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Archaeological Services

**An archaeological field evaluation
for the proposed Chellaston Business
Park, Sinfin Moor, Chellaston, Derby
SK 356 311**

Leon Hunt




ULAS Report No 2011-143
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for the proposed
Chellaston Business Park,
Sinfin Moor, Chellaston,
Derby
(SK 356 311)**

Leon Hunt

**for:
Wilson Bowden Ltd**

**Planning Application Nos. DER/10/91/01345; DER/03/93/00361PRI;
DER/06/93/00697/PRI**

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An archaeological field evaluation for the proposed Chellaston Business Park, Sinfin Moor, Chellaston, Derby (SK 356 311)

Leon Hunt

Summary

An archaeological field evaluation by trial trenching was carried out on land at Sinfin Moor, Chellaston, Derby (SK 356 311) by University of Leicester Archaeological Services (ULAS) in advance of the proposed Chellaston Business Park.

The site is currently farmland and lies around 1km to the north of significant archaeological remains within the Trent Valley located at Barrow upon Trent, Swarkestone and Aston-on-Trent. The evaluation consisted of 19 trenches placed across the site in areas where a previous geophysical survey had located a variety of anomalies.

The evaluation revealed very little evidence of archaeological remains. A number of tree boles and modern features were revealed in many trenches, particularly in the northern part of the site. The thin soils and layers of clay and peat suggest that the land was mainly bog and moorland in the past and may not have been ploughed until relatively recently.

Many of the geophysical anomalies were shown to be changes in geology, field drains, old field boundaries or other natural features.

The area lies within an area that once contained a late glacial lake. The geological survey of the area would suggest that the eastern side of the site may lie close to the lake's edge and therefore may have some potential for early prehistoric material.

Introduction

An archaeological field evaluation by trial trenching was carried out on land at Sinfin Moor, Chellaston, Derby (NGR: SK 356 311). Wilson Bowden Ltd commissioned the work, which was carried out by University of Leicester Archaeological Services (ULAS) in advance of a new development at the site; the proposed Chellaston Business Park.

The site is currently farmland, mainly used for arable crops, with one area of semi-improved grassland. The site lies around 1km to the north of significant archaeological remains within the Trent Valley located at Barrow upon Trent, Swarkestone and Aston-on-Trent. There are also further known archaeological remains in the vicinity and cropmarks have been identified close to the north-western boundary of the site.

The work was in accordance with PPS 5: Planning for the Historic Environment. The fieldwork was intended to provide preliminary indications of the character and extent of any buried archaeological remains in order that the potential impact of the development on such remains may be assessed by the Planning Authority.

The definition of archaeological field evaluation, taken from the *Institute for Archaeologists Standards and Guidance: for Archaeological Field Evaluation* (2008)

is a limited programme of non-intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.

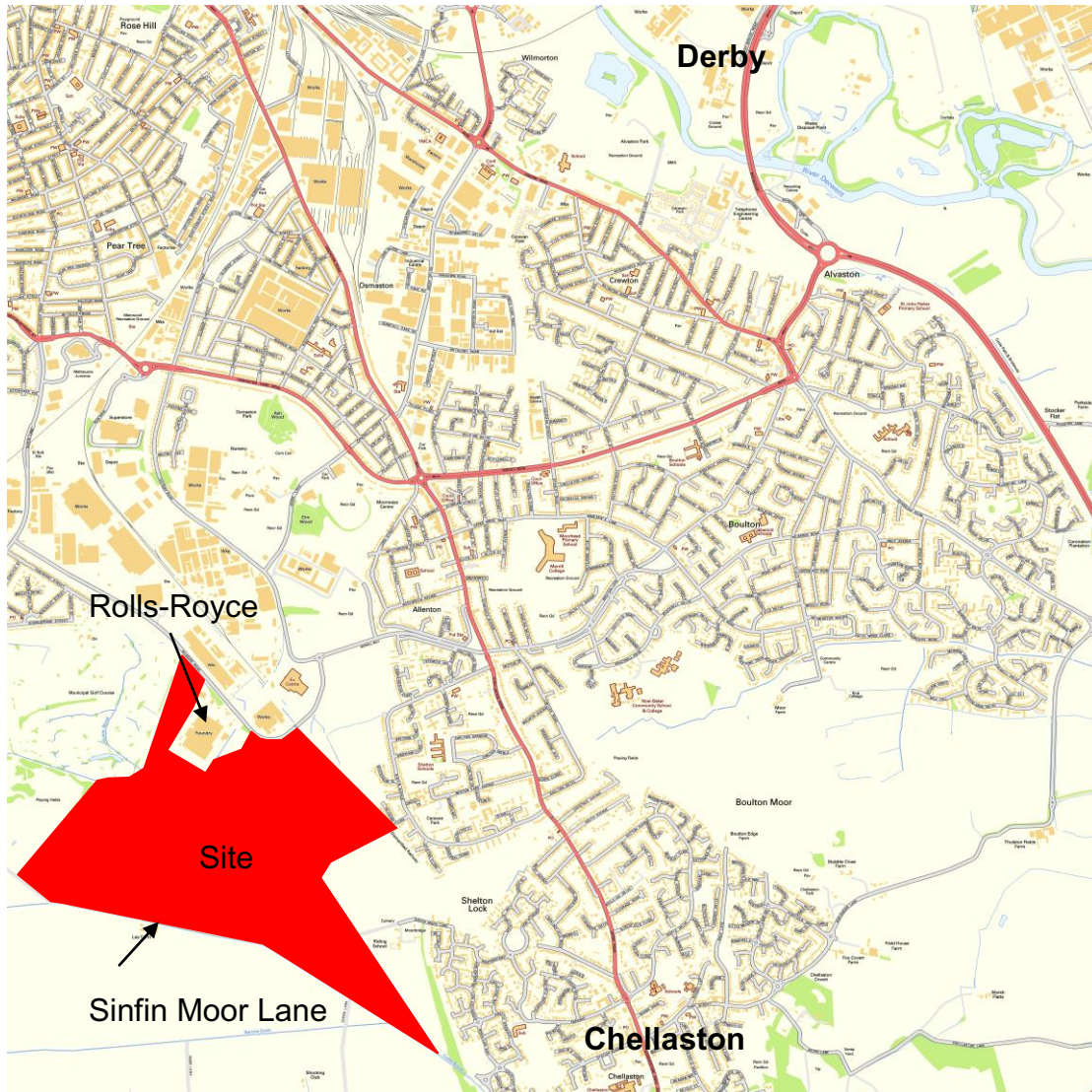


Figure 1: Site location plan. Contain Ordnance Survey Data. Scale 1: 20 000

Site Location, Geology and Topography

The site lies at Sinfin Moor, around 5 miles south of Derby City centre and west of the suburb of Chellaston, at the very southern edge of the city boundary (Figure 1). The total area of the site covers around 79ha and consists of several parcels of enclosed land of various sizes. The land is bordered by the Rolls Royce factory and Wilmore Road to the north, Derby Golf Course to the north-west and the town of Chellaston to the east. Sinfin Moor Lane, from which much of the site can be accessed, lies to the south (Figure 2).

The soils over most of the proposed development area are calcareous clays and silts deposited in a late glacial lake. Organic clay topsoils overlay slowly permeable clays,

with a thin layer of very calcareous lake marl between the two. The land suffers from high groundwater, which is only partially controlled by the network of deep open drains.

The site consists of a number of parcels of enclosed agricultural land, mainly covered in stubble, with some areas of improved grassland. The land is flat and lies at a height of around 39m aOD.

