ARCHAEOLOGICAL SERVICES WYAS

Land at Michelmersh Wood Hampshire

Geophysical Survey

Report no. 4175

January 2014

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Client: Solar Planning Ltd

Land at Michelmersh Wood
Hampshire

Geophysical Survey

Summary

A geophysical (magnetometer) survey covering approximately 37.5 hectares was carried out on agricultural land to the north of Michelmersh, to inform the determination of an outline planning application for a proposed solar park. A sub-circular enclosure is clearly identified in the western half of the site although it is 75m north of two sites recorded on the Hampshire Historic Environment Record. No other anomalies of archaeological potential have been identified although several anomalies likely to locate small-scale, probably post medieval, extraction pits are also recorded. Numerous pipes leading to/from a gas pumping station dominate the data set in the eastern half of the site. On the basis of the magnetic survey the archaeological potential of the site is considered to be low throughout, with the exception of the area in and around the enclosure. However, it is worth noting that the survey has not identified any anomalies at either of the two previously recorded cropmark sites.

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Report Information

Client:	Solar Planning Ltd
Address:	80, Coleman Street, London, EC2R 5BJ
Report Type:	Geophysical Survey
Location:	Michelmersh Wood
County:	Hampshire
Grid Reference:	SU 350 273
Period(s) of activity:	prehistoric?/Roman?/post-medieval?
Report Number:	2572
Project Number:	4175
Site Code:	MHS14
OASIS ID:	archaeol11- 170220
Planning Application No.:	n/a
Museum Accession No.:	n/a
Date of fieldwork:	January 2014
Date of report:	January 2014
Project Management:	Sam Harrison BSc MSc MIfA
Fieldwork:	Tom Fildes BA
	Alex Schmidt BA
	Chris Sykes BA MSc
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Photography:	Chris Sykes
Research:	n/a

Authorisation for distribution: --

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1 Introduction

Archaeological Services WYAS (ASWYAS) were commissioned by The Environmental Dimension Partnership (the Consultant), on behalf of Solar Planning Ltd (the Client), to undertake a geophysical (magnetometer) survey of land to the north and north-east of Michelmersh, Hampshire (see Fig. 1), prior to the submission of a planning application for a proposed solar park development. The work was undertaken in accordance with a Project Design (Harrison 2014) supplied to and approved by David Hopkins, County Archaeologist at Hampshire County Council, and the Consultant, with guidance contained within the National Planning Policy Framework (2012) and in line with current best practice (David *et al.* 2008). The survey was carried out between January 13th and January 22nd 2014 in order to provide additional information on the archaeological potential of the site.

Site location, topography and land-use

The Proposed Development Area (PDA) covers approximately 39 hectares and is situated 1.5km north of the village of Michelmersh, centred at SU 350 273, and comprises four interconnecting arable and pasture fields (Fields 1 – 4; see plates) on the southern edges of Michelmersh and Strouds Woods (see Fig. 2). The woods surround the site to the north, north-west and south-east, with arable fields extending to the south beyond a farm track. A gas pumping station is situated in the western corner of Field 4. A strip of woodland around the northern side of this field, and an area set-aside as bird cover along the southern side reduced the area suitable for survey to approximately 37.5 hectares.

Michelmersh Wood is located on the top of a prominent hill at approximately 110m above Ordnance datum (aOD). From the summit the land slopes down to the south and south-east so that the survey areas are situated on generally south-facing slopes (see Plate 1).

Soils and geology

The underlying bedrock geology is Culver Chalk Formation overlain by superficial deposits of clay-with-flints formation, comprising clay, silt, sand and gravel (British Geological Survey 2014). The soils are classified in the Andover 1 and Carstens associations, being characterised as shallow, well-drained, silts (Soil Survey of England and Wales 1983).

2 Archaeological Background

There are three known heritage assets within the site boundary which are recorded on the Hampshire Historic Environment Record (HER) (see Fig. 2). A possible Iron Age/Roman enclosure complex (HER ref. 24635), identified as a cropmark on air photographs taken in 1968, is located within the east of Field 1. A second cropmark, recorded as a possible Iron Age enclosure (HER ref. 30658) is located 50m to the west of this site. Both of these monuments appear to correspond to rectilinear cropmark data recorded by Hampshire County Council. A scatter of thirteen pieces of Early Mesolithic flint (HER ref. 55715) were recovered during fieldwalking prior to the installation of a gas pipeline in the north of Field 2. A Palaeolithic handaxe is also recorded in the vicinity of the PDA, although the exact location of this find is unclear.

Prior to survey, therefore, the site was assumed to have a moderate potential for the presence of unrecorded archaeological remains.

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 the proposed development on potential sub-surface archaeological remains and for further evaluation or mitigation proposals, if appropriate, to be recommended. To achieve this aim a magnetometer survey covering all available parts of the PDA was carried out, an area of 37.5 hectares.

The general objectives of the geophysical survey were:

- to provide information about the nature and possible interpretation of any magnetic anomalies identified;
- to therefore determine the presence/absence and extent of any buried archaeological features; and
- to prepare a report summarising the results of the survey.

Magnetometer survey

The site grid was laid out using a Trimble VRS differential Global Positioning System (Trimble 5800 model). Bartington Grad601 magnetic gradiometers were used during the survey, taking readings at 0.25m intervals on zig-zag traverses 1m apart within 30m by 30m grids, so that 3600 readings were recorded in each grid. These readings were stored in the memory of the instrument and later downloaded to computer for processing and interpretation. Geoplot 3 (Geoscan Research) software was used to process and present the data. Further details are given in Appendix 1.

Reporting

A general site location plan, incorporating the 1:50000 Ordnance Survey (OS) mapping, is shown in Figure 1. Figure 2 is a large scale (1:5000) location plan displaying the processed greyscale magnetometer data and detail from the Hampshire HER and cropmark data from the NMP. Figure 3 is an overall data interpretation plot at the same scale. Detailed data plots (‘raw’ and processed) and full interpretative figures are presented at a scale of 1:1000 in Figures 4 to 30 inclusive.

Further technical information on the equipment used, data processing and survey methodologies is given in Appendix 1 and Appendix 2. Appendix 3 describes the composition and location of the site archive.

The survey methodology, report and any recommendations comply with the Project Design (Harrison 2013) and guidelines outlined by English Heritage (David *et al.* 2008) and by the Institute for Archaeologists (IfA 2013). All figures reproduced from Ordnance Survey mapping are with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

The figures 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 figures are presented to most suitably display and interpret the data from this site based on the experience and knowledge of Archaeological Services staff.

4 Results and Discussion (see Figs 4 to 30 inclusive)

Generally, a moderate level of background variation has been recorded across the PDA with localised variations in background magnetic response being caused by variations within the superficial deposits. Numerous anomalies have been identified by the survey which fall into a number of different types and categories according to their origin and these are discussed below and cross-referenced to specific examples and locations within the site, where appropriate.

Ferrous Anomalies

Ferrous responses, either as individual 'spike' anomalies or more extensive areas of magnetic disturbance, are typically caused by modern ferrous (magnetic) debris, either on the ground surface or in the plough-soil, or are due to the proximity of magnetic material in field boundaries, buildings or other above ground features. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as ferrous debris or material is common on rural sites, often being present as a consequence of manuring or tipping/infilling. Throughout the PDA individual iron 'spike' anomalies are common but there is no obvious pattern or clustering to their distribution to suggest anything other than a random background scatter of ferrous debris in the soil.

Four high-magnitude dipolar linear anomalies, **A**, **B**, **C** and **D** dominate the dataset. These anomalies are caused by sub-surface, high pressure, gas pipes. Anomalies **B**, **C**, and **D** can be seen in the east of the PDA leading to/from the Gas Pumping Station within the south-west of Field 4, whereas anomaly **A** can be seen on a north-west/south-east alignment traversing Field 1, Field 2 and Field 4. Anomalies of this magnitude swamp the magnetic field, masking or obscuring any weaker anomalies, if present, within the affected area. Areas of disturbance around the periphery of the PDA are due to ferrous material forming part of, or incorporated into, the adjacent field boundaries.

Agricultural Anomalies

Analysis of historical mapping indicates that the PDA has undergone considerable change since the publication of the first edition Ordnance Survey (OS) map in 1871 when Field 1, Field 2 and Field 3 are shown as being almost entirely under managed woodland, divided by a network of regular trackways and boundaries. The PDA is cleared of woodland by the publication of the 1962 edition OS map which shows Field 1 as being sub-divided by two surviving boundaries and a further boundary within the south-west of Field 4. None of these former field boundaries have been detected by the geophysical survey. It is unclear whether the absence of these features in the magnetic data is due to a low magnetic contrast between cut features (i.e. ditches) and the prevailing soils, whether the former boundaries were simple fences with no sub-surface trace, or perhaps that all evidence of the former boundaries has been removed by subsequent ploughing. Three faint linear trend anomalies on an east-west alignment within the north of Field 1 are interpreted as agricultural in origin. The anomalies are orientated parallel to the adjacent boundary and are due to topographical variation caused by modern ploughing and the interface between an area of set-aside and the arable crop (see Plate 1).

Geological Anomalies

Throughout the survey area discrete anomalies, characterised as localised areas of enhanced magnetic response, have been identified. These anomalies are interpreted as geological in origin, being caused by variation in the composition of the soils and superficial deposits (particularly the sands and gravels) from which they derive.

Quarrying? Anomalies

Within the west of Field 1 a fragmented linear anomaly, **E**, can be seen on an east-west orientation. This anomaly may locate a former trackway. The trackway is flanked by four circular areas of magnetic disturbance, **F**, **H**, **I** and **J**, spaced at regular intervals and each measuring between 18m and 25m in diameter. These anomalies are thought to locate former extraction pits/quarries with the anomaly being due to the enhanced magnetic response of the material used to back-fill the pits. Both the possible trackway and extraction pits are clearly visible as dark cropmarks on aerial photographs of the site taken in 1996 and the pits also correspond with slight depressions noted during the survey. Two other probable pits, **K** and **L**, are similarly spaced and sited on the same alignment a short distance to the east. Throughout Field 1, Field 2 and Field 3 a further nine probable extraction pits, **M** – **U**, have been interpreted, each being circular in form and of similar dimensions. Map regression gives credence to this interpretation as numerous extraction sites are clearly shown within the immediate landscape, mainly chalk pits but also gravel pits, sand pits and a lime quarry.

Archaeological Anomalies

No anomalies have been recorded at the location of the two cropmark sites recorded on Hampshire HER (see Fig. 2). However, a clear sub-circular anomaly, **V**, has been identified at least 75m to the north of either of the two cropmark sites, centred at NGR SU 34811 27376. It is unclear whether this anomaly reflects the actual location of either of the two cropmark sites or whether it indicates a third, previously unrecorded site. The considerable discrepancy in location suggests that the latter interpretation is more likely. The anomaly is caused by a soil-filled sub-circular ditch, 28m in diameter with a broad, circular terminus, **W**, at the south-eastern extent, possible locating a large pit at the 'entrance' to the enclosure. Smaller, discrete anomalies have been identified within the interior, perhaps being due to post-holes and smaller pits. It is also worth mentioning that the enclosure is located in line with the possible trackway, **E**, and the alignment of extraction pits flanking either side of it. However, no relationship between the features causing these anomalies should be inferred.

5 Conclusions

The geophysical survey has identified anomalies in the main suggestive of an industrial post-medieval landscape. At least fifteen probable extraction pits have been identified as well as a possible former trackway. Some of these features are visible as cropmarks while others were visible as shallow depressions in the field. No anomalies have been identified which correspond well to the cropmarks nor to the Iron Age/Romano-British sites which are recorded within the Hampshire HER. However, 75m to the north of these sites, a sub-circular enclosure is of clear archaeological potential. An entrance to the enclosure is clearly present to the southern side, with possible pits and post-holes identified in the interior. Any possible association between the enclosure and the industrial, post-medieval landscape is unclear, and it is possible that the enclosure represents an earlier (pre-historic or Roman?) phase of occupation on the site.

Therefore, on the basis of the geophysical survey, the PDA is assessed as having a low archaeological potential with a high potential in the vicinity of the sub-circular enclosure.

The results and subsequent interpretation of data from geophysical surveys should not be treated as an absolute representation of the underlying archaeological and non-archaeological remains. Confirmation of the presence or absence of archaeological remains can only be achieved by direct investigation of sub-surface deposits.

