

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Northumberland Estates

Land north of Piper Road
Ovingham
Northumberland
archaeological evaluation

report 5604
October 2021

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1. Summary

The project

- 1.1 This report presents the results of an archaeological evaluation conducted in advance of a proposed development at Piper Road, Ovingham, Northumberland. The works comprised eight evaluation trenches.
- 1.2 The works were commissioned by Northumberland Estates and conducted by Archaeological Services Durham University.

Results

- 1.3 Archaeological deposits comprising pits and postholes cut into the natural subsoil were present in trenches 1 and 4. These indicate the presence of later prehistoric activity over the site.
- 1.4 No archaeological deposits were recorded in trenches 2-3 and 5-8.
- 1.5 No artefacts were recovered. The palaeoenvironmental evidence from the pits [F10/F12] and postholes [F5/F7] is generally consistent with Bronze Age features identified immediately to the west of the evaluation site. As features of this nature can occur in clusters, there may be further evidence present in the immediate vicinity.

Recommendations

- 1.6 A programme of archaeological recording is recommended, in order to mitigate the impact of the development on the archaeological resource.

2. Project background

Location (Figure 1)

- 2.1 The site is located on land off Piper Road, Ovingham, Northumberland (NGR centre: NZ 0898 6426). It was roughly rectangular in plan, and covered an area of approximately 0.58 ha. To the south was Piper Road, to the west was Hawthorn Gardens and to the north and east were agricultural fields.

Development proposal

- 2.2 The area is proposed for residential development.

Objective

- 2.3 The objective of the scheme of works was to assess the nature, extent and potential significance of any archaeological resource within the proposed development area, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.

Research Objectives

- 2.4 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region. The scheme of works was designed to address agenda items:

Late Bronze Age and Iron Age

lii: Settlement

liii: Landscapes

Roman

Riv: Native and civilian life

Later medieval

MDi: Settlement

MDii: Landscape

Specification

- 2.5 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference 21224) and approved by the planning authority.

Dates

- 2.6 Fieldwork was undertaken w/c 27th September. This report was prepared for October 2021.

Personnel

- 2.7 Fieldwork was supervised by Jeff Lowrey. This report was prepared by Jamie Armstrong, with illustrations by Dr Helen Drinkall. Sample processing was undertaken by Dr Carrie Armstrong. Specialist reporting was conducted by Lorne Elliott (palaeoenvironmental). The Project Manager was Jamie Armstrong.

Archive/OASIS

- 2.8 The site code is **OPR21**, for **Ovingham Piper Road 2021**. The palaeoenvironmental residues were discarded following examination. The flots and charred plant remains will be retained at Archaeological Services Durham University. The archive has been

prepared for deposition by Archaeological Services Durham University and will be transferred to Alnwick Castle in due course. Archaeological Services Durham University is registered with the **Online Access to the Index of archaeological investigation project (OASIS)**. The OASIS ID number for this project is **archaeol3-433285**.

3. Landuse, topography and geology

- 3.1 At the time of the works the site comprised part of a field of grass. To the north and east of the field was a bund and swale. To the south was a mature hedgerow and wire fence to Piper Road. To the west was a soil bank and wooden fence to a recent housing development. A large earth mound was present in the south of the area, and there was a gravel surface in the south-west corner.
- 3.2 The site occupies a terrace on the north bank of the River Tyne, with mean elevations between approximately 22m and 25m OD. Ground levels drop steeply from this terrace to the river around 200m to the south of the site; they begin rising (slightly less steeply) along the northern boundary of the site.
- 3.3 The underlying solid geology of the area comprises Carboniferous strata of the Pennine Lower Coal Measures Formation, which are overlain by Devensian till. River terrace deposits are recorded to the south of the site.

