Archaeological geophysical survey of land south of Mill Lane, Sawston Cambridgeshire January - February 2015

Report No. 15/14

Author: Ian Fisher

Illustrator: Ian Fisher

Project Manager: John Walford
Event number: ECB4340
NGR: TL 48140 49290

MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN 01604 700 493
www.mola.org.uk
sparry@mola.org.uk

Archaeological geophysical survey of land south of Mill Lane, Sawston Cambridgeshire January - February 2015

Report No. 15/14

Quality control and sign off:

Issue No.	Date approved:	Checked by:	Verified by:	Approved by:	Reason for Issue:
1	30/01/2015	Pat Chapman	John Walford	Andy Chapman	Client approval
2	23/02/2015	Pat Chapman	John Walford	Andy Chapman	Final version

Author: Ian Fisher

Illustrator: Ian Fisher

MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk

STAFF

Project Manager:	John Walford BSc MSc
Fieldwork:	Olly Dindol BSc
	Kirsty Beecham BSc
	Piotr Szczepanik BSc
Text:	Ian Fisher BSc
Illustrations:	Ian Fisher

OASIS REPORT

PROJECT DETAILS	Oasis No. molanort1-201929	
Project name	Archaeological geophysical survey of land south of Mill Lane, Sawston, Cambridgeshire	
Short description	MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land south of Mill Lane, Sawston, Cambridgeshire. The survey detected a faint linear trend and other magnetic anomalies arising from a derelict farm.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current land use	Pasture (overgrown)	
Future work	Trial trench excavation	
Monument type/ period	None	
Significant finds	None	
PROJECT LOCATION		
County	Cambridgeshire	
Site address	Mill Lane, Sawston	
Study area	*c* 2ha	
OS Easting & Northing	TL 48140 49290	
Height OD	*c* 20-25m aOD	
PROJECT CREATORS		
Organisation	MOLA Northampton	
Project brief originator	Andy Thomas, Cambridgeshire Archaeological Advisor	
Project design originator	MOLA Northampton	
Director/supervisor	Olly Dindol	
Project manager	John Walford	
Sponsor or funding body	Manor Oak Homes	
PROJECT DATE		
Start date	16 January 2015	
End date	5 February 2015	
ARCHIVES	Location	Content
Physical	N/A	
Paper	MOLA Northampton ECB4340	Site survey records
Digital		Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey of land south of Mill Lane, Sawston, Cambridgeshire January - February 2015	
Serial title & volume	MOLA Northampton Reports 15/14	
Author(s)	Ian Fisher	
Page numbers	3	
Date	23 February 2015	

Contents

Figures

Archaeological geophysical survey of land south of Mill Lane, Sawston, Cambridgeshire January - February 2015

ABSTRACT

MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land south of Mill Lane, Sawston, Cambridgeshire. The survey detected a faint linear trend and other magnetic anomalies arising from a derelict farm.

1 INTRODUCTION

MOLA Northampton was commissioned by Manor Oak Homes Ltd to undertake a detailed magnetometer survey on *c* 2ha of land to the rear of 41 Mill Lane, Sawston, Cambridgeshire (NGR TL 48140 49290; Fig 1). The fieldwork was undertaken on the 16th January and 5th February 2015 and has been recorded on the Cambridgeshire Historic Environment Record (HER) under Event Number ECB4340.

2 BACKGROUND by Mo Muldowney

2.1 Location and geology

The site comprises four pasture fields covering *c* 2ha (Fig 1). It lies immediately south of Mill Lane, bounded to the north, east and south by residential properties and by fields to the west. The site lies between 20m and 25m aOD sloping south to north.

The bedrock geology of the site is recorded as the Holywell Nodular Chalk Formation. The site may contain superficial deposits of alluvium (BGS 2015 accessed 28/01/15).

2.2 Historical and archaeological background

The site lies on the western edge of the historic village of Sawston and is surrounded by archaeological remains of all periods. Thus far very few remains have been identified in close proximity to the site; most are located within the core of Sawston itself, within Whittlesford village to the south-west or are related to Borough Hill Iron Age fort.

The most significant prehistoric remains in the surrounding area are located on Borough Hill, an area of slightly high ground to the west, overlooking the River Cam. An Iron Age multivallate hill fort (DCB190/HER 09742) has been identified. As well as a series of internal features identified via geophysical survey, the scheduled monument has a circuit of defences of varying arrangements of banks and ditches enclosing an area of approximately 8ha.

Closer to the site, to the north-east, a collection of Mesolithic flints were recovered from land on Bowers Terrace (MCB17619).

Roman occupation has been identified at Borough Hill during a watching brief (ECB1378). Roman pottery has also been recovered during an evaluation at Sawston Hall (ECB2291). These, however, all lie some distance from the development site.

Within 200m of the site, to the south-south-west a chance discovery was made of an Anglo-Saxon brooch or shield ornament (HER 04112). This may, however, be a casual loss, rather than an indication of Saxon settlement. Later medieval remains near to the site include the partial remains of a moated site at Huntingdon Farm to the south-east, (HER 01268) and ditches and pits at John Faulkner School to the east-north-east (MCB20139).

