

**Archaeological geophysical survey at
Reading Road, Harwell
Oxfordshire
July 2014**

Report No. 14/138

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Illustrator: Ian Fisher



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OASIS REPORT

PROJECT DETAILS		Oasis No. molanort1-184119	
Project name	Archaeological geophysical survey at Reading Road, Harwell, Oxfordshire		
Short description	MOLA was commissioned to carry out a detailed magnetometer survey on land south of Reading Road, Harwell, Oxfordshire. The survey identified anomalies of modern origin, but did not detect anything of certain archaeological significance.		
Project type	Geophysical survey		
Site status	None		
Previous work	None		
Current Land use	Pasture		
Future work	Unknown		
Monument type/ period	None		
Significant finds	None		
PROJECT LOCATION			
County	Oxfordshire		
Site address	Reading Road, Harwell		
Study area	c 1.6ha		
OS Easting & Northing	SU 489 887		
Height OD	c 92-99m aOD		
PROJECT CREATORS			
Organisation	MOLA Northampton		
Project brief originator	Manor Oak Homes		
Project design originator	MOLA Northampton		
Director/Supervisor	John Walford		
Project Manager	John Walford		
Sponsor or funding body	Manor Oak Homes		
PROJECT DATE			
Start date	4 July 2014		
End date	4 July 2014		
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report		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 at Reading Road, Harwell, Oxfordshire, July 2014		
Serial title & volume	MOLA Northampton Reports 14/138		
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Contents

1	INTRODUCTION	1
2	BACKGROUND	1
	2.1 Location and geology	1
	2.2 Historical and archaeological background	1
3	METHODOLOGY	1
4	SURVEY RESULTS	1
5	CONCLUSION	2
	BIBLIOGRAPHY	3

Figures

Cover	Magnetometer survey results	1:2000
Fig 1	Site location	1:5000
Fig 2	Magnetometer survey results	1:2000
Fig 3	Magnetometer survey interpretation	1:2000
Fig 4	Magnetometer survey raw data	1:2000

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ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey on land south of Reading Road, Harwell, Oxfordshire. The survey identified anomalies of modern origin, but did not detect anything of certain archaeological significance.

1 INTRODUCTION

MOLA was commissioned by Manor Oak Homes to conduct a geophysical survey on land south of Reading Road, Harwell, Oxfordshire (NGR SU 489 887; Fig 1). A detailed magnetometer survey was undertaken on 4th July 2014 and covered a total area of approximately 1.6ha.

2 BACKGROUND

2.1 Location and geology

The survey area consisted of two pasture fields located on the southern edge of Harwell immediately south of Reading Road. It is bounded to the east and west by residential properties, and by arable fields to the south. At the time of the survey the field was grazed by a single horse and was partially overgrown in its north-east corner.

The survey area lies at between 92m to 99m aOD. The geology of the area is recorded as the West Melbury Formation (Lower Chalk) with a superficial mantle of Head (Clay, Silt, Sand and Gravel) (BGS 2014).

2.2 Historical and archaeological background

The survey area lies outside the historic core of Harwell. The Harwell enclosure map of 1802 and the first edition Ordnance survey map of 1883 both record the area as undeveloped arable land. No known archaeological remains are recorded within the survey area. However, approximately 100m south-east of the survey area, Anglo-Saxon burials were found in the 1950s (Oxfordshire HER MOX10488).

3 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).

A network of 30m grid squares was established across each of the fields. The grid was set out with a tape measure and optical square and was tied in to the Ordnance Survey National Grid by means of a Leica Viva dGPS. 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 was processed using Geoplot 3.00v software. The striping was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed where necessary. The processed data is presented in this report in the form of a greyscale plot at a range of +4nT (black) to -4nT (white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and is shown with an interpretative overlay in Figure 3. A raw data plot is presented in Figure 4.

4 SURVEY RESULTS

The survey has detected no obvious archaeological features, although there is one small irregular positive anomaly in the eastern field which could possibly represent a small hollow or a patch of burnt soil. The other anomalies in the data are entirely modern in origin. A group of large magnetic halos at the northern edge of the survey area indicate adjacent gates and parked vehicles, as do the other halos scattered around the edge of the area. A double dipole anomaly in the eastern field is of ferrous origin, representing a buried metal object of unknown character.