4. Historical and archaeological background

- 4.1 A detailed archaeological desk-based assessment has been conducted which includes the proposed development area (Archaeological Services 2019c).
- 4.2 A geophysical survey (Archaeological Services 2013) and a strip, map and record excavation (Archaeological Services 2019a; 2021) have been undertaken on land immediately to the west of the proposed development area. The survey detected several small, discrete positive magnetic anomalies and two short linear anomalies that could have reflected the remains of soil-filled pits and gullies. Excavation identified a stone cist, together with a series of postholes. Small fragments of probable prehistoric pottery were recovered from the cist and one of the postholes. The cist also contained an assemblage of burnt clay. Radiocarbon dating indicated a Bronze Age date. Charred plant remains often recorded in Bronze Age funerary deposits were found in fills of the cist and several of the postholes. There was evidence for the use of cereal crops typical of the Bronze Age, comprising barley and wheat (cf. emmer). There was evidence that the local woodland, largely comprising oak and hazel, was subject to episodes of clearance. Unstratified pottery from the site indicated intermittent Roman, medieval and later activity. Medieval radiocarbon dates were obtained from two postholes containing otherwise typical Bronze Age environmental evidence; these are interpreted as being due to intrusive material from medieval manuring activity. A background scatter of medieval occupation waste was recorded in the palaeoenvironmental assemblage. Post-medieval occupation was represented by a 19th- to 20th-century cattle burial and a colluvium deposit that spread across much of the site.
- 4.3 A programme of archaeological monitoring (Archaeological Services 2019b) was also conducted along a drainage trench that crossed the centre of the current site, and

for a bund and swale to the immediate north of the current site. No archaeological features or deposits were identified in the monitored area, and no artefacts recovered.

- 4.4 Geophysical survey and archaeological monitoring has also been conducted in relation to a flood alleviation scheme on land further to the west and within Ovingham. No significant archaeological resource was identified (Archaeological Services 2018; 2019b). A further geophysical survey was conducted on the proposed development area in 2019: this identified some possible soil-filled features as well as ridge and furrow cultivation (Archaeological Services 2019d).
- 4.5 The site lies beyond the edge of the medieval village of Ovingham, and it is probable that the area was utilised as agricultural land in the medieval and post-medieval periods. Evidence relating to this, in the form of ridge and furrow cultivation, was identified in the geophysical survey.

5. The evaluation trenches

Introduction

- 5.1 Eight trenches were excavated across the proposed development area (Figure 2).

Trench 1 (Figure 3)

- 5.2 Trench 1 was 15m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.92m. Cut into this were three features. Towards the northern end of the trench was a circular posthole [F7: 0.3m in diameter, 0.24m deep; Photo 1]. This was filled with a dark grey clayey sandy silt with rare inclusions of small sub-angular stones [8]. At the south end of the trench was a small round pit [F10: 0.36m in diameter, 0.09m deep; Photo 2]. This was filled with a dark grey clayey sandy silt with rare inclusions of small sub-angular stones [9]. To the southwest was an elongated pit [F12: 1.0m by 0.4m, 0.09m deep; Photo 3]. It was filled with a dark grey gravelly clayey sandy silt [11]. The fills of all three features were similar to those excavated on the neighbouring site in 2016 (Archaeological Services 2021), with which they also shared a similar ecofactual assemblage (below, Section 7). Overlying the natural subsoil and the features was a buried soil horizon of dark grey clayey sandy silt [3: 0.3m deep]. This was below a brown sandy clayey silt subsoil [2: 0.5m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.28m deep]. No artefacts were recovered.

Trench 2 (Figure 3)

- 5.3 Trench 2 was 10m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.9m. Over this was a buried soil horizon of dark grey clayey sandy silt [3: 0.3m deep]. This was overlain by a brown sandy clayey silt subsoil [2: 0.4m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.27m deep]. No archaeological features were identified and no artefacts recovered.

Trench 3 (Figure 3)

- 5.4 Trench 3 was 10m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 1m. Over this was a buried soil horizon of dark grey clayey sandy silt [3: 0.25m deep]. This was overlain by a brown sandy clayey silt subsoil [2: 0.4m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.27m deep]. No archaeological features were identified and no artefacts recovered.

