

**Archaeological geophysical survey to the rear of
Winckley Close, Houghton on the Hill
Leicestershire
October to November 2015**

Accession No. X.A130.2015

Report No: 15/201

Author: John Walford

Illustrator: John Walford



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NGR: SK 674 036

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OASIS REPORT

PROJECT DETAILS		molanort1-231387	
Project name	Archaeological geophysical survey to the rear of Winckley Close, Houghton on the Hill, Leicestershire		
Short description	MOLA was commissioned to carry out a detailed magnetometer survey of land to the rear of Winckley Close, Houghton on the Hill, Leicestershire. The survey detected possible archaeological anomalies which may represent parts of an Iron Age or Roman enclosure. However, the interpretation of these anomalies is hindered by intense magnetic interference from a modern gas pipe. Other anomalies, corresponding to surviving earthworks of medieval or early post-medieval ridge and furrow, were also detected.		
Project type	Geophysical survey		
Site status	None		
Previous work	None		
Current Land use	Arable		
Future work	Unknown		
Monument type/ period	Possible Iron Age or Roman enclosure. Medieval ridge and furrow		
Significant finds	None		
PROJECT LOCATION			
County	Leicestershire		
Site address	Winckley Close, Houghton on the Hill		
Study area	c 4.8ha		
OS Easting & Northing	SK 674 036		
Height OD	c 140-155m aOD		
PROJECT CREATORS			
Organisation	MOLA Northampton		
Project brief originator	CgMs Consulting		
Project design originator	MOLA Northampton		
Director/Supervisor	Olly Dindol		
Project Manager	John Walford		
Sponsor or funding body	CgMs Consulting		
PROJECT DATE			
Start date	26 October 2015		
End date	11 November 2015		
ARCHIVES	Location	Content	
Physical	N/A		
Paper	MOLA Northampton	Site survey records	
Digital		Geophysical survey & GIS data	
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey to the rear of Winckley Close, Houghton on the Hill, Leicestershire, October to November 2015		
Serial title & volume	MOLA Northampton report 15/201		
Author(s)	John Walford		
Page numbers	3		
Date	24 November 2015		

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Archaeological geophysical survey to the rear of Winckley Close, Houghton On The Hill, Leicestershire October to November 2015

ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey of land to the rear of Winckley Close, Houghton on the Hill, Leicestershire. The survey detected possible archaeological anomalies which may represent parts of an Iron Age or Roman enclosure. However, the interpretation of these anomalies is hindered by intense magnetic interference from a modern gas pipe. Other anomalies, corresponding to surviving earthworks of medieval or early post-medieval ridge and furrow, were also detected.

1 INTRODUCTION

MOLA was commissioned by commissioned by CgMs Consulting to carry out a geophysical survey on land to the rear of Winckley Close, Houghton on the Hill, Leicestershire (NGR SU 674 036; Fig 1). The purpose of the survey was to identify and map any archaeological remains which may be affected by a proposed development scheme. The fieldwork was undertaken on 26th October and 11 November 2015 has been recorded with Leicestershire Museum Service under accession number X.A130.2015.

2 TOPOGRAPHY AND GEOLOGY

The survey area extends across three pasture fields on the western edge of Houghton on the Hill and has a total extent of c 4.8ha (Fig 1). It stands between the 140m and 150m contours on a north-west facing slope, close to the head of a small stream valley. The stream rises near the north-eastern corner of the survey area and flows along its northern edge, then continues westwards, ultimately discharging into the River Soar at Leicester.

The geology of the survey area is mapped as Charmouth Mudstone (Lower Lias) overlain by Oadby Member Diamicton (boulder clay). A narrow band of colluvial overburden is also present along the valley bottom at the northern end of the area (BGS 2015).

3 ARCHAEOLOGICAL BACKGROUND

The survey area has been the subject of a recent archaeological desk-based assessment (Clark 2015). This notes that the survey area lies outside the historic core of Houghton on the Hill, and contains no known archaeological remains other than medieval to early post-medieval ridge and furrow earthworks. However, the assessment also notes that the site has a favourable topographic setting for Prehistoric and Roman settlement, and that a fieldwalking survey of land c 300m the south-west, on the same hillslope, identified an extensive scatter of Roman pottery, suggestive of settlement, along with a concentration of prehistoric worked flints (Leicestershire Historic Environment Record, Nos. MLE1660 and MLE16941).

4 METHODOLOGY

The magnetometer 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 network of 30m grid squares was established across each of the fields to be surveyed. The grids were set out with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by means of a Leica Viva RTK GPS. 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 Institute for Archaeologists (HE 2015; ClfA 2014).

