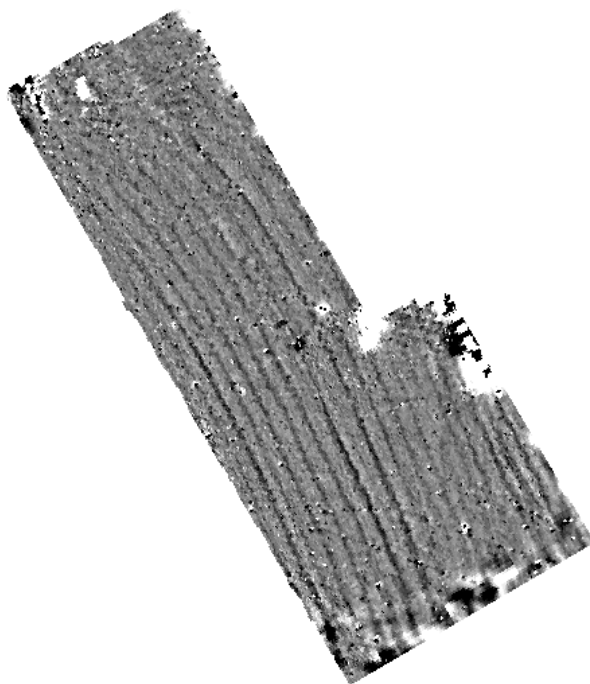




Northamptonshire Archaeology

Archaeological geophysical survey on Robinson's Land, Drayton, Leicestershire



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Report 11/76

March 2011



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QUALITY CONTROL

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Checked by	Adrian Butler	<i>AB</i>	21/03/11
Verified by	Adam Yates	<i>AY</i>	21/03/11
Approved by	Steve Parry	<i>SP</i>	21/03/11

OASIS REPORT FORM

PROJECT DETAILS		
Project title	Archaeological geophysical survey on land west of Drayton, Leicestershire.	
Short description	Northamptonshire Archaeology was commissioned by CgMs Consulting Ltd to carry out a magnetometer survey on 1.9ha of land to the west of the village of Drayton, Leicestershire. The investigation was carried out to supplement information gathered on a recent survey following repositioning of proposed buildings. The survey revealed possible ditches of unknown date and medieval ridge and furrow cultivation	
Project type	Geophysical survey (detailed magnetometry)	
Site Status		
Previous work	Geophysical survey (detailed magnetometry)	
Current land use	Arable	
Future work	Unknown	
Monument type and period	Possible undated ditches, medieval ridge and furrow cultivation	
Significant finds	N/A	
PROJECT LOCATION		
County	Leicestershire	
Site address	Medbourne Road, Drayton, Leicestershire	
Post code		
OS co-ordinates	482800 2922000	
Area (sq m/ha)	1.9 ha	
Height aOD	Approximately 65m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator		
Project Design originator		
Director/Supervisor	Angela Warner (NA)	
Project Manager	Adrian Butler (NA)	
Sponsor or funding body	Mike Dawson CgMs Consulting Ltd	
PROJECT DATE		
Start date	11/03/2011	
End date	11/03/2011	
ARCHIVES	Location (Accession no.)	Contents
Physical	NA	
Paper		1 archive box of forms and report
Digital		Dxf data, raw and processed survey files, report
BIBLIOGRAPHY		Journal/monograph, published or forthcoming, or unpublished client report (NA report)
Title	Archaeological geophysical survey on land west of Drayton, Leicestershire. March 2011	
Serial title & volume	11/76	
Author(s)	Angela Warner	
Page numbers	5	
Date	21 March 2011	

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Fig 2: Magnetometer Survey Results, 1:2500

