

NORTHAMPTONSHIRE ARCHAEOLOGY

GEOPHYSICAL SURVEYS AT WHITEHALL FARM,

NETHER HEYFORD, NORTHANTS

MARCH 2002

NORTHAMPTONSHIRE ARCHAEOLOGY
NORTHAMPTONSHIRE COUNTY COUNCIL

JUNE 2002

*GEOPHYSICAL SURVEYS AT WHITEHALL FARM,
NETHER HEYFORD, NORTHANTS*
MARCH 2002

CONTENTS

<i>1 INTRODUCTION</i>	<i>1</i>
<i>2 BACKGROUND</i>	<i>2</i>
<i>3 TOPOGRAPHY AND GEOLOGY</i>	<i>2</i>
<i>4 GEOPHYSICAL SURVEY</i>	<i>2</i>
<i>5 ANALYSIS AND INTERPRETATION OF RESULTS (FIGS 3-8)</i>	<i>3</i>
<i>6 CONCLUSIONS</i>	<i>4</i>
<i>7 BIBLIOGRAPHY</i>	<i>4</i>

ILLUSTRATIONS

- Fig. 1 Location plan of sites surveyed with Watling Street Roman Road and Saxon burial site,
Scale: 1:12500
- Fig. 2 Location of survey areas – Sites 1-3, scale: 1:2500
- Fig. 3 Magnetometer Survey plot of additional area at Roman villa site, scale: 1:1000
- Fig. 4 Interpretation plot, scale 1:1000
- Fig. 5 Saxon Burial site, Site 2, scale:1:1000
- Fig. 6 Interpretation plot, scale 1:1000
- Fig. 7 Roman Road, Watling Street, Site 3, scale 1:1000
- Fig. 8 Interpretation plot, scale 1:1000

ABSTRACT

Three areas of land at Whitehall Farm, Nether Heyford, Northants were subject to geophysical survey. Northamptonshire Archaeology carried out the work in March 2000. Although few significant anomalies were detected, one area produced magnetic signatures indicating possible burials and a second area located part of Watling Street Roman Road. Overall most of the anomalies detected were probably of a geological nature.

INTRODUCTION

Three sites were surveyed by magnetometer on land at Whitehall Farm, Nether Heyford, Northants (NGR). The work was carried out by Northamptonshire Archaeology in March 2002 on behalf of Stephen Young and Nick Adams as part of the Whitehall Farm Roman Villa Project. The survey was funded by a grant from the Nene Valley Steering Committee via South Northants District Council to undertake the work.

The sites lie to the west of the village of Nether Heyford, to the south and west of Whitehall Farm and immediately to the east of the modern A5 (Fig 1). The modern trunk road substantially follows the line of the former Roman Road Watling Street. Three sites were surveyed:

1. Extension of a previous geophysical survey carried out at Whitehall Farm Roman Villa (Masters 1999 and 2000)
2. The location of a previously known Saxon burial site, in order to establish whether further burials lay in close proximity and whether a ditch surrounded them (Upson-Smith 2000)

3. Watling Street Roman Road, in order to establish whether a Roman field system existed in the vicinity of the road.

2 BACKGROUND

Whitchall Roman villa is situated west of Watling Street Roman Road and 1.75km west of Nether Heyford Roman Villa (Fig 1). Trial excavation carried out by Stephen Young during 1999 revealed wall foundations and floor surfaces as well as ditches relating to the enclosures detected by geophysical survey (Masters 1999).

Additional geophysical survey carried out in March 2000 established the extent of the Roman villa estate along with a complex of trackways, enclosures and a pit alignment (Masters 2000).

In September 2000, a rescue excavation of two Anglo-Saxon burials, one containing a sword, was carried out on this site (Upson-Smith 2000).

3 TOPOGRAPHY AND GEOLOGY

Site 1 lies on a slight plateau above the Grand Union Canal. The ground slopes from west to east down towards the Canal. Site 2 is located on a slight plateau with the ground gradually sloping away towards the north and west. Site 3 lies on fairly gently sloping ground, which slopes away towards the east. The geology of the survey areas is comprised of Glacial Sand and Gravel underlain by Northampton Sand and Ironstone (British Geological Survey sheet 185, Northampton, published 1980).

4 GEOPHYSICAL SURVEY

The magnetometer survey was carried out using two Geoscan Research FM36 Fluxgate Gradiometers at three separate sites (Fig 2). Parallel traverses spaced 1m apart were made

from south to north at walking pace on Sites 1 and 3 whilst Site 2 was traversed in an east-west direction. Individual readings were taken at 0.25m intervals using a sample trigger for rapid recording of data. The sensor alignment or balance was checked upon completion of survey within each grid square and tilt error maintained below $\pm 2\text{nT}$ per ± 20 -degree tilt.

The data were analysed using Geoplot 3.0 software. Low magnetism is shown as white and high magnetism as black in the resultant plots.

5 ANALYSIS AND INTERPRETATION OF RESULTS (FIGS 3-8)

Site 1 (Figs 3 & 4)

A further seven grids were surveyed on the north side of the Roman Villa close the bath-house suite, as an extension to the previous survey. A linear anomaly was detected denoting a water pipe originally connected to the old farmhouse. Parallel to this, a further linear anomaly denoted a former hedge line. Further anomalies associated with the settlement were also detected, including two parallel ditches which were continuations of features previously identified previously to the south.

Site 2 (Figs 5 & 6)

A total of ten grid-squares was surveyed to either side of a trackway. The area to the east of the trackway included the location of the Saxon burial. A total of eight grids was surveyed here. Close to the area of excavation, an individual anomaly was detected. These may denote possible burial remains or more likely spikes of geological origin. To the north of this, a large, amorphous, weakly magnetic anomaly can be seen in the resultant plot, measuring 12m by 5m. It may denote the remains of a series of intercutting graves or a large pit, or may represent features of geological origin. Immediately to the east of the amorphous feature is a curvilinear anomaly, which may indicate a ditch.

