



Whirlow Playing Fields, Sheffield, South Yorkshire

Detailed Gradiometer Survey Report

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Summary

A detailed gradiometer survey was conducted over land at Whirlow Playing Fields, Sheffield (centred on NGR 431422 382321). The project was commissioned by The Wildlife Trust for Sheffield and Rotherham 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 to construct a series of attenuation ponds and drainage swales.

The site comprises one arable field, covering an area of 5.5 ha. At the time of survey however, approximately 1.7 ha of land was deemed unsuitable for survey. The geophysical survey was undertaken on 15 March 2022 and has identified anomalies of potential archaeological interest.

The detailed survey has been successful in detecting anomalies of possible archaeological origin in the north-east and south-west of the site. In the north-eastern portion of the survey area a rectilinear enclosure has been identified with a possible boundary ditch 50m to the south-west. Given its proximity to the hilltop enclosures immediately east in Ecclesall Wood, it is rational to assume that the findings of this survey may in some way be linked and be of late prehistoric or Romano-British origin.

Further archaeological activity may be evident in the south-west corner of site, in the form of a discreet square anomaly. However, it is also likely that this feature is either geological or modern in origin based on responses in the surrounding area

Evidence of modern land management is present across the site, relating to former field boundaries, as seen on mapping from 1886 – 1967, two different types of land drainage systems and modern ploughing.

Isolated areas of ferrous and geological material can be seen throughout. The material has likely been mixed across the site due to years of modern agricultural practices. Such responses are of little importance.

Acknowledgements

Wessex Archaeology would like to thank The Wildlife Trust for Sheffield and Rotherham for commissioning the geophysical survey. The assistance of Leo Ingvorsen is gratefully acknowledged in this regard.

The fieldwork was undertaken by Amy Dunn. The geophysical data was processed, interpreted, reported on, and illustrated by Alastair Trace. The geophysical work was quality controlled and managed on behalf of Wessex Archaeology by Tom Richardson.



Whirlow Playing Fields, Sheffield, South Yorkshire

Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by The Wildlife Trust for Sheffield and Rotherham to carry out a geophysical survey at the Whirlow Playing Fields, Sheffield, South Yorkshire (centred on NGR 431422 382321) (**Figure 1**). The survey forms part of an ongoing programme of archaeological works being undertaken in support of a planning application to construct a series of attenuation ponds and drainage swales.

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 geophysical survey area is located 0.7 km to the south of Whirlow, a small suburb 5.8 km to the south-west of central Sheffield, in the county of South Yorkshire.

1.3.2 The survey comprises 5.5 ha of land, currently utilised for sports and recreational activities for the local area. The site is bounded to the east and north by Ecclesall Wood, and to the south by an area of woodland listed on Ordnance Survey mapping as the Square Plantation. The remaining playing fields not included in the survey are to the west.

1.3.3 The site is on a slight incline sloping from 167 m above Ordnance Datum (aOD) at the southern-eastern edge to 181 aOD along the western edge.

1.3.4 The solid geology comprises Mudstone and Siltstone of the Pennine Lower Coal Measures Formation. No superficial geological deposits have been recorded (BGS 2022).

1.3.5 The soils underlying the site are likely to consist of paleo-stagnogley soils of the 712a (Dale) association (SSEW SE Sheet 3 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 following historical and archaeological background has been compiled using publicly available online resources, combined with the results of Wessex Archaeology's previous investigations in the area, and in-house resources.

2.2 Summary of the archaeological resource

2.2.1 The centre of the site is situated 1.2 km to the north-west of the Abbeydale Works (NHLE 1004822). Once a producer of agricultural tools and the largest water-powered industrial site on the River Sheaf, the site is now a museum that forms a group of Grade I and Grade II listed buildings and a Scheduled Ancient Monument (SIMT 2022).



