



Northamptonshire Archaeology

Archaeological Geophysical Survey at Plots 8W and 9, Middlemore Farm Daventry, Northamptonshire



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**Northamptonshire
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Report 11/172

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QUALITY CONTROL

	Print name	Signed	Date
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Verified by	Adrian Butler	<i>AB</i>	24/08/2011
Approved by	Andy Chapman	<i>AC</i>	24/08/2011

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey at Middlemore Farm Plots 8W and 9, Daventry, Northamptonshire	
Short description	Northamptonshire Archaeology was commissioned by Bellway Homes to carry out a magnetometer survey on 4ha of land at Plots 8W and 9, Middlemore Farm, Daventry, Northamptonshire. A medieval ridge and furrow cultivation system was identified running north-east to south-west across the two areas. Other than that, no archaeological features were identified and the sites were covered in a random distribution of iron debris.	
Project type	Geophysical survey	
Site status	None	
Previous work	Leigh 2002 & 2003; Wilson 2004	
Current Land use	Pasture	
Future work	Unknown	
Monument type/period	Medieval ridge and furrow earthworks, undated linear feature	
Significant finds	None	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Plots 8W and 9, Middlemore Farm, Daventry	
Study area	4ha	
OS Easting & Northing	456195 264856	
Height OD	149m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	-	
Project Design originator	NA	
Director/Supervisor	John Walford	
Project Manager	Adrian Butler	
Sponsor or funding body	Bellway Homes	
PROJECT DATE		
Start date	09/08/2011	
End date	23/08/2011	
ARCHIVES	Location	Content
Physical		
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological Geophysical Survey at Plots 8W and 9, Middlemore Farm, Daventry, Northamptonshire	
Serial title & volume	NA report 11/172	
Author(s)	A Butler & A Yates	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY
AT PLOTS 8W AND 9, MIDDLEMORE FARM
DAVENTRY, NORTHAMPTONSHIRE
AUGUST 2011**

ABSTRACT

Northamptonshire Archaeology was commissioned by Bellway Homes to carry out a magnetometer survey on 4ha of land at Plots 8W and 9, Middlemore Farm, Daventry, Northamptonshire. A medieval ridge and furrow cultivation system was identified running north-east to south-west across the two areas. Other than that, no archaeological features were identified and the sites were covered in a random distribution of iron debris.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by Bellway Homes to undertake a detailed geophysical survey on 4ha of land at Plots 8W and 9 and Middlemore Farm, Daventry, Northamptonshire (NGR 456195 264856; Fig 1).

The works were requested by the County Archaeological Advisor to Northamptonshire County Council in accordance with Planning Policy Statement 5 (PPS5; DCLG 2010). Outline planning consent for the site has been granted, the works were requested in order to inform a forthcoming reserved matters application.

2 GEOLOGY AND TOPOGRAPHY

The development area is located on flat ground c2.5km to the north of Daventry town centre. Development at Middlemore Farm has been in progress since 2002. Plots 8W and 9 lie to the west of the existing housing zone. A road associated with the development forms the eastern boundary of Plots 8W and 9. The western boundary of the site is formed by a disused railway line between Daventry and Braunston. Fields lie to the north and south of the site.

The underlying geology comprises Middle Lias Silts and Clays as defined by Northamptonshire County Council Environmental Services Laboratory (ESL 1987, 1999).

3 ARCHAEOLOGICAL BACKGROUND

A substantial amount of archaeological work has already been undertaken in advance of the earlier developments. In brief, prehistoric activity comprising a flint scatter (HER1258) was recorded adjacent to the current study area. Portions of a small Roman settlement comprising ditches, pits and artefact scatters was excavated between 2002 and 2004 (Leigh 2002 and 2003, Wilson 2004 and HER639/0/2, 648). To the north-west of the site lies a partially defined enclosure identified from aerial photographs (HER658).

The site lies some distance from the core of the medieval town of Daventry and is likely to have been farmland in the medieval period. The HER and aerial photographs (RAF 1947) suggest the presence of ridge and furrow over much of the Middlemore Farm development area (HER5731/0/1, Wilson 2004).

Middlemore Farm house has been dated to around 1752 (HER649/0/10, 649/0/11). The Grand Union Canal courses through the Braunston tunnel (HER442/1/13) to the north of the site. There are a number of brick built air vents along its route.