Two grids were placed to the west side of the track. The only anomaly detected was a pipeline, which is shown in the resultant plot as an area of positive and negative readings.

Site 3 (Figs 7 & 8)

The area surveyed was located across the line of Watling Street Roman Road in order to establish whether an extensive Roman field system existed in this area. A total of twelve grids, each 20m x 20m was surveyed. Two weak linear, magnetic anomalies were detected, possibly indicating the former side ditches of the Roman Road. Two further linear, weak, magnetic anomalies set at 45 degrees indicate possible field system. No further anomalies were detected.

6 **CONCLUSIONS**

The three locations surveyed produced no certain archaeological features. The reasons for this are partly due to the weak magnetic response of the underlying geology and partly to modern disturbances.

7 **BIBLIOGRAPHY**

- Masters, P 1999 *Geophysical Survey at Nether Heyford, Northants*, Northamptonshire Archaeology Report.
- Masters, P 2000 *Additional Geophysical Survey at Nether Heyford, Northants*
- Upson-Smith, T 2000 *Saxon Burials at Whitehall Farm, Nether Heyford, Northants*, Northamptonshire Archaeology Report
- RCHME 1982 *An Inventory of the Historic Monuments in the County of Northampton, Volume IV Archaeological Sites in South-west Northamptonshire*, Royal Commission on Historical Monuments England.