- 2.2.2 Further listed buildings in the surrounding area can be found 0.4 km north at Hollis Hospital, now an old people home (Grade II, NHLE 1344935), 0.8 km South at the small country house of Moorwinstow (Grade II, NHLE 1247525), and 1.2 km to the east at the site of The Lodge, Abbey Lane (Grade II, NHLE 1246416). There is also the mid-18th century Footbridge spanning an unnamed tributary of the Limb Brook (NHLE 1247148) 1 km to the south-east (Magic Maps 2022).
- 2.2.3 Within Ecclesall Woods, which lies directly east of site, there is evidence for early human activity. A flint scraper, dated to the Early Mesolithic was found on the high ground on the west side of the bird sanctuary and a flint flake was found towards the southern boundary (Arrowsmith 1991). A quartzite pebble with partial perforation was found in 1920 and may be a perforated implement of the Neolithic or Bronze Age (Arrowsmith 1991).
- 2.2.4 During a fieldwalking exercise at Whirlow Hall (Sheepy 2011a), 0.8 km north-west of site, a total of 74 lithics were found. The Mesolithic activity represented by the lithic scatter in Barley Field could go back as far as around 10,000 BC and the re-use of an earlier heavily abraded and recorticated core suggests possible evidence for Late Upper Palaeolithic in the area.
- 2.2.5 The local Anglo-Saxon suffix 'low' usually refers to a barrow or burial mound on a hilltop and 'Whir low' is thought to mean 'boundary mound'. Towards the top of the hill behind the farm is a field which in former times was called 'Cocked Hat Field'. In other areas this name has denoted the presence of a barrow, as at Crookes where two burial urns were uncovered in 1887 (Frost 1990). Other local examples include Ringinglow, Arbor Low and 'The Low' at Chelmorton. The implication is that there was probably a burial mound in the vicinity of Whirlow and typically cairns and burial mounds are characteristic of the Neolithic-Early Bronze Age periods (Sheepy 2011b).
- 2.2.6 The South Yorkshire Sites and Monuments Record have record of two possible enclosures within Ecclesall Woods dating from the late prehistoric or Romano-British date. The enclosures are less suggestive of settlement and were perhaps used for stock control (SMR 881) (Heritage Gateway 2022). It is worth mentioning that Ecclesall Woods lie on the former boundary between the Anglo-Saxon kingdoms of Mercia and Northumbria (Parker 1985).
- 2.2.7 At the time of Domesday Ecclesall formed part of the great Manor of Hallam and was held by Roger de Busli, the first Norman Lord of Hallamshire (Folio 278V). About 150 years later Ecclesall was detached from the larger Manor of Hallam and became a separate entity (Sheepy 2011b).

2.3 Recent investigations in the immediate vicinity

Archaeological survey

- 2.3.1 An archaeological survey was carried out by directly east of the survey area by Archaeological Survey and Evaluation Ltd in 2002 (ASE 2002). A topographic survey recorded the hilltop enclosure and field systems in Ecclesall Woods, previously identified by both Sheffield Hallam University (2001) and the University of Manchester Archaeology Unit (1999). The survey recorded the extent and preservation of any archaeological features and identified any physical relationships between individual earthworks.
- 2.3.2 The findings of the survey showed a complex of earthworks associated with a hilltop enclosure and later field system. The hilltop enclosure, tentatively thought to be Bronze Age or Iron Age in date, was defined by a continuous bank with an intermittent counterscarp. A series of irregular enclosures and platforms were identified to the east of the hilltop



enclosure. One of these enclosures appeared to have been built on top of the counterscarp bank and was therefore thought to be later than the hilltop enclosure. These earthworks appeared to form part of an irregular aggregate field system, a type of field system commonly established in the British Isles during the Iron Age and Romano-British periods. Both the hilltop enclosure and the field system had been disturbed by later features.