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 field 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 English Heritage and the CIfA (EH 2008; CIfA 2014) .

The survey data was processed using Geoplot 3.00v software. Striping, caused by slight sensor imbalances, was removed using the 'Zero Mean Traverse' function. 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 +10nT (black) to -10nT (white). These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretive overlay is presented in Figure 3, and plots of the unprocessed survey data are presented in Figure 4.

4 SURVEY RESULTS

The survey has identified a possible archaeological anomaly in the south-western field. The anomaly is a very faint curvilinear trend which could either be a length of undated ditch or simply a geological anomaly. The north-eastern part of the field is dominated by magnetic noise and or disturbance associated with the derelict farm.

The two northern fields are dominated by magnetic noise and or disturbance. The derelict farm is the cause of the magnetic halos in the data, whilst buried ferrous objects and hardcore and a trackway that provides access to the site are the causes of the magnetic noise. Similarly the south-eastern field contains a small amount of magnetic noise and or disturbance scattered about the field.

It was not possible to survey the entire survey area due to the edges of site being overgrown.

5 CONCLUSION

The survey has identified a possible archaeological feature within the survey area. The faint linear trend may represent a length of undated ditch but it could also be a geological anomaly. The survey results are dominated by modern anomalies associated with an abandoned farm and trackway.

BIBLIOGRAPHY

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

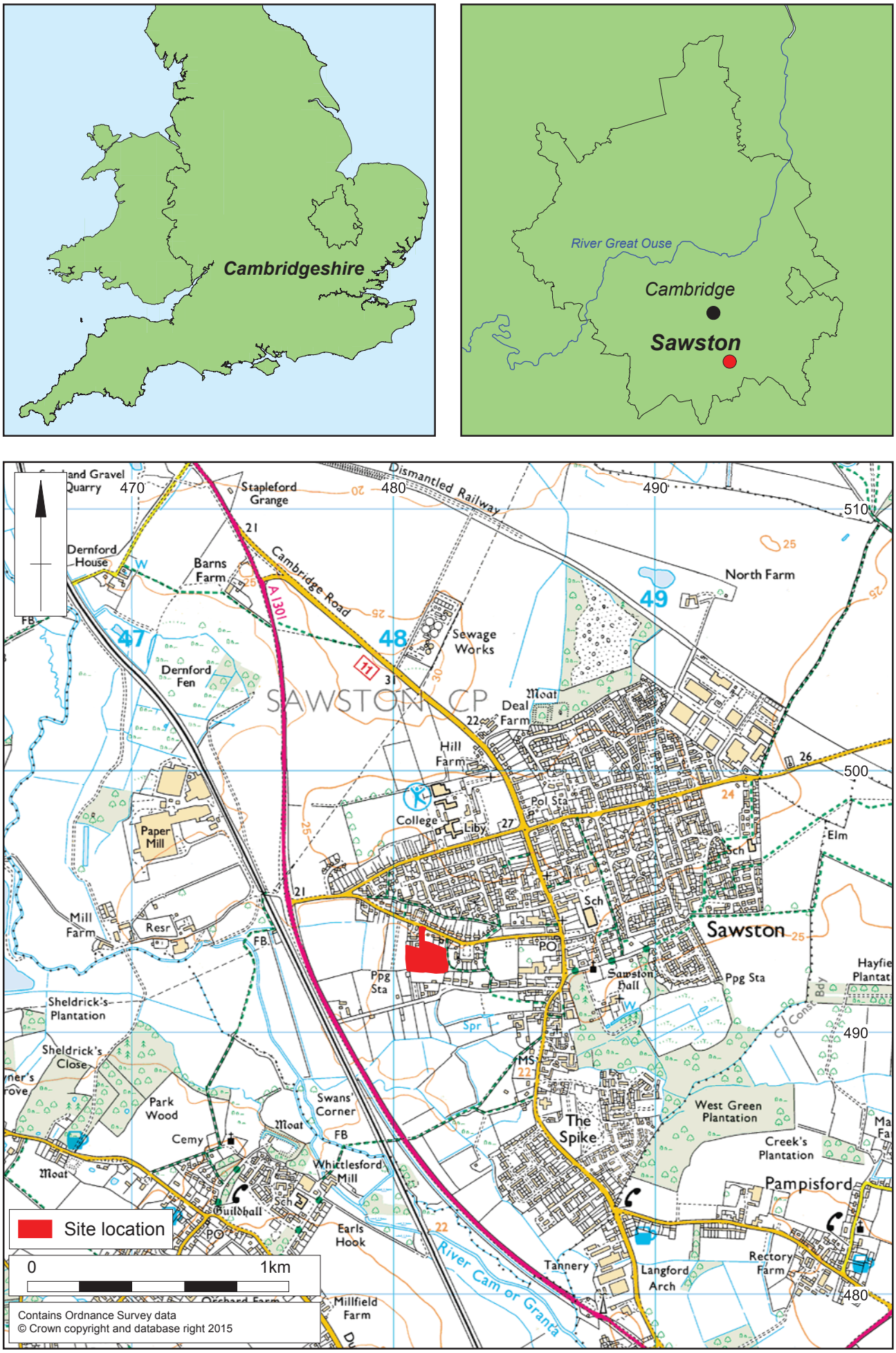
BGS 2015 Geology of Briatin Viewer, http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html, consulted January 2015

