Evidence for medieval agriculture (such as below ground remains of open field strip cultivation) was anticipated to be present within the site.

3.5.3 Archaeological evidence for medieval settlement in Cottenham is recorded from a number of locations within the village core (e.g. CB15222, CB15525, CB15526, MCB19210, and MCB19497) c.900m to the northeast. A large late

Medieval ditch was also identified during archaeological work at Moreton Close. The proposal site is, however, anticipated to have lain outside the medieval settlement area within part of the surrounding agricultural fields.

3.5.4 Evidence for medieval agriculture (such as below ground remains of open field strip cultivation) is anticipated to be present within the study site.

3.6 Post-Medieval and Modern

3.6.1 The evidence from the medieval period strongly suggests that the layout of Cottenham village had occurred by the 14th century. In the 1660s and 1670s the village contained c.220 houses and the compactness of the houses led a 17th century observer to describe Cottenham as the equal of many eminent towns, but this helped the spread of a fire in 1676 which destroyed half the village (VCH). In the late 17th and 18th centuries Cottenham expanded into lanes east of the High Street, but it was not until the 1820s that the number of houses reached the level attained in the mid-17th century, though by the end of the 19th century there were almost 600 houses in the village. Cottenham grew to c.900 houses in 1961 and nearly 1500 in 1981, with council houses built on the outskirts of the village and mainly in large estates.

3.6.2 By the early 16th century the fens around Cottenham were protected by banks, which did not prevent flooding but kept the fens open for grazing longer than would otherwise have been possible. Schemes proposed in the 1610s to improve the general drainage of the area by increasing the flow of the Ouse were opposed by Cottenham because the parish's own drains were considered effective (VCH). Opposition to the drainage of the South Level in the 1630s and 1650s included a riot in Cottenham fen in 1637. The fens were finally drained under an Act of 1842, placing 4840 acres in Cottenham under the authority of a drainage commission which erected steam pumping engines in Smithey fen and Chear fen and dug the necessary ditches.

3.6.3 Archaeological sites and finds of Post-Medieval and 19th Century date are well represented within the village and surrounding area. These records

relate mainly to buildings or former buildings of a well-defined location and extent and add little to determining the archaeological potential of the study site.

3.6.4 The earliest map that shows the site in any detail is the pre-enclosure map (Harrison 2015, DBA Figure 5). Although this map is undated, it would have been drawn prior to 1847 when the enclosure map was completed (Harrison 2015, DBA Figure 6). The pre-enclosure map depicts the site as located within Two Mill Field to the west of Cottenham. Annotation on the map indicates the proposed enclosure division of Two Mill Field, including parts of four regular straight-sided fields within the site area.

3.6.5 By 1847 the proposed four fields are not depicted on the enclosure map, and the site occupies a square plot of land. Much of the surrounding landscape has also been re-worked into rectangular and straight divisions. The site is labelled as belonging to Richard Papworth. The southwest corner of the site is depicted as subdivided into two small rectangular parcels.

3.6.6 The first edition OS map (1887; see DBA Figure 6) depicts the study site as a plot of land similar to that shown on the Tithe map. To the east of the study site orchards are depicted, whilst to the north field boundaries have been removed to create larger fields.

3.6.7 Subsequent OS maps depict the extents of the site as relatively similar.

4 METHODOLOGY

4.1 General

4.1.1 A total of 28 x 1.8m wide trenches totalling 880m were investigated across the site (Figure 2). Some trenches required relocation and shortening from the original proposed layout due to the presence of an active badger sett located in the north-east of Field 1 (Figure 2).

4.2 Machining and Site Planning

4.2.1 Each trench was excavated using a 21-tonne wheeled mechanical excavator with a toothless ditching bucket. The overlying topsoil (100) and subsoil (101) deposits were excavated in spits down to the archaeological horizon or the natural geological horizon (102), whichever came first.

4.2.2 Exposed archaeological features and deposits were cleaned as necessary to define them using hand tools.

4.2.3 Metal-detecting was carried out on all stripped deposits throughout the evaluation process and all archaeological features and spoil heaps were surveyed by metal-detector as they were encountered.

4.2.4 Limits of all excavation areas, pre-excavation and post-excavation plans of archaeological features and heights above Ordnance Datum (m OD) were recorded using a Leica 1200 Global positioning System (GPS) rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

4.3 Recording Methodology

4.3.1 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I) by Joanna Taylor and Gary Brown (2009).

4.3.2 All features were investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

4.3.3 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus]. These conventions are continued throughout the report.

4.3.4 Drawn records are in the form of survey plans, drawn plans and section drawings of all archaeological features at an appropriate scale (1:10, 1:20, 1:50) while all individual deposits and cuts were recorded as written records on PCA Pro-forma context sheets.

4.3.5 Linear features were investigated by means of slots excavated across their width, positioned to avoid areas of intercutting/disturbance in order to provide uncontaminated finds assemblages. If stratigraphic relationships between features were not visible in plan, slots were positioned to determine inter-feature relationships.

4.3.6 High-resolution digital photographs will be taken at all stages of the monitoring process. Digital Photographs will be taken of all archaeological features and deposits and black and white film photographs will be taken when considered appropriate by the excavator and supervisor.

4.3.7 Artefacts were collected by hand and retained, receiving appropriate care prior to removal from site (CIfA 2014; Walker 1990; Watkinson 1981).

5 ARCHAEOLOGICAL RESULTS

5.1 Introduction

5.1.1 The trenches are described below in numerical order, with technical data tabulated. This includes information on depths of overlying deposits, lengths of trenches and heights over datum of the natural geological horizon. Topsoil and subsoil measurements represent the thickness of the deposit while the natural geological horizon is a measurement from the top of the topsoil to the base of the trench and therefore should equal the overlying deposits combined.

5.1.2 Features and deposits are described from west to east or south to north depending on the alignment of the trench. Where stratigraphic relationships exist between features they are discussed from the earliest feature to the latest feature. Archaeological features and deposits were sealed by the subsoil (101), unless otherwise stated.

5.1.3 The evaluation identified features associated with Roman settlement. This included a variety of boundary, enclosure and drainage ditches which were associated with a large assemblage of finds including Middle Iron Age and Roman pottery, animal bone, worked stone, and 'Iron Age Grey'. A Romano-British kiln was identified in Trench 16 which was photographed and recorded then left in-situ. The presence of possible 'Iron Age Grey' in Ditch [126] (Trench 18) may be indicative of the presence of further kilns or ovens. This may indicate a possible area of potential industry on the periphery of the settlement, however this is difficult to determine especially given the limited sample of the site provided through trial trenches.

5.1.4 A system of north-west to south-east aligned post-medieval furrows was also identified in the eastern part of the site (Trenches 5-7).

5.2 Trench 1 (Figure 2)

5.2.1 Trench 1 was located in the north-east of the site positioned to investigate possible ridge and furrows and modern ferrous anomalies.

5.2.2 This trench contained no archaeological features or deposits.

TRENCH 1	**Figure 2**		
Trench Alignment: E-W	Length: 25m	Level of Natural(m OD): 10.97-10.82m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		W End	**E End**
Topsoil	(100)	0.25m	0.3m
Subsoil	(101)	0.67m	0.7m
Natural	(102)	0.92m+	1.0m+
Summary			
Trench 1 was located in the north-eastern corner of the site. Trench 1 contained no archaeological feature or deposits.			

5.3 Trench 2 (Figure 2)

5.3.1 Trench 2 contained a ditch aligned north-east to south-west and a Pit.

5.3.2 Pit [177] (Figure 2; Plate 3) was located at the southern end of the trench extending beyond the western limit of excavation. It was sub-circular in plan measuring 0.48m long, 0.62m wide and 0.07m deep with straight gradually sloping sides and a flat base. It contained a single fill (176) of pale mid-reddish brown silty sand. Two sherds (3.0g) of Roman pottery (AD40-70) were recovered from this feature.

5.3.3 Ditch [181] (Figure 2) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 0.97m wide and 0.31m deep with moderate to steep sides and a concave base. It contained a single fill (180) of mid reddish-brown silty sand containing 2 sherds (9g) of Middle Iron Age pottery (350-50BC) and 3 fragments of animal bone.

TRENCH 2	**Figure 2**		**Plate 2**
Trench Alignment: N-S	Length: 16m	Level of Natural(m OD): 10.78-10.73m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.4m	0.3m
Subsoil	(101)	0.85m	0.7m
Natural	(102)	1.2m+	1.0m+
Summary			

Trench 2 was located in the north-eastern corner of the site. Trench 2 contained two features; a ditch aligned north-east to south-west and a pit.

5.4 Trench 3 (Figure 2)

5.4.1 Trench 3 was located to investigate possible ridge and furrow and modern ferrous anomalies.

5.4.2 Trench 3 contained no archaeological features or deposits.

TRENCH 3	**Figure 2**		
Trench Alignment: E-W	Length: 50m	Level of Natural(m OD): 10.82-10.42m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		W End	**E End**
Topsoil	(100)	0.35m	0.3m
Subsoil	(101)	0.4m	0.45m
Natural	(102)	0.75m+	0.75m+

Summary

Trench 3 was located towards the north-eastern corner of the site, perpendicular to Trench 4 forming a T-shaped trench.

Trench 3 contained no archaeological feature or deposits.

5.5 Trench 4 (Figure 2)

5.5.1 Trench 4 was located to investigate an area of possible ridge and furrow and modern ferrous anomalies.

5.5.2 Trench 4 contained no archaeological features or deposits.

TRENCH 4	**Figure 2**		
Trench Alignment: N-S	Length: 23m	Level of Natural(m OD): 10.67-10.0m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		S End	**N End**
Topsoil	(100)	0.22m	0.5m
Subsoil	(101)	0.48m	0.6m
Natural	(102)	0.7m+	1.1m+

Summary

Trench 4 was located towards the north-eastern corner of the site, perpendicular to Trench 3

forming a T-shaped trench.

Trench 4 contained no archaeological features or deposits.

5.6 Trench 5 (Figure 2)

5.6.1 Trench 5 contained 2 modern furrows and a modern pit, none of which were excavated as they were thoroughly tested in Trench 6 to the south-east.

TRENCH 5	**Figure 2**		
Trench Alignment: N-S	Length: 38m	Level of Natural(m OD): 11.04-10.4m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.35m	0.4m
Subsoil	(101)	0.3m	0.2m
Natural	(102)	0.65m+	0.6m+

Summary

Trench 5 was located towards the north-eastern boundary of the site.

Trench 5 contained two modern furrows and a modern pit, which were not excavated.

5.7 Trench 6 (Figures 2)

5.7.1 Trench 6 contained seven modern furrows, which could represent modern pan busting furrows.

5.7.2 Furrow [165] (Figure 2) was located at the western of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.53m wide and 0.17m deep with moderate to shallow sides and a concave base. It contained a single fill (164) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.3 Furrow [163] (Figure 2; Plate 4) was located at the western of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.49m wide and 0.11m deep with moderate to shallow sides and a concave base. It contained a single fill (162) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.4 Furrow [167] (Figure 2) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.37m wide and 0.11m deep with moderate to shallow sides and a concave base. It contained a single fill (166) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.5 Furrow [169] (Figure 2) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.38m wide and 0.1m deep with moderate to shallow sides and a concave base. It contained a single fill (168) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.6 Furrow [171] (Figure 2) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.96m wide and 0.14m deep with moderate to shallow sides and a concave base. It contained a single fill (170) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.7 Furrow [173] (Figure 2) was located at the eastern end of the trench extending beyond the southern limit of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.35m wide and 0.14m deep with moderate to shallow sides and a concave base. It contained a single fill (172) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.8 Furrow [175] (Figure 2) was located at the west of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 0.61m wide and 0.14m deep with moderate to shallow sides and a concave base. It contained a single fill (174) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.7.9 These furrows were very shallow and narrow which implies that they are modern in date and may relate to iron pan busting furrows. The furrows demonstrate an arable farming background to the site in the post-medieval through to modern period.

TRENCH 6	**Figures 2**		**Plates 4-5**	
Trench Alignment: E-W	Length: 50m		Level of Natural(m OD): 10.62-10.47m	
Deposit	**Context No.**		**Average Thickness/Depth (m)**	
			W End	**E End**
Topsoil	(100)		0.48m	0.38m
Subsoil	(101)		0.20m	0.20m
Natural	(102)		0.68m+	0.58m+
Summary				
Trench 6 was located towards the north-east of the site. Trench 6 contained seven modern furrows.				

5.8 Trench 7 (Figures 2)

5.8.1 Trench 7 contained the continuation of furrow [167] aligned north-west to south-east. No further archaeological features were identified in this trench.

TRENCH 7	**Figures 2**			
Trench Alignment: N-S	Length: 25m		Level of Natural(m OD): 10.33-10.23m	
Deposit	**Context No.**		**Average Thickness/Depth (m)**	
			N End	**S End**
Topsoil	(100)		0.51m	0.40m
Subsoil	(101)		0.15m	0.18m
Natural	(102)		0.6m+	0.58m+
Summary				
Trench 7 was located towards the north-east of the site, and perpendicular to Trench 6 forming a T-shaped trench. Trench 7 contained a single north-west to south-east aligned furrow, a continuation of [167] in Trench 6.				

5.9 Trench 8 (Figure 2)

5.9.1 Trench 8 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.9.2 Trench 8 contained no archaeological features or deposits.

TRENCH 8	**Figure 2**		
Trench Alignment: N-S	Length: 45m		Level of Natural(m OD): 10.42-9.95m

Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.26m	0.25m
Subsoil	(101)	0.36m	0.35m
Subsoil	(191)	0.14	0.15m
Natural	(102)	0.76m+	0.75m+

Summary

Trench 8 was located towards the centre of the site of the site, perpendicular to Trench 9 forming a T-shaped trench.

Trench 8 contained no archaeological features or deposits.

5.10 Trench 9

5.10.1 Trench 9 was positioned to investigate possible ridge and furrow and modern ferrous anomalies. No evidence for ridge and furrow was present in the trench with the likelihood it has been ploughed away. The ferrous anomalies related to concentrations of iron stone present within the natural geology.

5.10.2 No archaeological features were present in this trench.

TRENCH 9	**Figure 2**		
Trench Alignment: E-W	Length: 23m	Level of Natural(m OD): 10.61-10.23m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.43m	0.40m
Subsoil	(101)	0.35m	0.36m
Natural	(102)	0.75m+	0.76m+

Summary

Trench 9 was located towards the centre of the site of the site, perpendicular to Trench 8 forming a T-shaped trench.

Trench 9 contained no archaeological features or deposits.

5.11 Trench 10 (Figures 2)

5.11.1 Trench 10 was positioned to investigate possible ridge and furrow. No

evidence for ridge and furrow was present in the trench with the likelihood it has been ploughed away.

5.11.2 The northern end of the trench was stepped to enable excavation to the level of natural geology.

5.11.3 No archaeological features or deposits were present in this trench.

TRENCH 10	**Figures 2**		
Trench Alignment: NNE-SSW	Length: 26m	Level of Natural(m OD): 10.12-9.86m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.75m	0.37m
Subsoil	(101)	0.65m	0.58m
Natural	(102)	1.4m+	0.9m+
Summary Trench 10 was located towards the centre of the site. The northern end of the trench was stepped to enable the natural geological horizon to be reached Trench 10 contained no archaeological features or deposits.			

5.12 Trench 11 (Figures 2)

5.12.1 Trench 11 was positioned to investigate possible ridge and furrow and modern ferrous anomalies. No evidence for ridge and furrow was present in the trench with the likelihood it has been ploughed away. The ferrous anomalies related to concentrations of iron stone present within the natural geology.

5.12.2 No archaeological features or deposits were present in this trench.

TRENCH 11	**Figures 2**		
Trench Alignment: E-W	Length: 22m	Level of Natural(m OD): 10.54-10.31m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.40m	0.28m
Subsoil	(101)	0.20m	0.37m
Natural	(102)	0.60m+	0.65m+
Summary			

Trench 11 was located towards the centre of the site, with Trench 12 adjoined to the eastern end of the trench.

Trench 11 contained no archaeological features or deposits.

5.13 Trench 12 (Figures 2 & 5)

5.13.1 Trench 12 was a 5m x 5m square trench positioned to investigate possible ridge and furrow and modern ferrous anomalies. No evidence for ridge and furrow was present in the trench with the likelihood it has been ploughed away. The ferrous anomalies related to concentrations of iron stone present within the natural geology.

5.13.2 No archaeological features or deposits were present in this trench.

TRENCH 12	**Figures 2**		
Trench Alignment: E-W	Length: 5m	Level of Natural(m OD): 10.27-10.19m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.53m	0.40m
Subsoil	(101)	0.27m	0.35m
Natural	(102)	0.80m+	0.80m+

Summary

Trench 12 was located towards the centre of the site, positioned at the eastern end of Trench 11.

Trench 12 contained no archaeological features or deposits.

5.14 Trench 13 (Figures 2)

5.14.1 Trench 13 was positioned to investigate possible ridge and furrow. No evidence for ridge and furrow was present in the trench with the likelihood it has been ploughed away.

5.14.2 No archaeological features or deposits were identified in this trench.

TRENCH 13	**Figures 2**	
Trench Alignment: ENE-WSW	Length: 21m	Level of Natural(m OD): 10.08-9.73m
Deposit	**Context No.**	**Average Thickness/Depth (m)**

		SW End	**NE End**
Topsoil	(100)	0.34m	0.39m
Subsoil	(101)	0.46m	0.56m
Natural	(102)	0.80m+	0.95m+

Summary

Trench 13 was located towards the centre of the site.

Trench 13 contained no archaeological features or deposits.

5.15 Trench 14 (Figures 4 & 5)

5.15.1 Trench 14 was located to investigate a number of geophysics anomalies relating to two ditches and three possible pits.

5.15.2 Trench 14 contained two Ditches aligned north-west to south-east, a pit and a layer of Roman buried soil, which is similar to the results of the geophysics.

5.15.3 Ditch [182] (Figure 5; Plate 8) was located at the eastern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 2.20m wide and 0.84m deep with steep sides and a flat base. It contained three fills a basal fill (183) of mid greenish-brown silty sand which contained 5 sherds (369g) of Roman pottery (AD50-100) and 2 fragments of animal bone, a middle fill (184) of reddish brown silty sand which contained 5 sherds (37g) of Roman pottery (AD50-100) and 3 fragments of bone, and an upper fill (185) of dark grey brown silty sand which contained 2 sherds (48g) of Roman pottery (AD50-100). This ditch was overlain by a layer of Roman buried soil (188).

5.15.4 Fill (188) (Figure 5) was present throughout the centre of the trench. It consisted of a dark grey-brown silty sand with common iron stone fragments, and charcoal inclusions. This deposit contained 6 sherds of Roman pottery (AD250-400). Ditches [182] and [120] were overlain by this deposit. This deposit represents secondary infilling within a natural hollow. One possibility discussed during fieldwork was that the hollow may have been used for metal working, exploiting the large quantities of iron stone found within the natural geology in the area. Two environmental samples (40 litres) were

taken from this deposit, with a focus on looking for hammerscale, but these samples contained only occasional charcoal fragments and seeds (see Section 6.9).

5.15.5 Pit [189] (Figure 5) was located midway along the trench, measuring 1.32m wide and 0.4m deep. It contained a single fill (190) of dark grey brown silty sand which contained 20 sherds (235g) of Roman pottery (AD150-300) and 3 fragments of animal bone. This Pit truncated a layer of Roman buried soil (188).

5.15.6 Ditch [120] (Figure 5; Plate 7) was located at the western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 2.02m wide and 0.71m deep with steep sides and a flat base. It contained two fills: a lower fill (151) of mid greenish-brown silty sand, and an upper fill (121) of dark grey brown silty sand which contained two near complete Roman vessels (AD200-300) as well as 34 sherds (1912g) of Roman pottery (AD200-300) and 7 fragments of animal bone. This ditch was overlain by a layer of Roman buried soil (188).

5.15.7 These features represent boundary ditches and segments of enclosure ditches on the periphery of the Roman settlement. The two near complete vessels recovered from Ditch [120] and displayed evidence for being 'ritually killed' with nicks and gouges present on the vessels. The reasons for their deposition are uncertain, however, given the lack of associated human remains, they may represent an 'opening' or 'closing deposit' related to an aspect of the site.

5.15.8 The accumulation of buried soil may represent a silted up hollow way used for metal working, exploiting the large quantities of iron panning and iron stone present within the natural geology.

