

Report 2494

nau archaeology

**An Archaeological Evaluation on the
Anglian Water, Norse Avenue Off Site Scheme,
Bradfield Combust, Suffolk**

BRC 015

Prepared for
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Location:	Bradfield Combust with Stanningfield
District:	St Edmundsbury
Grid Ref.:	TL 90330 58115 to TL 89508 58025
HER No.:	BRC 015
OASIS Ref.:	84749
Client:	Anglian Water Services Ltd
Dates of Fieldwork:	2 to 9 September 2010

Summary

An archaeological evaluation was conducted for Anglian Water Services Limited in the parish of Bradfield Combust with Stanningfield ahead of the construction of a new water pipeline as part of the Norse Avenue Off Site Scheme.

Five of the nine trenches excavated contained archaeological features. Trench 8 contained Early Iron Age evidence in the form pottery contained in several pits and a ditch. Trench 7 contained a ditch possibly linked with the disused GNR railway which was known to run close by. Trenches 3, 4 and 5 contained probable recent field boundaries and drainage gullies.

1.0 INTRODUCTION

(Fig. 1)

The evaluation was undertaken prior to the creation of a new water pipeline between Bury Road, Bradfield St. Clare (TL 90330, 58115) and Ixer Lane, Bradfield Combust with Stanningfield (TL 89508, 58025).

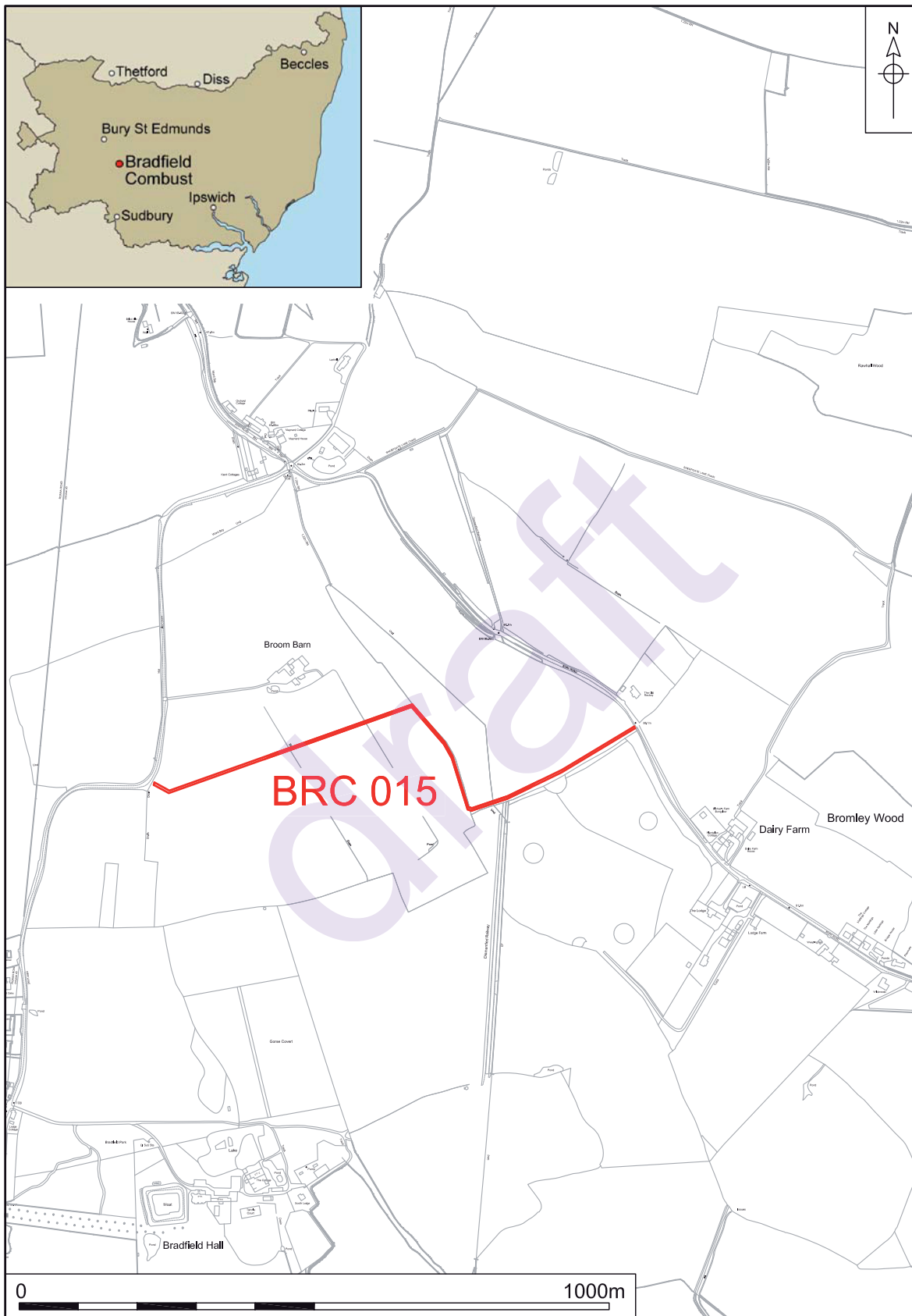
Suffolk County Council Archaeological Service Conservation Team advised Anglian Water Services Limited that a scheme of archaeological investigation would be needed along the route of the proposed water pipeline (Ref. Jess Tipper 3 June 2010). The evaluation was conducted in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref. NAU/BAU2494/DW). The work was commissioned by and funded by Anglian Water Services Limited.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the following the guidelines set out in *Planning Policy Statement 5: Planning for the Historic Environment* (Department for Communities and Local Government 2010). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Suffolk County Council Archaeological Service following the relevant policies on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The underlying geology consists of Upper Chalk and the superficial geology is one of Chalky Till of the Melford and Ashley Series (Tipper 2010 and British



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Figure 1. Location of pipeline. Scale 1:10,000

Geological Survey). On site the natural substratum was often observed to be a firm orange clayey sand and gravel and in certain parts of the site the a looser sand. The topsoil was a friable mid brown clayey silt which had a maximum depth of 0.40m. The subsoil consisted of a friable light orangey brown clayey silt that was 0.15m to 0.20m thick on average, though in trenches 4 and 5, situated towards the base of a slope, it was 0.50m thick, presumably due to colluvial action.

The pipeline is located on gently rolling fields which are intensively farmed with arable crops, and the heights along the length of the pipeline range between 75m and 88m OD. The weather was reasonably fine throughout, although in brief heavy rain the clayey nature of the ground demonstrated poor drainage; there are many drainage ditches and ceramic field drains visible across the area. The site lay some distance south of the River Stour.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

An search of the Historic Environment Record (HER) for Suffolk was undertaken and the most relevant entries are recorded below supplemented by background information gathered from the Suffolk Historical Atlas (Dymond and Martin 1999).

Prehistoric to Roman

For most of early earlier prehistoric period there is little activity recorded around the area of the site and this is probably due to its position towards the harder claylands of central Suffolk. (Martin 1999)

There are only a few find spots of prehistoric date recorded on the HER in the vicinity of the site. They include BRC 002 and BSC 005.

To the west of the site, an Early Bronze Age barbed and tanged flint arrowhead was found (BRC 002). Similarly, a flanged axehead of Early Bronze Age date, was found whilst metal detecting, to the east of the site. The axe was part of the Arreton tradition of the Late Early Bronze Age.

Further to the east of the site a Neolithic Polished flint axe found within Bromley Wood (BSC 005).

During the Iron Age the tribal boundary of the Trinovantes is postulated to lie just to the north of Bradfield Combust, although the area appears to be closer to the Icenic heartland rather than that of the Trinovantes. However there appears to be little activity in the Iron Age period close to the site generally. (Martin 1999)

In the Roman period the main thoroughfare between the settlements at Pakenham and Long Melford appeared to run through the parishes of Bradfield Combust and Stanningfield. Again, the position of the site on the claylands of central Suffolk meant that there was generally less activity in the Roman period. 'The greatest density of settlement is, as previously, along the gravel terraces of river valleys' (Plouviez 1999)

To the north of the site at Maynards Farm a Romano-British site (BSC 007) is recorded on a map and the site is also represented by an artefact scatter.

Anglo-Saxon to medieval

There is a large Saxon cemetery at Bury St Edmunds which contained both cremations and inhumations. Two further burial sites have been found closer to the present site consisting of only inhumation burials.

The nearby large Anglo-Saxon settlement of Bury St Edmunds continued to expand in the Middle and Later Saxon periods where a royal vill, a market, and a minster were present (West 1999).

It is thought that prior to Domesday, the place name Bradfield meant "the wide fold". The *Domesday Book* records the population of Bradfield Combust in 1086 to be 76 including those resident in Bradfield St Clare and Bradfield St George. The addition of the word 'Combust' probably derived from an incident in 1327, when an angry mob burned down Bradfield Hall, the home of the Abbot of Bury St Edmunds, though this is not proven (Marius-Wilson 1870).

To the south of the site (BRC 005) records the position of Bradfield Park surrounding and associated with Bradfield Hall (BRC 001).

There is a Scheduled Monument (a moated site) located close to the pipeline immediately west of Bradfield Hall (DSF15496 / BSC 002). The central platform of the site is said to measure around 45 x 35 paces and there is low outer bank on the north and west sides which may or may not be original. The moat is broad and dry. There has been little disturbance or work at the moated site, and few finds. It may have been augmented at the time of Arthur Young, the noted agriculturalist, who was based at Bradfield Hall.