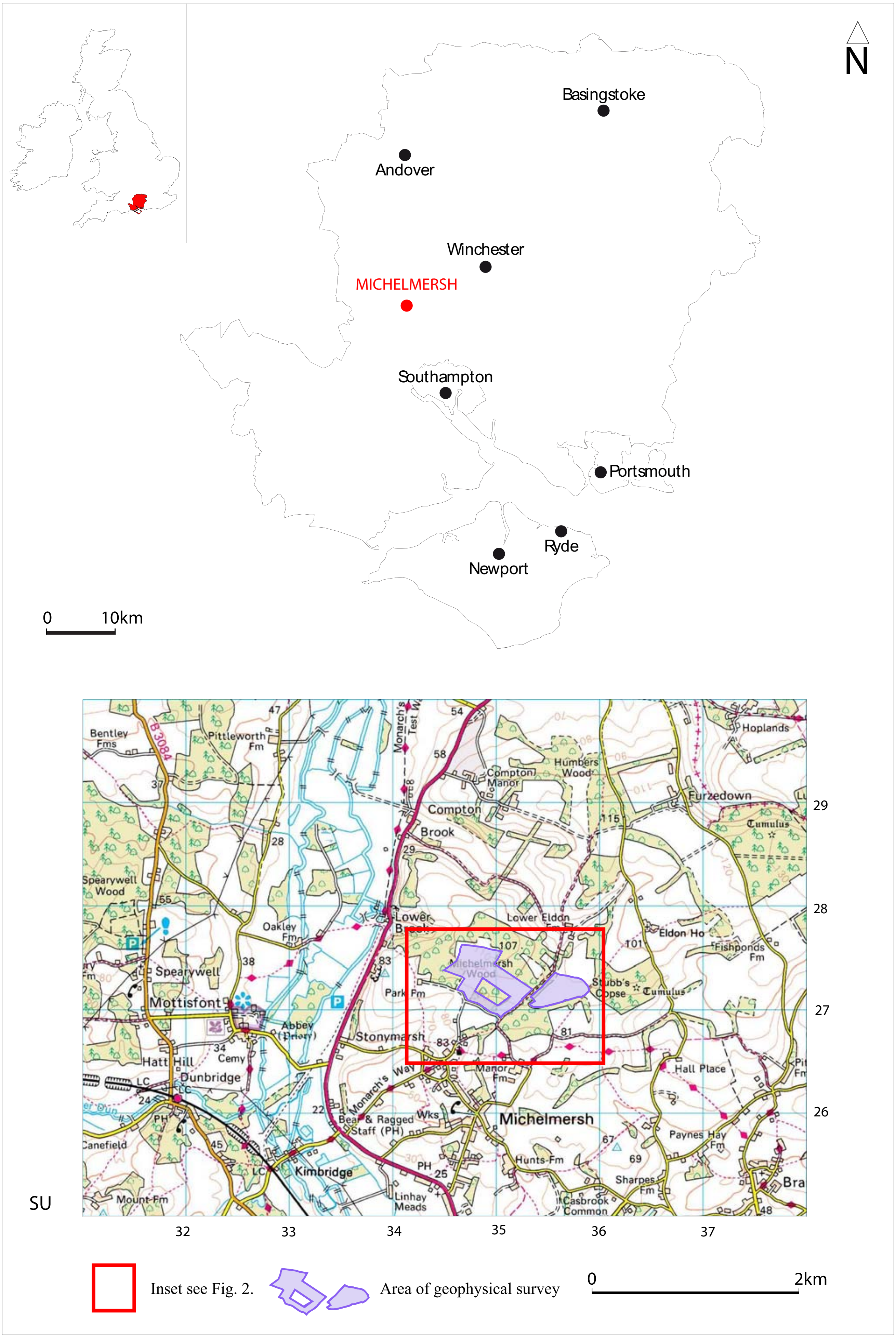

Fig. 1. Site location

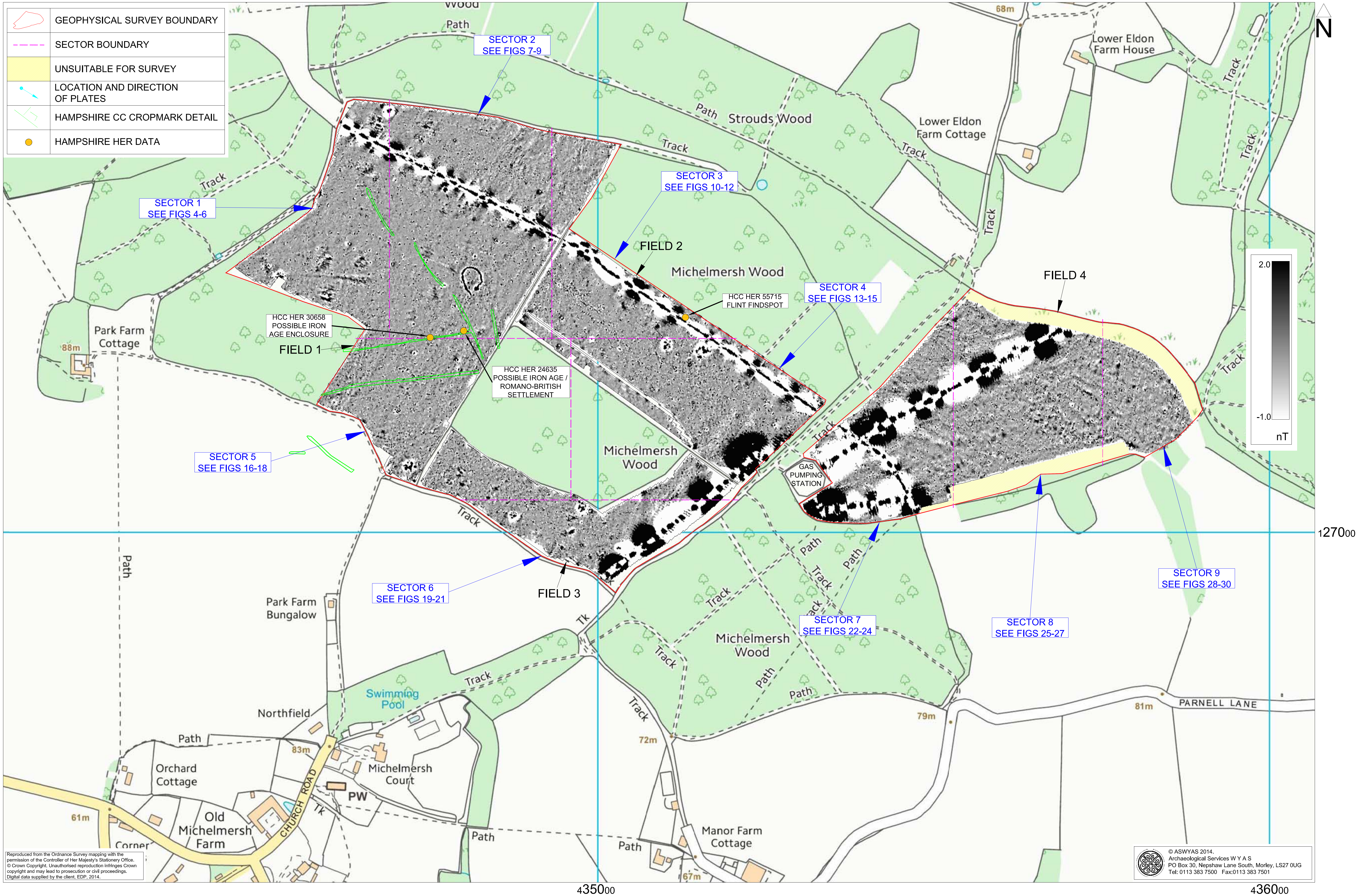

Fig. 2. Survey location showing greyscale magnetometer data (1:5000 @ A3)

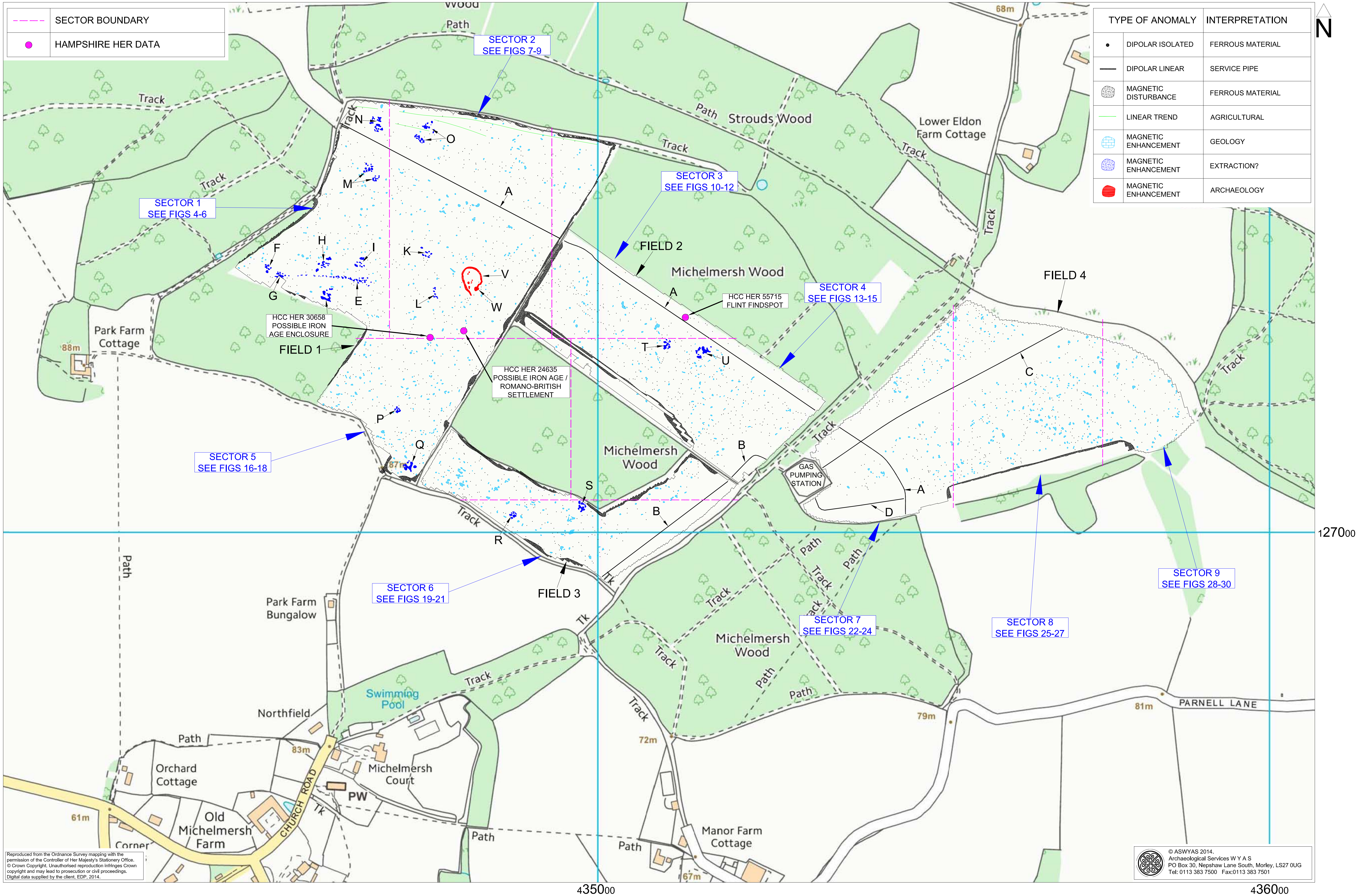

Fig. 3. Overall interpretation of magnetometer data (1:5000 @ A3)

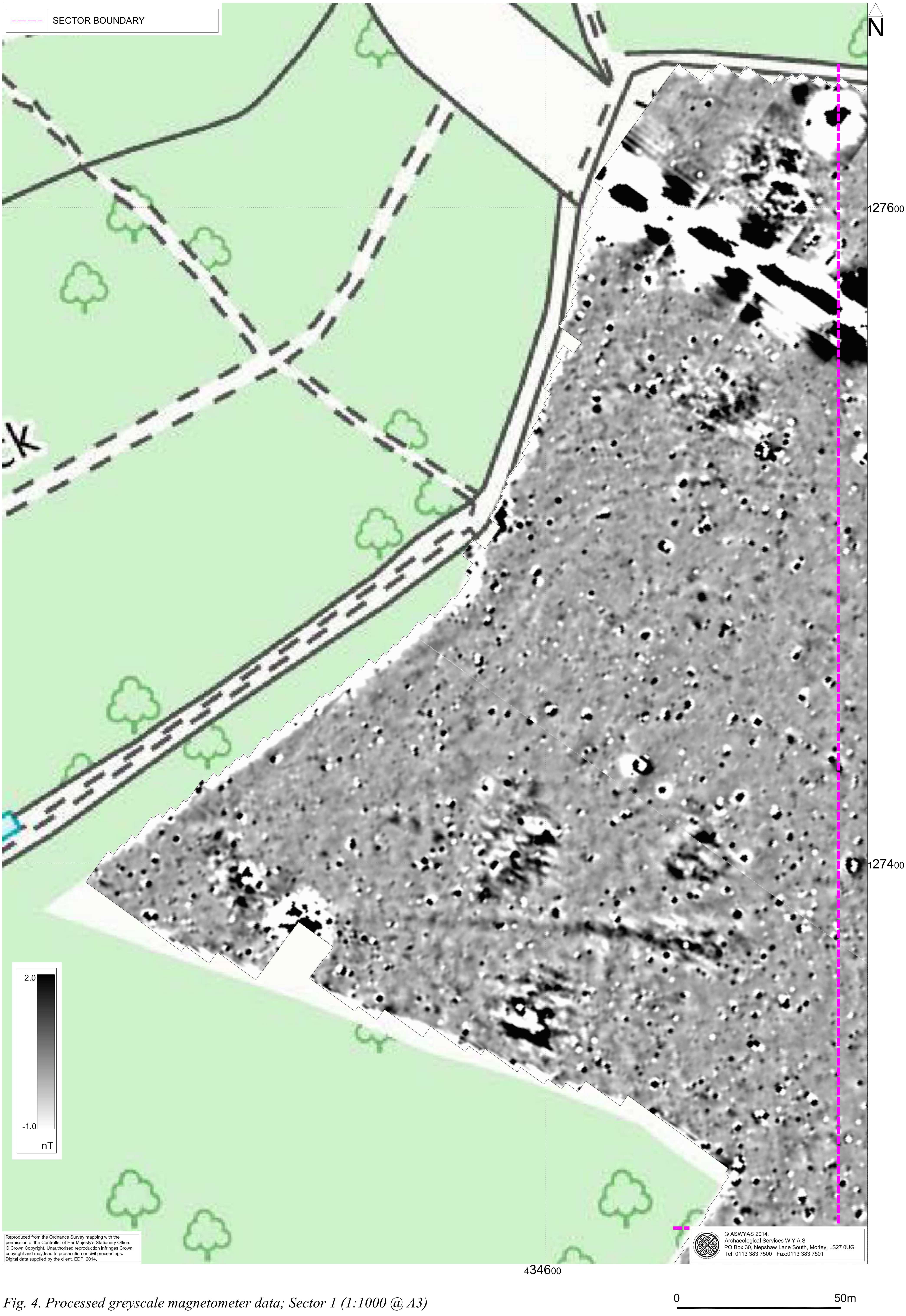

Fig. 4. Processed greyscale magnetometer data; Sector 1 (1:1000 @ A3)

Fig. 5. XY trace plot of minimally processed magnetometer data; Sector 1 (1:1000 @ A3)

