



**Archaeological geophysical survey on land  
to the rear of 138 Bardon Road, Coalville  
Leicestershire  
February 2015**

Report No. 15/35

Author: Ian Fisher

Illustrator: Ian Fisher





**Archaeological geophysical survey on land  
to the rear of 138 Bardon Road, Coalville  
Leicestershire  
February 2015**

Report No. 15/35

Quality control and sign off:

<b>Issue No.</b>	<b>Date approved:</b>	<b>Checked by:</b>	<b>Verified by:</b>	<b>Approved by:</b>	<b>Reason for Issue:</b>
1	27/02/15	Pat Chapman	John Walford	Andy Chapman	Client approval

Author: Ian Fisher

Illustrator: Ian Fisher

© MOLA Northampton 2015

MOLA  
Bolton House  
Wootton Hall Park  
Northampton  
NN4 8BN  
01604 700 493  
[www.mola.org.uk](http://www.mola.org.uk)  
[sparry@mola.org.uk](mailto:sparry@mola.org.uk)

**STAFF**

Project Manager: John Walford BSc MSc

Fieldwork: Paul Clements BA  
Piotr Szczepanik BA  
James West BSc MA  
Yvonne Wolframm-Murray BSc PhD

Text: Ian Fisher BSc

Illustrations: Ian Fisher

**OASIS REPORT**

<b>PROJECT DETAILS</b>		Oasis No. molanort1-204729
Project name	Archaeological geophysical survey on land to the rear of 138 Bardon Road, Coalville, Leicestershire	
Short description	MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land to the rear of 138 Bardon Road, Coalville, Leicestershire. The survey identified probable ditches of archaeological significance and medieval ridge and furrow cultivation.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current land use	Pasture	
Future work	Trial trench excavation	
Monument type/ period	None	
Significant finds	Undated ditches and medieval ridge and furrow.	
<b>PROJECT LOCATION</b>		
County	Leicestershire	
Site address	138 Bardon Road, Coalville	
Study area	c 6.18ha	
OS Easting & Northing	SK 4383 1326	
Height OD	c 150-160m aOD	
<b>PROJECT CREATORS</b>		
Organisation	MOLA Northampton	
Project brief originator	Richard Clarke Leicestershire Archaeological Advisor	
Project design originator	MOLA Northampton	
Director/supervisor	Paul Clements	
Project manager	John Walford	
Sponsor or funding body	Peter Sharnbrook (on behalf of Keepmoat Homes)	
<b>PROJECT DATE</b>		
Start date	17 January 2015	
End date	18 January 2015	
<b>ARCHIVES</b>	Location	Content
Physical	N/A	
Paper	MOLA Northampton	Site survey records
Digital		Geophysical survey & GIS data
<b>BIBLIOGRAPHY</b>	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey on land to the rear of 138 Bardon Road, Coalville, Leicestershire, February 2015	
Serial title & volume	MOLA Northampton Reports 15/35	
Author(s)	Ian Fisher	
Page numbers	3	
Date	27 February 2015	

# Contents

1	<b>INTRODUCTION</b>	1
2	<b>BACKGROUND</b> by Claire Finn	2
	2.1 Location and geology	
	2.2 Historical and archaeological background	
3	<b>METHODOLOGY</b>	3
4	<b>SURVEY RESULTS</b>	3
5	<b>CONCLUSION</b>	4
	<b>BIBLIOGRAPHY</b>	4

## Figures

Cover Magnetometer survey results

Fig 1	Site location	1:5000
Fig 2	Magnetometer survey results	1:2500
Fig 3	Magnetometer survey interpretation	1:2500

# Archaeological geophysical survey on land to the rear of 138 Bardon Road, Coalville, Leicestershire February 2015

## ABSTRACT

*MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land to the rear of 138 Bardon Road, Coalville, Leicestershire. The survey identified probable ditches of archaeological significance and medieval ridge and furrow cultivation.*

## 1 INTRODUCTION

MOLA Northampton was commissioned by Peter Sharnbrook, on behalf of Keepmoat Homes, to undertake a detailed magnetometer survey on c6.18ha of land to the rear of 138 Bardon Road, Coalville, Leicestershire (NGR SK 4383 1326; Fig 1). The fieldwork was undertaken on the 17th January and 18th January 2015. An accession number has been applied for.

## 2 BACKGROUND by Claire Finn

### 2.1 Location and geology

The survey area comprises four pasture fields covering c 6.18ha (Fig 1). It lies immediately south of Bardon Road, located to the south-east of Coalville. It is bounded to the north-east by the gardens of residential properties, to the south-west by a freight railway line and agricultural fields to the north-west and south-east. The site lies between 150m and 160m aOD sloping south-east to north-west towards a small watercourse.

