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**Land at Coppull Moor Lane
Coppull
Lancashire**

Report no. 2282

December 2011

Client: Chorley Historical and Archaeological Society



Land at Coppull Moor Lane

Coppull

Lancashire

Geophysical Survey

Summary

A geophysical survey (magnetometer and earth resistance) was carried out at the junction of Coppull Moor Lane and Hic Bibi Lane, Coppull, Lancashire, to investigate the archaeological potential of a field through which a Roman road is thought to pass. The presence of the road (EHNMR-649693) was established in 1963 and confirmed in 1984 with trial excavations by Chorley and District Historical and Archaeological Society, although no detailed account of the work survives.

Tentative interpretations of faint and amorphous anomalies have been suggested, including a possible structure, but no anomalies indicative of the Roman road have been identified, nor have any anomalies been identified to explain the kink in the alignment of Hib-Bibi Lane. It is possible that there is insufficient contrast between the clay, grit and sandstone composition of the surviving road, and that of the surrounding sub-strata, for the road to be detected, with clarity, by magnetometer and resistance methods.



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Report Information

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1 Introduction

Archaeological Services WYAS (ASWYAS) undertook a geophysical (magnetometer and earth resistance) survey on behalf of Chorley Historical and Archaeological Society (CHAS) on land at Coppull Moor Lane, Coppull, Lancashire. The survey aimed to investigate the archaeological potential of a field located east of a pronounced kink in the alignment of Hic-Bibi Lane, a Roman road (EHNMR-649693). The results of the geophysical survey may inform future investigations by CHAS.

Site location, topography and land-use

The area under investigation comprised a single field, 1km south of Coppull, centred on SD 562 128, and situated at the junction of Coppull Moor Lane and Hic-Bibi Lane. It is bound to the north by Coppull Moor Lane, by Hic-Bibi Lane to the west, Osmond House to the east and by arable fields to the south (see Fig. 2). The field was under short pasture at the time of survey (See Plates 1-3) and covered an area of approximately 1ha.

Geology and soils

The solid geology of the area consists of Pennine Middle Coal Measures Formation (mudstone, siltstone and sandstone) bedrock overlain by superficial deposits of till (BGS 1977). The soils in this area are classified in the Salop association, characterised as slowly permeable clays and fine loams over clays (SSEW 1983).

2 Archaeological background

The survey area lies within a field along the route of the main Roman road between Wigan and Walton-le-Dale (Margary road number 70c). The road survives as a trackway to the north of the survey area and as a laneway, known as Hic-Bibi Lane, to the south (see Fig. 2). The unusual term 'Hic Bibi', meaning 'Here I Drank' in latin, is thought to relate to the site of Hic Bibi Well, located approximately 700m to the south of the survey area.

In 1963, Tom Rigby of Chorley and District Archaeological Society (now known as CHAS) excavated a trial trench to investigate 'the presence of gravel under the turf just inside the field and on the line of Hic-Bibi Lane' (Rigby 1963). The exact location of the trench is unknown although it is believed to have been excavated within the south of the field (see Fig. 2). The excavation revealed a road measuring sixteen feet in width, composed of layers of sand, gravel and clay, and flanked by shallow ditches on either side. The surface of the road was made up of a layer of plough-damaged sandstone slabs, two inches in thickness, and overlain by more gravel (see Appendix 1).

The alignment of the road was re-established, continuing north, in March 1984 when a second trial trench was excavated by CHAS (Smith 1984). Again, the exact location of the trench is unrecorded although it is thought to have been located within the north of the field,

parallel to Coppull Moor Lane and opposite the trackway heading north towards Coppull (see Fig. 2).

Given the archaeological context, the site is considered to have a high archaeological potential.

3 Aims, Methodology and Presentation

The general aim of the geophysical survey was to establish and clarify the potential for archaeological features within the survey area.

Specifically the survey sought to provide information about the presence and alignment of the Roman road at a pronounced kink in Hic-Bibi Lane. In addition, it was intended to provide information about the nature and possible interpretations of any further anomalies identified during the survey and thereby determine the likely extent, presence or absence of any buried archaeological remains.

These aims were to be achieved by undertaking both magnetometer and earth resistance surveys in accordance with a project design submitted to, and approved by, Peter Iles, Specialist Advisor (Archaeology) for Lancashire County Council. Magnetometer survey was thought more likely to detect features such as roadside ditches and any associated features alongside the road, whereas resistance survey was thought to be better suited to locating the compacted road surface. The survey grid was orientated at right angles to the projected line of the Roman road to maximise the chance of detection.

The survey area was set-out with a Trimble 5800 VRS differential GPS to the national grid. The grid was then superimposed onto digital mapping reproduced from Ordnance Survey mapping. Temporary reference objects (wooden survey marker stakes) were established and left in place following completion of the fieldwork for accurate geo-referencing. The locations of the temporary reference objects are shown on Figure 2 and their Ordnance Survey co-ordinates tabulated in Appendix 4.

Earth resistance survey

A Geoscan RM15 resistance meter was used during the earth resistance survey, with the instrument logging each reading automatically at 1m intervals on traverses 1m apart. The mobile probe spacing was 0.5m with the remote probes 15m apart and at least 15m away from the grid under survey. This mobile probe spacing gives an approximate depth penetration of up to 1m for most archaeological features.

Magnetometer survey

Bartington Grad601 instruments were used to take readings at 0.25m intervals on zigzag 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 2.

