NPA GEOPHYSICAL SURVEYS

Client Report CP741 November 2008

GEOPHYSICAL SURVEYS OF LAND AT MANOR FARM, HADDISCOE, NORFOLK

on behalf of

NAU ARCHAEOLOGY

NGR TM 438 972

OASIS ID: northpen3-51134

Martin Railton BA (Hons), MA AIFA
North Pennines Archaeology Ltd
Nenthead Mines Heritage Centre
Nenthead
Alston
Cumbria CA9 3PD
Tel: (01434) 382045
Fax: (01434) 382294
Mobile: 07979617882
Email: m.railton@nparchaeology.co.uk

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SUMMARY

Between July and October 2008, North Pennines Archaeology Ltd, commissioned by NAU Archaeology, undertook geophysical surveys of *c*.19.5ha of land on the west side of Haddiscoe, Norfolk. The survey was undertaken at a proposed mineral extraction site, situated close to Manor Farm. The objective of the geophysical surveys was to determine the presence/absence, nature and extent of any archaeological anomalies at the site.

A number of later Neolithic or Bronze Age round barrows have been identified on the high ground that borders Haddiscoe Marshes. Cropmarks of at least one possible ring-ditch had previously been identified within the proposed mineral extraction site, which could be evidence for prehistoric activity at the site. The Haddiscoe area also contains significant evidence for Roman activity, including Roman finds and numerous cropmark enclosures, field boundaries and trackways. A number of similar cropmarks had been identified within the site boundary, although the exact nature of this evidence was uncertain. The site also lies close to the parish Church of St Maryôs, and a possible Knights Templar preceptory at Haddiscoe, although the precise location of this is uncertain.

The study area was divided into three separate survey areas (Areas 1-3). A trial 2.8ha area (Area 1) was surveyed in July 2008, and corresponded to the location of the proposed plant site. This was undertaken in order to determine whether the geophysical survey would be productive at the site, given the possible presence of substantial alluvial deposits. Following the successful detection of archaeological anomalies in Area 1, the second larger field to the north was surveyed (Area 2 and Area 3).

Archaeological features were detected over the majority of Area 1. These comprised a series of linear anomalies, interpreted as soil-filled ditches, which appear to form part of a rectilinear field-system and possible enclosures, similar to those previously identified on air photographs of the site. The linear anomalies in Area 1 could be ascribed to at least two distinct phases of past land use. A Roman date has been proposed for the field system and possible enclosures, based on the morphology of these features, and nearby finds of Roman artefacts. A possible track way and later post-medieval enclosure boundaries have also been detected in this area. By comparison, very few potential archaeological features were detected in Area 2 and Area 3. Possible soil-filled features and areas of disturbance were detected towards the centre of Area 2 and Area 3, but the nature of these features is uncertain. It is possible that archaeological features in this area have been removed by agricultural operations.

A large amount of magnetic disturbance was detected in Area 2 and Area 3, which was almost certainly due to the presence of quantities of unknown fired/ferrous material in the subsoil. There was no obvious explanation for this response, and it is considered unlikely that this is a natural geological condition. It is hoped that subsequent evaluation work will shed light on the nature of this material.

It is recommended that the results of the geophysical survey are tested through the excavation of a series of targeted trial trenches, and that the results be made available in order to inform the interpretation of subsequent geophysical surveys.

1 INTRODUCTION *(Figures 1 & 2)*

1.1 Between July and October 2008, North Pennines Archaeology Ltd, commissioned by NAU Archaeology, undertook geophysical surveys of *c*.19.5ha of land on the west side of Haddiscoe, Norfolk. The survey was undertaken at the site of a proposed mineral extraction site, situated close to Manor Farm. The objective of the geophysical surveys was to determine the presence/absence, nature and extent of any archaeological anomalies at the site. The work was conducted in accordance the relevant English Heritage and IFA guidelines.

1.2 The site is situated in two fields to the west of Haddiscoe (NGR TM 438 972), and south of Haddiscoe Marshes, located either side of Loddon Road (B1136). The proposed extraction site is situated to the north of the road, bounded by Crab Apple Lane to the west. The second smaller area, situated to the south of Loddon Road, is the location of the proposed plant site (Figure 1).

1.3 A number of later Neolithic or Bronze Age round barrows have been identified on the high ground that borders Haddiscoe Marshes. Cropmarks of at least one possible ring-ditch had previously been identified within the proposed mineral extraction site, which could be evidence for prehistoric activity at the site. The Haddiscoe area also contains significant evidence for Roman activity, including Roman finds and numerous cropmark enclosures, field boundaries and trackways. A number of similar cropmarks have been identified within the site boundary, although the exact nature of this evidence is uncertain. The site also lies close to the parish Church of St Maryôs, and a possible Knights Templar preceptory at Haddiscoe, although the precise location of this is uncertain.

1.4 The solid geology of the area comprises chalk, overlain by glacial sands and gravels (BGS 2001). The site lies to the east of a boulder clay plateau, that dominates the geology of southern Norfolk. The area also contains considerable deposits of alluvial silt and clay, which were deposited during the Roman period during flooding in the area of the present day marches.

1.5 The geophysical survey areas measured *c*.19.5ha in total, divided into three separate areas (Areas 1-3). A trial 2.8ha area (Area 1) was surveyed in July 2008, and corresponded to the location of the proposed plant site. This was undertaken in order to determine whether the geophysical survey would be productive at the site, given the possible presence of substantial alluvial deposits. Following the successful detection of archaeological anomalies in Area 1, the second larger field to the north (Area 2) was surveyed in September 2008. The southern part of this area was surveyed again in October 2008 (Area 3), following the harvest of a sugar beet crop (Figure 2).

1.6 The objective of the geophysical surveys was to determine the presence/absence, nature and extent of any archaeological anomalies within the proposed mineral extraction site, and the presence/absence of any known modern anomalies within the study area, which may affect the results. The results of the geophysical survey were to be used to inform the need for any further evaluation work within the proposed development area.

1.7 The geophysical surveys were conducted by Kevin Mounsey, Angus Clark, and Christian Sutton between 28th July and 31st October 2008, and managed by Martin Railton, NPA Project Manager. This report was prepared and illustrated by Martin Railton.

2 METHODOLOGY

2.1 Standards

2.1.1 The geophysical survey and reporting were conducted in accordance with English Heritage guidelines (English Heritage 2008), and the recommendations of the Institute of Field Archaeologists (IFA 2002).

2.2 Technique Selection

2.2.1 Geomagnetic survey was selected as the most appropriate technique, given the non-igneous environment, and the possible presence of cut archaeological features at depths of no more than 1.5m.

2.2.2 This technique involved the use of hand-held gradiometers, which measure variations in the vertical component of the earthôs magnetic field. These variations can be due to the presence of sub-surface archaeological features. Data was recorded by the instruments and downloaded into a laptop computer for initial data processing in the field using specialist software.

2.3 Field Methods

2.3.1 The study area was located in two separate arable fields, located either side of Loddon Road. Three separate areas were surveyed (Areas 1-3). A 30m grid was established in each area, and tied-in to known Ordnance Survey points using a Trimble 3605DR Geodimeter total station with datalogger.

2.3.2 Geomagnetic measurements were determined using a Bartington Grad601-2 dual gradiometer system, with twin probes set 1m apart. It was expected that significant archaeological features at a depth of up to 1.5m would be detected using this arrangement. The survey was undertaken using a zig-zag traverse scheme, with data being logged in 30m grid units. A sample interval of 0.25m was used, with a traverse interval of 1m, providing 3600 sample measurements per grid unit. The data was downloaded on site into a laptop computer for processing and storage.