Trench 4 (Figure 3)

- 5.5 Trench 3 was 10m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.8m. Cut into this was an irregular pit or posthole [F5: 0.6m by over 0.3m, 0.24m deep; Photo 4]. This was filled with a dark grey with brown mottling clayey sandy silt [6]. Overlying the natural subsoil and the feature was a buried soil horizon of dark grey clayey sandy silt [3: 0.22m deep]. Above this was a brown sandy clayey silt subsoil [2: 0.3m deep]. Over this was a grey sandy clayey silt topsoil [1: 0.3m deep]. No artefacts were recovered.

Trench 5 (Figure 3)

- 5.6 Trench 5 was 14m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.84m. This was overlain by a brown sandy clayey silt subsoil [2: up to 0.7m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.3m deep], with a modern gravel surface over that [13: 0.1m deep]. No archaeological features were identified and no artefacts recovered.

Trench 6 (Figure 3; Photo 5)

- 5.7 Trench 6 was 10m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.98m. Over this was a buried soil horizon of dark grey clayey sandy silt [3: 0.27m deep]. This was overlain by a brown sandy clayey silt subsoil [2: 0.5m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.2m deep]. No archaeological features were identified and no artefacts recovered.

Trench 7 (Figure 3; Photo 6)

- 5.8 Trench 7 was 8m long. It was shortened from its original intended length of 15m because of a large spoil mound (2m high) which could not be excavated through; the mound was partially excavated into however, sufficient to demonstrate that there had been no truncation of the natural subsoil prior to construction of the mound; any archaeological deposits that were cut through the natural would therefore have the potential to survive. Across the trench, natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 1.1m. Over this was a buried soil horizon of dark grey clayey sandy silt [3: 0.3m deep]. This was overlain by a brown sandy clayey silt subsoil [2: 0.5m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.28m deep]. No archaeological features were identified and no artefacts recovered.

Trench 8 (Figure 3)

- 5.9 Trench 8 was 15m long. Natural subsoil, a mid to light brown clayey silt sand [4], was identified at a depth of 0.75m. Over this was a buried soil horizon of dark grey clayey sandy silt [3: up to 0.28m deep]. This was overlain by a brown sandy clayey silt subsoil [2: up to 0.3m deep]. Above this was a grey sandy clayey silt topsoil [1: 0.28m deep]. No archaeological features were identified and no artefacts recovered.

Geophysical interpretation

- 5.10 Magnetic anomalies identified as probable near-surface items of ferrous and/or fired waste, but which could reflect archaeological features, were identified as the former. Small discrete archaeological features identified in the evaluation trenching were not identified by geophysical survey; this reflects the depth of soil over them (between 0.8m and 1.1m) and the masking effect of a concentration of ferrous and/or fired waste in the data. Traces of ridge and furrow identified in the

geophysical data were not identified cutting the natural subsoil because the subsoil was too deep to have been cut by the plough.

6. The artefacts

- 6.1 No artefacts were recovered.

7. The palaeoenvironmental evidence

Methods

- 7.1 A palaeoenvironmental assessment was carried out on four bulk samples, taken from two pits [F10/F12] and two postholes [F5/F7] of possible prehistoric origin. The samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification using a Leica MZ7.5 stereomicroscope for waterlogged and charred botanical remains. Identifications were undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University and by reference to relevant literature (Cappers *et al.* 2006). Plant nomenclature follows Stace (2010). Habitat classification follows Preston *et al.* (2002).
- 7.2 Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating and to determine the nature and condition of the assemblages. The transverse, radial and tangential sections were examined at up to x500 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990), Gale & Cutler (2000) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.
- 7.3 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Petts & Gerrard 2006; Hall & Huntley 2007; Huntley 2010).