Fig 3: Magnetometer Survey Interpretation, 1:2500

**ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON
ROBINSON'S LAND, DRAYTON, LEICESTERSHIRE
MARCH 2011**

Abstract

Northamptonshire Archaeology was commissioned by CgMs Consulting Ltd to carry out a magnetometer survey on 1.9ha of land to the west of the village of Drayton, Leicestershire. The investigation was carried out to supplement the information gathered on a recent survey following repositioning of proposed buildings. The survey revealed possible ditches of unknown date and medieval ridge and furrow cultivation.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting Ltd, to carry out an archaeological geophysical investigation, comprising magnetic gradiometer survey, on land to the west of the village of Drayton, Leicestershire (centred on NGR 4828 2920; Fig 1). The area is proposed for a new farmyard and dwelling and the works were designed to inform an Archaeological Impact Assessment requested by the planning authority prior to determination of the planning application.

The investigation was required in order to supplement a recent survey carried out in December 2010 (Holmes 2010) as the proposed location of the planned buildings had been altered. In addition, the surveyed area surrounding the proposed driveway was extended.

2 BACKGROUND

The survey area comprises 1.9ha of land occupying an arable field which lies approximately 300m to the west of Drayton. The survey area is bounded to the north by the Medbourne Road and to the east by hedges which divide the area from the adjacent field.

The ground slopes down away from the Medbourne Road towards the River Welland 450m to the south. The survey areas sit on the slope between the 60m and 70m contours. At the top of the slope the underlying geology comprises Dyrham Formation siltstone and mudstone which gives way to Charmouth mudstone on the lower, southern part of the site (BGS Geo Index).

Although no archaeological remains are known from the survey area itself, the proposed development area lies close to the historic settlement core of Drayton village. A recent geophysical survey was carried out in the adjacent field revealing possible ditches and medieval ridge and furrow cultivation (Holmes 2010).

3 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 manually divided into 30m grid-squares by means of tape measure and optical square. A total of 31 full and partial grids were surveyed.

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 grid.

All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; Gaffney, Gater and Ovendon 2002).

The survey data were processed using Geoplot 3.00.v. 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 scales appropriate to the dataset (± 2 nT black/white). Given the area of the survey, stacked-trace plots have not been included on practical grounds. The grey-tone plots have been scaled, rotated and re-sampled (geo-rectified) for display against the Ordnance Survey base mapping (Fig 2). Interpretative overlays have been produced and are shown in Figure 3.

4 SURVEY RESULTS

The majority of magnetic anomalies detected were parallel linear, positive and orientated north-west to south-east at *c* 8m intervals, representing a former ridge and furrow cultivation pattern. Two features of possible archaeological interest were identified. Short linear positive anomalies aligned east-west in the centre of Field 1, may reflect shallow ditches, perhaps connected with those previously detected in Field 2 (NA 2010).

Broad positive and negative anomalies at the south-eastern end of the site probably indicate a change in the basal geology towards the foot of the slope (see above). Three large ferrous anomalies were identified. From north-west to south-east these reflect: a short iron pipe, an animal feeder and a longer iron pipeline. Various magnetic anomalies from random ferrous and ceramic debris in the topsoil were detected throughout Field 1.

5 CONCLUSIONS

Two possible ditches were identified in this survey. They were short, but co-axial suggesting perhaps a fragment of a longer feature. Such a feature may connect with a putative ditched enclosure to the east forming a possible field boundary. Medieval ridge and furrow was located aligned north-west to south-east downhill. A geological change was identified in the south-east of the site.

