Humber Field Archaeology
Archaeological Consultants and Contractors

ARCHAEOLOGICAL TRIAL EXCAVATIONS

AT

HEMINGBROUGH CLAY QUARRY

NORTH YORKSHIRE

August 2011

Humber Archaeology Report No. 401

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Work carried out on behalf of Plasmor Ltd

Planning Refs:	MIN3411
NGR (centre):	SE 6720 3175 (centre)
HFA site code:	HCQ 2011

K. Adams
HUMBER FIELD ARCHAEOLOGY, The Old School, Northumberland Avenue, KINGSTON UPON HULL, HU2 0LN

March 2012

Humber Archaeology Report No. 401

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1 SUMMARY

In August 2011, Humber Field Archaeology carried out archaeological evaluation by trial excavations in part of an extension to Hemingbrough Clay Quarry, Hemingbrough, Selby District, North Yorkshire, on behalf of Plasmor Ltd who are undertaking phased clay extraction. An earlier desk-based archaeological assessment, followed by sample geophysical survey, had concluded that there were potentially remains of archaeological significance within the area of the proposed clay quarry and the trial excavations targeted an area of the proposal site where the geophysical survey had suggested the presence of linear archaeological features. Six trenches were excavated and evidence was recorded of activity on the site from perhaps as early as the medieval period through to the present day.

A small number of features of a likely medieval date were recorded in several of the trenches, comprising drainage gullies, boundary ditches and furrows from ridge and furrow cultivation; similar features, assumed to be contemporary, have been recorded in the monitoring of extraction phases to the north. Dating evidence associated with this phase of activity consisted of a single fragment of medieval flat roof-tile recovered from a gully in a trench in the south-eastern corner of the proposal area.

All features assigned to the medieval phase of occupation were sealed beneath a clay subsoil, with post-medieval agricultural activity being represented by a number of plough scrapes recorded cutting into this subsoil. Modern ceramic land-drains were the latest features noted in several of the trenches, sealed by the present topsoil.

The results of the trial excavation, taken in conjunction with ongoing archaeological monitoring on extraction phases further north, suggest that a relatively low density of archaeological features is present within the proposed extraction area, such features being of limited archaeological significance. It is considered that the need for the monitoring of all subsequent extraction phases should be re-assessed.

2 INTRODUCTION

2.1 Site background

This report presents the results of archaeological evaluation by trial excavation carried out in advance of proposed clay extraction, just north of the village of Hemingbrough, near Selby, North Yorkshire (National Grid Reference SE 6720 3175; see Fig. 1). The archaeological work was carried out as part of an approved scheme of archaeological works necessary to satisfy a planning application for the extraction of clay and restoration of the land to agriculture and creation of a water body.

In advance of submission of the planning application for the quarry extension, M J Carter Associates (MJCA), acting on behalf of the applicant, Plasmor Ltd, commissioned HFA to carry out a desk-based archaeological assessment, followed by sample geophysical survey, to contribute to an Environmental Impact Assessment. The desk study concluded that there were potentially remains of archaeological significance within the area of the proposed extension, most notably: the cropmark of a ring ditch which might represent a prehistoric mound or barrow; and, the possible extension into the proposal area of Roman settlement remains, some of which had previously been recorded in 1959. In addition, the geophysical survey detected a number of anomalies with a possible archaeological origin.

Following consultation with the North Yorkshire County Archaeologist, MJCA, on behalf of their clients, Plasmor Ltd., proposed that field investigation work was undertaken in accordance with a condition on the planning application, with a method statement for the work to be submitted to the Planning Authority prior to commencement.

Planning permission was subsequently granted (on 4th March 2004) for the proposed clay extraction with a condition (no. 34), as follows:

> "No development shall take place within the application area until the applicant has secured the implementation of a programme of archaeological works in accordance with a written scheme of investigation which has been submitted to and approved in writing by the County Planning Authority."
>
> The condition is imposed because:
>
> "There is the potential for remains of archaeological importance to be found within the application area in accordance with Policy 4/7 of the adopted North Yorkshire Minerals Local Plan."

Humber Field Archaeology were approached by Plasmor Ltd., to prepare the necessary method statement (Written Scheme of Investigation) for archaeological works to satisfy the planning condition and the requirements of the North Yorkshire County Council Heritage and Environment Section (NYHES). The document (Steedman 2008), which was submitted to NYHES and subsequently approved by them, proposed that a staged scheme was implemented on each extraction phase, commencing on those in the north-eastern part of the site and on each element of the groundworks or landscaping. Each phase or groundworks/landscaping would be preceded by a monitored soil strip and mapping of exposed features to evaluate the presence or absence of significant archaeological remains. Evaluation by trial excavation was also take place in the south-eastern part of the proposal area, targeting linear anomalies from the geophysical survey. Depending on the results of

the monitoring and trial excavations, decisions could be made regarding the need and/or extent of further archaeological fieldwork which might be necessary to precede phases of extraction, whether this took the form of detailed archaeological excavation and publication ("preservation by record") or a monitoring and recording exercise during and after soil stripping.

Extraction on the quarry extension commenced in June 2008 and archaeological monitoring and recording has accompanied this as a series of staggered visits in advance of, or during, the soil stripping prior to each phase of clay extraction (e.g. Steedman 2011).

The trial excavations in the south-eastern part of the proposal area took place in August 2011.

2.2 **The site – topography and geology**

The extraction area is bounded to the north by the Hull-Selby railway line, to the west by the boundary between the parishes of Hemingbrough and Cliffe and to the east by Haw Lane, a trackway. It is situated on slightly higher ground, generally at heights of between 6m and 7m OD, north of the village of Hemingbrough and the A63 trunk road, which overlooks the flood plain of the River Ouse to the south-west.

The site is located on fine and coarse loamy and permeable stoneless soils of the Sessay Series, which in turn overlie glaciolacustrine and glaciofluvial drifts and clays over Permian and Triassic New Red Sandstones; areas of drift sands do, however, lie to north, east and west of the site.

2.2 Archaeological and historical background

Prior to submission of the planning application, HFA carried out a desk-based assessment and sample geophysical survey; the section below summarises their results.

Desk-based assessment
The desk-based assessment (Hall 2003), which included a site walkover survey and documentary research, constituted an appraisal of the potential importance of any surviving archaeological remains within the proposal site and the study area of approximately 1.5km radius surrounding it, based on available published or unpublished data.