Results

- 7.4 These sandy samples produced relatively small flots (10-30ml) with a similar make-up, comprising a mix of fragmented charcoal, coal and cinder, and modern roots. Posthole [F7] and pit [F12] have the largest concentrations of palaeoenvironmental material. Identified charcoal is often oak (sapwood and branchwood) and hazel (branchwood), although ash and Maloideae are also present in pit [F12]. Charred plant macrofossils are sparse, of which the most frequently occurring are small grass-type rhizomes and basal stems, and there are two false oat-grass tubers in posthole [F7]. All of the charred remains have some mineral inclusions.
- 7.5 Detailed palaeoenvironmental results and a provisional date for each context are presented in Table 1.2. Material for radiocarbon dating is shown in Table 1.3. Although the charred plant remains are above the acceptable minimum weight (10mg) for radiocarbon dating, they are also below the recommended size (50mg), and as they are all mineral encrusted, some may have insufficient weight of carbon.

Discussion

- 7.6 The palaeoenvironmental evidence is generally consistent with remains recorded in a stone cist and a series of postholes/pits that were identified immediately to the west of the evaluation site. Subsequent radiocarbon and palaeoenvironmental results indicated they had a Bronze Age date (Archaeological Services 2021). This similarity might imply the features detected in this evaluation are an extension of the previously recorded activity, and may also have an earlier prehistoric origin.
- 7.7 Charred underground plant parts such as tubers and rhizomes, particularly false oat-grass tubers, are often associated with Neolithic or Bronze Age activity and regularly occur at a site type referred to as a 'pit group', which is defined as a spatially discrete cluster of pits, with little if any associated structural evidence. Earth ovens are one such feature of pit groups that typically produces this palaeoenvironmental evidence. It is possible that the pits [F10/F12] and postholes [F5/F7] represent the remains of small transitory settlement, and further evidence may be present in the immediate vicinity, especially if you consider the site has factors that determine their location, such as sandy well-drained soils and close proximity to sources of water.

Recommendations

- 7.8 No further palaeoenvironmental work is required for these samples. If further work is undertaken at the site, the results of this assessment should be added to any additional palaeoenvironmental data found.

8. The archaeological resource

- 8.1 Archaeological deposits comprising pits and postholes cut into the natural subsoil were present in trenches 1 and 4. These indicate the presence of later prehistoric activity over the site.
- 8.2 No archaeological deposits were recorded in trenches 2-3 and 5-8.
- 8.3 No artefacts were recovered. The palaeoenvironmental evidence from the pits [F10/F12] and postholes [F5/F7] is generally consistent with Bronze Age features identified immediately to the west of the evaluation site. As features of this nature can occur in clusters, there may be further evidence present in the immediate vicinity.
- 8.4 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the archaeological resource addresses agenda items:

Late Bronze Age and Iron Age

lii: Settlement

liii: Landscapes

9. Impact assessment

- 9.1 Groundworks associated with the development have the potential to remove or truncate significant archaeological deposits across the site, particularly in the north-

western area. The gravel surface and soil mound in the southern part of the site are above the level at which an archaeological resource would be encountered if it were present and would not have impacted upon it.

10. Recommendations

- 10.1 A programme of archaeological recording is recommended, in order to mitigate the impact of the development on the archaeological resource.

11. Sources

- Archaeological Services 2013 *Land at Piper Road, Ovingham, Northumberland: geophysical survey*. Unpublished report **3203**, Archaeological Services Durham University
- Archaeological Services 2018 *Ovingham Flood Alleviation Scheme, Northumberland: geophysical survey*. Unpublished report **4890**, Archaeological Services Durham University
- Archaeological Services 2019a *Land at Piper Road, Ovingham, Northumberland: archaeological works*. Unpublished report **4512**, Archaeological Services Durham University
- Archaeological Services 2019b *Surface Water Management, Ovingham, Northumberland: archaeological monitoring*. Unpublished report **4871**, Archaeological Services Durham University
- Archaeological Services 2019c *Land off Piper Road, Ovingham, Northumberland: archaeological desk-based assessment*. Unpublished report **5142**, Archaeological Services Durham University
- Archaeological Services 2019d *Land at Piper Road, Ovingham, Northumberland: geophysical survey*. Unpublished report **5144**, Archaeological Services Durham University
- Archaeological Services 2021 *Land at Piper Road, Ovingham, Northumberland: post-excavation analysis*. Unpublished report **5429**, Archaeological Services Durham University
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- Hall, A R, & Huntley, J P, 2007 *A review of the evidence for macrofossil plant remains from archaeological deposits in northern England*. Research Department Report Series no. **87**. London
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- Huntley, J P, 2010 *A review of wood and charcoal recovered from archaeological excavations in Northern England*. Research Department Report Series no. **68**. London
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- Preston, C D, Pearman, D A, & Dines, T D, 2002 *New Atlas of the British and Irish Flora*. Oxford
- Schweingruber, F H, 1990 *Microscopic wood anatomy*. Birmensdorf
- Stace, C, 2010 *New Flora of the British Isles*. Cambridge

