



Northamptonshire Archaeology

Archaeological geophysical survey at
'Site 637', Brackley, Northamptonshire
July 2012



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SITE 637, BRACKLEY

OASIS REPORT FORM 130737

PROJECT DETAILS		
Project name	Archaeological geophysical survey at 'Site 637', Brackley, Northamptonshire	
Short description	Northamptonshire Archaeology undertook a detailed magnetometer survey of c 8ha of land at 'Site 637', Brackley, Northamptonshire in July 2012. The results confirmed that the site contained part of an unenclosed settlement of probable Iron Age date.	
Project type	Geophysical survey	
Site status	None	
Previous work	Desk-based assessment, Geophysical survey	
Current Land use	Rough pasture / meadow	
Future work	Unknown	
Monument type/ period	Iron Age unenclosed settlement	
Significant finds		
PROJECT LOCATION		
County	Northamptonshire	
Site address	'Site 637'	
Study area	7.6ha	
OS Easting & Northing	SP 592 386	
Height OD	137-118m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Northamptonshire Archaeology	
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	Ian Fisher	
Project Manager	Charlotte Walker	
Sponsor or funding body	Manor Oak Homes	
PROJECT DATE		
Start date	4 July 2012	
End date	23 July 2012	
ARCHIVES	Location	Content
Physical	N/A	
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
BIBLIOGRAPHY		
Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey at 'Site 637', Brackley, Northamptonshire, July 2012	
Serial title & volume	Northamptonshire Archaeology Reports 12/137	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT 'SITE 637',
BRACKLEY, NORTHAMPTONSHIRE
JULY 2012**

ABSTRACT

Northamptonshire Archaeology undertook a detailed magnetometer survey of c 7.6ha of land at 'Site 637', Brackley, Northamptonshire in July 2012. The results confirmed that the site contained part of an unenclosed settlement of probable Iron Age date.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Manor Oak Homes to conduct an archaeological geophysical survey on a proposed development area, 'Site 637', at Brackley, Northamptonshire (NGR SP 592 386; Fig 1). The purpose of the survey was to investigate the character and extent of any archaeological remains on the site,

The fieldwork was conducted on 4th and 5th July 2012, and comprised the detailed magnetometer survey of four grass fields with a total area of c 7.6ha. A fifth field was not surveyed, as it lay on the line of a backfilled railway cutting.

2 TOPOGRAPHY AND GEOLOGY

The survey area is located to the north of Brackley, close to Foxhill Spinney. It is bounded to the east by the A43, to the south by Brackley Sawmills, to the west by a former railway cutting and to the north by a small stream (Fig 1). It is divided into four grass fields (Fields 1-4) and a plot of scrub-covered land (Field 5).

The site occupies a north-east facing slope at an elevation of 137-118m AOD, and overlooks a small stream which drains southwards into the River Great Ouse. It is underlain by a sequence of Jurassic strata comprising, from oldest to youngest, the Whitby Formation (mudstone), the Horsehay Sand Formation, the Taynton Limestone Formation, and the White Limestone Formation. The only drift deposit is alluvium, which is present in the base of the stream valley (BGS 2012).

3 ARCHAEOLOGICAL BACKGROUND

The present geophysical survey was commissioned to augment a previous piece of work (GSB 2007), which saw the survey of three sample areas, totalling 2.1ha, within Field 1.

The GSB survey had formed part of a larger project, evaluating a block of land which extended from Brackley Fields Farm in the west to the A43 in the east. It resulted in the identification of two dispersed groups of small enclosures or roundhouse gullies, one lying within the present survey area and the other lying to the west, beyond the Radstone Road. Subsequent trial trenching of the western site (OA 2010) confirmed the validity of the survey results and demonstrated the presence an unenclosed settlement of middle Iron Age date.

Other episodes of fieldwork have demonstrated that Iron Age remains occur to the immediate south of the present survey area, in the grounds of Brackley Sawmill (Wolfram-Murray 2011), and to its immediate east, under the BP petrol station (Cadman 1990, cited in CA 2010, 10). On the latter site, the Iron Age remains were accompanied by a group of at least eight human burials which, although not directly dated, are suspected to be of Roman or Saxon origin.

There are various sites of prehistoric and Roman date in the wider vicinity of the survey area, including a Roman burial and artefact scatter located c 200m to the north (CA 2010, 10), and the cropmark of a rectangular ditched enclosure located c 500m to the south-east (CA 2010, 12). These do not have a direct bearing on the archaeology of the survey area, but they do demonstrate a general potential for further remains of such dates to be found.

The survey area lies at a distance from the historic core of Brackley, within an area formerly cultivated as part of the town's open field system (Bennet-Samuels 2006, 9). It is, therefore, unlikely to contain any medieval or early post-medieval remains other than ridge and furrow.

