

**Archaeological geophysical survey of  
land south-east of Mill Lane  
Isham, Northamptonshire  
May 2015**

Event Number: ENN107976

Report No. 15/106

Author: Chris Chinnock

Illustrators: James Ladocha, Olly Dindol, John Walford



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1	15/06/2015	Pat Chapman	John Walford	Adam Yates	Client approval

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**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		<b>OASIS No: molarnort1 - 213434</b>	
Project name	Archaeological geophysical survey on land south-east of Mill Lane, Isham, Northamptonshire		
Short description (250 words maximum)	MOLA Northampton was commissioned by Welland Design and Build to conduct a geophysical survey on land south-east of Mill Lane, Isham, Northamptonshire. Detailed magnetometer survey lead to the discovery of extensive remains associated with the shrunken medieval village of Isham. Possible trackways, field and property boundaries and other linear and curvilinear features were identified in the geophysical data. Extant earthworks on the site correlated well with the survey results.		
Project type (eg DBA, evaluation etc)	Geophysical survey		
Site status (none, NT, SAM etc)	None		
Previous work (SMR numbers etc)	None		
Current Land use	Pasture		
Future work (yes, no, unknown)	Yes		
Monument type/ period	Undated enclosures, medieval enclosures, hollow-ways and other field/property boundaries		
Significant finds (artefact type and period)			
<b>PROJECT LOCATION</b>			
County	Northamptonshire		
Site address (including postcode)	Land south-east of Mill Lane, Isham, Northamptonshire		
Study area (sq.m or ha)	c. 2.1ha		
OS Easting & Northing (use grid sq. letter code)	SP 88875 74040		
Height OD	60m above Ordnance Datum		
<b>PROJECT CREATORS</b>			
Organisation	MOLA Northampton		
Project brief originator	Assistant Archaeological Advisor Northamptonshire County Council		
Project Design originator	MOLA Northampton		
Director/Supervisor	Chris Chinnock		
Project Manager	Adam Yates		
Sponsor or funding body	Welland Design and Build Ltd		
<b>PROJECT DATE</b>			
Start date/End date	19/05/2015 - 19/05/2015		
<b>ARCHIVES</b>	<b>Location (Accession no.)</b>	<b>Content (eg pottery, animal bone etc)</b>	
Physical	MOLA Northampton: ENN107976	None	
Paper	MOLA Northampton: ENN107976	Site file	
Digital	MOLA Northampton: ENN107976	Mapinfo plans, Word report	
<b>BIBLIOGRAPHY</b>			
Journal/monograph, published or forthcoming, or unpublished client report (MOLA report)			
Title	Archaeological geophysical survey of land south-east of Mill Lane, Isham, Northamptonshire May 2015		
Serial title & volume	15/106		
Author(s)	Chris Chinnock		
Page numbers	6		
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# Archaeological geophysical survey of land south-east of Mill Lane Isham, Northamptonshire May 2015

## ABSTRACT

*MOLA was commissioned by Welland Design and Build to conduct a geophysical survey on land south-east of Mill Lane, Isham, Northamptonshire. Detailed magnetometer survey lead to the discovery of extensive remains associated with the shrunken medieval village of Isham. Possible trackways, field and property boundaries and other linear and curvilinear features were identified in the geophysical data. Extant earthworks on the site correlated well with the survey results.*

## 1 INTRODUCTION

MOLA was commissioned by Welland Design and Build to conduct a geophysical survey on a proposed development site located to the south-east of Mill Lane, Isham, Northamptonshire (NGR SP 88875 74040; Fig 1). The aim of the survey was to investigate whether there were any sub-surface archaeological remains present which may be affected by the proposed development

The fieldwork was undertaken on the 19th May 2015. This comprised the detailed magnetometer survey of approximately 2.1ha of land. Part of the site was overgrown with stinging nettles and tall grass and as a result could not be surveyed at this time. An earthwork survey was carried out on the same day by MOLA. However, long grass across the majority of the site meant that ground visibility was poor and the survey could not be completed in its entirety. Results of the earthwork survey will form a separate, forthcoming, report.

