Humber Field Archaeology

Archaeological Consultants and Contractors

AN ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING

AT THE

OUTGANG EXTENSION TO NEWPORT ROAD QUARRY
NORTH CAVE
EAST RIDING OF YORKSHIRE

JUNE 2021

Humber Field Archaeology Report no. 2174

ARCHAEOLOGICAL TRIAL EXCAVATIONS

AT THE

OUTGANG EXTENSION TO NEWPORT ROAD QUARRY

NORTH CAVE

EAST RIDING OF YORKSHIRE

June 2021

Work carried out for Breedon (Northern) Ltd

Planning Reference:	DC/18/00528/CM/STRAT
National Grid Reference:	SE 8900 3112 (centre)
HFA Site Code:	OEN 2021
Museum Reference	ERYMS (BAG): 2021.45

Stephen Kennedy
HUMBER FIELD ARCHAEOLOGY, The Old School, Northumberland Avenue, KINGSTON UPON HULL, HU2 0LN

September 2021

Humber Field Archaeology Report no. 2174

REPORT DETAILS	
Report title:	Archaeological trial excavations at the Outgang Extension to Newport Road Quarry, North Cave, East Riding of Yorkshire: June 2021
Document Type:	Fieldwork report
Report Number	2174
Client Name:	Breedon (Northern) Ltd
Site Code:	OEN 2021
National Grid Reference:	SE 8900 3112 (approximate centre)
Version:	2
Date:	20/09/2021
Author(s):	Stephen Kennedy
Position(s):	Project Officer
Checked by:	Ken Steedman
Position:	Post-excavation Manager
Approved by:	Peter Connelly
Position:	Archaeology Manager

Contents

List of Figures

(located at end of report)

List of Plates

(located at end of report)

Plate 3 *Trench 1*, looking east (1m scales)
Plate 4 *Trench 1*, N-S ditch 1004 and recut 1007 (1m scales)
Plate 5 *Trench 1*, NE-SW ditch 1006 (1m scales)
Plate 6 *Trench 2*, Looking south east (1m scales)
Plate 7 *Trench 2*, NE-SW triple ditch series (1m scales)
Plate 8 *Trench 3*, down to subsoil layer, looking north east (1m scales)
Plate 9 *Trench 3*, North facing sect of large pit 3007 (1m scales)
Plate 10 *Trench 3*, Truncated SK 3015 looking North (0.50m scale)
Plate 11 *Trench 4*, Looking south east (1m scales)
Plate 12 *Trench 4*, NE-SW double ditch, 4007, 4009
Plate 13 *Trench 4*, N facing sect of curvilinear ditch terminus 4013 and small pit 4011
Plate 14 *Trench 5*, Looking east (1m scales)
Plate 15 *Trench 5*, North facing sect of ditch relationship, 5011 and 5013 (1m ,0.5m scales
Plate 16 *Trench 6*, Looking south east (1m scale)
Plate 17 *Trench 6*, Junction of NW-SE ditch 6007 and E-W ditch 6013 (1m scale)
Plate 18 *Trench 7*, Looking North (1m scale)
Plate 19 *Trench 7*, Junction of E-W ditch 7006, N-S ditch 7012 and pit 7009 (1m scales)
Plate 20 *Trench 8*, Looking South (1m scale)
Plate 21 *Trench 8*, Southern trackway ditch series, 8003 and 8006 looking NE (1m scales)
Plate 22 *Trench 8*, Northern trackway ditches 8010, 8013 and 8016 looking SE (1m scales)
Plate 23 *Trench 9*, Looking south (1m scale)
Plate 24 *Trench 9*, West facing sect of ditch 9004 (1m, 0.5m scale)
Plate 25 *Trench 9*, South facing sect of ditch 9006 (0.5m scale)
Plate 26 *Trench 10*, Looking NE (1m scale)
Plate 27 *Trench 10*, West facing sect of ditch 10,004 (1m, 0.5m scale)
Plate 28 Backfilled trenches looking east

1. SUMMARY

In June 2021, archaeological evaluation by trial excavation was undertaken by Humber Field Archaeology in the Outgang extension of the Newport Road Quarry, a site of permitted extraction of sand and gravel by Breedon (Northern) Ltd, which lies south-west of North Cave village, East Riding of Yorkshire. Ten 30m long trenches were excavated in the north-western corner of the extraction area in order to investigate a number of anomalies representing potential archaeological remains, revealed by an earlier geophysical survey, (Roseveare and Smith, Sept 2019).

All ten trenches excavated contained archaeological features of likely Roman date, the majority considered to be segments of linear enclosures and sub-divisions. These features were observed and recorded across the evaluation cut into the underlying exposed sand and chalk gravel natural substrate which lay beneath a thick layer of subsoil up to 0.35m thick. The subsoil layer was subsequently sealed by a 0.30m thick uniform layer of plough soil containing a standing crop of wheat.

Trench 3 contained a large circular pit and a truncated crouched human inhumation. Trench 8 contained a double-ditched east to west orientated trackway. Trenches 3, 4 and 5 contained a number of small, isolated pit or posthole features. Artefactual evidence indicating domestic settlement was recovered from the fills of various features in Trenches 4, 7 and 8, however no features definitively indicating the existence of domestic structures were observed.

The potential for the discovery of archaeological remains had been high due to the presumption that ditched features previously recorded in areas immediately to the north and west continued into this evaluation area. The geophysical survey preceding this evaluation confirmed this, however the 10 evaluation trenches showed that these features extended further than predicted and were higher in number. The evaluation, therefore, revealed that the number of linear anomalies and associated features exceeded the number of observable geophysical features. In addition, the trial trenching evaluation revealed at least three stratigraphic and artefactually distinct phases of Roman activity spanning a period of time from the late 1st century AD through to the 4th century AD.

2. INTRODUCTION

2.1 Circumstances of the fieldwork

In June 2021, Humber Field Archaeology (HFA) undertook an archaeological evaluation by trial trenching within the permitted Outgang extension to the Newport Road Quarry, which lies south-west of the village of North Cave, East Riding of Yorkshire. The extension, which will be operated by Breedon (Northern) Ltd., occupies land immediately south and east of former sand and gravel quarries, either side of the Outgang track, in which previous archaeological investigations had recorded extensive evidence of Iron Age and Roman period settlement.

Planning permission for the Outgang extension was granted by the East Riding of Yorkshire Council (ERYC) in December 2018 (Planning reference DC/18/00528/CM/STRAT). Prior to submission of the application, M J Carter Associates (MJCA), acting on behalf of the applicant, Breedon (Southern) Ltd, prepared an Environmental Statement for the proposals, part of which involved an assessment of the impact which the proposed extension would have on the archaeological resource. HFA undertook a desk-based archaeological assessment (Atkinson and Steedman 2017) to inform the Cultural Heritage section of the Environmental Statement, and this concluded that there were potentially remains of archaeological significance within the area of the proposed extension.

Given the archaeological potential of the proposal area, as highlighted by the Humber Historic Environment Record (hereafter HHER) in their consultee response to the application, planning permission was granted for proposed extensions to North Cave Quarry and Newport Road Quarry with a condition (no. 7), as follows:

> A) No development shall take place/commence until a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:
>
> 1. The proper identification and evaluation of the extent, character and significance of archaeological remains within the application area;
> 2. An assessment of the impact of the proposed development on the archaeological significance of the remains;
> 3. The programme and methodology of site investigation and recording;
> 4. Community involvement and/or outreach proposals;
> 5. The programme for post investigation assessment;
> 6. Provision to be made for analysis of the site investigation and recording;
> 7. Provision to be made for publication and dissemination of the analysis and records of the site investigation;
> 8. Provision to be made for archive deposition of the analysis and records of the site investigation;
> 9. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.
>
> B) No development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).
>
> This pre-commencement condition is imposed in accordance with Section 12 of the NPPF as the site is of archaeological interest.

HHER recommended that the areas concerned were subject to archaeological evaluation, initially by geophysical survey. Accordingly, a survey of the Crosslands and Outgang extensions, commissioned by Andrew Josephs Associates, who act as archaeological consultants for Breedon, was carried out in September 2019 (Roseveare and Smith 2019), and this detected a generally low quantity of magnetic anomalies of archaeological interest. The exception was an area in the north-western corner of the Outgang extension where the survey suggested the presence of a concentration of archaeological features, considered to represent a continuation of settlement remains investigated immediately to the north in 2007.

Humber Field Archaeology (HFA) were appointed to prepare a site-specific Written Scheme of Investigation (WSI), setting out approaches and methodologies necessary to satisfy the planning condition and the recommendations of HHER, the WSI being submitted to and approved by HHER and the local planning authority in advance of any work commencing on site. The WSI proposed that trial trenching took place in the north-western corner of the extraction area where evidence suggested that there were concentrations of archaeological features. The trial trenching was designed to gather sufficient additional information to enable either the option for *in situ* preservation to be considered, or, where 'preservation by record' through detailed excavation was to proceed. In all other parts of the site, implementation of a 'strip, map and sample' approach to archaeological investigation was considered appropriate.

The archaeological trial trench evaluation proposed for the north-western part of the extraction area was undertaken by HFA over a three-week period in June 2021. This report presents a post-excavation assessment of the results of those archaeological trial excavations.

2.2 Site topography and geology

The evaluation site lies to the south-west of North Cave village. It is bordered to the north by The Outgang track, to the east and south by what is currently agricultural land (within the proposed extraction area) and to the west by Eight Acre Lake, a former quarry pit now used as a dive pond – Fig. 1. The site covers relatively level ground at around 7m OD.

The superficial geological deposits consist of Bielby Sand Member clayey sand (formed up to 2 million years ago in the Quaternary Period) over bedrock of the Scunthorpe Mudstone Formation (data from http://mapapps.bgs.ac.uk/geologyofbritain/home.html – geology of Britain viewer). Overlying soils are described as freely draining lime rich loamy soils (http://www.landis.org.uk/soilscapes/).

2.3 Archaeological background

Desk-based assessment

The desk-based assessment (Atkinson and Steedman 2017), which included a walkover survey, constituted an evaluation of the potential importance of any surviving archaeological remains within the site of the proposed Crosslands and Outgang quarry extensions, and in the surrounding area, based on available published or unpublished data. The proposed extensions were found to lie within an area of archaeological importance and 54 archaeological sites or find-spots were located within the assessment Study Area, ranging from early prehistoric flints, Bronze Age burials and structures, Iron Age square barrows and roundhouses, Romano-British settlement ditches and enclosures, and Anglo-Saxon burials, through to medieval ridge and

furrow and post-medieval structures. Major cropmark complexes lay within the Study Area, or just outside, parts of which have previously been subject to archaeological excavation, with Iron Age roundhouses and Romano-British settlement enclosures, trackways and buildings. An early watercourse or palaeochannel was also identified, crossing the northern part of the Study Area.

Previous archaeological fieldwork

The Outgang extension lies immediately south of a part of the Newport Road Quarry which was subject to extensive archaeological investigation in 2007 in advance of extraction – Fig. 2 shows part of the plan of the recorded features. A group of Iron Age square barrows, marked by ditches surrounding central inhumation burials, lay in the SE part of the excavated area, though the bulk of what was recorded comprised numerous ditched settlement enclosures of Iron Age and/or Roman date and some possible post-built building foundations, most on the east side of a roughly NNW-SSE aligned trackway, as well as others on the east side of a north-south ditched trackway at the eastern end of the area. Both trackways, and potentially also some of the settlement enclosures recorded in the SW corner of the excavation area, which themselves incorporated a trackway splitting off the main NNW-SSE aligned track, appear to extend south into the proposed Outgang site; the recent geophysical survey detected what were the probable continuation of these enclosures.

The easternmost of the two tracks was probably a continuation of a 700m-long straight north-south ditched track seen as a cropmark to the south of the proposed extraction area, beyond the A63 road, which was accompanied by the cropmark of a roughly parallel ditch to the west. Both these cropmark features would run north into the Outgang extension area, though they were not detected by the geophysical survey. Further cropmarks plotted from an NMR air photograph at the eastern end of the proposed extraction area, suggest the presence of a number of settlement enclosures running up to the Mires Beck stream, as well as a large sub-rectangular ditched enclosure, perhaps either side of a former course of the stream. Metal-detection in the area of these plotted features reportedly recovered Iron Age and Romano-British finds. These cropmarks were not detected by the geophysical survey.

Geophysical survey

A geophysical survey of the Outgang extension was undertaken in September 2019 (Roseveare and Smith 2019). The survey was commissioned by Andrew Josephs Associates to prospect for buried features of archaeological interest. Survey was undertaken using an ATV-towed and GNSS-tracked non-gradiometric array of caesium vapour magnetometers on a non-magnetic platform.

At the Outgang site, the quantity of anomalies of archaeological interest detected was low. These appeared to mostly relate to a complex of enclosures in the north-west corner of the area, apparently an extension of IA/RB settlement enclosures previously discovered in the fields immediately to the north. An extract from the geophysical survey of this area is included in Fig. 10, where it is overlain by a plan showing the principal extrapolated ditch alignments. The survey did not, however, detect features seen as cropmarks in the eastern part of the site close to Mires Beck, or others which would have entered the site from the south. This invisibility is presumably due to lower magnetic contrast.

3. THE EXCAVATIONS

3.1 Methodology

The trial trenching comprised the excavation and recording of ten linear trenches each measuring approximately 30m x 2m in plan (Fig. 2). The positions were proposed in the site-specific WSI in order to target specific anomalies with archaeological potential detected by the earlier geophysical survey.

The trenches were excavated using a mechanical excavator fitted with a wide, smooth-bladed bucket, working under direct archaeological supervision. The trenches were excavated down to the first significant archaeological horizon and then hand-cleaned prior to any archaeological features being investigated and examined through hand excavation. For reasons of expediency, the mechanical excavator was subsequently employed under close supervision in order to machine-excavate some larger features down to a level which would enable subsequent hand-cleaning and recording.

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 photographic record was maintained using a high-resolution digital camera. The locations of the trenches and the level of the features were surveyed relative to the Ordnance Survey National Grid and Ordnance Datum respectively, using survey-grade GPS equipment.

Finds encountered were recorded to professional standards using recognised procedures and numbering systems compatible with the accessioning system employed by the recipient museums service (in this case the East Riding of Yorkshire Museums Service). Finds recovered from each feature were labelled accordingly, with those of individual interest, other than pottery or animal bone, being allocated Recorded Find (RF) numbers.

One environmental soil sample was taken from a targeted feature for its environmental potential.

3.2 Results of the trial trenching

Context numbers allocated to archaeological deposits and features are referred to in the text below and Figs 3-9 show them as recorded in plan and in section. A selection of photographs has also been included (Plates 1-28).

TRENCH 1
(Figs 2, 3 and 5; Plates 3 -5)

Trench 1, measuring 32m in length and 2m wide, was positioned in the NW corner of the evaluation on an east-west alignment, in an area where the geophysical survey had not detected the presence of any archaeological features. Ground level around the top of the trench was at 7.38m OD, with the base of the stripped trench lying at 6.58m OD at the western end and 6.30m at the eastern end, a slight decline in height from west to east.

Ditches
Two substantial linear features were recorded traversing the trench which had not been detected by geophysical survey: N-S ditch 1004 (with a substantial re-cut 1007), midway along the trench; and NE-SW ditch 1006 recorded near the eastern end of the trench.

Only the base of ditch 1004 remained in section, measuring 1.20m in width and 0.35m deep, containing a single fill (1005) of dark grey sandy silt which may have accumulated naturally in the base of the ditch cut; animal bone was present within this fill. Ditch cut 1007 represented a substantial re-cut of 1004, measuring 4m in width and 0.75m deep, containing two separate but homogenous fills (1008 and 1009) consisting of mid brown silty sand.

Substantial NE-SW ditch 1006 measured 3.60m in width and 0.45m deep, containing two distinctly separate fills: 1010, a dark grey silty sand primary fill, 1.30m in width and 0.10m thick; and a secondary fill (1011) of mid-brown silty sand, 3.60m wide and 0.30m thick. A single pottery fragment was recovered from 1010. It is possible that ditch 1006 continues on a north-east orientation and was represented in Trench 2 by ditch 2012, while it is presumed that the two linear features recorded in Trench 1 would meet at a junction approximately 15m south of Trench 1.

Subsoil and plough soil
The three linear features observed and recorded within Trench 1 were cut into the chalk gravel and dark orange sand natural substrate and were sealed by a layer of mid brown sandy silt subsoil, 0.35m thick. This layer was uniform throughout the trench and was subsequently sealed by a modern dark brown sandy silt plough soil, 0.30m thick, also uniform throughout the trench, and the rootlets of a standing crop of wheat were visible.

TRENCH 2
(Figs, 2, 3 and 6; Plates 6 and 7)

Trench 2 measuring 29m long and 2m wide, lay approximately 25m NE of Trench 1, on a NW-SE alignment. Ground level was 7.45m OD at the northern end of the trench and 7.23m OD at the southern end, while the trench base lay at 6.81m OD at the northern end and 6.54m OD at the southern end.

The geophysical survey had indicated a linear anomaly, probably an enclosure ditch running on a NE–SW alignment through the approximate centre of the trench. Upon excavation, three parallel linear ditched features were observed in the northern half of the trench, while an earlier phase of two NE–SW curvilinear gullies were recorded in the southern half.

