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Archaeological Services

**An Archaeological Evaluation on Land
opposite the Avenue Visitor Centre,
South of Mill Lane, Wingerworth,
Derbyshire. S42 6FJ
NGR: SK 439699 366887**

Jamie Patrick



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Jamie Patrick

For: Bellway Homes, East Midlands

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**An Archaeological Evaluation on land opposite The Avenue Visitor Centre, South of
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Summary

This document is a fieldwork report for an archaeological trial trench evaluation, carried out by University of Leicester Archaeological Services (ULAS) on land opposite The Avenue Visitor Centre, south of Mill Lane, Wingerworth, Derbyshire (SK 439699 366887). The Planning Application (NED/17/00227/OL.) is for the construction of up to 95 dwellings with associated off-road parking and garages. The proposed development lies within a single field, which narrows towards the south-east, covering an area of approximately 3.8ha. The land is presently in arable use with the crop recently harvested. Some landscaping related to opencast mining on the site was observed on the northern periphery, which had significantly disturbed the ground in places.

Previous work to the west of the new development area included observation of a series of Geotechnical Test Pits followed by a trial trench evaluation in advance of the recently built housing estate on the west side of the site during 2014. No archaeological remains were found with the geotechnical pits showing previous development in the form of opencast mining which had taken place on the field predominantly to the South-west of the site from the mid to third quarter of the 20th Century (Ottomano & Strafford 2014, p5).

The site is located approximately 330m east of the projected line of Rykniel Street Roman Road (HER15328), (15335) and 500m east of the recently identified later Pre-historic and early Romano-British site at Hanging Banks to the west of Derby road. A water powered flour mill with associated mill pond and Goit along Mill Lane has been identified on Ordnance survey maps dating from the 1873 1st edition which is of medieval origin (HER), (Baker 2017).

Together with a recent geophysical Survey conducted by ARS ltd during 2017, the Planning Archaeologist for Derbyshire County Council asked for an evaluation be carried out to assess the presence, character, and survival of any archaeological remains as shown by the survey. In order to meet the requirement, an initial ten trenches were excavated across the development area including five targeting geophysical anomalies together with five sample trenches in blank areas.

Constraints included a water/sewer pipe to the north and north-east of the field adjacent to Mill Lane and an east to west footpath traversing the site. Subsequently some trench re-positioning was required. The Evaluation proved negative for archaeological remains.

An additional trench confirmed the location of the former mill goit previously highlighted by the geophysical survey. Where sampled the goit was less than 2m in width, suggesting that it had been truncated by landscaping, perhaps associated with the open cast coal mining that occurred during the middle of the twentieth

century. This may also explain why the goit was only seen within this area of the geophysical survey, only surviving where it was at its most substantial.

Introduction

In accordance with National Planning Policy Framework (NPPF) Section 16 *Conserving and Enhancing the Historic Environment*, this document forms the report for trial trenching of land opposite The Avenue Visitor Centre on land South of Mill Lane, Wingerworth, Derbyshire. It details the programme of archaeological trial trenching that was undertaken in September 2019 and follows the strategy of work set out in the Written Scheme for Investigation (LaCombe 2019).

A planning application (NED/17/00227/OL) has been submitted by Bellway Homes, East Midlands for the construction of up to 95 dwellings with associated off-road parking and garages. The Derbyshire County Planning Archaeologist as archaeological advisor to the planning authority, requested an archaeological field evaluation to identify and record any archaeological remains of significance in order to determine the impact of the proposed scheme on any buried archaeology.

Site Description, Topography and Geology

The development site is located approximately four kilometres south of Chesterfield town centre on the south-east side of the village of Wingerworth, and is accessed via a gate directly south of Mill Lane (Figure 1). The site is a roughly rectangular arable field covering an area of 3.8ha with the land sitting at a height of 99m aOD at the North-west to an elevation of c.90m aOD at the South-east. The field is bounded by a hedgerow with Mill Lane beyond to the north. A dilapidated post and wire fence, hedgerow, open ditch with Avenue Washlands nature reserve is located beyond to the east. An open ditch with agricultural land beyond bound the south and southwest with some Herras type fencing together with permanent boundaries separating the proposed area for development in the west. Further afield the River Rother is located less than 200m to the east with the Redleadmill Brook further beyond to the South.

The Ordnance Survey Geological Survey of Great Britain indicates that the underlying geology of the site is likely to consist of Pennine Lower Coal Measures Formation - Mudstone, Siltstone and Sandstone. Sedimentary Bedrock.

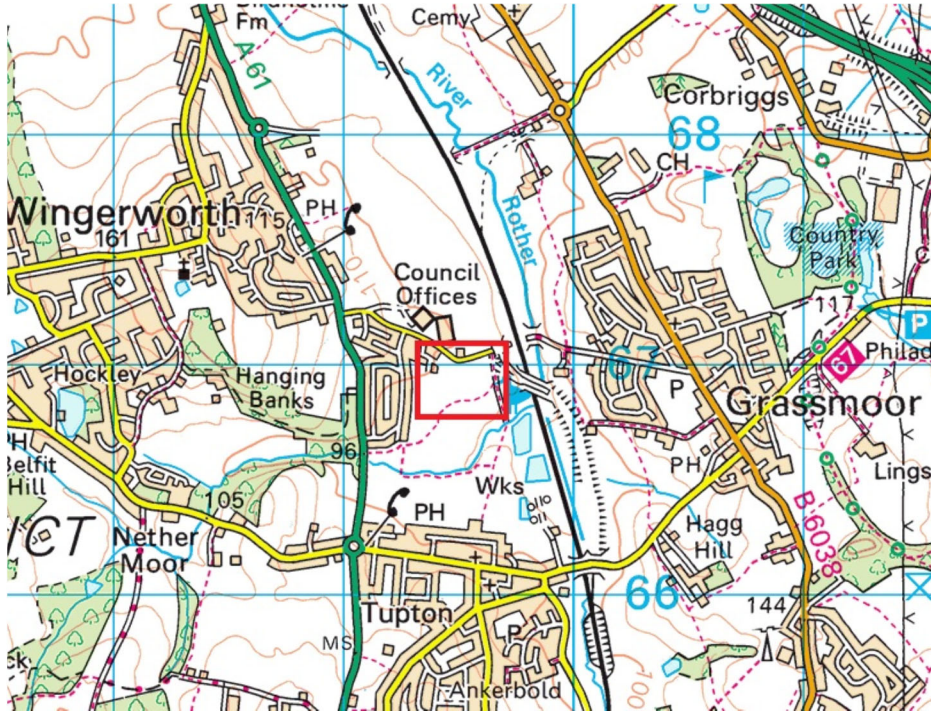


Figure 1: Site Location.

