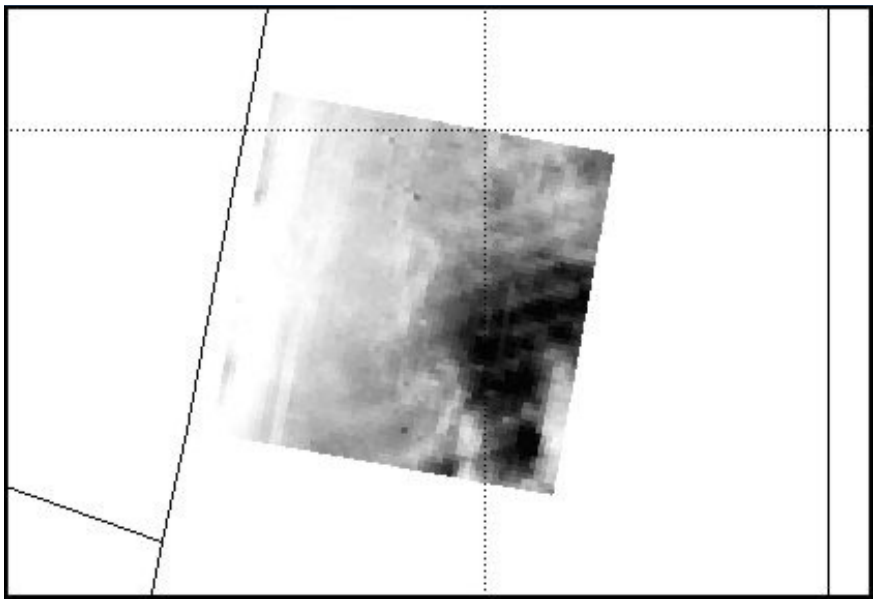

Archaeological geophysical survey on land south of Higham Road, Burton Latimer Northamptonshire November 2014

Report No. 14/232

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Illustrator: John Walford

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ARCHAEOLOGY

REGISTERED ORGANISATION IfA

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Quality control and sign off**:**

Issue No.	Date approved:	Checked by:	Verified by:	Approved by:	Reason for Issue:
1	28/11/2014	Pat Chapman	Mark Holmes	Andy Chapman	Client approval

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OASIS REPORT

PROJECT DETAILS	Oasis No. molanort1-196694	
Project name	Archaeological geophysical survey on land south of Higham Road, Burton Latimer, Northamptonshire	
Short description	MOLA Northampton was commissioned by CgMs Consulting to carry out an earth resistance survey on land south of Higham Road, Burton Latimer, Northamptonshire. The survey was targeted on a position where a magnetometer survey had identified a penannular feature and a trial trench had exposed Roman building remains. The results did not clarify the layout of the Roman building, but they did identify other features of possible archaeological interest.	
Project type	Geophysical survey (earth resistance)	
Site status	None	
Previous work	Magnetometer survey (Prestidge 2014) Trial trench excavation (Moan 2014)	
Current Land use	Pasture	
Future work	Unknown	
Monument type/ period	Roman building, medieval ridge and furrow	
Significant finds	None	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Burton Latimer	
Study area	0.36ha	
OS Easting & Northing	SP 90180 74084	
Height OD	*c* 61m aOD	
PROJECT CREATORS		
Organisation	MOLA Northampton	
Project brief originator	CgMs Consulting	
Project design originator	MOLA Northampton	
Director/Supervisor	Ian Fisher	
Project Manager	John Walford	
Sponsor or funding body	CgMs Consulting	
PROJECT DATE		
Start date	5th November 2014	
End date	5th November 2014	
ARCHIVES	Location	Content
Physical	N/A	None
Paper	MOLA Northampton ENN107811	Site survey records
Digital	ADS & MOLA Northampton	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey at Land South of Higham Road, Burton Latimer, Northamptonshire, November 2014	
Serial title & volume	MOLA Northampton Reports 14/232	
Author(s)	John Walford and Adam Meadows	
Page numbers	3	
Date	28 November 2014	