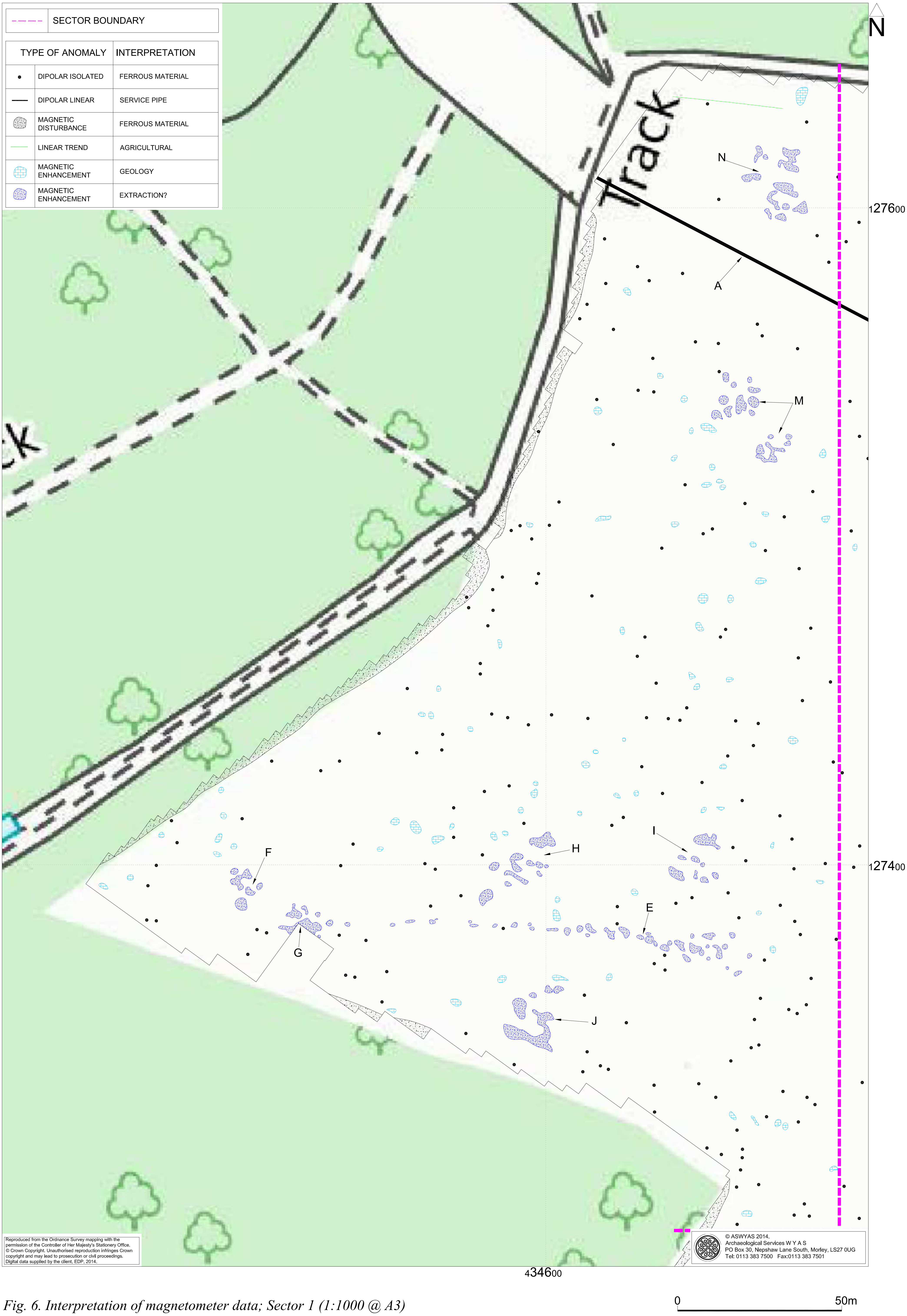

Fig. 6. Interpretation of magnetometer data; Sector 1 (1:1000 @ A3)

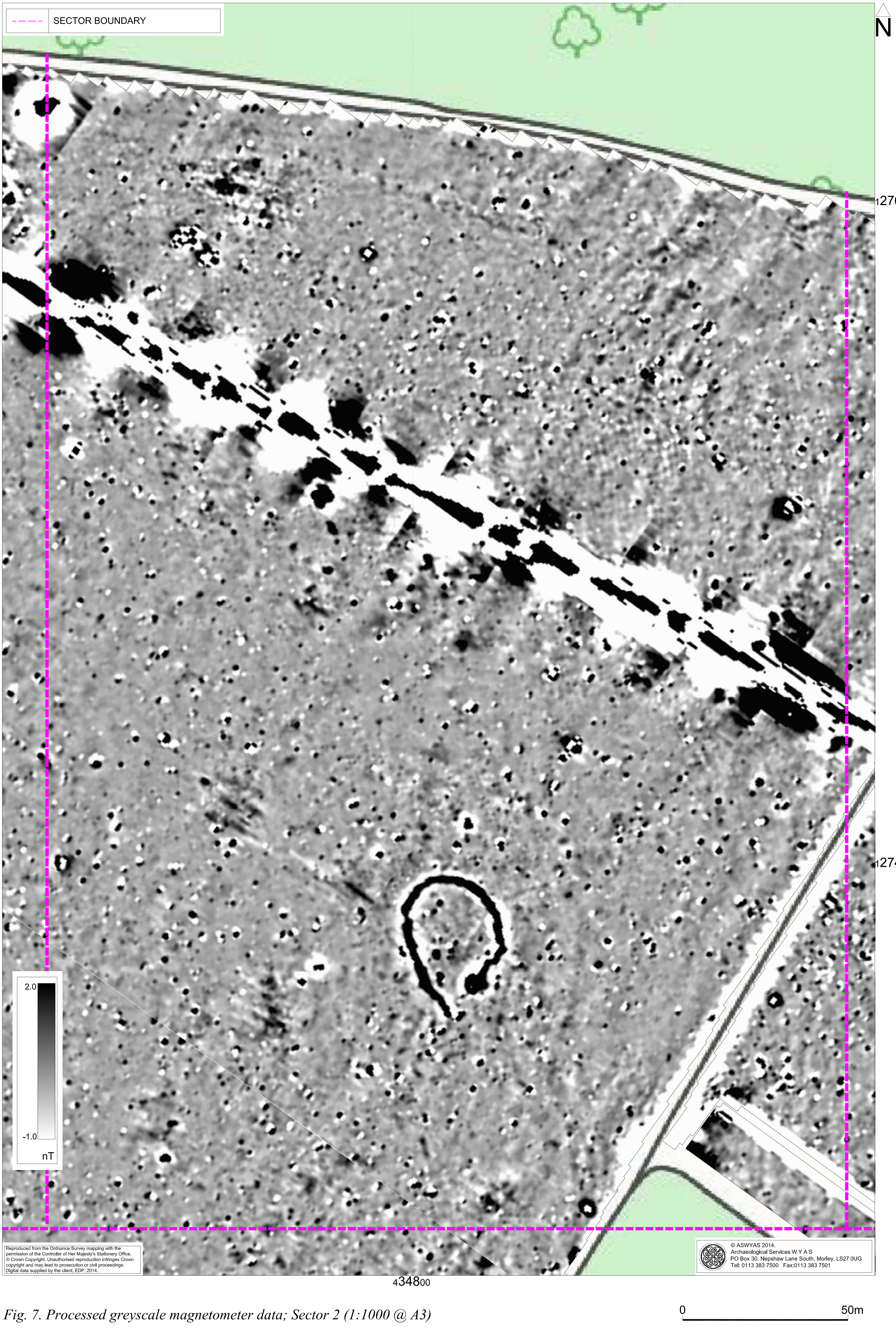

Fig. 7. Processed greyscale magnetometer data; Sector 2 (1:1000 @ A3)

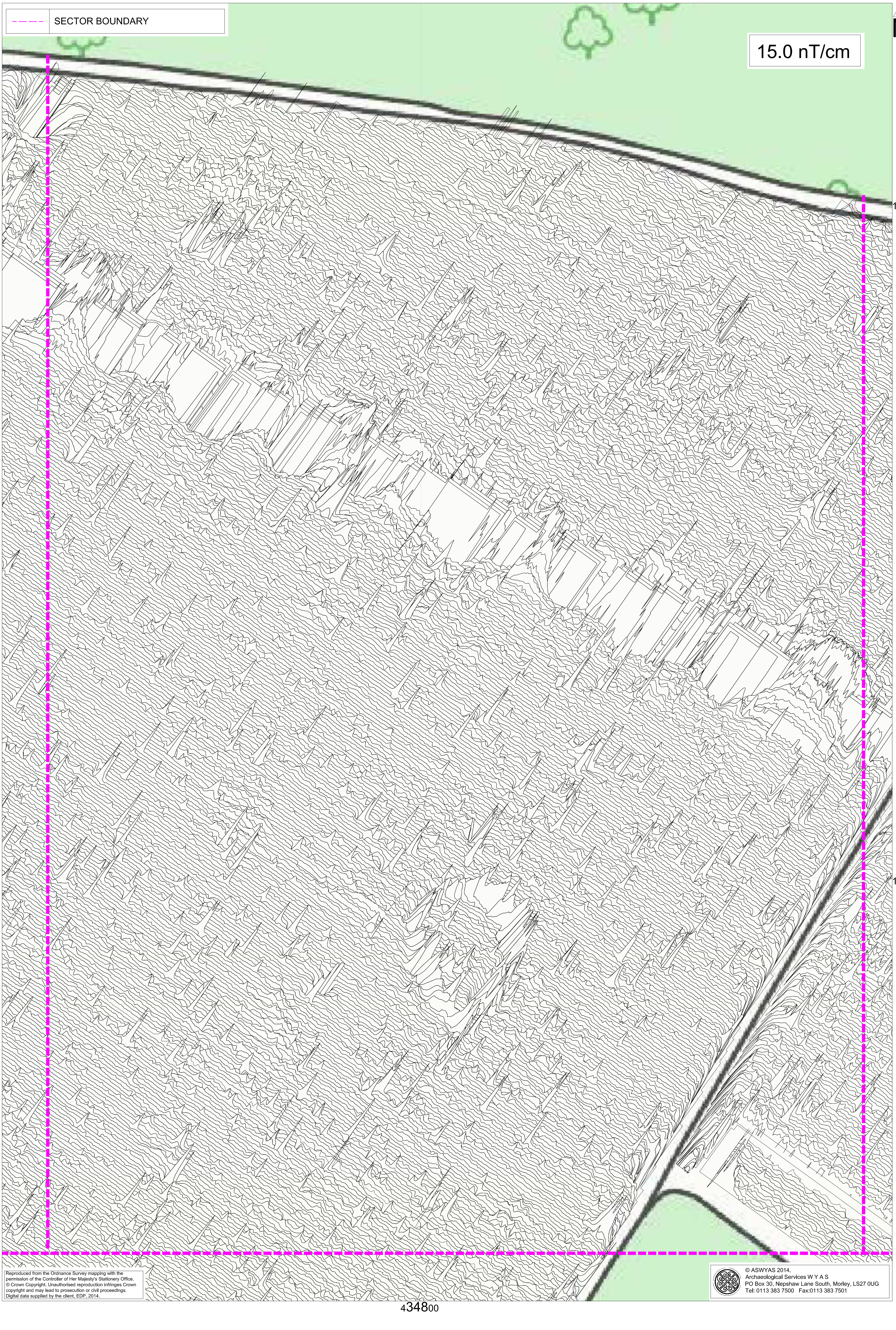

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Fig. 8. XY trace plot of minimally processed magnetometer data; Sector 2 (1:1000 @ A3)

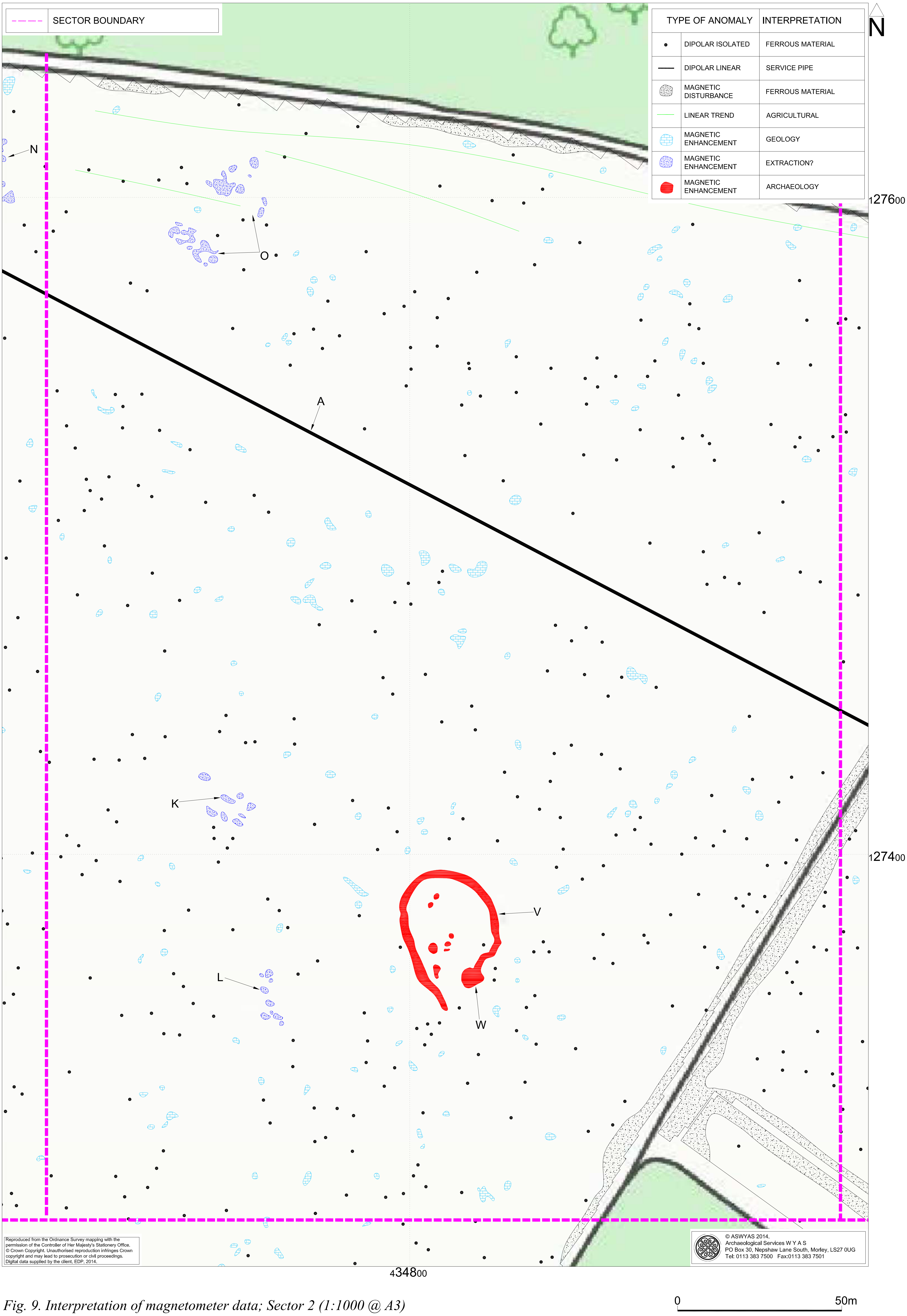

Fig. 9. Interpretation of magnetometer data; Sector 2 (1:1000 @ A3)