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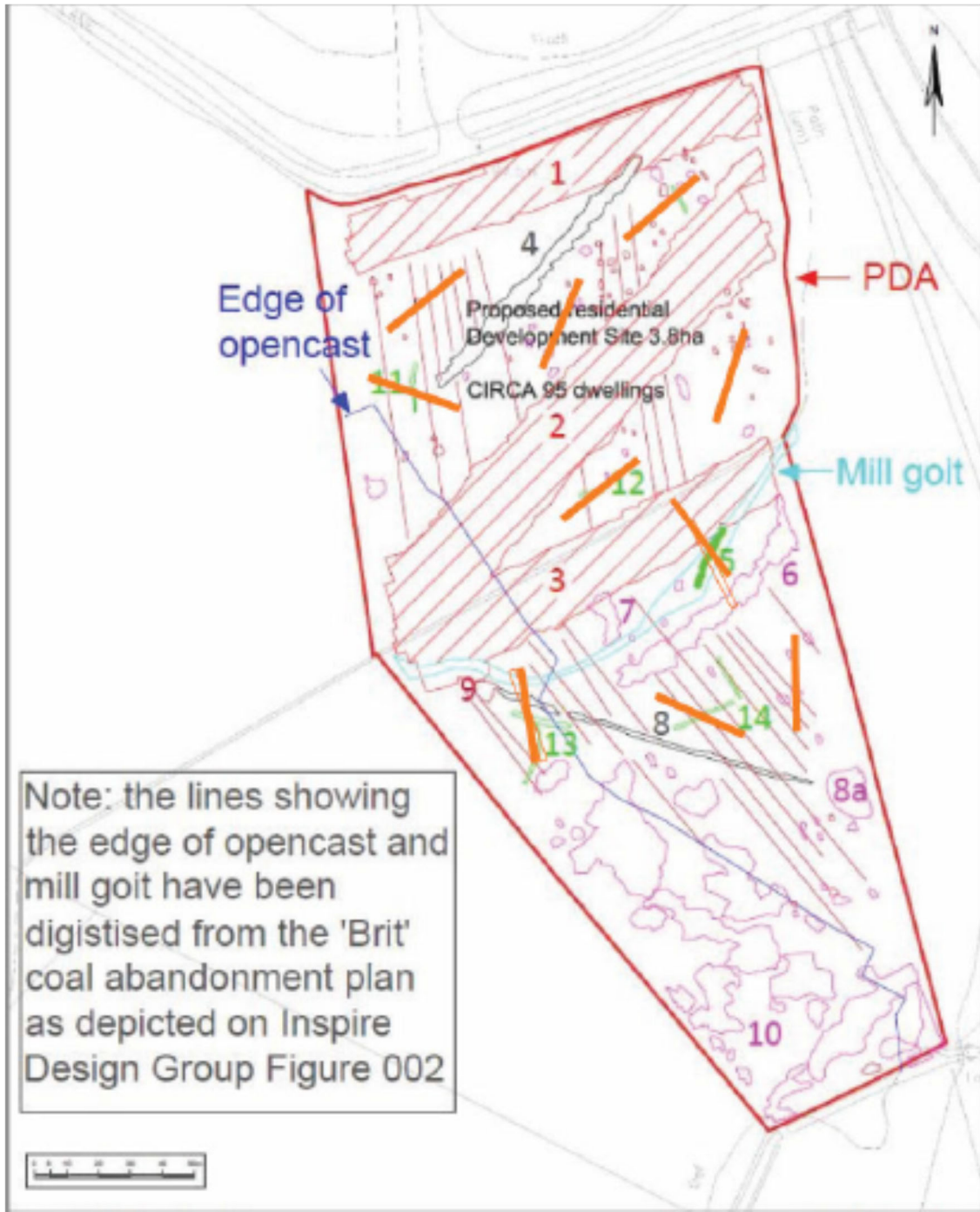


Figure 2: Provisional trench plan showing geophysical survey results marked in green. (Plan supplied by Client)



Figure 3: The development area before excavation, looking east towards the site of former mill

Archaeological and Historical Background

Prehistoric and Roman

The site is about 330m east of the projected line of the Rykniel Street Roman road (HER15328 and 99016) and about 500m east of the later prehistoric and early Roman site recently identified at Hanging Banks to the west of Derby Road (Haltern and Thorp 2016, Malone and Parker 2018). There is consequently some potential for previously unidentified later prehistoric and/or Romano-British remains within the site (Baker 2017).

Medieval and Post Medieval

Wingerworth is recorded in the Domesday Book as ‘Wingreurde’ meaning Enclosure of a Man called ‘Winegār’ in Old English. It was listed as part of the Kings Land having 14 free men with Two plough Lands (land for), and four plough teams.

The development area borders the site of the former Wingerworth Mill (Derbyshire HER15335), a water-powered mill fed by a goit between the Redleadmill Brook and River Rother, with a small mill pond to the west. Parts of the mill pond and goit (as shown on 19th century historic mapping seem to fall within the current site boundary. The mill site is of medieval origin and the disposition of the medieval mill is now known, so it is possible that earlier elements may also be present below ground in the proposal area. (Baker 2017).

Of the 5,624 Mills recorded in Domesday, 72 were recorded in Derbyshire (Nixon 1969, p 94). Wingerworth Mill was not recorded at this time, therefore constructed at a later unknown date. The site lies approximately 1.2 kilometres to the South-east of All Saints Parish Church with

parts of the fabric dating back to the early 12th century (HER 15303). The former mill (now demolished and un-defined) is located at the foot of Mill Lane and surrounded by open fields and former Brown field.

The fairly gentle topography of the surrounding area suggests the original Mill could have been powered by an ‘undershot’ wheel working together with an ‘overshot’ wheel relying on a source of water at a higher level to gush at a high velocity onto the wheel buckets. An example of a restored mill can be seen at Nether Alderley, Cheshire where water runs from the mill into a stream by way of a culvert under the road which shows the variation in construction and methodology according to the topography (Figure 4). A Mill Goit at Wingerworth ran out from the southern side of the mill pond and was still shown to exist as late as 1945 (Figs 5 & 6), albeit in a probable silted up form, with the Mill building demolished in 1953. With the onset of the industrialisation of Sheffield and Chesterfield to the north, water would have been in much greater demand, and although it is unclear from the available information, it is possible that the mill eventually became steam powered and served with coal from its locality. This happened at Nether Alderley Mill, when the water table was lowered due to an increased water reliant industry in nearby Manchester, eventually affecting the mill pond level. A more reliable steam engine was subsequently installed to operate the mill.



Figure 4: A restored overshoot mill of 16th century origin (NT) with mill pond on a higher level in the background, Nether Alderley, Cheshire

Mill Lane is in the form of a shallow sunken lane created by erosion from foot and wheeled traffic over the years along a gentle gradient towards the former mill. This gradual erosion would have continued until the track was eventually consolidated with metaling.