The survey data were largely processed using Geoplot 3.00v software. Most of the striping was removed using the 'Zero Mean Traverse' function but some areas had to be de-striped separately, using a spreadsheet based routine, in order to preserve linear anomalies lying parallel to the traverse direction. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of greyscale plots at a range of +6nT to -6nT (black / white) (Fig 2). An interpretative overlay is presented in Figure 3, and Figure 4 presents the unprocessed survey data.

5 SURVEY RESULTS

The survey has detected a possible ditched enclosure in the southern field of the survey area. It is represented by four positive linear anomalies which, although discontinuous and variable in character, form parts of a more or less coherent trapezoidal circuit approximately 85m across. The two western anomalies each have a segmented appearance, suggesting they represent a feature which pre-dates, and has been disrupted by, the medieval ridge and furrow cultivation. This observation, together with the shape of the putative enclosure, indicates that the remains most probably date to the Iron Age or Roman period.

To the north-west of the possible enclosure there is an ill-defined and fragmentary linear anomaly which is of uncertain origin but might represent another ditch. A much shorter linear anomaly at the extreme south-east of the field, and two other short linear anomalies in the northern field are not substantial enough to support firm interpretations but might also represent ditches.

Parallel, slightly sinuous linear anomalies in the southern and central fields correspond with some of the surviving earthworks of medieval to early post-medieval ridge and furrow cultivation. One of these anomalies, close to the north-eastern edge of the southern field, stands out as particularly strong in comparison with the others and it possible that this represents a furrow which was re-used as a field boundary at the time when the open fields of Houghton on the Hill were enclosed. Alternatively, it might represent a pre-medieval ditch which, by coincidence, follows the same alignment as the medieval ploughing.

A modern gas pipeline which passes through the survey area from north to south has produced an intense linear anomaly of alternating magnetic polarity. This is flanked by broad positive and negative halos which obscure parts of the putative enclosure and may have masked any weak magnetic anomalies arising from internal pits or other features.

The small dipolar magnetic anomalies which occur at various points in the survey data indicate small pieces of ferrous scrap within the topsoil. Where such anomalies lie in clusters, this may represent small deposits of modern rubbish or hardcore.

6 CONCLUSION

The survey has identified some features of possible archaeological interest, including what appears to be a ditched enclosure of Iron Age or Roman date. Magnetic anomalies corresponding to extant ridge and furrow earthworks have also been detected, as has a broad swathe of magnetic interference arising from a modern gas pipeline.

