ARCHAEOLOGICAL SERVICES WYAS

# Boroughbridge Road
# Knaresborough
# North Yorkshire

## Archaeological Evaluation

Report no. 2537

October 2013

Client: CgMs Consulting

REGISTERED ORGANISATION IA

# Boroughbridge Road
# Knaresborough
# North Yorkshire

## Archaeological Evaluation

*Summary*

*An evaluation by trial trenching identified a field system and trackway, confirming the results of an earlier geophysical survey. A beehive quern base from a field boundary in Trench 7 provided a likely later Iron Age or Romano-British date for this occupation.*

*A post-medieval pond noted on the Ordnance Survey map of 1890 was investigated and pottery and other finds of 19th and 20th-century date were recovered from an upper fill. Anomalies of 'probable archaeology' were also investigated but no features were identified and instead they are likely to represent changes in the geology.*

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## Report Information

| | |
|---|---|
| Client: | CgMs Consulting |
| Address: | Adamson House, Tower Business Park, Wilmslow Road, Didsbury, Manchester, M20 2YY |
| Report Type: | Archaeological Evaluation |
| Location: | Boroughbridge Road, Knaresborough |
| County: | North Yorkshire |
| Grid Reference: | SE 35275 58550 (centred) |
| Period(s) of activity represented: | Iron Age/Romano-British and post-medieval |
| Report Number: | 2537 |
| Project Number: | 4139 |
| Site Code: | BRK13 |
| Planning Application No.: | 13/02074/OUTMAJ |
| Museum Accession No.: | Not yet assigned |
| Date of fieldwork: | October 2013 |
| Date of report: | October 2013 |
| Project Management: | Jane Richardson PhD MIfA |
| Fieldwork supervisor: | David Williams BA MIfA, Debora Moretti MA |
| Report: | Jane Richardson |
| Illustrations: | Jon Prudhoe, Jane Richardson |
| Photography: | ASWYAS staff |
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Authorisation for distribution: ----------



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# Contents

## List of Figures



## List of Plates



## List of Tables

# 1 Introduction

Archaeological Service WYAS (ASWYAS) was commissioned by CgMs Consulting to undertake the excavation of fourteen evaluation trenches on land off Boroughbridge Road, Knaresborough. The work was undertaken in accordance with the National Planning Policy Framework, to a trench layout designed by CgMs Consulting and in accordance with a method statement produced by ASWYAS and approved by North Yorkshire County Council on behalf of Harrogate Borough Council. The excavations were undertaken between the 9th and 17th October 2013.

**Site location and topography**

The site occupies three fields immediately to the north of Greengate Lane on the north side of Knaresborough. Boroughbridge Road lies to the east of the site, further fields are situated to the north and pasture land lies to the west (Fig. 1). The proposed development area (PDA) comprises an area of approximately 6.75ha in area, centred on SE 35275 58550. The site lies at a height a little over 55m above Ordnance Datum (aOD) at the northwest corner and slopes downwards to around 50m aOD to the east.

**Soils, geology and land-use**

According to the British Geological Survey (2013) the superficial deposits are composed of boulder clay and morainic drift. The underlying bedrock belongs to the millstone grit and culm measures (Carboniferous) to the west and a mix of upper magnesian limestone and upper Permian marl (Permian) to the east. The soils are most likely to be stagnogleyic argillic brown earths of the Bishampton 1 association (SSEW 1983).

# 2 Archaeological and Historical Background

Prior to the evaluation by trial trenching, an archaeological desk-based assessment was prepared by CgMs Consulting (2013), and subsequently a geophysical survey of the area was undertaken by Wessex Archaeology (2013). The geophysical survey revealed a field system with field boundaries, a possible enclosure, a drove/trackway and isolated features.

Historic mapping indicates that the PDA has consisted of three fields since at least the mid-19th century. Boroughbridge Road and Greengates Lane are recorded from this time, with Dumb Pots Lane (no longer extant) noted to the west of the PDA. Sometime between 1910 and 1932 houses were built off Greengates Lane to the south of the current site.

# 3 Aims and Objectives

The overall aim of the evaluation was to provide information on the presence or absence and the extent, character, date, depth of burial and degree of survival of any archaeological features or deposits which are likely to be present within the trenches based on identified geophysical anomalies. The results of the trial trenching would be used to determine the level

of mitigation work that may be required to ensure that the archaeological resource is adequately recorded prior to the commencement of any ground works. To achieve this aim, fourteen trenches, 15m by 2m, were excavated.

# 4 Methodology

The mitigation strategy was designed by CgMs Consulting and set down by ASWYAS in a method statement (Appendix 1) and approved by NYCC on behalf of Harrogate Borough Council. This comprised the excavation of fourteen evaluation trenches that targeted anomalies identified in the geophysical report as 'archaeology' or 'probable archaeology' (Fig. 2). All work was carried out in accordance with accepted professional standards and guidelines (Institute for Archaeologists 2008 and English Heritage 2008), in accordance with ASWYAS site recording manual (ASWYAS 2013).

All trenches were set out and the limits resurveyed using a Trimble VRS differential GPS accurate to +/-0.01cm. The trenches were opened in a controlled manner using a JCB back-hoe fitted with a flat bladed bucket under direct archaeological supervision. All topsoil deposits were removed in level spits (not more than 0.20m) with the topsoil and subsoil being separated to allow for re-instating in reverse order. Machining was stopped at the first identifiable archaeological horizon or natural deposits. All excavations of archaeological deposits were undertaken manually with the stripped surface being cleaned and inspected for archaeological remains.

All archaeological features were accurately recorded in plan at a scale of 1:50. Feature sections were drawn at a scale of 1:10 or 1:20 as appropriate. All plans and sections include spot heights that relate to Ordnance Datum in metres.

An appropriate sample was excavated through all linear features to investigate the full depth, profile and fills and to recover dating and environmental evidence from the fills. All excavated sections were a minimum of 1m in length with each section located adjacent to the trench edge in order to provide a full stratigraphic sequence where possible.

A full written, drawn and photographic record was made of all archaeological work undertaken. An inventory of the primary archive is presented in Appendix 2, and a concordance of finds and samples by context is presented in Appendix 3. ASWYAS currently hold the site archive in a stable and secure location, and it will be deposited with a local museum in due course.