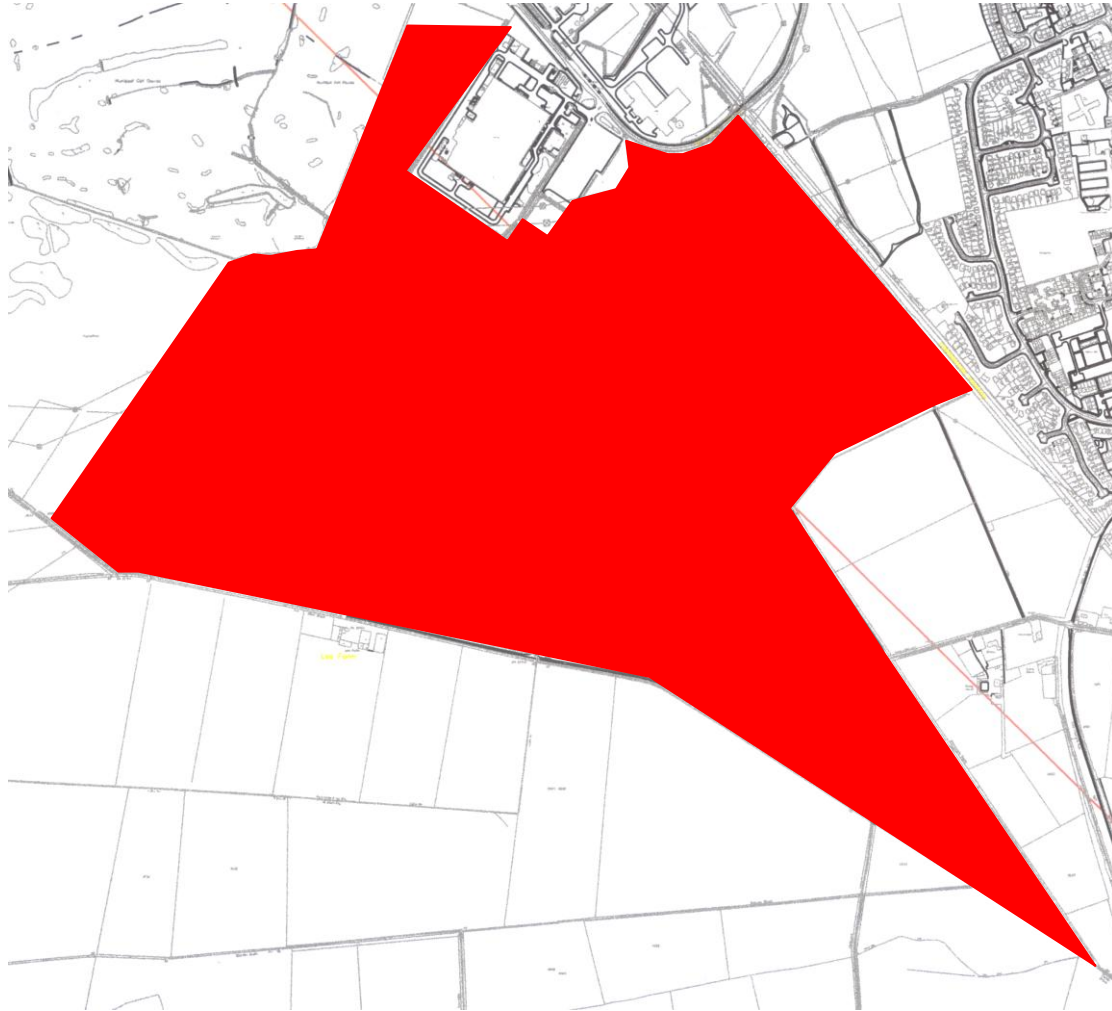


Figure 2: Site location plan. Scale 1: 10,000. Provided by developer

Historical and Archaeological Background

Historical Background

(from George 2005 and Sinfin Moor website)

Sinfin is mentioned in the Domesday Book as ‘Sedenefeld’. It was shown as belonging to Henry of Ferrers, a fact commemorated by the present day Ferrers Arms pub. In later documents, it is ‘Sidenfen’, which appears to be an Anglo-Saxon name and most likely means “Broad Fen”. By 1675, in Ogilby’s Road Maps, it is shown as Synfold and the road from Derby to Swarkestone at that time is clearly shown as crossing Synfold Moore.

Historically, the area mainly has an image of marsh and moorland but the neighbouring parishes had right of stray on the Moor until the land was enclosed in

1803 and various landowners in those parishes received parcels of land by way of compensation for the loss of that right.

The landscape was changed considerably as a result of WWII. The somewhat primitive drainage introduced at the time of the enclosures was improved to allow the growing of grain crops. Lea Farm, at the southern edge of the site, was the site of decoy lights, intended to divert German bombers away from the important target of the Rolls-Royce aero engine works.

Archaeological Background

Various prehistoric archaeological sites have been identified in the vicinity of the development site. These include an Early Bronze Age tanged flint lance head located 1km to the north of the development area (18925-MDR4627). In addition Swarkestone Lowes Barrow Cemetery and field system, a Scheduled Monument, is located 535m to the south (27031-MDR4378, SAM 41). Fieldwalking in the area of the barrows in 1983 and 1985 has located Mesolithic, Neolithic and Bronze Age lithics (Knight and Elliot 1999, 87). Trial trenching of the field system associated with the barrows indicated that it was of Iron Age date from radiocarbon dating (Knight and Elliot). Neolithic flint axe or adze was found in the topsoil, 878m to the west (32029-MDR4598), and an uninscribed gold stater of Iron Age date was found in an allotment garden 1.5km to the north (32030-MDR4608).

An Iron Age/Romano-British Settlement is located 895m to the south of the development area (16702-MDR4371). Excavations in 1993-4 located in addition to Iron Age and Roman settlement evidence Palaeolithic, Mesolithic and Neolithic lithics including an early Mesolithic blade knapping area. Ditches and enclosures of Iron Age date form part of a large settlement.

A Romano-British pottery vessel was found 1.6km to the north-east of the proposed development area. (32042-MDR4624), and a bronze coin, an *as* of Vespasian, was found 1km to the north-east (32043-MDR4626).

Various medieval archaeological sites have also been recorded in the vicinity of the development area. The majority of these consist of evidence of ridge and furrow, generally identified from aerial photographs. This has been identified 1km to the south (16723-MDR8115), 1.2km to the south (27032-MDR8114), 930m to the southeast (32045-MDR4424), 715m to the south-east (32046-MDR4425), 780m to the east (32047-MDR4632) and 180m to the east (32048-MDR4633).

The site of a possible deserted medieval village, at Sinfin, is located 1km to the west (18930-MDR4591).

Four post-medieval archaeological sites have been identified in the vicinity of the development area. Two windmills have been recorded c. 1.1km to the south-east (27023-MDR7326, 27717-MDR7327) of the development site. A section of dismantled railway is located adjacent to the northeast boundary of the development area (32041-MDR4623). The abandoned Derby and Sandiacre Canal is adjacent to the south-east boundary of the development site (99012-MDR10003).

Various undated archaeological features have also been identified in the vicinity of the proposed development area. An agricultural cropmark feature that appears not to be archaeological in origin is recorded 1km to the south of the development (16701-MDR4401). Several undated features showing on aerial photographs at Sinfin Golf Course are located directly adjacent to the north-west boundary of the development

(18924-MDR4630). Further undated features on aerial photographs are located 730m to the south (27029-MDR7359). An undated perforated axe hammer was found 845m to the north-west (32031-MDR4609) and an iron axehead of Viking type was found 1.5km to the north-east (32036-MDR4614).

Geophysical survey has been undertaken in two stages (Smalley 2010: see Figures 3 & 4). Initially a magnetic susceptibility survey was undertaken of the entire area at 20m intervals.

The magnetic susceptibility survey identified enhanced MS in the south, east and south-east of the area. Survey by magnetometry targeting 12 areas (16 ha.) located a few anomalies which may be of archaeological origin, although many of these are amorphous and have weak values and as a result may be of geological origin (Smalley 2010). Anomalies in Areas 2-4 and 7-10 may indicate the presence of ditch systems while the irregular anomalies in Area 12 may be old stream courses (Smalley 2010).

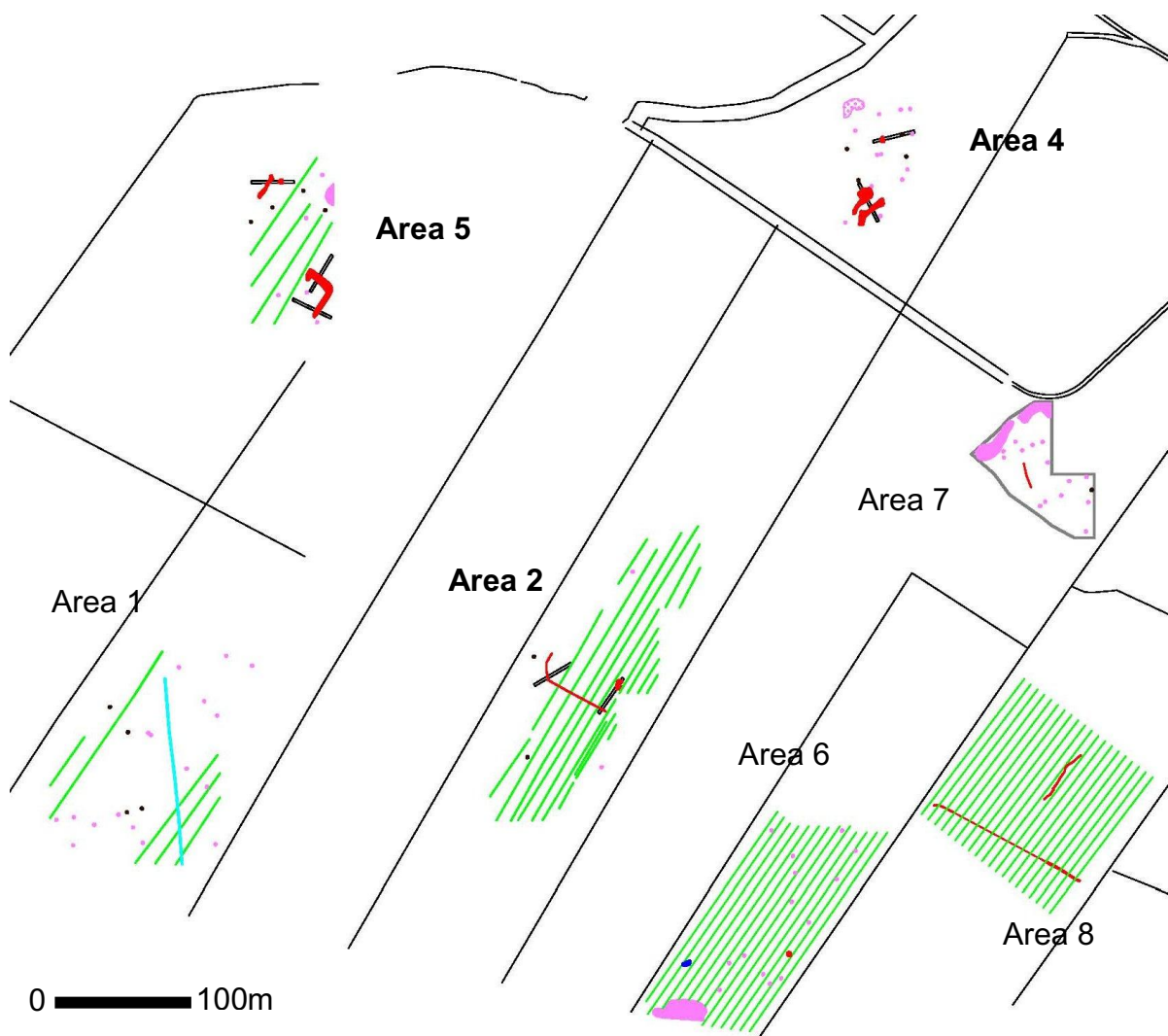


Figure 3: Plan of western part of site, showing anomalies highlighted by geophysical survey and proposed trench positions

