

Monitoring, Sampling and Excavation of the Route of the new IDB Drain, Must Farm, Whittlesey



Lizzy Middleton

**Monitoring, Sampling and Excavation of the route of the new IDB Drain,
Must Farm, Whittlesey**

Lizzy Middleton

With contributions by Mark Knight, Iona Robinson Zeki, Vida Rajkovača and Lawrence
Billington

Graphics by Vicki Herring

Cambridge Archaeological Unit

University of Cambridge

February 2018

Report No. 1389

Event Number: ECB5140

Summary

In July 2017, a new Internal Drainage Board drain was cut at Must Farm Quarry, Whittlesey. The new drain was located to the west of the existing Main IDB Drain and the work was carried out in accordance with a brief approved by Cambridgeshire County Council Historic Environment Team and on behalf of Forterra Ltd. The total length of the diverted drain was 1300m; its depth varied between 1.70-3.25m (its base width equalled 1.00-1.50m whilst its top width equalled 6.00-10.00m). Its cutting exposed two longitudinal sections through the local fen sequence (north-south and east-west). The northernmost part of north-south section exposed an old land surface, three wooden stakes and a small scatter of artefacts.

Introduction

This report details the results of an archaeological monitoring, sampling and excavation programme carried out along the route of the new Internal Drainage Board (IDB) Drain located at Forterra's Must Farm Quarry, Whittlesey, Cambridgeshire. The work was carried out between 4.7.17 and 27.7.17.

The existing Main Drain commenced at the railway to the north of the quarry and flowed south-southeast, through the western half of the quarry, to the King's Dyke, delineating the westerly extent of quarrying activity.

The drain diversion preserves the same origin and outflow locations as the original IDB drain, whilst integrating a significant north-south/east-west 'dogleg' extension designed to incorporate an expanded extraction area. The c. 1300m diversion drain crosses open agricultural land, centred on TL 2950/6750 (see Fig.3). The depth of the drain varied from 1.70-3.25m

The route of the new drain traversed an area first evaluated in 2004 (Evans et al. 2005). The evaluation revealed a tiered pre-Flandrian surface characterised by a low-lying terrace (-0.50 to 0.50m OD) to the north, and a much deeper flood plain (-0.50 to -4.00m OD) to the south. A narrow east-west ridge (the *Nene Ridge*) bordered the southern edge of the low-lying terrace and overlooked the deeper flood plain. An old land surface survived across much of the low-lying terrace whereas the flood plain included occasional patches of buried soil amid a largely eroded surface. In broad terms, the deposit succession above the flood plain comprised the full Flandrian sequence including Lower Peat, Fen Clay, Upper Peat and Upper Silt/alluvium, whilst the Upper Peat covered the low-lying terrace (a ploughsoil extended across both sequences). The deeper, flood plain sequence also incorporated a series of large palaeochannels including the *Little Nene Roddon* and its residual channel.

Archaeological Background

The Must Farm landscape was first evaluated in 2004 (Evans et al. 2005). Subsequent phases of large-scale excavations exposed a deeply buried prehistoric landscape connected to the Lower Nene Valley and the Flag Fen Basin.

The excavations have produced artefact scatters (of Mesolithic, Neolithic and Early Bronze Age date) in conjunction with contemporary features such as an Oval Barrow, numerous burnt stone mounds, watering holes, stake-lines, pits, *in situ* hearths and middens (Tabor 2008, Tabor 2010, Knight & Murrell 2011b; Murrell 2011, Knight et al. 2015). The distribution of artefacts and features attest to extensive occupation activity with, in particular, an early focus along the *Nene Ridge*.

Conditions conducive to peat development transpired around the beginning of the Middle Bronze Age (c. 1500 BC) swamping earlier Bronze Age settlement features and signifying the end of the low-lying terrace as a dry inhabitable space.

Early on in the peat's development, a linear ditch and bank boundary was constructed across the terrace and this coincided with the establishment of the co-axial fieldsystems constructed around the higher, peat-free contours of the Flag Fen Basin at sites such as Fengate (Evans et al 2009), Tanholt Farm (Patten 2009) and Bradley Fen (Brudenell and Knight forthcoming).

The changes in environmental conditions that saw the low-lying terrace become saturated were also related to the origin of a small freshwater channel that followed the same course as the *Little Nene Roddon* situated to the south. Extensive investigations of the freshwater channel revealed the watercourse was active for approximately 1500 years and that its earlier phases contained *in situ* fish weirs and traps (Middle Bronze Age), nine log boats (Middle Bronze Age to Early Iron Age) and multiple metalwork deposits (Middle to Late Bronze Age; Robinson et al 2014). Further downstream, the channel was bridged by a substantial timber causeway equivalent in character and date to the primary rows of the Flag Fen causeway. Sometime after the 'bridge' had collapsed a Late Bronze Age pile dwelling was constructed above the same stretch of the watercourse (Knight et al. 2017). The preservation conditions associated with pile dwelling were exceptional and the site represents the best-preserved Bronze Age settlement ever found in Britain.

The Must Farm landscape has consistently produced archaeological remains of significance and it sits in a landscape already renowned for its archaeological discoveries (Pryor 2001; Evans et al 2009) and for its heightened preservation conditions.

Methodology

Trenching - Section A

The first half of the north-south arm of the diverted drain (Section A) coincided with the low-lying terrace, where a buried soil prevailed and where settlement features had been previously encountered. The projected depth of the proposed drain was greater than the depth of the old land surface and, for this reason, Section A was machine trenched prior to the cutting of the drain (using a 360° tracked machine with a 2m wide toothless ditching bucket). The depth of the ploughsoil and peat cover determined the depth of the trench. The buried soil was test-pitted (at 10, 20 and 50m intervals depending on artefact densities and/or deposit thickness). Throughout the machining process the overlying peat horizon was metal detected for any potential metalwork.

Monitoring – Sections B and C

Sections B and C traversed the deeply buried flood plain. Here, it was known the drain would not impact the 'terrestrial' archaeological levels below the fen sequence. For this reason, and because the drain was positioned away from the projected path of the Little Nene Roddon and associated freshwater palaeochannel, the drain was cut under close-archaeological monitoring. As part of this close-observation, the depths of key deposits were recorded in profile, with measurements taken every 50m. The upper (Bronze Age/Iron Age) sediments were metal detected.

All archaeological work was conducted in accordance with the Written Scheme of Investigation (Knight & Gibson 2017). A CAU modified version of the MoLAS recording system (Spence 1990) was used and all archaeological finds were retained for analysis.

Archaeological Results

As anticipated Section A exposed an elongated, narrow strip of the low-lying terrace and its accompanying old land surface. The only archaeological features present were three wooden stakes which cut the buried soil. The southern sections (Sections B and C) revealed two longitudinal sections through the Flandrian sequence excluding its basal levels.

