



# Northamptonshire Archaeology

Archaeological geophysical survey of a proposed  
car park site at River Nene Country Park,  
Upton, Northampton



## Northamptonshire Archaeology

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Northamptonshire  
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Report 11/09

January 2011



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**QUALITY CONTROL**

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Verified by	Adrian Butler	<i>AB</i>	19/01/11
Approved by	Andy Chapman	<i>AC</i>	19/01/11

**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		
Project name	Archaeological geophysical survey of a proposed car park site at River Nene Country Park, Upton, Northampton	
Short description	Northamptonshire Archaeology was commissioned by Halcrow Group Ltd to carry out a magnetometer survey on 0.5ha of land at Upton, Northampton, prior to a proposed car park development. The survey identified one possible ditch and traces of ridge and furrow cultivation. However, much of the survey area was magnetically disturbed, demonstrating the widespread presence of hardcore and other magnetic debris within the topsoil.	
Project type	Geophysical survey (detailed magnetometry)	
Site status	None	
Previous work	Unknown	
Current Land use	Waste ground	
Future work	Unknown	
Monument type/ period	Undated ditch, medieval or post-medieval ridge and furrow	
Significant finds	N/A	
<b>PROJECT LOCATION</b>		
County	Northamptonshire	
Site address	Upton Valley Way East, Northampton	
Area	0.5ha	
OS Easting & Northing	SP 719 587	
Height OD	62m aOD	
<b>PROJECT CREATORS</b>		
Organisation	Northamptonshire Archaeology	
Project brief originator	Halcrow Group Ltd (James Goad)	
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	John Walford	
Project Manager	Adrian Butler	
Sponsor or funding body	Halcrow Group Ltd	
<b>PROJECT DATE</b>		
Start date	17 January 2011	
End date	January 2011	
<b>ARCHIVES</b>	<b>Location</b>	<b>Content</b>
Physical	N/A	
Paper	NA	Forms, maps and copy of report
Digital	NA	Dxf data, raw and processed survey files, report
<b>BIBLIOGRAPHY</b>		
Title	Archaeological geophysical survey of a proposed car park site at River Nene Country Park, Upton, Northampton	
Serial title & volume	11/09	
Author(s)	John Walford	
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Cover: View of survey area from south

Fig 1: Site location

1:25,000

Fig 2: Magnetometer survey results and interpretation

1:1000

**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF A  
PROPOSED CAR PARK SITE AT RIVER NENE  
COUNTRY PARK, UPTON, NORTHAMPTON  
JANUARY 2011**

*Northamptonshire Archaeology was commissioned by Halcrow Group Ltd to carry out a magnetometer survey on 0.5ha of land at Upton, near Northampton, prior to a proposed car park development. The survey identified one possible ditch and traces of ridge and furrow cultivation. However, much of the survey area was magnetically disturbed, demonstrating the widespread presence of hardcore and other magnetic debris within the topsoil.*

**1 INTRODUCTION**

Northamptonshire Archaeology (NA) was commissioned by Halcrow Group Ltd to carry out a magnetic gradiometer survey on 0.5ha of land to the north of Upton Valley Way East, Northampton, Northamptonshire (NGR SP 719587; Fig 1). The survey was intended to investigate the archaeological potential of the site prior to a proposed car park development.

**2 GEOLOGY AND TOPOGRAPHY**

The survey area comprises approximately 0.5ha of waste ground on the floodplain of the River Nene, lying slightly upstream of its confluence with the Wooton Brook. The land is broadly flat, and stands at an elevation of 62m aOD. Its geology is mapped as a drift of sand and gravel overlying deposits of the Middle Lias series (Geological Survey of Great Britain, 1990).

At the time of the survey, the land was overgrown and rubbish strewn, with several dense stands of teasel and burdock and one large water-filled hollow. Some of these obstructions could not be surveyed across; hence there are a number of gaps in the survey data (Fig 2).

**3 ARCHAEOLOGICAL BACKGROUND**

Although there are no archaeological records relating to the survey area itself, the surrounding is rich in remains of all periods. A possible Neolithic hengiform monument has recently been discovered 800m to the south-east, near Banbury Lane (Simmonds and Butler 2010) and Bronze Age round barrows are known at several nearby locations (eg Northamptonshire HER 8865/0/1 and 5132/0/3). There are also various sites of Iron Age and Romano-British settlement in the vicinity. Cropmarks suggest that one such site lies 300m to the west of the present survey area (NHER 5091). To the south, a number of sites investigated in advance of the Swan Valley and Pineham developments (Holmes & Chapman 2005; Brown 2007; Carlyle 2007) all lie on low ground to the west of Hunsbury hillfort. To the north of the river, extensive Iron Age settlement and Roman settlement at the western margins of Duston Roman town, have also been excavated (Walker & Maull 2010; Foard-Colby & Walker 2010).