4 METHODOLOGY

The geophysical survey was carried out in accordance with the guidelines of English Heritage and the Institute for Archaeologists (EH 2008 & Gaffney, Gater and Ovenden 2002).

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 gradiometer coverage comprised a total of 13 whole and partial 30m x 30m grid-squares. The survey area was set-out manually by tape measure and optical square. Each grid square was traversed at rapid walking pace in zigzag mode and magnetic data was recorded every 0.25m along traverses spaced at 1m intervals. As the earthworks were sizeable the decision was made to walk transects along the earthworks.

The data was analysed using Geoplot 3.00v software. Low (negative) magnetism is shown as white and high (positive) magnetism as black in the resultant greytone plots. Minimal manipulation was carried out on the data as the raw data is generally of high quality, ensuring that the data-set is uniform (EH 2008, 41-44). Thermal drift in the four fluxgate sensors may slightly alter the balanced level of the gradiometer over a survey, causing 'heading' errors visible as striping along traverses in the data. The 'Zero Mean Traverse' function was applied in order to bring the average level of each data line into a balanced mean of zero. This function retains the gradient of the magnetic field whilst reducing the mean so that each traverse is directly comparable.

The processed data was examined for weak magnetic anomalies under a variety of viewing regimes. The data is presented here in the form of a grey tone image highlighting a broad magnetic anomaly scale (-4.0nT / +4.0nT) which in turn was rectified to the Ordnance Survey base (Fig 2). Interpretative plots have been generated from the results (Fig 3). A plot of the unprocessed data (-4.0nT / +4.0nT) is included for reference (Fig 4).

5 SURVEY RESULTS

Plot 8W

Parallel weak positive anomalies orientated north-west to south-east across Plot 8W indicate a former ridge and furrow cultivation scheme. Small dipolar (intense paired positive-negative) anomalies, probably representing ferrous debris, were detected

widely across the area. These concentrate in particular along the north-easterly axis of the plot, probably along a former boundary. Ferrous anomalies were also located densely on the edge of the disturbed and overgrown ground on the north-eastern side of the area. A south-east to north-west orientated line of dipoles in the west of the plot is likely to represent a ceramic field drain.

Plot 9

As with the more northerly Plot, parallel weak positive anomalies were detected indicating ridge and furrow orientated north-west to south-east. Ferrous debris was again distributed across the area.

6 CONCLUSION

Magnetometer survey of Middlemore Farm, Plots 8W and 9 revealed a former medieval ridge and furrow cultivation scheme on a north-west to south-east alignment across the whole area. No readily apparent anomalies stemming from archaeological sources were detected. A former north-east to south-west aligned boundary can be assumed through the centre of Plot 8W. Small pieces of iron debris were identified over both areas.

