

NORFOLK ARCHAEOLOGICAL UNIT

Report No.806

**An Archaeological Watching Brief on the
Blofield to Strumpshaw Anglian Water Inlet Main**

37512 BLD

John Ames

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Local Authority No.076759

Fig.1 is based upon the Ordnance Survey 1:10,000 map with the permission of the Controller of H.M. Stationery Office © Crown Copyright 'Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings' Norfolk County Council, County Hall, Norwich (24/04/2003). **Reference copy: no further copies to be made.**

Location: Blofield, Norfolk
Grid Ref: TG 3262 1340
HER No.: 37512 BLD
Date of Fieldwork: 19th to 20th and 22nd November 2002

Summary

An archaeological watching brief was undertaken during topsoil stripping for the Blofield to Strumpshaw Anglian Water Inlet Main. The Inlet Main commenced from Blackhill's Corner, Blofield and continued through the parishes of Hemblington, Brundall and Strumpshaw. The pipeline passed through several sites of archaeological interest.

The watching brief located two pits possibly dating to the prehistoric period and two linear features that contained metal-working tap slag associated with smelting processes. Also recovered were eleven prehistoric worked flints, two sherds of Bronze Age Beaker and sixteen post-medieval metal finds.

1.0 Introduction

Fig.1

This archaeological watching brief was undertaken in accordance with a Brief issued by Norfolk Landscape Archaeology (NLA Ref: 11/6/02/EJR).

As part of the programme for the stripping of topsoil and the excavation of the Anglian Water pipeline trench, NLA requested that an archaeologist to be present by constant attendance during the machine-stripping.

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance 16 — Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority with regard to the treatment of any archaeological remains found.

The work was commission by Anglian Water Services Ltd and May Gurney Ltd were the main contractors.

The site archive is currently held by the Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 Geology and Topography

The geology varied across the length of the pipeline. To the north below the subsoil is an undifferentiated sand with some silty clay and at the central and southern parts of the site it is a sandy clay

The parish of Blofield lies in the central west region of the Broads. The pipeline commences from the road junction at Blackhill's Corner at c.10m OD cuts across a central ridge of land rising to c.20m OD before sloping down to 18m OD north of Dye's Road and rises again south to 20m OD at Heath Farm.

The 20m OD central ridge overlooks the valley watershed to the east. The valley watershed can be traced from Knights Wood to the north continuing south, west of Spinks Hill near to Coronation Belt through Mousehold Plantation onto Pedham Lake. Beyond Pedham Lake the valley watershed continues in a north-easterly direction through Walsham Wood, Panxworth Carrs, Sotshole Broad and South Walsham Broad, passing through Fleet Dike before discharging between the confluence of the rivers Bure and the Ant, opposite St Benet's Abbey.

To the east of the pipeline is an area of woodland called Mousehold Plantation. The name 'Mousehold' (which probably derives from the area being originally part of Mousehold Heath) can be traced to c.6km east of Norwich by the use of Faden's *Topographical Map of Norfolk* from c.1797 map, (Barringer 1989).

3.0 Archaeological and Historical Background

- Systematic fieldwork south-east of Wood Farm, Hemblington (Norfolk Historic Environment Record (HER) 32158) and casual finds spots at Pedham (HER 8473) and Panxworth Carrs have produced flintwork dating between the Later Mesolithic and Early Neolithic periods. The locations of these finds can be traced along the valley watershed and possibly represent the location of seasonal camps.
- Worked flints and flakes of a Mesolithic date were found east of Heath Cottage (HER 8484).
- Approximately 200m west of Heath Farm is an unusual crop-mark of a double ditched rectangular enclosure (HER 18909).
- North of Blackhill Wood a Neolithic polished flint axehead (HER 25318) was recovered during farm working.
- North-west of Blofield Heath a stray find of a Bronze Age dagger (HER 34841) was found in 1998/9.
- Trial excavations at Blackhill Wood (HER 1076) by D. R. Howlett in 1960 revealed a spread of red pot sherds and fired clay, a stoke-hole and a gravel spread possibly a roadway. The medieval sherds recovered are glazed and unglazed wares dating to between the 13th and 14th centuries.
- A watermill (HER 15619), referred to as Petty Mill, is marked on *Faden's Topographical Map of Norfolk* c.1797 (Barringer 1989). The same watermill, called Peaty Mill, is shown on the 1st edition Ordnance Survey map c.1836. The watermill is possibly post-medieval however, an earlier date can not be ruled out.
- West of Dye's Road is the site of Blofield windmill, as indicated on *Faden's Topographical Map of Norfolk* c.1797. It is believed that it was last milled in c.1813.

4.0 Methodology

The objective of this watching brief was to preserve by record any archaeological remains affected by the construction of the pipeline.