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Archaeological geophysical survey on land south of Higham Road, Burton Latimer, Northamptonshire, October 2014

ABSTRACT

MOLA Northampton was commissioned by CgMs Consultin to carry out an earth resistance survey on land south of Higham Road, Burton Latimer, Northamptonshire. The survey was targeted on a position where a magnetometer survey had identified a penannular feature and a trial trench had exposed Roman building remains. The results did not clarify the layout of the Roman building, but they did identify other features of possible archaeological interest.

1 INTRODUCTION

MOLA was commissioned by CgMs Consulting to conduct an earth resistance survey on a proposed development site to the south of Higham Road, Burton Latimer, Northamptonshire (NGR SP 90180 74084; Fig 1). The purpose of this work was to obtain further information on a Roman building and associated features which had been discovered by magnetometer survey (NHER Event No. ENN107809; Prestidge 2014) and partially exposed during a subsequent trial trench evaluation (ENN107810; Moan 2014).

The earth resistance survey was undertaken on 5th November 2014 and has been recorded on the Northamptonshire Historic Environment Record under event number ENN107811. The data from the survey will be lodged with the Archaeology Data Service (ADS), in accordance with Northamptonshire County Council archiving requirements.

2 BACKGROUND

2.1 Location and geology

The proposed development site lies on the south-eastern edge of Burton Latimer, east of Finedon Road and immediately south of Higham Road. It extends over three pasture fields and has a total area of *c* 10ha. The earth resistance survey was targeted on a square block of land, 60m across and 0.36ha in extent, located midway along the western edge of this site (Fig 1).

The survey area is situated on a north facing slope rising from 58m aOD up to 66m with the geology of the area recorded as the Whitby Mudstone Formation (BGS 2014).

2.2 Historical and archaeological background

A magnetometer survey was conducted across the proposed development site in February 2014, identifying ditches, possible pits, a penannular feature and ridge and furrow (Prestidge 2014). These remains were subsequently targeted by a trial trench evaluation which recovered finds including Roman pottery, hand-made iron nails and some medieval glazed pottery (Moan 2014). The penannular anomaly was targeted by Trench 4, which exposed an *in-situ* limestone floor foundation surrounded by a

demolition area. The finds recovered suggest that this structure fell into disrepair in the late 3rd century AD (Moan 2014).

A separate area of Roman settlement has been identified *c* 300m north of the proposed development site (Northamptonshire HER No. MNN4398). It was first recognised through the discovery of Roman pottery, coins, building material and slag, and was recently the subject of an open area excavation conducted by Albion Archaeology.

3 METHODOLOGY

The earth resistance survey was undertaken on 5th November 2014, in dry but cloudy weather. There was some dew on the grass during the early part of the survey, but the ground was otherwise reasonably dry and firm.

The instrument used for the survey was a Geoscan Research RM15 resistance meter. It was deployed in twin probe configuration with mobile probe spacing of 0.5m and the remote probes spaced a similar distance apart. Measurements of earth resistance were recorded to a precision of 0.1 Ohms (Ω). This instrument configuration is standard for archaeological survey and its use accords with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey area was divided into nine 20m grid squares, and data was collected at a spatial resolution of 1m x 1m within each of these. The grids were established manually, with a tape measure and optical square, and were tied in to the Ordnance Survey National Grid by measurement with a Leica Viva RTK GPS.

The survey data were downloaded, meshed and processed with Geoplot 3.00u software. No processing of the data was necessary, as the grids were well matched and no data flaws were apparent. A high pass-filter was applied to a copy of the data, but the result was of little interpretive value and is not presented in this report.

The unprocessed survey data is presented in this report in the form of a greyscale plot at a range of 30 Ω (white) to 80 Ω (black). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and is also presented with interpretative overlay (Figs 3 - 4).