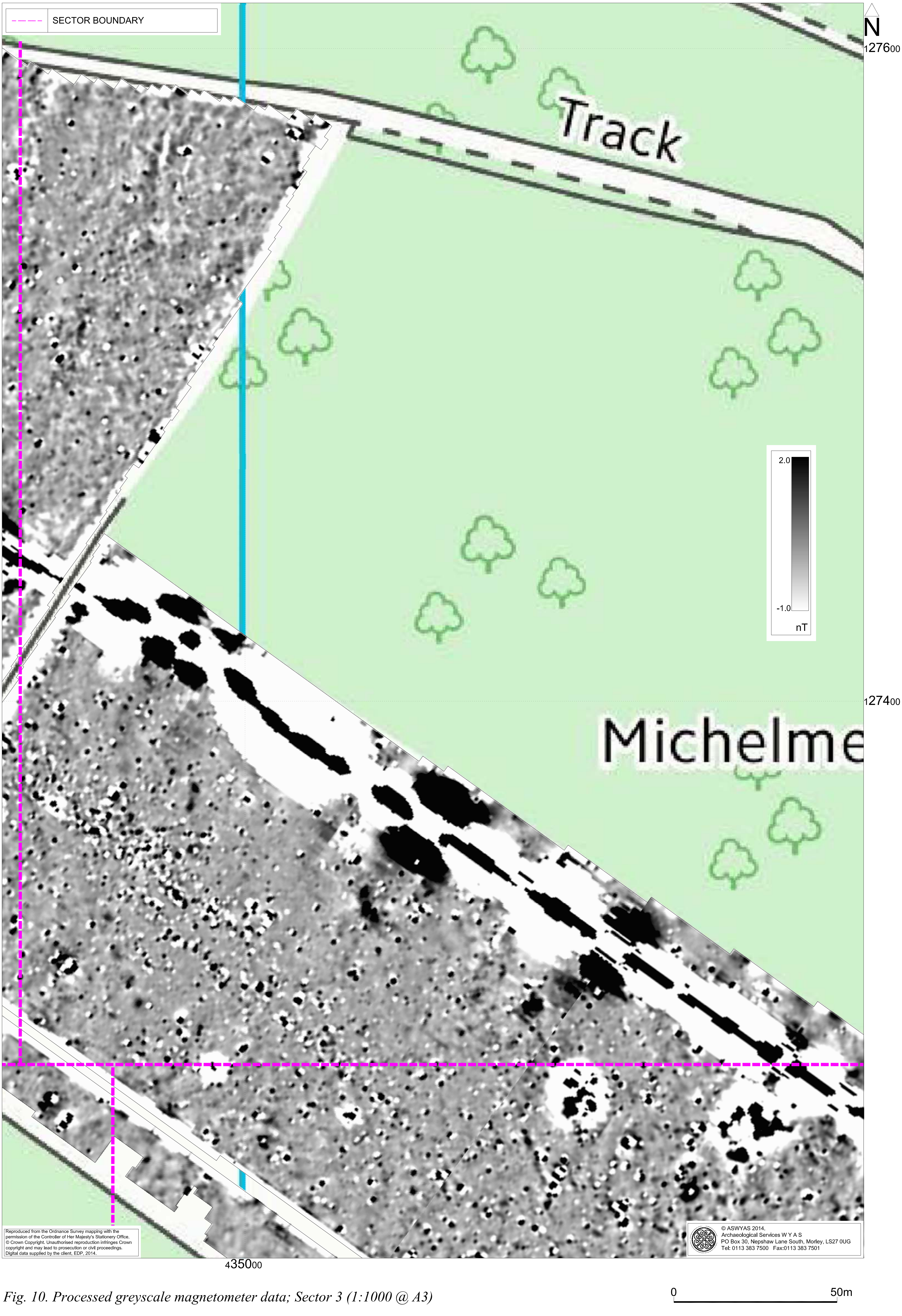

Fig. 10. Processed greyscale magnetometer data; Sector 3 (1:1000 @ A3)

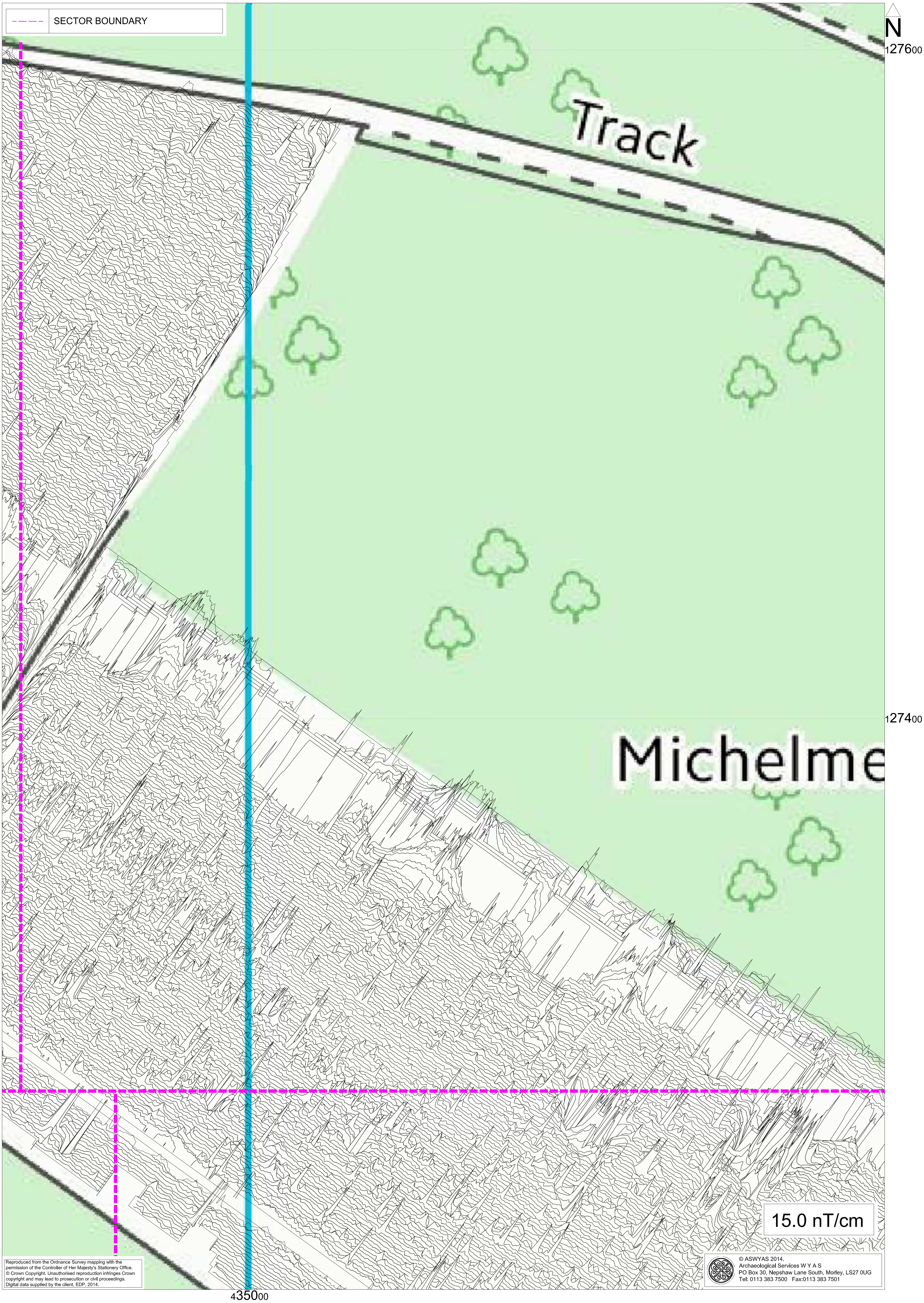

Fig. 11. XY trace plot of minimally processed magnetometer data; Sector 3 (1:1000 @ A3)

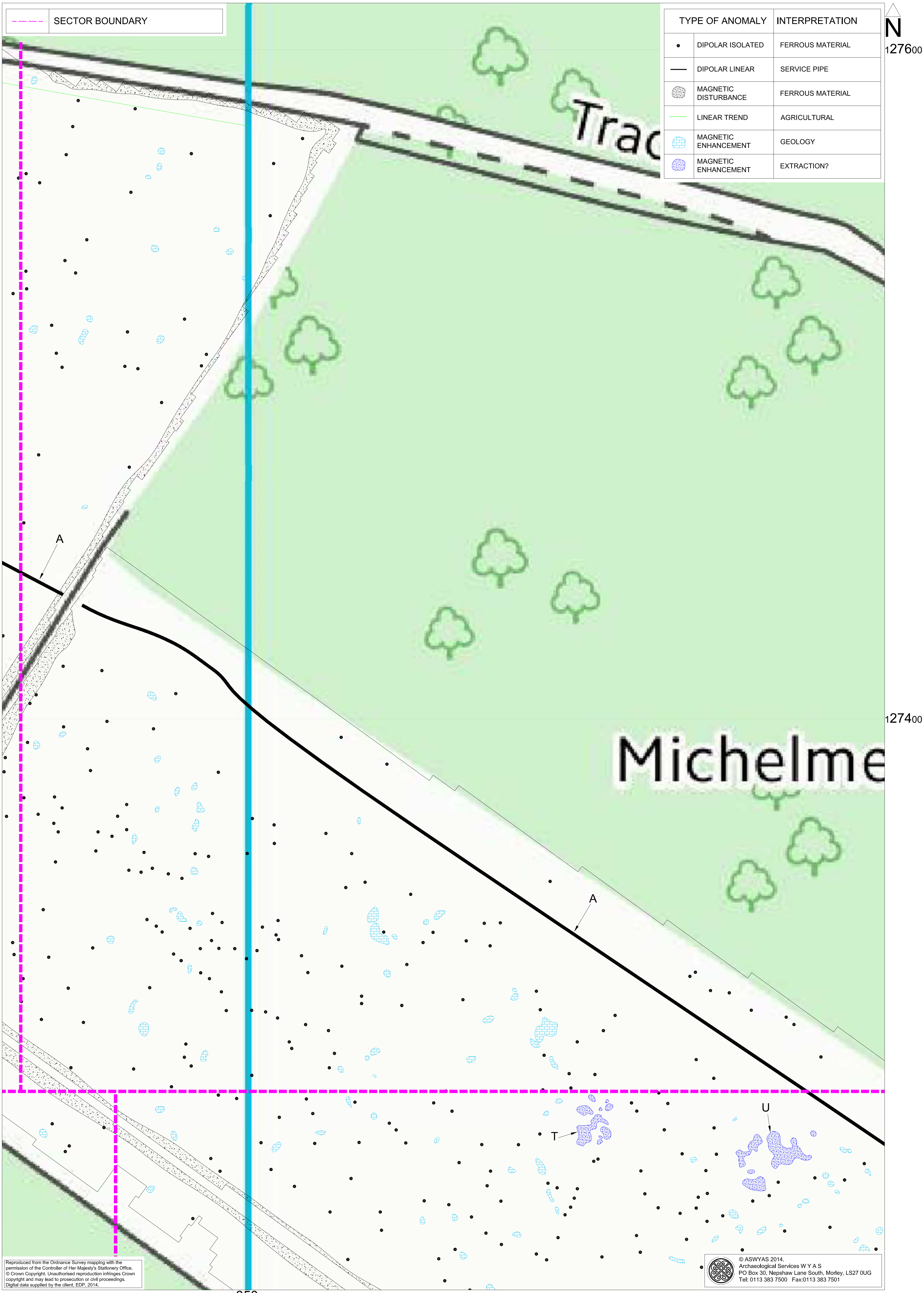

Fig. 12. Interpretation of magnetometer data; Sector 3 (1:1000 @ A3)

Fig. 13. Processed greyscale magnetometer data; Sector 4 (1:1000 @ A3)

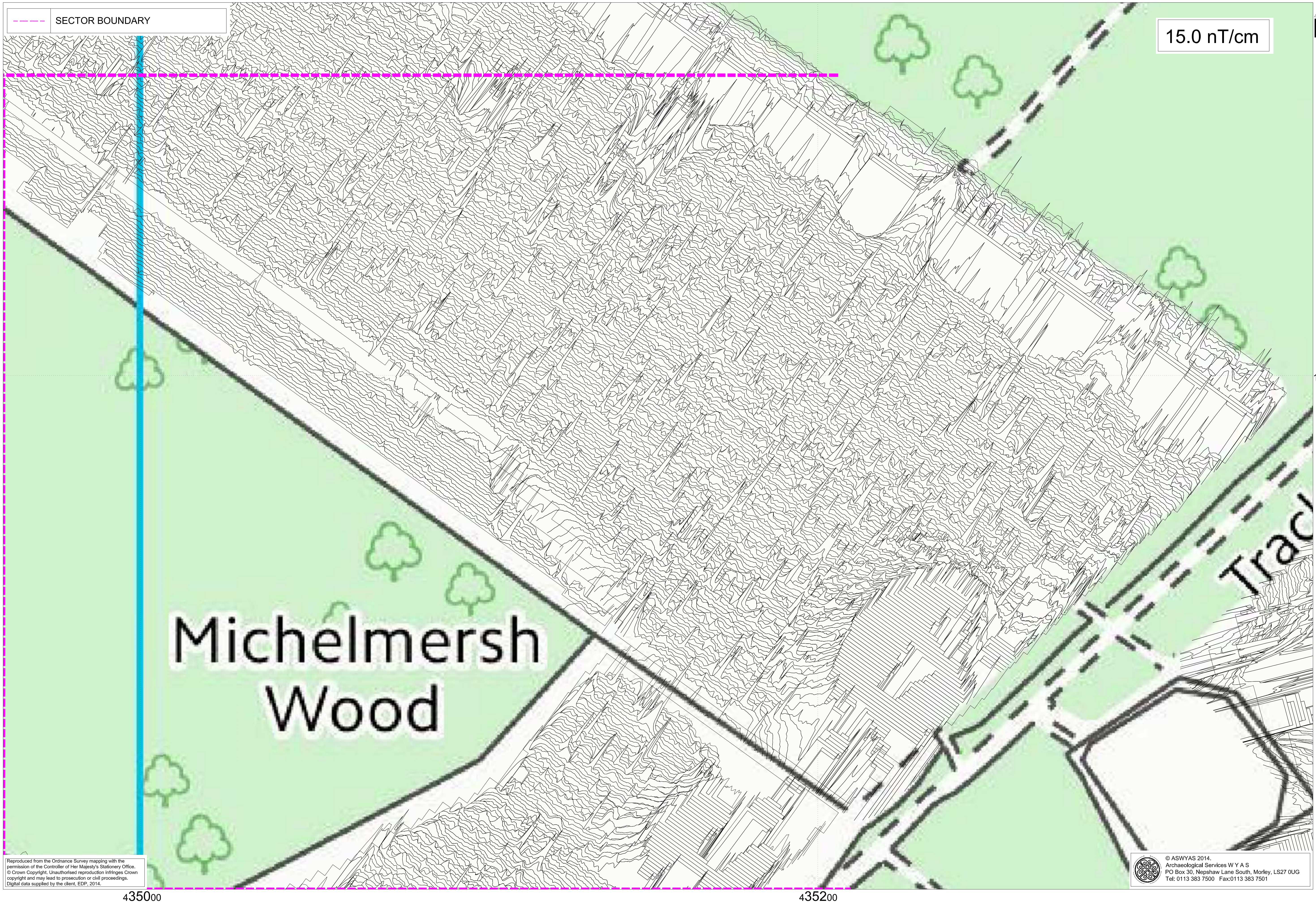

Fig. 14. XY trace plot of minimally processed magnetometer data; Sector 4 (1:1000 @ A3)