The Brief required that archaeological monitoring should take place during the excavation of topsoil and subsoil deposits and to record any archaeological features found.

Machine excavation was carried out using a 360° track excavator with a 3m toothless ditching bucket. The methodology adopted by the contractors was to excavate the topsoil and subsoil deposits, then place it to one side prior to the excavation of the further subsoil and natural layers. All material excavated was reinstated.

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

All archaeological features and deposits were recorded using NAU *pro forma* sheets. Plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

Two environmental samples were taken from two pits for an assessment of the charred plants macrofossils and other remains.

Site conditions were very good with clear access onto and around the site. The weather conditions were very good throughout the period on site.

5.0 Results

Fig. 2 and Appendix 1

Topsoil and Subsoil

The topsoil ([01]) and subsoil ([07]) along the length of the pipeline were very similar in appearance. The topsoil was a mid-to-dark brown sandy loam, which varied in depth from 0.30cm to 0.50cm. The subsoil was a mid orange brown clayey sand with an approximate depth of 0.20cm. All of the worked flints were recovered from these deposits, as was the Beaker pottery ([07]).

Archaeological Features

5.1 Pit [10]

Figs 2 and 3

Pit [10] measured 2.00m in length x 1.90m in width and 0.15m in depth and contained one deposit ([11]) of mixed dark brown to orange clay with frequent orange sandy silt lenses and occasional small sized rounded and sub-rounded flint. No dateable finds were recovered from within the feature however, two Bronze Age Beaker sherds were recovered from the subsoil ([07]). The profile of the pit has gradually sloping sides with a flat base (Sections not illustrated). The pit may have been open for some time, as the fill contains orange sand lenses (probably wind-blown) that were evenly distributed throughout the deposit.

5.2 Pit [12]

Figs 2 and 4

Pit [12] measured 0.90cm in length x 0.60cm in width and 0.20cm in depth. The pit contained two deposits. The primary fill ([14]) which varied in depth between 0.08cm and 0.20cm and contained black silty sand mixed with charcoal and moderate small sized rounded and sub-rounded flint. The secondary fill ([13]) measured 0.10cm in depth and was a mixed gun-metal grey clay with frequent small sized charcoal flecks and occasional small rounded and sub-rounded flint. The profile of the pit had a near vertical edge to the north and a gradual sloping cut to the south with a sloping south-to-north base (Figure 6, Section 6).

5.3 Linear Features [03] and [05]

Figs, 2, 5 & 6

The terminal ends of one north-to-south curvilinear ditch ([03]) and one north-to-south aligned ditch ([05]) were located at the north-west end of the pipeline. These two linear features appear to be contemporary as the deposits with which they are back-filled are identical.

Ditch [03] measured 1.70m in length x 0.60cm in width and varied in depth between 0.15cm and 0.25cm and contained a single deposit ([04]) which was a dark brown clayey silt mixed with tap slag and daub. The profile of the ditch is relatively steep sided with a concave base (Figure 6, Section 1), while its terminus had gently sloping sides and a flat base (Figure 6, Section 2).

Ditch [05] measured 1.50m in length x 0.60cm in width with depth that varied between 0.15cm and 0.30cm and contained a single deposit ([06]) which was a mixed fill of mid brown and pale grey silty sand, tap slag and daub. The ditch profile is steep sided with a concave base (Figure 6, Section 3), while its terminus is similar to ditch [03] with sloped sides and a flat base. (Figure 6, Section 4).

A 10% representative sample of iron tapping slag and daub was taken from the fills of these two linear features ([04] and [06]). The iron tap slag is associated with smelting processes and the daub is probably hearth-lining debris also associated with the metal-working process. No dateable finds were recovered from these two features.

6.0 The Finds

Appendix 2

6.1 Prehistoric Pottery

Two sherds of prehistoric pottery, weighing 0.12kg, were recovered from subsoil ([07]). The sherds are from a Later Neolithic to Early Bronze Age Beaker dating between 2600-1800BC. The sherds are from the same vessel and are made of fine grog and quartz-sand tempered fabric decorated with incised lines forming a floating lozenge motif within a band or panel running around the upper body of the vessel. The larger sherd is broken into two joining pieces and exhibits a change of angle or shoulder. Beaker sherds featuring incised decoration are commonly found within domestic assemblages at sites such as Hockwold cum Wilton (Bamford 1982 Fig.4 p 93.021).

6.2 Ceramic Building Material

A single piece of post-medieval or modern pantile, weighing 0.109kg, was recovered ([08]).

6.3 Fired Clay

The site produce thirteen fragments of fired clay weighing 0.157kg from two contexts ([02] and [06]). This material is probably a hearth lining associated with the metal working evidence also recovered.