4 SURVEY RESULTS

The survey has detected a weak low-resistance linear anomaly which correlates well with the line of the backfilled Trench 4. On the eastern side of this there is a low resistance curvilinear anomaly which probably represents a ditch. One end of it may align with a ditch exposed in the trench (Moan 2014, context 30), and the other end coincides with the break in the penannular magnetic anomaly (Fig 3).

The survey has detected nothing which would correspond to the penannular magnetic anomaly itself, or to the building remains identified in Trench 4. There is a slight rise in the background level of resistance around the southern end of the trench, but this appears to be too far south to relate to anything recorded on the trench plan (Moan 2014, fig 3).

To the east of Trench 4, the survey has detected a series of parallel low-resistance linear anomalies which represent traces of medieval to early post-medieval ridge and furrow cultivation. Several of these pass across a large area of high background resistance which is likely to indicate an area of hard, dry or stony ground. Whilst this could represent a deposit of building rubble, it is much larger than a typical building footprint and could be more plausibly attributed to a variation in the character of the natural bedrock.

At the western edge of the survey area there are two slightly convergent low resistance anomalies, one *c* 2m wide and the other *c* 6m wide. Both run parallel with the adjacent field boundary, which would imply that they reflect relatively recent (medieval to modern) features. The width and character of the eastern anomaly might be consistent with a ditch or a service trench, but the western anomaly is too broad for such interpretation to be convincing. Other possibilities for the latter might include a hollow way, a stripped and re-instated pipe easement or, less probably, a former plough headland.

5 CONCLUSION

The survey has not succeeded in mapping the Roman building on which it was targeted, but it has identified a possible continuation of a ditch previously observed in a trial trench. It has also identified some medieval ridge and furrow, two relatively recent linear features and a high resistance anomaly of uncertain, but possibly natural, origin.

The fact that the building remains have not been clearly detected is not fully explicable. Whilst the floor surface and robbed out wall appear to be relatively slight features (Moan 2014, plate 4), and may have had a limited effect on the bulk electrical properties of the soil, the associated limestone spread appears to have been more substantial and a potentially better target (Moan 2014, plate 2). However, the success of earth resistance surveys is often dependent on the precise level and distribution of the groundwater, and this is a factor which cannot always be assessed from a superficial observation of a site (Clarke 1996, 48-56).

