

Buxhall Farm, Land East of Glebe Way, Histon Archaeological Evaluation Report

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Buxhall Farm, Land East of Glebe Way, Histon Archaeological Evaluation Report

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Summary

Between the 21st and 28th January 2019, Oxford Archaeology East (OA East) conducted an archaeological evaluation at Buxhall Farm, on land east of Glebe Way, Histon (centred TL 4423 6433) ahead of an application for construction of a new primary school at the site. A total of seven 50m-long trenches were excavated. Four of these trenches revealed dispersed linear archaeological features, and a further two trenches uncovered a series of agricultural furrows.

The western part of the site was characterised by a total of six agricultural furrows on a west-north-west to east-south-east alignment. These lay perpendicular to a recent boundary ditch (40) shown on the previous geophysical survey undertaken at the site along its eastern boundary.

A total of four ditches were uncovered in the eastern part of the site on north-south and east-west alignments that were not identified by the geophysical survey. The small amount of finds and environmental remains recovered from these features suggest a post-medieval or early modern origin.



Acknowledgements

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The project was managed for Oxford Archaeology East by Nick Gilmour. The fieldwork was directed by Malgorzata Kwiatkowska, who was supported by Rebecca Pridmore. Survey and digitizing was carried out by Katie Hutton with illustrations produced by David Brown. Thank you to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachel Fosberry, and prepared the archive under the direction of Katherine Hamilton.



1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology East (OA East) was commissioned by RG Clarke to undertake a trial trench evaluation at the site of Buxhall Farm, Land East of Glebe Way, Histon (centred TL 4423 6433). It is proposed that a new primary school will be built on the 2ha site.
- 1.1.2 The work was undertaken to inform the Planning Authority in advance of a submission of a Planning Application. A brief was set by Andy Thomas of Cambridgeshire Historic Environment Team (CCCHET) outlining the Local Authority's requirements for work necessary to inform the planning process. A Written Scheme of Investigation (WSI) was produced by OA East (Wiseman 2018) detailing the methods by which OA East proposed to meet the requirements of the brief.
- 1.1.3 A geophysical survey of the site was carried out by Magnitude Surveys in December 2018 that determined the presence of anomalies of probable agricultural and natural origin (Harris 2018).

1.2 Location, topography and geology

- 1.2.1 The site is located on the northern edge of the historic village of Histon. It lies directly to the east of Glebe Way (B1049) and is bounded by agricultural fields to the north and east and a residential area to the south (Fig. 1). The area of proposed development consists of arable land at c.11m OD.
- 1.2.2 The geology of the area is mapped as River Terrace Gravels overlying Gault Clay (British Geological Survey online maps viewer [accessed 30/01/2019] http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=cb23&gobBtn=go) The soils are typical gley brown calcareous earths moderately fertile, free-draining soils rich in lime.

1.3 Archaeological and historical background

1.3.1 A full search of the Cambridgeshire Historic Environment Record (CHER) of a 1km radius, centred on the evaluation site was commissioned from CCC HET (under licence no. 18-3682). The following is a summary based on the results of the CHER search, with pertinent records shown on Fig.2.

Prehistory

1.3.2 There is no evidence for early prehistoric and Neolithic activity within 1km of the site. the only potential evidence for Bronze Age activity are two ring ditches visible as cropmarks (MCB 22694) in Great Barrow Field, 800m north-east of the site.

Iron Age and Roman

1.3.3 There are extensive cropmarks of possible enclosures in the fields to the north and east of the site (MCB 08321, 11453, 16216, 22578, 25690, 25691). On morphological grounds, these have been dated to the Roman period, although some may be Iron Age in origin.



1.3.4 Fieldwalking (ECB2773) of the arable fields encompassing the site found concentrations of Iron Age pottery with a few stray sherds of the same period found in the current excavation area. This fieldwalking event also found larger quantities of Roman pottery with one concentration immediately north of the site. Other concentrations are located north and east of the site (MCB 22694, 17758). A number of watching briefs around the site have also found a possible Roman trackway (MCB 16772). One Roman coin was found 500m north of the site (MCB 05198). A Roman roof tile was found c.700m west of the site (MCB 05189).

Saxon and early medieval

1.3.5 The only Saxon find in the vicinity of the site is a loomweight found at the Histon and Impington School (MCB 5196).

Later medieval

1.3.6 Histon is mentioned in the Domesday Book of 1086. The village formed around the St Etheldreda's church (MCB 5327) and manor (MCB 05562, 12290) 1km to the southwest. The site lay in the fields surrounding the village, and areas of former ridge and furrow are reported east, west and north of the site (MCB 25705, 22590, 22591, 22592). Fieldwalking on the site and in the surrounding fields has recovered even scatters of medieval pottery (ECB 2773) consistent with field manuring.

Post-medieval and modern

1.3.7 Post-medieval development expanded around the historic core of Histon to the southwest of the site. The site and surrounding fields remained in agricultural use, with evidence for post-medieval and modern field systems, enclosures, and farms (MCB 17320, 25705, 25693, 22579, 25707). A series of post-medieval agricultural features on a north to south alignment, were uncovered during a watching brief 200m north of the current development area (MCB 16769).

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2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

- 2.1.1 The project aims and objectives were as follows:
 - i. ground truth geophysical results, by testing a range of anomalies of likely archaeological origin, and areas where no anomalies registered
 - ii. establish the presence or absence of archaeological remains on the site, characterise where they are found (location, depth and extent), and establish the quality of preservation of any archaeology and environmental remains
 - iii. provide sufficient coverage to establish the character, condition, date and purpose of any archaeological deposits
 - iv. provide sufficient coverage to evaluate the likely impact of past land uses, and the possible presence of masking deposits
 - v. set results in the local, regional, and national archaeological context and, in particular, its wider cultural landscape and past environmental conditions
 - vi. provide in the event that archaeological remains are found sufficient information to construct an archaeological mitigation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables, and orders of cost.

2.2 Methodology

- 2.2.1 A total of 7 trenches measuring 50 x 2.1m were excavated, representing 3.6% of the 2ha development area.
- 2.2.2 Utility plans were checked before work commenced on site. Prior to trenching, the footprint of each trench was scanned by suitably experienced site personnel using a CAT with a valid calibration certificate.
- 2.2.3 All machine excavation took place under constant archaeological supervision with 360° mechanical excavators.
- 2.2.4 Trial trenches were excavated to the depth of natural geological horizons, or to the upper surface of archaeological features or deposits; whichever was encountered first. A 2.1m wide toothless ditching bucket was used to excavate the trenches in spits not greater than 0.1m thick. Exposed surfaces were cleaned by trowel and hoe as necessary, in order to clarify located features and deposits.
- 2.2.5 Spoil was stored alongside trenches with topsoil, subsoil and archaeological deposits kept separate to allow for sequential backfilling of excavations. Trenches were not backfilled without the approval of the CCC HET.
- 2.2.6 There was sufficient excavation of each feature to give clear evidence for the period, depth, and nature of any archaeological deposit. Investigation slots through all linear features were a minimum of 1m in width.



- 2.2.7 Bucket samples of 90 litres of excavated soil were taken from each trench, in order to characterise artefactual remains in the topsoil and other soil horizons above the archaeological level.
- 2.2.8 The spoil, excavated features and exposed areas were scanned with a metal detector.
- 2.2.9 Surveying was carried out using a Leica GS08 GPS fitted with SmartNET.



3 RESULTS

3.1 Introduction and presentation of results

- 3.1.1 The results of the evaluation are presented below, and include a stratigraphic description of the trenches that contained archaeological remains. Full details of all trenches with dimensions and depths of deposits are given in Appendix A. The results are supplemented by artefact and environmental reports, included as Appendices B and C. The geophysical survey report is provided as Appendix E.
- 3.1.2 Figure 3 provides an overall plan of the results of the evaluation overlain on the results of the geophysical survey. Selected sections are presented as Figure 4.

3.2 General soils and ground conditions

- 3.2.1 The soil sequence between all trenches was fairly uniform. The natural silty clay geology was overlain by mid brown clayey silt subsoil, in turn overlain by topsoil/ploughsoil.
- 3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology. However, the high water table resulted in feature deposits at depth flooding throughout the duration of this project. Strong winter sun adversely affected the site photography.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in Trenches 1, 5, 6 and 7. In addition, Trench 2 contained four furrows whereas Trench 4 contained two furrows all aligned from north-west to south-east. Trench 3 was devoid of archaeology.

3.4 Trench 1 (Fig. 3)

- 3.4.1 Trench 1 was located in the western part of the site on a north-north-east to south-south-west alignment. It contained three agricultural furrows, a gully and a ditch.
- 3.4.2 Furrow **6** was located towards the northern end of the trench on a north-west to south-east alignment. It had gently sloping sides and an irregular base that measured 3.49m wide and 0.30m deep. It was filled by a single deposit (7) of mid yellowish brown silty sand that produced a small amount of unidentifiable bone, a fragment of oyster shell, a single sherd of post-medieval pottery, a fragment of ceramic building material (CBM) and an incomplete nail (SF1).
- 3.4.3 To the south, furrow 10 was located south of furrow 6, on the same alignment. It had steep sides and an irregular base. It measured 1.30m in width and 0.18m in depth. It was filled by a single deposit (11) of light brownish grey sandy silt. No finds were recovered from this feature.
- 3.4.4 To the south of furrow 10, similarly aligned furrow 16 had steep sides and an irregular base and measured 2.94m wide and 0.26m deep. It was filled by a single fill (17) of mid brownish grey sandy silt. Two formless fragments of CBM and a small fragment (0.001kg) of cinder were recovered from this feature.



- 3.4.5 Gully 20 was located south of furrow 16 on a north-east to south-west axis. It had steep sides and a concave base, that measured 0.57m in width and 0.22m in depth. It was filled by a single deposit (22) of mid greyish brown clayey silt. No finds were recovered from this feature.
- 3.4.6 Ditch 23 (Fig. 4, Section 5, Plate 4) was located towards the southern end of the trench. It was aligned west-north-west to east-south-east and measured 2.22m wide and 0.44m deep. It had steep sides with a concave base and contained two deposits. The basal fill (25) was located on the southern edge of the feature and consisted of mid yellowish brown silty clay. This fill was overlain by mid greyish brown silty clay (26) that yielded. eleven fragments of post-medieval handmade brick.