Appendix 1: Data tables

Table 1.1: Context data

No	Area	Description
1	All	Topsoil
2	All	Subsoil
3	All	Buried soil horizon
4	All	Natural subsoil
F5	Tr 4	Cut for posthole
6	Tr 4	Fill of postholeF5
F7	Tr 4	Cut for posthole
8	Tr 4	Fill of postholeF7
9	Tr 1	Fill of pit
F10	Tr 1	Cut for pit F10
11	Tr 1	Fill of pit F12
F12	Tr 1	Cut for pit
13	Tr 5	Modern gravel

Table 1.2: Data from palaeoenvironmental assessment

Sample	Context	Feature	Trench or Area	Volume processed (l)	Flot volume (ml)	C14 available	Rank	Notes
1	6	F5 - posthole	4	6	20	Y	*	Small flot containing modern roots and fragmented (<4mm) charcoal, coal and cinder. The charcoal is small slivers of oak sapwood. Sparse charred plant macrofossils include a single hazel nutshell and traces of charred grass-type rhizomes. Prehistoric?
2	8	F7 - posthole	1	8	30	Y	**	Small flot containing modern roots and fragmented (<4mm) charcoal, coal and cinder. The charcoal is small fragments of oak sapwood and hazel branchwood. The charred plant macrofossil assemblage includes two small hazel nutshells, a daisy family achene and several tubers, rhizomes and stems of grasses - including two false oat-grass tubers (<i>Arrhenatherum elatius</i> ssp <i>bulbosum</i>). Neolithic or Bronze Age?
3	9	F10 - pit	1	3	10	?	*	Small flot containing modern roots and fragmented (<4mm) charcoal, coal and cinder. The charcoal is oak branchwood. There are no charred plant macrofossils. Uncertain
4	11	F12 - pit	1	11	30	Y	**	Small flot containing modern roots and a relatively larger quantity of fragmented (<4mm) charcoal, coal and cinder. The charcoal assemblage has a wider range of species including oak sapwood and hazel, ash and Maloideae (apple or hawthorn) branchwood. The charred plant macrofossil assemblage comprises several tubers, rhizomes and stems of grasses. Prehistoric

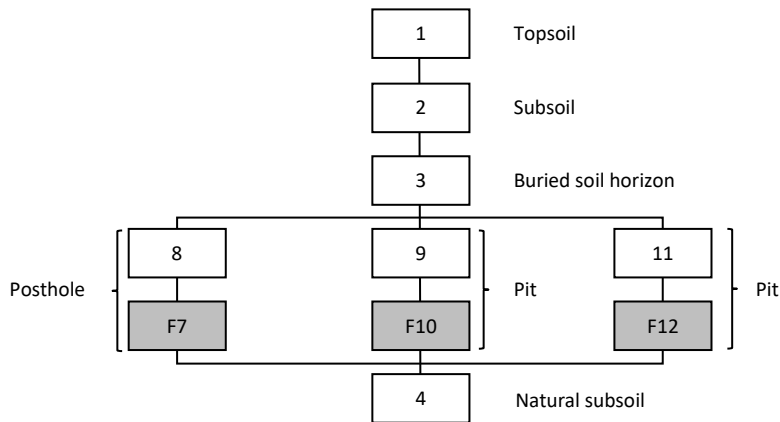
[Rank: *: low; **: medium; ***: high; ****: very high potential to provide further palaeoenvironmental information. ? indicates material may be unsuitable for AMS dating due to small size or long-lived species]