In all, a total of 81 sites of cultural heritage significance were identified within the study area, ranging from a possible prehistoric burial mound, Romano-British and medieval settlement remains, through to post-medieval agriculture and listed buildings of 18th-/19th-century date, reflecting the rich and varied archaeological landscape within which the proposal area lies. In the proposal area itself, the potential for the presence of archaeological remains is demonstrated most notably by the cropmark of a possible ring ditch which may represent the remains of a ploughed-out prehistoric burial mound or barrow, and by the likely extension into the area of Roman settlement remains known to lie just to the east. The full extent of the Roman settlement (located at the Hemingbrough Brick and Tile Works in 1959) is unknown, though subsequent archaeological watching briefs undertaken in the area east of it (in 2000 and in 2001) found no trace of it, and it may therefore extent north-westwards into the proposal area, with settlement features such as structural building remains and the remains of field systems to be expected.

There is also potential for hitherto unknown archaeological remains to lie within the proposal area. A number of undated cropmark sites on air photographs – interpreted as early field systems and other settlement features – have been identified on sand subsoils just to the north and north-west, and these may continue south onto the clay subsoils of the proposal site (which are generally less responsive to aerial reconnaissance). Furthermore, river deposits from the flood plain of the former River Ouse – which shifted further south in the early medieval period – may have obscured some early remains.

Geophysical survey
The survey (Steedman 2003) was sub-contracted to GeoQuest Associates (Noel 2003), and they undertook the survey in late March 2003. The whole proposal area was initially "scanned", followed by detailed survey of 40% of the total area (7.4ha), carried out in three sample blocks; the interpretation plot of the results of the survey are included on Fig. 1.

The survey detected a number of weak geophysical anomalies which might be indicative of buried archaeological features. The mean amplitude of most of the anomalies on the site, however, was shown to be near or below the detection threshold of the fluxgate gradiometer, suggesting that sub-surface archaeological features – if present – were associated with a very low contrast in magnetic susceptibility between any materials infilling such features and the natural undisturbed subsoil into which they had been cut; little, if any, occupation debris would be present in such features, given these low readings.

The linear anomalies which were plotted may represent soil-filled ditches defining a system of enclosures or fields on a slightly different alignment to that which prevails today, suggesting they might be of an early date. The geophysical sub-contractors did not, however, attach a high level of confidence to their interpretation of the anomalies as having an archaeological origin, and they might purely reflect magnetic trends resulting from minor differences in the underlying geology. No traces were detected of burnt features – such as hearths or kilns – which might have indicated the location of any early settlement focus (buildings or structures) or any debris associated with it.

No anomalies were detected which could clearly be interpreted as representing the continuation westwards of the Romano-British settlement site recorded in 1959, just south-east of the proposal area; the most complex pattern of linear anomalies – which might conceivably be interpreted as a system of early enclosures – does not extend into the south-east corner, the nearest of them being over 100m away from that corner. Nor was anything detected which might correspond to the possible circular feature noted on an aerial photograph in this corner, perhaps confirming the uncertain nature of this observation.

Monitoring of extraction phases
Extraction commenced in June 2008 and has been subject to monitoring via site visits by HFA; visits 2008-2010 have been the subject of an interim report (Steedman 2011). Each visit monitored the removal of topsoil/subsoil from strips approximately 10m-15m wide and 80m-160m long, with the aim of observing and recording any exposed features and surveying their positions. A few small ditches of a possible medieval date were recorded, though most recorded features were of a later date, comprising former hedge-lines corresponding to boundaries on the mid 19th-century Ordnance Survey maps, and ceramic and plastic land-drains. The possible medieval ditch may have been detected by the

geophysical survey, though for the most part detected anomalies have not so far been found to represent anything of archaeological significance.

3 THE EXCAVATIONS

3.1 Methodology

A total of six trenches were excavated (see Fig 1), in positions as close as possible to those suggested in the written scheme of investigation (Steedman 2008). The recent overburden was removed by a mechanical excavator with a flat-bladed ditching bucket down to the uppermost archaeological deposits, which were then cleaned and excavated by hand where possible. However, due to the hard compacted conditions of the underlying natural subsoil, into which the archaeological features were cutting, further machine excavation was required in three trenches. The on-site excavation and recording methodology employed was in accordance with procedures set out in the written scheme of investigation.

Standard Humber Field Archaeology recording procedures were used throughout; each identified feature was allocated a context number, with written descriptions recorded on *pro forma* sheets. Plans and sections were drawn to scale on pre-printed permatrace sheets. A colour transparency and monochrome print photographic record was maintained. The trench positions were surveyed using GPS equipment to enable them to be related to the Ordnance Survey National Grid. Finds recovered from each feature were labelled accordingly.

A number of selected deposits were sampled for the purpose of assessing the palaeoenvironmental significance of biological remains.

3.2 Results

Analysis of the stratigraphic sequence, along with the dating of the small number of artefacts from excavated features, has enabled three broad chronological phases to be assigned to the site, as follows:

Phase 1 – *?Medieval*
Phase 2 – *Post-medieval*
Phase 3 – *Modern*

TRENCH 1
Figs 1 and 4; Plates 1 and 2

This north-westernmost trench was north-west/south-east-aligned, around 30m by 2m in dimensions, positioned to determine geophysical anomalies f2 and f4.

The underlying natural subsoil (103) was a sterile orange clay sand, encountered at 6.23 – 6.37m OD.

Phase 1 – *?Medieval*

The natural subsoil was truncated by three gully/ditches, 0.6m wide and over 0.2m deep, filled with a grey sandy clay silt. The north-westernmost was 113 (fill 106), on a north-south alignment, which probably relates to the westernmost anomaly in the f2/f4 group of geophysical anomalies.

Approximately 7m to the south-east was 115 (fill 108), and a further 4m to the south-east was 111 (fill 110); this latter feature appears to correspond with the eastern geophysical anomaly of f2.

Although undated, these features are considered likely to be of a medieval date, representing drainage features.

Phase 2 – *Post-medieval*

The probable medieval features were sealed by a layer of orange brown clay sandy silt subsoil (102), up to 0.2m thick, which was truncated by plough scars, 0.3m-0.4m wide. A group of thirteen were observed at the north-western end of this trench (recorded as 105).

Phase 3 – *Modern*

Four land-drains were observed, each being 0.2m – 0.4m wide, filled with grey silty clay sand and having circular ceramic pipes; drains 104 and 112 were on a north-south alignment, drain 109 was on an rough east-west alignment, and drain 114 was on a north-east to south-west alignment.

These land-drains were sealed beneath topsoil (101) of grey brown sandy loam clay silt, up to 0.4m thick.

TRENCH 2

Figs 1 and 4; Plate 3

This trench lay approximately 60m to the south of Trench 1, on an east-west alignment. It measured around 22m by 2m, having been positioned to determine geophysical anomaly f3.

The underlying natural subsoil (203) was a sterile orange clay sand, encountered at 6.33 – 6.56m OD.