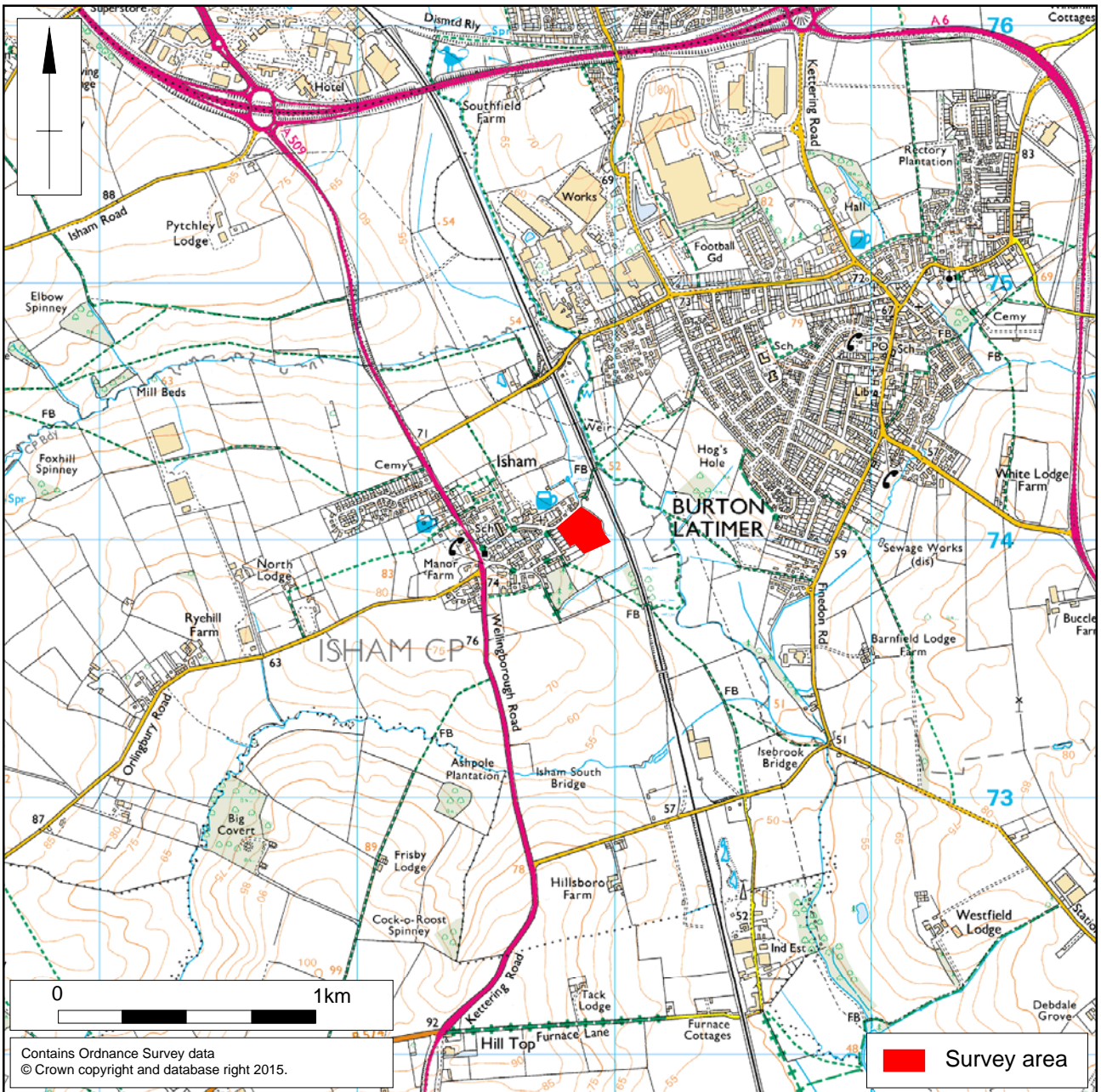
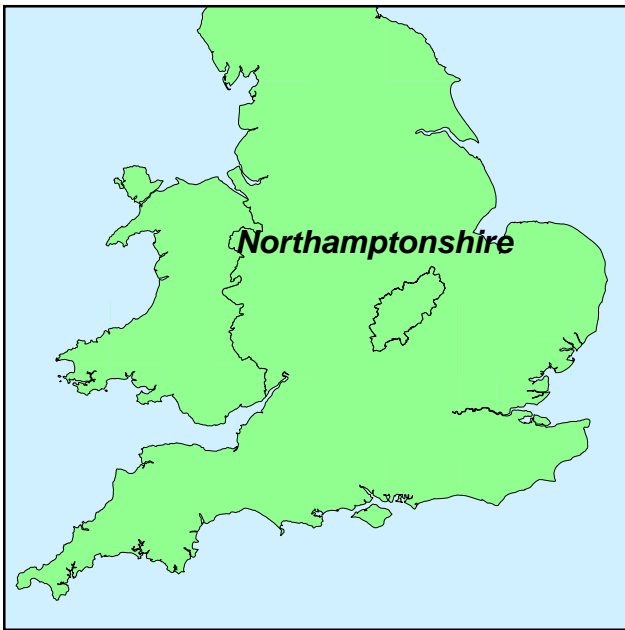
## 2 BACKGROUND