The historic mapping of the survey area (Bennet-Samuels 2006, figs 4-8), show that the survey area was enclosed in 1829. Its western edge was affected by the construction of the Great Central Railway, which opened in 1899 (Bennet-Samuels 2006, 11), but it otherwise continued in agricultural use until the early 20th century when the greater part the area was turned over to allotments.

4 METHODOLOGY

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

An independent system of 30m grids was established within each of the fields to be surveyed. The grids were established with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by means of a Leica Systems 1200 dGPS. The gradiometers were then carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square.

All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data were processed using Geoplot 3.00v software. Striping, caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed as necessary.

The processed data are presented in this report in the form of grey-tone plots, at a scale of +/- 4nT black/white. The plots have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay has been produced and is shown in Figure 3. Plots of the raw data are provided in Figure 4.

5 SURVEY RESULTS

5.1 Field 1

The data from this field contains a substantial number of archaeological anomalies, concentrated in a broad swathe extending eastwards from the south-western corner of the field. Some of these are localised and of irregular shape, whilst others are curvilinear and tend to define small, sub-circular features up to about 15m in diameter. The former are likely to represent pits, or else patchy spreads of midden material, whereas the latter probably represent small ring ditches or gullies and perhaps mark the sites of roundhouses.

For descriptive purposes, the archaeological remains can be split into three groups. In the south and south-western part of the field there is a relatively dense cluster of 'pits', with at least three associated ring ditches. More centrally, there is one ring gully and, to its north an ambiguous feature which has an annular form but seems to be formed of discrete pits. To the east, there is a group of ring ditches, most of which are defined by unusually narrow magnetic anomalies. The overall appearance is of an unplanned settlement, quite similar in character to the middle Iron Age site previously excavated to the west (OA 2010).

The pattern of the archaeological anomalies is somewhat obscured by the overlying parallel anomalies, aligned north-east to south west, and by a band of weak magnetic 'noise' which bisects the field along its principal axis. The former represents the surviving traces of medieval or later ridge and furrow, and the latter marks the line of a track through the allotments, as shown on the 1900 and 1924 editions of the Ordnance Survey map.

The other magnetic anomalies in Field 1 call for little comment. There are magnetic halos at places around the field margins, due to adjacent fences and buildings, and a few scattered dipolar anomalies, representing small pieces of ferrous debris within the topsoil.

5.2 Field 2

Within Field 2, the only anomalies of clear archaeological interest are the two sets of parallel linear anomalies which indicate medieval or later ridge and furrow cultivation. Those aligned from north-east to south-west are continuations of the furrows detected in Field 1. The others, aligned from north-west to south-east may represent small terraces or lynchets running along the valley side.

At the eastern end of the field there is a chain of positive anomalies forming a curvilinear feature. The significance of this is unclear, but it seems more likely to represent a geological feature than an archaeological one. Also, at various points across the field, there are dipolar anomalies representing ferrous objects.

5.3 Field 3

The data from this field is largely bland, with only a few amorphous and undiagnostic anomalies occurring along its southern margin.

5.4 Field 4

Only a very small area was available for survey in Field 4, and the resulting data is minimally informative. Two anomalies are present; a ferrous halo, presumably arising from an adjacent fence, and a slight positive anomaly which may mark part of a medieval plough furrow.