TRENCH 14	**Figures 4 & 5**		**Plates 6**	
Trench Alignment: ENE-WSW	Length: 23m		Level of Natural(m OD): 10.96-10.9m	
Deposit	**Context No.**		**Average Thickness/Depth (m)**	
			SW End	**NE End**
Topsoil	(100)		0.26m	0.35m

Subsoil	(101)	0.30m	0.35m
Buried Soil	(188)	0.20m	0.15m
Natural	(102)	0.76m+	0.85m+

Summary

Trench 14 was located in the western part of the site, located on a number of geophysics anomalies. It was located immediately to the south of Trenches 15 and 16.

Trench 14 contained four archeological features: two north-west to south-east aligned ditches one of which contained two near complete Roman pots, a pit and a Roman buried soil.

5.16 Trench 15 (Figure 4 & 6)

5.16.1 Trench 15 was located to investigate a number of geophysics anomalies relating to three ditches and a pit.

5.16.2 The Trench contained three ditches aligned north-west to south-east and three pits.

5.16.3 Ditch [107] (Figure 6) was located at the west of the trench extending beyond the northern limit of excavation. It was a linear terminus in plan, aligned north-west to south-east, measuring 1.1m in length, 0.70m wide and 0.23m deep with moderately sloping sides and a concave base. It contained two fills: a basal fill (105) of mid greyish-brown silty sand containing 5 sherds (215g) of Roman pottery (AD50-200), 2 fragments of bone and a fragment of lava quern, and an upper fill (106) of light grey-brown sandy silt containing a sherd (11g) of Roman pottery (AD150-400) and 3 fragments of animal bone.

5.16.4 Ditch [103] (Figure 6) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 1.30m wide and 0.50m deep with moderately sloping sides and a concave base. It contained a single fill (104) of mid greyish-brown silty sand containing 1 sherd of Middle Iron Age pottery (350-50BC), 45 sherds (618g) of Roman pottery (AD150-300) and 7 fragments of animal bone.

5.16.5 Pit [109] (Figure 6) was located midway along the trench extending beyond the northern limit of excavation. It was sub-circular in plan, measuring 0.55m

wide and 0.21m deep with moderately sloping sides and a concave base. It contained a single fill (108) of mid greyish-brown silty sand. 4 sherds (571g) of Roman pottery (AD50-400) were recovered from this feature.

5.16.6 Pit [113] (Figure 6; Plate 9) was located at the eastern end of the trench extending beyond the southern limit of excavation. It was sub-circular in plan, measuring 1.9m wide and 0.26m deep with moderate to shallow sides and a concave base. It contained a four fills: a basal deposit (119) of mid greyish-brown silty sand, a lower deposit (118) of orange-brown silty sand, with common patches of iron panning, an upper deposit (117) of mid-grey brown silty sand, and a top fill (116) of dark grey-brown silty sand which contained a sherd (4g) of Roman pottery (AD150-400). Pit [113] truncated Pit [111] immediately to the east.

5.16.7 Pit [111] (Figure 6; Plate 9) was located at the eastern end of the trench extending beyond the southern limit of excavation. It was sub-circular in plan, measuring 0.80m wide and 0.12m deep with shallow sides and a concave base. It contained a single fill (110) of mid greyish-brown silty sand. No finds were recovered from this feature. Pit [111] was truncated by Pit [113] immediately to the west.

5.16.8 An unexcavated Ditch (Figure 6) was located at the eastern end of the trench extending beyond both limits of excavation; it was linear in plan aligned north-west to south-east, measuring 2.6m wide. It contained a fill (192) of dark grey brown silty sand. This ditch was not excavated in this trench as it continued into Trench 14 immediately to the south, where slot [182] was excavated.

5.16.9 These features relate to occupation and settlement related activities forming boundaries and enclosures on the edge of the settlement.

TRENCH 15	**Figures 4 & 6**		
Trench Alignment: E-W	Length: 29m	Level of Natural(m OD): 11.53-10.93m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		W End	**E End**
Topsoil	(100)	0.35m	0.37m

Subsoil	(101)	0.40m	0.40m
Natural	(102)	0.7m+	0.7m+

Summary

Trench 15 was located in the western part of the site, located on a number of geophysics anomalies. It was located immediately to the north of Trench 15 south of Trench 16.

Trench 15 contained six archeological features: three north-west to south-east aligned ditches containing Roman pottery, and three pits.

5.17 Trench 16 (Figures 4 & 7)

5.17.1 Trench 16 was located to investigate a number of geophysics anomalies relating to ditches and pits. The Trench contained one furrow aligned north-west to south-east, four ditches aligned east to west, and a kiln.

5.17.2 Furrow [187] (Figure 7) was located at the south-eastern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 0.90m wide and 0.20m deep with shallow sloping sides and a concave base. It contained a single fill (186) of mid greyish-brown silty sand containing 1 fragment of animal bone.

5.17.3 Ditch [155] (Figure 7) was located at the southern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 2.44m wide and 1.3m deep with steeply sloping stepped sides and a concave base. It contained three fills: a lower fill (154) of light grey-brown silty sand, a middle fill (153) dark grey brown sandy silt which contained 8 sherds (105g) of Roman pottery (AD50-150) and 9 fragments of animal bone, and an upper fill (152) of dark greyish-brown silty sand which contained 9 sherds (227g) of Roman pottery (AD100-400) and 7 fragments of bone. Ditch [155] was parallel to Ditches [131] and [133] located c. 5m to the north-west.

5.17.4 Ditch [133] (Figure 7; Plate 10) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 0.76m wide and 0.28m deep with moderately sloping sides and a concave base. It contained a single fill (132) of dark greyish-brown silty sand which contained 1 fragment of animal bone. Ditch [133] was

truncated by Ditch [131] immediately to the north, and is parallel to Ditch [155] located c. 5.0m to the south-east.

5.17.5 Ditch [131] (Figure 7; Plate 10) was located towards the north-western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 2.16m wide and 0.90m deep with steeply sloping sides and a concave base. It contained two fills: a basal fill (130) of mid dark greyish-brown silty sand, and an upper fill (129) of dark grey-brown sandy silt, which contained 6 sherds (55g) of Middle Iron Age pottery (350-50BC) and 7 fragments of animal bone. Ditch [131] truncated Ditch [133] and is parallel to Ditch [155] located c. 5.0m to the south-east.

5.17.6 Kiln [137] (Figures 4, 7 & 9; Plate 11-12) was located at the north-west end of the trench, adjacent to Ditch [161]. Kiln [137] was sub rectangular in plan, measuring 2.74m long, 0.98m wide. A possible stokehole was identified (0.4m long x 0.34m wide) which extended south-west from the sub-circular kiln chamber (1.34m x 0.94m). The kiln chamber had an orange-brown vitrified clay lining [137] up to c. 12cm thick. The kiln is thought to have been used for pottery manufacture but as this important features was not excavated both the exact type, form and function of this feature will require further attention should further excavation be required on this area of the subject site.

5.17.7 Ditch [161] (Figure 7; Plate 13) was located at the north-western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 1.39m wide and 0.93m deep with steeply sloping stepped sides and a concave base. It contained five fills: a basal fill (160) of mid greyish-brown silty sand, this was a primary deposit relating to natural silting of the ditch. A second deposit of weathered reddish-brown silty sand natural, (159), was also present washed in from the eastern edge of the ditch. Deposit (159) contained 1 sherd (7g) of Roman pottery (AD40-400) and 3 sherds (155g) of Middle Iron Age pottery (350-50BC). A middle fill (158) of mixed orange-brown and grey-brown silty sand containing 4 sherds (47g) of Middle Iron Age pottery (350-50BC), 3 sherds (36g) of Roman pottery (AD50-100) and 3 fragments of animal bone. This deposit may

represent a secondary infilling of the ditch or, perhaps, a dump of material sealing off an earlier ditch which had already largely silted up. An upper secondary deposit, (157), of mixed grey-brown and orange-brown silty sand was also present. This deposit contained 4 sherds (171g) of Middle Iron Age pottery (350-50BC) and 1 fragment of animal bone. The top fill, (156), consisted of dark grey-brown sandy silt. This was a large deposit which suggests it was a deliberate dump of material to seal off the ditch once its original function had become obsolete. This deposit contained 1 sherd (25g) of Middle Iron Age pottery (350-50BC) and 3 fragments of animal bone. Ditch [161] was adjacent to Kiln [137].

5.17.8 The lower deposits within Ditch [161] could indicate the presence of a bank on the eastern edge of the ditch from which deposits (160) and (159) were derived. This is further evidenced by deposits (158) and (156) which could be indicative of deliberate back-filling of the ditch once it had become obsolete and started to silt up. However the small scale of the evaluation trenches makes further interpretation and conclusions difficult.

TRENCH 16	**Figures 4 & 7**		
Trench Alignment: NW-SE	Length: 25m	Level of Natural(m OD): 11.49-11.17m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		NW End	**SE End**
Topsoil	(100)	0.26m	0.20m
Subsoil	(101)	0.21m	0.25m
Subsoil	(191)	0.13m	0.15m
Natural	(102)	0.60m+	0.60m+

Summary

Trench 16 was located in the western part of the site, located on a number of geophysics anomalies. It was located immediately to the north of Trenches 14 and 15.

Trench 16 contained six archeological features: a modern furrow aligned north-west to south-east aligned, four ditches aligned east to west, and a Roman kiln.

5.18 Trench 17 (Figures 4 & 8)

5.18.1 Trench 17 was located to investigate a number of geophysics anomalies relating to ditches and pits. The Trench contained two ditches aligned north-

east to south-west.

5.18.2 Ditch [179] (Figure 8) was located at the western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 2.0m wide and 0.38m deep with moderately sloping sides and a concave base. It contained a single fill (178) of dark greyish-brown silty sand which contained 6 (70g) sherds of Roman pottery (AD250-400) and 1 fragments of animal bone.

5.18.3 An unexcavated Ditch [194] (Figure 8) was located at the western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 2.0m wide. It contained a single fill (195) of dark greyish-brown silty sand. This ditch was not excavated as it carried through into Trench 18, where slot [143] was excavated.

TRENCH 17	**Figures 4 & 8**		
Trench Alignment: E-W	Length: 20m	Level of Natural(m OD): 11.37-11.31m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.38m	0.41m
Subsoil	(101)	0.20m	0.18m
Natural	(102)	0.60m+	0.59m+

Summary

Trench 17 was located in the western part of the site, located on a number of geophysics anomalies.

Trench 17 contained two archeological features: one ditch aligned north-east to south-west and a second ditch aligned north-west to south-east, a continuation of Ditch [143] in Trench 18.

5.19 Trench 18

5.19.1 Trench 18 was located to investigate a number of geophysics anomalies relating to ditches and pits. The Trench contained six ditches; four aligned east to west and one aligned north-west to south-east, and two post-holes.

5.19.2 Ditch [115] (Figure 8) was located at the southern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 2.16m wide and 0.38m deep with moderately sloping

sides and a concave base. It contained a single fill (114) of mid greyish-brown silty sand which contained 10 sherds (105g) of Roman pottery (AD50-150) and 1 fragment of animal bone.

5.19.3 Ditch [122] (Figure 8; Plate 14) was located at the southern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 1.60m wide and 1.10m deep with steep sloping sides and a concave base. It contained two fills: a lower fill (123) of dark greyish-brown silty sand, and an upper fill (124) of grey-brown silty sand, which contained a Roman Coin (see Beveridge, Section 6.6.4).

5.19.4 Ditch [126] (Figure 8; Plate 15) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 2.16m wide and 0.52m deep with moderately sloping sides and a concave base. It contained a single fill (125) of mid greyish-brown silty sand which contained 32 sherds (505g) of Roman pottery (AD70-150).

5.19.5 Post-hole [145] (Figure 8) was located towards the northern end of the trench. It was sub-circular in plan, measuring 0.34m long, 0.32m wide and 0.24m deep with vertical sides and a concave base. It contained a single fill (144) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.19.6 Post-hole [147] (Figure 8) was located towards the northern end of the trench. It was sub-circular in plan, measuring 0.43m long 0.40m wide and 0.53m deep with steep sides and a concave base. It contained a single fill (146) of mid greyish-brown silty sand. No finds were recovered from this feature.

5.19.7 Ditch [141] (Figure 8; Plate 16) was located at the northern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned east to west, measuring 1.14m wide and 0.63m deep with steeply sloping sides and a concave base. It contained a single fill (140) of mid greyish-brown silty sand which contained 10 sherds (268g) of Roman pottery (AD50-70) and 4 fragments of animal bone.

5.19.8 Ditch [150] (Figure 8) was located at the northern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 2.1m wide and 0.81m deep with steeply sloping sides and a concave base. It contained two fills: a lower fill (149) of mid greyish-brown silty sand, and an upper fill (148) of dark grey brown sandy silty containing 10 sherds (441g) of Roman pottery (AD300-400) and 26 fragments of animal bone.

5.19.9 Ditch [143] (Figure 8) was located at the northern end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north-west to south-east, measuring 1.70m wide and 0.52m deep with steeply sloping sides and a concave base. It contained a single fill (142) of mid greyish-brown silty sand which contained a single sherd (4g) of Roman pottery (AD50-150).

TRENCH 18	**Figures 4 & 8**		
Trench Alignment: N-S	Length: 45m	Level of Natural(m OD): 11.31-11.02m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.38m	0.41m
Subsoil	(101)	0.21m	0.19m
Natural	(102)	0.59m+	0.60m+

Summary

Trench 18 was located in the western part of the site, located on a number of geophysics anomalies.

Trench 18 contained seven archeological features: one north-west to south-east aligned ditch, four east to west aligned ditches and two post-holes.

5.20 Trench 19

5.20.1 Trench 19 was located to investigate a number of geophysics anomalies relating to ditches and pits as well as possible areas of ridge and furrow.

5.20.2 Trench 19 had to be cut short as it extended beyond the limit of the 30m exclusion zone set up to provide protection for an active badger sett.

5.20.3 No archaeological features or deposits were present in this trench.

TRENCH 19	**Figures 2**		
Trench Alignment: NW-SE	Length: 16m	Level of Natural(m OD): 11.02-10.74m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		NW End	**SE End**
Topsoil	(100)	0.20m	0.35m
Subsoil	(101)	0.30m	0.25m
Natural	(102)	0.50m+	0.60m+

Summary

Trench 19 was located in the western part of the site, located on a number of geophysics anomalies as well as areas of possible ridge and furrow.

Trench 19 contained no archeological features or deposits.

5.21 Trench 20

5.21.1 Trench 20 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.21.2 Trench 20 contained no archaeological features or deposits.

TRENCH 20	**Figures 2**		
Trench Alignment: N-S	Length: 28m	Level of Natural(m OD): 10.77-10.45m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.45m	0.30m
Subsoil	(101)	0.30m	0.40m
Subsoil	(191)	0.15m	0.10m
Natural	(102)	0.90m+	0.80m+

Summary

Trench 20 was located in the western part of the site, perpendicular to Trench 21 forming a T-shaped trench.

Trench 20 contained no archeological features or deposits.

5.22 Trench 21

5.22.1 Trench 21 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.22.2 Trench 21 contained no archaeological features or deposits.

TRENCH 21	**Figures 2**		
Trench Alignment: E-W	Length: 53m	Level of Natural(m OD): 10.57-10.31m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.30m	0.30m
Subsoil	(101)	0.40m	0.40m
Natural	(102)	0.70m+	0.70m+

Summary

Trench 21 was located in the western part of the site, perpendicular to Trench 20 forming a T-shaped trench.

Trench 21 contained no archeological features or deposits.

5.23 Trench 22

5.23.1 Trench 22 was positioned to investigate possible ridge and furrow and modern ferrous anomalies. Trench 22 had to be cut short to avoid the 30m exclusion zone set up to protect an active badger sett.

5.23.2 Trench 22 contained no archaeological features or deposits.

TRENCH 22	**Figures 2**		
Trench Alignment: NW-SE	Length: 24m	Level of Natural(m OD): 10.71-10.3m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		NW End	**SE End**
Topsoil	(100)	0.26m	0.36m
Subsoil	(101)	0.22m	0.15m
Subsoil	(191)	0.08m	0.15m
Natural	(102)	0.56m+	0.66m+

Summary

Trench 22 was located in the central part of the site, located on a number of geophysics anomalies and an area of possible ridge and furrow.

Trench 22 contained no archeological features or deposits.

5.24 Trench 23

5.24.1 Trench 23 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.24.2 No archaeological features or deposits were present in this trench.

TRENCH 23	**Figures 2**		
Trench Alignment: N-S	Length: 25m	Level of Natural(m OD): 10.5-10.41m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.25m	0.20m
Subsoil	(101)	0.25m	0.30m
Natural	(102)	0.50m+	0.50m+
Summary Trench 14 was located in the southern part of the site positioned to investigate possible ridge and furrow and modern ferrous anomalies. Trench 14 contained no archeological features or deposits.			

5.25 Trench 24

5.25.1 Trench 24 was positioned to investigate possible ridge and furrow. No archaeological features or deposits were present in the trench.

TRENCH 24	**Figures 2**		
Trench Alignment: E-W	Length: 25m	Level of Natural(m OD): 10.28-10.02m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.60m	0.30m
Subsoil	(101)	0.30m	0.37m
Subsoil	(191)	0.05m	0.08m
Natural	(102)	0.90m+	0.75m+
Summary Trench 24 was located in the southern part of the site was positioned to investigate possible ridge and furrow. Trench 24 contained no archeological features or deposits.			

5.26 Trench 25

5.26.1 Trench 25 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.26.2 No archaeological features or deposits were present in the trench.

TRENCH 25	**Figures 2**		
Trench Alignment: N-S	Length: 25m	Level of Natural(m OD): 10.08-9.91m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.24m	0.30m
Subsoil	(101)	0.36m	0.38m
Natural	(102)	0.80m+	0.60m+

Summary

Trench 25 was located in the southern part of the site was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

Trench 25 contained no archeological features or deposits.

5.27 Trench 26

5.27.1 Trench 26 was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

5.27.2 No archaeological features or deposits were present in the trench.

TRENCH 26	**Figures 2**		
Trench Alignment: E-W	Length: 50m	Level of Natural(m OD): 10.25-9.9m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		E End	**W End**
Topsoil	(100)	0.30m	0.40m
Subsoil	(101)	0.30m	0.40m
Natural	(102)	0.60m+	0.80m+

Summary

Trench 26 was located in the southern part of the site was positioned to investigate possible ridge and furrow and modern ferrous anomalies.

Trench 26 contained no archeological features or deposits.

5.28 Trench 27

5.28.1 Trench 27 was positioned to investigate possible ridge and furrow.

5.28.2 No archaeological features or deposits were present in the trench.

TRENCH 27	**Figures 2**	

Trench Alignment: N-S	Length: 25m	Level of Natural(m OD): 9.88m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		N End	**S End**
Topsoil	(100)	0.28m	0.28m
Subsoil	(101)	0.78m	0.80m
Natural	(102)	1.06m+	1.08m+

Summary

Trench 27 was located in the southern part of the site was positioned to investigate possible ridge and furrow.

Trench 27 contained no archeological features or deposits.

5.29 Trench 28

5.29.1 Trench 28 was positioned to investigate possible ridge and furrow.

5.29.2 No archaeological features or deposits were present in the trench.

TRENCH 28	**Figures 2**		
Trench Alignment: NE-SW	Length: 51m	Level of Natural(m OD): 9.4-9.38m	
Deposit	**Context No.**	**Average Thickness/Depth (m)**	
		NE End	**SW End**
Topsoil	(100)	0.34m	0.42m
Subsoil	(101)	0.45m	0.24m
Subsoil	(191)	0.25m	0.10m
Natural	(102)	1.04m+	0.76m+

Summary

Trench 28 was located in the southern part of the site was positioned to investigate possible ridge and furrow.

Trench 28 contained no archeological features or deposits.

6 THE FINDS EVIDENCE

6.1 Iron Age Pottery

By Matthew Brudenell

Introduction

6.1.1 An assemblage comprising 21 sherds (506g) of handmade Iron Age pottery was recovered from the evaluation, displaying a relatively high mean sherd weight (MSW) of 24.1g. The pottery derived from seven contexts relating to ditches in Trenches 2, 15 and 16 (Table 1). All the pottery was of Middle Iron Age-type, and is dated c. 350-50 BC. The ceramics are in a stable condition, and the sherds only partially abraded. This report provides a quantified description of the assemblage

Context	Cut	Feature type	Trench	No./Wt. (g) sherds	Fabrics (no./wt (g) sherds)	Comment
104	103	Ditch	15	1/44	Q1 (1/44)	Partial vessel profile
129	131	Ditch	16	6/55	Q1 (2/28), S2 (4/27)	Includes base sherd
156	161	Ditch	16	1/25	S1 (1/25)	Body sherd
157	161	Ditch	16	4/171	Q1 (3/44), S1 (1/127)	Includes a base sherd, and one Scored Ware sherd
158	161	Ditch	16	4/47	Q1 (4/47)	Body sherds
159	161	Ditch	16	3/155	Q1 (3/155)	Includes partial vessel profile and base sherd
180	181	Ditch	2	2/9	Q1 (2/9)	Body sherds
TOTAL	-	-	-	21/506	-	-

Table 1: Pottery quantification by context

Fabric series:

Q1: Moderate to common quartz sand. 15 sherds, 327g.