Geophysical survey

- 2.3.3 A geophysical survey was undertaken 0.8 km north-west of site by staff from ARS Ltd and volunteers in May 2011 (Taylor 2011). The survey revealed a large rectilinear enclosure with opposed entrances in the field south of the Whirlow Hall Farm buildings. Such features are usually of Late Iron Age and/or Romano-British date and of particular interest as no settlements like this have been investigated within Sheffield, or on the south Pennine foothills, before.

3 METHODOLOGY

3.1 Introduction

- 3.1.1 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team on 15 March 2022. Field conditions for the duration of the survey were adequate. An overall coverage of 3.8 ha was achieved, with reductions attributed to areas of overgrown vegetation.

- 3.1.2 The methods and standards employed throughout the geophysical survey conform to that set out in the Risk Assessment and Method Statement (RAMS) (Wessex archaeology 2022), 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 four SenSys FGM650/3 gradiometers spaced at 1 m intervals and mounted on a non-magnetic cart frame towed by an All-Terrain Vehicle (ATV). Data were collected with an effective sensitivity of 0.03 nT at a rate of 20 Hz, producing intervals of 0.08 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 (± 5 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 Results are presented as a greyscale plot and archaeological interpretations at a scale of 1:1250 (**Figures 2 to 3**). 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, former field boundaries, and magnetic trends (**Figure 3**). 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 A 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 The geophysical survey has identified a number of features that are likely to be associated with archaeological remains. These are predominantly located in the north-eastern and south-western portions of the site and are associated with possible enclosure features.
- 4.2.2 The most complex of these features located in the north-east corner of the site, has produced the fragmented remains of a rectangular-shaped feature (**4000**). The anomaly is trending on a north-west to south-east orientation and is 30 x 20 m in dimension. A linear anomaly extends southwards from the south-eastern corner. The anomalies appear to alternate between a positive and negative magnetic signal, suggesting a ditch with upcast material or possibly an associated bank. Although relatively faint, they are still visible above the background geology although truncated and distorted at certain parts by ferrous material in the immediate vicinity. This likely indicates an enclosure of unknown date.



Weakly positive linear and rectilinear anomalies have been identified within the enclosure, which may relate to internal divisions.

- 4.2.3 To the south and west of **4000** is a weakly positive 'L-shaped' linear anomaly at **4001**. The anomaly initially extends 55 m south-west from the northern survey limits before turning at a right-angle and continuing 130 m until it reaches the eastern survey limits. The weak and fragmented nature of the anomaly suggests any remains are likely poorly preserved, likely damaged by ploughing regimes and/or installation of drainage systems. Although characteristic of a former field boundary, there is no evidence for this on any available mapping and it does not conform to the general pattern of historical land division. As a result, it is likely that this relates to a medieval or earlier boundary ditch. It is not clear from the survey data whether there is any relationship with the enclosure at **4000**. However, the south-eastern extension of the anomaly is on a similar alignment to the surrounding field drainage system (**4008**) and may simply reflect an older form of clay pipping generating a more dominant magnetic signal than the surrounding drainage system. Without further information the feature can only be characterised as possible archaeological remains.
- 4.2.4 Located in the south-western corner of the survey area is a discrete positive square (8 x 8 m) anomaly at **4002**. Due to the square-nature of this anomaly, a possible archaeological origin has been suggested. It is its however possible that the anomaly is simply geological in nature, similar to some of the additional sinuous repones identified nearby. It could alternatively be modern, relating to the surrounding playing fields. As a result of the limited corroborative evidence in the immediate vicinity, a resulting possible archaeological characterisation has been applied.
- 4.2.5 Bisecting centrally across the survey area on an approximate north-west to south-east orientation is a fragmented linear anomaly at **4003**. This relates to a former field boundary present on 1886 OS mapping. The boundary was last recorded on OS mapping dated from 1967 and is no longer visible on satellite mapping by 1999. The location of the former boundary on First Edition Mapping is, however, relatively vague when compared to modern day mapping. As a result, it may in fact have been located 20 m directly south at the location of a negative magnetic trend, identified as a land drain. It may be possible that this identified feature is simply a dominant ploughing response, and the location of the former boundary has since been removed and replaced with a modern field drain.
- 4.2.6 Two additional former field boundaries (**4004** and **4005**) have also been identified from 1886 OS mapping. These boundaries are both orientated north-east to south-west and have a relatively fragmented dipolar magnetic signature.
- 4.2.7 Almost parallel to the northern limits of the survey area, a strong dipolar linear response has been recorded at **4006**. At its longest the response is 60 m long by 8 m wide and likely forms a continuous feature. This anomaly is indicative of a modern service, such as a pipe or cable.
- 4.2.8 In the western portion of site, several interconnected dipolar linear responses have been identified at **4007**. The anomalies form a 'herringbone' pattern and most likely continue further west into the remaining playing fields. The magnetic signature, although dipolar, is less dominant than that of a modern service or pipe. These attributes are characteristic of a network of clay land drains. Similar negative linear anomalies (**4008**) can be seen across the site, although have generated a fainter response when compared to the background geology. It is expected that these responses are also land drains. The weaker negative response suggests they are made from a material other than the clay noted at **4007**.
- 4.2.9 The survey has detected multiple isolated clusters of low magnitude anomalies that have been interpreted as geological in origin. These likely relate to natural variation in the soils and background geology.