6.4 Metal Working

Iron slag was recovered, weighing 1.072kg, from two contexts ([04] and [06]). This material represents a 10% sample of the metal working debris found from the site. Tapping slag and undiagnostic fragments associated with smelting were retrieved.

6.5 Flint

Appendix 3

A total of eleven pieces of struck flint were recovered from the topsoil. Three flints were from [01] constituting a flake and two flake fragments. The complete piece is patinated a pale grey in colour. Six flakes, most of them quite small, and a spall were found in [07]. Also from [07] is a part of a bifacially flaked piece which is slightly patinated, one edge of which has been utilised.

The flint is probably of Later Neolithic or Bronze Age date and indicates activity in the vicinity of the pipeline during that period.

6.6 Small Finds

Appendix 4

Small finds numbers were allocated to five metal artefacts consisting of a single, tinned, double looped sixteenth century buckle (SF1 [08]), two post-medieval thimbles (SF2 [08]) and two pieces of lead. One of the lead artefacts is a rolled strip (SF3 [08]) stamped with simple rouletting and the other is a folded sheet (SF4 [08]) also stamped with diamond notched decoration.

6.7 Other Metal Objects

Appendix 5

Fourteen post-medieval or modern metal artefacts, were noted which are not worthy of further recording. The copper-alloy objects consist of six buttons and one rivet ([02]), plus one ring fitting ([08]) and a small fragment of decorative mount, possibly the top of a button ([09]). A single lead farmyard toy in the form of a cockerel ([02]) and four fragments of lead waste were also recovered ([02] and [08]).

7.0 Environmental Evidence

Appendix 7

An Assessment of the Charred Plants Macrofossils and Other Remains

Introduction

One sample was collected from the pit [10] and one from pit [12], from deposits [11] and [14] respectively to obtain any potential dating evidence and provide evidence for activities on site in the past.

Methods

The samples were processed by manual water flotation/washover and the flots collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed in Table 1. All plant remains that were present had been preserved by charring.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted, when dry, for the retrieval of artefacts/ecofacts.

Results of assessment

Plant macrofossils

Charred fragments were abundant in both samples. Although specific identification was not attempted, at least three types of ring porous/semi-ring porous charcoal were noted during the assessment. Other plant macrofossils were extremely rare, comprising charred stem fragments and indeterminate buds.

Other materials

Mineralised soil concretions were noted at a very low density in both samples.

Discussion

Despite the abundance of charcoal fragments, it is very difficult to interpret these assemblages in the absence of any other ecofacts. They would appear to be discrete dumps of charred material, although the precise origin is not known.

Although charcoal identification may be possible, this would probably add little to the overall interpretation of the assemblages and therefore, no further work is recommended.

8.0 Conclusions

This watching brief has provided a small contribution towards the further understanding and development of regional settlement in the Broadland area. It demonstrates that the area near to Blackhill's Corner may contain evidence of industrial activity (iron smelting) as well as the pottery production previously recorded.

Acknowledgements

The work was funded by Anglian Water Services Ltd. The author would like to thank Alan Wright (Senior Asset Engineer) Anglian Water Services Ltd. Trevor Freeman, Colin Hogg and Jim Keay of May Gurney Ltd for their co-operation and assistance throughout the project. Jan Allen provided the Norfolk Historical Environment Records, Lucy Talbot undertook the finds processing, supplying of finds information and identification of metal finds. Specialist reports were written by Sarah Bates (lithics), Sarah Percival (prehistoric pottery) and Val Fryer (environmental). The digitisation of the plans and sections was by the author. The report was edited by Jayne Bown and Alice Lyons, and illustrated and produced by Maggie Foottit.

Bibliography

Bamford, H. M.,	1982	<i>Beaker Domestic Sites in the Fen Edge and East Anglian</i> , East Anglian Archaeology 16
Barringer, J.C.,	1989	<i>Faden's Map of Norfolk</i> , Dereham: Lark Press
Department of the Environment	1990	<i>Planning and policy Guidance 16 – Archaeology and Planning</i> , London: Department of the Environment

Appendix 1: Context Summary

Context	Category	Description	Period
01	Deposit	Topsoil/subsoil (Area 1)	Modern
02	Unstratified	MD Finds	Post-medieval
03	Cut	E/W Linear Ditch	?Post-medieval
04	Deposit	Fill of [03]	?Post-medieval
05	Cut	E/W Linear Ditch	?Post-medieval
06	Deposit	Fill of [05]	?Post-medieval
07	Deposit	Topsoil/subsoil (Area 2)	?Post-medieval
08	Unstratified	MD Finds	Modern
09	Unstratified	MD Find	Post-medieval
10	Cut	Pit	?Prehistoric
11	Deposit	Fill of Pit [10]	?Prehistoric
12	Cut	Pit	?Prehistoric
13	Deposit	Fill of Pit [12]	?Prehistoric
14	Deposit	Fill of Pit [12]	?Prehistoric