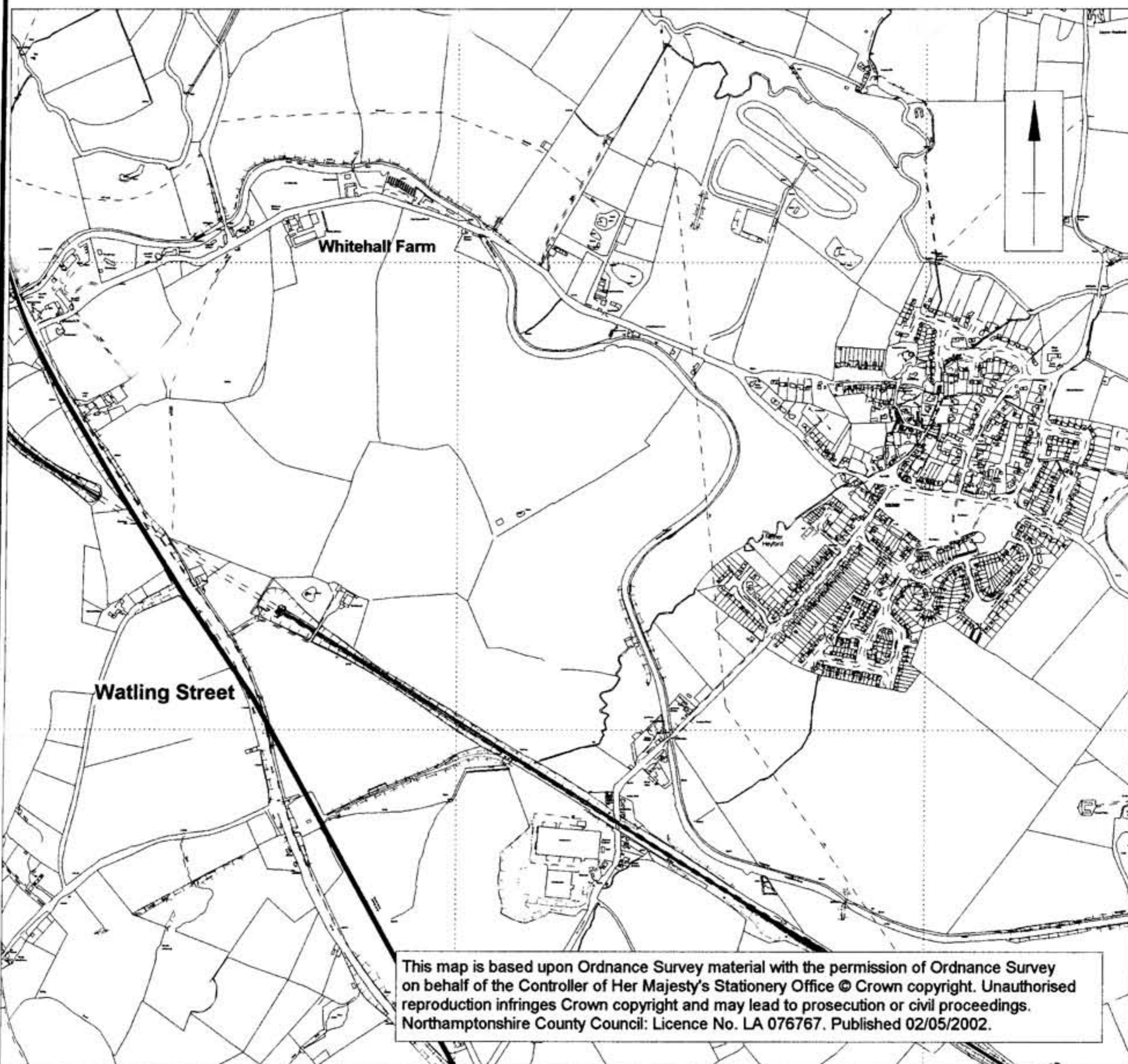
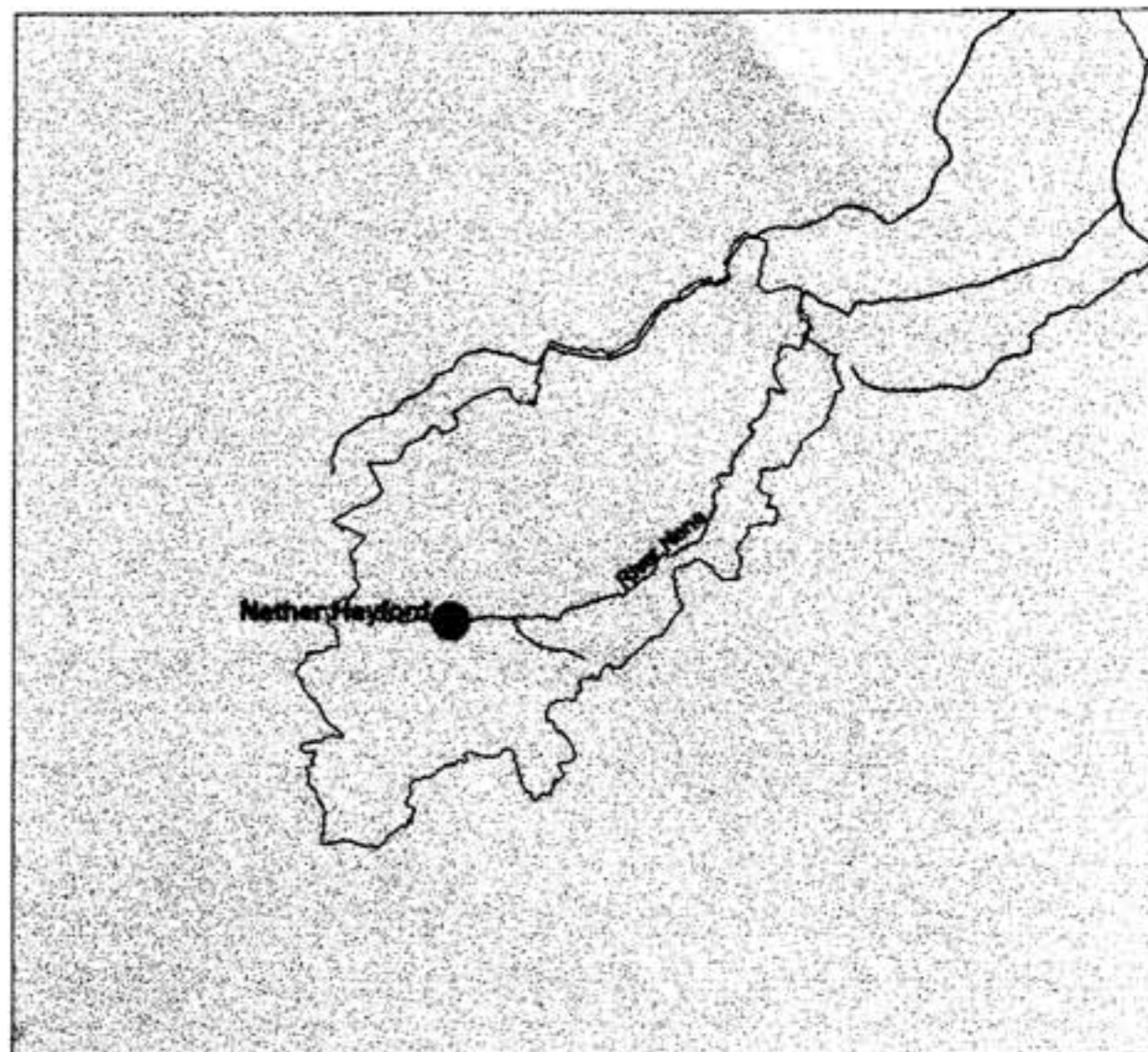
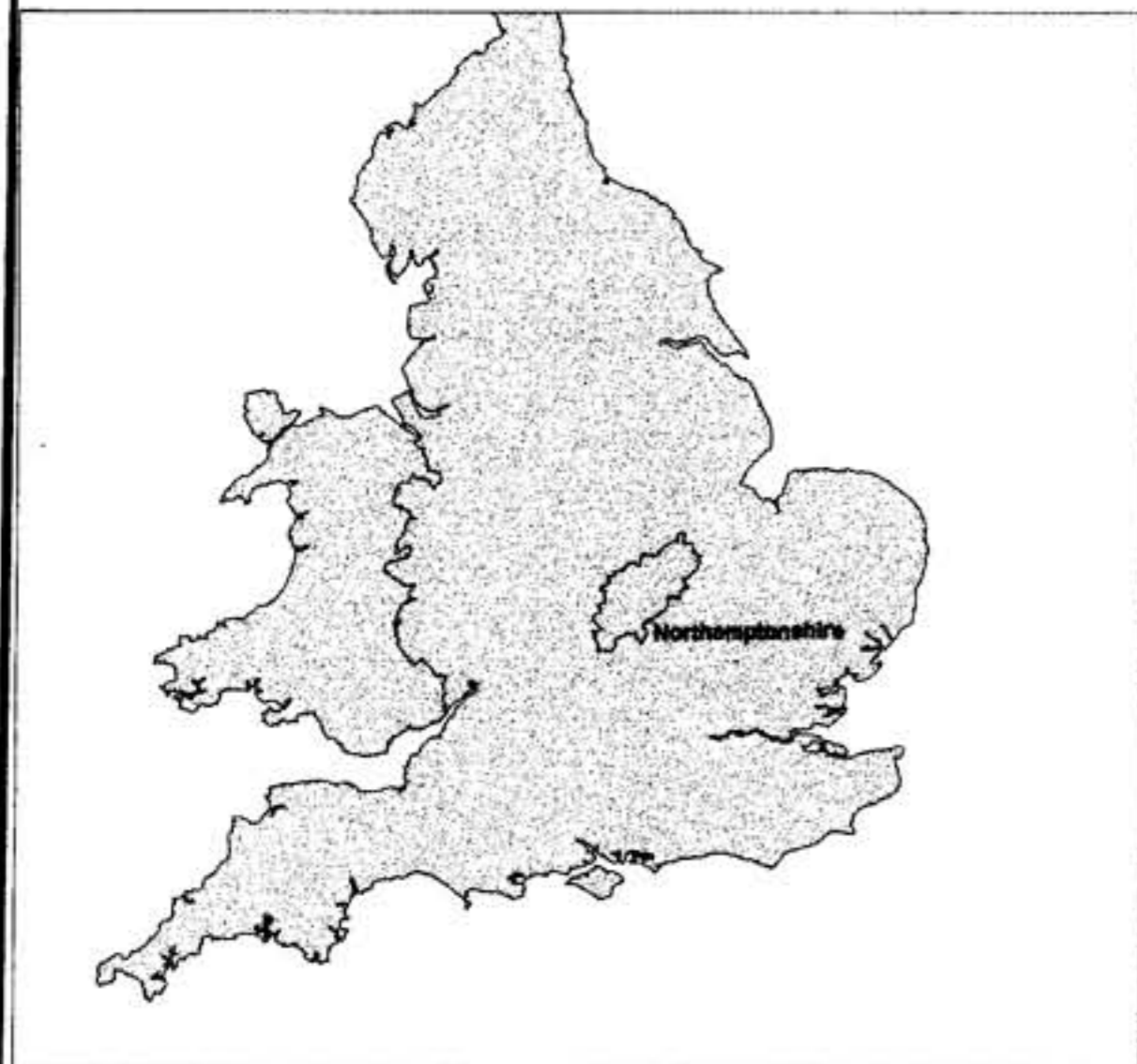


Fig. 1

Grey scale plot of raw data of Site 1

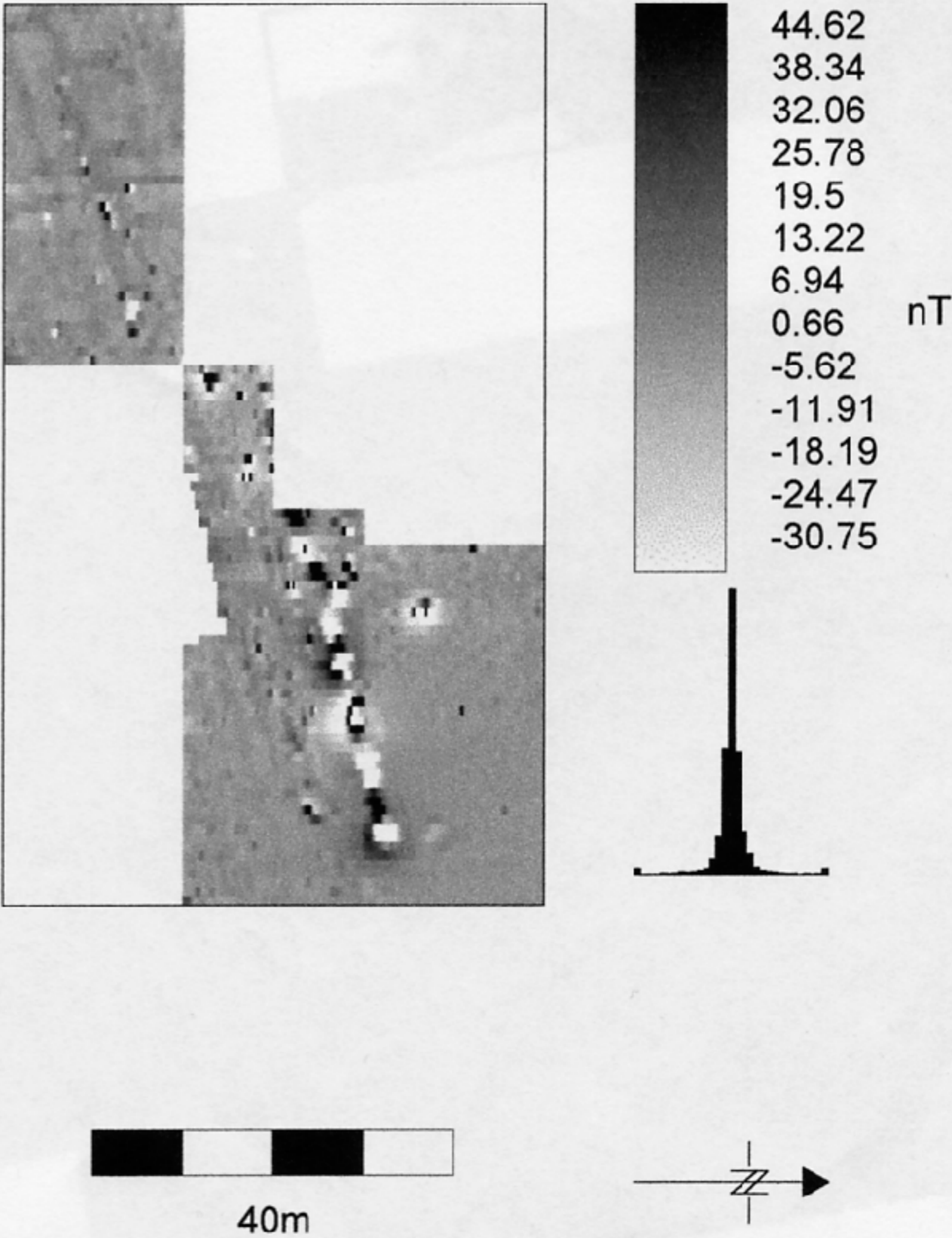
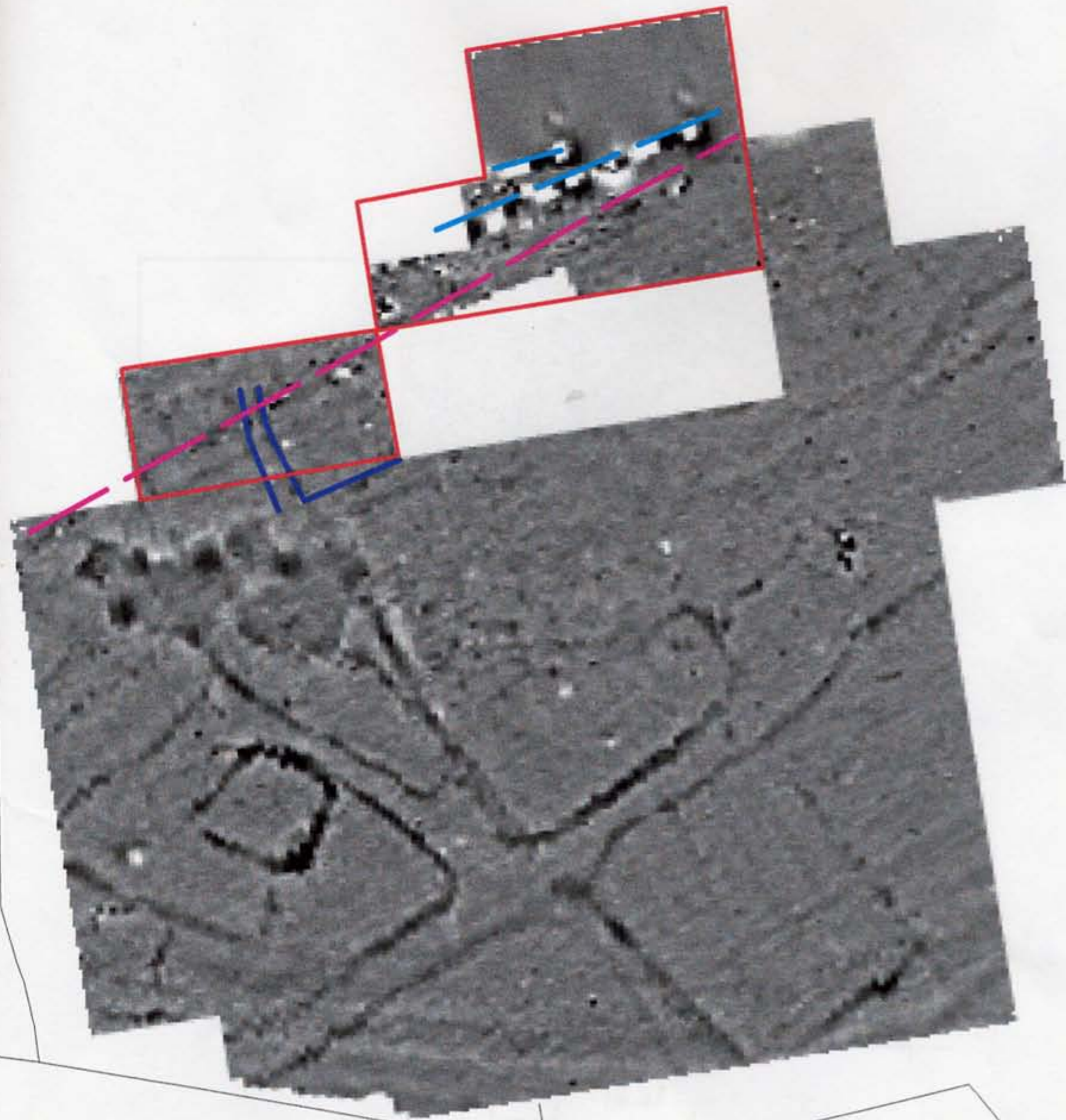


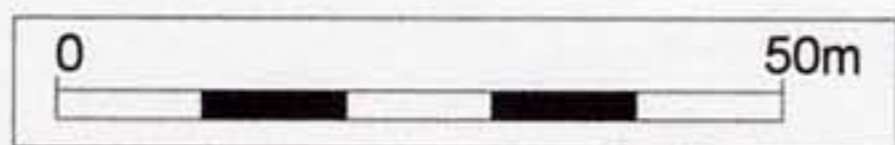
Fig. 3

Scale plot of raw data of Site 2



Previous geophysical survey

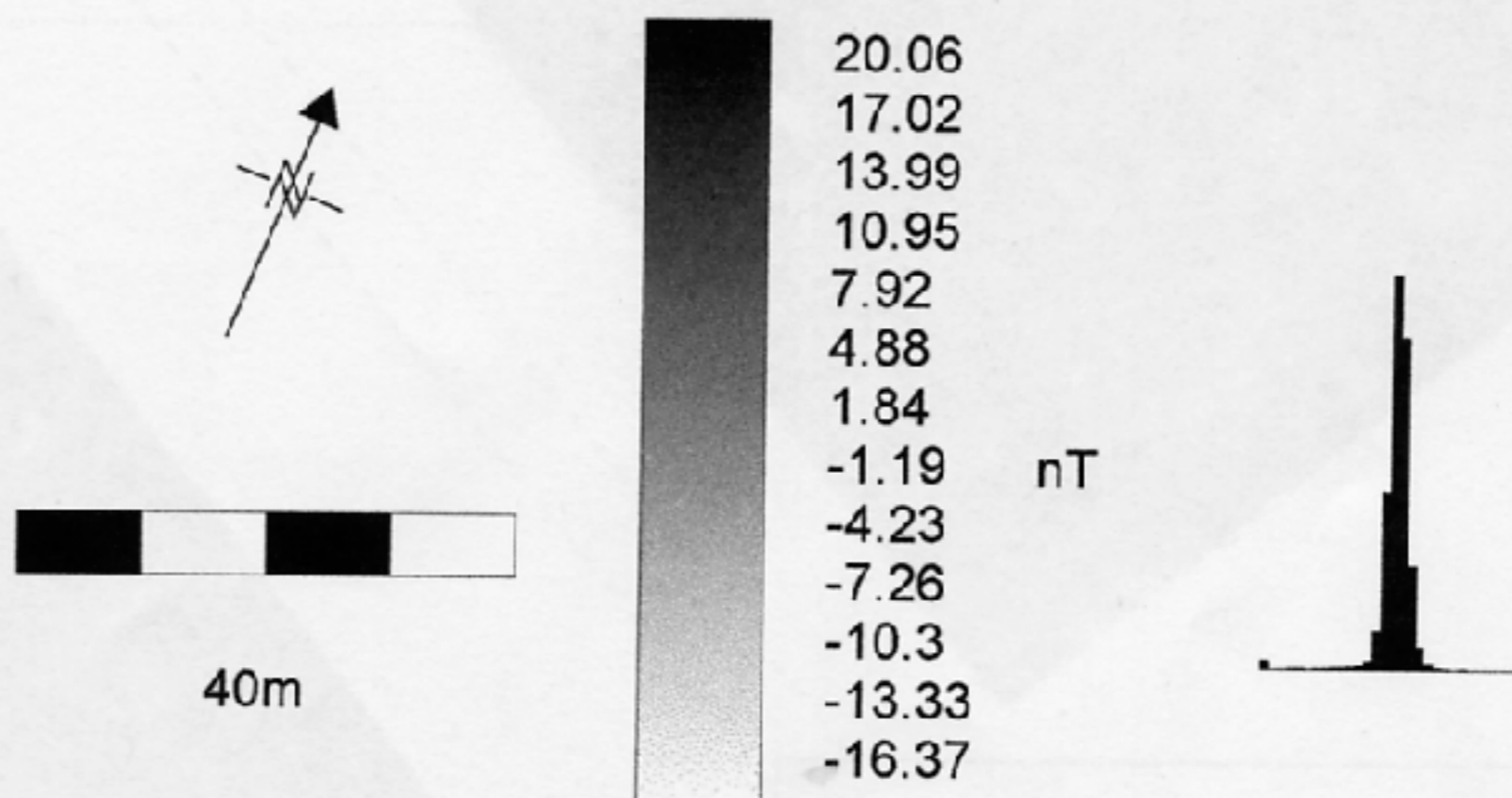
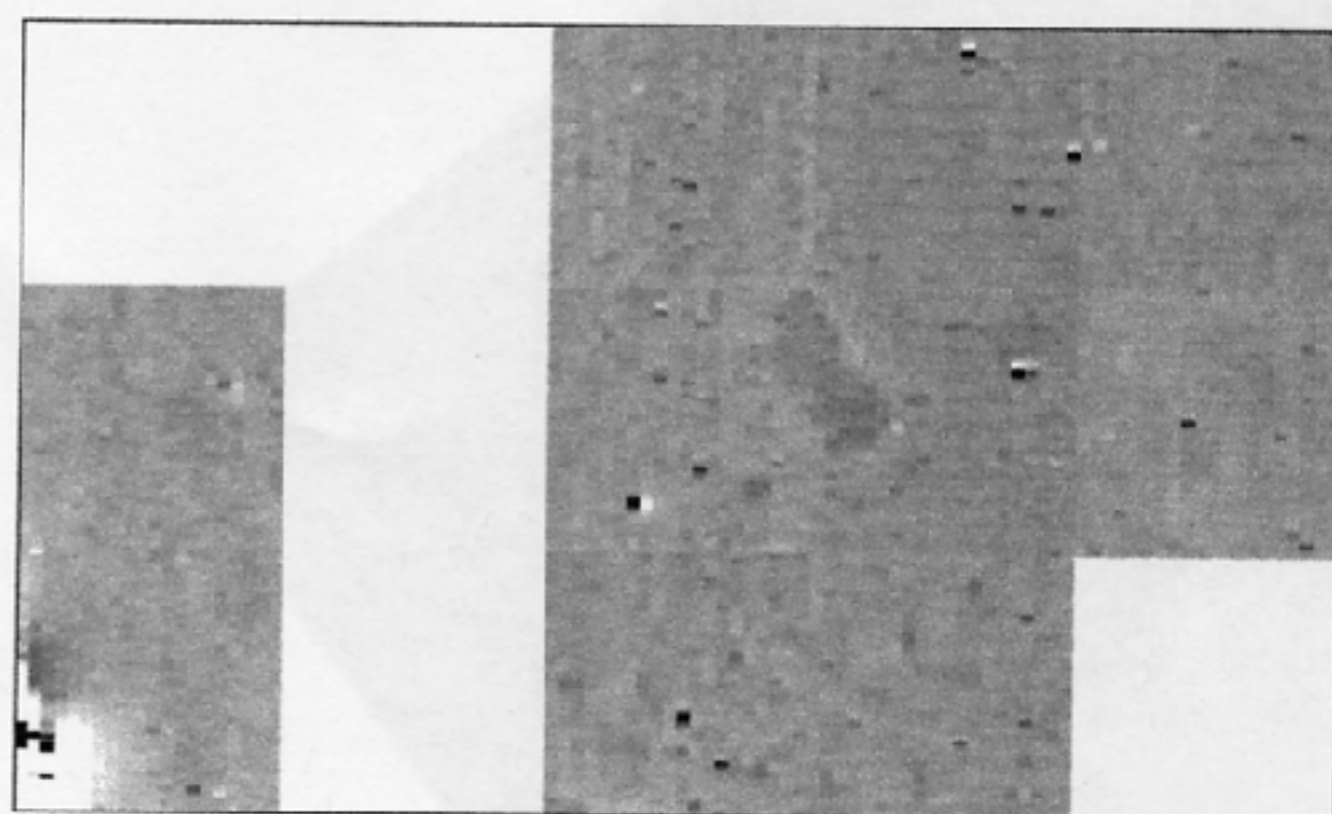
- KEY**
- Ditches
 - Modern pipes
 - Old hedge line
 - Survey grid 2002



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Northamptonshire County Council: Licence No. LA 076767. Published 21/06/2002.

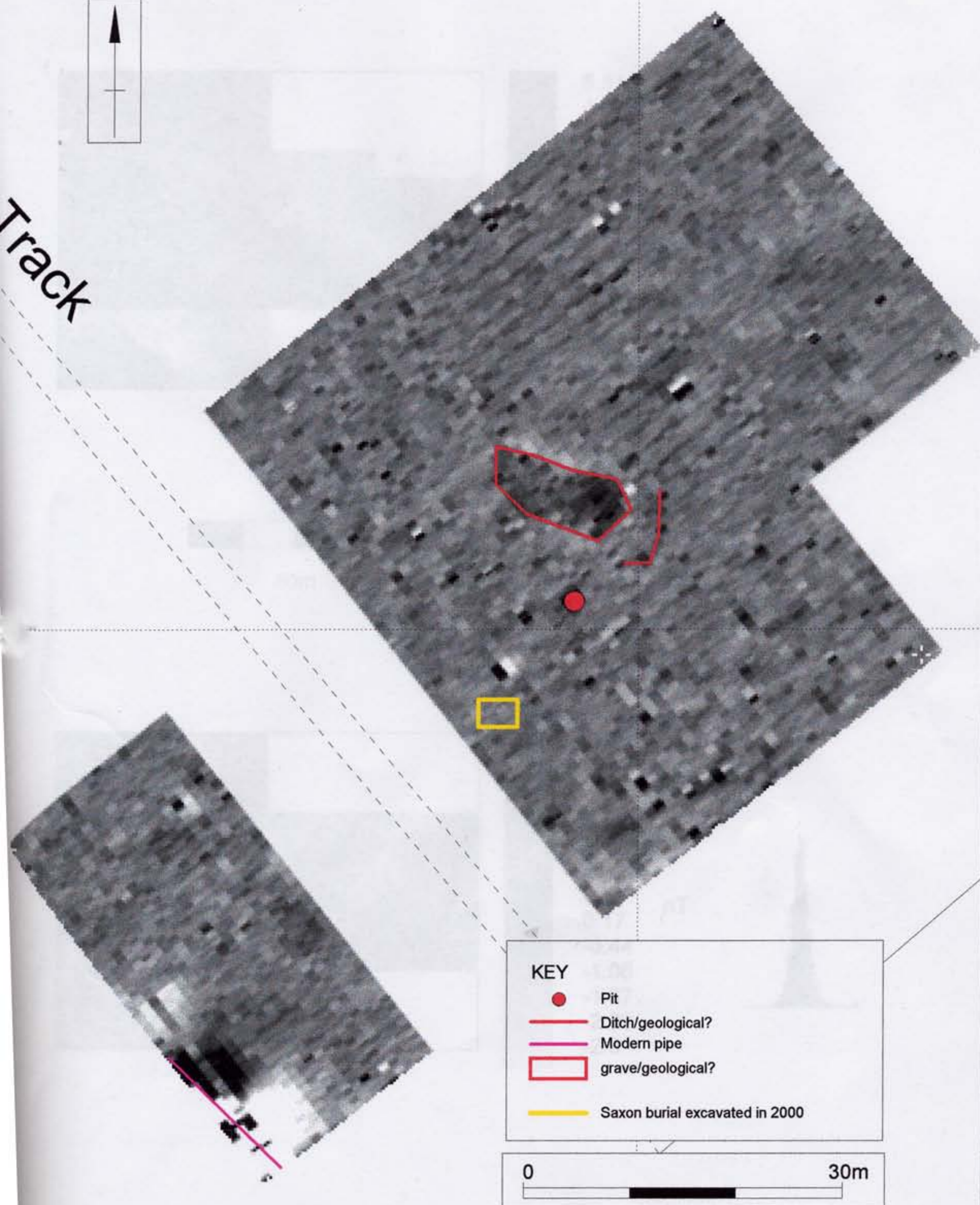
Fig. 4

Grey scale plot of raw data of Site 2





Track



KEY

- Pit
- Ditch/geological?
- Modern pipe
- ▭ grave/geological?
- ▭ Saxon burial excavated in 2000

0

30m

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Northamptonshire County Council: Licence No. LA 076767. Published 08/03/2002.

Fig.6

Grey scale plot of raw and enhanced data of Site 3

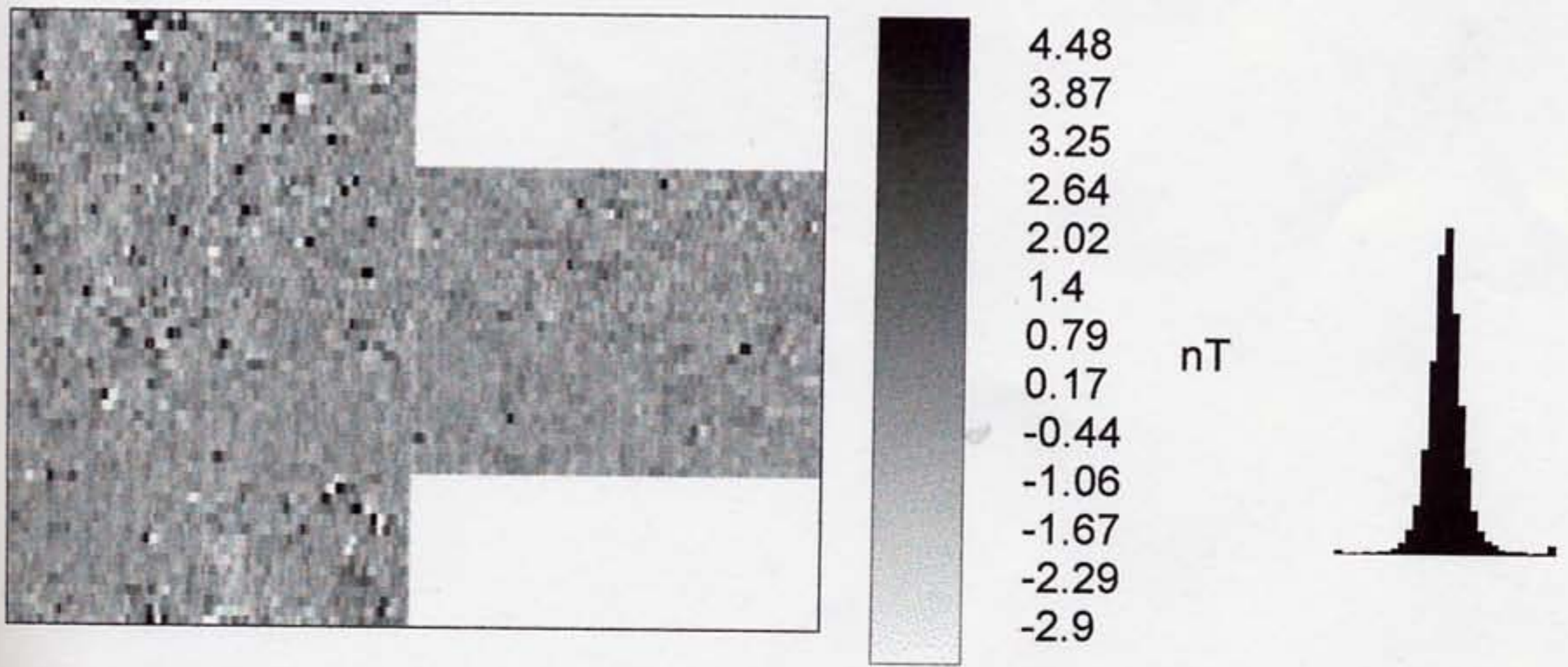
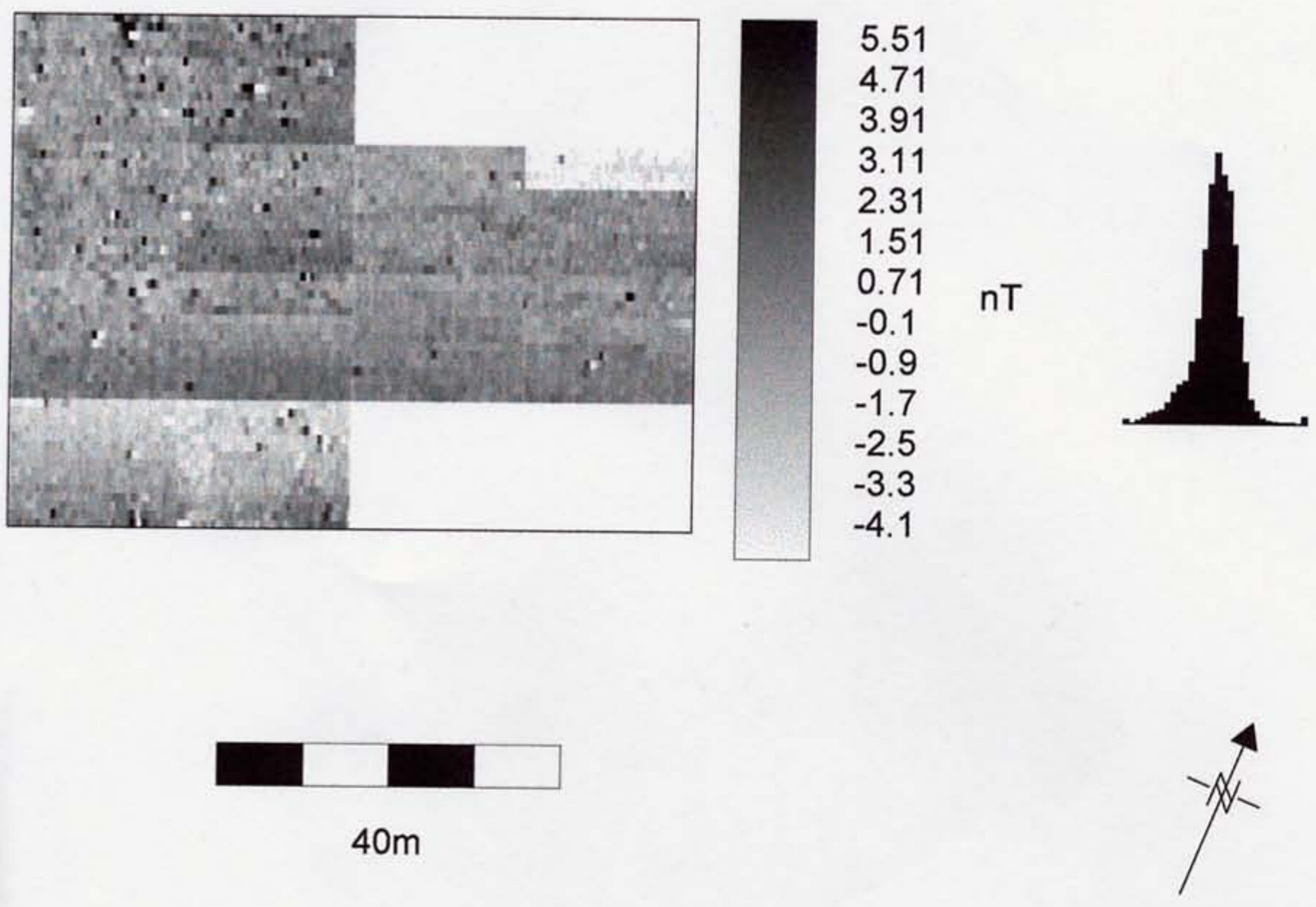




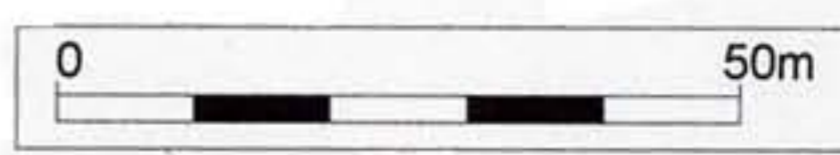


Fig. 7

KEY

-  Pit?
-  Ditch/geological?
-  Modern pipe
-  grave/geological?



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Northamptonshire County Council: Licence No. LA 076767. Published 08/03/2002.

Fig. 8

STAFF

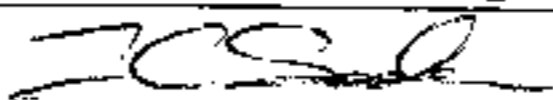
Project Manager S Parry MA MIFA

Text P Masters

Illustrations P Masters BA HND PIFA

Fieldwork P Masters and Ian Fisher BSc

QUALITY CONTROL

	Print name	Signed	Date
Checked by	M Holmes	Mark Holmes	21/6/02
Verified by	I Soden		21/6/02
Approved by	S Parry		