Phase 1 – *?Medieval*

The natural subsoil was truncated by three or four possible furrows, on a north south alignment with gradual sides and flat bases (encountered at 6.26-6.32m OD), with brown grey clay silt fills, up to 0.2m deep. The westernmost (204) was over 2.6m wide, while approximately 11m to the east was furrow 213/214; it was not possible to determine if these were one large furrow 4.6m wide, or two, one truncating the other, as later land drains disturbed the area. A third possible furrow (216), a short distance to the east, extended beyond the eastern edge of the trench.

A possible boundary ditch (210), aligned north-south, was located in the centre of the trench, and appeared to correspond with geophysical anomaly f3. It was 1.6m wide and 0.4m deep, with gradual sides and a concave base (at 6.06m OD), containing a single fill (209) of grey clay silt.

Although undated, these features are considered likely to be of a medieval date.

Phase 2 – *Post-medieval*

The possible medieval features were sealed by a layer of orange brown clay sandy silt subsoil (202), up to 0.2m thick.

Phase 3 – *Modern*

Three land drains (205, 207 and 212), containing circular ceramic pipes, were observed on a roughly east-west alignment. They were truncated by six land-drains on a north-south alignment, five (215, 217, 208, 206 and 218) with circular ceramic pipes, and one (211) with a square ceramic pipe.

These land drains lay beneath topsoil (201) of grey brown sandy loam clay silt up to 0.4m thick.

TRENCH 3

Figs 2 and 5; Plates 4 and 5

This trench lay approximately 26m east of Trench 2, on a north-south alignment. It measured approximately 20m by 2m, having been positioned to investigate geophysical anomaly f3.

The underlying natural subsoil (303) was a sterile orange clay sand, encountered at 6.31-6.39mOD.

Phase 1 – *?Medieval*

The natural subsoil was truncated at the northern end by furrows (305) and (307), 1.75m apart on an east-west alignment, being 1.4m wide and 0.15m deep, with gradual sides and near flat bases (at 6.31m OD) and having fills of grey sandy clay silt.

At the southern end of the trench was a possible ditch with a rounded terminal or an elongated pit (312), on a north-west/south-east alignment, extending beyond the western trench edge. It was over 1.4m long, 0.7m wide and 1.6m deep, with gradual sides and a concave base (at 6.18m OD) and a single fill (311) of dark grey clay silt.

Although undated, these features are considered likely to be of a medieval date.

Phase 2 – *Post-medieval*

The possible medieval features were sealed by a layer of orange brown clay sandy silt subsoil (302), up to 0.15m thick. This layer was truncated by two plough scars (304 and 306) at the northern end of the trench on a north-west/south-east alignment.

Phase 3 – *Modern*

Two east-west aligned land-drains (308 and 309), each 0.2m wide and filled with grey silty clay sand, were recorded, as was a third (310) on a north-south alignment. It was not possible to determine the relationship between 309 and 310. Land Drain 309 appears to correspond to part of geophysical anomaly f3.

These land-drains were sealed by topsoil (301) of grey brown sandy loam clay silt, up to 0.3m thick.

TRENCH 4

Figs 3 and 5; Plate 6

This trench lay 76m to the west of Trench 6, on an east-west alignment. It measured approximately 30m by 2m, and had been positioned as a control in an area where no geophysical anomalies had been identified.

The underlying natural subsoil (403) was a sterile orange clay sand, encountered at 6.39-6.43m OD.

Phase 1 – *?Medieval*

The natural subsoil was truncated by two furrows (406 and 409), approximately 1.3m wide, which were not investigated. At the eastern end of the trench, a gully (412) on a north-east/south-west alignment, with gradual sides and an irregular base (at 6.46m OD), had a single fill (411) of grey silty clay.

Although undated, these features are considered likely to be of a medieval date.

Phase 2 – *Post-medieval*

The possible medieval features were sealed by a layer of orange brown clay sandy silt subsoil (402), up to 0.2m thick.

Phase 3 – *Modern*

An approximately 3m length of land drain (408) containing circular ceramic pipes, was recorded on a roughly east-west alignment, having a square terminus at its western end; it appears to have been partially repaired by drain (407), a short section of 2m length. This was truncated by another drain (413) on a north-south alignment, which was probably contemporary with other drains (404, 405 and 410) on the same alignment.

These land drains lay beneath topsoil (401) of grey brown sandy loam clay silt, up to 0.5m thick.

TRENCH 5

Figs 3 and 5; Plate 7

This trench lay 90m to the north of Trench 6 on a north-south alignment; it measured approximately 30m by 2m, having been positioned as a control where no geophysical anomalies had been identified.

The underlying natural subsoil (503) was a sterile orange clay sand, encountered at 6.40mOD.

Phase 1 – *?Medieval*

At the northern end of the trench, the natural subsoil was truncated by a ditch (505) on an east-west alignment, being 0.7m wide and 0.26m deep with gradual sides and a concave base (at 6.15m OD), containing a single fill (504) of grey sandy clay silt.

At the southern end of the trench lay a furrow (509), 2.7m wide and 0.3m deep, with gradual sides and near flat base (at 6.00m OD), containing a similar fill (508).

Although undated, these features are considered likely to be of a medieval date.

Phase 2 – *Post-medieval*

The possible medieval features were sealed by a layer of orange brown clay sandy silt subsoil (502), up to 0.15m thick. This was scarred by a number of roughly north to south-aligned plough scrapes.

Phase 3 – *Modern*

Two land-drains, 0.2m wide, were recorded, both filled with grey silty clay sand: drain 507 had circular ceramic pipes on an east-west alignment; having probably been truncated by drain 506, on a north-south alignment.

These land-drains were sealed by topsoil (501) of grey brown sandy loam clay silt, up to 0.4m thick.

TRENCH 6

Figs 3 and 5; Plate 8

Trench 6 lay in the south-eastern corner of the proposal site, on a north-west/south-east alignment. It measured approximately 30m by 2m, having been positioned where no geophysical anomalies had been identified, but where a circular cropmark was reported to have been seen.

The underlying natural subsoil (603) was a sterile orange clay sand, encountered at 6.07 – 6.22mOD.

Phase 1 – *Medieval?*

The natural subsoil was truncated by a possible gully (611) on an east-west alignment, 0.33m wide and 0.2m deep, with near vertical side and flat base (at 6.11m OD), containing a single fill (610) of blue grey sandy clay silt. This was truncated by another possible gully (609) on a north-south alignment, 0.3m wide and 0.27m deep, with gradual sides and a flat base, being filled with grey brown sandy clay silt (608). This was in turn truncated by another gully (607) on a similar alignment, being 0.36m wide and 0.3m deep with vertical sides and a flat base (at 6.01m OD); it contained a single fill (606) of grey sandy clay silt which contained a fragment of medieval flat roof tile.

