



Cefn Road Wrexham, Wales

Detailed Gradiometer Survey Report

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Summary

A detailed gradiometer survey was conducted over land at Cefn Road, Wrexham (centred on NGR 336779 348623). The project was commissioned by Corylus Planning & Environmental Ltd with the aim of establishing the presence, or otherwise, and nature of detectable archaeological features in support of a planning application for the development of the site as a solar farm with associated infrastructure, including palisade fencing, and vegetative plantings including hedgerows, woodland, and scrub.

The site comprises two arable fields located north of Cefn Road, and two smaller fields to the south of Cefn Road, 1.2 km north-west of the village of Marchwiel in the county of Wrexham, Wales. The survey comprised an area of 15.1 ha and was undertaken between 13 and 15 October 2021.

The survey has identified anomalies that are interpreted as archaeological in origin. These are concentrated to the north of a long feature that indicates the edge of the river terrace. Two round barrows have been identified with several possible associated burials. These appear to be enclosed and may form a cemetery of possible Bronze Age date.

Numerous cropmarks are visible on the aerial photography that were not identified by the gradiometer survey. This suggests an overburden of alluvial material that has obscured archaeological layers. As a result, better preserved archaeology is likely to be located beyond the effective range of the survey technique. It is equally possible that the features were truncated by modern agricultural activities to the point, where they could not be detected by the gradiometer survey.

Evidence for the area's agricultural past has been identified in form of ridge and furrow across the north of the site. The ridge and furrow is on three different alignments, which indicate several separated fields.

Past field boundaries are located in the eastern part of the survey that are also recorded on 1899 OS mapping.

The remaining anomalies are thought to be modern. These include several services and land drains.

Acknowledgements

Wessex Archaeology would like to thank Corylus Planning & Environmental Ltd for commissioning the geophysical survey. The assistance of Helen Donnelly is gratefully acknowledged in this regard.

The fieldwork was undertaken by Amy Dunn and Davor Cakanic. Rok Plesnicar processed and interpreted the geophysical data, wrote the report and prepared the illustrations. The geophysical work was quality controlled by Alexander Schmidt. The project was managed on behalf of Wessex Archaeology by Chris Breeden.



Cefn Road, Wrexham

Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology was commissioned by Corylus Planning & Environmental Ltd to carry out a geophysical survey at Cefn Road, Wrexham (centred on NGR 336779 348623) (**Figure 1**).
- 1.1.2 The proposed development comprises the construction of a solar farm with associated infrastructure, including palisade fencing, and vegetative plantings including hedgerows, woodland, and scrub.

1.2 Scope of document

- 1.2.1 This report presents a brief description of the methodology followed by the detailed survey results and the archaeological interpretation of the geophysical data.

1.3 The site

- 1.3.1 The site is located to the north of Cefn Road, adjacent to the Wrexham Industrial Estate, with a further (substation) area adjacent to the water treatment works to the south of Cefn Road. It is 3.5 km south-east of the centre of Wrexham, 1.2 km north-west of the village of Marchwiell in the county of Wrexham.
- 1.3.2 The site comprises 14.6 ha across four agricultural fields currently used for arable cultivation. The eastern field measures 6.8 ha and the western field 6 ha. The narrower area to the south of Cefn Road measures 1.8 ha.
- 1.3.3 The site slopes gradually towards the River Clywedog, from the north-west to south-east within the fields to the north of Cefn Road, ranging from 38 m above Ordnance Datum (aOD) to 32 m aOD. The smaller land parcel to the south of Cefn Road is relatively flat at 38 m aOD.
- 1.3.4 The underlying geology of the site comprises Salop Formation Mudstone, Sandstone, and Conglomerate. There are superficial River Terrace Deposits of sand and gravel across the northern portion of the site and Alluvium deposits of clay, silt, sand, and gravel across the southern portion (British Geological Survey 2021).
- 1.3.5 The soils underlying the site are likely to consist of stagnogley soils of the 711h (Salop) association (SSEW SE Sheet 2 1983). Soils derived from such geological parent material have been shown to produce magnetic contrasts acceptable for the detection of archaeological remains through magnetometer survey.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

- 2.1.1 The archaeological and historical background was assessed in a prior Historic Environment Desk-Based Assessment (HEDBA) (Wessex Archaeology 2021), which considered the recorded historic environment resource within a 1 km study area of the proposed development. The HEDBA used information from the Clwyd-Powys Archaeological Trust

Historic Environment Record (CPATHER), and the National Monuments Record of Wales (NMRW). Additional sources of information are referenced, as appropriate. The findings of the DBA are summarised below.

2.2 Summary of the archaeological resource

- 2.2.1 There are a small number of designated heritage assets within the study area, which primarily comprise listed buildings. This includes the Grade II listed 17th century farmhouse with Georgian remodelling at Pum-Rhyd (18058), which is located 575 m to the south-east of the site. In addition, the Grade II listed Llwyn Onn Hall Hotel (15530), and associated Ice-house (17275) are located 970 m to the north-west of the site and have origins in the late 17th and 18th century.
- 2.2.1 Whilst there are limited records pertaining to periods prior to the early medieval period, the site has geoarchaeological potential for preserving early prehistoric remains. The Clywedog runs through the substation area of the site, which would likely have been an attractive location for settlement. River Terrace deposits adjacent to this have the broad potential to contain reworked Lower and early Middle Palaeolithic artefacts, as well as contemporary late Middle and Upper Palaeolithic archaeology. Moreover, where layers of peat are preserved in alluvium, organic material may be present, preserving a wide range of paleoenvironmental evidence (Howard et al. 2011). Such deposits are commonly located within palaeochannels and Historic aerial photography has indicated that there is potential for palaeochannels to exist within the northern part of the site.
- 2.2.2 A cropmark of a square enclosure, as well as other linear features, has been identified from aerial photography. These are thought to be prehistoric in date suggesting that there is potential for as yet unidentified archaeological remains within the areas of the site to the north of Cefn Road.
- 2.2.3 Aside from a singular Romano-British coin findspot 405 m to the north-west of the site, there are no records dating to the Romano-British period.
- 2.2.4 There is no evidence for early medieval activity within this landscape, although Eyton, Sutton Green and Farnham were all identified as settlements within the Domesday Book. Wrexham and Marchwiell were part of the Kingdom of Powys, which would have been on the western side of Offa's Dyke and therefore has always been within Wales. There have been deer parks and enclosures identified within the Domesday Book for these settlements, and placename evidence for other local settlements (e.g. Holt, which means 'copse') indicate that the landscape was likely heavily wooded during this period.
- 2.2.5 Extensive areas of ridge and furrow have been identified on historical aerial photography, including within the southern area of the site, where the proposed substation will be located. However, LiDAR analysis and historical Google Earth imagery have not identified evidence for ridge and furrow within the site. There is one feature on the aerial photography that runs north – south within the western field, which may be a former field boundary.
- 2.2.6 The site of Five Fords Farm would have been adjacent to the substation area of the site and was constructed in the late 17th/early 18th century and demolished in 1973. This would have served during the early post-medieval period to help support the agricultural practices within this landscape.
- 2.2.7 The 1873 OS map shows that the site comprised irregularly shaped agricultural fields, with a historic hedgerow that divides the two that is still in place. Within the land parcel to the south of Cefn Road, a ford and an orchard can be seen to the south of the River Clywedog