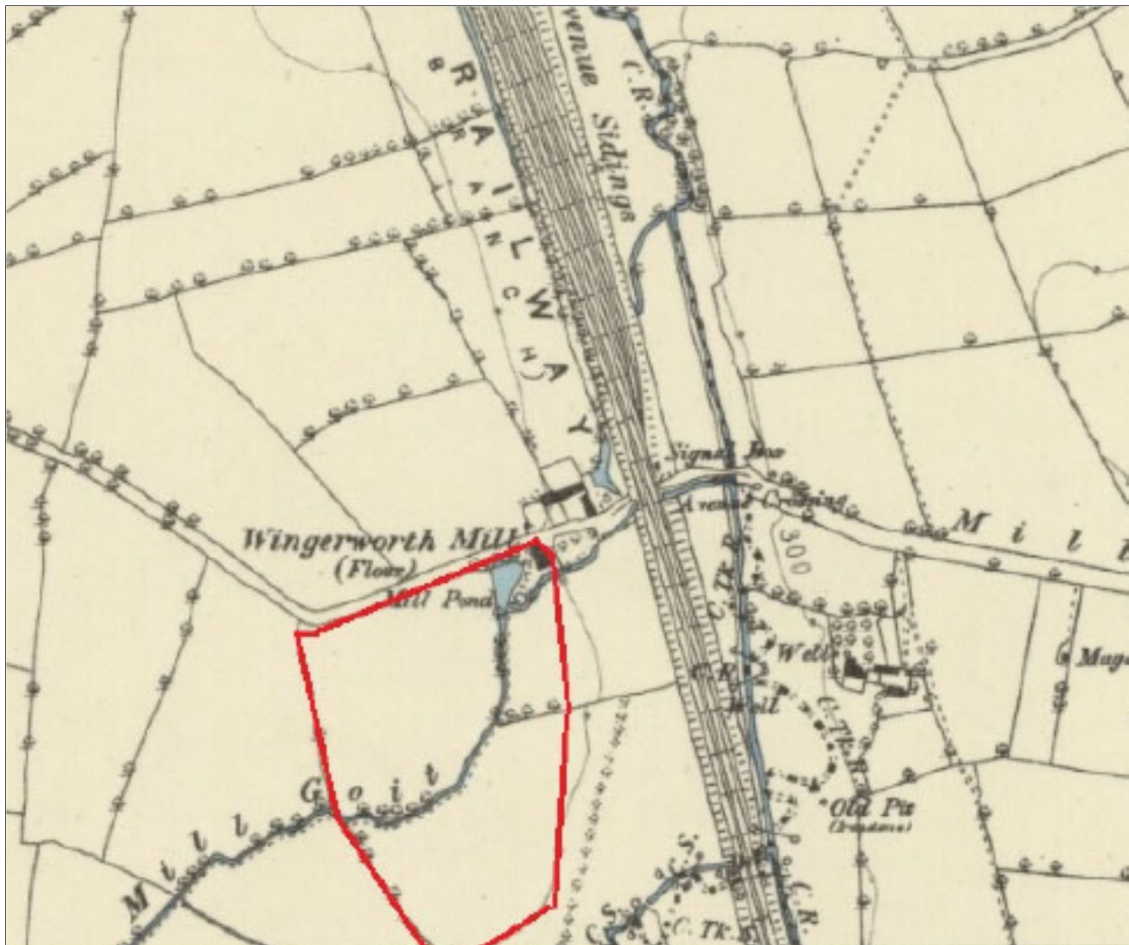


Figure 5: Extract from the 1883 first edition Ordnance Survey map showing the mill and associated features in relation to the outline of the development site.



Figure 6: Extract from the 1938 Ordnance Survey Map (revised 1945) showing the disused mill, with pond, & goit still visible.

Industrial

Opencast mining took place along the western side of the development area widening in volume at the foot of the slope from the mid-twentieth century (Ottomano & Strafford 2014, p5). The commencement of the opencast mine by the NCB corresponds with the Completion and opening of the Avenue Coke Works in 1956 when construction began in 1950 over the area of the former Avenue Colliery mine shafts. It is a possibility that coal from the opencast may have supplied the Coke Works for a number of years until the opencast-mining ceased around the mid-1970's and the ground was levelled with an even slope to the South from the naturally undulating ground surface evident to the North of the footpath. The Coke works closed in 1992 (Figs 7 & 8).

Previous Archaeological Work

A 'brass cuspis, or celt' was found in c.1700 near Ryknield St in Wingerworth parish. The exact find-spot is unknown, but possibly in the vicinity of the development area (HER 15302).

More recently an archaeological evaluation and watching brief was carried out in the field directly to the west of the proposed development area ARS Ltd. in 2014 prior to the construction of new housing. Four test pits were monitored to try to locate a putative Roman road, however the area had been disturbed by opencast mining. In addition, four evaluation trenches were opened towards the south-west corner of the site, all of which were negative for archaeology.

A geophysical survey of the present site was carried out in 2017 by ARS Ltd (Durkin 2017). Several possible archaeological anomalies were identified.



Figure 7: Level sloping land looking South past Trench 1 and beyond



Figure 8: Site of the former Avenue coke works directly north of Mill Lane

Aims and Objectives

The general objectives of the archaeological work were:

- To identify the presence/absence of any archaeological deposits.
- To determine the location, extent, date, character, condition, significance and quality of any archaeological remains within the development site
- To establish the ecofactual and environmental potential of any archaeological deposits and features encountered.
- To assess the impact of previous land use on the site
- To provide sufficient information on the archaeological potential of the site to assess the impact of the proposed development on cultural heritage and to help formulate a mitigation strategy
- To record any archaeological deposits and produce an archive and report of any results.

The results of the evaluation will provide information in order for the local planning authority to make informed recommendations and to identify an appropriate mitigation strategy for the proposed development.

Research Objectives

While the nature, extent and quality of archaeological remains within the area of investigation for the project remain somewhat of an unknown quantity until the archaeological work was undertaken, it was possible to determine some initial broad objectives derived from *East Midlands Heritage* research agenda (Knight *et al.* 2012). Although the results proved negative, the evaluation had the potential to contribute to the following research aims. If archaeological remains of this date been present on the site there was potential to contribute towards the following research objectives:

Roman: 5.4.5. What patterns can be discerned in the location of settlements in the landscape?
5.6.1. What resources moved in and out of the region during this period?
5.7.4. How may roads and waterways have impacted upon established communities and how may roads have influenced urban morphology? (Knight et al 2012).

High medieval: 7.2.3 How can we improve our understanding of the form, evolution and functions of buildings within rural settlements and establish the extent of surviving medieval fabrics? 7.6.4 Can we develop a typological classification of buildings associated with medieval industrial and commercial activities and can we identify sub regional and chronological patterning?

Settlement Patterns: How may we characterise more effectively the frequently ephemeral structural traces that might relate to settlement activity?

Methodology

All work was carried out in accordance with the Chartered Institute for Archaeologists (CIfA) Standard and Guidance for Archaeological Field Evaluation (2014b) and adhered to their Code of Conduct (2014a). The archaeological work followed the Written Scheme of Investigation (WSI) for archaeological evaluation prepared by ULAS and agreed with the Derbyshire County Council Planning Archaeologist (March 2019). The work was monitored by the client (Bellway Homes, East Midlands) and the Derbyshire County Council Planning Archaeologist.

An accession number will be obtained if physical and artefactual evidence had been recorded, otherwise no accession number is to be obtained, the latter being applicable to Mill lane, Wingerworth.

An initial total of 10 x 30m long trenches was proposed, five of which were targeting geophysical anomalies affected by the overall development (Fig 2). The site was free of overhead services although underground services are known crossing the northern part of the site parallel to Mill Lane including a sewer. Additionally, an east to west public footpath crossed the site which had been secured on both sides by Heras fencing. Consequently a single trench (Trench 11), targeting a geophysical anomaly was shortened to c. 20m and re-positioned to the south of the footpath. An eleventh trench (Trench 4) of approximate 12 metre length was also added (Figs 10 & 11) to make up for the shortfall in total area evaluated. The alignment of another trench was aligned to avoid an area disturbed by the opencast mining. Otherwise the other seven trenches were kept to the original proposed trench plan.