To the south-east of the site is the Church of St Clare (BSC 006). The church was constructed in the centre of the parish mostly in the Perpendicular style and was thoroughly restored in 1874. The register at the church dates from 1538. Another medieval church (BRC 003) is situated to the south-west. It contains a late 12th-century doorway to the north of the nave and a Norman font which was remodelled in the 15th century. There are two wall paintings in the nave one representing St George and the Dragon (c.1400) and the other St Christopher. The paintings were found in 1869, when the church was restored. Arthur Young, the agriculturalist, and social and political writer mentioned above has a memorial in the church and is buried in the cemetery.

To the south-east of the site a deposit representing occupation material consisting of pottery, tile, burnt flint and fired clay was observed during works on an Anglian Water pipeline (BSC 010). No cut features were recorded and the pottery dated from the Late Saxon period through to the medieval period.

Post medieval

A brick kiln was situated further to the south-west of the site (BRC 006). It is known from documentary research to have been operated by various members of the Fisher family throughout the second half of the 19th century (William Fisher 1841, John Fisher 1844, Henry Fisher 1846, Theophilus Fisher 1853-1875 and Mrs Mary Ann Fisher). It was known as the 'Old Kiln' and appears on the 1904 25" and 1958 1:10560 Ordnance Survey maps. Another brick kiln (WLG 011) was recorded on a Tithe map (1842) and apportionment state for plot 264 (S1). According to documentary resources two brick fields and kilns are known to have existed in Great Whelnetham.

A possible deer park (BRC 010) is situated to the east of the site which is suggested by the field names present on the Bradfield Tithe maps such as 'Lodge Ley Park', 'Park Field', 'Park Meadow' and 'Lodge Ley Spinney'. Documentary research suggests that it is the same parkland as that first recorded at Bradfield Combust in 1555. Further investigations of historic maps such as the 1880 Ordnance Survey map shows curving park-like boundaries and Hodskinson's map in 1783 only shows buildings on the north-east side of this road indicating that the area on the south side may have been private parkland. The HER entry BSC 016 represents the possible Deer Park Lodge associated with adjoining deer park (BRC 010) - a building which is shown from the 1880s onwards on Ordnance Survey maps.

To the north-west the site of the Chapel Hill Windmill (WLG 012) has been identified through the Great Whelnetham tithe map and apportionment. The HER records that it is present from 1824 to 1902 on the 'Suffolk Windmills on Maps' survey and appears on the Ordnance Survey 1:2500 map of 1904. It was a post mill with a roundhouse built in 1801 and demolished 1914.

The site of a milestone is recorded on the 1955 and 1984 Ordnance Survey maps situated to the west of the site on the A134 (WLG 017).

The original GNR Line railway between Sudbury, Melford and Bury St Edmunds ran across the site and the disused railway bridge can still be seen on the north side of the site.

The remains of homestead moat in an area of woodland are present to the west of the site (BSC 002). It consists of an irregular moat (some areas of which are broad and water-filled) and documentary research suggests it was once owned by St John's College in Cambridge and may have been the site of an earlier vicarage. The 1880s 1:2500 Ordnance Survey map shows buildings outside and to the west of the possible causeway and further buildings are shown in the adjoining field to the south whereas by the time of the 1900s map, they were not present.

Unknown Date

To the north-east of the site at Rawhall Wood (BSC 012) is the position of land designated as ancient woodland. An additional tract of ancient woodland known as Dairy Farm Wood and Bromley Wood (BSC 011) is recorded to the east of the site.

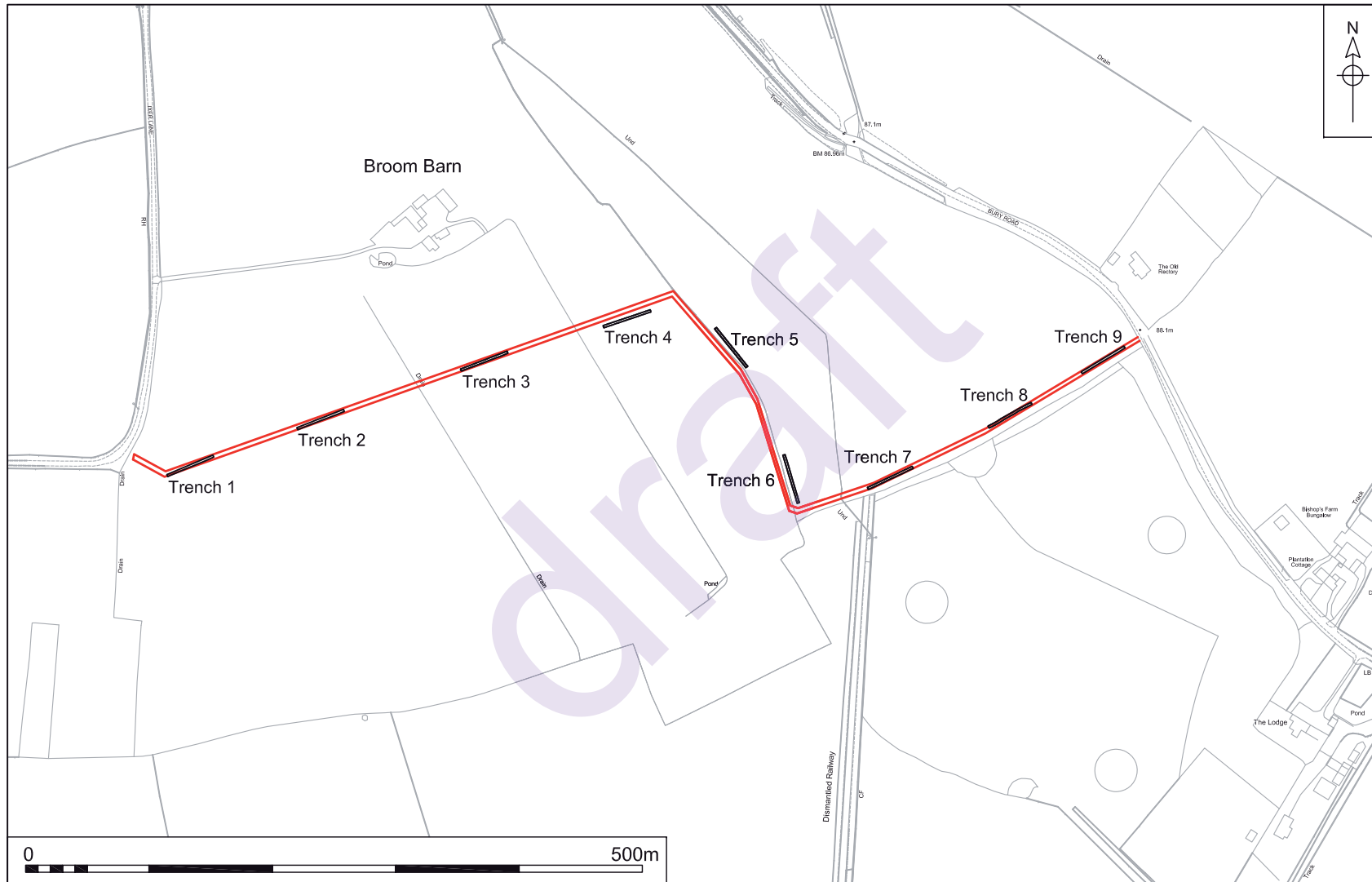
4.0 METHODOLOGY

(Fig. 2 and Plate 1)

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that around 5% of the easement be sample excavated; the easement was 15m wide and c.900m in length.

Machine excavation was carried out with a wheeled JCB-type excavator equipped with a toothless ditching bucket and operated under constant archaeological supervision. The backfilling of the trenches was undertaken with a tracked 360° excavator. Whilst machining, the topsoil and subsoil were stockpiled separately.



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Figure 2. Trench location. Scale 1:5000

A large drainage ditch at the centre of the field meant that the route was accessed from either end of the pipeline during the project.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

Environmental samples were taken from four archaeological features; deposits [6], [8], [10] and [28].

All archaeological features and deposits were recorded using NAU Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

The trenches were located using a Leica GPS900 RTK. During the surveying a series of temporary benchmarks were created using the Leica GPS900 RTK.

Site conditions were good, with work taking place in generally fine weather.



Plate 1. Machining, looking west

5.0 RESULTS

Trench 1

(Fig. 2, Plate 2)

Trench 1 was 40m in length by 1.80m wide. It was orientated roughly east to west and located at the western end of the pipeline. The topsoil was on average 0.40m thick above a 0.45m thick layer of subsoil. There were no archaeological features present within the trench.