and Five Fords Manor House is visible to the west of the orchard. Aside from the addition of a small pond within the southern extent of the site (to the north-east of the orchard/south of the River Clywedog), no further changes within the Site are noted on the 1899 OS map.

3 METHODOLOGY

3.1 Introduction

3.1.1 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team between the 13 and 15 October 2021. Field conditions at the time of the survey were good. An overall coverage of 15.1 ha was achieved. In the southern part of the site, there were two areas with tall vegetation that prevented survey.

3.1.2 The methods and standards employed throughout the geophysical survey conform to that set out in the Written Scheme of Investigation (WSI) (Wessex archaeology 2021), as well as to current best practice, and guidance outlined by the Chartered Institute for Archaeologists' (CIfA 2014) and European Archaeologiae Consilium (Schmidt *et al.* 2015).

3.2 Aims and objectives

3.2.1 The aims of the survey comprise the following:

- To determine, as far as is reasonably possible, the nature of the detectable archaeological resource within a specified area using appropriate methods and practices; and
- To inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.

3.2.2 In order to achieve the above aims, the objectives of the geophysical survey are:

- To conduct a geophysical survey covering as much of the specified area as possible, allowing for on-site obstructions;
- To clarify the presence/absence of anomalies of archaeological potential; and
- Where possible, to determine the general nature of any anomalies of archaeological potential.

3.3 Fieldwork methodology

3.3.1 The cart-based gradiometer system used a Leica Captivate RTK GNSS instrument, which receives corrections from a network of reference stations operated by the Ordnance Survey (OS) and Leica Geosystems. Such instruments allow positions to be determined with a precision of 0.02 m in real-time and therefore exceeds European Archaeologiae Consilium recommendations (Schmidt *et al.* 2015).

3.3.2 The detailed gradiometer survey was undertaken using SenSys FGM650/3 magnetic gradiometers spaced at 1 m intervals and mounted on a non-magnetic cart. Data were collected with an effective sensitivity of $\pm 8 \mu\text{T}$ over $\pm 1000 \text{ nT}$ range at a rate of 100 Hz, producing intervals of 0.02 m along transects spaced 4 m apart.

3.4 Data processing

3.4.1 Data from the survey were subjected to minimal correction processes. These comprise a 'Destripe' function ($\pm 5 \text{ nT}$ thresholds), applied to correct for any variation between the



sensors, and an interpolation used to grid the data and discard overlaps where transects have been collected too close together.

- 3.4.2 Further details of the geophysical and survey equipment, methods and processing are described in **Appendix 1**.

4 GEOPHYSICAL SURVEY RESULTS AND INTERPRETATION

4.1 Introduction

- 4.1.1 The detailed gradiometer survey has identified magnetic anomalies across the site. Results are presented as a series of greyscale plots, and archaeological interpretations at a scale of 1:2,500 (**Figures 2 and 3**) and 1:1,500 (**Figures 4 – 9**). The data are displayed at -2 nT (white) to +3 nT (black) for the greyscale image.
- 4.1.2 The interpretation of the datasets highlights the presence of potential archaeological anomalies, ferrous responses, burnt or fired objects, and magnetic trends (**Figure 3, 5, 7, and 9**). Full definitions of the interpretation terms used in this report are provided in **Appendix 2**.
- 4.1.3 Numerous ferrous anomalies are visible throughout the dataset. These are presumed to be modern in provenance and are not referred to, unless considered relevant to the archaeological interpretation.
- 4.1.4 It should be noted that small, weakly magnetised features may produce responses that are below the detection threshold of magnetometers. It may therefore be the case that more archaeological features may be present than have been identified through geophysical survey.
- 4.1.5 Gradiometer survey may not detect all services present on site. This report and accompanying illustrations should not be used as the sole source for service locations and appropriate equipment (e.g. CAT and Genny) should be used to confirm the location of buried services before any trenches are opened on site.

4.2 Gradiometer survey results and interpretation

- 4.2.1 In the north-west of the north-eastern field, a weak, positive annular anomaly has been identified at **4000 (Figure 5, 7)**. This is 24 m in diameter and up to 2.5 m wide, surrounding a small positive oval anomaly located at its centre. The oval anomaly indicates a pit-like feature 3 m in length, 1.5 m in width, and orientated north-east to south-west. The anomaly indicates a ditch-like feature with a central pit that may have been severely truncated, likely by agricultural processes. However, given the floodplain setting of the site, it is also possible that a significant overburden of alluvial sediment may have reduced the magnetic signal of the feature. This most likely relates to a round barrow with a possible burial at its centre and could be Bronze Age in date.
- 4.2.2 Located 45 m to the south-west of **4000**, a second, smaller positive annular anomaly is noted at **4001 (Figure 7)**. It is 9.5 m in diameter and 1 m in width. The strength of the anomaly indicates that it was less disturbed by agricultural activities and is likely better preserved. A narrow negative halo, located at the outer side of the anomaly indicates an embankment or similar buildup of material. The anomaly indicates the presence of another ring-ditch feature, possibly a barrow or a roundhouse. There are no associated anomalies identified within the ring ditch.
- 4.2.3 To the north of **4000**, there is an area delimited by a very broad weakly positive anomaly at **4002** that curves west – east then north – south for 125 m and is 7 m wide (**Figure 7**). This indicates a broad ditch like feature. A very weakly positive magnetic trend has been identified to the south-west of **4001** that could be a southern counterpart to it, and as such,

form a broader enclosure. Numerous oval positive anomalies are identified within as possible archaeology. They are aligned south-west to north-east and are up to 3 m in length and 1.5 m in width. They likely represent a cluster of pit-like features that relate to burials, considering the vicinity of the barrows. In addition, several curvilinear trends have been identified within this area which indicate further poorly preserved round barrows. The broad ditch features are delimiting an area of 100 m by 100 m that is indicating to Bronze Age cemetery that includes several round barrows as well as individual burials.