Earlier phase linear features
Curvilinear gully 2014 was truncated at its northern end by later NE-SW ditch 2007 (see below), running SE for 7m, then turning south to exit the southern trench edge. The gully was 0.30m in width and 0.10m deep, containing a single fill (2013) consisting of a dark brown silty sand fill. A few metres away, curvilinear gully 2016 ran for around 4m from the northern trench edge to the SE end of the trench. In section the gully measured 0.56m in width and 0.10m deep, containing a single fill (2015) consisting of a dark brown silty sand.

Later phase linear features, 2008, 2010 and 2012
A series of three parallel NE-SW ditches crossed the northern half of the trench and may have defined the edge of a trackway. Ditch 2008, the southernmost, measuring 2.70m in width and 0.70m deep, containing two fills, a primary fill (2007) of mid-grey/brown silty sand, with chalk gravel inclusions, and a secondary fill (2006) of dark grey silty sand; pottery sherds were recovered from this fill. Ditch 2008 clearly truncated earlier gully 2014. Around 1m NE of 2008 was ditch 2010, 1.7m in width and 0.50m deep, containing a single mid grey silty sand fill (2009), and two metres further north ran ditch 2012, 1.90m in width and 0.50m deep, containing a single mid-brown, grey silty sand fill (2011).

Pit/Terminus 2005
Lying 0.4m SE of ditch 2008, and clearly cutting earlier gully 2014, was feature 2005, extending from the SW trench edge, measuring 1m wide and 0.24m deep, with a single pale grey silty sand fill (2004). This feature was either a small sub-oval pit or the terminus of a linear feature, possibly part of the linear ditch series immediately to the north.

Subsoil and plough soil
The features were sealed above by a uniform subsoil layer 0.20m thick, which was subsequently sealed by a topsoil layer 0.40m thick.

TRENCH 3
(Figs, 2, 3 and 6; Plates 8-10)

This trench, laid on a SW–NE alignment, was 29.5m long and 2m wide, lying east of Trench 1 and south of Trench 2. Ground level around the trench was 7.25m OD on average, with the level at the base of the trench at 6.45m OD.

The earlier geophysical survey had detected the presence of a single NW- SE linear feature in the centre of the trench. Upon excavation, features falling into at least two stratigraphic phases of activity were identified, with a large sub-circular pit and an adjacent crouched human inhumation having been truncated by one of two linear features considered likely to represent later activity.

Large pit 3007
This feature was recorded 7m from the NE trench end. It measured 4.74m in diameter and 1.68m deep, given its size a mechanical digger was employed to aid excavation. It contained three sterile silty sand/gravel fills (3004, 3005 and 3006), all probably naturally accumulated, with the primary fill (3006) having produced animal bone and pottery sherds. This large pit most probably represented a waterhole; many similar examples have been recorded previously in the quarry. The pit was cut on its south western edge by a small linear ditch/gully 3011.

Skeleton 3015
A partial human burial (3015) was exposed beneath later ditch/gully 3011 along the northern edge of the trench. The ditch/gully had truncated the upper half of the skeleton with only a displaced mandible fragment remaining, while the lower half of the skeleton was still in its original position as laid out in the grave cut (3016). From the partial remains it was possible to deduce that the skeleton had been interred in a crouched position laid on its left side with its head to the SE. The jaw fragment possibly indicated the sex and age of the skeleton as that of a mature male. No artefactual evidence was retrieved from the grave fill (3014) which might

aid dating of the skeleton, though the crouched body position makes an Iron Age/Roman date likely.

Ditch/Gully 3011
Narrow NW-SE linear ditch/gully 3011 crossed the trench, cutting earlier large pit 3007 on its SE edge and truncated burial 3015. It measured 0.44m in width and 0.36m deep, containing a single mid-brown/grey fill (3010).

Ditch 3009
A short distance west lay ditch 3009, which is likely to represent the linear anomaly identified as a possible archaeological feature on the geophysical survey, a feature which according to geophysics appeared to curve to the SW several metres to the north. The ditch measured 2m in width and 0.66m deep and contained a single mid-brown, grey silty sand fill (3008) from which pottery fragments and animal bone were recovered.

Pit 3013
This small ovoid pit was recorded in the middle of the trench around 6m from the SE end, measuring 1.10m in length, 0.80m wide and 0.30m deep containing a single mid-brown, grey fill (3012).

Subsoil and plough soil
The features described above were sealed beneath a uniform subsoil layer 0.25m thick, (3002) which was subsequently sealed above by a uniform modern plough soil layer 0.30m thick, (3001).

TRENCH 4
(Figs 2, 3 and 7; Plates 11 – 13)

Trench 4, measuring 28m in length and 2m wide, lay on a NW-SE alignment in the area south and east of Trenches 2 and 3. Ground level around the trench was 7m OD with average level in the base of the trench at 6.45m OD.

The trench was positioned to intersect at either end two possible linear archaeological features suggested by anomalies detected on the geophysical survey. Parallel linear ditches recorded by excavation in the northern half of the trench correspond with the predicted geophysical anomalies though the shallow curvilinear ditch terminus and small gully recorded at the southern were not predicted.

Linear ditches 4007 and 4009
Ditch 4007, NE–SW aligned, measured 1.95m wide and 0.80m in depth and contained three separate fills: the basal fill (4006), 0.08m thick, consisted of a burnt black deposit showing moderate amounts of charcoal throughout; a secondary fill (4005) consisted of pale brown silty sand, 0.72m thick, naturally accumulated. Subsequently fill (4005) was sealed by a dark grey tertiary fill (4004) which also contained evidence of burning. Pottery sherds were recovered from secondary fill (4005). The burnt deposits recorded within ditch 4007 may indicate domestic activity taking place nearby. A very short distance to the north was parallel ditch 4009, 1.70m in width and 0.55m deep, U-shaped in profile, containing a single mid brown/grey sandy silt fill (4008).

These two parallel linear ditches may correspond to a possible linear feature indicated on the geophysical survey, perhaps the northern boundary of an enclosure.

Ditch/gully termini 4013 and small pit 4011
Shallow curvilinear ditch terminus 4013 emerged from the western trench edge before immediately turning NW for 3m before terminating. The feature was 1m wide and 0.11m deep and contained a single dark grey sandy silt fill (4012) from which fragments of animal bone and pottery sherds were recovered; a small iron object (RF 2) was also recovered from the feature as a result of metal detection over the feature's surface. Cut into the western edge of the ditch terminus was a small pit 4011, 0.38m in diameter and 0.11m deep. This pit contained a single mixed fill (4010) which contained of a single sherd of Roman Dalesware, some general burnt waste, a fragment of daub and a large amount of unburnt, animal bones possibly representing the deposit of a single sheep/goat.

Gully 4015
A short distance south of 4013 was an E-W gully 4015, 1.5m long, 0.32m wide and 0.05m deep, which ended with a rounded terminal. The gully contained a single pale grey silty sand fill (4014).

Subsoil and plough soil
The features described above were sealed by a layer of subsoil (4002), 0.35m thick, in turn sealed by a layer of plough soil (4001), also 0.35m thick.

TRENCH 5
(Figures 2, 3 and 7; Plates 14 and 15)

Trench 5 was located around 15m east of Trench 2 and was aligned E-W. The trench measured 30.5m in length and was 2m wide. The ground level around the top of the trench was around 7.2m OD, with levels along the stripped trench base measuring on average at 6.53m OD.

Trench 5 was positioned in an area where the geophysical survey had not highlighted any anomalies. The excavation of the trench however recorded several N-S linear anomalies, one of which, at the western end of the trench, may have represented the northern continuation of an anomaly identified in the survey immediately to the south. The other features appear to have been undetected by the survey, including two opposing curvilinear gullies recorded in the eastern half of the trench.

Ditch 5017 and Recut 5015
A N-S ditch 5017, its visible remains measuring 0.55m wide and 0.37m deep, was recut by wider N-S 5015. The original ditch contained a mid-brown silty sand fill (5016). Ditch re-cut 5015 lay 1m from the western trench end and was 2.38m wide and 0.60m deep, its U-shaped profile containing a single fill of mid brown silty sand (5014). It is likely that this ditch and its subsequent re-cut represent the western return of a square enclosure measuring approximately 30m by 30m, seen on the greyscale images of the geophysical survey (see Fig. 10).

A few metres east, NW-SE ditch 5013 crossed the trench measuring 1.40m wide and 0.36m deep. This feature contained a single fill (5012) consisting of a mid-brown/grey silty sand. This

may represent an earlier stratigraphic phase of activity as it was cut by a later phase N-S ditch (5011) that measured 1.36m wide and 0.39m deep. This ditch contained a single fill of mid-brown silty sand (5010) which produced Roman pottery sherds of a 3rd – 4th C date.

Curvilinear ditches 5009 and 5005
Further east, a curvilinear feature 5009 up to 1.45m wide and 0.22m deep, contained a single mid-brown, grey silty sand fill (5008), a similar opposing curved feature 5005, 1m wide and 0.25m deep, contained a similar mid-brown, grey silty sand fill, (5004). It is highly likely that these opposing curving gullies represent a single feature, namely a ring ditch of around 4m diameter. Inside the ring ditch was a possible posthole (5007), 0.50m in diameter and 0.22m deep, containing a single mid grey silty sand fill (5006).

Subsoil and plough soil
All of the above features were sealed by a uniform layer of a mid-brown subsoil (5002), 0.30m thick which was overlaid by a uniform layer of modern plough soil (5001), 0.30m thick.

TRENCH 6
(Figures 2, 4 and 8; Plates 16 and 17)

Trench 6 was ENE–WSW aligned, 29m in length and 2m in width, and lay 20m SW of Trench 5. Ground level around the top of the trench was at around 7m OD, with surface levels in the base of the trench at 6.42m OD.

Trench 6 was positioned in order to target two linear anomalies which appeared to represent an enclosure ditch and a possible enclosure sub-division. In the event, only one feature was recorded which corresponded to the predicted geophysics. Another linear feature not predicted was recorded on a different alignment, representing a stratigraphically earlier phase of activity.

Earlier ditch 6013
East-west ditch 6013 was observed for a length of about 10m, running from the point where it was truncated by later ditch 6007, before exiting the southern trench edge. The ditch was 1.30m wide and 0.64m deep, and contained five separate fills (6008-6012), the appearance of which suggested natural water lain deposition.

Later ditch 6007
NW-SE aligned ditch 6007 truncated earlier ditch 6013. It was 2.60m wide and 0.95m deep, with a U-shaped profile, containing three separate fills: basal fill (6006), a dark grey silty sand 0.35m thick; middle fill (6005), which consisted of a black silty sand deposit, 0.10m thick; in turn sealed by the upper fill (6004), consisting of a naturally accumulated pale/brown, grey silty sand, 0.6m thick. Fill (6004) contained pottery sherds and animal bone fragments.

Ditch 6007 corresponded to a linear feature predicted by geophysical survey, representing the eastern return of a large sub rectangular enclosure. (see Fig. 10).

Subsoil and plough soil
The features described were sealed by mid-brown subsoil layer (6002) approximately 0.30m thick, overlain by a modern uniform layer of modern plough soil 6001.

TRENCH 7
(Figures 2, 4 and 8; Plates 18 and 19)

This trench was positioned 25m south west of Trench 6 and 50m west of the modern open drain dividing the two fields. Trench 7 was laid out on a N-S alignment parallel to the modern field division. The trench measured 31.5m in length and was 2m wide. Levels around the top of the trench were 6.90m OD at the northern end and 6.60m OD at the southern end. Levels along the trench base measured at 5.79m OD on average, the lowest natural depth recorded across the 10 evaluation trenches

This trench contained a substantial E-W ditch, 7006 which had been flagged by the geophysical survey and a stratigraphically earlier N-S ditch 7012 not picked up by the survey. Only a partial part of the junction where these two features met was observable at the northern end of the trench. In section and plan the relationship between these two features was clear, however the complete picture regarding the form of these features and a possible underlying pit lies beneath the unstripped ground immediately to the west.

Ditch 7012
This linear ditch was clearly truncated by E-W ditch 7006 at the northern trench end confirmed by hand excavation. The ditch ran N-S for the length of the trench with the western ditch edge beyond the trench limit. If extrapolated northwards this feature would meet E-W ditch 6013 (Trench 6) at a right angle suggesting that a square enclosure existed in the area to the west of Trenches 6 and 7. Ditch 7012 measured >20m in length, > 0.60m wide and was 0.50m deep. The ditch contained 2 separate fills, a pale grey silty sand primary fill 0.20m thick overlain by a secondary mid yellow brown silty sand fill, (7010) which produced a single diagnostic Roman pottery sherd. These two fills showed evidence of seasonal water lain deposits in the form of laminations, a similarity with the fills of 6013 adding to the interpretation that the two ditches may have been contemporary in nature.

Ditch 7006
This E-W ditch was recorded crossing the trench 4m from the northern trench end. This feature had been predicted by the geophysical survey. Ditch 7006 clearly truncated earlier phase N-S ditch 7012 and measured 2.60m in width and 0.80m deep. The ditch contained three separate fills, the primary fill, (7005), Sample No 1 being a deposit 0.25m thick consisting of black silty sand with major inclusions of charcoal and Roman pottery sherds, including a large fragment of mortarium with the potter's stamp clearly visible on the rim. This deposit appears to be a dump of domestic material possibly signifying the existence of a dwelling type structure in the local vicinity. This deposit was sealed by a pale grey naturally accumulated fill, (7004) 0.20m thick which was subsequently sealed by a 0.34m thick pale orange, brown upper fill, (7003). This upper fill was subsequently sealed by a 0.50m thick layer of modern topsoil which was uniform throughout the trench. No subsoil layer was observed in Trench 7 due to the trench being excavated further to the southeast on lower ground.

An environmental sample was taken from fill 7005 and has been retained with a recommendation that it contributes to any future analysis.

Possible pit 7009
The base of a pit, 7009 was recorded beneath the cut of ditch 7006 however as only a small part of the base of this probable pit was recorded a judgement on the true nature of this feature and its relationship to the overlying ditches can at present go no further.

A modern French drain was recorded crossing the trench 1.50m south of ditch 7006 truncating N-S ditch 7012

Subsoil and plough soil
A subsoil layer was absent from the profile of this trench. Features described above were sealed by a uniform layer of modern plough soil 0.50m thick.

TRENCH 8
(Figures 2, 4 and 8)

This trench was positioned 20m south of the south western end of Trench 3 and was laid out on a N-S alignment. The trench measured 28.50m in length and was 1.95m wide. Levels around the top of this trench measured 6.90m OD on average with levels in the trench base measuring 6.30m on average.

This trench was specifically positioned as to target an E-W double ditched trackway predicted by geophysics. The trackway had been previously recorded in excavations to the west, (NCE 2001 Field 1). The trackway ditches were immediately evident cut into the exposed natural of the excavated trench base with further machine and hand excavation revealing an E-W double ditch 4m from the southern trench end and a triple ditch series 4m from the northern trench end. The gap between the ditch sequences measuring 6m representing the trackway surface. A worn sunken surface or wheel ruts were not observed within the area between the ditches as has been recorded elsewhere during excavations of trackways within the quarry limits. No other features apart from the trackway ditches were observed or recorded in Trench 8.

Southern trackway ditches – 8004 and Recut 8007
Ditch 8007 represented the original ditch cut on the southern side of the trackway measuring 2.30m in width and 0.50m deep. The feature contained two fills, a dark grey primary fill, (8005) consisting of silty sand, 0.15m thick overlain by a mid-brown sandy silt fill, (8006) 0.35m thick.

Ditch 8007 represented a substantial recut on the northern side of 8004 measuring 1.80m wide and 0.60m deep containing two fills, a primary fill, (8008) consisting of pale brown silty sand 0.60m thick which was then sealed by (8009) also a pale brown silty sand fill which produced a single sherd of Roman pottery.

Northern trackway ditches - 8010, 8013 and 8016
A series of three E-W ditch cuts represented the northern trackway ditches series. On the freshly stripped surface these features had merged into a single linear feature with homogenous upper fills more than 3m wide. As no artefacts appeared on the surface the mechanical excavator was used to partially excavate reaching from the northern trench end until it became prudent to hand excavate at a lower level.

In section ditch 8016 was probably the original ditch cut in this series however evidence of a recut of 8013 to the south was obscured by the thick subsoil layer sealing the ditches above. The ditch measured 1.80m in width and 0.30m deep containing a single grey/brown sandy silt fill, (8017).

Ditch 8013 represented the middle ditch of the three and was recut by 8016. This ditch cut measured 1.40m in width and 0.60m deep and contained two fills, a 0.40m thick pale brown silty sand fill, (8014) and a secondary grey/brown naturally accumulated fill, (8015) in which Roman pottery sherds were recovered.

Ditch 8010 represented the latest of the three ditch cuts recutting 8013 and measured 2.20m in width and 0.70m deep. The ditch contained two fills, a dark grey silty sand primary fill, (8011) which produced pot sherds and animal bone subsequently sealed by a secondary upper fill, (8012) which consisted of a mid-brown silty sand 0.50m thick.

Other Finds
Several large stones were recovered from the fills of the northern ditch series during excavation. Most of these stones were irregular and natural in nature, however a rectangular cut sandstone block and a rotary quern fragment, RF No 1, were also retrieved unstratified during the opening of Trench 8 and these may relate to the same depositional event.