Shell

S1: Moderate to abundant medium to very coarse shell (mainly 1-4mm in size). 2 sherds, 52g.

S2: Moderate to common fine to medium shell (mainly <1.5mm in size). 4 sherds, 27g

Methodology

6.1.2 All the pottery has been fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (2009). After a full inspection of the assemblage, fabric groups were devised on the basis of dominant inclusion types, their density and modal size. Sherds from all contexts were counted, weighed (to the nearest whole gram) and assigned to a fabric group (sherds broken in excavation were refitted and counted as single entities). Sherd type was recorded, along with technology (wheel-made or handmade), evidence for surface treatment, decoration, and the presence of soot and/or residue. Rim and base forms were described using a codified system recorded in the catalogue, and were assigned vessel numbers. Where possible, rim and base diameters were measured, and surviving percentages noted. In cases where a sherd or groups of refitting sherds retained portions of the rim and shoulder, the vessel was also categorised by form. In this instance, the Middle Iron Age-type forms were codified using the series developed by JD Hill (Hill and Horne 2003, 174; Hill and Braddock 2006, 155-156). All pottery was subject to sherd size analysis. Sherds less than 4cm in diameter were classified as 'small' (9 sherds); sherds measuring 4-8cm were classified as 'medium' (10 sherds), and sherds over 8cm in diameter will be classified as 'large' (2 sherds).

Assemblage Characteristics

6.1.3 The assemblage was split between sandy (Q1) and shelly wares (S1 and S2), with fabric Q1 accounting for 65% of the pottery – wares and frequencies typical for the period and region of Cambridgeshire. Although the assemblage was small it included two partial vessel profiles. The first derived from context 104, ditch 103, and comprised a fragment of a slack-shouldered jar (Form A, 1 sherd, 44g). The jar was decorated with fingertip impressions on the rim-top and had a rim diameter of 18cm (8% intact). The second was from context 159, ditch 161, and comprised the upper profile of a plain neckless vessel with an in-turned rim (Form K, 1 sherd, 77g). This vessel retained sooting on the exterior and had a rim diameter of 14cm (15% intact). The only other feature sherds in the assemblage were fragments of two vessel bases (3 sherds, 79g) recovered from contexts 157, 159 and 129,

and a large scored sherd (127g) from context 157, ditch 161. The latter is characteristic of the Scored Ware tradition (Elsdon 1992), and was in shell tempered fabric S1.

Discussion

6.1.4 The small assemblage of handmade prehistoric pottery recovered from the evaluation dates to the Middle Iron Age, c. 350-50 BC. The material is characterised by sherds in sand and shell tempered fabrics typical of the period and region. Most of the pottery derived from ditch 161 in Trench 16. The ditch yielded relatively fresh material suggestive of waste from adjacent settlement contexts. The pottery can be widely paralleled in contemporary assemblages from the surrounding area, including published groups from Wardy Hill (Hill and Horn 2003), West Fen Road (Percival 2005) and Hurst Lane (Percival 2007).

6.2 Roman Pottery

By Katie Anderson

Introduction

6.2.1 The Oakington Road evaluation yielded an assemblage of Roman pottery totalling 232 sherds, weighing 6139g and representing 8.66 EVEs (estimated vessel equivalent). All of the pottery was examined and recorded in accordance with the guidelines laid out by the Study Group for Roman Pottery (Perrin 2011) and using the standard terminology and codes advocated by the Museum of London Archaeology Service (Symonds 2002).

Assemblage Chronology

6.2.2 The assemblage ranges in date from the early to the later Roman period, albeit in varying quantities. The pottery suggests that the earliest Roman activity occurred in the post-conquest period. Early Roman pottery (AD40-100) represented 19.3% of the total assemblage by number of sherds (excluding sherds which could only be dated Romano-British).

6.2.3 Early to mid-Roman material (AD70-150/200) represents 37.6% of the assemblage by count, while 27.5% of the assemblage was dated mid-later Roman (AD150-300/400). The remaining 15.6% comprised sherds dating to

the later Roman period (AD200-400). The pottery therefore indicates activity throughout the Roman period, with the possibility that this occurred without any hiatus in occupation. The material also implies a consistent level of activity, although the earlier Roman period (AD50-150) could be considered to show a slight peak.

Assemblage Composition

6.2.4 The pottery varies in condition, with most sherds being medium in size, with fewer large, relatively 'fresh' sherds, reflected in the relatively high mean weight of 26.5g, which included two almost complete vessels from ditch (121). Despite the high mean weight of the assemblage, several of the sherds were noted as being abraded.

6.2.5 A minimum of 43 different vessels were identified, based on the number of unique rims present (MNV). Jars were the most commonly occurring form, with 24 different vessels identified. These ranged in size from the medium sized jars, to large Horningsea greyware storage jars, with rim diameters ranging between 12cm and 40cm. This reflects a variety of different functions including storage, as well as cooking, the latter of which was evident from usewear noted on several jars. Usewear evidence included four vessels with sooting on the exterior, indicative of being used over a fire.

6.2.6 All other vessel forms were relatively poorly represented, with four of fewer examples (by MNV) of beakers, bowls, dishes and lids, as well as a single mortaria and cup.

6.2.7 Overall the assemblage is indicative of a domestic assemblage, with a range of vessels for the storage, preparation and serving of foodstuffs.

Form	No.	Wt(g)	MNV
Beaker	9	480	3
Bowl	7	149	4
Closed form	27	262	0
Cup	1	5	1
Dish	7	136	4
Jar	56	2616	24

Lid	2	72	2
Mortaria	1	1036	1
Open form	4	188	0
Unknown	118	1195	4

Table 2: All Roman pottery by form

6.2.8 A variety of vessel fabrics were identified in varying quantities (see Table 3). Romano-British coarseware fabrics were the most commonly occurring, representing 90.5% of all pottery. This is fairly typical of Roman rural settlements in this region, with most of the material likely to have come from the local area. Sourced coarsewares include 17 Horningsea sherds (971g) and one Nene Valley whiteware (1036g). The remainder of the coarsewares were unsourced.

Fabric Code	Fabric	No.	Wt(g)
ARGO	Argonne colour-coated ware	1	15
BLKSL	Black-slipped ware (unsourced)	30	289
CC	Colour-coated ware (unsourced)	5	557
CSBLK	Coarse sandy black ware (unsourced)	11	183
CSGW	Coarse sandy micaceous greyware (unsourced)	97	1255
CSRDU	Coarse sandy reduced ware (unsourced)	17	484
FSBLK	Fine sandy black (unsourced)	1	1
FSGW	Fine sandy greyware (unsourced)	7	124
FSOX	Fine sandy oxidised ware (unsourced)	1	9
HADBB	Hadham black-burnished ware	1	13
HADRS	Hadham red-slipped ware	1	3
HORNBB	Horningsea black-burnished ware	3	128
HORNGW	Horningsea greyware	6	586
HORNOX	Horningsea oxidised ware	8	257
IMITBB	Imitation black-burnished ware (unsourced)	4	51
NVCC	Nene Valley colour-coated ware	13	356
NVWW	Nene Valley whiteware	1	1036
OXID	Oxidised sandy ware (unsourced)	14	696
SAMEG	East Gaulish Samian	1	5
SAMSG	South Gaulish Samian	1	9
SHELL	Shell-tempered ware	8	74
WS	White-slipped ware (unsourced)	1	8

Table 3: Roman fabric quantification

6.2.9 8.2% of the assemblage comprised Romano-British finewares, with Nene valley colour-coated wares being the most prevalent, with a total of 13 sherds weighing 356g. A single Hadham red-slipped ware was also identified, as well as five unsourced colour-coated sherds.

6.2.10 Imported wares accounted for the remaining 1.3% of the assemblage. These comprise one East Gaul samian sherd, one South Gaul samian sherd and one Argonne colour-coated ware.

Contextual Analysis

6.2.11 Roman pottery was collected from six of the trenches (see Table 4), with trenches 14, 15 and 18 standing out as containing relatively large quantities of material. The pottery derived from 26 different contexts (including the topsoil), equating to 20 different features (Table 5). 15 contexts contained ten or fewer sherds, three contexts contained between 10-30 sherds, while the remaining three features contained between 32 and 45 sherds.

6.2.12 It is of note that Trenches 14, 15 and 18 which contained the largest quantities of pottery, comprised features dating to the earlier, middle and later Roman periods, suggesting that there this area of the site was utilised through Roman occupation.

Trench	No.	Wt(g)
2	2	3
14	75	2859
15	60	1451
16	21	375
17	6	70
18	68	1381

Table 4: All Roman pottery by trench

Cut	Trench	No.	Wt(g)
Topsoil	14	3	161
100	18	3	24
101	15	4	32
103	15	45	618
107	15	6	226

109	15	4	571
113	15	1	4
115	18	10	105
120	14	34	1912
126	18	32	505
127	18	2	34
141	18	10	268
143	18	1	4
150	18	10	441
155	16	17	332
161	16	4	43
177	2	2	3
179	17	6	70
182	14	12	454
188	14	6	97
189	14	20	235

Table 5: Roman pottery quantification by cut

6.2.13 Ditch [120]/(121), Trench 14, contained 34 sherds weighing 1912g. This included two near complete vessels which can be considered as a 'special deposit' given their completeness, especially when compared to the remainder of the pottery from this context. These vessels comprised a colour-coated beaker with part of the neck and the rim missing, and a Nene Valley M70 type mortaria, with part of the rim missing, both dating 3rd-4th century AD. Both of these vessels were noted as having been damaged, possibly deliberately? Several gouges had been removed from the exterior of the vessels, a technique often seen with 'ritually killed' pots, as seen at Buntingford Road, Puckeridge (Anderson et al, 2014) where in excess of 60 pots showed similar damage which has been taken there as evidence for being 'ritually killed' within funerary contexts. In addition to these, the missing sections of rim may again have been a deliberate pre-depositional act, it is worth noting that it is also possible that this damage was caused by accidentally especially when viewed alongside the kiln present on the site. In the case of the mortaria, the interior grits showed no evidence of use, suggesting this was not a vessel which had simply become surplus to

requirements. The reasons for this deposit are uncertain, however, given the lack of associated human remains, they may represent an 'opening' or 'closing deposit' related to an aspect of the site. The remaining sherds within this context were of the same later Roman date, but were much more indicative of rubbish disposal, comprising smaller, abraded sherds.

6.2.14 The earliest dating feature was Ditch [141]/(140), Trench 18, which contained ten sherds weighing 268, dating AD40-70. This included two vessels in the Later Iron Age handmade tradition, along with more Romanised fabrics and forms. Ditch [161]/(158/159) Trench 16 contained four sherds (43g) of early Roman pottery, alongside some prehistoric material. This ditch was located adjacent to the probable Roman pottery kiln was identified in Trench 16, although it was not excavated, thus the date and nature of production are uncertain.

6.2.15 The latest dating feature on site was Ditch [150]/(148), Trench 18, which contained ten sherds weighing 441g, dating AD300-400, which included a Nene Valley colour-coated beaded, flanged bowl, and a Nene Valley large jar. Buried Soil (188), Trench 14 contained six sherds weighing 97g, which included a sherd from an Argonne colour-coated vessel, dating this context to AD250-400. Finally Ditch [179]/(178), Trench 17 contained six sherds weighing 70g which included a Nene Valley colour-coated, beaded, flanged bowl, dating AD250-400.

Discussion

6.2.16 The Roman assemblage from Cottenham is a small, yet important collection of material, which suggests occupation began during the decades following the Roman conquest, and continued until the late Roman period. That said, the relatively small quantity of pottery suggests that this was not the core of the site.

6.2.17 The fabrics present in the assemblage suggest that the site obtained most of its pottery from the local area, although there was access to vessels from outside of the local area, including a small number of imported wares. Overall, the Roman pottery assemblage is indicative of a rural, domestic

settlement.

6.2.18 Of note within the assemblage were the two almost complete vessels deposited in ditch [120], which are indicative of a 'special deposit'.

6.2.19 None of the material can be conclusively linked to the Roman pottery kiln identified in Trench 16, although some of the pottery recovered from adjacent Ditch [161] might conceivably have derived from the kiln, this comprised only four sherds, with no apparent 'dumps' of kiln material identified here or elsewhere on the site.

Context	Cut	Trench	No.	Wt(g)	Context Spotdate
1	1	14	3	161	N/A
100	100	18	3	24	N/A
101	101	15	4	32	N/a
104	103	15	45	618	AD150-300
105	107	15	5	215	AD50-200
106	107	15	1	11	AD150-400
108	109	15	4	571	AD50-400
114	115	18	10	105	AD50-150
116	113	15	1	4	AD150-400
121	120	14	34	1912	AD200-300
125	126	18	32	505	AD70-150
128	127	18	2	34	AD70-200
140	141	18	10	268	AD50-70
142	143	18	1	4	AD50-150
148	150	18	10	441	AD300-400
152	155	16	9	227	AD100-400
153	155	16	8	105	AD50-150
158	161	16	3	36	AD50-100
159	161	16	1	7	AD50-400 with pre
176	177	2	2	3	AD40-70
178	179	17	6	70	AD250-400
183	182	14	5	369	AD50-100
184	182	14	5	37	AD50-100
185	182	14	2	48	AD50-100
188	n/s	14	6	97	AD250-400
190	189	14	20	235	AD150-300 mixed

Table 6: All Roman pottery quantification by context number

6.3 Ceramic Building Material

By Sîan O'Neill

6.3.1 Two fragments of Ceramic Building Material (CBM) weighing a total of 176.5g were recovered from the fill (121) of a Roman ditch [120] in Trench 11, located in the west of the site.

6.3.2 The material was examined with the naked eye, to identify any differences in fabric, of which there was none. The fabric is a well sorted, sandy clay, with frequent inclusions of quartz and small.

6.3.3 The form of the CBM is tile, but highly abraded and in such small quantities it is impossible to infer anything about its use.

6.4 Burnt Clay

By Sîan O'Neill

6.4.1 Ten small fragments of burnt clay were recovered from the site, weighing a total of 162g. All fragments were from Roman contexts located in the West of the site, near to the kiln. Six of the fragments were recovered from the fill of a Roman boundary ditch (156) [161]; two from a Roman ditch on site (140) [141] and two from a Roman pit (108) [109].

6.4.2 The material was examined with the naked eye, to identify any differences in fabric, of which there were none. The fabric is a poorly sorted clay with no inclusions.

6.4.3 No complete dimensions survived, as all pieces recovered are upper or inner fragments. Due to this and the highly abraded nature of the material, it is all undiagnostic. As such little can be learnt from their existence and no further work is recommended.

6.5 Stone

By Sîan O'Neill

6.5.1 A small assemblage consisting of two pieces of Millstone and two worked

and burnt but undiagnostic fragments of stone weighing a total of 3934g were found on site, all from Roman features.

6.5.2 One fragment of millstone is made of volcanic lava stone and the other is millstone grit, both recovered from the upper fill (105) of Roman ditch [107]. The worked and burnt stone are made of quartzite and retain some original surfaces, but are not diagnostic. They were recovered from ditches (121) [120] and (158) [161].

6.5.3 Should further work at the site be considered, the assemblages reported here should be re-documented in conjunction with any additional material recovered following the completion of the archaeological programmes.

Context	Petrology	Weight (g)	Dimensions (mm)	Worked	Burnt	Form
105	Lava stone	2414	129 x 177 x 54	Yes	No	Millstone
105	Millstone grit	1189.5	160 x 196 x 38	Yes	No	Millstone
121	Quartzite	133	56 x 44 x 39	Yes	Yes	Unknown
158	Quartzite	197.5	58 x 51 x 24	Yes	Yes	Unknown

Table 7: Quantification of stone

6.6 Slag

By David Starley

Introduction

6.6.1 A very small amount of debris, totalling 345g, associated with Roman ditches of Roman date, was assessed by visual examination. The material is not considered to be metallurgical but conforms to a form of debris known as Iron Age grey, a 'slag' of unknown technological origin.

Methodology

6.6.2 All the debris, totalling 345g, was visually examined with the aid of and streak plate.

Results

6.6.3 The material examined weighted 345g and totalled 14 pieces, although

some fragmentation may have occurred in transit. All material was all of similar appearance, having a relatively porous structure, a uniform mid-grey colouration, some glazing on exterior surfaces with occasional white inclusions, probably burned quartz.

6.6.4 Testing with a streak plate, gave a scratchy, light grey streak, which did not suggest the presence of the mineral that typifies most iron working and smelting waste: fayalite. The morphology also did not match any diagnostic slag types which would also have allowed the process to be determined.

6.6.5 The grey colouration suggests reducing rather that oxidizing conditions during heating. Without any colour gradation through the section, the material did not derive directly from the wall of any hearth or furnace. The material does have features in common with the more cindery fragments formed when clay spalls away from such linings and is then vitrified within a hearth or furnace. However, in the absence of any more distinctive metallurgical, or other debris, such an explanation has limited interpretive value.

6.6.6 The best match with previously encountered debris types was a material that has become known as 'Iron Age Grey'. Although this material is widely recognised by specialists, there is no consensus as to its origins, with suggestions ranging from the conflagration of daub buildings to the debris from ovens used for communal feasting. Perhaps significantly its presence normally ties in with the remains of predominantly mid to late Iron Age activity, although finds in well stratified contexts are rare.

Context	Cut	Material Type	Mass (g)	Comments
125	126	Iron Age Grey	345	Uniformly grey, porous fabric

Table 8: Archaeometallurgy debris by context

Discussion

6.6.7 The small amount of debris, best conforms to the type known as Iron Age Grey, whose origin is disputed. However, it is unlikely to be associated with either metalworking or ceramic production.

Suggestions for Future Work

6.6.8 No further examination or physico-chemical analysis of the assemblage is recommended.

6.6.9 All debris should be saved.

6.7 Metalwork

By Ruth Beveridge

Introduction

6.7.1 Two objects were recovered from the evaluation. They have been fully recorded below by material type with a complete listing being provided in the catalogue. The copper alloy coin is in a fair condition; the silver coin is more worn.

Silver

Unstratified silver coin

6.7.2 A complete hammered sixpence of Elizabeth I (1558-1603) with some damage to the edge of the flan. Obverse: the area of the bust is worn so little detail is visible. The legend reads +ELIZABET[H:D:G:ANG FR]A ET HIB R[EGINA].

6.7.3 Reverse: this depicts a Royal square shield on a long cross fourchee dividing the legend. The date 1578 sits above the shield. The legend reads +P[OS]VI/DEVAD/IV[ATORE]/M.MEV (I have made God my helper). The initial mark on both the obverse and the reverse is a Greek cross (date range, 1578-79). A similar example can be seen in Seaby 1990, 173, no. 2573.

Copper Alloy

6.7.4 <1> was located in (124) of ditch [122]. This was a complete fourth century nummus of Valens (AD 364-378), size AE3 (Reece period 19). Obverse: bust facing right with diadem, draped and cuirassed. Legend reads [DN VALEN] S P[F AVG]. Reverse: depicts Victory advancing left with wreath and palm. Legend reads [SECVRITAS] REI PVBLICAE. It was minted in Lyon (Lugdunum) and bears the mintmark OF I//LVGP*, this is from the first period and dates to late AD364 to August AD367. Reference: RIC IX, no.12.

Recommendations for Further Work

6.7.5 The two coins have been fully recorded and require no further work.

Discussion

6.7.6 The sixpence of Elizabeth I may be a casual loss related to the post medieval agricultural activity on the eastern part of the site. A sixpence of Elizabeth I is not an uncommon find in England; for example, well over 1000 have been recorded on the Portable Antiquities Scheme database and many are known from archaeological excavations.

6.7.7 The late fourth century nummus from a ditch in Trench 18 is likely to be a casual loss from the Roman settlement activity in the north-western part of the site. This type of coin is amongst the most common of those found immediately following the Constantinian period.

6.8 Animal Bone

By Karen Deighton

Method

6.8.1 Bones were identified, where possible, to taxa with the aid of a bone atlas (Schmid 1972). The presence of ageing data (i.e. status of epiphyseal fusion (Silver 1969) and tooth eruption and wear (Grant 1982, Halstead 1985, Payne 1973), neonates (Prummel 1987) sexing data and metrical data (after von den Driesch 1976) was also noted. The state of preservation was also noted.

