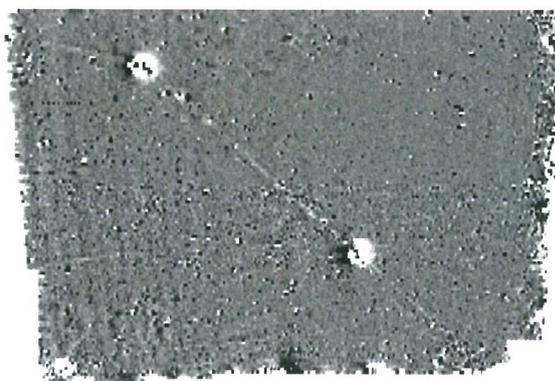




Northamptonshire Archaeology

Archaeological geophysical survey on land adjacent
to Countesthorpe Cemetery, Foston Road
Countesthorpe, Leicestershire



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Report 10/86

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QUALITY CONTROL

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Verified by	Pat Chapman	<i>PC</i>	27/05/10
Approved by	Andy Chapman	<i>AC</i>	27/05/10

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey on land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe, Leicestershire	
Short description	Northamptonshire Archaeology was commissioned by University of Leicester Archaeology Services (ULAS), to carry out an archaeological geophysical survey on 2.5ha of agricultural land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe, Leicestershire. The gradiometer survey found evidence for medieval or post-medieval ridge and furrow ploughing. The other anomalies found probably represented pieces of ferrous debris and utility covers associated with a possible plastic pipe.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current Land use	Pasture	
Future work	Trial trench evaluation or watching brief	
Monument type/ period	Medieval or post-medieval ridge and furrow	
Significant finds	None	
PROJECT LOCATION		
County	Leicestershire	
Site address	Land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe	
Study area	2.5ha	
OS Easting & Northing	SP 59100 95850	
Height OD	c82m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Historic and Natural Environment Team, Leicestershire County Council	
Project Design originator	NA	
Director/Supervisor	Adrian Butler	
Project Manager	Adrian Butler	
Sponsor or funding body	ULAS	
PROJECT DATE		
Start date	01 May 2010	
End date	01 May 2010	
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Journal/monograph, published or forthcoming, or unpublished client report		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 on land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe, Leicestershire, May 2010	
Serial title & volume	Northamptonshire Archaeology Reports 10/86	
Author(s)	Heather Smith	
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Fig 3 Magnetometer Survey Interpretation, 1:2500

**ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND ADJACENT TO
COUNTESTHORPE CEMETERY, FOSTON ROAD, COUNTESTHORPE
LEICESTERSHIRE
MAY 2010**

ABSTRACT

Northamptonshire Archaeology was commissioned by University of Leicester Archaeology Services (ULAS), to carry out an archaeological geophysical survey on 2.5ha of agricultural land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe, Leicestershire. The gradiometer survey found evidence for medieval or post-medieval ridge and furrow ploughing. The other anomalies found probably represented pieces of ferrous debris and utility covers associated with a possible plastic pipe.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by University of Leicester Archaeology Services (ULAS), to carry out an archaeological geophysical survey on 2.5ha of agricultural land adjacent to Countesthorpe Cemetery, Foston Road, Countesthorpe, Leicestershire, centred on SP 59100 958510. The survey was recommended in a brief from Leicestershire County Council (HNET 2009), in advance of a planning application for change of land use from agricultural land to an extension to the current cemetery. The archaeological gradiometer survey was carried out in May 2010 in order to identify the presence or absence of archaeological remains susceptible to geophysical survey within the area and to inform any future stages of investigation.

2 TOPOGRAPHY AND GEOLOGY

The site surveyed is located c500m to the north-east of the centre of Countesthorpe. It is a roughly rectangular pasture field, the north edge of which faces onto Foston Road. The west side is adjacent to Countesthorpe Cemetery, which is on the eastern edge of Countesthorpe, whilst the south and east sides adjoin other agricultural fields. A stream passes the extreme south-east corner of the field. The site lies at a height of 82m aOD and slopes slightly from the north-west corner down to the stream in the south-east.