A metal detecting cross check of the backfilled trenches produced a small fragment of slag and RF No3, a small Roman coin (Constantine, early to mid-4th century), from the backfill at the northern end of Trench 8.

Subsoil and plough soil
All features in Trench 8 were sealed by a uniform layer of mid-brown subsoil 0.30m thick with an overlying uniform layer of plough soil 0.30m thick.

TRENCH 9
(Figures 2, 4 and 9; Plates 23, 24 and 25)

This trench was positioned 60m southeast of Trench 8 on a N-S alignment and represented the most southerly of the trenches. The trench measured 29.50m in length and was 2m wide. Levels around the top of the trench were measured at 6.60m OD on average and 6.10m OD on average in the trench base.

The trackway discussed in Trench 8 passed just to the north of this trench and the features recorded in this trench are probably elements of enclosures branching off to the south of the trackway. Four separate linear features were recorded in this trench. Linear ditch cut 9004 represented a stratigraphically later phase feature crossing the trench just north of the middle of the trench. Linear features 9006, 9008 and 9010 were only partially observed in the trench, their true form and function unknown at this stage.

Gully 9010
This narrow gully, 0.20m wide was recorded crossing the ditch on an NE-SW alignment and was probably a drainage gully feeding into the larger ditch 9004.

Ditch/Gully 9008
This feature was only partially observed within the trench along the eastern edge. This short linear feature, 2.40m long and 0.40m wide was clearly truncated by later ditch 9004. The feature could have been another drainage gully feeding into 9004 however due to most of the feature being beyond the trench edge no certainty can be given about the true nature of this feature at present.

Ditch 9006
This feature was recorded 1m SW of 9008 along the western trench edge. The ditch measured 4m in length turning west beyond the trench edge. In section the ditch measured 0.80m in width and 0.25m deep and contained a grey/brown single silty sand fill, (9007). A greyware pottery sherd dated to the 2nd Century was recovered from this fill making this feature contemporary with the initial enclosure phase north of the trackway. No certainty can be given regarding the form and function of this feature at this stage.

E-W Ditch 9004
This substantial ditched feature clearly truncated features 9008 and 9010 near to the eastern trench edge. This later ditch measured 3.40m in width and 0.70m deep and contained a single grey/brown silty sand fill, (9005) which produced undatable greyware sherds.

Subsoil and plough soil
A uniform subsoil layer 0.20m thick overlay the feature discussed above. The subsoil layer was overlain by a plough soil layer 0.20m thick

TRENCH 10
(Figures 2, 4 and 9; Plates 26 and 27)

This trench was positioned 40m to the south east of Trench 7 on the eastern side of the modern ditched boundary in the adjoining field orientated on a NE-SW alignment. This trench measured 28.50m in length and was 2m wide. Levels around the top of this trench were measured at 6.75m OD on average and 6.20m on average along the trench base.

This trench represented the eastern limit of the evaluation. One feature of an archaeological nature was recorded in this trench, a linear ditch on a NW-SE alignment.

Ditch 10004
This linear feature was observed emerging from the north eastern trench end running south west for 7m before disappearing midway along the northern trench edge. A full profile in section was recorded with the ditch measuring 1.20m in width and 0.40m deep. The ditch contained a single fill, (10003) which consisted of a mid-brown/grey silty sand. A NW-SE aligned modern land drain truncated the ditch at the point where the ditch met the northern trench edge.

A small number of possible pit/spread like features were observed along the trench edge however the irregularity in form and the nature of the fills would indicate these anomalies were natural.

No artefacts were recovered from trench 10 meaning it is undated. Extrapolation of the possible linear features identified by the geophysical survey shows a possibility that ditch 10004 is a continuation eastward of the trackway ditches recorded in Trench 8.

Subsoil and plough soil
A layer of modern plough soil 0.30m thick was recorded overlaying the stripped surface of the trench with no subsoil layer observed.

4 SPECIALIST REPORTS

4.1 Assessment of the Pottery by Peter Didsbury

Introduction and methodology

A total of 163 sherds, weighing 4525.9 grams and having an average sherd weight (ASW) of 27.8 grams, was submitted for examination. With the exception of a single sherd of apparently modern pottery (context 2013) all the material was of late Iron Age or Roman date.

All the material was quantified by the two measures of count and weight, according to fabric type within archaeological context. The resulting data was recorded on an Access database, which now serves as the primary ceramic archive. It is supplied as a stand-alone electronic file and is also, for convenience, embedded in this report as *4.4.2 The Pot Data*.

Fabric and form terminology

Handmade pottery in the indigenous Iron Age/early Roman potting tradition is given alphanumeric codes, consisting of the letter "H" (for handmade) and a numeral denoting the type of temper employed. In this report only H1 and H4 are used (*4.4.1 Fabric Codes*).

Fully Romanised pottery, predominantly wheel thrown, is given codes which begin with the letters "R" or "D" (see *4.4.1 Fabric Codes*).

It should be noted that Holme upon Spalding Moor greyware form types are those originally utilised in Halkon 1987.

The Assemblages

TRENCH 1

Fill (1010) of ditch [1006] contained a single sherd of Roman greyware, viz the basal plate from a vessel in Crambeck greyware. This fabric was not produced before *c.* AD 270. It was confined to its production area for some considerable period and probably did not appear in the study area until the early to mid-fourth century (Wilson 1989).

Unstratified

Upcast topsoil (1000) produced small quantities of Roman greyware. The fabric is possibly Holme upon Spalding Moor (hereafter HOSM) greyware, in which case the material presumably results from later third- or fourth-century activity in the area. The database may be consulted for details.

TRENCH 2

Fill (2013) of gully [2014] produced a small amount of hand-made pottery classed as HI/H4. These came from a small globular jar, of a type suggesting production in the first century BC through to at least the mid second century AD. (Rigby 2004, fig 7).

In addition, there was a thick-walled redware basal angle which is most unlikely to be Roman and would appear to be a modern intrusion. The database may be consulted for details.

Pottery came from single fill (2004) of small pit or linear terminus [2005]. It comprised a tiny fragment of fine greyware and a large body sherd from a jar in Roman shell-tempered ware. In the absence of diagnostic formal features, it cannot definitely be ascribed to a named type such as Dalesware. Nevertheless, it is likely to be of third- to mid-fourth-century date.

TRENCH 3

Primary fill (3006) of large pit [3007] produced three large sherds of a Roman shell-tempered jar. It is probably to be regarded as Dalesware and of third- to mid-fourth-century date. The database describes the vessel in detail.

Single fill (3008) of linear [3009] produced Roman greyware including a countersunk handle from a loop-handled jar and two joining rim sherds from a wide-mouthed bowl in the HOSM B1 series. (See Appendix 1). Also present were sherds in Roman shell-tempered ware, possibly including Dalesware. Once again, the evidence suggests a date in the later third or fourth century. The database may be consulted for details.

TRENCH 4

Context (4005) was the secondary fill of ditch [4007]. Its only ceramic contents consisted of rim and body fragments from a small jar in indigenous or Roman handmade calcareously tempered ware. A relatively similar vessel may be noted from Dragonby in a Horizon 1 (Claudian to early Flavian) context, cf. May 1996, illus. no. 786.

Context (4010) was the single fill of small pit [4011]. It contained a body sherd of Roman shell-tempered ware, possibly third- or early to mid-fourth century Dalesware.

Context (4012) was the single fill of curvilinear ditch terminus [4013]. Pottery from the fill consisted of a small amount of Roman greyware, including an undiagnostic rim fragment, and bodies in Roman shell-tempered ware. The latter may be Dalesware and one of the greyware bodies has a fabric reminiscent of HOSM greyware.

TRENCH 5

Pottery came only from context (5010), the single fill of ditch [5011]. Once again, the assemblage consisted of possible Dalesware and greyware including material compatible with that of HOSM products.

TRENCH 6

Context (6004) was the uppermost of three fills of ditch [6007]. It contained a mixture of Roman greyware and calcareously tempered ware (RSH/RCG). The latter does not at all resemble Dalesware and the greyware, in blue sandy fabrics, is perhaps more likely to be earlier than the HOSM industry. This impression is strengthened by the fact that the greyware includes the turned base of a small jar on a low footring. The turned base, from which string-cut removal marks have been erased, would normally suggest a second-century date in this region.

TRENCH 7

Context (7010) was the fill of ditch [7012]. It contained a single large sherd (114 grams) of Roman greyware. This was the rim/body of a large jar in a wheel-thrown black sandy fabric with occasional chalk inclusions. It has a horizontally outbent rim and bears a close resemblance to a vessel from Dragonby Kiln3, cf. Rigby and Stead 1976, fig. 64, no. 4. Rigby dated this vessel to the late first or early second century. Swan (in May 1996, 579-582) says Rigby thought the vessel Flavian-Trajanic but suggests that the type might now be thought to last slightly longer, perhaps into the Hadrianic period.

Context (7005) was the primary fill of ditch [7006]. It contained the largest ceramic assemblage on the site (72 sherds, 2336 grams, ASW 32.4 grams). This assessment regards the pottery as a domestic dump originating from a nearby property, an interpretation which is certainly supported by the nature of the deposit.

The most chronologically diagnostic component is the complete profile of a bead and flange mortarium bearing the rim stamp of the Mancetter-Hartshill potter Minomelus (Die 2), thought to have been working *c.* AD 130-150. The stamp was kindly identified by Kay Hartley.

In addition, there was greyware including jar rims suggestive of the second or mid third century, and a Roman shell- or calcareously tempered element including the rims of an estimated five everted rim jars. These resemble the essentially Knapton-type jars from the original Dryham Lane excavations (feature 320, interim report fig.34). On the basis of these the vessels are considered to belong to the second to mid third century. Similar types occurred at Dragonby in the late second- to third-century Horizon IIIc-IV, *e.g.* May 1996, illus. no. 2251 etc.

Full descriptions may be consulted in the database.

Finally, a single sherd of Roman shell-tempered pottery was recovered from secondary fill (7007) of pit [7009].

TRENCH 8

Context (8009) was the upper fill of recut ditch [8007]. It contained a single sherd from the lower body of a Roman shell-tempered jar of indeterminate date.

Context (8015) was the secondary, naturally accumulated fill of ditch [8013], the middle of the three successive ditch recuts on the north. It contained the rim/upper body of a Dalesware jar, and sherds of HOSM greyware, including a wide-mouthed bowl cf. HOSM type B1 and a jar body with grouped three-line burnishing, reminiscent of forms produced at Hasholme (Hicks and Wilson 1975) A date in the late third to earlier fourth century is indicated.

Context (8011) was the primary fill of ditch [8010], the third of the trackway ditch recuts. The assemblage consisted of Roman shell-tempered wares including a diagnostic Dalesware jar rim, and an oxidised sherd which may be Roman or even medieval.

Identifier (8000) refers to upcast spoil material. It included Crambeck, HOSM and other greywares; Dalesware and possibly other shell-tempered material; and a bead and flange

mortarium rim in oxidised fabric. The latter has not yet been submitted to Mrs Hartley for specialist opinion but is probably somewhat earlier than the rest of the material, which suggests later third- or fourth-century activity in the area. The latest material need not post-date the mid fourth century.

TRENCH 9

Context (9007) was the single fill of ditch [9006]. It contained base and wall sherds of a greyware beaker with characteristics possibly suggestive of a second-century date. The database may be consulted for details.

Context (9005) was the single fill of ditch [9004]. It contained sherds of chronologically undiagnostic sherds of calcareously tempered wares and greyware.

Conclusions and Recommendations

Despite the constraints imposed by some of the material, especially with regard to non-diagnostic greywares, the difficulty of characterising some of the calcareously tempered material and lack of chronologically diagnostic formal characteristics, it is clear that much of the material in the site assemblage dates from the third- and earlier fourth centuries and, as evidenced by sooting and residues, probably derives from "normal" domestic usage.

A number of assemblages point to earlier occupation. The most obvious of these is context (7005). Not all the contents of the assemblage need be as early as the Minomelus mortarium (*c.* AD 130-150) but there is perhaps nothing that need post-date the early to mid-third century. Other assemblages whose contents appear to be significantly earlier than those belonging to the prevailing "Dalesware plus HOSM" horizon may be mentioned: (7010), (4005) and (2013) suggest ceramic deposition on site in the early second or even late first century, while (6004) contains a greyware jar of possible second-century date.

The level of further attention which these assemblages need to receive cannot be determined here in advance of the reasoned research and publication plan for the greater North Cave site. The Minomelus mortarium will need to be included in an overall catalogue and discussion of the mortaria and that the mortarium from (8005) should be submitted to Mrs Hartley for specialist opinion.

4.1.1 Fabric Codes

Code	Common name/remarks
DW	Dalesware or Dales-*type* ware
H1	Handmade pottery in the indigenous tradition, with calcareous temper
H4	Handmade pottery in the indigenous tradition, vesicular after leaching of its original temper
MOD	Modern
NONCER	Non-ceramic. (Quantified only in the "Remarks" column).
RCG	Roman calcareously gritted
RG	Roman greyware
RGCRAM	Crambeck greyware
RM	Mortaria

RO Roman oxidised ware
RSH Roman shell-tempered

4.1.2 The Pot Data

OEN 2021 pot data

ID	CONT	FABRIC	NO	WT	REMARKS
4	1000	RG	3	61	Base/lower body of jar/bowl and two flakes. Very worn mid-grey, with dark grey exterior, possibly HOSM. Basal diameter c, 120mm.
5	1010	RGCRAM	1	38	Basal plate.
8	2004	RG	1	1	Body. Fine greyware, thin-walled vessel.
7	2004	RSHEL	1	40	Reddish body and surfaces in part.
36	2013	H1/H4	9	38	Body fragments and crumbs, and small jar with rounded shoulder and curved everted rim Fabric and colour similar to that in 4005. Perhaps cf. Pots in Pits fig. 7, bead rim globular jars. 100BC to AD 100. Or Dragonby 863, Horizon IIIb, mid-2nd.
37	2013	MOD?	1	25	Very hard, red base, thick-walled, basal diameter c.120mm. Weight approximate.
2	3006	RSHEL	3	208	DW/DT? Base and two bodies of the same jar. Smoothed exterior with visible inclusions, very vesicular interior, probably leached from use. One body joins to the base. Basal diameter c. 120mm. Reduced body, patchy red and grey/buff exterior. Possible carbonised residues on interior.
22	3008	RG	5	112	Includes countersunk loop-handled body and two joining rims of bowl in HOSM B1 series.
23	3008	RSH	3	76	Body from DW jar or similar and possible sherds from a dish/bowl form.
35	4005	H1/RCG	4	12	Two joining rim fragments and bodies. Jar with square-sectioned rim, bevelled internally. Red core. Moderate ill-sorted inclusions to 2mm, perhaps fossil shell. Patchy dark grey surfaces. Rim diameter c. 100mm. Rim form very similar to Dragonby 786, though smaller. Latter is Dragonby Horizon I, Claudian to early Flavian. But note limitations of evidence,
26	4010	RSH	1	14	Body. Carbonised deposits on interior.
25	4012	RG	3	48	One HOSM-like and small rim/neck of jar.
24	4012	RSH	5	110	Bodies.
29	5010	RSH	2	31	Both probably in DW spectrum. Rim and body.
30	5010	RG	3	26	Bodies. HOSM?
11	6004	RG	3	73	Jar bases and joining body, complete circuit c. 70mm, On low footring. Blue-grey sandy ware with brownish exterior. Orange-brown interior. Turned base. Circa second century?
10	6004	RSH/RCG	2	14	Bodies. Dark grey with thick brown outer margin/surface. Carbonised deposits on interior.
31	7005	RM	4	850	[NB subsequent breakage and repair.] Joining rims and basal angles. Stamped bead and flange type. ID by Kay Hartley: Minomelus die 2, Mancetter-Hartshill c. 130-150.
32	7005	RG	12	537	Some partially handmade? Includes 3 x jar rims of same vessel, two of them joining. Round-shouldered, narrow-medium-mouthed, shortish everted rim (square-sectioned). 2nd or third?
33	7005	NONCER	0	0	One fragment of calcined bone, 1 gram.
34	7005	RSH	56	949	And possibly other calcareously tempered types as well. Includes rims of estimated 5 x everted rim jars, cf. the essentially "Knapton2 type jars from Dryham Lane report from feature 320 etc., fig 34 On basis of these

OEN 2021 pot data					
ID	CONT	FABRIC	NO	WT	REMARKS
					perhaps 2nd to mid-3rd. Also, very similar types at Dragonby from the late 2nd to 3rd Horizon IIIc-IV, e.g. no. 2251 etc.
6	7007	RSHEL	1	74	Body. Dark grey interior, reddish-brown surfaces. Jar.
1	7010	RG	1	114	Jar in wheel-thrown black sandy fabric, with occasional chalk (?) inclusions to c. 3mm.Horizontally outbent rim. Cf. Rigby and Stead 1975 (?), fig. 64, no.4, from Dragonby Kiln 3, dated by Rigby to late first/early second century. Rim diameter c. 360 mm. Swan in May 1996 (?) says pottery was regarded Flavian-Trajanic at the time but some conflicting evidence might suggest that the material goes into the Hadrianic period.
19	8000	RM	1	88	Rim. Bead and flange type. Grey core, pinkish exterior. Black trituration. Needs specialist opinion.
14	8000	RG	3	222	Bodies, typical of HOSM sherds from large jars or bowls.
15	8000	RG	2	31	Sandy bodies, not HOSM.
16	8000	DW	1	54	Rim. Some resemblance to the shapes in North Cave report fig. 42, no's 184-191. Extant carbonised deposits in neck. Rim diameter c. 140mm.
17	8000	RSH	6	115	Bodies. Much or all is probably Dalesware. Includes neck/body sherd.
18	8000	RGCRAM	1	32	SSFB. Rim diameter c. 200mm at bead.
3	8009	RSHEL	1	78	Lower body, just above basal angle. Dark red throughout. Temper fairly well sorted, 1-3mm but as much as 5mm. Sooted exterior just above basal angle.
13	8011	RO?	1	15	Body. Thin-walled. Red exterior and pinkish interior. Or even medieval?
12	8011	RSH/DW	6	82	Includes one definite DW jar rim (9 grams).
21	8015	DW	1	62	Jar rim and upper body. Red core, dark surfaces Sooting on upper part of rim interior.
20	8015	RG	6	154	Bodies and a rim. HOSM-type fabrics. One body with grouped 3-line burnishing, and rim cf HOSM B1, cf Hasholme types. Rim diameter c. 220mm.
27	9005	RSH/RCG	1	7	Short everted jar rim fragment.
28	9005	RG	5	107	Bodies. Includes jar with double girth groove on shoulder.
9	9007	RG	4	27	Joining base and wall sherds of small jar/beaker on low pedestal base. Complete basal circuit, diameter c. 60mm. Turned underside. Fairly harsh blueish grey fabric with brownish-grey surfaces. Second century?