3.5 Trench 5 (Fig. 3, Plate 1)

- 3.5.1 Trench 5 lay on a north-west to south-east alignment in the in the south-east corner of the site. It contained two agricultural furrows, a gully and three ditches; one of which was shown on the 1920s OS map.
- 3.5.2 Furrow 29 was located at the north-western end of the trench on a north-west to south-east alignment and measured 0.70m wide and 0.10m deep with gently sloping sides and a flat base. It was filled by a single deposit (30) of mid brownish grey silty clay. No finds were recovered from this feature.
- 3.5.3 Adjacent furrow 31 lay on a perpendicular north-east to south-west alignment and measured 1.24m wide and 0.10m deep. It had gently sloping sides and an irregular base that contained a single deposit (32) of mid brownish grey silty clay. Two fragments of post-medieval CBM including a partial roof tile and two fragments of mortar were recovered from the fill.
- 3.5.4 Ditch **33** (Fig. 4, Section 8, Plate 5) was located in the central part of the trench. It lay on an east-west axis and measured 1.90m wide and 0.52m deep. It had steep sides and a concave base that contained two deposits. The basal fill (34) consisted of mid greyish brown silty clay overlain by mid brownish grey silty clay (35), that produced a single sherd of post-medieval pottery.
- 3.5.5 A small gully (36) ran across the eastern part of the trench on a broadly east-west alignment. It was 0.30m wide and 0.10m deep with steep sides and a concave base. A single deposit (37) of mid grey silty clay produced no finds. This gully was truncated by ditches 38 and 40.
- 3.5.6 Ditch 38 was orientated north to south and measured 0.96m wide and 0.22m deep with had steep sides and a concave base. Its dark grey silty clay fill (39) produced four fragments of post-medieval CBM.
- 3.5.7 Immediately to the east of ditch 38, ditch 40 (Fig. 4, Section 10, Plate 6) lay on a northeast to south-west alignment and measured 2.20m wide and was excavated to a maximum depth of 0.80m. A total of three successive deposits were excavated. The lowest fill (41) consisted of mid reddish yellow silty sand that contained a ceramic field drain. This fill was in-turn overlain by a dark brownish grey silty clay (42) and a mid greyish brown silty clay (43). Fill 43 produced a fragment of clay pipe stem and a shapeless lump of metal.



3.5.8 A sherd of post-medieval pottery was also recovered from the topsoil.

3.6 Trench 6 (Fig. 3, Plate 2)

- 3.6.1 Trench 6 was placed north of Trench 5 on the same alignment. It contained an agricultural furrow, three gullies and the northern continuation of ditch 40 uncovered in Trench 5.
- 3.6.2 Furrow 46 was located in the north-western end of the trench on a north-east to south-west alignment and measured 0.80m wide and 0.10m deep with gently sloping sides and an irregular base. It was filled by a single deposit (47) of mid brownish grey silty clay. No finds were recovered from this feature.
- 3.6.3 Gully 48 (Fig. 4, Section 12) was located immediately south-east of furrow 46 on a similar alignment. It measured 0.43m wide and 0.14m deep with steep sides and a concave base. It was filled by a single deposit (49) of mid greyish brown silty clay. No finds were recovered from this feature.
- 3.6.4 Similarly aligned gully **50** was located in the central part of the trench. It measured 0.24m wide and 0.06m deep with steep sides and a concave base and was filled by a single deposit (51) of mid greyish brown silty clay. No finds were recovered from this feature.
- 3.6.5 Gully 52 was located south-east of gully 50, orientated on the same alignment. It measured 0.56m wide and 0.31m deep with steep sides and a concave base. It was filled by a single deposit (53) of dark brownish grey silty clay. No finds were recovered from this feature; however, it was found to truncate the layer of subsoil (2). This feature continued north-westwards to Trench 7 where it was excavated as gully 58.

3.7 Trench 7 (Fig. 3, Plate 3)

- 3.7.1 Trench 7 was located to the north of Trench 6, in the north-eastern corner of the site. It uncovered a total of two furrows, four gullies and three ditches, including the northeastern continuation of ditch 40 revealed by Trenches 5 and 6.
- 3.7.2 Gully 54 (Fig. 4 Section 15) was located towards the north-western end of the trench. It was orientated on a north-east to south-west alignment measuring 0.20m wide and 0.14m deep, it had steep sides and a concave base, and was filled by a single deposit (55) of light brownish grey silty sand. No finds were recovered from this feature. It was truncated by furrow 56 on its northwestern side
- 3.7.3 Similarly aligned furrow 56 (Fig. 4, Section 15) measured 2.06m wide and 0.37m deep with gently sloping sides and an irregular base. It was filled by a single deposit (57) of mid brownish grey silty clay. Occasional charred wheat (*Triticum sp.*) grains were recovered from the bulk environmental sample of this fill. The only finds were a very small fragment of fired clay (0.001kg) and a single sherd of internally glazed late medieval-early, post-medieval pottery.
- 3.7.4 Gully **69** was located immediately south-east of furrow **56** on a north-east to southwest alignment. It measured 0.49m wide and 0.31m deep with steep sides and a flat base. It was filled by a single deposit (71) of light yellowish brown silty clay. This feature was observed to truncate the subsoil.



- 3.7.5 To the southeast, parallel gully **62** measured 0.27m wide and 0.10m deep with steep sides and a concave base. It was filled by single deposit (63) of mid yellowish brown clayey silt. No finds were recovered from this feature.
- 3.7.6 Furrow **60** was located south-east of gully **62**, orientated north-east to south-west, and measured 2.68m wide by 0.19m deep. This furrow had gently sloping sides and an irregular base. It was filled by a single deposit (61) of mid yellowish brown clayey silt. No finds were recovered from this feature.
- 3.7.7 Ditch 64 (Fig. 4, Section 19) was located in the central part of the trench, and lay on a north-south axis. It measured 1.90m wide and 0.22m deep with gently sloping sides and a concave base. It was filled by a single deposit (65) of mid yellowish brown clayey silt. No finds were recovered from this feature that was found to truncate ditch 66.
- 3.7.8 Ditch **66** (Fig. 4, Section 19) lay in the southeastern part of Trench 7on a north-west to south-east alignment. This ditch was greater than 0.80m wide, 0.56m deep with steep sides and a flat base. It was filled by two deposits. The basal fill (67) consisted of dark greyish brown clayey silt, which contained occasional charred wheat (*Triticum sp.*) grains, recovered from the bulk environmental sample of this fill. This fill was overlain by mid greyish brown silty clay (68).
- 3.7.9 The northeastern terminus of gully 58 was located towards the southeastern end of the trench on a north-east to south-west alignment. It measured 0.62m wide and 0.26m deep with steep sides and a flat base. It was filled by a single deposit (59) of mid brownish grey silty clay. No finds were recovered from this feature.

3.8 Finds summary

- 3.8.1 Two iron nails were recovered from furrows 6 and 56 in Trenches 1 and 7 respectively and a formless lump of iron was recovered from ditch 40 in Trench 5.
- 3.8.2 Other than a single sherd (0.013kg) of Roman pottery recovered from the topsoil near Trench 5, all the ceramic material recovered from the site dated to the late medieval or post-medieval period. This assemblage comprised a further four sherds of pottery (0.115kg), 22 fragments of CBM (1.099kg) and a fragment of pipe stem (0.002kg). Its condition suggests that most of the pieces were distributed and reworked in the ploughsoil, although the presence of some hand-made brick fragments (11 sub-rectangular fragments weighing 1.058kg) might have been the result of deliberate deposition for drainage or ground improvements.
- 3.8.3 A small fragment of cinder (0.001kg) was recovered from Trench 1; possibly a byproduct of steam ploughing.
- 3.8.4 A very small assemblage of fragments of unidentifiable bone was recovered from the fill of furrow 6 in Trench 1.
- 3.8.5 A total of six bulk samples were taken from a variety of features. However, the preservation of organic material was limited with sparse assemblages of charred grain and charcoal recovered from only two samples. These comprised occasional charred wheat (*Triticum sp.*) grains that have the morphological characteristics of free-threshing bread wheat (*T. aestivum/turgidum*).



4 DISCUSSION

4.1 Evaluation objectives and results

- 4.1.1 This evaluation aimed to provide information in regard to the proposed primary school development to the east of Glebe Road, Histon. Previous fieldwalking events at the site, along with cropmarks suggested the presence of of Iron Age or Roman settlement remains at the site.
- 4.1.2 The evaluation at the site has revealed a range of archaeological features, including ditches, gullies and a number of furrows. In total, features were revealed in four trenches (out of seven), although the vast majority did not appear on the geophysical survey results. The only feature revealed by the current evaluation shown on by the survey was a large boundary ditch visible on OS maps, as far back as 1886. The majority of features were revealed in Trenches 5-7, towards the eastern boundary of the site.
- 4.1.3 In general, most archaeological features were relatively shallow, with few larger examples up to 0.56m deep. Typically, most features contained single fills of mid brownish grey clayey silt and contained few finds.

4.2 Interpretation

- 4.2.1 The evaluation has uncovered the remains of a post-medieval to early modern field system along with a number of agricultural furrows. The furrows were concentrated in the western part of the site, perpendicular to the recent boundary ditch (40) shown on the geophysical survey (Harris 2018). Trenches 5-7, located towards the eastern boundary of the site revealed the boundary ditch (40), visible on the 1886 OS map (National Library of Scotland, accessed 04/02/2019), with a series of small drainage gullies (48=69,50=62 and 52=58) on the same south-west to north-east axis.
- 4.2.2 In addition, concentrated within the eastern-most part of the site, lay a series of four ditches (33, 38, 64 and 66) on north to south and west to east alignments. These earlier features produced small quantities of, possibly residual, post-medieval ceramics and are suggestive of an earlier system of land division in this area of the site.

4.3 Significance

4.3.1 The current evaluation uncovered a total of seven gullies and six ditches, along with thirteen agricultural furrows. Excavated features were found mainly devoid of finds, with the majority of post-medieval ceramics coming from ditch 23 in Trench 1, and ditches 33 and 38 in Trench 5. The site appears to be located beyond the areas of Iron Age and Roman activity areas indicated by cropmarks (MCB 08321, 11543, 16216, 22578, 25690, 25691) to the north and east of the site. This development is also located north-east of Histon's core medieval settlement. The archaeological remains uncovered by the evaluation relate to post-medieval and early modern agricultural activity. The presence of abraded ceramics on the site is most likely the result of middening activity. Therefore, the potential for any further archaeological remains of significance on the site is considered to be low.



APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General o	descriptio	n	Orientation	NNE-SSW		
Trench c	ontained	three fu	Length (m)	50		
topsoil ar	nd subsoil	overlying	natural	geology of silty clay.	Width (m)	2.10
					Avg. depth (m)	0.39
Context	Туре	Width	Depth	Description	Finds	Date
No.	Layer	(m)	(m) 0.29	Topsoil	_	_
2	-	_	0.29	Subsoil	_	_
	Layer				-	-
3	Layer	-	-	Natural	-	-
6	Cut	3.49	0.30	Furrow	-	-
7	Fill	3.49	0.30	Fill of furrow 6	CBM, Shell, Fe nail	Post-
						medieval
10	Cut	1.30	0.18	Furrow	-	-
11	Fill	1.30	0.18	Fill of furrow 10	-	-
16	Cut	2.94	0.26	Furrow	-	-
17	Fill	2.94	0.26	Fill of furrow 16	CBM, Cinder	Post-
						medieval
20	Cut	0.57	0.22	Gully	-	-
22	Fill	0.57	0.22	Fill of gully 20	-	-
23	Cut	2.22	0.44	Ditch	-	-
25	Fill	0.16	0.10	Lower fill of ditch 23	-	-
26	Fill	2.2	0.44	Upper fill of ditch 23	СВМ	Post- medieval

Trench 2											
General o	description	า	Orientation	NE-SW							
Trench co	ontained	four furr	Length (m)	50							
overlying	natural ge	eology of	Width (m)	2.10							
					Avg. depth (m)	0.52					
Context	Туре	Width	Depth	Description	Finds	Date					
No.		(m)	(m)								
1	Layer	-	0.29	Topsoil	Pottery	Roman					
2	Layer	-	-	-							
3	Layer	-	-	Natural	-	-					

Trench 3											
General o	description	Orientation	NW-SE								
Trench d	evoid of	Length (m)	50								
overlying	natural ge	eology of	silty clay		Width (m)	2.10					
					Avg. depth (m)	0.48					
Context	Type	Width	Depth	Description	Finds	Date					
No.		(m)	(m)								
1	Layer	-	0.28	Topsoil	-	-					



2	Layer	-	0.20	Subsoil	-	-
3	Layer	-	-	Natural	-	-

Trench 4											
General o	description	Orientation	NE-SW								
Trench co	ontained t	three fur	rows. Co	nsists of topsoil and subsoil	Length (m)	50					
overlying	natural ge	Width (m)	2.10								
					Avg. depth (m)	0.41					
Context	Туре	Width	Depth	Description	Finds	Date					
No.		(m)	(m)								
1	Layer	-	0.26	Topsoil	-	-					
2	Layer	-	0.15	Subsoil	-	-					
3	Layer	-	-	Natural	-	-					

Trench 5						
General o	descriptio	n	Orientation	NW-SE		
Trench co	ntained t	wo furrov	Length (m)	50		
one mod	lern. Cons	sists of t	opsoil ar	nd subsoil overlying natural	Width (m)	2.10
geology o	of silty clay	' .			Avg. depth (m)	0.49
Context	Type	Width	Depth	Description	Finds	Date
No.		(m)	(m)			
1	Layer	-	0.31	Topsoil	Pottery	Post-
						medieval
2	Layer	-	0.18	Subsoil	-	-
3	Layer	-	-	Natural	-	-
29	Cut	0.70	0.10	Furrow	-	-
30	Fill	0.70	0.10	Fill of furrow 29	-	-
31	Cut	1.24	0.10	Furrow	-	-
32	Fill	1.24	0.10	Fill of furrow 31	-	-
33	Cut	1.90	0.52	Ditch	-	-
34	Fill	1.09	0.20	Lower fill of ditch 33	-	-
35	Fill	1.52	0.32	Upper fill of ditch 33	Pottery	Post-
						medieval
36	Cut	0.30	0.10	Gully	-	-
37	Fill	0.30	0.10	Fill of gully 36	-	-
38	Cut	0.96	0.22	Ditch	-	-
39	Fill	0.96	0.22	Fill of ditch 38	CBM	Post-
						medieval
40	Cut	2.20	0.80	Ditch	-	Modern
41	Fill	0.10	0.10	Lowest fill of ditch 40	Ceramic field	Modern
					drain	
42	Fill	1.08	0.56	Fill of ditch 40	-	Modern
43	Fill	1.56	0.48	Upper fill of ditch 40	Amorphous Fe	Modern
					lump	



Trench 6											
General o	description	n	Orientation	E-W							
Trench co	ontained	a single	furrow,	three gullies and a modern	Length (m)	50					
ditch, wh	ich was r	ot excav	ated. Co	nsists of topsoil and subsoil	Width (m)	2.10					
overlying	natural ge	eology of	silty sand	d.	Avg. depth (m)	0.53					
Context	Type	Width	Depth	Description	Finds	Date					
No.		(m)	(m)								
1	Layer	-	0.33	Topsoil	-	-					
2	Layer	-	0.20	Subsoil	-	-					
3	Layer	-	-	Natural	-	-					
46	Cut	0.80	0.10	Furrow	-	-					
47	Fill	0.80	0.10	Fill of furrow 46	-	-					
48	Cut	0.43	0.14	Gully	-	-					
49	Fill	0.43	0.14	Fill of gully 48	-	-					
50	Cut	0.24	0.06	Gully	-	-					
51	Fill	0.24	0.06	Fill of gully 50	-	-					
52	Cut	0.56	0.31	Gully	-	Modern					
53	Fill	0.56	0.31	Fill of gully 52	-	Modern					

Trench 7										
General of	description	n	Orientation	NW-SE						
Trench c	ontained	four gulli	Length (m)	50						
modern o	ditch, whi	ch was n	ot excava	ated. Consists of topsoil and	Width (m)	2.10				
subsoil ov	verlying na	atural geo	ology of s	ilty clay	Avg. depth (m)	0.61				
Context No.	Туре	Width (m)	Depth (m)	Description	Finds	Date				
1	Layer	-	0.33	Topsoil	-	-				
2	Layer	-	0.28	Subsoil	-	-				
3	Layer	-	-	Natural	-	-				
54	Cut	0.20	0.14	Gully	-	-				
55	Fill	0.20	0.14	Fill of gully 54	-	-				
56	Cut	2.06	0.37	Furrow	-	-				
57	Fill	2.06	0.37	Fill of furrow 56	Pottery, Fired clay, Fe nail	Post- medieval				
58	Cut	0.62	0.26	Gully	-	-				
59	Fill	0.62	0.26	Fill of gully 58	-	-				
60	Cut	2.68	0.19	Furrow	-	-				
61	Fill	2.68	0.19	Fill of furrow 60	-	-				
62	Cut	0.27	0.10	Gully	-	-				
63	Fill	0.27	0.10	Fill of gully 62	-	-				
64	Cut	1.90	0.22	Ditch	-	-				

Buxhall Farm, Land East of Glebe Way, Histon

65	Fill	1.90	0.22	Fill of ditch	-	-
66	Cut	0.80	0.56	Ditch	-	-
67	Fill	0.60	0.20	Lower fill of ditch 66	-	-
68	Fill	0.60	0.20	Upper fill of ditch 66	-	-
69	Cut	0.49	0.31	Gully	-	Modern
71	Fill	0.49	0.31	Fill of gully 69	-	Modern

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APPENDIX B FINDS REPORTS

B.1 Metalwork

By Denis Sami

Introduction and methodology

- B.1.1 A total of two iron artefacts were recovered from furrows in Trenches 1 and 7 and a further artefact was recovered from a ditch in Trench 5 (see Table 1).
- B.1.2 The catalogue of Roman metal work by Manning (1989) was used as the main reference for describing the typology of the recovered nails.

The Assemblage: chronology and character

B.1.3 Given their little variation in forging technique, shape and size, hand forged iron nails are notoriously difficult finds to date. The metalwork assemblage was therefore dated accordingly to the associated ceramics to the post-medieval period.

SF	Context	Trench	Feature	Description	Spot- date
1	7	1	Furrow	An incomplete nail with tapering shaft with square cross-section and sub-circular head. (Manning type 1b). L: 22 mm; Th: 7 mm	PMED
2	57	7	Furrow	An incomplete slightly bent nail with tapering shaft with square cross-section and possibly sub-circular head (Manning type 1 b). L: 57 mm; Th: 7 mm	PMED
-	43	5	Ditch	A shapeless lump of metal	PMED

Table 1 Metal artefacts recovered from Trenches 1, 5 and 7

Discussion

B.1.4 Finds are concentrated in the area around Trenches 1, 5 and 7. The metal assemblage is most likely to be the evidence of some building activity on or in the near vicinity of the site.

Retention, dispersal or display

B.1.5 Should further work be undertaken, the iron work should be incorporated into any later catalogue. Further work is likely to produce additional metal finds from the vicinity of Trenches 1, 5 and 7.



B.2 Pottery

By Carole Fletcher

Introduction and Methodology

- B.2.1 Archaeological works produced a small assemblage of moderately abraded to abraded sherds (five sherds weighing 0.128kg), recovered from topsoil in Trenches 2 and 5, agricultural furrows in Trenches 1 and 7 and a single ditch in Trench 5.
- B.2.2 The Prehistoric Ceramics Research Group (PCRG), Study Group for Roman Pottery (SGRP), and The Medieval Pottery Research Group (MPRG), 2016 A Standard for Pottery Studies in Archaeology and the MPRG A guide to the classification of medieval ceramic forms (MPRG 1998) act as standards. However, a simplified method of recording has been undertaken, with fabric, basic description, weight and count recorded in the text. The pottery and archive are curated by Oxford Archaeology East until formal deposition or dispersal.

Assemblage

- B.2.3 Furrow 6 in Trench 1 produced an abraded, everted rim sherd (rim diameter 220mm, estimated vessel equivalent (EVE) 10%, 0.052kg), from a Post-medieval Redware jar (mid 16th-18th century). From the topsoil in Trench 2, a single moderately abraded sherd was recovered (0.013kg) from a Roman Nene Valley Colour Coat vessel (3rd-4th century).
- B.2.4 The topsoil in Trench 5 produced a moderately abraded, rounded rim sherd (rim diameter 200mm, EVE 10%, 0.034kg) from a carinated bowl with internal slip decoration (17th century). Also in Trench 5, ditch 33 produced a moderately abraded, undiagnostic sherd (0.003kg) of Post-medieval Redware (mid 16th-18th century).
- B.2.5 Finally, furrow 56 in Trench 7 produced an abraded sherd (0.026kg) from the base of an internally glazed bowl of late medieval-early/ post-medieval date (mid 15th century onwards).