Description of the Assemblage

6.8.2 Fragmentation was low to moderate and varied with context, with several complete long bones present. Surface condition of the bones was good, with little root etching. Some canid gnawing and butchery (chopping) was observed.

6.8.3 A total of 104 fragments of animal bone, with a combined weight of 8156g, were recovered from a variety of contexts from across the site. A total of 8 identified specimens were identified within the fragments recovered.

Context	Trench	Cattle	Horse	Sheep/ goat	Pig	Cattle size	Sheep size	Bird	Mustelid	Total
100		3(358g)		1(32g)		1(75g)				5
104	15	2(130g)		4(51g)			1(6g)			7
105	15			2(43g)						2
106	15			3(86g)						3
114	18	1(169g)								1
121	14	2(462g)	1(94g)	3(33g)	1(11g)					7
125	18	3(100g)	1(40g)		1(25g)					5
129	16	3(253g)		2(37g)		1(27g)	1(8g)			7
132	16	1(146g)								1
140	18	2(255g)	2(309g)							4
148	18	19 (2048g)	2(451g)	4(281g)		1(160g)				26
152	16	6(415g)		1(15g)						7
153	16	7(781g)		1(8g)				1(1g)		9
156	16	1(58g)		2(21g)						3
157	16			1(29g)						1
158	16	1(78g)		1(16g)			1(23g)			3
178	17	1(131g)								1
180	2	2(117g)						1(1g)		2
183	14	1(228g)							1(1g)	2
184	14	2(130g)			1(10g)					3
186	16		1(15g)							1
189	14		2(383g)	1(5g)						3
Total		57 (5859g)	9 (1292g)	26 (657g)	3 (46g)	3 (262g)	3 (37g)	2 (2g)	1 (1g)	104 (8156g)

Table 9: Identified Taxa by context

Discussion

6.8.4 Contexts (160) and (188) both contained a single indeterminate bone fragment, too small for an accurate weight. Wet sieving produced only two bone fragments which have been included in the hand collected counts.

6.8.5 The assemblage predominately consisted of the major domesticates with cattle being the most plentiful (50% of assemblage). Some of the more

complete cattle bones appeared large which could suggest the taxa had been subject to stock improvement (breeding for larger animals to increase meat yields) which is not uncommon for the Roman period. Two examples of pathologies to cattle mandibular hinges were noted. The articulation in both cases appeared malformed and exotosis was present. Sheep/goat formed approximately 23% of the assemblage including a single juvenile bone. Pigs formed only 2% of the assemblage with 2 juvenile bone long bones observed, which could imply on -site breeding, however more evidence would be needed to confirm this suggestion. A male pig canine was also present. Horse formed approximately 8% of the assemblage, again a juvenile bone was noted. Wild taxa were represented by the distal tibia of a possible mustelid: more work would be needed to confirm the species. Although no canid remains were noted, the presence of canid gnawing on several bones attests to their presence at site.

Significance

6.8.6 The extant assemblage is moderately size and well preserved therefore it could provide some information on animal husbandry and dietary preference to aid in the understanding of the site. However, if more evidence could be collected during any subsequent excavations, it may be possible to create a deeper understanding of the site's economy and, if more wild taxa could be found, its relationship to the environment.

6.8.7 The bone assemblage is significant for its insight into local Roman settlement. At a more regional level the assemblage is significant in the contribution it may make to the understanding of Iron Age/Roman settlement in and near the Fens (numerous farmsteads sprang up in the 2nd to 4th centuries AD to the North of Cottenham on the Fen edge), particularly in comparison to assemblages from sites such as Prickwillow Road (Deighton 2003), West Fen (Higbee 2001) and Hurst Lane reservoir (Clarke and Higbee 2007) all at Ely (approx 20 km to the North east). It could also aid in the understanding of the relationship between the Fen edge settlements and larger settlements (e.g. Godmanchester) and Roman other towns in the area (e.g. Cambridge).

6.8.8 Further collection of animal bone to be carried out during any future excavations and subsequent comparison of the assemblage with other local fen edge sites.

Conclusion

6.8.9 Study has shown a moderately sized and well preserved assemblage which has some value to site understanding but could be enhanced by material from further excavation, to have wider significance.

6.9 Plant Macrofossils

By Marta Pérez Fernández

Introduction

6.9.1 This report summarises the findings from the assessment of eleven bulk samples taken from ditches and buried soil during an evaluation undertaken at Oakington Road, Cottenham. The aim of this environmental assessment is to determine the environmental potential of these samples.

Methodology

6.9.2 Eleven flots, taken from samples of between 20-40 litres, were scanned for environmental material under a binocular microscope and the results recorded.

6.9.3 The flots were scanned for the presence of charred grain, chaff, weed seeds, charcoal, molluscs and other environmental remains. These were recorded on a non-linear scale to denote 'abundance': 1- Occasional (up to 5 items), 2- fairly frequent (5-25), 3- frequent (25-100), 4- abundant (>100). A note was also made of all other inclusions i.e. Modern plant fibres, coal, slag etc.

6.9.4 The results of the assessment of the flots are presented in Table 10.

Results and Discussion

6.9.5 The eleven flots contained numerous roots and modern intrusions such as modern insects, and some coal. This indicates that there has been a significant amount of bioturbation on the site, as a result it is likely that if environmental evidence is present it would not be in-situ.

6.9.6 All the flots produced wood charcoal however these fragments were too small to be identified. Only sample <2> contained charcoal fragments large enough to be identified. Charred grain fragments were also found in small quantities in the samples, with the exception of samples <2> and <3>, which were too fragmented and burnt to be identified. Sample <7> had also a charred lens culinaris seed.

6.9.7 Uncharred seeds were identified in all the samples except sample <3>. These were all modern intrusions due to the level of bioturbation present on the site. These are identified as: Chenopodium album (Fat-hen) and Polygonum/Rumex sp. (knotweed/sorrel/dock), Urtica dioca (nettle) and Veronica Hederifolia (Speedwells) (Stace, 1997). These are very common in environmental samples and unless they are found in well-sealed or waterlogged deposits, they are considered to be modern intrusions.

Recommendations

6.9.8 The samples have proved to be very poor in terms of evidence for environmental remains. It is recommended that no further study of these flots is needed.

6.9.9 Charred remains are present on this site and appear to be well preserved as a result it is recommended that during the excavation bulk samples should be taken from well-sealed contexts and form a range of features to obtain the necessary environmental evidence.

6.9.10 The lack of snails could be an indicative of an acidic soil, where pollen could be preserved. If more works are done in this area, column samples for pollen analysis should be taken from sealed and datable features.

Sample number	Context number	Trench	Feature	Flot				
				Vol (ml)	Charcoal	Charred seeds/grain	Unchar. Seeds	Other
1	104	15	Ditch	15	1	1	2	(4)roots
2	105	15	Ditch	50	2		2	(4)roots, (1) modern insects
3	123	18	Ditch	10	1			(4)roots, (1) modern insects
4	142	18	Ditch	20	1	1	2	(4)roots, (1) modern insects, (1) coal
5	149	18	Ditch	8	1	1	1	(3)roots, (1) coal, (1) modern insects
6	121	14	Ditch	20	2	1	2	(3)roots
7	153	16	Ditch	20	1	1	2	(4)roots, (1) coal
8	159	16	Ditch	2	1	1	1	mainly sand
9	188	14	Buried soil	30	2	1	2	(4)roots
10	188	14	Buried soil	50	1		1	(2) roots
11	160	16	Ditch	25	1	1	1	(4)roots

Table 10: Results of the flots

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant

7 DISCUSSION & CONCLUSIONS

7.1 Overview

7.1.1 The results of the geophysical survey carried out identified a density of anomalies, relating to ditches and pits, located in the north-west of the site. The results of the evaluation were in keeping with these results: the north-west of the site (Trenches 14-18) contained the densest concentration of archaeological features relating to a known Romano-British settlement, of which the southern limit has now been shown to be present within the development area. There is the potential for Middle Iron Age origins for the settlement with an apparent hiatus in activity until the Roman period. However this may be misleading with this part of the settlement possibly in use as field systems during the Late Iron Age period, especially when given the small window provided by the trial trench evaluation.

7.2 Geophysics Results

7.2.1 The results of the evaluation are in keeping with the results of the geophysical survey with some of the ditch alignments and pits identified within the trenches present where they had been identified in the geophysical survey.

7.2.2 The areas of ridge and furrow identified in the geophysical survey were only present in Trenches 5-7. These are likely to have been ploughed away through agricultural activity from the post-medieval to modern periods.

7.2.3 The geophysical survey also identified a number of modern ferrous anomalies, some of which related to modern intrusions, but for the most part these related to areas of iron-panning and concentrations of iron stone contained within the natural geology.

7.3 Iron Age

7.3.1 There is evidence for Iron Age settlement in the field to the north of the development area (CHER 09547; Figure 2). Here aerial photographs have revealed an extensive complex of cropmarks, which include large rectilinear enclosures, interconnected curvilinear boundaries and enclosures as well as a number of linear boundaries. The present site represents the southern

extent of the settlement and an evaluation carried out to the north-east of the development area identified the eastern limit of this settlement (ECB4588; Atkins, 2015).

7.3.2 Three ditches on the site contained Middle Iron Age pottery (see Brudenell, Section 6.1.1) located in Trenches 15 and 16. Some of these ditches also contained later Roman material, for instance Ditch [155], meaning these sherds survive in residual contexts. Nonetheless the presence of this pottery highlights to Middle Iron Age activity on the site. Currently it is unclear as to whether activity at the site was continuous into the later Roman period and beyond or whether there was a hiatus is activity in the Late Iron Age.

7.3.3 Any potential hiatus may, however, be explained through the differing focuses of activity within the settlement. The present site may merely fall on the peripheries of the Late Iron Age settlement, meaning dating evidence of this period may well be scarce. It may well also represent the different uses of the land, with the development area being agricultural field systems on the outskirts of the settlement during the Later Iron Age. But in view of the limited sample provided through the trial trenches any potential hiatus' may be misleading. The focus for Later Iron Age activity may be further to the north and north-east where an evaluation within the same settlement produced evidence of Later Iron Age date (ECB4588; Atkins 2015).

7.3.4 It is worth noting that the Iron Age pottery is residual as the Roman ditches truncate earlier Iron Age activity as evidenced by Ditch [161] which truncates earlier Iron Age pits. Even though the pottery is residual it is present in relatively large quantities indicative of multi-period settlement within the development area.

7.3.5 Middle Iron Age pottery was also recovered from Ditch [181] in Trench 2. This feature was overlain by a thick deposit of potential colluvial material. However this ditch contained only 2 sherds (9.0g) of pottery, with few further features identified in the vicinity of the trench.

7.3.6 There is further evidence for Iron Age activity with fragments of 'Iron Age Grey' recovered from Ditch [126]. This was suggested as being residual but

with evidence of other Iron Age pottery found on the site it is reasonable to suggest that there was pre-Roman activity present on the site.

7.4 Romano-British Settlement

7.4.1 The evaluation identified evidence for Roman settlement spanning the entire Roman period, with potential for industrial activity. This activity is focused in the northwest of the site (Trenches 14-18) with further evidence for settlement present in the adjoining fields to the north and east (CHER 09547; Figure 2). This settlement consisted of a large double banked enclosure which surrounded a number of internal enclosures, as well as rectilinear enclosures and linear boundaries. A trackway and an outer field system with associated scattered compounds were also identified (Lees, 2015). The character of the settlement is morphologically Roman but it is likely that it has prehistoric origins; the organised, distinctly, Roman enclosures and field systems superimposed onto an earlier Iron Age settlement. This is congruent with the evidence uncovered on the site, a Roman settlement with Iron Age origins.

7.4.2 Settlement activity is evidenced by the presence of pits, post-holes and other settlement related features, especially when viewed alongside the finds assemblages which are indicative of domestic settlement in the vicinity.

7.4.3 The trenches identified a number of large boundary and enclosure ditches, which likely delineate the southern edge of settlement from the agricultural 'infield' systems further to the south.

7.4.4 The finds are indicative of a domestic assemblage, with a range of vessels for the storage, preparation and serving of foodstuffs, indicative of settlement activity. It is of note that Trenches 14, 15 and 18 which contained the largest quantities of pottery, comprised features dating to the earlier, middle and later Roman periods, suggesting that there this area of the site was utilised throughout Roman occupation.

7.4.5 Ditch [120] (Trench 14) contained two near complete vessels, dating 3rd-4th century AD. It is possible that these represent 'special deposits' especially when viewed alongside the fragmentary nature of the other pottery

recovered from the feature. Both of the vessels showed evidence of potential deliberate damage and may be 'ritually killed' pots, as seen on other sites such as Buntingford Road, Puckeridge where 60 pots showed of deliberate damage in the same places as the vessels uncovered on this site (Anderson et al, 2014). The reasons for the deposition of these vessels at Oakington Road are uncertain. Given the lack of associated human remains, they may represent an 'opening' or 'closing deposit' related to an aspect of the site. However it is also worth noting that, especially when viewed alongside the presence of the kiln, these vessels may represent vessels accidentally damaged in the kiln or spalled in the firing process.

7.4.6 The earliest Roman feature, dating AD40-70, was Ditch [141] (Trench 18). This could represent the earliest delineation of the settlement before being expanded southwards in the mid to later Roman periods.

7.4.7 Ditch [161] (Trench 16) may form an enclosure around Kiln [137] on the periphery of the main settlement core. Ditch [161] contained early Roman pottery, alongside some Middle Iron Age material. The kiln was not excavated, thus the date and nature of production are uncertain.

7.4.8 The Roman pottery assemblage from Cottenham is a small, yet important collection of material, which provides evidence for occupation from the conquest through to the Late Roman periods. The relatively small quantity of pottery suggests that the trenches are on the peripheries of the settlement and not located in the core of the site.

7.4.9 The pottery indicates activity throughout the Roman period (AD50-400), with the possibility that this occurred without any hiatus in occupation. There appears to be a fair consistent level of Roman occupation on the site, with the potential for a peak in the earlier Roman period (AD50-150).

7.4.10 There is evidence for a re-instatement of earlier boundaries suggesting a shift back towards domestic settlement from the industrial activity of the earlier Roman period. This is shown by the establishment of Ditch [148], the latest Roman ditch present on the site, being set up on the same alignment and very close to the earliest Roman ditch present on the site [141]. This

shift in focus back to domestic settlement is further backed up by the presence of Nene Valley pottery indicative of domestic activity.

7.4.11 There was no evidence for Romano-British activity further east than Trench 18 with the modern field boundary potentially being a retained boundary of some antiquity. However further settlement activity may be present beyond this boundary but not identified due to the fact that no trenches could be excavated between Trench 11 in the east and Trench 18 in the west because of active badger setts.

7.5 Post-Medieval

7.5.1 The post-medieval activity on the site was predominantly located in the eastern part of the site (Trenches 5-7) where a system of north-west to south-east aligned of furrows were uncovered. This is indicative of an arable agricultural land use on the site during the post-medieval period.

7.6 Conclusions

7.6.1 The trial trench evaluation identified features reflecting three periods of activity on the site: Middle Iron Age, Romano-British and post-medieval.

7.6.2 The archaeological features and deposits from both the Middle Iron Age and Roman periods are relatively well-preserved, with the Roman period features being associated with moderately large and varied finds assemblages. The features related to both of these phases are indicative of a level of settlement activity within the site area, albeit on the peripheries rather than the core.

7.6.3 The Romano-British settlement was located in the north-west of the site and continues beyond the limits of the site into the adjoining fields to the north and east. It is possible that this settlement had earlier Middle Iron Age origins as suggested by the re-cutting or retention of some boundary ditches present in this part of the site.

7.6.4 The presence of the kiln could suggest industrial activity was taking place on the peripheries of the earlier Romano British settlement. The fact that there is no direct evidence for the kilns being used for pottery production could

mean that this industrial activity could, potentially, be exploiting the concentrations of iron stone and iron-panning present within the natural geology in the area.

7.6.5 The Roman settlement is concentrated on the higher ground (Trenches 14-18) in the western part of the site. No features are present further south than Trench 22 at which point the land drops off in height. This settlement is exploiting the arable potential of the up-terrace slopes and proximity to smaller water courses present between Cottenham and Rampton to the north of the site.

7.6.6 There is evidence for a re-instatement of earlier boundaries as evidenced by Ditches [148] where a later Roman boundary was established on the same alignment as Ditch [141] which was the earliest Roman ditch. One possible explanation may be because of a shift from the industrial activity of the earlier Roman period back towards settlement. This is evidenced by the presence of Nene Valley pottery which is indicative of domestic activity.

7.6.7 The results of the evaluation broadly reflect and enhance the results of the geophysical survey. Some of the ditch alignments and pits were identified in the geophysical survey and these related to features identified within the evaluation trenches. This enables us to infer activity in the vicinity of the trenches from the results of the geophysics.

7.6.8 A system of north-west to south-east aligned post-medieval furrows was identified in the eastern part of the site, with the likelihood that further evidence has been lost by post-medieval and modern ploughing.

7.6.9 The fact that furrows were not present within the Romano British settlement, and were not identified in the geophysics, suggest the area was not ploughed in the medieval period. This suggests that earthworks or other such features may have been extant in the landscape throughout this period, and have only recently (20th century) been lost through agricultural activities.

8 ACKNOWLEDGEMENTS

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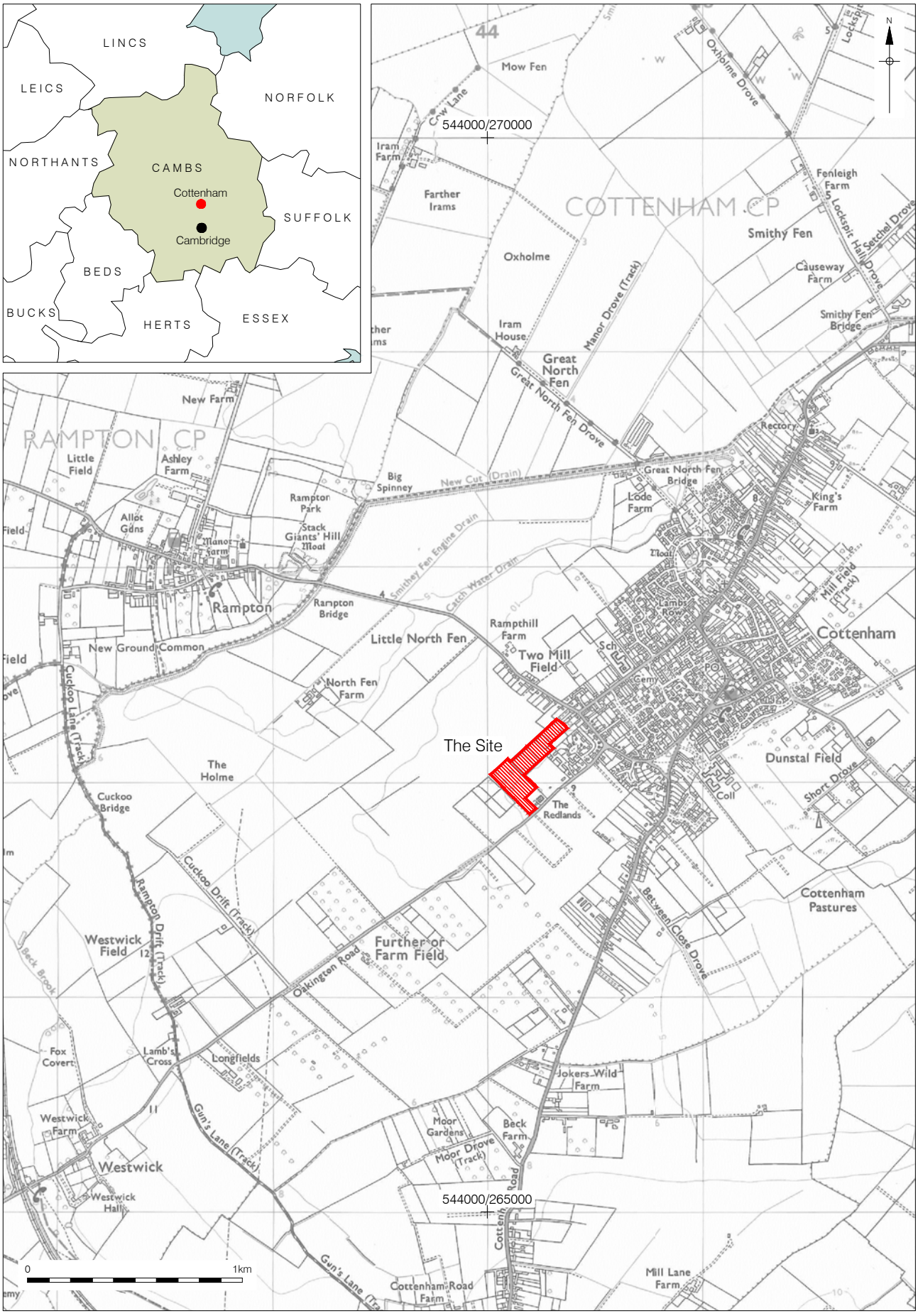