Appendix 2: Finds by Context

Context	Material	Quantity	Weight (kg)	Period
01	Flint	3		
02	Copper alloy	7		
02	Lead	2		
04	Fired clay	2	0.006	
04	Metal working debris	7	0.310	
06	Fired clay	1	0.151	
06	Metal working debris	6	0.762	
07	Flint	8		Prehistoric
08	Pottery	2	0.012	Prehistoric
08	Ceramic building material	1	0.109	Post-medieval
08	Copper alloy (SF 1 & 2)	3		Post-medieval
08	Lead (SF 3 & 4)	2		
09	Copper alloy	1		Post-medieval
09	Lead	1		

Appendix 3: Flint

Context	Type	Quantity
01	Flakes	3
07	Flakes	6
07	Bifacially flaked piece	1
07	Spall	1

Appendix 4: Small Finds

Small Find	Context	Quantity	Material	Description	Period/date
1	08	1	Copper alloy	Buckle; trapezoidal double looped, 16th century	Post-medieval
2	08	1	Copper alloy	Thimbles	Post-medieval
3	08	1	Lead	Strip; rolled and stamped	
4	08	1	Lead	Sheet; folded and stamped	

Appendix 5: Catalogue of Other Metal Objects (not small found as they have no archaeological significance)

Context	Quantity	Material	Description	Period/date
02	1	Copper alloy	Rivet	Post-medieval
02	6	Copper alloy	Buttons	Post-medieval
08	1	Copper alloy	Ring fitting	Post-medieval
09	1	Copper alloy	Artefact	Post-medieval
02	1	Lead	Toy Cockerel	Post-medieval
02	1	Lead	Waste	
09	1	Lead	Waste	

Appendix 6: Environmental Evidence

Sample	<1>	<2>
Context	(11)	(14)
Charcoal <2mm	xxx	xxx
Charcoal >2mm	xx	xx
Charred root/rhizome/stem	x	
Indet.buds	x	
Mineralised soil concretions	x	x
Sample volume (litres)	3	3
Volume of flot (litres)	0.1	0.7
% flot sorted	100%	<12.5%



