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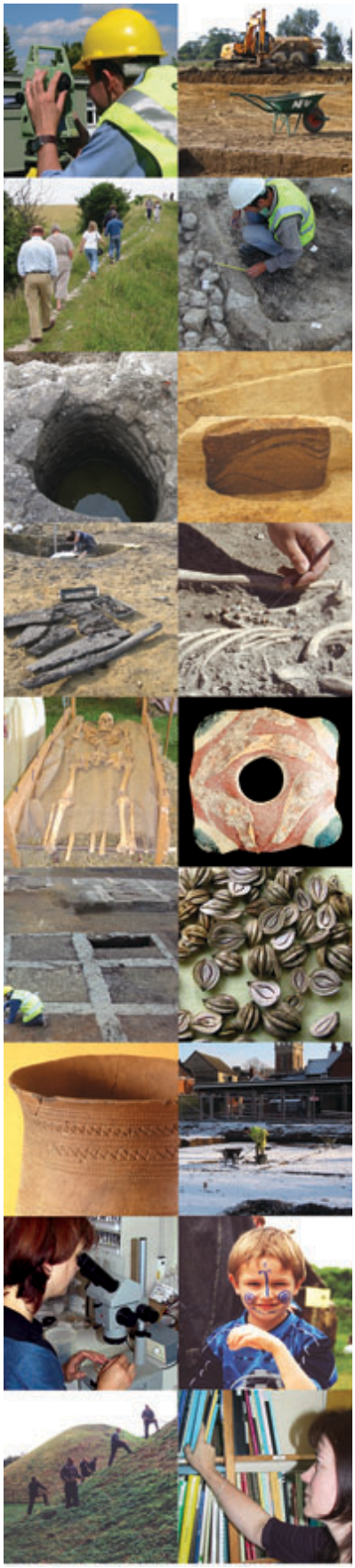

CAM ARC Report Number 940

Godmanchester to Hemingsford Abbots Water Main Renewal, Cambridgeshire

Archaeological Evaluation

Neil Wright

April 2007

DRAFT

Cambridgeshire County Council
Environment & Community Services

Commissioned by Anglian Water

CAM ARC Report Number 940

Godmanchester to Hemingsford Abbots Water Main Renewal, Cambridgeshire

Evaluation

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Site Code: GOD WMR 06
CHER Event Number: ECB 2435
Date of works: 5th February to 20th April 2007
Grid Ref: TL 525295 269467 to 527736 271351

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Summary

CAM ARC, Cambridgeshire County Council undertook an archaeological evaluation along the route of a proposed new water main. The work was commissioned by Anglian Water In response to a brief issued by Adrian Scruby of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA), supplemented by a Specification prepared by CAM ARC.

The pipeline route stretched for 4.5km's from the A1198 to Hemingford Abbots and was 20m wide. Twenty-six trenches were excavated along the route.

A geophysical survey was carried out prior to trial trenching, revealed relatively few magnetic anomalies. A series of linear and rectilinear anomalies were identified to the south of the A1198 (outside of the evaluation area) and within trench 19. It was suggested that these were possible enclosure ditches of Iron Age/Romano-British date. Ridge and furrow remains were also detected along the entire length. The trial trenches were located in areas indicating possible archaeological features.

Archaeological features (N=11) were recorded in just 4 trenches (4/5 and 18/19). They comprised mainly of ditches and have been attributed to agricultural activity, most likely dating from the prehistoric or Iron Age periods.

Recommendations for any future work based upon this report will be made by Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA).

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1 Introduction

This archaeological evaluation was undertaken in accordance with a Brief issued by Adrian Scruby of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA) supplemented by a Specification prepared by CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit).

The Brief (Scruby 2006) required that the evaluation involved a programme of geophysical survey (Masters 2006) and trial trenching designed to assist in defining the character and extent of any archaeological remains within the proposed route of the new water main, in accordance with the guidelines set out in *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). This evaluation is intended to fulfil the conditions of the brief that 4% of the affected site be evaluated.

An archaeological Desk-based Assessment (Kenney 2006) has already been undertaken (see section 3.1).

The results will enable decisions to be made by CAPCA, on behalf of the Local Planning Authority, with regard to the treatment of the archaeological remains found.

The site archive is currently held by CAM ARC and will be deposited with the appropriate county stores in due course.

2 Geology and Topography

Originally, the evaluation area comprised the 20m wide route of a pipeline, approximately 4.5km long. However, the section of pipeline running parallel to the A1198 is to be installed in an existing service trench and therefore has been omitted from the evaluation area.

The evaluation area subsequently consisted of the route of a pipeline approximately 3.4km long, with a 20m wide easement. It runs from the A1198 (London Road/Ermine Street) north-west towards Godmanchester before turning sharply to the north-east. The route passes by Bearscroft Farm Bungalow and skirts the Cardinal Way development. Having passed beneath the A14 the route then heads almost directly towards Hemingford Abbots, where it terminates (Fig.1).

The route runs from TL 525295 269467 to 527736 271351 and falls from approximately 40m OD on the A1198 to a height of 9.10m OD in Hemingford Abbots.

The underlying geology comprises Oxford Clay, overlain on the higher ground by Boulder Clay and in the valley by First-Second Terrace Gravels and Alluvium (British Geological Survey 1975.

3 Archaeological and Historical Background

3.1 Desk-based Assessment (Kenney 2006)

A summary of the results from the 2006 archaeological desk-based assessment is given below.

The assessment identified the evaluation area to lie within a zone of high archaeological potential within the landscape of the Great Ouse Valley. This area is rich in recorded archaeological sites from the prehistoric periods onwards.

Prehistoric finds have been discovered close to the route and further away on the gravel terrace to the north of the town, where a unique monument was excavated in the early 1990's by English Heritage. The same site also revealed evidence of Bronze Age activity, and the potential exists to find similar sites along the northern part of the route.

The pipeline route begins at the remains of a Roman road (Ermine Street) and skirts Durovigutum Roman town (Godmanchester) which was variously the major settlement of Roman Cambridgeshire. The area around the development zone has been subject to archaeological investigations that have revealed a Roman cemetery, enclosures and other features.

An Anglo-Saxon settlement has been to the found to the immediate south and east of Cardinal Park. It is possible that post-Roman features associated with this settlement may be encountered.

Towards Hemingford Abbots, the remains of medieval ridge and furrow will probably be encountered and this can mask earlier archaeology, which may then be revealed in the stripped easement.

Newly commissioned aerial photographic survey has been useful in establishing the location of archaeological remains within the study area, although these are mostly limited to the medieval period.

3.2 Geophysical survey (Masters 2006)

A fluxgate gradiometer survey was undertaken along the entire route of a replacement water main from Godmanchester to Hemingford Abbots,

a total distance of approximately 4.5km. The survey identified relatively low levels of potentially significant archaeological anomalies.