5.5 Field 5

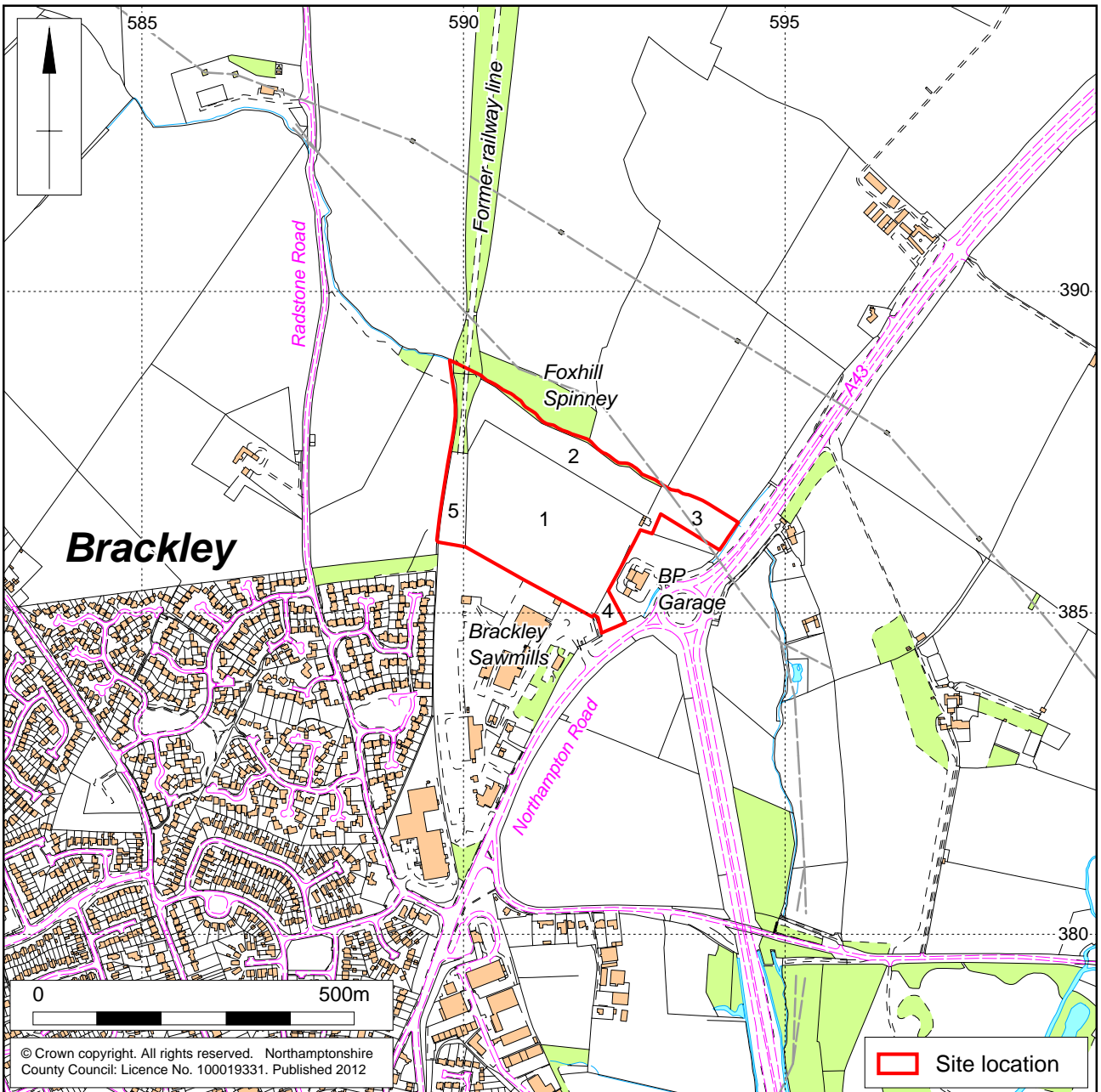
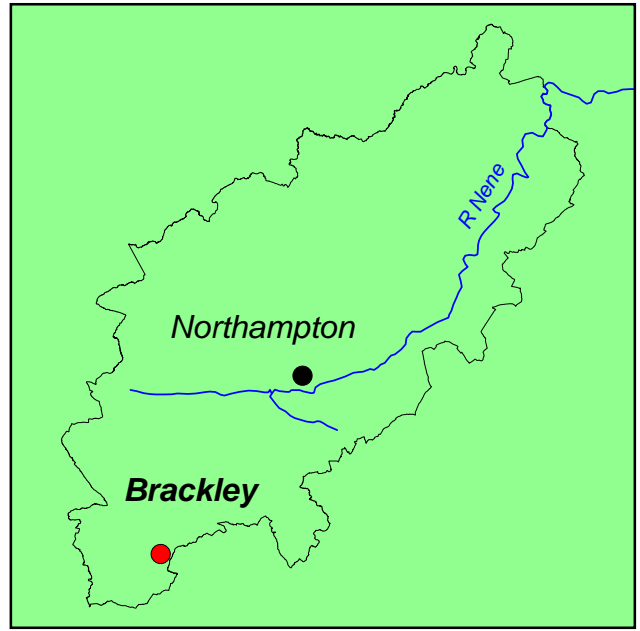
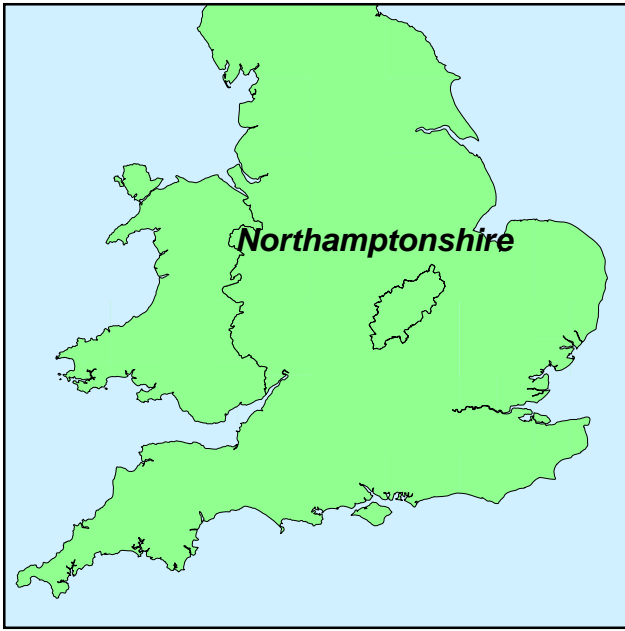
Field 5 was not surveyed, as it comprised a piece of overgrown land on the line of a backfilled railway cutting.

