AISB/01

A355 IMPROVEMENT SCHEME, BEACONSFIELD, BUCKINGHAMSHIRE

GEOPHYSICAL SURVEY

commissioned by Ringway Jacobs

Pre-application

June 2016

HEADLAND ARCHAEOLOGY

REGISTERED CIfA ORGANISATION

A355 IMPROVEMENT SCHEME, BEACONSFIELD, BUCKINGHAMSHIRE

GEOPHYSICAL SURVEY

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project info

HA JOB NO.	AISB/01
NGR	from SU 94790 91028 to SU 95380 90453
PARISH	Beaconsfield
LOCAL AUTHORITY	Buckinghamshire
OASIS REF.	headland5-254730

project team

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REGISTERED CIfA ORGANISATION

PROJECT SUMMARY

Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey, covering approximately 8 hectares on land east of Beaconsfield, Buckinghamshire, to provide information on the archaeological potential of the site of a new relief road as part of the A355 Improvement Scheme. The survey has identified a probable barrow in a slightly elevated position in the north of the survey area. Elsewhere, anomalies have been identified which reflect variation in the depth and composition of the soils. On the basis of the geophysical survey, the archaeological potential across the majority of the site is assessed as being low although a high archaeological potential is ascribed to the area around the probable barrow.

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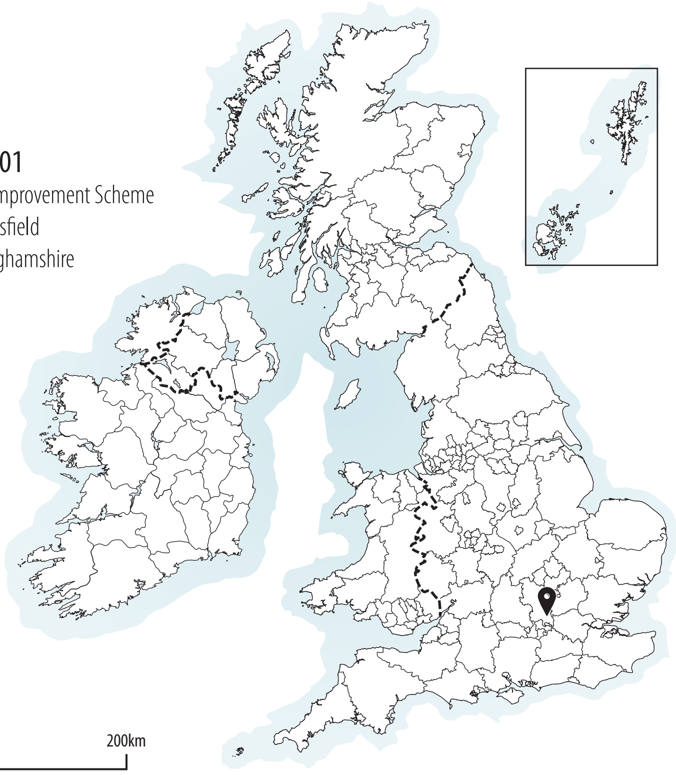
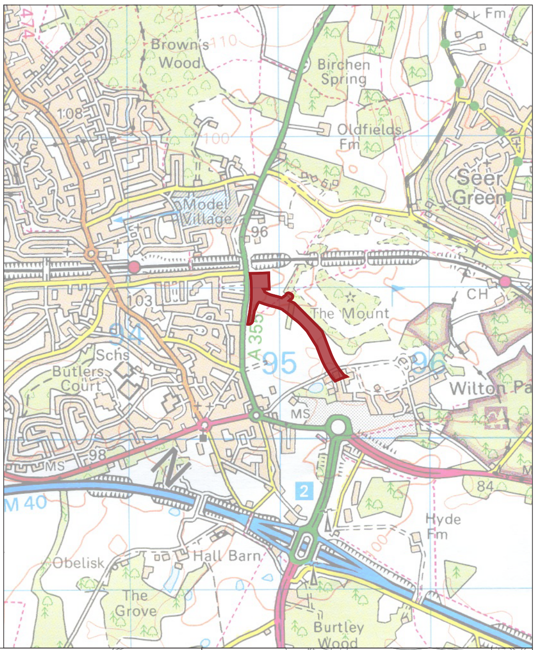
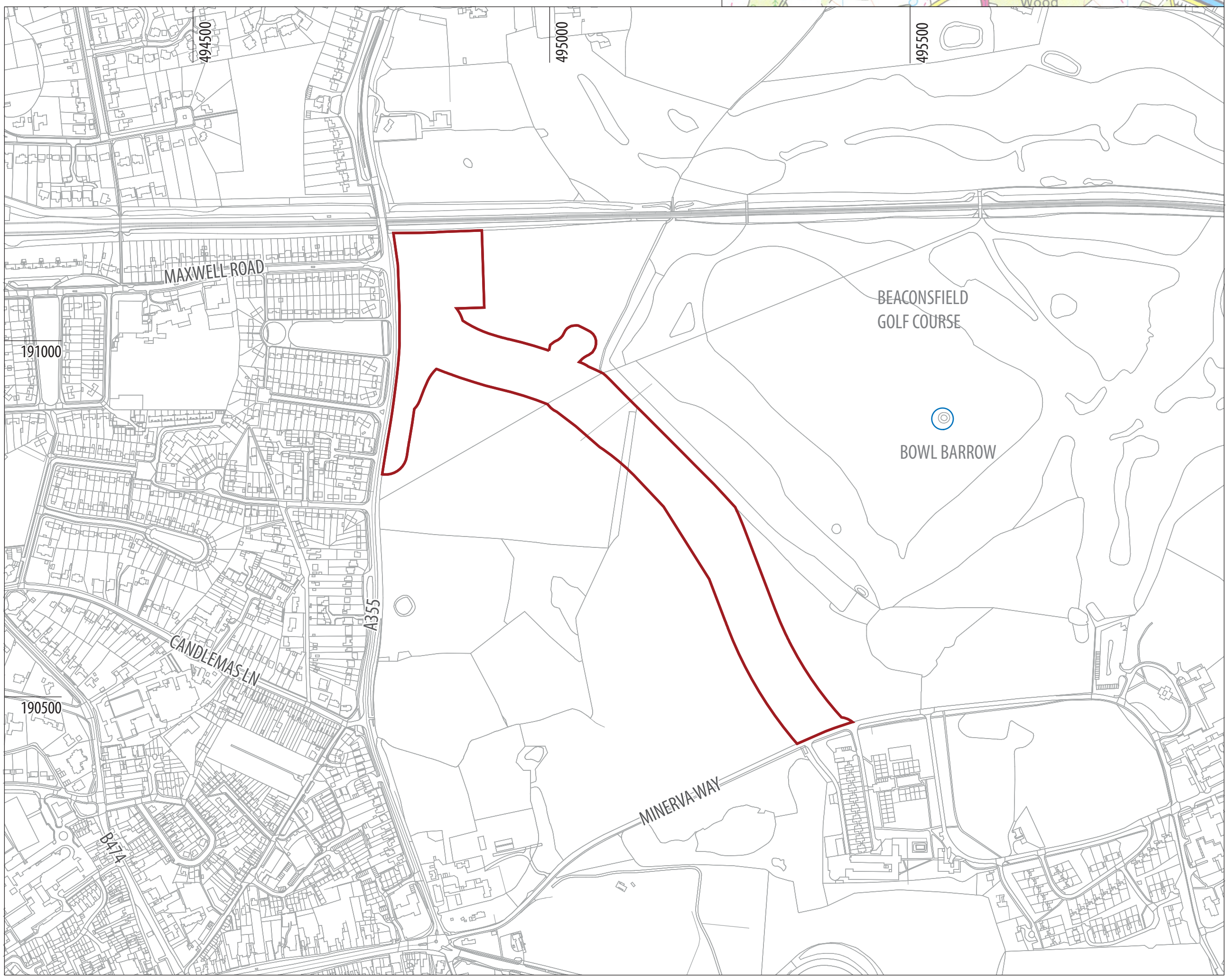
AISB/01
A355 Improvement Scheme
Beaconsfield
Buckinghamshire







KEY
geophysical survey area
scheduled monument

N
0 500m
1:10,000 @ A4

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ILLUS 1 Site location

A355 IMPROVEMENT SCHEME, BEACONSFIELD, BUCKINGHAMSHIRE

GEOPHYSICAL SURVEY

1 INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by Ringway Jacobs (The Client) on behalf of Buckinghamshire County Council (BCC) to undertake a geophysical (magnetometer) survey at the site of a proposed new relief road as part of the A355 Improvement Scheme. The work was undertaken in accordance with a Geophysical Survey Specification (Ringway Jacobs 2016), with guidance within the National Planning Policy Framework (DCLG 2012) and in line with current best practice (David et al. 2008; CIfA 2014).

The survey was carried out on April 25th and April 26th 2016.

1.1 SITE LOCATION, TOPOGRAPHY AND LAND-USE

The proposed relief road corridor crosses three fields (Field 1 to Field 3) on the eastern periphery of Beaconsfield between the existing A355 Amersham road in the north (NGR 494790,191028) and Minerva Way to the south-east (NGR 495380,190453; see Illus 5)

The site is located within an undulating landscape, at between 96m and 110m above Ordnance Datum (aOD) (see Illus 6).

At the time of the survey the fields were under pasture (see Illus 2, Illus 3 and Illus 4).