# 5 Results

## Summary

Full details of the geology in each trench are recorded in Table 1. Natural varied from a red-brown sandy clay to yellow-brown sands and gravels. Within the variable natural, all possible

features were tested to clarify their form and function. Trenches in which archaeological features were exposed (Fig. 2), are considered further below.

Geophysical anomalies representing 'probable archaeology' targeted in Trenches 2 and 10 were not identified and are likely to be geological in origin. Geophysical anomalies representing 'archaeology' targeted in Trenches 3 and 8 were not observed either and perhaps represent features that were too heavily truncated to be identified.

Table 1. Summary of results from the trial trenches

| Trench | Topsoil depth (m) | Subsoil depth (m) | Natural | Height of natural m OD | Description |
|---|---|---|---|---|---|
| 1 | 0.25-0.30 | 0.10-0.15 | Red-brown sandy clay with stone inclusions | 50.44 | Ditch |
| 2 | 0.30 | 0.50 | Red-brown sand and gravels | 48.05 | No features despite geophysical anomaly |
| 3 | 0.30 | 0.20 | Red-brown sandy silt | 48.93 | No features despite geophysical anomaly |
| 4 | 0.30 | 0.40 | Red-brown sandy silt | 49.45 | Post-medieval pond |
| 5 | 0.25 | 0.20 | Red-brown sandy clay with stone inclusions | 49.55 | 2 ditches |
| 6 | 0.30 | 0.15-0.20 | Red-brown sandy clay | 49.02 | No features |
| 7 | 0.20-0.30 | 0.20-0.40 | Yellow-brown sand and gravels | 49.95 | Ditch |
| 8 | 0.30 | 0.30-0.35 | Red-brown sandy clay | 50.16 | No features despite geophysical anomaly |
| 9 | 0.20-0.25 | 0.30 | Red-brown sandy silt | 49.85 | Ditch |
| 10 | 0.35 | 0.20 | Red-brown sandy clay | 48.01 | No features despite geophysical anomaly |
| 11 | 0.30 | 0.15 | Red-brown sandy clay | 48.29 | Gully |
| 12 | 0.30 | 0.20 | Red-brown sandy clay | 47.13 | Gully |
| 13 | 0.30-0.35 | 0.15-0.35 | Yellow-brown sand | 46.67 | Ditch |
| 14 | 0.40-0.45 | 0.24-0.28 | Yellow-brown sandy clay | 45.13 | Ditch |

### Trench 1

Trench 1 targeted a field boundary identified during the geophysical survey, and a steep-sided flat-bottomed ditch (133) was exposed. It measured 1.20m in width and 0.60m in depth and contained a dark red-brown silty clay with frequent stone inclusions (Fig. 3, S.115). No finds were recovered from this feature, and the soil sample proved sterile.

### Trench 4

A single feature was exposed within Trench 4 which extended beyond the limits of the trench. This coincides with a pond noted on the Ordnance Survey map of 1890 (CgMs Consulting 2013, 15). A series of deposits was observed over a stony fill (113) that had settled at the base

of the pond (112; Plate 1). Deposit 108 included finds of post-medieval date, including predominantly mid to late 19th and early 20th-century pottery.

**Trench 5**

Trench 5 was positioned in order to target two likely ditches flanking a track or droveway. Ditch 104, the southern-most feature, was 1.90m wide and 0.5m deep with gradually sloping sides and an irregular base (Fig. 3, S.100). It contained two fills, a grey-brown clay silt with frequent stone inclusions (103) and a grey-brown sandy silt (102). No finds were recovered from this feature and the flot from 103 was sterile. Ditch 107 to the north was steeper-sided with a broad base (Fig. 3, S.102). It measured 1.48m in width and 0.45m in depth. Again, the primary fill (106) was slightly more clayey than the secondary fill (105) of red-brown sandy silt, and once more no finds were retrieved. No evidence for a trackway surface between the ditches was observed.

**Trench 7**

A field boundary, identified by geophysical survey at the western limits of Trench 7, was exposed. This ditch (129) contained a number of fills and had been substantially, if not completely, backfilled before the boundary was re-defined by another steeped-sided feature (123). The first ditch was 1m deep and contained five clay silt fills (Fig. 3, S.114). Soil samples from the primary (128) and secondary (127) fills produced a small amount of carbonised plant material indicative of fuel use, as well as a few wheat and barley grains. Burnt sheep-sized animal bone fragments were also recovered from fill 127. The fourth fill (125) contained the only demonstrably early find to be recovered during the excavations, a beehive quern stone of later Iron Age or Roman date. Ditch 123 was 1.6m in width and 0.65m in depth and contained a single fill of mid-brown-grey clayey silt (122). A soil sample recovered from this fill contained evidence of carbonised rhizomes.

**Trench 9**

A steep-sided flat-bottomed ditch was exposed in Trench 9, confirming the results of geophysical survey. Ditch 114 was 1.4m wide and 0.58m deep (Fig. 3, S.108) and contained a single orange-red sandy clay fill (115), but no finds.

**Trench 11**

A shallow gully (117) only 0.23m deep and 0.8m wide was exposed in Trench 11, reflecting an anomaly identified by the geophysical survey. Containing a sterile grey-brown silty clay (116), this feature may represent a former hedgerow, or an earlier, heavily truncated, field boundary (Plate 2).

**Trench 12**

A shallow gully (119) exposed in Trench 12, was 0.31m deep and 0.81m wide, and was on a similar alignment to the gully exposed in Trench 11. It contained a red-brown sandy silt (118)

from which a fragment of carbonised rhizome was recovered. Again it is not clear if this feature represents a former hedgerow, or an earlier field boundary (Plate 3).

**Trench 13**

Although on a similar alignment to the feature investigated in Trench 12, ditch 131 in Trench 13 was deeper at 0.45m, wider at 1.4m and V-shaped in profile (Plate 4). Its single fill (130) of red-brown silty clay contained no finds and only a single carbonised weed seed was recovered from its soil sample.

**Trench 14**

Ditch 121 in Trench 14 was orientated at a right angle to ditch 131 and was similar in form being V-shaped in profile, 0.55m in depth and *c*. 2m in width (Fig. 3, S.111). Its orange-brown silty clay fill (120) produced a fragment of hazel charcoal from soil sampling, but no finds.

