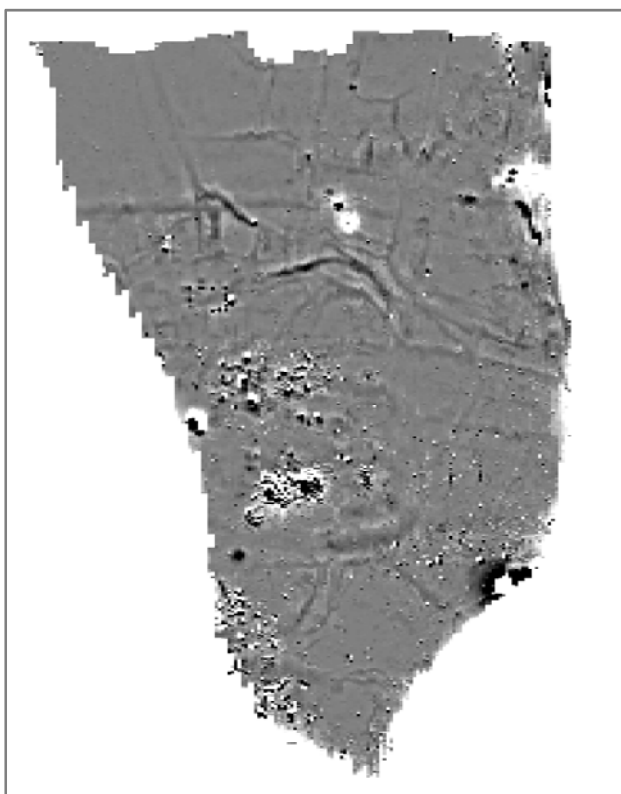




Northamptonshire Archaeology

Archaeological geophysical survey of the Village Land, Chacombe, Northamptonshire December 2012



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Report 13/15

January 2013



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QUALITY CONTROL

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OASIS REPORT FORM 141130

PROJECT DETAILS		
Project name	Archaeological geophysical survey of the Village Land, Chacombe, Northamptonshire	
Short description	Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of the Village Land at Chacombe, Northamptonshire. The survey area contained earthworks relating to a manor house and other medieval settlement. The geophysical results correlated broadly with the layout of the earthworks, but revealed much additional archaeological detail. Some areas of modern disturbance were also detected.	
Project type	Geophysical survey	
Site status	None	
Previous work	Trial trenching (Chadwick 2012)	
Current Land use	Amenity grassland	
Future work	Unknown	
Monument type/ period	Medieval settlement and manor house	
Significant finds		
PROJECT LOCATION		
County	Northamptonshire	
Site address	Village Land, Silver Street, Chacombe	
Study area	c 3.1ha	
OS grid reference	SP 491 440	
Height OD	c 105-115 m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Chacombe Parish Council	
Project Design originator	NA	
Director/Supervisor	John Walford	
Project Manager	Steve Parry	
Sponsor or funding body	Chacombe Parish Council	
PROJECT DATE		
Start date	3 December 2012	
End date	17 January 2013	
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 of the Village Land, Chacombe, Northamptonshire, December 2012	
Serial title & volume	Northamptonshire Archaeology Reports 13/15	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF THE VILLAGE LAND,
CHACOMBE, NORTHAMPTONSHIRE
DECEMBER 2012**

ABSTRACT

Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of land the Village Land at Chacombe, Northamptonshire. The survey area contained earthworks relating to a manor house and other medieval settlement. The geophysical results correlated broadly with the layout of the earthworks, but revealed much additional archaeological detail. Some areas of modern disturbance were also detected.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Chacombe Parish Council to conduct a magnetic gradiometer survey of the Village Land at Chacombe, Northamptonshire (NGR SP 491 440; Fig 1). The aim was to map the extent and layout of the archaeological remains on the site, so that this information could be considered when planning its future management. The survey took place on 3 to 5 December 2012.

2 TOPOGRAPHY AND GEOLOGY

The Village Land comprises two adjacent fields located on the west side of Chacombe. These are bounded to the south-east by Silver Street, to the south by Church Lane, to the west by the churchyard, and to the north by Chacombe Brook (Fig 1). An artificial water channel, or leat, forms the boundary between the two fields. At the time of the survey, both of the fields were under grass, except for a small area in the north-west where saplings had recently been planted.

The southern part of the site consists of a relatively level piece of land at a height of c 115m aOD. Further north, there is a steep slope, which drops about 10m before levelling out onto the narrow floodplain which flanks Chacombe Brook.