Phase 2 – *Post-medieval*

The possible medieval features were sealed by a layer of orange brown clay sandy silt subsoil (602), up to 0.2m thick.

Phase 3 – *Modern*

Two land-drains (604 and 605) were observed, each 0.2m wide, filled with grey silty clay sand and having square ceramic pipes set within, on a north-south alignment.

These land-drains were sealed by topsoil (601) of grey brown sandy loam clay silt, up to 0.4m thick.

4 SPECIALIST REPORTS

4.1 Ceramic artefacts

Lisa M. Wastling

INTRODUCTION

The site produced a small ceramic assemblage consisting of pottery and ceramic building material.

The pottery, weighing 3g, was recovered from Trench 4 land drain fill (408). The ceramic building material, a fragment of roof-tile, was recovered from the fill (606) of gully 607 in Trench 6.

The pottery sherd was produced in Staffordshire and bears a date range of the late 17th to the 18th century.

The flat roof tile is a medieval type produced in the region from the 12th century onwards. For example, excavations at Lurk Lane in Beverley attest the presence of flat roof tiles in Phase 6, which possesses a late 11th to late 12th century date range (Armstrong 1991, 201), with flat roof tile occuring from phases of the mid to late 12th century at Eastgate, Beverley (Armstrong 1992, 219). This type flat roof tile gradually became surpassed by pantiles which were initially imported from the Low Countries around the mid-17th century and subsequently produced locally.

RECOMMENDATIONS

The ceramics assemblage from this fieldwork is recommended for discard. No further work is required.

Table 1: ceramic artefacts quantification

Fabric/Identification Codes
The following are standard codes used to describe the fabrics of the ceramics reference collection housed within Humber Archaeology Partnership. The fabric type series was initially developed by G. Watkins. Recent amendments have been made by P. Didsbury and L.M. Wastling.

MFRT – Medieval flat roof tile
STF2 – Staffordshire black-dipped ware.

Site Code	Context	Fabric code/ ID	No of sherds	Weight (g)	Description	Date range
HCQ 2011	408	STF2	1	3	Bichrome sherd with a yellow interior and black all-over slipped exterior	Late 17th to 18th century
HCQ 2011	606	MFRT	1	40	The corner of a medieval flat roof tile.	12th to mid 17th century
		Totals	**2**	**43**		

4.2 **Evaluation of biological remains from sediment samples**

Alison Foster and John Carrott *(Palaeoecology Research Services)*

SUMMARY

Four 'bulk' sediment samples recovered from deposits encountered during the trial excavations were submitted for an evaluation of their bioarchaeological potential.

None of the samples appeared promising for the recovery of organic remains but a subsample from one possiblemedieval gully/ditch fill was processed for plant and invertebrate macrofossils in order to test this impression. Ancient organic remains recovered were restricted to a little indeterminate charcoal and a single poorly-preserved unidentifiable charred grain and were of no interpretative value. None of the material was considered suitable for submission for radiocarbon dating. Artefactual material from the sample was confined to a single piece of hammerscale, presumably derived from metal-working but far too little to imply that such activity was being undertaken in the vicinity at the time of the formation of the deposit.

No further study of the biological remains from this site is warranted and, on the evidence from this evaluation, the likelihood that any future archaeological interventions in the immediate vicinity would encounter deposits with interpretatively valuable concentrations of organic remains appears small.

INTRODUCTION AND METHODS

Four sediment samples were collected and submitted to Palaeoecology Research Services Limited, Kingston upon Hull (PRS), for an evaluation of their bioarchaeological potential.

All of the sediment samples collected were inspected and their lithologies recorded following a standard *pro forma* (see Table 2). None of the samples appeared promising for the recovery of organic remains but a subsample from one was processed for plant and invertebrate macrofossils, broadly following the techniques of Kenward *et al*. (1980), in order to test this impression.

The washover and the residue were predominantly of charred and mineral material, respectively, and were dried prior to recording of their components. The fractions were examined for macrofossil remains using a low-power binocular microscope (x7 to x45). All of the components of the washover were recorded using a five-point semi-quantitative scale. The abundance scale employed was: 1 – few/rare, up to 3 individuals/items or a trace level component of the whole; 2 – some/present, 4 to 20 items or a minor component; 3 – many/common, 21 to 50 or a significant component; 4 – very many/abundant, 51 to 200 or a major component; and 5 – super-abundant, over 200 items/individuals or a dominant component of the whole. The processed sample fractions were scanned until no new remains were observed and a sense of the abundance of each taxon or component (relative to the processed fraction as a whole) was achieved. The abundance of recovered organic and other remains within the sediment as a whole may be judged by comparing the washover volume and the quantities of remains recovered from the residue with the size of the processed sediment subsample.

During recording, consideration was given to the identification of suitable remains for submission for radiocarbon dating by standard radiometric technique or accelerator mass spectrometry (AMS).

RESULTS

Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample number.

Context 108 [fill of gully/ditch 115]
Sample 4/T (3.6 kg/2 litres sieved to 300 microns with washover; no unprocessed sediment remains)

Dry, mid grey (with some patches and streaks of light to mid brown and orange-brown), brittle (and slightly ?indurated) to unconsolidated (working crumbly), silty sand, with modern rootlets and black flecks of ?charcoal present.

The tiny washover (~5 ml, dried) was mostly fine cinder (to 6 mm), with some indeterminate charcoal (to 10 mm), sand, modern rootlets, a little coal (to 2 mm) and a single poorly preserved (silted and 'puffed') indeterminate charred grain.

The small residue (dry weight 228 g) was predominantly of sand, with a little indeterminate charcoal (to 5 mm; 0.4 g) and a trace of magnetised material (to 2 mm; 0.1 g); the last a single roughly half sphere of ?hammerscale, with sand grains encrusting the inner surface.

DISCUSSION AND STATEMENT OF POTENTIAL

Ancient organic remains recovered from the evaluation subsample were restricted to a little indeterminate charcoal and a single poorly-preserved unidentifiable charred grain and were of no interpretative value. None of the material was considered suitable for submission for radiocarbon dating.

Artefactual material from the sample was confined to a single piece of hammerscale, presumably derived from metal-working but far too little to imply that such activity was being undertaken in the vicinity at the time of the formation of the gully/ditch fill (i.e. merely 'background' material and perhaps not even contemporary with the deposit given the evidence for intrusive rootlet and consequent bioturbation).

RECOMMENDATIONS

No further study of the biological remains from this site is warranted and, on the evidence from this evaluation, the likelihood that any future archaeological interventions in the immediate vicinity would encounter deposits with interpretatively valuable concentrations of organic remains appears small.