5 CONCLUSION

No certain archaeological features were detected by the survey. However, it was successful in identifying anomalies of modern origin.

BIBLIOGRAPHY

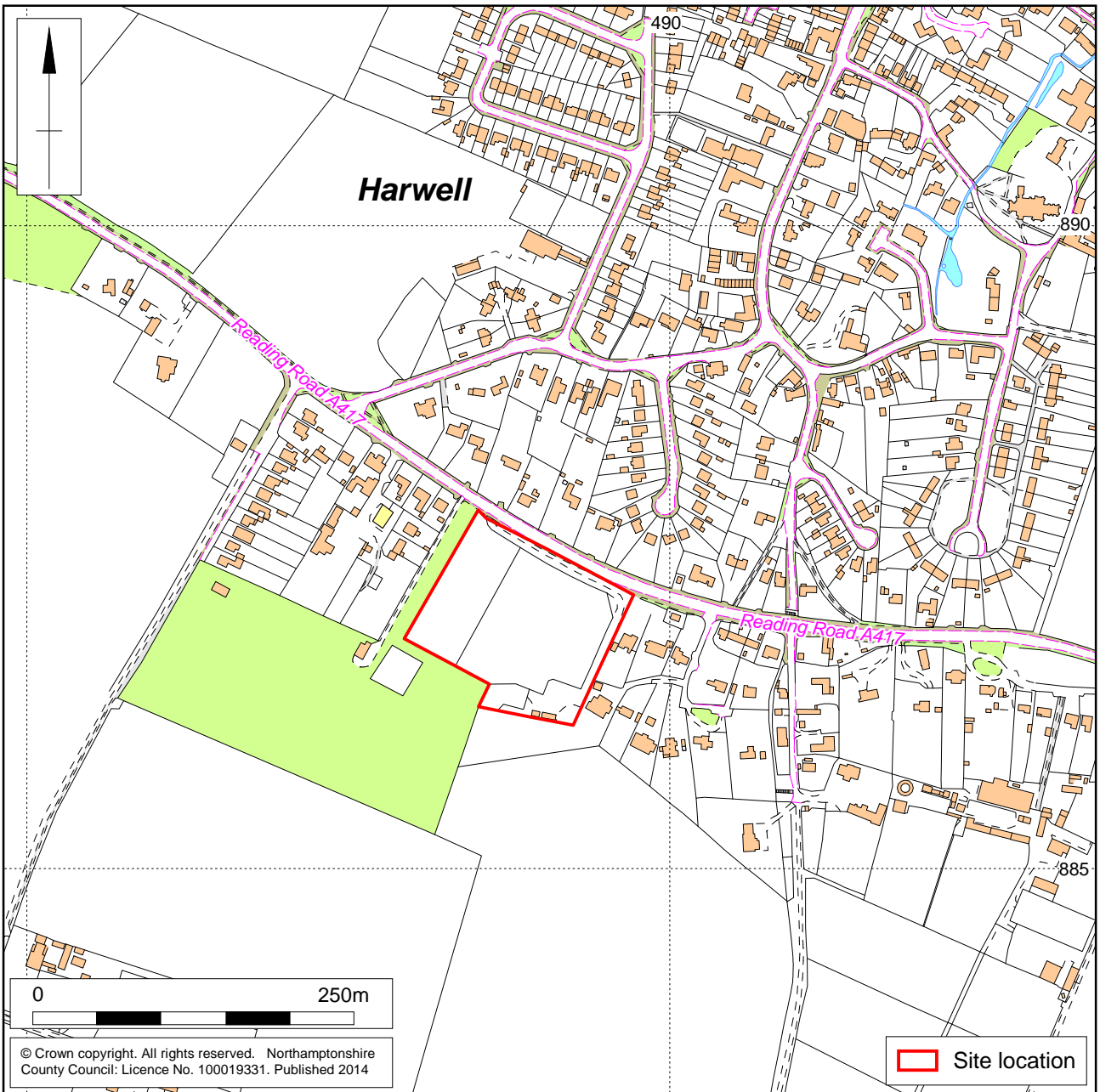