Archaeological Objectives

The main objectives of the evaluation were:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

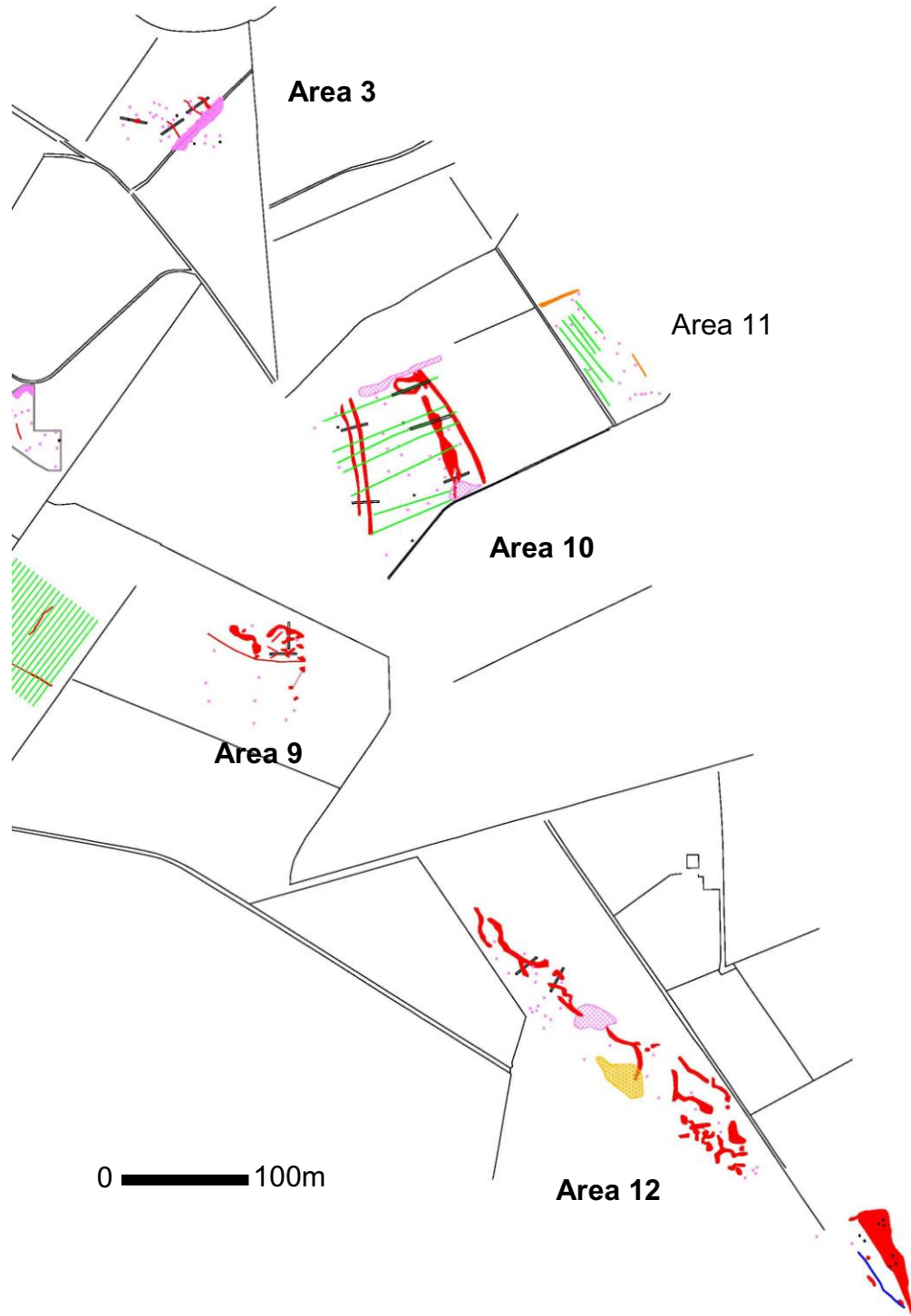


Figure 4: Plan of eastern part of site, showing anomalies highlighted by geophysical survey and proposed trench positions

Within the stated project objectives, the principal aim of the evaluation was to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

Trial trenching is an intrusive form of evaluation that will demonstrate the presence of archaeological deposits that may exist within the area.

Methodology

All work followed the Institute for Archaeologists (IfA) Code of Conduct in accordance with their *Standard and Guidance for Archaeological Field Evaluation* (2008). The archaeological work followed the *Written Scheme of Investigation (WSI) for archaeological work* prepared by ULAS.

Following discussion with the Planning Archaeologist at Derbyshire County Council as advisor to the planning authority c. 1025 sq m. of trenching, the equivalent of 19 30m x 1.8m trenches was proposed. A geophysical survey had been undertaken in two stages (Smalley 2010: see above) and trenches were placed over geophysical anomalies highlighted by the survey (Figures 3 & 4). Two of the trenches were extended to 50m x 1.8m in order to cross larger linear anomalies. Trenches were placed in Areas 2-5, 9,10 & 12.

Topsoil and overburden were removed carefully in level spits, under continuous archaeological supervision using a mechanical excavator (JCB 3CX) using a toothless bucket (Plates 1 & 2). Trenches were excavated down to the top of archaeological deposits or natural undisturbed ground (substratum), whichever was reached first.

After the trenches were recorded they were backfilled.

Results

The trenches were given number identifiers following the order in which they were excavated.

Trench 1 (Area 12)

Orientation: NE-SW

Length: 30m

Width: 1.8m

Topsoil: Weak dark brown silty clay, very few rounded stones

Subsoil: None

Substratum: Grey yellow silt with patches of orange sand with heavy roots disturbance in upper layers

Interval	0m(SW)	5m	10m	15m	20m	25m	30m(NE)
Ground (OD)	39.01m	-	-	-	-	-	39.01m
Topsoil Depth	0.38m	0.38m	0.40m	0.34m	0.30m	0.30m	0.30m
Subsoil Depth	-	-	-	-	-	-	-

Top of Substratum	0.38m	0.38m	0.40m	0.34m	0.34m	0.30m	0.30m
Base of trench	0.50m	0.48m	0.43m	0.45m	0.44m	0.40m	0.40m

Features: Trench one contained a number of small silty features, which under closer inspection were revealed as a tree-bole and a couple of possible wheel ruts from farm machinery.