The geology of the site is formed of Gunthorpe Member sedimentary mudstone as the solid geology, overlaid by superficial deposits of Oadby Diamiction Member. This latter type contains Cretaceous and Jurassic rock fragments, subordinate lenses of sand and gravel, clay and silt. A narrow band of alluvial deposits can be found down the west hand side of the site, in the area where the small watercourse is to be found (BGS 2015).

### 2.2 Historical and archaeological background

An Archaeology and Cultural Heritage Desk Based Assessment (henceforth the DBA), utilising the resources of the Historic Environment Record (HER) for Leicestershire, was prepared by the Environmental Dimension Partnership (EDP) (Thomas 2013). Its findings are summarised here. No designated heritage assets are known to exist within the proposed development area. One spot find is recorded in the HER from within the site, a Neolithic flint knife blade (MLE7288). Significant archaeological and historic activity is known from the vicinity of the site, with eight listed buildings and forty HER points to be found within and around a 1km radius of the proposed development site.

The closest designated heritage asset is the Grade II listed Christ Church, c750m to the north-west (MLE14487).

According to Richard Clark, Principal Planning Archaeologist, the evidence suggests that “the site has a moderate to high potential to contain significant buried archaeological remains”, particularly from the Neolithic to Bronze Age period. The following summary of archaeological and historical features is drawn from the pre-existing DBA (Thomas 2013).

### ***Prehistoric***

The single findspot from within the proposed development site comprises a plano-convex flint knife of late Neolithic date (MLE7288). The exact find location is not precisely known. Other prehistoric activity is known from the vicinity, with Mesolithic flints found to the south-west of the site, and Neolithic axes to the east and to the north. Previous archaeological fieldwalking surveys around half a kilometre to the south of the site have also produced large quantities of Neolithic/Bronze Age flints. This complies with a general trend of extensive prehistoric activity in Leicestershire from the 5th to 2nd millennium BC.

### ***Romano-British***

Romano-British activity is known to have been reasonably extensive in the East Midlands area. Bardon Road may have its origins as a Roman road, with possible patches of the Roman surface surviving. Settlement evidence is suggested by the reported discovery of mosaic flooring c1km to the north-west of Bardon Road. Some Roman coins have been found in the Coalville region.

### ***Saxon and medieval***

No evidence of Anglo-Saxon and medieval activity is known from the development site. Some medieval settlement is known from the vicinity, including the medieval village of Hugglescote about a kilometre to the south. Associated with the village is the demolished church of St James, and Hugglescote. A medieval deer park can be found c1.5km to the east, and medieval ceramics were recovered from archaeological excavation just over half a kilometre to the south. It seems likely that the fields were part of the open field system in the medieval period, probably belonging to Hugglescote village. Ridge and furrow aligned east-west could be identified from aerial photographs in fields to the south-west of the site.

### ***Post-medieval and modern***

There are no post-medieval, Victorian or modern heritage assets known from within the application site. The village of Coalville, around 1km to the north-west of the site, has mid-19th-century origins and began to develop along with its coal industry after 1824. Two collieries were operated in the near vicinity. The area to the south and west of the site is also crossed by railway works. The former Leicester to Swannington railway and the Ashby & Nuneaton Joint Railway both run along the boundaries of the site. The former of these is still in operation as a freight line for the nearby granite quarry.

During these periods, the site is considered to have been likely to have retained its agricultural function. Historic mapping and aerial photographs show that the easternmost field of the site was under allotments by 1903. The row of houses along Bardon Road were completed by 1948, and the allotments fell out of use sometime before 1963.

### ***Previous work***

Several programmes of archaeological work have previously been undertaken in the near vicinity of the site. A scatter of pits, ditches, field boundaries and other features were identified to the south of the development site by geophysical surveys in 2000,



2010 and 2012. In 2011 an archaeological trial trench evaluation was carried out up to the southern boundary of the current proposed development site. Medieval or later plough furrows were identified, along with an earlier ditch and three probable post-medieval field boundaries.

A small archaeological evaluation near Hugglescote identified two undated features, and a few sherds of medieval and post-medieval pottery. To the north of the application site, c8ha were examined by geophysical survey (Simmonds 2009). One possible ditch and evidence for ridge and furrow were identified. The survey identified the dumping of coal waste on the site on a large scale and consequently these areas were not surveyed.

Fieldwalking events around the area have recovered material from most periods between the Neolithic and the 18th century.

### **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 ClfA (EH 2008; ClfA 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.