The geology of the site is mapped as Lower Lias clay and mudstone, with some superficial alluvial alongside the brook (BGS 2012).

3 **ARCHAEOLOGICAL BACKGROUND**

The survey area lies within the historic core of the village of Chacombe, immediately adjacent to the 14th-century church of St Peter and St Paul (Cameron 1995, 4). It contains a complex of earthworks of largely medieval date, including a large rectangular platform which is believed to mark the site of a former manor house (RCHME 1982, 26).

Figure 2 shows an outline plot of the earthworks, as recorded on the Northamptonshire Historic Environment Record. Apart from the manor house platform, there are various slight ditches and banks, and a rather deeper hollow-way running along the eastern edge of the field. In the northern field there is a large bank, which most probably formed part of a fishpond.

The date at which the manor house fell into disuse is not known, but it is not depicted on a map of the village dating from 1696 (Cameron 1995, 4). Early editions of the Ordnance Survey map also show the survey area as empty fields. More recently, a smallholder erected a group of sheds and other structures near the south-western corner of the survey area. These have since been removed, and the land has been bequeathed to the village for communal use.

Two evaluation trenches were dug in the south-western corner of the survey area in June 2012, ahead of a proposed expansion of the adjacent churchyard (Chadwick 2012). No archaeological remains were encountered, as the area had been disturbed by the recent smallholding.

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).

A tape measure and optical square were used to mark out a network of 30m grid squares across the entire survey area. This grid was tied in to the Ordnance Survey National Grid by measurement to field boundaries and other re-locatable landmarks. The gradiometers were 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 is presented in this report in the form of grey-tone plots, at a scale of +/- 10nT. These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 3). Interpretative diagrams are provided in Figures 4 to 6, and a plot of the unprocessed survey data is presented in Figure 7.

5 SURVEY RESULTS

5.1 The southern field

The data from this field contains an intermingled mass of anomalies, representing a palimpsest of archaeological remains and more recent features (Fig 3). It is not possible to offer a fully detailed interpretation of such a complex dataset, so what follows is intended as more of a general overview, with attention being drawn to the more interesting and distinctive anomalies present (Figs 4-6).

The manor house platform, lying to the east of the church, has proved to have a fairly weak magnetic signature. Much of its perimeter is poorly defined, with clear magnetic anomalies occurring only at the north-eastern and south-eastern corners. Unfortunately, the data does not reveal anything about the structures that may have stood on the platform, as any relevant anomalies have been masked by magnetic disturbance of more recent origin (Fig 6).

To the south and east of the platform there are a few positive linear anomalies which probably represent sections of boundary ditches. Some may pre-date the platform, as they seem to be overlain by its south-eastern corner.

Near the south-western corner of the platform, just in front of the churchyard gate, there is a large discrete positive anomaly which attains a maximum intensity of 72nT. An anomaly of this type could represent an industrial feature, such as a limekiln or a bell-casting pit, but would also be consistent with a pit full of brick rubble or other ceramic debris.

In the northern half of the field there is a very complex pattern of linear and curvilinear anomalies. Many of these are straight, and form a loosely rectilinear arrangement with axes aligned roughly east-west and north-south. The remainder are more sinuous, and less coherently arranged. It is likely that each group represents a different phase of archaeological features; one superimposed on the other. Most probably, the rectilinear anomalies represent a set of ditches defining house and garden plots, or small paddocks, and the sinuous anomalies represent a later pattern of ditches or sunken trackways.

Some of the sinuous anomalies are particularly intense, with peak values in excess of 30nT. Such intensity often indicates the presence of magnetically enhanced materials, such as slag, ironstone or ceramics. These could be present as waste material, used to backfill ditches, or as metalling on the surfaces of tracks.

At various places in the field there are small, amorphous positive anomalies. These are not especially diagnostic, but most probably represent rubbish pits or small spreads of midden material.

At three locations in the eastern half of the field, the data is particularly 'noisy', due to accumulations of magnetic debris (ferrous scrap in particular, but perhaps also brick rubble and burnt soil) (Fig 6). One area of noise, in the south-west of the field, can be attributed to the remains of the recent smallholding. Another, to the north, coincides with a spread of bonfire debris. A third, to the north again, relates to a levelling deposit of imported soil and rubble (Williams pers com).

To the north of the levelling deposit is a well defined rectangular arrangement of intense magnetic dipoles (Fig 6). These are likely to represent the bases of fence posts from a recent compound (visible on Google Earth aerial photograph, nominal date 1/1/2006). In the north-eastern corner of the field, there is an intense linear anomaly with alternating polarity, which probably represents a small pipe running beneath the modern footpath. Elsewhere across the field there are various large dipolar anomalies, representing unidentified ferrous objects.