		Top (height OD)	Base (height OD)	Depth	Length
Section A (Trench)	N	0.97m	-0.22m	1.19m	272.00m
	S	0.69m	-0.94m	1.63m	
Section B (Drain)	N	0.92m	-0.80m	1.72m	261.00m
	S	1.30m	-1.31m	2.61m	
Section C (Drain)	W	1.30m	-1.31m	2.61m	498.00m
	E	1.14m	-1.92m	3.06m	
Table 1: Heights, depths and lengths of main sections					1031m

For the most part, the deposit sequence exposed by the Section A trench comprised a threefold series of buried soil, peat (Upper Peat) and ploughsoil/alluvium. This sequence changed at the extreme southern end of the trench, where the buried soil-peat succession was interrupted by a layer of reed-peat (characterised by an organic silt with preserved reed cases). The reed-peat layer coincided with the edge of the low-lying terrace and a marked change in contour, which described the downward gradient into the deeper flood plain (Figure 6). The thickest buried soil corresponded with the higher contours of the 'Nene Ridge' located towards the southern end of the trench. Throughout the Section A trench the exposed natural comprised a sand-rich gravel.

Test Pit	Depth of Buried soil	Finds			
		FL	BF	PT	BN
1	0.24m	17	-	13	1
2	0.25m	5	1	6	-
3	0.17m	-	-	-	-
4	0.17m	1	-	-	-
5	0.23m	-	-	-	-
6	0.22m	-	-	-	-
7	0.38m	-	-	-	-
8	0.43m	-	-	-	-
9	0.25m	-	-	-	-
10	0.25m	-	-	-	-
11	0.42m	-	-	-	-
12	0.30m	-	-	-	-
13	0.22m	-	-	-	-
14	0.23m	-	-	-	-
15	0.52m	-	-	-	-
16	0.29m	-	-	-	-

Table 2: Test Pits depths and finds

Intermittent blocks of the buried soil were left *in situ* for artefact sampling and these were located at 50m intervals except across the Nene Ridge, where the intensity of sampling was increased to every 10m as a response to increased artefact densities. At each block, two adjacent 1m² test pits were excavated through the old land surface (Table 2).

The buried soil profile could be separated into two layers: A) mid-grey sandy silt (*upper*); and B) Mid-grey/brown sandy silt with orange/yellow sand and gravels (*lower*). All artefacts were recovered from the upper layer. The lower deposit represented an interface between the buried soil and the natural gravel. The presence of tree-throw hollows increased the depth of buried soil (see TPs 8, 11 and 15) and these features were identified through the trench.

Only three test-pits produced artefacts (TPs 1, 2 and 4) and the highest numbers came from adjacent Test-pits 1 and 2 situated high up on the Nene Ridge. The flint and pottery assemblages from these locations incorporated Late Neolithic and Early Bronze Age material

Wooden stakes

Three isolated, *in situ* roundwood stakes were uncovered, **WD7625**, **WD7626** & **WD7627** (See Fig 7). All three stakes were inserted vertically through the buried soil. WD7626 and WD7627 were similar in their construction, oak roundwood with simple wedge-ends, measuring 338mm and 106mm respectively and with diameters of 95mm and 63mm. WD7625 was slightly more substantial, 367mm in length and 55mm in diameter with rough facets and a pointed end and was made from wood of a different species. In addition to the stakes, a single small poorly preserved oak woodchip **WD7624** was also recovered from within the buried soil.

Section B & C

The southern sections exposed deposits relating to the local Flandrian sequence. No archaeological features were observed and only a single spot find was recovered (**SF.5163** - a fragment of red deer skull, broken into three refitting pieces). At its deepest, the sediment sequence involved six layers:

- Ploughsoil
- Peat
- Alluvium/organic muds
- Upper Peat
- Fen Clay
- Lower Peat (uppermost part of)

Variations in this sequence included occasional 'flood deposits' associated with the Upper Peat (as characterised by thin grey silty bands and or broad bands of organic muds; Fig. 6 and Fig. 8). A small freshwater palaeochannel (aligned north-south) was observed at 55m from the eastern end of Section C (Fig. 6). The channel was 16.9m wide, 0.88m deep and cut through the Upper Peat. The channel was infilled with peat and secondary alluvium deposits.

Discussion

The monitoring, sampling and excavation of the route of the new IDB Drain, Must Farm, exposed a fresh linear transect through part of the pre-Flandrian surface together with significant sections of the overlying Flandrian deposit succession. The sequences identified in Sections A, B and C have been characterised previously at Must Farm (Evans et al. 2005; Tabor 2008; 2010; Murrell 2011; Knight & Murrell 2011b; Robinson et al. 2015, Knight et al. 2015), Magna Park (Gibson & Knight 2009), Kings' Delph (Tabor 2010) and the Whittlesey Pipeline DMA Mains Replacement (Middleton 2015).

In addition, deposit modelling and palaeoenvironmental assessments of adjacent land at Magna Park and King's Delph (Gearey et al. 2009a and 2009b) recorded equivalent sequences and at the same time attained a series of radiocarbon dates for key deposits. The coarse chronology provided by the dates indicate that the transition between the saltmarsh environment associated with the Fen Clay and the freshwater environment associated with the Upper Peat horizon occurred towards the end of the Early Bronze Age (c. 1600 BC). This transformation in local environmental conditions coincided with the start of peat growth across the low-lying terrace (and with it the origins of the Flag Fen Basin as a fen embayment) and the inception of the freshwater palaeochannel which resided within the Little Nene Roddon (Robinson et al. 2015). In effect, the commencement of conditions conducive to peat growth across the low-lying terrace marked a cut-off between the lower contours of the Flag Fen Basin being inhabitable all year round (Early Bronze Age) and its seasonal occupation during drier periods (Middle Bronze Age). The later elements of the flint and pottery scatters from the buried soil in Section A being related to the former and the preserved wooden stakes that cut the buried soil to the latter; the dry/wet transition being reflected in part by the inorganic/organic preservation division. Overall, the limited archaeological remains revealed within the narrow linear exposure afforded by the drain diversion appear to be representative of the extensive (rather than intensive) occupation patterns identified within the excavated phases to the east. In particular, the relationship between increased artefact densities and the Nene Ridge and the dispersed survival of remnant Bronze Age fencelines (Tabor 2010; Murrell 2011).

The presence of a small freshwater channel in Section C (stratigraphically Iron Age in date) suggests the possibility of similar small 1st Millennium BC channels elsewhere on the quarry's development area. Such small channels may have formed a later tributary system to the larger Must Farm palaeochannel flowing along the course of the earlier roddon.

Acknowledgements

The work was commissioned by the Cambridgeshire County Historic Environment Team on behalf of Forterra Building Products Ltd. The project was monitored by Kasia Gdaniec, and the project manager was David Gibson. Mark Knight provided support and advice throughout the project which was monitored and excavated by the author assisted on site by Rob Everett. Iona Robinson Zeki and Mark Knight proof read the report. Donald Horne was responsible for the field survey and graphics were produced by Vicki Herring, with photographs taken by the author and Dave Webb.

References

Evans, C., Brudenell, M., Knight, M. and R. Patten, 2005. Archaeological and Palaeo-Environmental Investigations at Must Farm (CAU Report 667) Cambridge Archaeological Unit

FAME, 2010. *Manual of Health and Safety in Field Archaeology*.