- 4.2.4 In the centre of the north-eastern field, two parallel positive linear anomalies are noted on east – west alignment at **4003 (Figure 7)**. From north to south, they are 47 m and 24 m in length, 1 m in width, and spaced 3.5 m apart. These indicate ditch features and could show a trackway of unknown origin, however additional investigation would be required to confirm the origin of the feature.
- 4.2.5 To the south of the anomaly at **4003**, a negative linear anomaly has been identified between **4004** and **4005 (Figure 7)**. The anomalies are 125 m and 110 m in length respectively and up to 4 m in width, although they likely once formed a continuous feature, now broken by a modern field boundary. These indicate a former field boundary of unclear origin. However, given the alluvial superficial deposits that cover the area, it could as well indicate a northern edge of the river terrace.
- 4.2.6 A positive linear anomaly is located at **4006**, 40 m to the south of **4005 (Figure 7)**. It is 30 m long, up to 1.5 m wide, and on a north-west to south-east alignment. This anomaly is indicative of a ditch-like feature of unknown origin. It may be related to ridge and furrow activity noted in the surrounding area on a similar alignment, or be associated with modern agricultural activity.
- 4.2.7 At the western edge of the site, there is a weakly positive annular anomaly at **4007 (Figure 5)**. It covers an area of 15.5 m by 9.5 m. This indicates a ditched enclosure feature of uncertain origin, likely unrelated to the features in the east of the site. Its weak nature and position at the edge of a field suggest it may relate to a modern plough turn. Further investigations would be necessary to determine the origins of the feature.
- 4.2.8 Numerous positive discrete anomalies have been identified throughout the site. These are 1 – 2 m in diameter and indicate small pit-like features. These could indicate settlement activities in the area, such as extraction or refuse pits, or, given the likely funerary landscape, burials. However, the anomalies could equally be natural in origin, indicating localised changes in magnetic susceptibility of the underlying geological deposits.
- 4.2.9 Evidence for historical ploughing is visible throughout the site in the form of ridge and furrow (**4008 – 4010 (Figure 5, 7)**). They have three different orientations, which reveal the historical pattern of land division in the area. The absence of notable evidence for historical cultivation in the south-eastern corner is likely ascribed to the floodplain nature of the site.
- 4.2.10 A weak 'L-shaped', broad positive linear anomaly is located in the north-eastern part of the site at **4011 (Figure 7)**. This is on an east – west alignment for 110 m, before it turns north on its western edge for 70 m. The east – west extension of this anomaly is crossed by an area of increased magnetic response on a north – south orientation (**4012**). The anomaly covers an area of 165 m by 10 m. These features correspond to a field boundary and a footpath visible on 1899 OS mapping.
- 4.2.11 In the southern part of the survey, to the north of the Cefn Road, there is an area of increased magnetic response at **4013**. This occupies an area of 70 m by 13 m and is likely related to a surface spread of modern material (**Figure 7**).
- 4.2.12 Weakly dipolar parallel linear anomalies are noted in the west of the survey. This type of anomaly indicates material that has been burnt or fired, such as ceramic. The anomalies



are interpreted as evidence of modern agricultural activities on site and associated with land drains (**Figure 5**).

- 4.2.13 Several strong dipolar linear anomalies have been identified traversing the survey area (**4014 – 4018**). These anomalies indicate underlying services, such as pipes or cables.

5 DISCUSSION

- 5.1.1 The gradiometer survey has identified anomalies that are interpreted as archaeological in origin. These are concentrated to the north of a long feature that indicates the edge of the river terrace.
- 5.1.2 Two round barrows have been identified within the site. The larger one to the east has a centrally located pit, which may be a central burial. The smaller one to the west is better defined and is located closer to the edge of the presumed area of burials. In addition, several semi-circular trends have been identified to the north and one to the south of the larger round barrow. Their weak magnetic response does not allow for a more confident interpretation. Several pits are noted in this area and are presumed to be associated with the round barrows. Given their elongated form and regular north-east to south-west orientation, it is considered likely that they relate to burials. This area is enclosed by a broad ditch that is clear at the north-eastern side and fades out on southern and western sides. It is possible that this forms an enclosed area of burials, possibly Bronze Age in date. However, further investigation would be required to confirm this.
- 5.1.3 Numerous cropmarks are visible on the aerial photography that were not identified by the gradiometer survey. This suggests an overburden of alluvial material that has obscured archaeological layers. As a result, better preserved archaeology is likely to be located beyond the effective range of the survey technique. It is equally possible that the features were truncated by modern agricultural activities to the point, where they could not be detected by the gradiometer survey.
- 5.1.4 Several ditch features and numerous pit features of unknown date are identified throughout the site. While they may relate to human activities, they could equally be the result of natural processes.
- 5.1.5 Evidence for the area's agricultural past has been identified in form of ridge and furrow across the north of the site. The ridge and furrow is on three different alignments, which indicate several separated fields.
- 5.1.6 Past field boundaries are located in the eastern part of the survey that are also recorded on 1899 OS mapping.
- 5.1.7 The remaining anomalies are thought to be modern. These include several services and land drains.



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Bibliography

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Schmidt, A, Linford, P, Linford, N, David, A, Gaffney, C, Sarris, A and Fassbinder, J. 2015 *Guidelines for the use of geophysics in archaeology: questions to ask and points to consider*. EAC Guidelines 2, Belgium: European Archaeological Council.

Wessex Archaeology 2021 *Cefn Road, Wrexham, Historic Environment Desk-Based Assessment*. Document Ref.: 247430.01.

Cartographic and documentary sources

Ordnance Survey 1983 *Soil Survey of England and Wales Sheet 3, Soils of Midland and Western England*. Southampton.