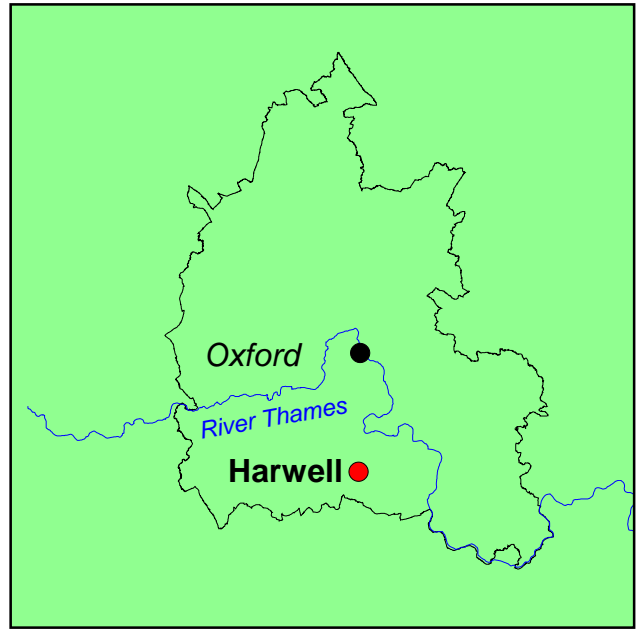
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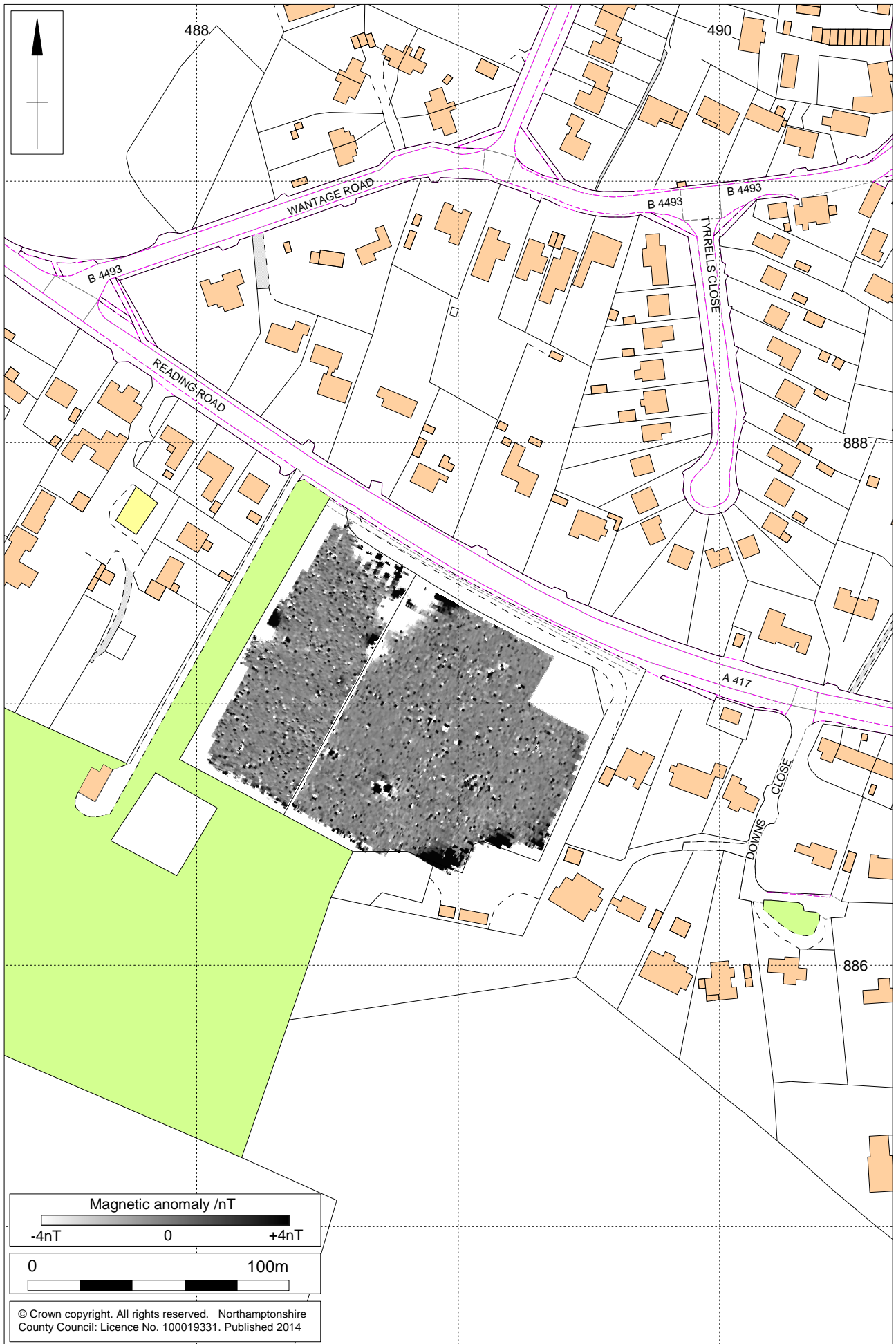
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MOLA
11 July 2014