Table 1.3: Material available for radiocarbon dating

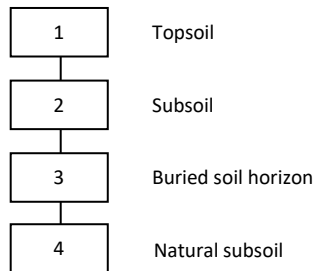
Context	Sample	Single Entity recommended 1st choice	Weight	Notes	Single Entity recommended 2nd choice	Weight	Notes
6	1	charred Hazel nutshell	12mg	abraded	-	-	no other material available for radiocarbon dating
8	2	charred False oat-grass tuber	23mg	some mineral encrusting	Oak charcoal	13mg	(2 growth rings) sapwood sliver ALSO charred hazel nutshell (6mg)
9	3	Oak charcoal	10mg	(2 growth rings) branchwood	-	-	no other material available for radiocarbon dating
11	4	Oak charcoal	42mg	(1 growth ring) sapwood – latewood only some mineral encrusting	Hazel charcoal	31mg	(2 growth rings) reaction wood – curled growth some mineral inclusions

Appendix 2: Stratigraphic matrices

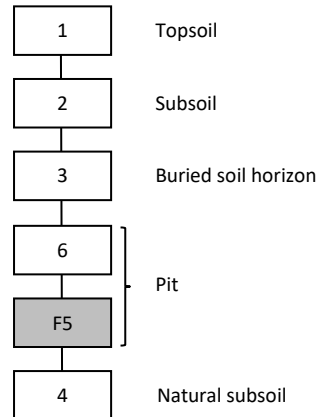