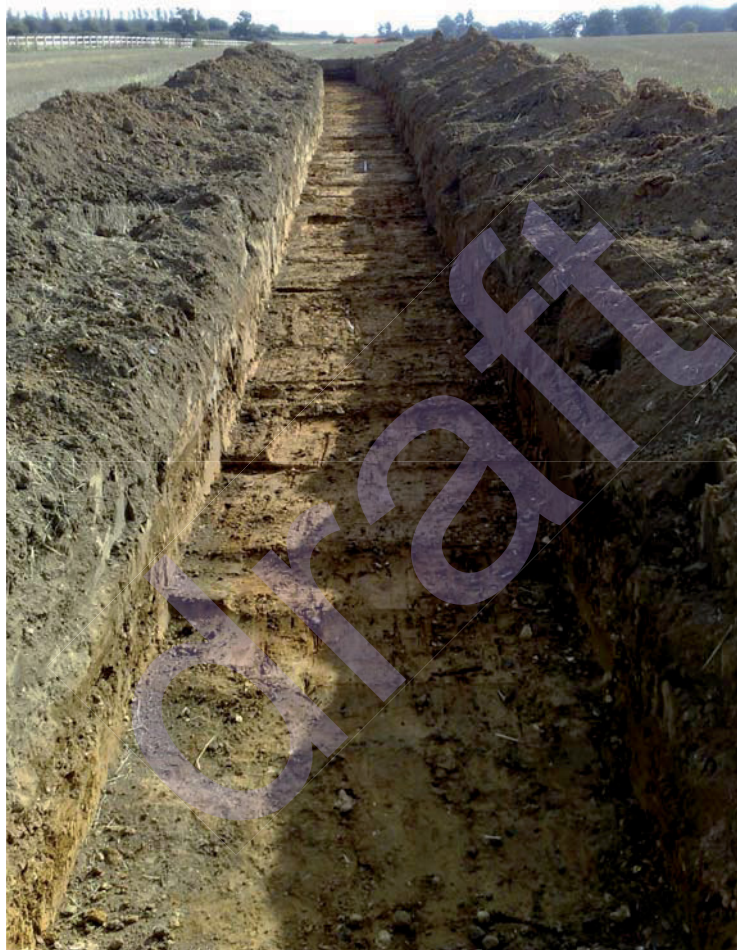


Plate 2. Trench 1, looking east

Trench 2

(Fig. 2, Plate 3)

Trench 2 was 40m long by 1.80m wide. It was orientated roughly east to west and was situated towards the western end of the pipeline. The topsoil and subsoil was also 0.40m and 0.45m thick respectively. There were no archaeological features present in the trench.



Plate 3. Trench 2, looking east

Trench 3

(Figs 2 and 3, Plates 4, 5 and 6)

Trench 3 measured 40m in length by 1.80m in width and was orientated roughly east to west. It was situated towards the western end of the proposed pipeline. The topsoil had an average thickness of 0.30m and the subsoil varied between 0.10m and 0.15m. Two archaeological features ([12] and [15]) were situated at the eastern end of the trench.

The easternmost of the two features was a north to south aligned shallow ditch ([12]). It was 2.0m wide and had a depth of 0.18m. The sides and base were slightly irregular and diffuse. The feature appeared to have been situated at a low, possibly seasonally waterlogged, part of the field and was located (along with feature [15]) between to two ceramic field drains. The fill ([13]) was formed from a friable mid brown clayey silt, which appeared to have built up gradually, probably as a result of natural silting.

Linear feature [15] was aligned north-west to south-east and contained a light to mid grey brown clayey silt ([16]) which was probably the result of natural infilling. This gully is orientated in the same direction as the two ceramic field drains encountered and is probably also a drain.

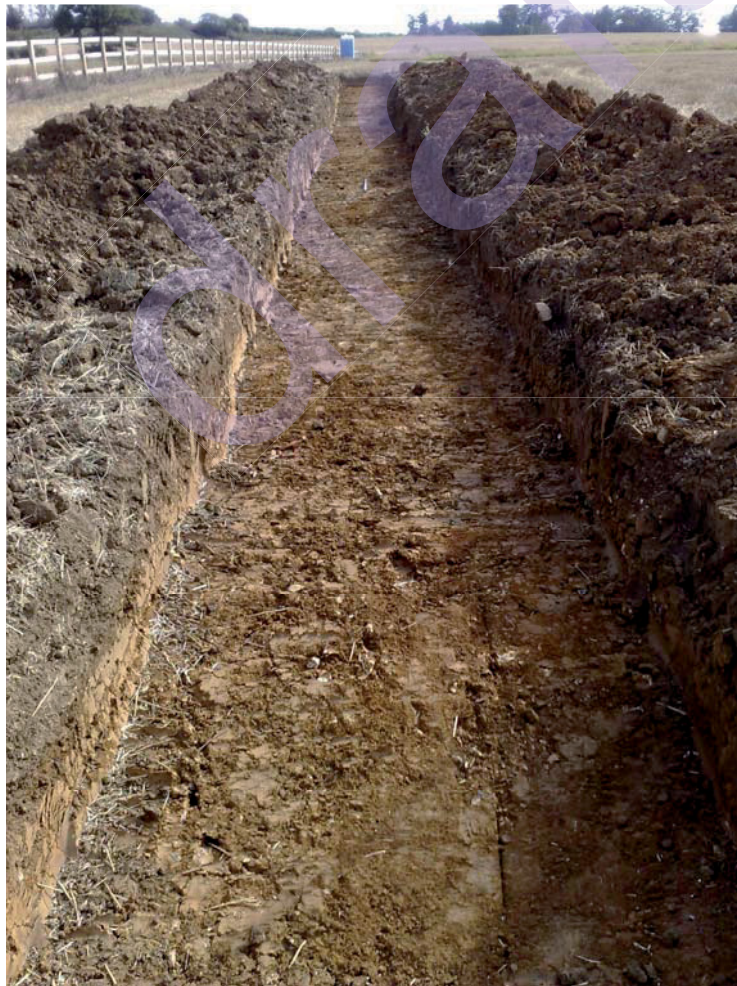


Plate 4. Trench 3, pre-excavation, looking east

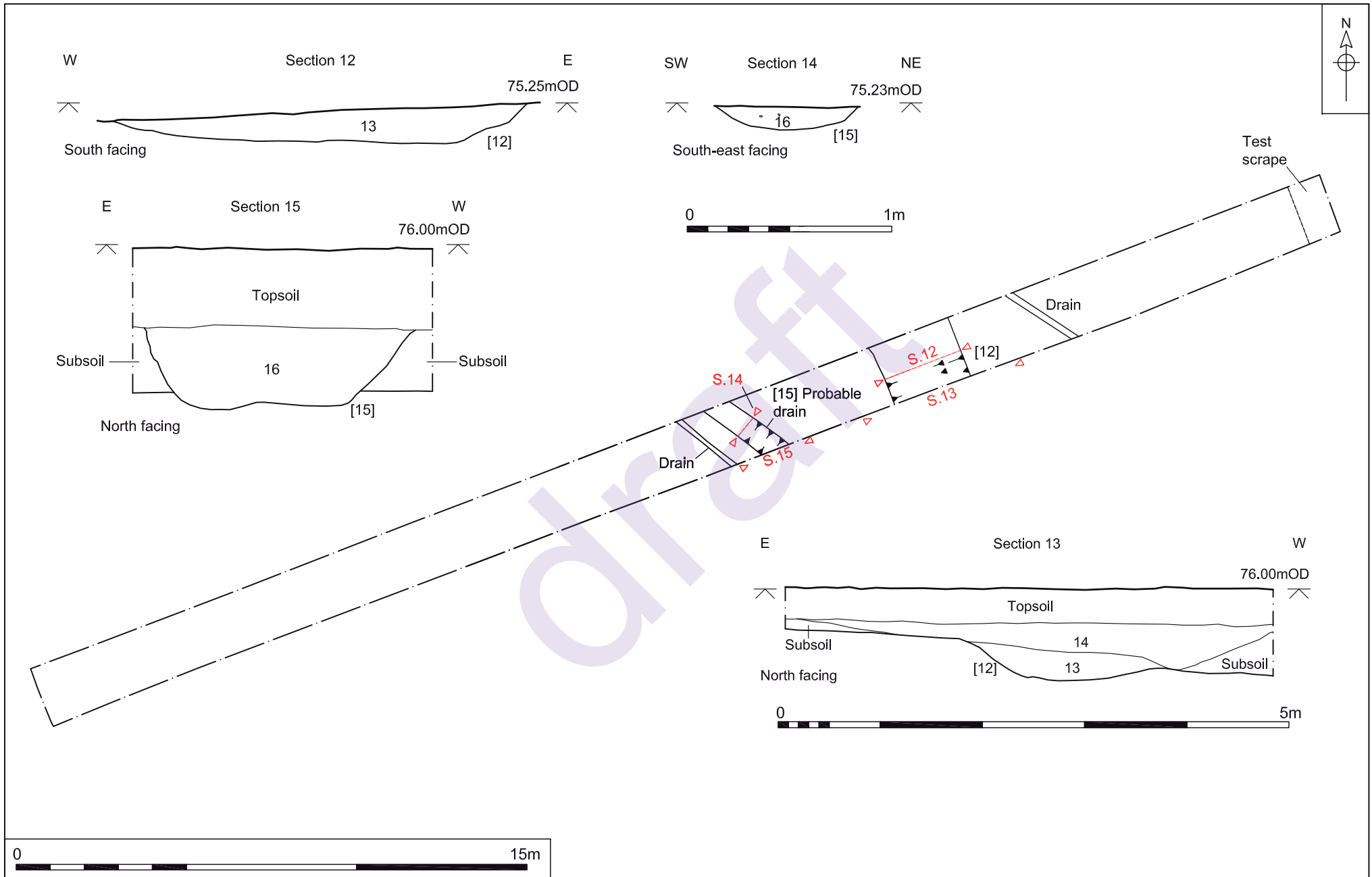


Figure 3. Trench 3, plan and sections. Scale 1:150, 1:50 and 1:25



Plate 5. Trench 3, ditch [12], looking south



Plate 6. Trench 3, gully [15], looking south-east

Trench 4

(Figs 2 and 4, Plates 7 and 8)

Trench 4 was 40m long by 1.80m wide and was orientated roughly east to west. It was situated at the centre of the proposed pipeline. The topsoil was 0.35m to 0.40m deep and the subsoil varied between 0.10m and 0.20m. A single ditch ([17]) was situated at the centre of the evaluation trench.

The ditch was on a north-west to south-east alignment and was 1.50m wide and 0.50m deep; it was also observed to cut the thick layer of subsoil present within the trench. The sides were slightly convex and the base was fairly flat. The single fill [18], which consisted of a friable light brown clayey silt, was probably the result of natural silting.