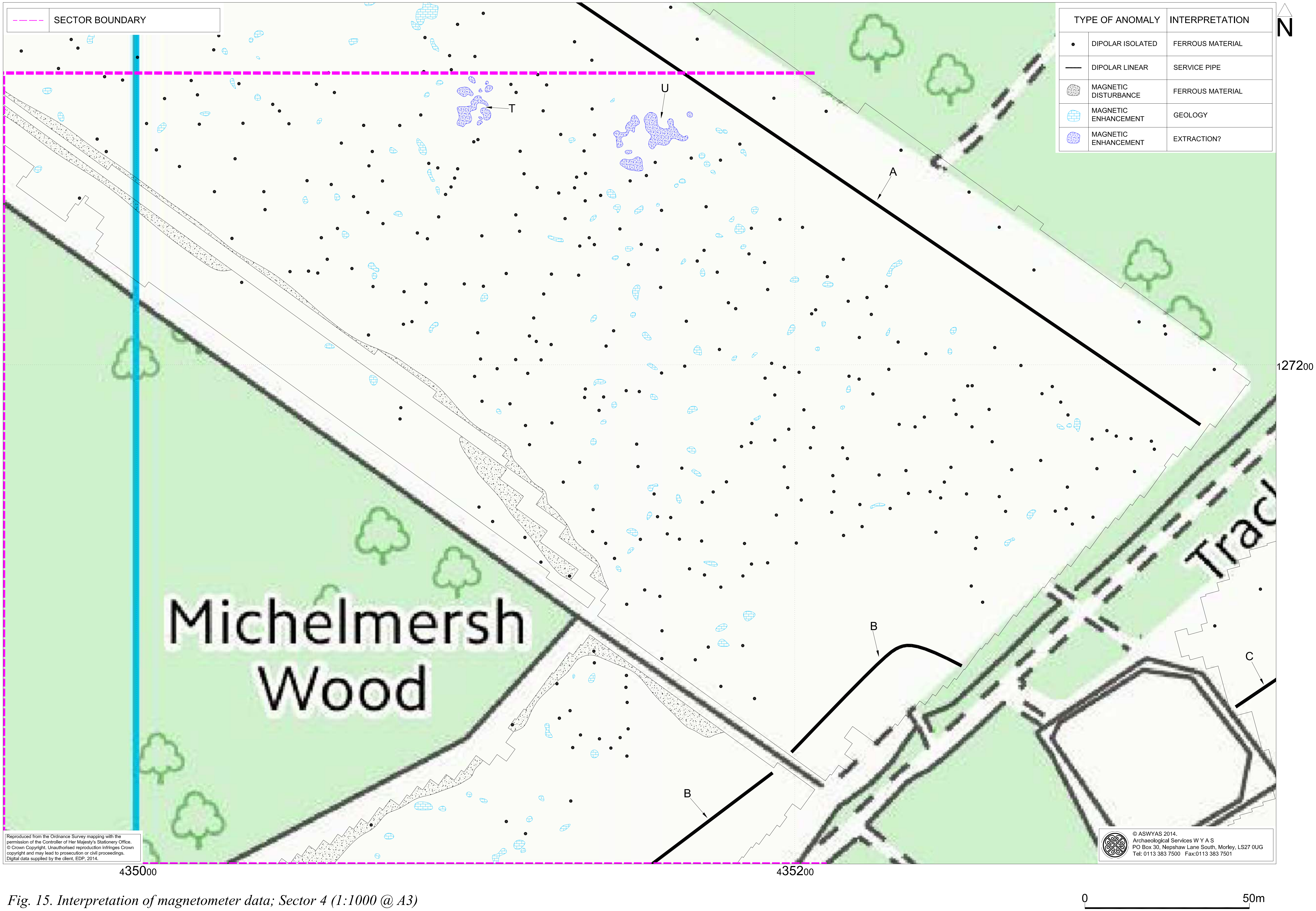

Fig. 15. Interpretation of magnetometer data; Sector 4 (1:1000 @ A3)

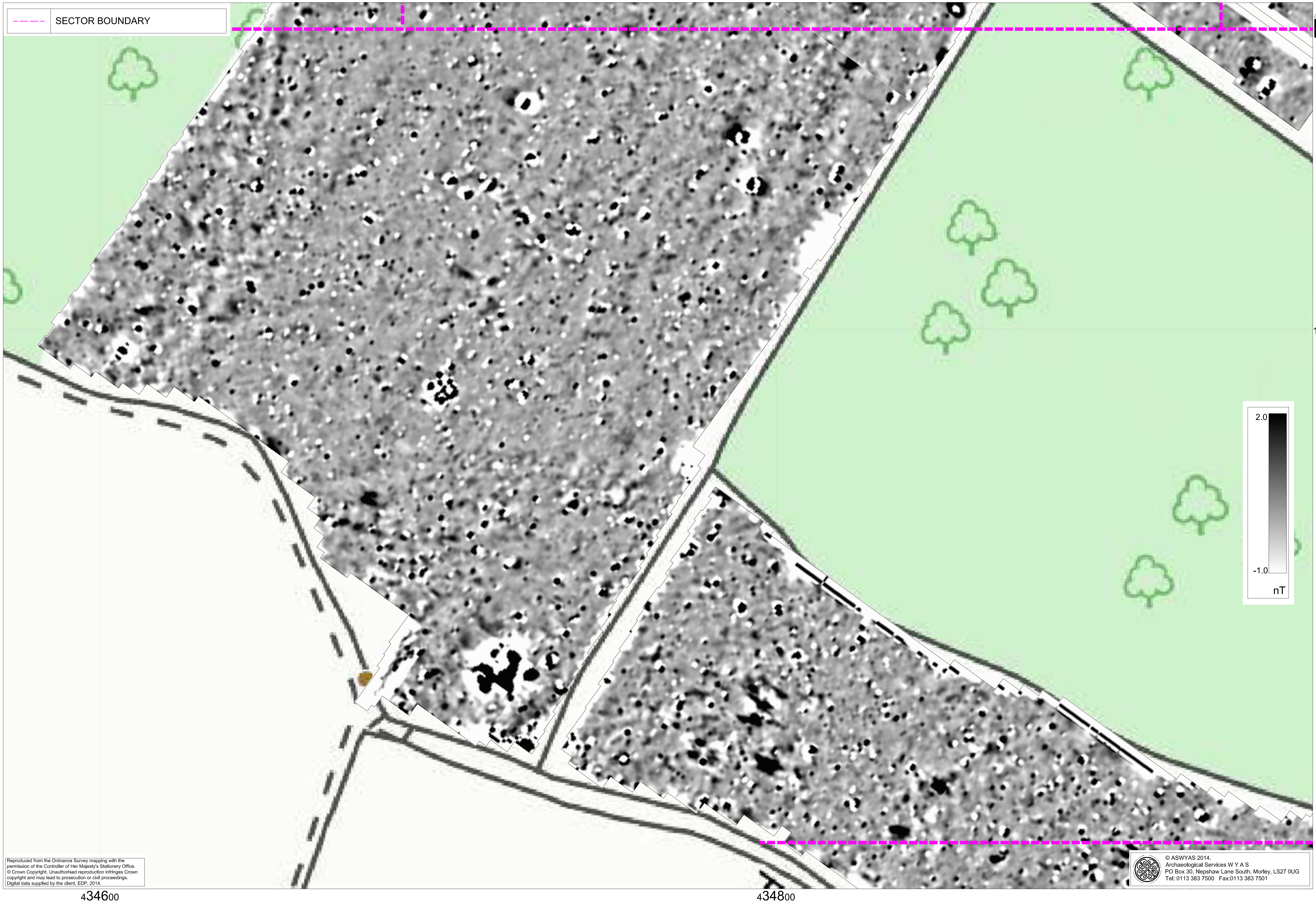

Fig. 16. Processed greyscale magnetometer data; Sector 5 (1:1000 @ A3)

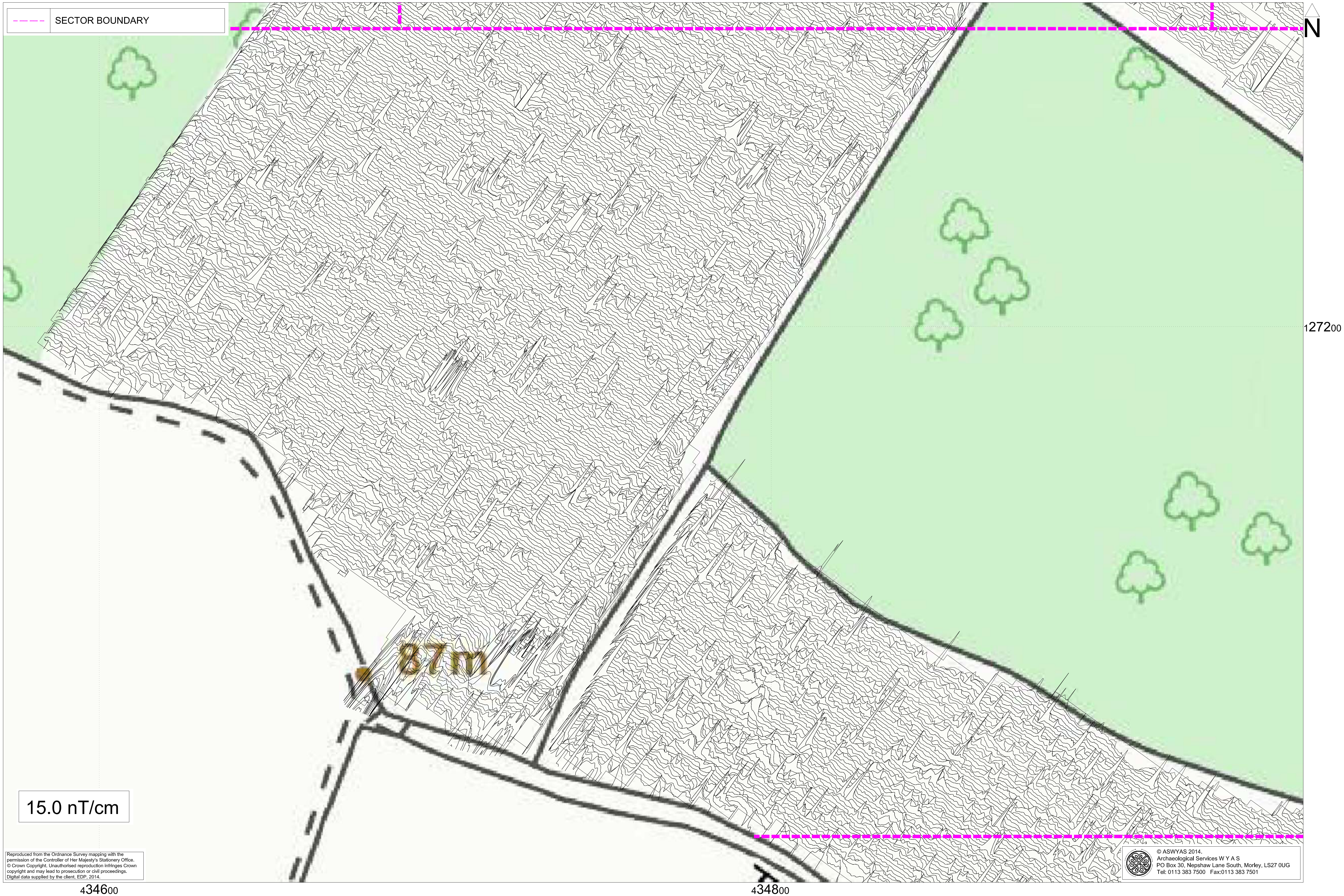

Fig. 17. XY trace plot of minimally processed magnetometer data; Sector 5 (1:1000 @ A3)

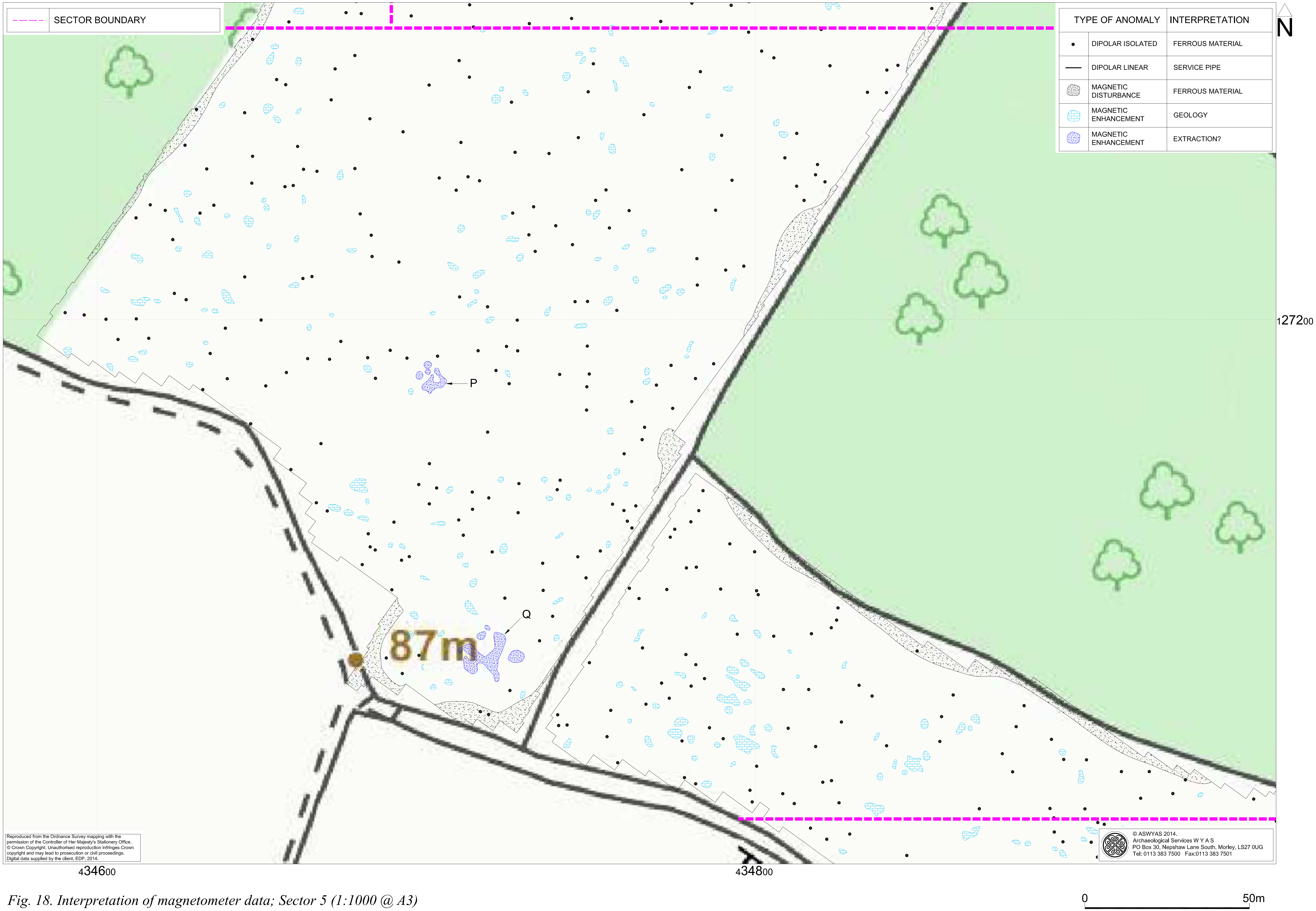

Fig. 18. Interpretation of magnetometer data; Sector 5 (1:1000 @ A3)