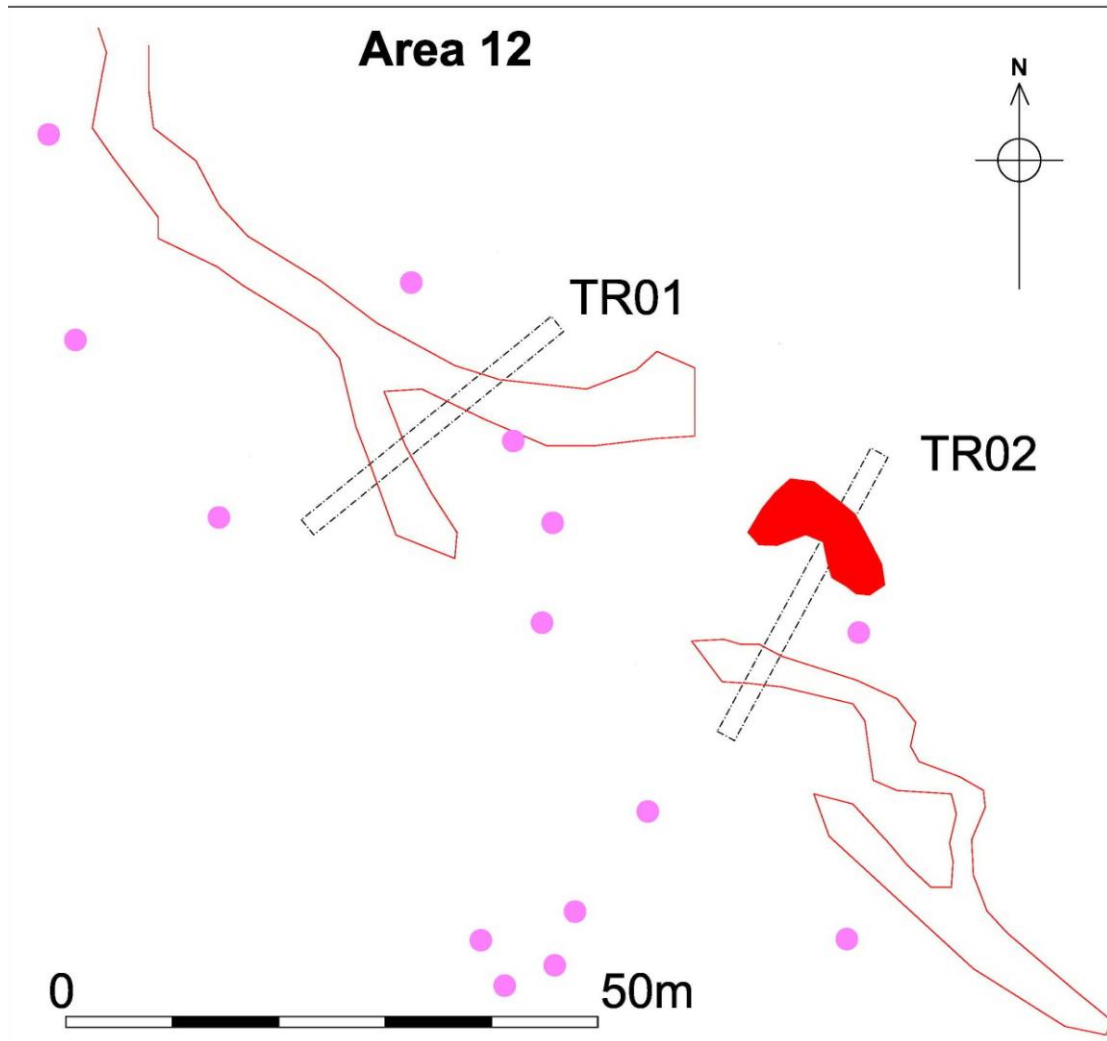


Figure 5: Post-excitation plan of Area 12 (Trenches 1 & 2), showing geophysical anomalies

Trench 2 (Area 12)

Orientation: NNE-SSW

Length: 29.5m

Width: 1.8m

Topsoil: Weak dark brown silty clay, very few rounded stones

Subsoil: None

Substratum: Grey yellow silt with patches of orange sand with heavy roots disturbance in upper layers

Interval	0m(NNE)	5m	10m	15m	20m	25m	30m(SSW)
Ground (OD)	39.02m	-	-	-	-	-	38.95m
Topsoil Depth	0.30m	0.32m	0.27m	0.25m	0.24m	0.28m	0.30m
Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.30m	0.32m	0.27m	0.25m	0.27m	0.28m	0.30m
Base of trench	0.30m	0.34m	0.30m	0.25m	0.27m	0.31m	0.30m

Features: Trench 2 contained a further wheel rut and a very amorphous feature, most likely glacial or fluvial in origin.



Plate 1: Work in progress in Area 12 (Trenches 1 & 2), looking east

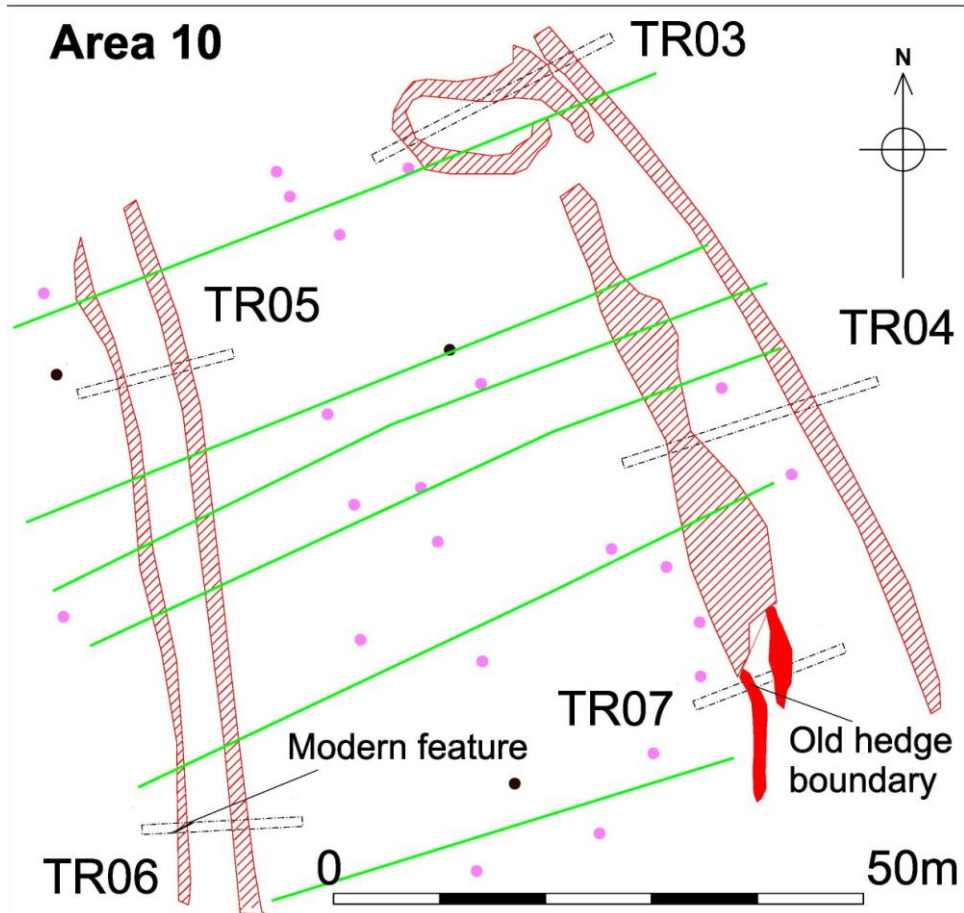


Figure 6: Post-excavation plan of Area 10 (Trenches 3-7), showing geophysical anomalies and revealed features

Trench 3 (Area 10)

Orientation: ENE-WSW

Length: 52m

Width: 1.8m

Topsoil: Weak dark grey brown sandy silt very few rounded stones

Subsoil: None

Substratum: Grey yellow silt with patches of orange sandy silt

Interval	0m(ENE)	10m	20m	30m	40m	52m(WSW)
Ground (OD)	39.15m	-	-	-	-	39.07m
Topsoil Depth	0.26m	0.32m	0.26m	0.36m	0.28m	0.29m
Subsoil Depth	-	-	-	-	-	-
Top of Substratum	0.26m	0.32m	0.26m	0.36m	0.28m	0.29m
Base of	0.33m	0.34m	0.33m	0.46m	0.33m	0.31m

trench						
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Features: Trench 3 contained some plough marks and noticeably calcareous deposits within the silty clay at around 20m along the trench.

Trench 4 (Area 10)

Orientation: E-W

Length: 49.5m

Width: 1.8m

Topsoil: Weak dark grey brown sandy silt very few rounded stones

Subsoil: None

Substratum: Grey yellow silt with patches of orange sandy silt. Also patches of yellowish brown silty sand and chalk.

Interval	0m(W)	10m	20m	30m	40m	49.5m (E)
Ground (OD)	39.08m	-	-	-	-	39.16m
Topsoil Depth	0.26m	0.27m	0.30m	0.24m	0.22m	0.24m
Subsoil Depth	-	-	-	-	-	-
Top of Substratum	0.26m	0.27m	0.30m	0.24m	0.22m	0.24m
Base of trench	0.26m	0.30m	0.33m	0.28m	0.30m	0.27m

Features: Trench 4 contained some plough marks and modern wheel marks

Trench 5 (Area 10)

Orientation: E-W

Length: 29.3m

Width: 1.8m

Topsoil: Dark grey brown sandy silt very few sub-rounded stones

Subsoil: None

Substratum: Grey yellow silt with patches of orange silty sand. Also patches of light grey brown sandy silt.

Interval	0m(W)	5m	10m	15m	20m	25m	29.3m(E)
Ground (OD)	38.76m	-	-	-	-	-	39.06m
Topsoil Depth	0.22m	0.23m	0.30m	0.27m	0.26m	0.27m	0.31m

Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.22m	0.23m	0.30m	0.27m	0.26m	0.27m	0.31m
Base of trench	0.26m	0.26m	0.33m	0.28m	0.28m	0.30m	0.31m

Features: Trench 5 contained some modern wheel marks

Trench 6 (Area 10)

Orientation: E-W

Length: 30m

Width: 1.8m

Topsoil: Dark grey brown sandy silt very few sub-rounded stones

Subsoil: Dark grey brown sandy silt with very few sun-angular stones

Substratum: Orangey brown silty sand with grey brown mottles

Interval	0m(W)	5m	10m	15m	20m	25m	30m (E)
Ground (OD)	38.46m	-	-	-	-	-	38.53m
Topsoil Depth	0.20m	0.23m	0.30m	0.28m	0.28m	0.28m	0.31m
Subsoil Depth	0.40m	0.42m	-	-	-	-	-
Top of Substratum	0.40m	0.42m	0.30m	0.28m	0.28m	0.28m	0.32m
Base of trench	0.47m	0.48m	0.36m	0.30m	0.32m	0.29m	0.32m

Features: A linear feature crossed the trench running south-west to north-east. It was 0.8m wide and 0.2m deep with a fill like slightly leached out topsoil, which was full of roots.