Reporting

A general site location plan, incorporating the 1:50000 Ordnance Survey mapping is shown in Figure 1. Figure 2 is a more detailed site location showing the magnetometer data on the map base at a scale of 1:1500. The processed magnetometer greyscale data, the 'raw' XY trace plot data and magnetometer interpretation graphics are presented at a scale of 1:1000 in Figures 3, 4 and 5. The processed and 'raw' (unprocessed) earth resistance data from the survey, together with an interpretation of the identified resistance anomalies, are presented at a scale of 1:1000 in Figures 6, 7 and 8.

Further technical information on the equipment used, data processing and survey methodologies are given in Appendix 2, Appendix 3 and Appendix 4. Appendix 5 describes the composition and location of the site archive.

The survey methodology, report and any recommendations comply with the Methodology and with guidelines outlined by English Heritage (David *et al* 2008) and by the IfA (Gaffney, Gater and Ovenden 2002). 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

Magnetometer Data (Figures 3, 4 and 5)

No anomalies consistent with the presence of a Roman road have been identified by the magnetometer survey. Numerous discrete and low magnitude anomalies have been identified throughout the dataset which form no obvious archaeological pattern and are, therefore, interpreted as being geological in origin. However, assuming that the Roman road did pass through the field, an archaeological cause for these anomalies cannot be completely dismissed. Towards the west, a very weak and ill-defined curvilinear trend can be seen. This trend may be of interest, although such is its low magnitude that interpretation is extremely tentative and an agricultural interpretation is preferred.

The clear linear anomaly traversing the field diagonally from the north-east corner is thought to result from the fill of a ditch. The anomaly corresponds to a former field boundary depicted on the first edition Ordnance Survey map of 1849 and to a broad linear topographical depression observed at the time of the survey. The anomaly itself is not thought

to be of any archaeological interest, although the change in alignment of the ditch at the intersection of the projected line of the Roman road is intriguing.

Strong magnetic disturbance at the perimeters of the survey area is caused by magnetic interference from ferrous material within the adjacent field boundaries.

Earth Resistance Data (Figures 6, 7 and 8)

The background resistance throughout the survey area is variable, probably as a result of differing soil deposition levels associated with the gently undulating topography. However, two areas of possible archaeological interest can be identified. A distinct amorphous area of high resistance, **A**, in the north-west of the survey area may be of interest, perhaps locating a compacted surface. However, an archaeological interpretation is highly tentative as the anomaly corresponds with a rise in topography and near-surface geological variations, ie. outcropping, could equally explain this anomaly.

Within the north-east of the resistance data set, a faint rectilinear anomaly, **B**, may indicate the presence of *in situ* archaeological remains, perhaps a structure. However, the levels of variation here are slight and natural geological variations may account for this anomaly, or indeed any of the other observed variation in the resistance data set.

The resistance survey confirms the presence of the former field boundary located by magnetometry, as evidenced by a linear low resistance trend, which corresponds with the linear anomaly identified in the magnetometer survey. This anomaly is likely to be caused by the moisture retentive ditch fill offering less resistance to the electric current than the more densely packed natural material on either side of the former field boundary. Variation in resistance within the south-east of the survey area corresponds to variations in topography and is not thought to be of any archaeological interest.

No anomalies consistent with the presence of a Roman road have been identified in the resistance survey.

5 Conclusions

The geophysical survey at Coppull Moor Lane has identified no anomalies of definite archaeological potential. Magnetometer survey has successfully detected a former field boundary within the survey area suggesting that there exists sufficient magnetic contrast between the natural soils and geology and the fill of the former boundary ditch for other cut features, if present, to be identified. However, the former boundary ditch is likely to be more substantial than the roadside ditches identified by CHAS in 1963 (see Appendix 1). The curious dog-leg in the former field boundary may be of interest as it appears to deviate at the point at which it crosses the projected line of the Roman road. Future archaeological

fieldwork (ie. trial trenching) targeting this intersection may help to understand this relationship.

A faint curving trend within the west of the dataset may be of interest although an agricultural interpretation is preferred.

In general there is considerable variation in the resistance across the survey area and this is primarily attributed to natural topographical variations and the resulting areas of varying soil depth and moisture retention. Against this background, two areas of high resistance which may have some archaeological potential have been identified although an archaeological interpretation of either is tentative.

No anomalies consistent with the presence of a Roman road have been identified by the geophysical survey, nor have any anomalies been identified which might explain the kink in Hic Bibi Lane. However, this does not necessarily denote the absence of archaeology. Rigby describes the composition of the road in 1963 as being layers of sand, grit and clay, and being surfaced with plough-damaged sandstone slabs and more grit. It is possible that there is insufficient contrast between this composition and that of the surrounding natural sub-strata (till drift geology and clay soils) for the road to be detected (with clarity) by resistance and magnetometry methods.

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.

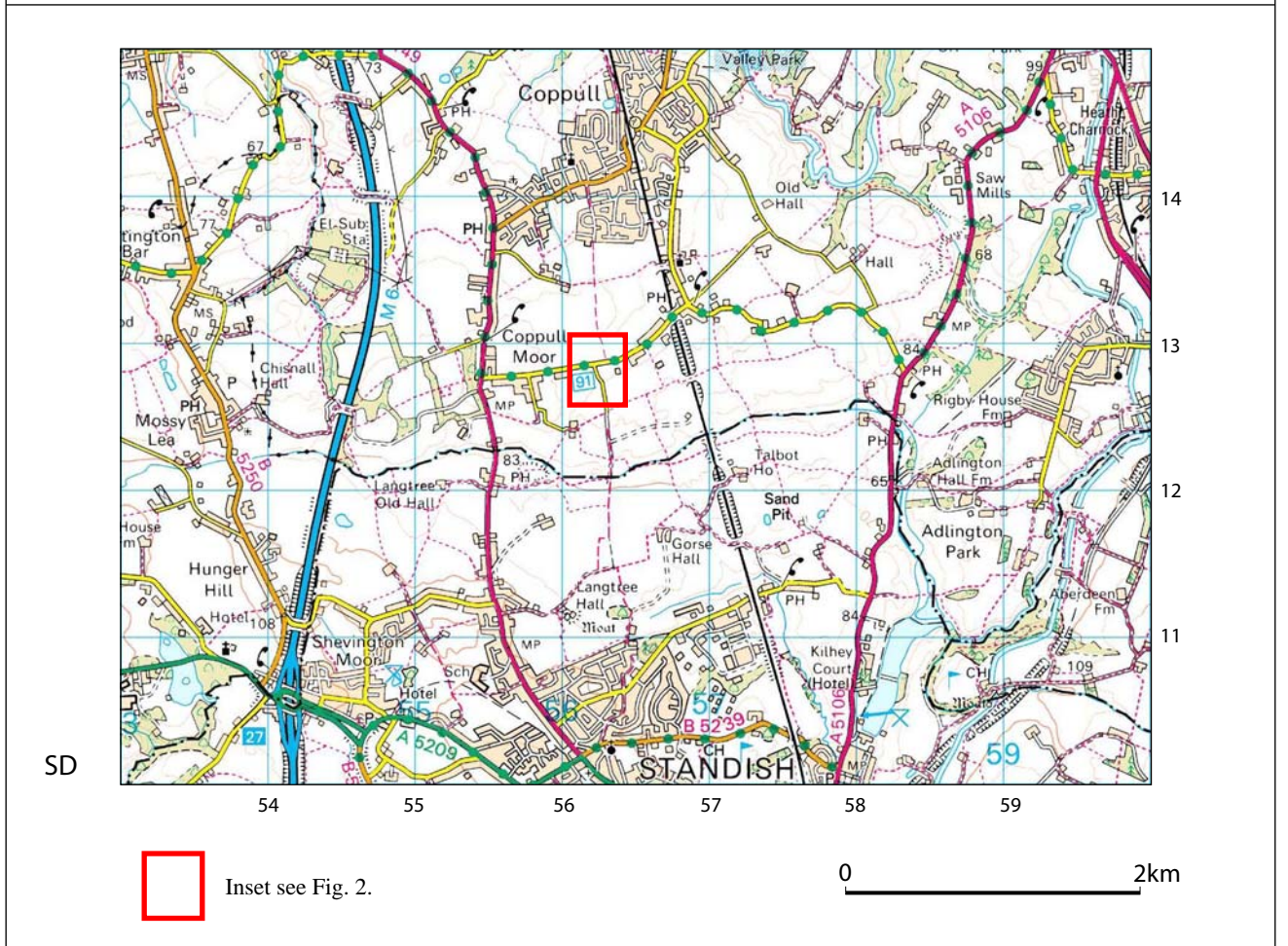
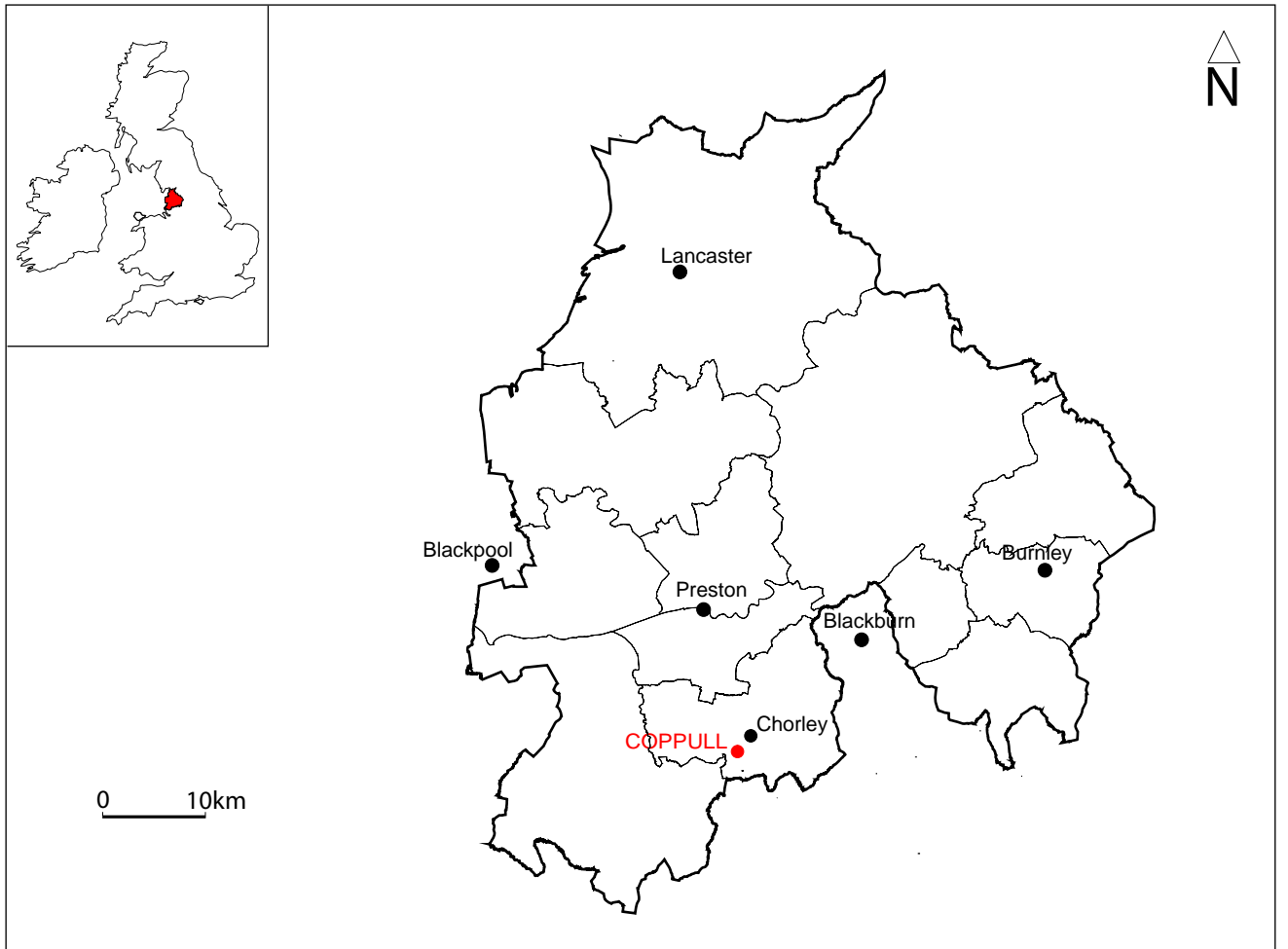


Fig. 1. Site location

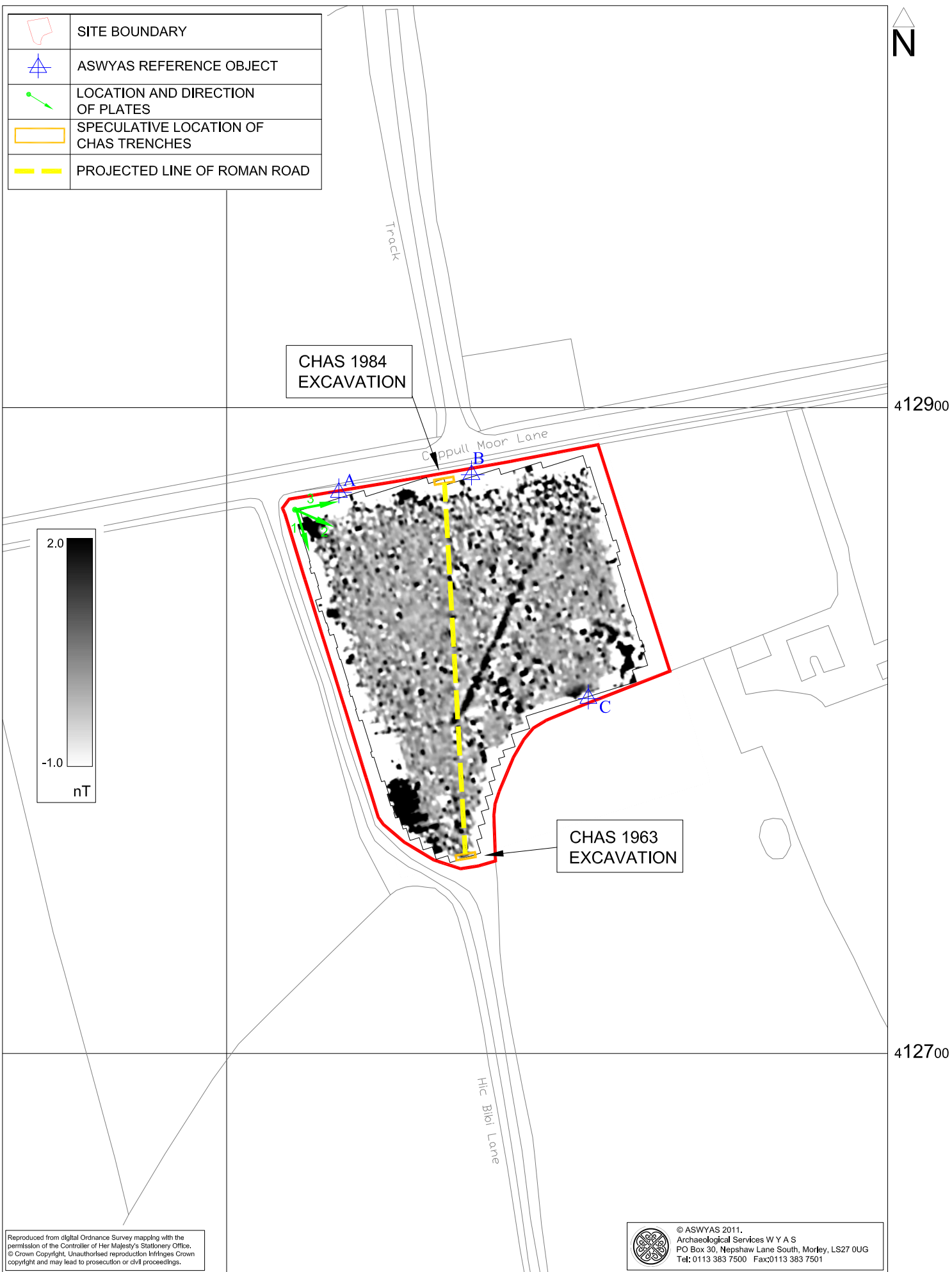




Fig. 3. Processed greyscale magnetometer data (1:1000 @ A4)

0 40m

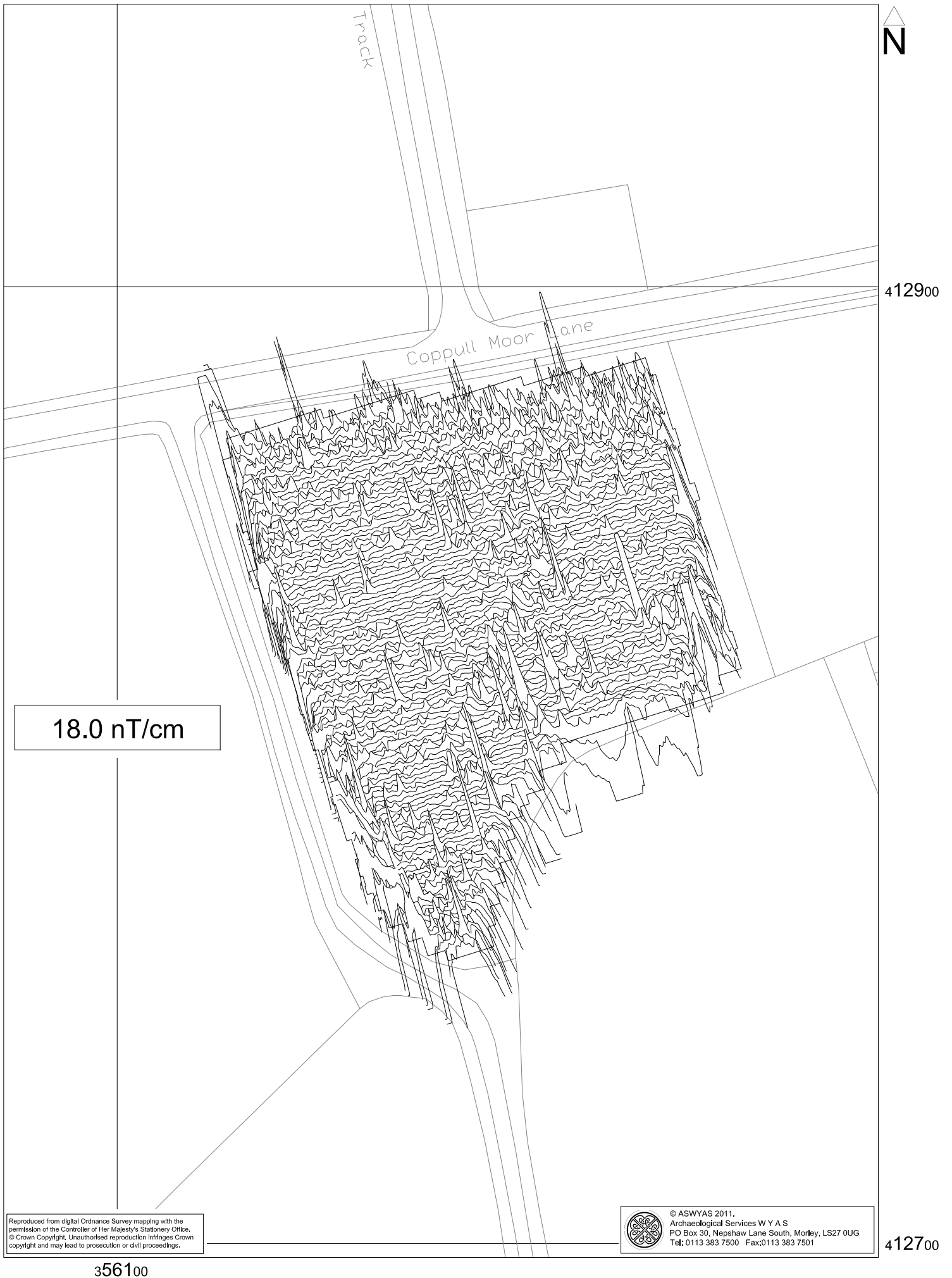


Fig. 4. XY trace plot of minimally processed magnetometer data (1:1000 @ A4)

