Archaeological Field Unit

An Archaeological Evaluation for the Shingay-cum-Wendy Sewerage Scheme, Cambridgeshire

Tim Denham

1997

Cambridgeshire County Council

Report No. A102

Commissioned by Anglian Water Services Ltd

An Archaeological Evaluation for the Shingay-cum-Wendy Sewerage Scheme, Cambridgeshire TL 325474 to TL 332483

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SUMMARY

In September 1996, the Archaeological Field Unit of Cambridgeshire County Council (AFU) were contracted by Anglian Water Services Limited to conduct an archaeological evaluation along an easement for a proposed sewerage line at Shingay-cum-Wendy, Cambridgeshire. Nine trenches totalling 220 metres in length were excavated within the project easement. A number of features derived from agricultural boundaries and use were encountered. These included a ditch, a possible ditch, ten furrows and a posthole. One ditch contained sherds of St. Neots type shelly wares suggesting that it was constructed in the Late Saxon/early medieval period. The other features have all been interpreted to be associated with medieval/post-medieval cultivation. No features were identified which could be associated with the Roman and medieval/post-medieval settlements at the north-eastern and south-western, respectively, ends of the pipeline.

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1 INTRODUCTION

The Archaeological Field Unit was contracted by Anglian Water Services Limited to undertake an archaeological evaluation for a proposed sewerage line and pumping station easement at Shingay-cum-Wendy, Cambridgeshire (TL 325474 to TL 332483). The aim of an archaeological evaluation is to determine the nature, age, extent and degree of preservation of the archaeological resources which may potentially be impacted by a proposed development.

The easement was 10 m wide from the centre of the hedge line along the proposed sewerage line route, and 20 m by 20 m in the vicinity of the pumping station (Figure 1). The easement lies south of, and adjacent to, the main road through Wendy.

The archaeological investigations were conducted in accordance with a Design Brief issued by Louise Austin, Development Control Officer, Archaeology Section, Cambridgeshire County Council. The easement to be subject to archaeological evaluation, as defined in the Design Brief, terminated at the western boundary of Scheduled Ancient Monument (SAM) 86. From this point the sewerage line was to be installed under the existing road to Wimbridge Close pumping station, and this section was not to be evaluated.

2 GEOLOGY AND TOPOGRAPHY

According to a British Geological Survey map, the underlying geology should consist of Gault Clay. The River Cam meanders across its floodplain 300 m to 450 m north of the easement. The proximity to the river's floodplain indicated that alluvial deposits associated with the former migration of the river channel might be encountered.

The easement traversed three fields: Field 1 was planted with spring beans; Field 2 was planted with winter wheat; and, Field 3 was planted with sugar beet. All three fields were relatively flat. The only discernible topographic feature was a significant rise aligned perpendicular to the road, located in the centre of Field 2. This feature has been inferred to represent the remains of a medieval/post-medieval headland (refer to Section 3.2).

3 DESKTOP STUDY

Prior to the initiation of fieldwork a desktop assessment of the easement was undertaken. This assessment included: a review of the entries, parish files and maps at the County Sites and Monuments Record; the examination of maps and records at the Cambridgeshire Records Office, Shire Hall; and, the assessment and replotting of air photographs by Air Photo Services. The completion of the desktop study prior to the initiation of fieldwork facilitates the development of a sampling strategy which targets areas of known or potential archaeological significance, and provides a framework for the interpretation of finds. The results of the desktop and their significance are summarised in this section.

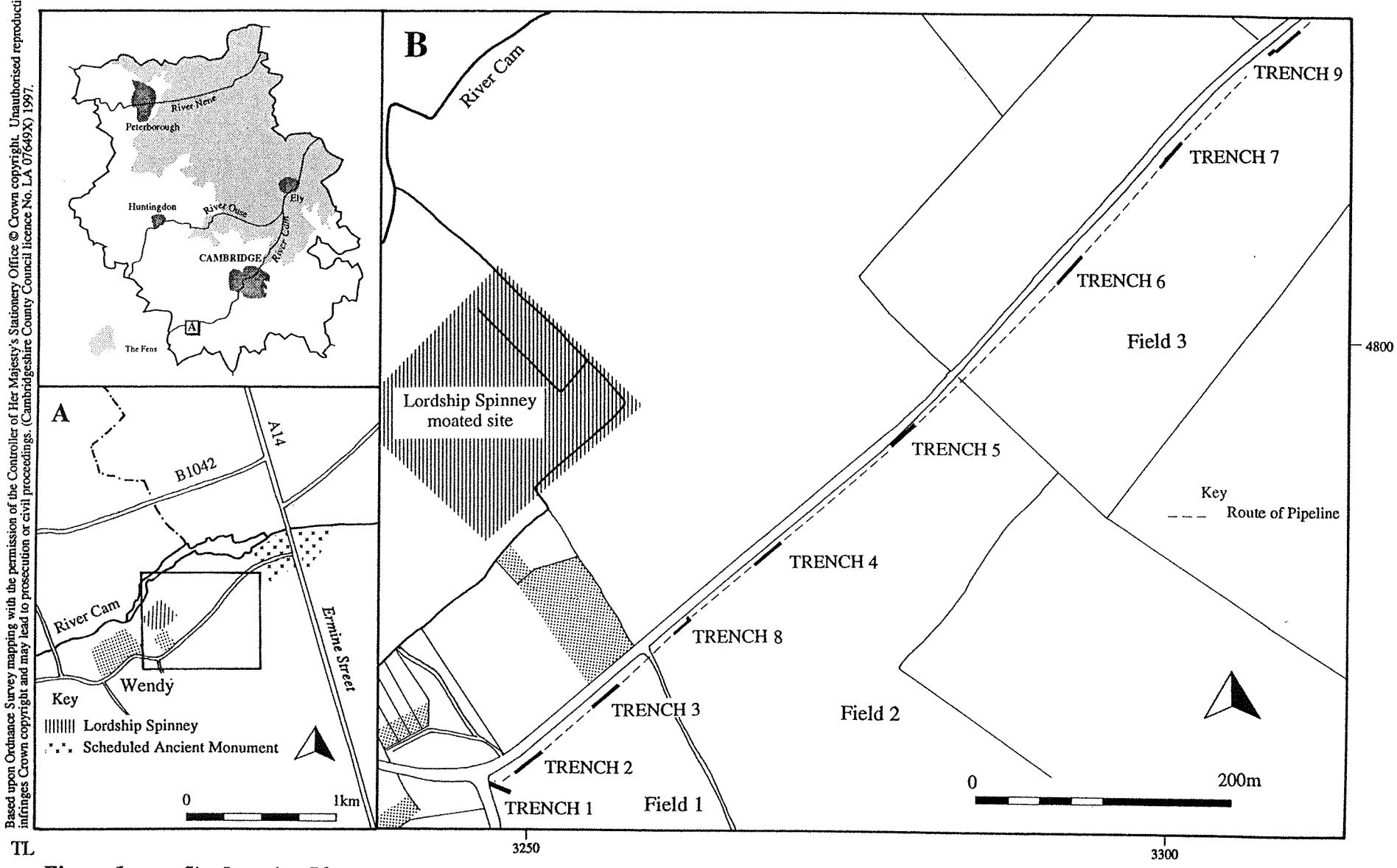


Figure 1 *Site Location Plan*

3.1 Historical and Archaeological Background

From a review of the sites of known archaeological and historical interest, it was apparent that finds from a range of periods have been documented in the area, although not within the proposed pipeline route. These include Mesolithic (SMR 10983) and Bronze Age (SMR 1365, 3164) artefacts. Although finds from these and earlier periods were potentially present, it was thought more likely that remains from the Iron Age/Roman and medieval/post-medieval periods would be encountered.