4.2 Bulk Finds Assessment by Pamela M. Cartwright

Introduction and Methodology

All bulk finds from the OEN2021 excavation were recorded using the Humber Field Archaeology pro-forma 'Bulk finds' sheets and 'Context finds' sheets. Objects were packaged appropriately for long term storage, in accordance with conservation and museum guidelines.

The Slag

A single fragment of ferrous slag was recovered from the spoil of trench 8, weighing 200 grams.

The Slag Table

Context	Quantity	Weight (g)	Comments
8000	1	200	Non diagnostic ferrous slag
Total	1	200	

The Fired Clay
Two fragments of fired clay were collected weighing a total of 136grams. Both were recovered from the fills of pits. They were formed from alluvial clays, probably locally sourced, with sand inclusions and have organic impressions in the fabric. Though the shape is amorphous the fabric is hard fired indicating a heat process, such as a hearth lining, as its use, rather than being accidentally fired structural daub.

The Fired Clay Table

Context	Quantity	Weight (g)	Comments
3006	1	133	
4010	1	3	
Total	2	136	

The Charcoal
A single fragment of charcoal was retained from the basal fill of ditch 7006. The fill also included pottery, animal bone, bunt stone, what appeared to be other potential organic material and charcoal. An environmental sample was also taken from fill for general bulk analysis.

The Charcoal Table

Context	Quantity	Weight (g)	Comments
7005	1	200	
Total	1	200	

The Burnt Stone
A total of five burnt stones were collected weighing 3452grams.

The Burnt Stone Table

Context	Quantity	Weight (g)	Comments
4012	1	1995	Oolitic limestone
4012	1	85	Fossiliferous limestone
4012	1	77	Glacial erratic
7005	1	745	Micaceous sandstone
8011	1	550	Micaceous sandstone
Total	5	3452	

Assessment of Potential and Recommendations

The bulk finds assemblage has very limited potential for further work as all are non-diagnostic and general finds for this area. The charcoal has potential for C14 dating should further dating evidence be required. No further work is warranted on the assemblage.

Numerous high temperature processes such as pottery manufacture, iron-production and salt-manufacture are evidenced in the locality of the site. This assemblage consists of a very small quantity of the types of material which provides evidence for such activities, for which there are much larger assemblages produced by excavation of other quarry phases in the immediate vicinity.

It is recommended that the slag, fired clay and burnt stone be discarded at the completion of this report. The charcoal should be retained for the present.

4.3 Recorded Finds Assessment by Pamela M. Cartwright

Introduction and methodology

All artefacts were recorded using the Humber Field Archaeology *pro-forma* finds record sheets. Data obtained from the *pro-forma* sheets was used to create access databases. Objects were packaged appropriately for long term storage, in accordance with conservation and museum guidelines.

Quantification of Recorded Finds by Material and Function

Three recorded finds numbers were allocated during the excavation:

Iron – 1 object

Function	**Interpretation**	**Quantity**
Structural	Nail	1
Total		**1**

Copper alloy – 1 object

Function	**Interpretation**	**Quantity**
Numismatics	Coin	1
Total		**1**

Stone – 1 object

Function	**Interpretation**	**Quantity**
Crop processing	Quern fragment	1
Total		**1**

Discussion

This evaluation produced a small assemblage of three recorded finds which all appear to date from the Romano British period.

Two of the recorded finds were collected form the spoil of trench 8. The first of these was a worn fragment of the outer edge of a quern, or millstone, most likely used for food processing which, when complete, would have measured approximately 500mm in diameter and over 32mm in thickness; the depth having been reduced during the grinding process.

The second find was a copper alloy coin, found during metal detecting. This was a nummus of Constantine II (AD 337-340) with laureate bust facing right with the legend CONSTANT[INVS] IVN NOB [C] (Constantine the Younger, Noble Prince, Caesar). On the reverse, a single standard guarded by 2 soldiers, GLOR IA E[XERCITVS] (Glory of the army).

Although this coin was unstratified when recovered it is contemporary with 4th century pottery recovered during the evaluation (see Didsbury this report). The accidental loss of this coin in the mid-4th century would certainly fit with the landscape activity at this time.

The third find was a heavily encrusted iron object, found in the fill, 4012, of a ditch terminus 4013. The square shank and large flattened head possibly indicate a nail.

Statement of Potential and recommendations
No further work is deemed necessary for this assemblage unless it is required that the iron object be sent for x-ray.

This assemblage and assessment may add further information to research on the archaeology recovered in the quarry, for example petrological analysis of the quern fragment may indicate the source of the stone, and should be included in the collection of finds previously recorded in the preceding years in the vicinity.

The recorded finds assemblage from this evaluation should be retained and deposited within the relevant museum.

Recorded Finds Table

RFNO	Context	Material	Interpretation	Function
1	8000	Stone	Quern frag	Crop processing
2	4012	Fe	Object	Miscellaneous
3	8000	Cu al	Coin	Numismatics

4.4 Human Remains Assessment by Vaughan J. Wastling

This report covers the remains of a single crouched burial recovered during the evaluation.

Methodology

Age
Establishing the specific age of adults is impossible, as a result individuals are placed in age categories rather than attributed a specific age in years. A number of techniques are available to establish those categories, and these are based on the fusion of various bones during development (Buikstra & Ubelaker 1994, 43) and on the degenerative changes that then occur with age (Brooks & Suchey 1990: Suchey & Katz 1986. Iscan, Loth & Wright 1984. Buckberry & Chamberlain 2002). One further technique, that of occlusal wear on teeth to assess age was devised by Brothwell (1981, 72).

The age categories are those of the Biological Anthropology Research Centre at Bradford University (B.A.R.C.)

Foetus	under 40wks
Neonate	birth to 1month
Infant	1month-12months
Early childhood	1-6yrs
Late childhood	7-12yrs

Adolescent	13-17yrs
Young Adult	18-25yrs
Young Middle Adult	26-35yrs
Old Middle Adult	36-45yrs
Mature Adult	46+
Adult-unspecified	18+

Sex
Sex is assessed from the sexually dimorphic traits of the skeleton, which are most pronounced in the pelvis and secondly in the skull (Buikstra and Ubelaker 1994, 15-21. Bass 1995).

Stature
Stature is estimated by measuring intact long bones and using the formulae described by Trotter (1970). These formulae are more accurate when applied to the bones of the thigh and leg, which contribute directly to a person's height, but are still valid if somewhat less reliable when applied to the bones of the arm.

Results

Skeleton 3015

Sex: Probably male

Age: Adult unspecified 18+ years

Stature: Unknown

Position: Crouched

Bone Preservation: Fair

Bones present: shafts and some elements of the ends of both femurs and tibias, the shafts and some elements of the ends of all major arm bones, radii, ulnae and humeri, partial left and right foot and ankle bones, calcanei, tali, metatarsals, skull absent except partial left mandible (Plate 4.4.1).

Plate 4.4.1 Partial left mandible

Discussion

Although only around a third of this individual was recovered it was clearly a crouched burial. This type of burial is common in the Iron Age and continues to be common in rural areas throughout the Roman period. The burial is truncated with the skull removed by a later feature and only the partial left mandible was recovered. The pronounced mental tri-gone on the chin is a male indicator (Plate 1), but in the absence of the pelvis and any other features used to establish sex a category of 'probably' male is appropriate. In a similar fashion the category of an adult of 18+ years can be confidently given by the robust fully matured remains, but no more specific age category then that can be attributed. The partial mandible has sockets for the front teeth but none for the left lower molars all of which were absent with the bone of the sockets resorbed; this indicates a certain age but nothing specific. Tooth sockets will always fill with new bone after the teeth are lost but how long this process takes in unquantifiable. As a general rule of thumb molars erupt sequentially at age 12, 14 and 18 years and can obviously be lost at any time thereafter.

Recommendation

No further work is required

4.5 Animal Bone Assessment by Pamela M. Cartwright

The animal bone assemblage consists of 76 bones, or fragments of bone, hand collected from 10 contexts and weighing a total of 1465g. The bone was identified to species using comparative study and the Humber Field Archaeology Reference Collection.

The assemblage consisted predominately of domesticated animals:

Bos f. domestic – Cow
Caprovid – Sheep/goat

Sus f. domestic – Pig

Animal Bone Table:

Context	Quantity	Weight(g)	Description
1005	1	50	*Bos* Astragalus
3006	1	26	*Sus* distal end fragment of humerus
	1	230	*Equus* metacarpus, damage to proximal end, potential butchery marks
3008	1	250	*Bos* mandible with 3 teeth *in-situ,* potential chop mark?
	1	150	*Bos* metatarsus, possible faint cut marks towards distal end
	1	130	*Bos* metacarpal, damage to each end, chop marks
	1	140	*Bos* femur? Both ends missing
4005	1	8	*Caprovid* infant, mandible with 4 molar teeth.
4010	51	303	*Caprovid* Infant, unfused and partially fused epiphysis, 6 vertebrae fragments, 12 paired leg elements, 1 pelvic fragment, 20 rib fragments, 2 scapula fragments, 6 mandible fragments, 2 phalanges, 1 skull fragment, 1 humerus proximal end. Butchery marks noted on one vertebra and 2 leg bones.
	2	12	Fragments of horn
	1	3	Fragment of skull probably caprovid
4012	1	12	Vertebrae of small mammal, unfused epiphysis, probably caprovid
	1	18	*Sus* phalange
	1	18	Non diagnostic broken and abraded fragment, cut marks
4014	1	44	Abraded calcaneus of medium to large mammal
6004	1	20	Fragment of long bone, possibly caprovid metacarpal
7005	2	25	*Bos* molar teeth
	5	23	Fragments of badly burnt long bone, large mammal
	1	2	Burnt phalange? From small - medium mammal
8011	1	1	Non-diagnostic fragment.
Total	76	1465	

Discussion

Overall, the majority of this small animal bone assemblage appears to represent animal processing waste or food consumption waste of farmed/domesticated animals.

In addition, the elements recovered from the fill 4010 of a small pit 4011 may represent intentional burial of a sheep/goat as they represent the front legs, scapula and vertebra of a young caprovid. As this feature was only ‘half-sectioned’ the rest of this animal may still be

in-situ in the other half of the deposit. The joints have unfused or partially fused epiphysis indicating an age of approximately 2- 3 years old at point of death. Young caprovid bone was also recovered from fill 4005 and fill 4012 from the same evaluation trench.

Statement of potential and recommendations

This assemblage and assessment may add further information to the archaeological understanding of habitation and landscape use in the study area and should be included in the collection of finds previously recorded from the quarry.

It is recommended that further on this assemblage by an animal bone specialist be considered if further archaeological work is carried out in the Outgang fields.

It is recommended that the animal bone assemblage should be retained in the short term. In the long term it should be considered as part of the overall faunal assemblage recovered from the quarry and retention/discard of the overall assemblage should be discussed with the relevant archiving museum.

4.6 Environmental Sample Assessment

A single targeted sample was taken consisting of 2 x 10l tubs from the basal fill of ditch 7006.

The sample area consisted of a charcoal rich organic deposit surrounding a pot rich dump of domestic waste. This sample has been retained with a recommendation that it contributes to any future analysis stage.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Discussion of the results

The evaluation revealed that all but two trenches, T7 and T10 the most easterly trenches had a thick layer of subsoil up to 0.40m thick sealed below the modern plough soil. The subsoil layer was therefore seemingly concentrated in the north western corner of the modern field.

All ten trenches contained features of an archaeological nature. The features recorded were mostly linear, on various alignments, representing Roman era land enclosures (See *Figure 10*).

The subdivision or addition of enclosures was evident through the recording of linear ditched features which did not align with similar features recorded in adjacent trenches. These enclosure ditches were often recut and represented by double ditch sequences, or in the case of Trench 3, a triple ditch series. The misalignment of linear ditches recorded across the evaluation suggests three distinct phases of land division.

The geophysical survey had detected a large square enclosure with further subdivisions in the northern central part of the study area. Trenches 2, 4, 5 and 6 had been placed strategically in order to target the enclosure ditches returns. The results of the evaluation revealed, through stratigraphic and artefactual evidence, that the enclosure system most notable on the geophysical survey represented an early Roman period of activity.

This initial late 1st /mid-2nd Century phase was confirmed stratigraphically and dated through the assessment of the pottery recovered in trenches, 2, 4, 6 and 9, (see figures 3 and 4). This initial phase of enclosures shows strong comparisons in form to a similar system of small adjoining enclosures recorded to the north during previous excavations (SIL 2007). Dating of the pottery has confirmed that these features appear to belong to the same late 1st mid-2nd Century phase of land enclosure.

A second phase of activity represented by a single linear E-W ditch (7006) at the northern end of Trench 7 ditch was clearly evident. This feature has been dated to the Mid-2nd to Mid-3rd Century through an assessment of the pottery from a deposit recovered from the basal fill (7005). This ditch also clearly truncated the earlier phase N-S linear ditch (7012). This E-W feature represents somewhat of an anomaly as features pertaining to this phase of activity were not recorded in previous adjacent excavations, or indeed elsewhere in the presently discussed evaluation. A full excavation of the area surrounding Trench 7 in the future will hopefully resolve this phase of activity.

A final phase of enclosure ditches and associated features was recorded in Trenches, 1, 3, 4, 5 and 8. Dating of the pottery recovered from the fills of these features places them within the late 3rd to 4th Century. Features also dated to this later Roman period were recorded to the north in SIL 2007, representing a more substantial planned and well organised set of enclosures replacing the former initial phase of land division. A continuation of this sequence of land re-organisation seems likely within the evaluation area.

Dating of pottery recovered from the fills of the series of E-W trackway ditches recorded in Trench 8 also places the trackway within the later Roman phase, however it cannot be discounted that the trackway may be a long-lived feature as the early phase enclosures respect the trackway. Discarded pottery and stone waste may have found their way into these potentially long-lived ditches from surrounding farmland during a later phase. The trackway

had been previously recorded further to the west in 2001, recorded with the site code NCE 2001, and it represents a continuation of the same feature eastwards for a currently undetermined distance.

Skeletal remains in the form of a partial crouched inhumation were recorded and removed in Trench 3. The grave was truncated by a late Roman N-S gully; however no dating evidence was recovered from the burial and the feature remains unassigned to a particular phase or period at this time.

Artefactual evidence was mainly sporadic in nature with similar amounts of pottery, animal bone and other artefacts recovered from features of varying phases within nearly all trenches, probably indicating agricultural processes incorporating the accidental inclusion of material culture waste. The exception to this being the pottery and waste dump in ditch 7006, Trench 7. As this deposit represented a distinctly separate phase of activity not recorded previously in adjacent excavations, and the character of the deposit was in stark contrast to those encountered across the rest of the evaluation, it is entirely probable that a domestic building existed in the near vicinity of this feature during the mid-2nd to mid-3rd century AD. No features indicating domestic structures were recorded during the evaluation.

No features showing evidence of industrial activity were recorded during the evaluation.

5.2 Recommendations

The following is solely the opinion of HFA and may not reflect that of the Principal Archaeologist, Humber Archaeology Partnership, archaeological advisor to the Local Planning Authority.

Further archaeological mitigation measures in the area covered by the evaluation will be decided by the client and the client's archaeological consultant in discussion with the Principal Archaeologist depending on the requirement for extraction of underlying aggregates. Due to the discovery of archaeological features undetected by geophysics, the frequency of archaeological features revealed across all 10 evaluation trenches and the probable presence of a potential domestic building in the northeast of the study area, adjacent to Trench 7, if a decision is made to extract underlying sand and gravel a comprehensive programme of archaeological works is likely to be required to cover the study area, and its immediate environs, to provide a suitable 'preservation by record' mitigation strategy.