5 DISCUSSION

- 5.1.1 The survey has been successful in detecting anomalies of possible archaeological origin in the north-east and south-west of the site. In the north-eastern portion of the survey area a rectilinear enclosure has been identified with a possible boundary ditch 50 m to the south-west. Given its proximity to the hilltop enclosures immediately east in Ecclesall Wood, it is possible this represents associated late prehistoric or Romano-British origin.
- 5.1.2 Further archaeological activity may be evident in the south-west corner of site, in the form of a discreet square anomaly. However, it is also likely that this feature is either geological or modern in origin based on responses in the surrounding area
- 5.1.3 Evidence of modern land management is present across the site, relating to former field boundaries, as seen on mapping from 1886 – 1967, two different types of land drainage systems, and modern ploughing.
- 5.1.4 The remaining anomalies are thought to be modern or natural in origin. This includes ferrous debris and services.



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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.
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- Sheppy, J. 2011b. An Archaeological Desk-Based Assessment of Whirlow Hall Farm, Sheffield. Archaeological Research Services Report No. 2011/61.
- Taylor, K. 2011. A geophysical survey at Whirlow Hall Farm, Sheffield. Archaeological Research Services Report No. 2011/56.

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 March 2022) <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>
- Google Earth (accessed March 2022)
- Heritage Gateway (accessed March 2022) <https://www.heritagegateway.org.uk/gateway/>
- Magic Maps (accessed March 2022) <https://magic.defra.gov.uk/MagicMap.aspx>
- National Library of Scotland (accessed March 2022) <https://maps.nls.uk/geo/explore>
- Sheffield Industrial Museums Trust (SIMT) (accessed March 2022) www.simt.co.uk/abbeydael-industrial-hamlet/



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 1m 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 0.03 nT over a ± 100 nT range, and measurements from each sensor are logged at intervals of 0.25 m. All of the data are then relayed to a Leica Viva CS35 tablet, running the MLgrad601 program, which is used to record the survey data from the array of Grad601 probes at a rate of 10 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 Viva 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 0.125 m intervals along traverses spaced up to 0.25m apart.

Post-processing

The magnetic data collected during the detail survey are downloaded from the SenSys cart 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.

The cart-based system generally requires a lesser amount of post-processing than the handheld Bartington Grad 601-2 fluxgate gradiometer instrument. This is largely because mounting the gradiometers on the cart reduces the occurrence of operator error; caused by inconsistent walking speeds and deviation in traverse position due to varying ground cover and topography.