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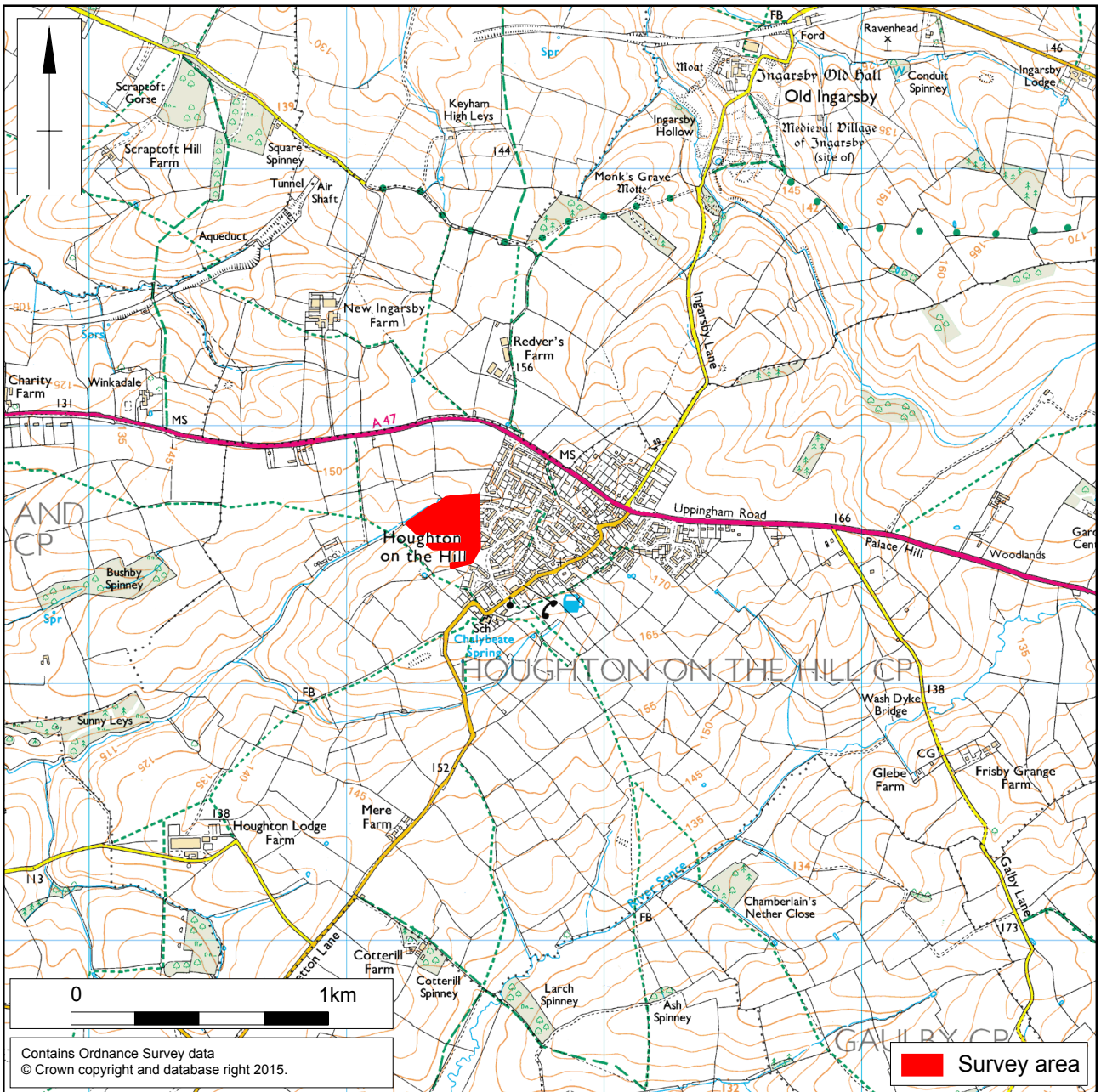
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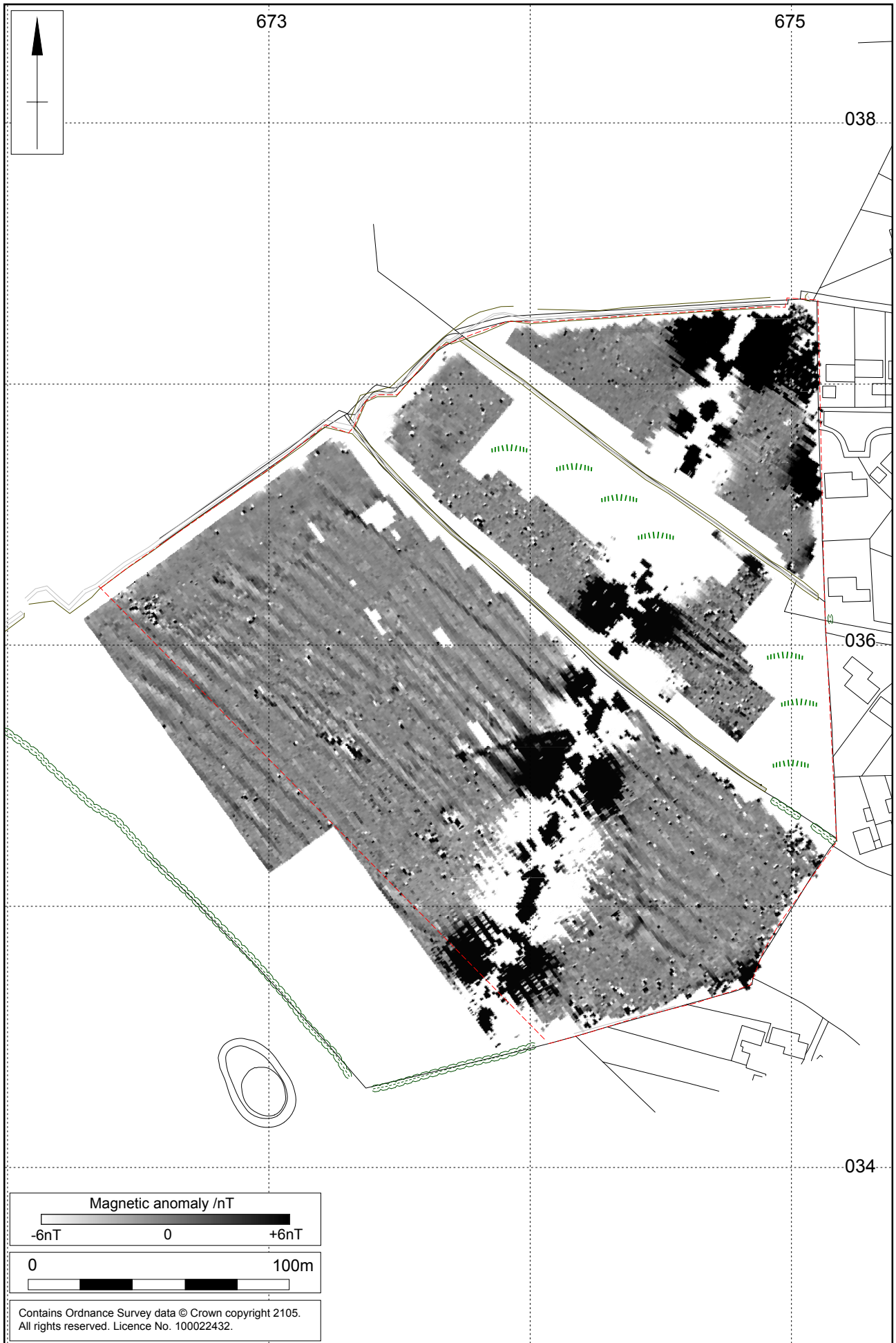
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MOLA
24 November 2015