5.2 The northern field

In the south-west of this field, there is a broad linear anomaly which represents the western end of the 'fish pond' bank. To the east, there is a narrow strip of blank data, where the remainder of bank was too steep and overgrown to be covered by the survey.

The broad, positive anomaly in the north-eastern corner of the field seems excessively large for a ditch, and more probably represents a cut-off and infilled meander of the brook. The weaker anomalies to its west are of less certain significance, but may also represent parts of old channels.

A small ferrous halo in the south-eastern corner of the field was caused by the adjacent footbridge across the leat.

6 CONCLUSION

The survey results confirm and expand upon the earthwork evidence, demonstrating that medieval or early post-medieval settlement remains extend across much of the area surveyed. The dense and overlapping nature of the remains indicates that occupation was prolonged and the site went through more than one phase of development.

It is thought that the results provide a good indication of how far the archaeological remains extend, but they should not be regarded as detailed map of every feature present. As well as the general difficulties of detecting small features and distinguishing those that overlap with each other, there are specific limitations to the effectiveness of magnetometer survey. For instance, it rarely succeeds in detecting stone structures, even when these are substantial and well preserved (EH 2008, 14). Therefore, whilst a magnetometer survey is adequate for evaluation purposes, and for obtaining an overview of a site, further information can often be obtained by applying a second, complementary technique. Earth resistance survey is particularly useful in this regard as, unlike magnetometry, it is well suited to the detection of structural remains.