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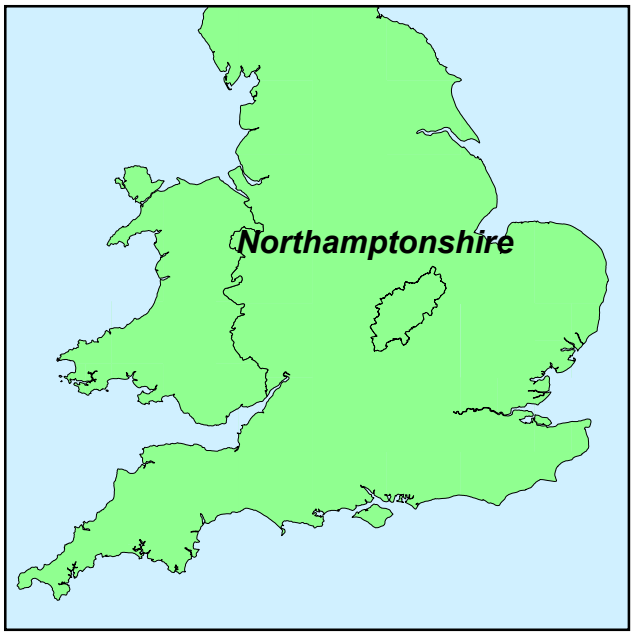