Medieval Earthworks

At the western end of the easement, there are a number of known medieval/post-medieval earthworks suggestive of settlement. One set of earthworks, consisting of moats and remnant walls, represent the moated great house at Wendy (SMR 01222). These are located 150 m south of the project easement. This house had ten hearths in 1674, but by the late 18th century had been partially demolished (Keeling 1982:138). The current Vine Farm is a timber framed building with elements dating to the 17th century which are believed to be remains of the original great house (DOE 1986). A sale plan of Vine Farm in 1932 with accompanying particulars shows Field 2 as grassland and Field 1 as subdivided (Carter Jonas and Sons 1932). The current easement is outside the property boundaries at this time. Interestingly, Field 1 was not shown subdivided on the 1886 Ordnance Survey map (Ordnance Survey 1886).

Approximately 125 m north of the western end of the project easement are the medieval earthworks known as Lordships Spinney (SMR 01223). This site has been interpreted to represent defensive manorial earthworks and a fishpond.

These are the two most prominent earthworks identified close to the project easement, although a number of other medieval/post-medieval sites and structures have been documented within Wendy. These include: a former post-medieval church with fifteenth century elements (SMR 3158); a medieval moat (SMR 1738); a medieval/post-medieval water mill (SMR 3076); and numerous earthworks representing former ridge and furrow cultivation (e.g., SMR 1276, 3077). One set of cropmarks (SMR 3092) consists of ridge and furrow located in Field 3. The air photographic survey identified cropmarks/soilmarks of ridge and furrow along the pipeline route.

The presence of so many medieval/post-medieval earthworks is not surprising given that a settlement was recorded at Wendy in the Doomsday Book. There have been small but continuous settlements in the area since. The survival of these sites has been enhanced by limited cultivation prior to World War 2.

The Roman Road and Roadside Settlement

Ermine Street, a major Roman road, follows a north-south alignment to the east of the project easement. Between the eastern end of the easement terminus and the Roman road is a Roman settlement. Remains of the settlement (SMR 3157, 3335, 9254) have been encountered in the fields north-west, south-west and east of the road junction during the excavation of drainage ditches (Pullinger 1980), road widening, unsystematic trenching (recorded by Parker in 1972-3) and metal detector survey (pers. comm., recorded by Montague in 1989). *In situ* features documented during these investigations are ditches, a gravel roadway and path, a pond, a floor and rubbish pits. Finds include construction materials, pottery, coins, ornaments, glass and evidence of industrial activity. The site has been interpreted to be a Roman posting station dating to the 2nd to

4th centuries. This site was present beneath medieval/post-medieval ridge and furrow which may have aided its preservation.

A Roman villa has been identified several hundred metres north of the project site on the north bank of the River Cam (SMR 9185). The field systems and attendant outbuildings of this villa have yet to be defined. It is possible that the Roman field system associated with this villa, or an as yet unidentified settlement, may have extended into the project area.

3.2 Air Photographic Assessment and Replotting

The report detailing the air photographic assessment and replotting for this project is reproduced in full as Appendix A. In summary, Air Photo Services identified and replotted a large number of medieval/post-medieval cropmarks within and adjacent to the easement. These included the aforementioned earthworks at Vine Farm (SMR 01222, 3085) and Lordships Spinney (SMR 01223), and the remnant ridge and furrow in Field 3 (SMR 3092). Their work has also delimited a previously unrecorded headland and ridge and furrow cropmarks in Field 2 (Appendix A: Figure 1). The ridge and furrow in Field 2 is parallel to, and that in Field 3 is perpendicular to, the road into Wendy. No archaeological features were identified within the easement in Field 1 although a number of medieval/post-medieval and possibly earlier features have been identified further south-east within the field.

All the fields along the proposed sewerage line route were under pasture until the 1960s. From the air photographic assessment, it is known that two of the fields (Fields 2 and 3) formerly contained ridge and furrow as earthworks. A conversation with Mr. Richard Howes, the occupier of Road Farm of which Field 3 is a part, confirmed these interpretations. He stated that there was high, upstanding ridge and furrow in Field 3 prior to ploughing, and that during the winter months the furrows were permanently waterlogged. Given that these fields have only been cultivated since the 1960s, it is possible that any archaeological features may survive in the subsoil in a relatively undamaged state, particularly where they have been protected beneath ridges (Palmer 1996).

Palmer and Cox have noted that the road linking Wendy cuts the furlongs of the medieval field system and consequently post-dates it (Appendix A:4). It is known that prior to the early nineteenth century the road into Wendy followed a more southerly route and was replaced by the present route by 1836 (Keeling 1982:136). No trace of an earlier route was identified during the air photographic assessment.

3.3 Anticipated Finds

Anticipated finds along the sewerage line easement were broken down into four components:

a) Based on its proximity to known settlement centres, it was possible that remains of medieval/post-medieval settlement and cultivation would be encountered in Field 1, even though no features were identified there during the desktop assessment.

b) Based on the proximity to a Roman roadside settlement (SAM 86) and a Roman villa (SMR 9185), it was probable that finds associated with Roman settlement or an associated field system would be encountered, particularly in Field 3.

c) The ridge and furrow and headland in Fields 2 and 3 were expected to be identified during trenching. These features were likely to have preserved older features beneath them.

d) Finds from earlier periods were considered a possibility.

4 METHODOLOGY

The vegetation cover made fieldwalking impossible. The sampling strategy consisted of machine stripping trenches at intervals within the easement, with slightly higher densities at the eastern and western termini to investigate the potential Roman and medieval/post-medieval remains, respectively. Each trench was machine excavated using a mechanical excavator (JCB) with 1.6 m wide toothless ditching bucket. Excavations ceased at archaeologically significant deposits or natural strata, whichever were encountered first. Artefacts were collected from the trenches and spoil during excavation. Spoil was scanned for artefacts during excavation.

All potential archaeological features were: manually excavated using mattocks and trowels; sampled for artefacts and, if appropriate, for ecofactual material; documented using the Archaeological Field Unit's single context recording system; and photographed using colour and black and white film. The site archive, including artefacts and records, is being temporarily stored at the Fulbourn Office, and will be transferred to the County Archaeological Store at Landbeach for permanent curation.