Discussion

B.2.6 The pottery present is a mix of periods, as might be expected on the edge of a long-lived village. Roman pottery was recovered during previous fieldwalking of the site (MCB 11453) and the single sherd recovered from the topsoil in Trench 2 is probably part of the same distribution perhaps representing a farmstead midden or manuring scatter. No definitively medieval pottery was recovered, and the post-medieval material again most likely represents manuring scatters. The presence of a relatively large sherd from a slip-decorated bowl in the topsoil of Trench 5 suggests there may be some post-medieval rubbish deposition into the post-medieval field ditches, which has subsequently been disturbed by later ploughing.

Retention, dispersal or display

B.2.7 Should further work be undertaken, the pottery should be incorporated into any later catalogue. Further work is likely to produce additional pottery, however, the sherds



are likely to be sparsely distributed. The sherds may be dispersed prior to archive deposition.

B.3 Clay Tobacco Pipe

By Carole Fletcher

Introduction and Methodology

B.3.1 During the evaluation, a single fragment of white ball clay tobacco pipe was recovered from Trench 5. Simplified recording only has been undertaken, with basic description and weight recorded in the text. Terminology used in this report is taken from Oswald's simplified general typology (Oswald 1975, 37–41), and Crummy and Hind (Crummy 1988, 47-66).

Assemblage

B.3.2 Ditch **40** in Trench 5 produced a slightly abraded length of clay tobacco pipe stem (weighing 2g), somewhat oval (6.4 x 6.5mm) and 31.6mm in length, with a small slightly off-centre bore.

Discussion

B.3.3 The fragment of clay tobacco pipe recovered represents what is most likely a casually discarded pipe. The pipe fragment does little, other than to indicate the consumption of tobacco on, or near, the site, sometime after 1600, until to the 19th century.

Retention, dispersal or display

B.3.4 The assemblage is fragmentary and is of little significance. If no further work is undertaken, this statement acts as a full record and the clay tobacco pipe stem may be deselected prior to archival deposition.

B.4 Ceramic Building Material

By Carole Fletcher

Introduction and Methodology

- B.4.1 A small assemblage of ceramic building material (CBM), 22 fragments weighing 1.099kg, was recovered from two ditches and two furrows across the evaluated trenches. The bulk of the assemblage by weight is Burwell white/Suffolk white brick of Post-medieval date.
- B.4.2 The assemblage was quantified by context, counted, weighed, and form recorded where this was identifiable. Only complete dimensions were recorded, which was most commonly thickness. Archaeological Ceramic Building Materials Group (ACBMG) Ceramic Building Material, Minimum Standards for Recovery, Curation, Analysis and Publication (2002) forms the basis for recording, and Woodforde (1976) and McComish (2015) form the basis for identification and dating.



Assemblage

- B.4.3 The assemblage of CBM is mostly moderately abraded, except for a few small abraded fragments. The bulk of the assemblage is post-medieval 17th century or later.
- B.4.4 Trench 1: from furrow 6 in Trench 1 an abraded, formless fragment (0.001kg) of pale, dull red, silty CBM was recovered. Furrow 16 produced two abraded formless fragments (0.002kg) of pale, dull red, silty CBM. Ditch 23 produced the bulk of the assemblage from the site, 11 sub-rectangular fragments (1.058kg) of poorly made, handmade Burwell white/Suffolk white brick. Thickness varies from 47-53mm, no other complete dimensions survive. The brick is post-medieval and likely to be 17th century or later.
- B.4.5 Ditch 23 also produced two further fragments of CBM: firstly, a fragment (0.004kg) of dull red brick with sand and calcareous inclusions and off-white chalky mortar on the small area of surviving surface; the fragment is not closely datable. Also, a fragment of flat roof tile (slightly warped) weighing 0.018kg and 9-10mm thick, with dull red fabric, surfaces and margins and pale to mid grey core; it is not closely datable beyond calling it post-medieval. Two fragments (0.008kg) of off-white, ?lime mortar were recovered alongside the brick and tile fragments.
- B.4.6 Trench 5: ditch 38 produced four fragments (0.015kg) from a flat tile of poorly mixed off-white clay with dark lenses, 14mm thick and single, formless, abraded fragment of CBM in a sandy fabric with occasional small fragments of flint. All the CBM is post-medieval.
- B.4.7 Trench 7: furrow **56** produced a small abraded fragment (0.001kg), possibly of fired clay.

Discussion

B.4.8 A fragmentary assemblage of post-medieval CBM was recovered from the site, with the bulk of the material recovered from ditch 23 in Trench 1, representing one or more bricks, which may represent deposition of rubble, possibly for drainage improvements, to help stabilise the ground or as rubbish disposal. The remainder of the material is mostly small abraded fragments and represents material that has been heavily reworked, probably by ploughing.

Retention, dispersal or display

B.4.9 The plain and fragmentary nature of the total assemblage means it is of little interest. However, it does indicate that, if further work is undertaken, CBM is likely to be produced, although only at low levels. Should further work be undertaken, the CBM report should be incorporated into any later archive. If no further work is undertaken, this statement acts as a full record and the CBM may be deselected prior to archival deposition.



B.5 Fuel by-products

By Carole Fletcher

Assemblage and Methodology

B.5.1 A fragment of cinder weighing 1g was collected by hand during the evaluation, from furrow 16 in Trench 1.

Discussion

B.5.2 The presence of the cinder is likely to be the result of steam powered ploughing or threshing engine and is intrusive in the medieval furrow.

Retention, dispersal or display

B.5.3 The cinder is fragmentary, and its significance is uncertain, other than to possibly indicate modern disturbance. Should further work be undertaken, additional cinder fragments may be recovered. If no further work is undertaken, this statement acts as a full record and the cinder may be deselected prior to archive deposition.



APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Samples

By Martha Craven

Introduction

C.1.1 Six bulk samples were taken from features on the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Samples were taken from features encountered within Trenches 1, 5, 6 and 7 from deposits that are unknown in date.

Methodology

- C.1.2 The samples were soaked in a solution of sodium carbonate for 24hrs prior to processing to break down the heavy clay matrix. The total volume (up to 16L) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve.
- C.1.3 The dried flots were scanned using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 2. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al.* 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.1.4 For the purpose of this initial assessment, items such as seeds and cereal grains have been scanned and recorded qualitatively according to the following categories:

```
# = 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens
```

C.1.5 Items that cannot be easily quantified such as charcoal and molluscs have been scored for abundance

```
+ = occasional, ++ = moderate, +++ = frequent, ++++ = abundant
```

Results

C.1.6 Preservation of plant remains is by carbonisation and is quite poor; many of the flots contain rootlets which may have caused movement of material between contexts.
Only two samples contain preserved plant remains.



- C.1.7 Sample 5, fill 67 of ditch 66 (Trench 7) and sample 6, fill 57 of ditch 56 (Trench 7) contained occasional charred wheat (*Triticum sp.*) grains that have the morphological characteristics of free-threshing bread wheat (*T. aestivum/turgidum*).
- C.1.8 Mollusc shells are relatively well-preserved with moderate density and diversity.

Sampl e No.	Contex t No.	Trenc h No.	Cut No	Feature type	Volume processe d (L)	Flot Volum e (ml)	Cereal s	Mollusc s	Charcoa I volume (ml)
				Ditch					
1	22	1	20	terminus	14	20	0	+	2
3	34	5	33	Ditch	16	15	0	++++	0
4	53	6	52	Gully	16	20	0	++	0
5	67	7	66	Boundar y ditch	12	10	#	++	<1
6	57	7	56	Ditch/ furrow	16	15	##	++	2

Table 2: Environmental samples from Buxhall Farm, Histon.

Discussion

- C.1.9 The recovery of sparse quantities of charred grain and charcoal indicates that there is limited potential for the preservation of plant remains at this site. Future excavation may have the potential to recover larger, more meaningful assemblages that would contribute to the evidence of diet and economy at this site.
- C.1.10 If further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (2011).

C.2 Animal Bone

By Zoe Ui Choileáin

C.2.1 Only two contexts contained animal bone; topsoil (1) and fill (7) of furrow 6. The bone from deposit (7) is unidentifiable. The fragment of bone from topsoil (1) represents the long bone of a large mammal. The surface condition is very poor and no further information can be gained. It is recommended that this material be dispersed.

C.3 Mollusca

By Carole Fletcher

Assemblage

- C.3.1 A total of 0.001kg of shell was collected by hand during the evaluation from furrow 6. The shell recovered is an abraded fragment from an edible example of oyster *Ostrea edulis*, from estuarine, shallow coastal waters and intertidal zones.
- C.3.2 A single shell fragment is too small a sample to draw any but the broadest conclusions, in that shellfish were reaching the site from the coastal regions, indicating trade with



the wider area. The shell does indicate the use of food sources from beyond the immediate area and surrounding hinterland, most likely arriving by river transportation, and shellfish are known to form part of the Roman diet. The shell represents general discarded food waste and, although not closely datable in itself, the shell may be dated by its association with pottery or other material also recovered from the features.

Retention, dispersal and display

- C.3.3 The assemblage indicates that, should further work take place, shell might be found, however, the evaluation suggests there will be only low levels of shell deposition. If further work is undertaken, this assemblage should be incorporated into any later catalogue.
- C.3.4 If no further work is undertaken, the catalogue acts as a full record and the shell may be dispersed or deselected prior to archive deposition.



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APPENDIX E GEOPHYSICAL SURVEY REPORT

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Geophysical Survey Report of

Land at Buxhall Farm, Histon

For Oxford Archaeology East

On Behalf Of

RG Carter, on behalf of Cambridgeshire County Council

Magnitude Surveys Ref: MSTL420

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January 2019



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Final 2.0	Report finalised	Lauren Cadman	N/A	Marta Fortuny	29
	for client	BA		BA MA	January
					2019

Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 3ha area of land at Buxhall Farm, Histon, Cambridgeshire. A GNSS-located fluxgate magnetometer was successfully completed. The survey results reveal a relatively quiet site, with anomalies of agricultural and natural origins primarily identified. Modern ploughing, possible ridge and furrow ploughing, drains, and a former field boundary were detected. Interference from modern sources is limited to the edges of the field, with adjacent fences and a buried service introducing strong magnetic halos. A single ambiguous linear anomaly has been classified as 'Undetermined', as it does not conform to the other agricultural patterns on site, therefore an archaeological origin cannot be entirely ruled out.