In field 3 (omitted from evaluation area), anomalies were identified suggesting a possible ditched enclosure with associated internal features, which are likely to be of an archaeological nature considering their close proximity to Ermine Street Roman road (A1198).

Field 11 (evaluation trenches 14 to 19) contained possible ditch-like features, as well as significant features at the northern end of the field. These appeared to indicate the presence of a rectilinear enclosure with further curvilinear ditch-like features and pit-like remains.

Most of the definitive magnetic variation along the entire route appeared to reflect either the ploughed-out remains of ridge and furrow or relatively modern activity such as ferrous litter, for example tile, brick and horse shoes, as well as existing field boundaries.

The survey concluded that that the proposed pipeline possessed limited archaeological potential even though it was in close proximity to known archaeological sites of importance that lie to the north and west of the pipeline route, adjacent to the known Roman road of Ermine Street and Roman town of Godmanchester. However, the report also suggested that the ridge and furrow remains along the route may have masked any archaeological features as highlighted in the desk-based assessment.

4 Methodology

4.1 General

The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the route of the proposed new water main.

A total of 26 trenches were machine excavated. Trench 27 was not excavated as the water main is to be bored in this area. With a single exception all trenches measured 50m in length. Trench 19 measured 100m in length to specifically target possible archaeological features identified during the geophysical survey.

All groundworks were carried out within a 20m wide easement along the line of the proposed new water main.

4.2 Physical investigation

Machine excavation was carried out under constant archaeological supervision with a 20 tonne tracked excavator, using a toothless 1.8m wide ditching bucket. The topsoil and ploughsoil were removed and stored separately) until archaeological deposits or the natural undisturbed subsoil was encountered. Possible archaeological features were then cleaned. Further investigation was then carried out by hand.

4.3 Recording

All archaeological features and deposits were recorded using CAM ARC's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour, monochrome and digital photographs were taken of all relevant features and deposits.

4.4 Metal detecting

Spoil heaps and the area of land around the trenches were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern. For details of the finds see Appendix 3.

4.5 Environmental sampling

Environmental samples were retrieved from all appropriate archaeological features. Eight samples were taken in order to assess the quality of preservation and their potential to provide useful data for further archaeological investigation.

4.6 Site conditions

The site was generally waterlogged with most trenches retaining water soon after excavation. Water was pumped from trenches were necessary prior to investigation. In general conditions for the evaluation were poor.

5 Results (see Figs 3 & 4)

The results from each of the 26 trenches will be discussed below, from Trench 1 to Trench 26, with all context numbers shown in **bold**. Archaeological deposits were recorded in trenches 4, 5, 18 and 19. A context list, detailing all deposits and archaeological features encountered, can be found in Appendix 1.

A table of the archaeological features, including their date, height Above Ordnance Datum (AOD) and depth below ground level, can be found in Appendix 2.

A total of 67 post-medieval/modern field drains were removed during machine excavation, which were to be replaced during backfilling.

5.1 Trench 1

This trench was situated on a slight south-west facing slope within field 6 of the geophysical survey, to the immediate north of the A1198 and south of the A14. It was aligned north-east by south-west. The top of the trench was measured at c.43.71m Above Ordnance Datum (AOD) and the base at 43.25m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.45m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.1m in depth. Two flint flakes and a single unidentifiable Copper alloy ?Roman coin were recovered from the base of one of the furrows **46**. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.35m in depth. No archaeological features were recorded within this trench.

5.2 Trench 2

Trench 2 was located on a slight south-west facing slope within field 6. It was aligned north-east by south-west. The top of the trench was measured at c.43.63m AOD and the base at c.43.03m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.65m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.5m in depth. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.15m in depth. No archaeological features were recorded within this trench.

5.3 Trench 3

This trench was situated on a slight south-west facing slope within field 7a of the geophysical survey. It was aligned north-east by south-west.

The top of the trench was measured at c.45.11m AOD and the base at 44.53m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.65m below ground level. Overlying the natural was a mid orangey brown silty clay ploughsoil **38** (c.0.5m deep) and a dark brown/black silty clay topsoil **37** (c.0.15m deep). No archaeological deposits were recorded within the trench.

5.4 Trench 4

Trench 4 was located on a slight south-west facing slope within field 7a and was aligned north-east by south-west. The top of the trench was measured at c.46.08m AOD and the base at c.45.02m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.1m below ground level. Cut through the top of natural **39** were two archaeological features.

Circular feature **26** measured c.0.4m in diameter by c.90mm in depth and was filled by a mid browny orange silty clay **25**. An environmental sample produced no palaeoenvironmental remains. No dating evidence was retrieved. This feature was interpreted as a heavily truncated pit/posthole of unknown date. The top of the feature was measured at c.44.94m AOD, approximately 1.15m in depth below the present ground level.

Linear feature **24** was aligned approximately north by south, as opposed to the north-west by south-east ridge and furrow, and measured c.0.6m in width by 0.13m in depth. It had a gently rounded base and was filled by a mid grey brown silty clay **23.** An environmental sample produced no palaeoenvironmental remains. No dating evidence was retrieved. This feature was interpreted as a heavily truncated ditch of unknown date. The top of the feature was measured at c.44.67m AOD, approximately 1.11m in depth below the present ground level.

Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.7m in depth. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.30m in depth.

5.5 Trench 5

This trench was situated on a slight south-west facing slope within field 7b of the geophysical survey. It was aligned north-east by south-west.

The top of the trench was measured at c.45.57m AOD and the base at c.44.84m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.65m below ground level. Cut through the top of natural **39** were three archaeological features.

Linear feature **20** was aligned approximately north by south, as opposed to the north-west by south-east ridge and furrow, and measured c.0.4m in width by 0.13m in depth. It had a rounded base and was filled by a mid browny orange silty clay **19**. An environmental sample produced no palaeoenvironmental remains. No dating evidence was retrieved. This feature was interpreted as a heavily truncated ditch of unknown date. The top of the feature was measured at c.44.67m AOD, approximately 0.75m in depth below the present ground level.

Cut through ditch **20** was linear feature **18**. It was on the same north by south alignment as ditch **20** and cut its western side. The feature terminated approximately 1m from the north-western baulk. It measured c. 0.2m in width by 0.13m in depth and had gently rounded base. The fill comprised of a mid orangey grey clay **17**. No dating evidence was retrieved. This feature was interpreted as a heavily truncated gully terminus of unknown date. The top of the feature was measured at c.44.67m AOD, approximately 0.75m in depth below the present ground level.

Linear feature **22** was aligned approximately east by west, as opposed to the north-west by south-east ridge and furrow, and measured c.0.75m in width by 0.16m in depth. It had a rounded base and was filled by a mid orangey brown silty clay **21**. An environmental sample produced no palaeoenvironmental remains. No dating evidence was retrieved. This feature was interpreted as a heavily truncated ditch of unknown date. The top of the feature was measured at c.44.72m AOD, approximately 0.73m in depth below the present ground level.

Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.5m in depth. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.15m in depth.

5.6 Trench 6

Trench 6 was located on relatively flat ground within field 7b and was aligned north-east by south-west. The top of the trench was measured at c.46.57m AOD and the base at 45.59m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.95m below ground level. Overlying the natural was a mid orangey brown silty clay ploughsoil **38** (c.0.8m deep) and a dark brown/black silty clay topsoil **37** (c.0.15m deep). An active field drain was ruptured during excavation, therefore, a sump was dug to drain the water into a current drainage ditch. No archaeological deposits were recorded within the trench.

5.7 Trench 7

This trench was situated on relatively flat ground within field 8a of the geophysical survey. It was aligned north-east by south-west. The top of the trench was measured at c.46.06m AOD and the base at c.45.29m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.67m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.52m in depth. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.15m in depth. No archaeological features were recorded within this trench.

5.8 Trench 8

Trench 8 was located on relatively flat ground within field 8a and was aligned north-east by south-west. The top of the trench was measured at c.46.98m AOD and the base at 46.14.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.7m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.45m in depth. A single sherd of late Iron Age pottery was recovered from the base of one of the furrows **33**. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.25m in depth. No archaeological features were recorded within this trench.

5.9 Trench 9

This trench was situated on relatively flat ground within field 8b of the geophysical survey and was aligned north north-east by south south-west. The top of the trench was measured at c.45.29m AOD and the base at c.44.66m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.75m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.55m in depth. Overlying **38** was a dark brown/black silty clay topsoil **37**, c.0.2m in depth. No archaeological features were recorded within this trench.

5.10 Trench 10

Trench 10 was located on relatively flat ground within field 8b and was aligned north north-east by south south-west. The top of the trench was measured at c.44.19m AOD and the base at 43.49m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.7m below ground level. Remnants of north-west by south-east aligned ridge and furrow, which appeared to respect the current field boundaries, were recorded cut into the top of natural **39**. The ploughsoil forming the ridge and furrow comprised of mid orangey brown silty clay **38** measuring c.0.5m in depth. Overlying the ploughsoil **38**, in the north-east end of the trench, was modern tarmac/hardcore, most likely associated with construction of the current A14. A dark brown/black silty clay topsoil **37**, c.0.2m in depth overlay the tarmac/hardcore. No archaeological deposits were recorded within this trench.

5.11 Trench 11

This trench was situated on relatively flat ground to the immediate south of the A14 and within field 9 of the geophysical survey. It was aligned west north-west by east south-east. The top of the trench was measured at c.44.43m and the base at c.43.65m AOD.

The mid grey blue clay and orange sandy gravel natural subsoil **39** was encountered at c.0.75m below ground level. Overlying the natural was a mid orangey brown silty clay ploughsoil **38** (c.0.6m deep) and a dark brown/black silty clay topsoil **37** (c.0.15m deep). No archaeological deposits were recorded within the trench.

5.12 Trench 12

Trench 12 was situated on relatively flat land within field 10 of the geophysical survey and to the immediate north of the A14. It was aligned north north-east by south south-west. The top of the trench was measured at c.21.59m AOD, and the base at c.20.89m AOD.

The mid grey blue clay and browny orange sand natural subsoil **3** was encountered at c.0.7m below ground level. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.45m deep) and a dark greyish brown silty clay topsoil **1** (c.0.25m deep). No archaeological deposits were recorded within this trench.

5.13 Trench 13

This trench was situated within field 10 and was aligned north north-east by south south-west. It was located within a shallow valley, surrounded on each side by gentle slopes. The top of the trench was measured at c.19.60m AOD and the base at 18.76m AOD.

The mid grey blue clay and browny orange sand natural subsoil **3** was encountered at a depth of c.0.84m below ground level. Overlying the natural was a mid brownish orange silty sand alluvial deposit **4**, which measured c.0.39m in depth and probably represented hill-wash from the surrounding slopes. The mid greyish brown silty clay ploughsoil **2** (c.0.20m deep) and topsoil **1** (c.0.25m deep) overlay alluvial deposit **4**. No archaeological deposits were recorded within this trench.

5.14 Trench 14

Trench 14 was located on a south-west facing slope within field 11 of the geophysical survey and was aligned north-east by south-west. The top of the trench was measured at c.19.44m AOD and the base at c.18.75m AOD.

The mid grey blue clay and browny orange sand natural subsoil **3** was encountered at c.0.65m below ground level. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.38m deep) and a dark greyish brown silty clay topsoil **1** (c.0.27m deep). No archaeological deposits were recorded within the trench.

5.15 Trench 15

This trench was situated on a south-west facing slope within field 11 and was aligned north-east by south-west. The top of the trench was measured at c.23.34m AOD and the base at c.22.84m AOD.

The mid grey blue clay and browny orange sand natural subsoil **3** was encountered at c.0.52m below ground level. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.28m deep) and a dark greyish brown silty clay topsoil **1** (c.0.24m deep). No archaeological deposits were recorded within the trench.

5.16 Trench 16

Trench 16 was located on top of a hill within field 11 and was aligned north-east by south-west. The top of the trench was measured at c.22.06m AOD and the base at c. 21.6m AOD.

The mid grey blue clay and browny orange sand natural subsoil **3** was encountered at c.0.5m below ground level. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.2m deep) and a dark greyish brown silty clay topsoil **1** (c.0.3m deep). No archaeological deposits were recorded within the trench. No archaeological features were recorded within the trench.

5.17 Trench 17

This trench was situated on a north-east facing slope within field 11. It was aligned north-east by south-west. The top of the trench was measured at c.19.16m AOD and the base at c.18.62m AOD.

The natural **3** was encountered at c.0.51m below ground level and comprised a higher proportion of browny orange sand and occasional gravel than trenches 12 to 16. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.25m deep) and a dark greyish brown silty clay topsoil **1** (c.0.26m deep). No archaeological deposits were recorded within the trench.

5.18 Trench 18

Trench 18 was located on a slight north-east facing slope within field 11 and was aligned north-east by south-west. The top of the trench was measured at c.18.31m AOD and the base at c.17.62m AOD.

The natural **3** was encountered at c.0.65m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Cut through the top of natural **3** were three archaeological features.

Linear feature **8** was aligned approximately north by south and measured c.0.45m in width by 0.24m in depth. It had a flat base and steep sides (c.80°) and was filled by a mid grey brown silty clay **7**. An environmental sample produced no palaeoenvironmental remains. No dating evidence was retrieved. This feature was interpreted as a truncated ditch of unknown date. The top of the feature was measured at c.17.67m AOD, approximately 0.74m in depth below the present ground level.