ACKNOWLEDGEMENTS

Thanks are accorded to the client, Breedon (Northern) Ltd, Paddy Tighe (Quarry Manager) and to Richard, the machine driver, for their help and co-operation during the course of this project. Thanks, are also accorded to local metal detectorist Keith Waudby for his expertise carrying out a survey of the backfilled trenches.

The site recording was undertaken by Stephen Kennedy, Vaughan Wastling, Bradley Eyre and Joe Shearsmith. Finds processing and reporting by Pamela Cartwright, Lisa Wastling, Peter Didsbury and Vaughan Wastling.

Report text, figures and plates by Stephen Kennedy, Richard George and Dave Atkinson. Administrative support was provided by Georgina Richardson.

REFERENCES

Atkinson, D and Steedman, K. 2017 (revised 2018) *Proposed extraction of sand and gravel, Outgang and Crosslands Lane, North Cave, East Riding of Yorkshire: Assessment of Archaeological Potential*, Humber Archaeology Report No. 251

Bass, W.M. 1995. *Human Osteology. A Laboratory and Field Manual*. Missouri Archaeological Society.

Brooks. S.T. & J.M. Suchey 1990. Skeletal Age Determination Based on the Os Pubis: A Comparison of the Acsádi-Nemeskéri and Suchey-Brooks Methods. *Human Evolution* 5:227-238.

Brothwell, D.R. 1981. *Digging Up Bones*. (3rd edn.) Cornell University Press, Ithaca, New York.

Brown, D. H. 2007 *Archaeological Archives: A guide to best practice in the creation, compilation, transfer and curation,* Published by IFA on behalf of the Archaeological Archives Forum

Buckberry, J.L. & A.T. Chamberlain 2002. Age estimation from the auricular surface of the ilium: a revised method. *American Journal of Physical Anthropology* 119:231-239.

Buikstra, J.E. & D.H. Ubelaker. (eds.) 1994. *Standards For Data Collection From Human Skeletal Remains.* Arkansas Archaeological Survey Research Series, Fayetteville (AR).

Chartered Institute for Archaeologists 2014a *Standard and Guidance for archaeological field evaluation,* December 2014

Chartered Institute for Archaeologists 2014b *Standard and Guidance for archaeological excavation,* December 2014

Chartered Institute for Archaeologists 2014c *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* December 2014

Chartered Institute for Archaeologists 2014d *Standard and Guidance for an archaeological watching brief*, December 2014

Evans, J. 1989 'Crambeck; the development of a major northern pottery industry', in Wilson (ed.) 1989, 43-90

Halkon, P. 1987 'Aspects of the Romano-British landscape around Holme-on-Spalding Moor, East Yorkshire'. Unpublished University of Durham MA thesis.

Hicks, J. D. and Wilson, J. A. 1975 'Romano-British kilns at Hasholme', *East Riding Archaeologist* 2, 49-70

Iscan, M.Y., S. R. Loth & R. K. Wright. 1984. Age estimation from the rib by phase analysis: White males. *Journal of Forensic Science* 29:1094-1104.

May, J.1996 *Dragonby.* Oxbow Monograph **61** (Oxford)

Ministry of Housing, Communities and Local Government 2019 *National Planning Policy Framework*

Rigby, V. and Stead, I. M. 1976 'Coarse Pottery, in Stead 1976, 136-190

Rigby, V. 2004 'Pots in Pits. The British Museum Yorkshire Settlements Project 1988-1992', *East Riding Archaeologist* **11**

Schmid, E, 1972. Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists, Elsevier Publishing Co.

Stead, I. M. 1976 *Excavations at Winterton Roman Villa and Other Sites in North Lincolnshire 1958-1967*. DOE Archaeological Report **9,** HMSO (London)

Steedman, K. 2021 *Outgang extension to Newport Road Quarry, North Cave, East Riding of Yorkshire: Written scheme of investigation for archaeological recording works.* Humber Field Archaeology

Suchy, J. & D. Katz. 1986. Skeletal Age Standards derived from an Extensive Multiracial sample of Modern Americans. Abstract. *American Journal of Physical Anthropology* 69:269.
Trotter, M. 1970. Estimation of Stature from Intact Limb Bones. In Stewart,
T.D. (ed.). *Personal Identification in Mass Disasters*. Smithsonian Institute, Washington.

Wilson, P.R. (ed.) 1989 *The Crambeck Roman Pottery Industry*. Yorkshire Archaeological Society, Roman Antiquities Section (Leeds)

Online Sources

Cranfield Soil and Agrifood Institute: http://www.landis.org.uk/soilscapes/

The British Geological Survey:
http://mapapps.bgs.ac.uk/geologyofbritain/home.html – geology of Britain viewer)

APPENDICES

Appendix 1: Table of Contexts

Context	Trench/Area	Context Type	Fill Of	Interpretation
1000	1	U/S		Upcast spoil
1001	1	LAY		Topsoil, dark brown sandy silt with standing crop, 0.30m thick
1002	1	LAY		Subsoil, Mid brown silty sand, 0.35m thick
1003	1	LAY		Nat, Orange sand, white chalk gravel mix
1004	1	CUT		N-S ditch, original cut basal remnant, 1.20m width, 0.35m deep
1005	1	FIL	1004	Primary and sole remaining fill, Dark grey sandy clay, 1.20m width, 0.35m depth
1006	1	CUT		NE-SW Ditch, 3.60m width obliquely, 0.45m depth
1007	1	CUT		N-S ditch recut of 1004, 4m wide, 0.75m depth
1008	1	FIL	1007	Mid brown grey silty sand primary fill o.40m thick
1009	1	FIL	1007	Mid Brown grey secondary fill, 0.65m thick
1010	1	FIL	1006	Dark grey sandy silt primary fill, 0.10m thick
1011	1	FIL	1006	Mid brown grey secondary fill, 0.30m
2000	2	U/S		Upcast spoil
2001	2	LAY		Topsoil, dark brown sandy silt, 0.35m thick
2002	2	LAY		Subsoil, Mid brown silty sand, 0.20m thick
2003	2	NAT		Sand/gravel
2004	2	FIL	2005	Mid grey brown silty sand, 1.05m wide , 0.25m depth
2005	2	CUT		Small pit/ditch terminus
2006	2	FIL	2008	Secondary fill, mid grey silty sand, 1m width, 0.20m thick
2007	2	FIL	2008	Primary fill, mid brown, 2.60m width, 0.70m depth
2008	2	CUT		NE-SW ditch, 2.7m width, 0.75m depth
2009	2	FIL	2010	Only fill of ditch, 1.7m width, 0.50m depth, silty sand, mid brown grey
2010	2	CUT		NE-SW ditch, 2.7m width, 0.5m
2011	2	FIL	2012	Mid grey, only fill, 1.60m width, 0.50m depth
2012	2	CUT		NE-SW ditch, 1.9m wide, 0.5m width
2013	2	FIL	2014	Only fill, Mid brown silty sand, 0.40m width, 0.10m depth
2014	2	CUT		Curvilinear gully, 0.40m width, 0.10m depth
2015	2	FIL	2016	Only fill, Mid brown silty sand, 0.56m width, 0.10m depth
2016	2	CUT		Curvilinear gully, 0.56m width, 0.19m depth
3000	3	U/S		Upcast spoil
3001	3	LAY		Topsoil,
3002	3	LAY		Subsoil
3003	3	NAT		Sand/Gravel
3004	3	FIL	3007	Tertiary fill, Mid grey brown silty sand, 4.74m width, 0.58m depth
3005	3	FIL	3007	Secondary fill, Dark brown grey silty sand, 3.40m width, 0.60m
3006	3	FIL	3007	Primary fill, Mid grey silty sand, 3.40m width, 0.56m depth
3007	3	CUT		Large pit
3008	3	FIL	3009	Single fill, Mid grey silty sand, 2m width, 0.60m depth
3009	3	CUT		Linear NW-SE ditch, 2m width, 0.66m depth
3010	3	FIL	3011	Single fill, Mid grey silty sand,0.44m width, 0.36m depth
3011	3	CUT		NW-SE linear ditch/gully, 0.44m width, 0.36m depth

Context	Trench/Area	Context Type	Fill Of	Interpretation
3012	3	FIL	3013	Single fill, dark grey silty sand
3013	3	CUT		Small ovoid pit
3014	3	FIL	3016	Grave fill
3015	3	SKN		Crouched inhumation
3016	3	CUT		Grave
4000	4	U/S		Upcast spoil
4001	4	LAY		Topsoil, uniform at 0.35m depth
4002	4	LAY		Subsoil, uniform at 0.30m depth
4003	4	NAT		Sand/Gravel
4004	4	FIL	4007	Tertiary fill, dark grey silty sand, 0.90m width, 0.25m depth,
4005	4	FIL	4007	Secondary fill, Pale brown, silty sand, 1.95m width, 0.72m depth
4006	4	FIL	4007	Primary basal deposit, charcoal inclusions, width 0.70m, depth 0.08m
4007	4	CUT		NE-SW linear ditch
4008	4	FIL	4009	Only fill of NE-SW linear ditch
4009	4	CUT		NE-SW linear ditch
4010	4	FIL	4011	Dark grey silty sand single fill of small pit, containing small animal burial
4011	4	CUT		Small pit
4012	4	FIL	4013	Dark grey silty sand single fill of curvilinear ditch terminus
4013	4	CUT		Curvilinear ditch terminus
4014	4	FIL		Pale grey silty sand single fill of gully terminus
4015	4	CUT		Eastern gully terminus of E-W linear gully
5000	5	U/S		Upcast spoil
5001	5	LAY		Topsoil, 0.30m thick
5002	5	LAY		Subsoil, 0.30m thick
5003	5	NAT		Sand/Gravel
5004	5	FIL	5005	Mid grey single fill of ditch
5005	5	CUT		curvilinear ditch N-S orientation
5006	5	FIL	5007	mid grey sandy silt single fill of small pit
5007	5	CUT		Small, isolated pit
5008	5	FIL	5009	Single fill of curvilinear ditch, N-S orientation
5009	5	CUT		Curvilinear ditch, N-S
5010	5	FIL	5011	Mid grey sandy silt single fill of N-S ditch
5011	5	CUT		N-S ditch
5012	5	FIL	5013	Mid grey sandy silt single fill of N-S ditch
5013	5	CUT		N-S ditch
5014	5	FIL	5015	Mid grey silty sand single fill
5015	5	CUT		N-S ditch, 2.38m width, 0.60m depth
5016	5	FIL	5017	Mid grey silty sand single fill
5017	5	CUT		N-S ditch, 0.55m length, 0.37m depth
6000	6	U/S		Upcast spoil
6001	6	LAY		Topsoil, uniform depth of 0.30m
6002	6	LAY		Subsoil, Uniform depth of 0.10m
6003	6	NAT		Sand/Gravel
6004	6	FIL	6007	pale brown grey tertiary upper fill, 2.58m width, 0.70m depth
6005	6	FIL	6007	Dark grey/black secondary fill, 0.90, width, 0.10m depth
6006	6	FIL	6007	Dark grey primary fill, 1.30m length, 0.30m depth

Context	Trench/Area	Context Type	Fill Of	Interpretation
6007	6	CUT		NW-SE linear ditch, 2.60m width, 0.95m depth
6008	6	FIL	6013	Grey/brown sandy silt secondary fill, 0.90m length, 0.30m depth
6009	6	FIL	6013	Mid grey laminated silty sand laminated fill, 1.10m length, 0.20m depth
6010	6	FIL	6013	Mid grey silty sand upper fill of full ditch profile, 2.20m width, 1m depth
6011	6	FIL	6013	Mixed brown unsorted fill, probably from mod animal burrow
6012	6	FIL	6013	Primary fill, 0.20m deep same as 6010
6013	6	CUT		E-W ditch, W- 1.30m, D- 0.67m
7000	7	U/S		Upcast spoil
7001	7	LAY		Topsoil, uniform depth of 0.50m
7002	7	NAT		Sand/Gravel
7003	7	FIL	7006	Pale orangey brown tertiary upper fill, iron pan inclusions, width 2.30m, depth 0.34m
7004	7	FIL	7006	Pale grey secondary fill, moderate amount of charcoal flecks,
7005	7	FIL	7006	Black organic basal fill, represents a deposit of pot sherds and organic waste, carbonised roots and charcoal
7006	7	CUT		E-W ditch, L- 2.60m, D- 0.80m
7007	7	FIL	7009	Mid grey brown secondary fill, W- 3m, D-0.40m
7008	7	FIL	7009	Black organic basal fill of large pit
7009	7	CUT		Large pit truncated by E-W linear ditch 7006
7010	7	FIL	7012	Mid yellow brown secondary fill, W- 1.30m, D- 0.20m
7011	7	FIL	7012	Pale grey primary fill of N-S ditch, laminations throughout
7012	7	CUT		N-S linear ditch, >30m length, D- 0.60m - 1m
8000	8	U/S		Upcast spoil
8001	1	LAY		Topsoil, Uniform depth of 0.30m
8002	1	LAY		Subsoil, uniform at 0.30m depth
8003	1	NAT		Sand/gravel
8004	1	CUT		Recut E-W Trackway ditch, 2.30m width, 0.50m depth
8005	1	FIL	8004	Black stiff clayey primary fill, W-1.10m, D- 0.15m
8006	1	FIL	8004	Mid brown secondary fill, W-2.30m, D- 0.35m
8007	1	CUT		Original E-W trackway ditch, W- 1.80m, D-0.60m
8008	1	FIL	8007	Pale brown primary fill, W-1.20m, D- 0.60m
8009	1	FIL	8007	Pale brown secondary fill, W-1.40m, D- 0.60m
8010	1	CUT		Recut E-W trackway ditch
8011	1	FIL	8010	Black silty clay primary fill, W-1.20m, D- 0.30m
8012	1	FIL	8010	Mid brown secondary fill, W-2.20m, D- 0.50m
8013	1	CUT		Original E-W trackway ditch
8014	1	FIL	8013	Pale brown primary fill, W-0.40m, D-0.60m
8015	1	FIL	8013	Dark grey secondary fill, W-0.90m, D-0.65m
8016	1	CUT		E-W trackway ditch, W-1.80m, D-0.30m
8017	1	FIL	8016	Grey brown single fill of ditch, W-1.80m, D-0.30m
9000	9	U/S		Upcast spoil
9001	9	LAY		Topsoil, uniform at 0.30m depth
9002	9	LAY		Subsoil, uniform at 0.20m depth
9003	9	NAT		Sand/Gravel
9004	9	CUT		E-W ditch, W- 3.40m, D- 0.70m
9005	9	FIL	9004	Mid grey single fill, W-3.70m, D-0.70m

Context	Trench/Area	Context Type	Fill Of	Interpretation
9006	9	CUT		N-S linear gully, L->5m, W-0.80m,D-0.25m
9007	9	FIL	9006	Mid grey brown single fill, W- 0.80m, D- 0.25m
9008	9	CUT		N-S Gully, W-0.40m, unexcavated
9009	9	FIL	9008	Grey fill, W- 0.40m
9010	9	CUT		NE-SW gully, W-0.20m, unexcavated
9011	9	FIL	9010	Grey fill, W-0.20m
10000	10	U/S		Upcast spoil
10001	10	LAY		Topsoil, uniform at 0.20m depth
10002	10	NAT		Sand/Gravel
10003	10	FIL	10005	Grey single fill, W-1.20m, D- 0.35m
10004	10	CUT		E-W linear ditch, W-1.20m, D-0.35m
10005	10	FIL	10006	Fill of pit
10006	10	CUT		Unexcavated pit feature
10007	10	FIL	10007	Fill of pit
10008	10	CUT		Unexcavated pit feature

Appendix 2: Archive

Project Details: Evaluation by Trial Trenching at the Outgang extension to Newport Road Quarry, North Cave, East Riding of Yorkshire.

Site Code: OEN 2021
National Grid Reference: SE 8900 3112 (centre)
Planning Reference Number: DC/18/00528/CM/STRAT
Museum Reference or Accession Number: ERYMS (BAG): 2021.45
Author: Stephen Kennedy **Date of fieldwork:** June 2021
Report Number. Humber Field Archaeology Report Number

Quantity: 1 x A4 folder contains the paper archive.
2 boxes of finds including 1 box of human remains.

The digital archive is stored on Hull City Council Servers.

Summary of work.
In June 2021, archaeological evaluation by trial excavation was undertaken by Humber Field Archaeology in the Outgang extension of the Newport Road Quarry, a site of proposed extraction of sand and gravel by Breedon (Northern) Ltd, which lies south-west of North Cave village, East Riding of Yorkshire. Ten 30m long trenches were excavated in the north-western corner of the extraction area in order to investigate a number of anomalies, representing potential archaeological remains, revealed by an earlier geophysical survey.

All ten trenches excavated contained archaeological features of likely Iron Age or Roman date, the majority considered to be linear enclosures and sub-divisions. Trench 3 contained a large circular pit and a truncated crouched human inhumation. Trench 8 contained a double-ditched east to west orientated trackway. Trenches 3, 4 and 5 contained a number of small, isolated pit or posthole features. Artefactual evidence indicating domestic settlement was recovered from the fills of various features in Trenches 4, 7 and 8, however no features definitively indicating the existence of domestic structures were observed.