The trenches were excavated using a tracked 360° excavator with a 1.80m ditching bucket hired by ULAS on behalf of the Client (Figure 9). Pre-groundworks photographs were taken to record the field before the evaluation took place. An Ecologist was present for the duration of the evaluation to inspect the ground surface, prior to tracking and excavation, for the presence of Great Crested Newts required under the Wildlife and Countryside Act 1981.

The Overburden was removed carefully in level spits, under continuous archaeological supervision and separated with top-soil and sub-soil stored in compacted alternate heaps one metre away from a single side of the trench edge. A shallow gradient ramp was created at one end of each trench to ensure escape for any wildlife which may enter the trench. No stepping was required. The trenches were excavated down to the top of archaeological deposits or natural undisturbed ground, whichever was encountered first. The backfilling of the trenches was monitored by the Ecologist with careful re-instatement of the sub and top-soil once the trenches had been recorded.

The ULAS recording manual was used as a guide for all recording. Individual descriptions of archaeological strata were to be entered onto pro-forma recording sheets. Excavated trench locations were recorded by an appropriate method and be tied in to the Ordnance Survey National Grid. A photographic record of the investigations was prepared, illustrating in both detail and general context any principal features and finds discovered and their location and context. The primary photographic record was by digital camera and the record also included overall site and working shots' which illustrate more generally the nature of the archaeological operation mounted.

After completion of the trenching and following prior agreement with the Planning Archaeologist, the trenches were re-instated by 'A' Plant Hire Limited.



Figure 9: Excavation in progress of Trench 2, looking south-east.

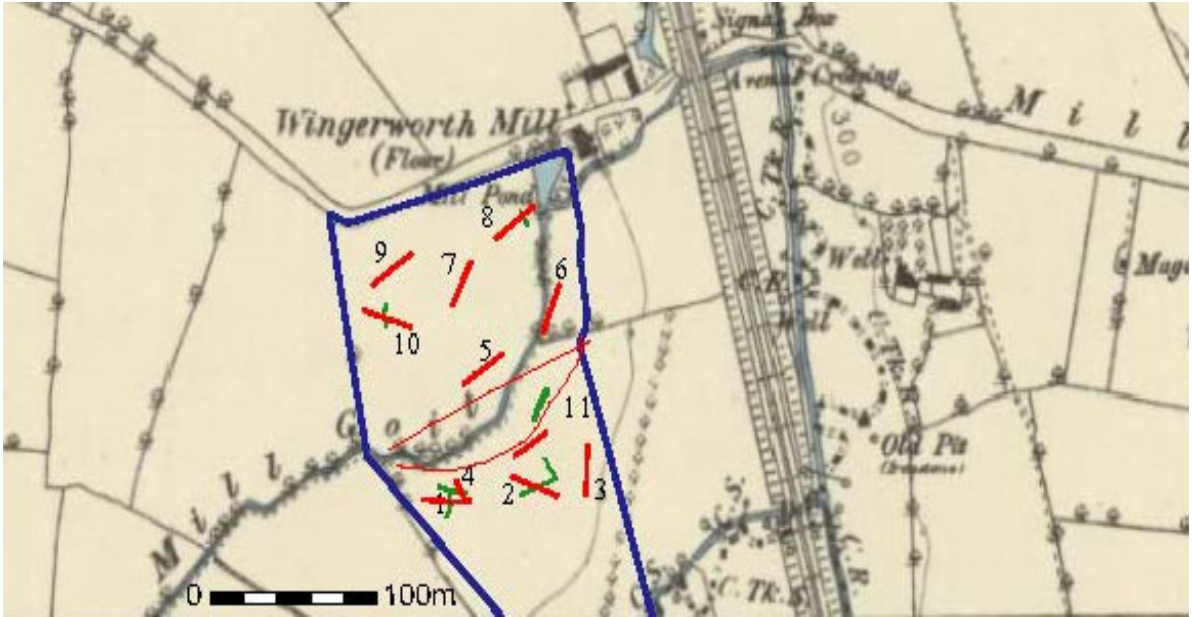


Figure 10: Post-ground-works Trench Plan on first edition 1883 OS map. 100m scale (geophysical anomalies in green)

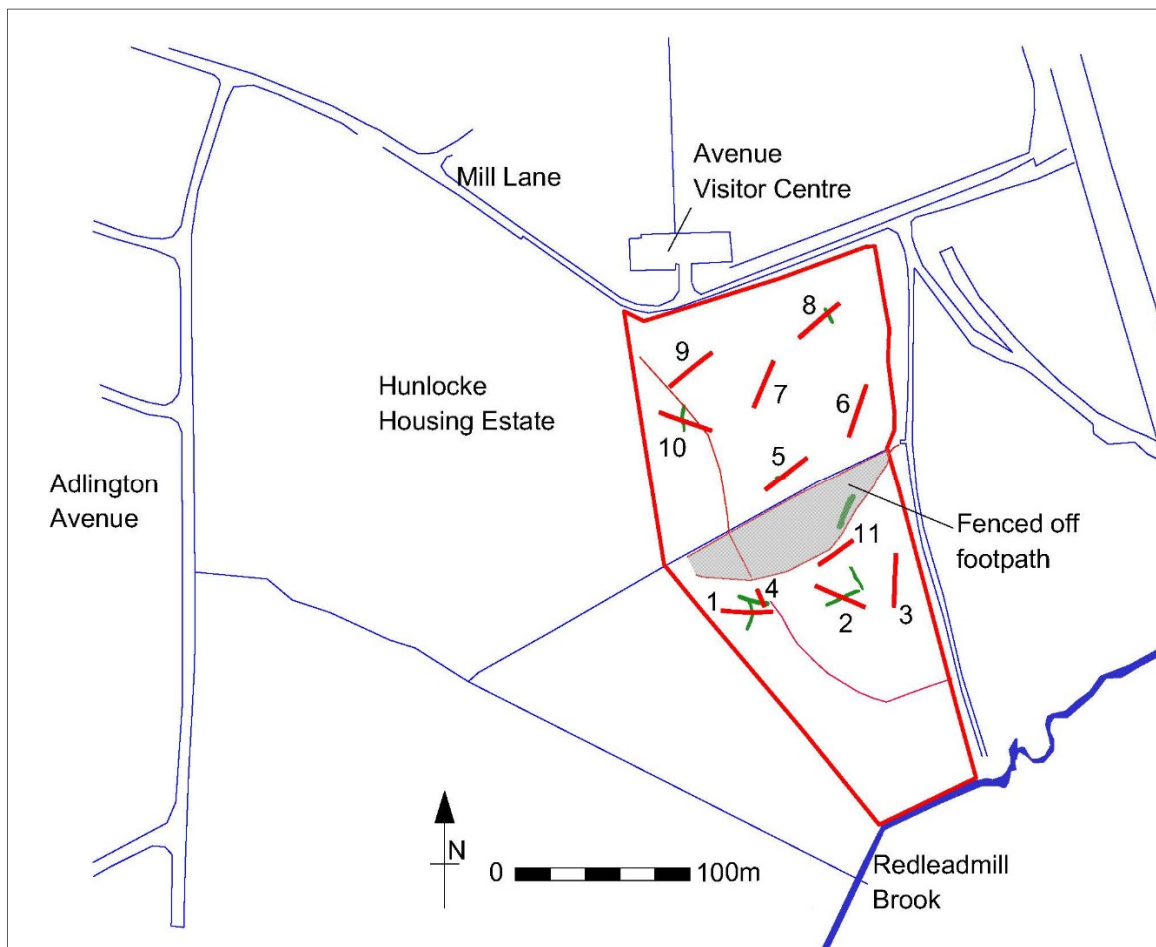


Figure 11: Post-ground-works Trench Plan. 100m scale (geophysical anomalies in green)