Gearey, B. R., E-J. Hopla, H. Chapman, D. Smith, R. Mckenna, A. Howard, I. Boomer & E. Kitchen, 2009a. *Deposit Modelling and Palaeoenvironmental Assessment at Kings Delph, Whittlesey, Cambridgeshire: Final Report*. Birmingham Archaeo- Environmental Report

Gearey, B. R., E-J. Hopla, H. Chapman, D. Smith, R. Mckenna, A. Howard, I. Boomer & E. Kitchen, 2009b. *Deposit Modelling and Palaeoenvironmental Assessment at Magna Park, Whittlesey, Cambridgeshire: Final Report*. Birmingham Archaeo-Environmental Report

Gibson, D & M. Knight. 2009. Magna Park: Archaeological and Palaeo-Environmental Investigations (CAU Report 882) Cambridge Archaeological Unit

Gibson, D., M. Knight & M. Allen, 2010. The Must Farm Timber Alignments: An Archaeological and Environmental Evaluation. Post-excavation Assessment Vols. 1&2 (CAU Report 935). Cambridge Archaeological Unit

Knight, M, 2010. Archaeological Investigations at Must Farm, Whittlesey, Cambridgeshire, Phase 2, The Palaeochannel Area. (CAU Report 954) Cambridge Archaeological Unit.

Knight, M. & M. Brudenell, forthcoming. Pattern & Process: Landscape Prehistories from Whittlesey Brick Pits–The King’s Dyke and Bradley Fen Excavations 1998-2004 (CAU Flag Fen Basin Depth & Time Series- Volume 1). Cambridge Archaeological Unit

Knight, M. & K. Murrell., 2011a. Must Farm, Whittlesey 2010, Palaeochannel Investigations, Interim Statement. (CAU Report 989) Cambridge Archaeological Unit

Knight, M. & K. Murrell, 2011b. Must Farm, Whittlesey 2010, Phase 3 Archaeological Investigations: Interim Statement. (CAU Report 990.) Cambridge Archaeological Unit

Knight, M., I. Robinson & L. Middleton, 2015. Must Farm, Whittlesey, 2014: Phase 4 archaeological investigations. Interim statement. (CAU Report 1283.) Cambridge Archaeological Unit.

Knight, M., R. Ballantyne, D. Gibson & I. Robinson Zeki. 2018 Must Farm Timber Platform: Post-excavation Assessment and Updated Project Design NHPCP 6944 REC. (CAU Report 1387) Cambridge Archaeological Unit.

Middleton, L. 2015. Whittlesey Pipeline DMA Mains Replacement Narrow Drove to Funthams Lane. Archaeological Monitoring and Recording (CAU Report No.1281) Cambridge Archaeological Unit

Murrell, K. 2011. Archaeological Investigations at Must Farm, Whittlesey, Cambridgeshire: Site 4 (CAU Report No.1011) Cambridge Archaeological Unit

Pryor, F., 2001. *The Flag Fen Basin: Archaeology and environment of a Fenland Landscape*. Swindon: English Heritage.

Robinson, I., M. Knight, & K. Murrell, 2015. Must Farm Palaeochannel Investigations 2009–2012. Post-excavation Assessment. (CAU Report 1266) Cambridge Archaeological Unit

Spence, C. 1990. *Archaeological Site Manual*. MOL London.

Tabor, J. L. 2008. Archaeological Investigations at Must Farm, Whittlesey, Cambridgeshire (CAU Report No.807) Cambridge Archaeological Unit

Tabor, J. L. 2010 Archaeological Investigations at Must Farm, Whittlesey, Cambridgeshire (CAU Report No.951) Cambridge Archaeological Unit

Tabor, J.L. 2010. Land at King's Delph, Whittlesey, Cambridgeshire. An Archaeological Evaluation, (CAU Report No. 915) Cambridge Archaeological Unit

Waterlogged wood

Iona Robinson Zeki

Four pieces of worked waterlogged wood were discovered in the buried soil in Trench A: three roundwood stakes and a single woodchip. The three stakes were hand-drawn in cross-section during the excavation and all four items were then recorded off-site at the Cambridge Archaeological Unit in August 2017. Macroscopic identification to taxa was undertaken where possible.

The roundwood stakes, WD7625, WD7626 and WD7627 (Table 3), had been driven vertically into the buried soil and were revealed by machine truncation of their decayed tops. All were in relatively poor condition by the time of excavation, with sapwood fragmentation, shrinkage, radial cracking, and penetration by modern roots all having an effect on their integrity. Two of the stakes, WD7625 and WD7627, were very similar in character – oak roundwood with around 20-years' growth and simple wedge-ends. WD7625, had a side-branch stump extending for 210mm from the main body of the stake. The incomplete removal of this feature may indicate that the soil was very soft at the time of insertion, i.e. that complete trimming was not required for the stake to be driven into the ground. Stake WD7626, with rough facets and a pointed end, was made from wood of a different species (not macroscopically identifiable) and was notably more substantial than the other stakes (Table 3).

A single oak woodchip (WD7624) was also found in Trench A, incorporated into the buried soil. This small chip was in poor condition (condition score 2) with only heartwood present. It had been trimmed away on a tangential alignment (cf. Taylor 2001, 179) and retained a partial facet from the removal of an adjacent chip. 40 closely-spaced growth-rings were present in the chip, mostly <1mm apart.

None of the three oak items are candidates for dendrochronological dating, as all have fewer than 50 growth-rings. However, subsamples of these items, and of WD7627, have been retained in the short-term because of their potential to relate to waterlogged wood from (currently unexcavated) neighbouring areas of the Must Farm palaeo-landscape.

WD no	Context	Cond.	Wood characteristics	Taxa	Length	Max. dia.	Woodworking evidence
7625	3350	2	Straight grain, central pith, one side-branch stump Bark, sapwood and heartwood present (sapwood 7mm thick, but severely decayed) c.20 growth-rings, 1.5mm apart	Oak (<i>Quercus sp.</i>)	367	55	By time of recording, only one part of one trimmed facet present on proximal end, but <i>in situ</i> drawing suggests that proximal end was trimmed from two directions to a wedge-shaped end
7626	3352	2	Straight grain, central pith Bark, sapwood and heartwood present	Unidentified (not ring porous)	338	95	One end trimmed from three directions to form a short point Max. facet size 54 x 45mm
7627	3351	3	Straight grain, central pith Sapwood and heartwood present (sapwood c.21mm thick) c.20 growth-rings, 3mm apart in heartwood, <1mm apart in sapwood	Oak (<i>Quercus sp.</i>)	106	63	One end trimmed from two directions to form an asymmetrical wedge-end Facets are quite rough Max. facet size 71 x 35mm

Table 3. MUS17 roundwood stakes. Cond. = condition score, after Van de Noort et al. (1995)'s 0–5 scale, where 5 represents excellent preservation. Max. dia. = maximum diameter. Terminology describing roundwood working after Coles & Orme (1985, 27)).