6 CONCLUSION

The results presented here largely confirm those of the previous geophysical investigation (GSB 2007). They demonstrate that an unenclosed settlement of probable Iron Age date extends in a broad east - west swathe across the centre of Field 1, linking up with similar remains previously discovered at Brackley Sawmills and on the site of the BP petrol station. The results also demonstrate that ploughed out ridge and furrow, of medieval or later date, occurs across virtually the entire survey area.

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Scale 1:10,000

Site location Fig 1

Scale 1:2500 (A4)

Magnetometer survey results

Fig 2



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Scale 1:2500 (A4)

Magnetometer survey interpretation

Fig 3



Development area

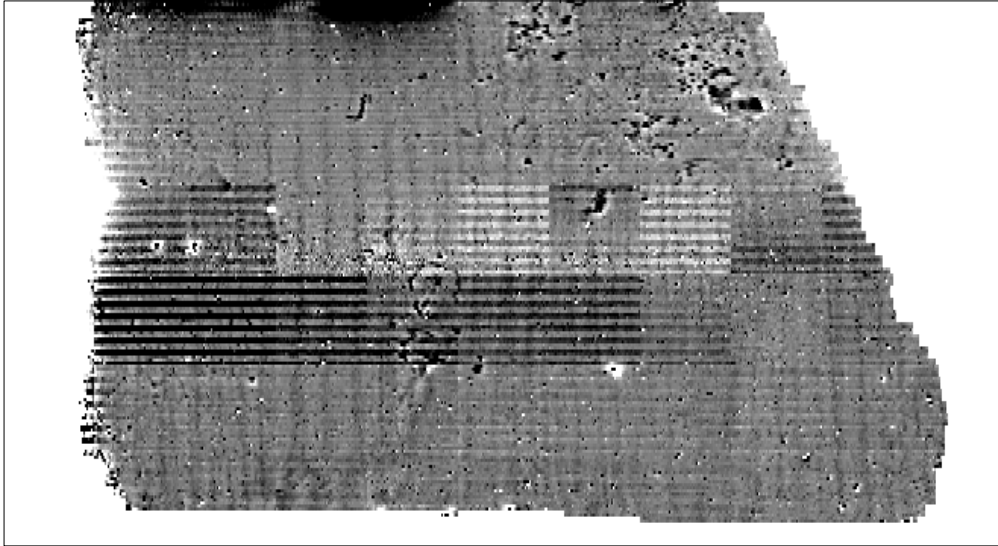
Magnetic anomaly /nT

-4nT 0 +4nT

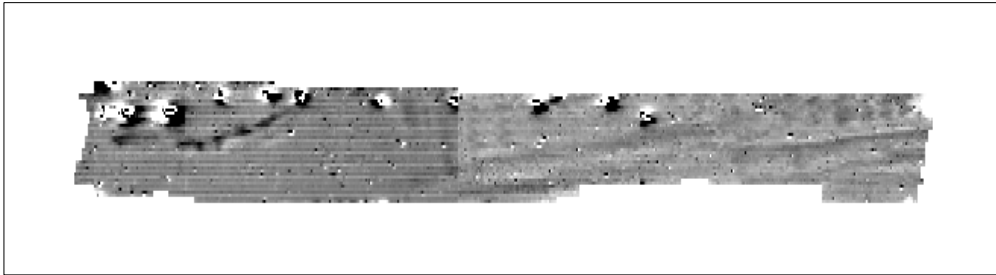
0 100m

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- Archaeology
- Ridge and furrow
- Geology
- Ferrous
- Magnetic noise



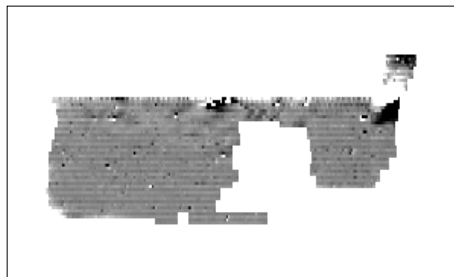
Field 1



Field 2



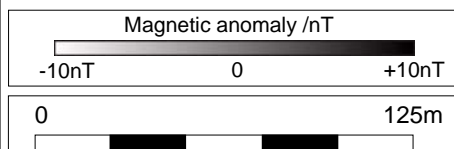
Field 2.1



Field 3



Field 4





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