RETENTION AND DISPOSAL, ARCHIVE

The small quantities of remains recovered from the processed evaluation subsample should be retained as part of the physical archive for the site. Unless required for purposes other than the study of biological remains, all of the remaining unprocessed sediment samples may be discarded.

All material is currently stored by Palaeoecology Research Services (Unit 4, National Industrial Estate, Bontoft Avenue, Kingston upon Hull), pending return to the excavator, along with paper and electronic records pertaining to the work described here.

Table 2: Context information, sediment descriptions and sample sizes.
Key: 'Wt/V (kg/l)' = weight/volume of processed sediment sample in kilograms/litres. The deposit from which a subsample was processed for the evaluation is shown with context and sample number in bold face.

Context	Sample	Context description	Provisional date	Potential	Initial sediment description and notes	Wt/V (kg/l)	Sediment remaining (l)
108	**4**	Fill of gully/ditch 115	?medieval	Very low	Dry, mid grey (with some patches and streaks of light to mid brown and orange-brown), brittle (and slightly ?indurated) to unconsolidated (working crumbly), silty sand, with modern rootlets and black flecks of ?charcoal present.	3.6/2	None
209	1	Single fill of possible boundary ditch 210	?medieval	Very low	Just moist, light to mid brown to light to mid grey, crumbly (working soft), slightly silty clay sand (some areas predominantly clay and these work somewhat plastic), with modern rootlets present.	-	2.5
311	2	Single fill of possible ditch or elongated pit 312	?medieval	Very low	Just moist, mid grey (with some streaks and patches of light to mid brown), somewhat stiff to brittle (working crumbly then more or less plastic), sandy clay, with modern rootlets present.	-	3
508	3	Single fill of furrow 509	?medieval	Very low	More or less dry, mid grey (with some streaks and patches of light to mid brown), brittle (and slightly ?indurated) to unconsolidated (working crumbly), silty sand. No obvious inclusions.	-	4

5 DISCUSSION AND RECOMMENDATIONS

5.1 Discussion of the site sequence

The trial excavations have provided a useful sample of the archaeological deposits and/or features surviving within this part of the proposal area. Six trenches were positioned at intervals across the site to gather sufficient information to enable assessment of its archaeological potential; linear anomalies recorded on an earlier geophysical survey were targeted to establish if they were of archaeological origin. Evidence was recorded of activity on the site from perhaps as early as the medieval period through to the present day.

A small number of features of a likely medieval date were recorded in several of the trenches, comprising drainage gullies, boundary ditches and furrows from ridge and furrow cultivation. These are taken to represent agricultural activities concerned with drainage of low-lying land, ploughing and cultivation of the land and definition of boundaries; a few ditches, assumed to be contemporary, were recorded in the monitoring of extraction phases to the north. Dating evidence associated with this phase of activity consists of a single fragment of medieval flat roof-tile recovered from a gully in Trench 6, in the south-eastern corner of the proposal area.

All features assigned to the medieval phase of occupation were sealed beneath a clay subsoil and evidence of agricultural activity in the post-medieval period was represented by a number of plough scrapes recorded cutting into this subsoil. Modern ceramic land-drains were the latest features noted in several of the trenches, sealed by the present topsoil.

5.2 Recommendations for the future treatment of archaeological remains on the site

The trial excavations have demonstrated the survival on the proposal site of archaeological remains of low significance and of local importance at best. *The recommendations below are only the opinion of the HFA project team, however, and may not necessarily concur with those of the local planning authority or their archaeological advisors.*

The results of the trial excavation, taken in conjunction with the results of the ongoing archaeological monitoring on extraction phases further north, suggest that a relatively low density of archaeological features only is present within the proposed extraction area, such features being of limited archaeological significance. The trial excavations have evaluated the archaeological potential of Extraction Phases 10, 11 and 15, while the monitoring has now covered most or all of Phases 1-4, to the north; only the south-western and western parts of the proposal area have not been examined.

It is considered that the need for the monitoring of all subsequent extraction phases should be re-assessed. A stage may now have been reached where the monitoring of the extraction phases can be scaled down, either through being targeted on intermittent or particular phases, or halted altogether. This scaling down or suspension of the monitoring and recording scheme would, however, have to be agreed with the NYHES.

Following the completion of on-site recording and off-site reporting, a site archive should be compiled and ultimately deposited with a suitable repository for the storage of archaeological archives.

ACKNOWLEDGEMENTS

The archaeological recording was commissioned and funded by Plasmor Ltd.; particular thanks are due to Julian Slater, Mike Page and Darren Hope for their help and co-operation throughout.

The excavations were carried out by staff from Humber Field Archaeology (HFA): Karen Adams and Irene McGrath.

The finds were processed by Sophie Tibbles. Lisa Wastling reported on the small ceramic finds assemblage, while Palaeoecology Research Services examined soil samples taken from excavated features; PRS are grateful to Sophie Tibbles and Karen Adams of HFA for providing the material and the archaeological information.

The report on the excavations was produced by Karen Adams. The drawings in the report are the work of Karen Adams and David Atkinson, while the photographs reproduced here were taken by Karen Adams. The report was edited by Ken Steedman who also contributed to the Discussion and Recommendations. Administrative support was provided by June Rooney.