Typical data and image processing steps may include:

- GPS DeStripe – Determines the median of each transect and then subtracts that value from each datapoint in the transect. May be used to remove the striping effect seen within a survey caused by directional effects, drift, etc.
- GPS Base Interpolation – Sets the X & Y interval of the interpolated data and the track radius (area around each datapoint that is included in the interpolated result).



- Discard Overlaps - Intended to eliminate a track(s) that have been collected too close to one another. Without this, the results of the interpolation process can be distorted as it tries to accommodate very close points with potentially differing values.

Typical displays of the data used during processing and analysis:

- 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,
- Greyscale – Presents the data in plan 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.



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:

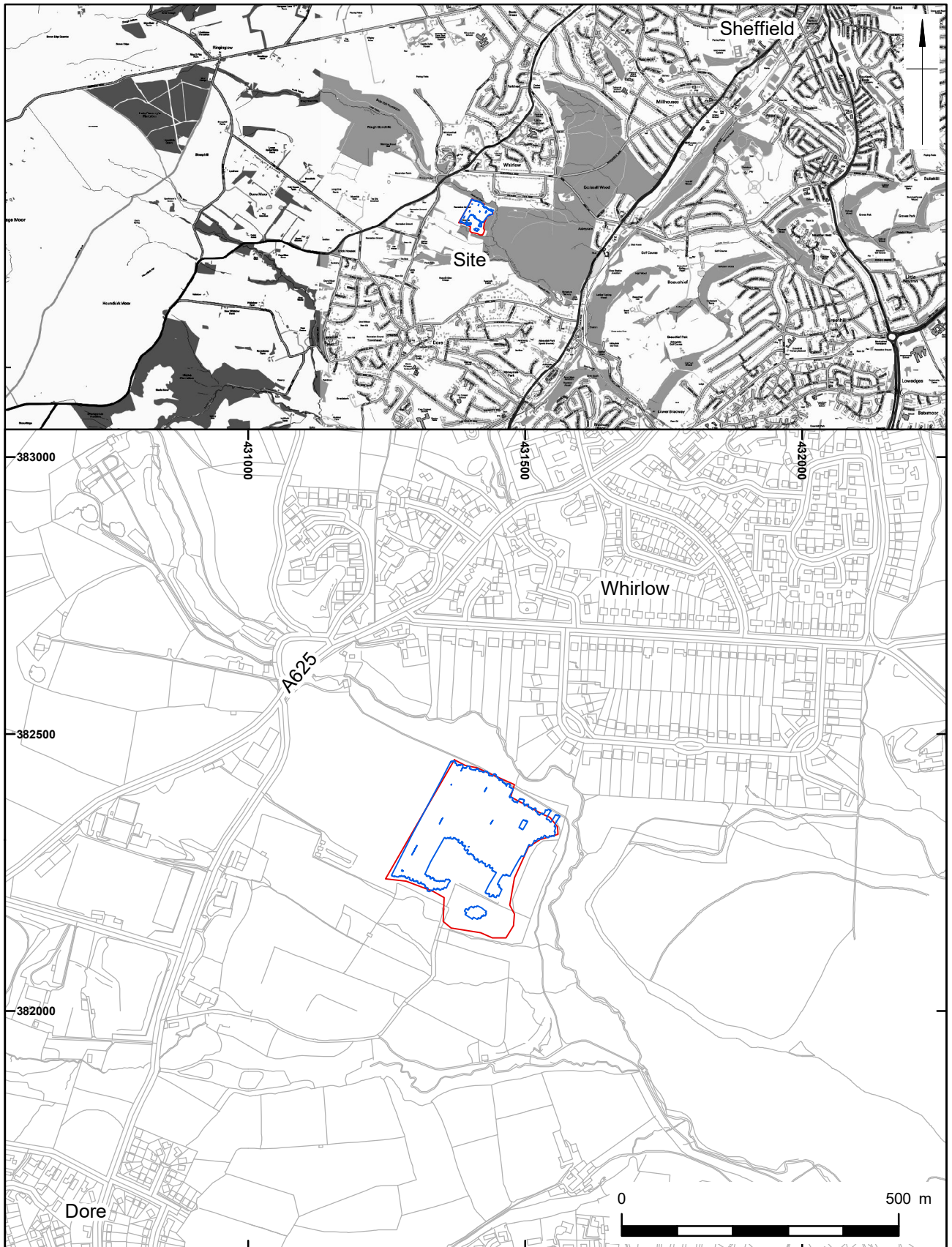
- Increased magnetic response – used for areas dominated by indistinct anomalies which may have some archaeological potential.
- Trend – used for low amplitude or indistinct linear anomalies.
- Superficial geology – used for diffuse edged spreads considered to relate to shallow geological deposits. They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