2.4 Data Processing

2.4.1 Geophysical survey data was processed using ArchaeoSurveyor II software, which was used to produce ógrey-scaleô images of the raw data. Positive magnetic anomalies are displayed as dark grey, and negative magnetic anomalies are displayed as light grey. A palette bar shows the relationship between the grey shades and geomagnetic values in nT for each area.

2.4.2 Raw data was processed in order to further define and highlight the archaeological features detected. The following basic data processing functions were used:

Despike: *to locate and suppress random iron spikes in the gradiometer data*

Clip: *to clip data to specified maximum and minimum values, in order to limit large noise spikes in the gradiometer data*

Destagger: *to reduce the effect of staggered gradiometer data, sometimes caused by difficult working conditions, topography, or operator error*

2.5 Interpretation

2.5.1 Three types of geophysical anomaly were detected in the gradiometer data:

positive magnetic: regions of anomalously high or positive magnetic gradient, which may be associated with the presence of high magnetic susceptibility soil-filled features, such as pits or ditches.

negative magnetic: regions of anomalously low or negative magnetic gradient, which may be associated with features of low magnetic susceptibility, such as stone-built features, geological features, land-drains or sub-surface voids.

dipolar magnetic: regions of paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials, including fired/ferrous debris in the topsoil, modern services, metallic structures, or fired structures, such as kilns or hearths.

2.6 Presentation

2.6.1 The grey-scale images were combined with site survey data and Ordnance Survey data to produce the A1 geophysical survey plans (see separate roll, Drawings 1-3). Colour-coded geophysical interpretation diagrams are provided, showing the locations and extent of positive, negative, dipolar, and diffuse magnetic anomalies.

2.6.2 Archaeological interpretation diagrams are provided, which are based on the interpretation of the geophysical survey results, in light of the archaeological and historical background of the site.

2.6.3 Trace plots of the unprocessed geophysical data are available if required.

2.7 Project Archive

2.7.1 The data archive for this project has been created in accordance with the recommendations of the Archaeology Data Service (ADS 2001). The archive is currently held at the company offices at Nenthead, Cumbria.

2.7.2 One copy of the survey report will be deposited with the County Historic Environment Record, where viewing will be available on request. The project is also registered with the **O**nline **A**cces**S** to the **I**ndex of archaeological investigation**S** (**OASIS**). The OASIS reference for this project is **northpen3-51134**.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Historical Background

3.1.1 A desk-based assessment of the proposed development area has been undertaken by NAU Archaeology (Watkins 2008), a summary of which is included below. References to the Norfolk Historic Environment Records (NHER) are shown in brackets where known.

3.1.2 A number of later Neolithic or Bronze Age round barrows have been identified on the high ground that borders Haddiscoe Marshes. A number of cropmark sites in and around Haddiscoe are also believed to be the remains of prehistoric monuments, including a possible Neolithic long barrow or mortuary enclosure north of Low Farm, and a number of possible round barrows. At least one ring ditch of a possible round barrow has been identified within the northern part of the proposed mineral extraction site (NHER 49678).

3.1.3 Roman period activity around Haddiscoe is represented by a number of Roman finds and cropmarks including enclosures, field boundaries and trackways. A possible Roman settlement, evidenced by concentrations of Roman pottery and numerous cropmarks, has been identified to the southeast of Haddiscoe (NHER 12138). The area to the east of Low Farm also appears to have been a focus of Roman settlement. Cropmarks of field systems, enclosures, and trackways have been identified in this area (NHER 12139). Numerous linear cropmarks have been identified to the south of the proposed mineral extraction site, which are believed to be Roman in date (NHER 49661, 49662).

3.1.4 A number of potentially Roman features have been identified in the southern part of the proposed mineral extraction site (NHER 49680), which include several enclosures and other boundary features. Several small sub-square enclosures were also identified on air photographs of the proposed plant site, which elsewhere in the county are interpreted as mortuary enclosures. Although the dates of these cropmarks are based on morphology, several finds of Roman date have been made in the northern part of the proposed extraction site. These include a Roman brooch, coins and other objects, recovered by metal-detectorists (NHER 24146, 28212), as well as a quantity of Roman pottery.

3.1.5 Evidence for Saxon activity within the study area is limited to a small number of finds, including a possible razor (NHER 24146). It is believed that Haddiscoe was founded in the Late Saxon period, with this settlement and the surrounding villages being recorded in Domesday. The nearby church of St Maryôs, situated to the southeast of the proposed mineral extraction site, incorporates a round tower of probable 11th century date.

3.1.6 Little is known about the medieval history of the area. However, it is possible that Haddiscoe Manor and Manor Farm have origins in the medieval period. A Knights Templer preceptory is believed to have existed at Haddiscoe in 1218, and King Henry III (1216-72) is known to have been a benefactor. The exact location is unknown, although this may have been located near St Maryôs Church. The order was abolished in 1312.

3.1.7 The majority of the proposed mineral extraction site appears to have remained as agricultural land from the late medieval period into the modern period. Some of the cropmarks within the site are likely to be associated with former medieval or post-medieval field boundaries. Fadenôs map of 1797 shows two route ways crossing the northern and western parts of the proposed mineral extraction site. One boundary shown on the 1809 Enclosure Map of Haddiscoe can be identified as one of the cropmarks at the site.

3.2 Previous Archaeological Works

3.2.1 No known previous archaeological investigations have taken place within the proposed mineral extraction site.

4 SURVEY RESULTS *(Figures 3-11)*

4.1 Area 1 (Figures 3-5)

4.1.1 Area 1 measured 120m by 240m (2.9ha), and was situated to the south of Loddon Road, to target the area of the proposed plant site. The survey area was within a single field containing an arable crop at the time of the survey. A small area on the south side of Area 1 could not be surveyed as this had been quarried away.

4.1.2 Area 1 was a trial survey area, which was undertaken to test whether a gradiometer (magnetometer) survey would provide useful results, given the possible presence of alluvial deposits in the area.

4.1.3 Small discrete dipolar magnetic anomalies (and some larger discrete dipolar magnetic anomalies) were detected across the whole of Area 1. These are almost certainly caused by fired/ferrous litter in the topsoil, which is typical for modern agricultural land.

4.1.4 A series of linear positive magnetic anomalies were detected in Area 1, aligned approximately north-south and east-west, which are interpreted as soil-filled ditches. The positive linear anomalies on the east side of the survey area were more highly magnetic, with values between *c*.1.6nT and *c*.5.0nT, probably due to the presence of fired material in their fills. These features also produced corresponding negative magnetic anomalies, with values between *c*.-0.7nT and *c*.-4.0nT. These anomalies corresponded to the locations of some of the cropmarks previously identified at the site.

4.1.5 A number of discrete positive magnetic anomalies with values between *c*.-2.4nT and *c*.-4.6nT were also detected on the east side of Area 1, which were interpreted as possible soil-filled features, some of which could be pits.

4.1.6 A series of weak parallel positive anomalies, with values between *c*.0.7nT and *c*.4.0nT, were detected at the west side of Area 1, aligned north-south. These anomalies were interpreted as possible plough furrows.

4.1.7 Two broad parallel negative magnetic anomalies, spaced *c*.13m apart with values between *c*.-0.2nT and *c*.-2.0nT, were detected on the east side of Area 1, aligned north-south. These appeared to be associated with one or more of the linear positive magnetic anomalies with the same alignment, and were interpreted as a possible former trackway.