Coles, J.M. & B.J. Orme, 1985. Prehistoric woodworking from the Somerset Levels: 3. Roundwood. *Somerset Levels Papers* 11, 25–50.

Taylor, M., 2001. The wood, in F. Pryor, *The Flag Fen Basin: Archaeology and environment of a Fenland Landscape*. Swindon: English Heritage, 167–228.

Van de Noort, R., S. Ellis, M. Taylor & D. Weir, 1995. Preservation of archaeological sites, in R. Van de Noort & S. Ellis (eds), *Wetland Heritage of Holderness: An archaeological survey*. (1st Edition.) Hull: Humber Wetlands Project, University of Hull, 341–356.

Prehistoric pottery

Mark Knight

The prehistoric pottery assemblage comprised 16 sherds weighing 76g (MSW 4.7g). The assemblage included three rims and eight decorated pieces and, with the exception of two of the rim fragments, all of the pieces were small and abraded. Two fabric types were identified and these were characteristic of Later Neolithic (Fabric 1) and Early Bronze Age (Fabric 2) types. The assemblage incorporated 14 sherds of Peterborough Ware and two sherds of Beaker.

Test-pit/Spot Find	Number	Weight	MSW	Fabric	Types present
TP 1	6	41g	6.8g	1, 2	Peterborough Ware, Beaker
TP 2	5	23g	4.6g	1	Peterborough Ware
TP 4	1	1g	1.0g	1	Peterborough Ware
SF 5156	2	6g	3.0g	1	Peterborough Ware
SF 5160	2	5g	2.5g	1	Peterborough Ware
<i>Totals:</i>	<i>16</i>	<i>76g</i>	<i>4.7g</i>	<i>2</i>	

Table 4: Assemblage breakdown

Peterborough Ware

Heavy, T-shaped rim fragments with incised herring-bone decoration and curved necks (decorated internally with impressed motifs) from TP's 1 and 2 represented the most obviously diagnostic material. In addition, small neck/body sherds of similar fabric (and similar decoration) occurred in TP's 1, 2 and 4, as well as SF.5156 and SF. 5160.

Beaker

The Beaker component comprised two sherds, including a decorated piece with an incised lozenge.

Fabric series:

Fabric 1 – medium hard with occasional burnt flint, small voids and possible grog.

Fabric 2 – medium hard with common small grog and occasional sand.

Faunal remains

Vida Rajkovača

<126> SF.5163

A fragment of a red deer skull was recovered, broken into three refitting pieces and represented by the frontal bone with antler pedicles surviving. Antlers do not appear to have been removed, yet they do not survive beyond the basal 3cm. The cortical surface on the frontal bone is well preserved, but not the antler bases. A very fine cut mark is visible extending across the middle of the frontal part some 15mm in length. Upon closer inspection, the mark does not appear as a single line but rather as a series of fine lines, suggesting it was made using a relatively heavy but blunt implement. The intention behind this perhaps was to start the skinning process.

The Flint

Lawrence Billington

Quantification

A small assemblage of thirty-five worked flints were recovered from the excavations, together with three fragments (16g) of unworked burnt flint. The entire flint assemblage was derived from buried soil deposits, either recovered from test pits or as surface finds and is quantified by type in Table 5.

	Chip	Irregular Waste	Secondary Flake	Tertiary Flake	Secondary Blade like	Tertiary Blade Like	Secondary Bldit	Flake knife	Scraper/knife	Arrowhead roughout?	Core	Total worked	BF count	BF weight
TP 1	1	1		6	4			1	1			14	3	16.1
TP 2	1			2						1	2	6		
TP 6				1								1		
TP 9			1									1		
SF 5150			1									1		
SF 5152			2									2		
SF 5153			1									1		
SF 5154				1							1	2		
SF 5155							1					1		
SF 5157						1						1		
SF 5158				1								1		
SF 5159			1	3								4		
Totals	2	1	6	14	4	1	1	1	1	1	3	35	3	16.1

Table 5. Quantification of the flint assemblage.

Raw materials and condition

The assemblage is made up of fine grained, good quality flint. There is a degree of variability in the raw materials, although the assemblage is dominated by a dark grey/black translucent flint. Surviving cortical surfaces demonstrate the presence of pieces derived from small rounded gravel cobbles, perhaps sourced fairly locally, whilst at least four pieces bear a relatively fresh and unweathered cortex characteristic of material derived from sources closely associated with the parent chalk. The assemblage is generally in very good condition, with little extensive edge damage or rounding and none of the assemblage displays any trace of recortication ('patination').

Characterisation

The assemblage is dominated by unretouched flake-based removals, accompanied by three retouched tools and three cores. The only clear evidence for activity predating the later Neolithic is a single secondary blade collected as SF5155 and a half crested blade from test pit 1. Aside from this the technological characteristics of the material are consistent with a later Neolithic/Early Bronze Age date, with a high proportion of simple hard hammer struck flakes. Amongst this material are

several more distinctive pieces which appear to derive from systematically worked levallois-like cores – including a fine blade-like flake (SF 5157) and several flakes from Test Pit 1. The cores include one well reduced levallois-like/discoidal core (SF 5154) and two cores from test pit 2; one multiplatform flake core and one very small flake core (weighing just 14.2g) of a kind that appear to be especially characteristic of Early Bronze Age (Collared Urn associated) assemblages known elsewhere in the Flag Fen basin (Beadsmoore 2009; Billington 2012).

The retouched tools comprise a flake knife, a scraper/knife combination tool and a probable unfinished arrowhead blank. Both the flake knife and the scraper/knife were recovered from TP 1. The knife is made on a somewhat irregular flake and bears invasive retouch along one lateral edge and has an area of crushing at its proximal end reminiscent of the wear found on fabricators/flint strike-a-lights. The scraper/knife is made on the broken distal end of a fine flake –probably struck from a levallois-like core – and has regular semi-abrupt retouch at its distal end which becomes more invasive, producing a sharp cutting edge, as it extends up one lateral edge of the tool. The probable arrowhead blank was recovered from test pit 2 and take the form of the medial section of a broad thin tertiary flake with some semi-abrupt retouch on one lateral edge and some of one break facet – and appears to represent an unfinished chisel arrowhead of Middle/Late Neolithic date.

Discussion

In terms of raw materials and general composition this small assemblage is entirely typical of material collected from the extensive buried soil scatters elsewhere at Must Farm (Beadsmoore 2008, Billington 2010; 2012). The majority of the assemblage clearly relates to Later Neolithic and Early Bronze Age activity. Later Neolithic material is particularly well-represented by a number of distinctive pieces deriving from levallois-like core reduction (Ballin 2011) as well as by the probable chisel arrowhead blank. Equally, the invasively retouched flake knife, as well as the small flake core and much of the less structured flake based material is likely to date to the Early Bronze Age.

The size of the assemblage precludes any detailed interpretation of the nature of activity at the site – although it is clear that both flintworking and tool use/discard was taking place. Nonetheless, the assemblage represents a useful addition to the large and regionally important assemblage of flintwork recovered from extensive sampling of buried soils at Must Farm and should be included on any final synthesis/publication of the material from the site.