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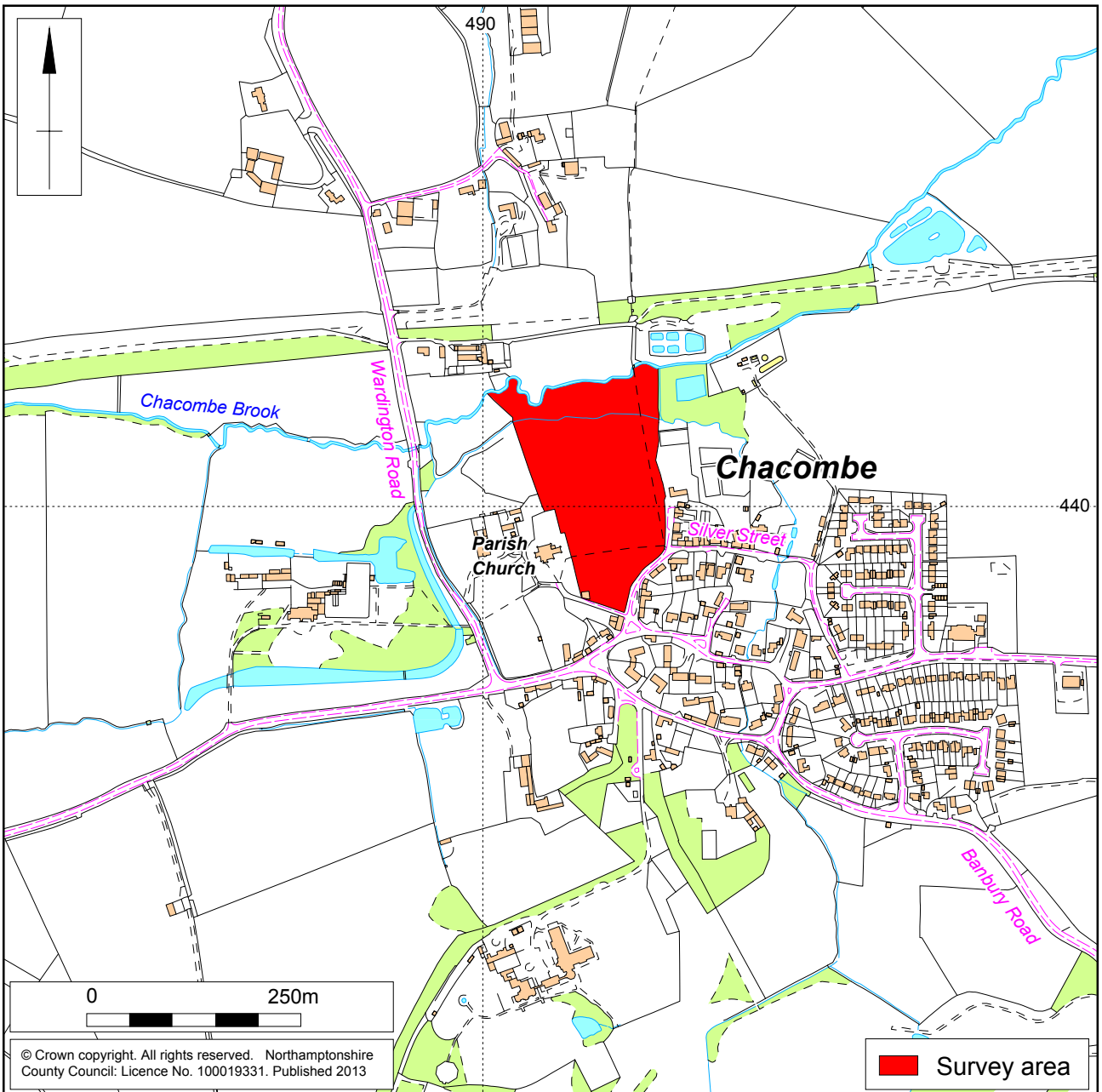
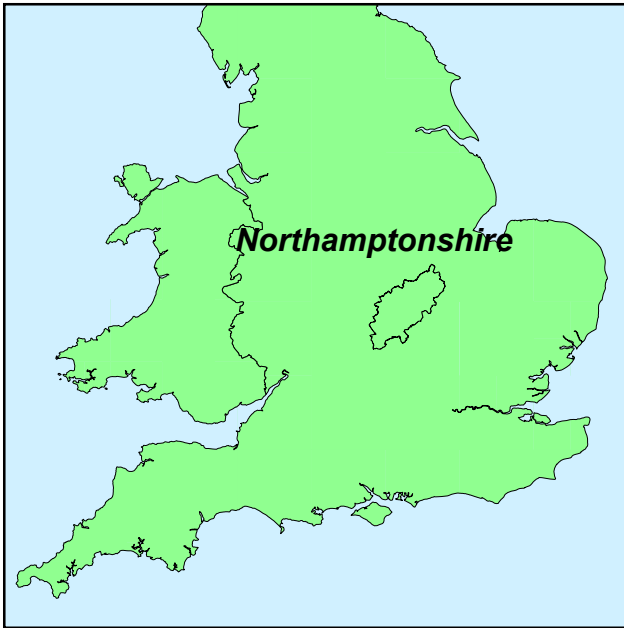
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