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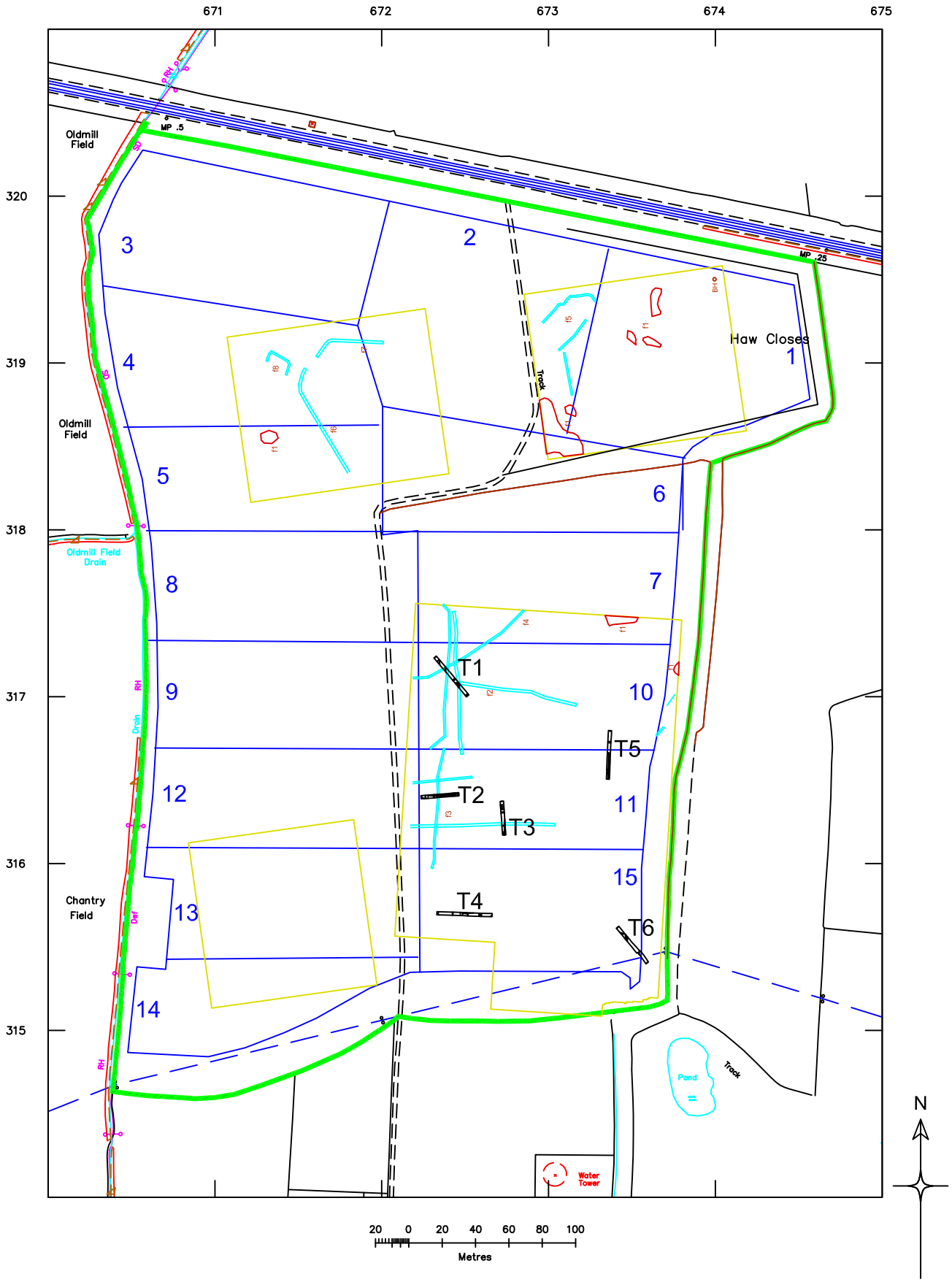
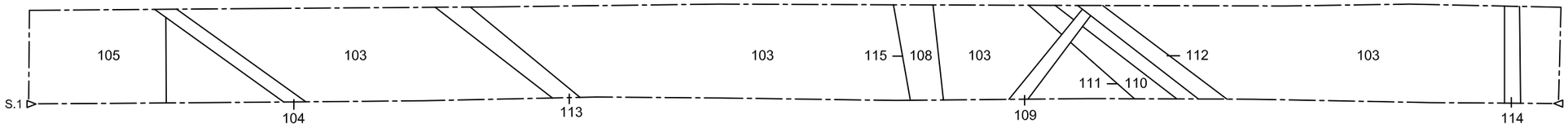
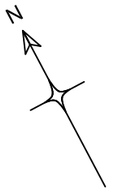


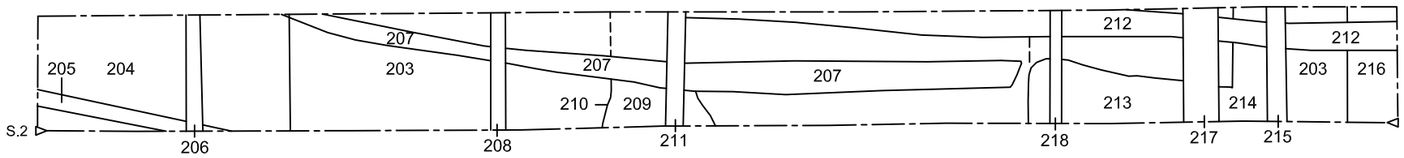
Figure 1: Plan showing trench positions (T1 - T6) in relation to the geophysical survey results and extraction phases (1 - 15)

Trench 1

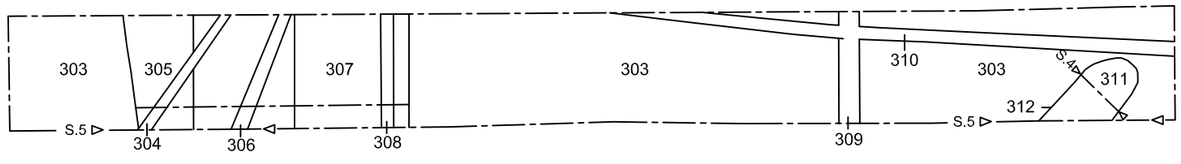




Trench 2



Trench 3



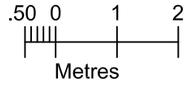
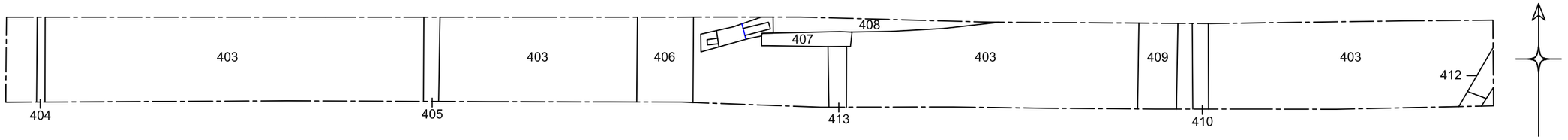
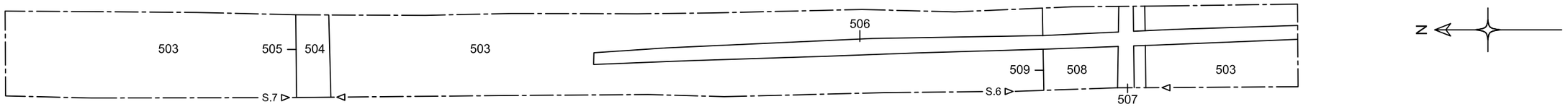