6 BIBLIOGRAPHY

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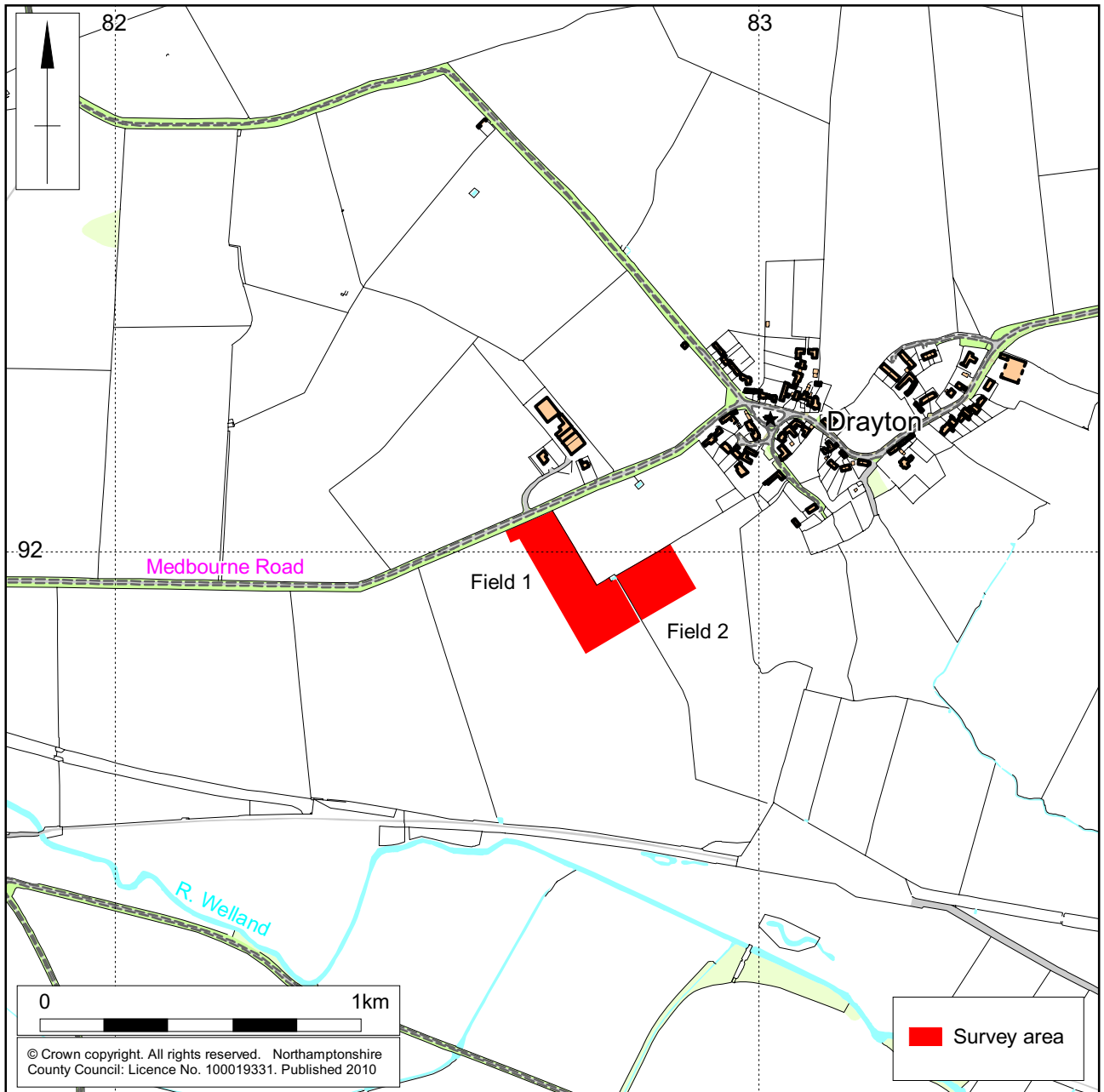
Gaffney, C, Gater, J, and Ovendon, S, 2002 *The Use of Geophysical Techniques in Archaeological Evaluations*, Institute of Field Archaeologists Technical Paper, 6

Holmes, M, 2010 *Archaeological Geophysical Survey on Land West of Drayton, Leicestershire, December 2010* *Northamptonshire Archaeology*, **10/218**

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Heritage Gateway <http://www.heritagegateway.org.uk> (accessed 18/03/2011)