Plate 7. Trench 4, pre-excavation, looking east

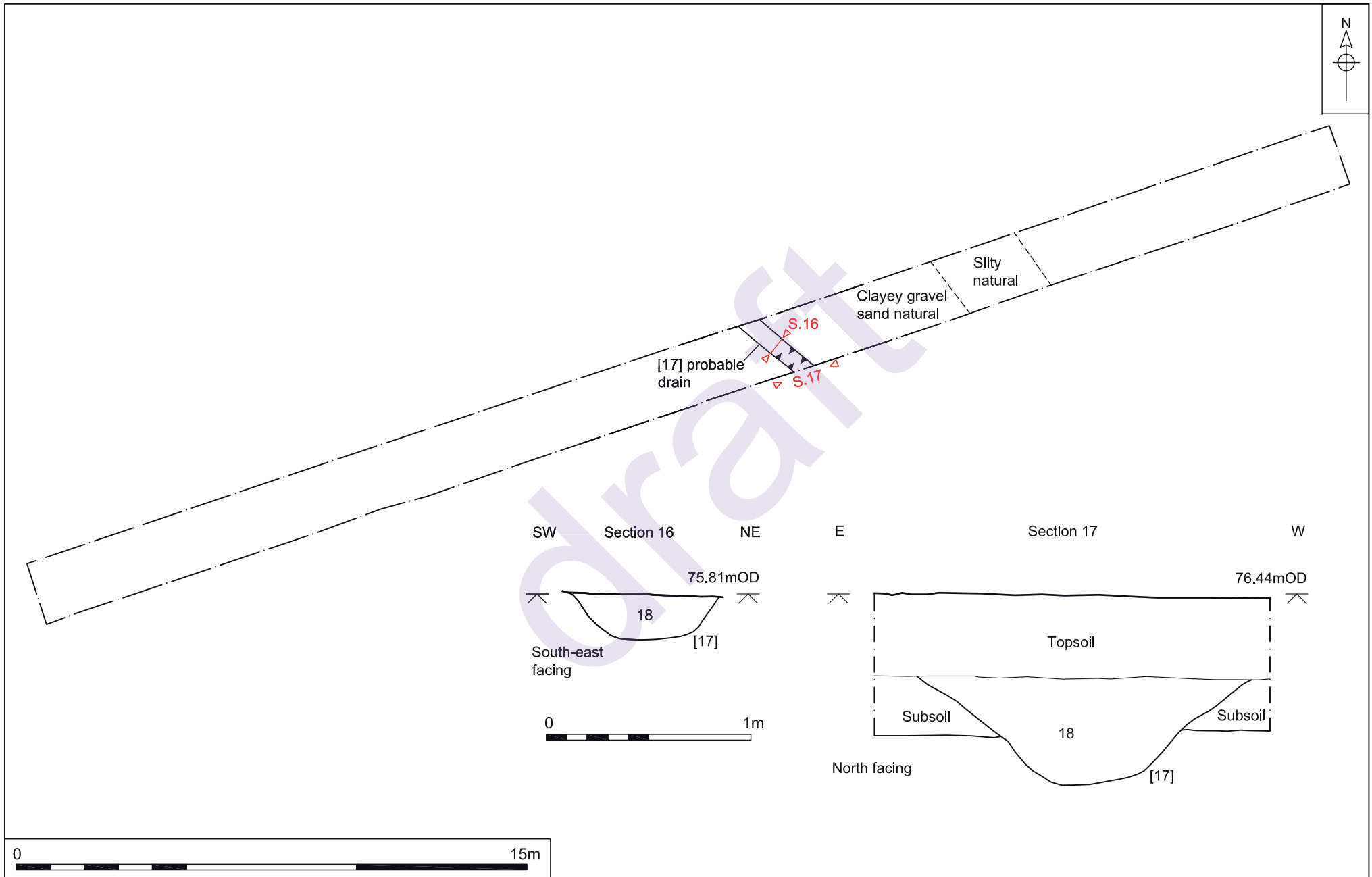


Figure 4. Trench 4, plan and sections. Scale 1:150 and 1:25



Plate 8. Trench 4, gully [17], looking south-east

Trench 5

(Figs 2 and 5, Plates 9 and 10)

Trench 5 measured 40m in length by 1.80m in width and was orientated roughly north to south. On average the topsoil was 0.50m thick at this point and the subsoil was also very thick at 0.50m. A reasonably large ditch ([1]) was observed at the south end of the trench.

The ditch measured 2.25m across and 0.70m deep with irregular sides and base (the base was deeper on the northern side) and may have been re-cut at this point, although any interface was very diffuse. A single context number ([2]) was given to the fill, a friable mid brown clayey silt, with moderate chalk flecks, darker and softer on the northern side of the feature. Two parallel ceramic land drains on the same alignment as ditch [1] were situated close by on its northern side. The ditch may represent an earlier part of a field drainage system or possibly a field boundary.

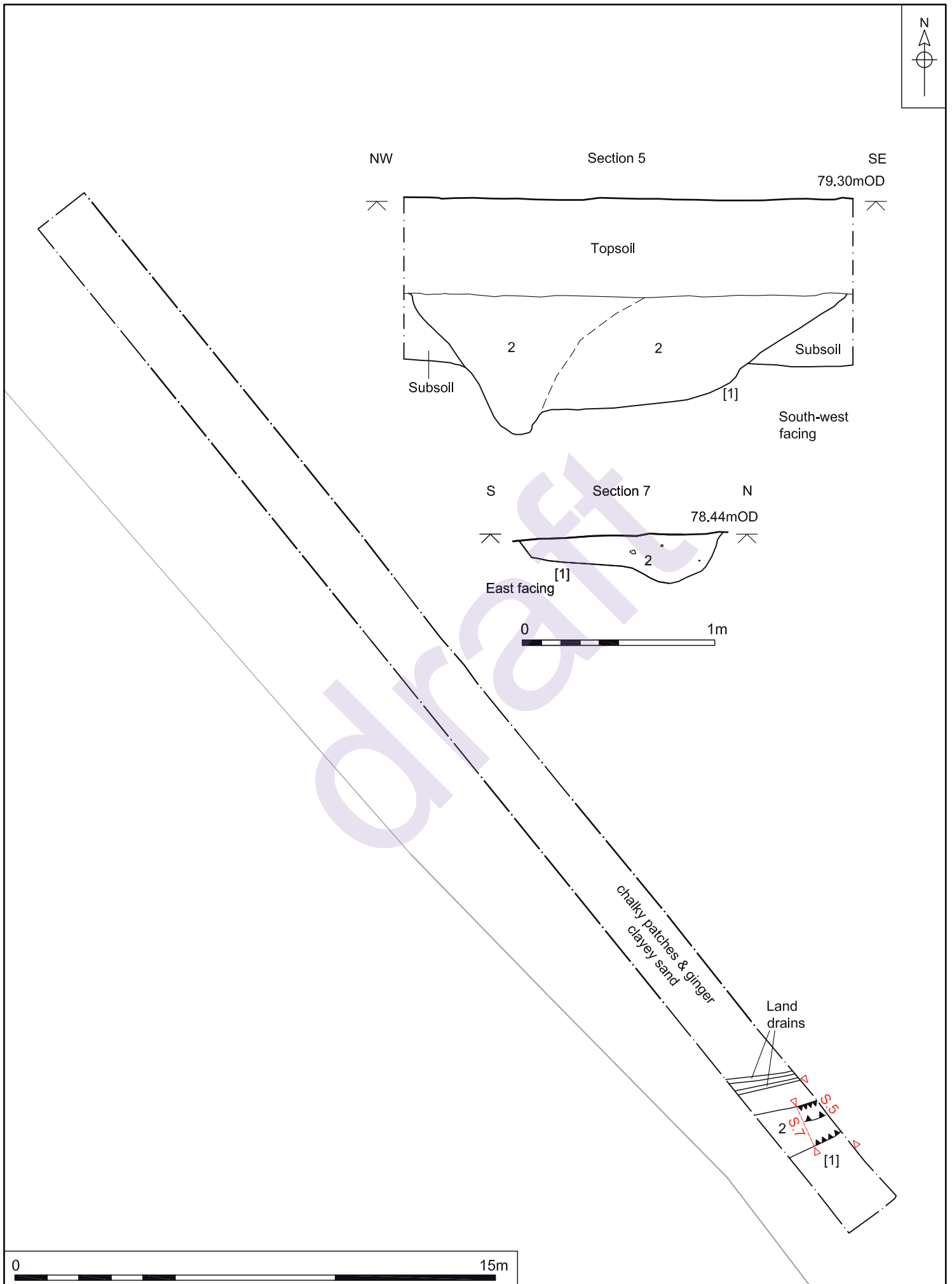


Figure 5. Trench 5, plan and sections. Scale 1:150 and 1:25



Plate 9. Trench 5, pre-excavation, looking north



Plate 10. Trench 5, ditch [1], looking west

Trench 6

(Fig. 2, Plate 11)

Trench 6 was also 40m by 1.80m wide, orientated roughly north to south, and situated in the central part of the route. The topsoil was on average 0.50m thick above an equally thick layer of subsoil. There were no archaeological features present within the trench.