The eastern end of the trench was later excavated with machine to a depth of around 1m to reveal further layers of silt overlying gravel at the base.

Trench 7 (Area 10)

Orientation: ENE-WSW

Length: 30m

Width: 1.8m

Topsoil: Dark grey brown sandy silt very few sub-rounded stones

Subsoil: None

Substratum: Orangey brown silty sand with grey brown mottles

Interval	0m(WSW)	5m	10m	15m	20m	25m	30m(ENE)
Ground (OD)	39.20m	-	-	-	-	-	39.08m
Topsoil Depth	0.24m	0.30m	0.30m	0.23m	0.27m	0.20m	0.20m
Subsoil Depth	-	-	-	-	-	-	-
Top of natural	0.24m	0.30m	0.30m	0.23m	0.27m	0.20m	0.32m
Base of trench	0.26m	0.37m	0.46m	0.40m	0.40m	0.33m	0.32m

Features: A linear feature crossed the trench running north to south. It was 0.8m wide and 0.2m deep with a fill like slightly leached out topsoil, which was full of roots.

Trench 8 (Area 9)

Orientation: N-S

Length: 28m

Width: 1.8m

Topsoil: Dark grey brown peaty clayey silt very few sub-rounded stones and flecks of chalk

Subsoil: None

Substratum: Mid- grey brown silty clay with chalky fragments

Interval	0m(N)	5m	10m	15m	20m	25m	28m(S)
Ground (OD)	38.42m	-	-	38.44m	-	-	38.45m
Topsoil Depth	0.21m	0.29m	0.20m	0.28m	0.27m	0.24m	0.25m
Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.21m	0.29m	0.20m	0.28m	0.27m	0.24m	0.25m
Base of trench	0.21m	0.31m	0.20m	0.42m	0.33m	0.33m	0.29m

Features: None

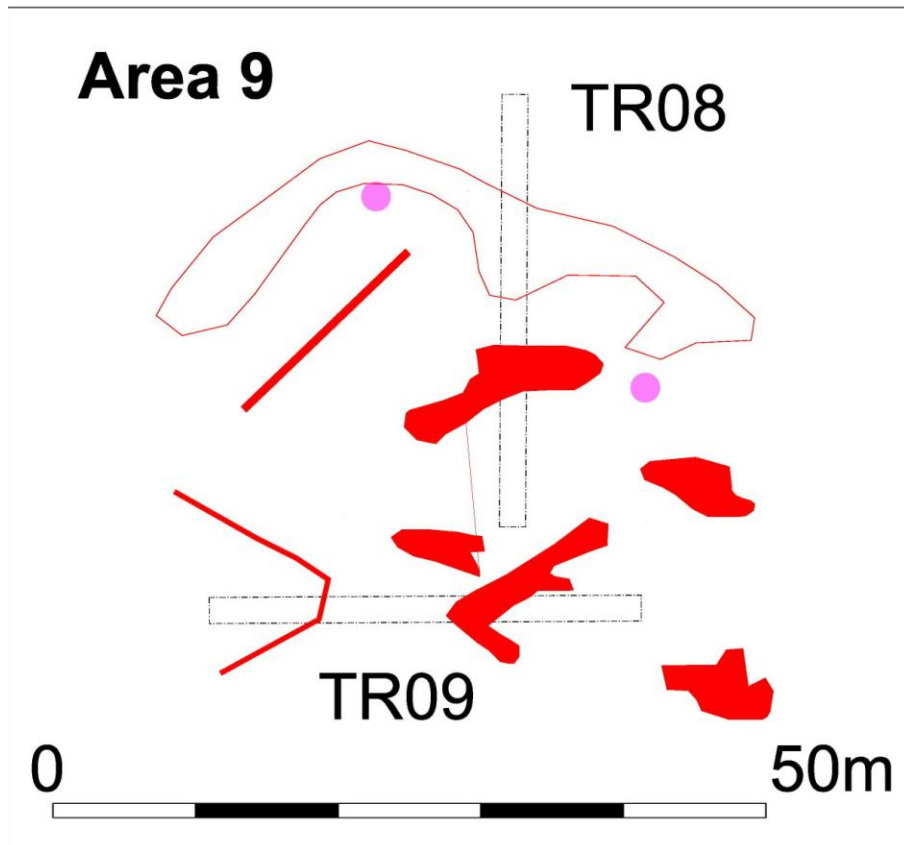


Figure 7: Post-excavation plan of Area 9 (Trenches 8 & 9), showing geophysical anomalies

Trench 9 (Area 9)

Orientation: E-W

Length: 28.5m

Width: 1.8m

Topsoil: Dark grey brown peaty clayey silt very few sub-rounded stones and flecks of chalk

Subsoil: None

Substratum: Mid- grey brown silty clay with chalky fragments

Interval	0m(E)	5m	10m	15m	20m	25m	28.5m(W)
Ground (OD)	38.54m	-	-	38.46m	-	-	38.48m
Topsoil Depth	0.20m	0.24m	0.23m	0.21m	0.27m	0.27m	0.24m
Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.20m	0.24m	0.23m	0.21m	0.27m	0.27m	0.24m
Base of trench	0.21m	0.28m	0.30m	0.21m	0.27m	0.27m	0.24m

Features: Field drain

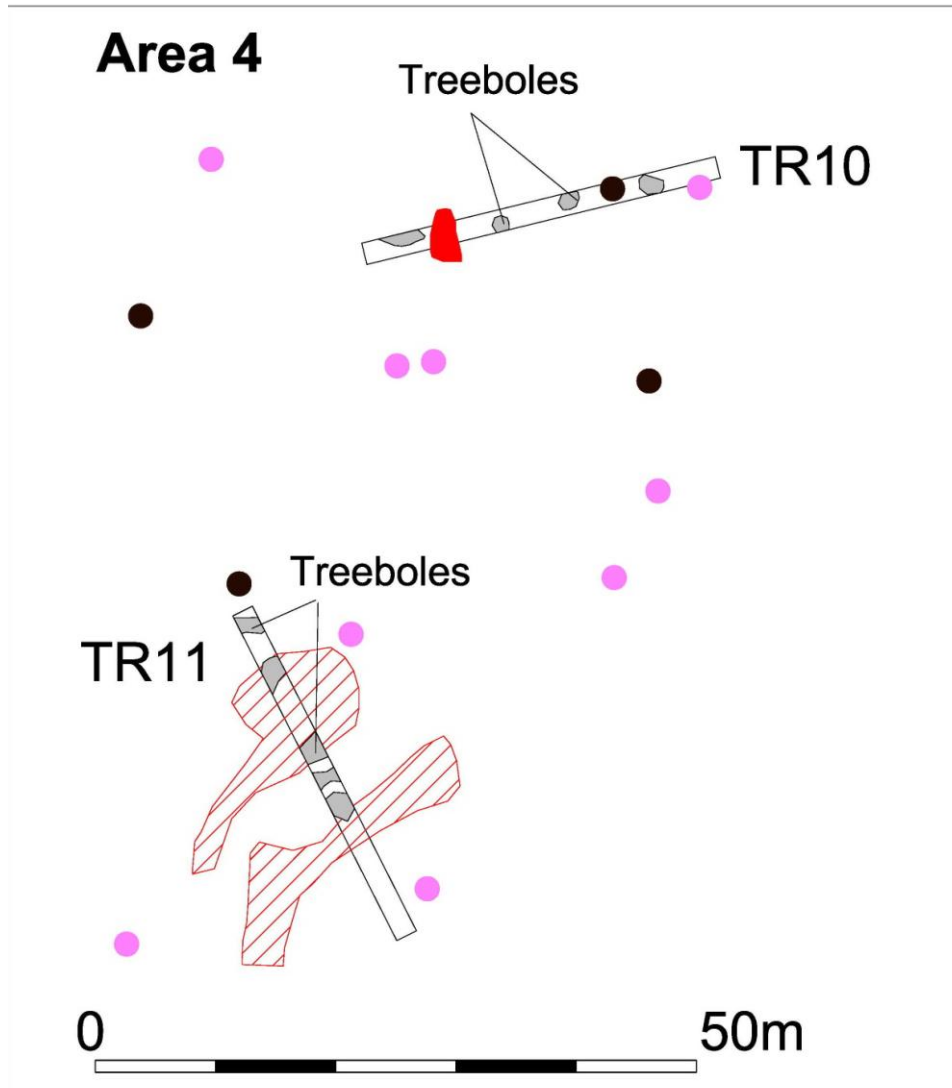


Figure 8: Post-excavation plan of Area 4 (Trenches 10 & 11), showing geophysical anomalies and features observed

Trench 10 (Area 4)