Online resources

British Geological Survey Geology of Britain Viewer (accessed November 2021) <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

National Library Of Scotland (accessed November 2021) <https://www.nls.uk/>

Google Earth (accessed November 2021)

APPENDICES

Appendix 1: Survey Equipment and Data Processing

Survey methods and equipment

The magnetic data for this project were acquired using a non-magnetic cart fitted with four SenSys FGM650/3 magnetic gradiometers. The instrument has four sensor assemblies fixed horizontally 1 m apart allowing four traverses to be recorded simultaneously. Each sensor contains two fluxgate magnetometers arranged vertically with a 0.6 m separation and measures the difference between the vertical components of the total magnetic field within each sensor array. This arrangement of magnetometers suppresses any diurnal or low frequency effects.

The gradiometers have an effective resolution of $\pm 8 \mu\text{T}$ over $\pm 1000 \text{ nT}$ range. All of the data are then relayed to a CS35 tablet, running the MONMX program, which is used to record the survey data from the array of FMG650/3 probes at a rate of 20 Hz. The program also receives measurements from a GPS system, which is fixed to the cart at a measured distance from the sensors, providing real time locational data for each data point.

The cart-based system relies upon accurate GPS location data which is collected using a Leica Captivate system with rover and base station. This receives corrections from a network of reference stations operated by the Ordnance Survey and Leica Geosystems, allowing positions to be determined with a precision of 0.02m in real-time and therefore exceed the level of accuracy recommended by European Archaeologiae Consilium recommendations (Schmidt *et al.* 2015) for geophysical surveys.

Data may be collected with a higher sample density where complex archaeological anomalies are encountered, to aid the detection and characterisation of small and ephemeral features. Data may be collected at up to 0.01 m intervals along traverses spaced up to 0.25m apart.

Post-processing

The magnetic data collected during the detail survey are downloaded from the Bartington system for processing and analysis using both commercial and in-house software. This software allows for both the data and the images to be processed in order to enhance the results for analysis; however, it should be noted that minimal data processing is conducted so as not to distort the anomalies.

As the scanning data are not as closely distributed as with detailed survey, they are georeferenced using the GPS information and interpolated to highlight similar anomalies in adjacent transects. Directional trends may be removed before interpolation to produce more easily understood images.

Typical data and image processing steps may include:

- Destripe – Applying a zero-mean traverse in order to remove differences caused by directional effects inherent in the magnetometer;
- Destagger – Shifting each traverse longitudinally by a number of readings. This corrects for operator errors and is used to enhance linear features;
- Despike – Filtering isolated data points that exceed the mean by a specified amount to reduce the appearance of dominant anomalous readings (generally only used for earth resistance data)



Typical displays of the data used during processing and analysis:

- Greyscale – Presents the data in plan view using a greyscale to indicate the relative strength of the signal at each measurement point. These plots can be produced in colour to highlight certain features but generally greyscale plots are used during analysis of the data.
- XY Plot – Presents the data as a trace or graph line for each traverse. Each traverse is displaced down the image to produce a stacked profile effect. This type of image is useful as it shows the full range of individual anomalies. XY plots can be made available upon request.



Appendix 2: Geophysical Interpretation

The interpretation methodology used by Wessex Archaeology separates the anomalies into four main categories: archaeological, modern, agricultural, and uncertain origin/geological.

The archaeological category is used for features when the form, nature and pattern of the anomaly are indicative of archaeological material. Further sources of information such as aerial photographs may also have been incorporated in providing the final interpretation. This category is further sub-divided into three groups, implying a decreasing level of confidence:

- Archaeology – used when there is a clear geophysical response and anthropogenic pattern.
- Possible archaeology – used for features which give a response, but which form no discernible pattern or trend.

The modern category is used for anomalies that are presumed to be relatively modern in date:

- Ferrous – used for responses caused by ferrous material. These anomalies are likely to be of modern origin.
- Modern service – used for responses considered relating to cables and pipes; most are composed of ferrous/ceramic material although services made from non-magnetic material can sometimes be observed.

The agricultural category is used for the following:

- Former field boundaries – used for ditch sections that correspond to the position of boundaries marked on earlier mapping.
- Ridge and furrow – used for broad and diffuse linear anomalies that are considered to indicate areas of former ridge and furrow.
- Ploughing – used for well-defined narrow linear responses, usually aligned parallel to existing field boundaries.
- Drainage – used to define the course of ceramic field drains that are visible in the data as a series of repeating bipolar (black and white) responses.

The uncertain origin/geological category is used for features when the form, nature and pattern of the anomaly are not sufficient to warrant a classification as an archaeological feature. This category is further sub-divided into:

- Increased magnetic response – used for areas dominated by indistinct anomalies which may have some archaeological potential.
- Trend – used for low amplitude or indistinct linear anomalies.
- Superficial geology – used for diffuse edged spreads considered to relate to shallow geological deposits. They can be distinguished as areas of positive, negative, or broad bipolar (positive and negative) anomalies.



Appendix 3: OASIS form

Project Details:

Project name	Cefn Road, Wrexham, Wales				
Type of project	Detailed gradiometer survey (Field evaluation)				
Project description	Two round barrows were identified within the site. The larger one to the east has a centrally located pit, which was identified as a central burial. The smaller one to the west is better defined and is located closer to the edge of the presumed area of burials. In addition, several semi-circular trends were identified to the north and one to the south of the big round barrow. Their weak magnetic response does not allow for a more confident interpretation. Several pits were identified and are presumed to be associated with the round barrows. They probably indicate further burials located within the wider area of activity. This area is enclosed by a broad ditch that is clear at the north-eastern side and fades out on southern and western sides. Numerous cropmarks are visible on the aerial photography that were not identified by the gradiometer survey. This suggests an overburden of alluvial material that has obscured existent archaeological layers. As a result, better preserved archaeology is likely to be located beyond the effective range of the survey technique. It is equally possible that the features were truncated by modern agricultural activities to the point, where they could not be detected by the gradiometer survey. A targeted intrusive investigation could complement the results of the survey. Several unidentified ditch features and numerous pit features were identified throughout the site. They are of unknown origin and could likely indicate human activities as well as be the result of natural processes. Evidence for the historical ploughing in form of ridge and furrow is present in the eastern part of the survey. Identified ridge and furrow are on three different alignments, which indicate several separated fields. Past field boundaries were located in the eastern part of the survey that were recognised on the 1899 OS mapping. Several modern services were identified traversing the site.				
Project dates	Start: 13-10-2021		End: 15-10-2021		
Previous work	yes				
Future work	Is there any further work planned? e.g. Trial trenching/excavation				
Project Code:	247641	HER event no.	If relevant	OASIS form ID:	wessexar1-502765
		NMR no.	N/A		
		SM no.	N/A		
Planning Application Ref.	n/a				
Site Status	None.				
Land use	Pasture				
Monument type	n/a	Period	n/a		