1.2 GEOLOGY AND SOILS

The underlying bedrock geology comprises Seaford Chalk Formation and Newhaven Chalk Formation in the north and Lambeth Group – clay, silt and sand, in the south (see Illus 6). The bedrock is overlain by Beaconsfield Gravel – sand and gravel (British Geological Survey 2016).

The soils within the northern part of the scheme are classified in the Soilscape 6 association which are characterised as freely draining loams. In the south, the soils are classified in the Soilscape 17 association, which are characterised as slowly-permeable, seasonally wet loams and clays (LandIS 2016).

2 ARCHAEOLOGICAL BACKGROUND

Baseline heritage data compiled as part of a scoping report identified a bowl barrow 315m north-east of the proposed relief road (see Illus 1). 'The Mount' is a tumulus on Beaconsfield golf course measuring approximately 23m in diameter. Although identified as Bronze Age in the National Heritage List the site may be associated with 18th century Wilton Park Mansion. The asset is a Scheduled Monument (List Entry 1013932) and has therefore been assessed to be of high value.

3 AIMS, METHODOLOGY AND PRESENTATION

The main aim of the geophysical survey was to provide sufficient information to enable an assessment to be made of the impact of any proposed development on any potential sub-surface archaeological remains.

The general archaeological objectives of the geophysical survey were:

- to determine (so far as possible) the presence or absence of buried archaeological remains in the survey area;
- to clarify the extent and layout of known sites of archaeological interest within or adjacent to the survey area;
- to clarify the extent and layout of previously unknown buried remains within the survey areas; and
- to interpret any geophysical anomalies identified by the survey.

3.1 MAGNETOMETER SURVEY

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. Features such as a ditch, pit or kiln can act

2

3

4

ILLUS 2 General view of Field 1, looking north-west **ILLUS 3** General view of Field 2, looking north **ILLUS 4** General view of Area 3, looking south-east

like a small magnet, or series of magnets, that produce distortions (anomalies) in the earth's magnetic field. In mapping these slight variations, detailed plans of sites can be obtained as buried features often produce reasonably characteristic anomaly shapes and strengths (Gaffney and Gater 2003). Further information on soil magnetism and the interpretation of magnetic anomalies is provided in Appendix 1.

The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals (1m traverse interval) onto a rigid carrying frame. The system is programmed to take readings at a frequency of 10Hz (allowing for a 10-15cm sample interval) on roaming traverses 4m apart. These readings are stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system is linked to a Trimble R8s Real Time Kinetic (RTK) differential Global Positioning System (dGPS) outputting in NMEA mode to ensure a high positional accuracy for each data point.

MLGrad601 and MultiGrad601 (Geomar Software Inc.) software has been used to collect and export the data. Terrasurveyor V3.0.28.4 (DWConsulting) software has been used to process and present the data.

3.2 REPORTING

A general site location plan is shown in Illus 1 at a scale of 1:10,000. Illus 2, Illus 3 and Illus 4 are general site condition photographs. A large scale (1:3,000) survey location plan showing the processed greyscale magnetometer data is presented in Illus 5. The same data is shown in Illus 6 overlain by contour data and bedrock geology detail (1:3000). An overall interpretative plot is shown at the same scale in Illus 7.

Detailed data plots (greyscale and XY trace) and interpretative illustrations are presented at a scale of 1:1000 in Illus 8 to Illus 19 inclusive.

Technical information on the equipment used, data processing and magnetic survey methodology is given in Appendix 1. Appendix 2 details the survey location information and Appendix 3 describes the composition and location of the site archive. A copy of the OASIS entry (Online Access to the Index of Archaeological Investigations) is reproduced in Appendix 4.

The survey methodology, report and any recommendations comply with the Geophysical Survey Specification (Ringway Jacobs 2016) and guidelines outlined by English Heritage (David et al. 2008) and by the Chartered Institute for Archaeologists (CIfA 2014). All illustrations reproduced from Ordnance Survey (OS) mapping are with the permission of the controller of Her Majesty's Stationery Office (Ó Crown copyright).

The illustrations in this report have been produced following analysis of the data in 'raw' and processed formats and over a range of different display levels. All illustrations are presented to most suitably display and interpret the data from this site based on the experience and knowledge of management and reporting staff.

4 RESULTS AND DISCUSSION

Generally, the survey has detected a variable magnetic background throughout the proposed relief road corridor. This is attributed to variations in the depth and composition of the soils and the superficial deposits from which they derive. Within this background, numerous areas of magnetic enhancement have been identified. These are discussed below and cross-referenced to specific examples on the interpretive figures, where appropriate.

4.1 FERROUS ANOMALIES

Ferrous anomalies, characterised as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris or material is common on most sites, often being present as a consequence of manuring or tipping/infilling.

High magnitude areas of magnetic disturbance which are located at the perimeters of the survey areas are caused by ferrous material within the adjacent field boundaries.

4.2 AGRICULTURAL ANOMALIES

Analysis of historical mapping indicates that the division of land within the PDA has undergone minor alterations since the publication of the first edition OS map in 1875. These alterations include the removal of field boundaries to form larger field plots. None of these boundaries have been identified with any clarity by the survey. The reason for this is not clear. It is possible that that the boundaries comprised of a wall, fence or hedge rather than a ditch, or that all trace of the former boundary has been removed by subsequent ploughing. Alternatively, it is possible that there is insufficient contrast within the soils in this part of the survey area for the boundary to manifest as a magnetic anomaly. This latter scenario seems less likely given the identification of a north-west/south-east aligned anomaly, A, towards the south of Field 3 (see Illus 14 to Illus 19 inclusive). The anomaly appears on the same orientation as the field boundary to the north and is therefore interpreted as agricultural in origin, perhaps being due to ploughing or an earlier or unmapped boundary ditch.

4.3 GEOLOGICAL ANOMALIES

As mentioned above, discrete areas of magnetic enhancement are identified across the proposed relief road corridor. These are relatively sparsely distributed throughout the south of the survey area but appear more frequently and are of higher magnitude across Field 1, perhaps reflecting the differing bedrocks. Broader concentrations of high magnitude anomalies are identified within this background. Area B corresponds to an area of topographical variation (see Illus 6) and is thought to be caused by the accumulation of deposits (colluvium) at the base of a slope. Within the north of Field 3 broad amorphous anomalies, C, are likely to be due to localised variations in the sand and gravel superficial deposits.

4.4 ARCHAEOLOGICAL AND POSSIBLE ARCHAEOLOGICAL ANOMALIES

A clear circular anomaly, D, has been identified within the north-west of Field 1, centred on NGR 494868, 191031 (see Illus 8, Illus 9 and Illus 10). The anomaly corresponds to a circular earthwork depicted on the first edition Ordnance Survey map (1875) and to a 'platform' within is recorded within the contour data (see Illus 6). The anomaly measures 11m in diameter and is thought to be caused by a soil-filled ditch, probably defining the site of a barrow. A possible pit is identified within the interior of the anomaly, and a second to the immediate south. The bowl barrow (Scheduled Monument List Entry 1013932) identified in the baseline study is located 700m to the south-east.

5 CONCLUSION

The geophysical survey has identified a definite area of archaeological potential in the form of a probable barrow. The anomaly appears to be isolated and no further anomalies of clear archaeological origin have been identified by the survey with the majority of the anomalies being due to localised variations within the soils and the superficial deposits from which they derive.

Based solely on the results and interpretation of the geophysical data, the archaeological potential across the majority of the scheme is assessed to be low, although a high archaeological potential is ascribed to the area containing the probable barrow.

6 REFERENCES

British Geological Survey 2016 [website] Available: www.bgs.ac.uk/discoveringGeology/geology OfBritain/viewer.html Accessed: May 6th 2016