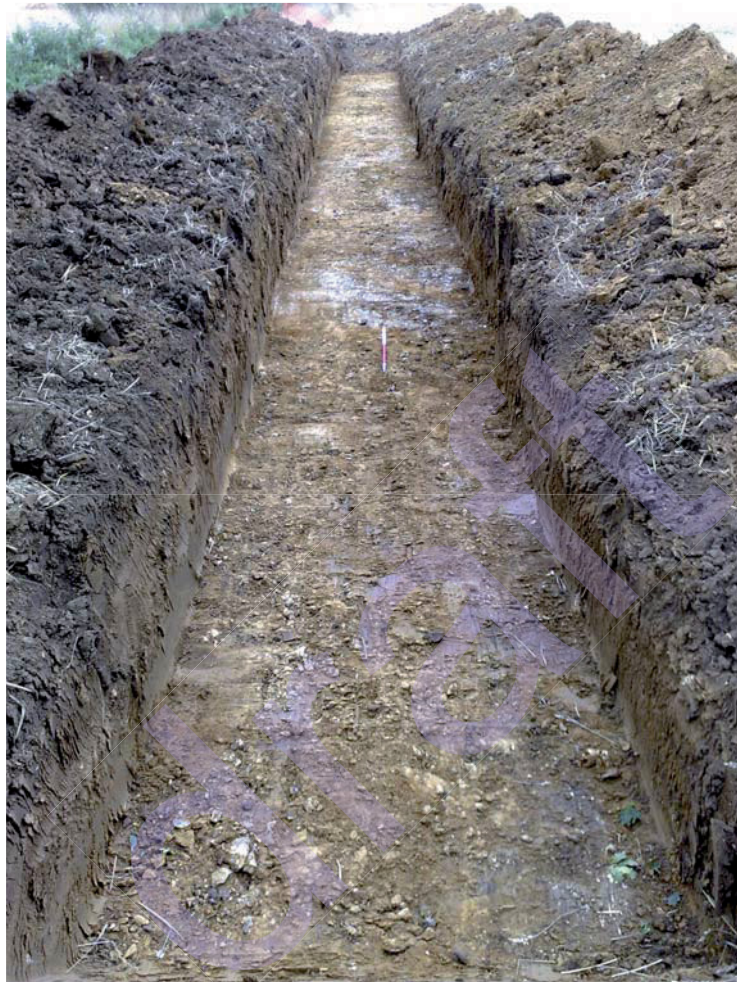


Plate 11 Trench 6, looking north

Trench 7

(Figs 2 and 6, and Plates 12 and 13))

Trench 7 was 40m long by 1.80m wide and was orientated roughly east to west and was situated to the west of a large field boundary/drainage ditch. The topsoil was 0.40m thick and was located directly above the natural substratum. A single shallow ditch ([3]) was observed at its western end.

The ditch was 1.10m wide and 0.28m deep with slightly concave sides and a roughly flat base. The single fill ([4]) consisted of a compact mid brown silty clay which contained occasional flints and small fragments of coke and/or clinker concentrated in the top part of the fill. The feature appeared to have been deliberately backfilled. The proximity of ditch [3] to the route of the (dismantled) GNR railway and the presence of coke/clinker in the fill suggests that the feature

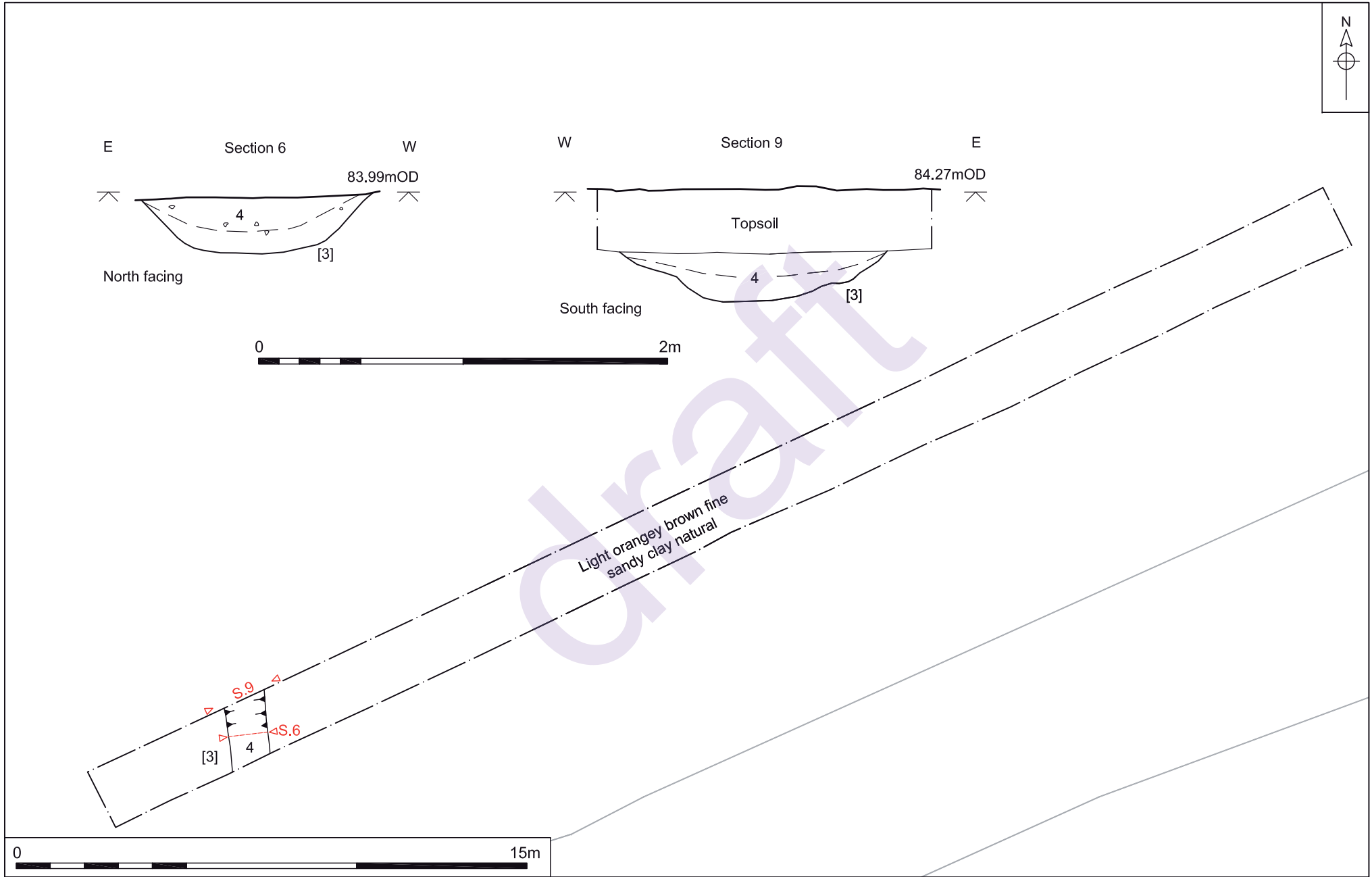


Figure 6. Trench 7, plan and sections. Scale 1:150 and 1:25



Plate 12. Trench 7, pre-excitation, looking east



Plate 13. Trench 7, ditch [3], looking south

may have had a connection with the railway, or at least been partly open when the railway was in use.

Trench 8

(Figs 2, 7 and 8, Plates 14, 15, 16, 17 and 18)

Trench 8 was aligned roughly east-west, situated towards the eastern end of the pipeline route and measured 40m by 1.80m. The topsoil was on average 0.40m thick and lay directly above the natural substratum. A number of archaeological features were present, some of which contained evidence of Early Iron Age activity.



Plate 14. Trench 8, pre-excitation, looking east

At the eastern end of Trench 8 were three intercutting pits ([19], [21] and [30]). The most northerly of these small pits ([21]) measured 1.10m north to south and 0.68m east to west with a depth of 0.29m. The edges of the pit, where visible, were slightly irregular. Its single fill ([22]) consisted of a friable mid grey brown clayey silt which included chalk fragments and the top part contained fragments of burnt flint and possible pot-boiler material.

The central pit ([19]) was oval in plan and measured 1.0m east to west and 1.35m north to south and contained 129 sherds of Iron Age pottery considered to have been deliberately placed (6.1.3 below). The sides were reasonably regular and concave; it had a concave base and was 0.41m deep. The pit contained three fills.