Results

The majority of trenches (2, 3, 5, 6, 7, 8, 9, and 11), lay outside of the former area of open-cast mining and consisted of a soft dark yellowish grey silty/ sandy clay top-soil with few coarse components consisting of 1% small rounded pebbles. The intermittent sub-soil remains were confined to the north and east which consisted of a mid orange-ish brown firm clayey sand with occasional small stones. The sub-soil overlay natural sub-strata consisting of a firm light orange brown clay with grey sand mottling. Natural varied to a firm grey clay grey clay with coal with frequent grit.

Trench 1

| Interval | (W) 0m | 5m | 10m | 15m | 0.20m | 25m | 30m (E) |
|------------------------------------|--------|-------|-------|-------|-------|-------|---------|
| Top-soil | 0.40m | 0.30m | 0.32m | 0.30m | 0.30m | 0.30m | 0.30m |
| Re-deposited natural clay | 0.30m | - | 0.28m | 0.34m | - | 0.30m | 0.30m |
| Mid yellow brown silty clay | 0.50m | - | - | - | - | 0.50m | 0.50m |
| Re-deposited natural clay | 0.10m | - | - | - | - | 0.10m | 0.10m |
| Dark grey silty sand | 0.20m | - | - | - | - | 0.40m | 0.40m |
| Depth to Natural | 1.50m | - | - | - | - | - | - |
| Base of Trench | 1.50m | 0.30m | 0.60m | 0.64m | 0.40m | 1.80m | 1.80m |

Trench 1 was positioned approximately 10m away from the western boundary within the former open cast area at the foot of the field. Two sondages were excavated at either end of the trench, which showed heavy disturbance and truncation in this area. Below the topsoil existed an even line of yellow re-deposited clay capping mixed with coal, together with dark grey soil dumping below mixed with some stone rubble and brick. This depth of disturbance increased to the east. Subsequently no archaeological features were observed. Natural sub-strata was only evident as shown by the sondage at the west end.



Figure 12: Trench 1 looking west from eastern sondage (1m scale).



Figure 13: Trench 1 sondage section (west end), looking South (1m scale).



Figure 14: Trench 1 sondage at East end of trench section South (1m scale).

Trench 2

| Interval | (NW) 0m | 5m | 10m | 15m | 20m | 25m (SE) | 30m (SE) |
|-------------------------|---------|-------|-------|-------|-------|----------|----------|
| Topsoil Depth | 0.30m | 0.30m | 0.26m | 0.24m | 0.30m | 0.30m | 0.24m |
| Subsoil Depth | - | - | - | - | - | - | - |
| Depth to Natural | - | - | - | 0.24m | 0.30m | 0.30m | 0.24m |
| Base of Trench | 0.44m | 0.44m | 0.34m | 0.30m | 0.44m | 0.40m | 0.26m |

This trench was located between Trench 1 to the west and Trench 3 at the eastern extent. Approximately half of the trench to the north-west was not excavated to natural sub-strata, but consisted of made ground with only the south-eastern half excavated down to natural. No archaeological features were observed.



Figure 15: Trench 2 looking North-east (1m scale).

Trench 3

| Interval | (N) 0m | 5m | 10m | 15m | 20m | 25m | 30m (S) |
|-------------------------|---------------|-----------|------------|------------|------------|------------|----------------|
| Top-soil Depth | 0.20m | 0.26m | 0.30m | 0.18m | 0.32m | 0.19m | 0.14m |
| Subsoil Depth | - | - | - | - | - | - | - |
| Depth to Natural | 0.20m | 0.26m | 0.30m | 0.18m | 0.32m | 0.19m | 0.14m |
| Base of Trench | 0.22m | 0.35m | 0.35m | 0.20m | 0.32m | 0.21m | 0.14m |

This represented the easternmost of the trenches at the foot of the field and had not been disturbed by the opencast mining. A rectangular geotechnical pit measuring 1.70m long was located cutting into the natural. No archaeological features were observed.



Figure 16: Trench 3 looking North (1m scale).

Trench 4

| Interval | (NW) 0m | 3m | 6m | 9m | 11m |
|-------------------------|----------------|-----------|-----------|-----------|------------|
| Top-soil Depth | 0.20m | 0.30m | 0.30m | 0.26m | 0.28m |
| Subsoil Depth | - | - | - | - | - |
| Depth to Natural | - | - | - | - | - |
| Base of Trench | 0.20m | 0.30m | 0.30m | 0.30m | 0.40m |

Trench 4 represented an addition to Trench 11 to replace the trench within the footpath area. This was a short trench and was excavated immediately to the North-east of Trench 1 over the geophysical anomalies. However, as with Trench 1, only made ground was encountered with softer dark patches which the geophysical survey possibly detected. A modern French drain was located at the south-east end. No archaeological features were observed.



Figure 17: Trench 4 looking South-east. (1m scale).

Trench 5

| Interval | (E) 0m | 5m | 10m | 15m | 20m | 25m | 30m (W) |
|-------------------------|---------------|-----------|------------|------------|------------|------------|----------------|
| Top-soil Depth | 0.25m | 0.26m | 0.29m | 0.35m | 0.30m | 0.30m | 0.30M |
| Subsoil Depth | 0.07m | - | - | 0.04m | - | - | - |
| Depth to Natural | 0.32m | 0.26m | 0.29m | 0.39m | 0.30m | 0.30m | 0.30 |
| Base of Trench | 0.34m | 0.30m | 0.40m | 0.42m | 0.36m | 0.42m | 0.41 |

This trench was located mid-way along the field's width just north of the fenced off footpath, this trench was excavated down to a clean natural clay with a French field drain at the east end. No archaeological features were evident. The anomaly revealed by the geophysical survey was not observed and could simply be ascribed to a change in the density of the natural sub-strata.



Figure 18: Trench 5 looking South-west. (1m scale).

Trench 6

| Interval | (NE) 0m | 5m | 10m | 15m | 20m | 25m | 30m (SW) |
|-------------------------|----------------|-----------|------------|------------|------------|------------|-----------------|
| Top-soil Depth | 0.30m | 0.36m | 0.22m | 0.22m | 0.28m | 0.29m | 0.28m |
| Subsoil Depth | 0.12m | - | 0.12m | 0.09m | - | - | - |
| Depth to Natural | 0.42m | 0.30m | 0.34m | 0.31m | 0.38m | 0.29m | 0.28m |
| Base of Trench | 0.48m | 0.35m | 0.43m | 0.39m | 0.40m | 0.34m | 0.28m |

Trench 6 was located towards the south-eastern side of the area, north of the fenced off footpath. This trench was also excavated onto a similar clean natural clay. French (gravel filled) and cylinder ceramic drains crossed the trench. No archaeological remains were identified.