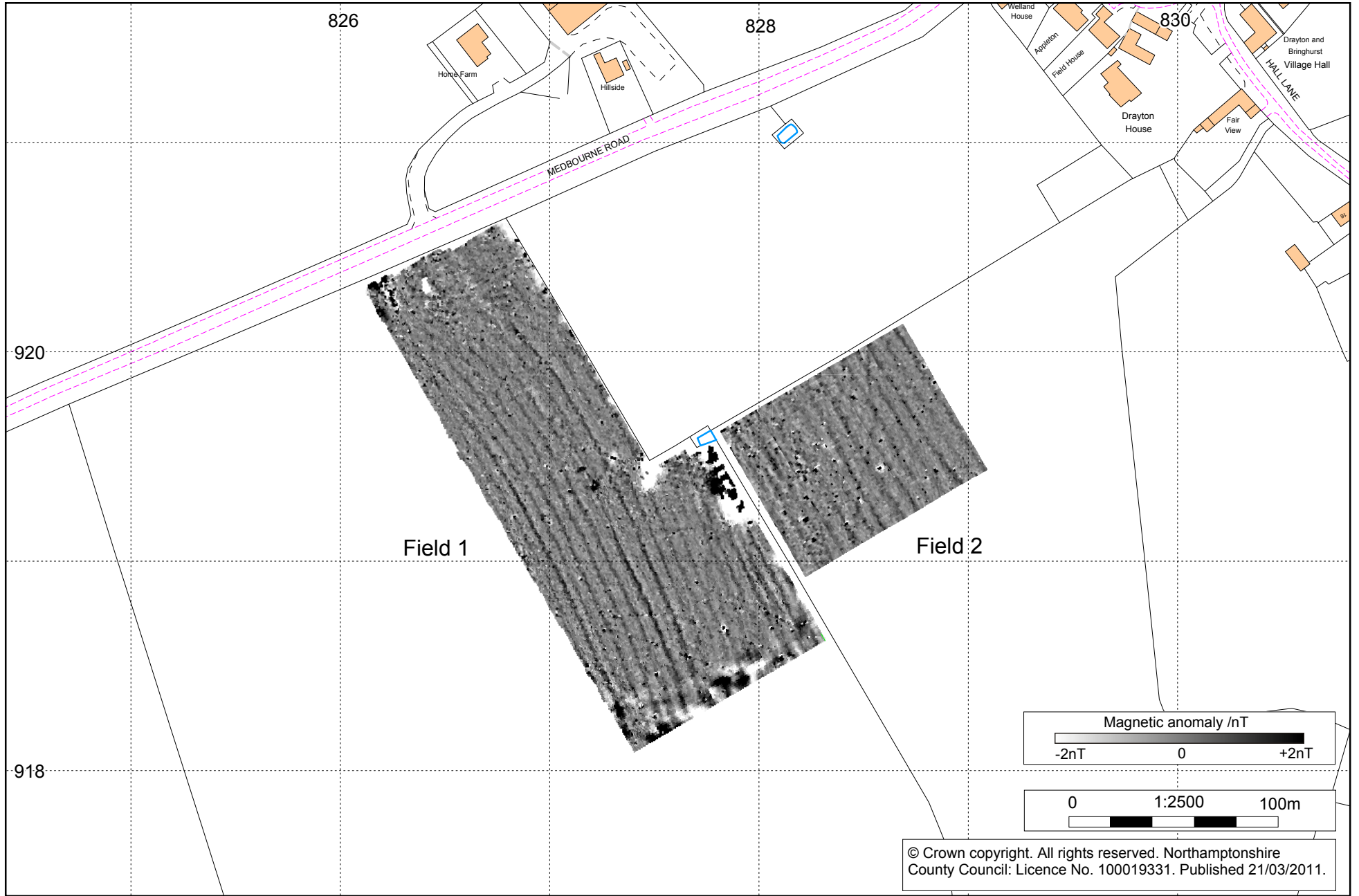


Scale 1:10,000

Site location Fig 1

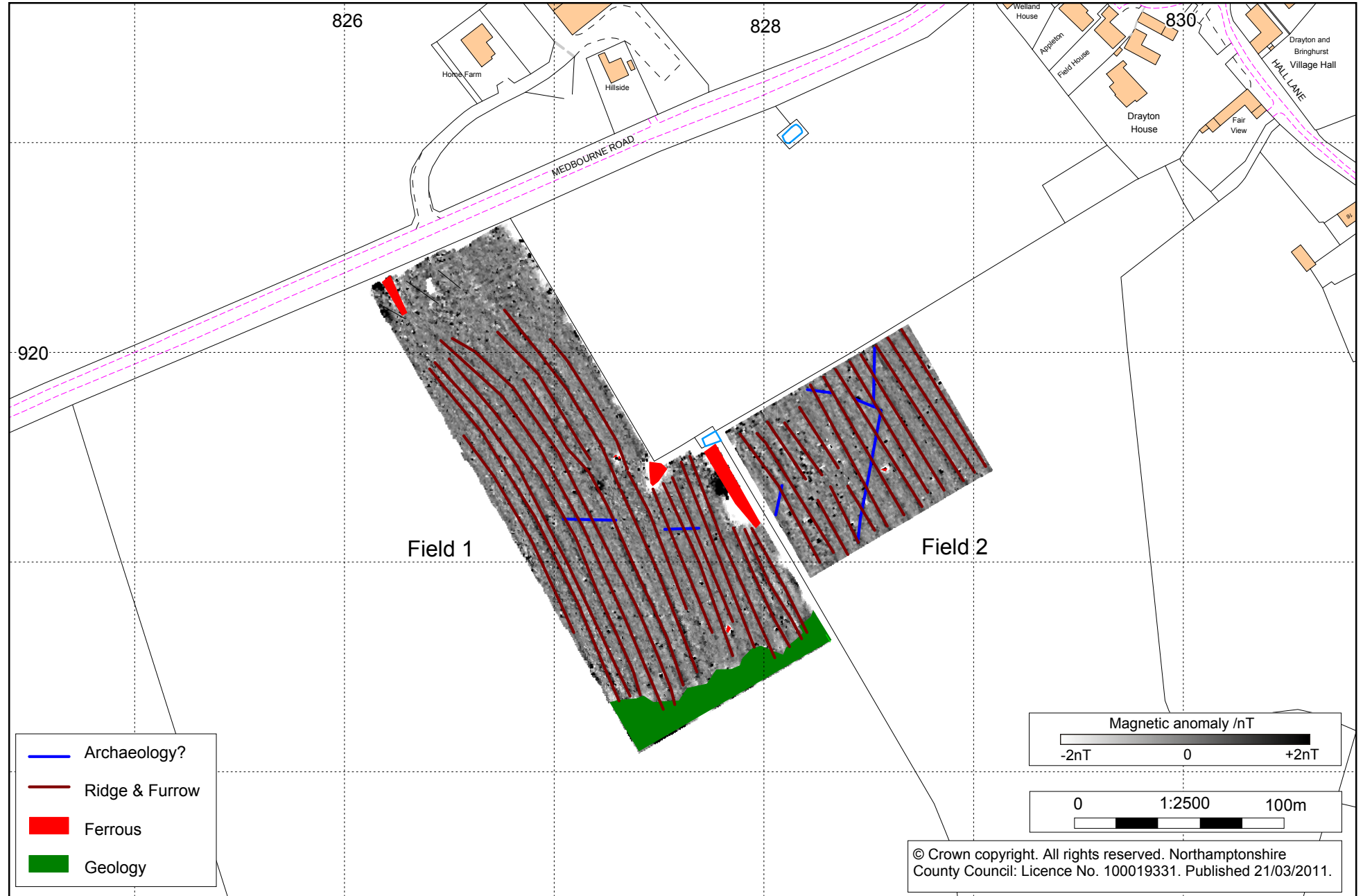
1:2,500

Magnetometer Survey Results Fig 2



1:2,500

Magnetometer Survey Interpretation Fig 3





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