Figure 1. Site Location. Scale 1:10,000

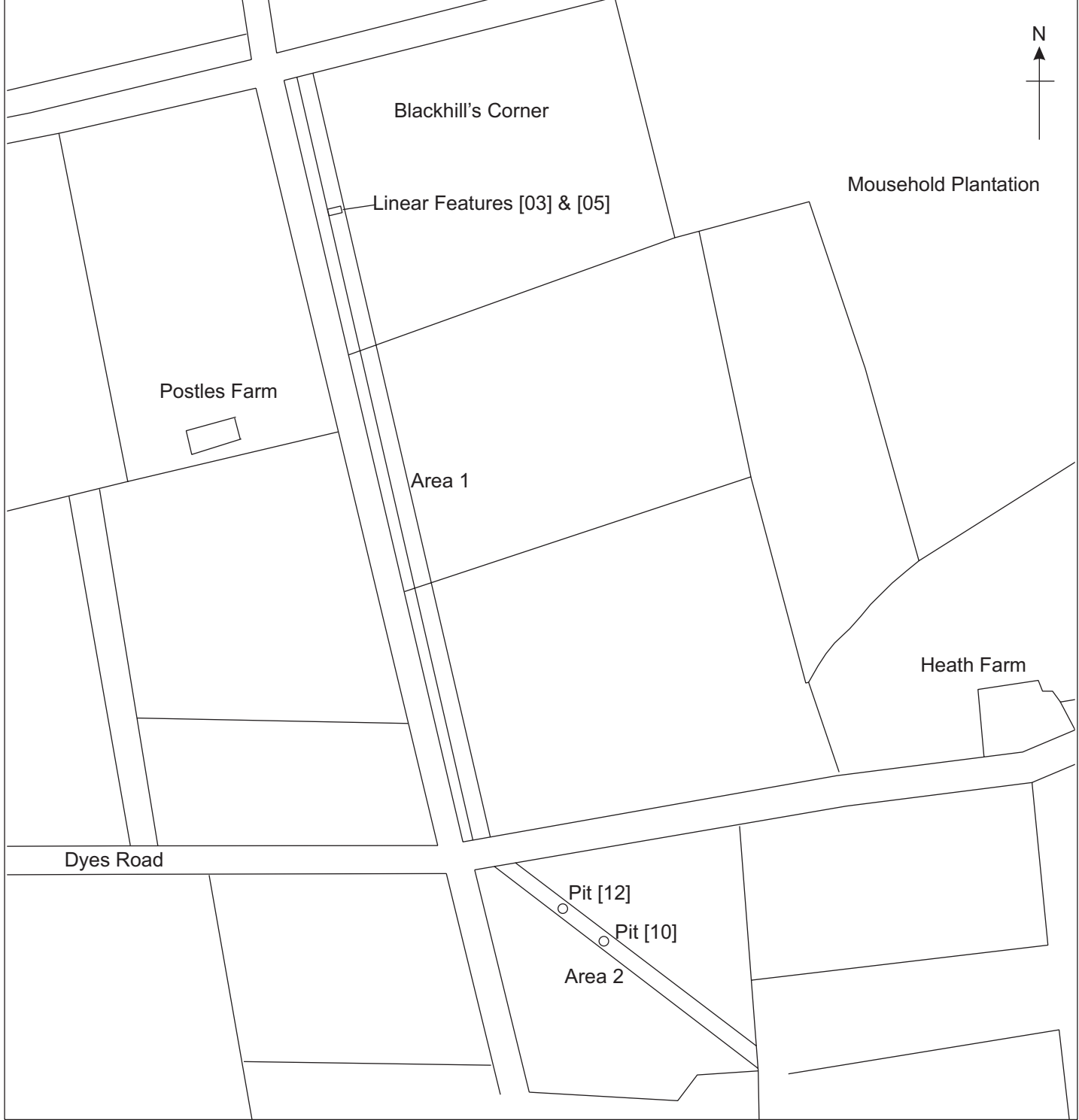


Figure 2. Location of Archaeological Features. Scale 1:5000

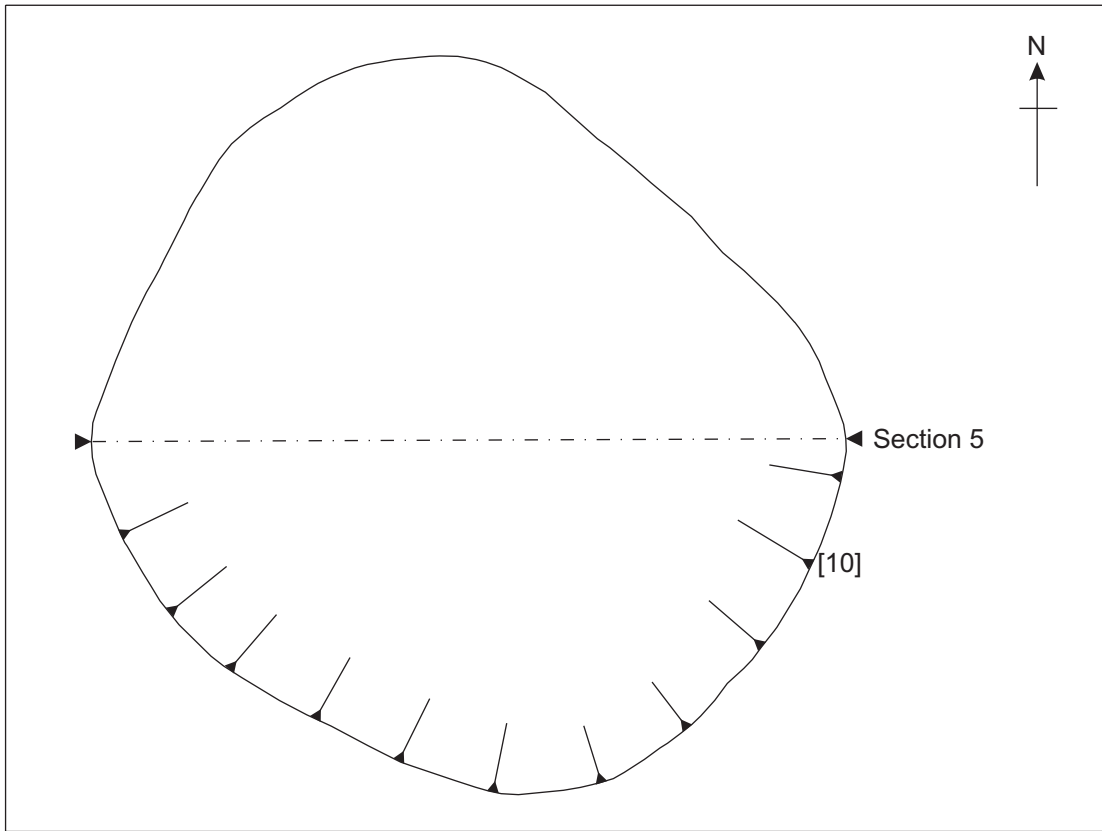


Figure 3. Plan of Pit [10]. Scale 1:20

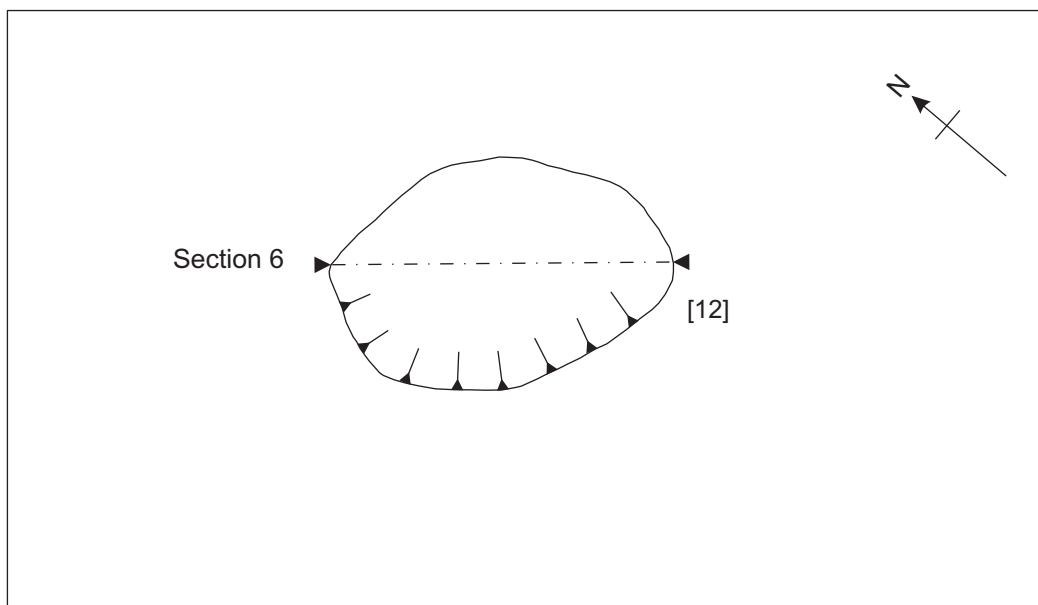


Figure 4. Plan of Pit [12]. Scale 1:20

