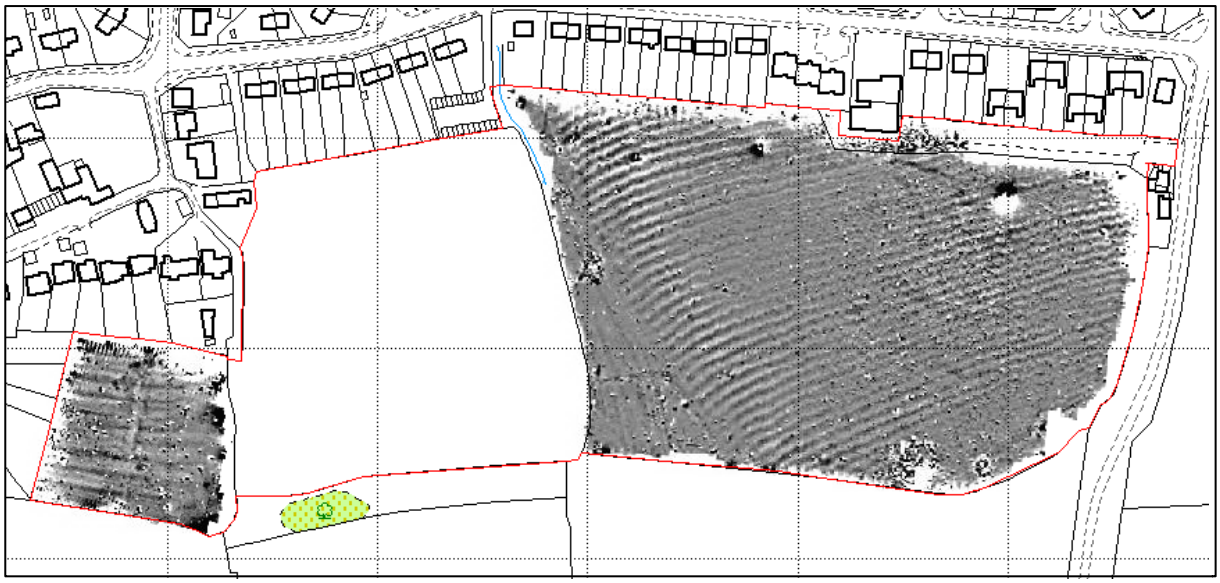

Archaeological geophysical survey of land west of Farthingstone Road, Weedon Northamptonshire March 2014

Report No. 14/83

Authors: Garreth Davey
John Walford

Illustrator: Ian Fisher

Project Manager: Mark Holmes
Site Code:
NGR: SP 627 589

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OASIS REPORT

PROJECT DETAILS	Oasis No. molanort1-177154	
Project name	Archaeological geophysical survey of land west of Farthingstone Road, Weedon, Northamptonshire.	
Short description	MOLA was commissioned to carry out a detailed magnetometer survey on land west of Farthingstone Road, Weedon, Northamptonshire. The survey detected minor archaeological features including remnant medieval ridge and furrow cultivation and debris from a small nineteenth-century building.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current Land use	Pasture	
Future work	Unknown	
Monument type/ period	Medieval ridge and furrow	
Significant finds	Medieval ridge and furrow	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Farthingstone Road, Weedon,	
Study area	*c* 7.7ha (5.5ha surveyed)	
OS Easting & Northing	SP 627 589	
Height OD	*c* 95-105m AOD	
PROJECT CREATORS		
Organisation	MOLA	
Project brief originator	CgMs Consulting	
Project design originator	MOLA	
Director/Supervisor	Ian Fisher	
Project Manager	Mark Holmes	
Sponsor or funding body	CgMs Consulting	
PROJECT DATE		
Start date	27th March 2014	
End date	31th March 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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 of land west of Farthingstone Road, Weedon, Northamptonshire March 2014	
Serial title & volume	MOLA Northampton Reports 14/83	
Author(s)	Garreth Davey and John Walford	
Page numbers	3	
Date	17 April 2014	

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Archaeological geophysical survey of land west of Farthingstone Road, Weedon, Northamptonshire March 2014

ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey on land west of Farthingstone Road, Weedon, Northamptonshire. The survey detected minor archaeological features including remnant medieval ridge and furrow cultivation and debris from a small nineteenth-century building.