Trench 1



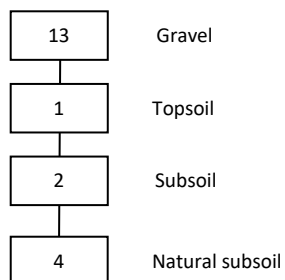
Trench 2-3 & 6-8



Trench 4



Trench 5





Photograph 1: Trench 1,
Posthole F7, looking south



Photograph 2: Trench 1,
Pit F10, looking east



Photograph 3: Trench 1,
Pit F12, looking south



Photograph 4: Trench 4,
Posthole F5, looking south



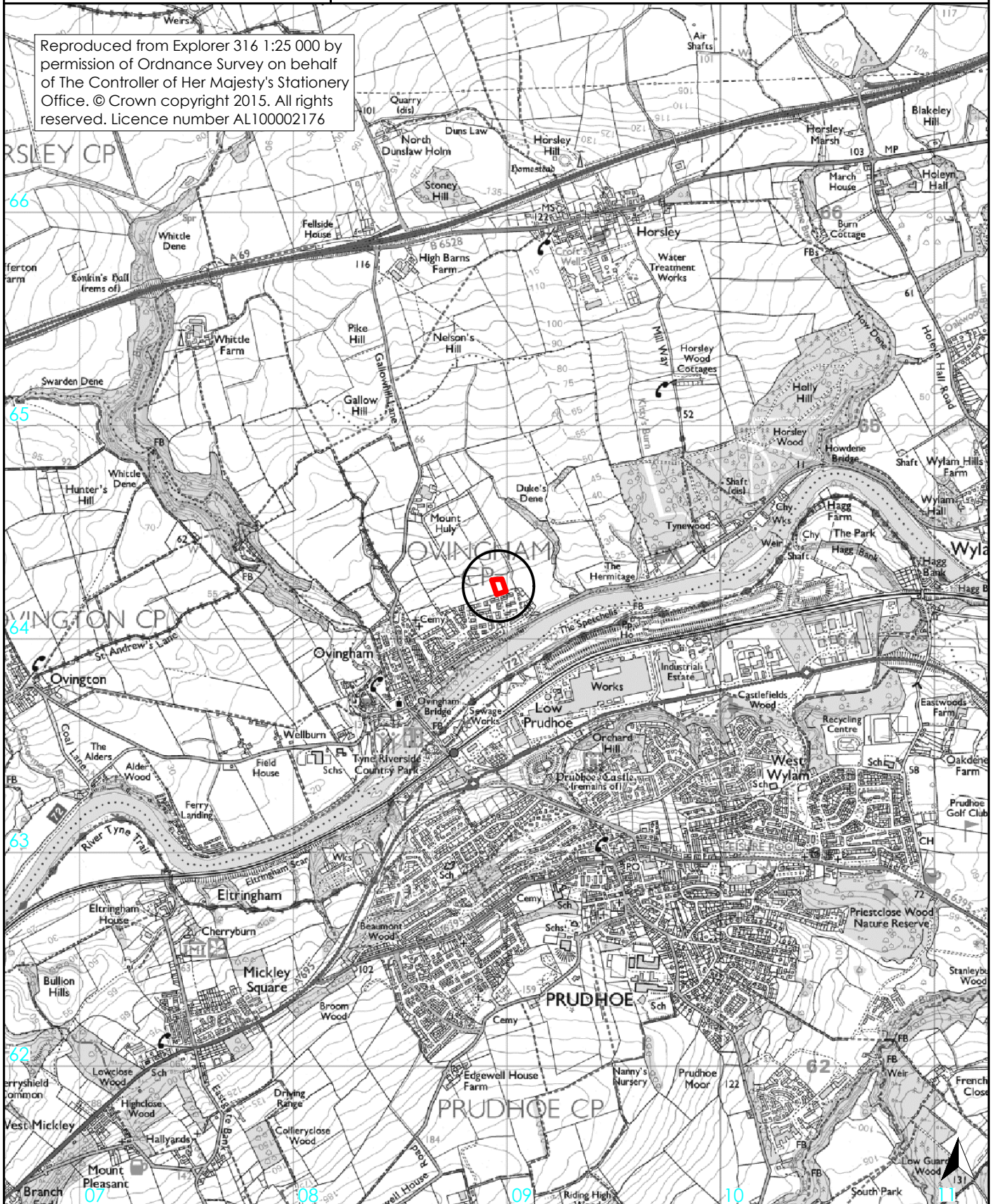
Photograph 5: Trench 6,
looking north-west



Photograph 6: Trench 7
sample section showing
typical deposit sequence,
looking south

Figure 1: Site location

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site location

0 1km
scale 1:25 000 for A4 plot

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ARCHAEOLOGICAL SERVICES

DURHAM UNIVERSITY

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archaeological evaluation
report 5604