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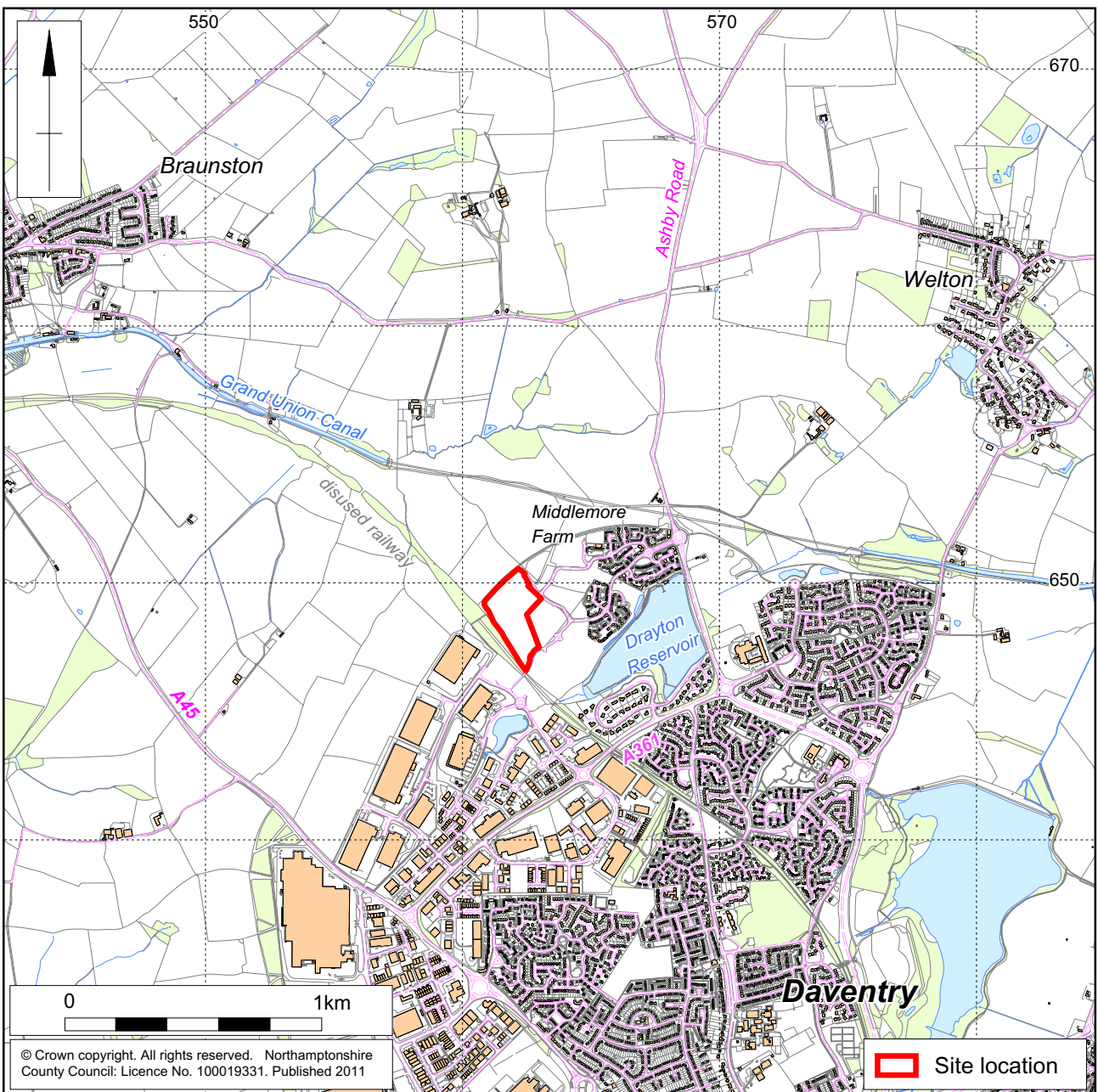