The geology consists of boulder clay (Diamicton Till) in the north-west of the field, with superficial deposits of river terrace sands and gravels and alluvium in the south-east near to the stream (www.bgs.ac.uk/leicester).

3 ARCHAEOLOGICAL BACKGROUND

The brief for the site indicates that no previous archaeological investigations have been carried out and that the site has an uncertain archaeological potential. However, cropmarks of probable boundaries and mounds (HER ref: MLE161, MLE160) have been recognised on aerial photographs on land to the east, while a Roman find has been recorded to the north-west (MLE7682), (HNET 2009).

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).

The survey area was divided into a network of contiguous, 30m x 30m grid squares. These were set out manually by tape measure and optical square. The instruments were carried at a brisk but steady pace through each grid, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per grid.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage and by the Institute for Archaeology (EH 2008; Gaffney, Gater and Ovendon 2002).

The data was processed using Geoplot 3.00u software. Striping, occasionally caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function (ZMT) and destaggering of the data was performed as necessary. The processed data is presented in this report in the form of a greyscale plot (scale +4nT to -4nT black ~ white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative plot has been produced and is shown overlain onto the data in Figure 3.

5 SURVEY RESULTS

In the northern part of the field weak positive and negative parallel linear anomalies oriented west to east, were faintly visible in the plots of the survey results (Figs 2 & 3). These were typical of the pattern resulting from the remains of medieval or post-medieval ridge and furrow cultivation.

Three strong dipolar anomalies typical of ferrous objects were caused by three utility covers noted in the field. A weak negative linear anomaly was apparent starting in the north-east corner of the field, from which it runs in a southerly direction to one of the utility covers, and then turns more south-westerly towards the second utility cover and from there to the south-west corner of the field. This probably indicated the presence of a non-magnetic pipe such as one made of plastic or concrete, perhaps a water pipe.

Several localised dipolar anomalies typical of ferrous material scattered near the pipe probably represented small amounts of ferrous debris.

6 CONCLUSION

The gradiometer survey found evidence for medieval or post-medieval ridge and furrow ploughing. The other anomalies found probably represented pieces of ferrous debris and utility covers associated with a possible plastic or concrete pipe.

BIBLIOGRAPHY

Bartington, G, and Chapman, C, 2003 A high-stability fluxgate magnetic gradiometer for shallow geophysical survey applications, *Archaeological Prospection*, **11**, 19-34