Ballin, T. B. 2011a. The Levallois-like approach of Late Neolithic Britain: a discussion based on finds from the Stoneyhill Project, Aberdeenshire. In Saville, A. *Flint and Stone in the Neolithic Period*. Oxford: Oxbow Books, 37-61

Beadsmoore, E. 2008. Lithics. In Tabor, J. *Archaeological Investigations at Must Farm, Whittlesey, Cambridgeshire: Interim Report: Phase 1 of Monitoring Program* Cambridge Archaeological Unit Report No. 807, 13-14

Beadsmoore, E., 2009. Flint overview (Edgerley Drain Road) In Evans, C. with Beadsmoore, E., Brudenell, M. and Lucas, G. *Fengate Revisited, Further Fen-Edge Excavations, Bronze Age Fieldsystems and Settlement and the Wyman Abbott/Leeds Archives*, Cambridge: Cambridge Archaeological Unit, 164-7.

Billington, L. 2010. Flint. In. Tabor, J. Archaeological Investigations at Must Farm, Whittlesey, The Phase 2 Extraction Area. Cambridge Archaeological Unit Report 951

Billington, L. 2012. Must Farm 'Dry land excavations' 2010-2012 – Flint assessment. Unpublished Lithics Report produced for the Cambridge Archaeological Unit

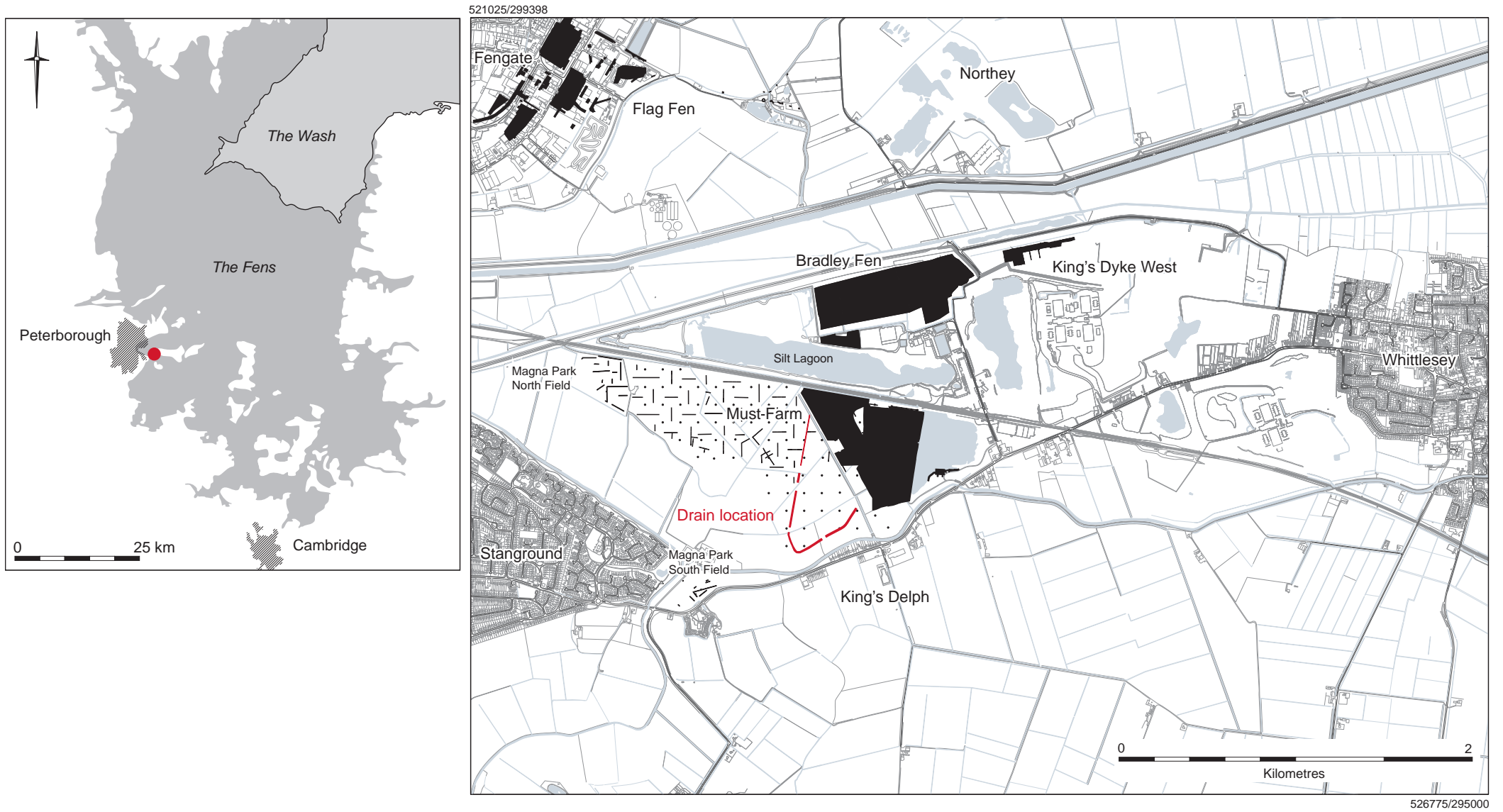


Figure 1. Site location, also showing archaeological investigations in the surrounding area