Approximately 5m north-east of ditch **8**, and running parallel to it, was linear feature **6**. It was aligned north by south and measured c.0.8m in

width by c.0.16m in depth. The feature terminated approximately 0.5m from the north-western baulk. It had a gently rounded base and average sides (c.40-50°) and was filled by a mid orangey brown silty clay **5**. A single fragment of worked flint was retained from fill **5**. An environmental sample produced no palaeoenvironmental remains**.** This feature was interpreted as a heavily truncated ditch of prehistoric/Iron Age date. The top of the feature was measured at c.17.67m AOD, approximately 0.74m in depth below the present ground level.

Linear feature **14** was located c.27m north-east of ditch **6** and was parallel to both ditches **6** and **8**. It was aligned north by south and measured c.0.5m in width by 0.47m in depth. Feature **14** was V-shaped and had steep sides. (c.80°) and was filled by a dark brownish grey silty clay **13**. No dating evidence was retrieved. This feature was interpreted as a ditch of unknown date. The top of the feature was measured at c.17.62m AOD, approximately 0.69m in depth below the present ground level.

Overlying the features was a mid greyish brown silty clay ploughsoil **2** (c.0.4m deep) and a dark greyish brown silty clay topsoil **1** (c.0.25m deep).

5.19 Trench 19

This trench was situated on relatively flat ground within field 11. It measured c.100m in length and was aligned north-east by south-west. The top of the trench was measured at c.13.68m AOD and the base at c.12.83m AOD.

The natural **3** was encountered at c.0.83m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Cut through the top of natural **3** were three archaeological features.

Linear feature **12** was aligned north by south and measured c.0.45m in width by 0.30m in depth. It had a rounded base and average sides (c.40°) and was filled by a dark grey brown sandy clay **11**. Retrieved from fill **11** was a single sherd of later Iron Age pottery and a flint flake. An environmental sample produced no palaeoenvironmental remains. This feature was interpreted as a truncated ditch of later Iron Age date. The top of the feature was measured at c.12.85m AOD, approximately 0.86m in depth below the present ground level.

Linear **41** was aligned south-east by north-west and measured c.3.3m in width by a maximum of 0.8m in depth. It had a flat base and its uppermost southern edge was gradually sloping (c.10°), whereas the bottom 0.4m steepened to c.40°. What appears as slippage/collapse along its southern side is evidenced by deposit **44**, which comprised of mid brown silty clay. Overlying **44** was fill **40**, which comprised of mid

yellowy brown silty clay. Fifteen small sherds of middle Iron Age pottery and five fragments of animal bone were recovered from fill **40**. An environmental sample produced no palaeoenvironmental remains**.** This feature was interpreted as a possible boundary ditch of middle Iron Age date. The top of the feature was measured at c.13.48m AOD, approximately 0.79m in depth below the present ground level.

Cut through the northern edge of fill **40** was linear **43**, which measured c.0.4m in depth and c.1.1m in width. It followed the same alignment of the original ditch **41**, had average sides (c.40°) and was U-shaped with a round pointed base. The fill **42** revealed one fragment of middle Iron Age pottery. This feature was interpreted as a middle Iron Age re-cut of larger ditch **41**.

Overlying the features was a mid brownish orange silty sand alluvial deposit **4**, which measured a maximum of 0.16m in depth. The mid greyish brown silty clay ploughsoil **2** (c.0.45m deep) and topsoil **1** (c.0.22m deep) overlay alluvial deposit **4**.

Plate 1: Section of ditches 41 (right) and 43 (left) in Trench 19, looking south-east (1m scale)

5.20 Trench 20

Trench 20 was located on relatively flat ground within field 12 of the geophysical survey and was aligned north-east by south-west. The top of the trench was measured at c.12.93m AOD and the base at 11.72m AOD.

The natural **3** was encountered at c.1m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid brownish orange silty sand alluvial deposit **4**, which measured c.0.5m in depth. The mid greyish brown silty clay ploughsoil **2** (c.0.25m deep) and topsoil **1** (c.0.25m deep) overlay alluvial deposit **4**. No archaeological deposits were recorded within this trench.

5.21 Trench 21

This trench was situated on relatively flat ground within field 12. It was aligned north-east by south-west. The top of the trench was measured at c.11.67m AOD and the base at 11.12m AOD.

The natural **3** was encountered at c.0.55m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.33m deep) and a dark greyish brown silty clay topsoil **1** (c.0.22m deep). No archaeological deposits were recorded within the trench.

5.22 Trench 22

Trench 22 was located on relatively flat ground within field 12 and was aligned north-east by south-west. The top of the trench was measured at c.11.75m AOD and the base at 11.15m AOD.

The natural **3** was encountered at c.0.53m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.35m deep) and a dark greyish brown silty clay topsoil **1** (c.0.18m deep). No archaeological deposits were recorded within the trench.

5.23 Trench 23

This trench was situated on relatively flat ground within field 12. It was aligned north-east by south-west. The top of the trench was measured at c.12.94m AOD and the base at c.12.34m AOD.

The natural **3** was encountered at c.0.6m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid greyish brown silty clay ploughsoil 2 (c.0.26m deep) and a dark greyish brown silty clay topsoil 1 (c.0.24m deep).

5.24 Trench 24

Trench 24 was located within field 13 of the geophysical survey and was aligned north-east by south-west. The top of the trench was measured at c.13.16m AOD and the base at c.12.65m AOD.

Substantial upstanding ridge and furrow, aligned approximately east by west and apparently respecting the current boundaries, were visible within this field. The natural **3** was encountered at c.0.38m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.16m deep) and a dark greyish brown silty clay topsoil **1** (c.0.22m deep). No archaeological deposits were recorded within the trench.

5.25 Trench 25

This trench was situated within field 14 of the geophysical survey and was aligned north north-east by south south-west. The top of the trench was measured at c.11.1m AOD and the base at c.10.57m AOD.

Substantial upstanding ridge and furrow, aligned approximately east by west and apparently respecting the current boundaries, were visible within this field. The natural **3** was encountered at c.0.55m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid brownish orange silty sand alluvial deposit **4**, which measured c.0.24 in depth. A mid greyish brown silty clay ploughsoil **2** (c.0.16m deep) overlay alluvial deposit **4**. Cut through the top of ploughsoil 2 was a modern rectangular feature, which contained fragments of wood and a single unidentifiable button **37**. A dark greyish brown silty clay topsoil **1** (c.0.15m deep) overlay this modern feature. No archaeological deposits were recorded within this trench.

5.26 Trench 26

Trench 26 was located within field 14 of the geophysical survey and was aligned west north-west by east south-east. The top of the trench was measured at c.10.18m AOD and the base at c.9.6m AOD.

Substantial upstanding ridge and furrow, aligned approximately east by west and apparently respecting the current boundaries, were visible within this field. The natural **3** was encountered at c.0.58m below ground level and comprised a high proportion of browny orange sand and occasional gravel. Overlying the natural was a mid greyish brown silty clay ploughsoil **2** (c.0.28m deep) and a dark greyish brown silty clay topsoil **1** (c.0.30m deep). No archaeological deposits were recorded within the trench.