The potential for the discovery of archaeological remains had been high due to the presumption that ditched features previously recorded in areas immediately to the north and west continued into the presently discussed area of evaluation. The geophysical survey confirmed this however the excavation of the 10 trenches showed that these features extended further than predicted and were higher in number.

The number of linear anomalies and associated features recorded during the evaluation exceeded the number of features predicted by the geophysical survey with at least three stratigraphic and artefactually distinct phases of Roman activity recorded.

Index to archive

1 – 6 Documentary Archive Record			
1. Project summary			
Archive component	**Hard Copy**	**Digital Copy**	**Notes**
1.1 Site Summary/ Abstract	☒	☒	
1.2 Archive Index	☒	☒	
1.3 Guide to Elements of the Archaeological Archive	☐	☒	
	☐	☐	
	☐	☐	
2. Project Planning			
2.1 Planning Documentation	☒	☒	

2.2 Written Scheme of Investigation/ Project Design/ Project Specification	☒	☒	
2.3 Risk Assessment	☒	☒	
2.4 Correspondence (date order)	☒	☒	
2.5 Miscellaneous documentation (flow charts, bills, receipts, administration, staffing etc.)	☒	☒	
	☐	☐	
	☐	☐	
3. Initial Survey and Documentary Research			
3.1 HER Information	☐	☐	
3.2 Historic Maps	☐	☐	
3.3 Documentary Research	☐	☐	
3.4 Desk-Based Assessment	☒	☒	
3.5 Geophysical Survey Report	☒	☒	
3.6 Aerial Photographs	☐	☐	
3.7 Other Survey material	☐	☐	
	☐	☐	
	☐	☐	
4 Site Fieldwork Data			
4.1 Site notes and diaries	☒	☒	
4.2 Context Index and Context Sheets	☒	☒	
4.3 Level Books	☐	☐	
4.4 Plan Index and Plans	☒	☒	
4.5 Section Index and Section Drawings	☒	☒	
4.6 Survey and Sketch	☐	☒	
	☐	☐	
	☐	☐	
5 Photographic Record:			
5.1 Photographic Site Record Sheets	☒	☒	
5.2 Photographic Concordance Table (database printout)	☒	☒	
5.3 Contact Sheets	☒	☒	
5.4 Negatives	☐	☐	
5.5 Colour Transparencies (slides)	☐	☐	
5.6 Prints	☐	☐	
5.7 Digital Images (computer printout)	☒	☒	
	☐	☐	
	☐	☐	
6 Post-excavation Fieldwork Data:			
6.1 Matrices and Phasing Information	☒	☒	
6.2 AutoCAD Site Drawings	☐	☒	
6.3 Site Structural Report Draft	☐	☒	
	☐	☐	
	☐	☐	
7 Digital Archive			
7.1 Digital Archive Storage Statement	☐	☐	
7.2 Contents of digital archive	☐	☐	

7.3 CD / DVDs	☐	☐	
7.4 Other Discs	☐	☐	
7.5 Metadata for Digital Record (data about data, eg what the codes mean)	☐	☐	
	☐	☐	
	☐	☐	
8 Material Archive Record			
8.1 Post-excavation Finds Progress Checklist Sheet	☒	☐	
8.2 Recorded Finds Index and Sheets	☒	☒	
8.3 Context Finds Sheets	☒	☒	
8.4 Bulk Finds Sheets	☒	☒	
8.5 Recorded Finds Assessment Draft	☒	☒	
8.6 Recorded Finds Database Copy	☒	☒	
8.7 Recorded Finds Illustrations	☐	☐	
8.8 Bulk Finds Assessment Draft	☐	☒	
8.9 Bulk finds Illustrations	☐	☐	
8.10 Pottery Database Copy	☒	☒	
8.11 Spot Dating Record	☐	☐	
8.12 Pottery Assessment Report Draft	☒	☒	
8.13 Pottery Illustrations	☐	☐	
8.14 Ceramic Building Materials Assessment Draft	☐	☐	
8.15 Industrial Residues Assessment Draft	☐	☐	
8.16 Scientific Analysis and Dating Reports	☐	☐	
8.17 Finds Digital Photographs Index	☒	☒	
8.18 Finds Digital Images (computer printout)	☒	☒	
8.19 Box Index	☐	☐	
8.20 Material Archive Rationalisation Sheet	☐	☐	
8.21 Finds Archive Contents Sheet	☐	☐	
	☐	☐	
	☐	☐	
9 Conservation Record			
9.1 Conservation Assessment Report	☐	☐	
9.2 X-rays	☐	☐	
9.3 Conservation Record Sheets for Individual Objects	☐	☐	
9.4 Further conservation Report	☐	☐	
	☐	☐	
	☐	☐	
10 Biological Material Record			
10.1 Sample Index and Sample Sheets	☒	☒	
10.2 Biological Material Data	☐	☐	
10.3 Biological Material Assessment Report Draft	☐	☐	
10.4 Animal Bone Assessment (if a separate report)	☒	☒	

10.5 Shell Assessment (if a separate report)	☐	☐	
10.6 Human Bone Data	☐	☐	
10.7 Human Bone Assessment	☒	☒	
	☐	☐	
11-13 Dissemination			
11. Publicity: Press releases, paper cuttings, recordings of interviews both on the radio and T.V.	☐	☐	
12. Final Assessment Report: The complete Assessment Report. Including illustrations and plates, as sent to the client and Historic Environment Record	☒	☒	HFA Report 2174
13. Additional Reports: Interim Statements, watching brief report copy, papers and articles written for journals or other publications.	☐	☐	
	☐	☐	
14 Watching Brief Archive			
14. Watching Brief Archive	☐	☐	
	☐	☐	
	☐	☐	
Publication Archive	☐ Did this site proceed to publication after assessment?		