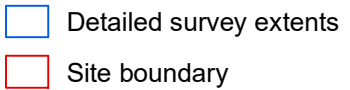



Appendix 3: OASIS form

Project Details:

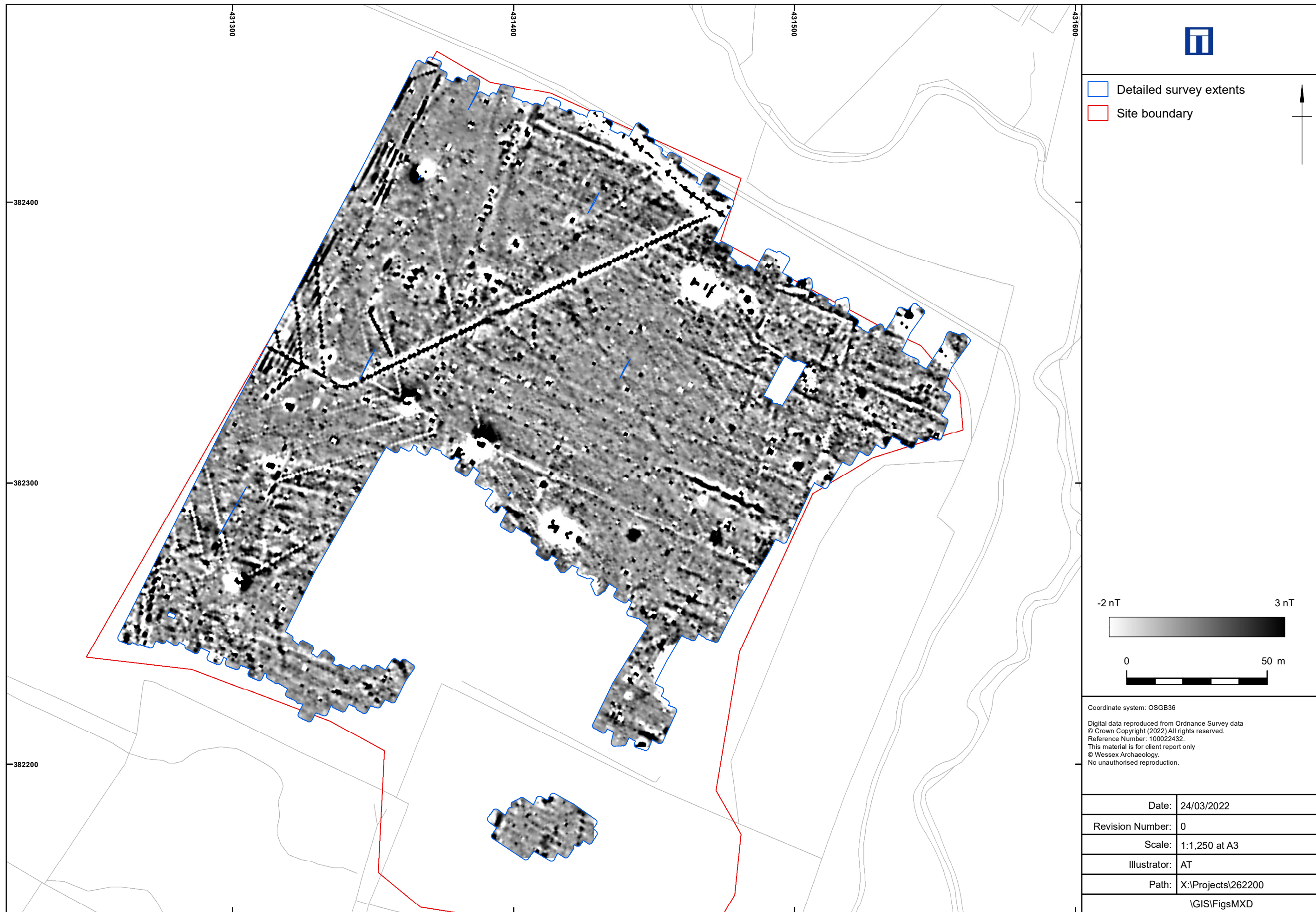
Project name		Whirlow Playing Fields, Sheffield, South Yorkshire			
Type of project		Detailed gradiometer survey (Field evaluation)			
Project description		<p>The detailed survey has been successful in detecting anomalies of possible archaeological origin in the north-east and south-west of the site. In the north-eastern portion of the survey area a rectilinear enclosure has been identified with a possible boundary ditch 50m to the south-west. Given its proximity to the hilltop enclosures immediately east in Ecclesall Wood, it is rational to presume that the findings of this survey may in some way be linked and be of late prehistoric or Romano-British origin.</p> <p>Further archaeological activity is evident in the south-west corner of site, in the form of a possible ring ditch. Although there is evidence for Romano-British activity in the north-east of the site there is not enough evidence to accurately associate a date with this feature other than possibly Neolithic to Bronze Age.</p> <p>Evidence of modern land management is present across the site, relating to former field boundaries, as seen on mapping from 1886 – 1967, two different types of land drainage systems and modern ploughing.</p> <p>Isolated areas of ferrous and geological material can be seen throughout. The material has likely been mixed across the site due to years of modern agricultural practices.</p>			