Orientation: WSW-ENE

Length: 27m

Width: 1.8m

Topsoil: Mid to dark grey brown peaty clayey silt very few sub-rounded stones

Subsoil: very dark brown peaty clay mottled with organic orangey brown clay

Substratum: Grey brown silty clay mottled brownish orange

Interval	0m(WSW)	5m	10m	15m	20m	25m(ENE)
Ground (OD)	38.68m	-	-	-	-	38.67m

Topsoil Depth	0.33m	0.25m	0.29m	0.25m	0.25m	0.27m
Subsoil Depth	0.20m	0.25m	0.25m	0.28m	0.23m	0.20m
Top of Substratum	0.53m	0.50m	0.54m	0.53m	0.48m	0.47m
Base of trench	0.58m	0.53m	0.54m	0.53m	0.56m	0.53m

Features: Several tree throws/boles

Trench 11 (Area 4)

Orientation: SSE-NNW

Length: 28m

Width: 1.8m

Topsoil: Mid to dark grey brown peaty clayey silt very few sub-rounded stones

Subsoil: very dark brown peaty clay mottled with organic orangey brown clay

Substratum: Grey brown silty clay mottled brownish orange

Interval	0m(SSE)	5m	10m	15m	20m	25m	28m(NNW)
Ground (OD)	38.58m	-	-	-	-	-	38.66m
Topsoil Depth	0.25m	0.25m	0.23m	0.25m	0.23m	0.26m	0.27m
Subsoil Depth	0.24m	0.25m	0.17m	0.27m	feature	feature	0.25m
Top of Substratum	0.49m	0.50m	0.40m	0.52m	feature	feature	0.52m
Base of trench	0.52m	0.53m	0.45m	0.52m	0.50m	0.52m	0.53m

Features: Several tree throws (Plate 2)



Plate 2: Post-excavation view of Trench 11, showing tree-boles, looking north-west

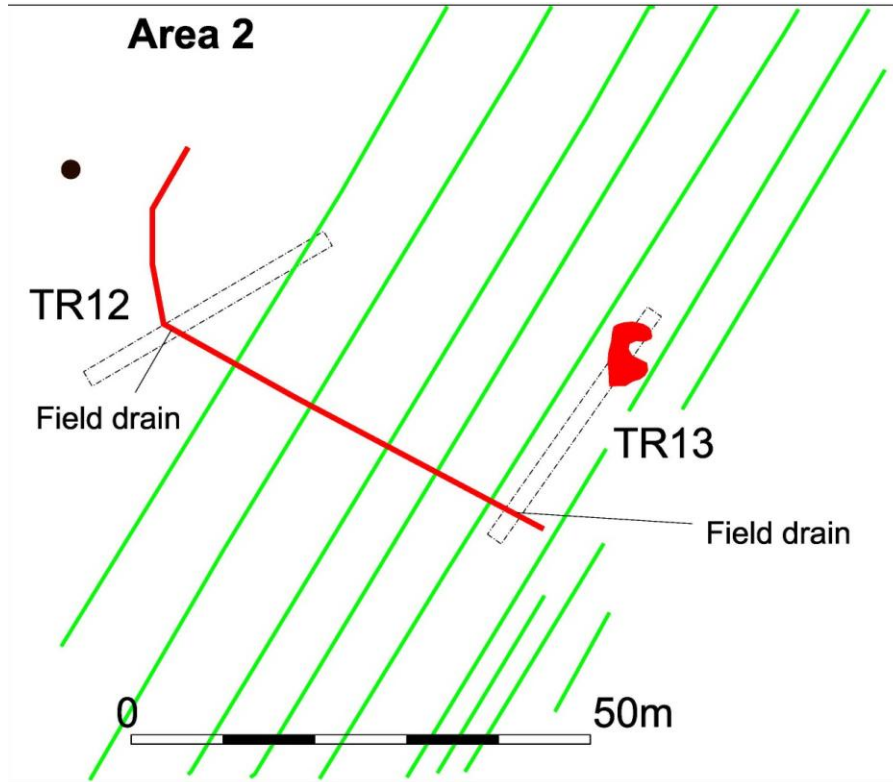


Figure 9: Post-excavation plan of Area 2 (Trenches 12 & 13), showing geophysical anomalies and features observed

Trench 12 (Area 2)

Orientation: SW-NE

Length: 28.5m

Width: 1.8m

Topsoil: Very dark brown peaty clayey silt

Subsoil: None

Substratum: Mottled orangey brown and grey clay and silty clay

Interval	0m(SW)	5m	10m	15m	20m	25m	28m(NE)
Ground (OD)	38.28m	-	-	38.29m	-	-	38.33m
Topsoil Depth	0.29m	0.30m	0.31m	0.30m	0.27m	0.29m	0.29m
Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.29m	0.30m	0.31m	0.30m	0.27m	0.29m	0.29m
Base of trench	0.29m	0.36m	0.42m	0.39m	0.32m	0.33m	0.33m

Features: Some tree throws and a field drain



Plate 3: Work in progress Area 2, Trenches 12 & 13, looking north-east

Trench 13 (Area 2)

Orientation: NE-SW

Length: 29.5m

Width: 1.8m

Topsoil: Very dark brown peaty clayey silt

Subsoil: None

Substratum: Mottled orangey brown and grey clay and silty clay

Interval	0m(NE)	5m	10m	15m	20m	25m	28m(SW)
Ground (OD)	38.33m	-	-	38.40m	-	-	38.29m
Topsoil Depth	0.31m	0.33m	0.42m	0.32m	0.36m	0.31m	0.28m
Subsoil Depth	-	-	-	-	-	-	-
Top of Substratum	0.31m	0.33m	0.42m	0.32m	0.36m	0.31m	0.28m
Base of trench	0.31m	0.36m	0.42m	0.35m	0.36m	0.33m	0.30m

Features: Field drain

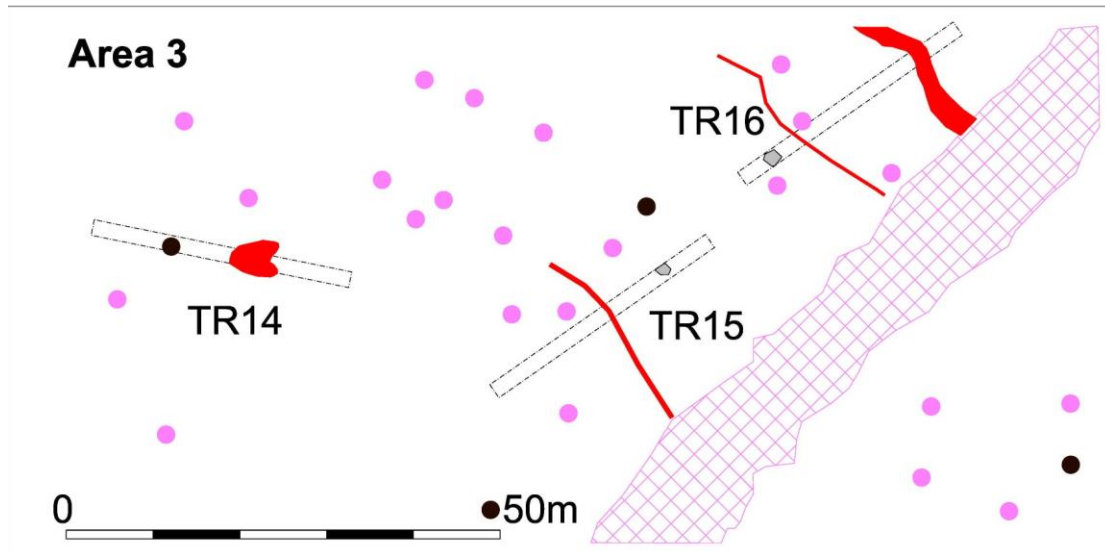


Figure 10: Post-excavation plan of Area 3 (Trenches 14-16), showing geophysical anomalies

Trench 14 (Area 3)

Orientation: NW-SE

Length: 28m

Width: 1.8m

Topsoil: Very dark brown clayey silt

Subsoil: Grey brown silty clay over very dark brown peaty clay with very few pebbles

Substratum: Mottled grey and orangey brown silty clay

Interval	0m(ESE)	5m	10m	15m	20m	25m	28m(WNW)
Ground (OD)	38.87m	-	-	38.85m	-	-	38.81m
Topsoil Depth	0.15m	0.20m	0.18m	0.20m	0.17m	0.16m	0.20m
Subsoil Depth	0.35m	0.36m	0.36m	0.37m	0.44m	0.40m	0.33m
Top of Substratum	0.50m	0.56m	0.54m	0.57m	0.61m	0.56m	0.53m
Base of trench	0.52m	0.61m	0.59m	0.58m	0.66m	0.59m	0.58m

Features: Field drain

Trench 15 (Area 3)

Orientation: SW-NE

Length: 28m

Width: 1.8m

Topsoil: Dark brown clayey silt

Subsoil: Grey brown silty clay over very dark brown peaty clay with very few pebbles

Substratum: Mottled grey and orangey brown silty clay

Interval	0m(SW)	5m	10m	15m	20m	25m	28m(NE)
Ground (OD)	38.82m	-	-	38.81m	-	-	38.92m
Topsoil Depth	0.14m	0.12m	0.14m	0.16m	0.13m	0.14m	0.15m
Subsoil Depth	0.34m	0.36m	0.35m	0.43m	0.41m	0.40m	0.37m
Top of Substratum	0.48m	0.48m	0.49m	0.59m	0.54m	0.54m	0.53m
Base of trench	0.48m	0.52m	0.53m	0.63m	0.58m	0.57m	0.60m

Features: Field drain and a tree-bole.

