M4/16

LOWER WITHAM ENVIRONMENT SCHEME PHASE II WORKS:

FISKERTON BORROW PIT AND EIGHT SECTIONS OF RIVER DEFENCE IMPROVEMENTS, RIVER WITHAM, LINCOLNSHIRE

ARCHAEOLOGICAL WATCHING BRIEF REPORT

Site code	LWES 02
LCCM Acc No:	2002.199
Planning ref. Fiskerton Borrow Pit:	W30/0178/01
Planning ref. river defence works:	N/A

TF 0670 7150

Report prepared for Babtie, Brown and Root
on behalf of the Environment Agency
by

S.A. Savage

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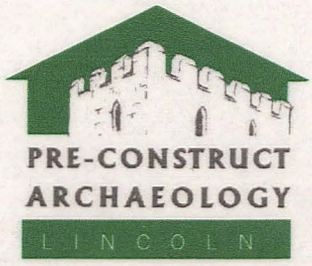

Pre-Construct Archaeology (Lincoln)
Unit G
William Street Business Park
Saxilby
Lincoln
LN1 2LP
Tel. & Fax. 01522 703800
e-mail colin.pca@virgin.net

EVENT: LI 5748
INTERVENTION: LI 9883
EXCAVATION: LI 9884

PRN: 55176 Bronze Age
55177 Roman?
55178 unknown
63556 } Post medieval
63557 }

54612 - prehistoric
55192 - undated

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Summary

- *A watching brief was undertaken on behalf of Babtie Brown and Root, acting on behalf of the Environment Agency, during the stripping of land at Fiskerton in advance of clay extraction for flood defence improvements in the Witham valley.*

- *A preceding program of trial excavation, informed by a geophysical survey, demonstrated that, for the most part, the site was of limited archaeological potential, although some un-dated features were encountered (two of these appeared to be prehistoric).*

- *Subsequent to evaluation, an archaeological watching brief took place during flood defence improvements on the South Delph at several locations between Washingborough and Bardney, Lincolnshire and on the River Witham between Fiskerton and Short Ferry.*

- *The watching brief identified some limited archaeological features, ranging in date from Bronze Age to post-medieval. During topsoil stripping ahead of bank improvements in the area of Washingborough a Bronze Age socketed hammer was discovered.*

1.0 Introduction

An archaeological watching brief took place during topsoil stripping on land situated on the south side of Short Ferry Road, Fiskerton, Lincolnshire (National Grid Reference TF 0383 7182). These works were undertaken in advance of clay extraction for flood alleviation works along the River Witham. Babtie Brown and Root, acting on behalf of the Environment Agency, commissioned the archaeological investigation to fulfil a condition attached to planning permission (Ref. W30/0178/01).

The archaeological watching brief took place during improvement works on the River Witham flood defences at several locations on the South Delph between Washingborough and Bardney, and on the River Witham between Fiskerton and Short Ferry, Lincolnshire.

This report documents the results of a programme of archaeological observation and recording; undertaken between May and September 2002 on the clay extraction pit, and on eight sections of flood bank. It has been prepared to meet the requirements of current local guidelines, and a formal project specification issued by Babtie Brown and Root. This approach complies with the recommendations of *Archaeology & Planning: Planning Policy Guidance Note 16*, (Department of the Environment, 1990), *Management of Archaeological Projects* (English Heritage, 1991), *Standards and guidance for archaeological watching briefs*, (IFA, 1999), and the Lincolnshire County Council document *Lincolnshire Archaeological Handbook: a manual of archaeological practice* (LCC, 1998).

Copies of this report will be deposited with the commissioning client, the Senior Built Environment Officer for Lincolnshire County Council / the County SMR. A short text will be submitted to the editor of the county journal, *Lincolnshire History and Archaeology*; and this will feature as a short note in due course. Reports will also be deposited at the City and County Museum, Lincoln, accompanied with an ordered project archive for long-term storage and curation.

2.0 Location and Description (Fig. 1)

2.1 Fiskerton Borrow Pit (Fig. 2)

The borrow pit is located on former agricultural land which is situated approximately 2.6 km east of Fiskerton village. It is bordered by the River Witham to the south, Ferry Hill to the east, Ferry Road to the north and Wood End Farm to the west. It comprises an area of approximately 5.8 hectares.

The site lies on quaternary drift deposits, which extend across the Witham fen basin. A bed of Glacial Till, a clay rich diamicton, lies directly beneath the soil across the site, overlying a solid geology of Jurassic Kimmeridge and Oxford Clay formations (B.G.S. 1995).

The national grid reference for the centre of the site is TF 0383 7182.

2.2 The River Defence Works

This development represented Phase II of a rolling programme of flood defence improvements, prioritised according to the stability of the present riverbanks, and consisting of eight distinct sections. These sections are located on both sides of the River Witham, in an area extending from Washingborough, 6.5km from the east of Lincoln to Bardney; a total distance of 7km.

This report uses the contractor's designation of the sections (specified in bold – e.g. **21**) and measurements, i.e. chainage. In this case the chainage is based on a distance along the centreline of the Witham, and increases upstream, from an origin at Boston. Sides of the river are described as RHB or LHB (Right or Left hand bank, when looking towards Boston).

Sections 1, 1a, 2, 3, (Fig. 15)

Location: South Delph – RHB Heighington Fen
Chainage: **1** **ch. 39695-39950**
1a **ch. 39950-41150**
2 **ch. 41150-41850**
3 **ch. 41850-42550**
NGR: TF 0845 7133 – TF 0580 7143

Section (**1**) was orientated north-west to south-east; Sections (**1a –3**) east-west along the southern side of the South Delph; the Witham and the South Delph being separated by the disused railway embankment of the GNR Lincolnshire Loop Line. The flood bank and the area immediately to the south of it forms a narrow strip of pasture following the river. The ground surface supports relatively short coarse grass, which totally cloaks the surface of the topsoil. The Silkholmes Drain separates this strip of pasture from arable fields to the south, most of which are under crop, including wheat, hemp and corn (some are 'set-aside'). Where visible, the soil is dark and peaty.

The existing flood bank has a regular profile (steep front face on river side, flat-topped with shallower slope to rear); while the area to the south is level (flat peat fenland), at c. 2 – 2.5m OD

Geology
Drift: alluvium, some peat laminations. The uppermost layer is a degraded peat, interspersed with occasional protruding sandbanks (Glacial till along northern bank of river 200m to north).
Solid: Oxford Clay (**1-2**), Kellaways Sand and Clay (**3**). (Source: I.G.S. 1973 *Lincoln, sheet* **114**. Solid and drift edition. Southampton, Institute of Geological Sciences.)

Section 4 (Fig. 19)

Location: South Delph – RHB Washingborough Fen
Chainage: 4 ch. 43450-43750

NGR: TF 0500 7143 – TF 0452 7139

East-west aligned flood bank on the south side of the South Delph, the Witham and the South Delph; being separated by the disused railway embankment of the GNR Lincolnshire Loop Line. The flood bank and the area immediately to the south of it forms a narrow strip of pasture following the river. The ground surface supports relatively short coarse grass, which totally cloaks the surface of the topsoil. The Silkholmes Drain separates this strip of pasture from arable fields to the south, most of which are under crop, including wheat, hemp and corn (some are 'set-aside'). Where visible, the soil is dark and peaty. The existing flood bank has a regular profile, while the area to the south is level at c. 2 – 2.5m OD

Geology
Drift: alluvium, some peat laminations. Uppermost layer is a degraded peat, with occasional sandbanks.
Solid: Great Oolite Limestone and Blisworth Clay. (Source: I.G.S. 1973 *Lincoln, sheet* **114**. Solid and drift edition. Southampton, Institute of Geological Sciences.)

Sections 8 and 9 (Fig. 20)

Location: River Witham – RHB Branston Fen
Chainage: 8 ch. 36250-36450
9 ch. 36650-36850

NGR: 8 TF 1108 6929 – TF 1093 6944
9 TF 1083 6954 – TF 1057 6978

North-west to south-east aligned flood bank on the south-western side of the River Witham. The sides of the flood bank support rough vegetation including long grass, nettles and thistles, which totally cloak the surface of the topsoil. There is a footpath along the top of the bank, which is framed by shorter growth. Arable fields extend up to the base of the bank. When the watching brief took place, these had been recently harvested. Where visible, the soil is dark and peaty. The flood bank has a regular profile, while the fields are level at c. 2.0m OD.

Geology
Drift: marine and estuarine deposits, silt and clay with peat laminations. Uppermost layers are a degraded peat and some alluvium, with occasional sandbanks (Glacial till along northern bank of river 200m to north.
Solid: Oxford Clay. (Source: I.G.S. 1973 *Lincoln, sheet* **114**. Solid and drift edition. Southampton, Institute of Geological Sciences.)

Section 21 (Fig. 21)

Location: River Witham – LHB Fiskerton Fen
Chainage: ch. 40750-42500
NGR: TF 0761 7156 – TF 0583 7172

East to west aligned flood bank on the north side of the River Witham. The flood bank and the area immediately to the north of it form a narrow strip of pasture following the river. The ground surface supports short to medium length coarse grasses, which totally cloak the surface of the topsoil. The North Delph separates this strip of pasture from the arable fields to the north, most of which are 'set-aside' and contain stubble and rough vegetation. The flood bank has a regular profile; while the area to the north is relatively level, being c. 2 – 2.5m OD.

Geology
Drift: alluvium, some peat laminations. Uppermost layer is a degraded peat, with occasional sandbanks.
Solid: Oxford Clay. (Source: I.G.S. 1973 *Lincoln, sheet* **114**. Solid and drift edition. Southampton, Institute of Geological Sciences.)

3.0 Planning Background

Planning consent was granted by Lincolnshire County Council for clay extraction, and this permission was approved subject to the undertaking of an archaeological watching brief on topsoil stripping ahead of clay extraction (Planning Ref: W30/0178/01.). River defence improvements are undertaken by the Environment Agency, and these works are exempt from local planning constraints.

4.0 Archaeological and historical background

The earliest find from the central section of the Witham valley, between Lincoln and Tattershall, is a Mousterian (Middle Palaeolithic) handaxe from the Fiskerton area. Mesolithic flints have been recovered from Washingborough Fen, and flints of Later Mesolithic or Early Neolithic date from Sections **21** (SMR ref. 54512), and **4** close to the internationally important Fiskerton Iron Age causeway. Other assemblages of worked flint, some dated to the Late Neolithic period, have been found in the Fiskerton area, adjacent to Section **4** (61343, 54525, 52888), as was a polished stone axe (52897). A number of Neolithic stone axes have been found close to the wetland areas of the Witham Fen, and others between Stixwould and Woodhall Spa, including five axes and a pebble mace within 1km of the eastern edge of the River Witham. (on-going research indicates that wetlands were focal points for the ritual deposition of axes during the Neolithic period).

During the Late Neolithic and Early Bronze Age periods, numerous round barrows were constructed on the valley floor between Lincoln and Stainfield. A group of at least 12 barrows may have developed around a possible Early Neolithic long barrow at Greetwell, now represented by an oval crop mark (SMR refs. 52460 and 52841). Opposite lies a cluster of seven barrows to the west of Washingborough (60930). On

the north side of the river, further possible barrows lie to the south of Greetwell Hall and to the south-west of Cherry Willingham, while between Cherry Willingham and Fiskerton a line of 5 barrows faces the western edge of a very extensive cemetery, stretching over much of Washingborough Fen and including thirty possible barrows (60327). The most northerly of these is located within 200m of the Witham, c. 150m west of Section **4**. There is another large cemetery in Stainfield Fen within the valley of the Barlings Eau, located c. 2km north of its confluence with the Witham, and consisting of 32 barrows in two dense groups. Cropmarks to the north and west of Section **4** (50467 and 52850) may indicate the presence of further barrows.

A range of Late Neolithic and Early Bronze Age artefacts have been recovered from the river valley, including a perforated stone axe-hammer (SMR ref. 61453) close to the west end of Section **3**, another in Fiskerton near Section 4 (52911), and a third 30m beyond the west end of Section **21** (52910), but there is little evidence for Middle and Late Bronze Age settlement activity: it would appear that peat began to develop within the valley around 1000BC, rapidly covering the earlier ground surface. The SMR records discoveries of numerous metal artefacts, both single finds and assemblages, including several hoards of bronze axes. One hoard was found c. 280 m north of the Section **1** South Delph works (52895), and another in Fiskerton (52877), while a Middle Bronze Age dirk (52882) was dredged up north of Section **4**. Late Bronze Age weapons have also been recovered from the west end of the Branston Causeway, directly south of Section **8**, suggesting an extremely early date for the original construction of the causeway, which was previously associated with Bardney Abbey. The best evidence of occupation was discovered at Washingborough pumping station, where quantities of Late Bronze Age or Early Iron Age pottery were found; a single sherd was discovered south of Section 4 (61344).

Following the discovery and archaeological excavation of a timber causeway at Fiskerton (SMR ref. 52904), the Early Iron Age has become the most renowned aspect of the prehistoric Witham Valley. Iron weapons, iron and bone tools, pottery and human bones were found in association with the causeway, as were two logboats; since the 18th century many such vessels have been discovered in the Witham Fen, predominantly downstream from the confluence of the Witham and the Barlings Eau, with a particular concentration around Branston Island and Bardney. One was found near Horsley Deeps, north-west of Section **9**, in 1814 (51162). Other items of Early Iron Age metalwork found in this part of the Witham in the 18th and 19th centuries, including an anthropoid-hilted dagger (52889) and possibly the famous Witham Shield (now in the British Museum), may be associated with the Fiskerton causeway. The causeway has been found only on the north side of the Witham, north of the east end of Section **4**, but an indistinct linear feature seen on aerial photographs may indicate its continuation to the south.

Being close to the major Roman settlement of Lincoln, the Romano-British period is well represented. The Car Dyke, thought to be a Roman canal or drain, runs along the junction between the limestone ridge and the Witham Fen, to the south of Lincoln: a section of this monument is visible as an earthwork running along the northern edge of Washingborough village. Finds in this area indicate the presence of a small farming settlement, while those at Fiskerton indicate both a resumption of ritual use of the causeway and river traffic on the Witham. Roman pottery vessels and whetstones were deposited east of the causeway (SMR refs. 52905 and 61292), and two bronze

bowls (52902 and 52883) may have been associated. At Perrins Cottages, c. 400m north of Section **4**, a 'hard' built of limestone rubble and Roman roof tile was constructed for the use of boats along a former river channel (52887 – TF 0485 7190). Small amounts of Romano-British pottery have been recovered from Washingborough Fen, south of sections 4 and 16 (61383, 61384, 61386).

9th century jewellery and weapons found along the Witham indicate that it continued as a focus for the deposition of prestige objects in the Anglo-Saxon and Viking periods: a Viking sword was found in the north bank, c. 160m west of Section **21** (SMR ref. 52896), and the Witham Pins – three silver-gilt Anglo-Saxon disc-headed pins (52878) – were found at approximately the point where the Fiskerton causeway meets the river channel. Weaponry recovered from the site of Stixwould Station implies that this undoubtedly pagan practice may have continued into the 13th or early 14th centuries, long into the Christian era.

The first abbey of the area was established at Bardney toward the end of the 7th century AD: by the medieval period, the river margins were densely lined with ecclesiastical settlements. The medieval manor house at Fiskerton (SMR ref. 54526) belonged to St. Peter's Abbey in Peterborough, and appears to have been built at the north end of the Fiskerton causeway, implying its continued use, while an iron axehead of 10th/11th century date (51163) and a quantity of other medieval iron tools and weapons found in the Bardney area during the 18th century, may be associated with the Branston causeway south of Section **8**, which was then in use by the monks of Bardney Abbey. Secular medieval activity was focussed around the villages fringing the river valley, most of which have names of later Anglo-Saxon origin. Remnants of associated open field systems are often visible either as earthworks or crop marks: three blocks of 'selions' thrown up by medieval strip ploughing survive c. 400m north of the western third of Section **21** (52913 and 64165). The river was navigable at this time, linking Lincoln with its seaport at Boston; several of its tributaries may have been canalised by monastic houses. It also held a large number of fisheries, many of which are listed in *Domesday Book*.

Major work to straighten, widen and scour the river followed the Witham Drainage Act of 1762. The section between Lincoln and Kirkstead was embanked and improved between 1787 and 1788, and it was at this time that many artefacts detailed above were observed and recovered. Further improvements to navigation, including partial canalisation, occurred between 1816 and 1826, and the GNR railway line was constructed alongside the Witham during the late 1840s. Bricks were manufactured on the north side of the river, in the area taken up by the borrow-pit north of the east end of Section **21**: the brickyard opened after 1830 and was disused by 1904 (SMR ref. 52909). A number of ponds in this area are probably the associated clay-pits. A rectangular inlet once connected the larger ponds to the Witham, but was already partially silted up by 1904, with the North Delph cutting across it, and has now been almost entirely backfilled. Another clay-pit marks the site of a post-medieval brickyard (51184) on the east bank of the river south of Section **8**.

Pumping engines, originally windmill-powered and later replaced by steam engines, were built at intervals along the Witham and its associated drainage channels. A wind-powered engine (SMR ref. 61765) was sited west of Section **8** where the Branston Causeway crossed Mill or Benton's Drain, but does not appear on the second edition

1906 OS map. The 1907 OS map shows a pumping engine in section **21**, but only its foundation platform is now extant, and a new pumping station has been built further to the east.

Within the area surrounding sections **1-4**, there are few significant differences between the second and the current edition OS map: the southern bank of the river, the South Delph and the Silkholmes Drain were essentially the same as they are today. Boundary Farm, in the lee of the bank, c. 100m to the south-east of the eastern end of section **1**, existed in 1904, but was at that time known as 'Bunyan's House'; its plan has subsequently been altered. The second edition map shows another small farm complex, 'Tale's Cottage' c. 400m to the north-west of Boundary Farm and apparently recessed into the bank of the South Delph along its southern edge. Neither the buildings nor the track leading to them from Middle Fen Lane are extant, but the surrounding field boundaries have changed so little that it remains possible to locate 'Tale's Cottage'; a few of the smaller fields have become amalgamated resulting in the removal of hedges or the filling of drains. Five Mile House Farm remains near the west end of Section **3**, albeit extensively redeveloped: the irregular line of the parish boundary in this area may show the original extent of its fields. The district boundary separating West Lindsey from North Kesteven, which chiefly follows the centre line of the Witham, curves southwards immediately to the north of Five Mile House Farm, indicating that the South Delph may follow the course of the pre-canalised river channel at the western end of Section **3**, and that the farm was originally constructed on the riverbank. No buildings are shown in Section **4**, and the fields on the south side of the river have changed very little (those on the north side are now partially developed): it is possible that the gently curving field boundaries indicate the courses of relict river channels.

Sections **8** and **9** are also very similar on the second edition and the current OS map. The western bank of the river, used as a towpath in 1906, has changed only in the provision of a ramp up the bank from the yard of the Anchor Inn (north of Section **9**, now replaced by farm buildings). The map of 1906 shows three buildings, probably cottages, between the Witham and the north end of Branston Causeway, at the south end of Section **8**: one derelict cottage remains, and the area has been further developed. The house situated at the centre of Section **9** and the outbuilding closest to the river bank were present in 1906.

An archaeological evaluation was carried out in the field to the east of Willow Lodge in Section **1**. Most of the field was found to be archaeologically sterile, but a small number of shallow features, including a ditch and a curvilinear gully, were exposed at its southern edge, adjacent to the North Delph and c. 150m north-east of the area of works (Brett, 2001). Artefacts were not recovered from any of these features, but it did appear that they had initially been cut through a layer of peat that had subsequently desiccated, resulting in a truncated profile.

5.0 Methodology

5.1 Fiskerton Borrow Pit

The site was visited on 29 April 2002, when topsoil stripping commenced in the area of the new access road. An irregular area was stripped (25m long and up to 8m wide), in the NE corner of the field adjacent to Short Ferry Road. This area forms the new access to the borrow pit, and will be adopted as a road. On 1 May 2002, the topsoil stripping in the area of the borrow pit commenced, and this continued (interrupted only when weather conditions prevented the removal of spoil) until 15 May 2002. This work was undertaken with up to two 360° tracked excavators both employing 2m wide, flat-bladed ditching buckets. These excavators worked in parallel (approx. 15m wide) west-east oriented strips, and these strips proceeded from the north to the south-east of the site.

On 12 June 2002, the site was again visited in order to monitor the stripping of a small area on the south side of the site, which had been left until a skylark's nest occupying it had been vacated.

All topsoil stripping was monitored continuously to ensure that any archaeological features exposed were identified and recorded; these features and the spoil heaps were metal-detected to ensure that no metal artefacts were missed. All archaeological deposits exposed by this method were subjected to limited excavation to assess their nature/dimensions and to attempt to recover datable material. These investigations resulted in the production of written descriptions of each layer on standard watching brief context recording sheets. Colour photographs and scale drawings complement these accounts.

5.2 The River Defence Works

After the completion of the topsoil stripping at the Borrow pit, work began on 17 May 2002 in Sections **1-3** with the excavation of a series of test-pits to determine the depth of the peat cover. Subsequently, topsoil stripping began in Section **1**, working from the Bailey bridge at ch.40278 towards boundary farm.

When the stripping to Boundary Farm was completed, work continued from the bailey bridge westwards through Sections **1a** and **2** as far as the pumping station at the east end of Section **3**. After a short delay, work continued to the west end of Section **3** (Five Mile Lane) and during this period work also began in Section **21**, commencing with the construction of a temporary bridge across the North Delph at the southwest corner of the borrow pit. Section **3** and Section **21** were stripped concurrently, and after Section **21** was completed, Section **4** was stripped. Subsequently Sections **8** and **9**, located closer to Bardney, were stripped.

Topsoil stripping was undertaken with a variety of 360° tracked excavators, in all cases employing 1.6 - 2m wide flat-bladed buckets.

Topsoil stripping undertaken at the toe of the existing embankment was generally 3 - 5m in width and up to 0.4m in depth. Subsequent stripping of the topsoil of the

embankment itself did take place although this was only occasionally monitored. Excavation work was monitored continuously to ensure that any archaeological features exposed were identified and recorded. Stripped areas and spoil heaps were metal-detected to ensure full recovery of metal artefacts. Again, any archaeological deposits exposed by this method were subjected to limited excavation to assess their nature/dimensions and to attempt to recover datable materials. These investigations resulted in the production of written descriptions of each layer on standard watching brief context recording sheets. Colour photographs and scale drawings complement these accounts.

6.0 Results

6.1 Fiskerton Borrow Pit

6.1.1 The Site Entrance

In the area stripped for the new site entrance, the topsoil 6001 (a dark brown, sandy loam containing very occasional small rounded pebbles) stripped onto a subsoil 6002 (a mid grey/greenish brown clay also containing occasional small rounded pebbles). The subsoil generally overlay natural clay 6003 (a mottled mid-orange/mid-grey compact clay containing occasional rounded pebbles of all sizes - up to 150mm).

In this area, apart from a modern service trench, only the former roadside ditch was exposed. This ditch, context 6005, was only seen in plan and was not excavated, as its provenance was certain, and the contractor was not intending to dig below 600mm below the existing ground level. A 25m stretch of the ditch was exposed, in which it was 1.5m wide, and filled with 6004: a mixed dark grey/very dark brown sandy silt, containing frequent medium and large rounded cobbles (up to 200mm in size) and occasional patches of brick hardcore/chalk brash.

6.1.2 The Borrow Pit

In the area of the borrow pit, the topsoil 6001 was more clayey than that encountered in the area of the site entrance, and within the field itself, the subsoil 6002 was only patchily present as a thin interface between the topsoil and the underlying natural in the northern part of the area. In the southern part, the topsoil stripped onto a thin 0.1-0.2m layer of desiccated peat, and in this area the topsoil was itself somewhat more humic.

The most significant feature encountered in the borrow pit was a shallow ditch-gully feature, which ran across the entire site, from the northwest corner to a point approximately mid-way along the eastern side. This feature consisted of a linear ditch, [6009], and approximately 0.3m to the east, and running parallel to it, was gully [6007].

Two segments were cut across these features, one at the northwest end and one at the southeast end (figs 3 and 4 respectively).

Ditch [6009] was 1.2m wide and 0.3m deep, with shallow, slightly concave sides breaking gently to a very shallow 'U'-shaped base. It was filled by a mid-brown silty clay containing occasional angular flints and rounded flint pebbles, up to 30mm in size (6008 in the northwest segment and 6030 in the southeast segment). The base of the fill was manganese stained, and the coarse components were generally concentrated in the upper part of the fill, suggesting that this feature may have initially silted before being purposefully backfilled.

Approximately 0.3m to the east of ditch [6009] and running parallel to it was gully [6007]. This feature was steep, with c50° sides and a 'U' shaped base, it was filled by a slightly reddish brown silty clay, which weathered on the surface to a mid-grey, with inclusions of small and medium sub-angular flint and occasional rounded pebbles (contexts 6006 and 6030).

Several isolated pits were encountered. The first of these, [6011], was sub-rectangular in plan with shallow sides and a shallow concave base. It was filled by 6010: a very dark grey hard and friable desiccated peat (fig. 5).

Pit 6013 (fig. 6) was located 7m from the western limit of excavation and consisted of a shallow, curvilinear cut with very indistinct termini, filled by a dark reddish-brown desiccated peat (6012). This fill was less blocky than 6010 leading to the conclusion that as this feature was located further downslope it may have retained moisture for longer.

In the centre of the site were two pits, separated by only 4m. The westernmost of the two, [6015], was circular in plan with very shallow, slightly concave c 20° sides breaking imperceptibly to a flat base (fig. 7). It was filled by 6014: a very dark grey (almost black) clayey peat mixture containing small amounts of friable ash and charcoal. In this fill was a small piece of burnt clay and two fire cracked flint pebbles, leading to an interpretation for this feature as a possible firepit, or as seems more likely, a heavily truncated rubbish pit into which the ashes of a fire had been deposited. The eastern pit, 6019 (fig. 9), was curvilinear in plan with steep c 75° sides breaking to a 'U'-shaped base. It was filled by a very dark greyish brown desiccated peat, which, with increasing depth, became a mid-grey clay with occasional peaty inclusions. The desiccated peat appeared to continue beyond the 'cut' edges of the feature and this, coupled with the mixed nature of the fill and the difficulty in establishing the true western (inner) edge of the cut suggests that the most probable interpretation of this feature is a tree-throw hole, with material slumping back into it from the west.

Near to the west side of the area was a sub-circular pit (fig. 8), approximately 1.4m in diameter, with very shallow sides breaking imperceptibly to a flat base [6017]. The fill of [6017] was a very dark slightly reddish-brown desiccated peat, (6016).

Close to the southwest corner of the site was another steep-sided curvilinear pit, [6021]. This was filled with a dark brown desiccated silty peat, which became a light greyish brown silt at the base (6020). The similarity between this feature and 6019 seems to suggest that this is another tree-throw pit. (fig. 10).

Approximately 35m east of [6021] was an irregular curvilinear feature [6023], filled with a black peaty silt material (6022). Excavation of this feature proved it to have irregular undercutting sides, suggesting that it was a naturally derived feature produced by material washing into a crack in the underlying clay (fig. 11)

Close to the SW edge of the area was a circular shallow-sided pit, approximately 1.6m in diameter and 0.2m deep [6026]. This had two fills, the primary one (6025) was a mottled mid/ dark brown silty clay containing occasional flints (pebbles and chips), also very occasional charcoal flecks and peat mottling. This material appears to have washed in before the bulk fill (6024) of very dark, slightly reddish-brown peat was deposited (fig. 12). The primary fill, 6025, yielded two chunks of burnt flint, although the possibility remains that these are the product of frost damage (see Appendix 2).

Lastly, another curvilinear feature was seen near to the SW side of the site, approximately 40m SE of [6026]. This was another steep-sided curvilinear pit, [6028] with a regular c 40° north side and an undercutting south (inner) side. The fill of this feature was a very dark brown (almost black) desiccated peat with a slightly reddish hue, this again becoming clayier towards the base of the feature, where it was mixed with peat on the south side. The similarity between this feature and 6019 seems to suggest that this also was a tree-throw pit (fig. 13).

6.2 The River Defence Works

6.2.1 Test pits (fig. 14)

A series of test pits were excavated in the area of Sections **1 – 3**, in order to establish the depth of the peat horizons in anticipation of the construction of a toe cut-off trench filled with clay to prevent leakage below the bank. The exposed stratigraphy in these test pits was recorded and the results are presented in fig. 14, while the detailed descriptions of the contexts can be found under their relevant sections. Further investigations into the nature of water seepage through the bank proved a cut-off trench to be unnecessary, so no further deep excavations were undertaken in this phase of the works.

6.2.2 Section 1 (fig. 15)

The Section **1** reinforcement works were located on the south-west face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. Section **1** consisted of a topsoil strip at full width (3-3.5m) on the back face of the bank from ch.39950 to ch.39815 followed by a 3 – 3.5m wide strip on the front face of the bank from ch.39815 to ch.39695, a total distance of 255m. The reinforcement works involved the removal of the topsoil from the both faces of the bank along with a strip 3-3.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank, along with realigning the line of the bank in the area immediately north of Boundary Farm.

Within Section **1**, the topsoil (100) consisted of a very dark brown humic peat-derived loam containing occasional small and medium pebbles (up to 60mm in size): this layer was 0.25-0.3m thick. The topsoil sealed a 2m wide band of dark brown silty desiccated peat, up to 0.2m deep and located along the Silkholmes drain side of the strip, from ch.39950 to ch.39880, after which it became patchy to ch.39840 (101). This material probably represents a subsoil, not present in the immediate vicinity of the bank.

Outside of this area, the topsoil stripped onto a very dark brown desiccated peat containing occasional localised patches of grey silt (114).

The bank material in the western 10m of the section was a mixture of desiccated peat and silt (103), similar in nature to the topsoil and derived from the excavation of the South Delph further east, however the topsoil on the bank stripped onto a light brown fine silty sand (104). This probably represents material from a natural sand bank within the course of the former river channel, which has been redeposited in the bank as part of the canalisation process.

Between ch.39840 and ch.39790, the topsoil stripped onto a light brown fine sand (111), which probably represents the sandbank from which 104 was derived.

On the north side of the bank, the topsoil, in all respects similar to 100, was given the number 112. This stripped onto 113, a dark grey silty clay, which in places was pure silt with localised sandy patches. This material was very clean, suggesting that it represents material dredged from the base of the delph and deposited on the riverbank.

In the test pits excavated in anticipation of a toe cut-off trench, the peat sequence below these horizons was clearly established. Test pits 4 and 5 were excavated in this section and revealed that below the desiccated peat layer 114, which was approximately 0.4 m thick, lay a very dark brown humic peat deposit 0.75m in thickness (115). This layer sealed 102, which was exposed in Section **1a**, and was 1m thick in pit 5, but was not bottomed in pit 4 (which was excavated to a total depth of 4m). In pit 5, 102 lay above a dark grey fine sand layer (116), which at depth became running sand.

6.2.3 Section 1a (fig. 15)

The Section **1a** reinforcement works were located on the south and south-west face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. Section **1a** consisted of a topsoil strip at full width (3-3.5m) on the back face of the bank from ch.39950 to ch.41150, a total distance of 1200m. The reinforcement works involved the removal of the topsoil from the south face of the bank along with a strip 3-3.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

In the eastern half of **1a**, between ch.40278 to ch.40125, topsoil stripping included the removal of the desiccated peat layer 114, as, at the time, a cut-off trench was anticipated at the toe of the new embankment. As this trench would have been some 2.5m in depth, a large tracked excavator was anticipated for the work, and

consequently some bank material was also removed at the base of the bank to facilitate access. Below 114, was 102, a very dark brown/black organic peat containing well-preserved pieces of wood, varying in size from brushwood to large branches (up to 0.25m in diameter). This material included alder, ash and silver birch, although no oak was present, and was all of un-modified character.

Between ch.40124 and ch.40130, topsoil stripping disturbed the remains of a building; comprising several walls constructed of handmade brick [105, 107, 108] and sandstone [106], constructed on a clay layer (110), with the intervening space filled by a chalk-flecked sand (109). The building remains continued beyond the stripped area both below the existing bank and in the direction of the Silkholmes Drain. The sections revealed were recorded and are shown in figs. 16 & 17. The location of these building remains correlates closely with the position of *Tale's Cottage* on the second edition OS map of 1906, although it is not possible to identify which of the buildings shown in the complex these remains represent.

In the western part of the section, from ch.40278 to ch.41150, the topsoil (100) stripped only onto the underlying desiccated peat layer 114. Although 114 contained occasional patches of sandier material, none were large or concentrated enough to constitute the remains of natural sandbanks, and are more likely to represent redeposited material from the canalisation works.

Again, the test pits excavated in anticipation of a toe cut-off trench, established the complete peat sequence in this area. Test pits 2 and 3 were excavated in this section and revealed that below the desiccated peat layer 114, which varied between 0.1m and 0.35m in thickness, lay 115, which itself varied in thickness between 0.45m and 1m. In pit 3, layer 115 again sealed 102, which was 0.9m thick here, and in turn sealed layer 116. In pit 2, 115 lay directly above a light grey fine sand layer (117).

6.2.4 **Section 2** (fig. 15)

The Section **2** reinforcement works were located on the south face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. Section **2** works comprised a topsoil strip at full width (3-4.5m) on the back face of the bank from ch. 41150 to ch.41850, a total distance of 700m. The reinforcement works involved the removal of the topsoil from the south face of the bank along with a strip 3-4.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

The topsoil (200) consisted of a very dark brown humic peat-derived loam containing occasional small and medium pebbles (up to 60mm in size): this layer was 0.25-0.3m thick. The topsoil stripped onto a very dark brown desiccated peat containing occasional localised patches of grey silt (201).

The bank material in this section was a mixture of desiccated peat and silt (202), similar in nature to the topsoil, however, at ch.41215 the bank had been reprofiled and a ramp added, all of which had been constructed in a blue-grey clay similar to that obtained from Fiskerton Borrow Pit, and consequently interpreted as modern. Limestone fragments had started appearing as inclusions within 201 from some 30m

east of this ramp and these became more concentrated as the strip neared the pumping station. It appears likely that these limestone fragments are associated with the construction of the pumping station and the ramp. Another concentration of limestone fragments occurred in 201 between ch.41340 and ch.41410. This material, consisting of medium and large limestone fragments may be associated with a former construction compound from the building of the pumping station.
A patch of modern blue clay was also noted within 201 at ch.41388-400, this was 1.2-1.5m in diameter and 0.25m deep.

West of ch.41821, a reinforced concrete plinth was exposed – [203]. This foundation measured 12m east-west, and a north-south width of some 7m was recorded, before it was deemed too risky to cut any further into the bank material.

More concrete and brick footings, [204], were encountered at ch.41850 and these appear to represent the remains of the building identified as a *'Pumping Engine'* on the second edition OS map of 1906. Several large concrete footings were exposed, including the headwall and retaining walls of the inlet to the pump (reinforced by steel piles, and still retaining the impressions of the inlet pipes), along with the concrete and brick footings of the pumping house immediately to the north (fig. 18). According to the drainage board, the reinforced concrete foundations at ch.41821 are the remains of a bungalow built after 1906 (as these do not appear on the second edition OS map) to house the 'engineer' (M Tupholme *pers comm.*)

In the area of the former pumping station, the bank was constructed of a blue clay similar to that obtained from Fiskerton Borrow Pit and this material was also present in the strip at the base of the bank from ch.41790 to ch.41890. It appears likely that this material was imported to reinforce the bank after the pumping station had been demolished.

Only one of the test pits excavated in anticipation of a toe cut-off trench was dug in this section. Test pit 1 was excavated in the area of the compound at ch. 41465, and established the same underlying peat sequence as that seen in Section **1a**.
Below the desiccated peat layer 201, which was 0.3m thick, lay a loose dark brown humic peat deposit 0.8m in thickness (205); the same as 115 in Sections **1** and **1a**. This layer sealed a dark grey fine sand layer (206); the same as 116 in Sections **1** and **1a**.

6.2.5 **Section 3** (fig. 15)

The Section **3** reinforcement works were located on the south face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. Section **3** consisted of a topsoil strip at full width (3-4.5m) on the back face of the bank from ch. 41850 to ch.42550, a total distance of 700m. The reinforcement works involved the removal of the topsoil from the south face of the bank along with a strip 3-4.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

In Section **3**, the topsoil (300) consisted of a very dark brown humic peat-derived loam containing occasional small and medium pebbles (up to 60mm in size): this

layer was 0.25-0.3m thick. The topsoil generally stripped onto a very dark brown desiccated peat containing occasional localised patches of grey silt (301).

The bank material in this section was a mixture of desiccated peat and silt (302), similar in nature to the topsoil, however the bank material was a redeposited mid-brown sand from ch.41890 to ch.42125, and this material was also present in the strip at the base of the bank in this area (303). This material probably derived from the construction of the South Delph channel, where it was cut through a naturally deposited sand bank within the course of the former river channel, the excavated material being redeposited to form the bank.

From ch.41990 to the end of the strip at ch.42540, only 250-300mm of topsoil was removed, so the desiccated peat 301 was only occasionally exposed. There was a concentration of Victorian or early 20th century bottles and domestic rubbish between ch.42100 and ch.42140 (304), and from ch.42415 to ch.42540 the topsoil was very shallow and stripped onto the remains of a compact crushed chalk and gravel layer – probably the remains of an access track from Five Mile Lane (305).

Again, the test pits excavated in anticipation of a toe cut-off trench, showed a similar underlying peat sequence to that seen in the other sections. Test pits 6, 7 and 8 were excavated in this section and pits 6 and 7 revealed that below the desiccated peat layer 301, which varied between 0.25m and 0.4m in thickness, lay 306, a dark brown humic peat similar to 115 and 205, and 1.25m in thickness. Layer 306 in turn sealed a grey sand similar to 116 and 206 – 307. In pit 8, layer 306 was greyer and sealed a reedy grey clay – 308.

6.2.6 **Section 4** (Fig. 19)

The Section **4** reinforcement works were located on the south face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. Section **4** consisted of a topsoil strip at full width (3-3.5m) on the back face of the bank from ch. 43775 to ch.43450, with a 35m taper at the west end and a 17m taper at the east end, a total distance of 343m. The reinforcement works involved the removal of the topsoil from the south face of the bank along with a strip 3-3.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

The topsoil (400) consisted of a mid-brown silty peat derived loam with occasional sandy patches, up to 0.3m in thickness. The topsoil sealed a 1-1.2m wide band of mid-brown silt, up to 0.15m in thickness and located along the toe of the bank (401). This material probably represents subsoil, which has survived below the toe of the existing bank, where the change in local hydrology due to drainage has truncated the material further from the bank. Outside of this area, the topsoil stripped onto a very dark brown desiccated peat containing occasional patches of grey silt – 402. From ch.43725 to ch.43560 the depth of the topsoil strip was reduced to 200mm. Further east, the topsoil stripped onto a light/mid-brown fine sand with occasional flecks of manganese (403). This material was patchy from ch.43500, but was seen across the full width of the strip from ch.43480 to the end of the strip at ch.43333. This material

probably represents a sand bank, naturally deposited within the course of the former river channel.

An iron-bound bronze socketed hammer head was recovered from context 402 at chainage 43740, 0.7m south of the toe of the existing bank (see fig. 22). It was found at a depth of no greater than 15cm below the topsoil (400), suggesting that the object may have been redeposited (perhaps during scouring or dredging of the South Delph): objects of similar density and antiquity that were recovered during the 2001 excavations at the Fiskerton Iron Age causeway were discovered at the base of the peat sequence (a depth of 0.8-1.2m below the modern ground surface). During excavations on the same causeway in 1981, Roman objects were found physically lower than Iron Age objects, further supporting the idea that heavy objects sink in peat.

The style of the bronze socketed hammer has been attributed to the Wilburton or Ewart Park periods of the Late Bronze Age, between the 11th and 8th centuries BC. Metallographic analysis has allowed for a closer dating, to the first half of the Ewart Park period (10th – 9th century BC). One other socketed hammer has been recorded from Lincolnshire, from the lost Kirton Lindsey Hoard: the findspot lies close to the location of the Washingborough hoard which included a mould for a bronze socketed axe of the Ewart Park type (see Appendix 3).

6.2.7 **Section 8** (Fig. 20)

The Section **8** reinforcement works were located on the south face of the southern bank of the River Witham. Section **8** consisted of a topsoil strip at full width (3-3.5m) from ch. 36300 to ch.36400 with a 25m long taper at the west end, and a taper tying in to the existing ramp at the East end (ch. 36283), a total distance of 142m. The reinforcement works involved the removal of the topsoil from the south face of the bank along with a strip 3-3.5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

The topsoil here, 801, was a mid-dark brown friable peat-derived silty clay, varying between 0.25 and 0.4m in thickness. At the eastern end of the strip, the topsoil sealed a mid-greyish brown clay subsoil containing occasional small rounded pebbles (0.1 – 0.3m in thickness) – 802. This material in turn sealed a mid-reddish brown desiccated peat, which was present over the majority of the rest of the stripped area (803). At the eastern end of the strip, from ch.36325 to ch.36283, the topsoil was very thin (up to 0.12m), and sealed a modern rubble deposit made up of asphalt, stone, granite chippings etc (804). The local farmer informed the author that this area had been made up and used until recently as a car park by local fishermen.

6.2.8 **Section 9** (Fig. 20)

The Section **9** reinforcement works were located on the south face of the southern bank of the River Witham. Section **9** consisted of a topsoil strip at full width (3m) from ch.36650 to ch.36800 with a 25m long taper at the east end, and a 50m taper at the west end, a total distance of 225m. The reinforcement works involved the removal

of the topsoil from the south face of the bank along with a strip 3m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

The topsoil here, 901, was a dark brown friable peat-derived silty clay, varying between 0.2 and 0.25m in thickness and containing occasional small rounded pebbles and flecks of grey clay. At the eastern end of the strip, the topsoil sealed a mid-greyish brown clay (902) containing frequent small rounded pebbles and gravel (0.1 – 0.3m in thickness); this material contained Victorian pottery and modern tile and was interpreted as an earlier repair to the riverbank. Below 902, was a mid-reddish brown desiccated peat, 903, which was only seen between ch.36710 and ch.36730. In the middle of the strip, between ch. 36730 and ch.36795, the topsoil was a thin turf (only 0.1m in thickness), and sealed a disturbed modern deposit made up of brick/tile and stone rubble, mixed with redeposited peat and patches of gravel (904). As this material occurs within the garden of the existing house, which has been substantially rebuilt, it was interpreted as a dump deposit associated with the rebuilding work. To the west of the property boundary, the ground dropped steeply away from a ramp constructed of the same rubble as 904, to the level of the surrounding fields. The topsoil here was a dark brown friable peat-derived silty clay, varying between 0.2 and 0.25m in thickness and containing occasional small rounded pebbles and flecks of grey clay (905). Below 905 was a layer consisting of desiccated peat with occasional large patches of grey clay – 906.

6.2.9 **Section 21** (Fig. 21)

The Section **21** reinforcement works were located on the northern bank of the River Witham, in the narrow strip of land between the river and the North Delph. Section **21** began at the field boundary on the SW side of Woods End Farm (ch.40378) to Five Mile Lane at Fiskerton (ch.42550); a distance of 2.172km. Section **21** constituted the completion of the works between Sections **1a** and **1b** of the 2001 phase I works. The reinforcement works involved the removal of the topsoil from the north face of the bank, along with a strip 3-5m in width at the base of the bank to facilitate the placement of clay in this area to widen and heighten the profile of the bank.

The initial work on Section **21** involved the excavation of two pits to site the ends of a temporary bridge structure built across the North Delph to facilitate the transport of the clay embankment material from the borrow pit to placement areas along the section. This crossing was located 15m to the east of the footbridge in the southwest corner of the field containing the borrow pit.

In the pit excavated for the north side of the Bailey bridge (on the north bank of the North Delph), the stratigraphy was very simple. This pit was 7m north-south and 6m east-west and was excavated to a depth of 1.45m. The topsoil, 2100, was a compact, plastic, dark grey clay with heavy root growth and was up to 0.42m in depth. Below the topsoil was a thin layer of loose, friable black peat (2101). This material was dried out and granular with streaks of mid brownish-grey clay apparently filling shrinkage cracks; it contained occasional wood fragments, generally 20-50mm in size. This layer represents a natural peat layer, shrunken and dried out due to modern drainage

works. Below 2101 was stiff, plastic bluish-grey clay with occasional light brown patches and localised iron staining (2102). This is the underlying natural Oxford Clay.

The stratigraphy in the pit excavated for the south side of the Bailey bridge (on the south bank of the North Delph), was similar to that seen on the north side. The topsoil comprised stiff, plastic mid-grey clay containing occasional small and medium flint fragments (30-70mm in size). The clayey nature of this material, 2103, suggests that it has been dredged from the North Delph and dumped on the bank. Below the topsoil was a loose friable dark brown peat layer (2104), varying in depth between 0.2 and 0.3m, but up to 0.91m thick near the south end of the east facing section – at this spot, 2104 was waterlogged and contained tree roots suggesting that this pit is the product of natural processes. Below 2104 was stiff, mid-grey clay with light brown patches, which constitutes the underlying natural Oxford Clay.

Within Section **21** itself, the topsoil (2106) was a dark grey silty peat-derived organic clay, containing frequent patches of stiff yellow or grey clay, which were occasionally so concentrated as to constitute the topsoil. This material contained occasional small and medium rounded pebbles and is most likely to have originated in the Witham or the North Delph and is complemented by material derived from the occasional dredging of these two channels, with wet upcast being deposited along the bank.

The make-up of the Witham Bank material (2107) itself is similar to the topsoil, although drier and less organic. Within 2107 were occasional stone fragments, including limestone blocks (up to 400x160x150mm in size), CBM pieces (including whole post-medieval and modern bricks (240x110x80mm in size)), and fragments of modern china and glass (noted but not collected). In the western part of Section **21**, the bank material is peatier, and the occasional concentrations of blue-grey clay may represent earlier attempts to reinforce the bank. Like the topsoil 2106, this material derives from the excavation of the Witham channel and the North Delph and was probably not transported far from its point of origin: consequently, localised patches of sandier material encountered occasionally (between ch. 41900 and 42150) within the Witham bank probably represent the locations of sandbanks within the pre-canalised river channel.

At the foot of the Witham bank, the topsoil stripped onto a loose, soft mid-brown desiccated peat layer (2108) containing occasional freshwater mussel shell and very occasional fragments of wood (up to 1.10m long; predominantly elder). This material represents the upper layer of the natural peat horizon, and at the eastern end of the site, closer to the edge of the valley, this material overlay 2109; a compact plastic mid-grey fine sandy clay analogous to 2102 and 2105, seen at the base of the pits excavated for the bailey bridge. Context 2108 yielded a fragment of Roman greyware jar, dating to the 2nd century.

West of Chainage 41300, a very dark brown/black organic peat was seen intermittently below 2108, where the excavator occasionally dipped through the desiccated peat. This layer, 2110, contained very occasional small rounded pebbles and common medium-large natural timber; this was well preserved, and consisted of oak and alder up to 3m in length and 0.25m in diameter. 2110 was interpreted as the natural peat of the Fiskerton fen, and was encountered where the embankment runs across the base of the valley, where the peat deposits are thick enough to have

retained their moisture. It yielded two fragments of pottery dating to the 2nd century: one fragment of a greyware jar or bowl, and a sherd from the base of a carinated beaker, along with a fragment of Roman box tile. Three further sherds recovered from this context dated to the 13th – 16th centuries.

Further west again, from ch 42430 to 42550, below 2108, was a very dark greenish brown reed peat (2111), which oxidised to black after approximately 15minutes exposure to the open air. This material contained occasional medium-large timber fragments, which again consisted of well preserved, natural oak and alder (up to 3m in length and 0.25m in diameter).

Metal detecting at the eastern end of Section **21** also produced two iron objects from layer 2110. The first, recovered from ch. 42225, appears to be the blade of a cleaver or billhook (fig. 23), while the other, found at ch. 42315 is a less diagnostic socketed blade (fig. 24). Specialist analysis has been unable to date these items closely, and they could be medieval, although parallels have been drawn between the billhook and a known Roman example from Great Chesterford, Essex (see Appendix 6). The problems with dating such functional objects are obvious, where form is dictated by function.

7.0 Discussion and Conclusions

7.1 Fiskerton Borrow Pit

The topsoil stripping has, for the most part, not revealed deposits of any great archaeological significance, and the features exposed during the works have added relatively little new information to that gleaned during the preceding evaluation. Only a small amount of artefactual evidence was recovered, which has allowed one of the features in this area, Pit [6026] to be tentatively attributed to the prehistoric period.

7.2 The River Defences

Topsoil stripping ahead of riverbank reinforcement works has identified several areas of archaeological interest. Some of these areas, such as the remains of Tales Cottage in Section **1a**, and the pumping station in Section **2** date to the canalisation of the River Witham. Metal detecting recovered large quantities of material, mostly from local agriculture and the construction of the original riverbanks, which was noted but discarded, but the two Iron objects from Section **21** are of local importance.

The Late Bronze Age socketed hammer recovered from Section **4** is of considerable significance as it may be associated with the Fiskerton Causeway and, although the continuation of the causeway to the south of the South Delph has not been established, the presence of a sandbank or island in this location may be significant.

8.0 Acknowledgements

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ILLUSTRATIONS

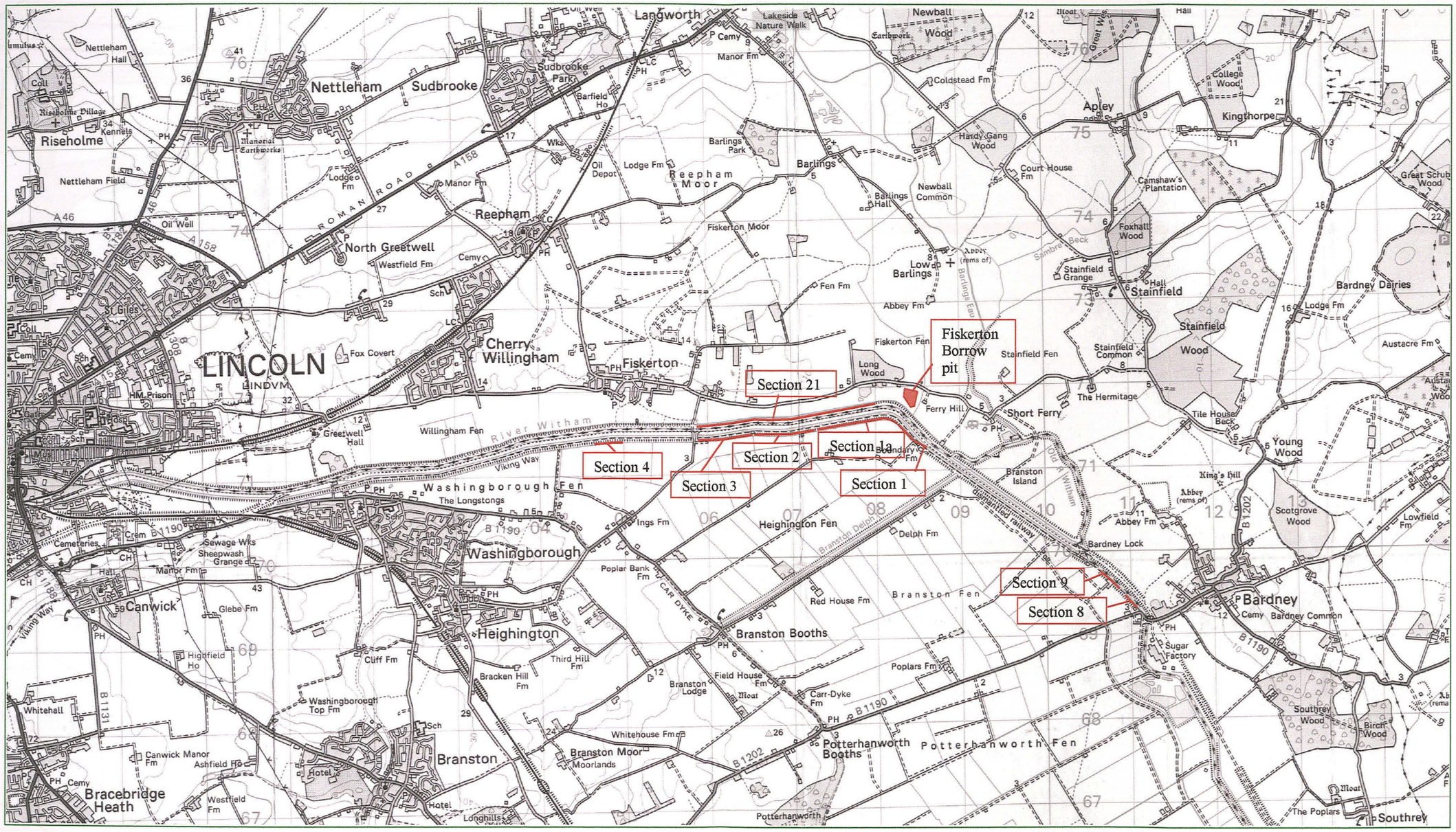


Fig. 1: Location of the eight sections of riverbank reinforced under Phase 2 of the Lower Witham Flood Defence Improvement Scheme. Also shown is the location of the Borrow pit which produced the clay for these works. Image reproduced at 1: 50, 000.