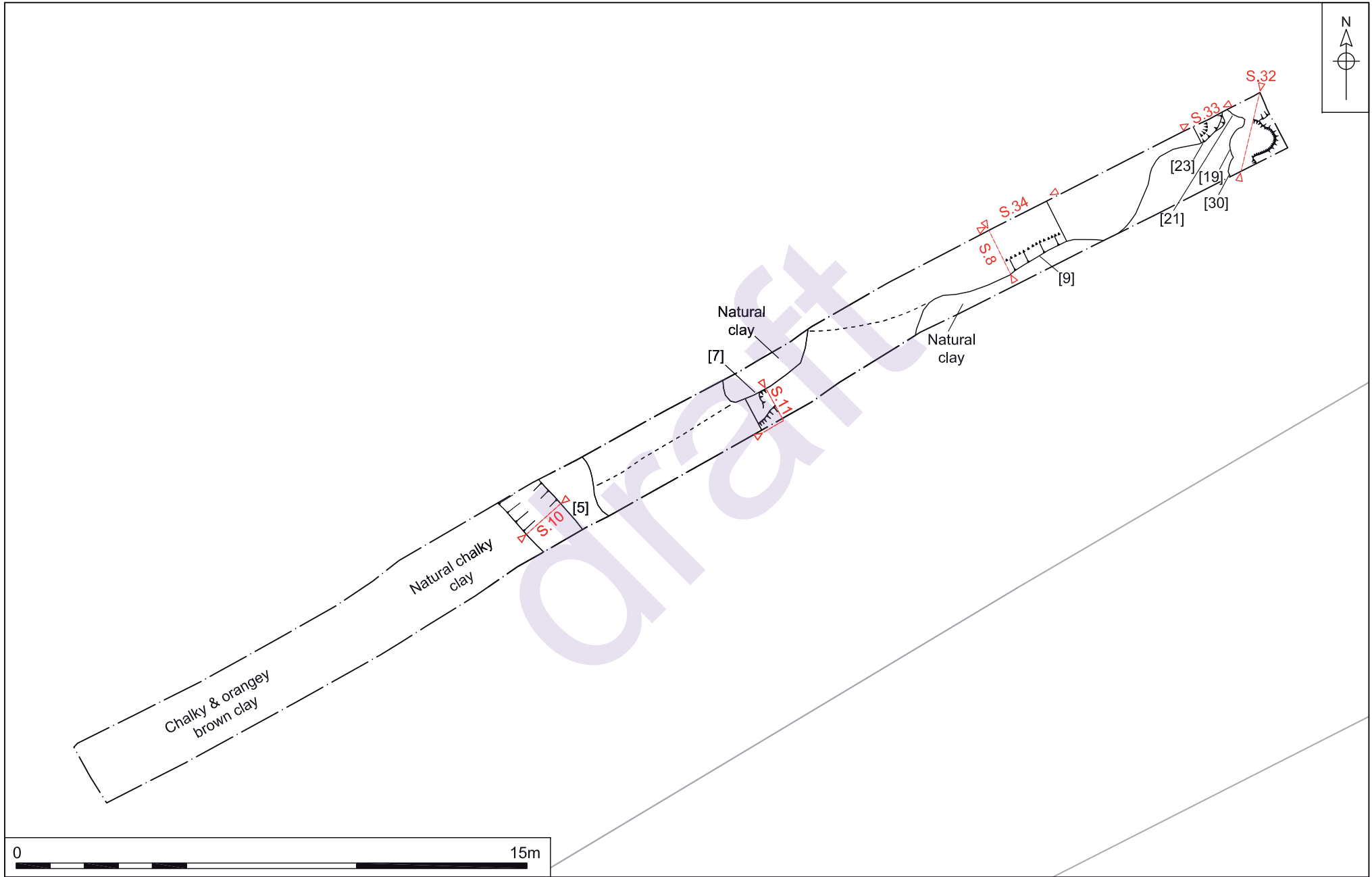


Figure 7. Trench 8, plan. Scale 1:150



Plate 15. Trench 8, pits [21], [19] and [30], looking north

The primary fill ([20]) was a firm 'dirty' yellowish and grey clay which included occasional chalk flecks. The lack of inclusions may suggest that the fill was the result of natural build up of material soon after the original excavation of the pit. The central fill ([28]) was a dark grey silty clay with occasional small chalk flecks which was 0.13m thick and may have been the result of deliberate dumping. The upper fill ([29]) was a moderately compact mid greyish brown clayey silt which contained occasional chalk flecks and may also have been the result of deliberate dumping. The top part of the deposit also contained fragments of burnt flint and possible pot-boiler material. It was in turn truncated on its southern side by pit [21].

The most southerly of the pits ([30]) was 0.30m deep and measured 0.77m by 0.68m. The only visible edge of the pit had been truncated on its southern side by pit [19]. It had a slightly sloping base and its single fill (31) consisted of a friable mottled yellowish and grey slightly silty clay and included chalk fragments. This deposit may have been the result of deliberate infilling as there were moderate amounts of burnt flint within the.

A short distance to the west was feature [23] which may be a pit or more likely the north-eastern tip of large pit [9]. Feature [23] appeared to be 0.35m deep and had steep and slightly irregular sides with a fill ([24]) of moderately firm and slightly cohesive mid greyish brown silty clay which could have been deliberately deposited.

Large pit [9] was situated to the south and west of the features described above and although its profile suggested that it was a ditch its shape in plan pointed to it being an elongated pit measuring roughly 10m in length. Its southern side had a regular profile becoming steeper towards the base of the section however as the water table was high the full depth of the feature beyond its excavated depth (0.9m) could only be determined by the use of an auger; this showed that the

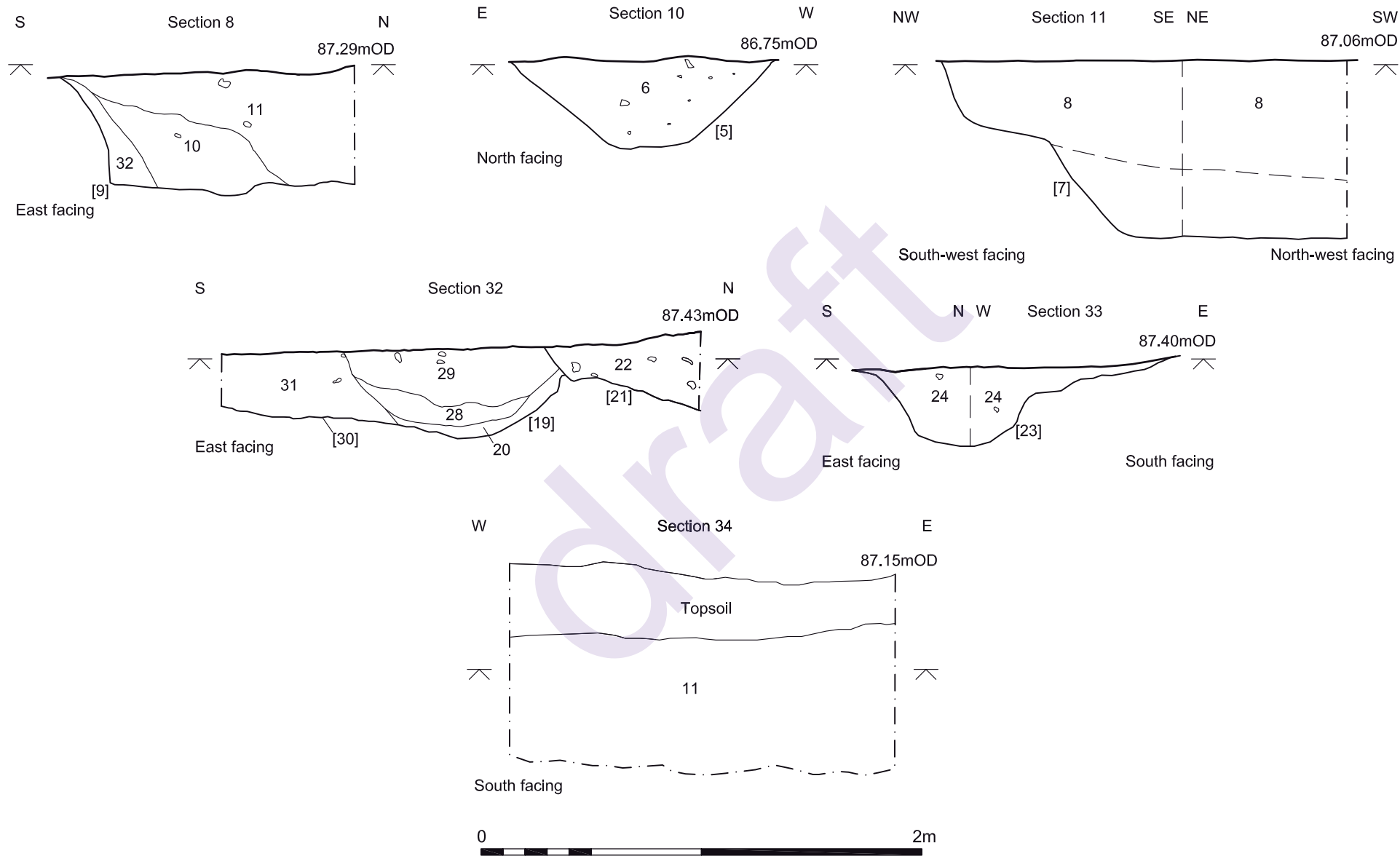


Figure 8. Trench 8, sections. Scale 1:25



Plate 16. Trench 8, pit [9], looking west

feature was at least 1.40m deep. Pit [9] contained three fills; the earliest ([32]) was 0.48m deep and consisted of a firm slightly 'dirty' yellowish grey clay representing the slumping of natural material into the pit; the secondary fill was a mid greyish pale brown silty clay ([10]) with occasional chalk flecks and the upper fill was a slightly cohesive dark greyish brown silty clay ([11]) with occasional chalk flecks seen across most of the feature within the trench.



Plate 17. Trench 8, pit [7], looking east

Another possible elongated pit ([7]) was visible further south. It had a similar profile and had an observed extent of around 10m by 1m and a depth of 0.80m. The visible edge (presumably the northern edge) appeared to have a stepped profile. The fill ([8]) consisted of a firm silty clay which contained occasional chalk flecks. It contained Iron Age pottery and burnt flint. In plan it appeared that pit [9] cut pit [7].

Ditch [5] was situated to the south of the pit and orientated roughly north-west to south-east. It had an observed extent of 1.90m and was 1.33m wide with a depth of 0.41m. The sides were regular with a 45° slope and it had a flat base. The fill ([6]) was a firm dark greyish brown silty clay which contained occasional patches of clay and fired or burnt flint.



Plate 18. Trench 8, ditch [5], looking south

Trench 9

(Fig. 2, Plate 19)

Trench 9 was situated at the eastern end of the pipeline and was orientated roughly east to west. The topsoil was 0.40m thick on average and was present directly above the natural substratum. There were no archaeological features present within this trench.



Plate 19. Trench 9, looking east

6.0 THE FINDS

6.1 Prehistoric Pottery

by Sarah Percival

A total of 143 sherds of pottery weighing 566g were collected from four contexts (Appendix 3). All the pottery is of earlier Iron Age date. Undated ditch [5] produced seven small sherds weighing 14g whilst the remainder of the assemblage came from three pits [7], [9] and [19]. The pottery is highly fragmentary and much of it is abraded.