## 6 Artefact Record

**Pottery** by C.G. Cumberpatch

The pottery assemblage consists of fifteen sherds of pottery weighing 262g. It also included a single sherd from the end of a salt glazed sewer pipe. All of the material came from the upper fill (108) of the pond (112). The details of the assemblage are summarised in Table 2.

The earliest sherd of pottery in the assemblage is a piece of late Blackware of 18th-century date. This predated the remainder of the assemblage by a considerable period and as such the sherd must be considered to be residual in a later context.

The bulk of the assemblage consists of mid to late 19th and early 20th-century wares with two sherds of Yellow Glazed Coarseware which may be a little earlier in date. The range of wares is unremarkable with utilitarian wares represented by the Brown and Yellow Glazed Coarsewares and the sherd of Stoneware. A sherd of Unglazed Red Earthenware is probably from a flowerpot or similar horticultural vessel.

A range of domestic tablewares is represented by the sherds of Bone China and Whiteware. The former is very well preserved but the later shows some degree of crazing on the surfaces, perhaps suggesting that they were slightly older than the Bone China sherds. If so, the difference is unlikely to have been very marked and none of this material is likely to predate the middle of the 19th century.

The pottery assemblage would seem to represent part of a normal domestic assemblage dating to the late 19th or early 20th century but incorporating a very small amount of earlier material.

Table 2. Pottery and other ceramic artefacts

| Context | Type | No | Wt | ENV | Part | Form | Decoration | Date range |
|---|---|---|---|---|---|---|---|---|
| 108 | Bone China | 1 | 7 | 1 | Rim | Dish | U/Dec | LC19th – C20th |
| 108 | Bone China | 1 | 4 | 1 | Rim | Cup/mug | Fluted ext | LC19th – C20th |
| 108 | Bone China | 1 | 17 | 1 | Footring base | Saucer | Overglaze dark blue band & gold line int | LC19th – C20th |
| 108 | Bone China | 1 | 7 | 1 | Rim | Plate | Moulded rim w/ overglaze lustre line on rim | LC19th – C20th |
| 108 | Bone China | 1 | 10 | 1 | BS | Hollow ware | U/Dec | LC19th – C20th |
| 108 | Brown Glazed Coarseware | 1 | 30 | 1 | Base | Bowl/ pancheon | Black glaze int only | C19th – EC20th |
| 108 | Late Blackware | 1 | 14 | 1 | BS | Hollow ware | Black glaze int & ext | C18th |
| 108 | Stoneware | 1 | 7 | 1 | BS | Bottle | Pale green stoneware | C19th – EC20th |
| 108 | TP Bone China | 1 | 3 | 1 | Rim | Saucer | Blue printed grid pattern int on fluted body | LC19th – C20th |
| 108 | Unglazed Red Earthenware | 1 | 20 | 1 | BS | Flower pot | U/Dec | MC19th – EC20th |
| 108 | Whiteware | 1 | 14 | 1 | Rim | Plate | Blue lines inside rim | LC19th – C20th |
| 108 | Whiteware | 1 | 4 | 1 | BS | Hollow ware | U/Dec | M – LC19th |
| 108 | Whiteware | 1 | 2 | 1 | Footring base | Plate | U/Dec | M – LC19th |
| 108 | Yellow Glazed Coarseware | 1 | 81 | 1 | Rim | Pancheon | White slip int w/ unslipped band on rim | C19th – EC20th |
| 108 | Yellow Glazed Coarseware | 1 | 42 | 1 | BS | Pancheon | White slip only | C19th – EC20th |
| | **Total** | **15** | **262** | **15** | | | | |
| | | | | | | | | |
| 108 | Sewer pipe | 1 | 49 | 1 | Fragment | Sewer pipe | N/A | MC19th + |

**Small finds** by G. Drinkall

An assemblage comprising two iron objects, seven sherds of glass and a garden edging tile was submitted for assessment. The finds were in a stable condition, though the iron was corroded. Each item was examined under natural daylight. A catalogue and assessment report has been prepared following MAP 2 guidelines (English Heritage 1991).

All of the finds derive the upper fill (108) of the pond (112) and are of recent manufacture with nothing earlier than from the 19th century. A fragment of garden edging tile appears to have been burnt but not used, as there is no abrasion evident on any surface. The bottle and vessel glass is too fragmentary to identify, although a dark green body sherd derives from a beer bottle from one of the many companies operating in Burton on Trent. Both of the iron objects are non-diagnostic but are likely to be recent.

The assemblage has no archaeological potential, no further work is recommended and the material can be discarded.

**Quern stone** by J. Cruse

A beehive quern base, 90-95% complete, of typical diameter, but above average height, was recovered from the fourth fill (125) of ditch 129. The date of manufacture could range from the Late Iron Age through to the Roman period. Its grinding surface edge (and perhaps its

pecked external surface) appear to have been deliberately damaged before it was placed face-down in the upper layer of the ditch.

Compared to other beehive querns from the North Yorkshire corpus (Heslop 2008), this base stone is within their normal range of diameters (30-36cm @ 1σ), although its height is close to the usual maximum of 25cm for 'classic' beehives and its weight just exceeds the normal range of 15-30kg.

At least four impacts on the grinding surface rim seem to be deliberate and are interpreted as 'decomissioning' the quern, prior to deposition, a common phenomenon for beehive bases (Heslop 2008, 70). The scars on the pecked external surface are more difficult to assess, as they could reflect either over-enthusiastic shaping scars from the initial preparation of the quern, or subsequent random impacts to a dressed surface, prior to its deposition.

The very irregular shaping of the basal area is atypical. It was first thought to be the result of plough damage to a quern buried face down but, as there is little evidence of any recent impact, it is now considered to indicate a very coarse shaping at its initial rough-out stage.

The site lies at the north-east corner of a distribution, *c*. 30km in diameter, of 'tall' beehives (i.e. those exceeding 25cm in height), which stretches from the fertile Magnesian Limestone geology around the site, up into the valleys of the Nidd, Wharfe and Aire. As the additional quern height confers little functional advantage, the users of these 'tall' beehives are interpreted to be making a statement about their local distinctiveness. A similar explanation may also underlie the height of this quern.

This beehive quern lacks any specifically Roman features. Such querns are known to be manufactured from the Late Iron Age through well into the Roman period, with the majority being deposited in post-conquest contexts. They were used in settlements combining both arable and pastoral activities, whose characteristics were recently summarised in Martin *et al.* (2013, 282-286).