20/10/15 RM

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

544170/267300

N

Trench 1

Track

Trench 2

Trench 3

Trench 4

Trench 5

Tr□□□□□

Trench 7

CHER 09547

Trench 9

Trench 8

Trench 11

Trench 10

Trench 12

Trench 13

Trench 17

Trench 18

Trench 15

Trench 16

Trench 19

Trench 14

Trench 22

Trench 20

Trench 21

Trench 24

Trench 25

Trench 23

Trench 26

Trench 27

Track

Trench 28

Allot

544170/266850

0 50m

KEY

MODERN FEATURE WITHIN TRENCH

ARCHAEOLOGICAL FEATURE WITHIN TRENCH

EXCAVATED SLOT

BURIED SOIL

CONJECTURE

CROPMARK

06/05/16 RM

Figure 2
Detailed Site Location
1:1,250 at A3

N

544170/267300

Track

Trench 1

Trench 2

Trench 3

Trench 4

Trench 5

Trench 7

Trench 8

Trench 9

Trench 10

Trench 11

Trench 12

Trench 13

Trench 14

Trench 15

Trench 16

Trench 17

Trench 18

Trench 19

Trench 20

Trench 21

Trench 22

Trench 23

Trench 24

Trench 25

Trench 26

Trench 27

Trench 28

Track

Allot

Th
Redla

544170/266850

0 50m

GEOPHYSICAL INTERPRETATION

- LINE
- KILN?/ MODERN
- PITS ?
- MODERN FERROUS
- SEWER PIPE
- ARCHAEOLOGICAL (DITCHES)
- RIDGE AND FURROW

ARCHAEOLOGICAL EVALUATION

- ARCHAEOLOGICAL FEATURE WITHIN TRENCH
- EXCAVATED SLOT
- BURIED SOIL
- CONJECTURE
- MODERN FEATURE WITHIN TRENCH

05/11/15 RM

Figure 3
Trench Location Overlain on Geophysics Results
1:1,250 at A3

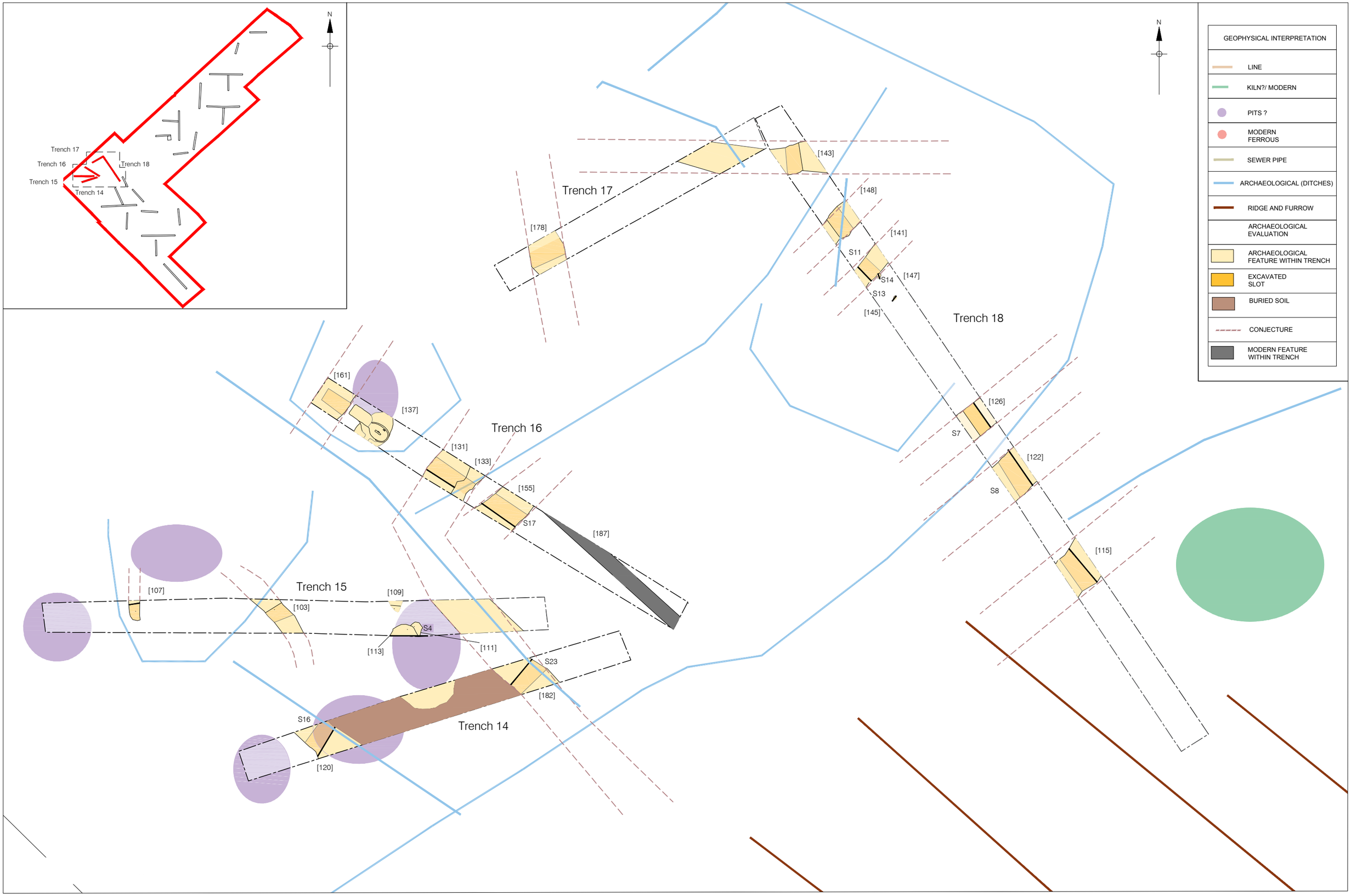

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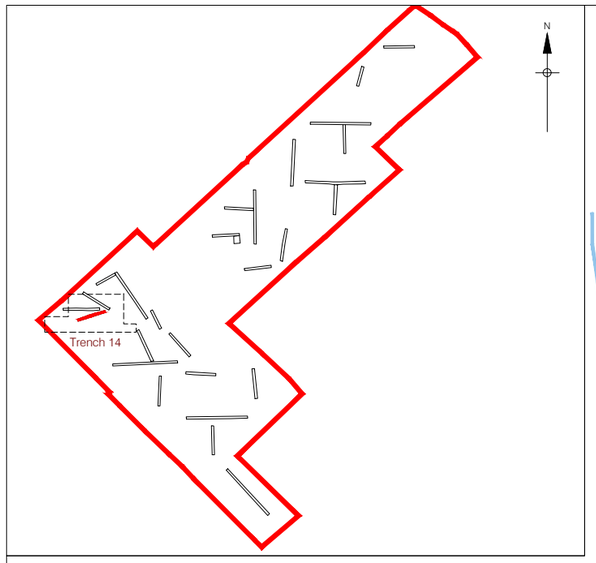
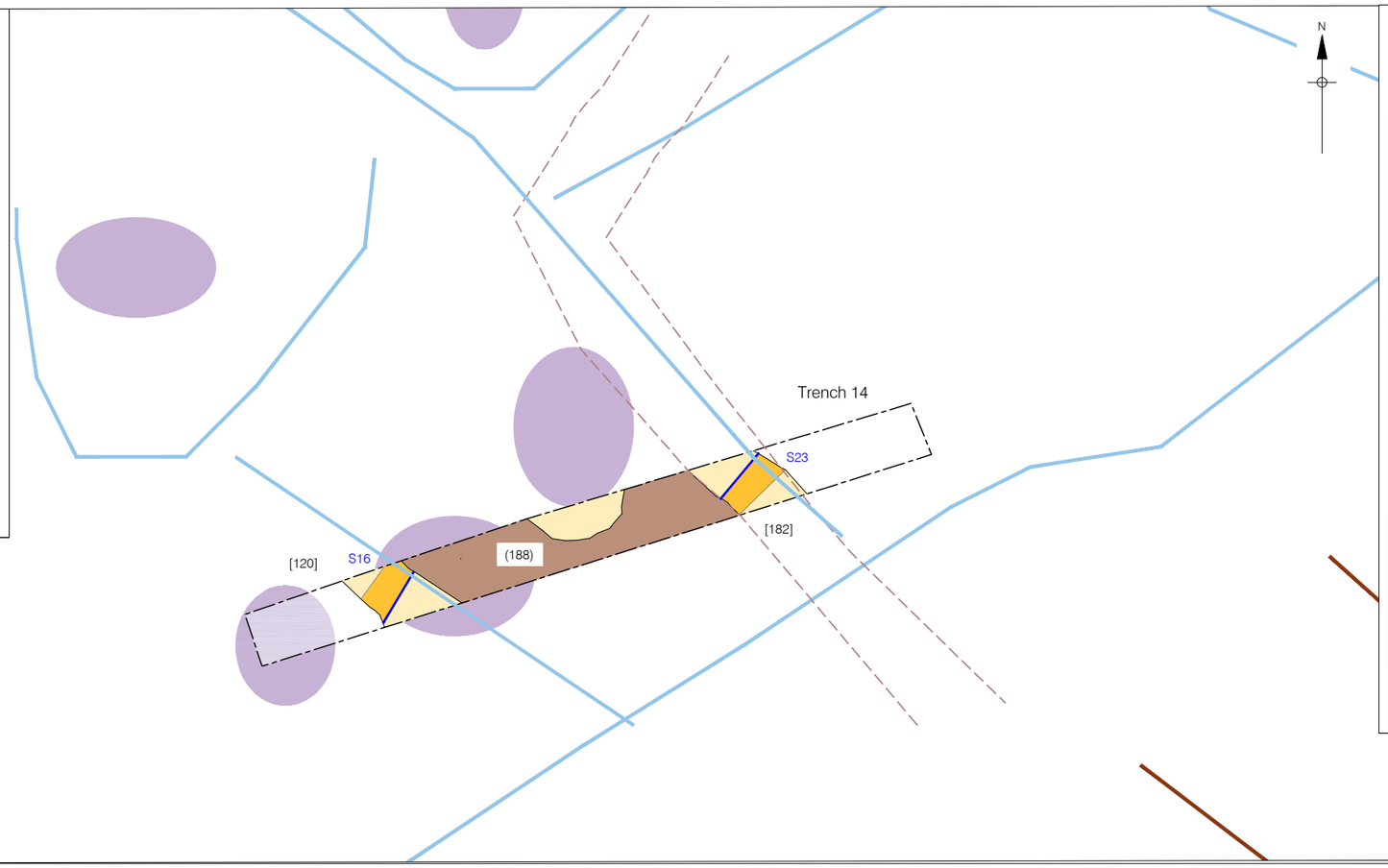
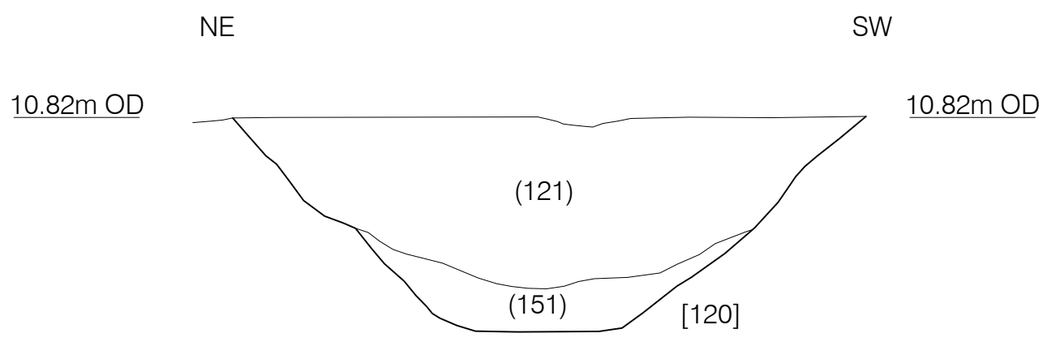
Figure 4
Trenches 14-18 showing possible Iron Age/Roman Settlement
1:200 at A3



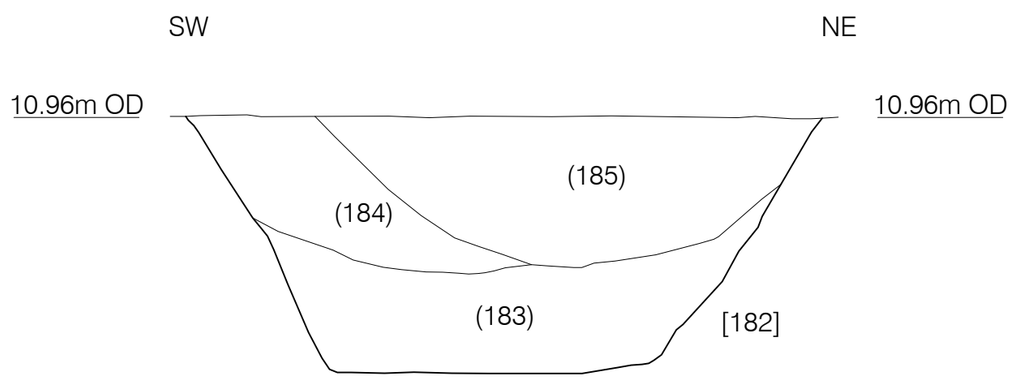


GEOPHYSICAL INTERPRETATION

- LINE
- KILN?/ MODERN
- PITS ?
- MODERN FERROUS
- SEWER PIPE
- ARCHAEOLOGICAL (DITCHES)
- RIDGE AND FURROW
- ARCHAEOLOGICAL EVALUATION
- ARCHAEOLOGICAL FEATURE WITHIN TRENCH
- EXCAVATED SLOT
- BURIED SOIL
- CONJECTURE
- MODERN FEATURE WITHIN TRENCH



Section 16
Trench 16
Northwest Facing

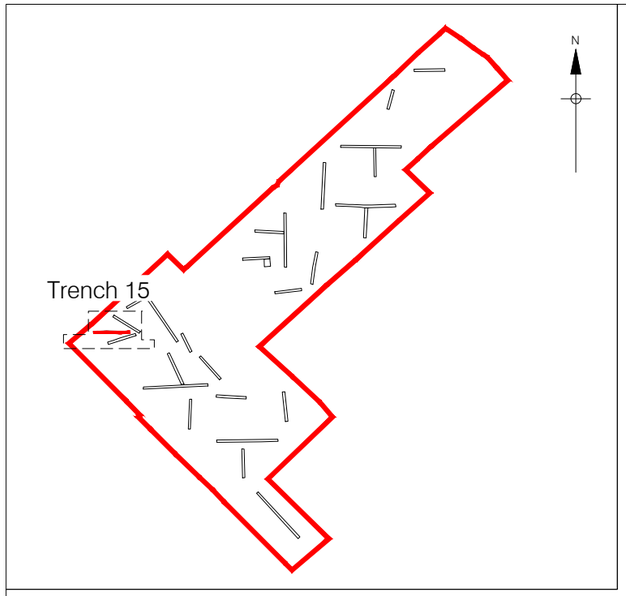


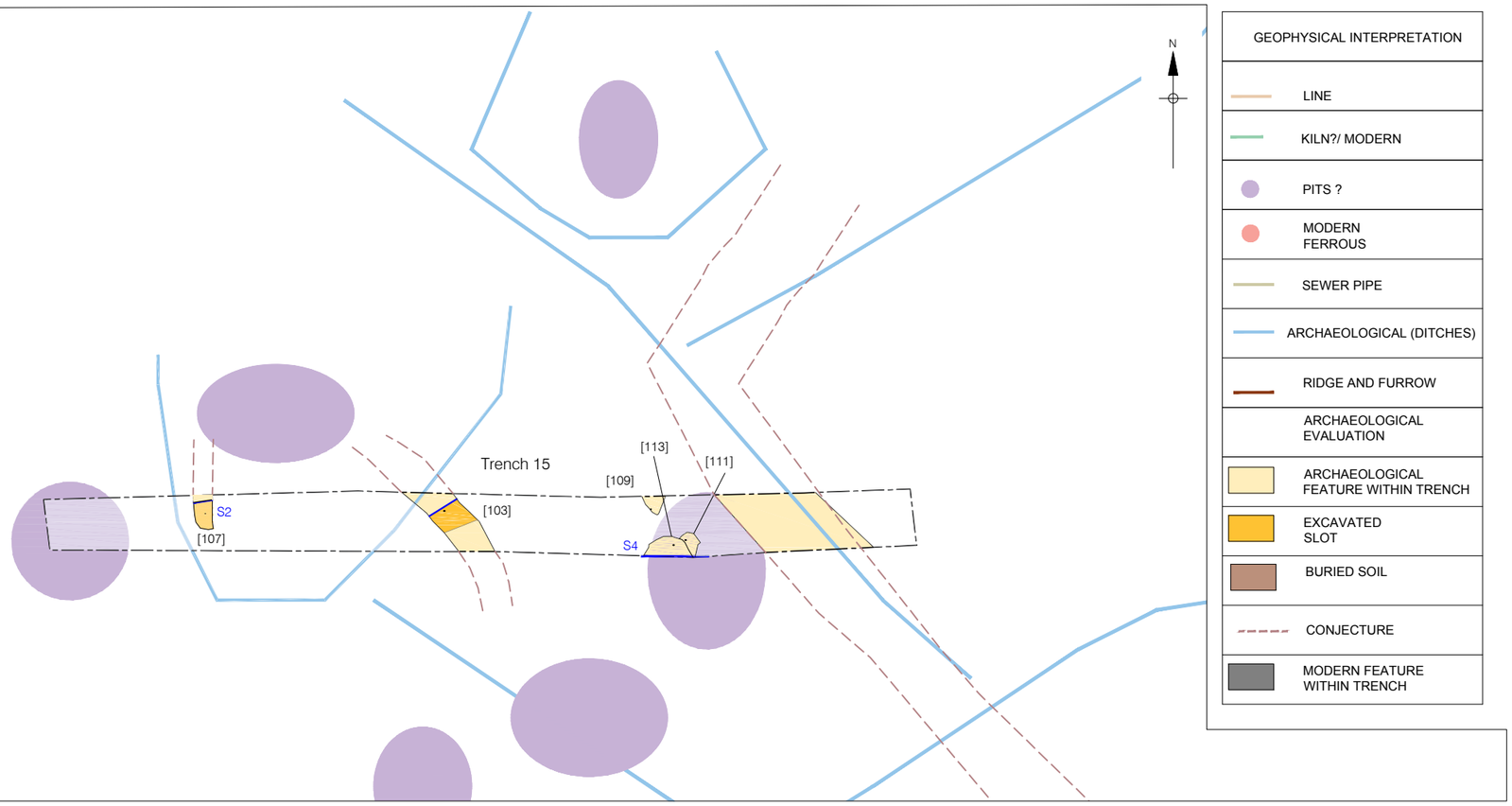
Section 23
Trench 16
Southeast Facing

0 1m

05/11/15 RM

Figure 5
Trench 14
Plan 1:200 and Sections 1:20 at A3

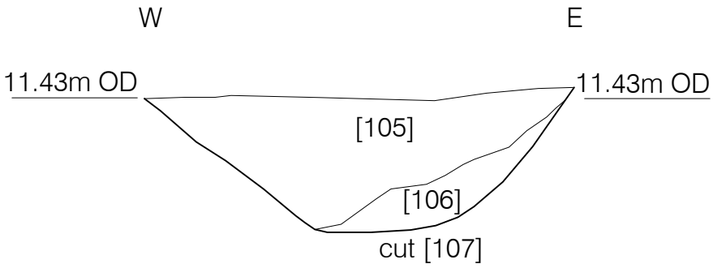




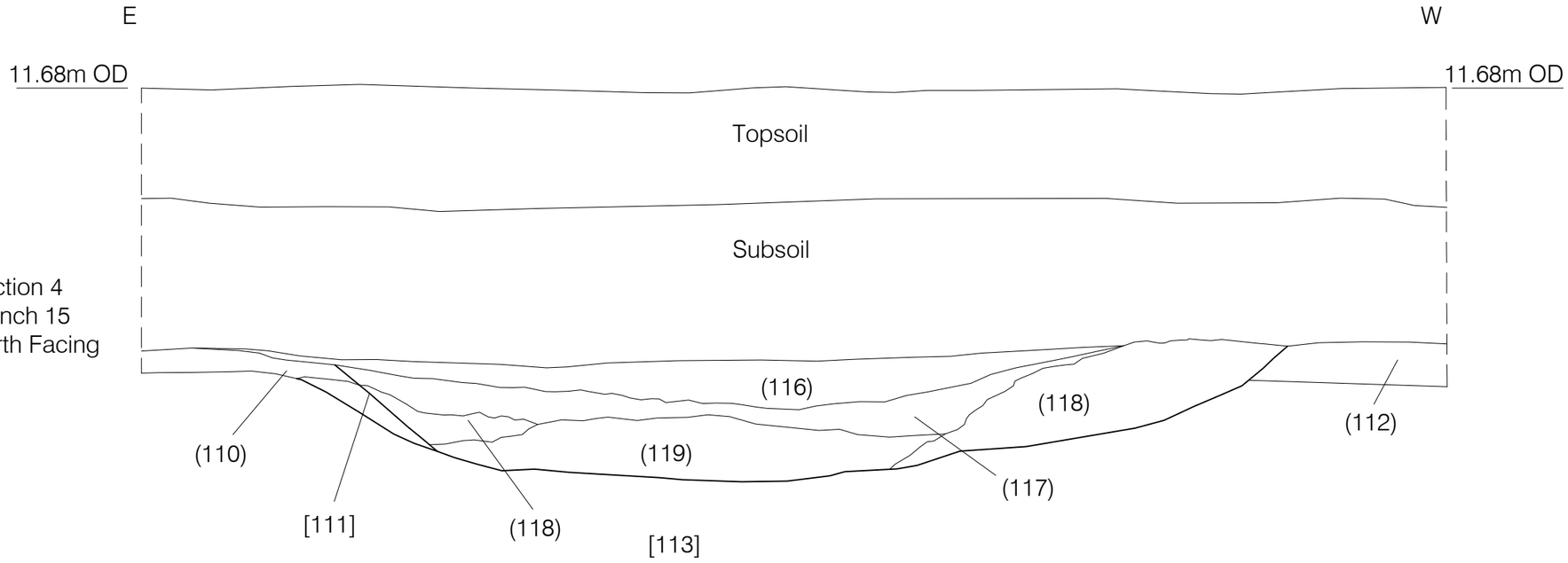
GEOPHYSICAL INTERPRETATION

- LINE
- KILN?/ MODERN
- PITS ?
- MODERN FERROUS
- SEWER PIPE
- ARCHAEOLOGICAL (DITCHES)
- RIDGE AND FURROW
- ARCHAEOLOGICAL EVALUATION
- ARCHAEOLOGICAL FEATURE WITHIN TRENCH
- EXCAVATED SLOT
- BURIED SOIL
- CONJECTURE
- MODERN FEATURE WITHIN TRENCH