The trenches and features were surveyed using a Total Station (automated theodolite with electronic distance measurer). The site datums were tied in to an Ordnance Datum benchmark on the old school house in the village of Wendy using a manual level.

5 RESULTS

5.1 Stratigraphy

The topsoil and subsoil sealed all archaeological features identified in section. The subsoil has been interpreted to be recent and formed through post-medieval or modern agriculture. From the geological survey map Gault Clay was expected along the entire easement, however, this deposit was encountered directly beneath the topsoil only intermittently in a few trenches. Along the majority of the route, the basal stratum was gravel, with Gault Clay underlying the gravel at varying depths.

The general stratigraphic/geological pattern beneath the topsoil and subsoil can be characterised for the project site. The gravel substratum was thicker towards the south-west and thinned towards the north-east, although its actual thickness was variable. In most trenches, Trenches 1-3 and 6-8, the gravel presented a clean, stripped surface. In the north-eastern portion of Field 2, the gravel was thinner, mottled, and overlain by shallow lenses of gravel/pebble deposits. In this area, and as a result of the variable thickness of the gravel, Gault Clay was intermittently exposed in the base of the trenches. A machine excavated section through these more complex stratigraphic sequences indicated that they had formed naturally and were less than 0.1 m thick. Only in Trench 9 was clay exposed as the substratum along the entire trench length.

There were deep plough scars along the majority of the easement, particularly in Fields 2 and 3. A number of features were subsequently determined to be natural or derived from recent agricultural activity. These resulted from deep ploughing associated with turning over the stubble and techniques for the reduction of compaction within the topsoil and subsoil. All plough scars were briefly investigated to ensure they did not represent other feature types.

5.2 Archaeological Features

Brief descriptions of each context are presented in Appendix B. A finds quantification table is presented in Appendix C.

Field 1

A single linear feature (Cut **110**), interpreted to be a ditch, was located within Trench 1 (Figures 2 and 3). This ditch was filled with four fills, two of which (Fills 104 and 105) contained sherds of St. Neots type ware dating to AD 900-1150. The pottery from 105 included a rim sherd derived from a 150 mm diameter cooking pot. The primary fill (Fill 106) of this ditch represents material which has fallen down the north face, probably soon after initial construction. The secondary and tertiary fills (Fills 105 and 104 respectively) probably formed through sheet wash and other mass movement processes. A discontinuous quaternary fill (107) with relatively high proportions of pebbles was the uppermost identifiable deposit within the ditch. Shelly ware was the only pottery present within the secondary and tertiary fills. These sherds provide a secure Late Saxon/early medieval date range for the construction and infilling of this ditch. It is probable that this ditch formed a field boundary.

Within Trenches 2 and 3, four shallow linear features were encountered running north-west/south-east (Figure 3). Three parallel linears (Cuts **204, 205, 206**) were encountered at 8.5 m intervals in Trench 2. The linears were filled with deposits (Fills 207, 208, 209, respectively) which were undifferentiated from the subsoil (Deposit 202). Two of these fills (207 and 208) contained assorted Roman and medieval, sandy and shelly wares, with some grog tempered sherds. It is probable that the relatively small assemblages represent residual Roman/medieval pottery which had become incorporated into the subsoil during cultivation. A similar, parallel linear was present within Trench 3 (Cut **304**) and the fill of this linear contained a large sherd of St. Neots type, shelly ware.

The north-west/south-east aligned linears within Trenches 2 and 3 have been interpreted to represent remnant furrows truncated by recent agricultural activities. The absence of these features from the aerial photographic assessment is surprising, although this may be due to their location beneath the subsoil and having been truncated by later agricultural activities. Any crop response would be consequently limited and difficult to differentiate. The features do align with cropmarks recorded immediately to the south of the proposed pipeline easement (Appendix A: Figure 2).

A single, rectangular posthole was located in Trench 3 (Figure 2; Cut **306**). The fill (305) of this posthole yielded animal bone and did not contain any pottery. The absence of dateable artefacts and stratigraphic relationships prevents any direct interpretation of its age. However, given that the posthole was filled with a dark deposit resembling the topsoil, it is possible that the feature is relatively recent.

Field 2

The trenches within Field 2 yielded relatively low concentrations of pottery from the topsoil and subsoil. Only one *in situ* feature was identified; a north-west/south-east oriented linear (Cut **404**) within Trench 4. The linear contained