Project Location:

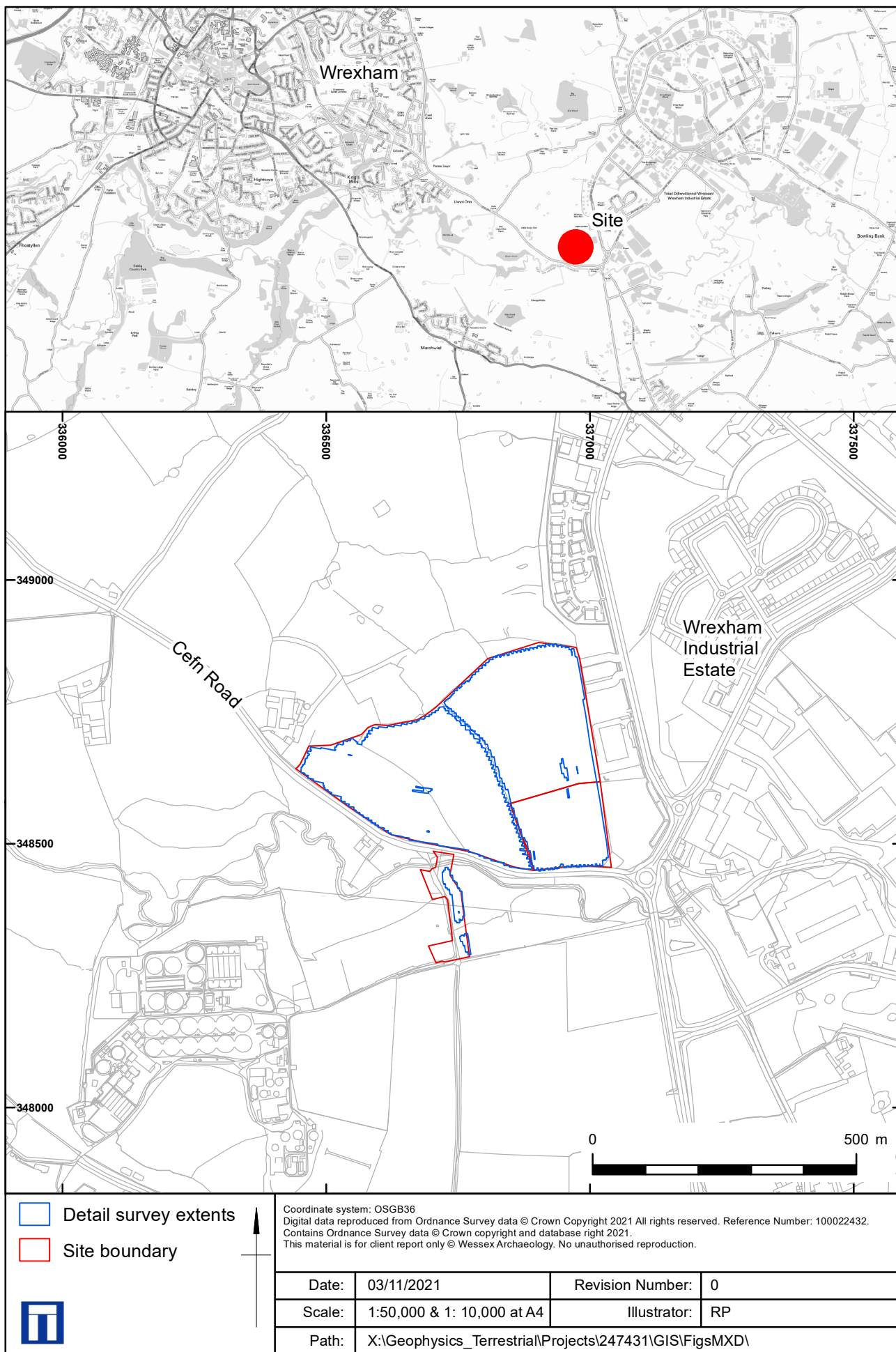
Site Address	Cefn Road, Abenbury, Wrexham, Wales			Postcode	LL13 0PX
County	Clwyd	District	Clwyd Wrexham	Parish	Abenbury
Study Area	16.5 ha	Height OD	32 – 38 m aOD	NGR	336779 348623

Project Creators:

Name of Organisation	Wessex Archaeology		
Project brief originator	Client	Project design originator	Wessex Archaeology
Project Manager	Tom Richardson	Project Supervisor	Rok Plesnicar
Sponsor or funding body	Client	Type of Sponsor	Client

Project Archive and Bibliography:

Physical archive	N/A	Digital Archive	Geophysical survey and report	Paper Archive	N/A
Report title	Cefn Road, Wrexham, Wales, Detailed Gradiometer Survey Report			Date	November 2021
Author	Wessex Archaeology	Description	Unpublished report	Report ref.	247431.04