This trench was excavated at one end to a depth of around 1.2m to reveal layers of silty clay overlying waterlogged bluish grey clay at the base.

Trench 16 (Area 3)

Orientation: SW-NE

Length: 28m

Width: 1.8m

Topsoil: Very dark brown clayey silt

Subsoil: Grey brown silty clay over very dark brown peaty clay with very few pebbles

Substratum: Mottled grey and orangey brown and silty clay

Interval	0m(SW)	5m	10m	15m	20m	28m(NE)
Ground (OD)	38.98m	-	39.14m	-	-	39.20m
Topsoil Depth	0.14m	0.17m	0.16m	0.13m	0.16m	0.15m
Subsoil Depth	0.30m	0.29m	0.25m	0.26m	0.23m	0.30m
Top of Substratum	0.44m	0.46m	0.41m	0.39m	0.39m	0.45m
Base of trench	0.50m	0.55m	0.44m	0.45m	0.45m	0.45m

Features: Field drain and a tree-throw (Plate 4).



Plate 4: Tree-throw in Trench 16, looking north-east

Trench 17 (Area 5)

Orientation: E-W

Length: 30m

Width: 1.8m

Topsoil: Dark grey brown peaty silty clay with very few stones

Subsoil (upper): Yellowish brown silty clay

Subsoil (lower): Very dark brown peaty clay

Substratum: Yellowish grey silty clay

Interval	0m(E)	5m	10m	15m	20m	25m	28m(W)
Ground (OD)	38.75m	-	38.65m	-	-	-	38.66m
Topsoil Depth	0.19m	0.25m	0.20m	0.19m	0.20m	0.20m	0.25m
Subsoil	0.20m	0.10m	0.15m	0.10m	0.12m	0.11m	0.10m

Depth (1)							
Subsoil depth (2)	0.11m	0.15m	0.13m	0.12m	0.15m	0.15m	0.14m
Top of natural	0.50m	0.50m	0.48m	0.41m	0.47m	0.46m	0.49m
Base of trench	0.58m	0.52m	0.49m	0.49m	0.48m	0.46m	0.50m

Features: Linear feature [1] ran south-west to north-east across the trench. It was 2.1m in length and 0.5m and was 0.11m in depth. The fill (2) consisted of grey brown silty clay and peaty clay (Figure 12, plates 5 & 6).

Trench 18 (Area 5)

Orientation: NE-SW

Length: 23m

Width: 1.8m

Topsoil: Dark grey brown peaty silty clay with very few stones

Subsoil (upper): Yellowish brown silty clay

Subsoil (lower): Very dark brown peaty clay

Substratum: Yellowish grey silty clay

Interval	0m(SW)	5m	10m	15m	20m	23m(NE)
Ground (OD)	38.65m	-	-	38.66m	-	38.60m
Topsoil Depth	0.17m	0.20m	0.22m	0.28m	0.24m	0.20m
Subsoil Depth (1)	0.21m	0.19m	0.18m	0.11m	0.11m	0.19m
Subsoil depth (2)	0.06m	0.13m	0.10m	0.10m	0.10m	0.07m
Top of natural	0.44m	0.52m	0.50m	0.49m	0.45m	0.46m
Base of trench	0.56m	0.52m	0.58m	0.55m	0.45m	0.47m

Features: Tree bole

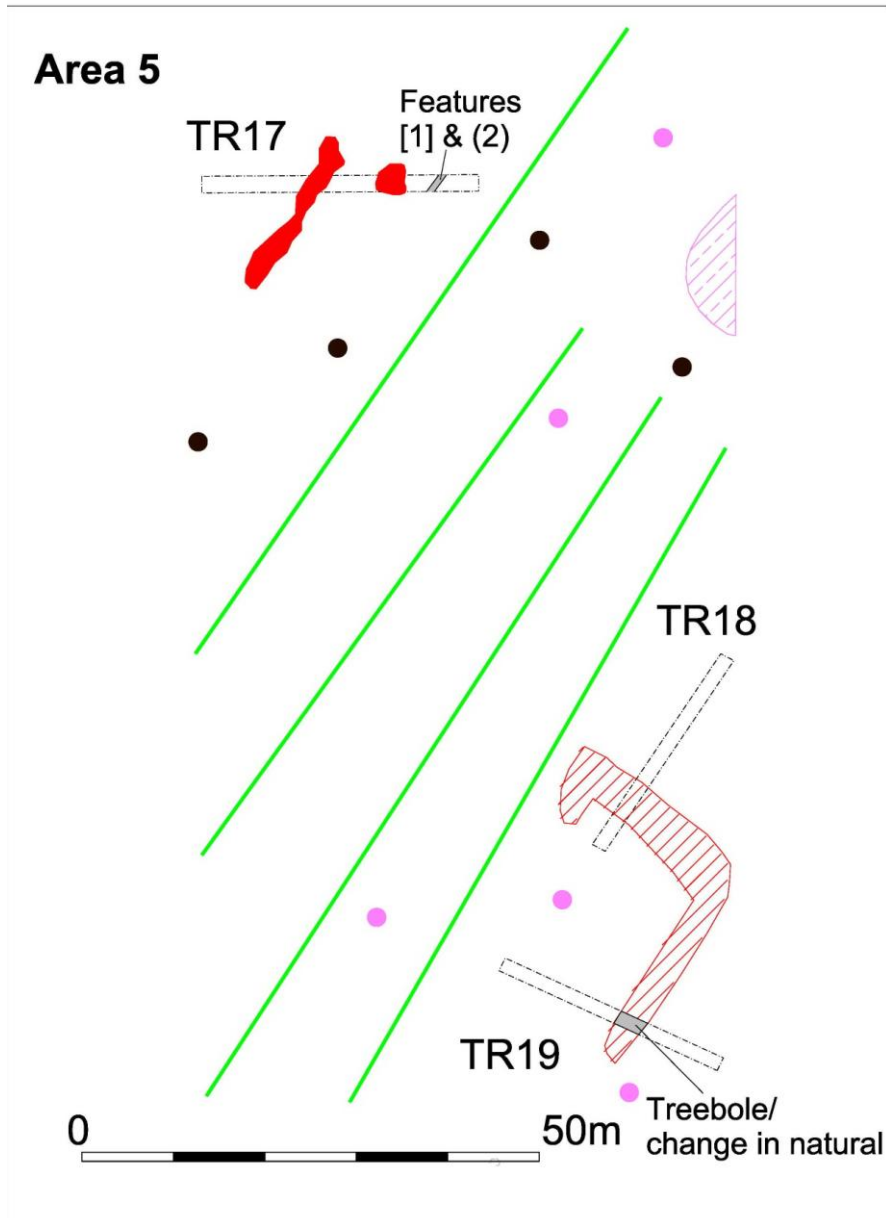


Figure 11: Post-excitation plan of Area 5 (Trenches 17-19), showing geophysical anomalies and features observed

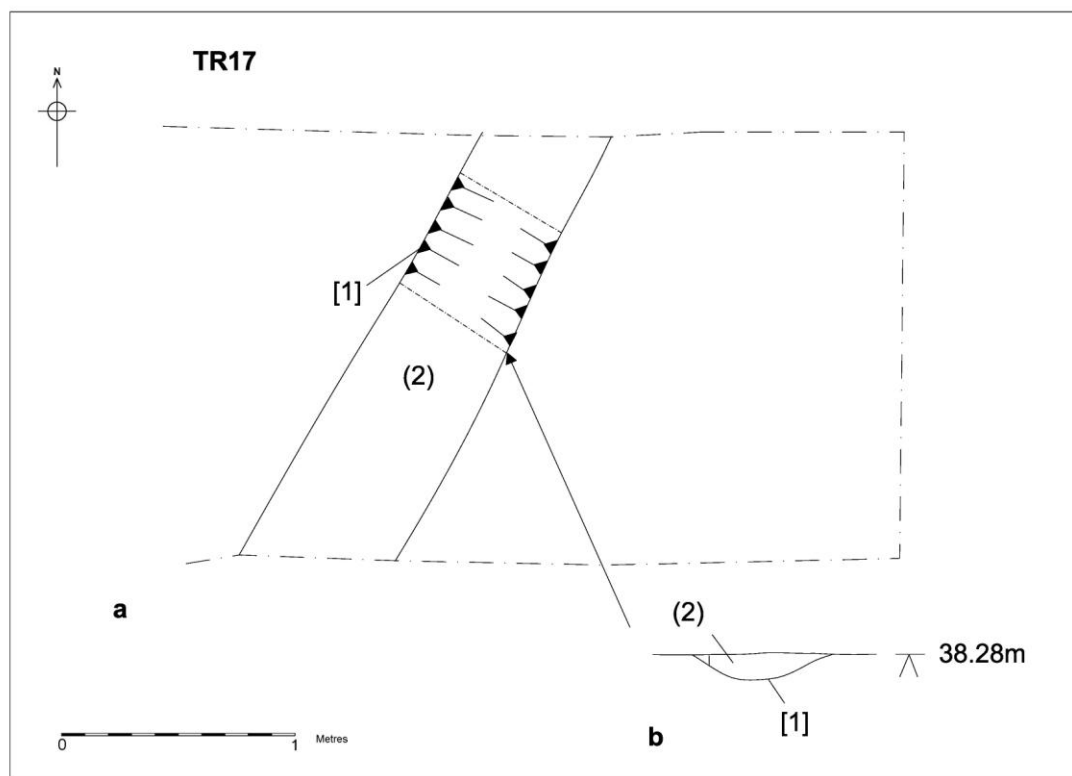


Figure 12: Post-excavation plan (a) of Trench 17, feature [1], (2) and (b) north-west facing section