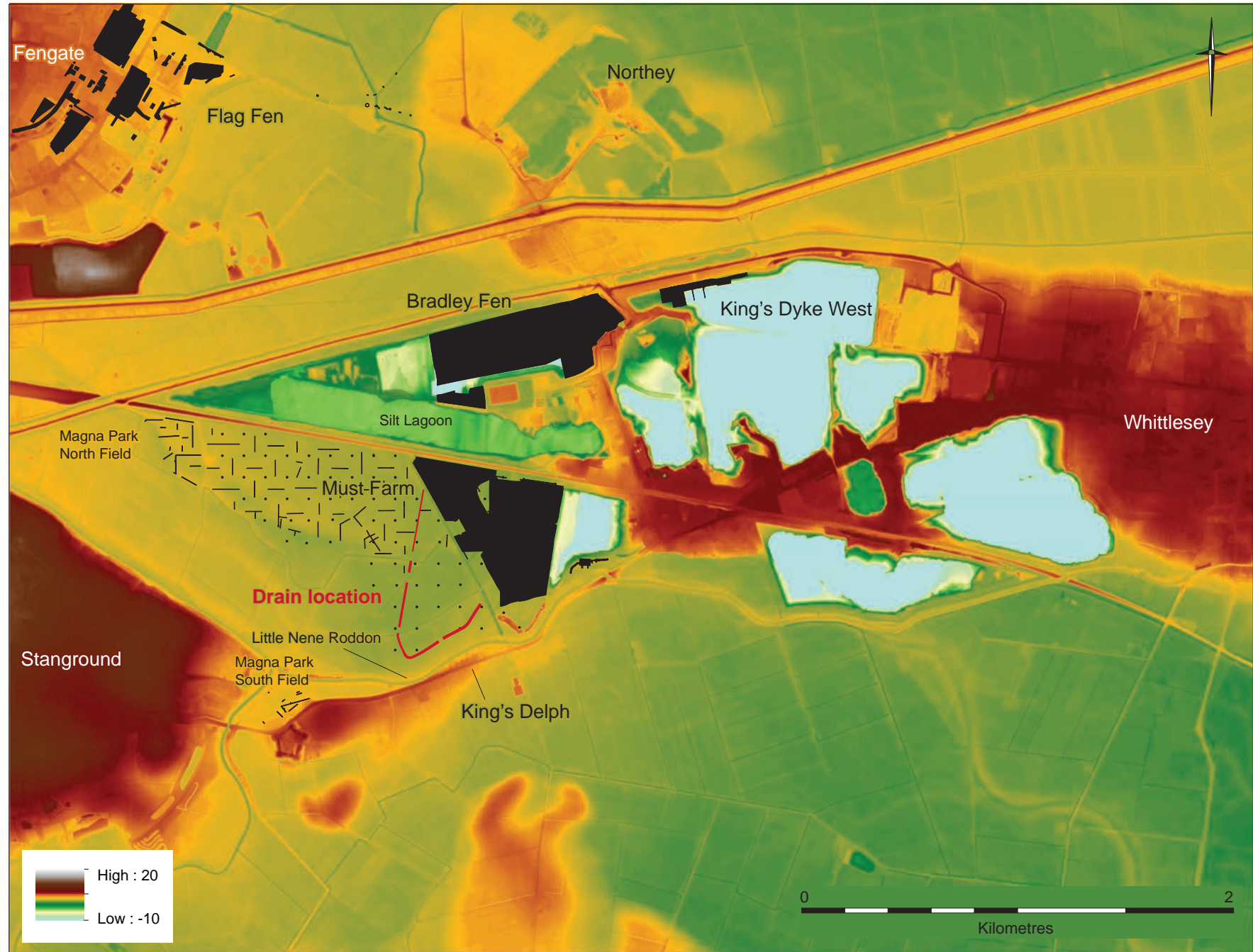


Figure 2. LIDAR data with site location and archaeological investigations in the surrounding area

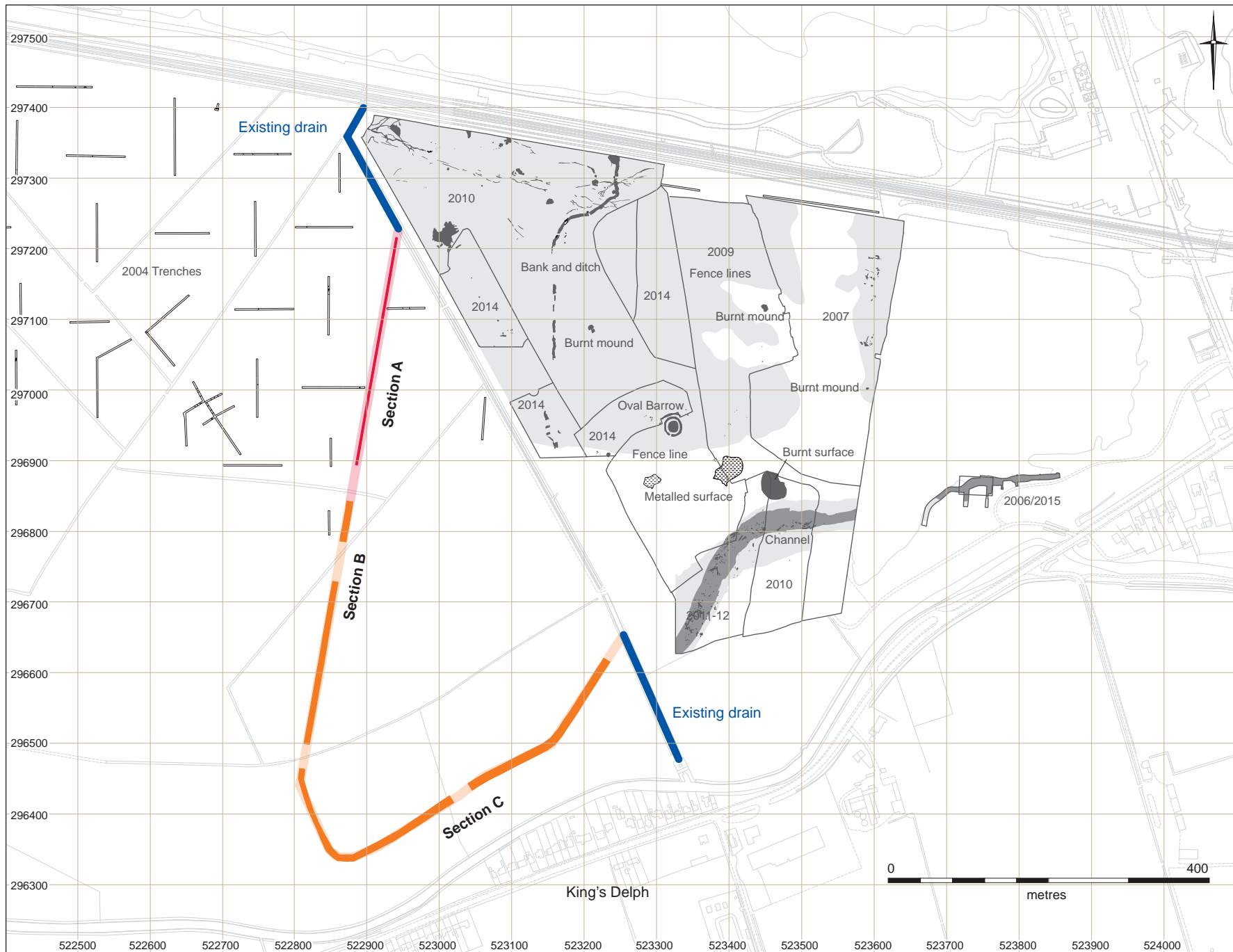


Figure 3. Location of new drain route indicating trench location (Section A) and monitoring Sections B and C. Also showing previous archaeological investigation in the immediate surrounding area