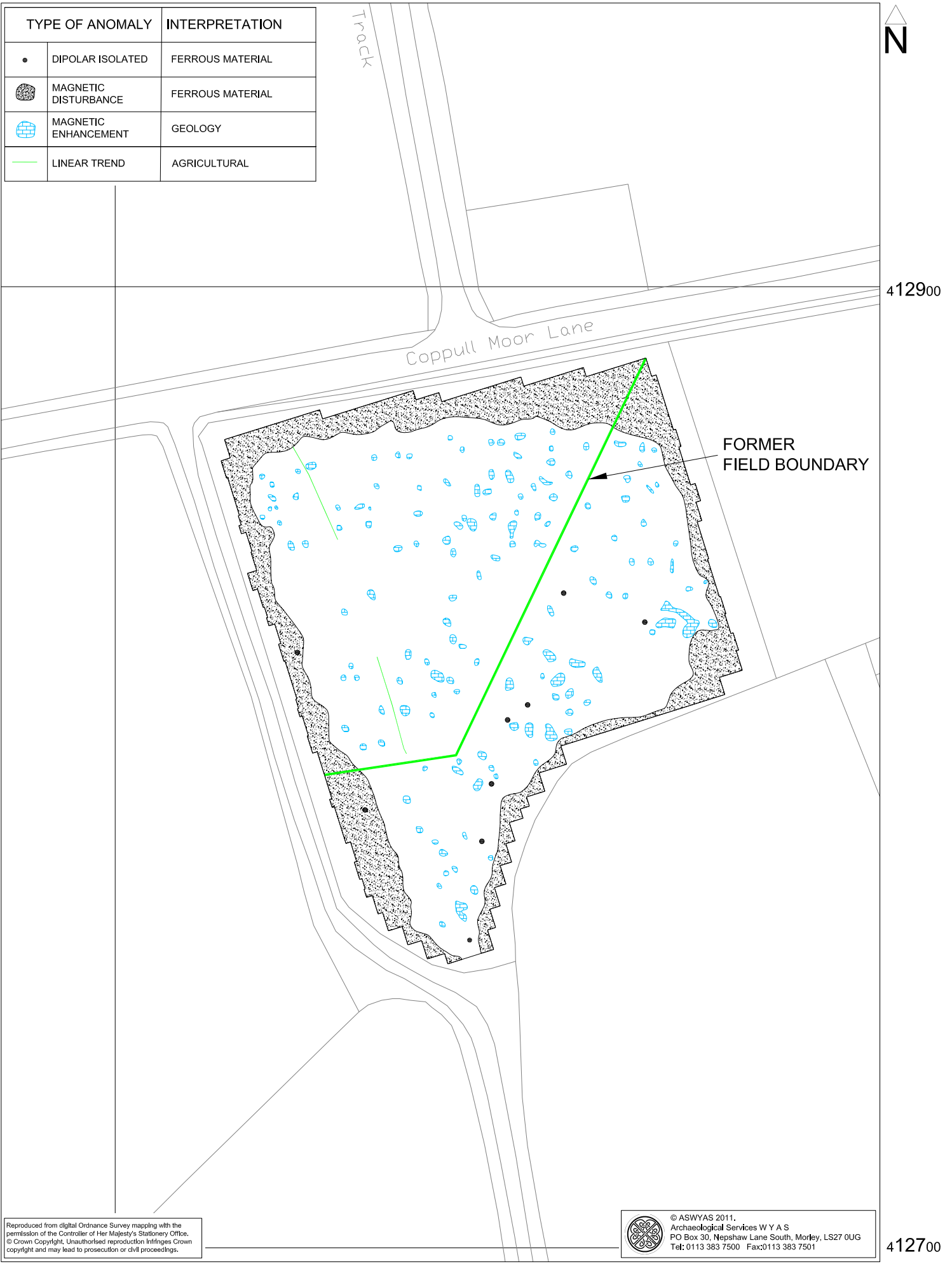


Fig. 5. Interpretation of magnetometer data (1:1000 @ A4)



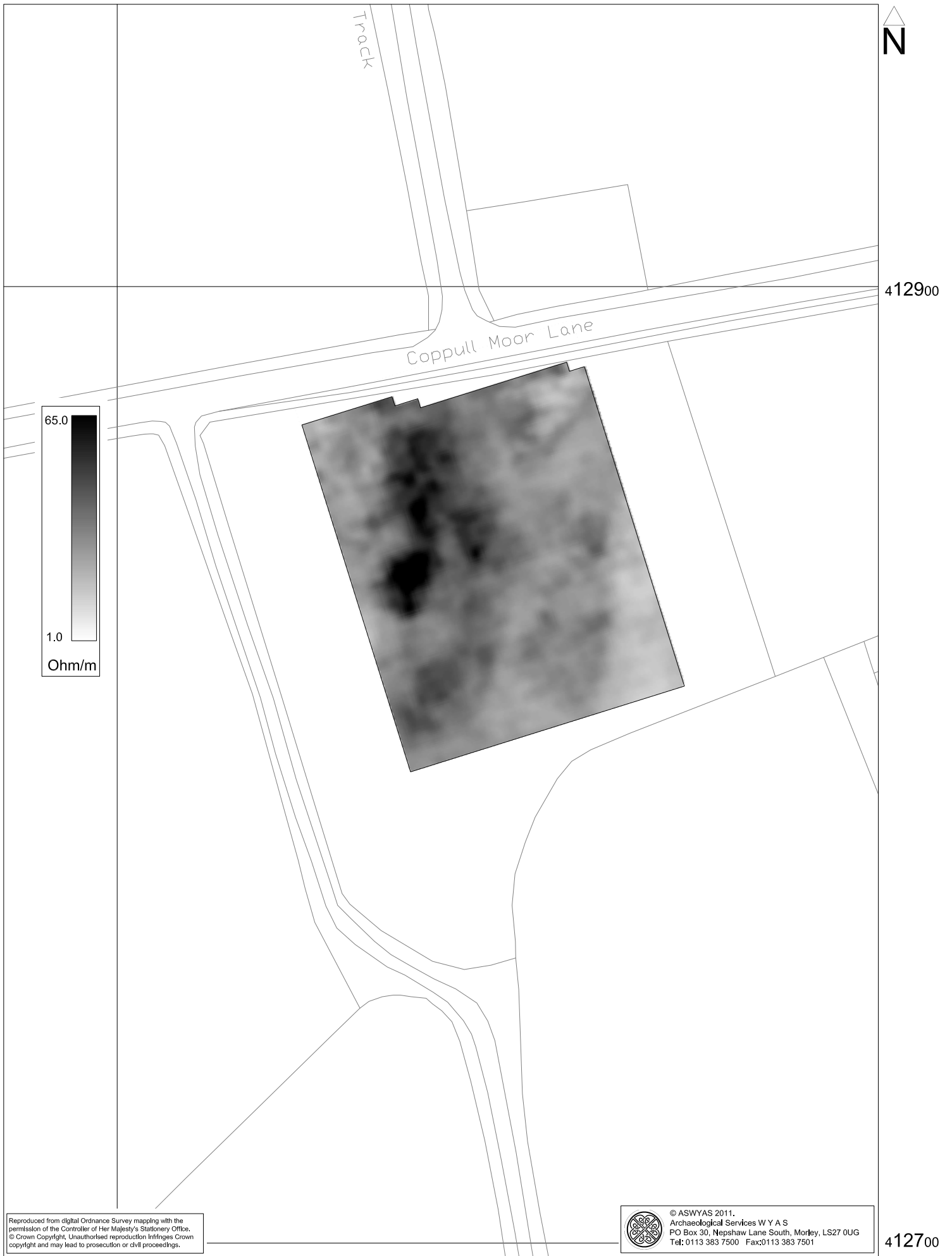


Fig. 6. Processed greyscale resistance data (1:1000 @ A4)