Trench 19 (Area 5)

Orientation: SE-NW

Length: 23m

Width: 1.8m

Topsoil: Dark grey brown peaty silty clay with very few stones

Subsoil (upper): Yellowish brown silty clay

Subsoil (lower): Very dark brown peaty clay

Substratum: Yellowish grey silty clay

Interval	0m(SE)	5m	10m	15m	20m	23m(NW)
Ground (OD)	38.62m	-	-	-	38.62m	38.52m
Topsoil Depth	0.20m	0.20m	0.15m	0.16m	0.13m	0.12m
Subsoil Depth (1)	0.20m	0.13m	0.14m	0.20m	0.20m	0.19m
Subsoil depth (2)	0.10m	0.10m	0.09m	0.04m	0.04m	0.06m
Top of natural	0.40m	0.43m	0.38m	0.37m	0.37m	0.38m
Base of	0.40m	0.44m	0.38m	0.37m	0.37m	0.38m

trench						
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Features: Large tree-bole



Plate 5: North facing section of Trench 17, showing clay and peat subsoil in section



Plate 6: South-west facing section of feature [1], looking north-east

Conclusion

The proposed development site at Sinfin Moor lies within an area, which has historically consisted of areas of moorland and marshland. The evaluation has revealed evidence of this with much of the eastern and central area (Areas 2, 9, 10 and 12: Trenches 1-9, 12 and 13) consisting of poor shallow soils and little or no subsoil over silt representing the moorland area with thin topsoil over clay and peat and silt representing the marshy areas to the north (Areas 3-5: Trenches 10 and 11, 14-19, Plate 5).

Trenches 1-7 contained a few features, which after inspection proved to be natural or related to very recent agricultural practices, such as wheel ruts and plough marks. Trenches 8 & 9 were completely negative for features except field drains. Tree-boles, tree-throw pits and some shallow depressions were revealed in many of the trenches in the northern areas, particularly in Area 4 (Trenches 11 & 12) but a few were also observed in Area 2 (Trenches 12 & 13), Area 3 (Trenches 14-16) and Area 5 (Trenches 17-19). Most were filled with peat and shell deposits.

There was little evidence of features relating to the anomalies picked up by the geophysical survey carried out prior to the evaluation. In some trenches, such as Trenches 3-5 in Area 10 the linear anomalies picked up by the geophysical survey appeared to relate to changes in the underlying geology, often where the silts contained areas of chalk deposits. The smaller discrete geophysical anomalies within Areas 3 and 4 (Trenches 10, 11, 14-16) may relate to the large amount of tree-boles within this area. Some of the thin linear features appear to represent field drains (Trenches 9, 12 & 13).

The curvilinear feature located by the geophysical survey in Area 5 appears to have been picked up in Trench 19 as a large tree-throw pit lying at the edge of a change in the natural clay. However, the feature did not appear within Trench 18, which had been located to target the feature at its north-western end.

The linear features located in Area 10 in Trenches 6 and 7 were filled with compacted topsoil and many roots and were most likely associated with old ditches or field boundaries. The north-south oriented linear within Trench 7 lies on an alignment that may correspond to old field boundaries, which can be seen on the 1882 and 1938 Ordnance Survey maps of the area (Figure 13). The current field was made up of three separate enclosures at the time of the OS surveys and the central field boundary will be the reason for the linear anomaly picked up by the geophysical survey in Area 10.

The narrow linear [1] in Trench 17 contained no artefacts that could closely date the feature (Plate 6). The fill (2) consisted of a grey brown silty clay and peaty clay, which was identical to the subsoil above. The feature appears to have been cut from quite high up in the soil sequence, also suggesting a recent date for this feature.



Figure 13: Detail of 1882 Ordnance Survey map, sheets LV.9 & LV.5, showing old field boundaries in Area 10 (highlighted). Scale 25 inch to 1 mile

The evaluation, therefore, was largely negative. The anomalies highlighted by the geophysical survey were geological, natural or relating to old field boundaries or field drainage. Many could not be clearly identified. Most features identified within the trenches were very modern or were tree boles or tree throws. These were particularly common in the northern part of the site, which may have been under the plough for a short length of time.

The thin soils over the area would point to the land having been arable land for a relatively short period of time and there is very little evidence of human activity in this area prior to modern times.

As the area would appear to have been bog or moorland until relatively recently this is not unexpected. The area lies within an area once covered by a late glacial lake (Lacustrine deposits) and therefore there may be some potential for early transient hunter-gatherer evidence, mainly from the edges of the lake. The geological survey of the area (Figure 14) would suggest that the eastern edge of the moor may be close to the edge of the lake and this area, therefore maybe where the greatest potential for this kind of human activity may lie.

Acknowledgements

ULAS would like to thank Wilson Bowden for commissioning the work and Mark Ellison for liaising between Rolls-Royce and the local farmers and land owners. Leon Hunt would like to thank the local farmers, particularly Edward Hicklin and David Goodwin for their help and co-operation during the work. Thanks are due to Richard Clark and Paul Harris of Planters Plant Hire for the machine work and to Julie for

letting us park the JCB at her property. The work was carried out by Leon Hunt and James Harvey and the project was managed by Patrick Clay.

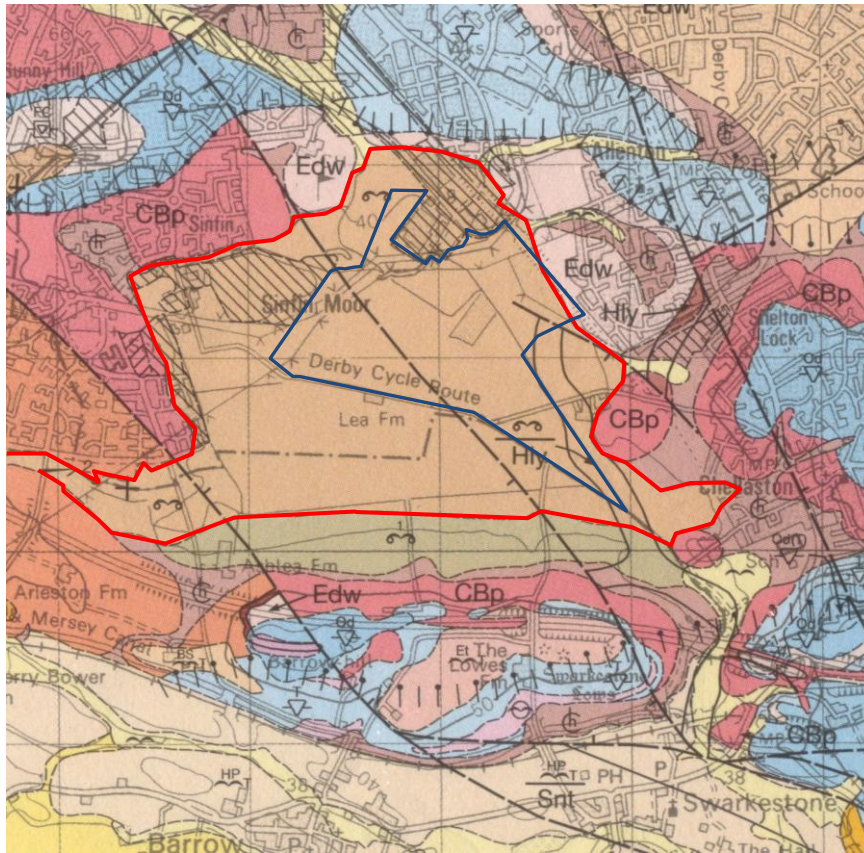


Figure 14: Detail of British Geological Survey of England and Wales (Solid and Drift Geology), sheet 141 (Loughborough) showing edge of Lacustrine deposits (red line) and site boundary (blue line). Original scale 1: 50 000

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Archives

The archive for the site will be deposited with Derby Museums Service by 31.12.2011 with accession number DBYMU-2011-56 and consists of the following:

An unbound copy of this report

An unbound copy of the Desk-based assessment (ULAS Report 2005-034)

19 Trench recording sheets

1 A4 Context sheet (2 contexts)

1 Photographic Record (2 A4 sheets)

1 Set of B & W Photographs (contact sheet)

1 Set of B & W Negatives

1 Contact sheet of digital photographs

1 Drawing record (1 sheet)

1 A3 Permatrace Drawing

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