Fig. 19. Processed greyscale magnetometer data; Sector 6 (1:1000 @ A3)

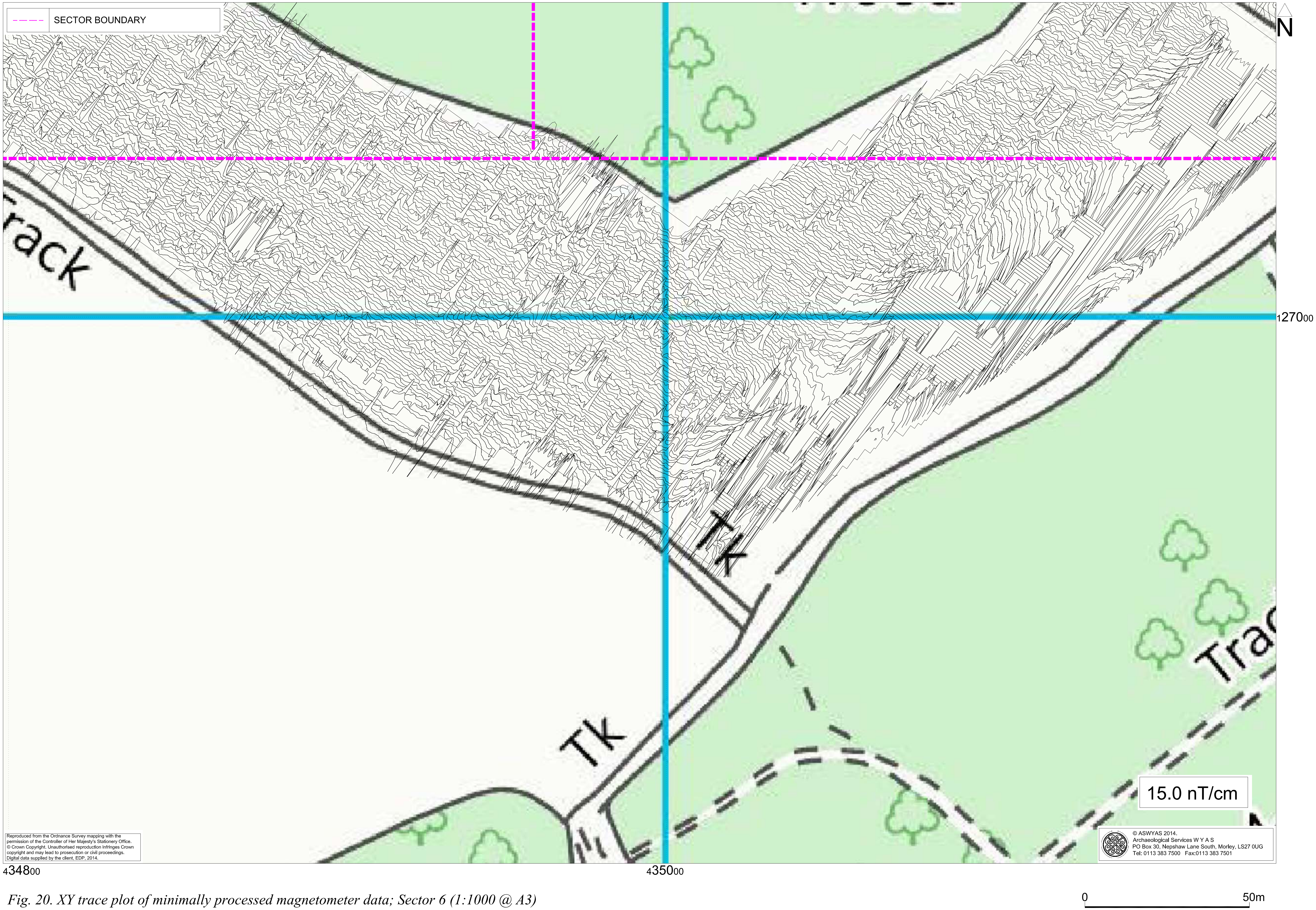

Fig. 20. XY trace plot of minimally processed magnetometer data; Sector 6 (1:1000 @ A3)

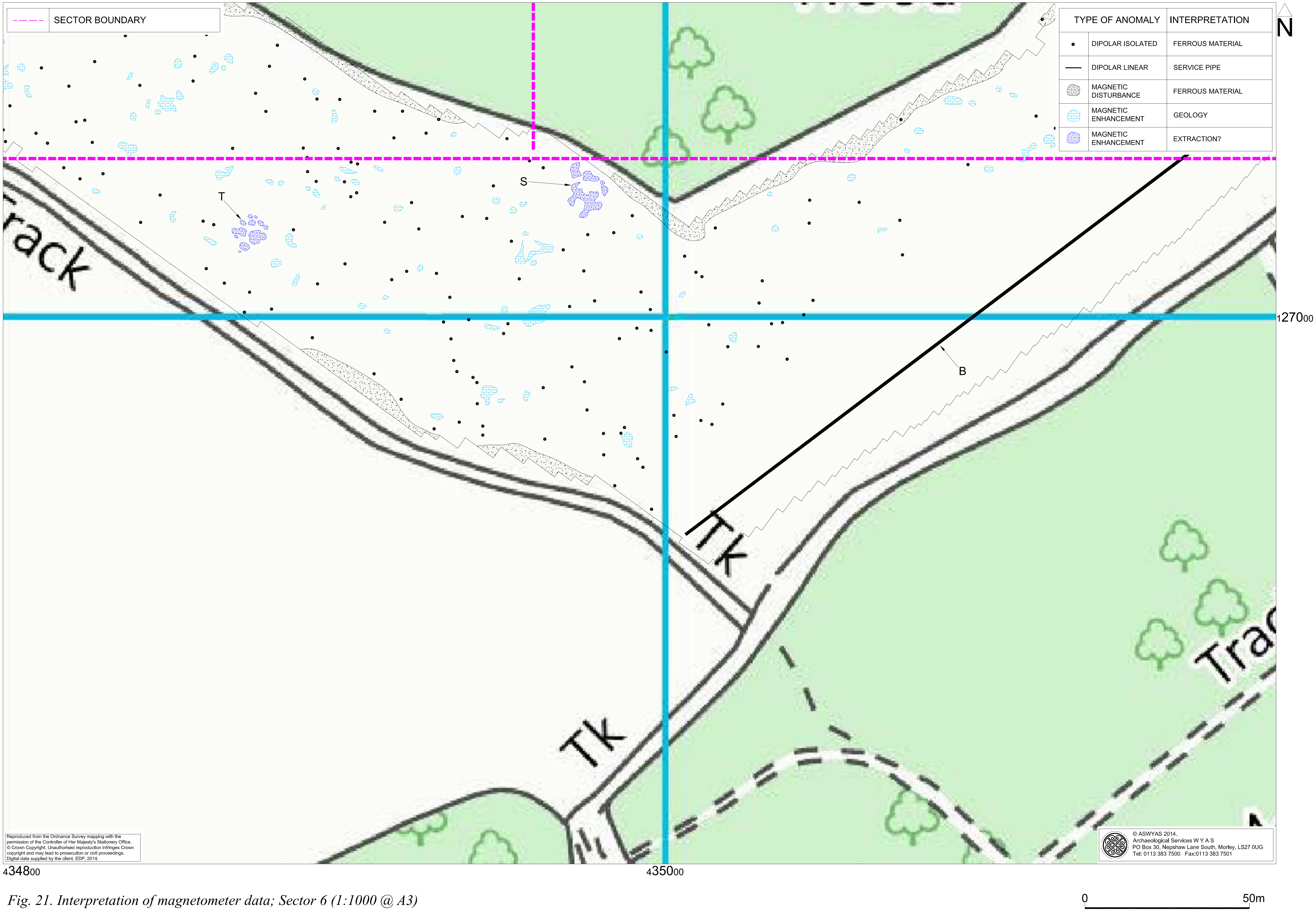

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Fig. 21. Interpretation of magnetometer data; Sector 6 (1:1000 @ A3)

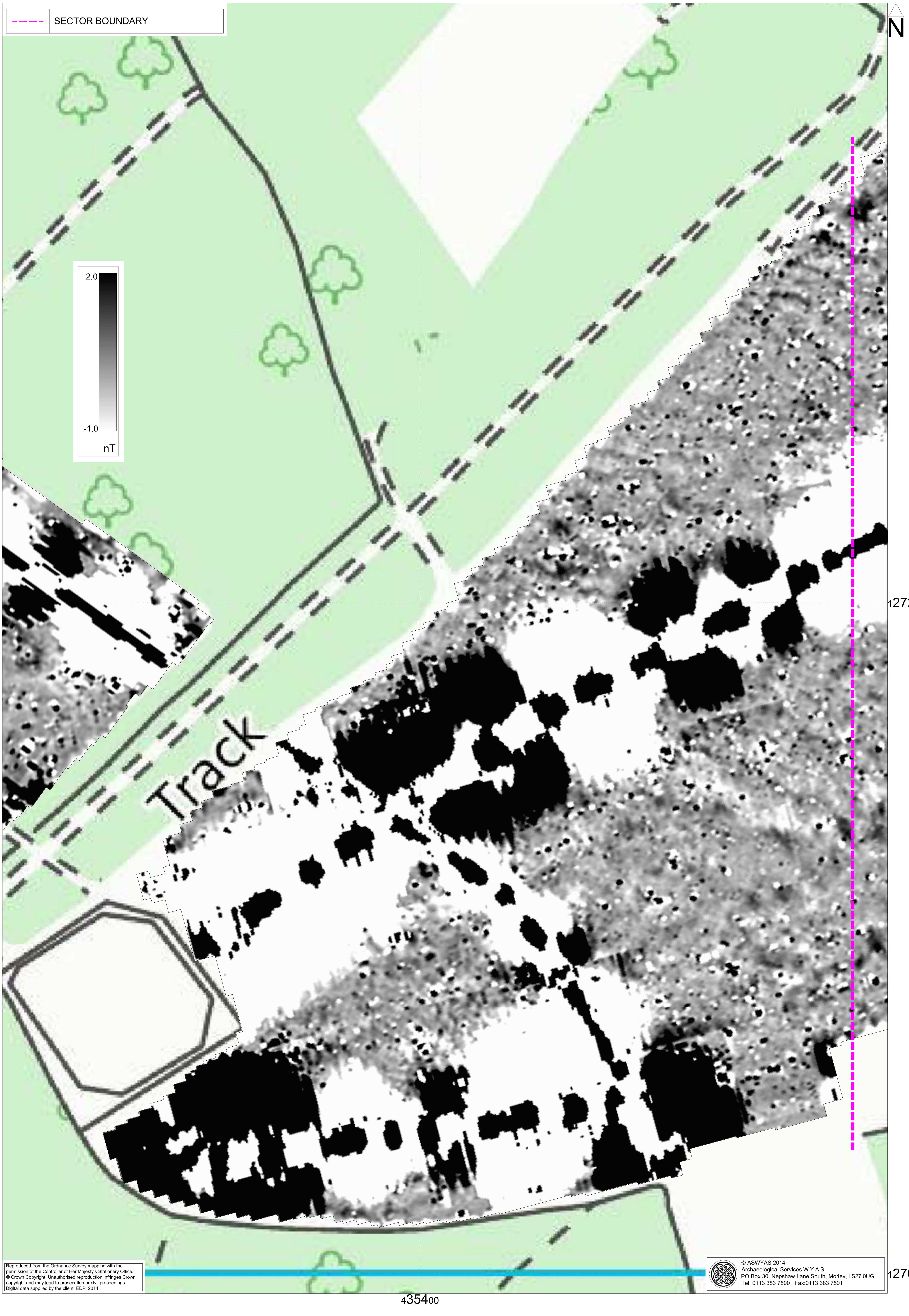

Fig. 22. Processed greyscale magnetometer data; Sector 7 (1:1000 @ A3)

Fig. 23. XY trace plot of minimally processed magnetometer data; Sector 7 (1:1000 @ A3)

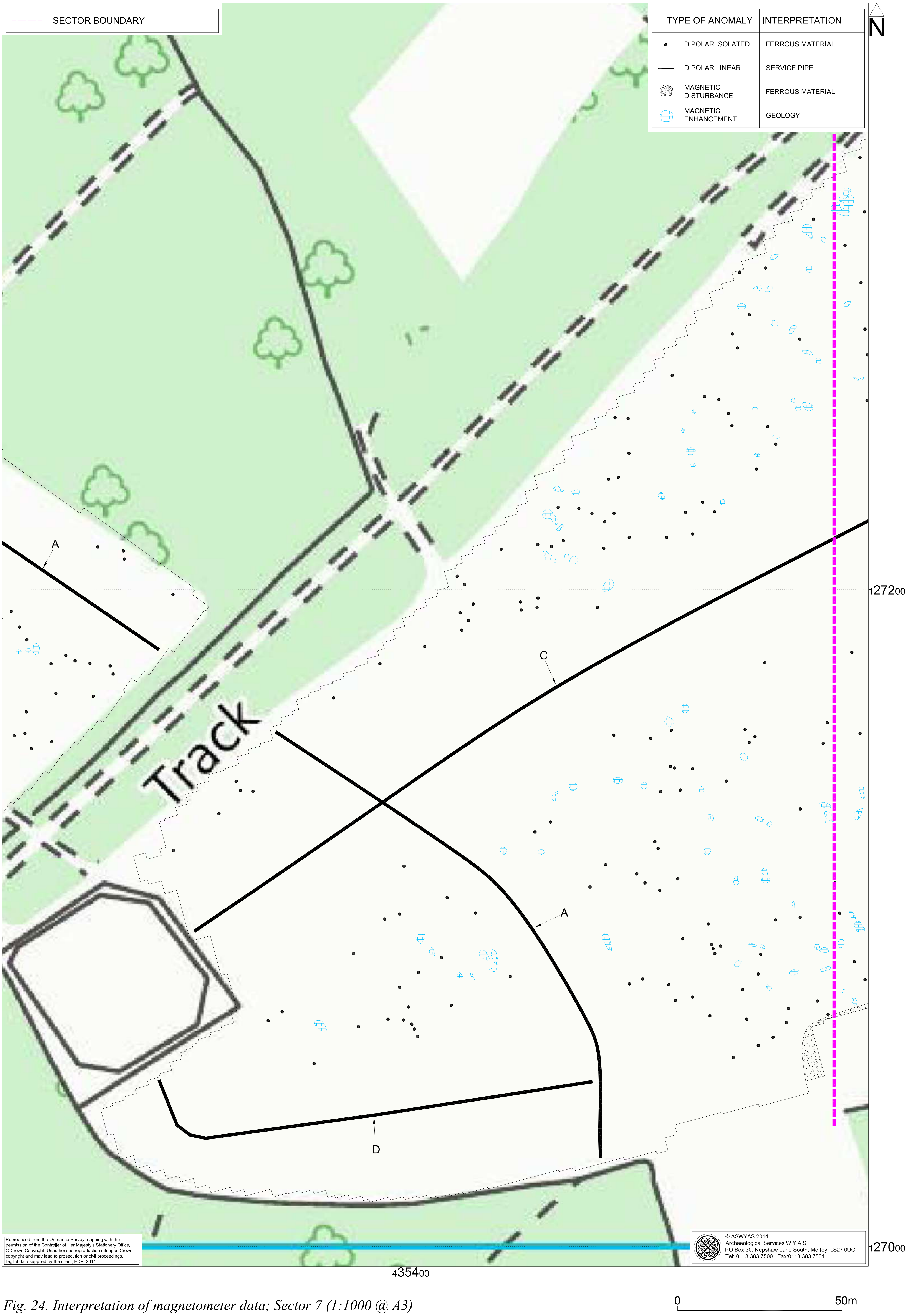

Fig. 24. Interpretation of magnetometer data; Sector 7 (1:1000 @ A3)