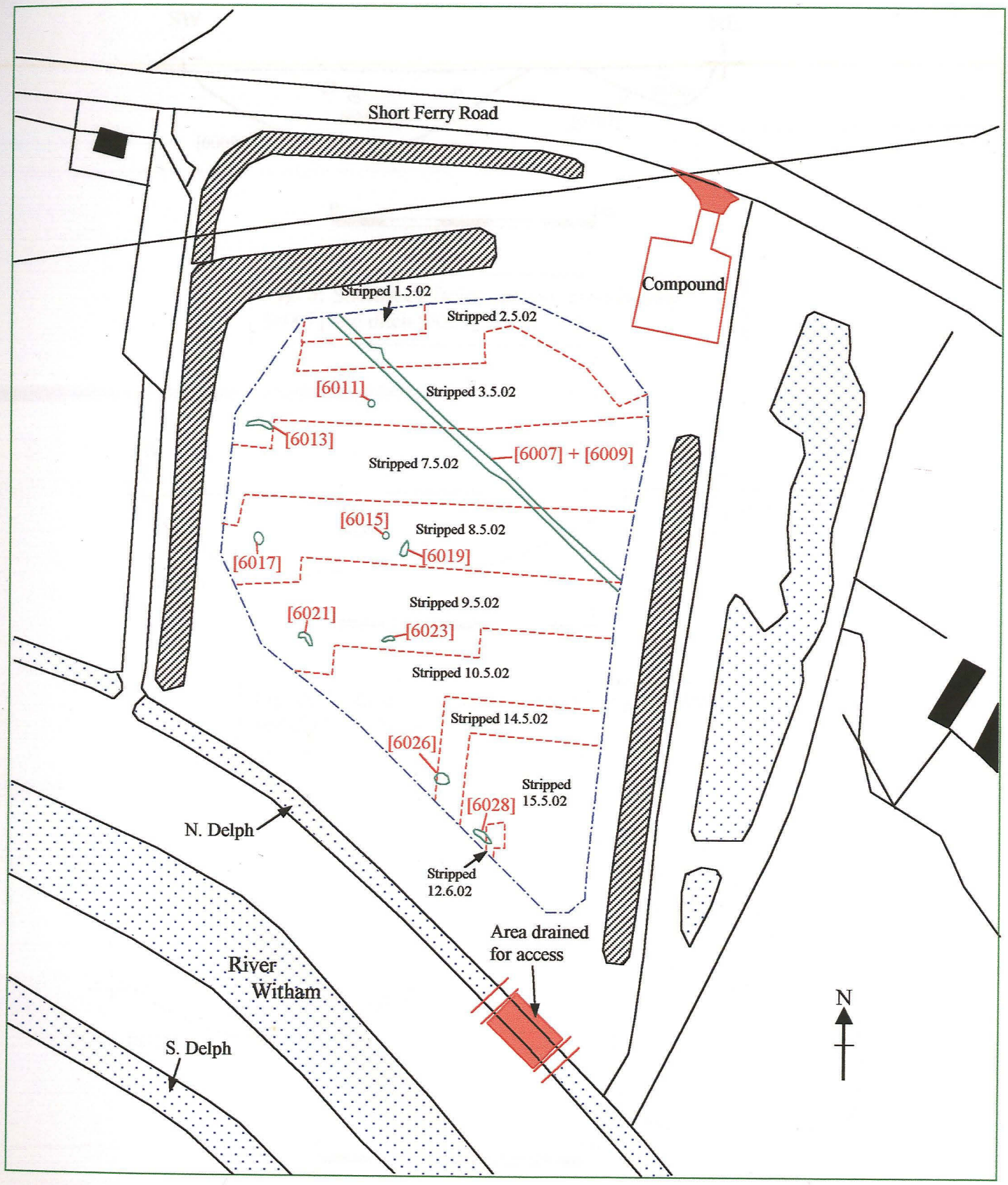


Fig. 2: Plan of Fiskerton Borrow Pit. The stripped area is outline in blue, and the archaeological features are shown in green. Scale 1:2000

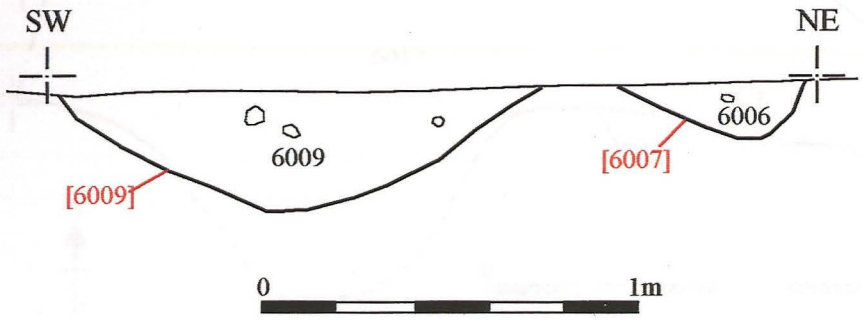


Fig. 3: South-east facing section through gully [6007] and ditch [6009]. Scale 1:20

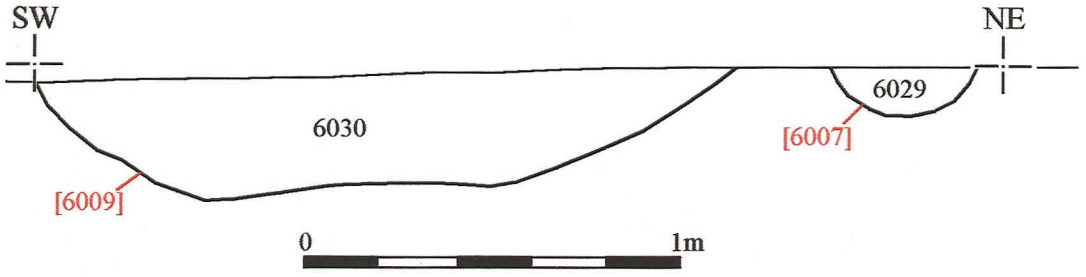


Fig. 4: South-east facing section through gully [6007] and ditch [6009]. Scale 1:20

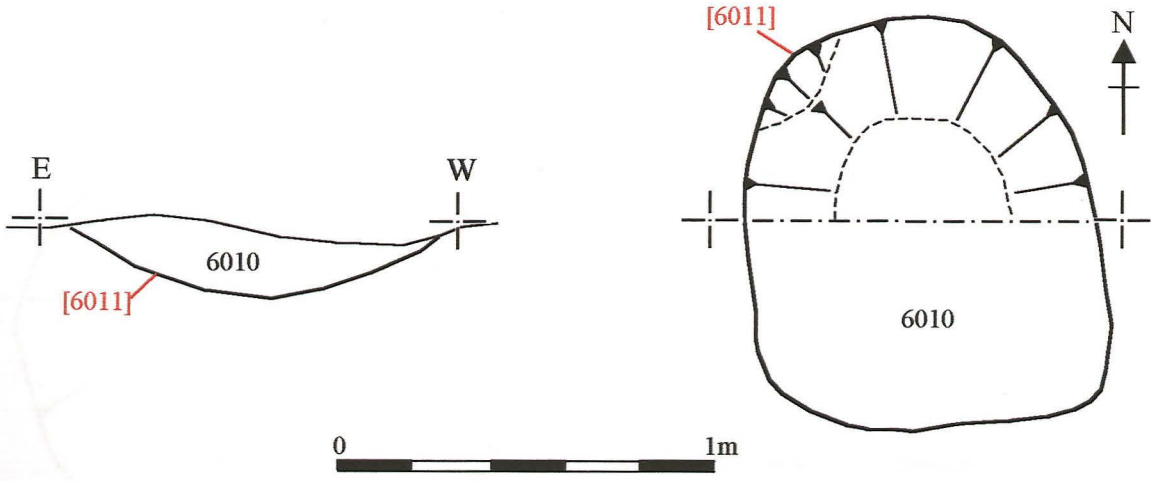
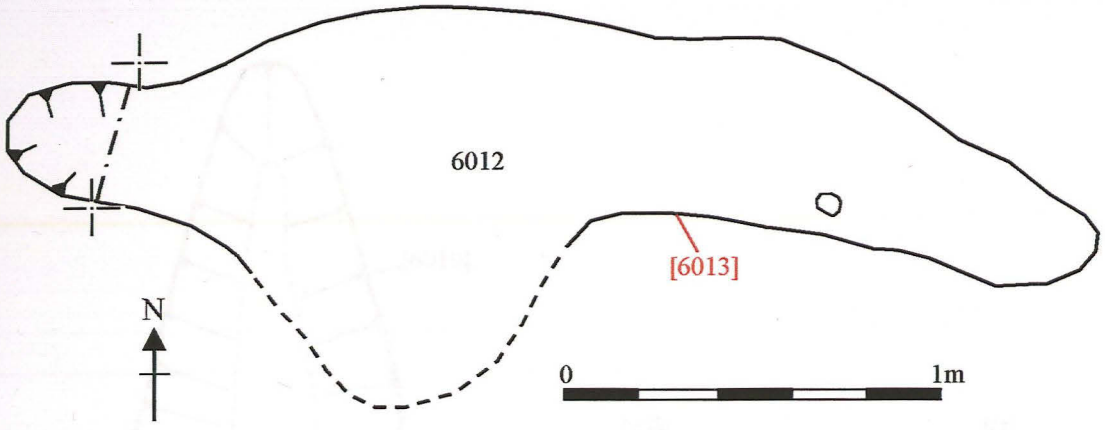


Fig. 5: South facing section through pit [6011]. Scale 1:20



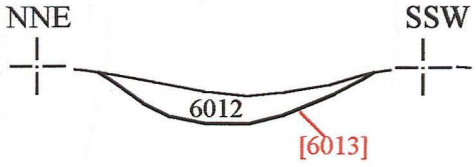
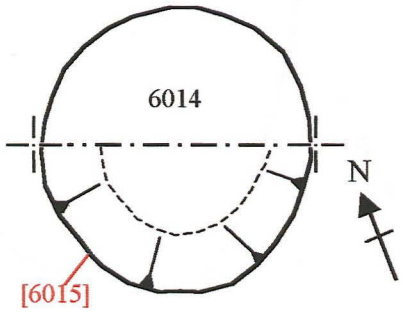


Fig. 6: West-north-west facing section through pit [6013]. Scale 1:20



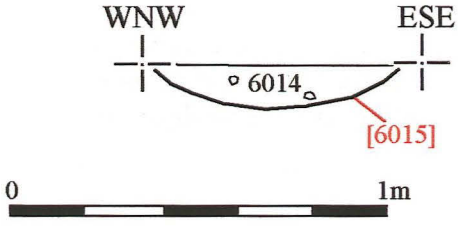
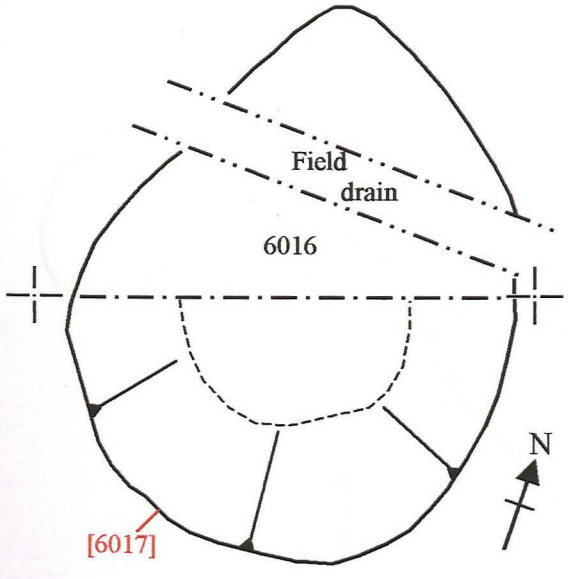


Fig. 7: South-south-west facing section through pit [6015]. Scale 1:20



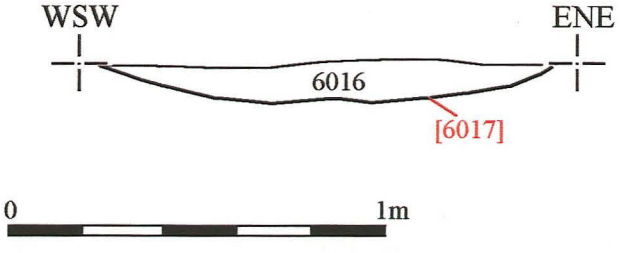
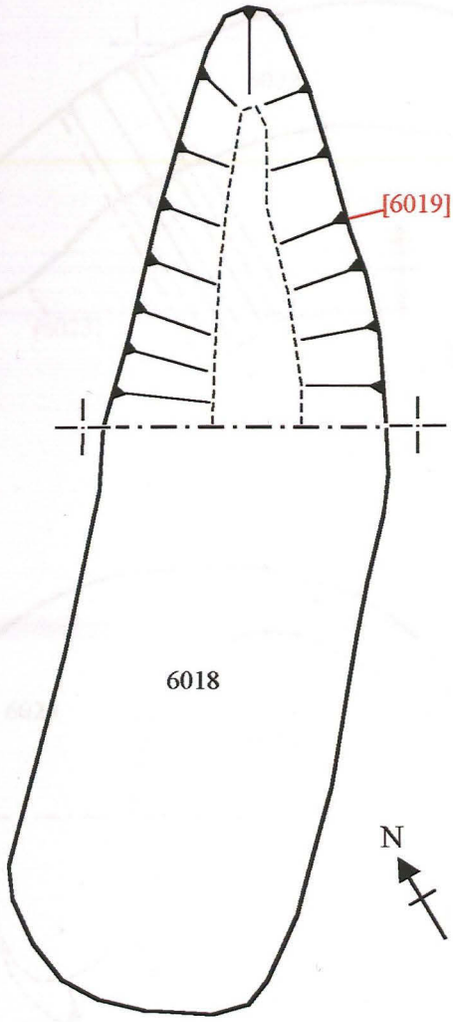


Fig. 8: South-south-east facing section through pit [6017]. Scale 1:20



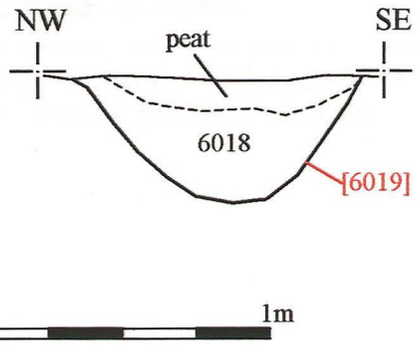
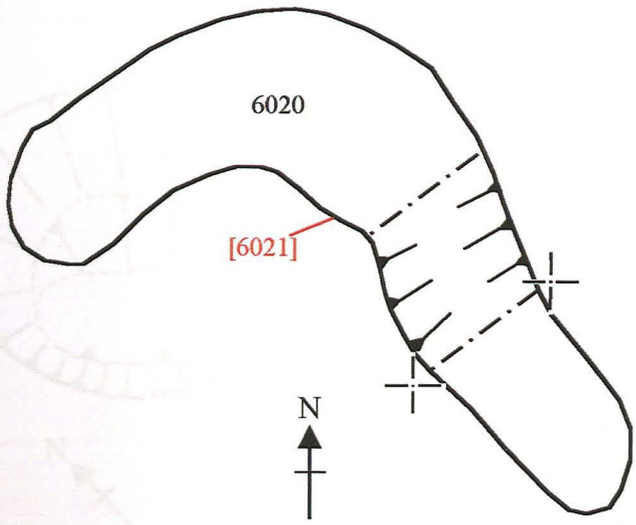