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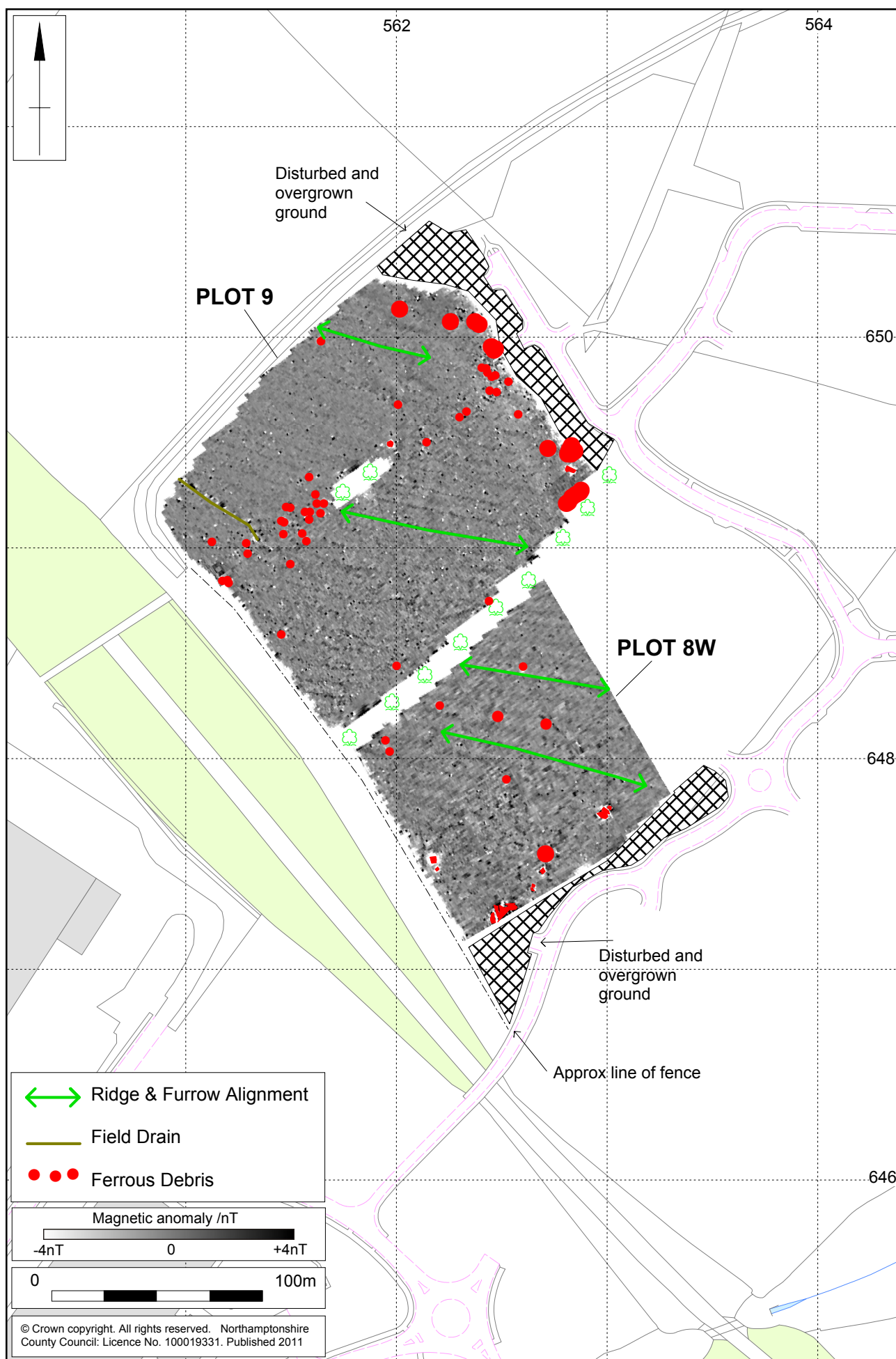
Scale 1:25,000