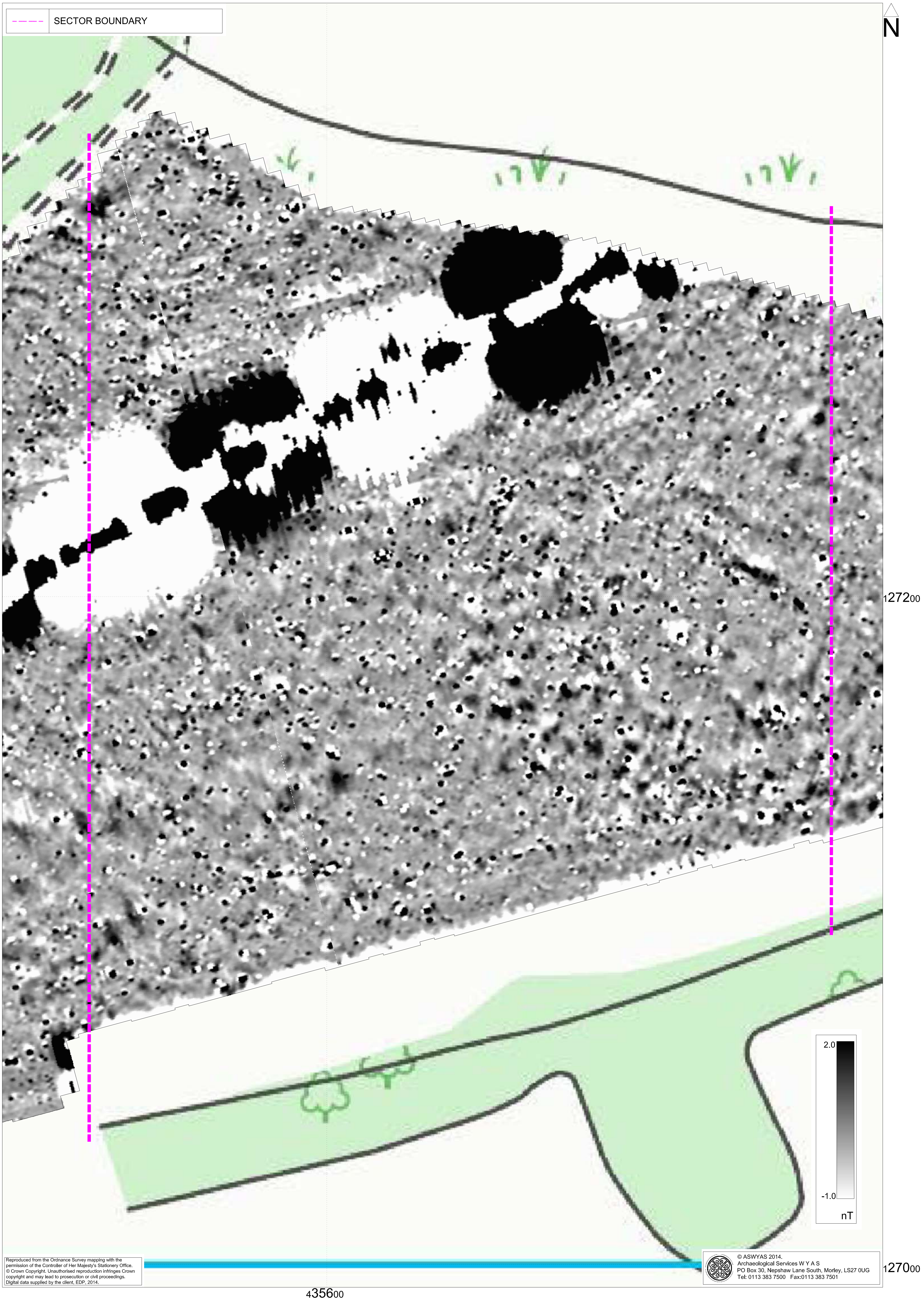

Fig. 25. Processed greyscale magnetometer data; Sector 8 (1:1000 @ A3)

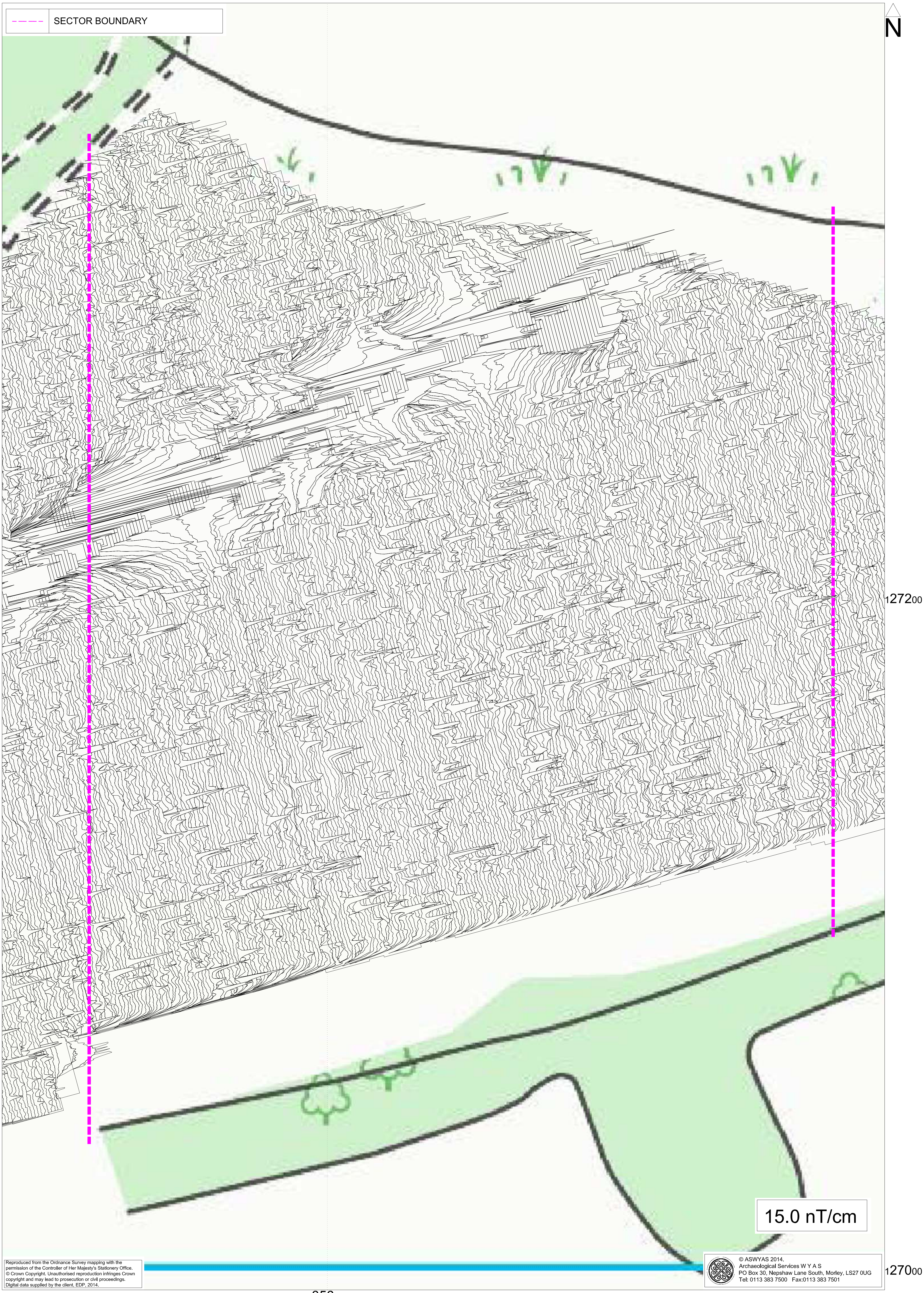

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Fig. 26. XY trace plot of minimally processed magnetometer data; Sector 8 (1:1000 @ A3)

0 50m

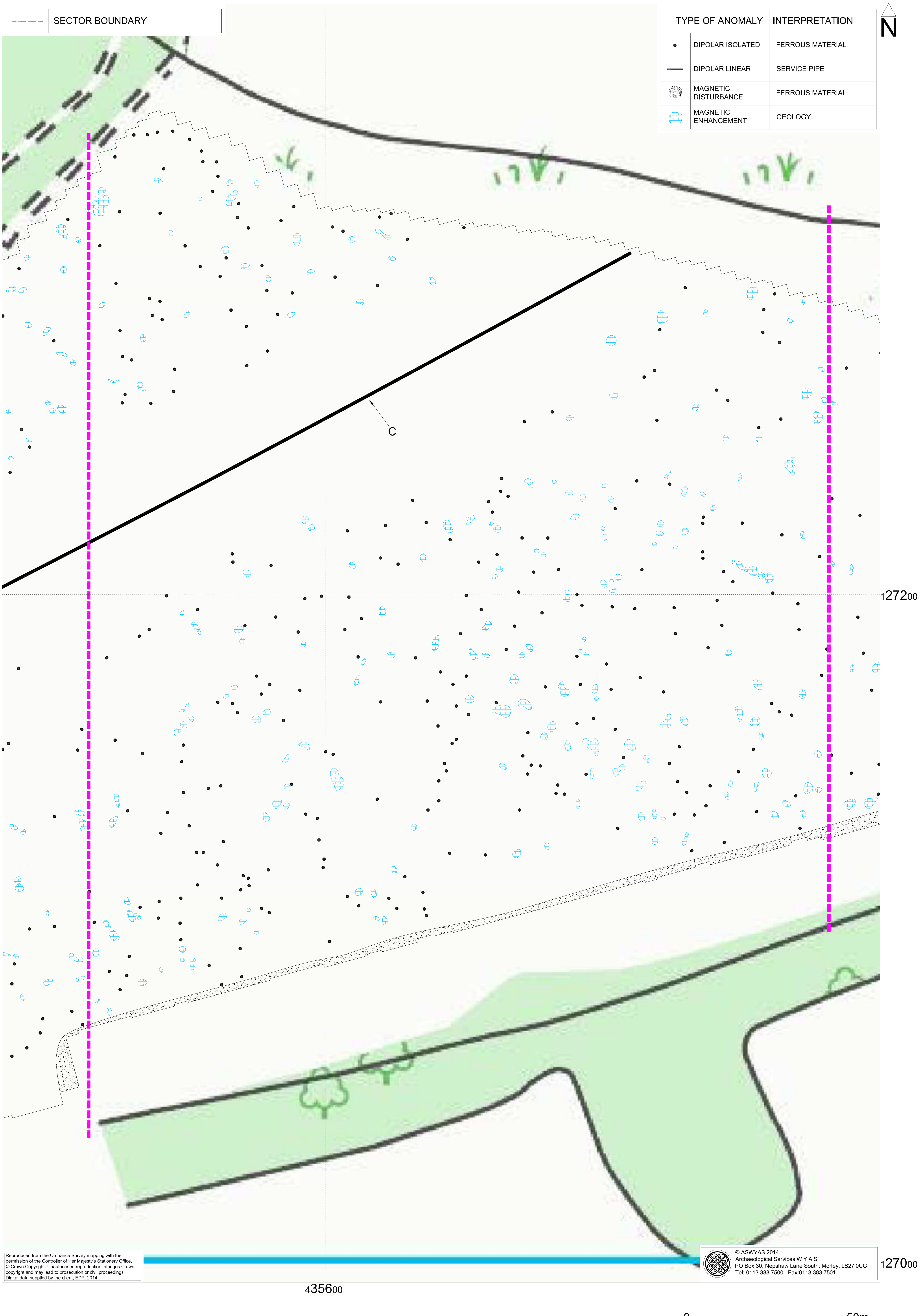

Fig. 27. Interpretation of magnetometer data; Sector 8 (1:1000 @ A3)

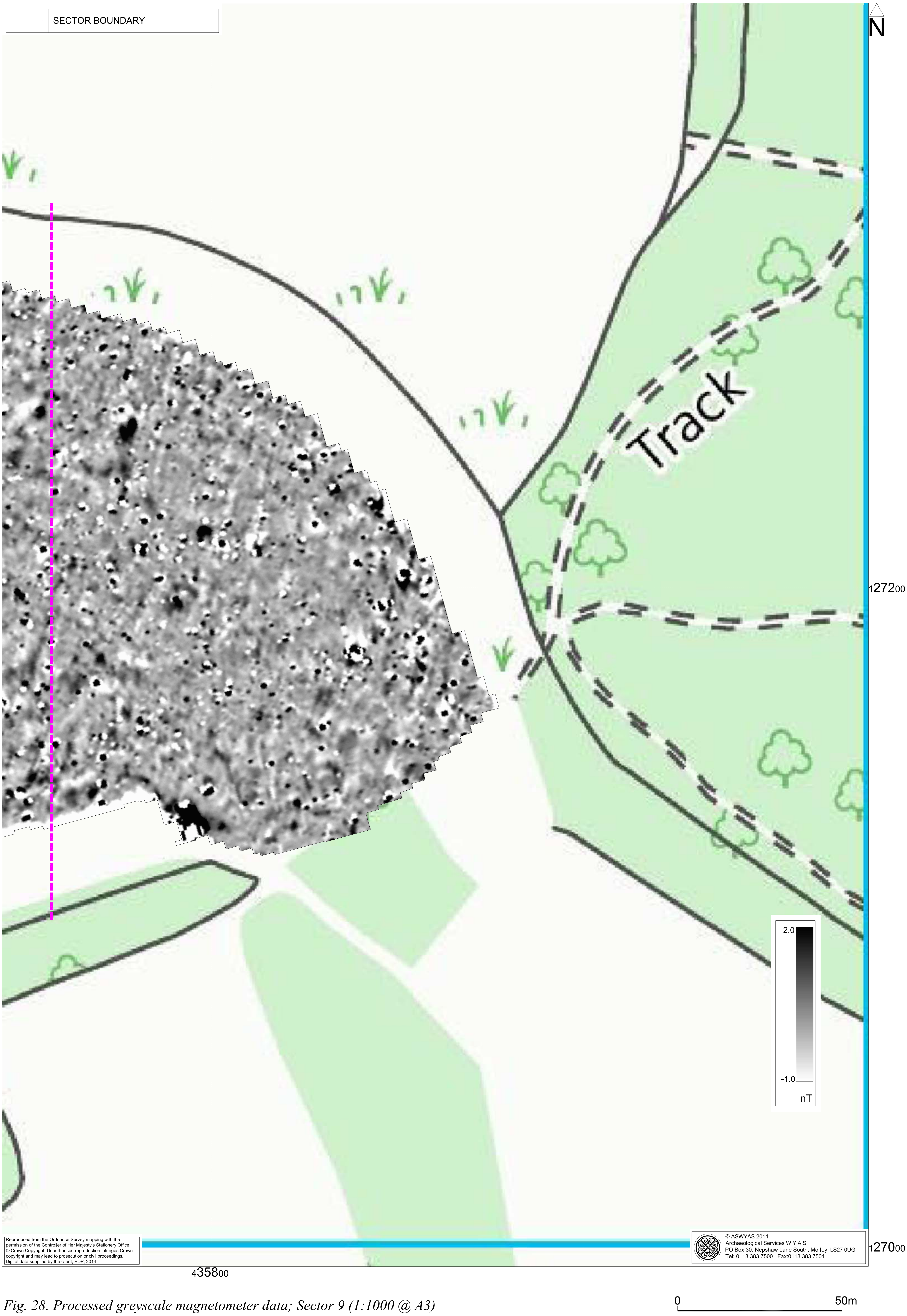

Fig. 28. Processed greyscale magnetometer data; Sector 9 (1:1000 @ A3)