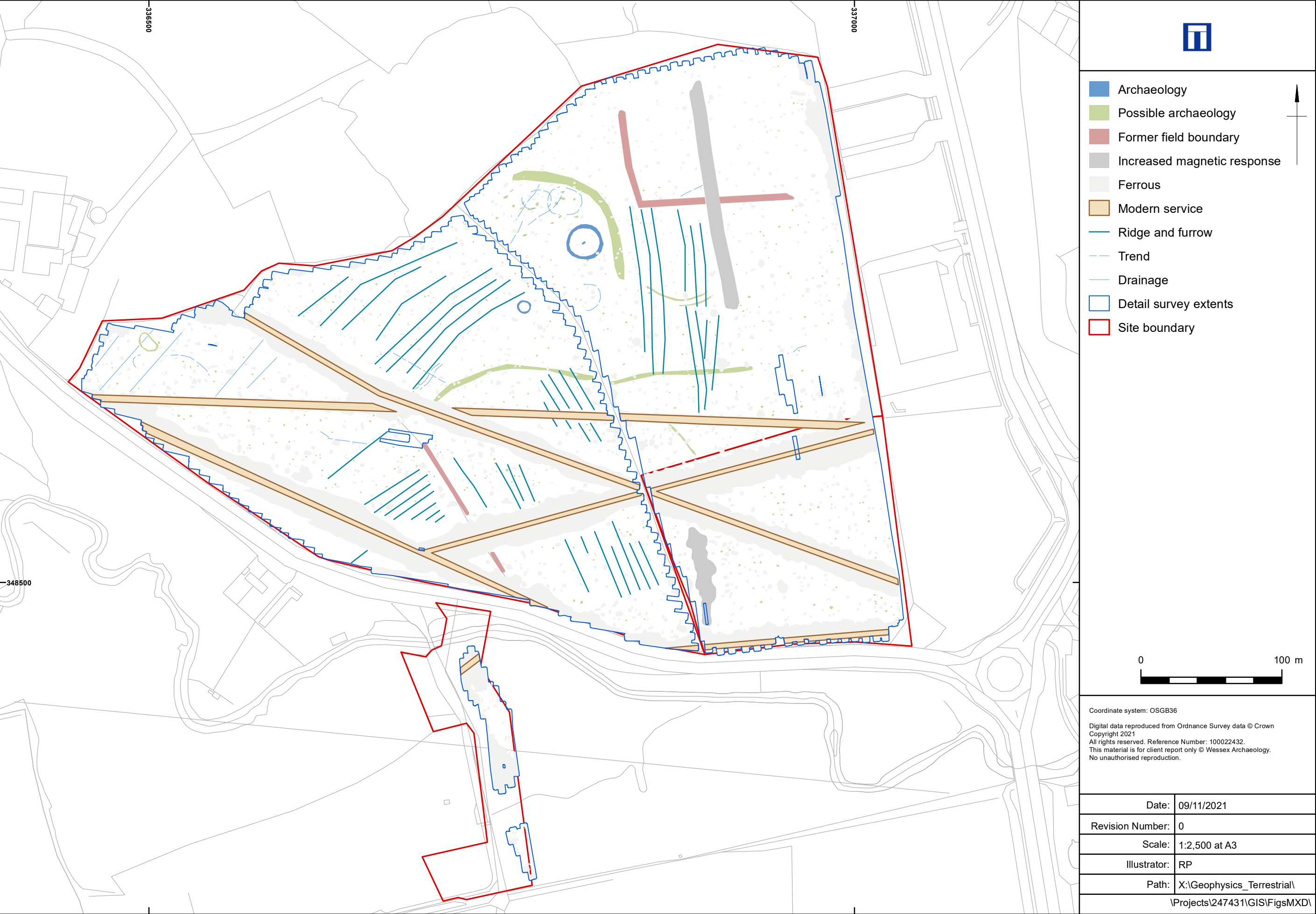
Site location and survey extent

Figure 1



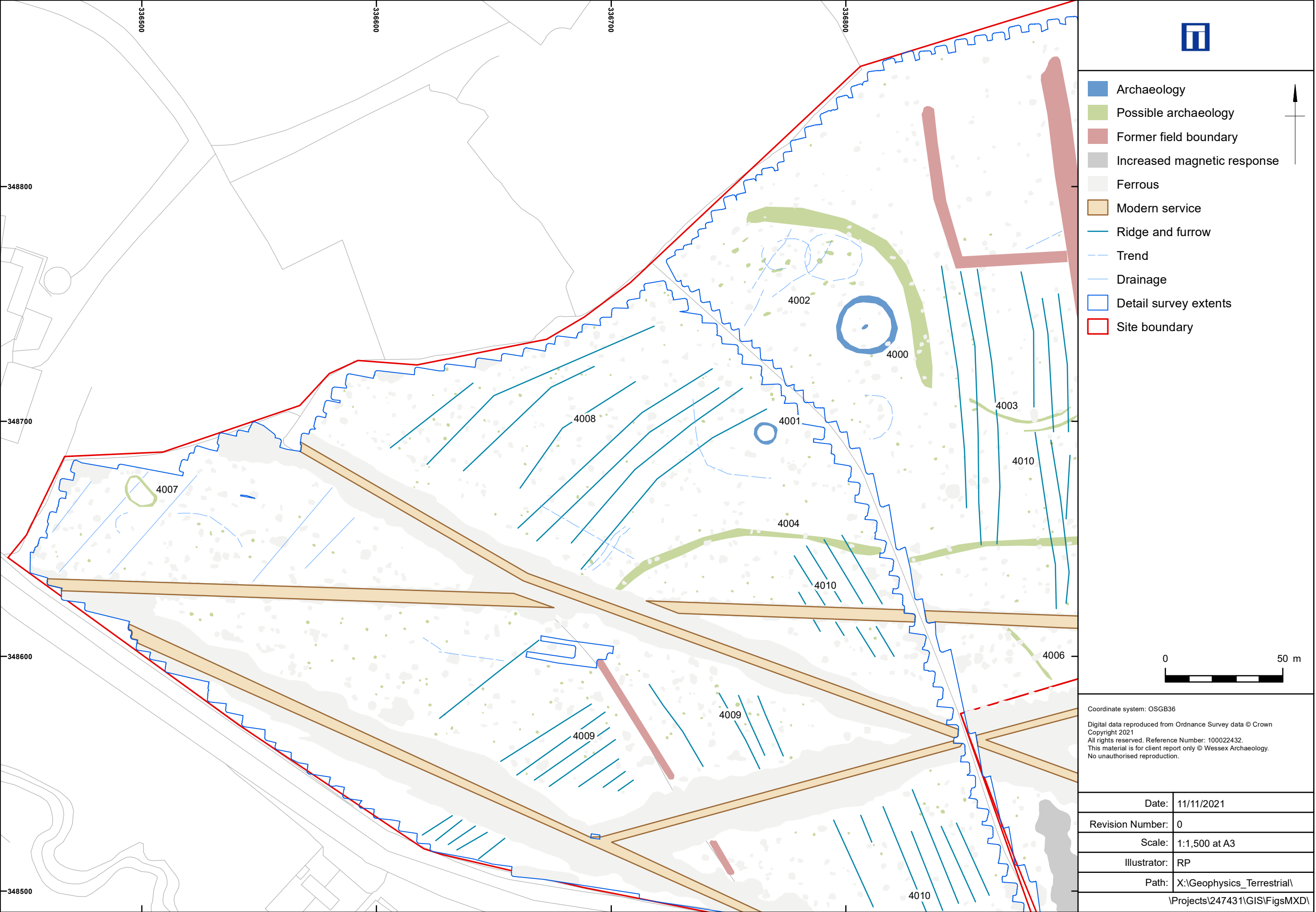
Detailed gradiometer survey results: greyscale plot

Figure 2



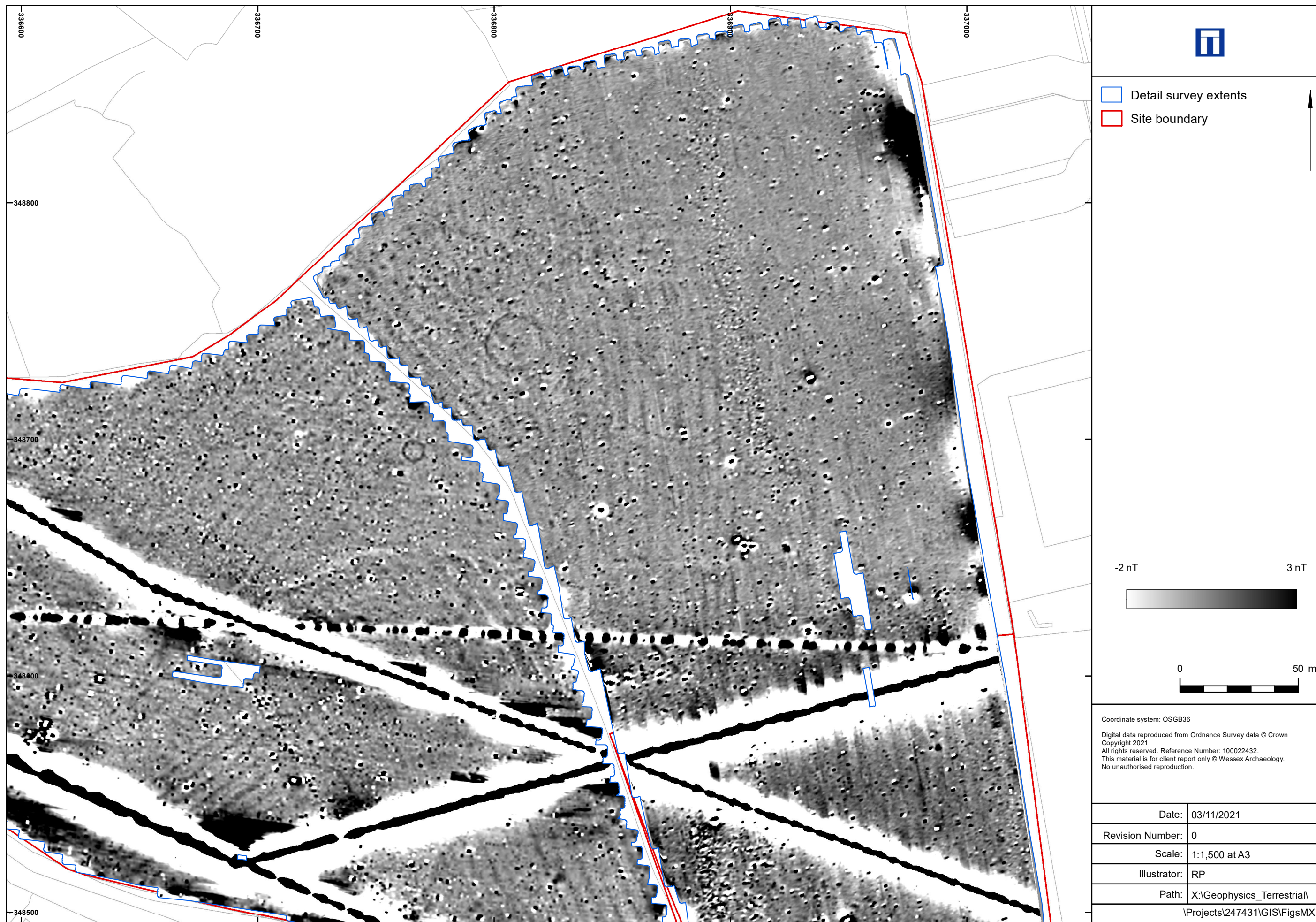
Detailed gradiometer survey results: interpretation overview