0 10m



Section 2
Trench 15
South Facing

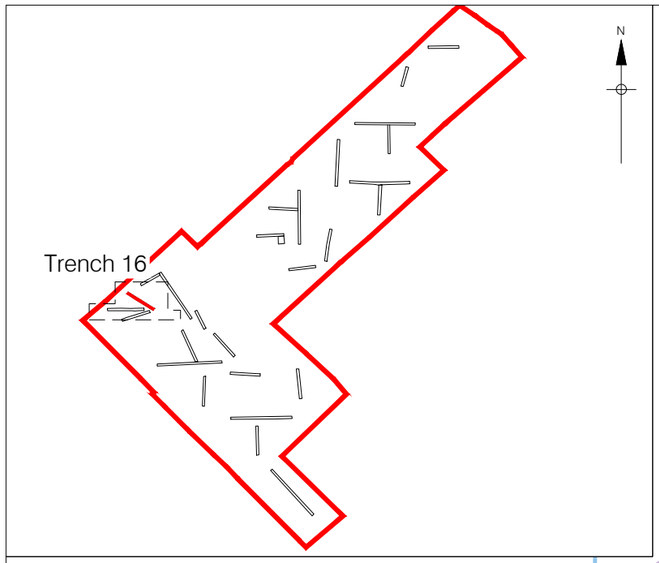


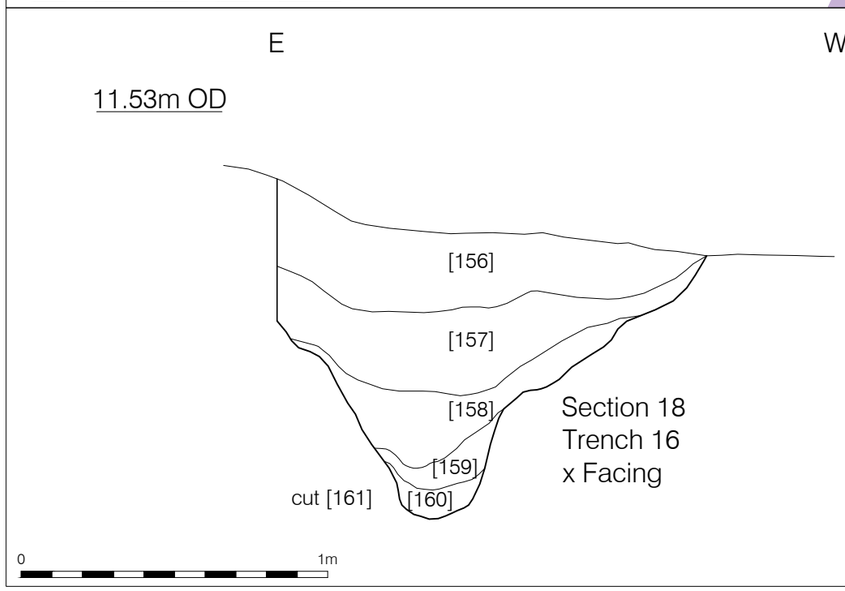
Section 4
Trench 15
North Facing

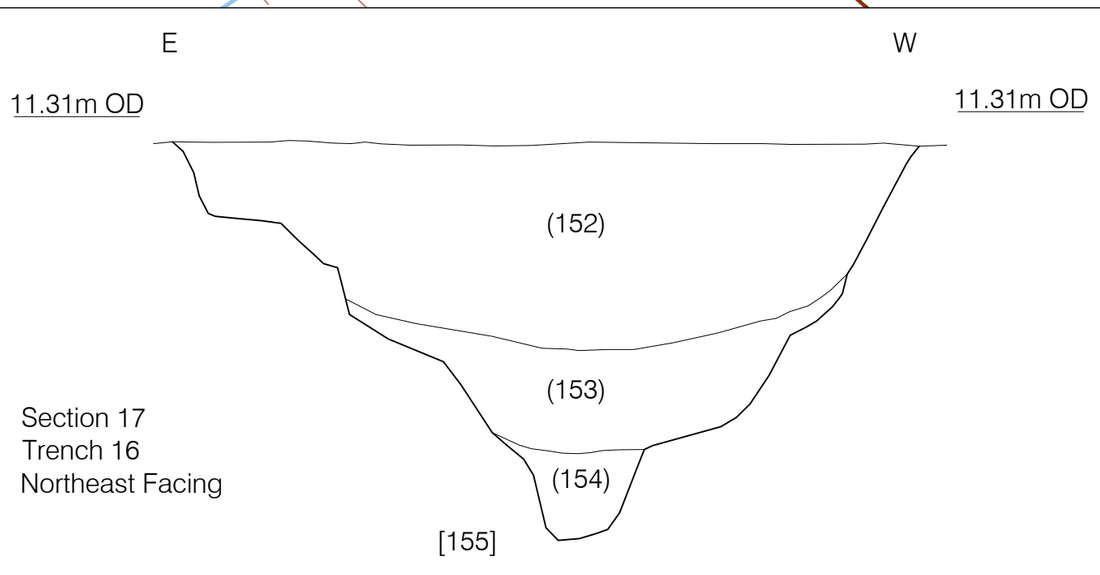
0 50cm

05/11/15 RM

Figure 6
Trench 15
Plan 1:200 and Sections 1:10 at A3

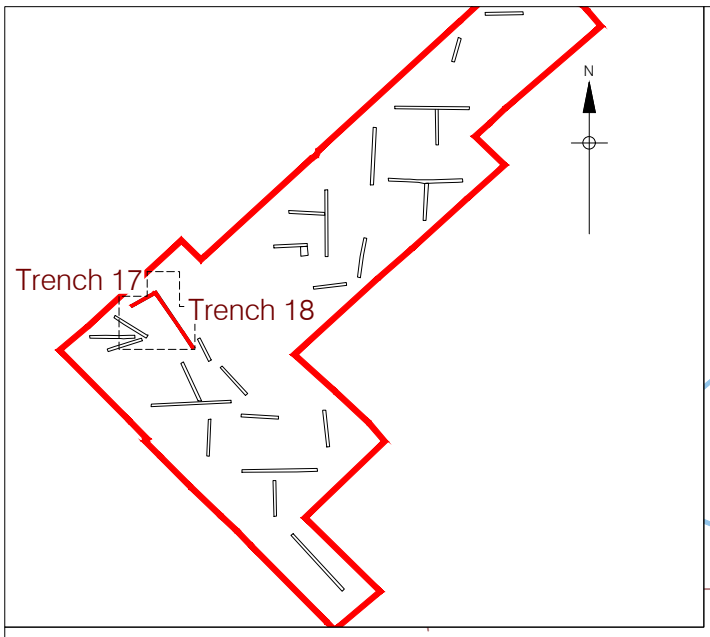






20/10/15 RM

Figure 7
Trench 16
Plan 1:200 and Sections 1:20 at A3

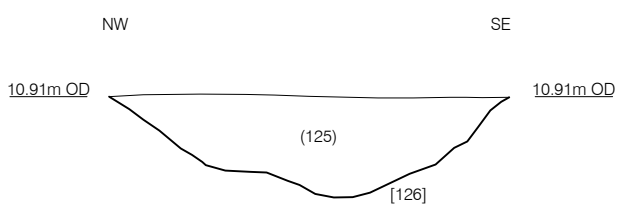


GEOPHYSICAL INTERPRETATION

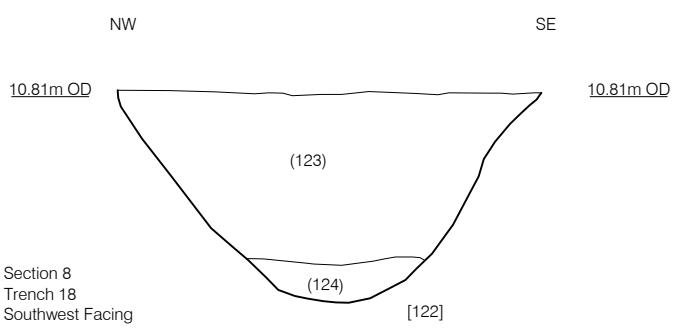
- LINE
- KILN?/ MODERN
- PITS ?
- MODERN FERROUS
- SEWER PIPE
- ARCHAEOLOGICAL (DITCHES)
- RIDGE AND FURROW

ARCHAEOLOGICAL EVALUATION

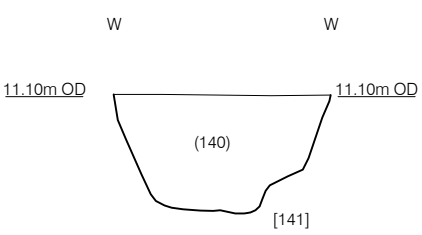
- ARCHAEOLOGICAL FEATURE WITHIN TRENCH
- EXCAVATED SLOT
- BURIED SOIL
- CONJECTURE
- MODERN FEATURE WITHIN TRENCH



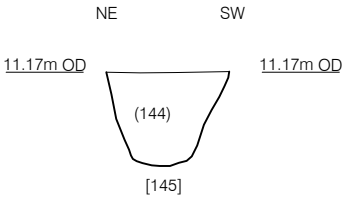
Section 7
Trench 18
Southwest Facing



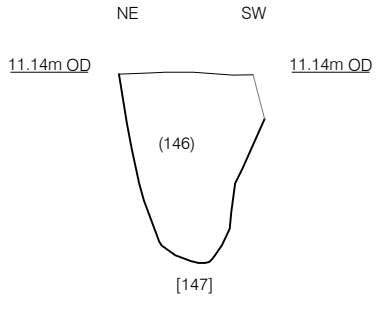
Section 8
Trench 18
Southwest Facing



Section 11
Trench 18
Northeast Facing



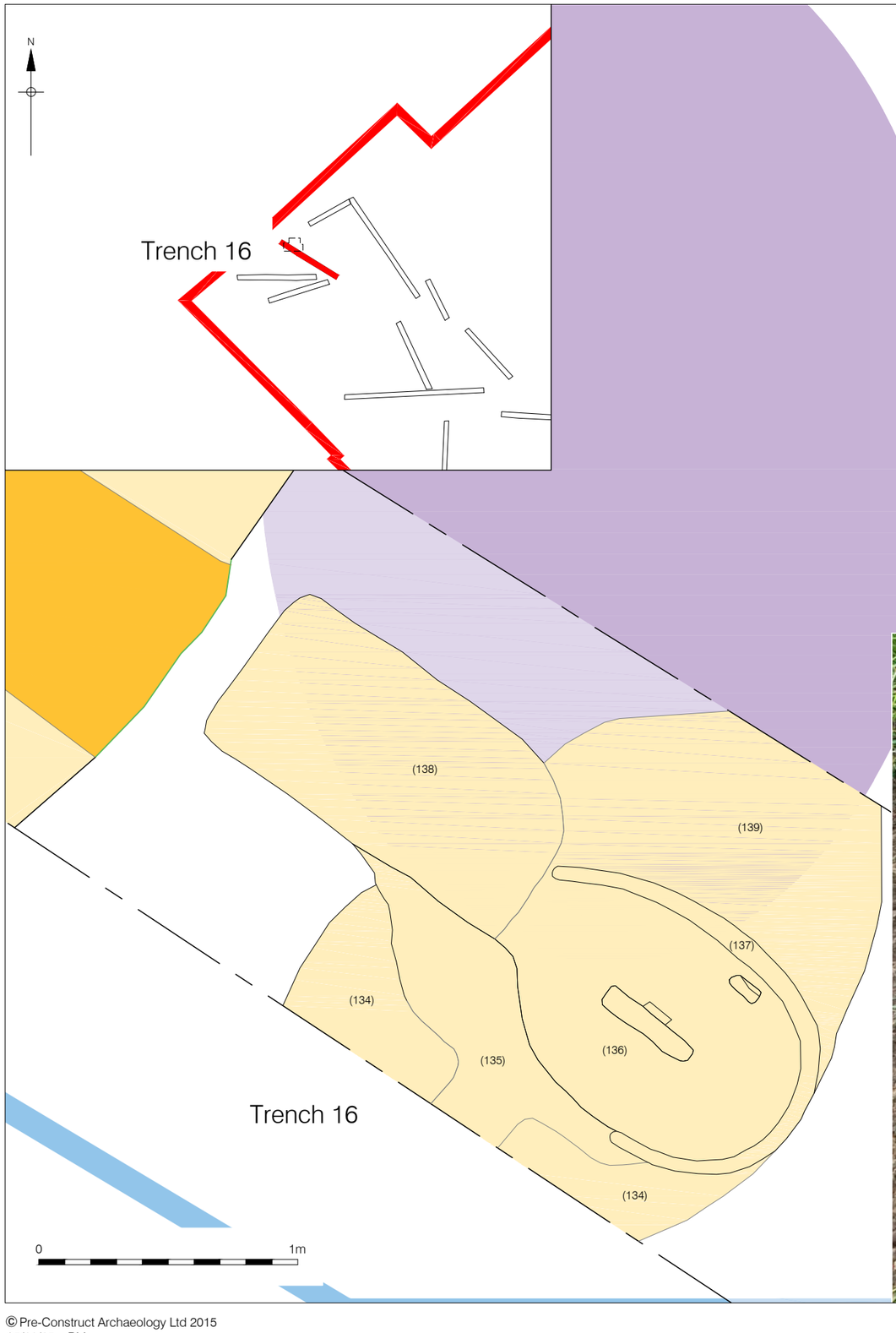
Section 13
Trench 18
Northwest Facing

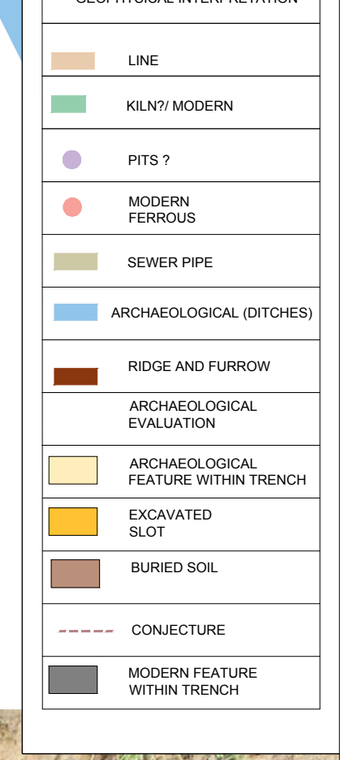


Section 14
Trench 18
Northeast Facing

20/10/15 RM

Figure 8
Trench 17 and 18
Plans 1:200 and Sections 1:40 at A3





GEOPHYSICAL INTERPRETATION

- LINE
- KILN?/ MODERN
- PITS ?
- MODERN FERROUS
- SEWER PIPE
- ARCHAEOLOGICAL (DITCHES)
- RIDGE AND FURROW

ARCHAEOLOGICAL EVALUATION

- ARCHAEOLOGICAL FEATURE WITHIN TRENCH
- EXCAVATED SLOT
- BURIED SOIL
- CONJECTURE
- MODERN FEATURE WITHIN TRENCH

05/11/15 RM

Figure 9
Plan and Photo of Kiln (137)
Plan 1:20 at A3

APPENDIX 1: PLATES

Plate 1: North-east facing view of site from Trench 1

Plate 2: Trench 2 view south

Plate 3: Trench 2 Pit [177] view north-west

Plate 4: Trench 6 Furrow [163] view south

Plate 5: Trench 6 view west

Plate 6: Trench 14 view north-east

Plate 7: Trench 14 Ditch [120] showing pottery vessels view south-east

Plate 8: Trench 14, Ditch [182] view north-west

Plate 9: Trench 15, Pits [111] & [113] view south-east

Plate 10: Trench 16 Ditches [131] & [133]

Plate 11: Trench 16 Kiln [137] view north-west

Plate 12: Trench 16 Kiln [137] detail of Kiln Bar

Plate 13: Trench 16 Ditch [161] view north-east

Plate 14: Trench 18 Ditch [122] view east

Plate 15: Trench 18 Ditch [126] view west

Plate 16: Trench 18 Ditch [141] view west

Plate 17: Field 1 view south

APPENDIX 2: CONTEXT INDEX

Context Number	Cut	Type	Category	Interpretation	Trench
100	0	Layer	Topsoil	Topsoil	0
101	0	Layer	Subsoil	Subsoil	0
102	0	Layer	Natural	Natural Geology	0
103	103	Cut	Ditch	Cut of Ditch	15
104	103	Fill	Ditch	Primary Fill of Ditch [103]	15
105	107	Fill	Ditch	Secondary Fill of Ditch [107]	15
106	107	Fill	Ditch	Primary Fill of Ditch [107]	15
107	107	Cut	Ditch	Cut of Ditch	15
108	109	Fill	Pit	Primary Fill of Pit [109]	15
109	109	Cut	Pit	Cut of Pit	15
110	111	Fill	Pit	Secondary Fill of Pit [111]	15
111	111	Cut	Pit	Cut of Pit	15
112	0	Layer	Buried Soil	Buried Soil	15
113	113	Cut	Pit	Cut of Pit	15
114	115	Fill	Ditch	Secondary Fill of Ditch [115]	18
115	115	Cut	Ditch	Cut of Ditch	18
116	113	Fill	Pit	Tertiary Fill of Pit [113]	15
117	113	Fill	Pit	Secondary Fill of Pit [113]	15
118	113	Fill	Pit	Secondary Fill of Pit [113]	15
119	113	Fill	Pit	Secondary Fill of Pit [113]	15
120	120	Cut	Ditch	Cut of Ditch	14
121	120	Fill	Ditch	Secondary Fill of Ditch [120] Dump with possible placed deposit of 2 vessels	14
122	122	Cut	Ditch	Cut of Ditch	18
123	122	Fill	Ditch	Secondary Fill of Ditch [122]	18
124	122	Fill	Ditch	Primary Fill of Ditch [122]	18
125	126	Fill	Ditch	Secondary Fill of Ditch [126]	18
126	126	Cut	Ditch	Cut of Ditch	18
127	127	Cut	Ditch	Cut of Ditch	18
128	127	Fill	Ditch	Secondary Fill of Ditch [127]	18
129	131	Fill	Ditch	Secondary/ Tertiary Fill of Ditch [131]	16
130	131	Fill	Ditch	Secondary Fill of Ditch [131]	16