### 2.1 Location and geology

The survey area is located on the east side of the village of Isham, south of Mill Lane and west of the old course of the River Ise (Fig 1). The area comprises part of a larger, currently undivided, pasture field; a farm track runs across the western half of the area. A set of overhead electricity cables cross the very south-western corner of the field.

The site is located on a gradual slope down from the west at approximately 60m above Ordnance Datum (aOD) to 50m aOD in the old river valley.

The geology of the survey area comprises Whitby Mudstone Formation – Mudstone in the eastern part of the field and Northamptonshire Sand Formation – Ironstone in the west. Superficial alluvial deposits have been recorded close to the river channel, no superficial deposits are recorded further west (BGS 2015).



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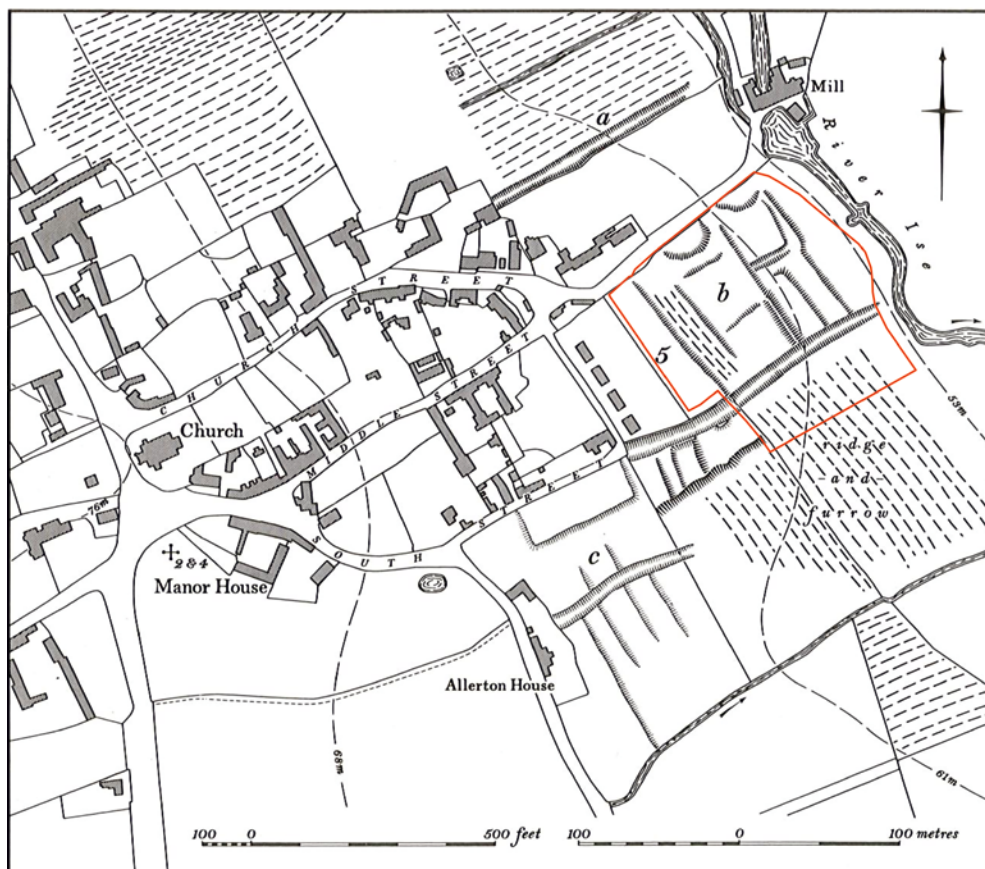
Site location Fig 1

## 2.2 Historical and archaeological background

The Historic Environment Record (HER) for Northamptonshire lists some evidence for Iron Age and or Romano-British settlement within the vicinity of the survey area. An area of settlement (3620) of this date has been identified approximately 200m to the south-west around Allerton House south of South Street. A second area, 600m to the north, of similarly dated settlement activity (8842) has also been identified. Roman ditches, pottery and building debris were also recorded during building works close to the church within the core of the village (RCHME 1979, 100).