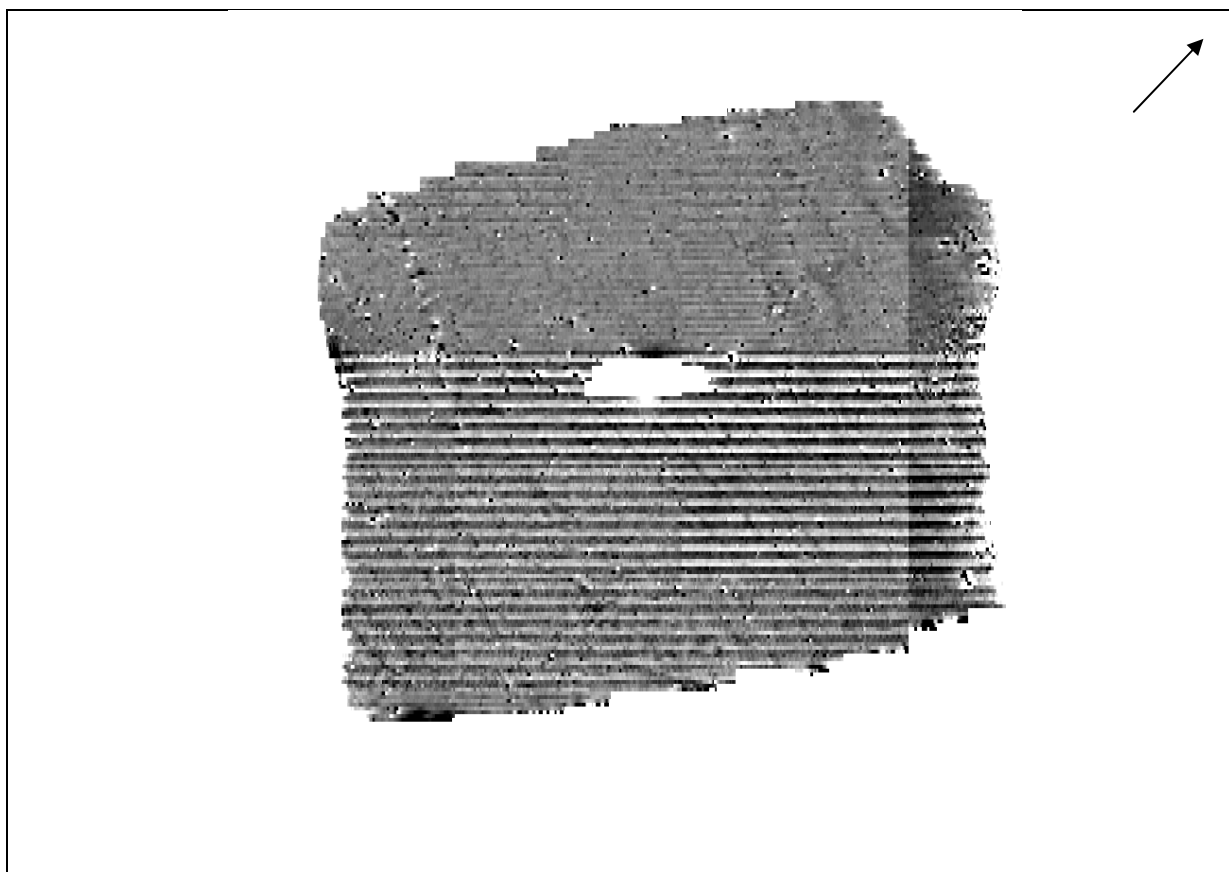
Site location Fig 1



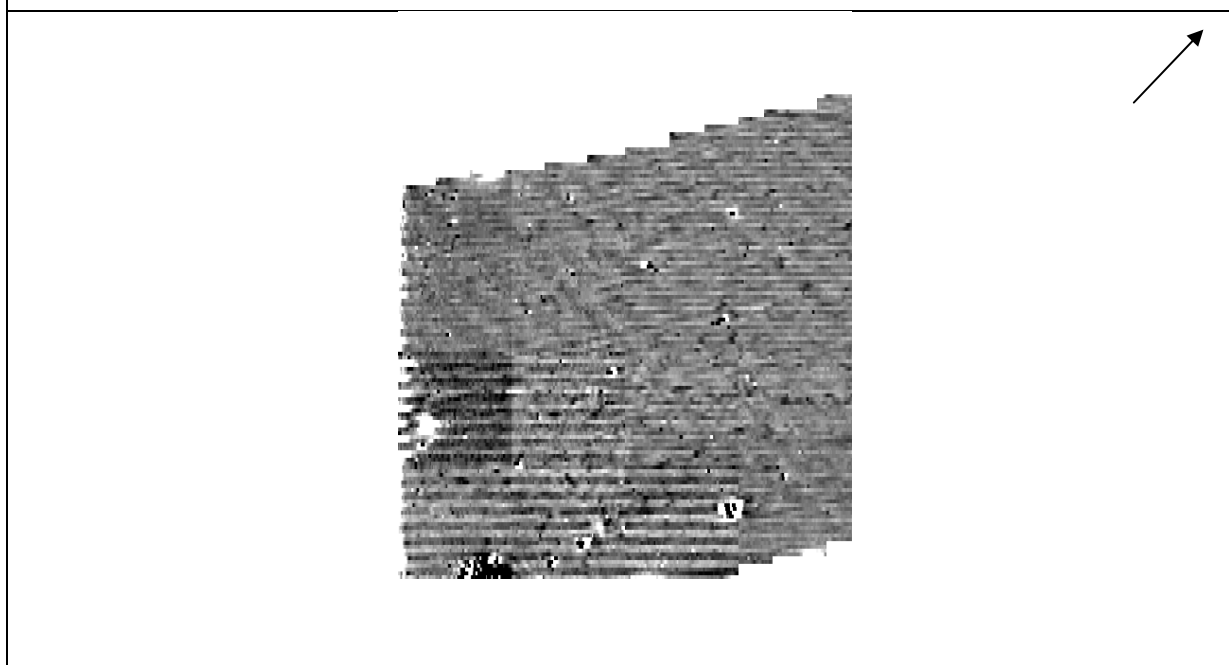
1:2500

Magnetometer Survey Results Fig 2





Plot 9 : +4nT / -4nT Black / White



Plot 8W : +4nT / -4nT Black / White

Scale 1:2500

Magnetometer Results (unprocessed) Fig 4



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