Fig. 9: Northeast facing section through pit [6019]. Scale 1:20



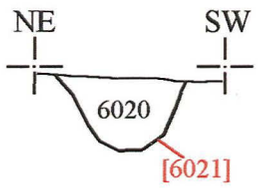


Fig. 10: Northwest facing section through pit [6021]. Scale 1:20

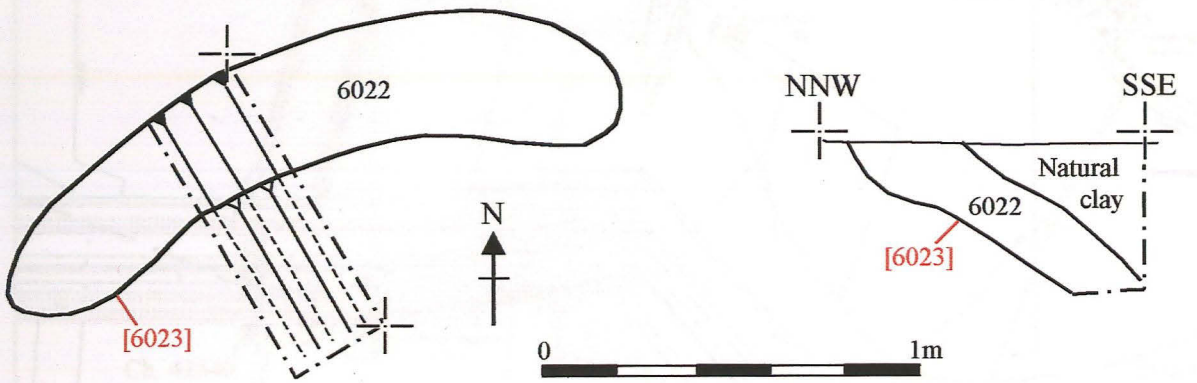


Fig. 11: South-east facing section through pit [6023]. Scale 1:20

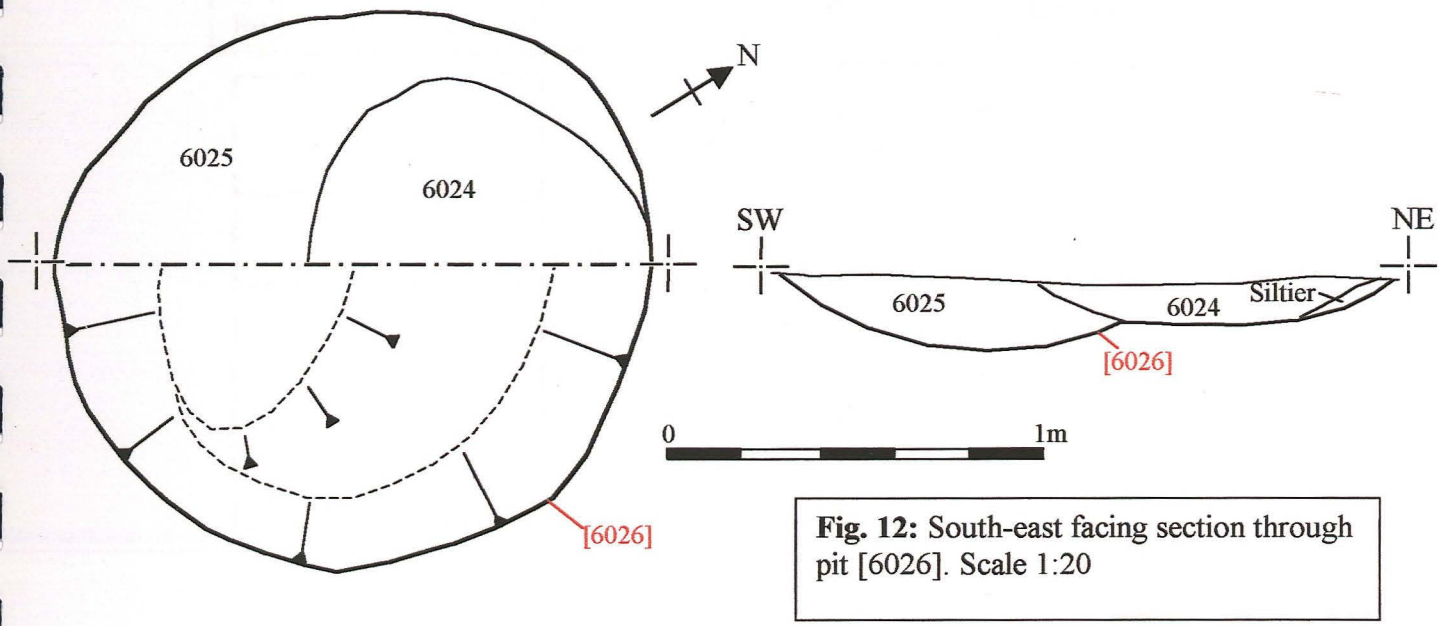


Fig. 12: South-east facing section through pit [6026]. Scale 1:20

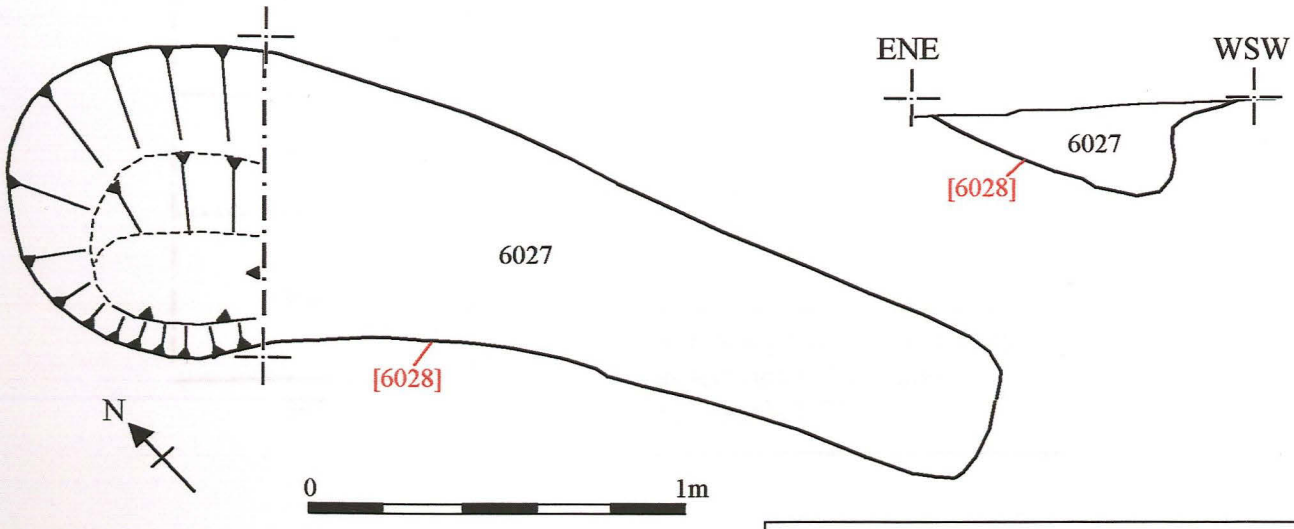
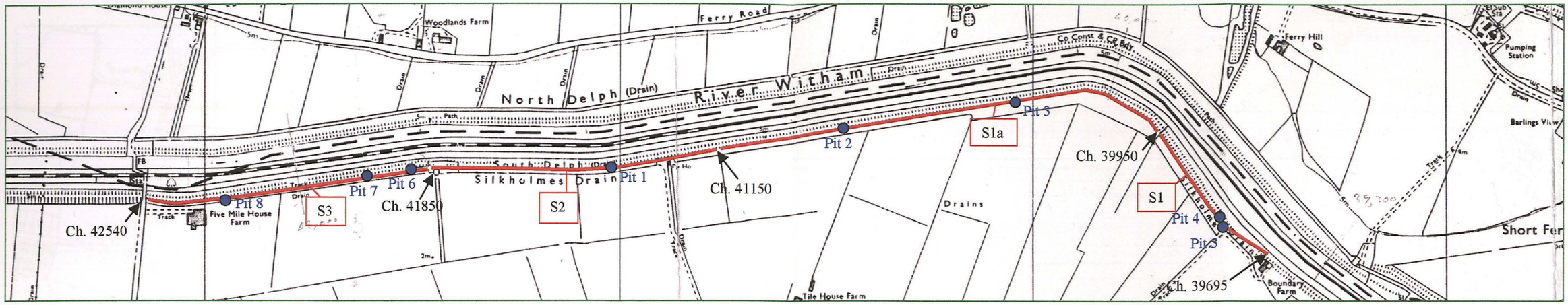


Fig. 13: West-north-west facing section through pit [6028]. Scale 1:20



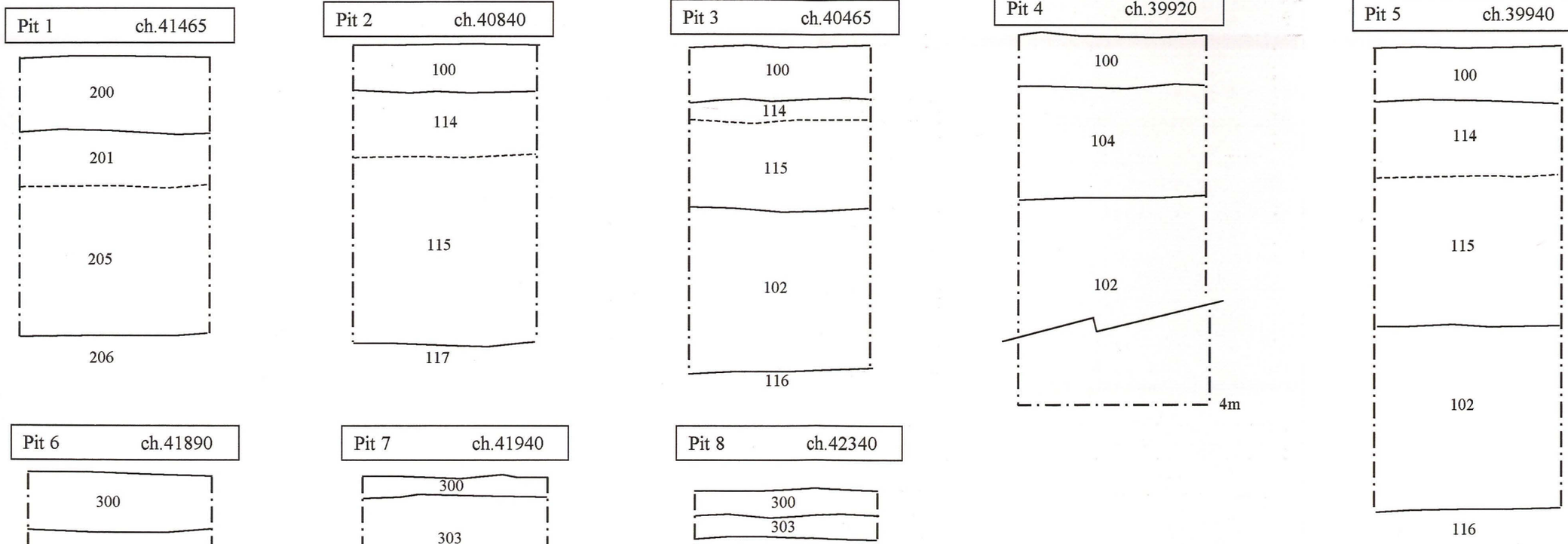


Fig. 14: Representative sections of test pits excavated at the foot of the flood defence bank in sections 1, 1a, 2 and 3 ahead of a proposed cut-off trench. Scale 1:20.

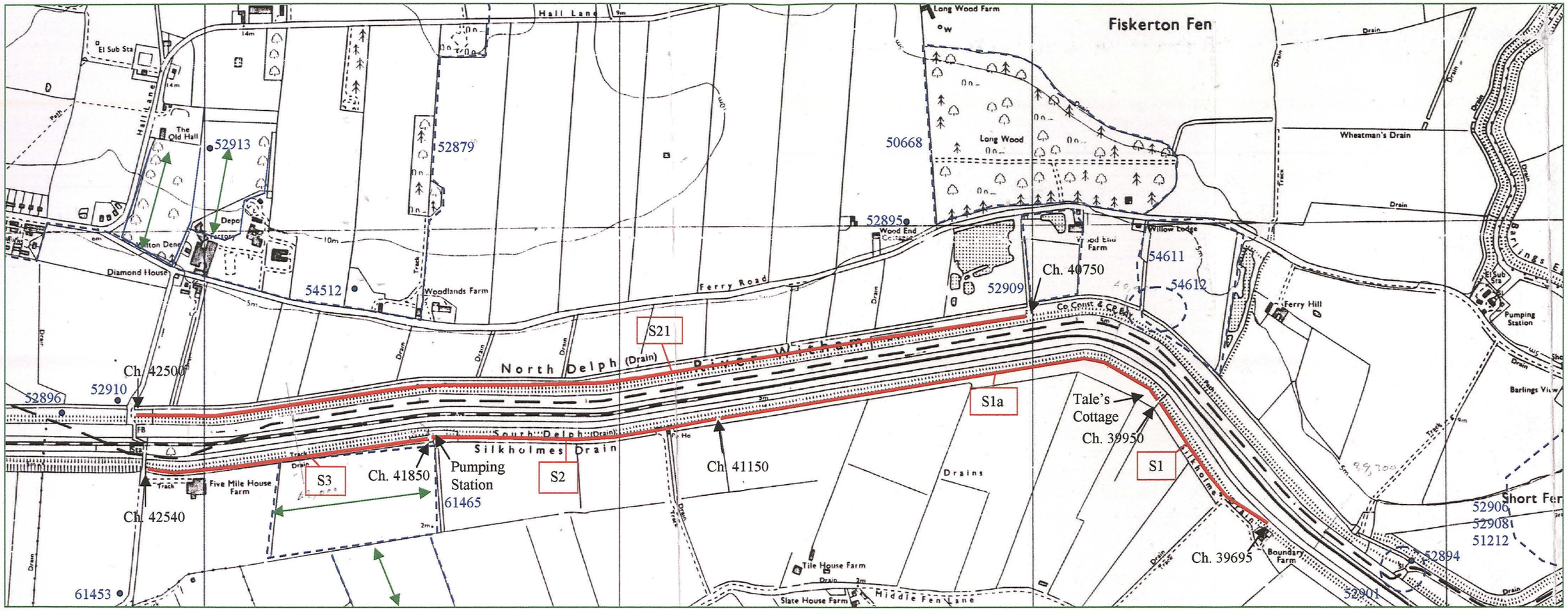


Figure 15: Location of sections 1, 1a, 2, 3, 21 shown as a red line, at a scale of 1: 10,000. Also shown are the locations of archaeological features and materials recorded in the Lincolnshire Sites and Monuments Record; find spots = blue discs, features = blue polygons.

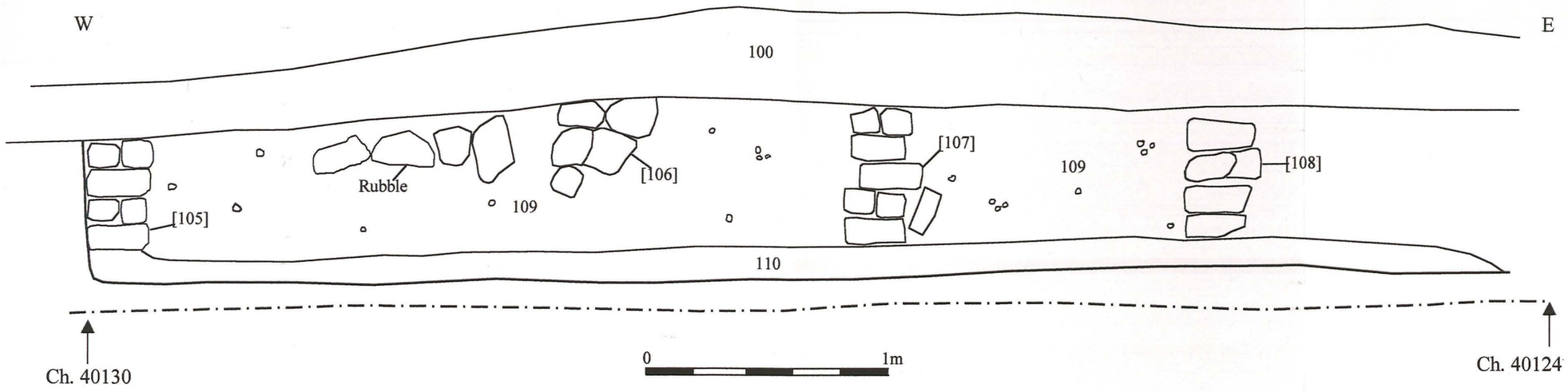


Fig. 16: South facing section through the remains of Tale's Cottage. Walls [105], [107] and [108] are constructed of handmade brick, wall [106] is of sandstone. Scale 1:20.

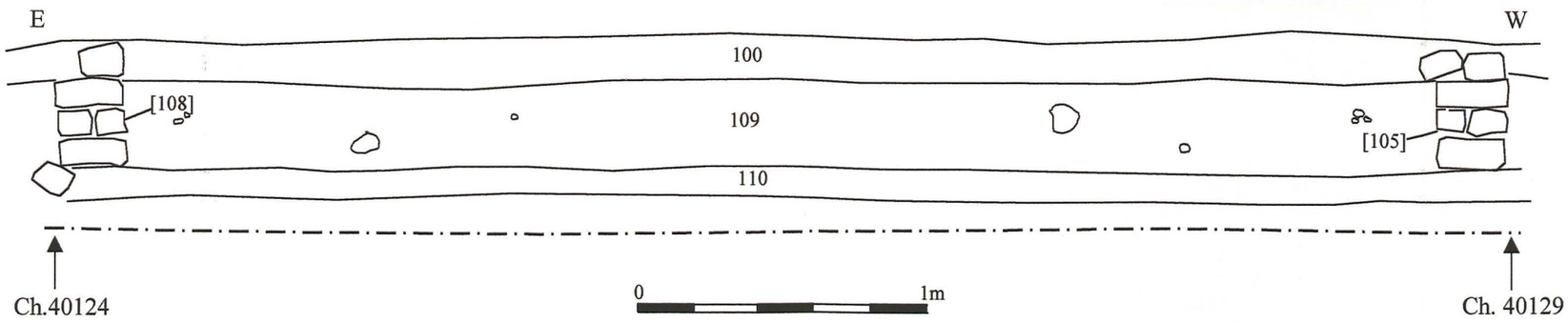


Fig. 17: North facing section through the remains of Tale's Cottage. Only the exterior walls [105] and [108] are present in this section. Scale 1:20.