Figure 2: Trenches 1 - 3,
features recorded in plan

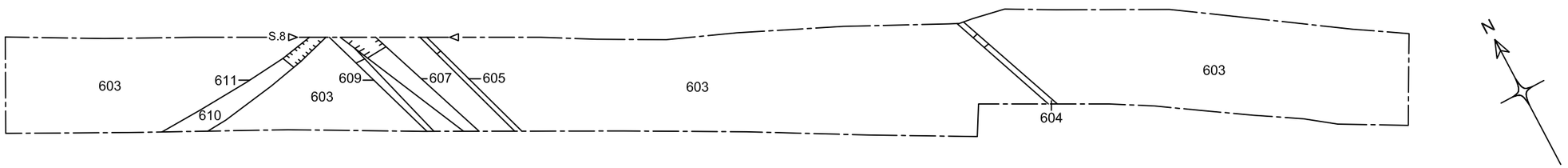
Trench 4



Trench 5



Trench 6



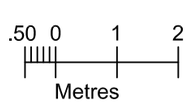
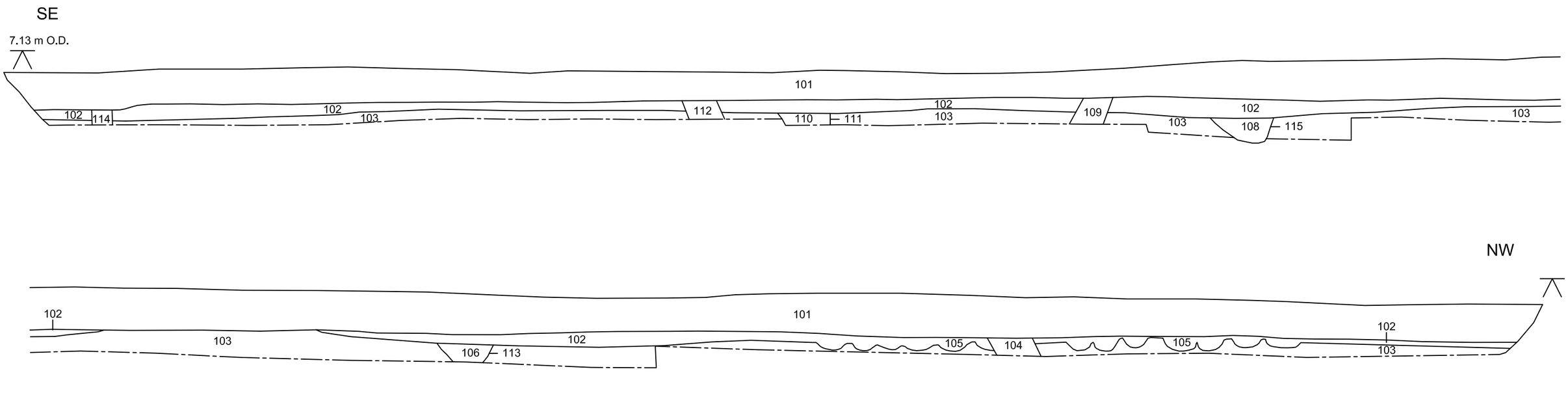
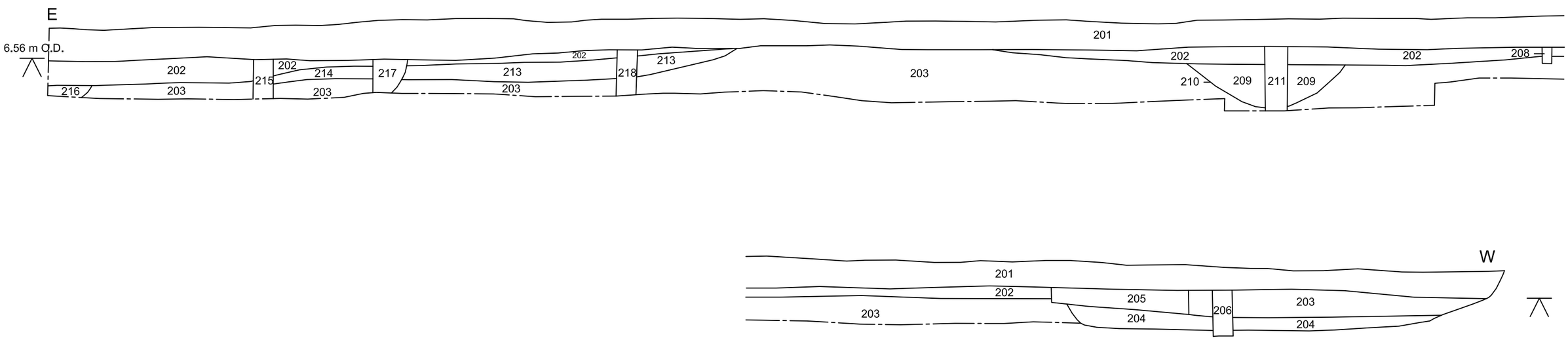