Figure 19: Trench 6 looking north-east towards former mill and pond. (1m scale).

Trench 7

| Interval | (SW) 0m | 5m | 10m | 15m | 20m | 25m | 28m (SW) |
|-------------------------|---------|-------|-------|-------|-------|-------|----------|
| Top-soil Depth | 0.20m | 0.33m | 0.25m | 0.30m | 0.30m | 0.30m | 0.30m |
| Subsoil Depth | - | - | - | - | - | - | - |
| Depth to Natural | 0.20m | 0.33m | 0.25m | 0.30m | 0.30m | 0.30m | 0.30m |
| Base of Trench | 0.26m | 0.33m | 0.40m | 0.48m | 0.37m | 0.38m | 0.50m |

Located approximately in the middle of the field north of the fenced off footpath, Trench 7 also revealed generally undisturbed natural clay crossed by French field drains at the north-east end of the trench. No archaeological remains were identified.



Figure 20: Trench 7 looking North- east (1m scale).

Trench 8

| Interval | (NE) 0m | 5m | 10m | 15m | 20m | 25m | 30m (SW) |
|-------------------------|---------|-------|-------|-------|-------|-------|----------|
| Top-soil Depth | 0.28m | 0.36m | 0.30m | 0.20m | 0.20m | 0.24m | 0.25m |
| Subsoil Depth | 0.07m | 0.10m | - | 0.12m | 0.20m | 0.16m | 0.15m |
| Depth to Natural | 0.35m | 0.40m | - | 0.40m | 0.40m | 0.40m | 0.40m |
| Base of Trench | 0.44m | 0.60m | 0.62m | 0.66m | 0.52m | 0.50m | 0.48m |

Located at the north-east corner of the field towards the former mill pond, this trench targeted a geophysical anomaly and possibly the remains of the Mill Goit. A single French drain crossed the generally undisturbed natural clay. Disturbance was evidenced a third of the way across the trench from the north-east and possibly used as a track for farm vehicles which may have been identified on the geophysical survey. No archaeological remains were identified



Figure 21: Trench 8 looking West (1m scale).

Trench 9

| Interval | (NE) 0m | 5m | 10m | 15m | 20m | 25m | 30m (SW) |
|-------------------------|---------|-------|-------|-------|-------|-------|----------|
| Top-soil Depth | 0.22m | 0.22m | 0.38m | 0.20m | 0.30m | 0.30m | 0.28m |
| Subsoil Depth | - | - | 0.02m | 0.10m | - | 0.06m | 0.02m |
| Depth to Natural | 0.22m | 0.22m | 0.45m | 0.30m | 0.30m | 0.36m | 0.30m |
| Base of Trench | 0.40m | 0.40m | 0.55m | 0.42m | 0.40m | 0.45m | 0.50m |

This trench was located towards the north-west corner of the field. The trench was excavated down to undisturbed natural clay. Two French drains crossed the trench width and a ceramic field drain lay between them. No archaeological remains were identified.



Figure 22: Trench 9 looking north-east (1m scale).

Trench 10

| Interval | (W) 0m | 5m | 10m | 15m | 20m | 25m | 30m (E) |
|-------------------------|---------------|-----------|------------|------------|------------|------------|----------------|
| Top-soil Depth | 0.30m | 0.32m | 0.30m | 0.32m | 0.30m | 0.20m | 0.22m |
| Subsoil Depth | 0.09m | 0.10m | 0.18m | 0.16m | 0.16m | - | 0.28m |
| Depth to Natural | 0.39m | 0.42m | 0.48m | 0.48m | 0.48m | - | - |
| Base of Trench | 0.50m | 0.60m | 0.62m | 0.70m | 0.70m | 0.76m | 0.42m |

Located approximately twenty metres south of Trench 9, made ground was evident towards the east end with ceramic field drains crossing this trench. The made ground is associated with the landscaping from the former opencast with the softer deposits possibly detected by the geophysical survey. No archaeological remains were identified.



Figure 23: Trench 10 looking South-east (1m scale).

Trench 11

| Interval | (E) 0m | 5m | 10m | 15m | 20m | 25m (W) |
|-------------------------|--------|-------|-------|-------|-------|---------|
| Top-soil Depth | 0.28m | 0.25m | 0.24m | 0.23m | 0.30m | 0.28m |
| Subsoil Depth | - | - | - | - | - | - |
| Depth to Natural | - | - | - | - | - | - |
| Base of Trench | 0.28m | 0.40m | 0.40m | 0.37m | 0.46m | 0.60m |

This trench was excavated as an alternative to the proposed trench within the fenced off footpath area which targeting a geophysical anomaly. Only made ground was evident. However at the east end of the trench a large feature was identified across the trench width. Initially it was thought to be the mill goit but it was observed cutting a linear coal filled feature with concrete capping at the east end. The feature was sampled but proved modern with house brick rubble and ceramic pipe in the fill. No archaeological remains were identified.



Figure 24: Trench 11 looking North-east (1m scale).

Discussion and Conclusion

The proposed development area on land South of Mill Lane, Wingerworth had some potential for archaeological remains chiefly of medieval date in the form of a mill goit associated with the origin of a medieval mill and pond, surveyed as late as the revised 1945 Ordnance Survey map, but now no longer visible.

Despite the recent geophysical survey undertaken showing anomalies of which six trenches targeted, the evaluation proved largely negative. Up to eight of the trenches were relatively undisturbed with the remaining three disturbed by the former opencast mining and associated landscaping.

An additional trench targeted a geophysical anomaly that coincided with the location of the mill goit, as also recorded on historical mapping. This revealed a truncated linear feature that probably represents the lower portion of the former mill goit, although dating material associated with it was largely modern. The Ordnance Survey map of 1938 suggested that the goit was at its widest at this location, measuring over 6m in width. The actual width of the corresponding feature recorded within the evaluation trench was much smaller, measuring less than 2m in width. It suggests that the area has been subject to extensive landscaping that has reduced the level of ground within this area, perhaps relating to the activities associated with the open cast coal mining that occurred during the middle of the twentieth century. This may also explain why the goit was only seen within this area of the geophysical survey, only surviving where it was at its most substantial.

The other geophysical anomalies revealed were not archaeological and could simply have been the result of geological variation. Other targeted anomalies were not identified in the trenches.

Archive and publication

The archive for this project if will be deposited only if archaeological remains are recovered and if applicable with Derby City Museum

1 Unbound copy of this report (ULAS Report No. 2019-118)

12 Trench recording sheets

1 Photo Record sheet

1 Contact sheet of digital photographs

1 CD digital photographs

Since 2004 ULAS has reported the results of all archaeological work through the *Online Access to the Index of Archaeological Investigations* (OASIS) database held by the Archaeological Data Service at the University of York.

A summary of the work will also be submitted for publication in a suitable regional archaeological journal in due course.