Figure 2: Trench locations

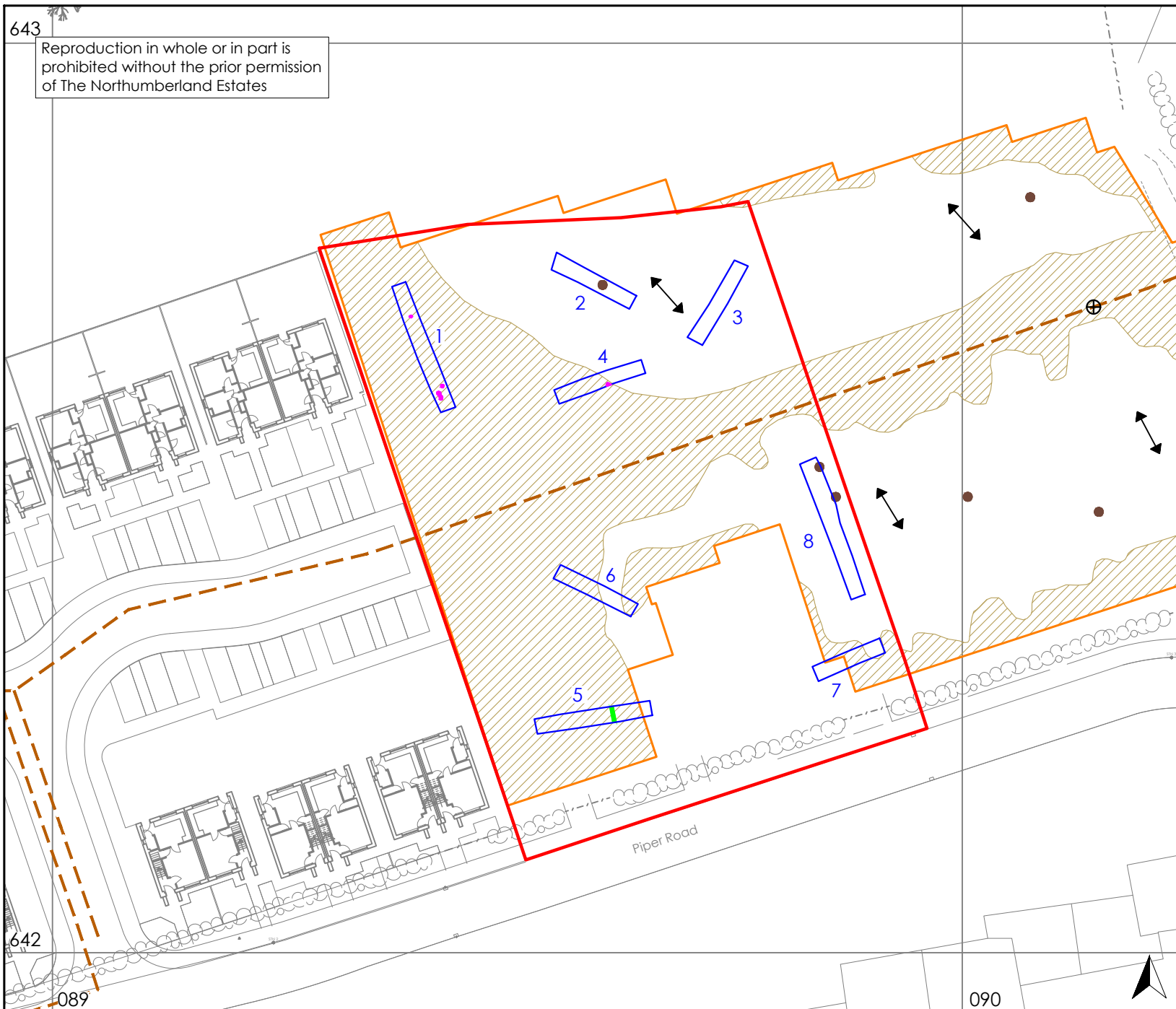


- site boundary
- magnetic survey
- possible soil-filled feature
- ferrous/fired material
- ridge and furrow
- inspection cover
- monitored pipe
- trench
- feature
- service

642

089

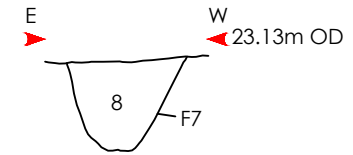
090



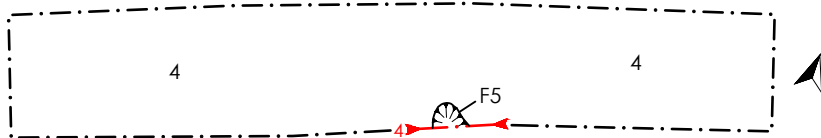
Trench 1, plan



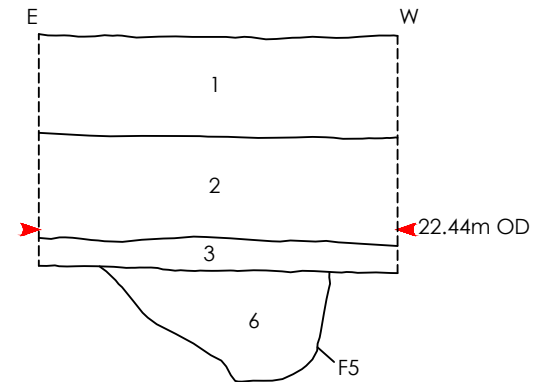
Trench 1, Section 1



Trench 4, plan



Trench 4, Section 4



Trench 1, Section 2



Trench 1, Section 3