131	131	Cut	Ditch	Cut of Ditch	16
132	133	Fill	Ditch	Secondary Fill of Ditch [133]	16
133	133	Cut	Ditch	Cut of Ditch	16
134	137	Fill	Pit	Kiln Foundation Pit	16
135	137	Fill	Pit	Flue Deposit	16
136	137	Fill	Kiln	Fill of Kiln Chamber	16
137	137	Layer	Kiln	Kiln Wall Chamber	16
138	137	Fill	Kiln	Kiln Deposit	16
139	137	Fill	Pit	Kiln Foundation Pit	16
140	141	Fill	Ditch	Secondary Fill of Ditch [141]	18
141	141	Cut	Ditch	Cut of Ditch	18
142	143	Fill	Ditch	Secondary Fill of Ditch [143]	18
143	143	Cut	Ditch	Cut of Ditch	18
144	145	Fill	Post-hole	Secondary Fill of Post-hole [145]	18
145	145	Cut	Post-hole	Cut of Post-hole	18
146	147	Fill	Post-hole	Secondary Fill of Post-hole [147]	18
147	147	Cut	Post-hole	Cut of Post-hole	18
148	148	Cut	Ditch	Cut of Ditch	18
149	148	Fill	Ditch	Primary Fill of Ditch [148]	18
150	148	Fill	Ditch	Secondary Fill of Ditch [148]	18
151	120	Fill	Ditch	Primary Fill of Ditch [120]	14
152	155	Fill	Ditch	Tertiary Fill of Ditch [155]	16
153	155	Fill	Ditch	Secondary Fill of Ditch [155]	16
154	155	Fill	Ditch	Primary Fill of Ditch [155]	16
155	155	Cut	Ditch	Cut of Ditch	16
156	161	Fill	Ditch	Secondary Fill of Ditch [161]	16
157	161	Fill	Ditch	Secondary Fill of Ditch [161] Possible dumped deposit	16
158	161	Fill	Ditch	Secondary Fill of Ditch [161] Possible dumped deposit	16
159	161	Fill	Ditch	Primary Fill of Ditch [161] Weathering of east edge- bank?	16
160	161	Fill	Ditch	Primary Fill of Ditch [161] Weathering of east edge- bank?	16
161	161	Cut	Ditch	Cut of Ditch	16
162	163	Fill	Furrow	Primary Fill of Furrow [163]	6
163	163	Cut	Furrow	Cut of Furrow	6
164	165	Fill	Furrow	Primary Fill of Furrow [165]	6
165	165	Cut	Furrow	Cut of Furrow	6

166	167	Fill	Furrow	Primary Fill of Furrow [167]	6
167	167	Cut	Furrow	Cut of Furrow	6
168	169	Fill	Furrow	Primary Fill of Furrow [169]	6
169	169	Cut	Furrow	Cut of Furrow	6
170	171	Fill	Furrow	Primary Fill of Furrow [171]	6
171	171	Cut	Furrow	Cut of Furrow	6
172	173	Fill	Furrow	Primary Fill of Furrow [173]	6
173	173	Cut	Furrow	Cut of Furrow	6
174	175	Fill	Furrow	Primary Fill of Furrow [175]	6
175	175	Cut	Furrow	Cut of Furrow	6
176	177	Fill	Pit	Primary Fill of Pit [177]	2
177	177	Cut	Pit	Cut of Pit	2
178	179	Fill	Ditch	Secondary Fill of Ditch [179]	17
179	179	Cut	Ditch	Cut of Ditch	17
180	181	Fill	Ditch	Primary Fill of Ditch [181]	2
181	181	Cut	Ditch	Cut of Ditch	2
182	182	Cut	Ditch	Cut of Ditch	14
183	182	Fill	Ditch	Primary Fill of Ditch [182]	14
184	182	Fill	Ditch	Secondary Fill of Ditch [182]	14
185	182	Fill	Ditch	Secondary Fill of Ditch [182]	14
186	187	Fill	Furrow	Primary Fill of Furrow [187]	16
187	187	Cut	Furrow	Cut of Furrow	16
188	0	Layer	Buried Soil	Buried Soil	14
189	189	Cut	Pit	Cut of Pit	14
190	189	Fill	Pit	Secondary Fill of Pit [189]	14
191	0	Layer	Subsoil	Lower Subsoil	0
192	193	Fill	Ditch	Secondary Fill of Ditch [193]	15
193	193	Cut	Ditch	Cut of Ditch	15
194	195	Cut	Ditch	Cut of Ditch	17
195	195	Fill	Ditch	Secondary Fill of Ditch [195]	17

APPENDIX 3: OASIS FORM

OASIS ID: preconst1-229479

Project details

Project name	Land at Oakington Road, Cottenham, Cambridgeshire, CB24 8TW: An Archaeological Trial Trench Evaluation
Short description of the project	This report describes the results of a twelve trench archaeological evaluation carried out by Pre-Construct Archaeology on Land at Oakington Road, Cottenham, Cambridgeshire, centred on Ordnance Survey National Grid Reference (NGR) TL 44161 66965) from the 5th to the 12th October 2015. The archaeological work was commissioned by Persimmon Homes in response to an archaeological brief issued by the Cambridgeshire County Council Historic Environment Team (CCCHET). The aim of the work was to characterise the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the site's archaeology. The earliest activity on the site was present to the north-west of the site focused around Trenches 14-18, and consisted of Middle Iron Age and Roman ditches, pits, post-holes, and a kiln. The morphology of the ditches and the presence of pits, post-holes and a large assemblage of pottery and bone are indicative of settlement. A system of north-west to south-east aligned post-medieval furrows was also identified in the eastern part of the site (Trenches 5-7). The ditches located in Trenches 14-18 are associated with a Roman settlement present in the adjoining fields to the north and east of the site located on an area higher ground. The ditches on the site consisted of a variety of boundary, enclosure and drainage ditches and were associated with a large assemblage of finds including Middle Iron Age and Roman pottery, animal bone, worked stone and 'Iron Age Grey'. A Romano-British kiln was identified in Trench 16 which was photographed and recorded then left in-situ. The presence of 'Iron Age Grey' in Ditch [126] identified in Trench 18 could suggest the presence of further, failed, kilns or ovens suggesting an area of potential industry on the periphery of the settlement.
Project dates	Start: 05-10-2015 End: 12-10-2015
Previous/future	No / Not known

work	
Any associated project reference codes	ECB4564 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 2 - Vacant land not previously developed
Monument type	DITCH Roman
Monument type	DITCH Middle Iron Age
Monument type	PIT Roman
Monument type	POSTHOLE Roman
Monument type	KILN Roman
Significant Finds	POTTERY Roman
Significant Finds	POTTERY Middle Iron Age
Significant Finds	METAL Roman
Significant Finds	ANIMAL BONE Uncertain
Significant Finds	WORKED STONE Roman
Methods & techniques	"Sample Trenches","Targeted Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	Pre-determination evaluation
Project location	
Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE COTTENHAM Land at Oakington Road, Cottenham, Cambridgeshire, CB24 8TW: An Archaeological Trial Trench Evaluation
Postcode	CB24 8TW

Study area	0 Hectares
Site coordinates	TL 44161 66965 52.281478780883 0.113530041181 52 16 53 N 000 06 48 E Point
Height OD / Depth	Min: 9.4m Max: 11.53m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd.
Project brief originator	Cambridge HET
Project design originator	Mark Hinman
Project director/manager	Mark Hinman
Project supervisor	Matthew Jones
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Persimmon Homes

Project archives

Physical Archive recipient	Cambridgeshire County Council Archaeological Archive Facility
Physical Archive ID	ECB4564
Physical Contents	"Animal Bones","Ceramics","Environmental","Metal","Worked stone/lithics"
Digital Archive recipient	Cambridgeshire County Council Archaeology Store
Digital Archive ID	ECB4564
Digital Contents	"none"

Digital Media available	"Database","Geophysics","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Cambridgeshire County Council Archaeology Store
Paper Archive ID	ECB4564
Paper Contents	"none"
Paper Media available	"Context sheet","Diary","Drawing","Plan","Report","Section","Survey","Unpublished Text"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Oakington Road, Cottenham, Cambridgeshire, CB24 8TW: An Archaeological Trial Trench Evaluation
Author(s)/Editor(s)	Jones, M.
Date	2015
Issuer or publisher	Pre-Construct Archaeology Ltd.
Place of issue or publication	Pampisford
Description	A4 bound report including written report with figures and plates
Entered by	Matt Jones (MJones@pre-construct.com)

Cranfield UNIVERSITY

GEOPHYSICAL SURVEY OF LAND AT COTTENHAM CAMBRIDGESHIRE

Cranfield Forensic Institute Report No. 123

Peter Masters

July 2015

CONTENTS

ILLUSTRATIONS

ABSTRACT

A fluxgate gradiometer survey was carried out on land Oakington Road, Cottenham, Cambridgeshire. The work was undertaken in July 2015. The purpose of the survey was to determine the nature and extent of any archaeological deposits that lie within the proposed area for residential development.

At the northern end of Field 1, significant archaeological remains were detected. A large enclosure containing a series of smaller enclosures or paddocks and two semi-circular anomalies possibly ring ditches were recorded. To the south of the large enclosure, two individual anomalies were detected indicating possible areas of burning that are likely to represent kiln-like features although they do not appear to display a double-peaked signature typical of these types of remains. It is possible that they may well reflect zones of modern ferrous.

All of the fields show the presence of linear anomalies that clearly represent the ploughed out remains of the pre-enclosure field system of ridge and furrow.

A linear dipolar anomaly was detected along the entire length of the western field boundary denoting the presence of a sewer pipe which appears to have truncated the archaeological remains recorded at the northern end of the field.

Other anomalies merely reflect modern ferrous debris. No other anomalies of archaeological significance were recorded.

1.0 INTRODUCTION

Pre-Construct Archaeology Ltd commissioned the Centre for Archaeological and Forensic Analysis, Cranfield University to undertake a gradiometer survey of land at Oakington Road, Cottenham, Cambridgeshire (Fig 1: central NGR TL441670). This work was carried out in July 2015.

The purpose of the survey was to determine the nature and extent of any archaeological deposits that lie within the proposed development area.

The survey methodology described in this report was based upon guidelines set out in the Historic England (formerly English Heritage) document *'Geophysical Survey in Archaeological Field Evaluation'* (EH 2008).

2.0 LOCATION AND DESCRIPTION

The site is situated to the south west of the historic core of the village of Cottenham. The area of investigation lies approximately 1.5km north-east of Cambridge and is situated to the east of the main school buildings.

The survey area is comprised of a seven fields forming an 'L' shape (Fig 1). The fields are flat. The north-east of the site backs onto the gardens of properties on

Rampton Road. To the west, south and north-east of the proposed development area are open fields.

The underlying geology of the site is comprised of Woburn Sands Formation – Sandstone (Geological Map Data ©NERC 2015). The magnetic susceptibility of these types of geologies is generally good.

3.0 BACKGROUND INFORMATION

The prehistoric period is poorly represented. A Mesolithic tranchet axe head and flints were found about 1.4km and 1km to the north-east of the area of investigation (CHER 05215 and CB15521). Early Bronze Age pottery sherds and a Late Bronze Age flint implement were found about 1km from the site (CHER CB15521) and Bronze Age pottery was found in test pits on Telegraph Street and Denmark Road about 1km from the site (CHER MCB19210 and MCB19732).

Roman occupation of the area is contained numerous farms and other minor centres during the 2nd -4th centuries AD close to the Fen Edge north of Cottenham. The wider area is represented by Roman Settlements of Cambridge, Godmanchester, St Neots and Great Chesterford. Roman finds are represented by a gold coin of Valentinian (AD 364-367) which was found in 1948 in Further or Farm field approximately 600m from the area of investigation (CHER 05199). In 2009 and 2010, Roman grey ware pottery was found in test pits. (CHER MCB19210 and MCB19732 Sites 3-4, MCB 19733 and MCB 19212 Sites 6-7).

Evidence from the Saxon period is represented by a wide shallow ditch excavated to the rear of 1 Oakington Road which lies about 400m to the north-east of the survey area. The ditch contained a bone awl similar to those found at West Stowe (MCB20257 Site 10).

During the 1990's, Saxon settlement was discovered during excavations on Lordship Lane about 1km to the north-east of the proposed development site. A dense network of ditches was revealed suggesting a continuity of settlement from Middle Saxon through to the Early Medieval period CB15522 Site 11).

About 1km from the survey area, an evaluation was undertaken in St John's College Field that revealed a series of pits, ditches and gullies, dating from the Saxon and Medieval periods (CB15526 Site 12). Late Saxon pottery was discovered during a watching brief at Corbett Street, 1.1km to the north-east of the site (MCB16482 Site 13). Test pits around the village revealed sherds of Ipswich and Thetford Ware pottery (MCB 19731 and MCB 16482 Sites 16 & 18).

Since the 11th century, Cottenham was recorded has being one of the largest villages in Cambridgeshire. The Domesday Book recorded sixty tenants in 1086 and by 1279 there were 134 landholders but this did not include the lords. By the thirteenth century Cottenham contained the manor of Crowlands and Ely Abbey's Cottenham estate. In the early 14th century the village had ruinous houses in it due to depopulation but this did not affect the size of it.

The archaeological and documentary evidence correlates well with the majority of the medieval activity as it takes on the distinctive form of settlement and agriculture. A double moated site is situated on the south side of Broad Lane about 1.km to the north-east of the site and represents the site of Crowlands manor (1118 Site 18).

Medieval remains of a motte castle with part of an earlier medieval settlement and field system lie 1.4km to the north-west of the area of investigation at Giant's Hill, Rampton (1771 Site 19).

Other medieval remains include a Saxo-Norman droveway to the north of Cottenham (CB15523 Site 14), medieval ditches at 235-239 High Street (CB15525 Site 20) as well as medieval pottery found throughout the village.

By the 1660s and 1670s Cottenham village contained c.220 houses. However, in 1676 a fire spread through the village which destroyed about half of it. It was not until the 1820s did the village reach the same number of houses that existed in the mid-17th century. Today the village contains over 1500 houses.

The earliest cartographic evidence of the village dates from 1811 that shows Cottenham at a reasonable scale is the Draft of the 1st edition Ordnance Survey map which depicts the area of interest to be undeveloped land. Oakington Road is shown as a trackway.

The Tithe map of 1847 depicts the area as undeveloped and comprised of freehold allotments bounded by Rampton Road to the north and Oakington Road to the east. The site is situated within a group of fields called Mill Field. The First Edition Ordnance Survey map of 1887 (Sheet XXXIV SW) shows the area to be largely in agricultural use. The allotment divisions shown on the tithe map have disappeared. The subsequent maps published by the Ordnance survey from 1903 to present show little change.

4.0 METHODOLOGY

Gradiometry

Gradiometry is a non-intrusive scientific prospecting technique used to determine the presence/absence of some classes of sub-surface archaeological features (eg pits, ditches, kilns, and occasionally stone walls). By scanning the soil surface, geophysicists identify areas of varying magnetic susceptibility and can interpret such variation by presenting data in various graphical formats and identifying images that share morphological affinities with diagnostic archaeological as well as other detectable remains (Clark 1990).

The use of gradiometry is used to establish the presence/absence of buried magnetic anomalies, which may reflect sub-surface archaeological features.

The area survey was conducted using a Bartington Grad 601 dual fluxgate gradiometer with DL601 data logger set to take 4 readings per metre (a sample interval of 0.25m). The zigzag traverse method of survey was used, with 1m wide

traverses across 30m x 30m grids. The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla.

The enhanced data was processed by using zero-mean functions to correct the unevenness of the image in order to produce a smoother graphical appearance. It was also processed using an algorithm to remove magnetic spikes, thereby reducing extreme readings caused by stray iron fragments and spurious effects due to the inherent magnetism of soils. The data was also clipped to reduce the distorting effect of extremely high or low readings caused by discrete pieces of ferrous metal.

5.0 INTERPRETATION AND ANALYSIS OF RESULTS (Figs. 2-6)

Generally, a series of isolated individual anomalies and strong magnetic responses were detected in all fields surveyed (Fig 5, examples **circled/outlined in pink**) that reflect areas of modern ferrous litter, which lie just below or on the surface of the ground or reflect hockey and rugby posts.

At the northern end of Field 1, a series of significant archaeological anomalies were detected. A curvilinear anomaly (Figs 2, 3 and 6, **1**) was detected denoting an enclosure ditch within which are further subdivisions. These subdivisions appear to reflect smaller enclosures or paddocks of an extensive farmstead that extends northwards. An aerial photograph taken in 2013 (South Cambridgeshire District Council) depicts extensive cropmarks of a small settlement/farmstead of Iron Age/Roman date.

Two semi-circular anomalies (Figs 2, 3, and 6, **2**) within the large enclosure may denote ring ditches. A series of individual positive anomalies (Figs 2, 3 and 6, **3**) were detected on the western side of the large enclosure denoting the presence of pits. Immediately to the south-east of the enclosures is a short curvilinear anomaly (Figs 2, 3 and 6, **4**) denoting a ditch.

To the south of the large enclosure, two individual dipolar anomalies (Figs 2, 3 and 6, **5**) were recorded. These appear to possibly represent areas of burning such as a kiln-like feature but they do not show a double peaked signature suggesting they are more likely to indicate the presence of modern ferrous.

A linear anomaly (Figs 2, 3 and 6, **dashed red line**) was detected approximately one-third of the way down from the field. This may denote a ditch of unknown but could relate to the enclosure to the north or more likely associated with the former allotments or orchard that once formed part of this field.

Running parallel to the western hedge boundary, a linear dipolar anomaly was detected (Figs 2, 3, and 6, light blue line) denotes the presence of a sewer pipe.

A series of linear anomalies (Figs 2-5 and 6, **green dashed lines**) were recorded in all fields surveyed that denote the presence of the ploughed out remains of ridge and furrow. However, fields 1 and 2 show slight indications of ridge and furrow surviving as very low earthworks.

Fields 2-4 (Figs 2, 4, 5 and 6) show no indications of archaeological anomalies. Each of the fields denotes zones of modern ferrous magnetic signatures.

No other anomalies of archaeological significance were recorded in this field.

6.0 CONCLUSIONS

The survey has identified significant archaeological anomalies in the area of investigation. Part of an extensive settlement/farmstead of Iron Age/Roman date was recorded in the northern part of Field 1. Within the enclosure further subdivisions were detected indicating smaller enclosures or paddocks. On the western side of the enclosure, two semi-circular anomalies were recorded which may reflect the presence of ring ditches. Individual positive anomalies were also detected in this area denoting possible pits.

To the south of the enclosure, two individual dipolar anomalies were detected indicating the presence of burning possibly kiln-like remains. However, they do not denote the classic double peak signatures typical of these features suggesting they could resolve as modern ferrous remains.

All of the fields display the presence of the pre-enclosure field system of ridge and furrow.

Along the western boundary of Field 1 a linear dipolar anomaly was detected denoting the presence of a sewer pipe. Other anomalies detected reflect modern ferrous debris.

Based on the survey results, it can be concluded that the site possesses archaeological remains of medium-high potential.

7.0 ACKNOWLEDGEMENTS

Cranfield University, Centre for Archaeological and Forensic Analysis would like to thank Mark Hinman, Pre-Construct Archaeology Ltd for this commission.