There is little evidence for Saxon activity in or around the survey area, and it appears that the nearest focus of medieval and post-medieval settlement lay on the other side of the River Nene, at Upton. The historic Ordnance Survey mapping shows the survey area to have been fields during the late nineteenth and twentieth centuries.

#### 4 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 divided into 30m grid-squares by means of tape measure and optical square, and tie in measurements taken to the adjacent field boundaries. 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). Work also complied with the Written Scheme of Investigation produced by NA (NA 2010).

The survey data were processed using Geoplot 3.00u 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 a grey scale plot which has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2, display range +/- 4nT black/white). An interpretative overlay has been produced and is also shown in Figure 2.

#### 5 SURVEY RESULTS

The survey data contains a series of parallel linear anomalies, trending from east-north-east to west-south-west. These indicate the presence of ploughed-out ridge and furrow cultivation, which is likely to be of medieval origin.

Towards the north-western corner of the survey area there is a single weakly positive linear anomaly, aligned almost perpendicular to the ridge and furrow. This could perhaps indicate an infilled ditch, although it is hard to be certain with such a small and ephemeral anomaly.

The central and southern parts of the data are dominated by intense dipolar magnetic noise arising from a dense spread of hardcore rubble and surface rubbish. A few isolated dipolar anomalies occur elsewhere in the data, indicating individual pieces of ferrous scrap.

## 6 CONCLUSIONS

The survey results do not indicate the presence of any substantial archaeological remains within the proposed development area. One possible ditch was identified, and traces of medieval or later ridge and furrow cultivation were also detected. However, the majority of the survey area was affected by magnetic disturbance, caused by the presence of modern hardcore and ferrous debris within the topsoil.

Such an extensive area of magnetic noise would be sufficient to mask any underlying archaeological features from detection, and the reader should take this into consideration when assessing the significance of the data presented here.