6.1.1 Fabric

The pottery is made of a mix of flint-tempered and sandy fabrics. The majority of the assemblage (76%, 432g) is made of clay to which varying amounts of crushed

burnt flint has been added. The remainder is made of clays which naturally contain quantities of fine to medium quartz sand. One sherd with chalk or possibly shell tempering was noted. This might suggest pottery imported to the site from outside the immediate vicinity of the area, perhaps from Cambridgeshire. The remainder of the fabrics found are typical of earlier Iron Age pottery from the region.

6.1.2 Form

Rims from two vessels were found. One rim is from a jar with short everted neck and angular shoulder with rounded rim ending and the other is flattened but is too small to assign to a form type. Sherds from two bases were also found. Both are plain simple bases with no embellishments or decoration. No decoration was found on any sherds from the assemblage though a small number of sand-tempered sherds have burnished surfaces.

6.1.3 Deposition

The majority of the assemblage, representing nearly 92% of the total weight of sherds found, came from a single feature, pit [19]. The pottery from all features represents deliberately redeposited domestic debris. The sherds had almost certainly been stored elsewhere before deposition in the pit as evidenced by the highly abraded and fragmentary condition of the assemblage. Disposal of occupation waste in pits, perhaps with other accumulated domestic debris is highly characteristic of earlier Iron Age sites in East Anglia and had been noted at sites such as Exning in Suffolk (M Brudenell *pers. comm.*)

6.1.4 Discussion

This small undecorated assemblage is earlier Iron Age dating to around 600/550 BC and is contemporary with the published assemblage from Great Bealings and Barnham (Martin 1993). The sherds are derived from domestic debris and represent just a small sample of the original assemblage. The poor condition of the sherds and incomplete nature of the assemblage indicate that the pottery may have spent some time in a pre-pit context or midden before deposition in the pits.

6.2 Fired Clay

by Sarah Percival

A total of eighteen formless fragments of fired clay weighing 48g were recovered from the fill of pit [19] which also contained earlier Iron Age pottery. The pieces, which are poorly fired with sparse sub-rounded chalky inclusions, may represent the re-deposited remains of a hearth or similar.

6.3 Ceramic Building Material

by Sarah Percival

An abraded chip of post medieval brick in coarse red, sandy fabric was found in ditch [1]. A second piece of brick in similar fabric came from the fill of earlier Iron Age pit [9] where it almost certainly represents an intrusive find.

6.4 Stone

by Sarah Percival

Incomplete burnt quartzitic cobbles were recovered from the fills of pits [23] and [29]. The stones had been collected from the glacial till, probably for use in cooking and were chosen perhaps for their thermal resistance qualities which are greater than that for the more readily available flint.

6.5 Flint

by Sarah Bates

Three flakes and five shattered fragments of flints were found at the site, all from deposit [29] (Appendix 4). The flint is hard hammer struck and irregular in nature. A small very irregular narrow 'L' shaped piece is probably accidentally fractured but one end of it may have been used as a piercer type point as it appears to be slightly utilised.

The flint represents flint-working in the vicinity of the site during the prehistoric period. It is not closely datable but its irregular nature suggests that it dates to the later Neolithic period or later and is likely to be compatible with the earlier Iron Age pottery with which it was found.

6.5.1 Burnt flint

A total of ninety-one pieces of burnt flint weighing 1308g were recovered from six contexts (Table 1). Burnt flint forms a common component of prehistoric assemblages and has been found in quantity on Iron Age sites such as Park Farm, Silfield (Ashwin 1996) and at Barnham Iron Age enclosure, although here the flints were considered to have been Bronze Age (Martin 1993, 12). The flints may have been used in cooking or were perhaps heated prior to crushing for use as pottery temper.

Feature	Context	Quantity	Weight (g)
Ditch [05]	6	12	147
Pit [07]	8	5	115
Pit [09]	11	66	913
Pit [23]	24	2	22
Pit [19]	29	6	111
<i>Total</i>		<i>91</i>	<i>1308</i>

Table 1: Quantity and weight of flint by feature

6.6 Animal Bone

by Julie Curl

6.6.1 Methodology

The analysis was carried out following a modified version of guidelines by English Heritage (Davis, 1992). All of the bone was examined to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible a record was made of ages and any other relevant information, such as pathologies. Counts and weights were noted for each context with additional counts for each

species identified. Information was input into an Excel database for quantification and assessment. A summary of the information is included with this report as a table in the appendix and the full excel database is available in the digital archive.

6.6.2 The assemblage – provenance and preservation

A total of 0.592kg of faunal remains, consisting of 55 pieces, was recovered from excavations at this site (Appendix 5). The remains were produced from three deposits, all pit fills and all found in association with prehistoric ceramics.

The assemblage is in reasonable condition, although fragmented from butchering and wear. Invertebrate (insect/molluscs/isopods) damage was seen on the surface of many pieces. Two fragments of burnt bone from pit fill [11] were noted. Some gnawing was evident on remains from [11], suggesting some scavenging activity.

6.6.3 Species range and modifications and other observations

Three species were positively identified and included both domestic and wild mammals.

Cattle were seen in the fills of two pits ([11] and [29] from pits [9] and [20] respectively), with butchered remains of adult animals in both. Pit fill [29] also included remains of sheep and/or small deer. The cattle mandible from [11] showed fine knife cuts that indicate skinning. Other bones in the assemblage include fragments of the main meat-bearing bones such as humeri and pelvic bones.

The shaft of a small equid metatarsal was recovered from [11], this small pony or mule shows fine cuts on the shaft that would suggest the animal was skinned (and possibly eaten). The equid bone also shows some gnawing, which might indicate the availability of skinning waste for scavengers or domestic dogs.

Deposit [8]), the fill of pit [7], produced a tine of a large deer which compares well with those of red deer. This antler fragment does not show any obvious butchering and does not appear to be from antler-working waste. Some damage was noted on the tip of the tine, but this can occur during the deer's fighting and displaying activities.

6.6.4 Conclusions

The remains in this assemblage are derived from a range of butchering, skinning and food waste. The skinned equid is not unusual; although meat is not often eaten, it may be in times of shortage and skins at least may be utilised. The presence of the antler tine might suggest this was collected for working or decorative purposes, although no working evidence was seen. The presence of antler does not necessarily suggest butchering of deer for meat, as antlers are naturally shed by the deer every spring.

Similar assemblages are regularly seen, such as at nearby Rushbrooke (Curl 2009) and Welwyn (Curl 2010) which produced small collections of bone containing a range of skinning, food and antler waste. These small mixed assemblages would suggest rubbish from smaller domestic sites where animals are kept, processed, worked, consumed and discarded within a relatively small area.

7.0 THE ENVIRONMENTAL EVIDENCE

7.1 Plant Macrofossils

by Val Fryer

7.1.1 Introduction and method statement

During excavations at Bradfield Combust in Suffolk a limited number of features of prehistoric date were recorded. Samples for the retrieval of plant macrofossil assemblages were taken from fills within ditch [5] and pits [7], [9] and [19], and four samples were submitted for assessment.

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in (Appendix 6). Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern fibrous roots were present within all four assemblages.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

7.1.2 Results

With the exception of Sample <4> (pit [19]), the assemblages are small and relatively sparse. A wheat (*Triticum* sp.) grain and spelt wheat (*T. spelta*) glume base are recorded along with a single possible fragment of hazel (*Corylus avellana*) nutshell and an additional grain, which is too poorly preserved for close identification. Charcoal/charred wood fragments are present throughout and are particularly abundant within Sample <4>, where they form the main component of the assemblage. Other remains include a piece of burnt or fired clay, burnt stone fragments and pieces of bone, a small number of which are also burnt.

7.1.3 Conclusions and recommendations for further work

In summary, the assemblages from Samples <1>, <2> and <3> are very small and sparse, and although plant remains are recorded, it would appear most likely that all are derived from scattered refuse, which was accidentally incorporated within the feature fills. The origin of this material is unclear, but many of the remains, including the plant macrofossils, appear to have been burnt at very high temperatures. The high density of charcoal/charred wood within the assemblage from Sample <4> along with a small number of burnt bone fragments may indicate that this material is derived from either a small, discrete dump of hearth waste or just possibly a funerary deposit.

These assemblages clearly illustrate that plant macrofossils survive within the archaeological horizon at Bradfield Combust. Therefore, if any further interventions are planned, it is strongly recommended that additional plant macrofossil samples of approximately 30–40 litres in volume are taken from all well-sealed and dated contexts recorded during excavation.

8.0 CONCLUSIONS

The site is located over four miles away from the nearest river which seems unusual; Edward Martin stated in 1999 in the Suffolk Historic Atlas that 'most sites are within one mile of a water course or mere - a distance which corresponds well with that recommended today by the Ministry of Agriculture as the maximum that should be walked by cows with milk'. There are some small ponds dotted across the landscape and it is likely that prior to major drainage works associated with 19th-century farming practices, the heavily clay nature of the ground meant that there were more ponds and watering holes. During the excavation, it was noted that at the highest point of the pipeline route (in the vicinity of Trench 8) there was a high water table, perhaps indicating a sub-surface watercourse.

The most compelling results from the evaluation were found within Trench 8, where several of the features were dated to the Early Iron Age, and those which were not datable were likely to be of the same period. Most of the features contained similar deposits. Pottery and burnt flint plus evidence of hearth material within many of the fills suggestive of activity close by, though no direct evidence of settlement. The environmental evidence also points to burning at high temperatures such as would be present in a hearth. Although features were focused in a relatively small area although it is not possible to suggest with any certainty what type of activity was represented. There appear to be two deep, possibly linear pits. The worn nature of the sherds that they contained and the incomplete nature of the assemblage suggest that the pottery may have come from a surface dump of some kind before being deposited in the pits, suggestive of deliberately-placed deposits not uncommon in the Iron Age. The pits may originally have been dug as large extraction pits for the removal of clay. The smaller pits at the eastern end of the trench are likely to have been refuse pits. Possible linear pit [7] appears to 'end' at ditch [5] which may indicate that the pitting activity respects the presence of this feature. The lack of activity at the west end of the trench and the lack of archaeological evidence from Trench 9 indicates that activity here was dense and focused.