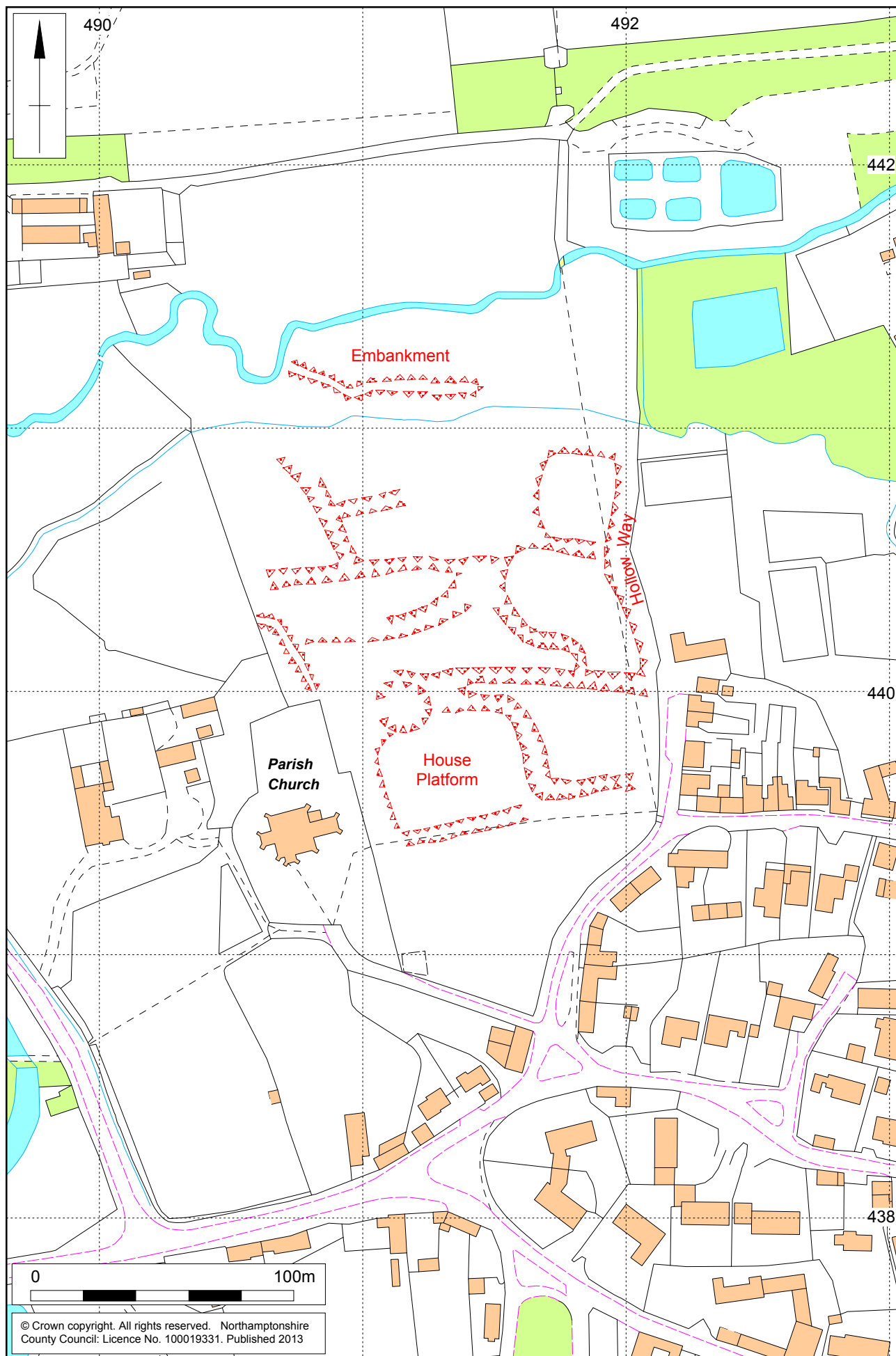
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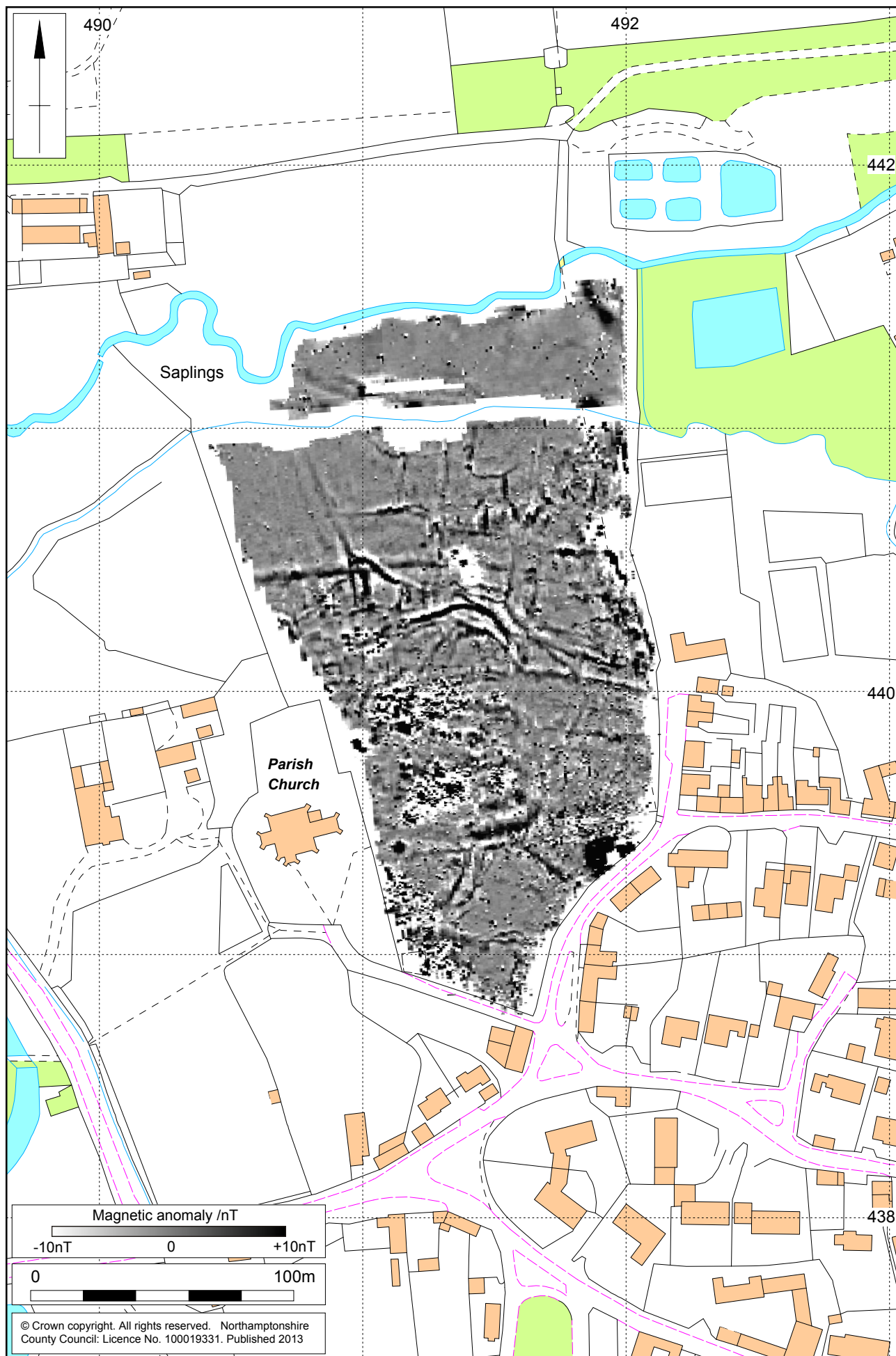
Scale 1:7500