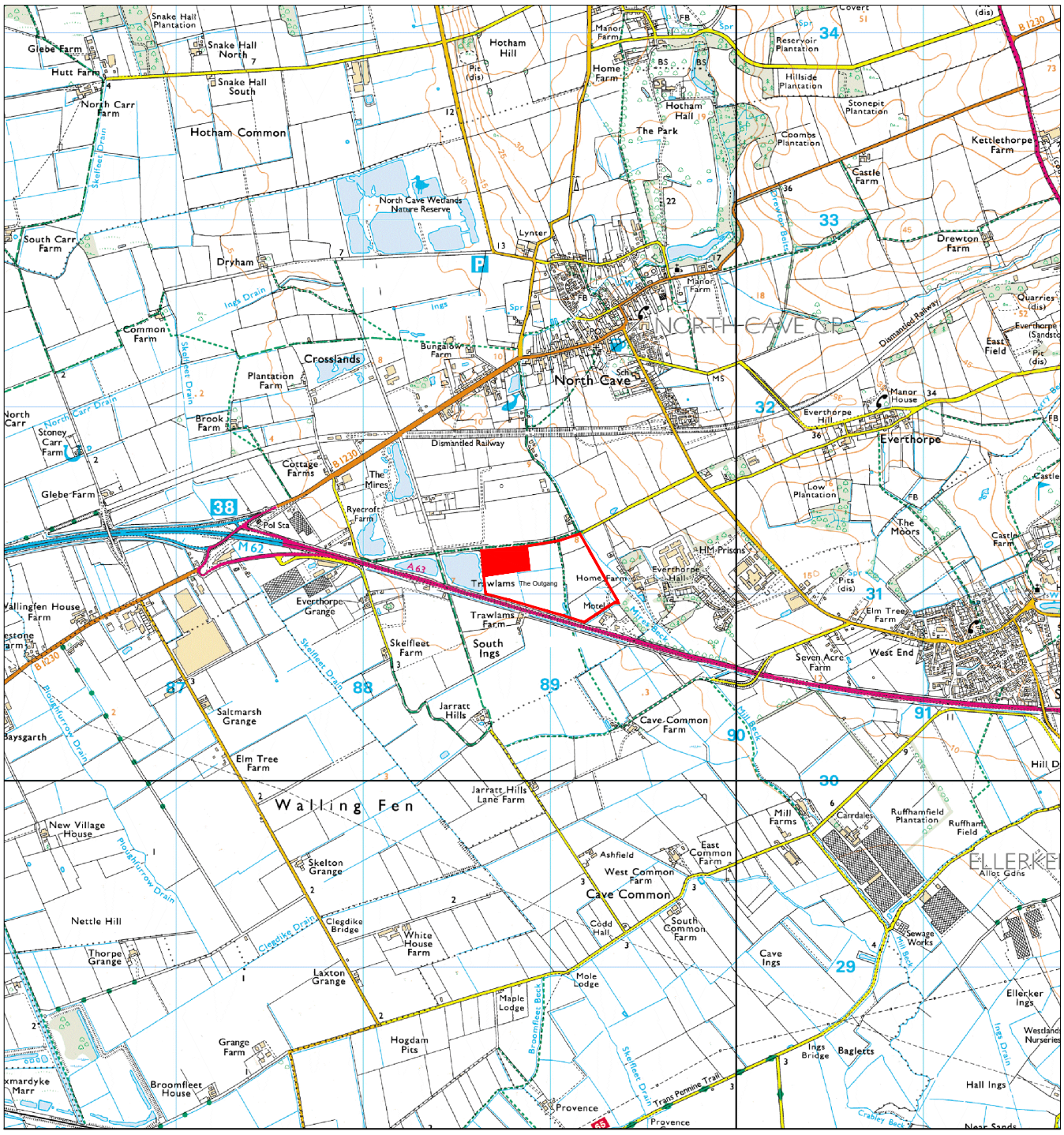


Figure 1 Location plan

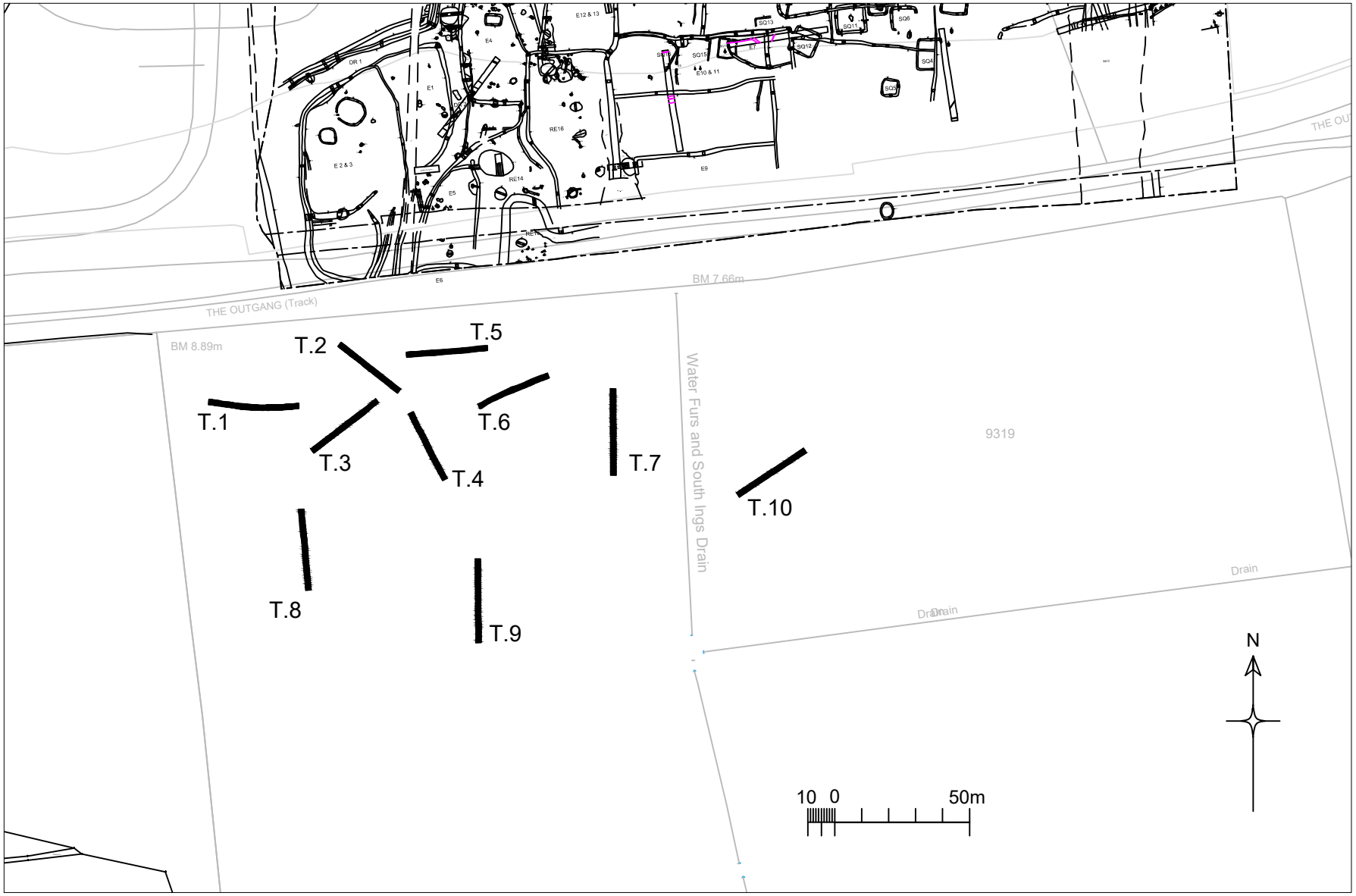


Figure 2 Trench location plan

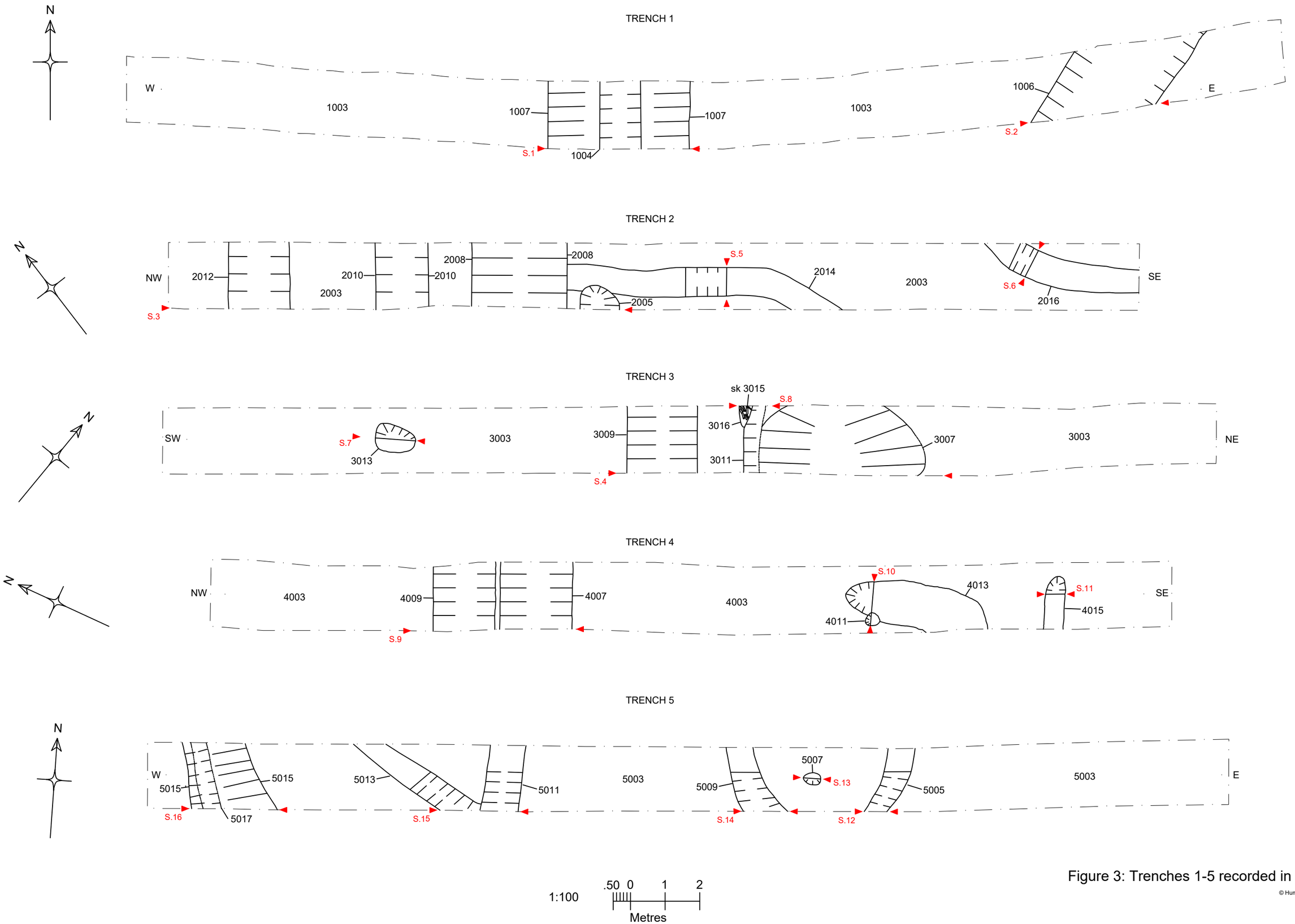


Figure 3: Trenches 1-5 recorded in plan

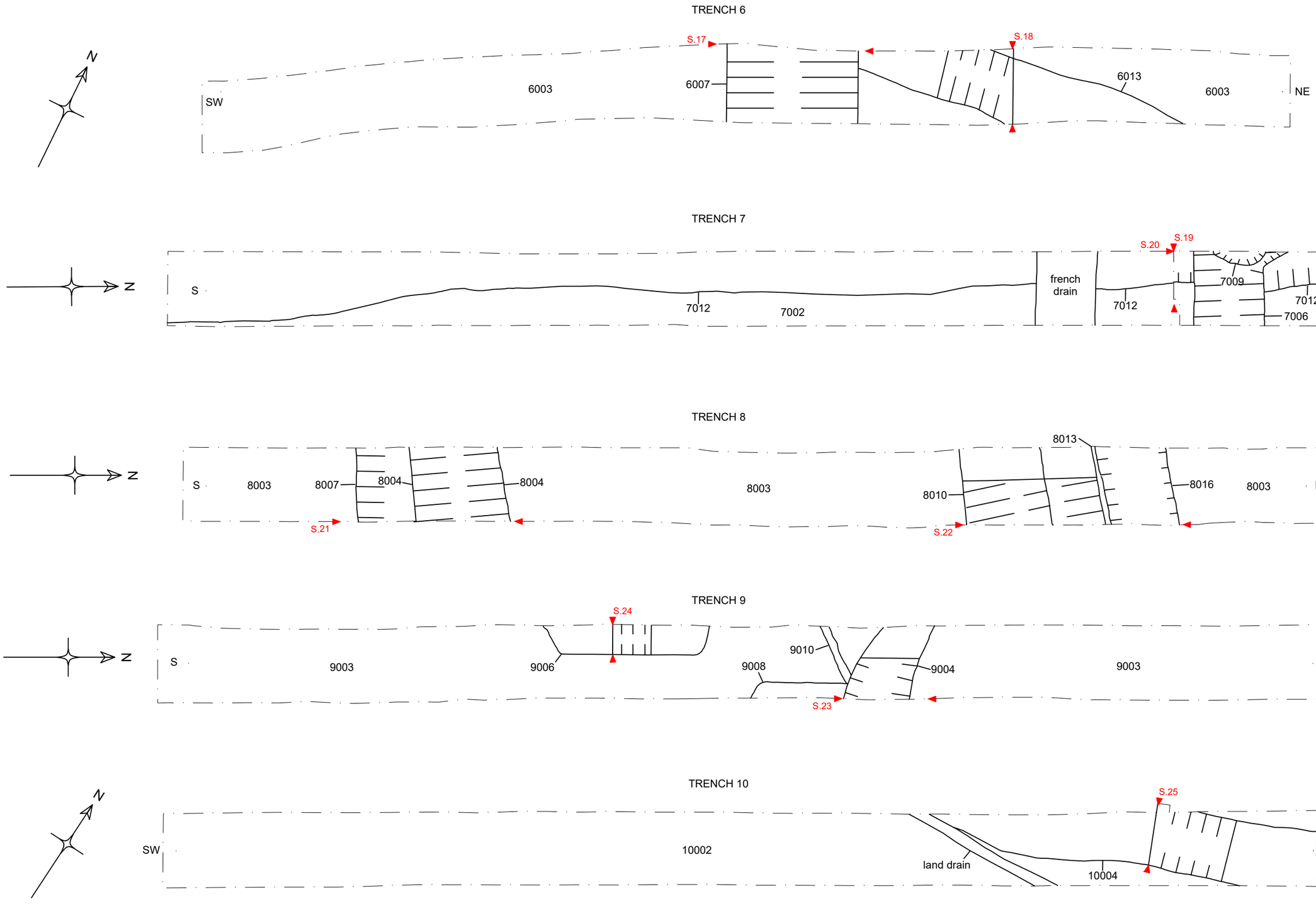
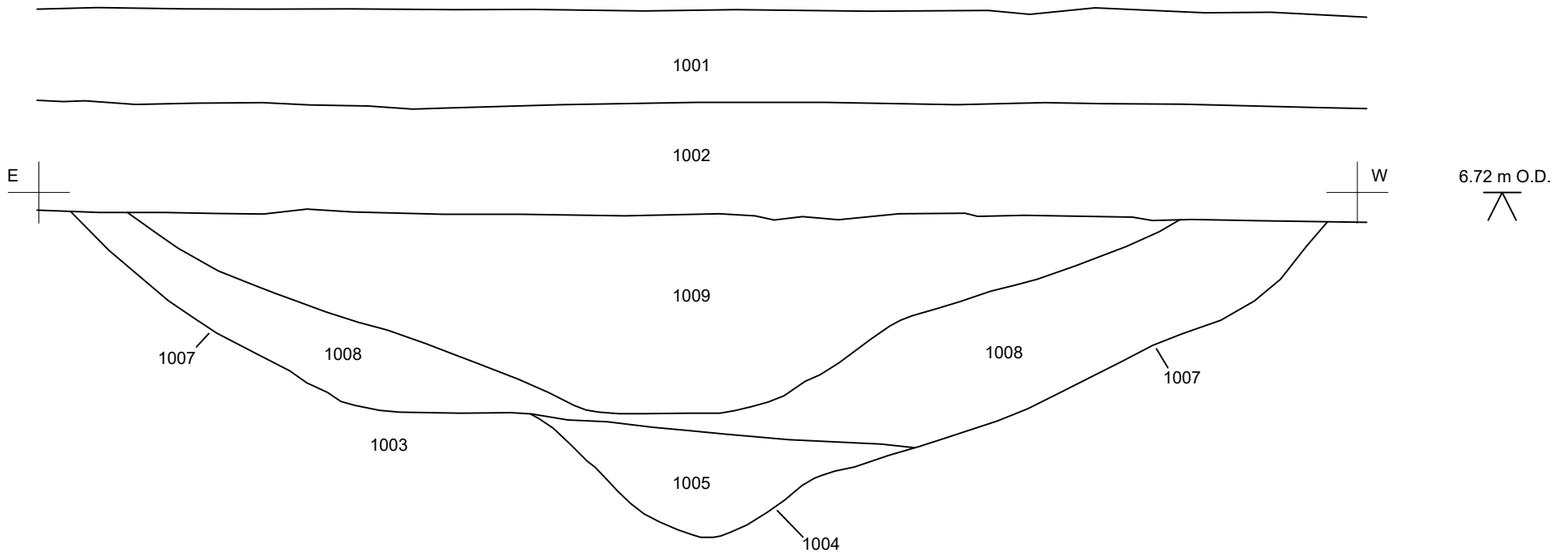
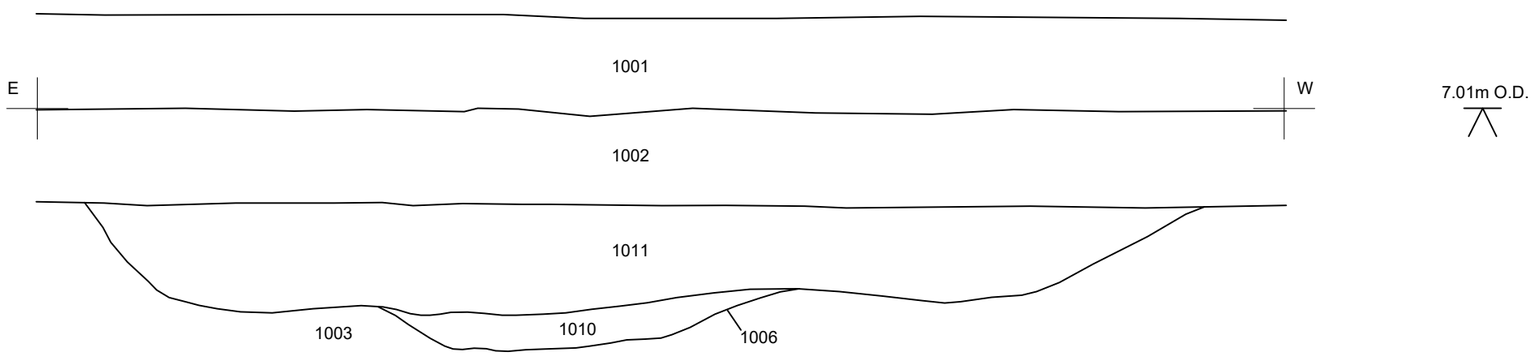


Figure 4: Trenches 6-10 recorded in plan

S.1



S.2

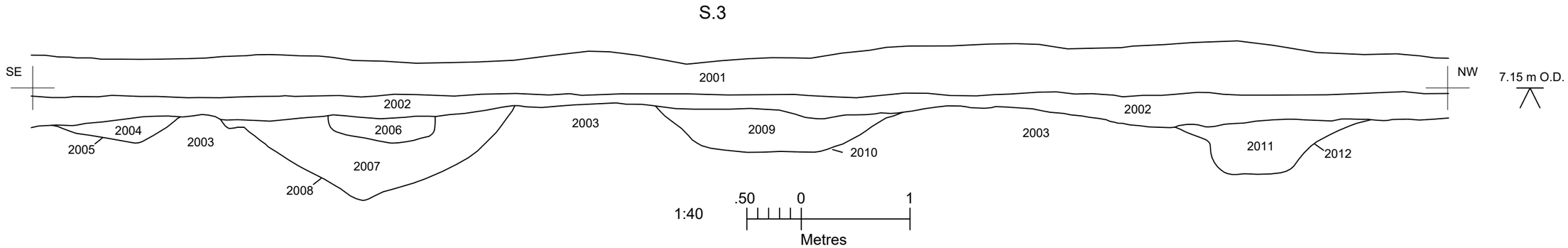


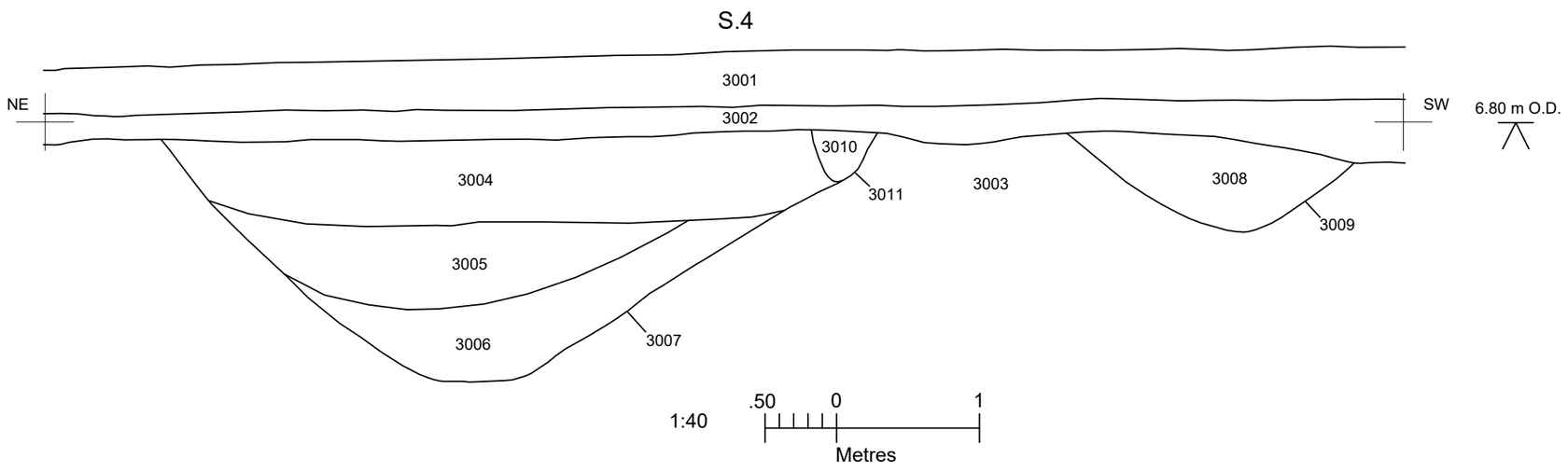
1: 20

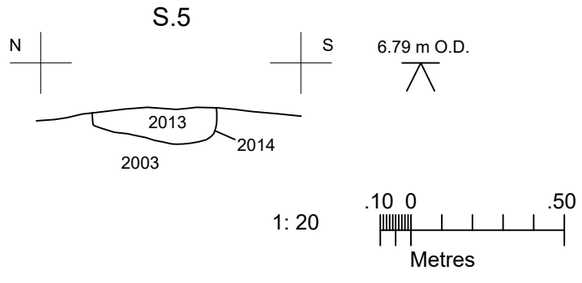
.10 0 .50

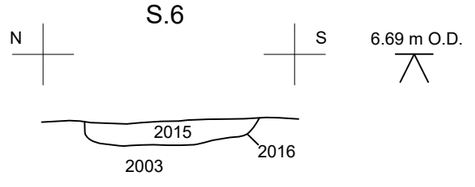
Metres

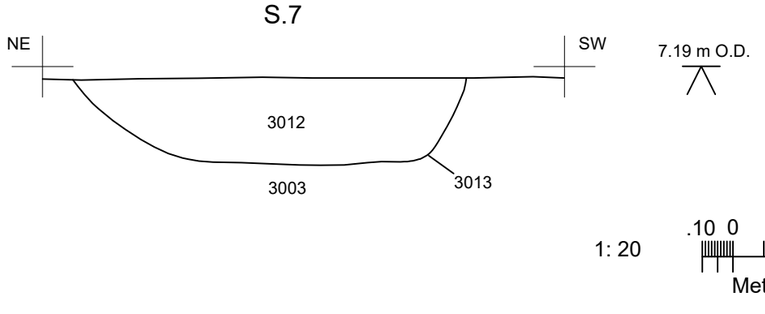
Figure 5: Sections 1-2











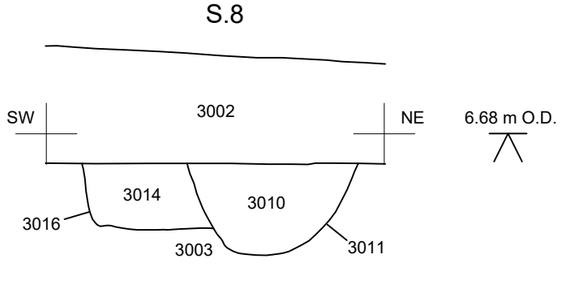
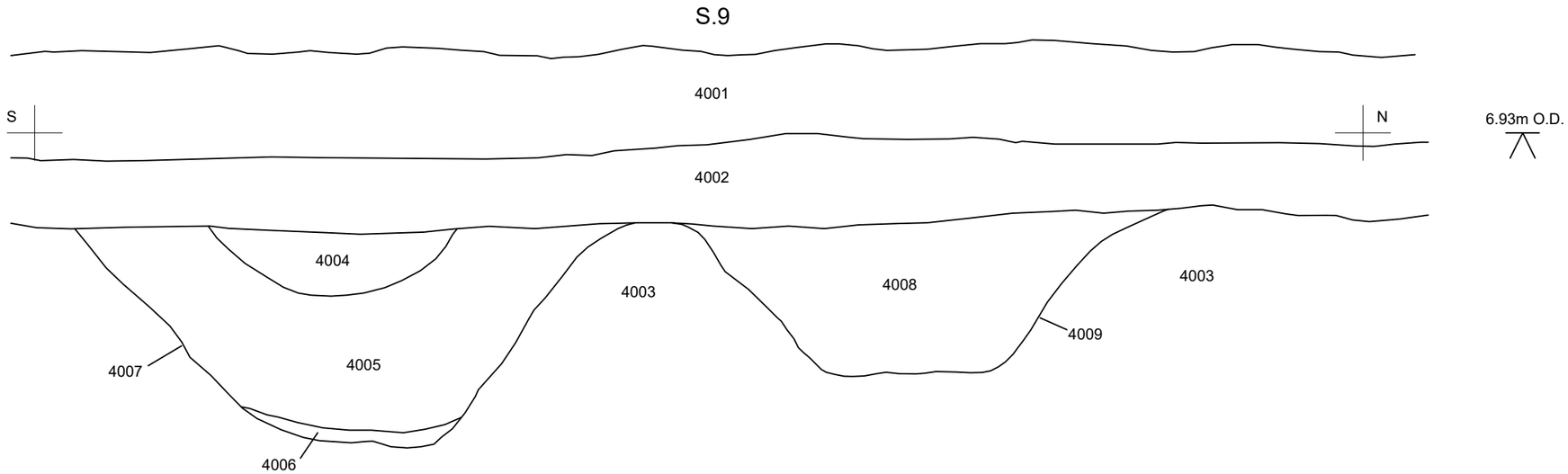
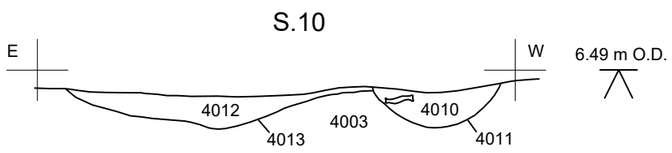
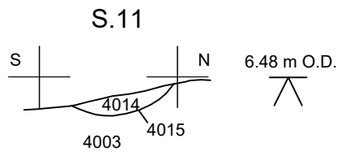
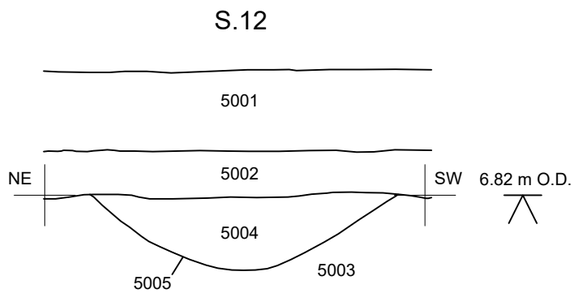