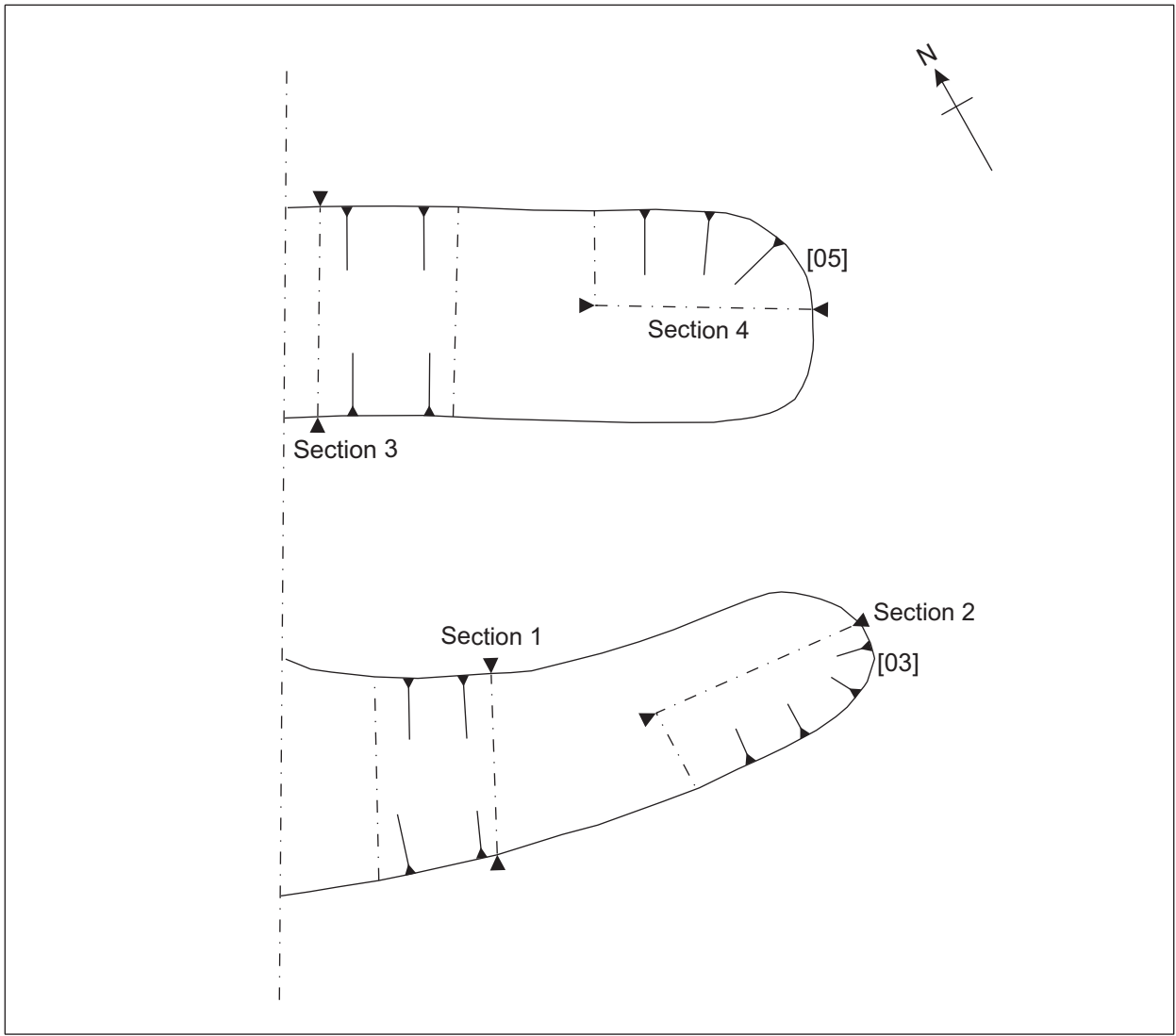


Figure 5. Plan of Linear Features [03] & [05]. Scale 1:20

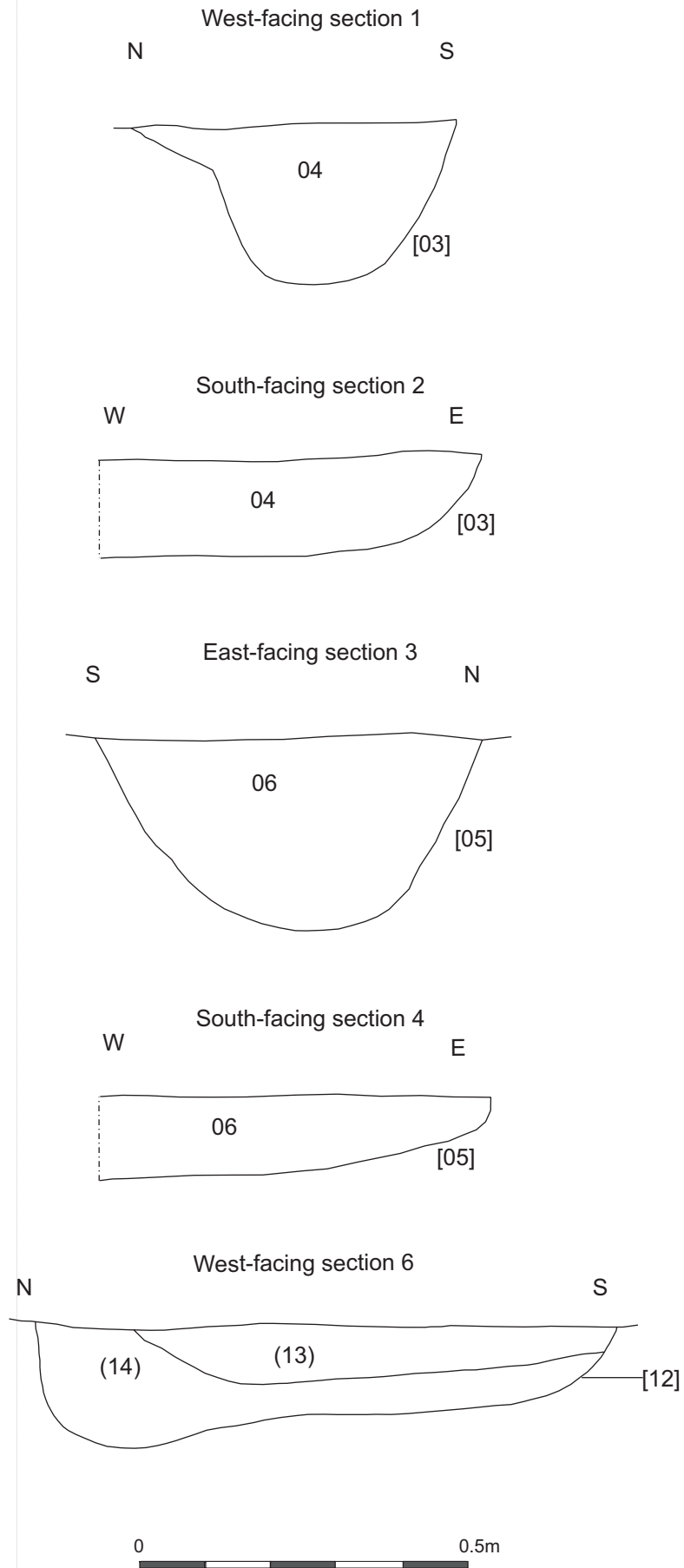


Figure 6. Sections of Linear Features [03] and [05]. Scale 1:10

section 6

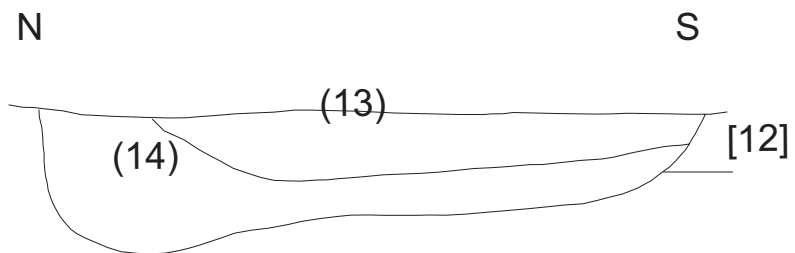
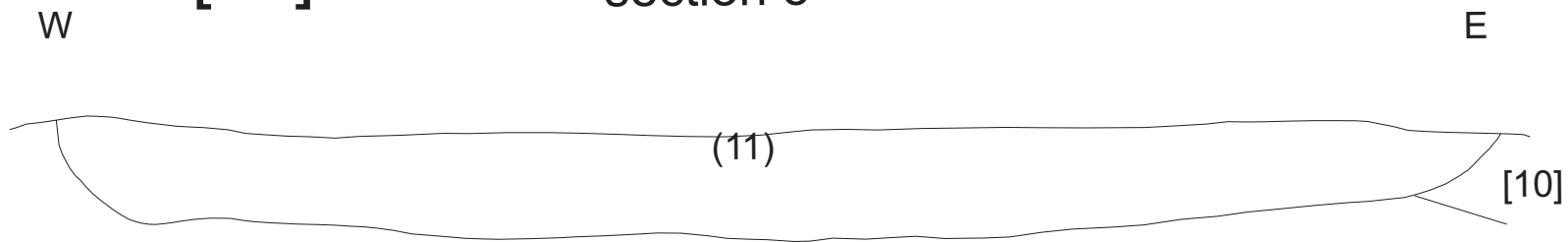