*Catalogue*

1 Beehive Quern – Lower Stone. 90-95% intact: around 50% of its grinding surface edge has been either been damaged or deliberately removed. It has a flat grinding surface, which has been well used, leaving little evidence of original peck-dressing. Its outer 40mm perimeter, in the intact area where the flour was produced, was worn smooth; the external surface of the stone has >50% of its area peck-dressed, with the intervening areas recessed and undressed. The basal area is very roughly finished, with an irregular flattish area of *c*. 160mm diameter, giving it a 'drum-shaped' profile. Fine grained, moderately well sorted and compacted sandstone. Diameter 310 x 320mm (slightly oval), max. height 240mm: spindle hole, depth 65mm, conical, with an initial diam. 20mm, narrowing to 10mm at base, but with its upper 15mm section widened on one

side to a diam. of 30mm: Weight 31kg (estimated intact weight 33kg): YQS 5780.
*Trench 7, ditch 129, fill 125*

## 7 Environmental Record

**Carbonised plant macrofossils and charcoal** by D. Alldritt

Ten soil samples were processed for the recovery of carbonised plant macrofossils and charcoal. They were processed using an Ankara-style water flotation system (French 1971) and a 300 micron sieve. The flot was dried before examination under a low powered binocular microscope. The retent was sorted by eye and scanned with a magnet for the recovery of metallurgical residue (e.g. hammerscale), but without result.

Very small quantities of charred plant material were recorded in eight samples, with <2.5ml present. Two of the samples proved more fruitful with up to 10ml of charcoal, cereal grain and other remains recovered. Modern roots and other intrusive detritus were generally scarce, with <2.5ml to 5ml present. All identified plant remains including charcoal were removed and bagged separately by type.

Wood charcoal was examined using a high powered Vickers M10 metallurgical microscope at magnifications up to x200. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

The samples produced a small amount of carbonised plant material concentrated mainly in the fills 127 and 128 of ditch 129 from Trench 7. The primary fill (128) produced mainly wood charcoal, with some nicely preserved 10-15mm fragments of *Betula* (birch) and *Corylus* (hazel) identified. These types suggested the cutting of scrub and open woodland for fuel. The charcoal would be suitable for radiocarbon dating if required. The secondary fill (127) contained poorly preserved charcoal, and a number of rhizome fragments suggesting peat or more likely heathy turves being cut for fuel. The weed evidence, *Rumex* sp. (docks), *Carex* sp. (sedges), *Bromus* sp. (bromes) and *Danthonia* decumbens (heathgrass), certainly suggested pasture, rough grassland or heath in the area. Small amounts of cereal grain, *Triticum spelta* (spelt wheat) and *Hordeum vulgare* sl. (barley), were also present. The cereal grain was probably being dried prior to storage or consumption somewhere in the vicinity with the waste material eventually deposited in the ditch fills.

The other samples were either sterile or contained only trace evidence for burning activity.

Table 3. Samples containing carbonised plant remains and/or charcoal

| | **Sample** | 3 | 5 | 6 | 7 | 8 | 10 |
|---|---|---|---|---|---|---|---|
| | **Context** | 118 | 120 | 127 | 128 | 122 | 130 |
| | **Trench** | 12 | 14 | 7 | 7 | 7 | 13 |
| | **Feature** | gully 119 | ditch 121 | ditch 129 | ditch 129 | ditch 123 | ditch 131 |
| | **Total CV** | <2.5ml | <2.5ml | 10ml | 5ml | <2.5ml | <2.5ml |
| | **Modern** | <2.5ml | 2.5ml | 5ml | 2.5ml | 2.5ml | <2.5ml |
| **Carbonised cereal grain** | **Common Name** | | | | | | |
| *Triticum spelta* | spelt wheat | | | 2 | | | |
| *Hordeum vulgare* sl. | barley | | | 2 | | | |
| Indeterminate cereal grain (+embryo) | | | | | 1 | | |
| **Charcoal** | | | | | | | |
| *Corylus* | hazel | | 1 (<0.01g) | | 1 (0.18g) | | |
| *Betula* | birch | | | | 3 (0.21g) | | |
| Indeterminate | | | | 3 (0.14g) | | | |
| **Carbonised wild resources** | | | | | | | |
| Rhizomes | | 1 (<0.01g) | | 7 (0.27g) | | 1 (0.07g) | |
| **Carbonised weeds** | | | | | | | |
| *Prunella vulgaris* | selfheal | | | | | | 1 |
| *Rumex* sp. | docks | | | 1 | | | |
| *Carex* sp. | sedges | | | 2 | | | |
| *Danthonia decumbens* | heathgrass | | | 1 | | | |
| *Bromus* sp. | bromes | | | 1 | | | |

Samples from 103, 106, 115 and 132 were processed but proved sterile

**Animal bone** by J. Richardson

Three sheep-sized rib fragments were recovered from sample processing. All were retrieved from the secondary fill (127) of ditch 129, and had been burnt.

## 8 Discussion and Conclusion

An evaluation by trial trenching largely confirmed the results of the geophysical survey. A field system and trackway were identified, with a beehive quern base from a field boundary in Trench 7 providing a likely later Iron Age or Romano-British date for this activity. Scarce plant remains and a few sheep-sized bones were recovered from the same feature. A post-medieval pond identified in Trench 4 and noted on the Ordnance Survey map of 1890 was investigated, with pottery and other finds of 19th and 20th-century date associated with its upper fill (108). Anomalies of 'probable archaeology' were also investigated but no features were identified and instead they are likely to represent changes in the geology.