6 Discussion

A total of only 11 archaeological features, comprising; 9 ditches (including 1 terminus and a re-cut); 1 gully terminus and 1 small pit/posthole were recorded during the trial trenching. They were located within two distinct areas in trenches 4/5 and 18/19 and were encountered at between 0.69m and 1.15m in depth below the present ground level.

A ditch (**24**) and posthole (**26**) were recorded within Trench 4, whilst a gully terminus (**18**) and two ditches (**20**, **22**) were present within Trench 5. All of the features remained undated. However, it is probable that they represent field boundaries associated with agricultural activity in the prehistoric or Iron Age periods. No archaeological anomalies were detected during the geophysical survey, only medieval/post-medieval ridge and furrow were identified. In this area the trial trenching has shown that archaeological anomalies have been masked by the later ridge and furrow, as suggested by the geophysical survey.

Three ditches (**8**, **14** and terminus **6**) were recorded within Trench 18. No secure dating evidence was available. However, it is likely that they represent boundary ditches associated with agricultural activity in the prehistoric or Iron Age periods. Again, no archaeological anomalies were detected during the geophysical survey, only medieval/post-medieval ridge and furrow were identified. Within Trench 18 the trial trenching has shown that archaeological anomalies have again been masked by the later ridge and furrow, as suggested by the geophysical survey.

Two ditches, including a re-cut, were recorded within Trench 19. Large ditch **41** was re-cut by **43** and both were dated to the middle Iron Age. Ditch **12** was similarly aligned but was dated to the later Iron Age. It is probable that these features represent boundary ditches associated with agricultural activity during the Iron Age. The geophysical survey detected archaeological anomalies within the area of Trench 19, showing that the ridge and furrow did not mask all archaeological features.

The remains of buried ridge and furrow, detected during the geophysical survey, were only evident in the trenches to the south of the A14 (nos.1 to 11). To the north of the A14 (trenches 12 to 23) a buried ploughsoil was recorded, although well-defined furrows were not visible. Within trenches 24 to 26 (fields 13 and 14 of the geophysical survey) substantial upstanding ridge and furrow was noted.

The relatively few archaeological features and the lack of residual finds in the topsoil and ploughsoil suggest very low levels of archaeological activity within the entire length of the proposed water main.

The relatively few finds from the features and the high proportion of ditches (>90%) suggests agricultural use of the land as opposed to settlement, where a higher concentration of discreet feature such as pits, postholes and finds may be expected.

7 Conclusions

The relatively few archaeological features (11) were recorded within two distinct areas in trenches 4/5 and 18/19 and represent a very low density given the location of the investigation area. They suggest agricultural activity, most likely dating from the prehistoric or Iron Age periods.

As suggested by the geophysical survey some archaeological features were indeed masked by later ridge and furrow (trenches 4, 5 and 18). However, ditches recorded in Trench 19 were detected during the geophysical survey and were discovered during trial trenching. This has provided some evidence for success of the geophysical survey results. The assumption that ridge and furrow may have masked archaeological was true to a certain extent, although relatively few archaeological deposits were encountered anywhere along the route.

The explanation for the lack of archaeological remains to the north of the A14 to Hemingford Abbots may be explained by the position of the River Great Ouse, the land rises then drops towards the Village of Hemingford Abbots and lies within the rivers flood plain and this may have been an area to wet for sustained occupation, reflected in the continued high water levels present during the archaeological investigation.

The lack of archaeological remains between the A1198 and A14 (Bearscroft Farm) is harder to explain. This land was located again on higher land immediately to the south of Godmanchester, along the eastern side of Ermine Street Roman Road and would have been an ideal location of Roman agriculture and settlement. The absence of archaeology thus is puzzling, although finds have been recorded to the north (closer to the Roman town) and perhaps still survive further south, as the land rises.

In summary this work revealed little evidence for archaeological activity within the investigation area.

Recommendations for any future work based upon this report will be made by the County Archaeology Office (CAPCA).

Acknowledgements

The author would like to thank Anglian Water and in particular the Project engineer Felix Assiamah who commissioned and funded the archaeological work; the landowners (Mrs Anne Looker, Mr Stephen Setchell, Mr John Sewell, & Mr Arthur Smith & tenants (Mr Robert Lenton) for allowing us access to their fields and help in completing the work; Mr Simon Ashford for metal-detecting the spoil heaps and areas around the trenches and Mark Hinman (CAM ARC) for dating the Iron Age pottery. Thanks also to Chriss Wisson and the staff of Lattenbury Services who excavated, backfilled and repaired the land drains in the worst possible conditions.

The project was managed by Stephen Macaulay (CAM ARC) and the brief for archaeological works was written by Adrian Scruby (CAPCA). Andy Thomas (CAPCA) visited the site and monitored the evaluation. Finally thanks to all the staff who worked through all the rain and snow - Ian Hogg, Dan Wheeler, Louise Bush, Ben Brogan and Tom Lyons.

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Appendix 1: Context Table

Context	Trench	Category	Type	Shape in Plan	Width (m)	Depth (m)	Colour	Coarse component	Fine component	Other Comments
1	12 - 26	layer	topsoil				dark grey brown		silty clay	
2	12 - 26	layer	ploughsoil				mid grey brown and rare orangey brown		silty clay	
3	12 - 26	layer	natural subsoil				mid grey blue and orangey brown clay with orange sandy gravel		clay and sandy gravel	
4	13, 20, 25	layer	alluvium				mid browny orange		silty sand	
5	18	fill	ditch (terminus)				mid orangey brown		silty clay	fill of 6
6	18	cut	ditch (terminus)	linear	0.8	0.16				filled by 5
7	18	fill	ditch				mid grey brown		silty clay	fill of 8
8	18	cut	ditch	linear	0.45	0.24				filled by 7
9	18	----------	----------	----------	--------	--------	----------	----------	----------	*discarded*
10	18	----------	----------	----------	--------	--------	----------	----------	----------	*discarded*
11	19	fill	ditch				dark grey brown	rare small flints	sandy clay	fill of 12
12	19	cut	ditch	linear	0.45	0.3				filled by 11
13	18	fill	ditch				dark brownish grey	occasional small flints	silty clay	fill of 14
14	18	cut	ditch	linear	0.5	0.47				filled by 13
15	15	----------	----------	----------	--------	--------	----------	----------	----------	*discarded*
16	15	----------	----------	----------	--------	--------	----------	----------	----------	*discarded*
17	5	fill	gully (terminus)				mid orangey grey		silty clay	fill of 18
18	5	cut	gully (terminus)	linear	0.3	0.13				filled by 17
19	5	fill	ditch				mid browny orange		silty clay	fill of 20
20	5	cut	ditch	linear	0.3	0.15				filled by 19
21	5	fill	ditch				mid orangey brown	rare small gravel	silty clay	fill of 22
22	5	cut	ditch	linear	0.7	0.16				filled by 21
23	4	fill	ditch				mid grey brown		silty clay	fill of 24
24	4	cut	ditch	linear	0.6	0.13				filled by 23