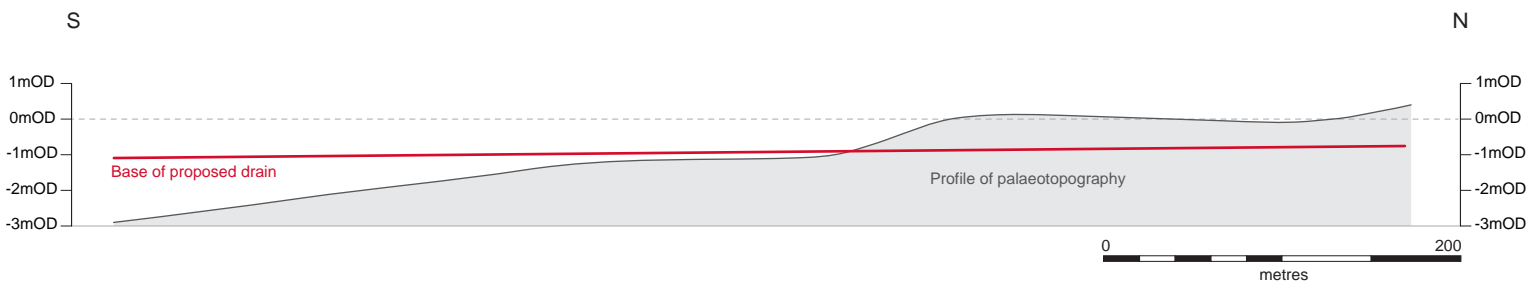
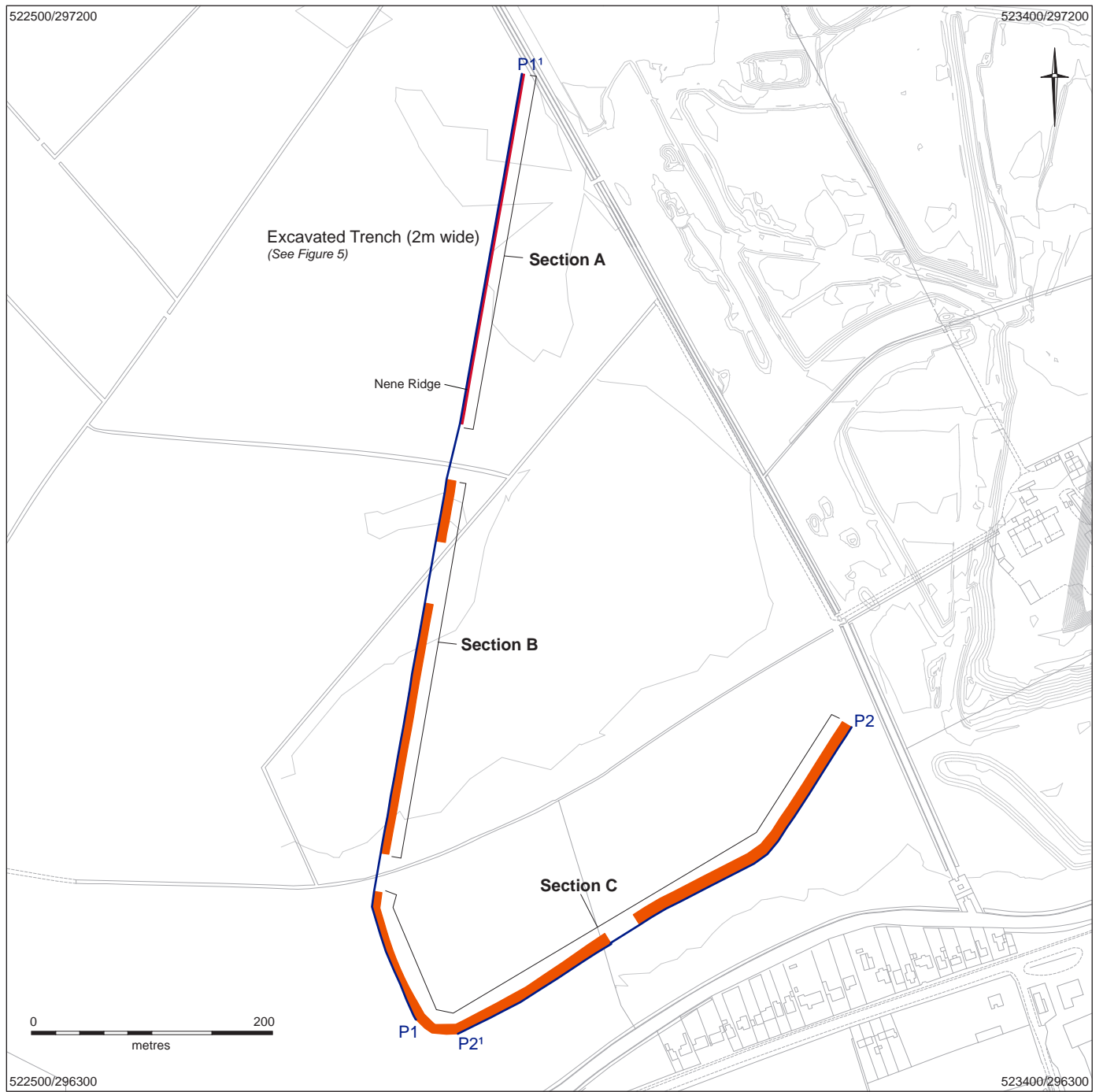


Figure 4. The drain sections showing the excavated area, Section A, and monitored areas, Section B and C; the height of the drain base in relation to the palaeotopography for Section A; and the location of the two drain profile drawings P1 and P2 (Figure 6).

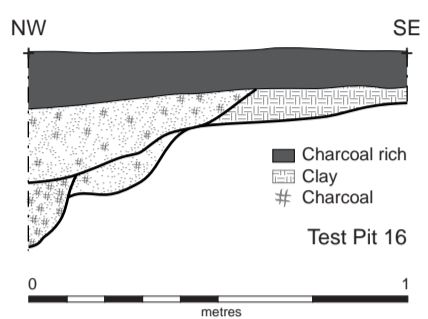
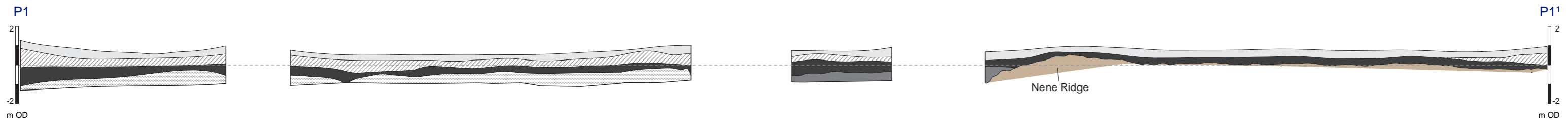


Figure 5. Plan of drain Section A, showing test trenches with photographs, and wood and small find locations.