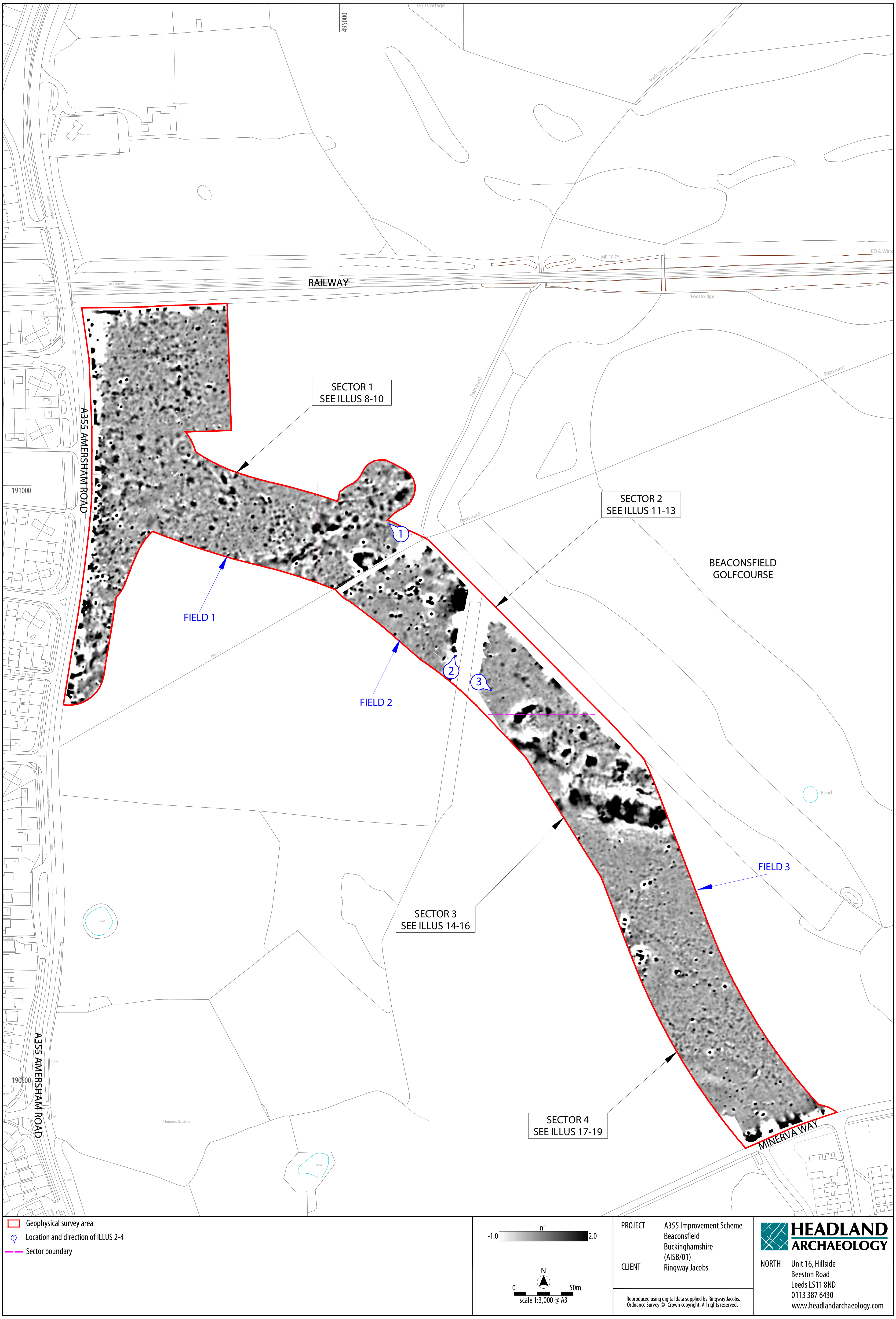
Chartered Institute for Archaeologists 2014 ***Standard and Guidance for archaeological geophysical survey*** CIfA

David, A, Linford, N, Linford, P & Martin, L 2008 ***Geophysical Survey in Archaeological Field Evaluation: Research and Professional Services Guidelines*** (2nd edition) English Heritage

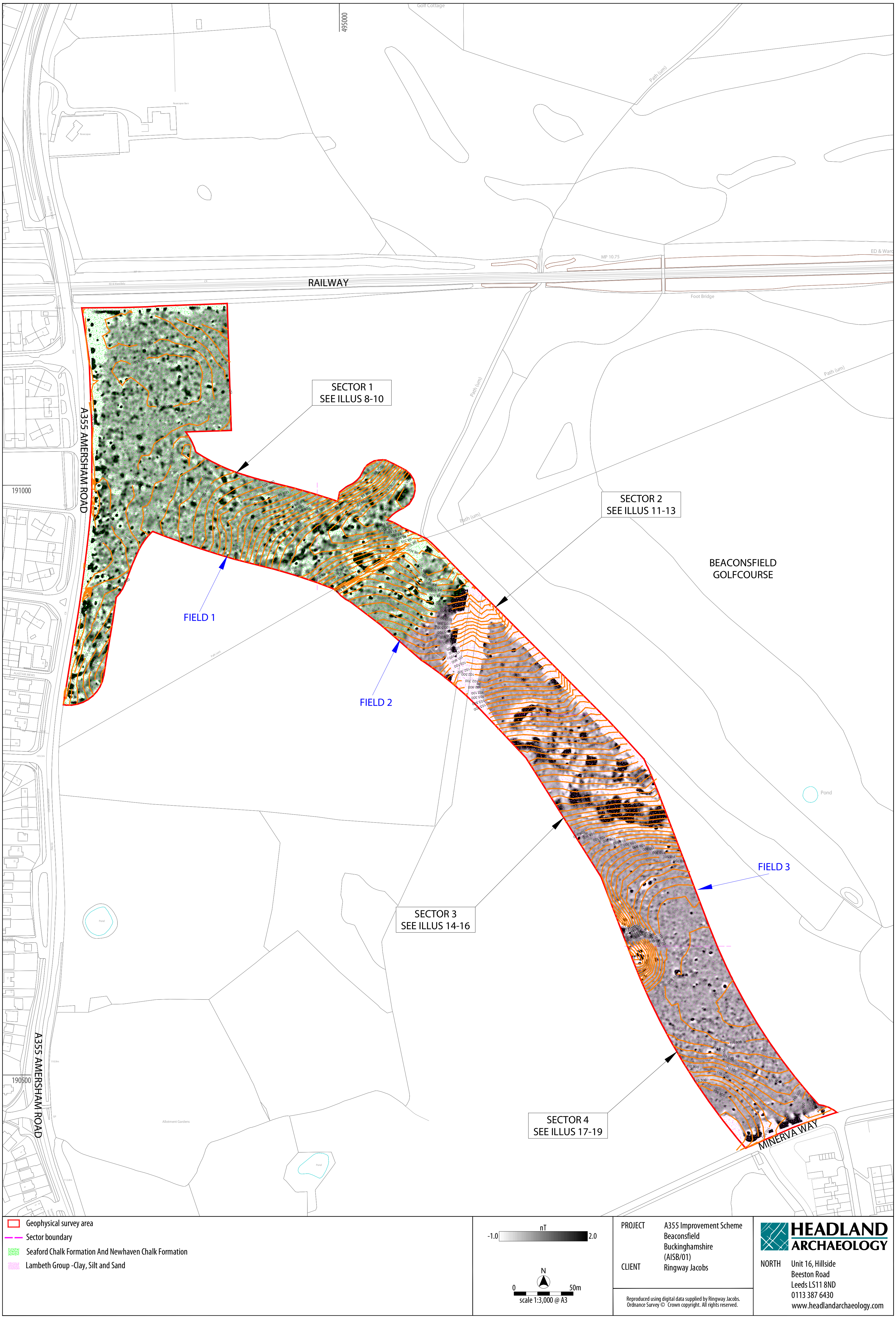
DCLG 2012 ***National Planning Policy Framework. Department of Communities and Local Government***

Gaffney, C & Gater, J 2003 ***Revealing the Buried Past Tempus Publishing***

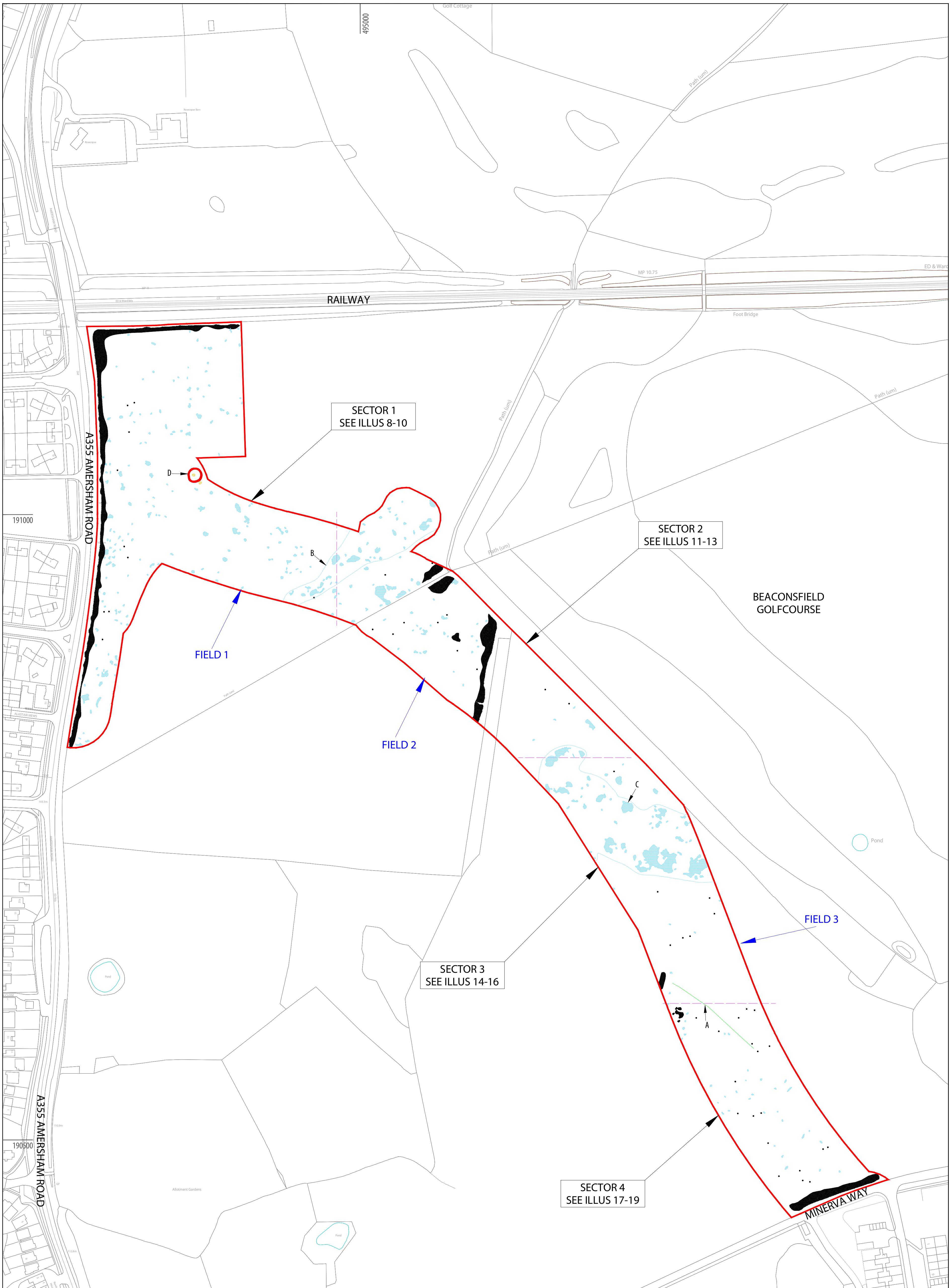
LandIS 2016 [website] Available: www.landis.org.uk/soilscapes/ Accessed: May 6th 2016



Illus 5
Survey location showing processed greyscale magnetometer data



Illus 6
Processed magnetometer data showing contour data and bedrock geology detail (after BGS 2016)



TYPE OF ANOMALY	INTERPRETATION
Dipolar Isolated	Ferrous Material
Magnetic Disturbance	Ferrous Material
Linear	Former Field Boundary
Linear Trend	Agricultural
Magnetic Enhancement	Geology
Magnetic Enhancement	Geological variation
Magnetic Enhancement	Archaeology?