1 INTRODUCTION

MOLA was commissioned by CgMs Consulting to conduct a geophysical survey on land west of Farthingstone Road, Weedon, Northamptonshire (NGR SP 627 589; Fig 1). A detailed magnetometer survey was undertaken on 27th to 30th March 2014, and covered a total area of approximately 7.7ha, of which 5.5ha was surveyable.

2 BACKGROUND

2.1 Location and geology

The survey area comprised three fields, two pasture and one with a crop of oil seed rape, covering a total of 7.7ha located on the eastern edge of Upper Weedon and the southern edge of Weedon Bec. It is bounded to the north by residential property, to the east by Farthingstone Road and to the south and west by other agricultural land. At the time of survey, Fields 1 and 3 (pasture) were surveyable but Field 2 could not be surveyed due to the rape crop.

The survey area lies between the 95m and 105m contours and slopes down towards the north. Its underlying geology consists of Lias group mudstone, siltstone, limestone and sandstone with glacial sand and gravel superficial deposits (BGS 2014).

2.2 Historical and archaeological background

The survey area has been the subject of a recent desk-based assessment which noted a number of archaeological sites and findspots in its vicinity (Thornton 2014). Within the area itself, only ridge and furrow and a possible medieval pond are recorded, but there are possible prehistoric cropmarks 200m to the south-west and 660m to the north-west and Roman pottery scatters 500m to the south-west and 400m to the north-east. There is also much evidence for Saxon, medieval and post-medieval activity within the settlements of Upper and Lower Weedon

Slightly beyond the eastern boundary of the survey area, the Northamptonshire Historic Environment Record notes a possible seventeenth-century plague pit (809/0/1). However, the location of this is not well established, and its true location may be much further east, close to Watling Street Roman road (RCME 1981, 195).

The historic mapping of the survey area reveals relatively little, apart from a small building and yard which formerly stood in the south-east of the area. This building appears on the first edition Ordnance Survey (1885) and appears to have been demolished at some date between 1953 and 1978.

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).

An independent network of 30m grid squares was established within each of the fields to be surveyed. These 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 English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

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 a greyscale plot at a range of +4nT (black) to -4nT (white). This have been have 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 separate greyscale plot of the unprocessed data is presented in Figure 4.

4 SURVEY RESULTS

The survey of the eastern field detected a set of closely spaced parallel linear anomalies aligned from north-east to south-west, representing or early post-medieval ridge and furrow cultivation. A separate set of furrows, aligned from north to south, has been detected in the south-western corner of the field. In the same corner, the survey has also detected a pair of slightly ill-defined linear anomalies which most probably represent a post-medieval field boundary. One other linear anomaly, near the northern edge of the field, is of uncertain origin: it could represent a section of ditch, or it could have a geological cause.

A small area of magnetic noise has been detected in the eastern field on the site of the former building and yard. A short section of low wall remains in this location (pers obs), and the data indicates that there is a wider scatter of rubbish and building debris around this. A smaller area of magnetic noise just to the east may represent a pond or other hollow infilled with modern spoil, and the same interpretation applies to the two areas of magnetic noise at the western edge of the field. One further area of magnetic noise at the northern edge of the field more probably represents a scatter of hardcore or construction waste associated with the adjacent buildings.

The survey of the western field detected a set of ridge and furrow anomalies aligned from east to west and a single linear anomaly which runs perpendicularly to the furrows, bisecting the field. The cause of the latter anomaly is uncertain. It could perhaps represent a plough headland, a field boundary or a trackway, of either medieval or post-medieval date.

Small but intense dipolar magnetic anomalies have been detected widely across both fields. They represent a largely random scatter of insignificant ferrous debris within the ploughsoil. A larger dipole in the north-east of the eastern field indicates the location of a metal feed trough.