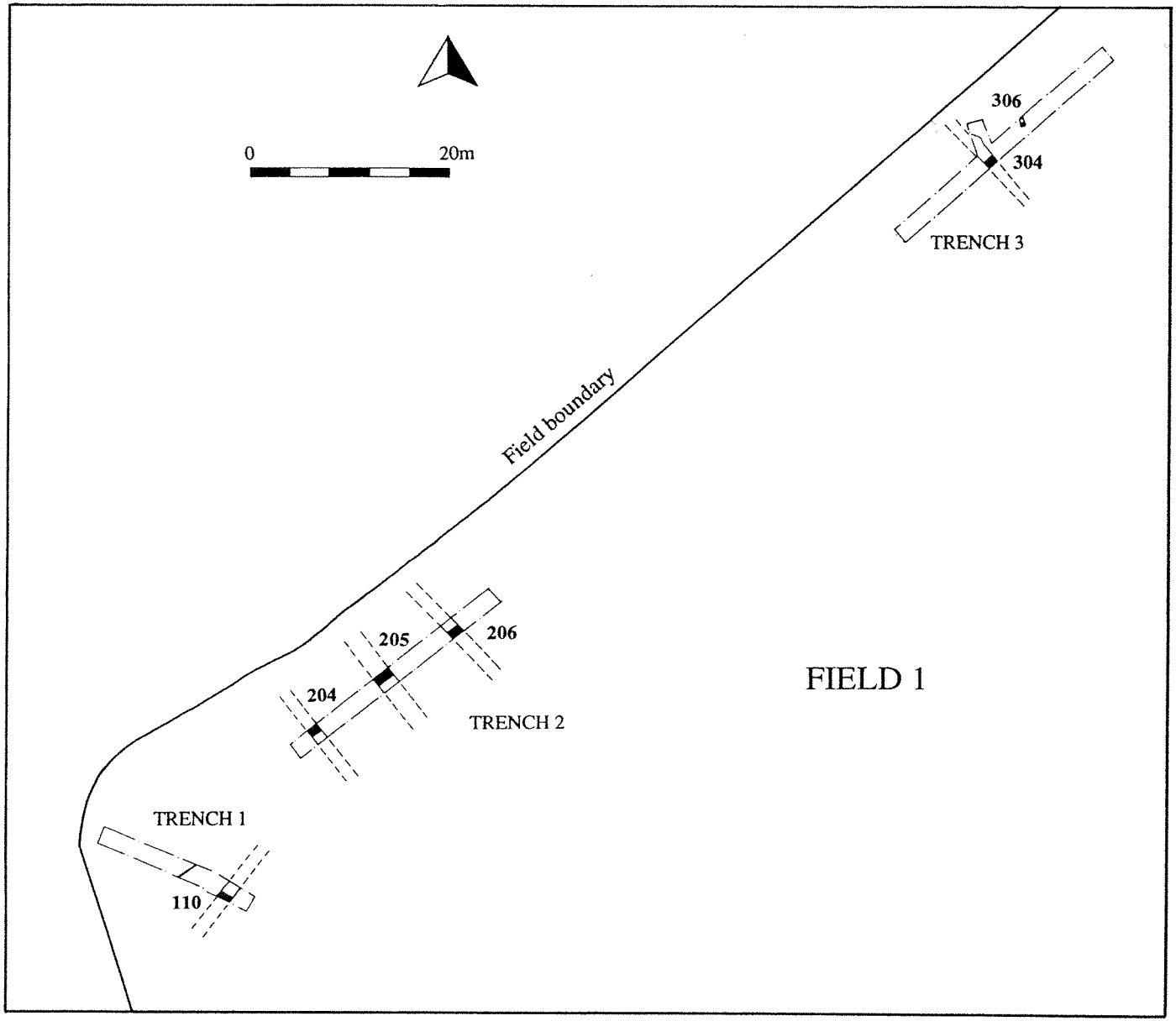
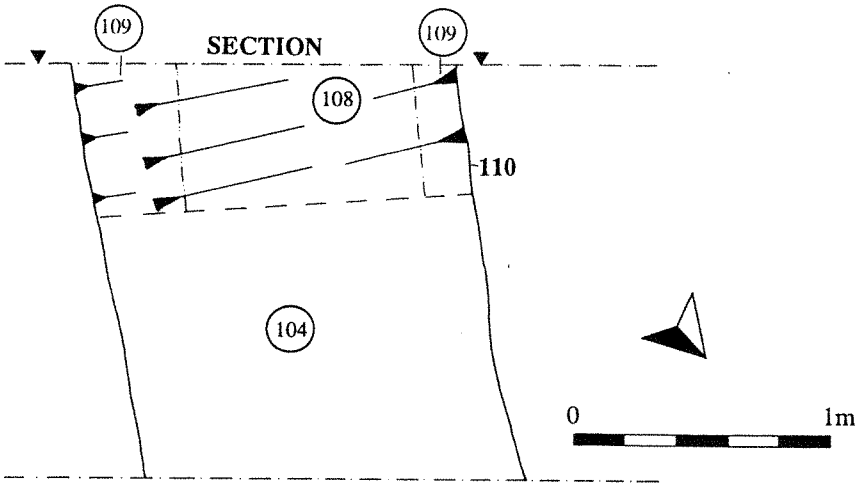


Figure 2 *Plan of Trenches in Field 1*



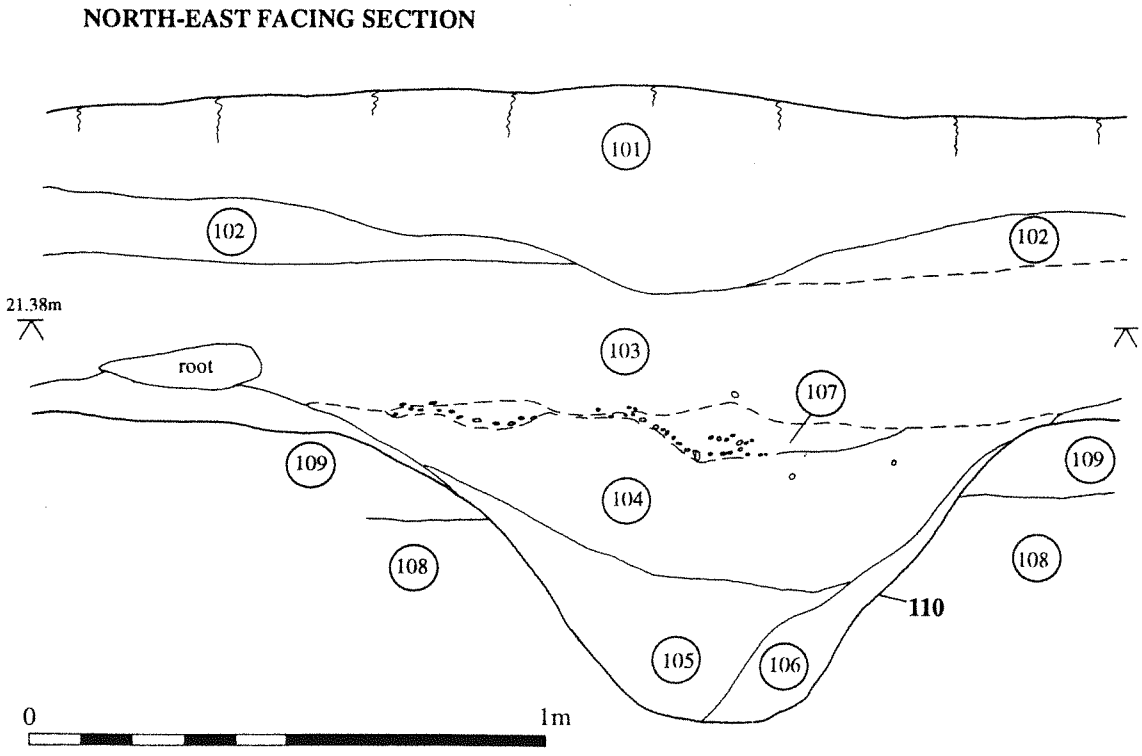


Figure 3 *Section and Plan of Cut **110***

two fills (402 and 403), the upper of which (402) yielded a single, small sherd of Roman pottery. The Roman sherd may be residual, in which case the linear represents a severely truncated ditch or furrow associated with medieval/post-medieval strip cultivation.

Field 3

It was anticipated that the trenches within Field 3 would encounter features associated with SAM 86 to the east. A number of sherds of Roman pottery were collected from the topsoil, and Montague had noted a similar distribution during his previous metal detector survey (pers. comm.). Six possible linears were identified cut into the underlying gravels and clay. All of them were broadly parallel and aligned north-west/south-east.

In Trench 6, the two linear features (Cuts **604** and **607**) present were filled with relatively loose and friable deposits which were clearly differentiable from the subsoil. Fill 603, the only fill of **604**, contained a single sherd of abraded Roman pottery. Fill 605, the secondary fill of **607**, yielded a large, abraded sherd of Roman tile. The primary fill (606) of **607** did not contain any artefacts.

In Trench 9, four approximately equidistant, parallel linear features were identified. On excavation, two of these linears appeared to have been severely truncated by the installation of a ceramic field drain (Cut **909**) and by a tree bole (Cut **911**). The remaining two linears (Cuts **904** and **906**) were better preserved, although **904** was truncated by recent ploughing and **906** was partially truncated by the installation of a ceramic field drain. The fill (905) of Cut **906** contained sherds of possibly Roman, grog tempered, sandy wares.