Geophysical survey area
Sector boundary

N
0 50m
scale 1:3,000 @ A3

PROJECT A355 Improvement Scheme
Beaconsfield
Buckinghamshire
(AISB/01)

CLIENT Ringway Jacobs

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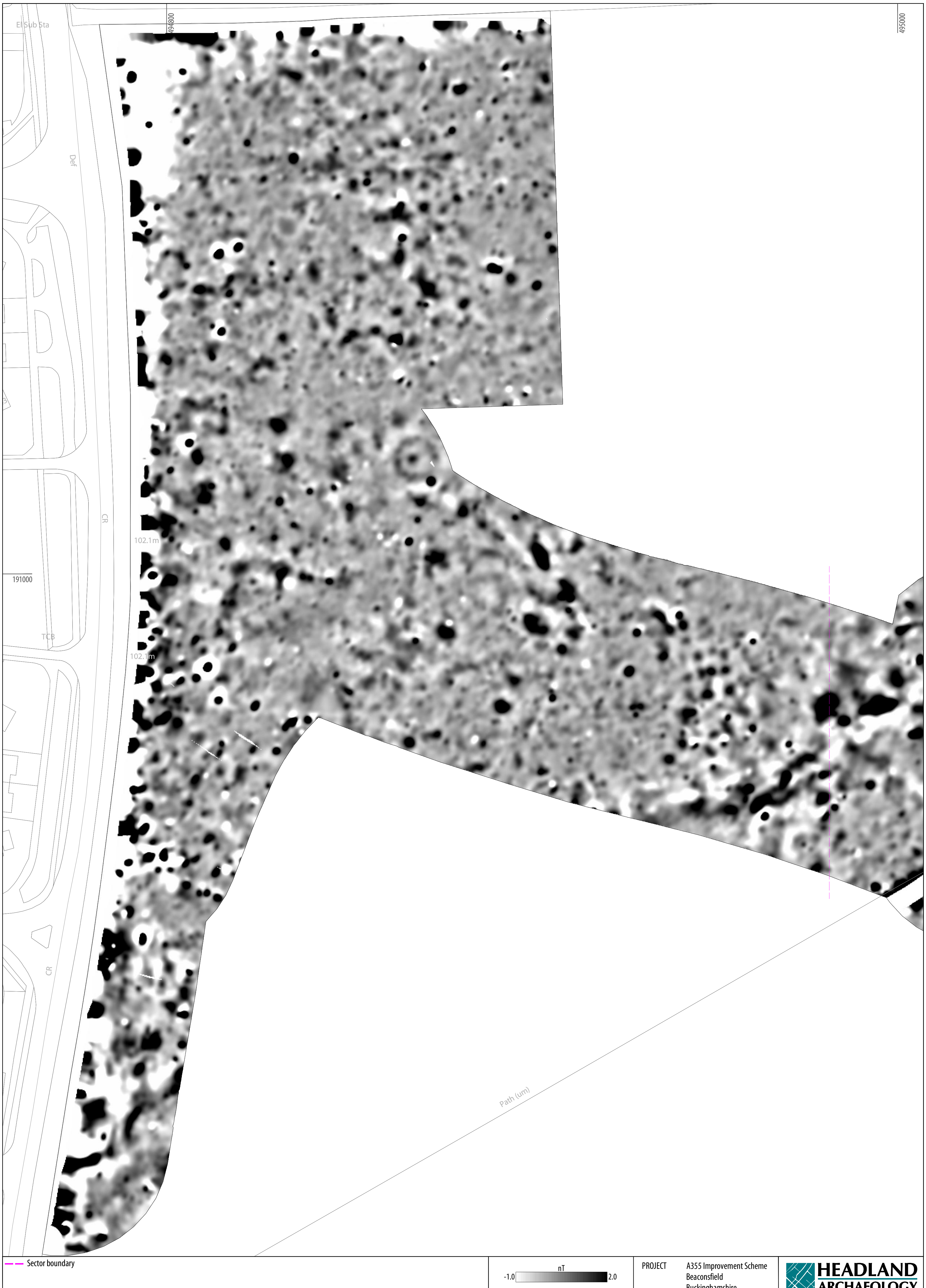
Illus 7
Overall interpretation of magnetometer data



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Illus 8
Processed greyscale magnetometer data; Sector 1

— — Sector boundary

10.0nT/cm

N

0 25m

scale 1:1,000 @ A3

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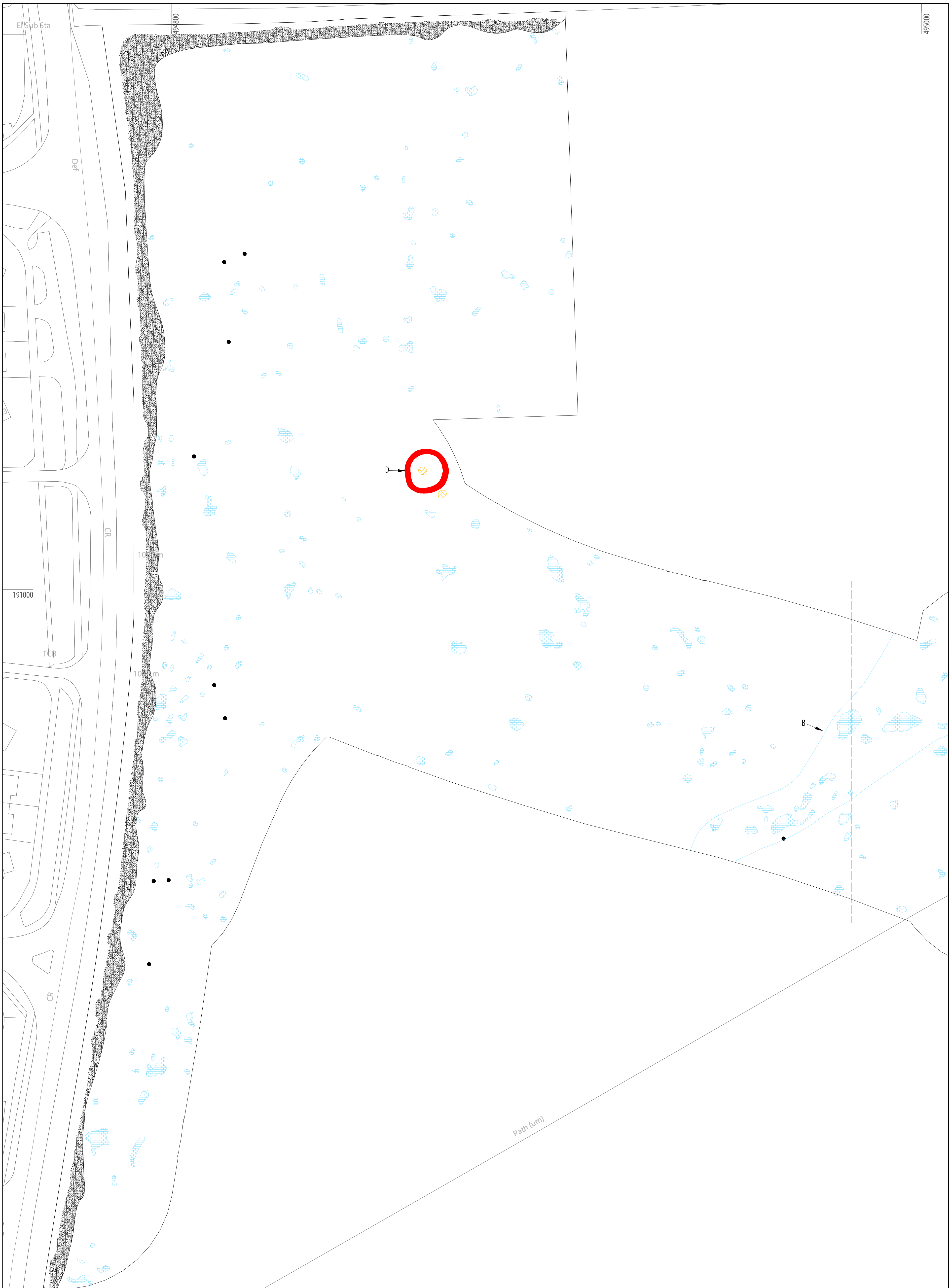
Illus 9
XY trace plot of magnetometer data; Sector 1



Sector boundary

TYPE OF ANOMALY	INTERPRETATION
Dipolar Isolated	Ferrous Material
Magnetic Disturbance	Ferrous Material
Magnetic Enhancement	Geology
Magnetic Enhancement	Geological variation
Magnetic Enhancement	Archaeology?
Magnetic Enhancement	Archaeology

N

0 25m

scale 1:1,000 @ A3

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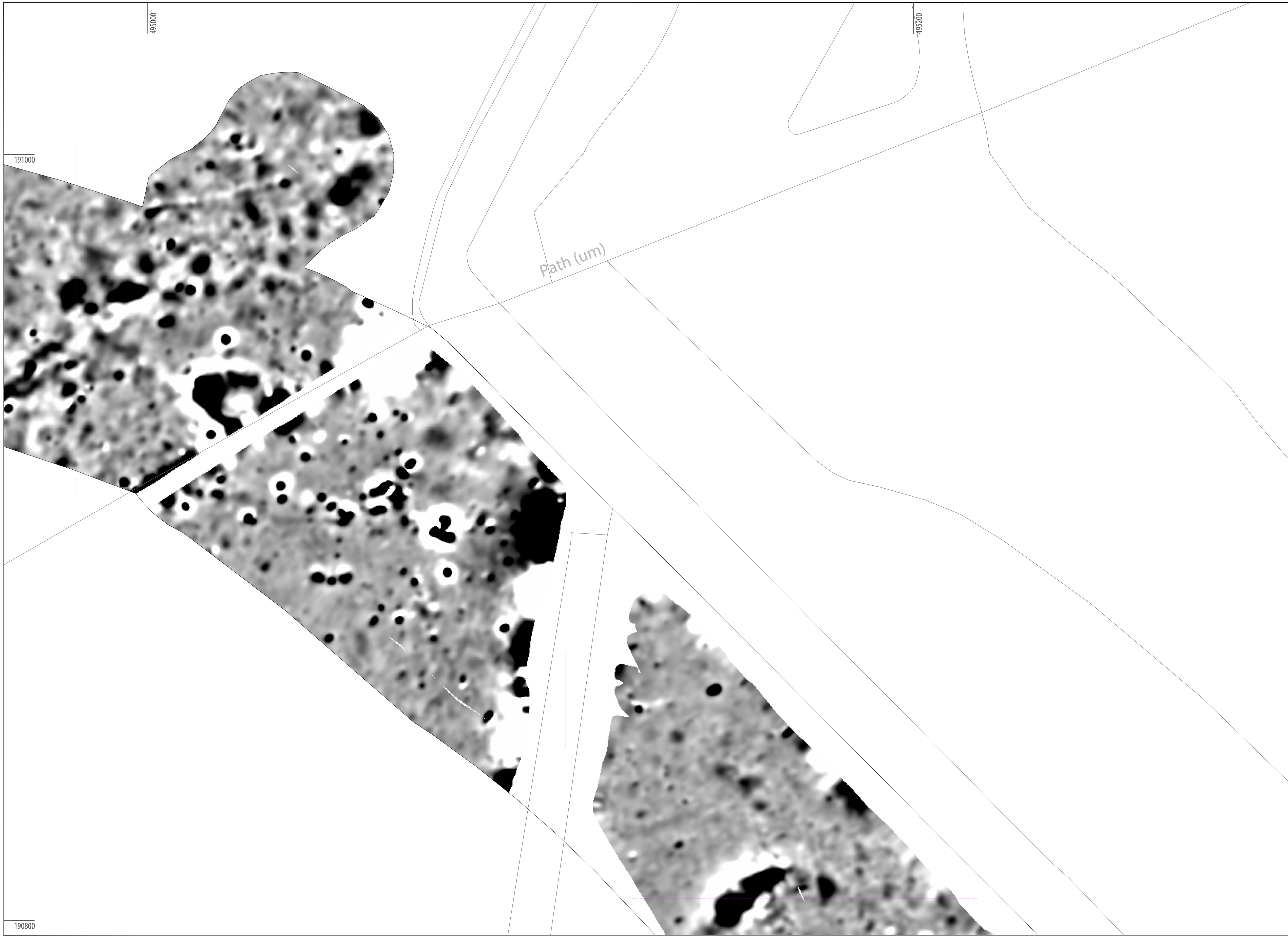
Illus 10
Interpretation of magnetometer data; Sector 1



Sector boundary

nT

-1.0 2.0

N

0 25m

scale 1:1,000 @ A3

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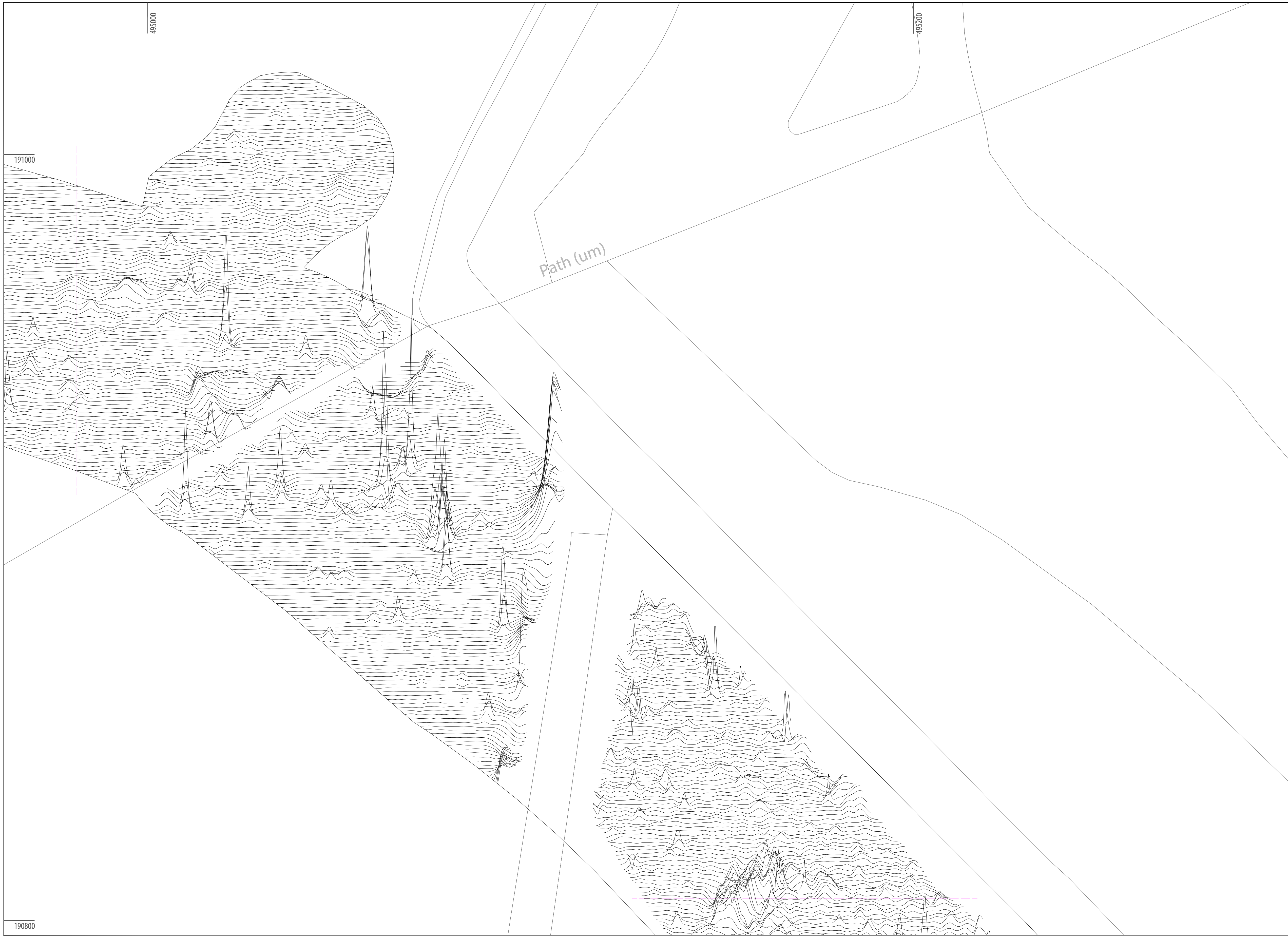
Illus 11
Processed greyscale magnetometer data; Sector 2



Sector boundary

10.0nT/cm

N

0 25m

scale 1:1,000 @ A3

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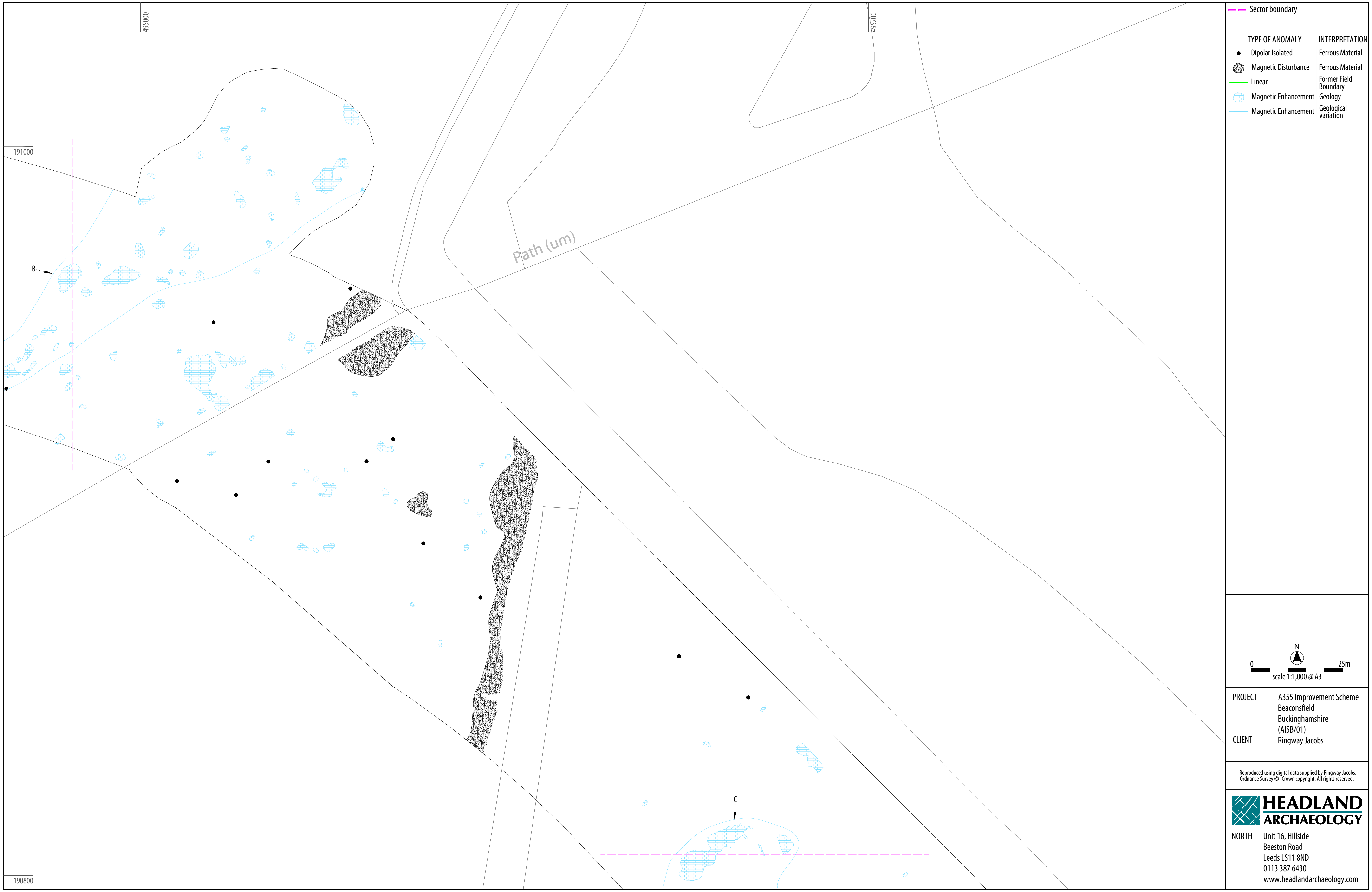
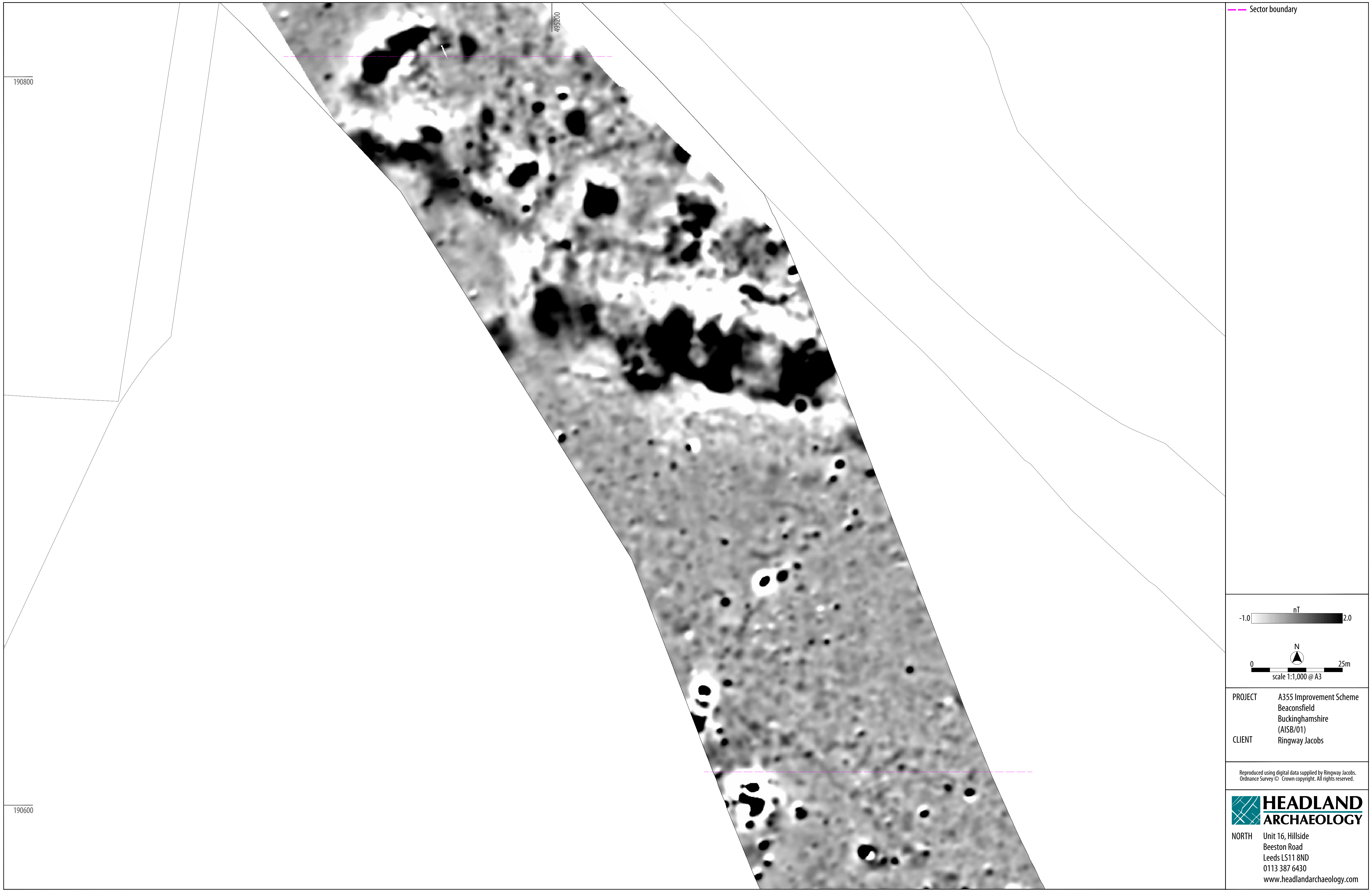
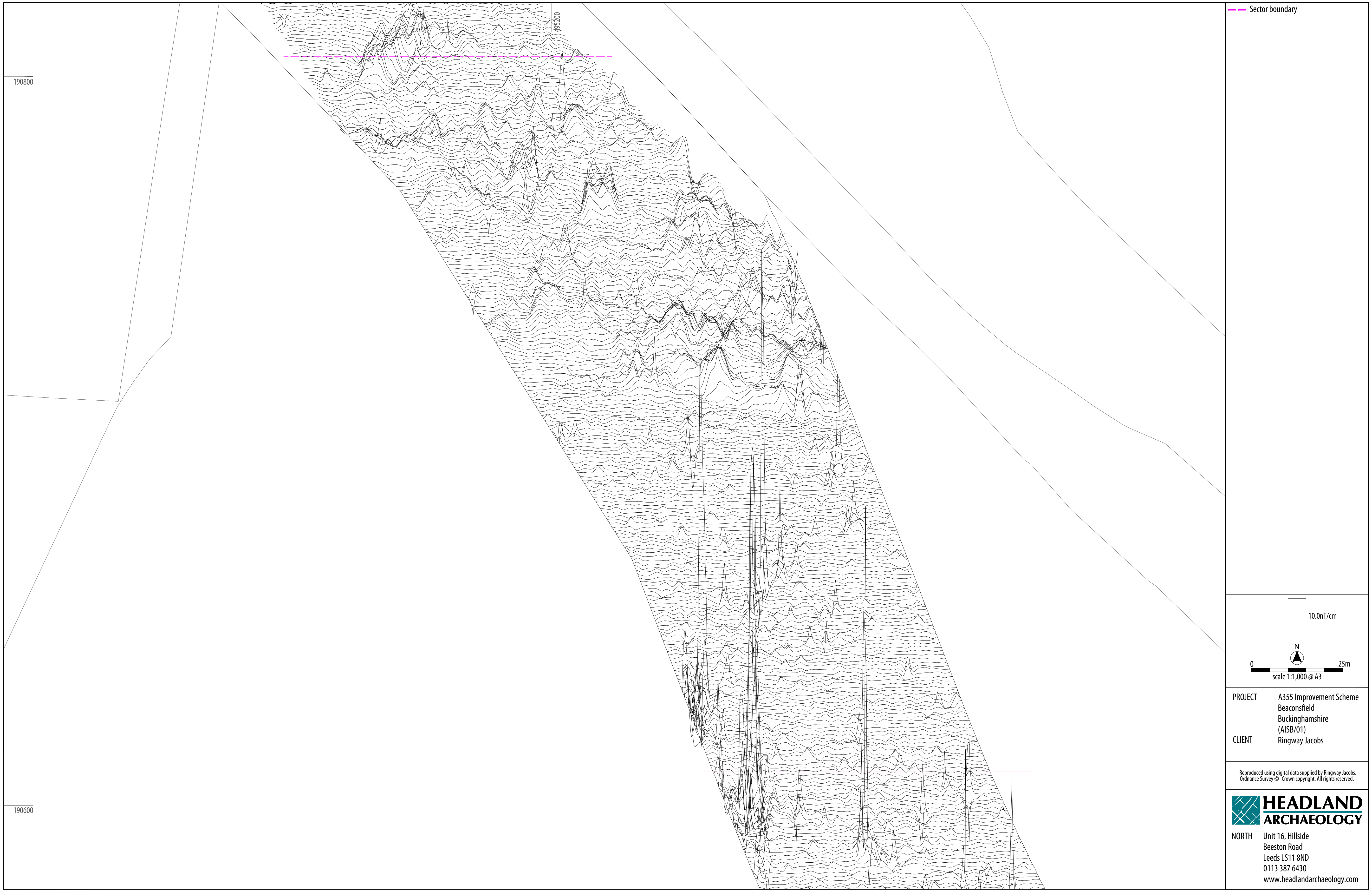
Illus 12
XY trace plot of magnetometer data; Sector 2



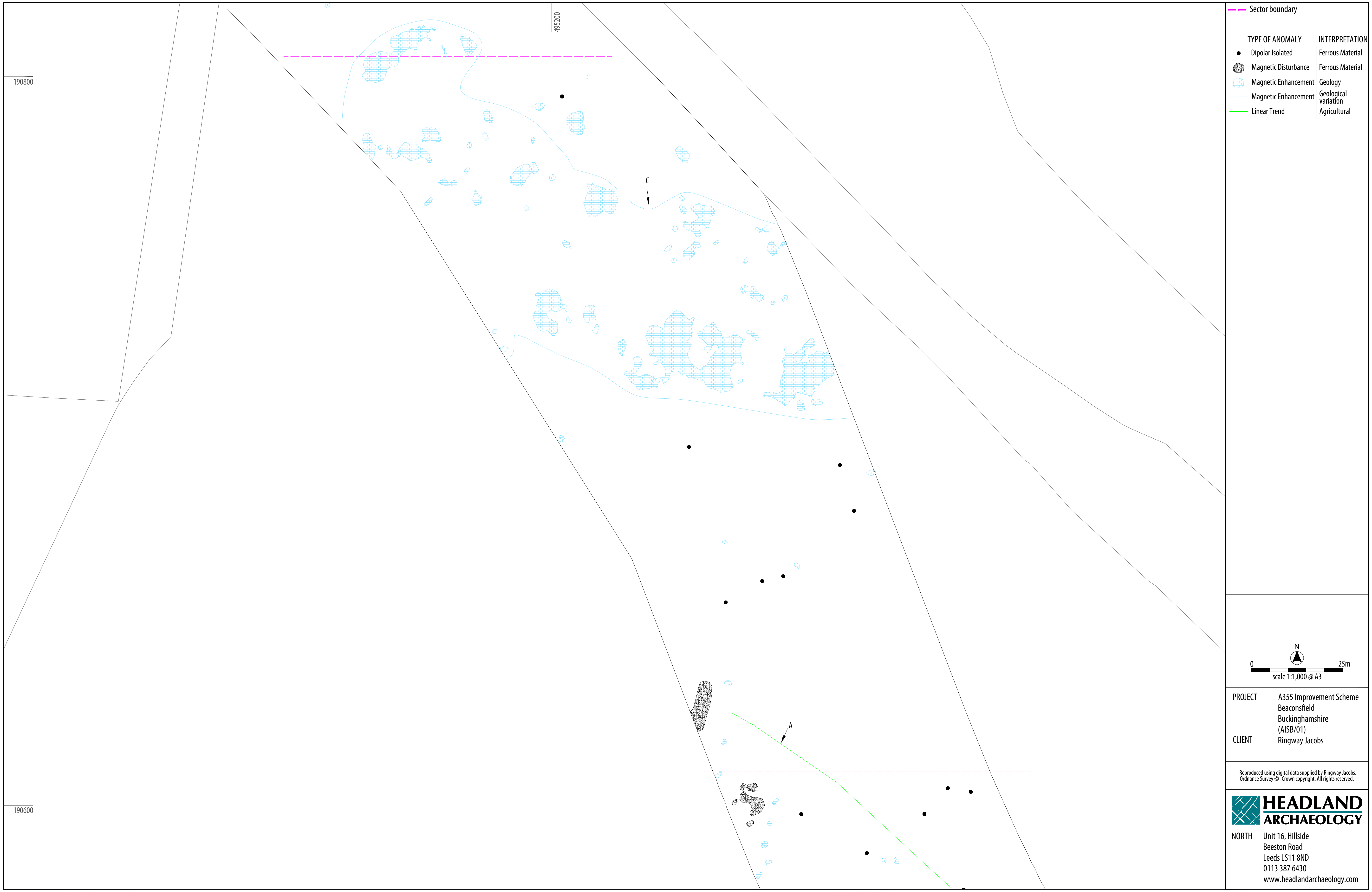
Illus 13
Interpretation of magnetometer data; Sector 2