4.1.8 A diffuse negative magnetic anomaly was detected on the southwest side of Area 1, aligned northwest-southeast, with corresponding diffuse parallel positive anomalies either side. It is possible that these anomalies correspond to the location of another trackway. However, these could also be geological features.

4.2 Area 2 (Figures 6-8)

4.2.1 Area 2 measured 9.5ha, and was situated in a field to the north of Area 1. A crop of sugar beet was present on the south side of this field, which could not be surveyed until a later date (as Area 3). Trees were present in copses along the south, west and north sides of this field, which could not be surveyed. A modern fence bounded the east side of Area 2, which produced a strong dipolar magnetic response. A number of telegraph

poles were also present in Area 2, which produced very strong dipolar magnetic anomalies.

4.2.2 A large number of small discrete dipolar magnetic anomalies were detected across the whole of Area 2, believed to be caused by fired/ferrous litter in the topsoil. These were clustered in wide bands, running across the survey area, aligned approximately northeast to southwest, suggesting that they were a product of former agricultural practices.

4.2.3 A series of weak linear positive magnetic anomalies, with values between *c*.0.9nT and *c*.2.1nT, were detected over the majority of Area 2, also aligned approximately northeast to southwest. These anomalies were also interpreted as the remains of former cultivation practices.

4.2.4 A linear dipolar magnetic anomaly was detected towards the centre of Area 2, with an associated weak linear positive magnetic anomaly. The nature of this feature is uncertain, but the response is typical of ferrous material, possibly associated with modern services.

4.2.5 A number of irregular diffuse positive magnetic anomalies were detected towards the centre of Area 2, and on the south side of this area. These features were indistinct, but may reflect the presence of soil-filled features, possibly associated with former gravel extraction or other forms of ground disturbance.

4.2.6 Two weak rectilinear positive magnetic anomalies were detected on the south side of Area 2, forming rectangular areas measuring approximately 9m by 5m, and 7m by 4.5m. These anomalies were interpreted as possible soil-filled features.

4.2.7 A broad diffuse linear negative magnetic anomaly and associated broad linear positive anomaly were detected on the east side of Area 2, aligned northwest-southeast. These anomalies may be associated with a former trackway or former agricultural practices.

4.3 Area 3 (Figures 9-11)

4.3.1 Area 3 measured 7.5ha, and was situated immediately south of Area 2, in an area formerly containing a crop of sugar beet. A mass of small discrete dipolar magnetic anomalies, were recorded in this area, in a wide band, aligned approximately northwest to southeast. These anomalies dominated the results of the Area 3 geophysical survey to such an extent that very few other geophysical anomalies were detected in this area. The nature of this magnetic material is unknown, but these must be due either to geology or to former agricultural/industrial processes at the site which have deposited large quantities of fired/ferrous material in the subsoil. The survey data was processed to remove anomalies as far as possible, to produce Figure 9.

4.3.2 A number of irregular diffuse positive magnetic anomalies were detected on the north side of Area 3, adjacent to those on the south side of Area 2. These features were indistinct, but may reflect the presence of soil-filled features.

4.3.3 Two linear negative magnetic anomalies, spaced 50m apart, were detected on the south side of Area 3, aligned southwest to northeast. These features were interpreted as possible land drains.

4.4 Discussion

4.4.1 The trial survey area (Area 1) was successful in detecting archaeological anomalies over the majority of the study area. These comprised a series of linear anomalies, interpreted as soil-filled ditches, which appear to form part of a rectilinear field-system and possible enclosures, similar to those previously identified on air photographs of the site (Figure 5).

4.4.2 The linear anomalies in Area 1 appear to belong to at least two distinct phases of past land use. A Roman date has been proposed for the field system and possible enclosures (a), based on the morphology of these features, and nearby finds of Roman artefacts. These features appear to form parts of at least two large enclosures or fields, one of which may be subdivided. A possible smaller *c.*13m-square enclosure has been detected towards the centre of Area 1 (b). However, the possibility exists that this is formed by the intersection of separate field/enclosure boundaries.

4.4.3 Two linear anomalies on the east side of Area 1, appear to intersect the eastern field/enclosure (c). These may relate to former field boundaries of possible post-medieval date, as they have a similar alignment to post-medieval enclosure boundaries shown on the 1809 Enclosure Map of Haddiscoe.

4.4.4 The broad parallel magnetic anomalies on the east side of Area 1, are interpreted as the remains of a possible former trackway or holloway (d). These have a similar alignment to the two possible post-medieval enclosure boundaries, and may be of a similar date. Possible plough furrows, detected on the west side of Area 1 with a similar alignment, may also relate to post-medieval or modern agricultural practices.

4.4.5 By comparison, very few potential archaeological features were detected in Area 2, and Area 3. Possible soil-filled features and areas of disturbance were detected towards the centre of Area 2 and Area 3, but the nature of these features is uncertain.

4.4.6 It is possible that the magnetic disturbance detected in Area 3 has masked archaeological features in this area. However, features were not detected across the majority of Area 2 and Area 3, and it is possible that these may have been removed by former agricultural operations. The nature of the magnetic material is unknown, but the geophysical response is similar to that produced by industrial waste, such as slag.

5 CONCLUSIONS

5.1 Geomagnetic surveys covering *c*.19.5ha of land have been conducted over three separate areas at Manor Farm, Haddiscoe, covering the location of a new mineral extraction area and proposed plant site. The proposed plant site has produce evidence for archaeological features over the majority of this area (Area 1). By comparison, no definite archaeological features were detected within the mineral extraction area (Area 2 and Area 3). It is possible that features in this area have been removed by former agricultural operations.

5.2 A complex series of soil-filled ditches, forming a rectilinear field system of possible Roman date were detected in Area 1. Also detected was a possible track way and later post-medieval enclosure boundaries. A number of possible soil-filled features were detected in Area 2 and Area 3, but the nature of these is uncertain.

5.3 A large amount of magnetic disturbance was detected in Area 2 and Area 3, which was almost certainly due to the presence of quantities of unknown fired/ferrous material in the subsoil. There was no obvious explanation for this response, and it is considered unlikely that this is a natural geological condition. It is hoped that subsequent evaluation work will shed light on the nature of this material.

5.4 It is recommended that the results of the geophysical survey are tested through the excavation of a series of targeted trial trenches, and that the results be made available in order to inform the interpretation of subsequent geophysical surveys.

6 ACKNOWLEDGEMENTS

North Pennines Archaeology are grateful to Andy Hutcheson of NAU Archaeology for commissioning the geophysical surveys. The digital mapping used during the survey was provided courtesy of NAU Archaeology. Thanks are also due to Tony and Sharon Watson of Manor Farm, Haddiscoe, for their assistance during the fieldwork.

7 BIBLIOGRAPHY

Archaeology Data Service, 2001 *Geophysical Data in Archaeology: A Guide to Good Practice,* Arts and Humanities Data Service

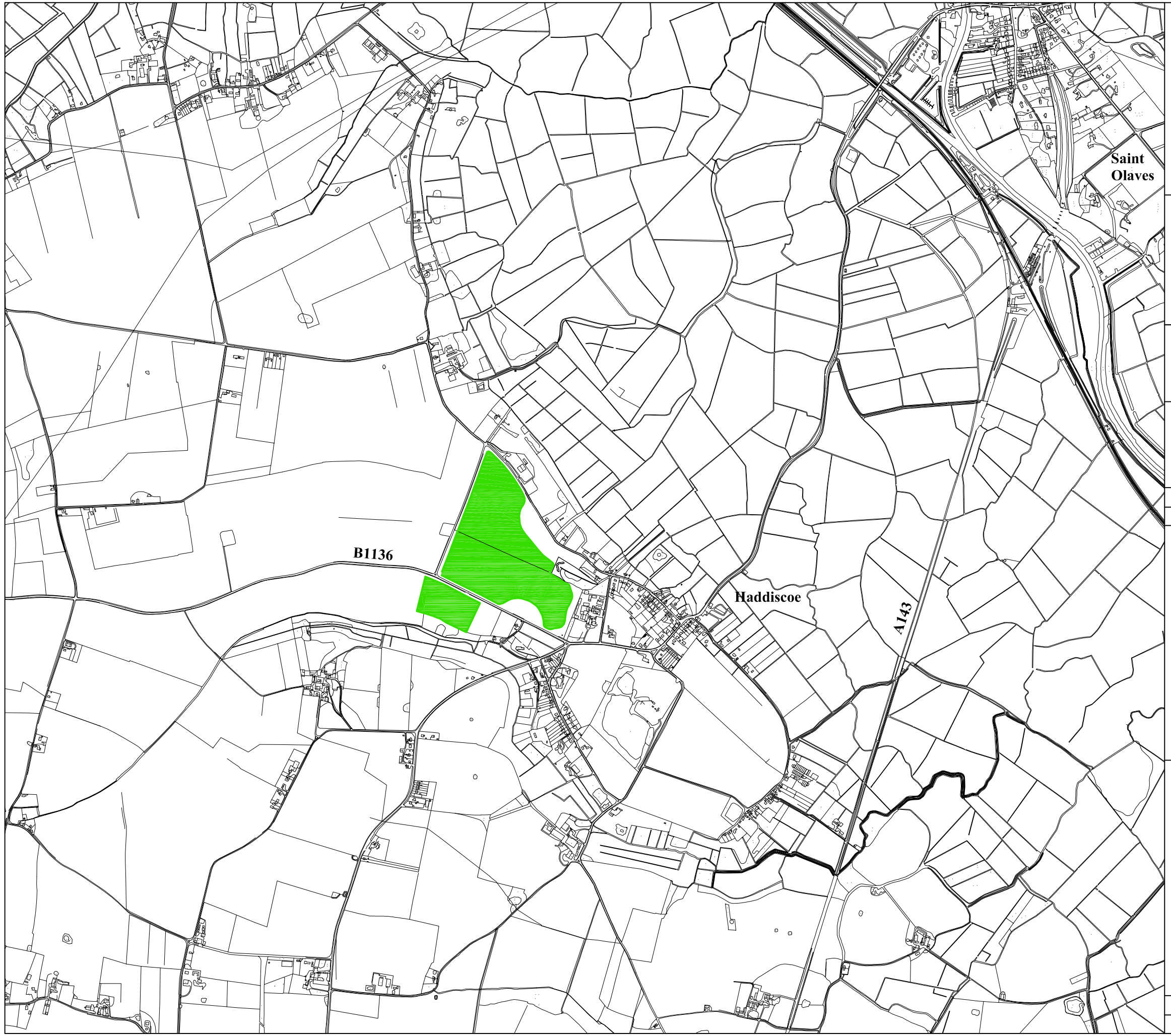
British Geological Survey, 2001 *Solid Geology Map: UK South Sheet,* 4th edition

English Heritage, 2008 *Geophysical Survey in Archaeological Field Evaluation,* Research and Professional Services Guideline No.1, 2nd Edition, London

Institute of Field Archaeologists, 2002 *The use of geophysical techniques in archaeological evaluations,* Paper No.6, IFA, Birmingham

Watkins, P J, 2008 *An Archaeological Desk-based Assessment of Land at Manor Farm, Haddiscoe, Norfolk,* Unpublished Report No. 1857, NAU Archaeology

APPENDIX I – ILLUSTRATIONS



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NPA Geophysical Survey
2008
Land at Manor Farm,
Haddiscoe, Norfolk

COMMISSIONED BY:
NAU Archaeology

Scale 1:15000 at A3

DRAWN BY: MDR

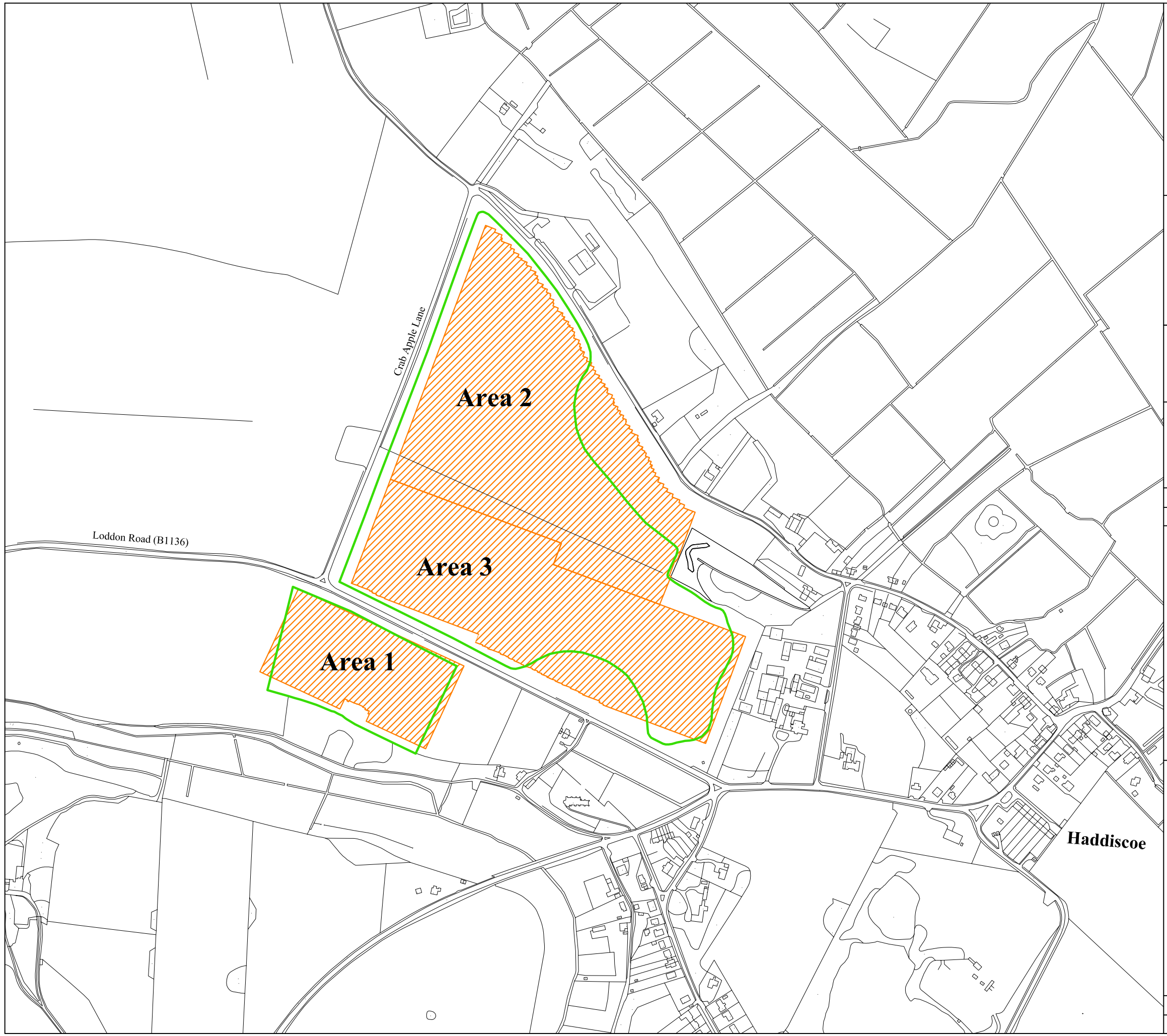
DATE: November 2008

proposed extraction site

Report No: CP 741/08

Figure No: 1

Figure 1 : Location map



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DATE: November 2008

outline of proposed extraction site

geophysical survey area

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Figure No: 2

Figure 2 : Location of the geophysical survey areas (Area 1, Area 2 and Area 3)

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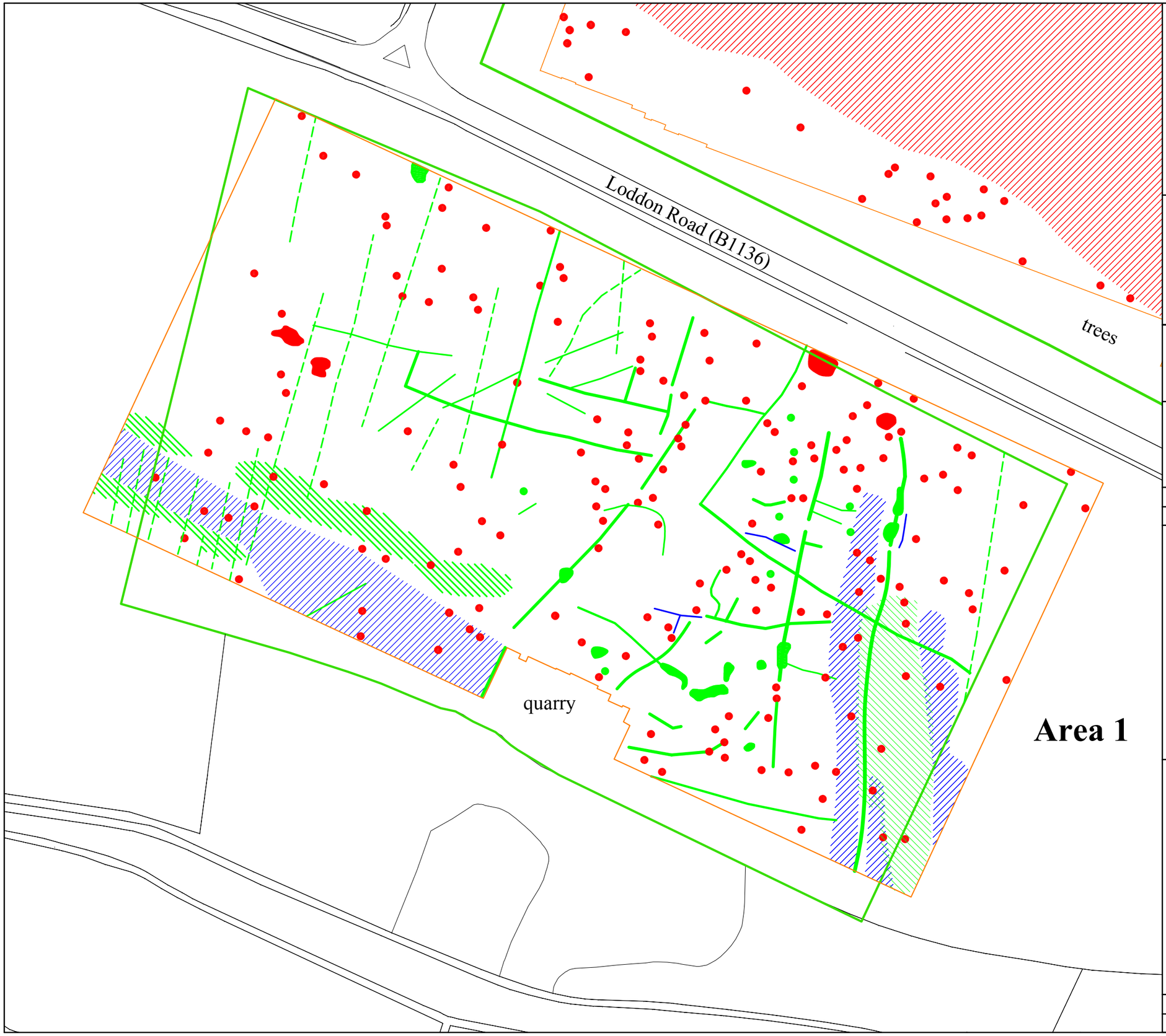
DATE: September 2008

outline of proposed extraction site
outline of geophysical survey area

Report No: CP 741/08

Figure No: 3

Figure 3 : Geophysical survey of Area 1



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DATE: September 2008

- outline of proposed extraction site
- outline of geophysical survey area
- positive magnetic anomaly
- diffise negative magnetic anomaly
- dipolar magnetic anomaly

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Figure No: 4

Figure 4 : Geophysical interpretation of Area 1

Loddon Road (B1136)

trees

b)

a)

c)

d)

quarry

Area 1

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outline of proposed extraction site

outline of geophysical survey area

direction of cultivation

possible soil-filled features

possible track/holloway

magnetic disturbance

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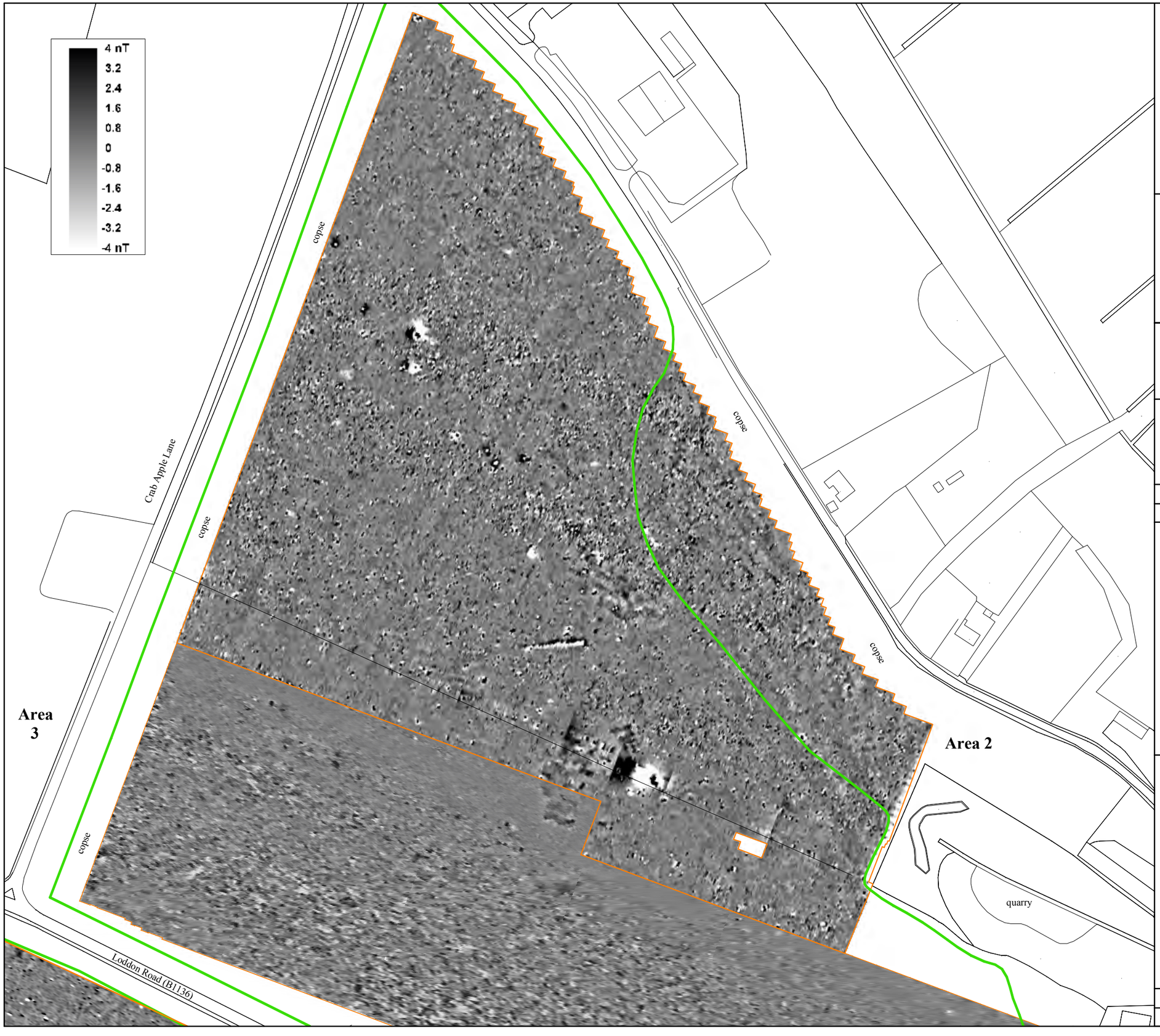
Figure No: 5

Figure 5 : Archaeological interpretation of Area 1



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outline of proposed extraction site

outline of geophysical survey area

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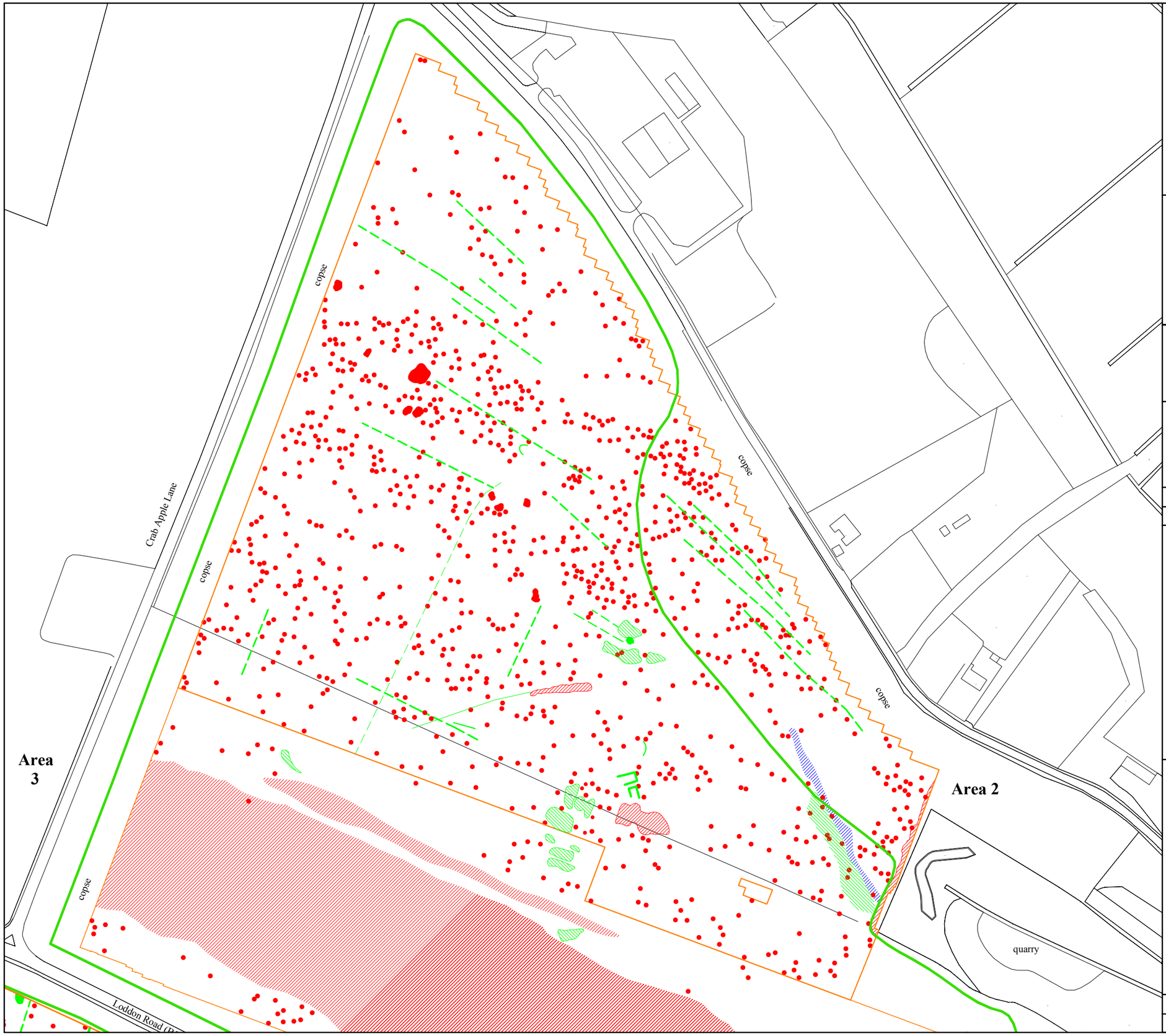
Figure No: 6

Figure 6 : Geophysical survey of Area 2



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outline of proposed extraction site
outline of geophysical survey area
positive magnetic anomaly
diffise negative magnetic anomaly
dipolar magnetic anomaly

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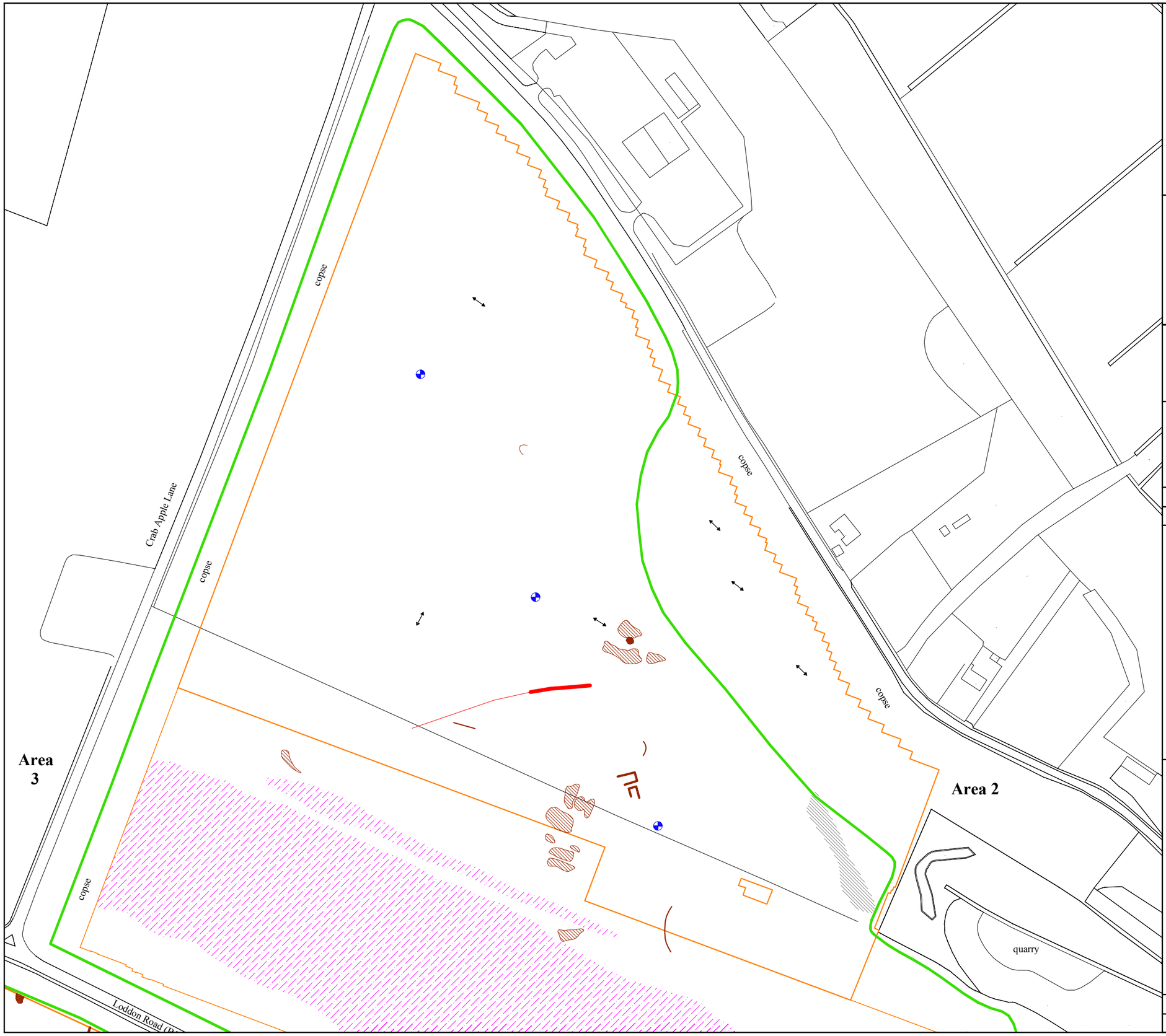
Figure No: 7

Figure 7 : Geophysical interpretation of Area 2



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Scale 1:2000 at A3

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DATE: September 2008

- outline of proposed extraction site
- outline of geophysical survey area
- direction of cultivation
- possible soil-filled features
- possible track/holloway
- possible land drain
- telegraph post
- ferrous/service pipe
- magnetic disturbance

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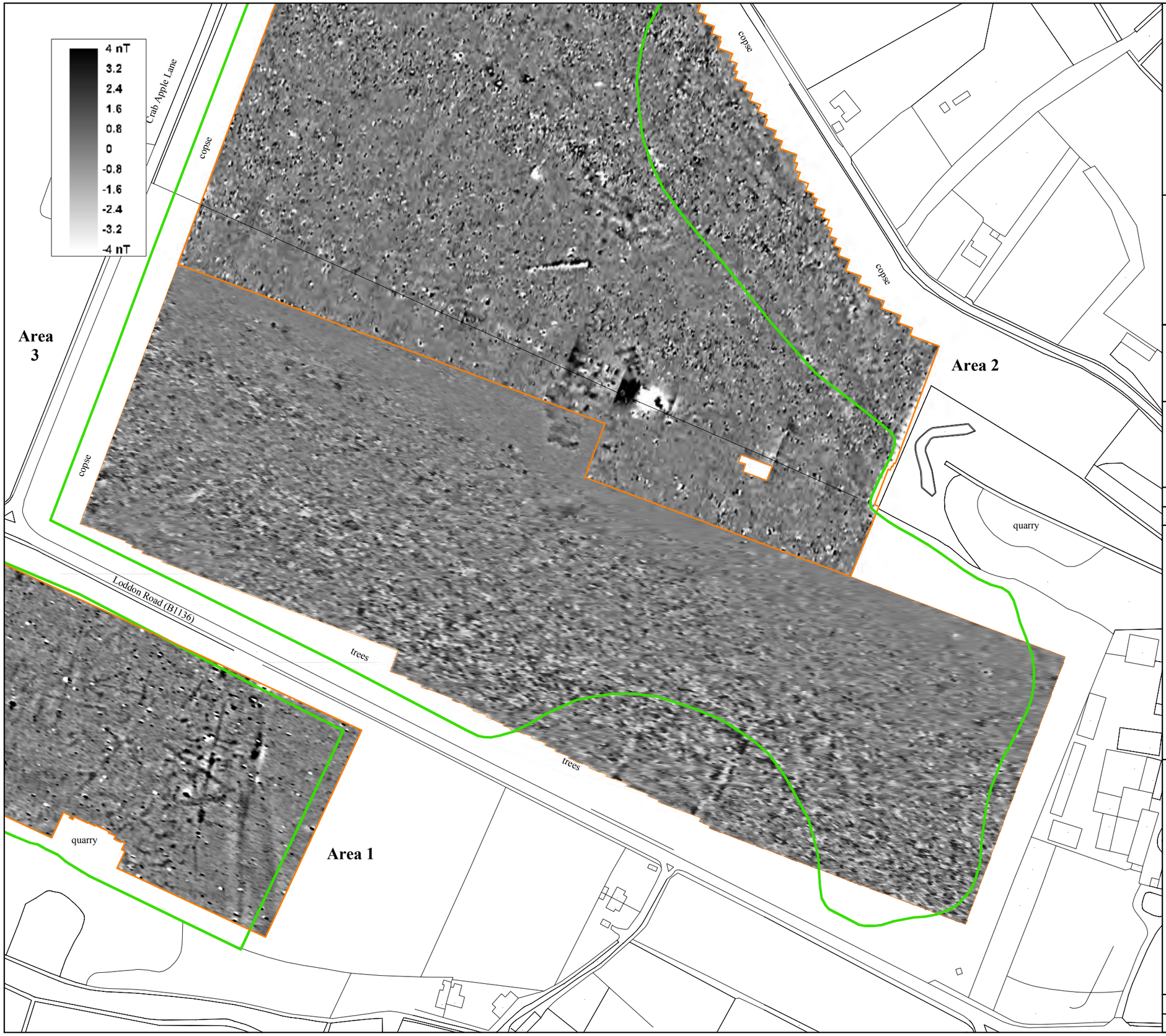
Figure No: 8

Figure 8 : Archaeological interpretation of Area 2



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Scale 1:2000 at A3

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outline of proposed extraction site
outline of geophysical survey area

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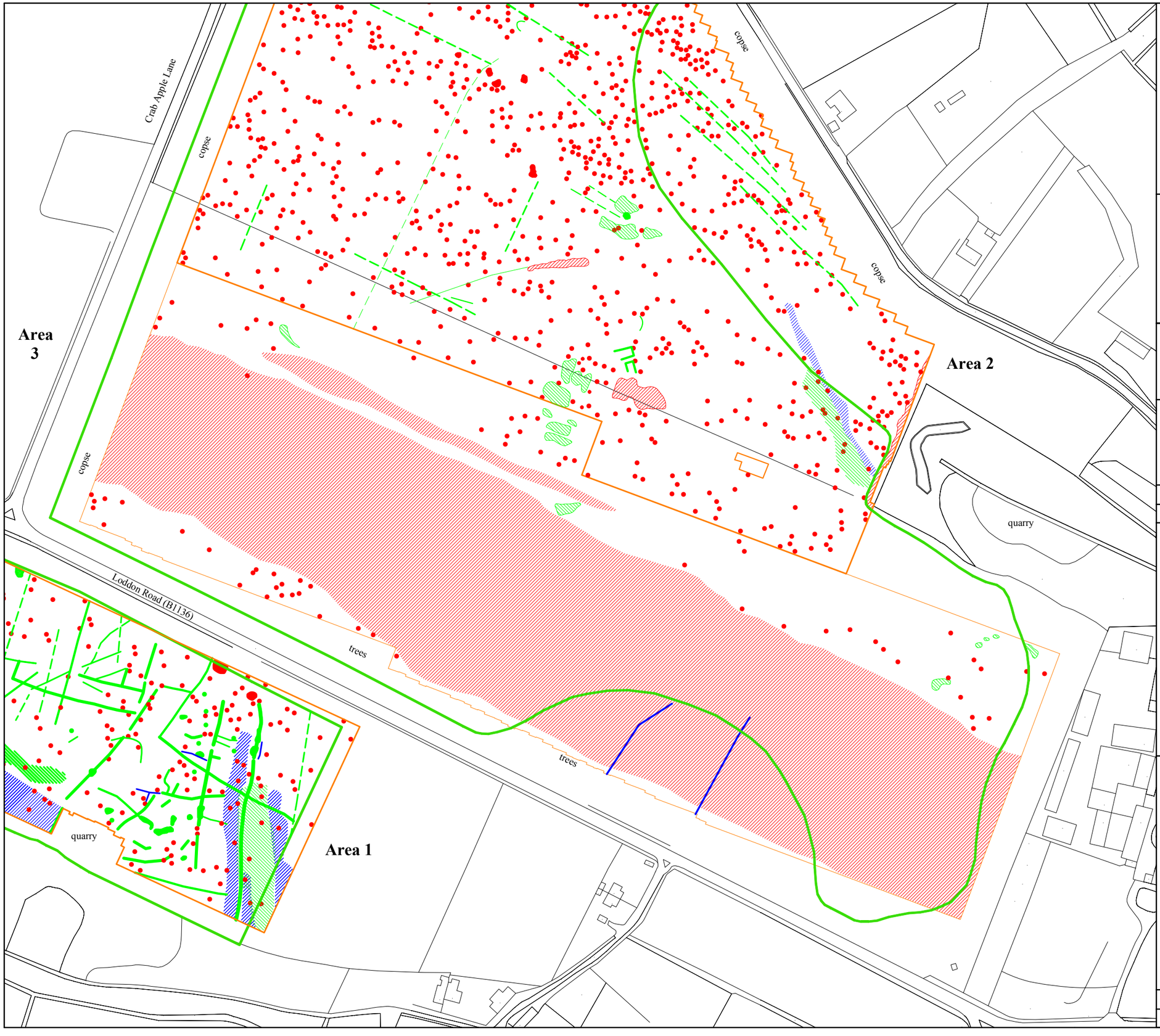
Figure No: 9

Figure 9 : Geophysical survey of Area 3



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NPA Geophysical Survey
2008
Land at Manor Farm,
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DATE: September 2008

- outline of proposed extraction site
- outline of geophysical survey area
- positive magnetic anomaly
- diffise negative magnetic anomaly
- dipolar magnetic anomaly

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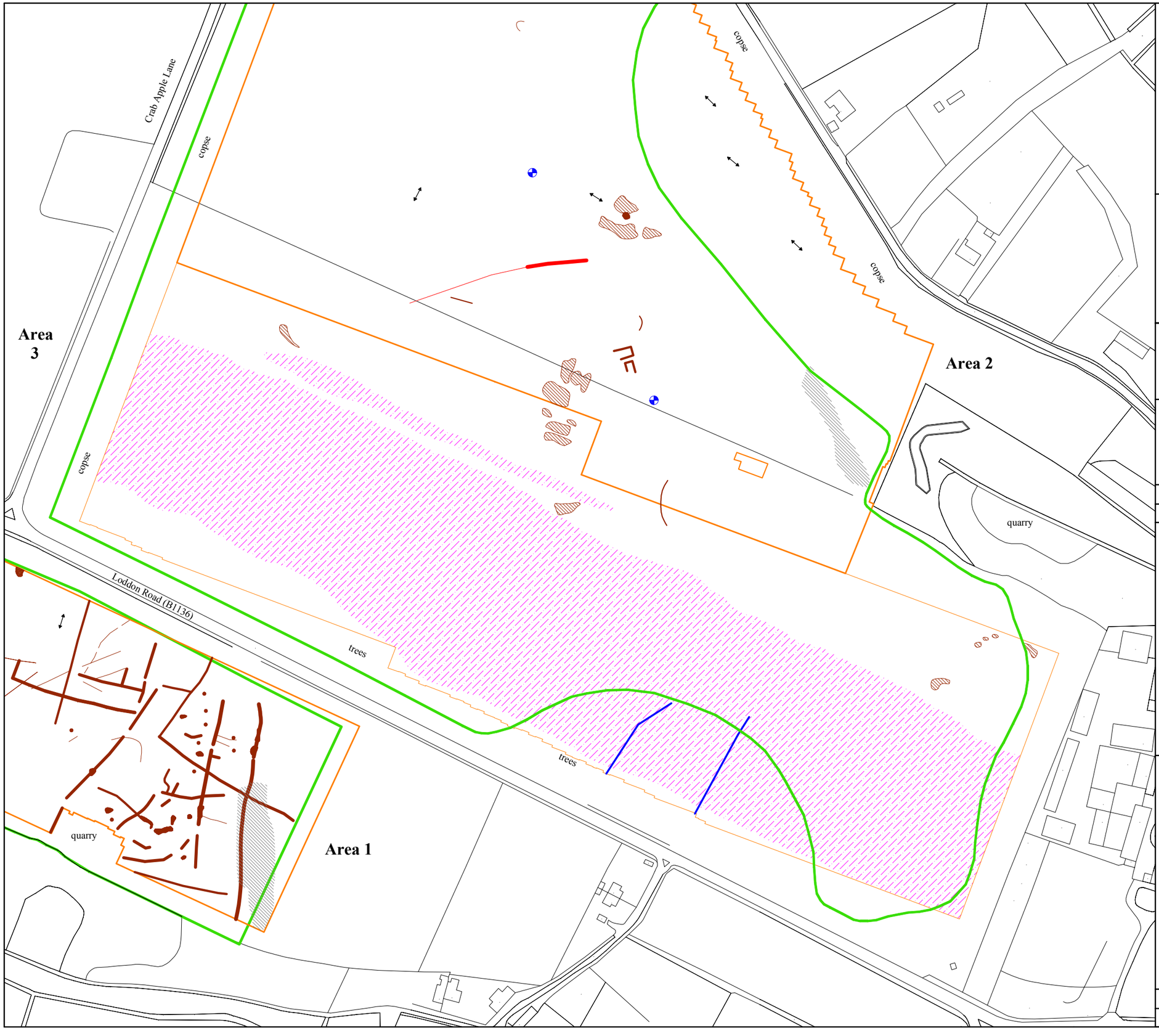
Figure No: 10

Figure 10 : Geophysical interpretation of Area 3



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- outline of proposed extraction site
- outline of geophysical survey area
- direction of cultivation
- possible soil-filled features
- possible track/holloway
- possible land drain
- telegraph post
- ferrous/service pipe
- magnetic disturbance

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Figure No: 11

Figure 11 : Archaeological interpretation of Area 3