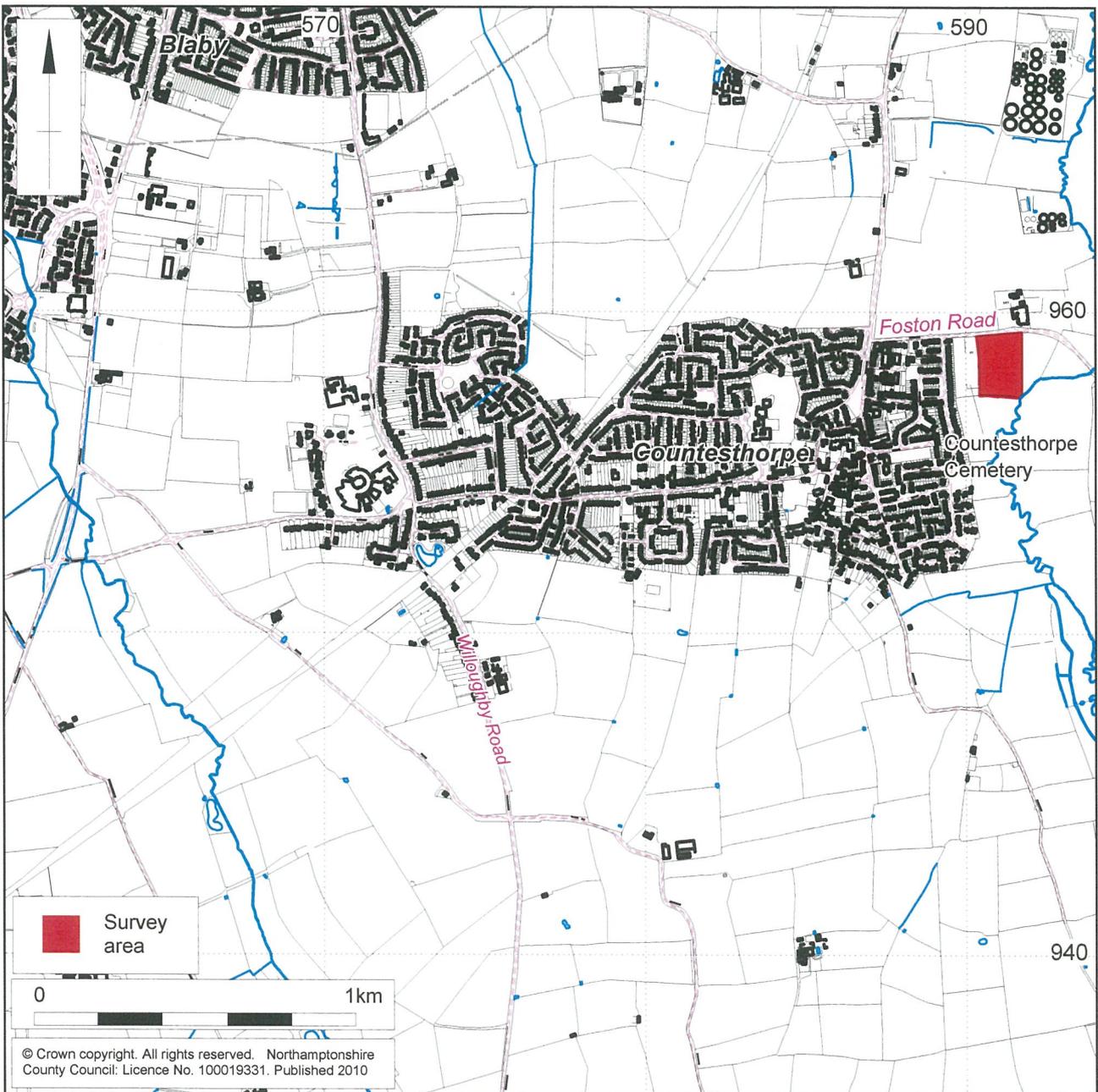
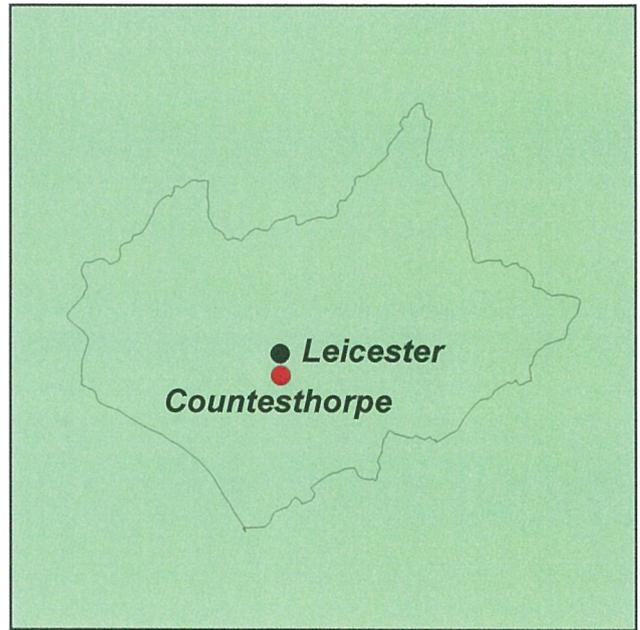
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