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1. Introduction

- 1.1. Magnitude Surveys Ltd (MS) was commissioned by Oxford Archaeology East on behalf of RG Carter, on behalf of Cambridgeshire County Council to undertake a geophysical survey on a c. 3ha area of land at Buxhall Farm, Histon, Cambridgeshire (NGR: TL 4421 6430).
- 1.2. The geophysical survey comprised hand-carried fluxgate magnetometer survey.
- 1.3. The survey was conducted in line with the current best practice guidelines produced by Historic England (David et al., 2008), the Chartered Institute for Archaeologists (CIfA, 2014) and the European Archaeological Council (Schmidt et al., 2015).
- **1.4.** The survey was conducted in-line with a written scheme of investigation (WSI) approved by the local planning authority in advance of survey commencement.
- 1.5. The survey commenced on 10 December 2018 and took one day to complete.

2. Quality Assurance

- 2.1. Magnitude Surveys is a Registered Organisation of the Chartered Institute for Archaeologists (CIfA), the chartered UK body for archaeologists, and a corporate member of ISAP (International Society of Archaeological Prospection).
- 2.2. Director Dr. Chrys Harris is a Member of CIfA, has a PhD in archaeological geophysics from the University of Bradford and is the Vice-Chair of ISAP. Director Finnegan Pope-Carter is a Fellow of the London Geological Society, the chartered UK body for geophysicists and geologists, as well as a member of GeoSIG, the CIfA Geophysics Special Interest Group. Reporting Analyst Dr. Kayt Armstrong has a PhD in archaeological geophysics from Bournemouth University, is the Vice Conference Secretary and Editor of ISAP News for ISAP, and is the UK Management Committee representative for the COST Action SAGA.
- 2.3. All MS managers have relevant degree qualifications to archaeology or geophysics. All MS field and office staff have relevant archaeology or geophysics degrees and/or field experience.

3. Objectives

3.1. The geophysical survey aimed to assess the subsurface archaeological potential of the survey area.

4. Geographic Background

4.1. The site is located at the northern fringe of the village of Histon, c. 5.8km north of Cambridge (Figure 1). Survey was undertaken over the south-western end of a larger arable field. The field continued further to the north and east from the survey area but was bounded by the rear of housing off Garden Walk to the south and Glebe Way (B1049) to the west (Figure 2).

4.2. Survey considerations:

Survey	Ground Conditions	Further Notes
Area		
1	Flat. Arable. Ploughing visible	Bounded by trees to the south and west, as well
	on a NE-SW alignment.	as fences to the south.

- **4.3.** The underlying geology comprises mudstone of the Gault Formation. Superficial deposits are recorded across the entire site as sand and gravel river terrace deposits (British Geological Survey, 2018).
- 4.4. The soils consist of freely draining lime-rich loamy soils (Soilscapes, 2018).

5. Archaeological Background

5.1. The following section provides a brief summary of the archaeological background of the site and the immediate vicinity, through a c. 500m search radius on Heritage Gateway. In the arable fields immediately north of the survey area, a watching brief revealed Post-Medieval ridge and furrow and an undated linear feature. Roman pottery was also recovered (CHER MCB16770). To the north-west of site, further ridge and furrow was recorded, along with a pit of an unknown date (CHER MCB18175).

6. Methodology

6.1.Data Collection

6.1.1. Geophysical prospection comprised the magnetic method as described in the following table.

6.1.2. Table of survey strategies:

Method	Instrument	Traverse Interval	Sample Interval
Magnetic	Bartington Instruments Grad-13 Digital Three-Axis Gradiometer	1m	200Hz reprojected to 0.125m

- **6.1.3**. The magnetic data were collected using MS' bespoke hand-carried GNSS-positioned system.
 - 6.1.3.1. MS' hand-carried system was comprised of Bartington Instruments Grad 13 Digital Three-Axis Gradiometers. Positional referencing was through a multichannel, multi-constellation GNSS Smart Antenna RTK GPS outputting in NMEA mode to ensure high positional accuracy of collected measurements. The RTK GPS is accurate to 0.008m + 1ppm in the horizontal and 0.015m + 1ppm in the vertical.

- 6.1.3.2. Magnetic and GPS data were stored on an SD card within MS' bespoke datalogger. The datalogger was continuously synced, via an in-field Wi-Fi unit, to servers within MS' offices. This allowed for data collection, processing and visualisation to be monitored in real-time as fieldwork was ongoing.
- 6.1.3.3. A navigation system was integrated with the RTK GPS, which was used to guide the surveyor. Data were collected by traversing the survey area along the longest possible lines, ensuring efficient collection and processing.

6.2. Data Processing

6.2.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to Historic England's standards for "raw or minimally processed data" (see sect 4.2 in David et al., 2008: 11).

<u>Sensor Calibration</u> – The sensors were calibrated using a bespoke in-house algorithm, which conforms to Olsen et al. (2003).

<u>Zero Median Traverse</u> – The median of each sensor traverse is calculated within a specified range and subtracted from the collected data. This removes striping effects caused by small variations in sensor electronics.

<u>Projection to a Regular Grid</u> – Data collected using RTK GPS positioning requires a uniform grid projection to visualise data. Data are rotated to best fit an orthogonal grid projection and are resampled onto the grid using an inverse distance-weighting algorithm.

 $\frac{Interpolation\ to\ Square\ Pixels}{Interpolation\ to\ Square\ Pixels}-Data\ are\ interpolated\ using\ a\ bicubic\ algorithm\ to\ increase\ the\ pixel\ density\ between\ sensor\ traverses. This\ produces\ images\ with\ square\ pixels\ for\ ease\ of\ visualisation.$

6.3.Data Visualisation and Interpretation

- 6.3.1. This report presents the gradient of the sensors' total field data as greyscale images, as well as the total field data from the upper and/or lower sensors. The gradient of the sensors minimises external interferences and reduces the blown-out responses from ferrous and other high contrast material. However, the contrast of weak or ephemeral anomalies can be reduced through the process of calculating the gradient. Consequently, some features can be clearer in the respective gradient or total field datasets. Multiple greyscale images at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plot (Figure 6. XY trace plots visualise the magnitude and form of the geophysical response, aiding in anomaly interpretation.
- 6.3.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street maps, satellite imagery, historic maps, LiDAR data, and soil and geology maps. Google Earth (2018) was consulted as well, to compare the results with recent land usages.

7. Results

7.1.Qualification

7.1.1. Geophysical results are not a map of the ground and are instead a direct measurement of subsurface properties. Detecting and mapping features requires that said features have properties that can be measured by the chosen technique(s) and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

7.2.Discussion

- 7.2.1. The geophysical results are presented in consideration with historic maps (Figure 7).
- 7.2.2. The fluxgate magnetometer survey reveals a relatively quiet site, with minor variations in the magnetic susceptibility¹ of the superficial sand and gravels detected. This allows for the gradient data to be displayed at relatively tight plotting ranges (i.e. -0.5 to 1nT versus the standard -1 to 2nT), which improves the identification of weaker or ephemeral features. Interference from modern sources is generally limited to the edges of the field. These anomalies are produced by adjacent fences and a buried service.
- 7.2.3. The majority of the anomalies are interpreted as agricultural in origin. These are indicative of drains, modern ploughing and ridge and furrow cultivation. A former field boundary has also been detected. An anomaly classified as 'Undetermined' origin may reflect further agricultural activity. The 'Natural' anomalies result from slight variations in soil composition and texture.

7.3. Interpretation

7.3.1. General Statements

- 7.3.1.1. Geophysical anomalies will be discussed broadly as classification types across the survey area. Only anomalies that are distinctive or unusual will be discussed individually.
- 7.3.1.2. **Undetermined** Anomalies are classified as Undetermined when the anomaly origin is ambiguous through the geophysical results and there is no supporting or correlative evidence to warrant a more certain classification. These anomalies are likely to be the result of geological, pedological or agricultural

¹ Magnetic susceptibility refers to a material's ability to be magnetised in the presence of an external magnetic field. Since the earth's ambient magnetic field acts as an external magnetic field, all materials exhibit a degree of magnetic susceptibility.

- processes, although an archaeological origin cannot be entirely ruled out. Undetermined anomalies are generally not ferrous in nature.
- 7.3.1.3. **Ferrous (Discrete/Spread)** Discrete ferrous-like, dipolar anomalies are likely to be the result of modern metallic disturbance on or near the ground surface. A ferrous spread refers to a concentrated deposition of these discrete, dipolar anomalies. Broad dipolar ferrous responses from modern metallic features, such as fences, gates, neighbouring buildings and services, may mask any weaker underlying archaeological anomalies should they be present.

7.3.2. Magnetic Results - Specific Anomalies

- 7.3.3. Agricultural (Former Field Boundary) A relatively strong, compared to the surrounding anomalies, positive linear anomaly has been detected on a NE-SW alignment [1a]. This collocates with a former field boundary record on the 2nd edition historic maps (Figure 7).
- 7.3.4. Agricultural (Ploughing) A series of weak, widely spaced parallel linear anomalies has been detected on a NW-SE alignment within the survey area. The pattern and spacings of these anomalies are characteristic of ridge and furrow ploughing. Post-medieval field systems and ploughing was recorded in the land surrounding the survey area (see Section 5.1), which links this plough in a wider agricultural landscape. In the north-eastern part of the survey area, there is a suggestion the ploughing 'crosses' the former field boundary [1a], but there should be caution of using this to ascribe a relative date to the ploughing. The modern ploughing is demonstrated by a series of weak, narrowly spaced linear anomalies on a NE-SW alignment.
- 7.3.5. Undetermined A single weak positive linear anomaly has been classified as 'Undetermined' in origin [1b]. This has been detected on a NWW-SEE alignment in the western part of the field. [1b] occurs on a similar orientation to other anomalies classified as agricultural in origin but exhibits a slightly more enhanced response. While an agricultural origin is plausible for [1b], an archaeological origin cannot be entirely ruled out.

8. Conclusions

- 8.1. A fluxgate magnetometer survey has been successfully completed across the site. The results reveal a relatively quiet magnetic background, with minor changes in the magnetic susceptibility of the superficial sands and gravels detected. Interference from modern sources is generally minimal on the results and limited to the edges of the field. A buried service has been detected on a north-south alignment through the north-western end of the field.
- **8.2.** Agricultural activity has primarily been identified in the magnetic results. This is demonstrated by modern ploughing, ridge and furrow, a former field boundary, and field drains. A single 'Undetermined' anomaly may be associated with agricultural activity, but an archaeological origin cannot be entirely ruled out.

9. Archiving

- 9.1. MS maintains an in-house digital archive, which is based on Schmidt and Ernenwein (2013). This stores the collected measurements, minimally processed data, georeferenced and ungeoreferenced images, XY traces and a copy of the final report.
- **9.2.** MS contributes reports to the ADS Grey Literature Library upon permission from the client, subject to the any dictated time embargoes.