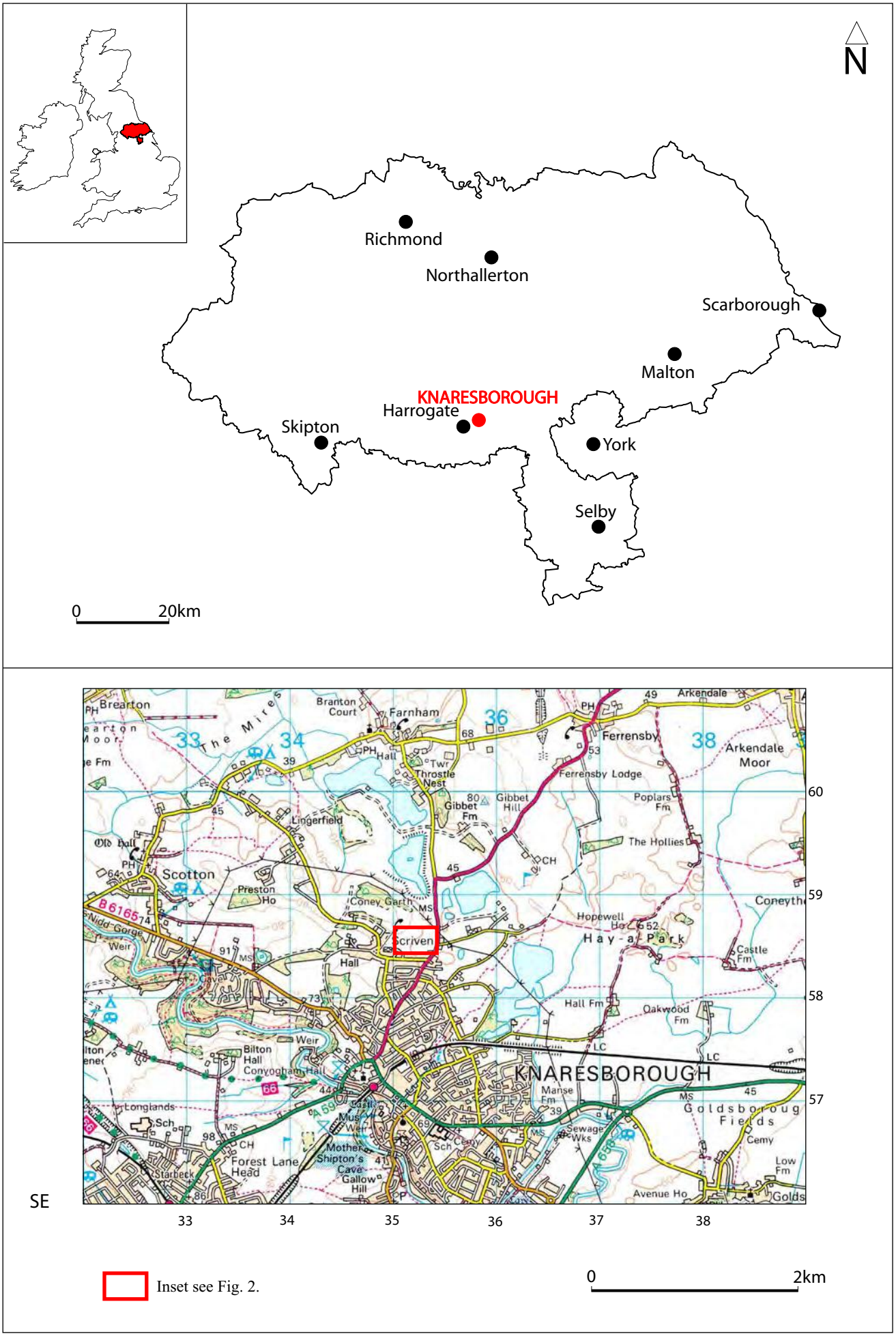




*Fig. 1. Site location*

ARCHAEOLOGY
PROBABLE ARCHAEOLOGY
EVALUATION TRENCH
ARCHAEOLOGICAL FEATURE

N

RH
48.7m
DUMB POTS LANE (Track)
RH
84
28
80

8
9
S.108
ditch 114
ditch 131
13
ditch 123
ditch 129
S.114
7
ditch 121
S.111
14
6
ditch 107
5
S.102
ditch 104
S.100
10
gully 117
11
4
pond 112
gully 119
12
3
2
ditch 133
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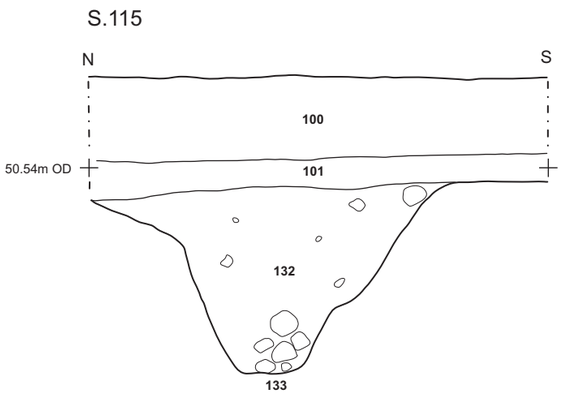
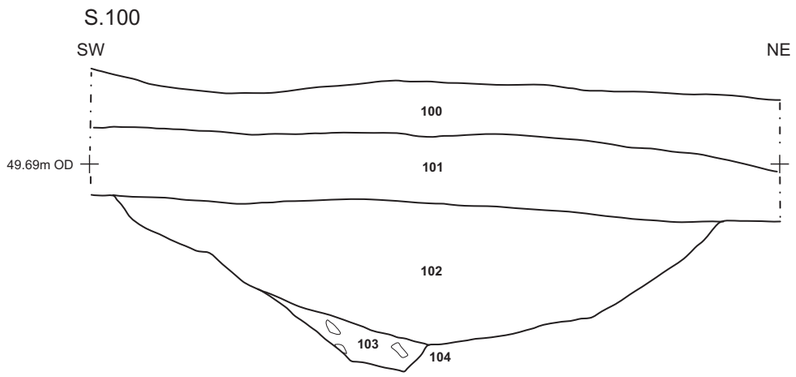
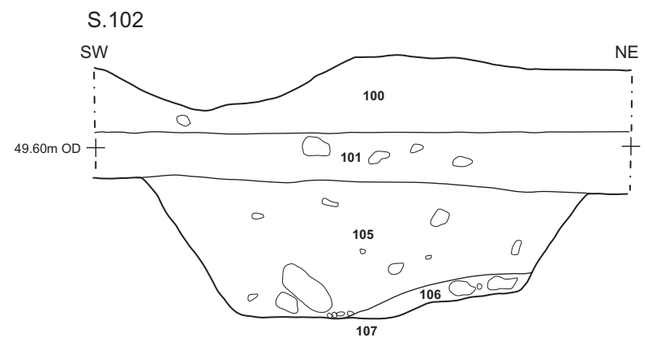
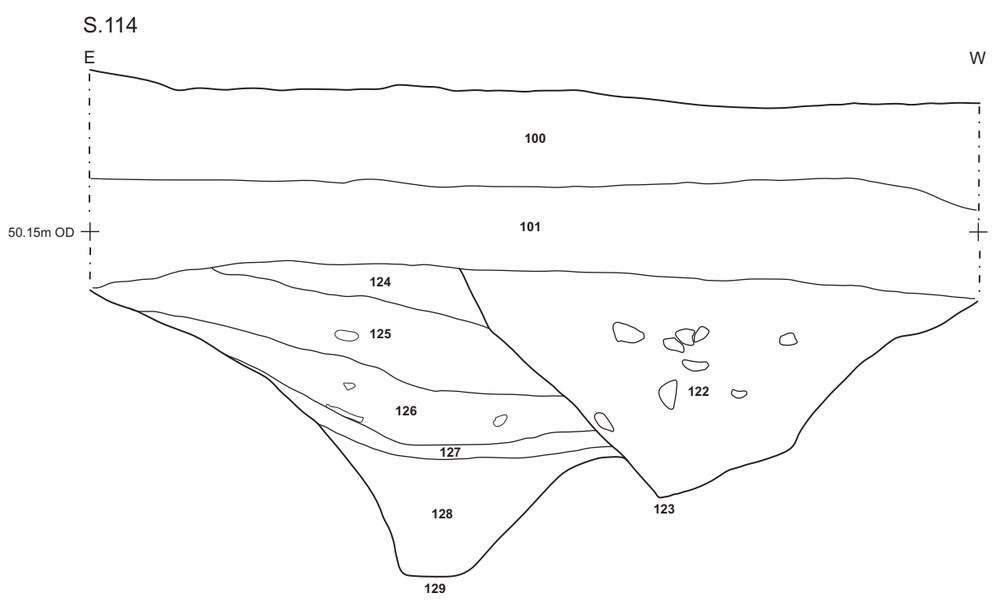
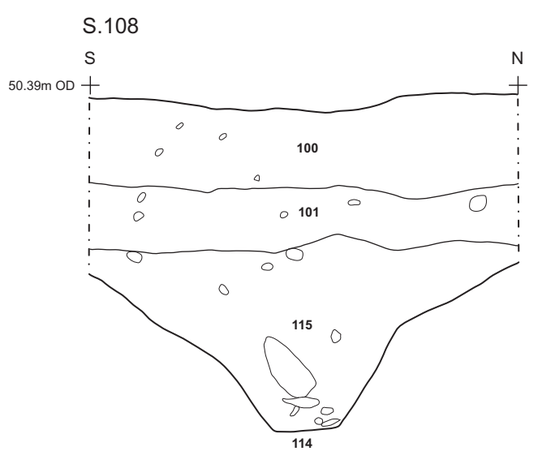
*Fig. 2. Site location showing geophysical anomalies, trench locations and features excavated (1:1000 @ A3)*