Illus 14
Processed greyscale magnetometer data; Sector 3

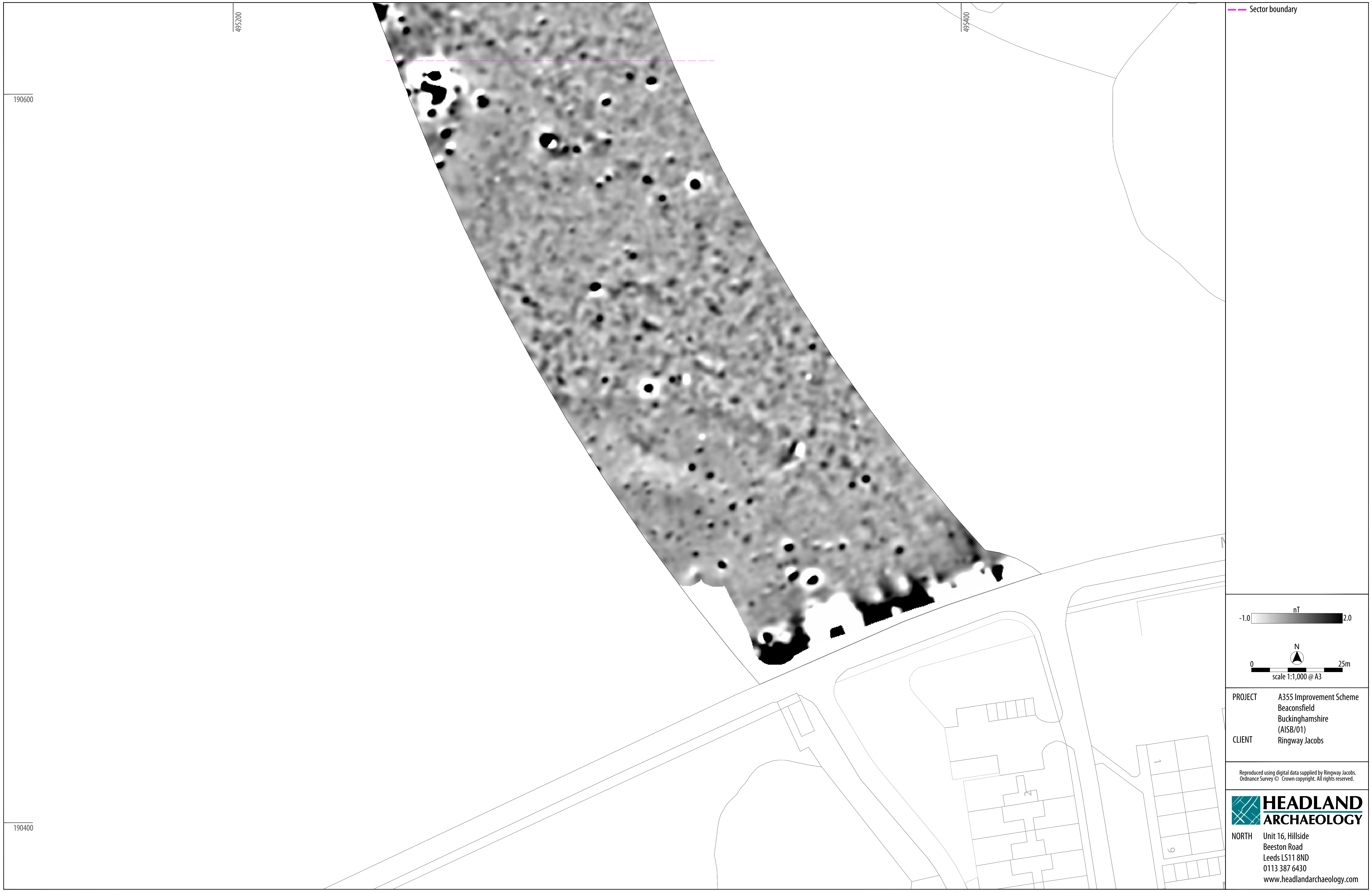


Illus 15
XY trace plot of magnetometer data; Sector 3

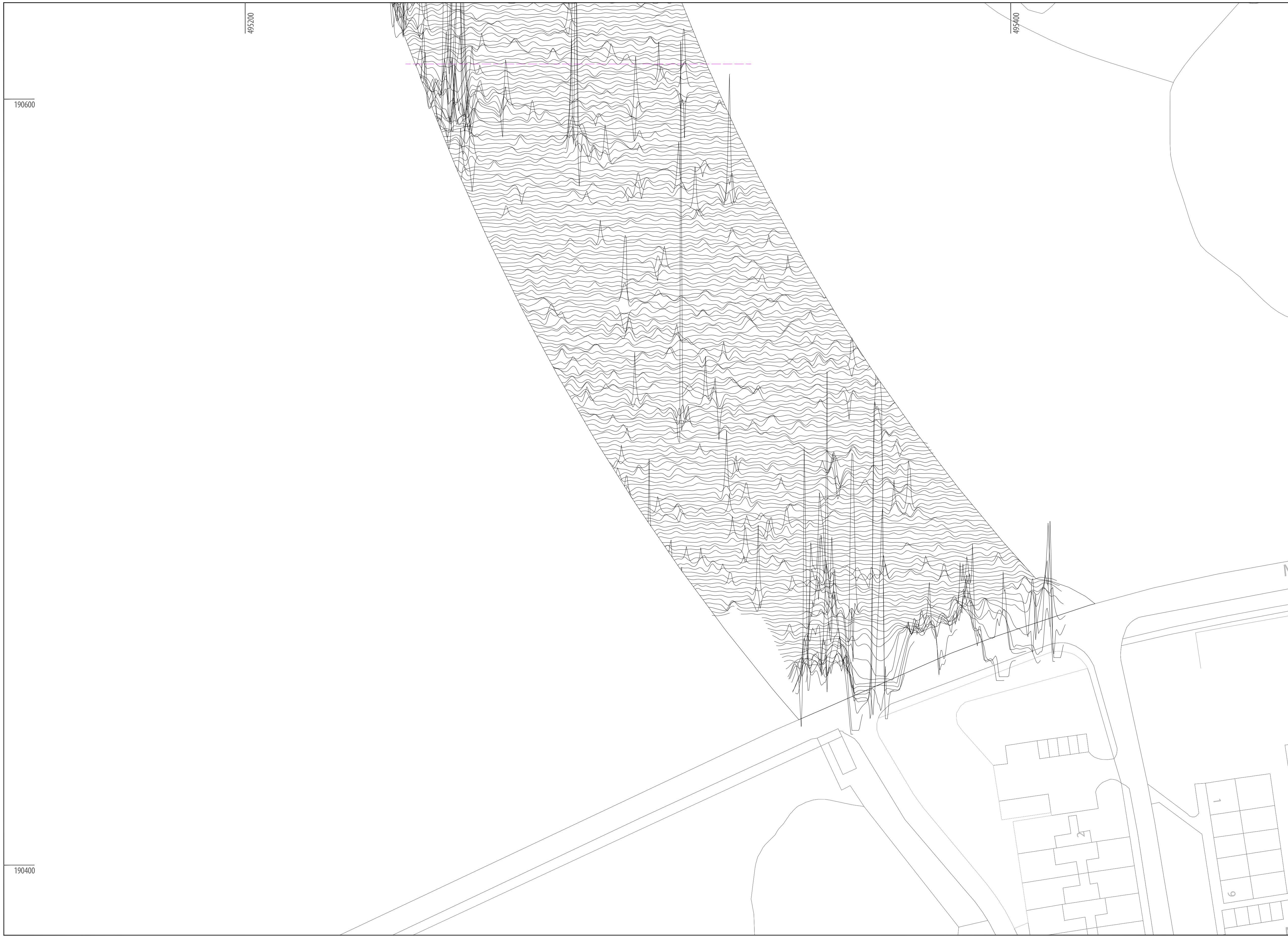


Illus 16

Interpretation of magnetometer data; Sector 3



Illus 17
Processed greyscale magnetometer data; Sector 4



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Illus 18
XY trace plot of magnetometer data; Sector 4

Illus 19

Interpretation of magnetometer data; Sector 4

7 APPENDICES

APPENDIX 1 MAGNETOMETER SURVEY

Magnetic susceptibility and soil magnetism

Iron makes up about 6% of the earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed magnetic susceptibility. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms so that by measuring the magnetic susceptibility of the topsoil, areas where human occupation or settlement has occurred can be identified by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently comes to fill features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected by a magnetometer (fluxgate gradiometer).

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which causes the most recognisable responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected.

The magnetic susceptibility of a soil can also be enhanced by the application of heat. This effect can lead to the detection of features such as hearths, kilns or areas of burning.

Types of magnetic anomaly

In the majority of instances anomalies are termed 'positive'. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as 'negative' anomalies that, conversely, means that the response is negative relative to the mean magnetic background.

Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

It should be noted that anomalies interpreted as modern in origin might be caused by features

that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

The types of response mentioned above can be divided into five main categories that are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes)

These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance

These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Linear trend

This is usually a weak or broad linear anomaly of unknown cause or date. These anomalies are often caused by agricultural activity, either ploughing or land drains being a common cause.

Areas of magnetic enhancement/positive isolated anomalies

Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an XY trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic exhibited by an area of magnetic disturbance or of an 'iron spike' anomaly (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post-holes or by kilns. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies

Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

APPENDIX 2 SURVEY LOCATION INFORMATION

An initial survey base station was established using a Trimble VRS differential Global Positioning System (dGPS). The magnetometer data was georeferenced using a Trimble RTK differential Global Positioning System (Trimble R8s model).

Temporary sight markers were laid out using a Trimble VRS differential Global Positioning System (Trimble R8s model) to guide the operator and ensure full coverage. The accuracy of this dGPS equipment is better than 0.01m.

The survey data were then super-imposed onto a base map provided by the client to produce the displayed block locations. However, it should be noted that Ordnance Survey positional accuracy for digital map data has an error of 0.5m for urban and floodplain areas, 1.0m for rural areas and 2.5m for mountain and moorland areas. This potential error must be considered if coordinates are measured off hard copies of the mapping rather than using the digital coordinates.

Headland Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

APPENDIX 3 GEOPHYSICAL SURVEY ARCHIVE

The geophysical archive comprises:-

› an archive disk containing the raw data in XYZ format, a raster image of each greyscale plot with associate world file, and a PDF of the report

The project will be archived in-house in accordance with recent good practice guidelines (http://guides.archaeologydataservice.ac.uk/g2gp/Geophysics_3). The data will be stored in an indexed archive and migrated to new formats when necessary.

APPENDIX 4 OASIS DATA COLLECTION FORM: ENGLAND

headland5-254730

PROJECT DETAILS	
PROJECT NAME	A355 Improvement Scheme, Beaconsfield
SHORT DESCRIPTION OF THE PROJECT	Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey, covering approximately 8 hectares on land east of Beaconsfield, Buckinghamshire, to provide information on the archaeological potential of the site of a new relief road as part of the A355 Improvement Scheme. The survey has identified a probable barrow in a slightly elevated position in the north of the survey area. Elsewhere, anomalies have been identified which reflect variation in the depth and composition of the soils. On the basis of the geophysical survey, the archaeological potential across the majority of the site is assessed as being low although a high archaeological potential is ascribed to the area around the probable barrow
PROJECT DATES	Start: 25-04-2016 End: 26-04-2016
PREVIOUS/FUTURE WORK	Not known / Not known
ANY ASSOCIATED PROJECT REFERENCE CODES	AISB16 - Contracting Unit No.
TYPE OF PROJECT	Field evaluation
SITE STATUS	None
CURRENT LAND USE	Grassland Heathland 1 - Heathland
MONUMENT TYPE	N/A None
MONUMENT TYPE	N/A None
SIGNIFICANT FINDS	N/A None
SIGNIFICANT FINDS	N/A None
METHODS & TECHNIQUES	"Geophysical Survey"
DEVELOPMENT TYPE	Road scheme (new and widening)
PROMPT	National Planning Policy Framework - NPPF
POSITION IN THE PLANNING PROCESS	Pre-application
SOLID GEOLOGY (OTHER)	Seaford Chalk Formation and Newhaven Chalk Formation in the north and Lambeth Group in the south
DRIFT GEOLOGY (OTHER)	Beaconsfield Gravel
TECHNIQUES	Magnetometry

PROJECT LOCATION	
COUNTRY	England
SITE LOCATION	BUCKINGHAMSHIRE SOUTH BUCKS BEACONSFIELD A355 Improvement Scheme, Beaconsfield Buckinghamshire
POSTCODE	HP9 2ES
STUDY AREA	8 Hectares
SITE COORDINATES	SU 494790 191028 50.968670424908 -1.295268754668 50 58 07 N 001 17 42 W Point
SITE COORDINATES	SU 495380 190453 50.96814827396 -1.294436317435 50 58 05 N 001 17 39 W Point
LAT/LONG DATUM	Unknown
HEIGHT OD / DEPTH	Min: 96m Max: 110m

PROJECT CREATORS	
NAME OF ORGANISATION	Headland Archaeology
PROJECT BRIEF ORIGINATOR	Headland Archaeology
PROJECT DESIGN ORIGINATOR	Headland Archaeology
PROJECT DIRECTOR/MANAGER	Harrison, S
PROJECT SUPERVISOR	Bishop, R
TYPE OF SPONSOR/FUNDING BODY	Developer
NAME OF SPONSOR/FUNDING BODY	Jacobs

PROJECT ARCHIVES	
PHYSICAL ARCHIVE EXISTS?	No
DIGITAL ARCHIVE RECIPIENT	In house
DIGITAL CONTENTS	“other”
DIGITAL MEDIA AVAILABLE	“Geophysics”
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