10. Copyright

10.1. Copyright and the intellectual property pertaining to all reports, figures, and datasets produced by Magnitude Services Ltd. is retained by MS. The client is given full licence to use such material for their own purposes. Permission must be sought by any third party wishing to use or reproduce any IP owned by MS.

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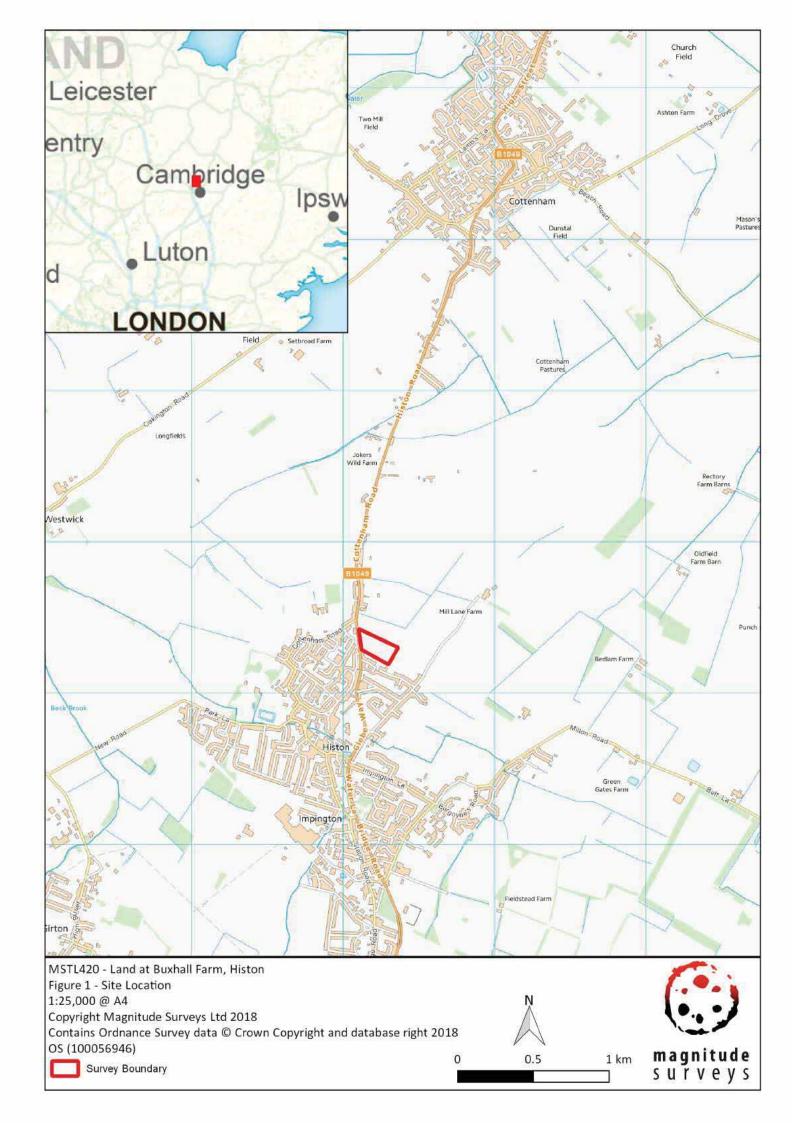
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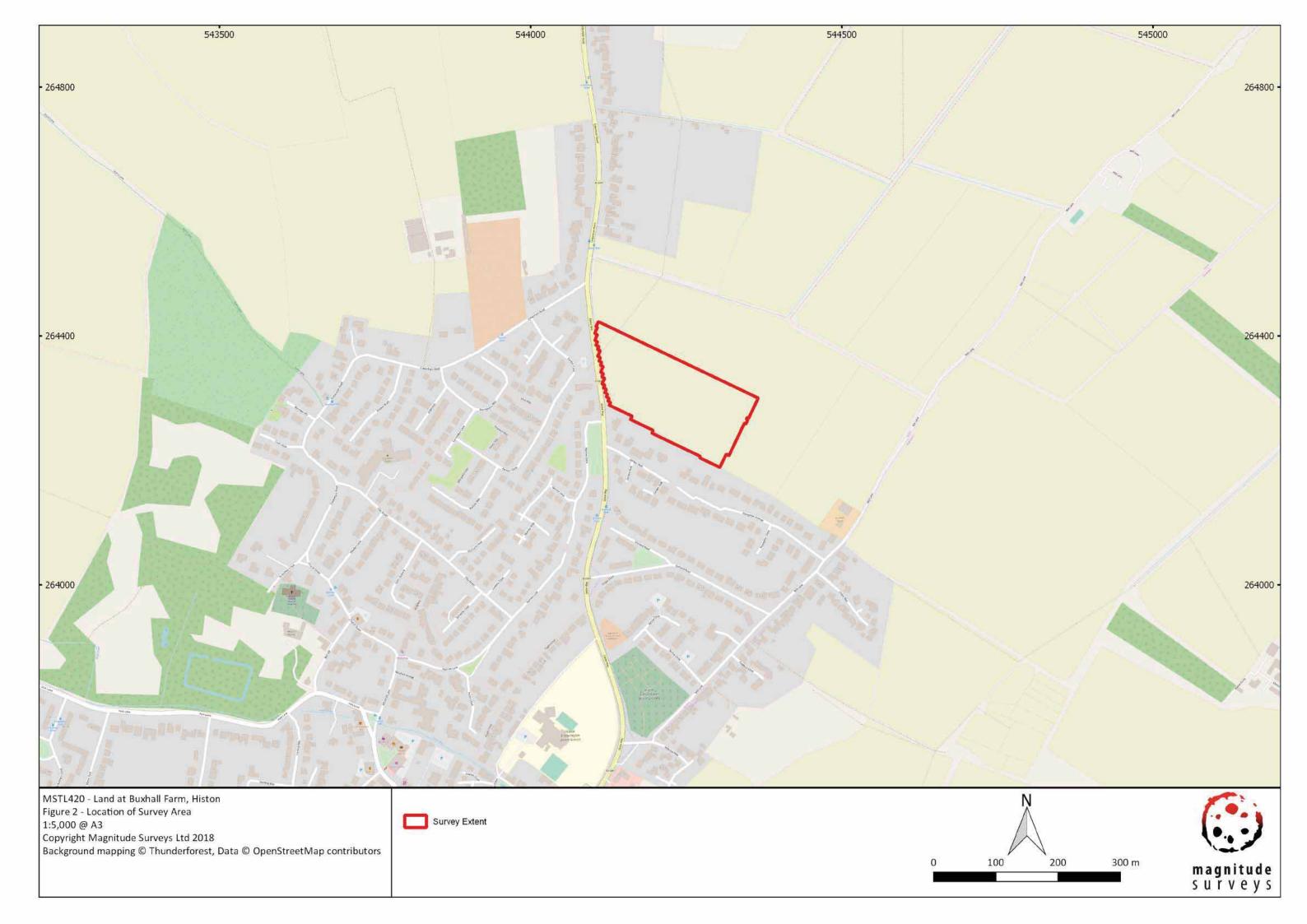
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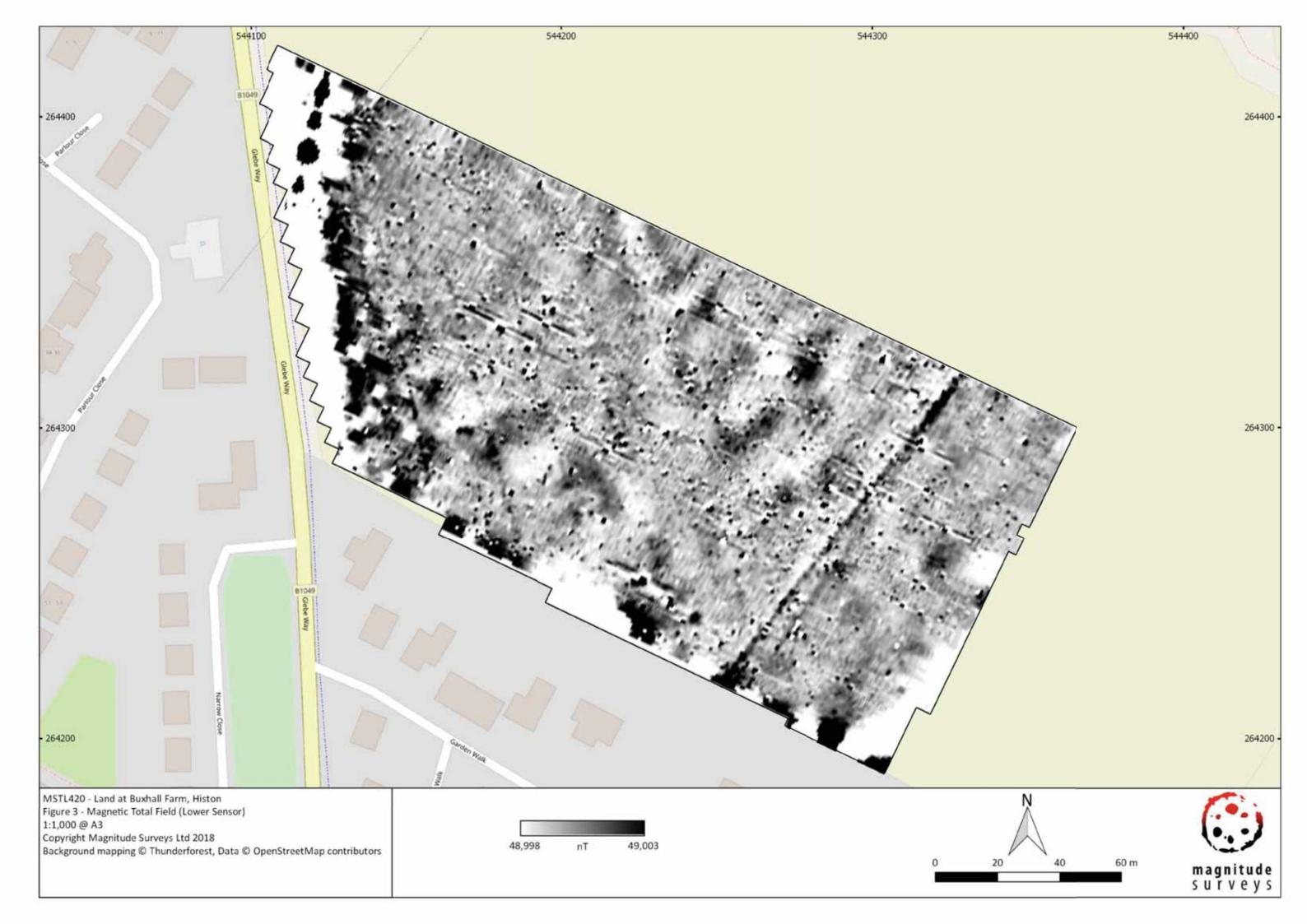
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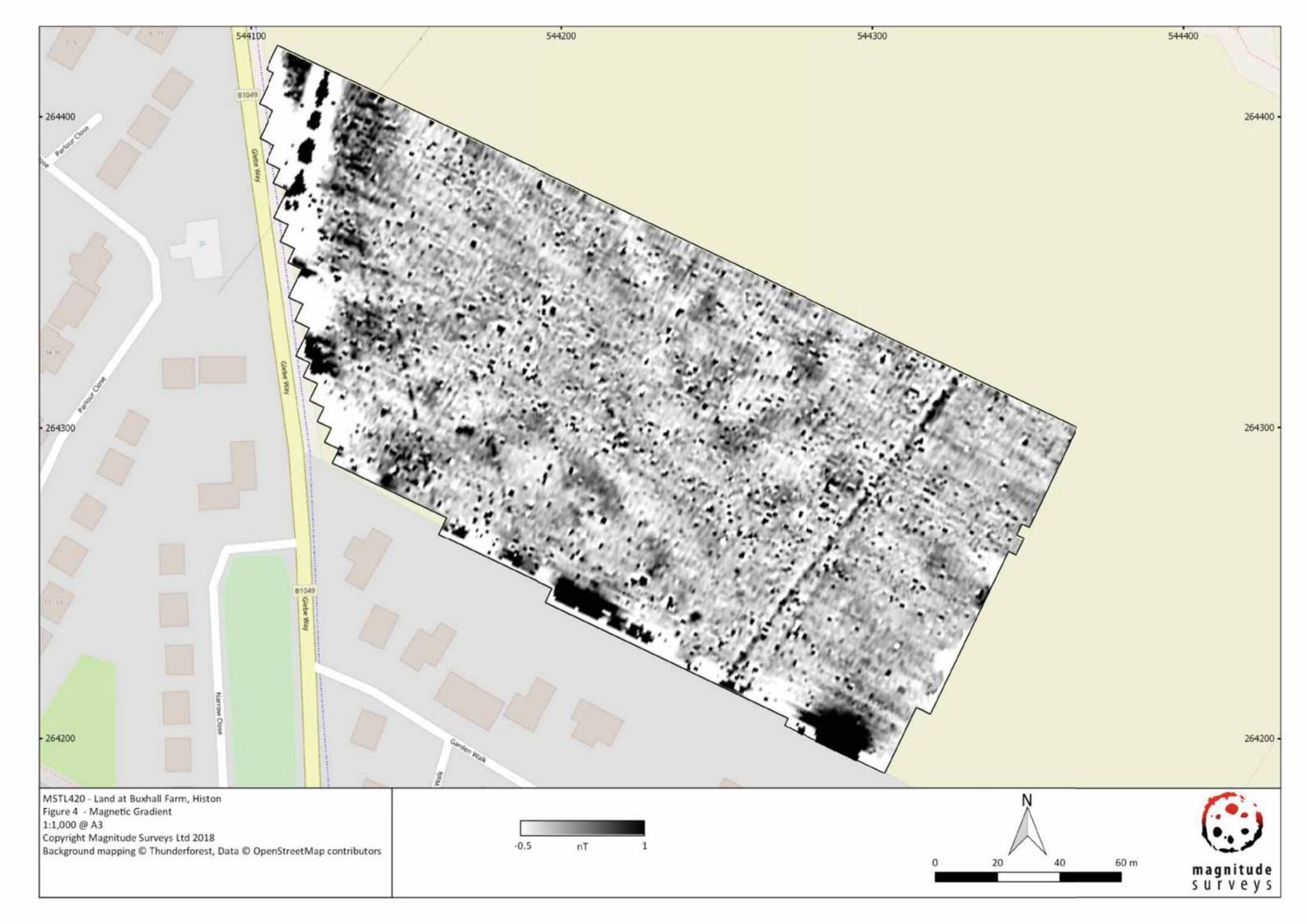
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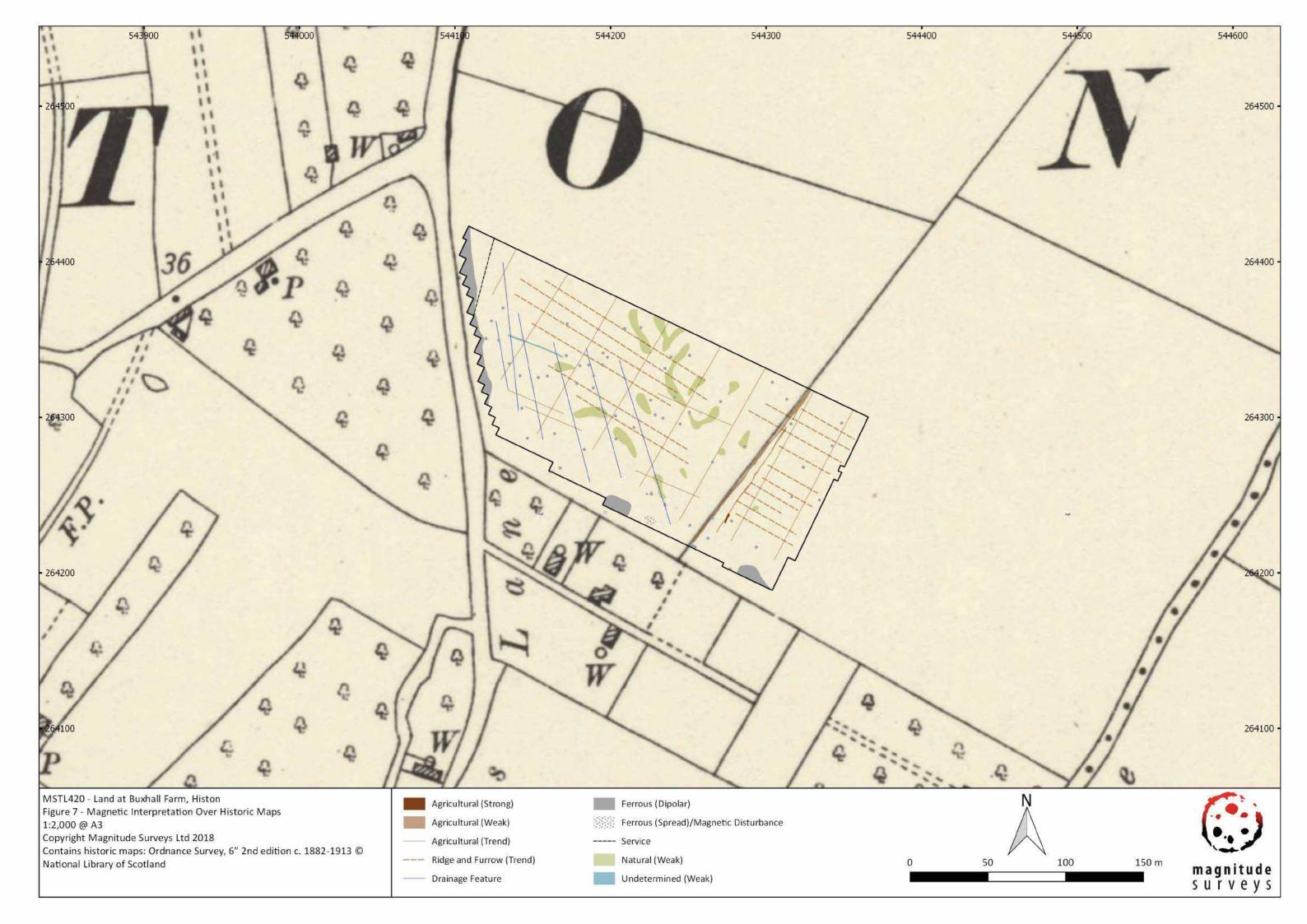