0 40m



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Fig. 7. Unprocessed greyscale resistance data (1:1000 @ A4)

0 40m

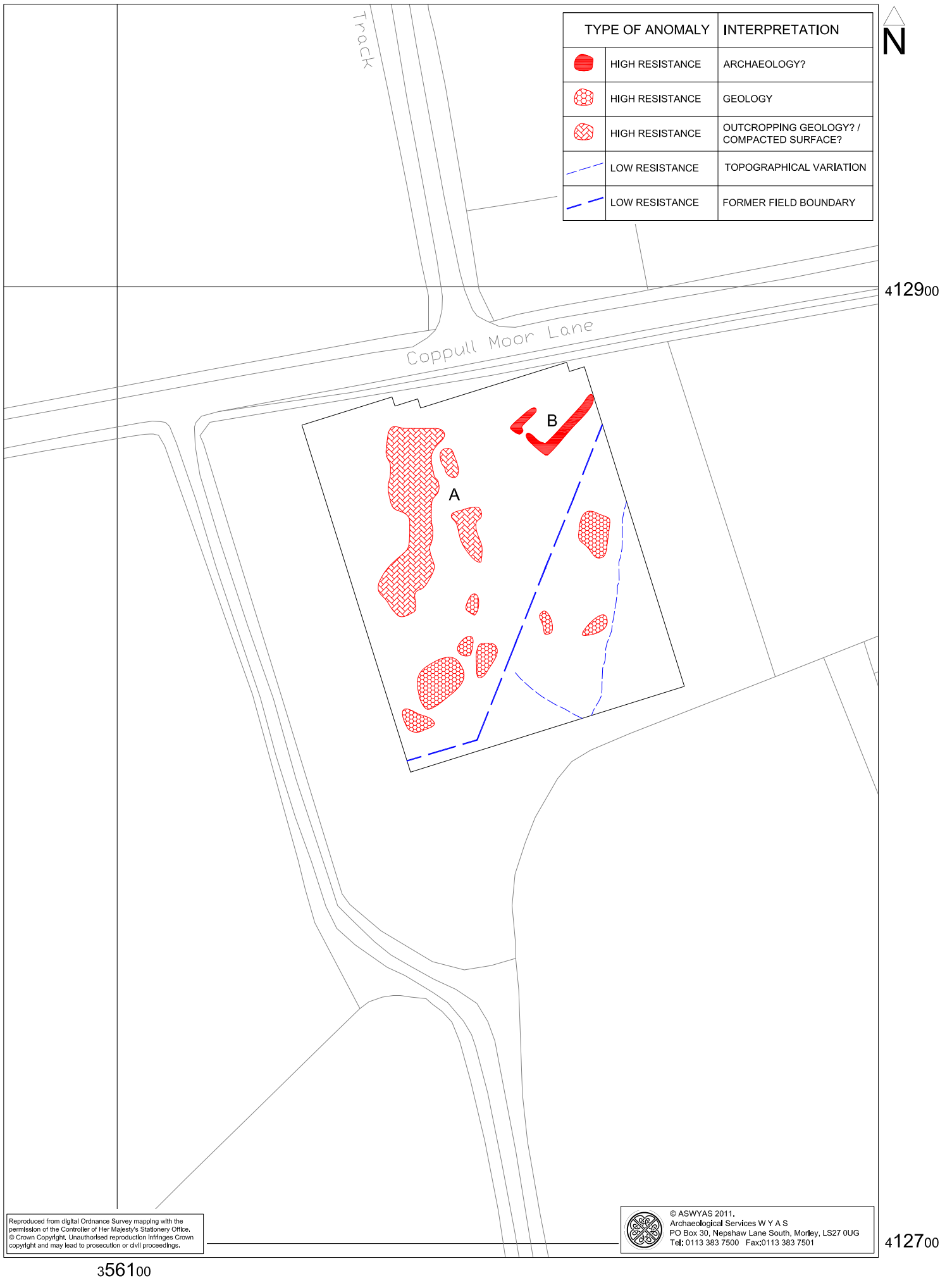


Fig. 8. Interpretation of resistance data (1:1000 @ A4)

0 40m



Plate 1. General view of survey area, looking south south-east



Plate 2. General view of survey area, looking south-east

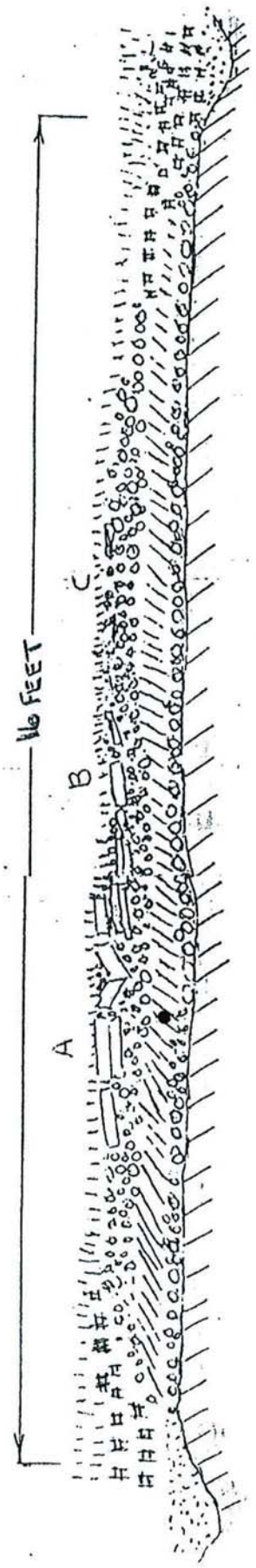


Plate 3. General view of survey area, looking east

ROMAN ROAD HIC-BIBI LANE COPPILL. MAP REF: SHEET 100 3563/412.7

AS INDICATED BY MARGARY

EXCAVATED BY CHORLEY & DISTRICT ARCHAEOLOGICAL SOCIETY 1963.