CIfA 2014 *Standard and Guidance for Archaeological Geophysical Survey*, Chartered Institute for Archaeologists

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

Muldowney, M, 2015 *Written Scheme of investigation for archaeological evaluation at Mill Lane, Sawston, Cambridgeshire,* MOLA Northampton

MOLA
23 February 2015

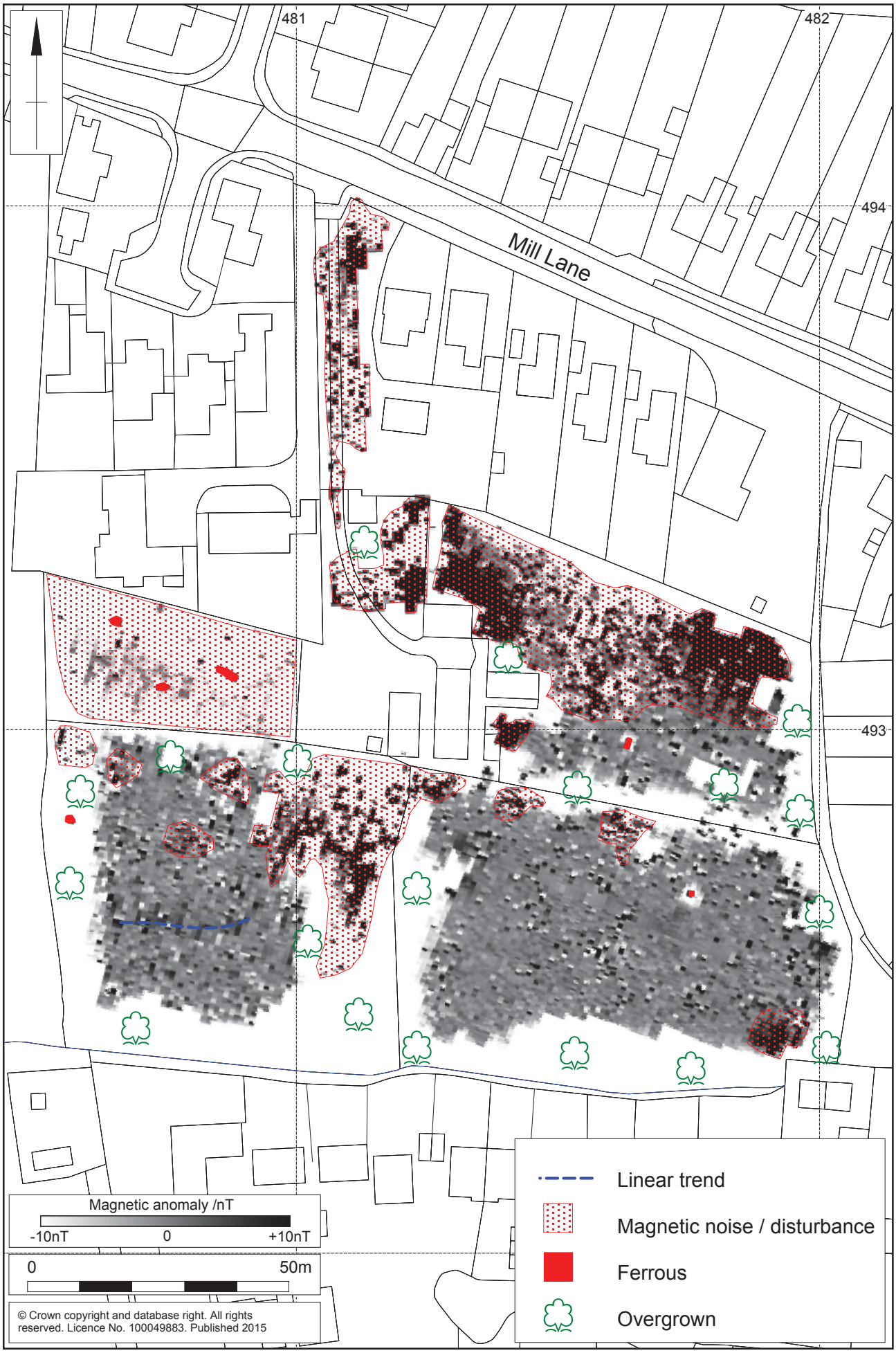


Scale 1:20,000

Site location Fig 1

1:1000 (A4)

Magnetometer survey results Fig 2



1:1000 (A4)

Magnetometer survey results Fig 2

1:1000 (A4)

Magnetometer survey raw data Fig 4

MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk