



Northamptonshire
County Council

Northamptonshire Archaeology

Archaeological Geophysical Survey
on a moated site at Castle Close
Sharnbrook
Bedfordshire
May 2008



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May 2008

Report 08/89

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey on a moated site at Castle Close, Sharnbrook, Bedfordshire	
Short description	Northamptonshire Archaeology conducted geophysical survey, on behalf of Sharnbrook Parish Council on a medieval moated site at Castle Close, Sharnbrook, Bedfordshire. Survey comprised magnetometer and resistance survey over 0.3ha of land over the Scheduled Ancient Monument which lies in woodland. Survey revealed anomalies indicative of the earthwork bank and ditch and possible internal features.	
Project type	Geophysical survey	
Site status	SAM 20404	
Previous work		
Current Land use	Woodland	
Future work	Unknown	
Monument type/ period	Medieval moated site, HER994	
Significant finds		
PROJECT LOCATION		
County	Bedfordshire	
Site address	Castle Close, Lodge Road, Sharnbrook, Bedfordshire	
Study area	0.3ha	
OS Easting & Northing	498910 259540	
Height OD	70m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Bedfordshire County Council	
Project Design originator	NA	
Director/Supervisor	Carol Simmonds	
Project Manager	Adrian Butler	
Sponsor or funding body	Sharnbrook Parish Council	
PROJECT DATE		
Start date	May 2008	
End date	May 2008	
ARCHIVES	Location	Content
Physical	BEDFM 2008.60	
Paper	Northamptonshire Archaeology	Survey notes
Digital	Northamptonshire Archaeology	Geophysical data, PDF of report
BIBLIOGRAPHY		
Journal/monograph, published or forthcoming, or unpublished client report (NA report)		
Title	Archaeological Geophysical Survey on a moated site at Castle Close, Sharnbrook, Bedfordshire	
Serial title & volume	08/89	
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ARCHAEOLOGICAL GEOPHYSICAL SURVEY

ON A MOATED SITE AT CASTLE CLOSE

SHARNBROOK,

BEDFORDSHIRE

MAY 2008

ABSTRACT

Northamptonshire Archaeology conducted geophysical survey, on behalf of Sharnbrook Parish Council on a medieval moated site at Castle Close, Sharnbrook, Bedfordshire. The geophysical survey comprised magnetometer and resistance survey over 0.3ha of land over the Scheduled Ancient Monument which lies in woodland. The recorded anomalies are indicative of the earthwork bank and ditch and rectangular features to the north measuring 10m by 6m, and to the south, measuring 8m by 5m, may be either structural remains, perhaps buildings or disturbance caused by former tree cover.

1 INTRODUCTION

Northamptonshire Archaeology conducted geophysical surveys on behalf of Sharnbrook Parish Council, in May 2008, on 0.3ha of land over a Scheduled Ancient Monument (SAM20404) at Castle Close, Sharnbrook, Bedfordshire (NGR SP 9891 5954, Fig 1). Magnetometer and earth resistance surveys were utilised to inform and aid in the interpretation and management of the site for Sharnbrook Parish Council. It was also undertaken to generate community interest and raise local awareness of the site (Bedfordshire County Council 2008).

2 BACKGROUND

Topography and geology

The village of Sharnbrook is situated approximately 11.5km from Bedford on a ridge of ground between the Great Ouse River valley and the Sharnbrook River. It is at an approximate height of 70m AOD. Castle Close, which lies on flat ground on the western edge of the village of Sharnbrook, was covered in woodland at the time of survey (Plates 1 and 2). The centre of the moated enclosure had largely been cleared of trees, shrubs and undergrowth and the site was accessible by new paths culminating in a sandbag causeway over the moat (Plate 4). The exterior of the moated site is covered by woodland and undergrowth particularly to the north and north-east.

To the east and north-east the moat is filled seasonally by water and a broad shallow ditch leads off to the eastern boundary of the close. The western boundary between the close and the neighbouring plot is defined by a metal and wooden fence.

The earthwork is well preserved and, since clearing, certain features have been emphasised. In particular, a irregular depression within the centre of the enclosure is perhaps more defined due to the presence of a clear interior bank. Against the bank to the north is a slightly raised oblong area of ground. At the base of the moat to the north-west is a earthwork ridge approximately 0.40m high.

The geology of Castle Close is predominately Boulder Clay overlying Oxford Clay (BGS 1989). Nearby to the south and east lie Great Oolite limestone beds and river terrace gravels, corresponding with the location of the Great Ouse river valley.

Historical background

The moated site at Castle Close Sharnbrook comprises a small sub-circular earthwork ditch and bank with the interior measuring approximately 20m by 25m (HER994 and SAM20404). The moat averages 7m wide and up to 3m deep while the internal bank is clearer in some areas and stands up to 1.5m high (EH 1992). The earliest definitive reference for the moated site is when it was referred to as 'Castle Close' in a survey dating from 1617. It has been owned and managed by Sharnbrook Parish Council since 2006.

3 METHODOLOGY

All fieldwork was carried out in accordance with English Heritage (EH 1995) and the Institute of Field Archaeologists guidelines (Gaffney, Gater and Ovendon 2002). The area of survey was defined in advance by Bedfordshire County Council (2008) and Scheduled Ancient Monument Consent (SMC – Case No: SL00000285) had been obtained on behalf of Sharnbrook Parish Council from English Heritage (Ref.: AA/41597).

The site was divided into a grid of contiguous 20m x 20m squares set out using tape and optical square (Plate 3). Survey would proceed along 20m long traverses at 1.0m intervals within the grid squares.

Earth Resistance Survey

Prospection by detailed earth resistance was carried out utilising Geoscan Research RM15

resistance meters in a 0.5m spaced 'Twin Probe' electrode array. Samples were taken every 1.0m along 1.0m traverses

Magnetometer Survey

All intensive magnetometer survey was undertaken using a Geoscan fluxgate gradiometer. The Geoscan FM256 is constructed as a single-sensor vertical gradiometer instrument.

Each grid square was traversed at rapid walking pace in zigzag traverses spaced at 1.0m intervals, with data recorded every 0.25m along these.

The area surrounding the moated site was scanned using a fluxgate gradiometer to visually identify any trends or areas of disturbance outside of the moat. This was thought on site to be the most effective way of scanning the ground covered with undergrowth.

Processing

All data was analysed using Geoplot 3.00u software. Electrical resistance data grids were matched to provide a constant background level, with the 'De-spike' function applied in order to remove extreme outlying data values.

Magnetometer data was treated with the 'Zero Mean Traverse' function in order to bring the average level of each line of data into a balanced zero and thus the entire dataset onto a constant background level against which anomalies are highlighted. No other processing was necessary.

The processed data is presented here in the form of greyscale images, georectified onto scale Ordnance Survey mapping. Low (negative) data is shown as white and high (positive) data as black in the resultant greyscale plots, for both resistance and magnetic readings (Figs 2 and 4). Stacked trace plots have been included (Fig 6), showing the full data range of each survey for reference. Interpretive plots have been constructed from the results and are referred to directly in the following Survey Results section (Figs 3 and 5).

4 SURVEY RESULTS

Magnetometry (Figs 2 & 3)

The magnetometer survey incorporated much of the southern and north-western part of the moat as well as the interior, a total area of 0.23ha. The results have been affected by background noise probably as the result of the tree cover which had been recently cleared. A considerable magnetic

shadow was cast from the metal fence to the west of the Close (Fig 3, Plate 2).

A curvilinear negative magnetic anomaly was recorded inside the northern part of the interior. This measured approximately 37m long and 3.5m wide and corresponds with the location of the interior bank. Within the enclosure are two weak linear positive anomalies. The first, located to the north forms three sides of a rectangular feature measuring *c* 10m long x 6m wide and orientated north-east to south-west. The second, to the south also formed three sides of a rectangular feature orientated south-east to north-west. It measured *c* 8m long x 5m wide. It is unclear whether these represent structures, perhaps buildings, or disturbance caused by the former tree cover.

A east to west aligned linear negative anomaly was detected in the centre of the survey suggesting a feature filled with a low magnetic enhancement (eg gravel). There is a positive shadow reflecting of the linear immediately to the north. To the south of this, was a broken curvi-linear faint positive anomaly. It is possible that this may reflect either an old infilled drainage ditch or root disturbance.

There were several areas of magnetic disturbance indicating ferrous debris in the survey. These may represent buried iron, burnt out trees, as well as the shadow cast by the sandbag causeway to the south. Two smaller sub-circular areas in the ditch to the south-east may represent either buried iron or possible fence posts.

The reconnaissance scan of the immediate area surrounding the moat did not indicate any areas or trends of significant activity.

Earth Resistance (Figs 4 & 5)

A total area of 0.24ha of geoelectrical prospection was carried out across the interior of the moat and outside to the south.

Low resistance curvilinear features were detected at the base of the moat to the north-west and south, with an area of high resistance within the ditch indicative of the interior bank. This corresponds in part to the magnetometry results which also indicated a banked earthwork to the north. From the results the base of the moat appears to be sub-rectangular. An area of low resistance, of irregular form was detected central to the enclosure. This reflects the topographic depression noted in para 2.

Further high resistance anomalies were detected within the enclosure to the south and north which again may reflect either the earthwork or correspond with features identified in the magnetometry.

The broadly low resistance trend of the ditch was broken by a narrow ridge of ground perpendicular to the ditch. This too may represent the change in slope provided by the ridge of ground in the base of the moat.

5 CONCLUSION

Geophysical surveys on a medieval moated site at Castle Close, Sharnbrook have succeeded in identifying archaeological features. However, both surveys may have recorded the changes in earthwork gradient and level (such as the moat and bank) as well as any definitive structural features.

The moat and bank are very clearly shown with the expected responses for low resistance for the moat and higher levels for the bank. There are a number of anomalies which together with the physical earthwork indicate high potential for archaeological features. In particular the high resistance feature within the northern part of the site appears to correspond with a positive magnetic feature. A similar pattern may be seen to the south. These two rectangular areas, the northern one measuring 10m long by 6m wide and the southern 8m long by 5m wide may perhaps denote buildings within the interior.

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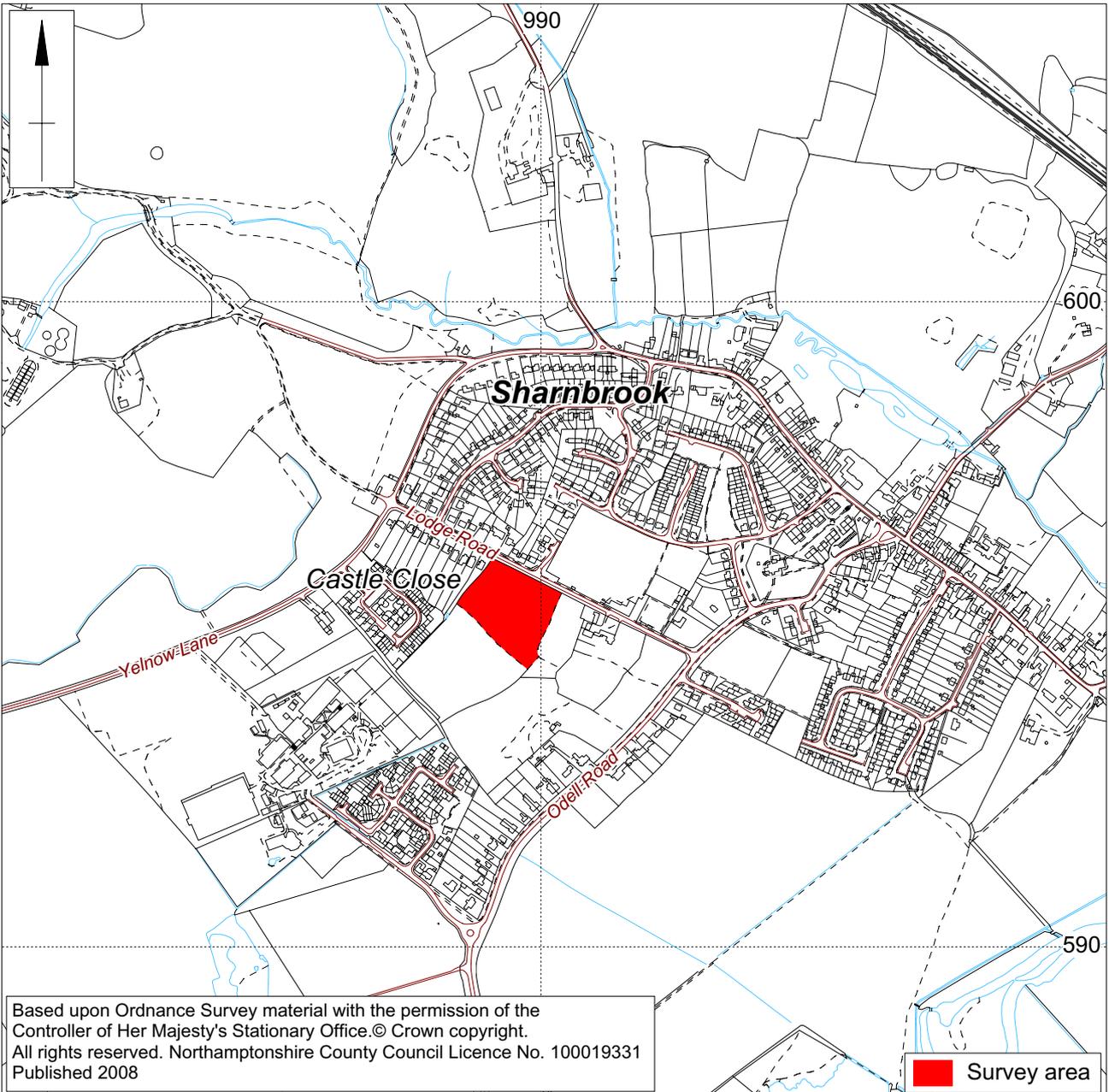
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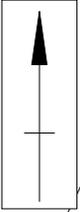
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Site location Fig 1

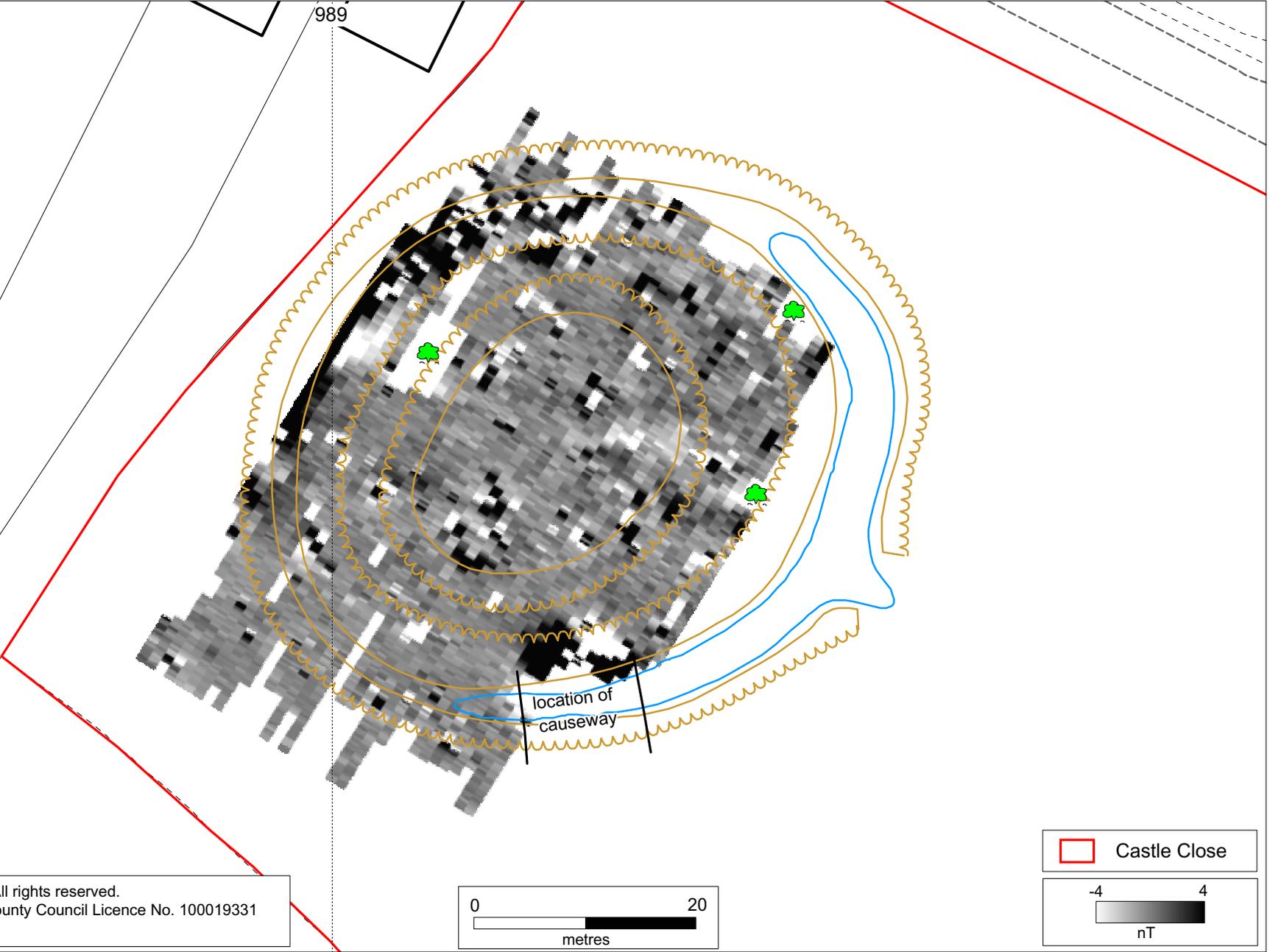
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Sharnbrook, Castle Close, magnetometry results

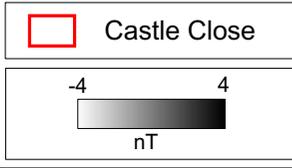
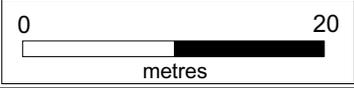
Fig 2



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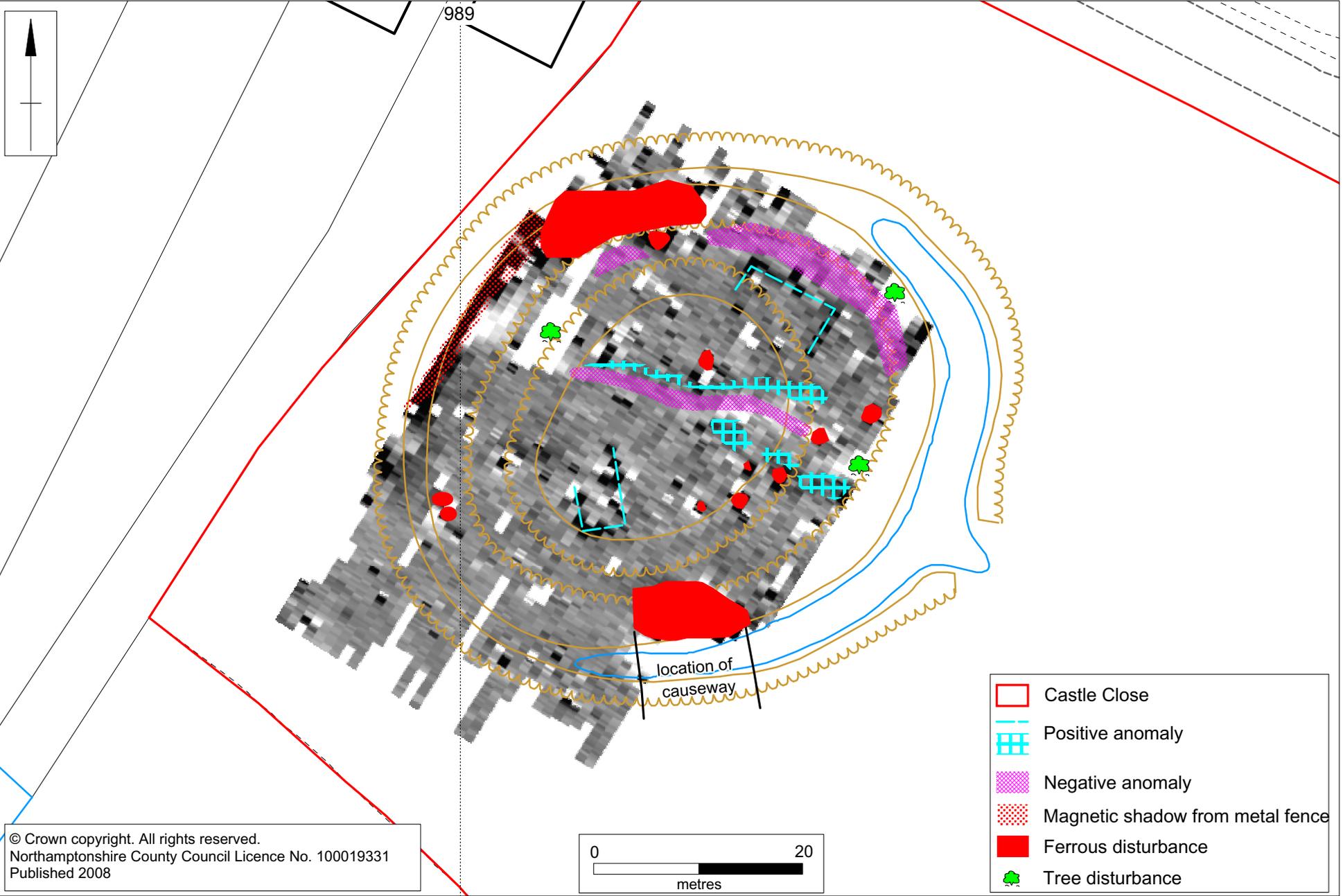
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Sharnbrook, Castle Close, magnetometry interpretation

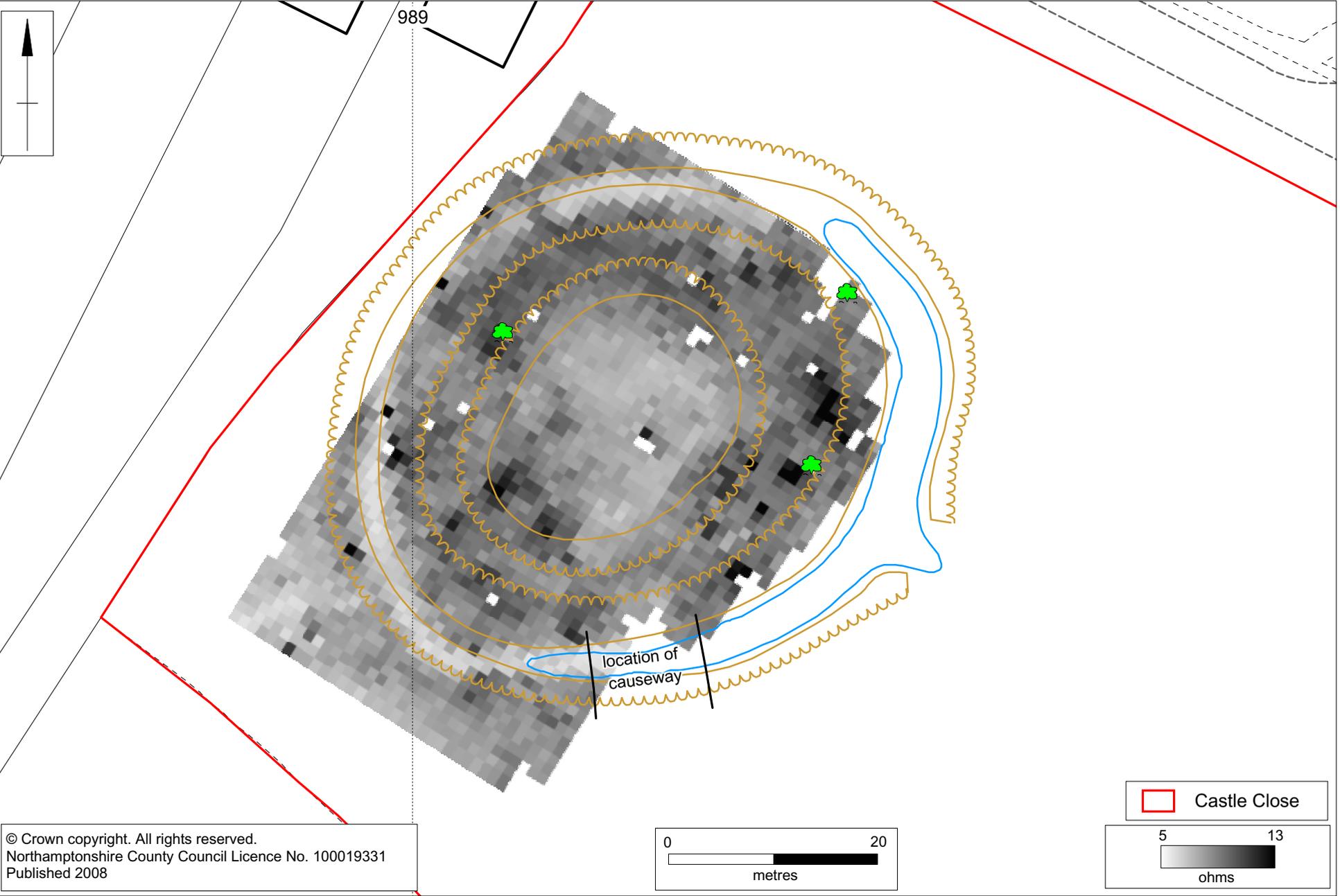
Fig 3



Scale 1:500

Sharnbrook, Castle Close, Earth Resistance results

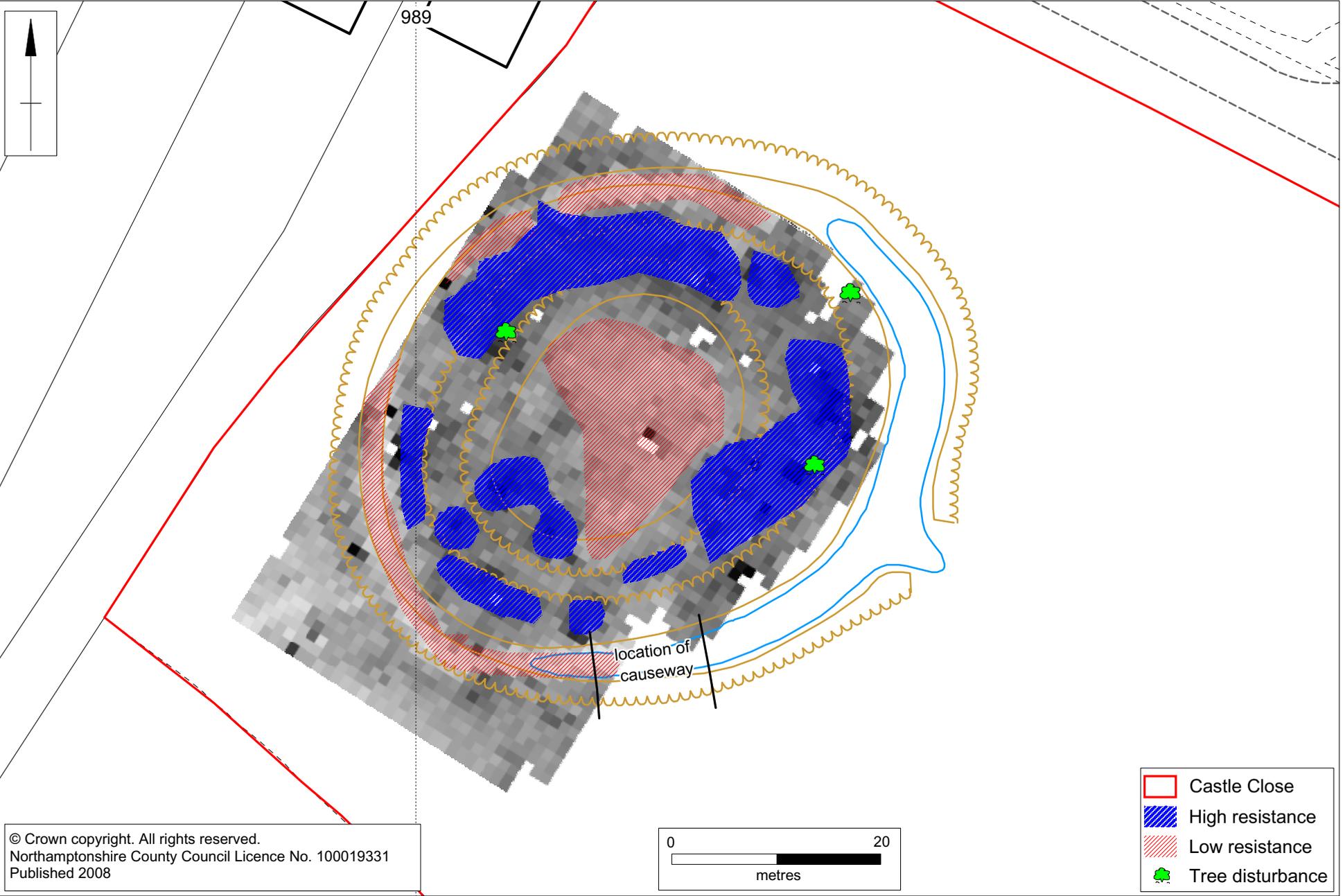
Fig 4

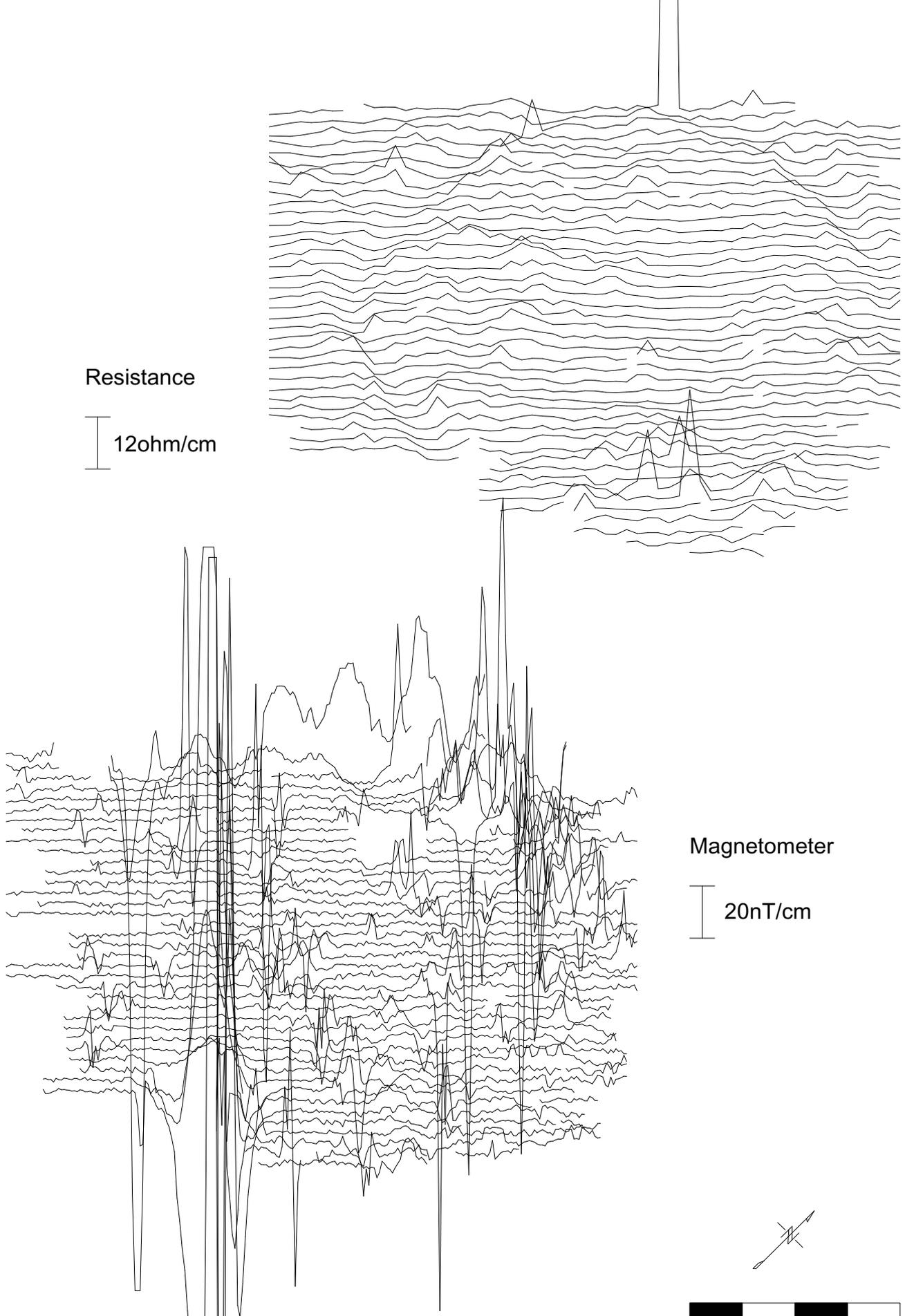


Scale 1:500

Sharnbrook, Castle Close, Earth Resistance Interpretation

Fig 5





Scale 1:500

Sharnbrook, Castle Close Trace Plots Figure 6



Plate 1: General view of the interior of the site, looking north



Plate 2: General view of the moat looking north-west, Note the metal fencing to the left.



Plate 3: Resistance survey in progress



Plate 4: The moat with causeway looking south-east