Figure 3



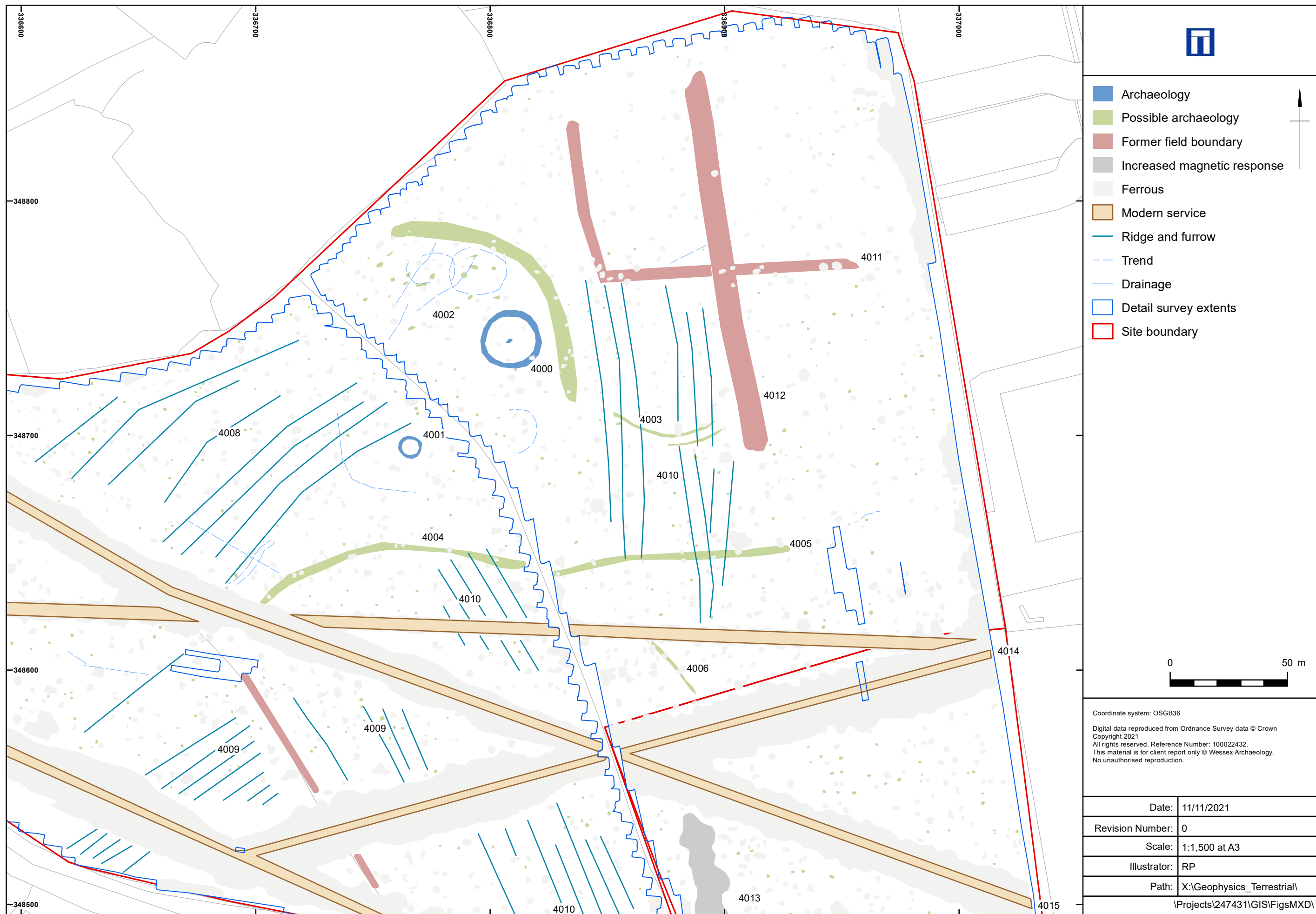
Detailed gradiometer survey results: interpretation (North-west)

Figure 5



Detailed gradiometer survey results: greyscale plot (North-east)

Figure 6



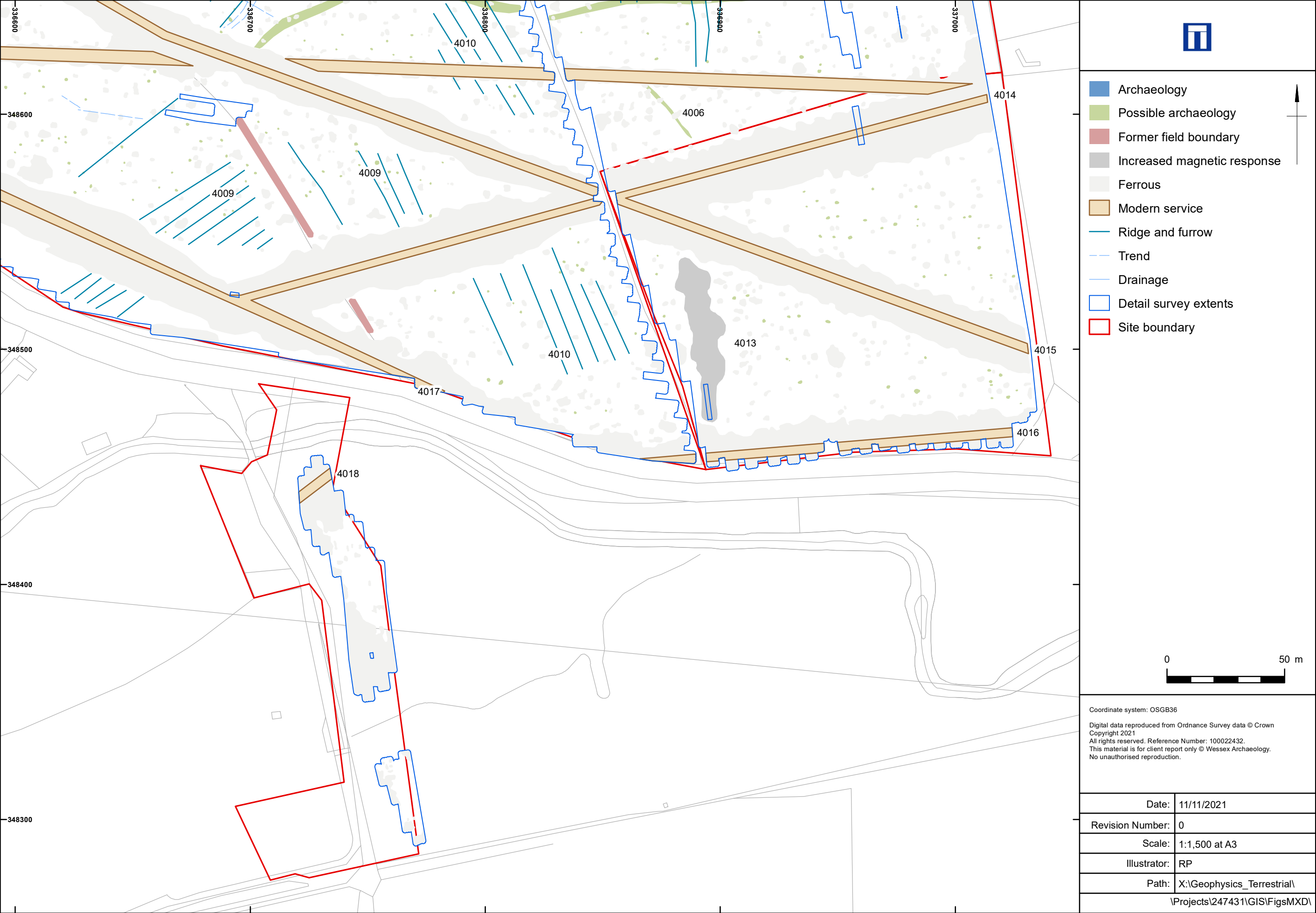
Detailed gradiometer survey results: interpretation (North-east)

Figure 7



Detailed gradiometer survey results: greyscale plot (South)

Figure 8



Detailed gradiometer survey results: interpretation (South)

Figure 9



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