8.0 BIBLIOGRAPHY

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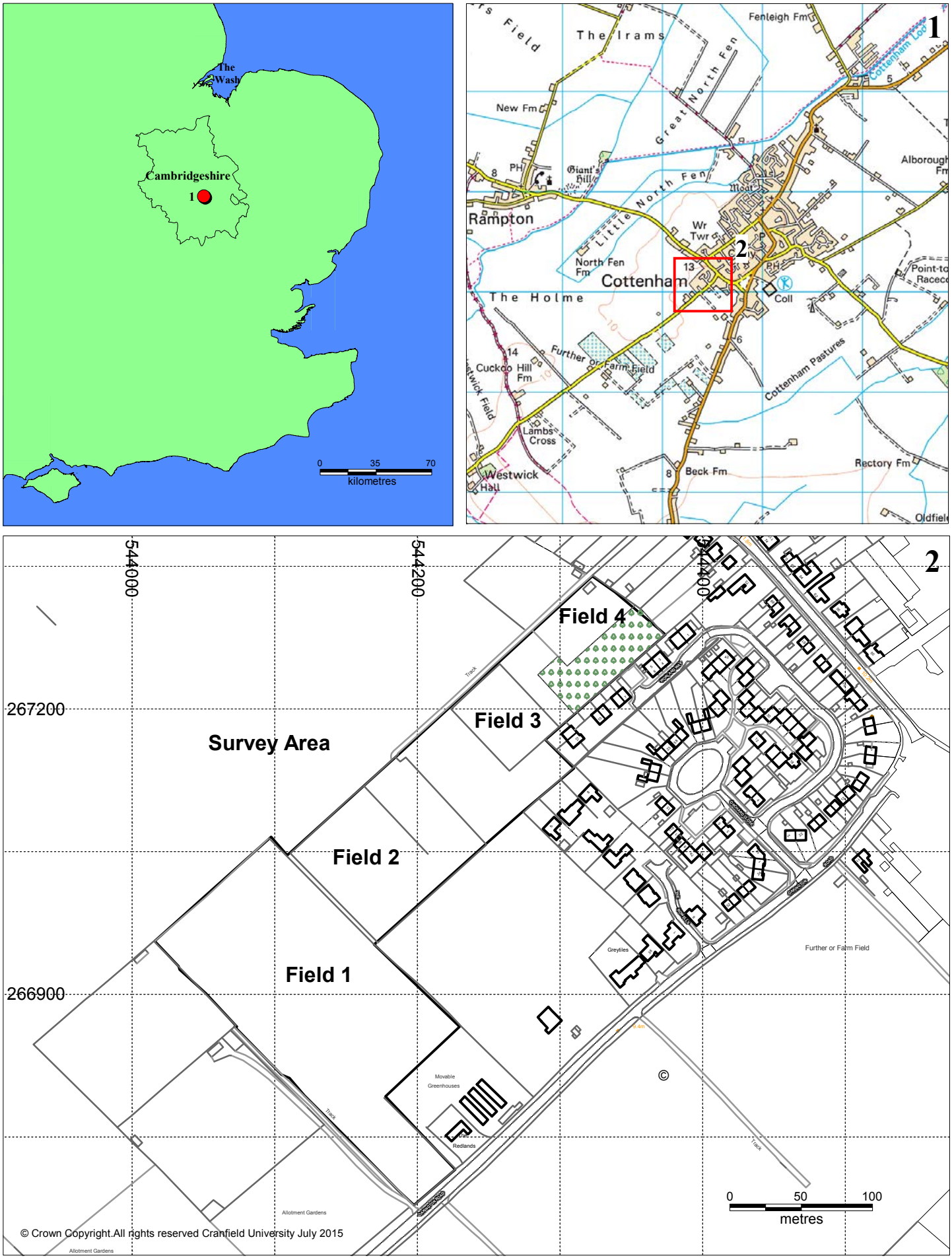


Fig. 1 - Location plan, scale - 1;3500

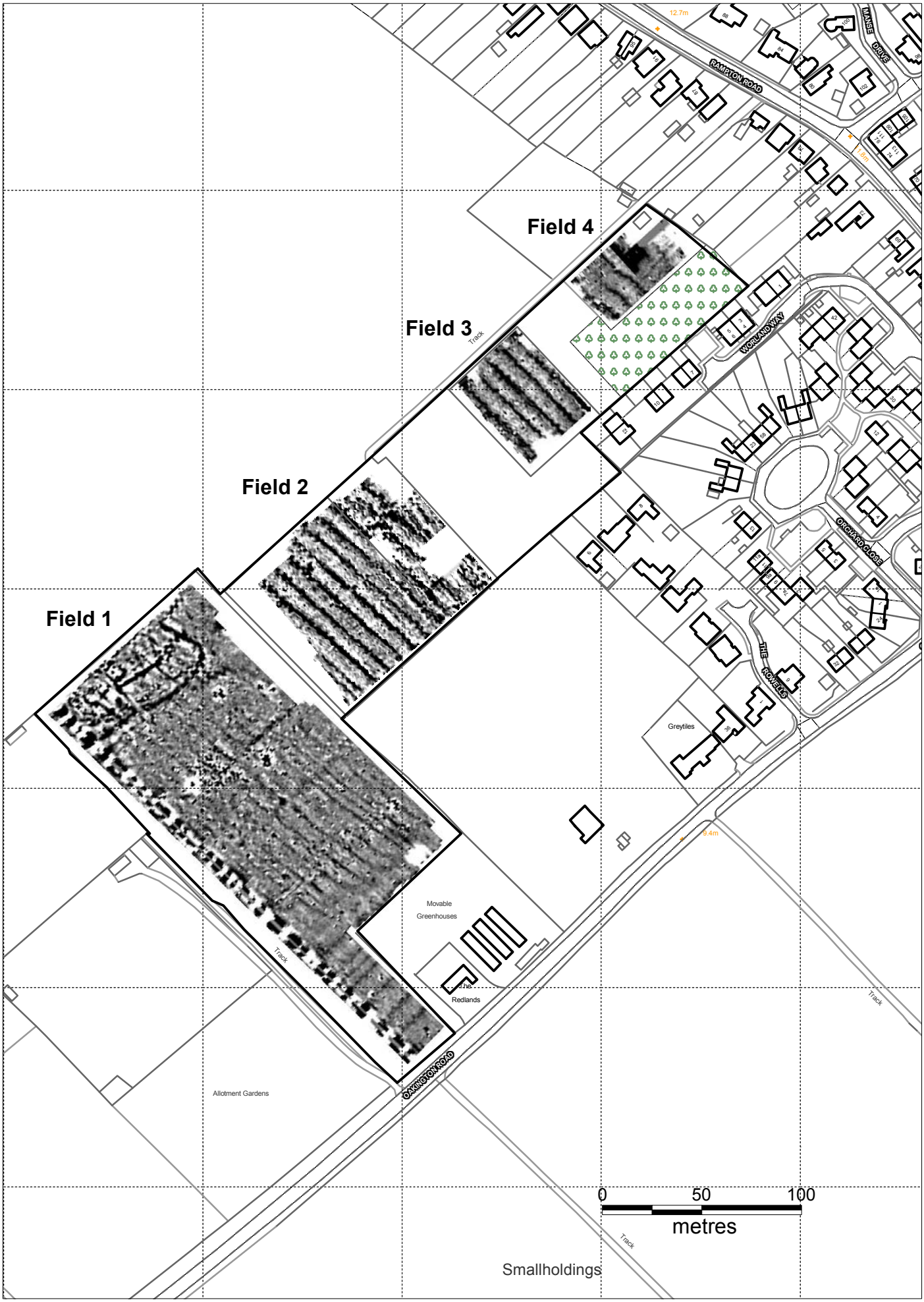


Fig. 2 - Location of gradiometer survey, scale 1:2500

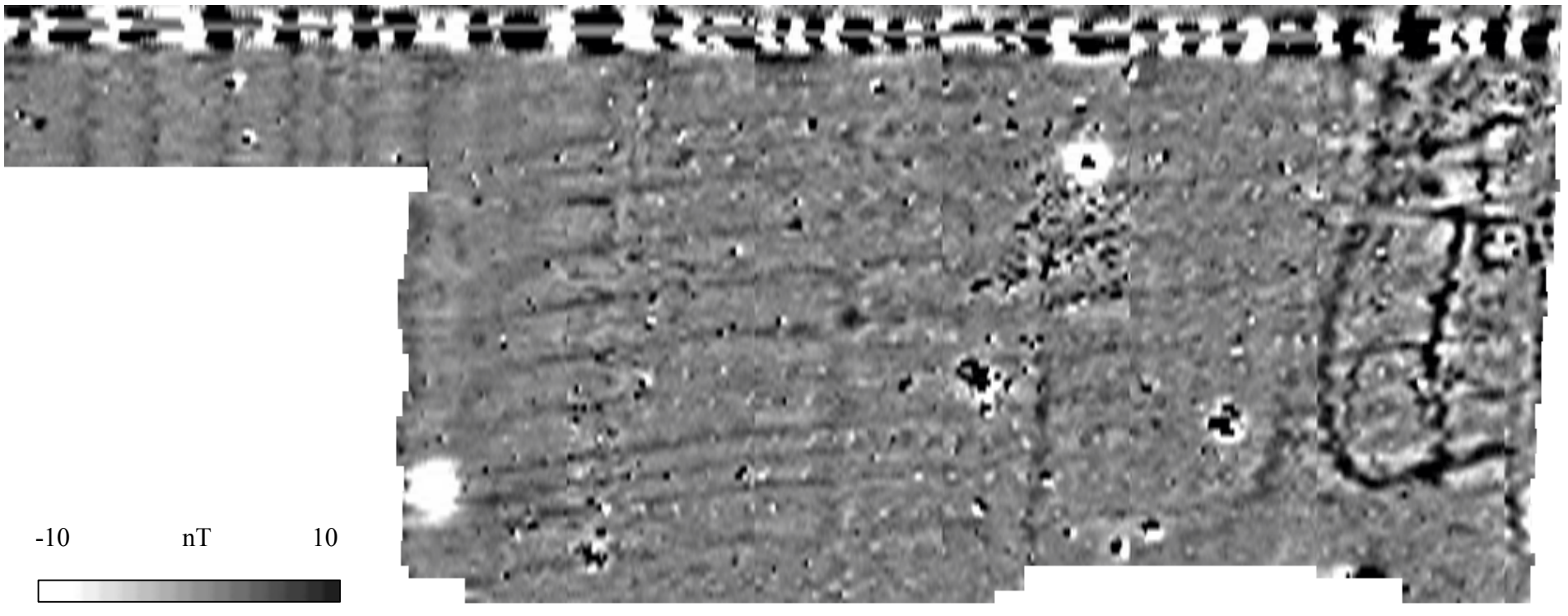
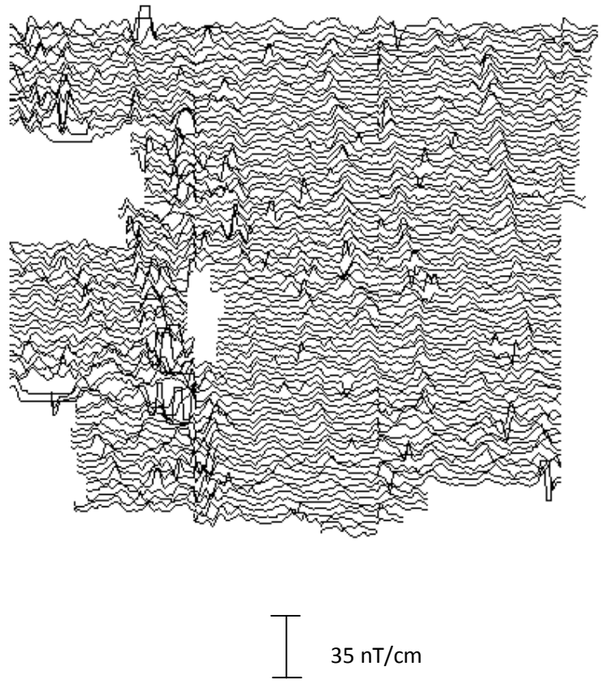
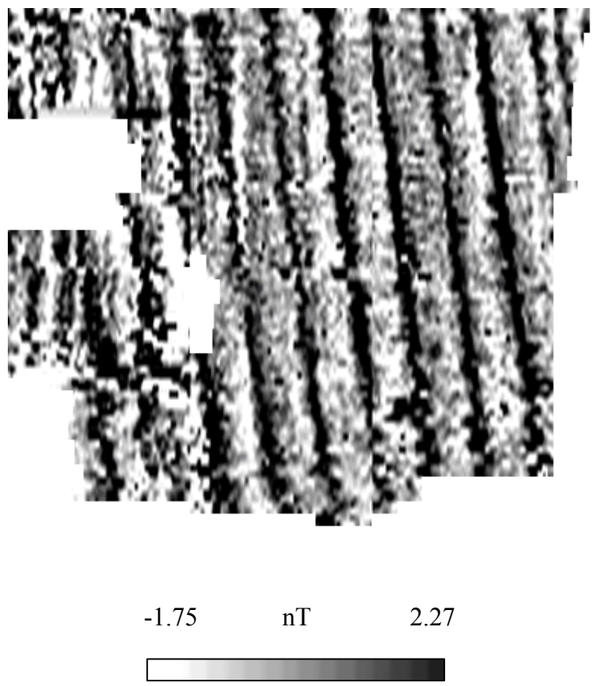


FIG. 3: Field 1 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000





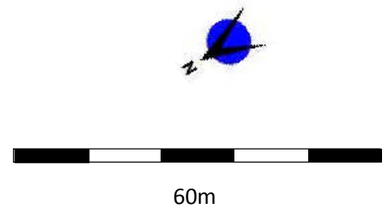


FIG. 4: Field 2 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000

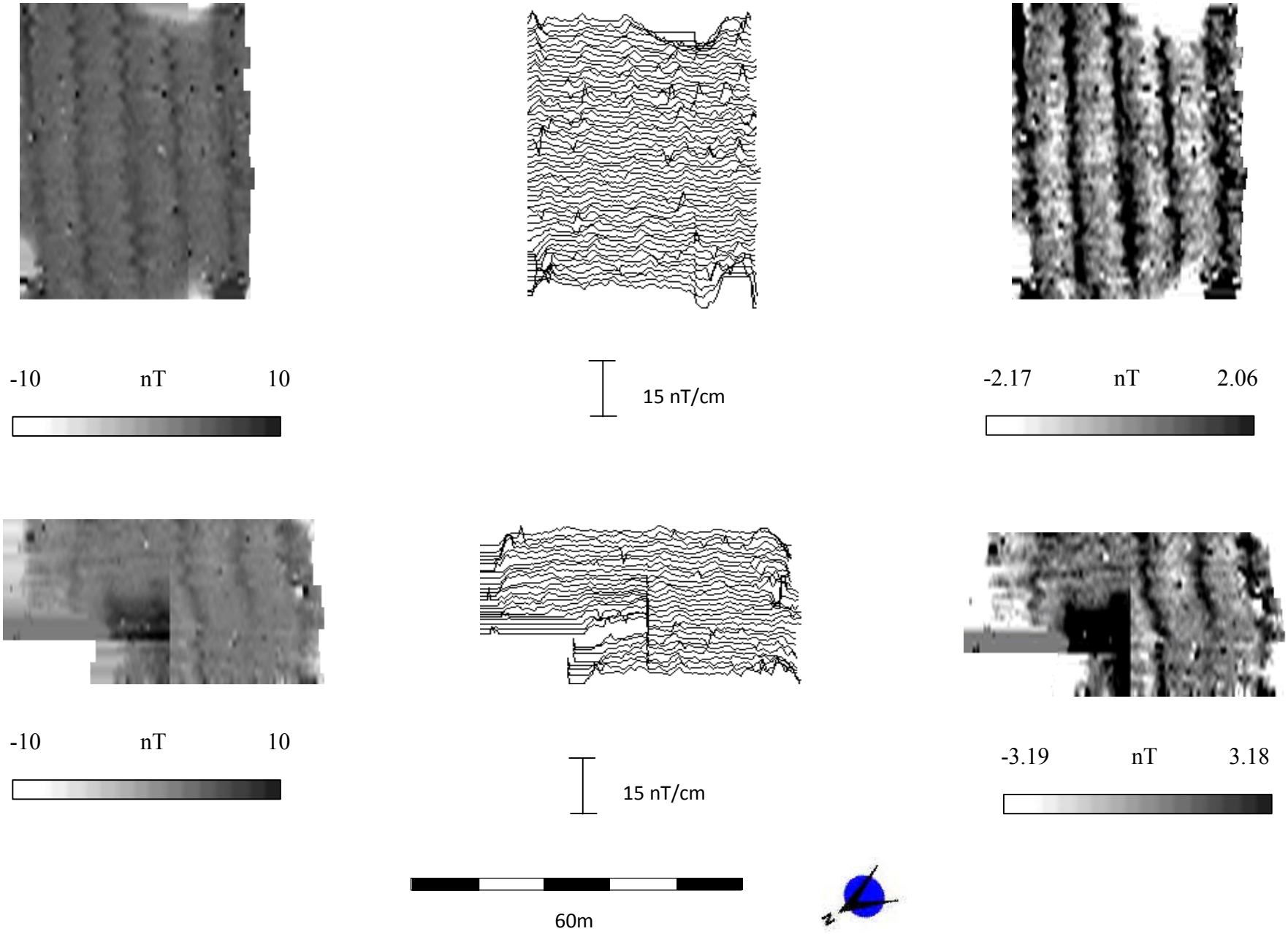


FIG. 5: Fields 3 and 4 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000

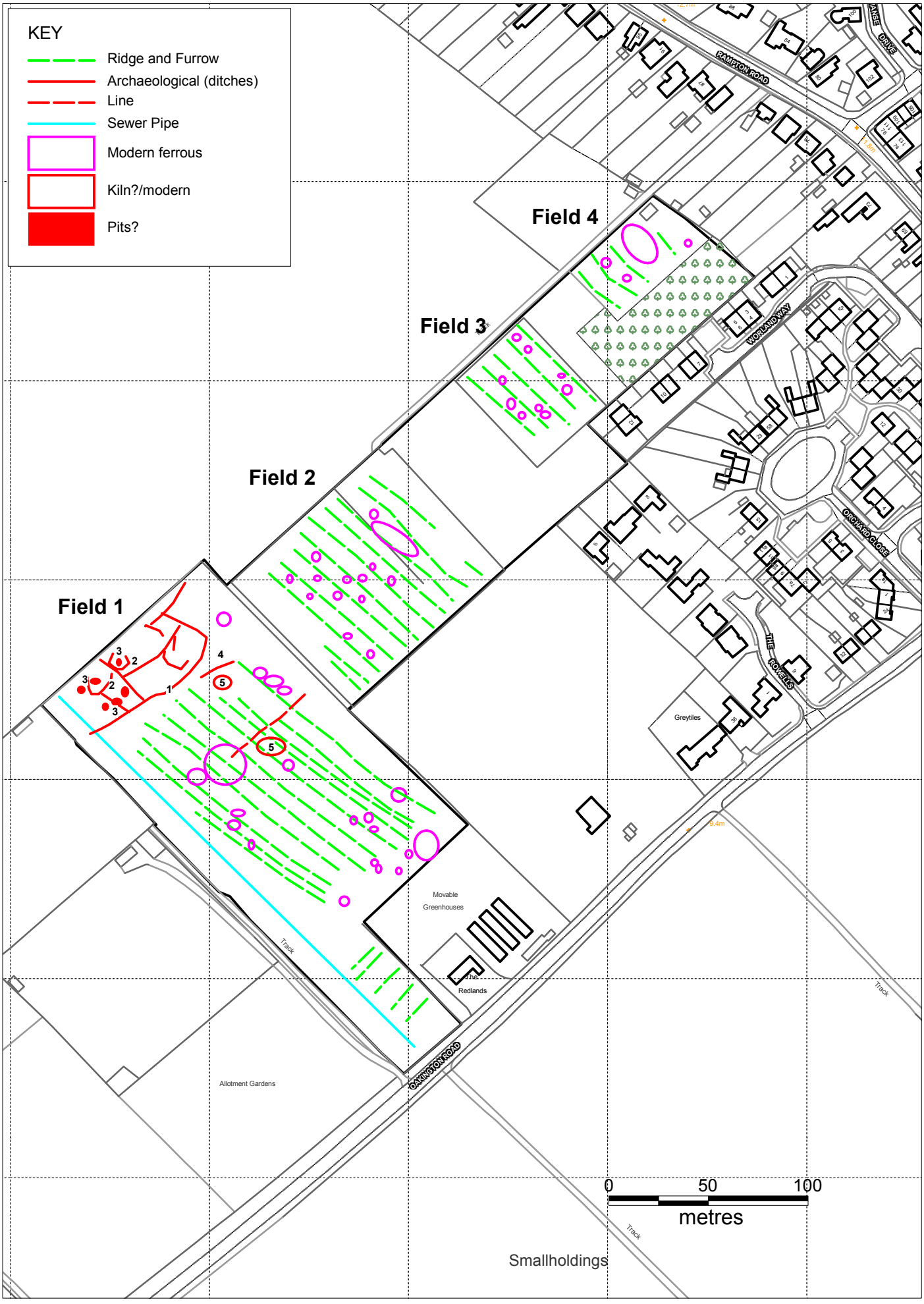


Figure 6 - Interpretation of results, scale - 1:2500

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