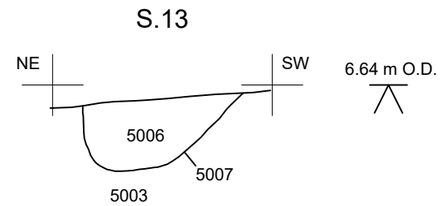
Figure 6: Sections 3-8

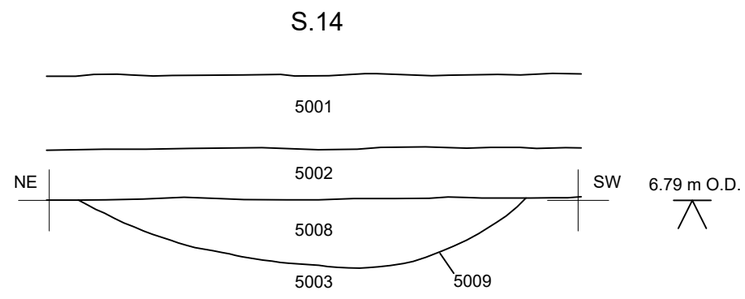


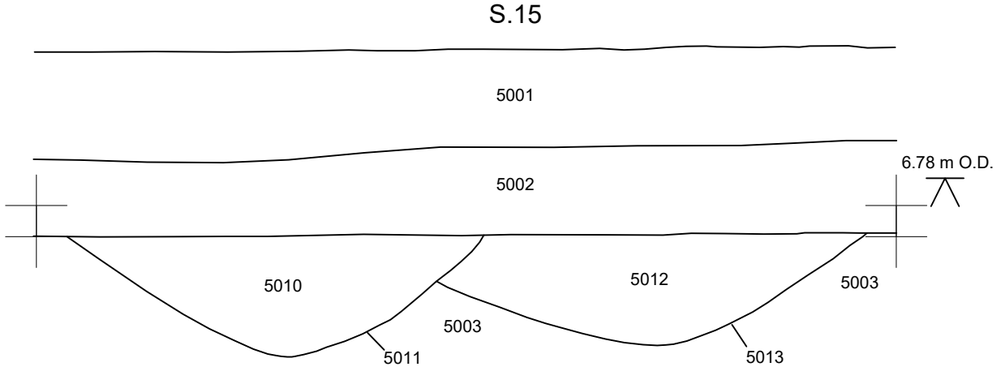


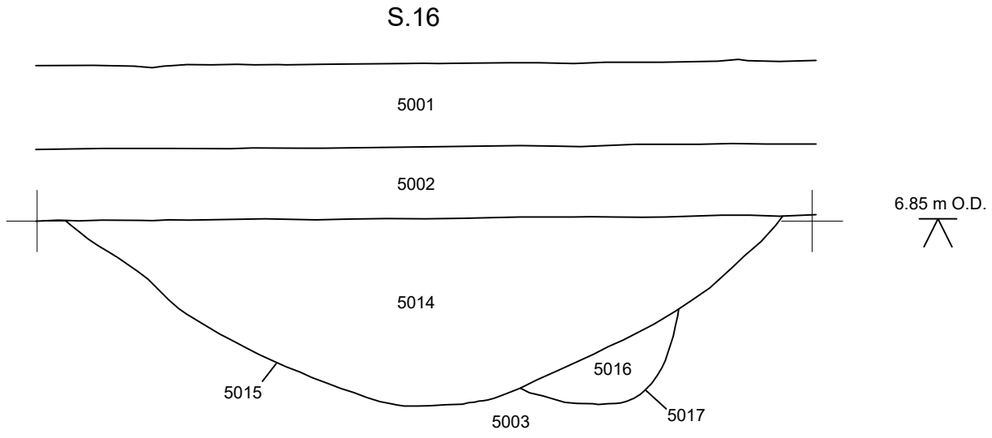












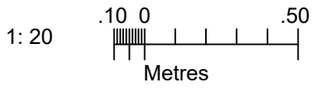
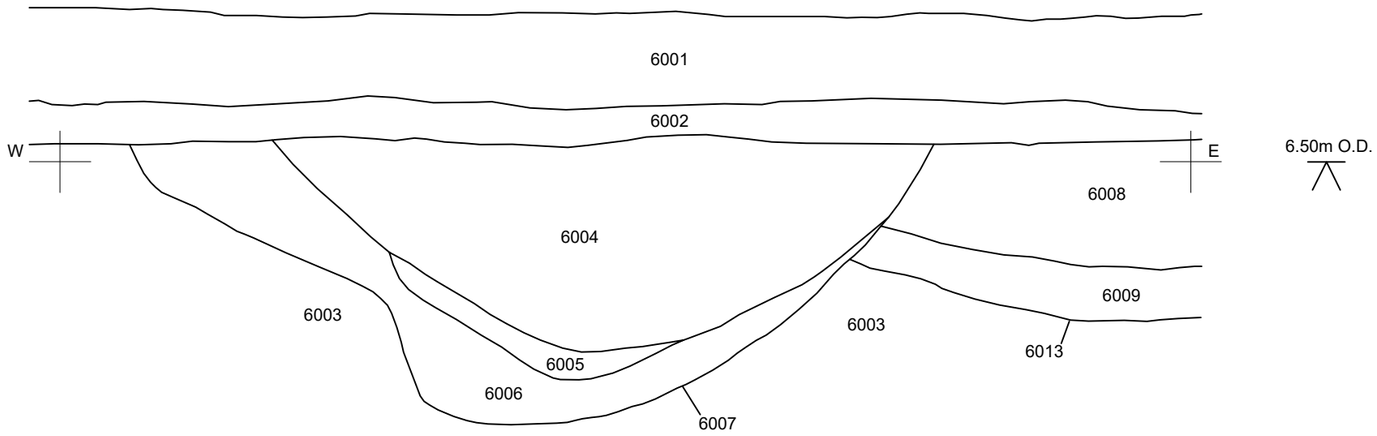
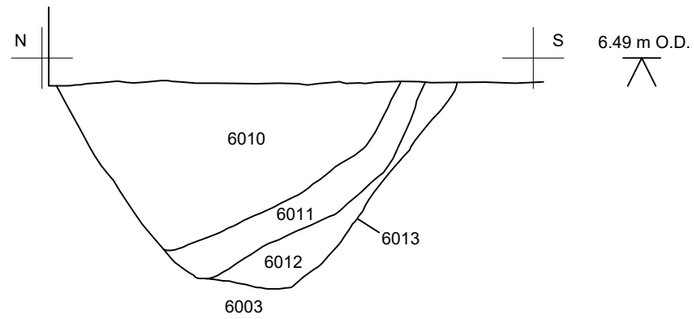


Figure 7: Sections 9-16

S.17

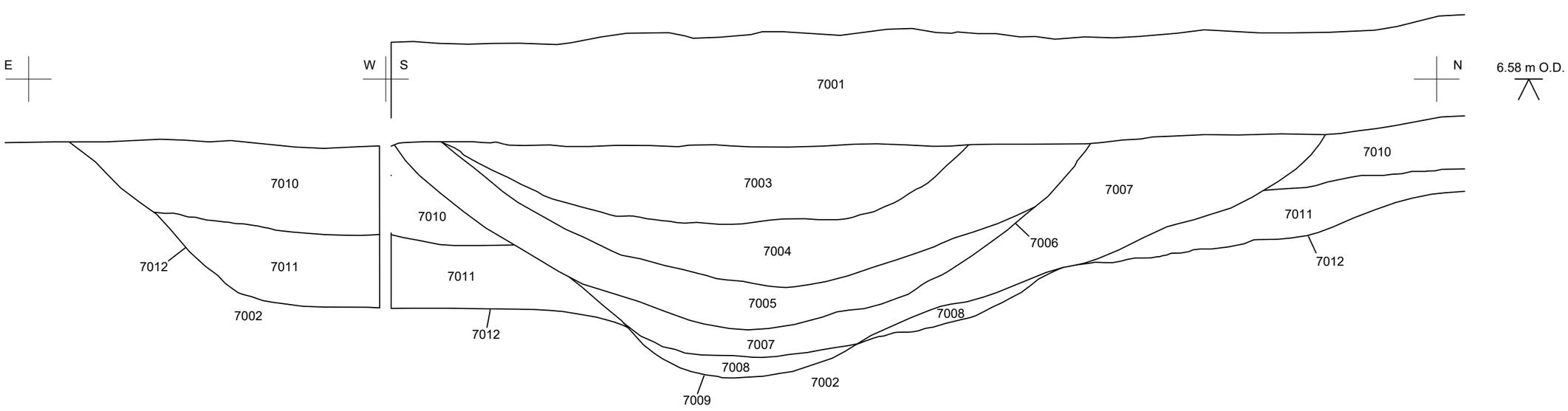


S.18



S.19

S.20



1: 20 .10 0 .50 Metres

Figure 8: Sections 17-20

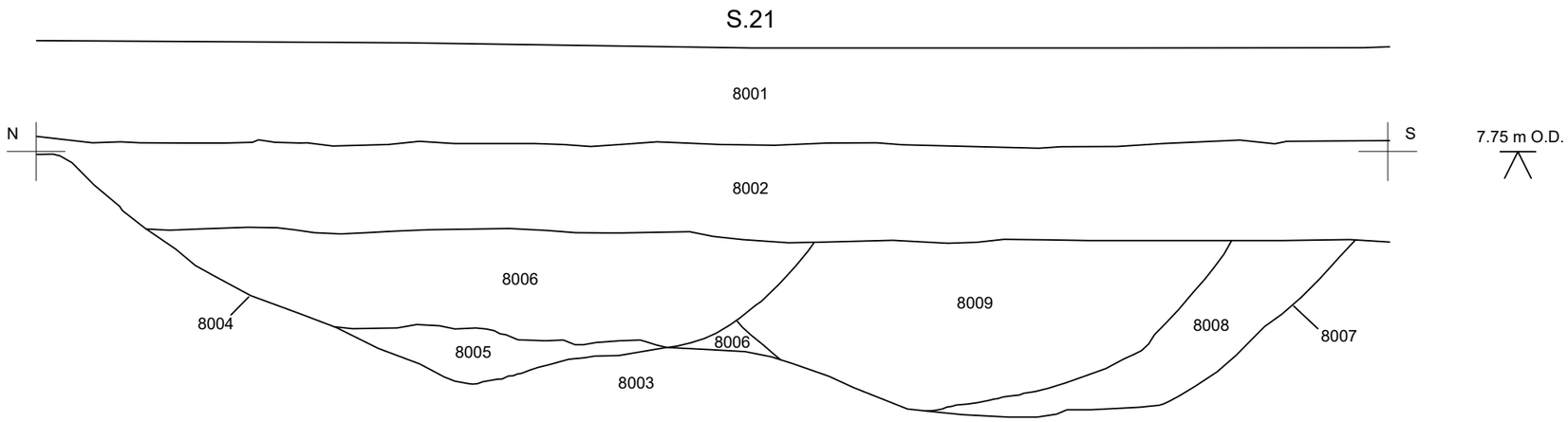


Figure 9: Sections 21-25

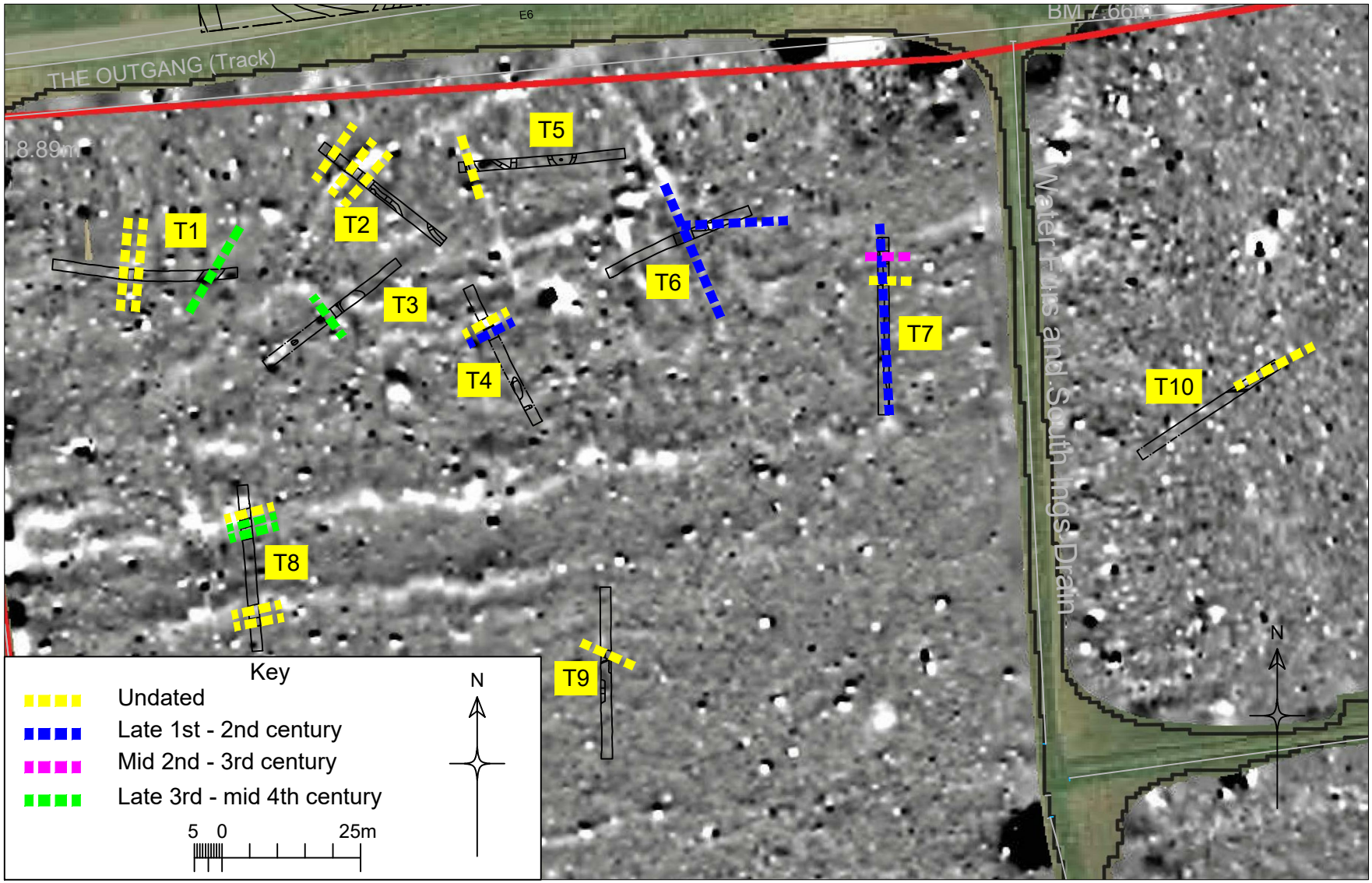


Figure 10: Plan showing the main ditch alignments revealed during the trial trenching overlaid on the geophysical survey plot

,

Plate 1 The Evaluation site, looking south east

Plate 2- Elevated view of open trenches looking east

Plate 3 - Trench 1, looking east

Plate 4- Trench 1- N-S ditch 1004 and recut 1007

Plate 5- Trench 1- NE-SW ditch 1006

Plate 6- Trench 2 looking south east

Plate 7 Trench 2 looking north showing NE-SW triple ditch series

Plate 8 Trench 3 looking north east down to subsoil layer

Plate 9 Trench 3- north facing sect of large pit 3007

Plate 10 Trench 3- truncated SK 3015 looking north

Plate 11- Trench 4 looking south east

Plate 12- Trench 4- Double ditch NE-SW, 4007, 4009

Plate 13- Trench 4- N facing sect of curvilinear ditch terminus 4013, small pit 4011

Plate 14- Trench 5 looking east

Plate 15- Trench 5- North facing sect of ditch relationship, 5011, 5013

Plate 16- Trench 6 looking south east

Plate 17- Trench 6- Junction of NW-SE ditch 6007 and E-W ditch 6013

Plate 18- Trench 7- Looking north

Plate 19- Trench 7- Junction of E-W ditch, 7006 N-S ditch 7012 and pit 7009

Plate 20- Trench 8- Looking south

Plate 21- Trench 8- Southern trackway ditches 8003 and 8006 looking north east

Plate 22- Trench 8- Northern trackway ditches 8010, 8013, 8016 looking south east

Plate 23- Trench 9 looking south

Plate 24- Trench 9- West facing sect of ditch 9004

Plate 25- Trench 9- South facing sect of ditch 9006

Plate 26- Trench 10 looking north east

Plate 27- Trench 10- West facing sect of ditch 10,004

Plate 28- Backfilled trenches looking south east

Humber Field Archaeology
Archaeological Consultants and Contractors
The Old School, Northumberland Avenue,
KINGSTON UPON HULL, HU2 0LN
Telephone (01482) 613191
Email: hfa@hullcc.gov.uk
www.humberfieldarchaeology.co.uk

Project Management • Desk-based Assessment • Field Survey • Fieldwork • Finds Research • Post-excavation Analysis • Inter-tidal Work

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