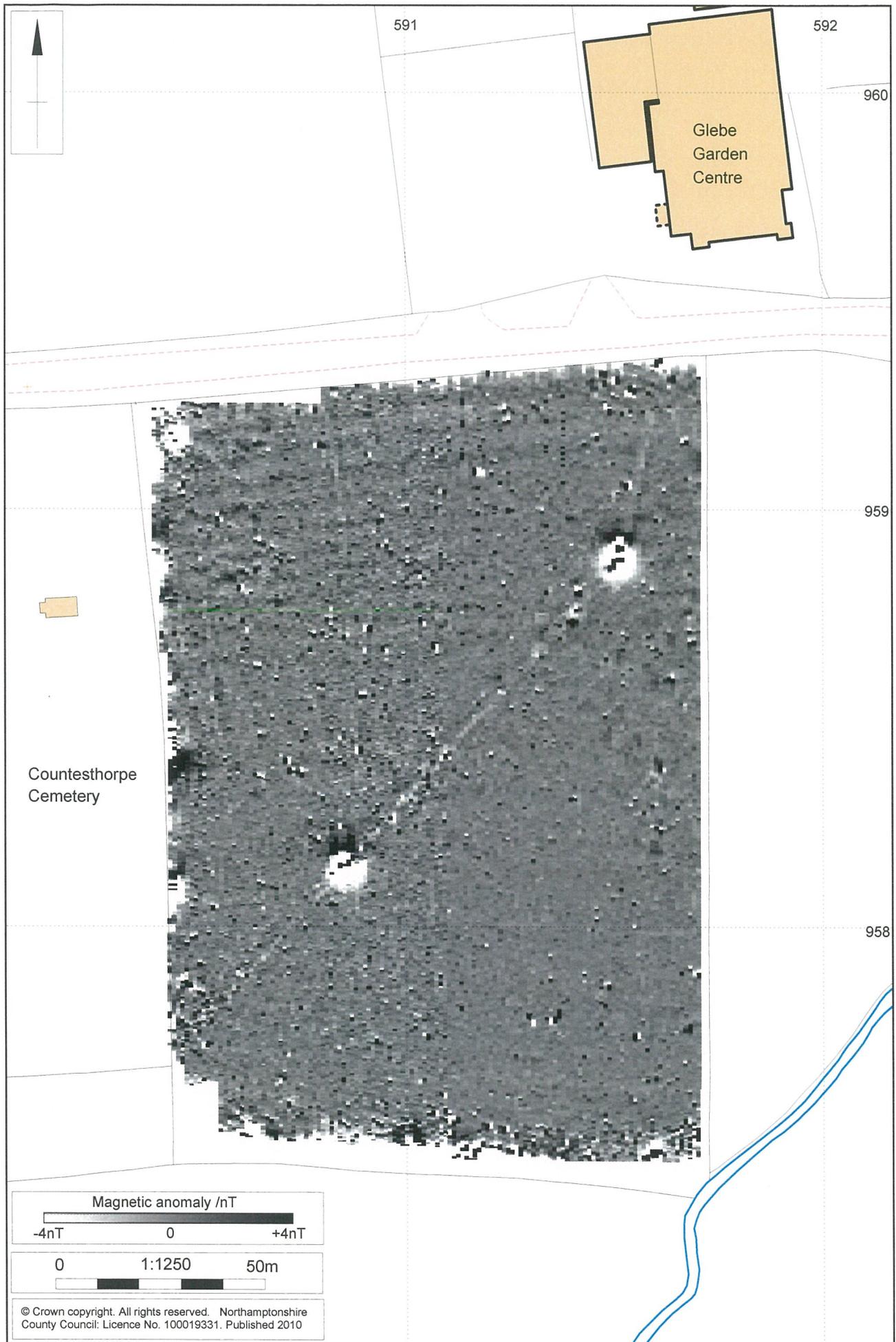
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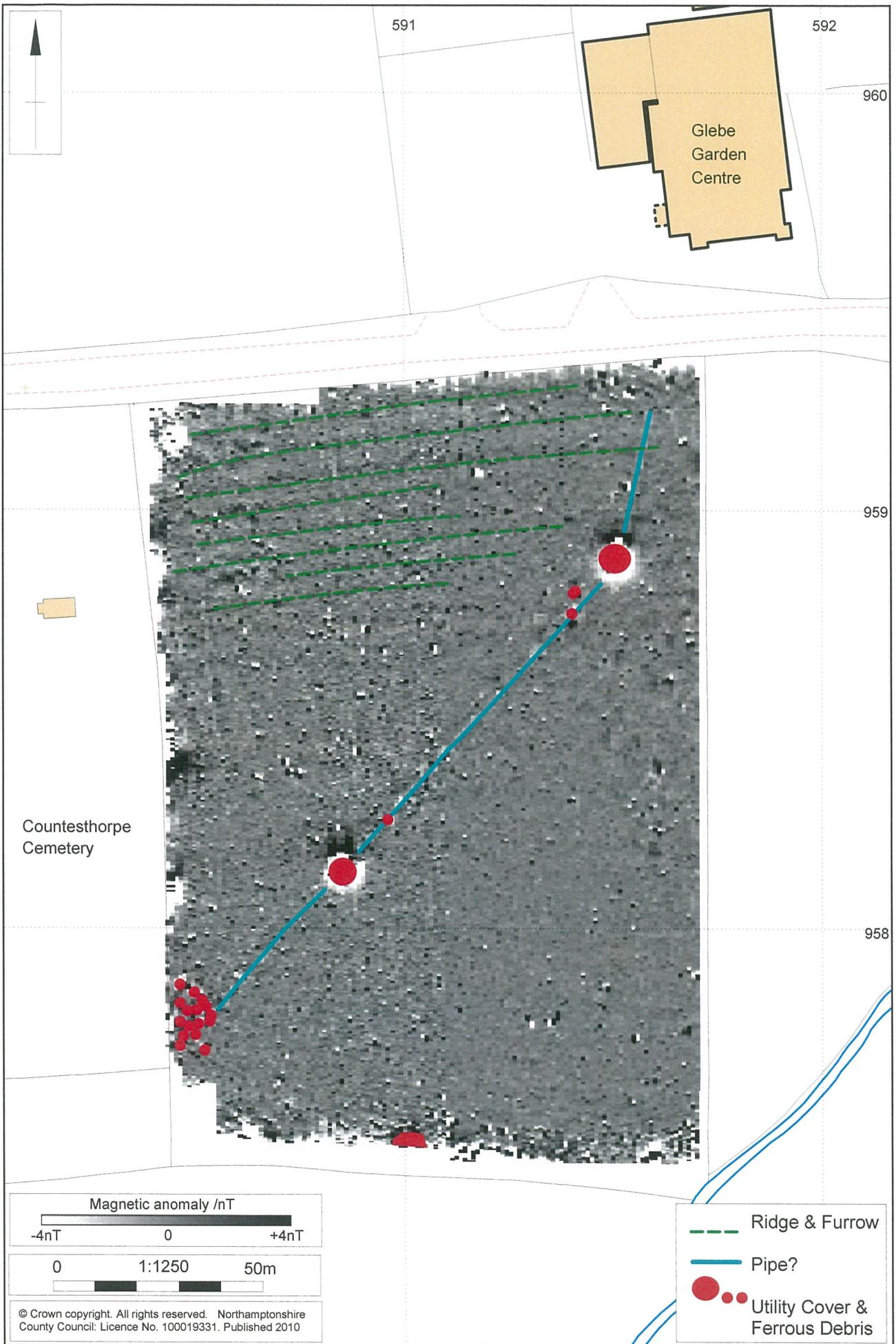
1:20,000

Site Location Fig 1



Scale 1:1250

Magnetometer Survey Results Fig 2



Scale 1:1250

Magnetometer Survey Interpretation Fig 3