Figure 7 PSection of Pit
[12]

section 5



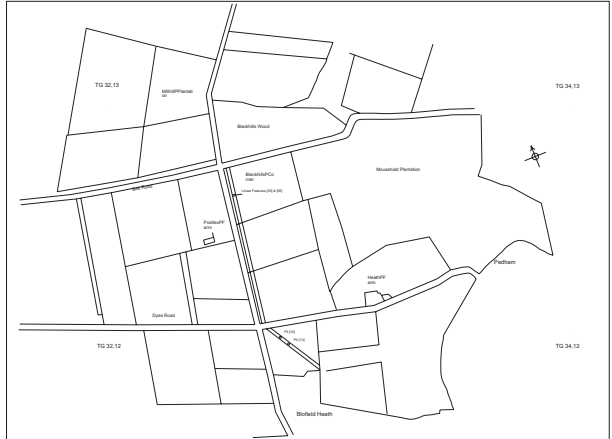


Figure 2. Location of Archaeological Features

 Location of Archaeological Features

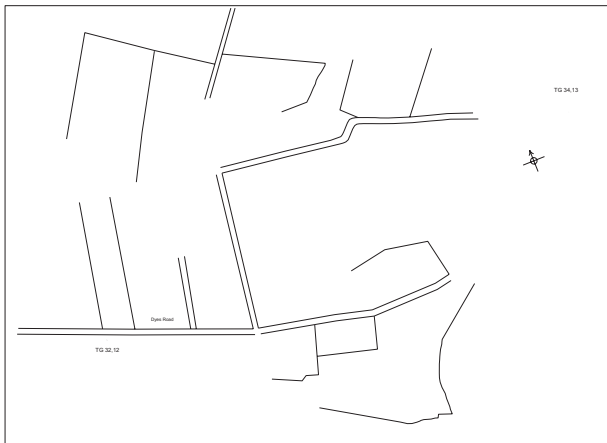


Figure 1. Location of Pipe line

 Location of Pipe line



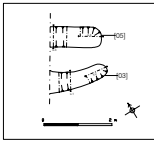


Figure 3
Plan of Linear Features [05] & [06]

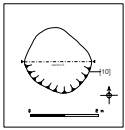


Figure 4
Plan of Pk [10]

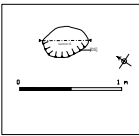


Figure 5
Plan of Pk [12]



Figure 6
Distribution of Linear Features [06 & 05]



Figure 7
Section of Pk [02]



Figure 8
Section of Pk [04]