APPENDIX F OASIS REPORT FORM

Proje	ect Details									
_		oxfordar3-341672								
Proj	ect Name	Buxhall Farm, Land East of Glebe Way, Histon								
Star	t of Fieldwork	21/01/	2010			End o	f Fiolo	lwork	28/01/2019	
	ious Work	No	/01/2019			End of Fieldwork Future Work			No	
110	71003 WOLK	TVO				Tutui	C VVOI	K	NO	
Proje	ect Reference	Codes								
Site	Code	ECB580	CB5801			Planning App. No.			n/a	
HER	Number	ECB580	301			Related Numbers		mbers	MCB11453	
Pror	mnt		NPPF	<u> </u>						
	elopment Type			c building						
	e in Planning Pr	ocess		application)					
	3									
Tech	niques used (hat ap							
	Aerial Photograph	y –		Grab-samp	oling				Remote Operated Vehicle Survey	
	interpretation Aerial Photograph	y - new		☐ Gravity-core					Sample Trenches	
	Annotated Sketch								Survey/Recording of	
	Augering			- Manager Commen				Fabric/Structure Targeted Trenches		
	Dendrochonologic	cal Survey			Measured Survey ⊠ Metal Detectors □			Test Pits		
☐ Documentary Search					y			Topographic Survey		
☐ Environmental Sampling			9			y		Vibro-core		
☐ Fieldwalking☒ Geophysical Survey			☐ Photographic Su☐ Rectified Photographic Su					Visual Inspection (Initial Site Visit)		
	Geophysical Sulve	у		Rectified i	Hotogi	арпу				
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			sent)						present)	
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									present)	
gully Unce		ertain			Ceramic building		aing	Post Medieval (1540 to 1901)		
Insert more lines as appropriate			ato.				naterial		[1901)	
111361	t more imes as a	арргоргі	ale.							
Proie	ect Location									
County Cambridgshire					Addr	ess (inc	cluding Postcode)			
District South Car						Land off Gle		·		
Pari		Histon		<u> </u>		Histon			,	
HER	office	CHER					CB24 9HH			
Size	of Study Area	2 ha								
Mati	ional Grid Rof	TL 442	3 6/133							

Buxhall Farm, Land East of Glebe Way, Histon

Project Originators

Organisation
Project Brief Originator
Project Design Originator
Project Manager
Project Supervisor

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Andy Thomas – CHET	
Rob Wiseman – OA East	
Nick Gilmour – OA East	
Malgorzata Kwiatkowska – OA East	

Project Archives

Physical Archive (Finds) Digital Archive Paper Archive

Location	ID
CCC Stores	ECB5801
Oxford Archaeology East	HISBUX18
CCC Stores	ECB5801