Site location Fig 1



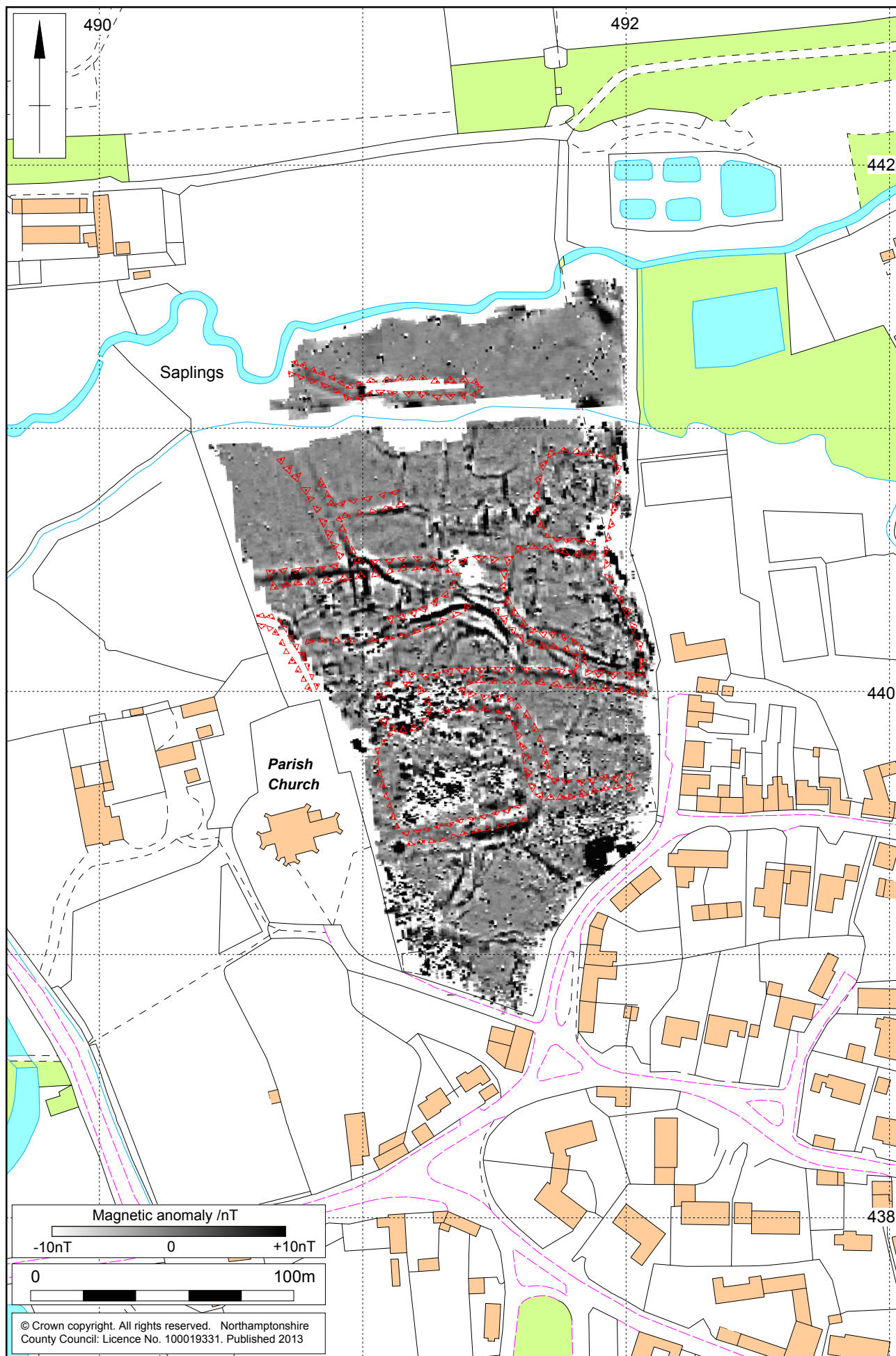
Scale 1:2000 (A4)