Figure 3: Trenches 4 - 6,
features recorded in plan

S.1



S.2



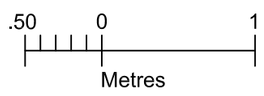
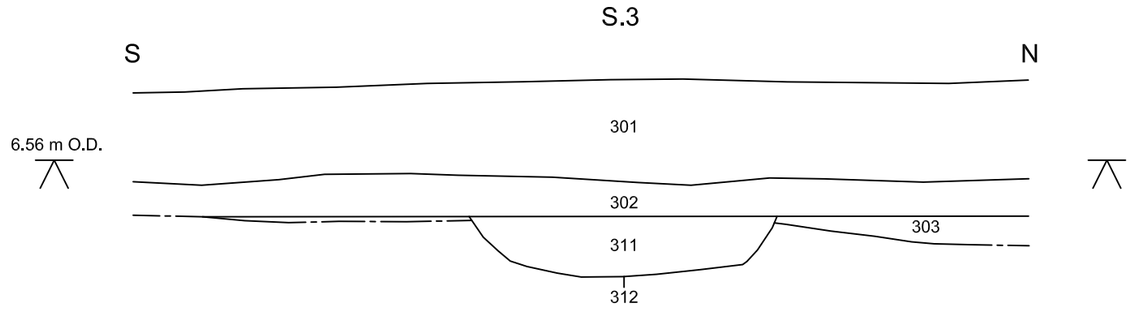
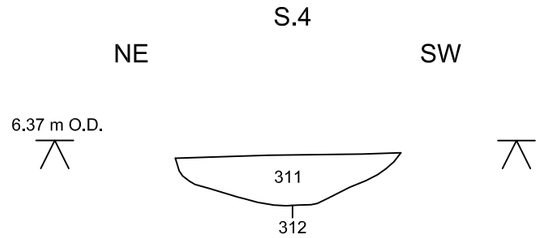
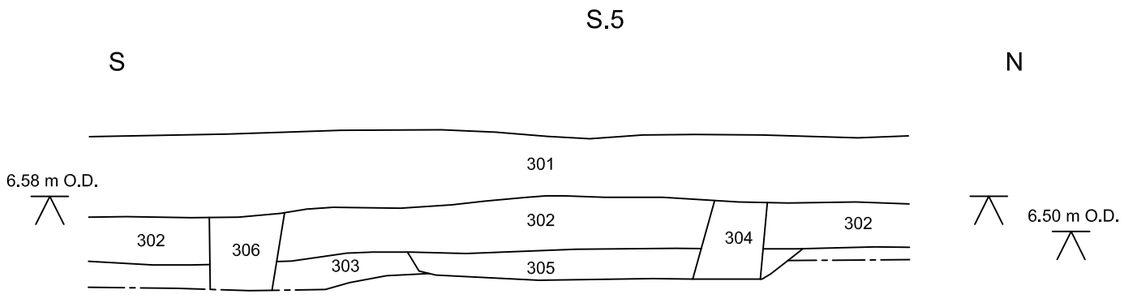
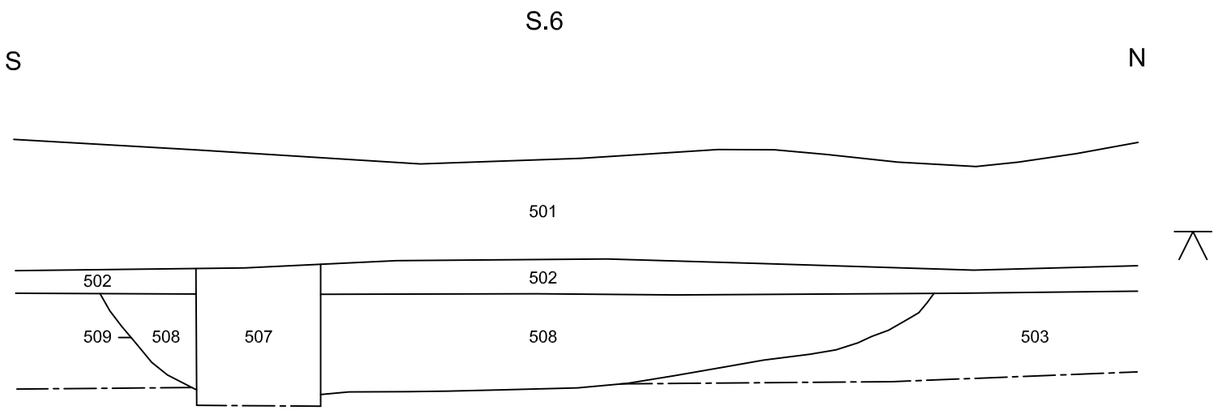


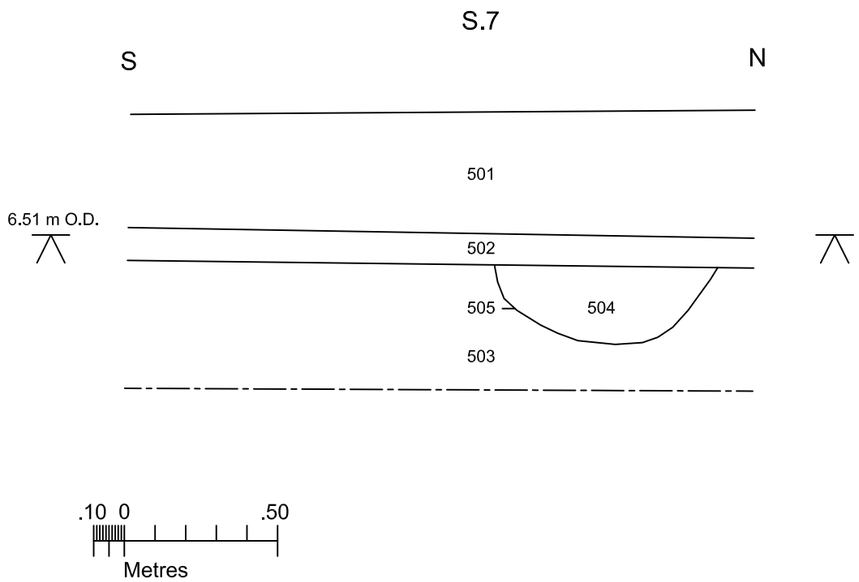
Figure 4: Sections S.1 and S.2,
in Trenches 1 and 2











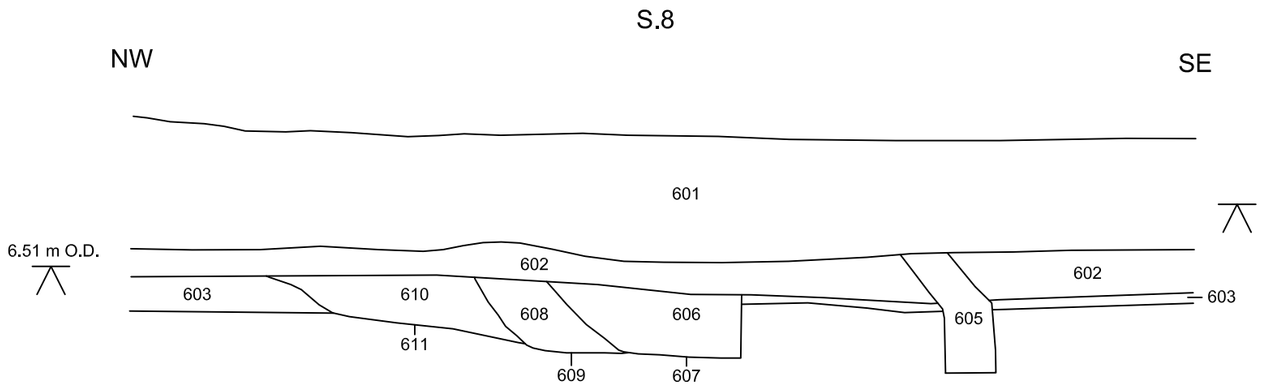


Figure 5: Sections S.3 - S.8,
in Trenches 3 - 6

Plate 1: *Trench 1* – looking south-east (1m scale)

Plate 2: *Trench 1* – features 109, 111, 112 and 115, looking north

Plate 3: *Trench 2* – looking south-east (1m scale)

Plate 4: *Trench 3* – exposed features before excavation, looking north

Plate 5: *Trench 3* – feature 312, looking south-east (0.5m scale)

Plate 6: *Trench 4* – looking east (1m scale).

Plate 7: *Trench 5* – looking south.

Plate 8: *Trench 6* – looking south (1m scale)

Humber Field Archaeology

Archaeological Consultants and Contractors

The Old School, Northumberland Avenue,
KINGSTON UPON HULL, HU2 0LN
Telephone (01482) 310600 Fax (01482) 310601
www.humberfieldarchaeology.co.uk

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Humber Field Archaeology is an independently-funded part of the Humber Archaeology Partnership, a partnership serving The East Riding of Yorkshire Council and Kingston upon Hull City Council