The linears within Trenches 6 and 9 have been interpreted to be remnant furrows from medieval/post-medieval strip cultivation. The Roman sherds, even though they represented the only finds from these features, are probably residual. Similar quantities of Roman pottery were present in both the subsoil and the topsoil.

6 DISCUSSION

The ditch (Cut **110**) encountered in Trench 1 contained Anglo-Saxon/early medieval pottery from secure contexts. The ditch is probably a land boundary either for a settlement or field. This ditch is not aligned with any cropmarks or features exposed during the field evaluation.

The north-west/south-east aligned linear features encountered along the evaluation corridor are all relatively shallow. The four shallow linears in Trenches 2 and 3 in Field 1 were probably formed by ridge and furrow cultivation, even though they did not appear on air photographs. All the linears were filled with sediments similar to the subsoil. The linear in Trench 4, was aligned with a headland and may be associated with medieval/post-medieval strip cultivation. Given its non-conformity to the known direction of ridge and furrow and the absence of similar features within the field, it may have been a ditch cut adjacent to the headland or served as a boundary within an earlier field system.

Based on their correspondence with known cropmarks and morphology, and despite the variable fills, the linears in Field 3 have all been inferred to represent ridge and furrow cultivation during the medieval and post-medieval periods. These linears are all aligned in accordance with the plotted cropmarks.

Roman and post-medieval pottery was present throughout the topsoil and subsoil in all three fields. The sherds were abraded and are probably all residual. No features identified during the evaluation can be securely dated to the Roman period, despite the widespread occurrence of Roman pottery within the fills. The widespread occurrence of abraded Roman pottery within the feature fills is a result of the high background noise within the topsoil and subsoil. The distribution of pottery is unsurprising given the proximity to a Roman settlement and may result from manuring of adjacent fields.

7 CONCLUSION

Nine trenches totalling 220 meters in length were excavated along the proposed pipeline easement. A number of features of archaeological interest were encountered, and these included: a ditch; a possible ditch; a posthole and ten remnant furrows. The majority of the linear features are associated with medieval/post-medieval agriculture and correlate with the ridge and furrow identified during the air photographic survey. The linear features in Field 1 follow similar alignmens as the medieval cropmarks identified to the south. Only the Anglo-Saxon/early medieval ditch (Cut **110**) is definitely associated with an earlier land use. The excavations for the pipeline will cause minimal disturbance to archaeological deposits.

ACKNOWLEDGEMENTS

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Particular thanks are due to the excavation crew (Carole Fletcher, Steve Membery and Oscar Aldred), the TST operator (Stephanie Leith and Scott Kenney), the illustrator (Twigs Way), and the project manager (Ben Robinson).

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APPENDIX A

WENDY TO WIMPOLE PIPELINE, CAMBRIDGESHIRE: AERIAL PHOTOGRAPHIC ASSESSMENT

SUMMARY

This assessment of aerial photographs examined the path of a water pipeline between Wendy (TL32484765) and Wimpole (TL33454875) in order to identify and accurately map archaeological features prior to field evaluation. All such features identified were likely to be of medieval date but the clayland location allows the suggestion that earlier features may have been masked by this later landuse and remain undetected. A 1:10000 overview was prepared to show the environs of the complete route and significant medieval earthworks (now levelled) were mapped at 1:2500.

WENDY TO WIMPOLE PIPELINE,
CAMBRIDGESHIRE:
AERIAL PHOTOGRAPHIC ASSESSMENT

Rog Palmer MA MIFA with Chris Cox MA MIFA

INTRODUCTION

This assessment of aerial photographs was commissioned to examine the path of a water pipeline between Wendy (TL32484765) and Wimpole (TL33454875) in order to identify and accurately map archaeological features and thus provide a guide for field evaluation. Where significant archaeological features were identified, mapping was to be at 1:2500, and a 1:10000 overview was prepared for the complete route.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

On certain soils and bedrocks, features resulting from past changes to the subsoil – either by natural or human intervention – may be detected from the air. Sub-surface archaeological features – mostly ditches, but including pits, walls or foundations, and banks – may be recorded in different ways in different seasons. In spring and summer, features of natural and anthropogenic origin may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripe cereal crops, generally in June or July in southern and central Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above) features may show by virtue of their different soils. Upstanding remains are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

Field investigation has shown that, over the whole of Britain, most of these now-levelled archaeological features date between the neolithic and Romano-British periods although a small number of later sites are known. After this time land allotment in lowland areas ceased to be defined by the cutting of ditches and different forms of settlement patterns can be observed.

DETECTION OF ARCHAEOLOGICAL FEATURES ON THE CLAY

The above summarises what may be recorded from the air over responsive land and reflects an ideal situation. Even in those locations, it requires many years of repeated reconnaissance – allowing for effects of crop rotation and management, different seasons, and responses to a constantly variable weather cycle – to accumulate more than a sparse outline of past occupation.

Little has been written about crop and soil responses and aerial photography over the clay (but see Jones and Evans 1975, 3; Riley 1987, 37; Pickering and Palmer 1994, 31) although it is known not to be an 'ideal situation' for aerial reconnaissance. The clay soils in the Wendy to Wimpole area offer poor response to sub-surface features and, in addition, were later almost totally covered by the ridge and furrow of medieval field systems. Recent work has demonstrated how this may affect survival of pre-medieval features (field evaluation by Cambridgeshire Archaeology at Highfields, Caldecote, Cambs, and by the Cambridge Archaeological Unit at Little Thetford, Cambs).

The majority of archaeological aerial reconnaissance has taken place over the more productive soils although, from the 1970s, a small number of observers have begun to examine reputedly poor areas. Persistent reconnaissance has provided information about pre-medieval use of the clays although crop-marked evidence for this does not develop with the regularity or clarity of that on some of the better soils. Over the last five years, examination of the clay in the Bourn area of west Cambridgeshire has been carried out by Air Photo Services funded by an RCHME flying grant. The SMR maps for Cambridgeshire show much of the Bourn area to have been covered by ridge-and-furrow. One aspect of our Bourn area reconnaissance was to examine the clay lands in an attempt to discover whether plough-levelling of once-extensive medieval fields had created conditions suitable for observation of earlier features as results from adjacent counties suggested. The theory behind the proposition is relatively straightforward.

Medieval ridge and furrow may provide a covering blanket for earlier features. Now we must imagine that blanket to be wearing thin; the medieval fields have been levelled and annual ploughing is gradually eroding the depth of the protective ground surface. This ploughing, the theory continues, has gradually lowered the topsoil cover until it is possible for sub-surface features from earlier settlement to affect the growth of responsive crops. These crop-marked features, which make less stunning pictures than some of their light-soil counterparts, are harder for the aerial photographer to see and record. It would seem likely that those recorded to date represent just the tip of the clay-land iceberg. As plough erosion continues we must expect, and be prepared to record, more crop-marked evidence of earlier use of the clay lands (Palmer 1996).