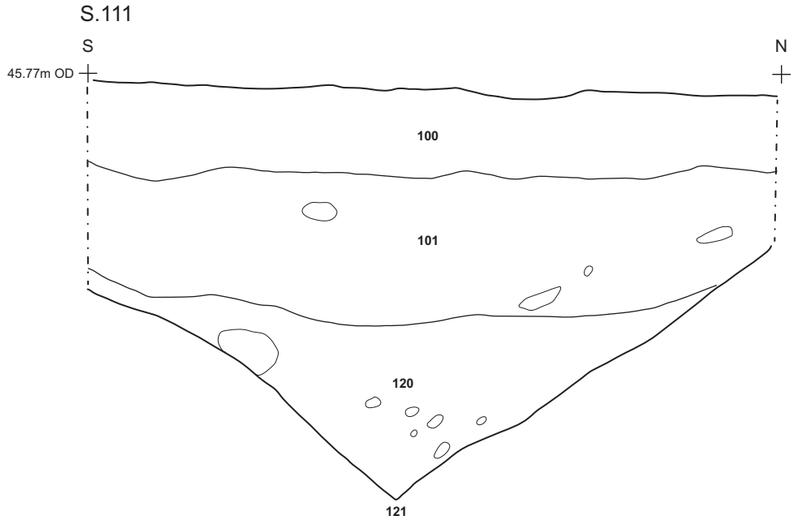





*Fig. 3. Sections*

*Plate 1. Pond 112 in Trench 4, looking east*

*Plate 2. Gully 117 in Trench 11, looking south*

*Plate 3. Gully 119 Trench 12, looking south*

*Plate 4. Ditch 131 in Trench 13, looking west*

# Appendix 1: Method statement

ARCHAEOLOGICAL SERVICES WYAS

# Boroughbridge Road, Knaresborough

## Archaeological Evaluation

## Method Statement

Prepared by: Jane Richardson
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October 2013

REGISTERED ORGANISATION IfA

## 1. Introduction

1.1 This Method Statement has been prepared by Archaeological Services WYAS (ASWYAS) for Rachel Morse of CgMs Consulting in order to detail the proposed methodology, programme and resources for an archaeological evaluation on land off Boroughbridge Road, Knaresborough.

## 2. Site Location

2.1 The site is situated to the immediate north of Knaresborough and to the west of Boroughbridge Road. It comprises three arable fields measuring 6.75ha in area and is centred NGR 435275 458550.

## 3. Topography, Geology, Soils and Land-use

3.1 The site, which is currently agricultural land, lies at a height a little over 55m above Ordnance Datum (aOD) at the northwest corner and slopes downwards to around 50m aOD to the east, the highest local point is Coney Garth (70m aOD) to the west.

3.2 According to the British Geological Survey the superficial deposits are composed of boulder clay and morainic drift. The underlying bedrock belongs to the millstone grit and culm measures (Carboniferous) to the west and a mix of upper magnesian limestone and upper Permian marl (Permian) to the east. The soils are most likely to be stagnogleyic argillic brown earths of the Bishampton 1 association.

## 4. Aims and Objectives

4.1 The overall aim of the evaluation is to provide information on the presence or absence and the extent, character, date, depth of burial and degree of survival of any archaeological features or deposits which are likely to be present within the trenches following a geophysical survey. The results of the trial trenching will be used to determine the level of mitigation work that may be required in order to ensure that the archaeological resource is adequately recorded prior to the commencement of any groundworks.