East South East Facing Section of MUS17 Replacement Drainage Ditch (z x10)



North West and North North West Facing Section of MUS17 Replacement Drainage Ditch (z x10)

- Plough soil
- Alluvium
- Secondary Alluvium
- Upper Peat
- Reed Peat
- Secondary Peat
- Fen Clay
- Lower Peat
- Buried Soil

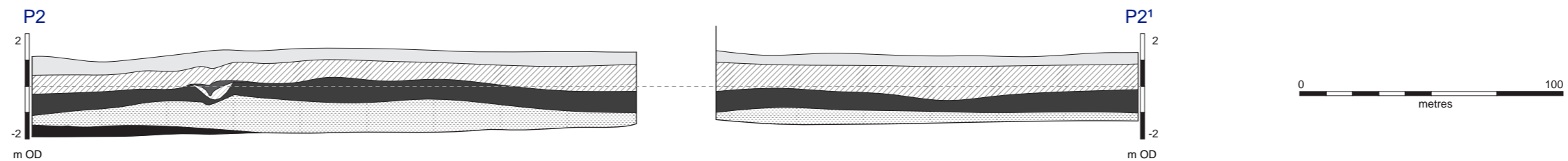


Figure 6. Drain profiles P1 and P2 showing key deposits

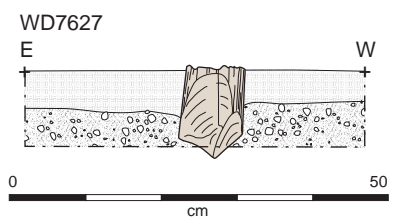
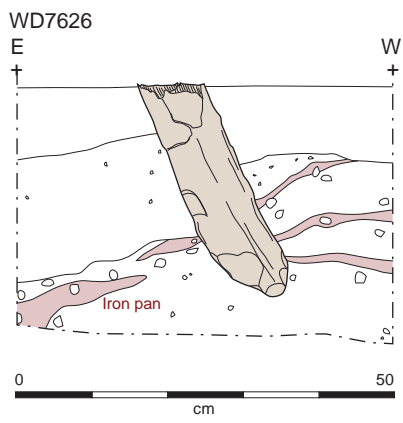
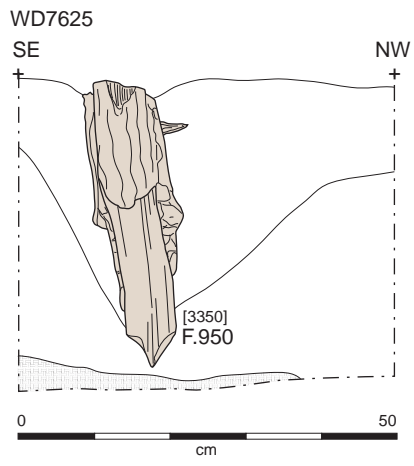


Figure 7. Wood sections and photographs

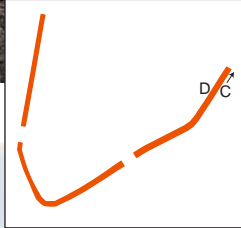


Figure 8. photographs of the monitoring of Drain Section C

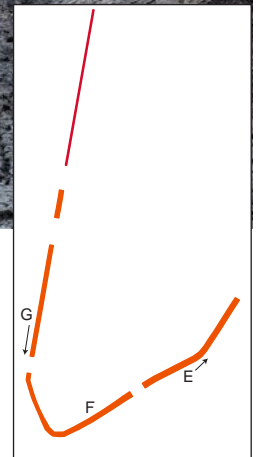


Figure 9. Drain section photographs

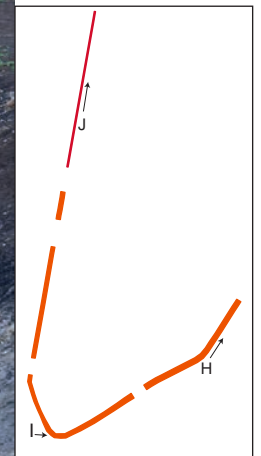


Figure 10. Drain section photographs

OASIS DATA COLLECTION FORM: England

[List of Projects](#) |
 [Manage Projects](#) |
 [Search Projects](#) |
 [New project](#) |
 [Change your details](#) |
 [HER coverage](#) |
 [Change country](#) |
 [Log out](#)

Printable version

OASIS ID: cambridg3-306073

Project details

Project name	Monitoring, Sampling and Excavation of the route of the new IDB Drain, Must Farm, Whittlesey
Short description of the project	For the month of July 2017 the new route for the Internal Drainage Board (IDB) drain at Must Farm Quarry, Whittlesey, was redirected, located to the west of the existing Main IDB Drain. The work was carried out in accordance to a brief set out by the Cambridgeshire County Council Historic Environment Team on behalf of Forterra. This section of the scheme is part of a longer scheme of works. The new drain covered a length of approximately 1300m, with depths reaching between 0.40m and 3.50m below the topsoil. The drain exposed layers of fen deposits, and the northern half of the drain exposed a gravel ridge with a preserved buried soil, with artefact scatters and three wooden stakes.
Project dates	Start: 03-07-2017 End: 28-07-2017
Previous/future work	Yes / Yes
Any associated project reference codes	ECB2890 - HER event no.
Any associated project reference codes	ECB3420 - HER event no.
Any associated project reference codes	ECB3838 - HER event no.
Any associated project reference codes	ECB2096 - HER event no.
Any associated project reference codes	ECB2095 - HER event no.
Any associated project reference codes	ECB2877 - HER event no.
Any associated project reference codes	ECB3409 - HER event no.
Any associated project reference codes	ECB3837 - HER event no.
Any associated project reference codes	ECB4424 - HER event no.

Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Industry and Commerce 5 - Mineral extraction
Monument type	STAKES Middle Bronze Age
Significant Finds	PETERBOROUGH WARE POTTERY Late Neolithic
Significant Finds	BEAKER WARE Early Bronze Age
Significant Finds	FLINT Late Neolithic
Investigation type	"Full survey","Part Excavation","Recorded Observation","Test-Pit Survey","Watching Brief"
Prompt	Conservation/ restoration

Project location

Country	England
Site location	CAMBRIDGESHIRE FENLAND WHITTLESEY Must Farm IDB drain
Postcode	PE7 2PG
Study area	1300 Square metres
Site coordinates	TL 295 675 52.289945257287 -0.101072709035 52 17 23 N 000 06 03 W Point
Lat/Long Datum	Position derived from charts
Height OD / Depth	Min: -2m Max: 0m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	David Gibson
Project director/manager	David Gibson
Project supervisor	Lizzy Middleton
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Forterra Building Products Ltd

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	MUS'17
Physical Contents	"Animal Bones","Ceramics","Wood","Worked stone/lithics"
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	MUS'17
Digital Contents	"Animal Bones","Ceramics","Environmental","Wood","Worked stone/lithics"
Digital Media available	"Database","GIS","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive	Cambridge Archaeological Unit

recipient

Paper Archive ID MUS'17

Paper Contents "Animal Bones","Ceramics","Environmental","Wood","Worked stone/lithics"

Paper Media available "Context sheet","Diary","Drawing","Notebook - Excavation',' Research',' General Notes","Photograph","Plan","Report","Section","Survey ","Unpublished Text"

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Monitoring, Sampling and Excavation of the route of the new IDB Drain, Must Farm, Whittlesey

Author(s)/Editor(s) Middleton, L.

Other bibliographic details CAU Report No.1389

Date 2018

Issuer or publisher CAU

Place of issue or publication Cambridge University

Description 30 Pages of A4, PDF copy

Entered by Lizzy Middleton (em392@cam.ac.uk)

Entered on 12 January 2018

OASIS:

Please e-mail [Historic England](#) for OASIS help and advice

© ADS 1996-2012 Created by [Jo Gilham and Jen Mitcham](#), email Last modified Wednesday 9 May 2012

Cite only: <http://www.oasis.ac.uk/form/print.cfm> for this page

[Cookies](#) [Privacy Policy](#)