The survey area contains the remains of the shrunken medieval village (SMV) of Isham (3619), comprising earthworks of hollow-ways and house platforms (Fig 2) (RCHME 1979). These include a hollow-way, aligned north-east to south-west, forming the original continuation of South Street leading down to the River Ise. To the north of this road a series of plots have been identified forming part of a possibly planned medieval settlement between South Street and Middle Street/Mill Lane. South of the South Street hollow-way, within the survey area, traces of ridge and furrow were recorded on aerial photographs taken in the years following the Second World War. It is not known when the settlement shrank back towards its core around the church; the earliest maps available for the village date to around 1800 and the area had been deserted by that period.

The open fields were enclosed by Act of Parliament during the 18th century. The mill was located on the river immediately to the north of the survey area. The footings of the mill constructed in 1848 remain; this mill was built on the site of an earlier mill which may have had its origins in the medieval period.



Earthworks with survey area shown in red (after RCHME 1979) Fig 2



### 3 METHODOLOGY

The surveys were conducted with Bartington Grad 601-2 magnetometers, which are standard instruments for archaeological survey. A Grad 601-2 comprises a pair of vertical component fluxgate gradiometer sensors mounted at a 1m horizontal separation on a carrying bar, and is capable of resolving magnetic variations to a precision of 0.1 nanoTesla (nT) (Bartington and Chapman 2003).

An independent network of 30m grid squares was established in the field to be surveyed. The grid was set out with a tape measure and optical square and was tied in to the Ordnance Survey National Grid using Leica Viva Global Positioning System (GPS) survey equipment using SMARTNET real-time corrections, operating to a 3D tolerance of  $\pm 0.05\text{m}$ .

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 Historic England and by the Chartered Institute for Archaeologists (HE 2015; ClfA 2014).

The survey data were visualised in Geoplot 3.00v and were largely processed using the same software. Striping, caused by slight imbalances between the sensor probes, was removed where possible with Geoplot's 'Zero Mean Traverse' function, although some data grids had to be de-striped separately, using an Excel spreadsheet based routine, in order to preserve linear anomalies lying parallel to the traverse direction. The 'Destagger' function in Geoplot was used as necessary to correct reading displacements caused by an uneven survey pace.

The processed data is presented in this report in the form of greyscale plot at a range of +10nT (black) to -10nT (white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 3). An interpretive overlay is presented in Figure 4, and a plot of the unprocessed survey data is presented in Figure 5.

Part of the south-western edge of the survey area, as well as smaller patches in the north-eastern part, were deemed unsurveyable due to the dense patches of nettles covering this area. It would be possible to fill in these areas should the overgrowth be mown.

## 4 SURVEY RESULTS

Several positive linear and curvilinear anomalies are present in the geophysical data, covering the majority of the survey area (Fig 4). Many of the features identified correlate well with recorded earthworks for this area (Fig 2).

The positive linear anomalies appear to form rectilinear enclosures, house plots and trackways across much of the central and western parts of the site. The complexity of the results would suggest several phases of settlement organisation and development. A number of curvilinear positive anomalies indicative of further ditches exist in the central and north-eastern part of the survey area (Fig 4).

Localised strong positive anomalies present throughout the data may indicate the presence of pits or other discrete features associated with the other archaeological activity on site. Areas of strong positive data along the lines of some of the ditches may reflect the inclusion of burnt material or high quantities of ceramic material within the fill of some of the ditches

A large positive linear anomaly, aligned north-east to south-west and flanked by linear negative anomalies, reflects a hollow-way which was present as a visible earthwork on site.

In the south-eastern part of the survey area, parallel linear anomalies typical of medieval ridge and furrow cultivation were aligned north-west to south-east. These features were observed as remnant earthworks and extended beyond the limit of the survey area to the south-east. They were bounded to the north-west by the hollow-way (Fig 4).

Magnetic disturbance present around the perimeter of the survey data is a result of the wire fencing which made up much of the field boundary. In the south-eastern part of the field, a wire fence bisected the survey area, aligned north-east to south-west, resulting in a gap in the geophysical data (Fig 4). At the south-eastern edge of the survey area there was a modern service, aligned north-east to south-west, represented by a weak negative linear anomaly (Fig 4). A localised intense magnetic dipolar anomaly associated with this service relates to a manhole cover observed during the survey.

## 5 DISCUSSION

The results of the geophysical survey have identified the presence of archaeological remains across the survey area which correlates well with the known earthworks associated with the shrunken medieval village. These comprise a series of rectilinear enclosures, houseplots, a hollow-way and the margins of the open field system to the south-east.

A number of segmented curvilinear features are at odds with the alignment of the medieval rectilinear enclosures. It is likely that these features relate to another phase of the medieval activity, however, an earlier date cannot be ruled out given the Iron Age and Roman activity recorded in the immediate vicinity

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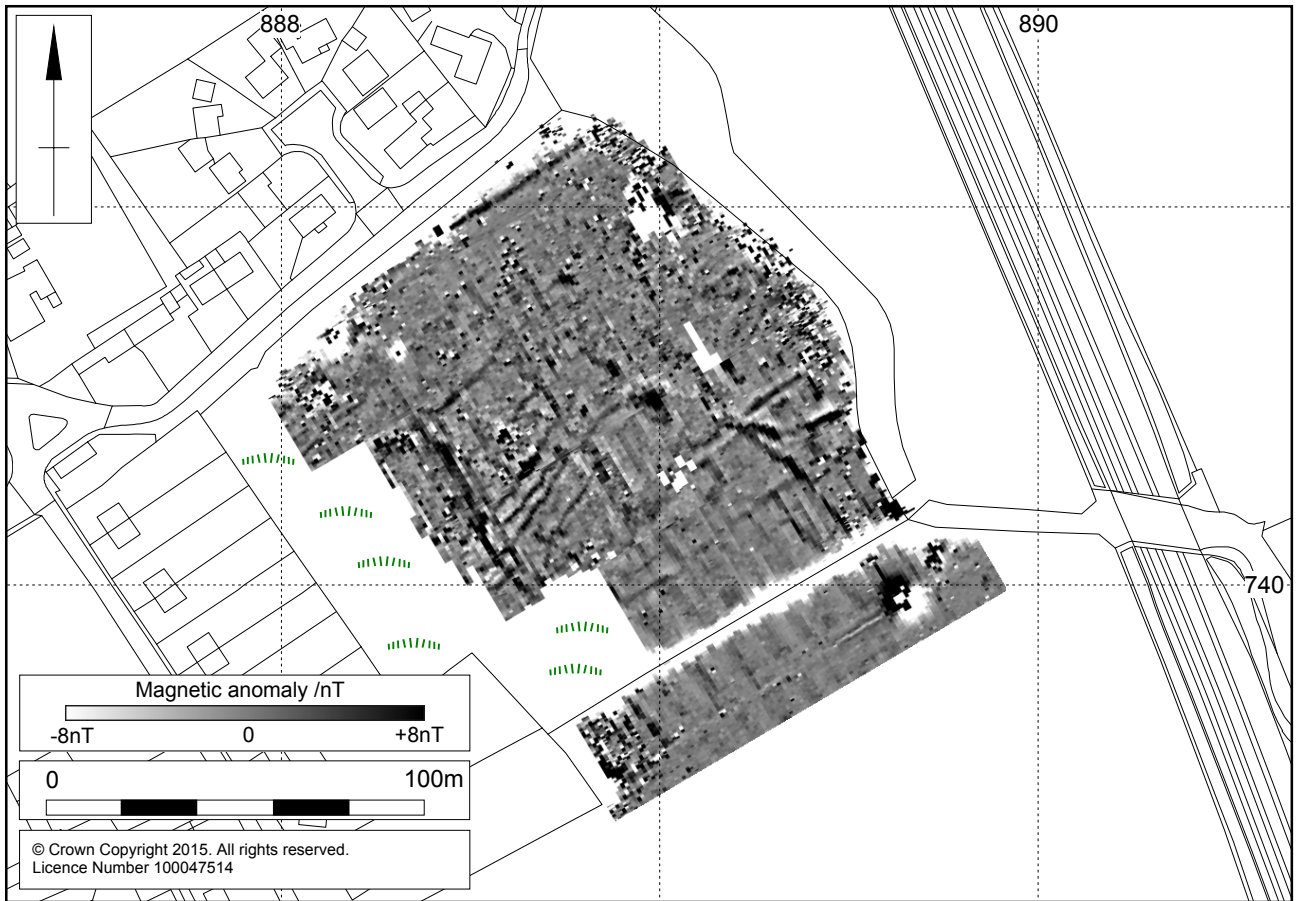
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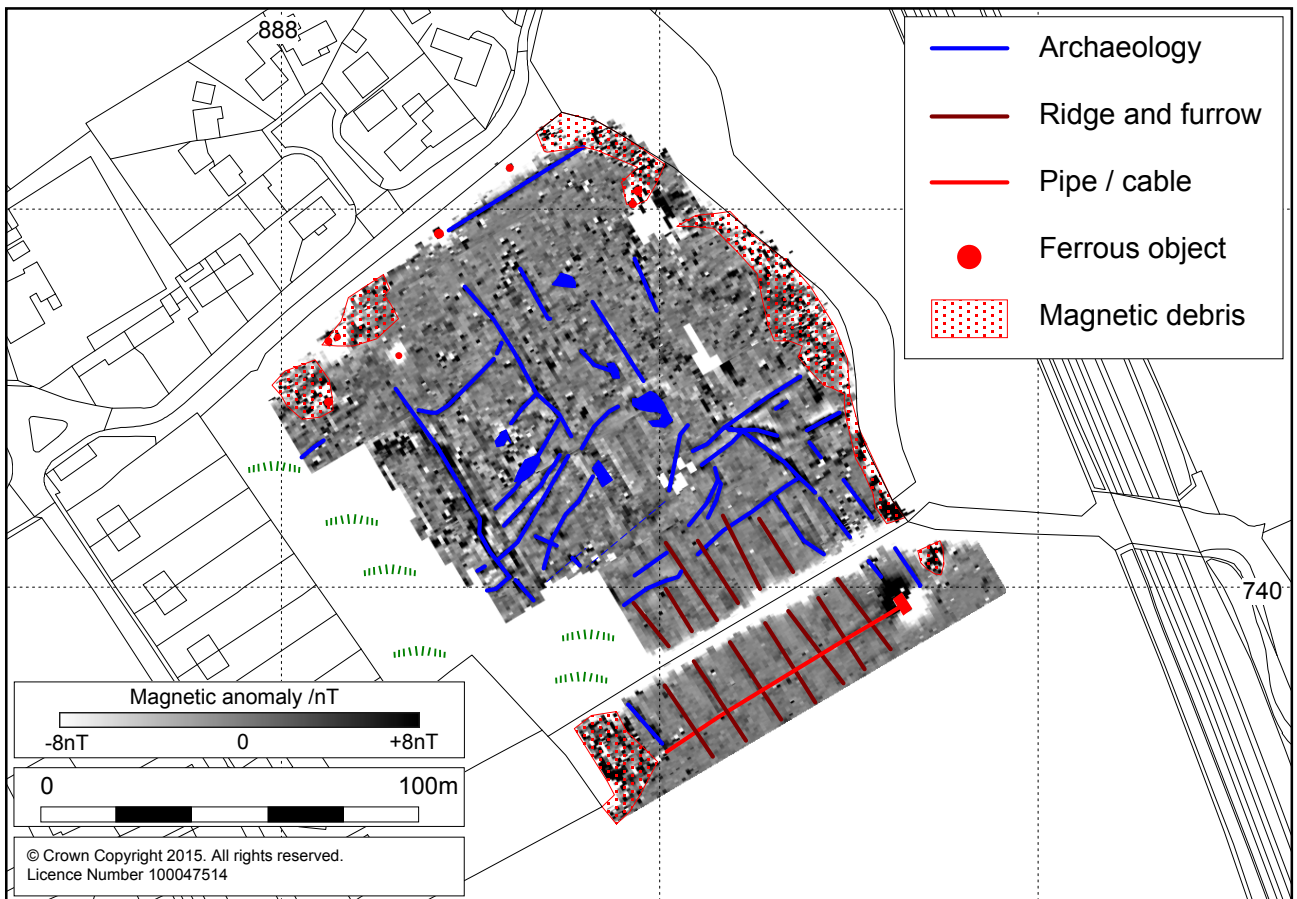
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Magnetometer survey results Fig 3



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Magnetometer survey interpretation Fig 4



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Unprocessed magnetometer data Fig 5



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