4.2 To achieve this aim, fourteen trenches, 15m by 2m, will be excavated. A contingency of 30m$^2$ is also available should any trench require extension to clarify archaeological features or deposits.

## 5. Site Establishment

5.1 Welfare facilities will be provided by ASWYAS.

5.2 It is assumed that the area for evaluation will be secure and will not require fencing or warning signs.

5.3 The position of each of the fourteen trench as indicated by CgMs Consulting will be established using a GPS system accurate to +/- 1cm.

## 6. Excavation Methodology

6.1 All excavation will be undertaken in line with the Institute for Archaeologists guidelines *Standard and Guidance for Archaeological Excavation* (2008a), and in compliance within the English Heritage MoRPHE *PPN3: Archaeological Excavation* (2008).

6.2 All stripping will be carried out in a controlled way by a JCB equipped with a smooth ditching bucket. All machine excavation will be undertaken under archaeological supervision and stripping shall take place in level spits down to the first archaeological horizon, or natural, whichever is encountered first.

6.3 Following excavation, the trench will be inspected for archaeological remains. Where archaeological remains require clarification, the relevant area will be cleaned by hand.

6.4 ASWYAS' staff will plan and then manually excavate a sample of all archaeological features in an archaeologically controlled and stratigraphic manner in order to meet the aims and objectives. The following sampling strategy is proposed:

- All linear features will be 10% excavated depending on the total length exposed. All intersections, termini, entranceways and corners will be investigated and recorded. Sufficient excavation will be carried out to investigate the depth, profile and fills of a ditch or gully and to recover dating and environmental evidence from its fills.
- 50% of pits and post-holes will be half-sectioned to determine and record their form, before being fully excavated for the purpose of finds recovery.
- 100% of stake-holes will be sampled.

6.5 All archaeological features and deposits will be accurately located on a site plan and recorded by photographs, scale drawings and written descriptions sufficient to permit the preparation of a report. Section drawings (at a scale of 1:10) will include heights aOD. Plans (at a minimum scale of 1:20) must include aOD spot heights for all principal strata and any features.

6.6 The actual areas of ground disturbance (even if no archaeological remains are present) should be recorded on a suitable base map/development plan and the stratigraphic sequence and the depth/nature of the excavations will be briefly recorded. If archaeological remains are identified, their location is to be accurately tied into the National Grid and located on an up-to-date OS map base.

6.7 Excavated soil should be searched as practicable for finds. All artefacts are to be retained for processing and analysis except for unstratified 20th and 21st-century material, which may be noted and discarded. Finds will be stored in controlled environments, where appropriate. ASWYAS have both a cold store and constant humidity store at their headquarters. All artefacts recovered will

be retained, cleaned, labelled and stored as detailed in the guidelines laid out in the IfA 'Guidelines for Finds Work' (2008b). Any conservation work will be undertaken by approved conservators working to UKIC guidelines (1990).

6.8 Bulk samples shall be undertaken during the course of the investigation for the identification and recovery of carbonised and waterlogged remains, vertebrate remains, molluscs and small artefactual material. Provision will be made for the removal of soil samples from all securely stratified deposits using a strategy which combines systematic and judgement sampling. Environmental material removed from site will be stored in appropriate controlled environments. The collection and processing of environmental samples will be undertaken in accordance with methodologies outlined by English Heritage.

6.9 Should waterlogged deposits and/or ancient soil horizons be identified, English Heritage's Regional Science Advisor, environmental and soil specialists will be consulted. This may necessitate revisions to the sampling programme, including the taking of monolith samples.

6.10 Samples for scientific dating (radiocarbon, archaeomagnetic dating, dendrochrology etc.) will be taken if suitable material is encountered during the excavation. The English Heritage Science Advisor should be consulted and provision should be made for an appropriate specialist(s) to visit the site, take samples and discuss the sampling strategy, if necessary.

6.11 ASWYAS shall fully record all excavated archaeological contexts by detailed written records giving details of location, composition, shape, dimensions, relationships, finds, samples, and cross-references to other elements of the record and other relevant contexts, in accordance with best practice. All contexts, and any small finds and samples from them will be given unique numbers. Bulk finds will be collected by context.

6.12 Black and white photography using orthodox monochrome chemical development will be used. Film will be no faster than ISO400. Slower films will be used where possible as their smaller grain size yields higher definition images. Black and white photography will be supplemented by good quality digital photography, using cameras with a minimum resolution of 4 megapixels. Digital images will be supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file. Subjects will include general site shots before, during and after excavation.

6.13 Any human remains that are encountered will initially be left in-situ and reported to the appropriate authorities. The lifting of articulated human remains is not anticipated at this evaluation stage, but if removal is unavoidable it will comply with the relevant Ministry of Justice regulations and current archaeological best-practice.

6.14 The terms of the Treasure Act, 1996 and as amended, will be followed with regard to any finds which might fall within its purview. Any such finds must be

removed to a safe place and reported to the local coroner as required by the procedures laid down in the Code of Practice.

## 7. Analysis and Reporting

7.1 At the conclusion of the trenching an assessment report shall be produced which will provide the level of information required to inform any further mitigation strategies that may be required.

7.2 The site archive will be assembled in line with the recommendations provided in English Heritage's MoRPHE Project Planning Note 3: Archaeological Excavation (PPN3).

7.3 In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain all the data collected during the excavation, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent. Adequate resources will be provided during fieldwork to ensure that all records are checked and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork and will involve:

- the site record being checked, cross-referenced and indexed as necessary;
- all retained finds being cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum;
- all retained finds being assessed and recorded using pro forma recording sheets, by suitably qualified and experienced staff. Initial artefact dating will be integrated within the site matrix; and
- all retained environmental samples being processed by suitably experienced and qualified staff and recorded using pro forma recording sheets.

7.4 In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain:

- site matrices where appropriate;
- a summary report synthesising the context record;
- a summary of the artefact record; and
- a summary of the environment record.

7.5 The integrity of the primary field record will be preserved. Copies will be maintained where appropriate.

7.6 Provision will be made for the deposition of the archive, artefacts and environmental material, subject to the permission of the relevant landowner (and if no further archaeological work is to be initiated), in the appropriate

recipient museum. The museum will be advised of the timetable of the proposed investigation prior to excavation commencing. The archive will be prepared in accordance with the guidelines published in '*Guidelines for the preparation of Excavation Archives for long-term storage'* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum care of archaeological collections* (Museums and Galleries Commission 1994). Provision will be made for the stable storage of paper records and their long-term storage.