5 CONCLUSION

The survey results largely confirm the known archaeology of the site. Medieval ridge and furrow was detected in both of the fields that were surveyed, and an area of magnetic noise was detected in the eastern field, on the site of a small nineteenth-century building. A few other minor features were detected, including a possible boundary, a possible headland or trackway and a possible infilled pond or hollow.

BIBLIOGRAPHY

Thornton, A, 2014 *Archaeological Desk-Based Assessment, Land off New Street, Lower Weedon, Northamptonshire*, CgMs Consulting report **PRC/AT/16259/01**

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

BGS 2014 *Geoindex* www.bgs.ac.uk/geoindex.htm, British Geological Survey, accessed March 2014

EH 2008 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage

IfA 2011 *The Use of Geophysical Techniques in Archaeological Evaluations, (*2nd Edition), Institute for Archaeologists Technical Paper

RCHME 1981 *An Inventory of the Historical Monuments in the County of Northamptonshire, Volume 3: Archaeological sites in north-west Northamptonshire*, Royal Commission on the Historical Monuments of England, London: HMSO

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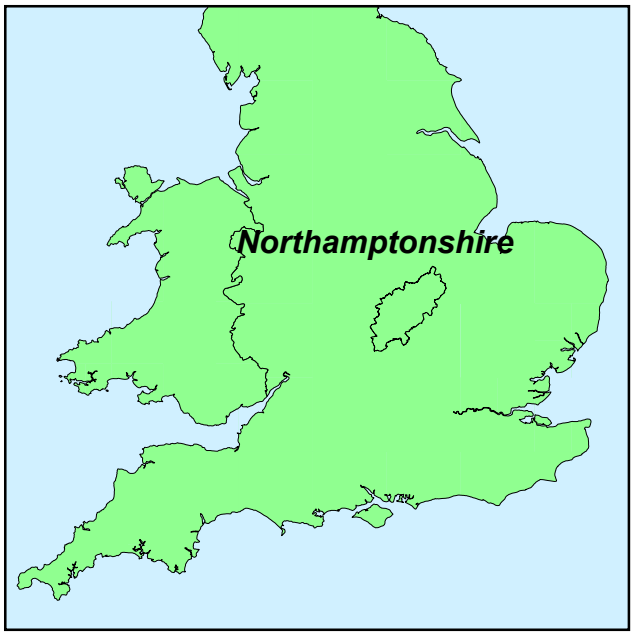
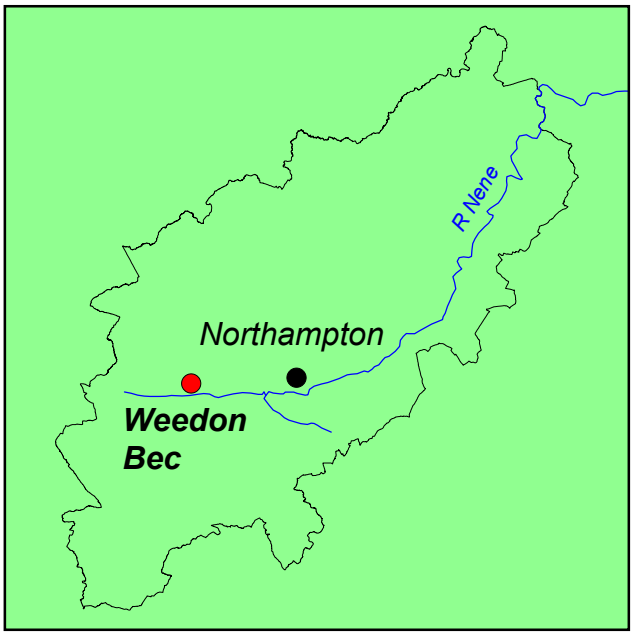
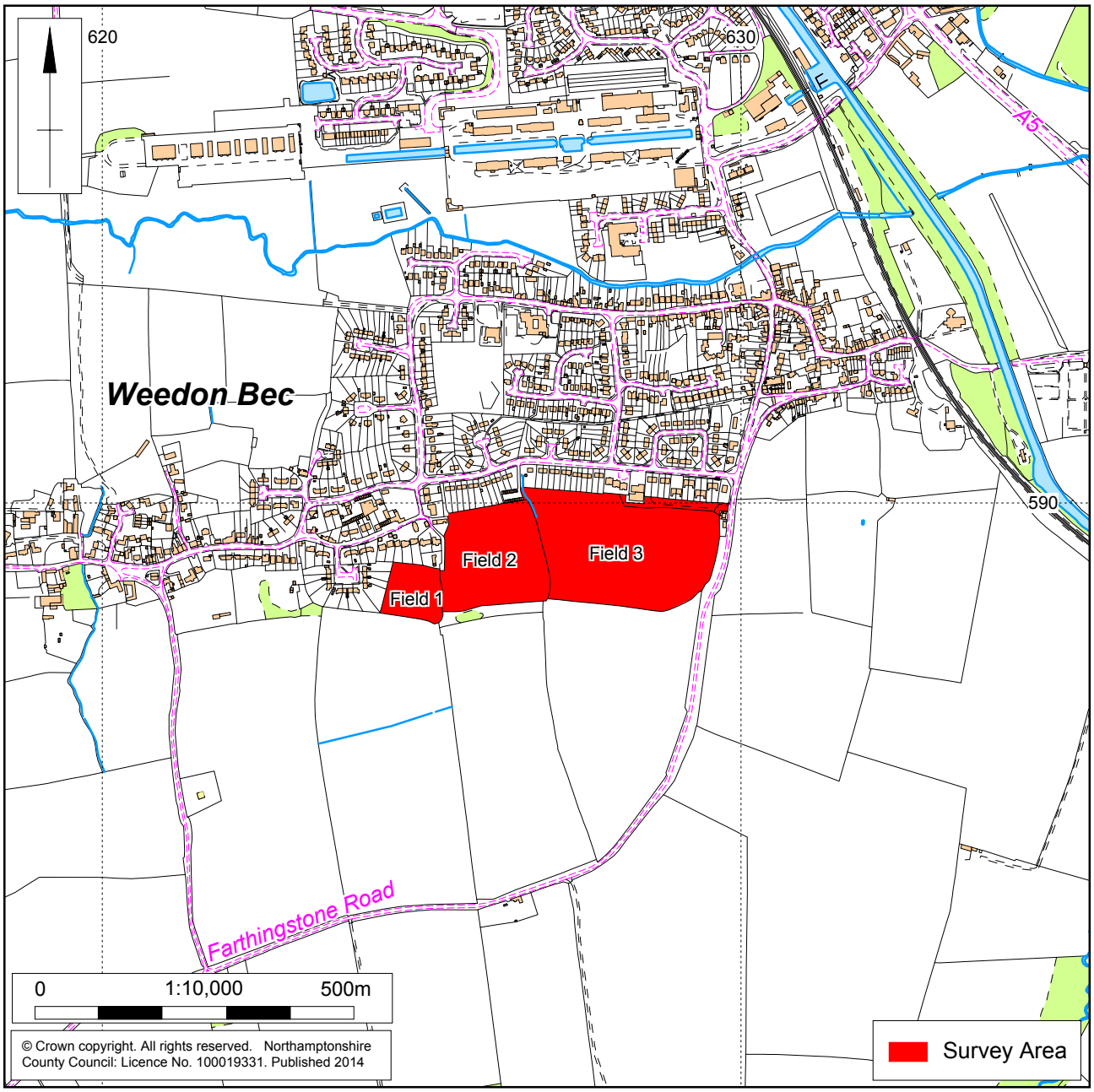
17 April 2014







Scale 1:10,000

Site location Fig 1

Scale 1:2500 (A4)

Magnetometer survey results Fig 2

Scale 1:2500 (A4)

Magnetometer survey interpretation Fig 3

Scale 1:2500 (A4)

Magnetometer survey raw data Fig 4

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