### **4 SURVEY RESULTS**

The survey has identified possible archaeological anomalies in Field 4. The anomalies consist of a faint curvilinear anomaly and a linear anomaly which intersects to form a narrow blade shaped feature. It is probable that the two ditches are not contemporary and the shape is coincidental. On the southern edge of Field 4 another linear anomaly has been identified. It measures approximately 15m in length and may represent another length of ditch.

A fourth linear anomaly in the northern part of the field extends towards a ferrous anomaly on the north-western edge of the field. The nature of the anomaly suggests that it possibly represents a drain.

The survey has identified a series of faint parallel linear anomalies, aligned north-west to south-east, in Field 1. These represent furrows of medieval ridge and furrow cultivation. A faint linear anomaly, parallel to the south-east boundary, has also been detected by the survey. This is likely to represent the modern edge of cultivation within the field.

The survey has not identified any archaeologically significant anomalies in Fields 2 or 3. It did identify a few amorphous anomalies of probable geological origin.

Along the south-western and north-eastern edges of the survey area magnetic noise and disturbance has been recorded. The railway line that runs along the south-western boundary of the survey area is responsible for the magnetic disturbance to the south whilst property boundary fence lines are responsible for the disturbance along the northern boundary.

## 5 CONCLUSION

The survey has identified three possible archaeological features within the survey area. The faint linear anomalies may represent lengths of undated ditches. Medieval ridge and furrow cultivation was also recorded within the survey area. The survey results also contain anomalies of probable geological origin.