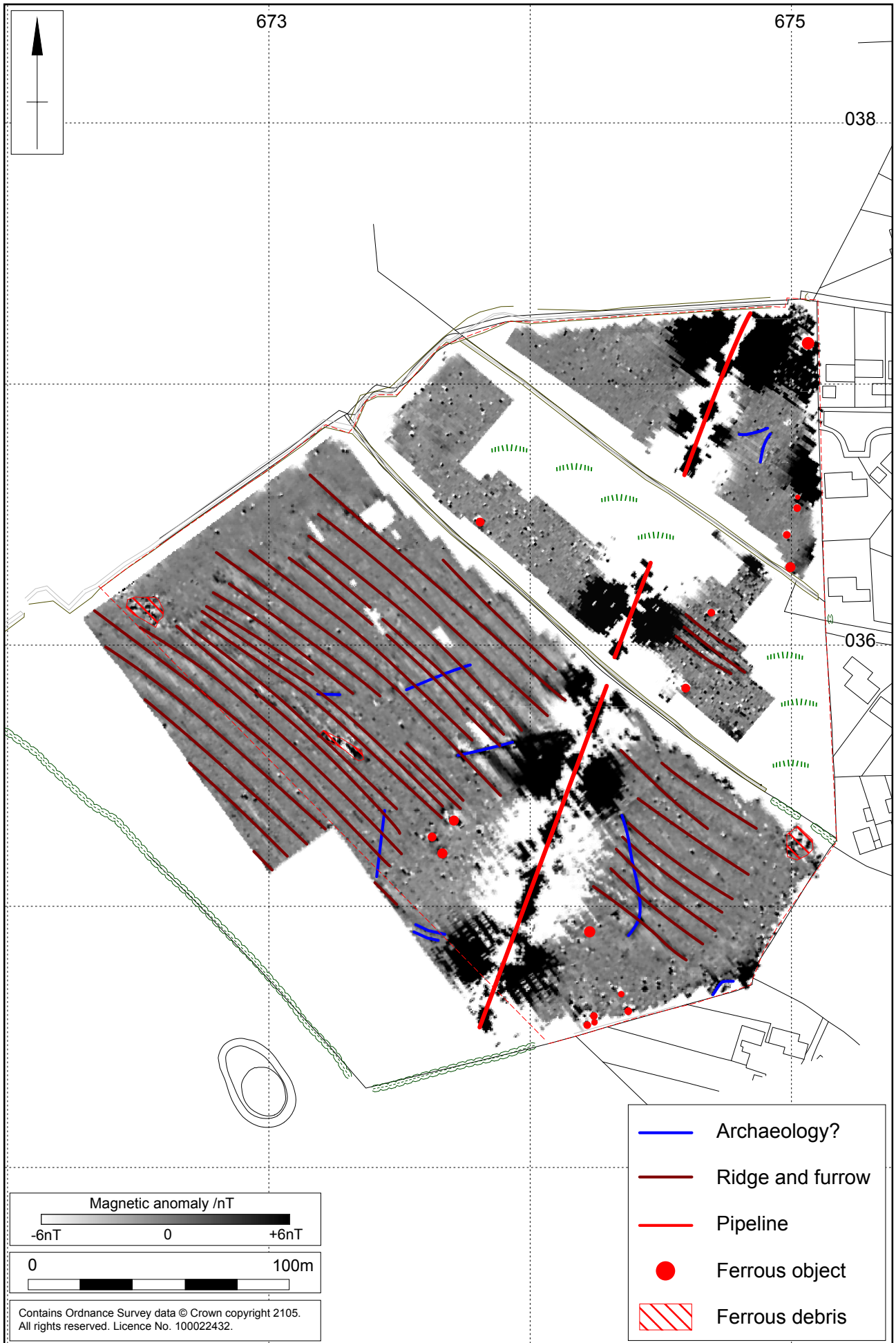
Scale 1:25,000

Site location Fig 1



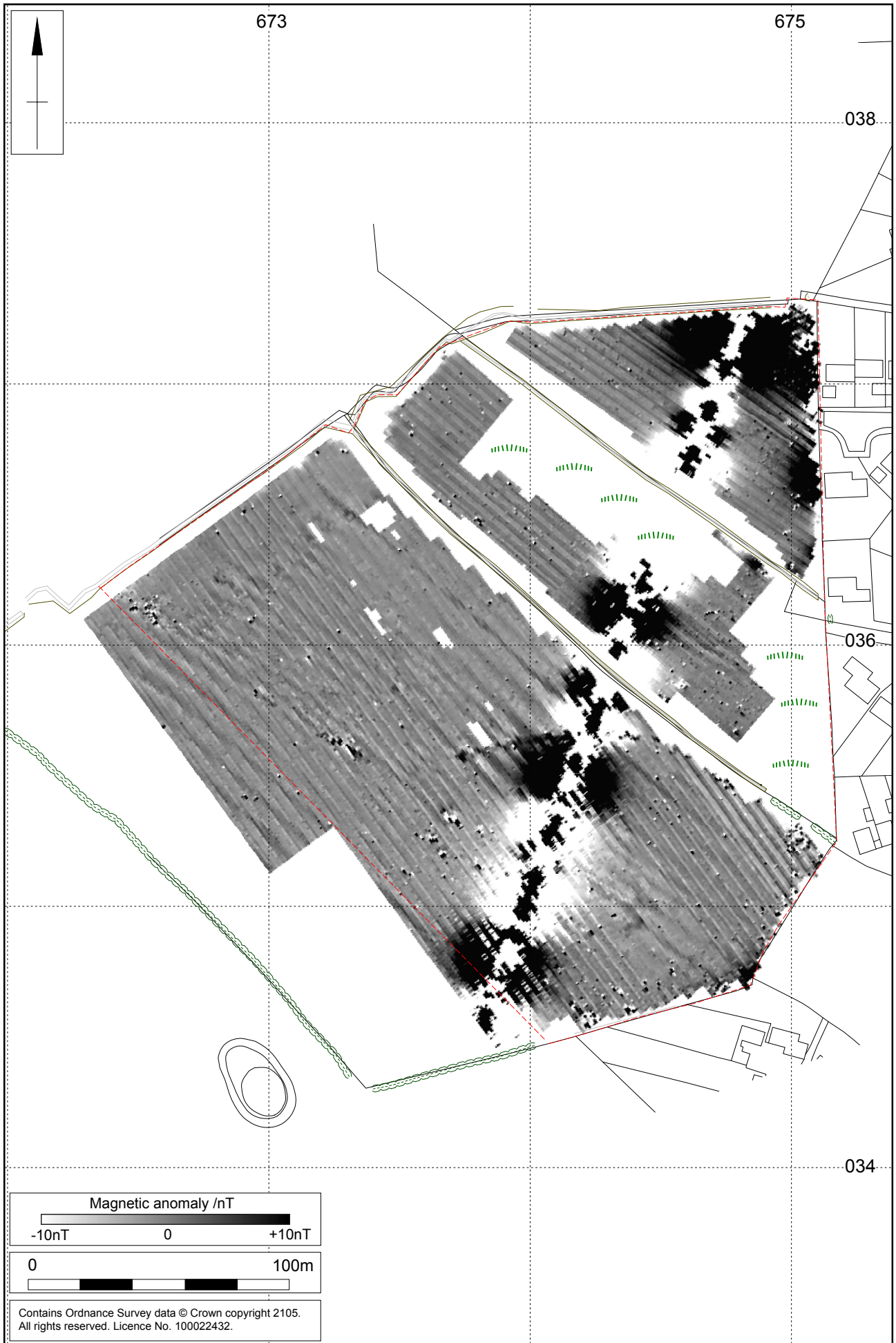
1:2000

Magnetometer survey results Fig 2



1:2000

Magnetometer survey interpretation Fig 3



1:2000

Unprocessed magnetometer data Fig 4



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