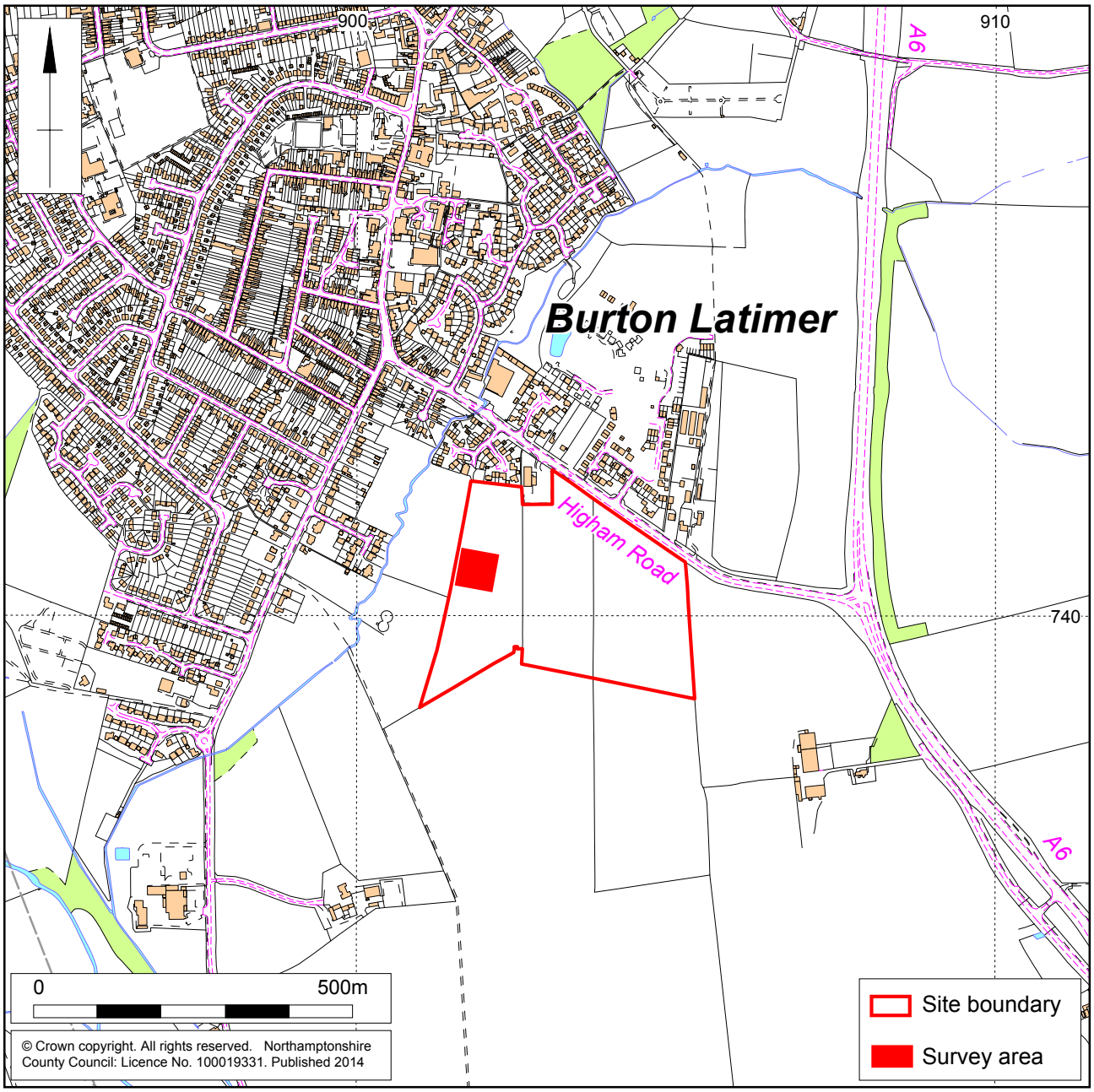
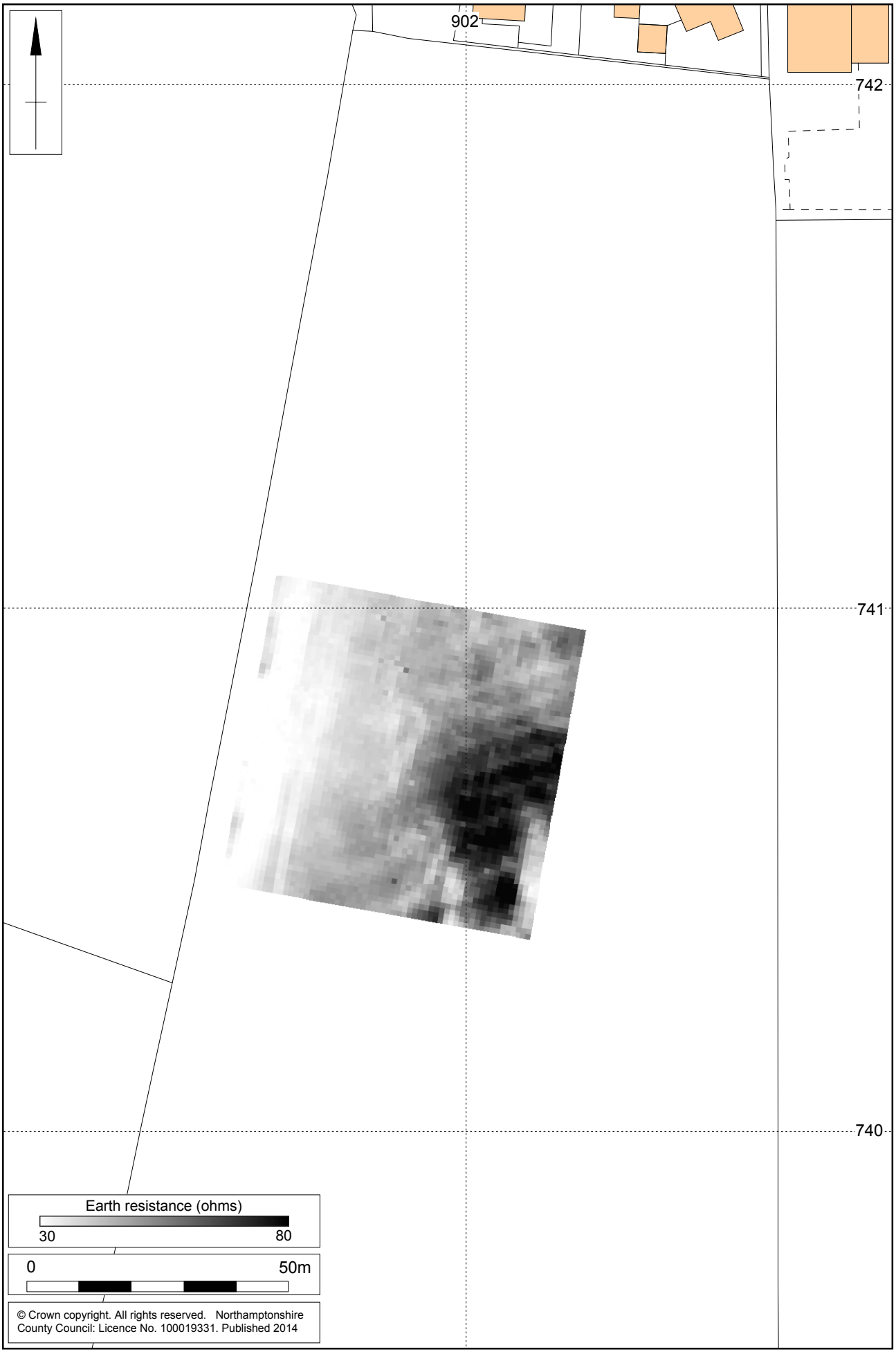
28 November 2014