7.7 Upon completion of the investigations, the artefacts, ecofacts and stratigraphic information shall be assessed as to their potential and significance for further analysis.

7.8 An assessment report will be prepared within an agreed timescale following the completion of on-site archaeological investigations and include the following:

- a non-technical summary of the results of the work;
- a summary of the project's background, including the planning application number and SMR casework number;
- the dates the fieldwork took place;
- the site location, including National Grid Reference;
- an account of the method;
- the results of the excavation, including phasing and interpretation of the site sequence;
- MAP 2 – standard assessments of all categories of artefacts and environmental material – this will include a quantified catalogue, assessment of significance, statement of potential and recommendations for further work, illustration or conservation;
- conservation assessment;
- an assessment of the stratigraphic and other written, drawn and photographic records;
- a catalogue of the archaeological material recovered during the excavation;
- a summary of the contents of the project archive and its location;
- recommendations for any further work.

7.9 The report will be supported by an overall plan of the site, accurately identifying the location of the trial excavations.

7.10 The report will outline the archaeological significance of the deposits identified, and provide an interpretation of the results in relation to other sites in the vicinity.

7.11 A draft copy of the report will be supplied to CgMs Consulting. Following their comments, a final copy of the report will be supplied. CgMs Consulting will distribute further copies to other interested parties.

7.12 Upon completion of the work, the archaeological contractor will make their work accessible to the wider research community by submitting digital data and copies of reports online to OASIS (http://ads.ahds.ac.uk/project/oasis/).

**8. Copyright, Confidentiality and Publicity**

8.1 Unless the client commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic record and reports will rest with the originating body (ASWYAS).

**9 Schedule of work**

9.1 On commission, ASWYAS produce a site-specific risk assessment. The local museum will be contacted and an accession number will be obtained.

9.2 It is anticipated that the excavation of fourteen trenches, and their backfilling, can be undertaken over a 6-day period with up to three archaeologist in attendance. A draft assessment report will be produced within one month of site work finishing, subject to specialist availability and the need for scientific dates. Following comments on the draft report from CgMs Consulting, a final copy will be produced within a two-week period.

**10 Monitoring**

10.1 CgMs Consulting will inspect the archaeological works to ensure that they are being conducted to the proper professional standards and in accordance with this method statement.

**11. Health and Safety**

11.1 ASWYAS has its own Health and Safety policy which has been compiled using national guidelines and HSE advice provided by Wakefield Council and the Federation of Archaeological Managers and Employers. These guidelines conform to all relevant Health and Safety legislation.

11.2 In addition, each project undergoes a 'Risk Assessment' which sets project specific Health and Safety requirements to which all members of staff are made aware of prior to on-site work commencing. Site-specific Health and Safety instructions will be given to all staff working on the scheme prior to the commencement of on-site works.

**12. Insurance**

12.1 ASWYAS is covered by the insurance and indemnities of the City of Wakefield Metropolitan District Council (including Employers' Liability Insurance of £10,000,000 and Public Liability Insurance of £20,000,000). Insurance has

been effected with: Zurich Municipal Insurance, Park House, 57–59 Well Street, Bradford, BD1 5SN (policy number QLA-03R86-0013). Any further enquiries should be directed to: The Chief Financial Officer, Insurance Section, Wakefield MDC, PO Box 55, Newton Bar, Wakefield WF1 2TT.


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# Appendix 2: Inventory of primary archive

| Phase | File/Box No | Description | Quantity |
|---|---|---|---|
| Evaluation | File no.1 | Context register sheets | 2 |
| | | Context cards (100-133) | 34 |
| | | Trench record sheets | 14 |
| | | Drawing register sheets | 1 |
| | | Drawing sheet number record | 1 |
| | | Permatrace sheets | 12 |
| | | Finds and samples record sheets | 1 |
| | | Photo register sheets | 3 |
| | | Digital photograph record sheet | 1 |
| | | B&W photograph record sheet | 1 |
| | | Sample register sheets | 1 |

# Appendix 3: Concordance of contexts yielding artefacts or environmental remains

| Context | Trench | Description | Artefacts and environmental samples |
|---|---|---|---|
| 100 | All | Topsoil | |
| 101 | All | Subsoil | |
| 102 | 5 | Upper fill of ditch 104 | |
| 103 | 5 | Lower fill of ditch 104 | GBA 1 |
| 104 | 5 | Ditch cut | |
| 105 | 5 | Upper fill of ditch 107 | |
| 106 | 5 | Lower fill of ditch 107 | GBA 2 |
| 107 | 5 | Ditch cut | |
| 108 | 4 | Upper fill of feature 112 | Pottery (15), pipe (1), Fe objects (2), glass (7), tile (1) |
| 109 | 4 | Sand band within 108 | |
| 110 | 4 | Clay layer in feature 112 | |
| 111 | 4 | Re-deposited clay lump in feature 112 | |
| 112 | 4 | Cut feature, pond | |
| 113 | 4 | Cobble surface set in base of 112 | |
| 114 | 9 | Ditch cut | |
| 115 | 9 | Only fill of ditch 114 | GBA 4 |
| 116 | 11 | Only fill of gully 117 | |
| 117 | 11 | Gully cut | |
| 118 | 12 | Only fill of gully 119 | GBA 3 |
| 119 | 12 | Gully cut | |
| 120 | 14 | Only fill of ditch 121 | GBA 5 |
| 121 | 14 | Ditch cut | |
| 122 | 7 | Only fill of ditch 123 | GBA 8 |
| 123 | 7 | Ditch cut | |
| 124 | 7 | Upper fill of ditch 129 | |
| 125 | 7 | Fourth fill of ditch 129 | Quern stone (1) |
| 126 | 7 | Tertiary fill of ditch 129 | |
| 127 | 7 | Secondary fill of ditch 129 | GBA 6; animal bone (3) |
| 128 | 7 | Primary fill of ditch 129 | GBA 7 |
| 129 | 7 | Ditch cut | |
| 130 | 13 | Only fill of ditch 131 | GBA 10 |
| 131 | 13 | Ditch cut | |
| 132 | 1 | Only fill of ditch 133 | GBA 9 |
| 133 | 1 | Ditch cut | |

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