Earthwork map (after Northamptonshire HER) Fig 2



Scale 1:2000 (A4)

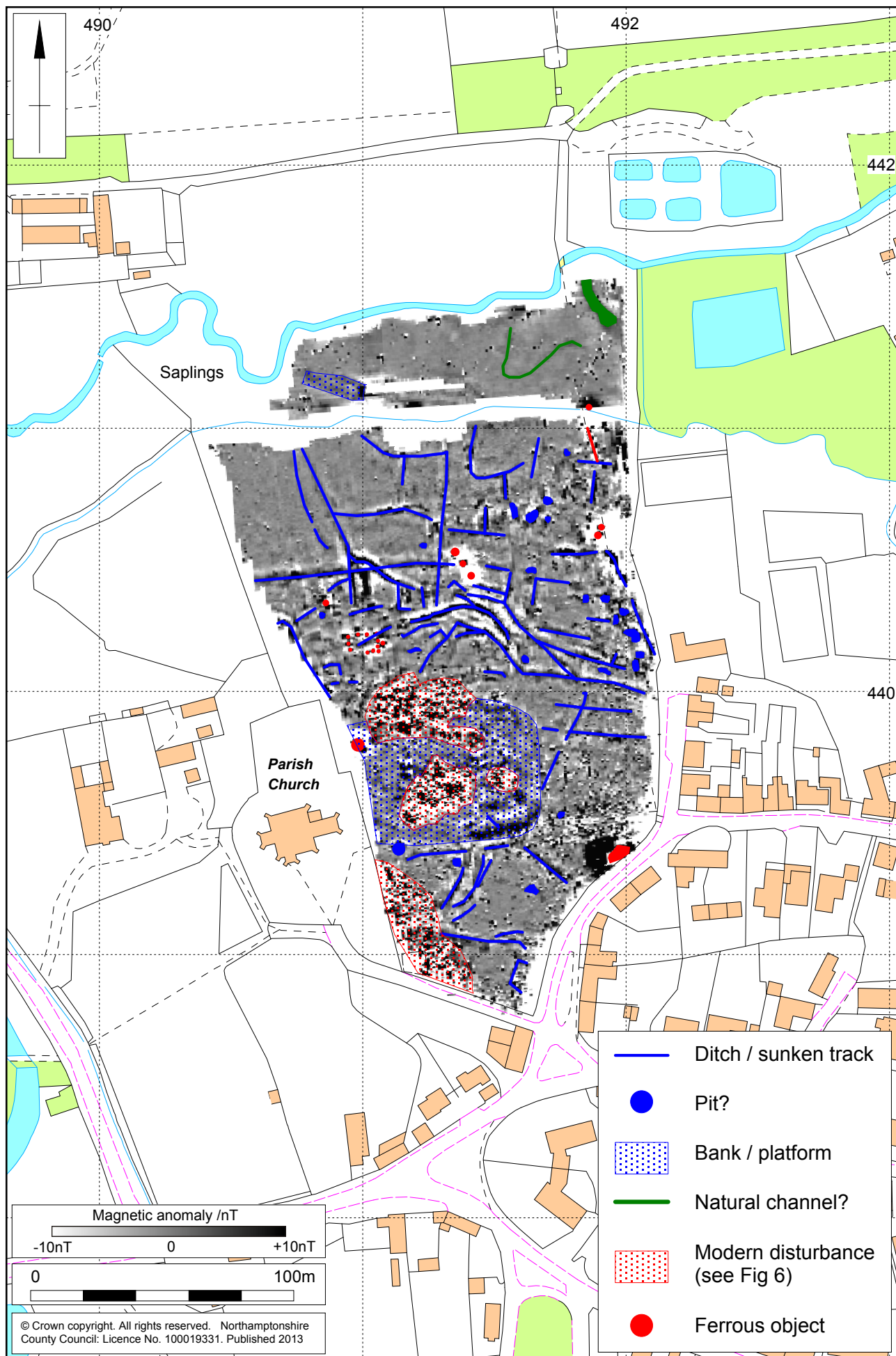
Magnetometer survey results Fig 3



Scale 1:2000 (A4)