Context	Trench	Category	Type	Shape in Plan	Width (m)	Depth (m)	Colour	Coarse component	Fine component	Other Comments
25	4	fill	small pit/posthole				mid browny orange		silty clay	fill of 26
26	4	cut	small pit/posthole	circular	0.2	0.09				filled by 25
27	7	cut	furrow							
28	7	fill	furrow							
29	7	cut	furrow							
30	7	cut	furrow							
31	7	cut	furrow							
32	7	fill	furrow							
33	8	fill	furrow							
34	8	cut	furrow							
35	8	fill	furrow							
36	8	cut	furrow							
37	1 - 11	layer	topsoil				dark brown		silty clay	
38	1 - 11	layer	ploughsoil				mid orangey brown		silty clay	
39	1 - 11	layer	natural subsoil				mid bluey grey clay with orange sandy gravel		clay and sand gravel	
40	19	fill	ditch				mid yellowy brown	rare medium stones	silty clay	secondary fill of 41
41	19	cut	ditch	linear	3.3	0.8				filled by 40 + 44
42	19	fill	ditch				mid grey brown		silty clay	fill of re-cut 43
43	19	cut	ditch	linear	1.1	0.4				re-cut of ditch 41
44	19	fill	ditch				mid brown	rare medium stones	silty clay	primary fill of 41
45	1	cut	furrow							
46	1	fill	furrow							
47	12 + 13	findspot								metal detector – surface between trenches 12 + 13
48	24	findspot								metal detector – spoil heap of trench 24
49	2	findspot								metal detector – spoil heap of trench 2
50	12	findspot								metal detector – surface next to trench 12

Appendix 2: Table of Archaeological Features

Trench	Context no.	Type	Alignment	Date	Height AOD (m)	Depth below ground level (m)
4	24	ditch	N by S	undated	44.67	1.11
4	26	small pit/posthole		undated	44.94	1.15
5	18	gully terminus	N by S	undated	44.67	0.75
5	20	ditch	NW by SE	undated	44.67	0.75
5	22	ditch	E by W	undated	44.72	0.73
18	6	ditch terminus	N by S	prehistoric/Iron Age?	17.67	0.74
18	8	ditch	N by S	undated	17.67	0.74
18	14	ditch	N by S	undated	17.62	0.69
19	12	ditch	N by S	later Iron Age	12.85	0.86
19	41	ditch	SE by NW	middle Iron Age	13.48	0.79
19	43	ditch (re-cut)	SE by NW	middle Iron Age	13.48	0.79

Appendix 3: Metal detector finds

Number	Context	Material	Description	Location	Date
	47			surface between trenches 12 and 13	
	47			surface between trenches 12 and 13	
	47			surface between trenches 12 and 13	
	47			surface between trenches 12 and 13	
	47			surface between trenches 12 and 13	
	47			surface between trenches 12 and 13	
	48			spoil heap of trench 24	
	48			spoil heap of trench 24	
	48			spoil heap of trench 24	
	48			spoil heap of trench 24	
	48			spoil heap of trench 24	
	49			spoil heap of trench 2	
	49			spoil heap of trench 2	
	49			spoil heap of trench 2	
	49			spoil heap of trench 2	
	49			spoil heap of trench 2	
	50			surface next to trench 12	
	50			surface next to trench 12	
	50			surface next to trench 12	
	50			surface next to trench 12	
	50			surface next to trench 12	

APPENDIX 4: ENVIRONMENTAL APPRAISAL OF SAMPLES FROM GODMANCHESTER TO HEMINGSFORD ABBOTS WATER MAIN RENEWAL

by Rachel Fosberry

1 INTRODUCTION AND METHODS

Eight bulk samples were taken from features within the evaluated areas of 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.

Ten litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification.

2 RESULTS

The samples are devoid of charred plant remains and artefacts

3 CONCLUSIONS AND RECOMMENDATIONS

It is unusual for an assemblage not to produce any charred plant remains. The features sampled have been interpreted as agricultural ditches and there is no evidence of any nearby settlement or of any agricultural practices such as crop processing.

No further work is recommended.