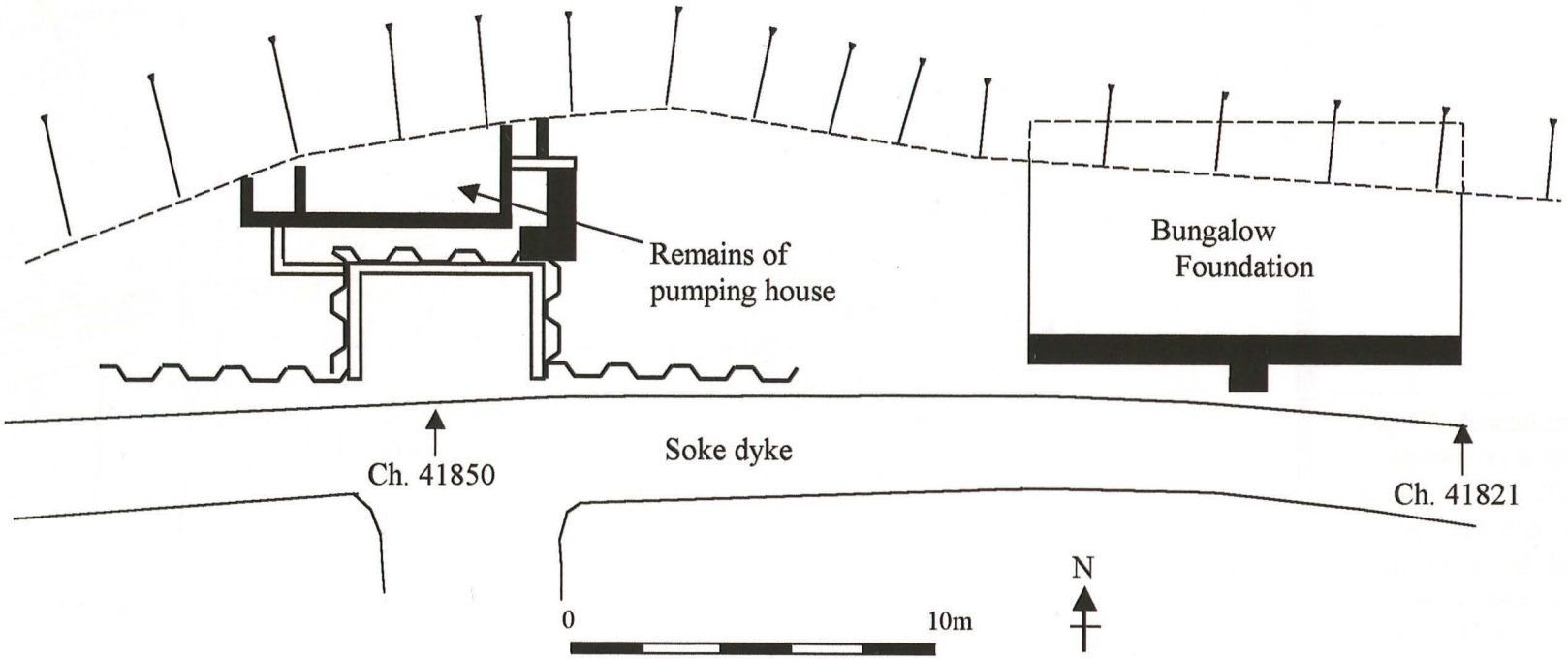


Fig. 18: Plan of the remains of the pumping station and bungalow at ch 41850.
Scale 1:200

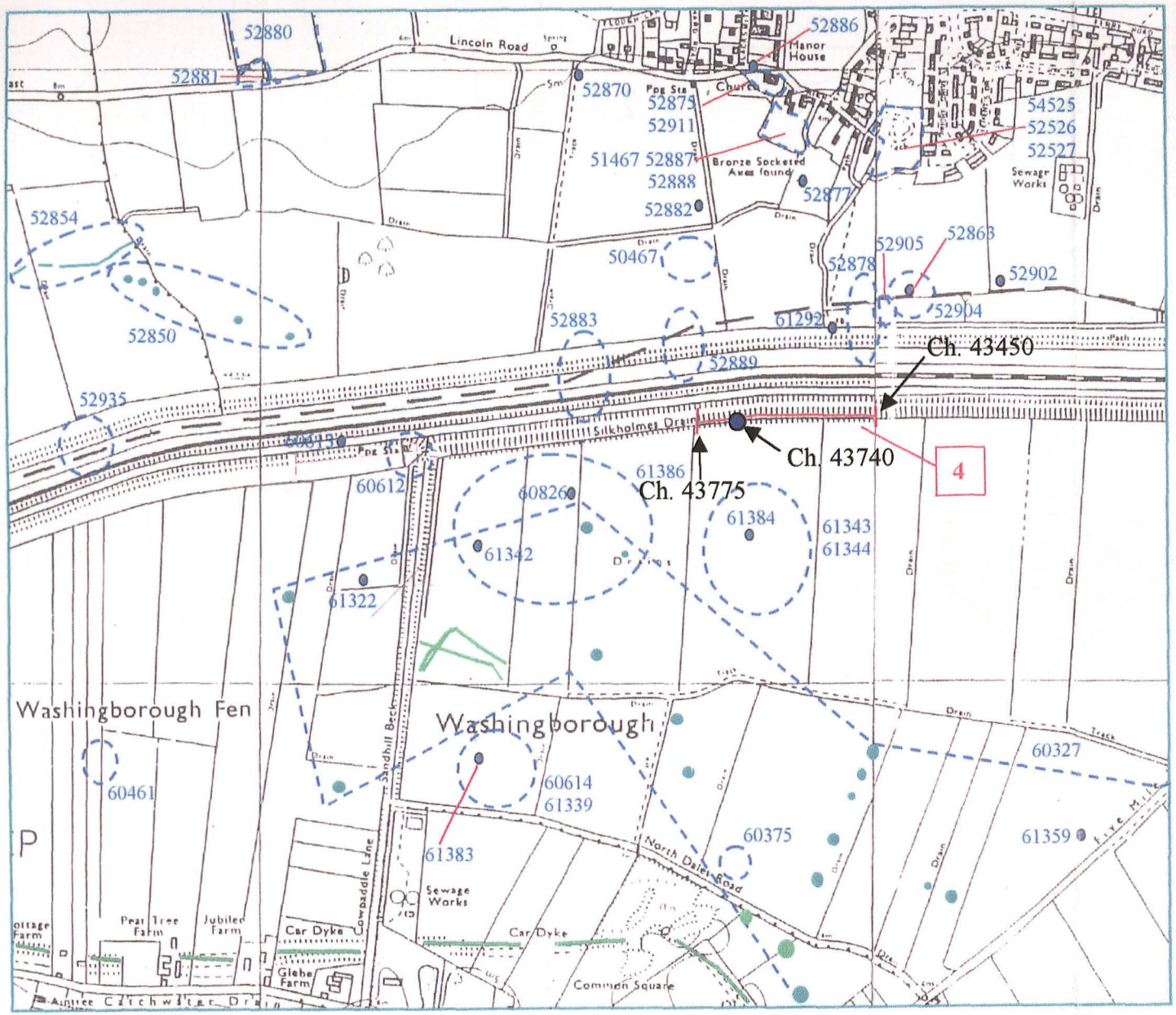


Fig.19: Location of section 4, shown as a red line, at a scale of 1: 10,000. Also shown are the locations of archaeological features and materials recorded in the Lincolnshire Sites and Monuments Record ; find spots = blue discs, features = blue polygons.
The dark blue dot marked "Ch. 43740" shows the position of the Bronze hammer head found during the watching brief.

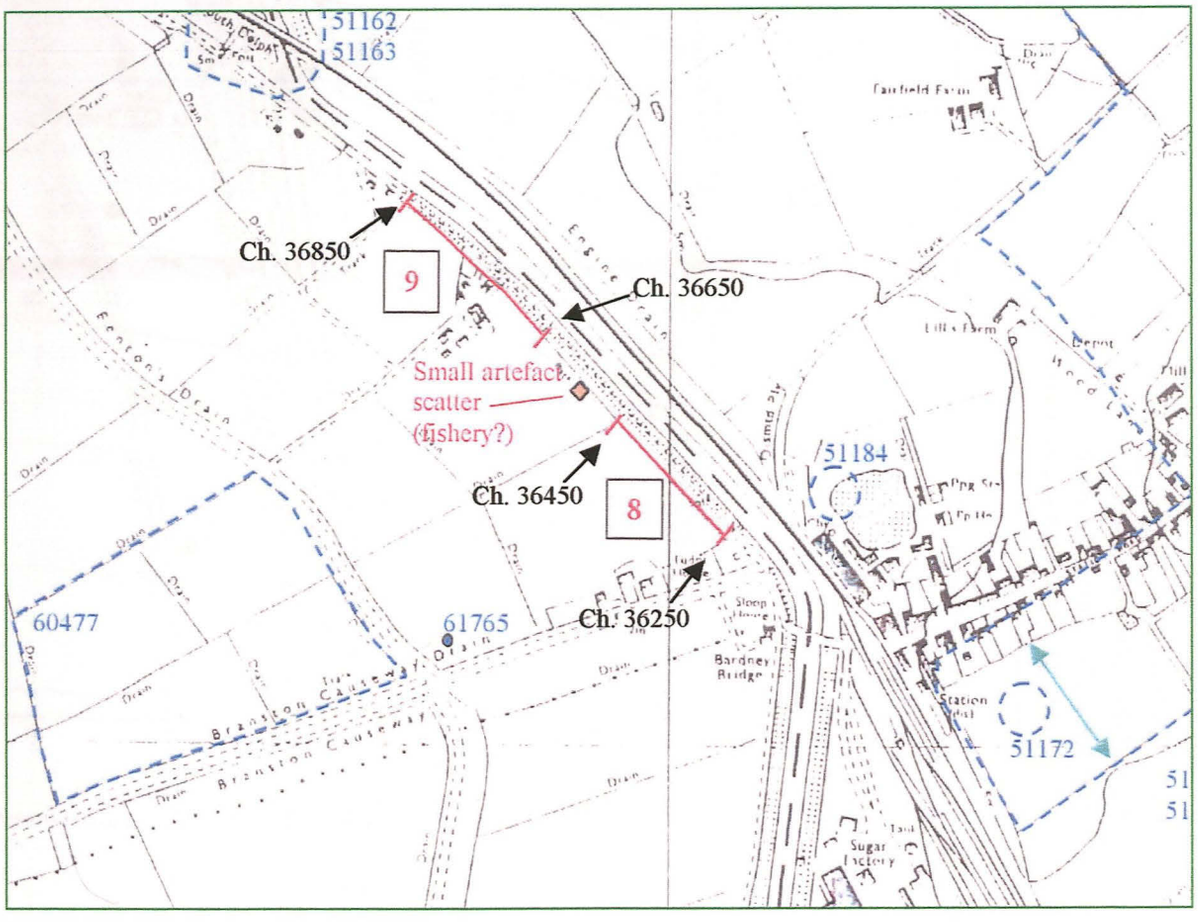


Fig. 20: Location of sections 8 and 9 shown as a red line, at a scale of 1: 10,000. Also shown are the locations of archaeological features and materials recorded in the Lincolnshire Sites and Monuments Record; find spots = blue discs, features = blue polygons.

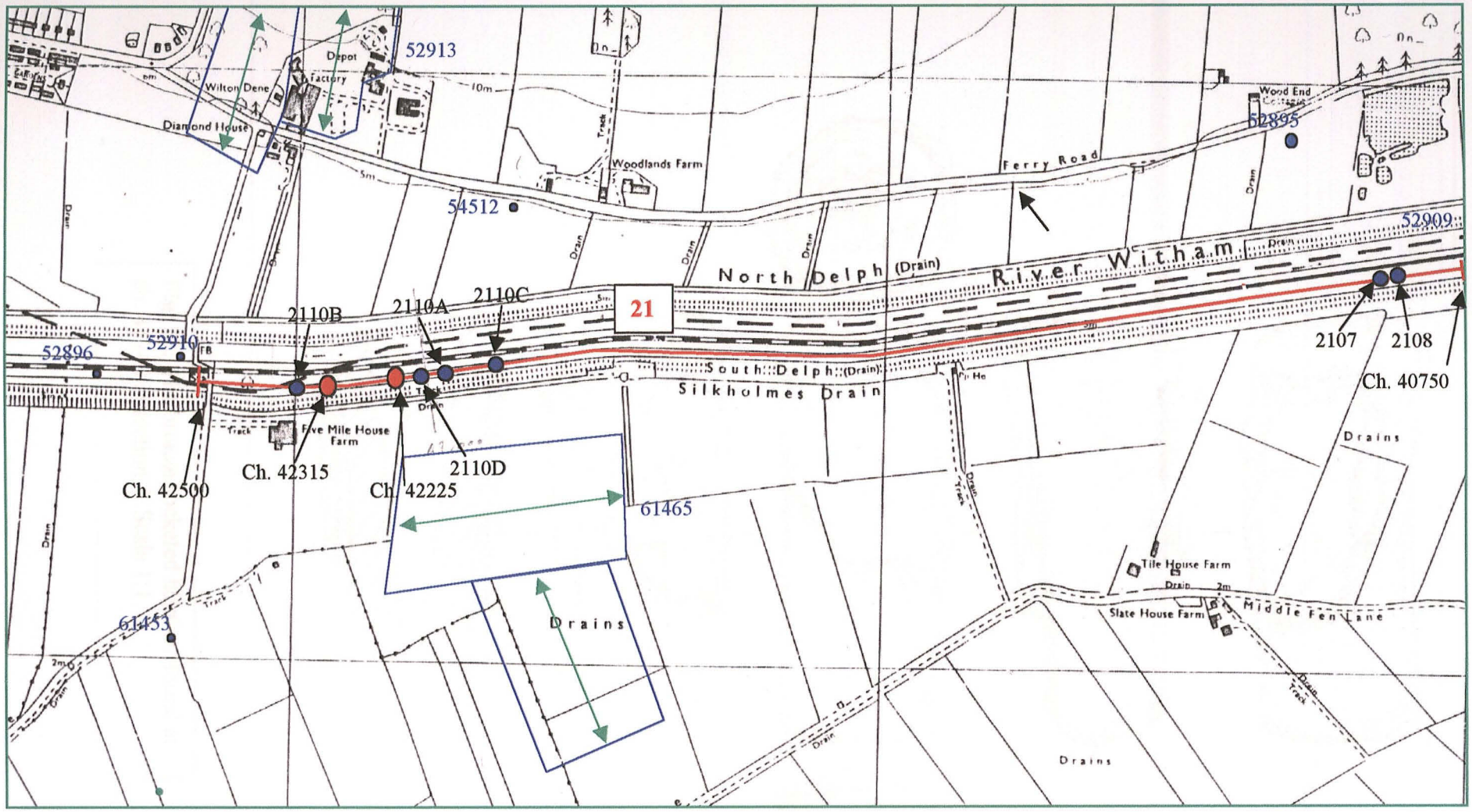


Fig. 21: Plan showing the location of section 21 of the river defences (shown as a red line), along with the approximate positions of the pottery finds (shown as black labelled dark blue dots) and iron objects (shown as red dots labelled with their chainages) based on OS 1:10 000 map extract. The settlement in the top left corner is Fiskerton.

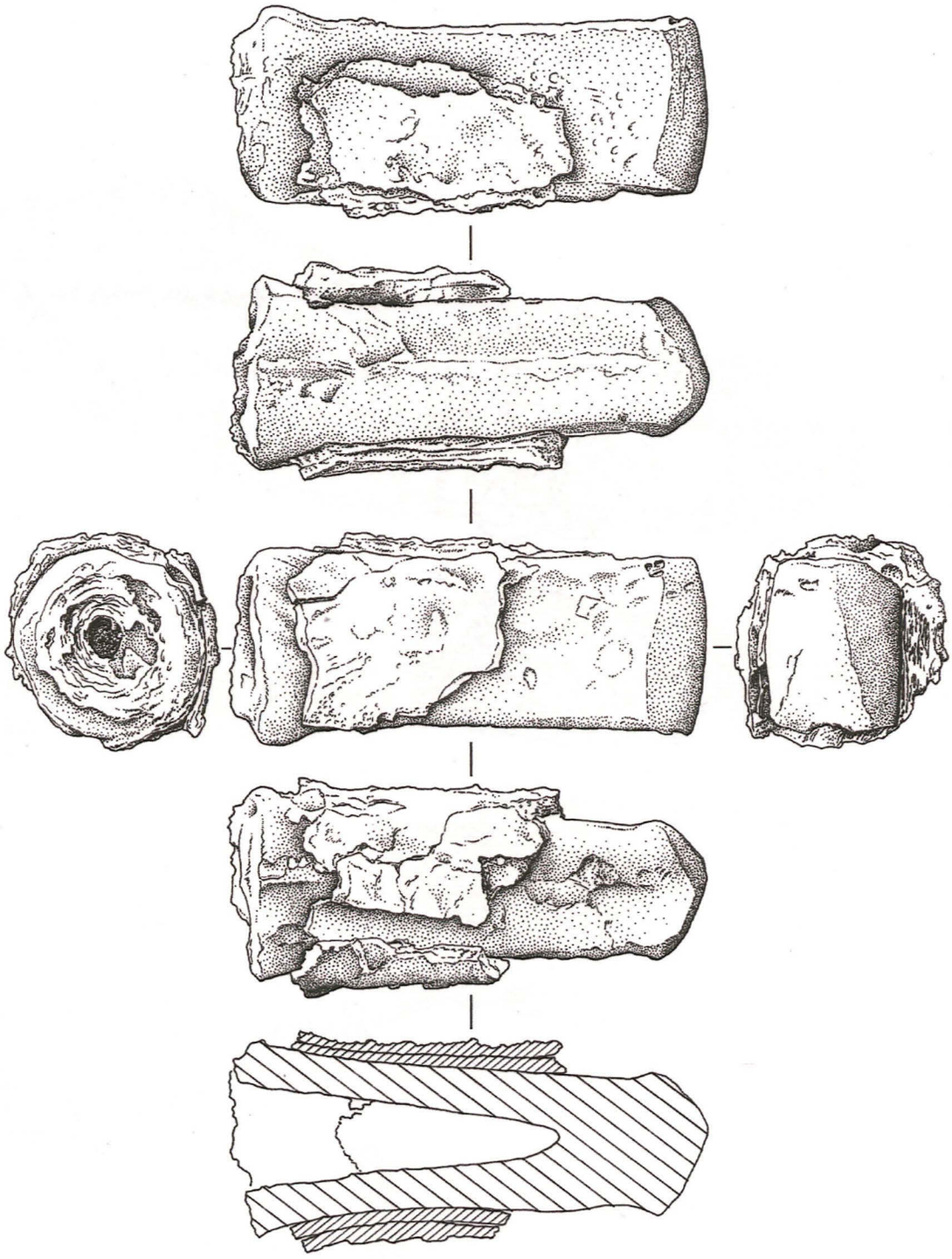


Fig. 22: The bronze socketed hammer found at ch. 43740 in section **4**. Scale 1:1.