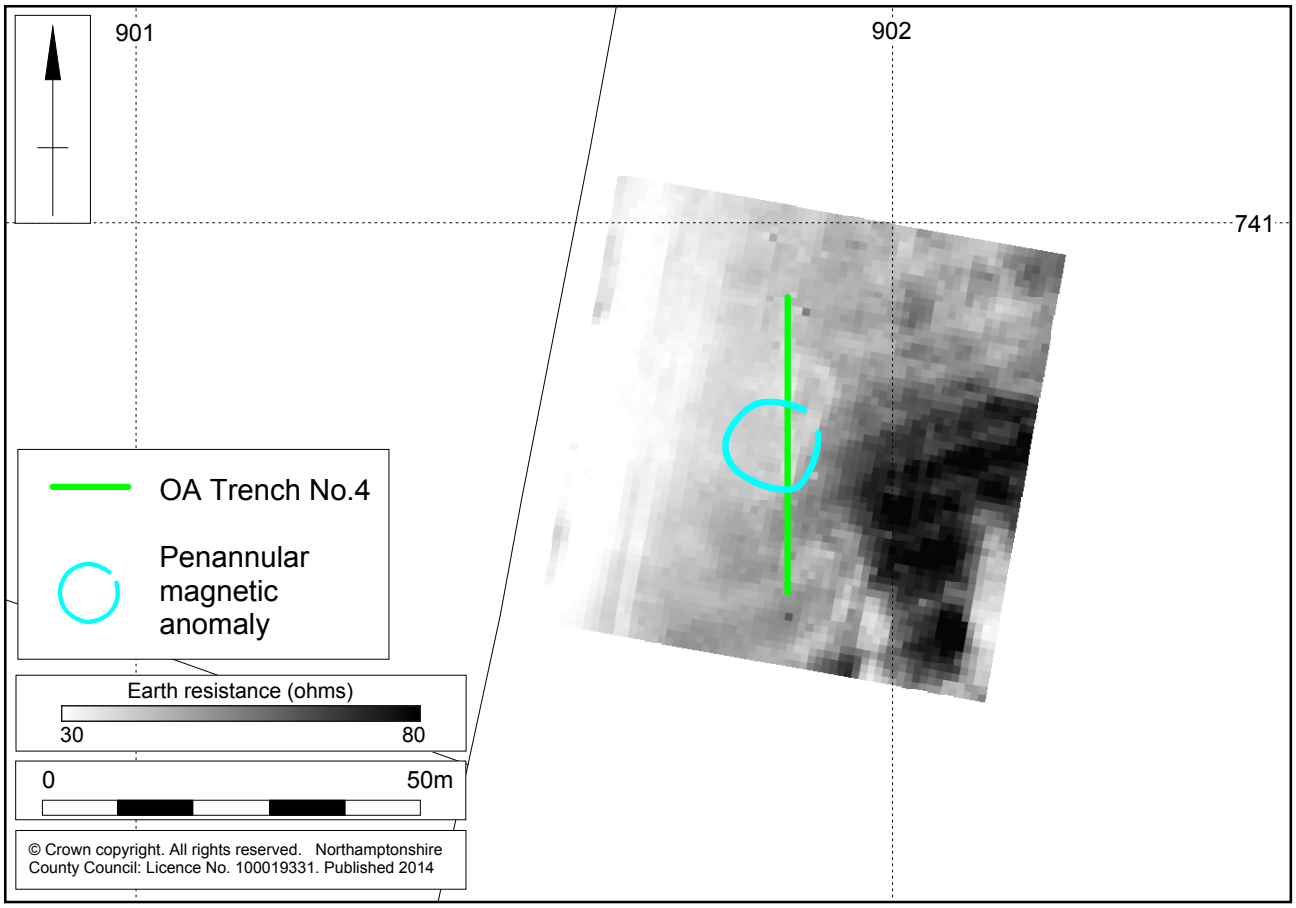
Scale 1:10,000

Site location Fig 1

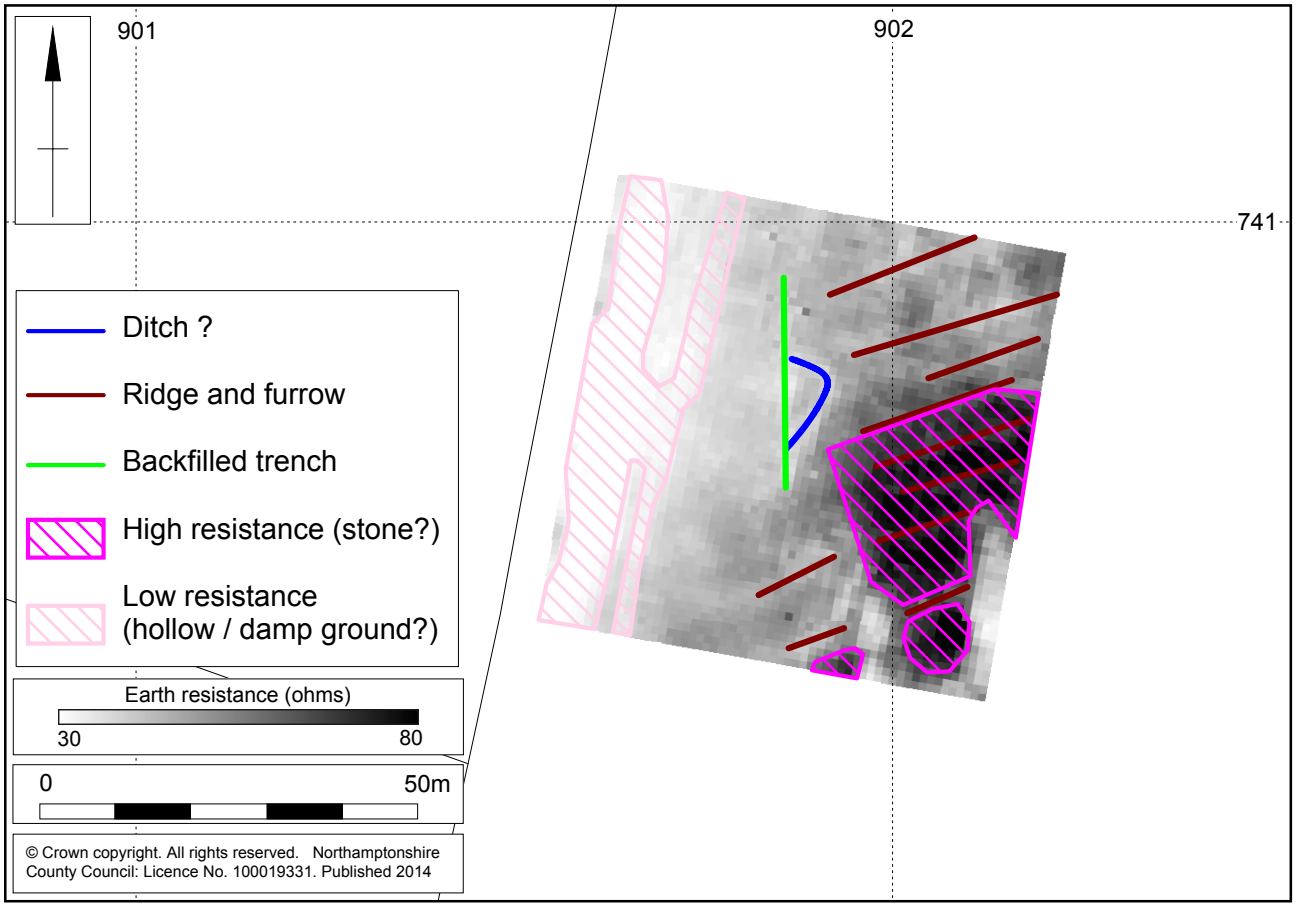


1:1000

Earth resistance survey results Fig 2



1:1000 Survey results and trench location Fig 3



1:1000 Earth resistance survey interpretation Fig 4

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