The four trenches at the western end of the proposed pipeline (Trenches 1–4) were either devoid of archaeological remains or contained probable recent drainage gullies and/or field boundaries. In Trench 3, the two linear features [12] and [15] appear to broadly share the same alignment as the modern drainage ditches. Shallow ditch [12] probably represents an older field boundary of probable 18th to 19th century-date, whereas gully [15] is orientated on the same line as the modern ceramic field drains observed in that trench. The diffuse edges and shallow nature of ditch [12] may suggest that it has been disturbed, possibly by roots from a hedge. It is highly likely that the large modern field was once divided into a series of smaller fields. Within Trench 4 gully [17] is also aligned on the same orientation as the ceramic field drains.

Ditch [1] observed within Trench 5 appears to also represented an earlier field boundary in the same manner as ditch [12] and lies parallel to land drains located close by.

Ditch [3] within Trench 7 was almost certainly connected in some way with the GNR railway. It was aligned in a similar manner to the railway route which as well as being shown on modern maps also has observable elements present in the

landscape today. An old disused railway bridge was located at the edge of the field to the north and a piece of brick wall, associated with the railway line, can be observed only a few metres to the south of Trench 7. It is clear that the ditch was linked directly with the railway, probably alongside the track when the route was in use. The clinker present within the fill supports the idea that it was extant at the time the railway was in operation.

Recommendations for future work based upon this report will be made by Suffolk County Council Archaeological Service Conservation Team

draft

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Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Period	SSD
1	Cut	Ditch		Shallow ditch, probably drainage	Unknown	Trench 5
2	Deposit		1	Fill of ditch [01]	Unknown	Trench 5
3	Cut	Ditch		Ditch [03]	Unknown	Trench 7
4	Deposit		3	Fill of ditch [03]	Unknown	Trench 7
5	Cut	Ditch		Ditch [05]	Unknown	Trench 8
6	Deposit		5	Fill of ditch [05]	Unknown	Trench 8
7	Cut	Pit		Pit [07]	Early Iron Age	Trench 8
8	Deposit		7	Fill of pit [07]	Early Iron Age	Trench 8
9	Cut	Pit		Pit [09]	Prehistoric	Trench 8
10	Deposit		9	Fill of pit [09]	Prehistoric	Trench 8
11	Deposit		9	Fill of pit [09]	Prehistoric	Trench 8
12	Cut	Ditch		Ditch [12]	Unknown	Trench 3
13	Deposit		12	Fill of ditch [12]	Unknown	Trench 3
14	Deposit		12	Fill of ditch [12]	Unknown	Trench 3
15	Cut	Gully		Gully [15]	Unknown	Trench 3
16	Deposit		15	Fill of gully [15]	Unknown	Trench 3
17	Cut	Gully		Gully [17]	Unknown	Trench 4
18	Deposit		17	Fill of gully [17]	Unknown	Trench 4
19	Cut	Pit		Pit [19]	Early Iron Age	Trench 8
20	Deposit		19	Fill of pit [19]	Early Iron Age	Trench 8
21	Cut	Pit		Pit [21]	Early Iron Age	Trench 8
22	Deposit		21	Fill of pit [21]	Early Iron Age	Trench 8
23	Cut	Pit		Pit [23]	Early Iron Age	Trench 8
24	Deposit		23	Fill of pit [23]	Early Iron Age	Trench 8
25	Deposit			Topsoil	Unknown	All
26	Deposit			Subsoil	Unknown	All
27	Deposit			Natural	Unknown	All
28	Deposit		19	Fill of pit [19]	Early Iron Age	Trench 8
29	Deposit		19	Fill of pit [19]	Early Iron Age	Trench 8
30	Cut	Pit		Pit [30]	Unknown	Trench 8
31	Deposit		30	Fill of pit [30]	Unknown	Trench 8
32	Deposit		9	Fill of ditch [09]	Unknown	Trench 8

Appendix 1b: OASIS Feature Summary

Period	Cut Type	Total
Prehistoric	Pit	1
Early Iron Age	Pit	4
Unknown	Ditch	4
	Gully	2
	Pit	1

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
2	Ceramic Building Material	1	1g	Post-medieval	
6	Flint – Burnt	12	147g	Prehistoric	Discarded
6	Pottery	7	14g	Early Iron Age	
8	Flint – Burnt	5	115g	Prehistoric	Discarded
8	Animal Bone	3	11g	Unknown	
8	Pottery	1	3g	Early Iron Age	
11	Flint – Burnt	66	913g	Prehistoric	Discarded
11	Animal Bone	26	269g	Unknown	
11	Pottery	6	31g	Early Iron Age	
11	Ceramic Building Material	1	7g	Unknown	
24	Flint – Burnt	2	22g	Prehistoric	Discarded
24	Stone	1	1g	Unknown	
29	Flint – Burnt	6	111g	Prehistoric	Discarded
29	Animal Bone	26	312g	Unknown	
29	Stone	2	177g	Prehistoric	Burnt
29	Pottery	129	1,972g	Early Iron Age	
29	Fired Clay	18	48g	Unknown	
29	Flint – Struck	13	195g	Prehistoric	

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Prehistoric	Flint – Burnt	91
	Flint – Struck	13
	Stone	2
Early Iron Age	Pottery	143
Post-medieval	Ceramic Building Material	1
Unknown	Animal Bone	54
	Ceramic Building Material	1
	Fired Clay	18
	Stone	1

Appendix 3: Prehistoric Pottery

Context	Fabric	Dsc.	Qty	Wt	Spotdate	Form	AB	Surface
6	Q1	U	7	14	Earlier Iron Age		Y	
8	Q1	U	1	3	Earlier Iron Age			
11	F1	U	6	31	Earlier Iron Age			Wiped interior
29	F1	U	89	345	Earlier Iron Age			
29	F1	U	6	32	Earlier Iron Age			Burnished
29	Q1	U	27	69	Earlier Iron Age			
29	Q1	R	1	2	Earlier Iron Age			
29	F1	R	1	10	Earlier Iron Age	Jar with medium out-turned neck		Smoothed
29	Q2	U	1	3	Earlier Iron Age			Burnished
29	F1	B	1	3	Earlier Iron Age			
29	Q1	B	2	43	Earlier Iron Age			
29	F2	B	1	11	Earlier Iron Age			

Fabric descriptions

F1 Common small angular flint, F2 flint and some chalk, Q1 Sandy with moderate medium angular flint, Q2 fine sandy

U = undecorated body sherd, R = rim, B = base

Appendix 4: Flint

Context	Type	Quantity	Non-str.
29	Non-struck fragment	0	2
29	Burnt fragment	1	0
29	Flake	3	0
29	Shatter	5	0
29	Utilised fragment	1	0

Appendix 5: Animal Bone

Context	Ctxt Qty	Ctxt Wt(g)	Species Group	Species	NISP	Zone/s	Ages	Burnt	Invert	Gnaw	Butchering	Comments	
8	3	11	WM	Deer	1	antler	a		y		none	Tine, broken, invert damage Red Deer	
			M	Mammal	2								
11	26	269	LDM	Cattle	1	mand	a		y		c, ch		
			LDM	Equid	1	ll	a		y	1 C	c	Metatarsal shaft	
			M	Mammal	24				2	y		butchered	
29	26	312	LDM	Cattle	5	ul, pel	a		y		c, ch		
			D/WM	Sheep/Deer	1	f	a						
			M	Mammal	20								

Key: NISP = Number of Individual Species elements Present.

Species Group: S-MDM = Small-Medium Domestic Mammal; LDM = Large Domestic Mammal, WM = Wild Mammal; D/WM = Domestic/Wild Mammal, M= Mammal

Age = Estimate age based on fusion of bones and tooth wear; a = adult, j = juvenile, neo = neonatal, range = range of ages.

Zone = UL=Upper Limb, P=Pelvis, MAND = Mandible, F = Footbones

Invert = Invertebrate (Mollusc/Insect/Isopod) damage on surface of bones

Burnt = Burnt remains – number or percentage of fragments and g= grey, w = white, b = black colouration

Butchering = c = cut, ch = chopped, s = sawn

? = Interpretation is dependant on further identification.

Appendix 6: The Environmental Evidence

Sample No.	1	2	3	4
Context No.	6	8	10	28
Feature No.	5	7	9	19
Feature type	Ditch	Pit	Pit	Pit
Date		EIA	Prehist.	EIA
Plant macrofossils				
<i>Triticum</i> sp. (grain)	x			
<i>T. spelta</i> L. (glume base)		x		
Cereal indet. (grain)		x		
<i>Corylus avellana</i> L.	xcf			
Charcoal <2mm	xx	x	xx	xxxx
Charcoal >2mm	x		x	xxxx
Other remains				
Black porous 'cokey' material		x		x
Bone	x	x	x	x xb
Burnt/fired clay	x			
Burnt stone	xx			x
Small coal frags.	x	x		
Small mammal/amphibian bone	xpmc		xpmc	xpmc
Sample volume (litres)	42	45	28	42
Volume of flot (litres)	<0.1	<0.1	<0.1	0.2
% flot sorted	100%	100%	100%	50%

Key: x = 1 – 10 specimens xx = 11 – 50 specimens xxxx = 100+ specimens

cf = compare pmc = possible modern contaminant Prehist = prehistoric EIA = Early Iron Age