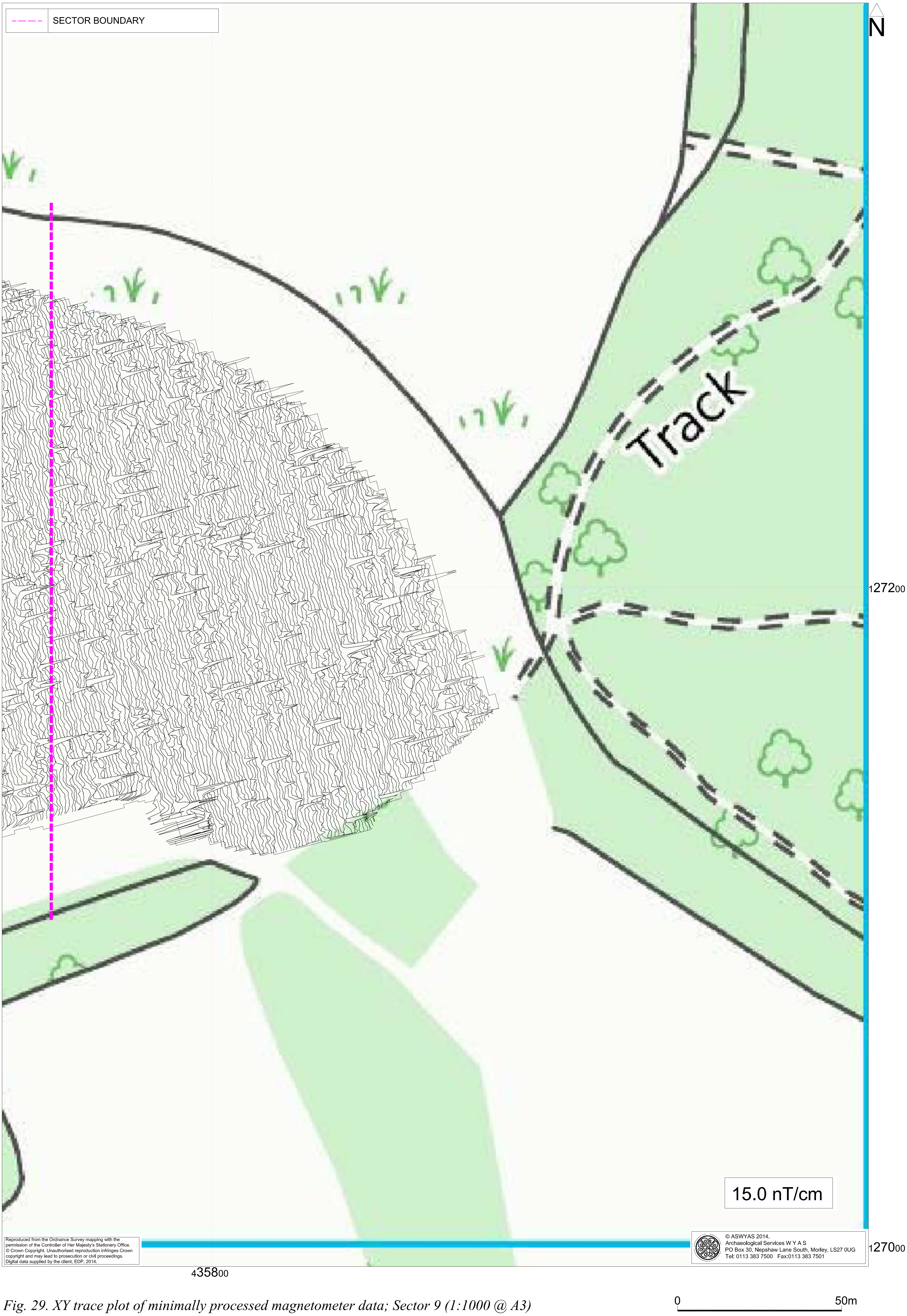

Fig. 29. XY trace plot of minimally processed magnetometer data; Sector 9 (1:1000 @ A3)

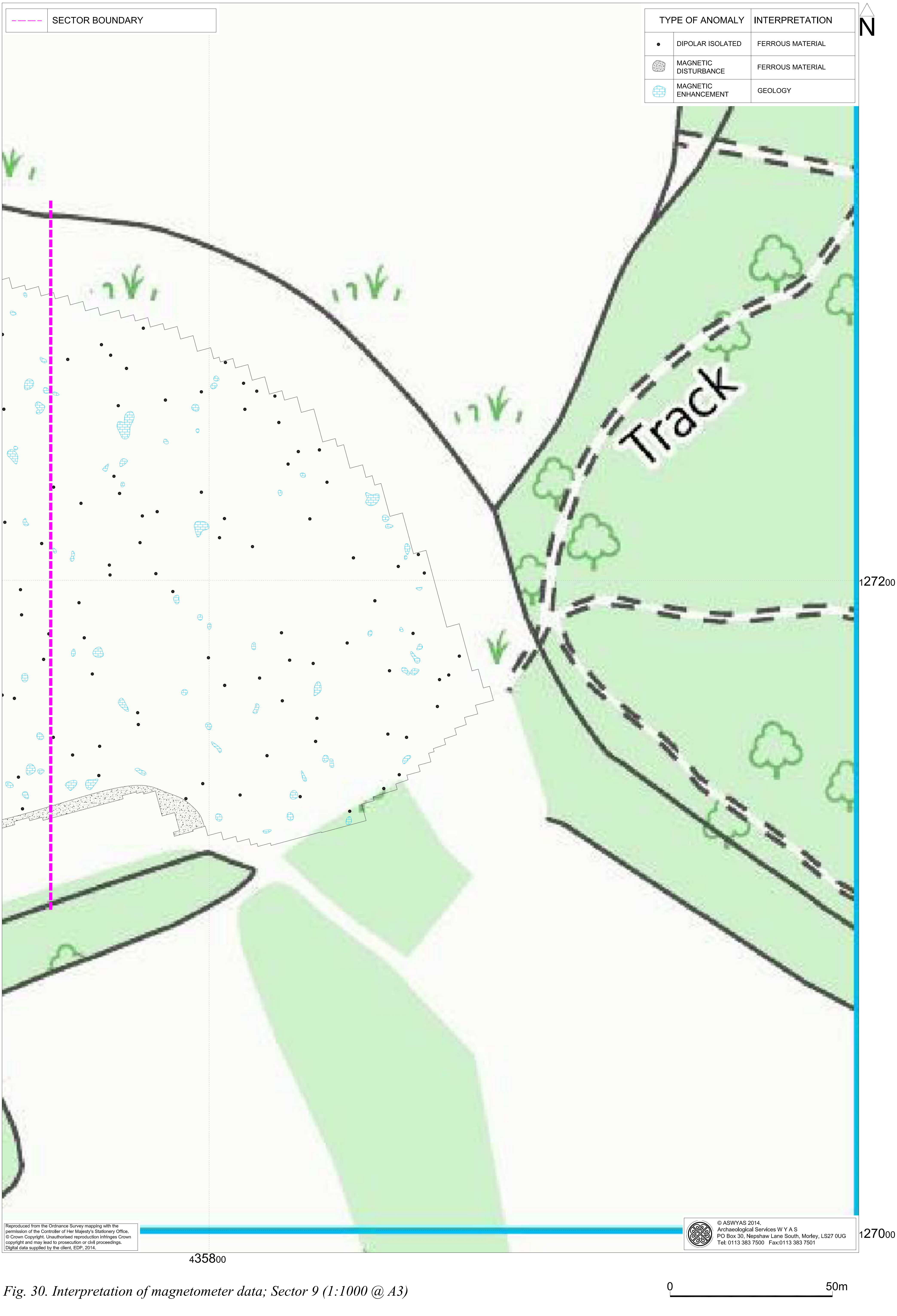

Fig. 30. Interpretation of magnetometer data; Sector 9 (1:1000 @ A3)

Plate 1. General view of Field 1, looking south

Plate 2. View of area set aside as bird cover within the south of Field 2, looking south-east

Plate 3. General view of Field 1, looking north

Plate 4. General view of Field 3, looking north-west

Plate 5. General view of Field 2, looking north-west

Plate 6. General view of Field 4, looking east

Appendix 1: Magnetic survey - technical information

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 haemetite. 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 and the fermentation and bacterial effects associated with rubbish decomposition. The area of enhancement is usually quite large, mainly due to the tendency of discard areas to extend beyond the limit of the occupation site itself, and spreading by the plough. An advantage of magnetic susceptibility over magnetometry is that a certain amount of occupational activity will cause the same proportional change in susceptibility, however weakly magnetic is the soil, and so does not depend on the magnetic contrast between the topsoil and deeper layers. Susceptibility survey is therefore able to detect areas of occupation even in the absence of cut features. On the other hand susceptibility survey is more vulnerable to the masking effects of layers of colluvium and alluvium as the technique, using the Bartington system, can generally only measure variation in the first 0.15m of ploughsoil.

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.

Methodology: Magnetic Susceptibility Survey

There are two methods of measuring the magnetic susceptibility of a soil sample. The first involves the measurement of a given volume of soil, which will include any air and moisture that lies within the sample, and is termed volume specific susceptibility. This method results in a bulk value that it not necessarily fully representative of the constituent components of the sample. For field surveys a Bartington MS2 meter with MS2D field loop is used due to its speed and simplicity. The second technique overcomes this potential problem by taking into account both the volume and mass of a sample and is termed mass specific susceptibility. However, mass specific readings cannot be taken in the field where the bulk properties of a soil are usually unknown and so volume specific readings must be taken. Whilst these values are not fully representative they do allow general comparisons across a site and give a broad indication of susceptibility changes. This is usually enough to assess the susceptibility of a site and evaluate whether enhancement has occurred.

Methodology: Gradiometer Survey

There are two main methods of using the fluxgate gradiometer for commercial evaluations. The first of these is referred to as ***magnetic scanning*** and requires the operator to visually identify anomalous responses on the instrument display panel whilst covering the site in widely spaced traverses, typically 10m apart. The instrument logger is not used and there is therefore no data collection. Once anomalous responses are identified they are marked in the field with bamboo canes and approximately located on a base plan. This method is usually employed as a means of selecting areas for detailed survey when only a percentage sample of the whole site is to be subject to detailed survey.

The disadvantages of magnetic scanning are that features that produce weak anomalies (less than 2nT) are unlikely to stand out from the magnetic background and so will be difficult to detect. The coarse sampling interval means that discrete features or linear features that are parallel or broadly oblique to the direction of traverse may not be detected. If linear features are suspected in a site then the traverse direction should be perpendicular (or as close as is possible within the physical constraints of the site) to the orientation of the suspected features. The possible drawbacks mentioned above mean that a 'negative' scanning result should be validated by sample detailed magnetic survey (see below).

The second method is referred to as ***detailed survey*** and employs the use of a sample trigger to automatically take readings at predetermined points, typically at 0.25m intervals, on zig-zag traverses 1m apart. These readings are stored in the memory of the instrument and are later dumped to computer for processing and interpretation. Detailed survey allows the visualisation of weaker anomalies that may not have been detected by magnetic scanning.

During this survey a Bartington Grad601 magnetic gradiometer was used taking readings on the 0.1nT range, at 0.25m intervals on zig-zag traverses 1m apart within 30m by 30m square grids. The instrument was checked for electronic and mechanical drift at a common point and calibrated as necessary. The drift from zero was not logged.

Data Processing and Presentation

The detailed gradiometer data has been presented in this report in XY trace and greyscale formats. In the former format the data shown is 'raw' with no processing other than grid biasing having been done. The data in the greyscale images has been interpolated and selectively filtered to remove the effects of drift in instrument calibration and other artificial data constructs and to maximise the clarity and interpretability of the archaeological anomalies.

An XY plot presents the data logged on each traverse as a single line with each successive traverse incremented on the Y-axis to produce a 'stacked' plot. A hidden line algorithm has been employed to block out lines behind major 'spikes' and the data has been clipped. The main advantage of this display option is that the full range of data can be viewed, dependent on the clip, so that the 'shape' of individual anomalies can be discerned and potentially archaeological anomalies differentiated from 'iron spikes'. Geoplot 3 software was used to create the XY trace plots.

Geoplot 3 software was used to interpolate the data so that 3600 readings were obtained for each 30m by 30m grid. The same program was used to produce the greyscale images. All greyscale plots are displayed using a linear incremental scale.

Appendix 2: Survey location information

The site grid was laid out using a Trimble VRS differential Global Positioning System (Trimble 5800 model). The accuracy of this equipment is better then 0.01m. The survey grids 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 co-ordinates are measured off hard copies of the mapping rather than using the digital co-ordinates.

Archaeological Services WYAS cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

Appendix 3: Geophysical archive

The geophysical archive comprises:-

- an archive disk containing compressed (WinZip 8) files of the raw data, report text (Microsoft Word 2000), and graphics files (Adobe Illustrator CS2 and AutoCAD 2008) files; and
- a full copy of the report.

At present the archive is held by Archaeological Services WYAS although it is anticipated that it may eventually be lodged with the Archaeology Data Service (ADS). Brief details may also be forwarded for inclusion on the English Heritage Geophysical Survey Database after the contents of the report are deemed to be in the public domain (i.e. available for consultation in the Hampshire Historic Environment Record).

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