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OASIS data

| | | |
|----------------------------|--------------------------------------|--|
| PROJECT DETAILS | Oasis No | universil-366419 |
| | Project Name | An Archaeological Evaluation on land opposite the Avenue Visitor Centre South of Mill Lane, Wingerworth, Derbyshire. S42 6FJ |
| | Start/end dates of field work | 03-09-19 – 06-09-19 |
| | Previous/Future Work | unknown |
| | Project Type | Evaluation |

| | | | | |
|-----------------------------|---|--|----------------|--------------------------------------|
| | Site Status | None | | |
| | Current Land Use | Arable | | |
| | Monument Type/Period | None | | |
| | Significant Finds/Period | None | | |
| | Development Type | Residential | | |
| | Reason for Investigation | NPPF | | |
| | Position in the Planning Process | Planning condition | | |
| | Planning Ref. | (NED/17/00227/OL.) | | |
| PROJECT LOCATION | Site Address/Postcode | Land opposite the Avenue Visitor Centre South of Mill Lane, Wingerworth, Derbyshire. S42 6FJ | | |
| | Study Area | 3.8 ha | | |
| | Site Coordinates | SP 439699 366887 | | |
| | Height OD | 90maOD | | |
| PROJECT CREATORS | Organisation | ULAS | | |
| | Project Brief Originator | Derbyshire County Council | | |
| | Project Design Originator | ULAS | | |
| | Project Manager | John Thomas | | |
| | Project Director/Supervisor | Jamie Patrick | | |
| | Sponsor/Funding Body | University of Leicester | | |
| PROJECT ARCHIVE | | Physical | Digital | Paper |
| | Recipient | | | |
| | ID (Acc. No.) | DBYMU | | |
| | Contents | None | Photos | Trench sheets, photo records, report |
| PROJECT BIBLIOGRAPHY | Type | Grey Literature (unpublished) | | |
| | Title | An Archaeological Evaluation on land opposite the Avenue Visitor Centre South of Mill Lane, Wingerworth, Derbyshire. S42 6FJ | | |
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Introduction

In accordance with National Planning Policy Framework (NPPF) Section 16 *Conserving and Enhancing the Historic Environment*, this document forms a supplementary report for trial trenching on land opposite The Avenue Visitor Centre, south of Mill Lane, Wingerworth, Derbyshire (NGR: SP 439699 366887). It details the results of an additional evaluation trench that was requested by the Derbyshire County Archaeologist.

The work was undertaken on the 26th September 2019 and followed the original strategy of work set out in the Written Scheme for Investigation (LaCombe 2019).

Methodology

All work was carried out in accordance with the Chartered Institute for Archaeologists (CIfA) Standard and Guidance for Archaeological Field Evaluation (2014b) and adhered to their Code of Conduct (2014a). The archaeological work followed the Written Scheme of Investigation (WSI) for archaeological evaluation prepared by ULAS and agreed with the Derbyshire County Council Planning Archaeologist (March 2019).

The original evaluation strategy proposed 10 x 30m long trial trenches, five of which were targeting geophysical anomalies affected by the overall development (Patrick, this report, Fig 2). However some of the trench locations were amended due to site constraints. A public footpath that bisected the centre of the site meant that one of the anomalies could not be assessed during the original evaluation. The anomaly corresponded with the known location of a goit (leat) that once fed Wingerworth Mill, a water-powered mill that is of medieval origin. The Derbyshire County Archaeologist requested that the public footpath was temporarily diverted in order to evaluate the linear anomaly. This involved the excavation of an additional 25m long trench in order to bisect the anomaly (Fig.25).

The trench was excavated using a JCB 3CX mechanical excavator with a 1.60m ditching bucket, hired by ULAS on behalf of the Client. Otherwise, all excavation and recording was undertaken in accordance with the methods set out within the original evaluation methodology (Patrick, this report, Methodology).