SOUTH SIDE SECTION: KEY: — TOPSOIL ■ SANDSTONE □ GRAVEL ●●● GRITTY SAND // // //
 # BROWN LANEY TYPE SOIL # # WASH ::::: BLUE CLAY // // //

DRAWN: T.A. RIGBY 1963
 RECAPTIONED: J.G. SMITH 1984.

- NOTES
- 1) The clay round about seems to be brown but a lump taken from the ditch became blue after exposure.
 - 2) The leached sandy wash and blue clay extended about 3 ft. to the west and 6 ft. to the east of the section shown here. The clay to the east had a number of small depressions. There may have been a plan to make a wider road.
 - 3) Removal of topsoil showed sandstone between points A and B but some gravel came away with the grass roots.
 - 4) Between points B and C a layer of gravel appeared in plan, overlying a thin layer of sandstone slabs (2 inches). This is not clear from the section as ploughing had broken the edges of the slabs.
 (Photographs are available)
 - 5) The photographs also show thin layers of clay oversailing the gravel in places.

Appendix 2: 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 plough-soil.

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 is 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 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 zigzag 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 zigzag 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. The same program was used to produce the greyscale images. All greyscale plots are displayed using a linear incremental scale.

Appendix 3: Earth Resistance Survey - technical information

Soil Resistance

The electrical resistance of the upper soil horizons is predominantly dependant on the amount and distribution of water within the soil matrix. Buried archaeological features, such as walls or infilled ditches, by their differing capacity to retain moisture, will impact on the distribution of sub-surface moisture and hence affect electrical resistance. In this way there may be a measurable contrast between the resistance of archaeological features and that of the surrounding deposits. This contrast is needed in order for sub-surface features to be detected by a resistance survey.

The most striking contrast will usually occur between a solid structure, such as a wall, and water-retentive subsoil. This shows as a resistive high. A weak contrast can often be measured between the infill of a ditch feature and the subsoil. If the infill material is soil it is likely to be less compact and hence more water retentive than the subsoil and so the feature will show as a resistive low. If the infill is stone the feature may retain less water than the subsoil and so will show as a resistive high.

The method of measuring variations in ground resistance involves passing a small electric current (1mA) into the ground via a pair of electrodes (current electrodes) and then measuring changes in current flow (the potential gradient) using a second pair of electrodes (potential electrodes). In this way, if a structural feature, such as a wall, lies buried in a soil of uniform resistance much of the current will flow around the feature following the path of least resistance. This reduces the current density in the vicinity of the feature, which in turn increases the potential gradient. It is this potential gradient that is measured to determine the resistance. In this case, the gradient would be increased around the wall giving a positive or high resistance anomaly.

In contrast a feature such as an infilled ditch may have a moisture retentive fill that is comparatively less resistive to current flow. This will increase the current density and decrease the potential gradient over the feature giving a negative or low resistance anomaly.

Survey Methodology

The most widely used archaeological technique for earth resistance surveys uses a twin probe configuration. One current and one potential electrode (the remote or static probes) are fixed firmly in the ground a set distance away from the area being surveyed. The other current and potential electrodes (the mobile probes) are mounted on a frame and are moved from one survey point to the next. Each time the mobile probes make contact with the ground an electrical circuit is formed between the current electrodes and the potential gradient between the mobile and remote probes is measured and stored in the memory of the instrument.

A Geoscan RM15 resistance meter was used during this survey, with the instrument logging each reading automatically at 1m intervals on traverses 1m apart. The mobile probe spacing

was 0.5m with the remote probes 15m apart and at least 15m away from the grid under survey. This mobile probe spacing of 0.5m gives an approximate depth of penetration of 1m for most archaeological features. Consequently a soil cover in excess of 1m may mask, or significantly attenuate, a geophysical response.

Data Processing and Presentation

All of the illustrations incorporating a digital map base were produced in AutoCAD 2008 (© Autodesk).

The resistance data is presented in this report in greyscale format with a linear gradation of values and was obtained by exporting a bitmap from the processing software (Geoplot v3.0; Geoscan Research) into AutoCAD 2008. The data has been processed and has also been interpolated by a value of 0.5 in both the X and Y axes using a sine wave $(x)/x$ function to give a smoother, better defined plot.

Appendix 4: 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 than 0.01m. The locations of the temporary reference points left on site are shown on Figure 2 and the Ordnance Survey grid co-ordinates tabulated below. The internal accuracy of these markers is better than 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.

Temporary reference objects were left on site (see Fig. 2). The Ordnance Survey reference points are listed below.

Station	Easting	Northing	Elevation (aOD)
A	356234.800	412873.7350	87.1580
B	356275.8970	412879.2560	87.4930
C	356312.1220	412809.9100	88.5220

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

Appendix 5: 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.
- 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 relevant Historic Environment Record Office).

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