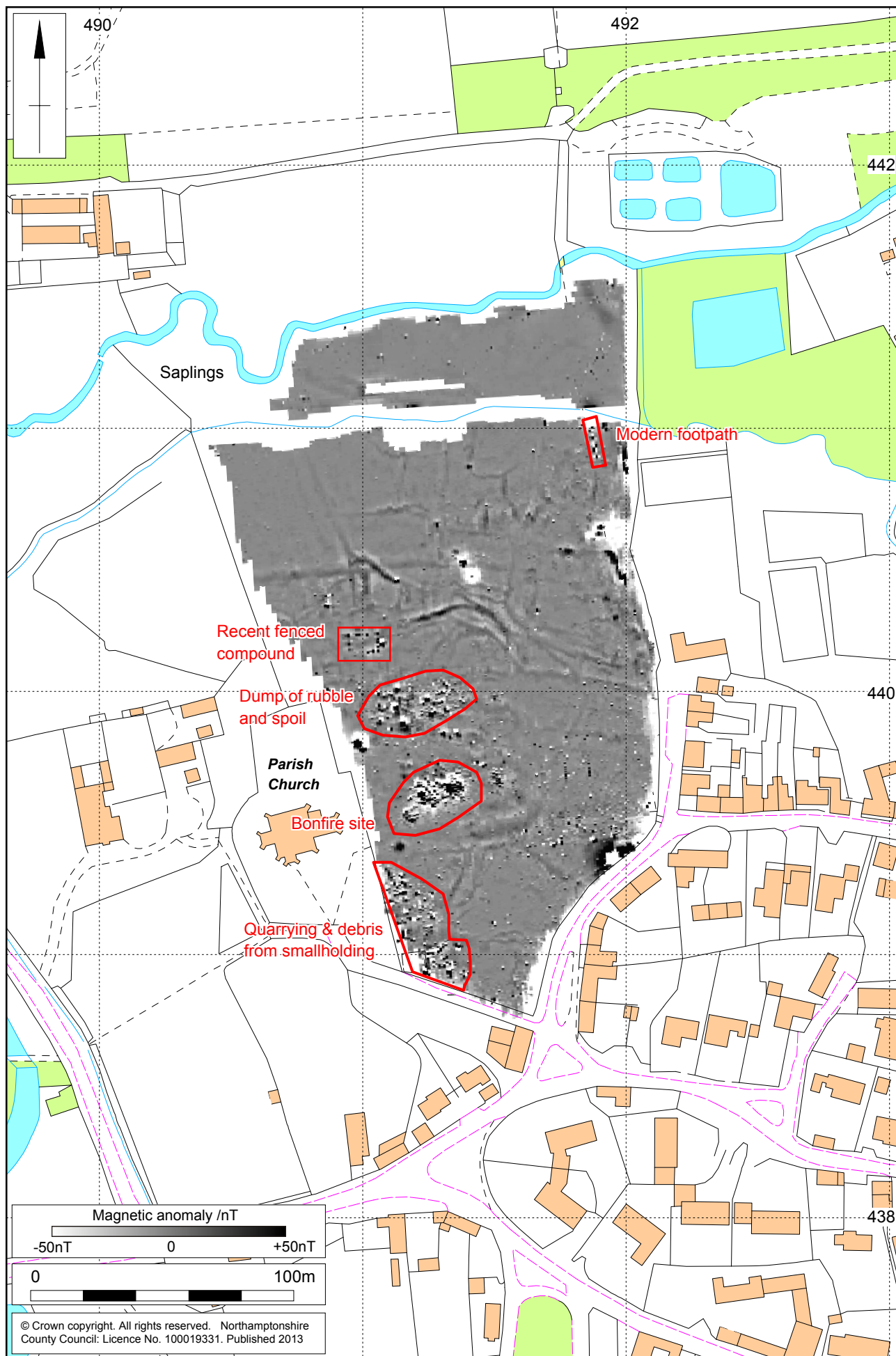
Magnetometer survey results with earthwork map overlaid

Fig 4



Scale 1:2000 (A4)

Magnetometer survey interpretation Fig 5



Scale 1:2000 (A4)

Magnetometer survey interpretation (modern features)

Fig 6



Scale 1:2000 (A4)

Unprocessed magnetometer data Fig 7



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