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated will Finds	ith
Animal Bones Ceramics Environmental Glass Human Remains Industrial Leather Metal Stratigraphic Survey Textiles Wood Worked Bone Worked Stone/Lithic None Other				
Digital Media Database GIS Geophysics Images (Digital photos) Illustrations (Figures/Plat Moving Image Spreadsheets Survey Text Virtual Reality	es)	Paper Media Aerial Photos Context Sheets Correspondence Diary Drawing Manuscript Map Matrices Microfiche Miscellaneous Research/Notes Photos (negatives/prints/Plans		



Buxhall Farm, Land East of Glebe Way, Histon

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Report	
Sections	\boxtimes
Survey	

Further Comments



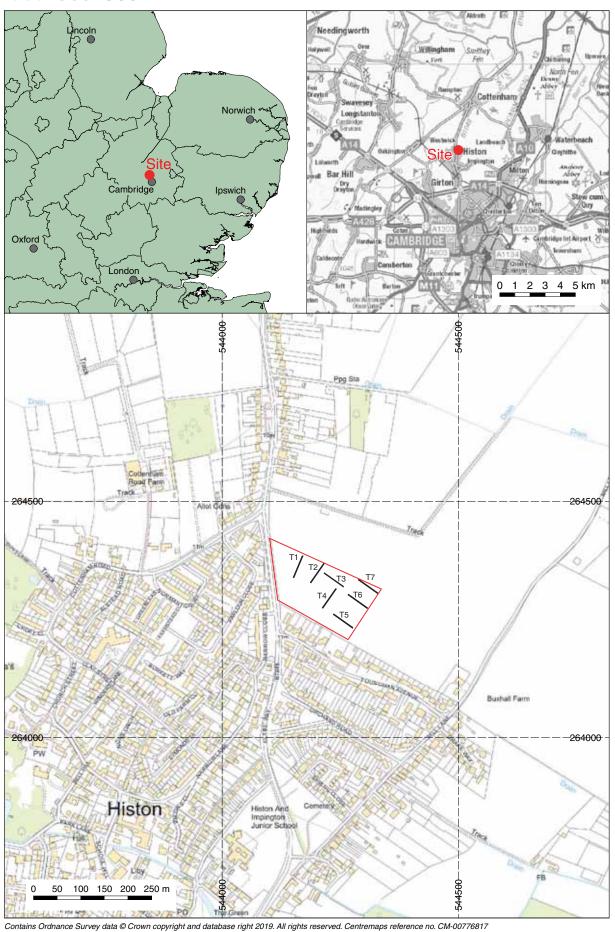
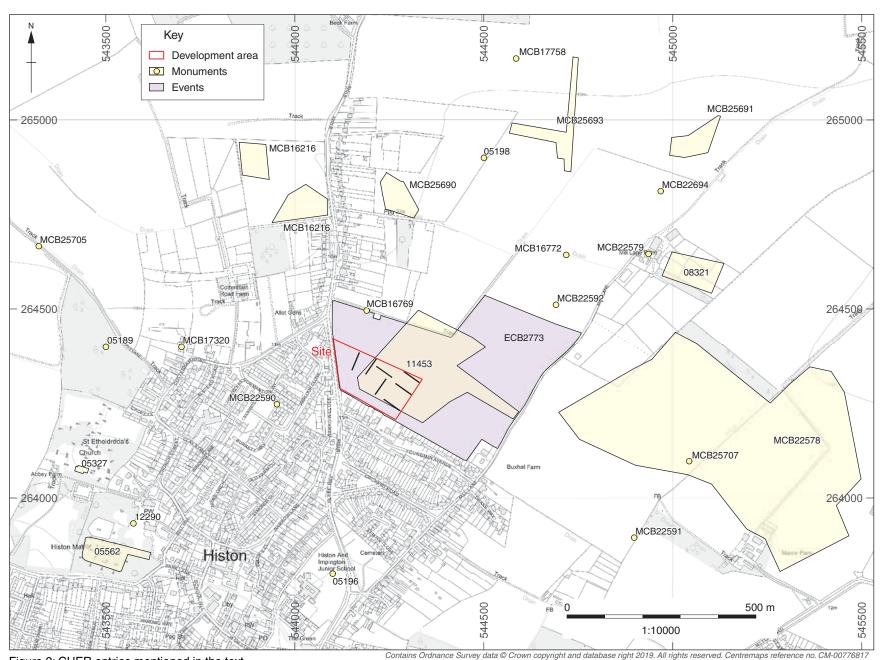


Figure 1: Site location showing archaeological trenches (black) in development area (red)

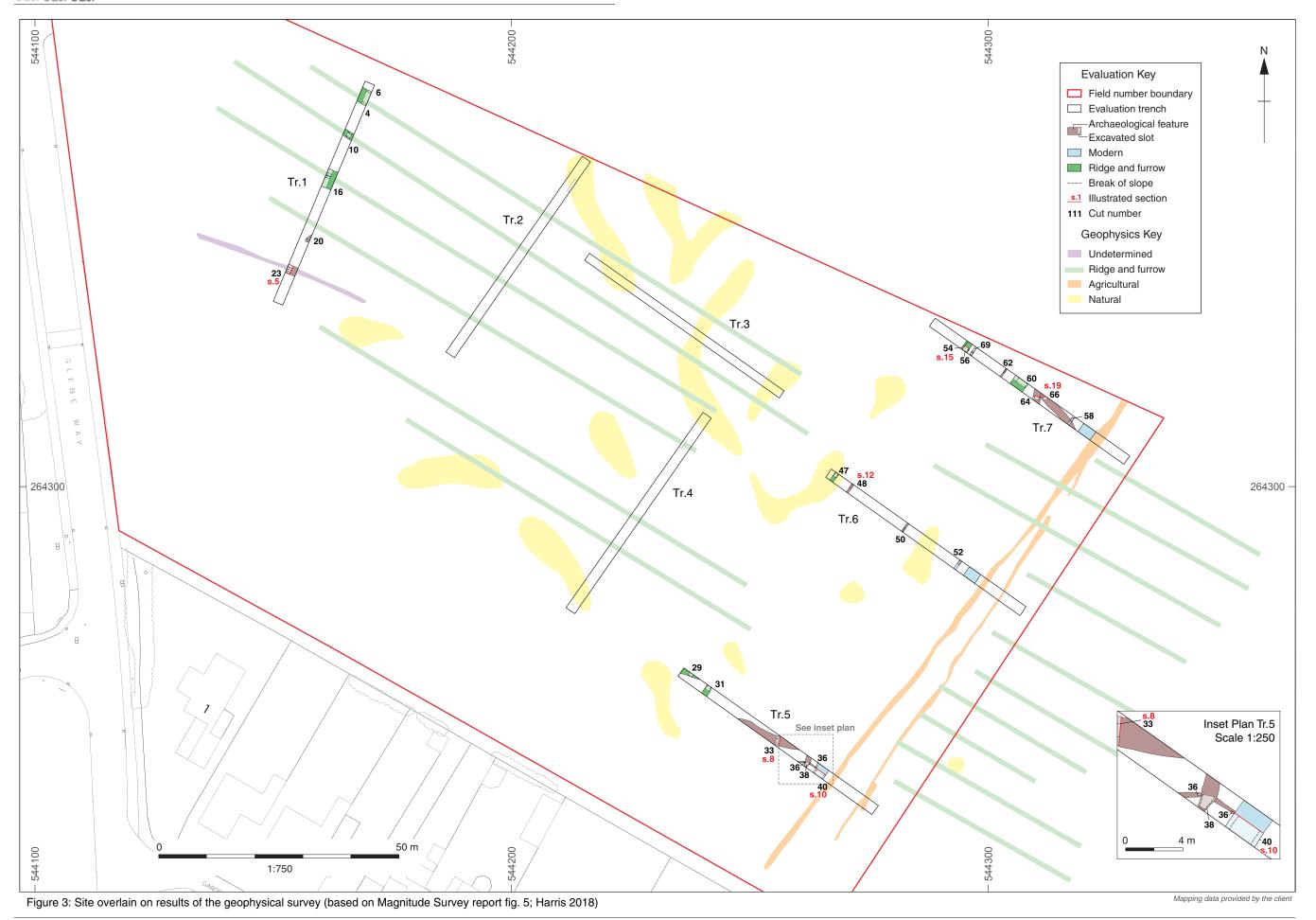


east

east

Figure 2: CHER entries mentioned in the text





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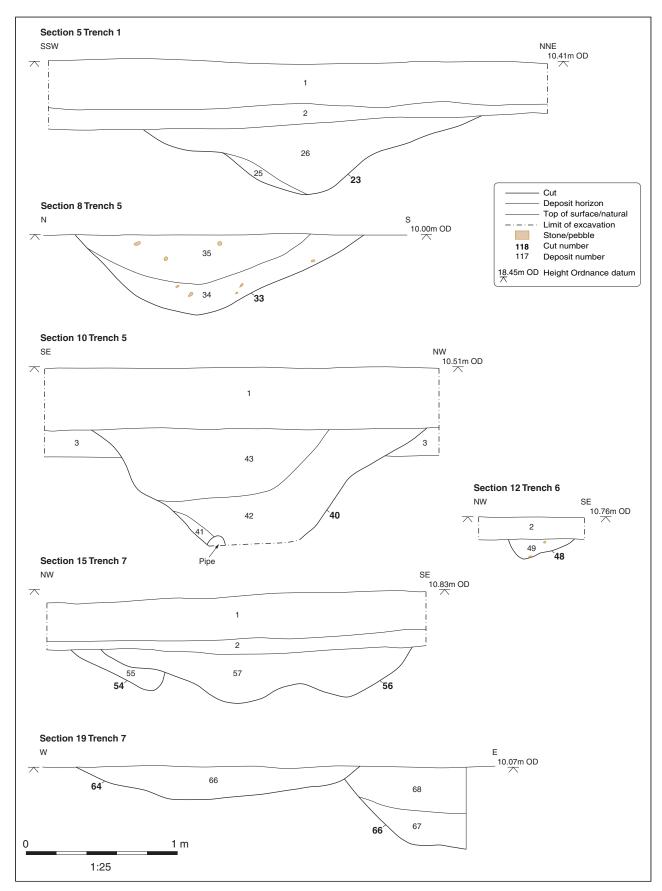


Figure 4: Selected sections

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Plate 1: Trench 5, looking south-east



Plate 2: Trench 6, looking south-east





Plate 3: Trench 7, looking north-west



Plate 4: Trench 1, ditch 23, looking west





Plate 5: Trench 5, ditch 33, looking east



Plate 6: Trench 5, ditch 40, looking south-west





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