PHOTO INTERPRETATION AND MAPPING

Photographs examined

Cover searches were obtained from the Cambridge University Collection of Aerial Photographs (CUCAP), Cambridgeshire Record Office (CRO) and the National Library of Air Photographs (NLAP), Swindon. Photographs included those resulting from specialist archaeological reconnaissance and routine vertical surveys.

Photo interpretation was begun on the Cambridge photographs by Rog Palmer. The information mapped was then compared against photographs at NLAP by Chris Cox (APS, Swindon) and amended as appropriate.

Photographs consulted are listed in the Appendix to this report.

Base maps

Digital tiles were provided by Cambridgeshire County Council and used as the basis for the 1:2500 and 1:10000 maps resulting from this assessment.

Photo interpretation and mapping

All photographs were examined by eye and under slight (1.5x) magnification, viewing them as stereoscopic pairs when possible. Vertical photographs were also examined stereoscopically using 1.5x and 4x magnification. Evidence of medieval cultivation was sketched at 1:10000 but the earthwork remains at Wendy were interpreted for mapping at 1:2500 following procedures described by Palmer and Cox (1993). Rectification of those features was computer assisted and carried out using AERIAL 4.2 software (Haigh 1993).

AERIAL computes values for error of control point match between the photograph and map. For the rectification prepared for this assessment these were less than ±2.0m. Rectified and plotted output was combined with schematic ridge and furrow to form the basis of the digital figures that illustrate this report.

COMMENTARY

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the area to be on Jurassic and Cretaceous clay (series 411c).

Archaeological features

Figure 1.

For most of its route, the Wendy to Wimpole pipeline cuts through arable land which has been used as such since at least the medieval period as evidenced by ridge and furrow. Virtually all of the medieval fields adjacent to the route remained as earthworks in pasture until the 1960s when the land was cultivated for annual cropping. The 1969 photographs show all fields under cultivation except that of the Wendy earthworks (centred TL326476) which had been ploughed by 1985. These dates suggest that plough erosion may be low and that any pre-medieval features may survive in relatively undisturbed condition. However, there has been no indication of any such features on the aerial photographs examined (but see the above section concerning the detection of features on clay).

The road linking Wendy and the A14 cuts the furlongs of the medieval fields and so is of post medieval date. No alternative route was noticed although the headland adjoining the east side of the moat (at TL32554798) could have served this purpose.

Fields at Wimpole east of the A14 have been under cultivation since at least 1946. The field in which the pipeline terminates – now houses – has been in unidentified use although always in a

condition which provided no information from the air. Immediately east of that field (in field centred TL336487) are the now-levelled traces of linear features. These were recorded on only one date (1982) and appear to be banked, or walled, features. The conformity of their alignment to that of the Avenue suggests they may be related to an earlier landscape design.

Figure 2.

Two fields at Wendy show extensive traces of what may be earthworks of a medieval settlement. One of these, centred TL326476, will be cut by the pipeline although no features have been identified within 25m of its route. Interpretation of the earthwork evidence is not easy and no clear village-like pattern is apparent. Some of the linear scarps or ditches form partial enclosures (whose other side(s) may be made 'invisible' by the direction of the light) of a size that suggests stock folding rather than human occupation, while others may result from cultivation. Some of the linear features abut a double ditched linear (crossing field TL326476) of unknown purpose. This linear feature appears to have been a central bank with side ditches. Situated upon the bank, at TL3250347508 is a circular platform – possibly the site of a windmill? This feature shows clearly on the 1973 obliques and was also noted, as an arc with a central spot, on verticals taken in 1946. This feature was not identified on any other photographs, including some undated (but probably 1930s) verticals.

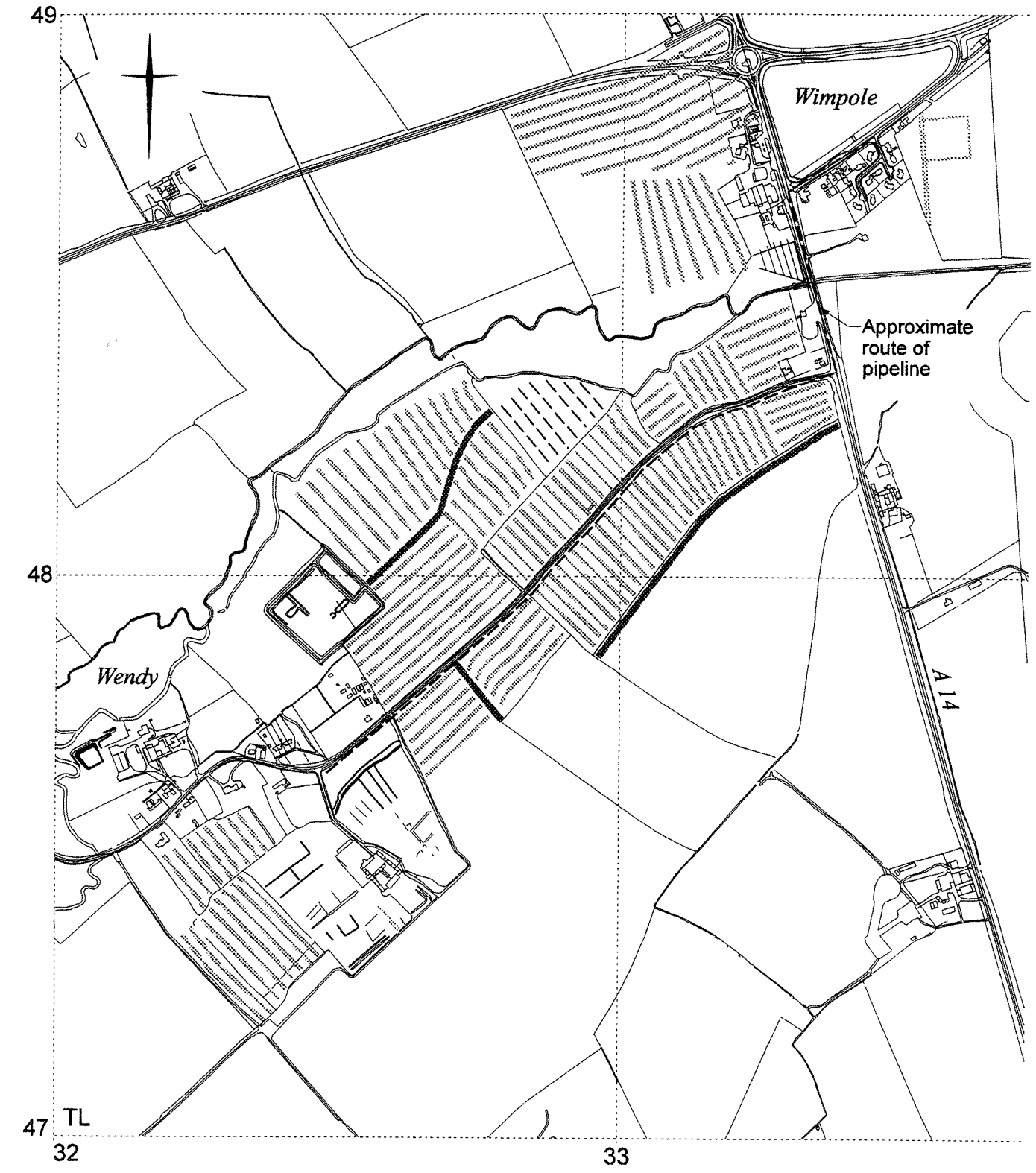
The earthworks were well recorded on only one date (1973) when the field may have recently been cut for hay (there are parallel lines of vehicle tracks over the whole field but no bales or signs of their collection). These lines may mask ridge and furrow that may pre- or post-date the earthwork features. Hints of ridge and furrow were noticed on some of the verticals although these were never definitive and may be a purely visual effect resulting from modern land use.

Field TL326476 was cultivated by 1985 and the present condition of the earthwork features is now unknown.

A linear feature – probably a pipe trench – crosses the field diagonally from one of the farm buildings to the north-east corner of the field. If still extant, this will be cut by the Wendy to Wimpole pipeline.

Tim Denham (Cambridgeshire Archaeology) drew my attention to an SMR entry showing three circles at *c.*TL32534768. No source for these was provided and all photographs were examined for these features. The 1973 obliques show two arcs in this location one of which may also be apparent (at much smaller scale) on 1946 verticals. These are in an area of slightly humpy ground and are probably the sites of two grubbed out trees, although none of the early photographs show trees in this area. A similar circle shows around an extant tree in the same field, being a slight depression caused, perhaps, by browsing livestock. It seems unlikely that these are archaeological features.

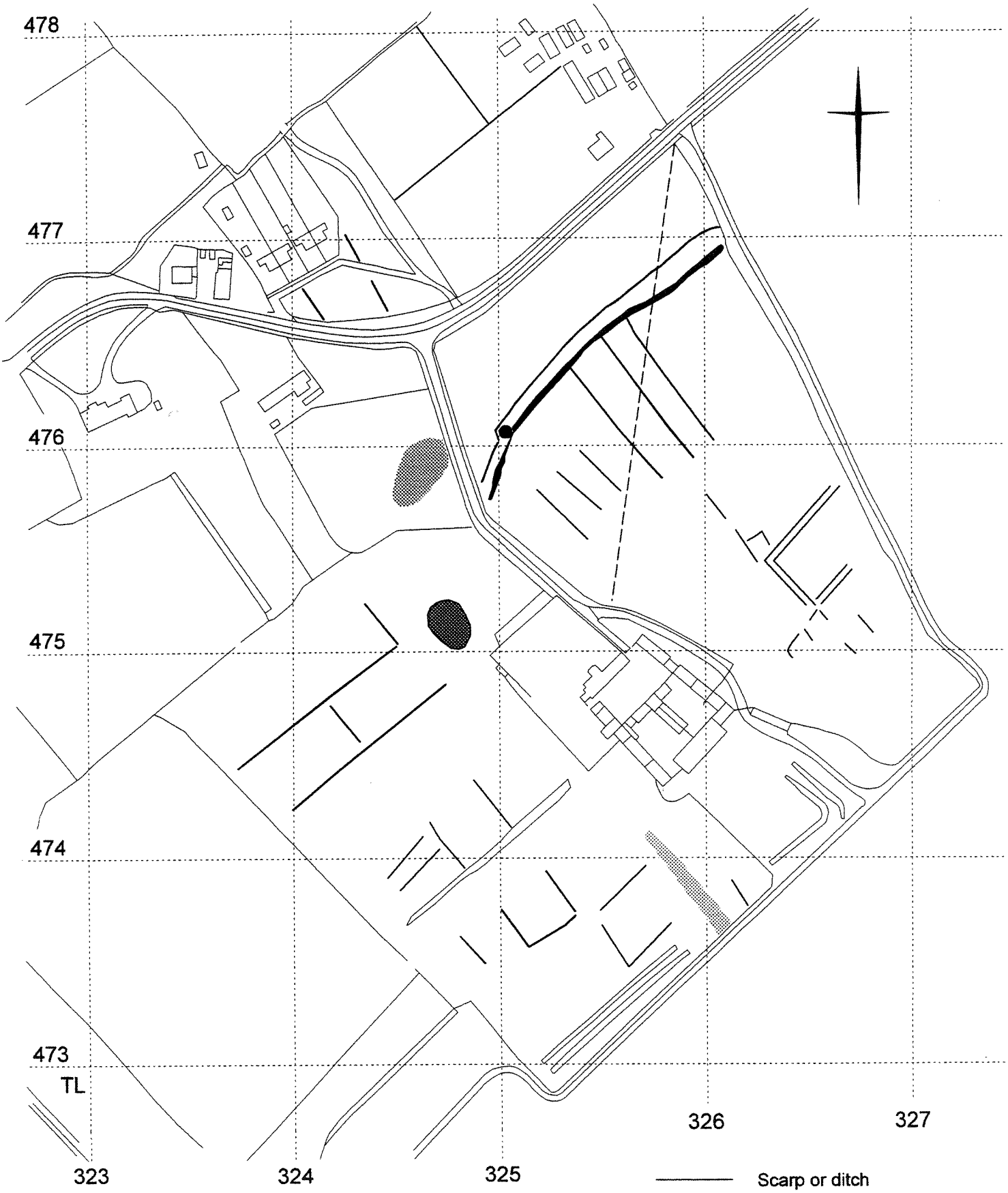
Figure 1: Wendy to Wimpole pipeline.
Archaeological features mapped from aerial photographs



Original photo interpretation and mapping at 1:10000

wendy.pdw

Figure 2: Earthworks at Wendy as mapped from aerial photographs



100 0 100
Metres

Original photo interpretation and mapping at 1:2500

tl3247.pdw

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APPENDIX

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs

Oblique photographs

AEM 48	23 May 1962
BMA 74-77	23 June 1973

Vertical photographs

RC8-DG 1-3	27 September 1979	1:9900
RC8-DZ 186-188	8 February 1982	1:3800
RC8-HV 175-177	10 July 1985	1:10000
RC8-KnBE 8, 10	12 June 1988	1:10000

Source: Cambridgeshire Record Office

Vertical photographs

106G/UK/1635: 4428-9	9 July 1946	1:10000
Fairey: 100522-100523B	June-August 1949	1:5000
Fairey: 201573-201575	June-August 1949	1:5000
Fairey: 202555-202557	June-August 1949	1:5000
BKS: Run 18: 565849-52	late summer 1962	1:10000
MAL/53/69: 005-007	8 June 1969	1:10000
MAL/53/69:052-054	8 June 1969	1:10000

Source: National Library of Air Photographs: cover search 61496, 30 July 1996

Specialist collection

TL3347/1	Undated, probably 1930s
TL3348/1-2	Undated, probably 1930s
TL3350/6-7	26 April 1953
TL3449/8	24 June 1954
TL3450/1	8 March 1954
TL3450/2	20 July 1976

Vertical collection

106G/UK/1635: 3494, 4430	9 July 1946	1:10000
106G/UK/1635: 5489-5490	9 July 1946	1:10000
CPE/UK/1993: 3113	13 April 1947	1:9800
58/5333: 0008	20 July 1962	1:10000
58/5333: 0011-0013	20 July 1962	1:10000
MAL/69054: 87	9 June 1969	1:10500
OS/72415: 783	6 October 1972	1:7200
OS/72416: 540	6 October 1972	1:7200

Some of the prints listed on the cover search were out of the collection or not held.

Most informative photograph

Earthworks at Wendy: BMA 76	23 June 1973

TERMS AND CONDITIONS

Air Photo Services have produced this assessment for their clients, Cambridgeshire Archaeology, subject to the following conditions:

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Air Photo Services has consulted only those aerial photographs specified. It cannot guarantee that further aerial photographs of archaeological significance do not exist in collections that were not examined.

Due to the nature of aerial photographic evidence, Air Photo Services cannot guarantee that there may not be further archaeological features found during ground survey which are not visible on aerial photographs or that apparently 'blank' areas will not contain masked archaeological evidence.

That the original working documents (being interpretation overlays, control information, and digital data files) will remain the property of Air Photo Services and be securely retained by it for a period of three years from the completion date of this assessment after which only the digital files may be retained.

It is requested that a copy of this report be lodged with the relevant Sites and Monuments Record within six months of the completion of the archaeological evaluation.

APPENDIX B Context List

Surface

Context	Type	Description	Below	Above
001	Surface	Field 1	n/a	n/a
002	Surface	Field 2	n/a	n/a
003	Surface	Field 3	n/a	n/a

Trench 1

Context	Type	Description	Below	Above
101	Topsoil	silty sandy clay, 10YR 3/3	-	102
102	Subsoil	sandy silty clay, 10YR 3/3	101	103
103	Subsoil	sandy silty clay, 10YR 3/2	102	107
104	Fill of **110**	silty sandy clay, 10YR 4/2	107	105
105	Fill 0f **110**	sandy clay, 10YR 4/4	104	106
106	Fill of **110**	sandy clay, 10YR 4/4 to 4/6	105	**110**
107	Fill of **110**	silty sandy clay w/ pebbles, 10YR 4/2	103	104
108	Natural	clay, 5/1 5BG w/ 10YR 4/6	109	-
109	Natural	pebbly sandy clay, 10YR 4/3	**110**	108
110	Cut	steep sided linear w/ concave base	106	109

Trench 2

Context	Type	Description	Below	Above
201	Topsoil	same as 101	-	202
202	Subsoil	same as 103	201	207,208,209
203	Natural	same as 109	**204,205, 206**	-
204	Cut	shallow linear w/ flat base	207	203
205	Cut	shallow linear w/ flat base	208	203
206	Cut	shallow linear w/ concave base	209	203
207	Fill of **204**	same as 202	202	**204**
208	Fill of **205**	same as 202	202	**205**
209	Fill of **206**	same as 202	202	**206**

Trench 3

Context	Type	Description	Below	Above
301	Topsoil	same as 101	-	302
302	Subsoil	same as 103	301	303, 305
303	Fill of **304**	clay silt, 2.5Y 4/4	302	**304**
304	Cut	shallow linear w/ concave base	303	307
305	Fill of **306**	sandy silt, 10YR 3/2	-	**306**
306	Cut	vertical sided posthole w/ smooth, sloping base	305	307
307	Natural	same as 108	**304,306**	-

Trench 4

Context	Type	Description	Below	Above
400	Topsoil	same as 101	-	401
401	Subsoil	same as 103	400	402
402	Fill of **404**	pebbly sandy clay, 10YR 4/3	402	403
403	Fill of **404**	sandy clay, 10YR 4/4	403	**404**
404	Cut	steep sided linear w/ concave base	403	405
405	Natural	same as 108	**404**	-

Trench 5

Context	Type	Description	Below	Above
500	Topsoil	same as 101	-	501
501	Subsoil	same as 103	501	-

Trench 6

Context	Type	Description	Below	Above
601	Topsoil	same as 101	-	602
602	Subsoil	same as 103	601	603,605
603	Fill of **604**	sandy clay silt, 10YR 4/3	602	**604**
604	Cut	shallow linear w/ flat base	603	608
605	Fill of **607**	sandy clay silt, 10YR 3/4	602	606
606	Fill of **607**	sandy clay silt, 10YR 4/4	605	**607**
607	Cut	steep sided linear w/ concave base	606	608
608	Natural	sandy silty clay, 10YR 4/4	**604,607**	-

Trench 7

Context	Type	Description	Below	Above
700	Topsoil	same as 101	-	701
701	Subsoil	same as 103	700	-

Trench 9

Context	Type	Description	Below	Above
901	Topsoil	same as 101	-	902
902	Subsoil	same as 103	901	903,905
903	Fill of **904**	clayey silt, 10YR 4/2	902	**904**
904	Cut	shallow linear w/ concave base	903	907
905	Fill of **906**	silty clay, 10YR 4/2	902	**906**
906	Cut	shallow linear w/ irregular base	905	907
907	Natural	clay, 2.5Y 6/2	**904,906**	-
908	?Cut	disturbed and truncated ?linear	910	907
909	?Cut	disturbed and truncated ?linear	911	907

APPENDIX C Finds Quantification

Trench/ Location	Context	Pottery Weight	*Pottery Count*	Tile & Brick	Metals Fe	Stone	Worked Stone	Flint Weight	*Flint Count*	Animal Bone	Shell	Total Weight in Grammes by Context
f/d 1	1	11	*2*									11
f/d 3	3	22	*2*									22
1	100	26	*3*									26
1	101	10	*9*		4							14
1	102	2	*1*							123		125
1	104	3	*2*							6		9
1	105	29	*6*					1	*1*			30
1	106									6		6
2	201	47	*7*									47
2	202	50	*17*							1		51
2	207	12	*2*			29						41
2	208	18	*5*							1		19
2	209									7		7
3	300	49	*6*	201						2		252
3	301	50	*7*	100		14				189	8	361
3	302	22	*5*					23	*2*			45
3	303	15	*1*									15
3	305									111		111
4	400						9					9
4	401			1								1
4	402	1	*1*									1
5	500	26	*3*	21								47
5	501	1	*4*				144	6	*1*			151
6	600			8								8
6	601	3	2	115				7	*2*			125
6	602	2	*1*					2	*1*			4
6	603	3	*1*									3
6	605			91								91
7	700	3	*1*	9				12	*3*			24
7	701	1	*3*	29								30
9	900	5	*1*									5
9	901	59	*6*									59
9	902	115	7	142								257
9	903									66		66
9	905	7	*3*									7
Total Weights in Grammes by Finds Type		592	*103 sherds*	717	4	43	153	51	*10 frags*	512	8	2080

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