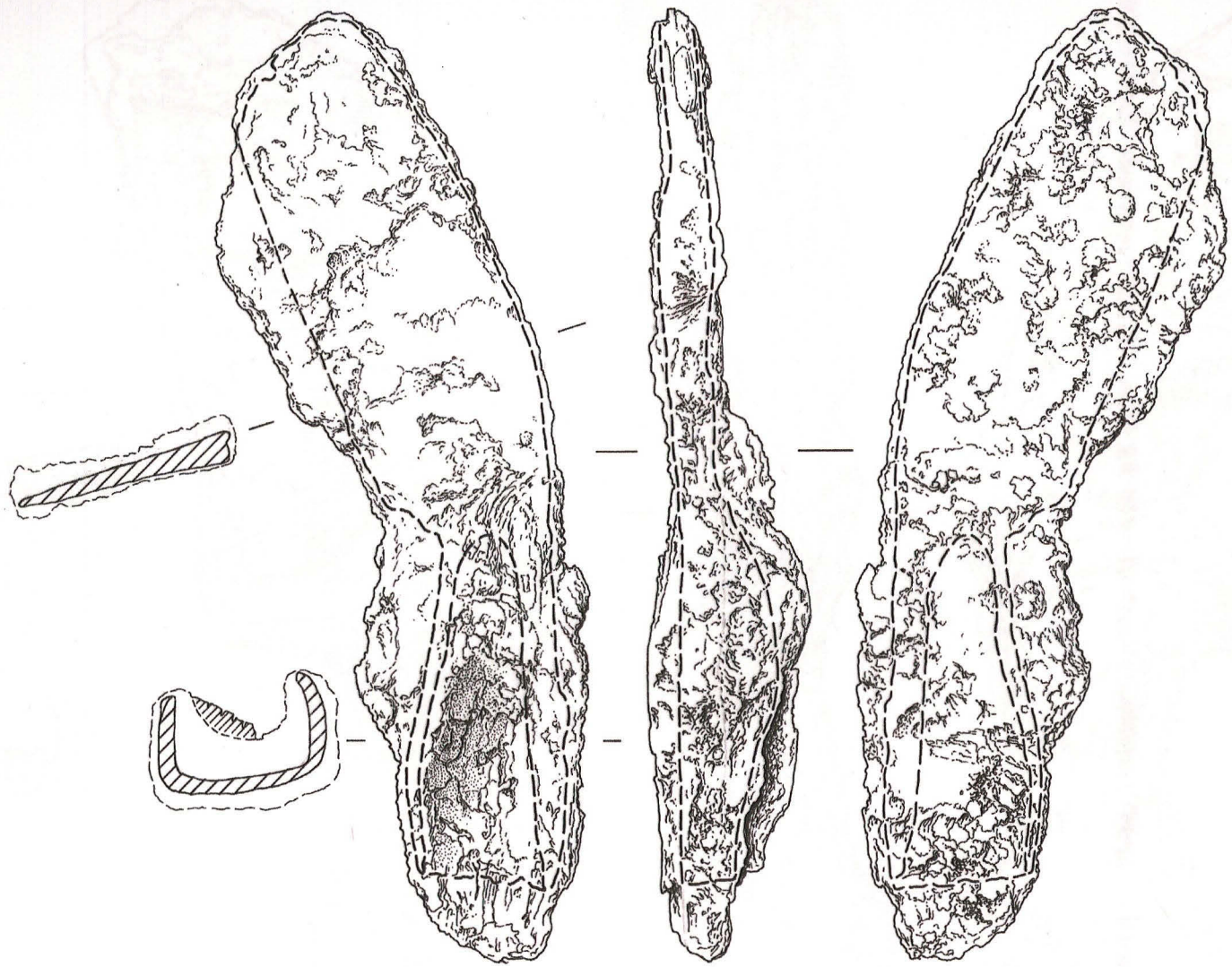


Fig. 23: The iron billhook from context 2110 at ch. 42225 in section **21**. Scale 1:2.

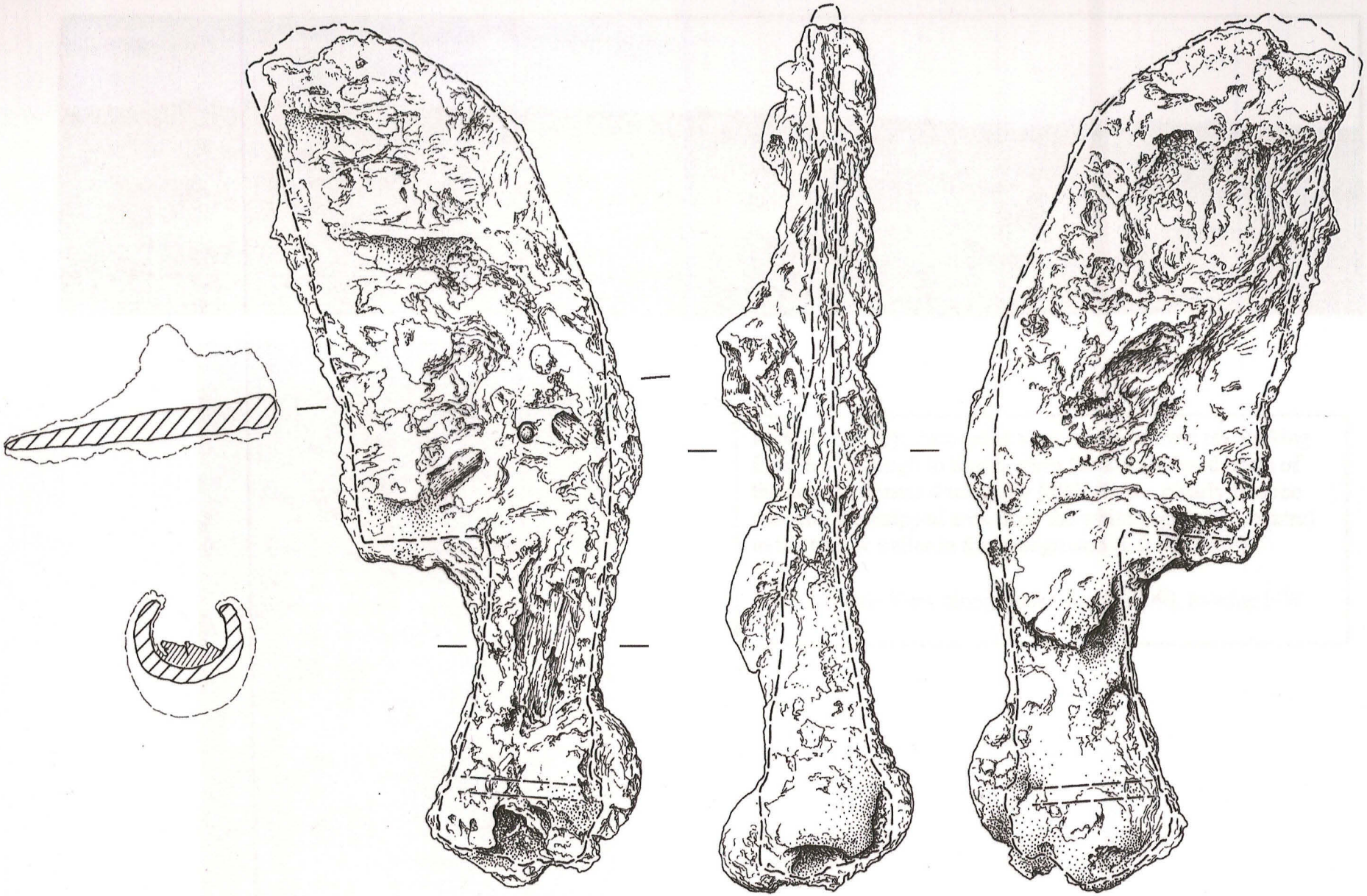
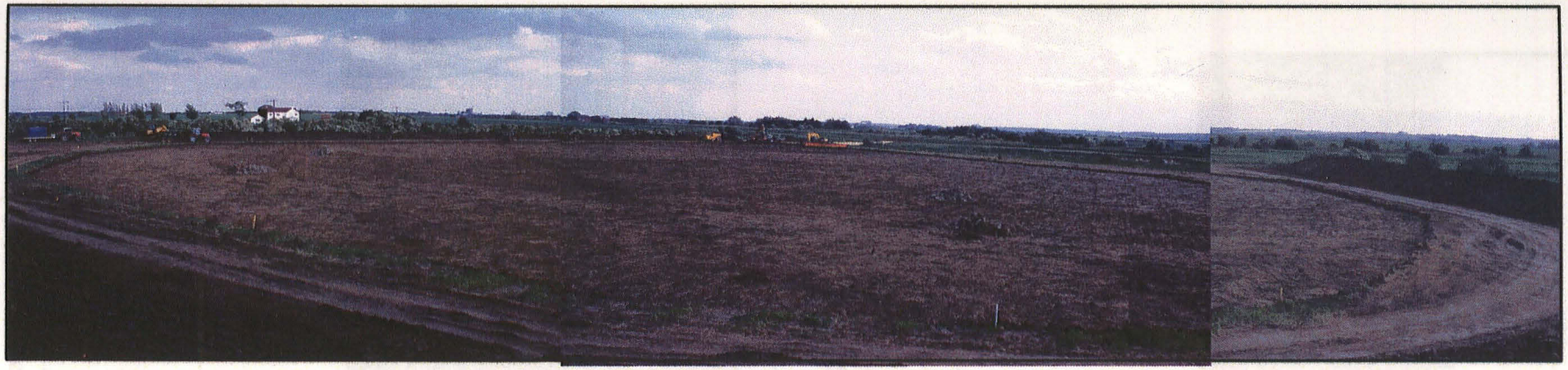


Fig. 24: The iron tool from context 2110 at ch. 42315 in section **21**. Scale 1:2.



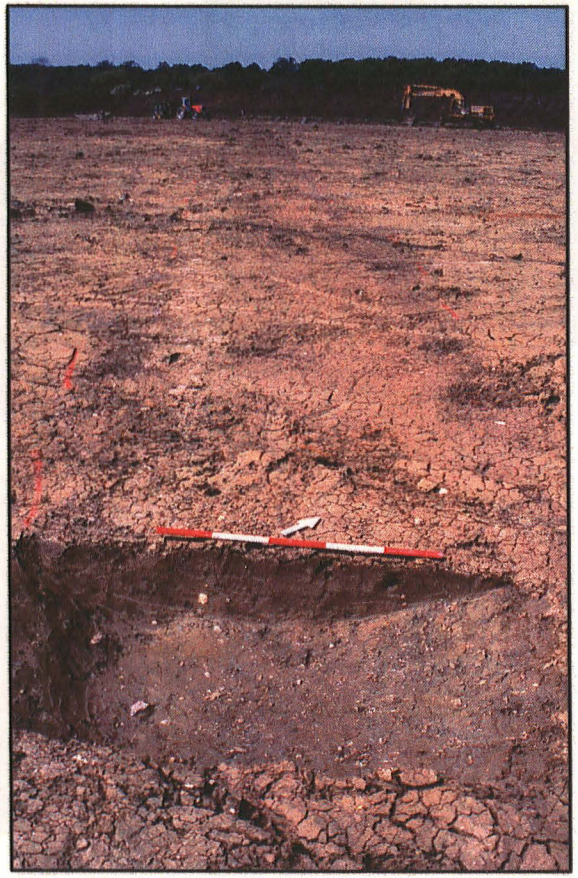


Plate 1 (above): Panoramic view of the borrow pit, looking from East through to South, from the topsoil bund north of the area, the linear ditch-gully [6007/9] can clearly be seen crossing the stripped area from the white peg (lower, centre) to the tractor trailer in the background (left of centre).

Plate 2 (left): View along linear ditch [6009], looking NW.

Plate 3: view of section 1, from ch.39820, looking NW.

Plate 4: the remains of Tale's Cottage seen in the SW facing section at ch.40124, looking NW.

Plate 5: the remains of Tale's Cottage seen in the NE facing section at ch.40124, looking SW.

Plate 6: General view of section **1a**, from ch.41150, looking E.

Plate 7: A rockbreaker removing the concrete and brick foundation at ch.41821, looking NW.

Plate 8: The remains of the pumping station at ch.41850, looking S.

Plate 9: general view of section **3**, from ch.42125, looking E. Sandbank (303) can clearly be seen in the stripped area

Plate 10: general view of section **21**, from ch.42175, looking W.

Plate 11: view of the West end of section **21**, from ch.42175, looking E. The wood-rich organic peat (2111) can be seen in the foreground

Plate 12 (right): view of the West end of section **4**, from ch.43775, looking E.

Plate 13 (below): view of the east end of section **4**, from ch.43333, looking W. Sandbank 403 can clearly be seen here.

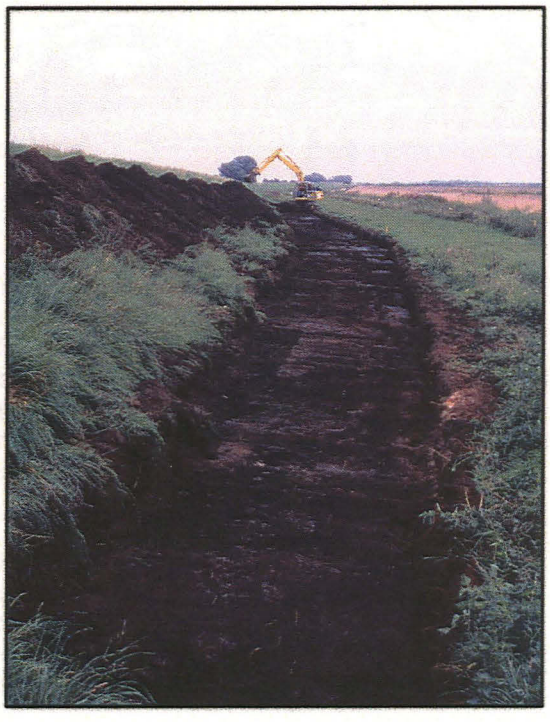


Plate 13 (below): General view of section **8**, from ch.36400, looking SE.

Plate 14 (right): view of the eastern part of section **9**, from ch.36650, looking E.

Appendix 2:

Fiskerton Borrow Pit, Ferry Lane, Fiskerton, Lincolnshire: Lower Witham Environment Scheme LWES 02

Lithic Materials: Catalogue

Report by Jim Rylatt – September, 2002

1.0 Catalogue

2 pieces of modified flint were recovered during the watching brief:

Context No.		Description
6025	Chunk	Large, thick, irregular fragment of thermally altered flint; fragment cracked and altered in colour, but examination with a hand lens did not reveal any characteristics specifically attributable to burning, so it is also possible that this fragment is a product of frost damage. Flake surfaces survive on all sides, but are unpatterned and probably result from the parent nodule shattering, rather than deliberate working. Edges are slightly abraded. White to mid bluish-grey coarse, opaque flint.
6025	Chunk	Irregular fragment of thermally altered flint; fragment cracked and altered in colour, but no characteristics specifically attributable to burning, so it is also possible that this fragment is a product of frost damage. Flake surfaces survive on all sides and the edges are slightly abraded. White to pale-grey coarse, opaque flint.

NB: Both pieces are probably derived from the same nodule.

Appendix 3:

Dr Peter Northover

Metallurgy & Archaeology

ANALYSIS OF A BRONZE HAMMER

#R2315

Department of Materials,
Begbroke Science and Business Park,
Sandy Lane,
Yarnton,
OXFORD,
OX1 5PF
Tel. +44 1865 283721
Fax. +44 1865 841943

11 William Street,
New Marston,
OXFORD,
OX3 0ES
Tel. +44 1865 436106
Fax. +44 1865 437244
Mobile +44 7785 501745
e-mail peter.northover@materials.ox.ac.uk

ANALYSIS OF A SOCKETED HAMMER

A bronze socketed hammer, found during archaeological investigations in the area of the R. Witham, east of Lincoln, was submitted for metallurgical analysis. The specific site (LWES 02 Section 4) was on the south face of the southern bank of the South Delph, in the narrow strip of land between the South Delph and the Silkholmes Drain. The hammer was found in desiccated peat about 0.15m below the top soil. It was suggested that the hammer might have been redeposited during scouring or dredging of the South Delph as objects of the sane weight and age found at the nearby Fiskerton Causeway in 2000 had sunk up to a depth of 0.8-1.2m from the ground surface. Thus, apart from its approximate geographic location the hammer has no precise stratigraphic context.

Description

The hammer has a rectangular cross-section and almost parallel sides; viewed side on it does taper slightly outwards towards a flared mouth and vestigial mouth moulding; the mouth itself is roughly circular in plan. It was probably poured through two gates in the same way as the majority of socketed axes. On each narrow side is the trace of a flash line flattened by hammering: slightly more of the hammer was cast in one valve of the mould than the other, and there was a slight shift in the mould valves before pouring do that the flash line is a step and not a ridge. The striking face of the hammer is heavily and asymmetrically worn and burred over at the edges. The surface is pitted and has a brownish green patina with small patches of green corrosion products. Much of the upper part of the hammer is obscured by a layer of iron panning about 4mm in thickness; much of the socket is filled with corrosion products,

L 71mm; socket 30x29mm; lower body 24x21mm; wt (as submitted) 215g

Socketed hammers first appeared in the British Bronze Age in the Taunton period of the Middle Bronze Age (MBA II), say the 14th century BC. They appear at a time when there was a step change in the quality and complexity of metalworking, for example the first large objects of sheet bronze and the beginnings of twisted gold torcs (O'Connor 1980, 61 and List 15). They had an even earlier origin in France with fragments in two hoards of the Tréboul hoards of the beginning of the Middle Bronze Age. The Taunton example and two near contemporary examples from the Bishopsland, Co. Kildare, hoard in Ireland (Eogan 1984, 36-38, 226, Pl.10) tend to be relatively slender compared with the hammer analysed here. The connection with metalworking is emphasised by the Bishopsland hoard where the hammers occur with an anvil and other possible metalworking tools and fragments of wire[1].