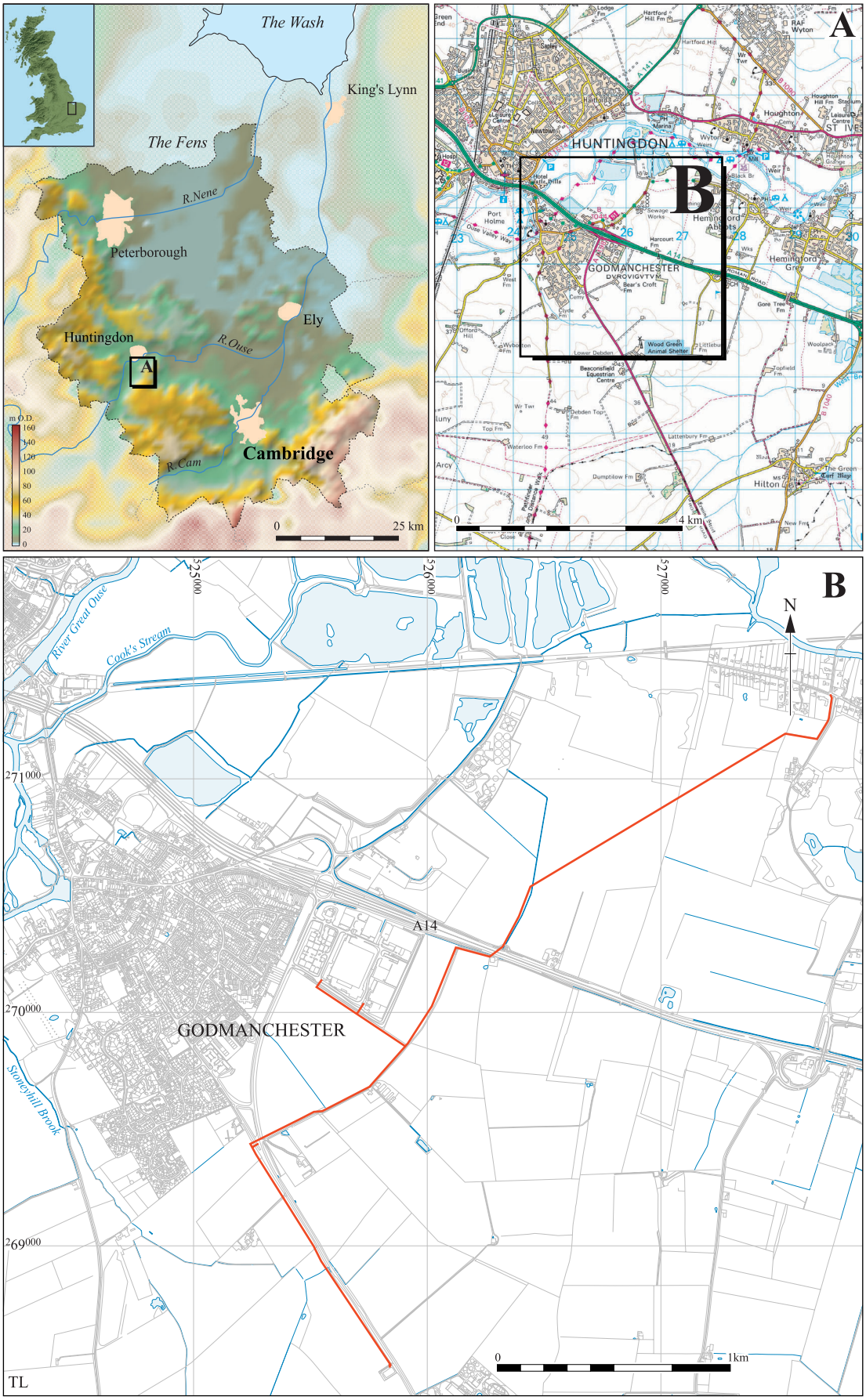


Figure 1: Location of the proposed route outlined (red)

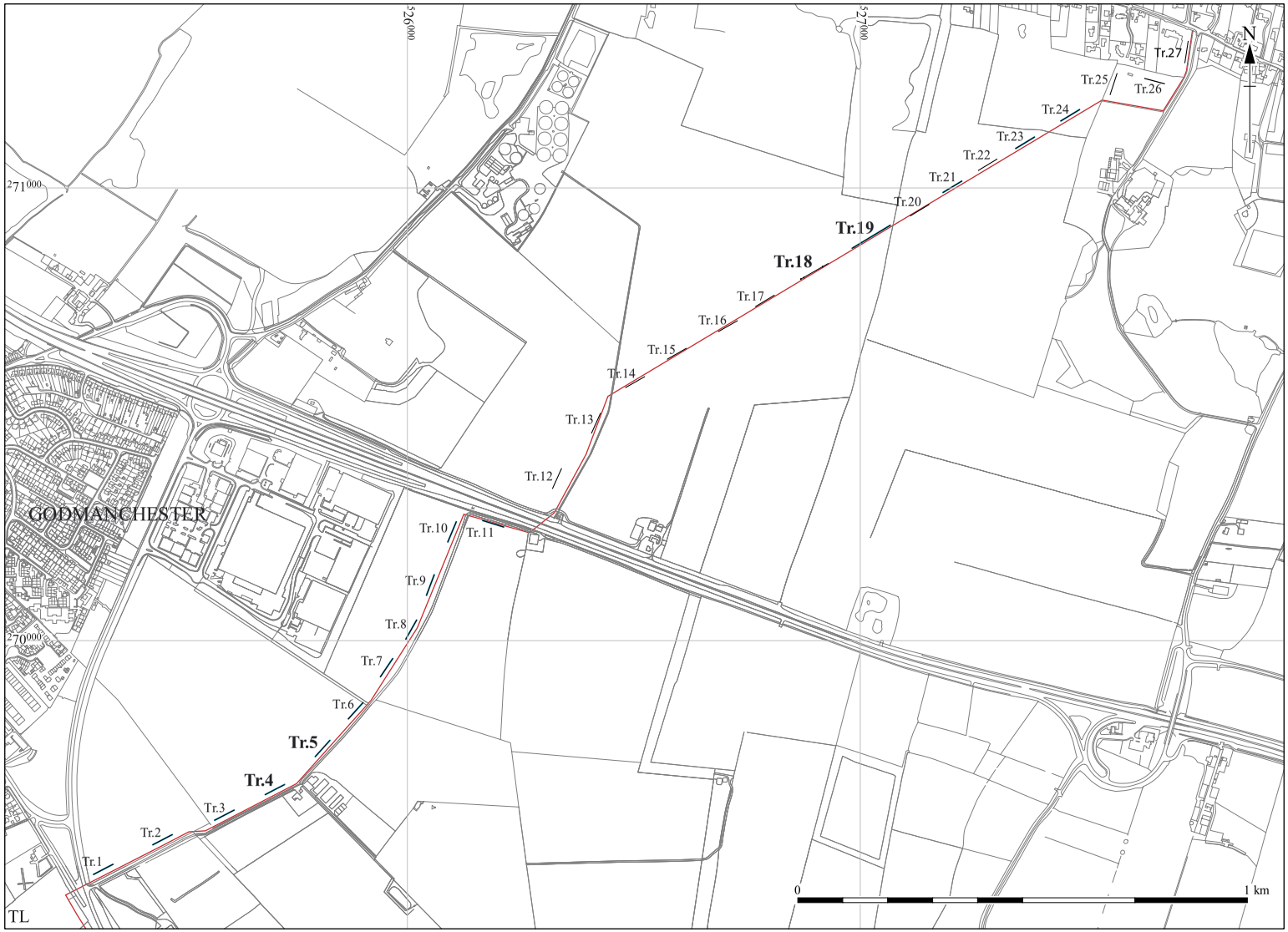


Figure 2: Location of trenches with the pipeline course in red. (Figure 3 trenches in bold)

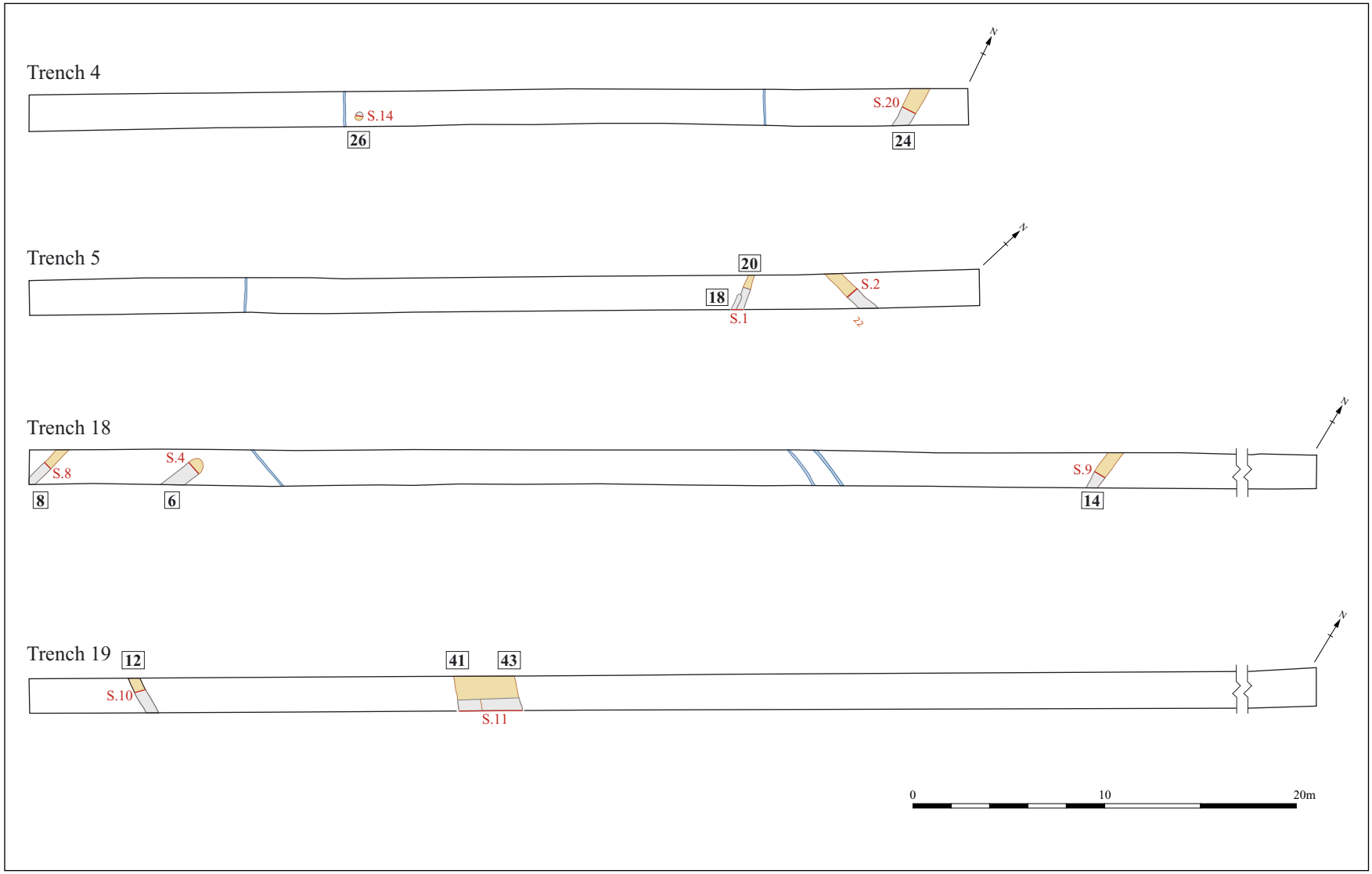


Figure 3: Trench plans

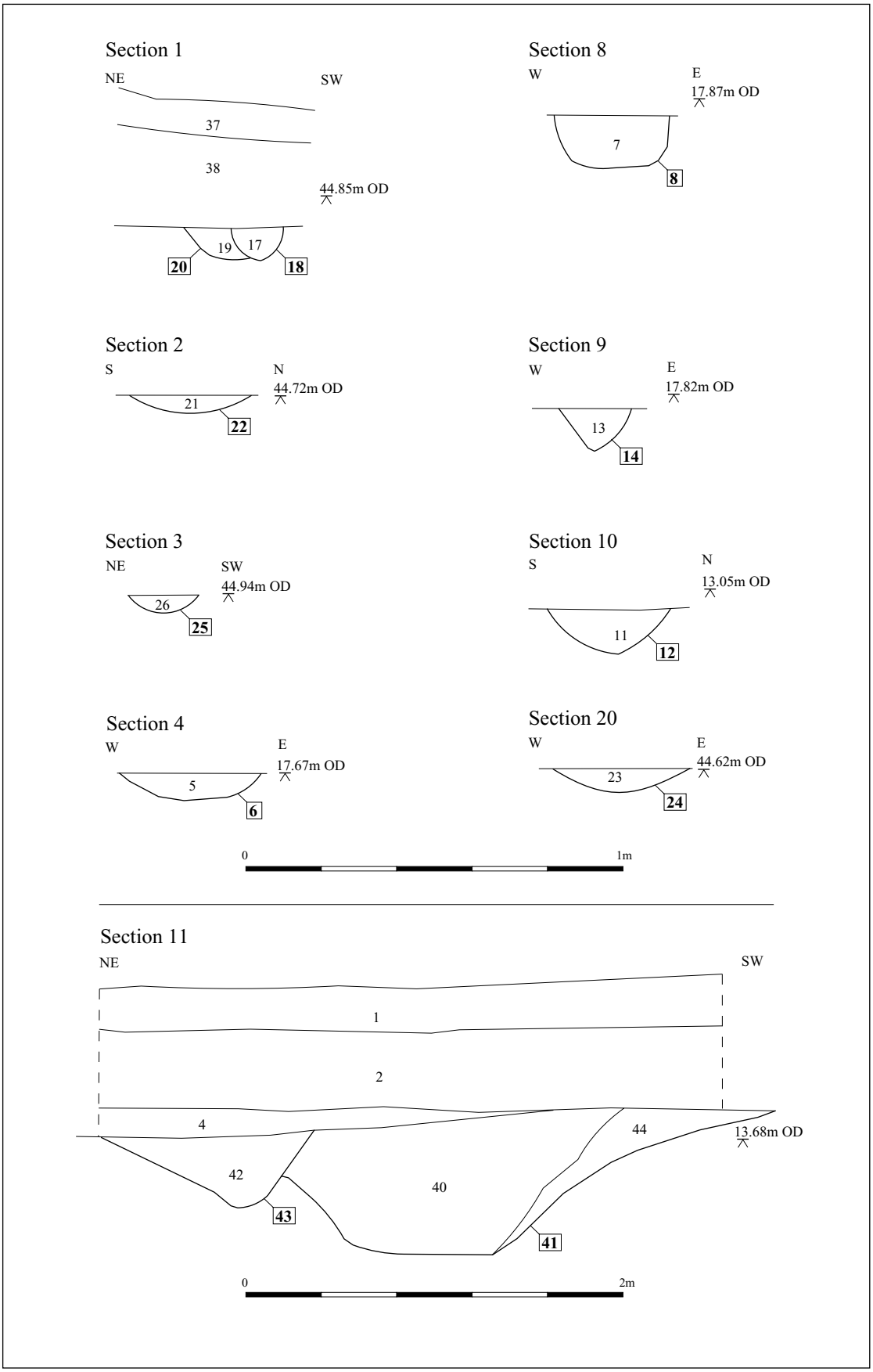
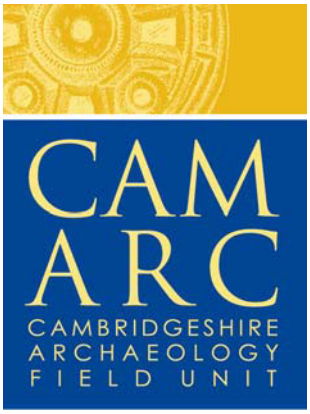


Figure 4: Section drawings



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