## 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

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

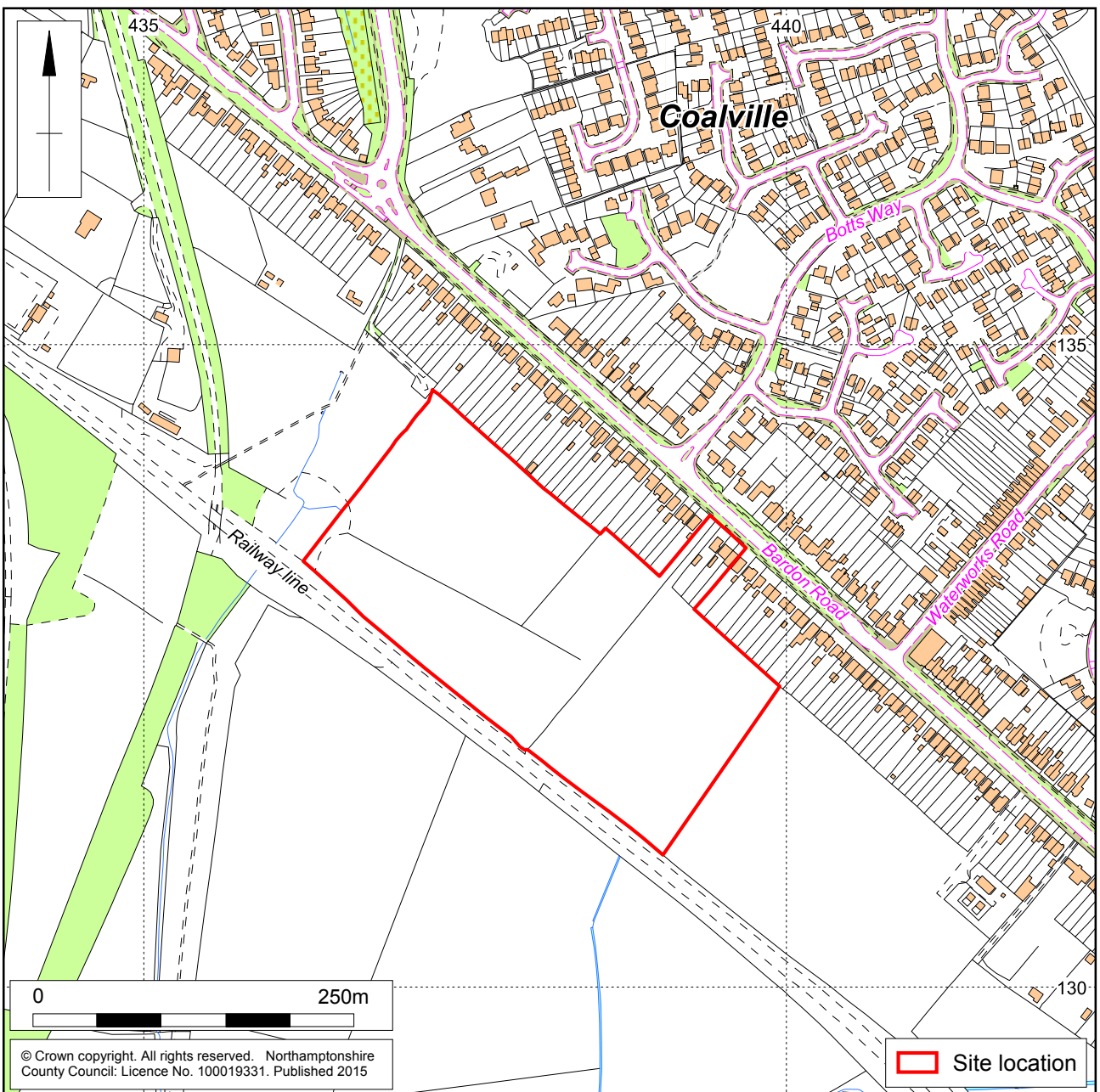
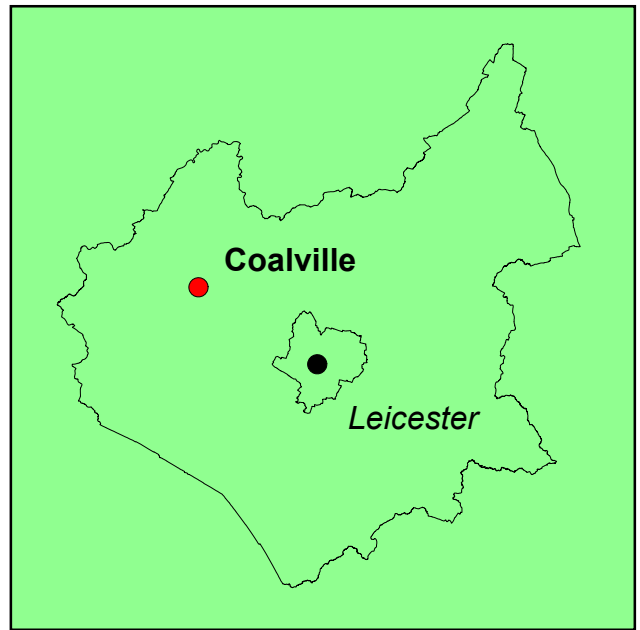
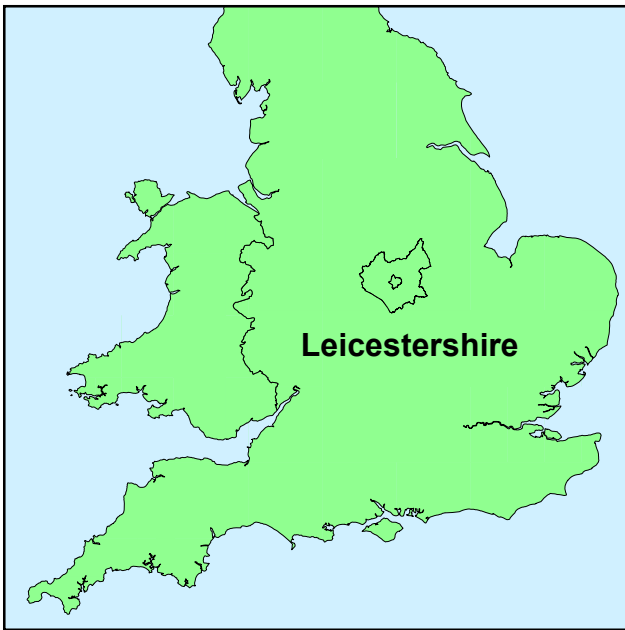
Crothers, M-E, and Finn, C, 2015 *Written Scheme of investigation for archaeological geophysical survey at 138 Bardon Road, Coalville, Leicestershire*, MOLA Northampton

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

Simmonds, C, 2009 *An Archaeological Geophysical Survey on land at Broom Leys Farm, Coalville Leicestershire September 2009*, Northamptonshire Archaeology, Report **09/125**

Thomas, A, 2013 *Land south of Bardon Road, Coalville, Leicestershire, Archaeology and Cultural Heritage Assessment*, the Environmental Dimension Partnership (EDP), **H\_EDP1762\_01a**

MOLA  
27 February 2015



Scale 1:5000

Site Location Fig 1



Scale 1:2500 (A4)

Magnetometer survey results Fig 2



Scale 1:2500 (A4)

Magnetometer survey interpretation Fig 3



MOLA  
Bolton House  
Wootton Hall Park  
Northampton  
NN4 8BN  
01604 700 493  
[www.mola.org.uk](http://www.mola.org.uk)  
[sparry@mola.org.uk](mailto:sparry@mola.org.uk)