Results

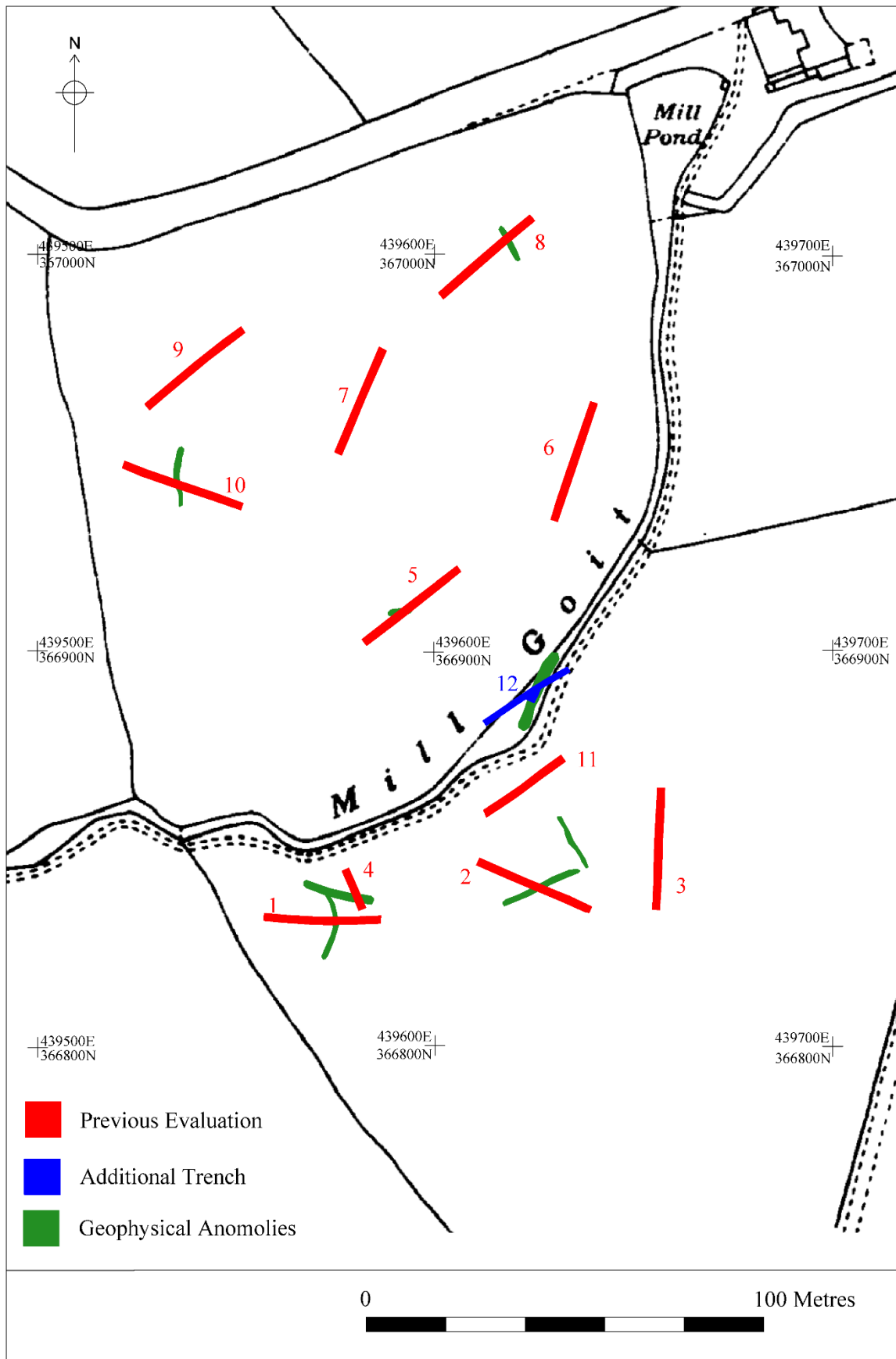


Figure 25: Revised Trench location plan, incorporating 1938 OS map

Trench 12

| Interval | (NE) 0m | 5m | 10m | 15m | 20m | 25m (SW) |
|--------------------|---------|-------|-------------|-------|-------|----------|
| Ground Level (aOD) | 93.36 | 95.47 | 95.53 | 93.57 | 93.70 | 93.85 |
| Topsoil Depth | 0.27m | 0.32m | 0.30m | 0.34m | 0.30m | 0.30m |
| Subsoil Depth | - | - | - | - | - | - |
| Depth to Natural | 0.27m | 0.32m | Not reached | 0.34m | 0.32m | 0.30m |
| Base of Trench | 0.29m | 0.32m | 0.39m | 0.37m | 0.32m | 0.32m |

Trench 12 was positioned on the edge of the current footpath in order to target a positive linear anomaly highlighted by the geophysical survey (**Anomaly 5**, Durkin 2017, 7). The topsoil consisted of a soft dark yellowish grey silty/ sandy clay containing rare small rounded pebbles. This directly overlaid the natural substratum that consisted of a yellowish brown/grey clay with occasional ironstone fragments (Fig. 26).

An area of redeposited grey clay with orange brown mottling (01) was partially exposed *c.* 10m from the north-eastern end of the trench. It that measured >3m long, >2m wide and 0.2m deep, and partially overlaid a large linear feature that corresponded with the geophysical anomaly (Fig.28). The trench was widened in this area in order to excavate a full profile across the feature. The linear feature [03] measured 1.7m wide, 0.45m deep and spanned the width of the trench on a north-east to south-west orientation. The sides of the linear were moderate to steeply sloping and were irregular in nature, with evidence of undercutting. The base was equally uneven, with clear striations that ran along the length of the feature. It was filled by two separately identifiable deposits. The primary fill (04) consisted of a dark reddish brown silty gravel deposit containing abundant iron pan, occasional small rounded pebbles and rotted twigs. Fragments of wood and modern glass were observed with this deposit. The upper fill (02) consisted of a mid brownish grey silty clay deposit with rare rounded pebbles and rotted twigs (Fig. 27 and 28).

The north-east end of linear feature [03] had suffered from truncation that probably relates to the adjacent modern service trench recorded by the geophysical survey.



Figure 26: Trench 12, looking south-west



Figure 27: Linear Feature [03], looking south south-west

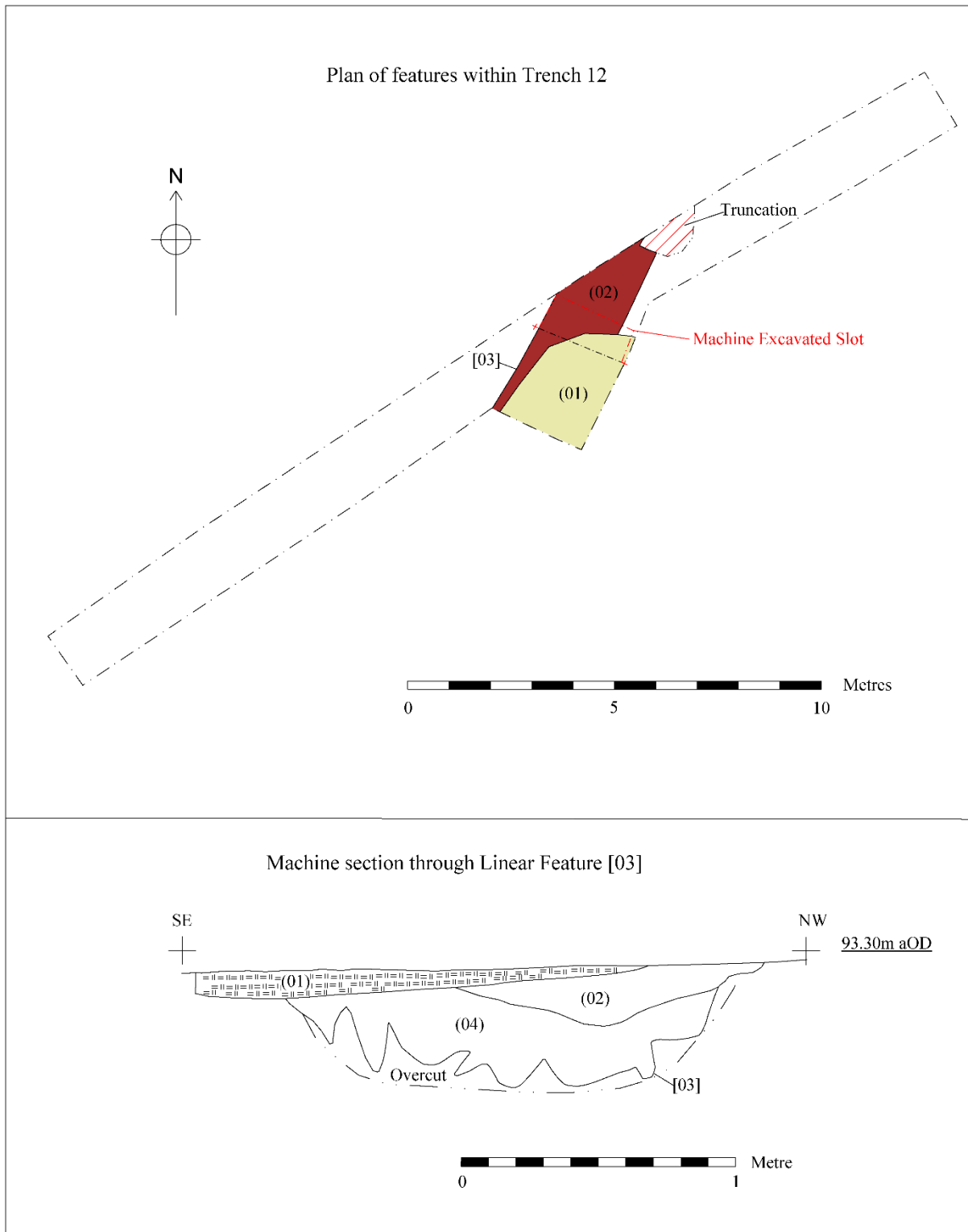


Figure 28: Plan of Trench 12, including representative section of Linear Feature [03]

Discussion

The additional evaluative work has confirmed the location of the former mill goit previously highlighted by the geophysical survey. The Ordnance Survey map of 1938 suggested that the goit was at its widest at this location, measuring over 6m in width. The actual width of the corresponding feature recorded within the evaluation trench was much smaller, measuring less

than 2m in width. It suggests that the area has been subject to extensive landscaping that has reduced the level of ground within this area, perhaps relating to the activities associated with the open cast coal mining that occurred during the middle of the twentieth century. This may also explain why the goit was only seen within this area of the geophysical survey, only surviving where it was at its most substantial.



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