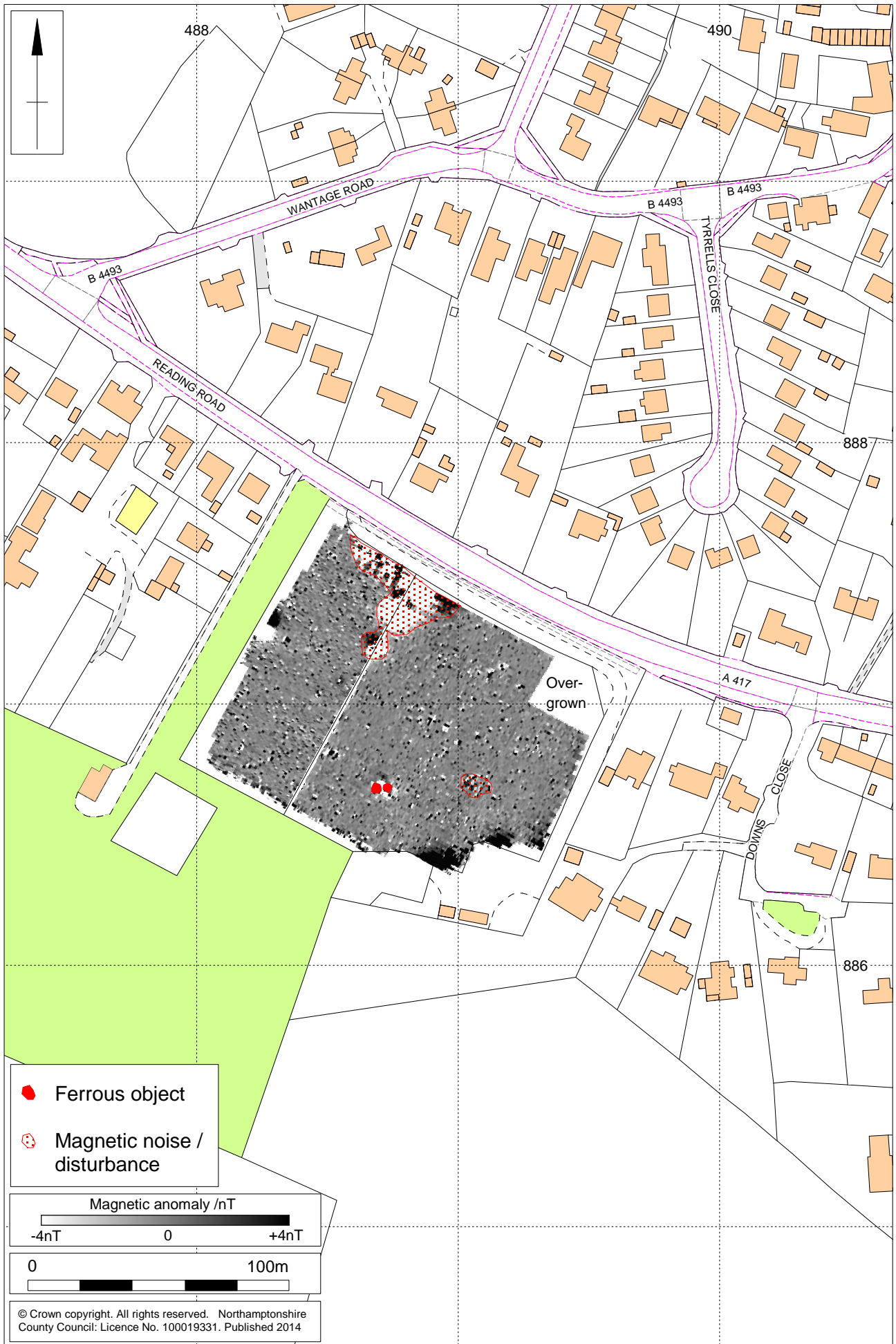
Scale 1:5000

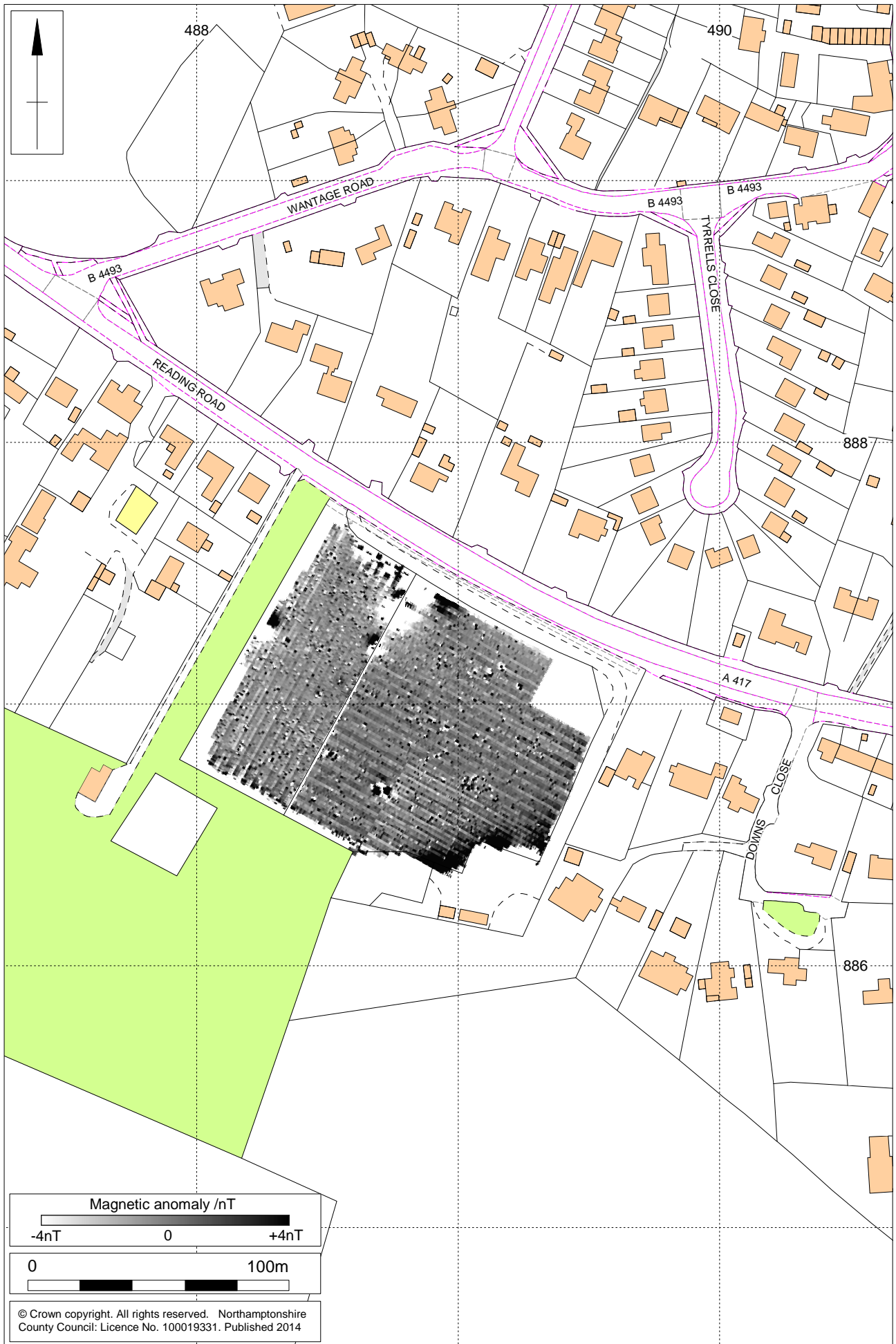
Site Location Fig 1



1:2000 (A4)

Magnetometer survey results Fig 2





1:2000 (A4)

Magnetometer survey raw data Fig 4



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