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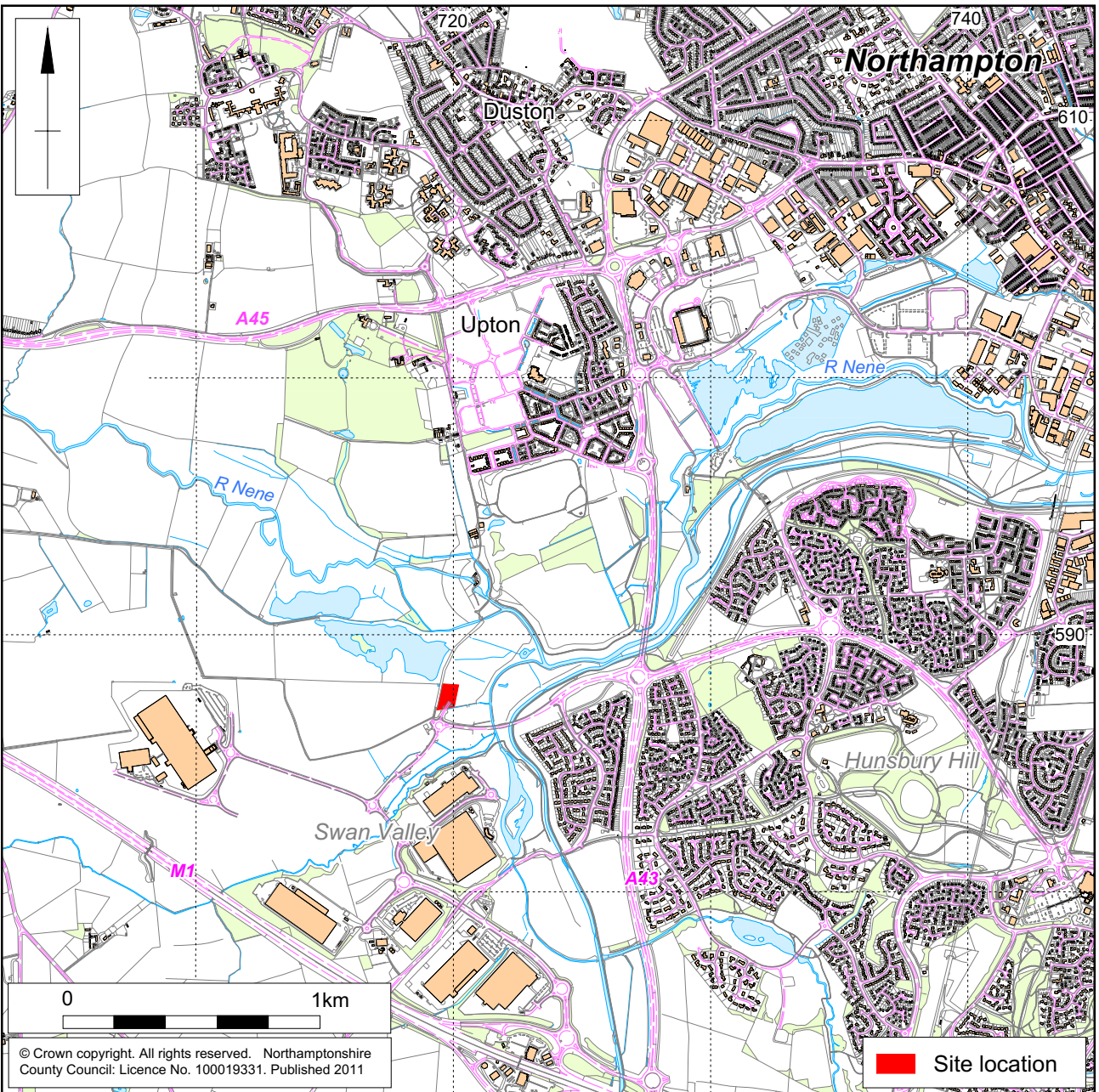
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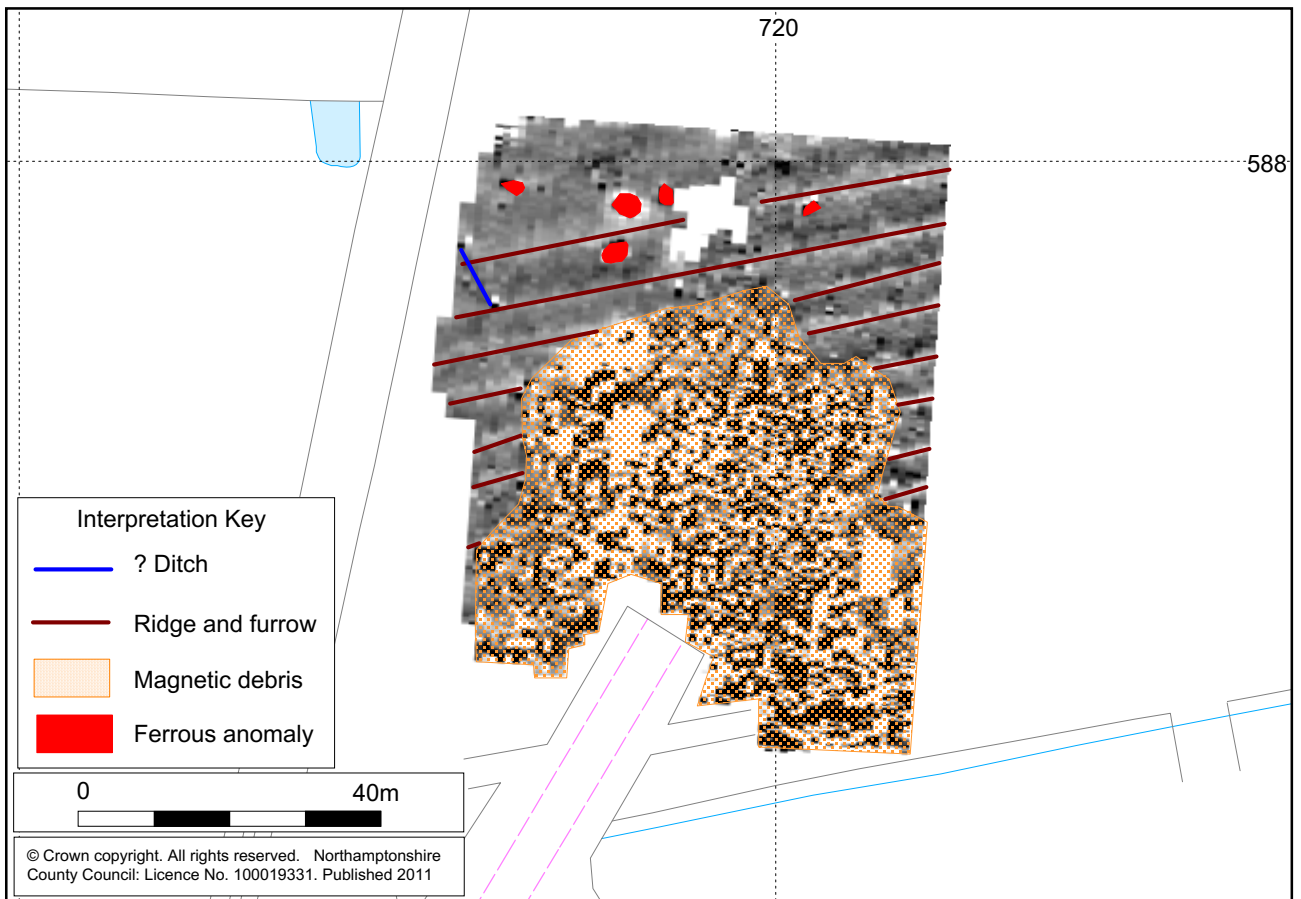
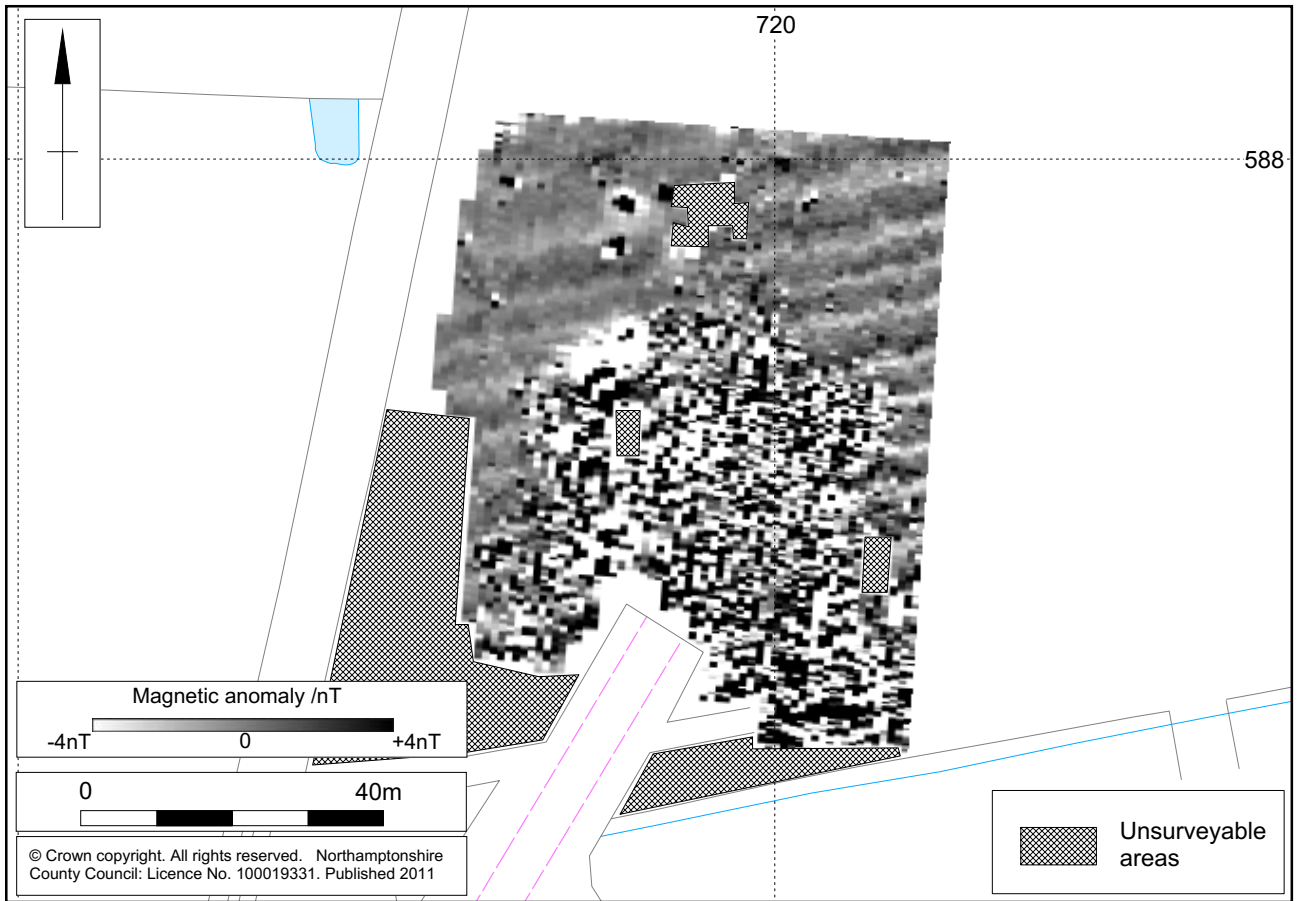
19 January 2011



Scale 1:25,000

Site location Fig 1





Scale 1:1000

Magnetometer survey results (above) and interpretation (below) Fig 2



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