Hammers continue to be found in specialist metalworking hoards in succeeding periods of the Bronze Age, for example in the Fresné-la-Mère hoard from Calavdos, France where a hammer and anvil are found, among other things, with a flange-twisted gold torc (Eluère 1982). This association can be dated to the Penard period (MBA III in Britain, Bronze Final (BF) I in France). The only association with hammers in the Wilburton period (LBA I) is in the Isleham, Cambridgeshire, hoard, a very large collection of material associated with the operations of a bronze foundry (Northover 1980). There are two forms of hammer in the hoard, one is the older, slender type, the second a squatter form very like that analysed here. This form then becomes the

[1]The mode of manufacture of the wire has unfortunately never been published.

predominant one during the bulk of the Late Bronze Age, the Ewart Park period (LBA II) (O'Connor 1980, 137, 176, List 133). British examples occur in hoards, for example with other metalworking evidence such as moulds in the Isle of Harty hoard, as single finds, and on settlement sites where metalworking is attested, for example the Breiddin hillfort, Powys (Coombs 1991). The Breiddin example is an unusual shouldered form with its best parallels on the continent. As yet there is no socketed hammer dated to the end of the Bronze Age, the Llyn Fawr period (LBA III) although there is some evidence of small Armorican socketed axes being adapted as hammers (Northover 1988a)

On the basis of its form and of this resumé of bronze socketed hammers it is most likely that the South Delph hammer can be dated to the Wilburton or Ewart Park periods of the later Bronze Age, say the 11th-8th centuries BC. One other socketed hammer has been recorded in Lincolnshire, in the lost Kirton in Lindsey hoard (Davey 1973, 96, Fig. 36, 343-6), most probably a late Ewart Park hoard. Very close to the site of the South Delph hammer with have the Washingborough hoard with its surviving bronze socketed axe mould, the mould being definitely for a Ewart Park type.

Sampling and analysis

Because of the corroded condition of the hammer and its shape it was thought that cutting a metallographic sample would do unacceptable damage to the piece. Therefore a single sample, labelled #R2315, was drilled from one side just behind the striking face using a handheld model-maker's electric drill with a 0.7mm diameter bit. It was then hot-mounted in a carbon-filled thermosetting resin, ground and polished to a 1μm diamond finish. Analysis was by electron probe microanalysis with wavelength dispersive spectrometry; operating conditions were an accelerating voltage of 25kV, a beam current of 30nA, and an X-ray take-off angle of 40°. Sixteen elements were sought, as listed in the accompanying table; pure element and mineral standards were used with a counting time of 10s per element. Detection limits were typically 100-200ppm with the exception of 400ppm for gold.

Five areas, each 30x50μm, were analysed on the sample; the individual compositions and their means, normalised to 100%, are shown in the table. All concentrations are in weight %.

Although the use of a drilled sample precluded a full metallographic analysis the sample was nevertheless examined metallographically in the as-polished state (Figure 1).

The alloy

The hammer was cast in a low-lead, medium tin bronze with 8.6% tin and a measured 0.94% lead; the lead content is probably underestimated, both because of possible segregation during pouring and freezing, and because of the relatively small analysed areas; the metallography (Figure 1) shows the lead inclusions (mottled) dark grey to be rather widely spaced. The true content may be of the order of 2%, almost certainly no greater than 3%. The same comment applies to the widely spaced sulphide inclusions (dark bluw-grey); the sulphur content is probably as much as 0.10-0.15%. The principal impurities as measured are 0.21% nickel, 0.56% arsenic, 0.89% antimony and 0.25% silver. There are also small traces of iron, cobalt, bismuth and, possibly, zinc and manganese.

Northover (1980, 1982, 1988b) has shown that this impurity pattern with Sb>As>Ni first appears in imported swords that are immediately ancestral to those of the Wilburton period. Labelled 'S' metal, the pattern is very characteristic of the Wilburton period where it is predominant in almost all categories of bronze artefact except plate scrap. After the end of the Wilburton period the pattern gradually decreased in importance as other patterns of bronze entered circulation. It lasted longest in eastern England and Scotland, the overall impurity levels gradually decreasing with time. On the basis of the impurity pattern it is reasonable to date this hammer either to the Wilburton period or the first half of the Ewart Park period. The alloy would tend to favour the latter part of that date range as Wilburton period bronzes are likely to be visibly more heavily leaded, even a tool receiving heavy wear such as a hammer.

Conclusions

The form and composition of the hammer place it in either the Wilburton or Ewart Park periods of the British Late Bronze Age. The most probable date, on the basis of the composition, is the first half of the Ewart Park period, say the 10th, into the 9th centuries BC.

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ANALYSIS OF A BRONZE HAMMER

Sample	Object	Part	Fe	Co	Ni	Cu	Zn	As	Sb	Sn	Ag	Bi	Pb	Au	S	Al	Si	Mn
R2315/1	Socketed hammer	drillings	0.00	0.03	0.14	86.20	0.00	0.82	1.35	10.55	0.36	0.00	0.47	0.03	0.05	0.00	0.01	0.00
R2315/2			0.02	0.02	0.24	85.50	0.02	0.76	1.42	11.46	0.41	0.00	0.14	0.00	0.01	0.00	0.00	0.01
R2315/3			0.00	0.06	0.27	94.10	0.00	0.33	0.30	4.59	0.12	0.07	0.14	0.00	0.00	0.00	0.00	0.01
R2315/4			0.01	0.01	0.19	88.02	0.00	0.55	0.87	9.68	0.23	0.00	0.34	0.09	0.00	0.00	0.00	0.01
R2315/5			0.00	0.03	0.21	88.43	0.01	0.36	0.51	6.63	0.12	0.05	3.60	0.00	0.04	0.00	0.01	0.01
R2315/Mean	Socketed hammer	drillings	0.01	0.03	0.21	88.45	0.01	0.56	0.89	8.58	0.25	0.02	0.94	0.02	0.02	0.00	0.00	0.01

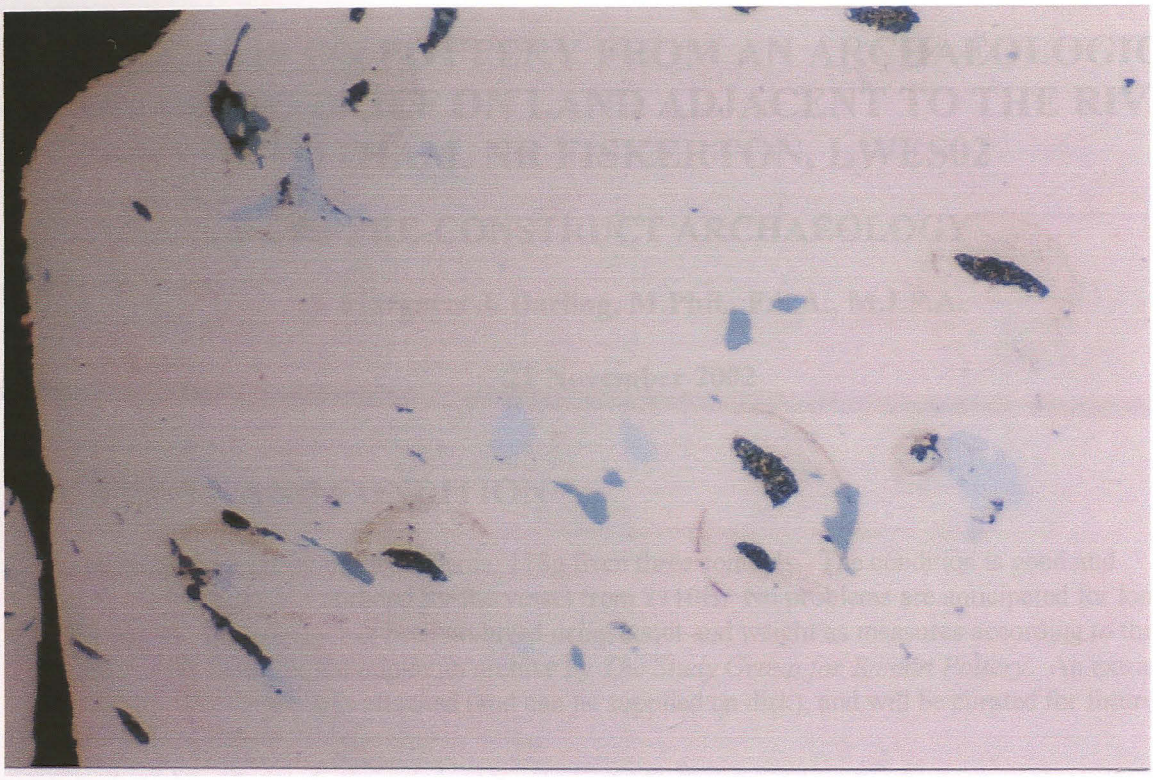

Fig. 1: #R2135, typical drilled fragment showing lead (dark grey, mottled), sulphide inclusions (dark blue grey) and high tin areas (light grey); there is also some corrosion penetration, unetched, x750

Appendix 4:

REPORT 119 ON POTTERY FROM AN ARCHAEOLOGICAL WATCHING BRIEF ON LAND ADJACENT TO THE RIVER WITHAM, NR FISKERTON, LWES02

for PRE-CONSTRUCT ARCHAEOLOGY

by Margaret J. Darling, M.Phil., F.S.A., M.I.F.A.

21 November 2002

QUANTITY AND CONDITION

The pottery finds consist of three sherds, 118g from three contexts. The condition is good and fresh for two sherds, but abraded for the vessel from 2110B. No problems are anticipated for long term storage. The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery*. An extract from the archive database is attached (and can be supplied on disk), and will be curated for future study.

DISCUSSION

All three sherds are in grey fabrics and can be dated to the 2nd century, the two from **2108** and **2110A** being in fabrics common in the early to mid 2nd century, and both showing traces of burnished line decoration, possibly latticing; this suggests that they are likely to date after the Hadrianic period, probably from c AD140 onwards. The body sherd from **2108** is definitely from a closed form, probably a jar, while that from **2110A** could be from a jar or a bowl form, although the interior surface is not finished.

The base from **2110B** is from a carinated beaker in a softer fabric, which has been very abraded, having lost virtually all surfaces. Such beakers derive from the late La Tene ceramic tradition, and become very common in Lincolnshire in the 2nd century. With only the base up to and including part of the carination surviving, it is impossible to date this closely, but the small base diameter suggests it is more likely to belong to the 2nd century than earlier. Variations on the carinated bowl or beaker continue in use well through the 2nd century.

ARCHIVE extract

Cxt	Fabric	Form	Manuf+	Ves	D?	Dno	Details	Link	Shs	Wt
2108	GREY	CLSD	LA?	-	-	-	BS HARD QTZ GREY S'WICH DKGRY CORE;TRACE LA?	-	1	10
2108	ZDATE	-	-	-	-	-	EM2+	-	-	-
2110A	GREY	CLSD?	BL	-	-	-	BS HARD F.FINE;BASAL ZONE;GROOVE W BL DEC ABOVE	-	1	26
2110A	ZDATE	-	-	-	-	-	EM2+	-	-	-
2110B	GREY	BKCAR	-	-	-	-	BASE/PT WALL>CARIN;SOFTER LTGRY;VABR;BASE 3CM+	-	1	82
2110B	ZDATE	-	-	-	-	-	2C	-	-	-

Appendix 5:

Pottery Archive LWES02

Jane Young *Lindsey Archaeological Services*

context	cname	full name	form type	sherds	weight	part	description	date
2110C	LSW3	14th to 15th century Lincoln Glazed Ware	large jug	1	25	BS	abraded;ID or similar to LSW type found at Short Ferry Fiskerton	late 13th to 15th
2110D	LSW3	14th to 15th century Lincoln Glazed Ware	large jug	1	295	rim with UHJ	abraded;plain slightly out-turned rounded rim;large grooved rod handle with 2 deep upper foliate thumbings central tool pressing not seen before;cu glaze;? ID or similar to LSW type found at Short	14th to 15th
2110D	TB	Toynton/Bolingbroke wares	jug/jar	1	15	BS	abraded	14th to 16th

Tile Archive LWES02

Jane Young *Lindsey Archaeological Services*

context	cname	full name	frags	weight	description	date
2110D	BOX	Roman box tile	1	215	fine silty fabric;criss-cross incised decoration; abraded	Roman

20 February 2004

Appendix 6:

The iron objects from Fiskerton Flood Relief Scheme (LWES 02)

Introduction.
Two iron objects were recovered by a metal detector during the Phase II of work for the River Witham floodbank alleviation works for the Environmental Agency. Both were found to the south of the River fairly high up in the peat deposits and therefore they need not be particularly old. They were spatially quite close to each other, but need not be associated.

Object descriptions.
Context (2110), S21, 42225.
Socketed iron blade, length 310mm, incomplete at the blade tip. The broad blade curves downwards to the almost straight cutting edge (maximum width 100mm). The open socket is set at a marked angle to the blade. Traces of the wooden hafting survive and the x-radiograph shows a probable iron rivet, which would have secured the hafting, lying in the plane of the blade.

This may have been a cleaver or a billhook. The difficulty in distinguishing between the two types of blade is discussed by Manning (Manning 1985, 123). The angle of the handle to the blade suggests that it could have been a billhook, however, the tip of the blade has corroded away at the front and along the edge, so we can not now be certain if there was ever a hook at the end of the blade. Blades for both purposes have altered very little since the late Iron Age and Roman periods. Early billhooks are listed by Rees although there are no identical examples to this one (Rees 1979, 467–472). A Roman cleaver from Great Chesterford, Essex is markedly similar (Manning 1985, 123, Q103; see also pp 55-6, 58-9), whereas one from Hod Hill, Dorset, dated to the a first century AD is similar but with a tanged handle (Brailsford 1962, 15, pl. VIII, G91; Manning 1985, 123, pl. 57, Q101). These examples do not exclude a much later date.

Context (2110), S21, 42315.
Socketed blade, length 285mm, incomplete at the blade tip. The blade curves downwards and the back and cutting edge are almost parallel. Maximum width c. 55mm. The large open socket is set at an angle to the blade and traces of the wooden handle survive. Although incomplete at the blade tip, this blade does not appear to have had a hook and thus it seems likely to have been a chopper or cleaver, although possibly with an agricultural purpose. It is not closely paralleled with any of the Iron Age or Roman implements known and, like blade 42225 above, may have a much later date since it is an implement type which has changed very little through time.

Conclusion.
Dating of tools is often problematic because their form often changes very little through time. Although these could be Iron Age or Roman tools without a dateable archaeological context their actual date must remain unknown. There is enough wood, however, on the objects to obtain a radiocarbon date.

Bibliography.
Brailsford, J. W., 1962: *Hod Hill 1. Antiquities from Hod Hill in the Durden Collection.* London: British Museum.
Manning, W. H., 1985: *Catalogue of the Roman-British Tools, Fittings and Weapons in the British Museum.* London: British Museum
Rees, S. E., 1979: *Agricultural Implements in Prehistoric and Roman Britain.* Oxford: BAR Brit. Ser. 69.

By Jane Cowgill and Vanessa Fell© July 2003

Appendix 7: Context summary.

Fiskerton Borrow Pit

Context	Description
6001	Topsoil
6002	Subsoil
6003	Natural
6004	Fill of[6005]
6005	Roadside ditch
6006	Fill of [6007] in NW segment
6007	Linear gully, parallel to [6009]
6008	Fill of [6009] in NW segment
6009	Linear Ditch feature
6010	Fill of [6011]
6011	Pit
6012	Fill of [6013]
6013	Pit
6014	Fill of [6015]
6015	Pit
6016	Fill of [6017]
6017	Pit
6018	Fill of [6019]
6019	Pit, probably tree-throw
6020	Fill of [6021]
6021	Pit, probably tree-throw
6022	Fill of [6023]
6023	Curvilinear feature, probably of natural origin
6024	Secondary fill of [6026]
6025	Primary fill of [6026]
6026	Pit
6027	Fill of [6028]
6028	Pit, probably tree-throw
6029	Fill of [6007] in SE Segment
6030	Fill of [6009] in SE Segment

The River Defence Works

Section 1 &1A

Context	Description
100	Topsoil
101	Desiccated peat ch. 39959 –39880: ?subsoil
102	Organic Peat below 114 ch 40278 – 40125 contains freq. natural wood
103	Bank material in section 1A and western 10m of sect 1
104	Sandy bank material in section 1
105	Tale's Cottage – W wall (brick)
106	Tale's Cottage – internal wall (stone)
107	Tale's Cottage – internal wall (brick)

108	Tale's Cottage – E wall (brick)
109	Tale's Cottage – Fill within structure
110	Tale's Cottage – clay bedding layer
111	Sandy layer ch. 39840 -39790
112	Topsoil on north side of bank
113	Dark grey silty clay below 112
114	Dark brown desiccated peat below 101
115	Very dark brown loose humic peat in test pits 2,3
116	Mid grey sand in test pits 3,5
117	Light grey fine sand in test pit 2

Section 2

Context	Description
200	Topsoil
201	Desiccated peat
202	Bank material
203	Concrete bungalow foundation
204	Concrete and brick 'pumping engine' house foundation
205	Loose dark brown peat in test pit 1
206	Grey fine sand in test pit 1

Section 3

Context	Description
300	Topsoil
301	Desiccated peat
302	General bank material
303	Sandy bank material ch.41890-42125
304	Victorian dumped material
305	Access track at west end
306	Dark brown loose humic peat in test pits 6,7,8
307	Grey sand in test pits 6,7
308	Reedy grey clay at base of test pit 8

Section 4

Context	Description
400	Topsoil
401	? subsoil –brown silt below toe of bank
402	Desiccated peat below 401
403	Fine sand east of ch.43500

Section 8

Context	Description
801	Topsoil
802	Mid grey/brown clay below 801 - subsoil
803	Desiccated peat below 802

804	Modern rubble ch 36325 - 36283

Section 9

Context	Description
901	Topsoil
902	Mid grey clay at East end of strip (repair to bank)
903	Desiccated peat below 902
904	Modern rubble within farm garden
905	Topsoil west of farm
906	Desiccated peat with clay patches below 905

Section 21

Context	Description
2100	Topsoil in bailey bridge pit on north side of North Delph
2101	Loose, friable black peat below 2100
2102	Natural clay below 2101
2103	Topsoil in bailey bridge pit on south side of North Delph
2104	Loose, friable black peat below 2103
2105	Natural clay below 2104
2106	Section 21 topsoil
2107	Bank material
2108	Desiccated peat below 2106
2109	Natural clay shows patchily on north side of strip in area ch. 40590
2110	Dark brown/black organic peat seen intermittently below 2108 west of ch.41300
2111	Very dark greenish brown reed peat below 2108 ch. 42430 - 42550