Project dates		Start: 15 March 2022		End: 15 March 2022	
Previous work		Not Known			
Future work		Not Known			
Project Code:	262200	HER event no.	If relevant	OASIS form ID:	wessexar1-505709
		NMR no.	N/A		
		SM no.	N/A		
Planning Application Ref.					
Site Status		None			
Land use		Playing Fields			
Monument type		Rectilinear Enclosure	Period	Romano-British (AD 43 - 410)	
Project Location:					
Site Address	Whirlow Park Road, Whirlow, Sheffield			Postcode	S17 3ES
County	South Yorkshire	District	Sheffield	Parish	Whirlow
Study Area	5.5 ha	Height OD	181 – 167 m aOD	NGR	431422 382321
Project Creators:					
Name of Organisation		Wessex Archaeology			
Project brief originator		The Wildlife Trust for Sheffield and Rotherham	Project design originator		The Wildlife Trust for Sheffield and Rotherham
Project Manager		Tom Richardson	Project Supervisor		Amy Dunn
Sponsor or funding body		The Wildlife Trust for Sheffield and Rotherham	Type of Sponsor		N/A
Project Archive and Bibliography:					
Physical archive	N/A	Digital Archive	Geophysical survey and report	Paper Archive	N/A
Report title	Whirlow Playing Fields, Sheffield, South Yorkshire			Date	2022
Author	Wessex Archaeology	Description	Unpublished report	Report ref.	262200.01



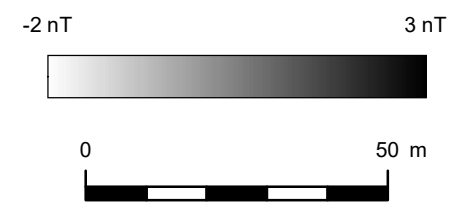
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	Path:	X:\Projects\262200\GIS\FigsMXD	

Site location and survey extent

Figure 1



- Detailed survey extents
- Site boundary

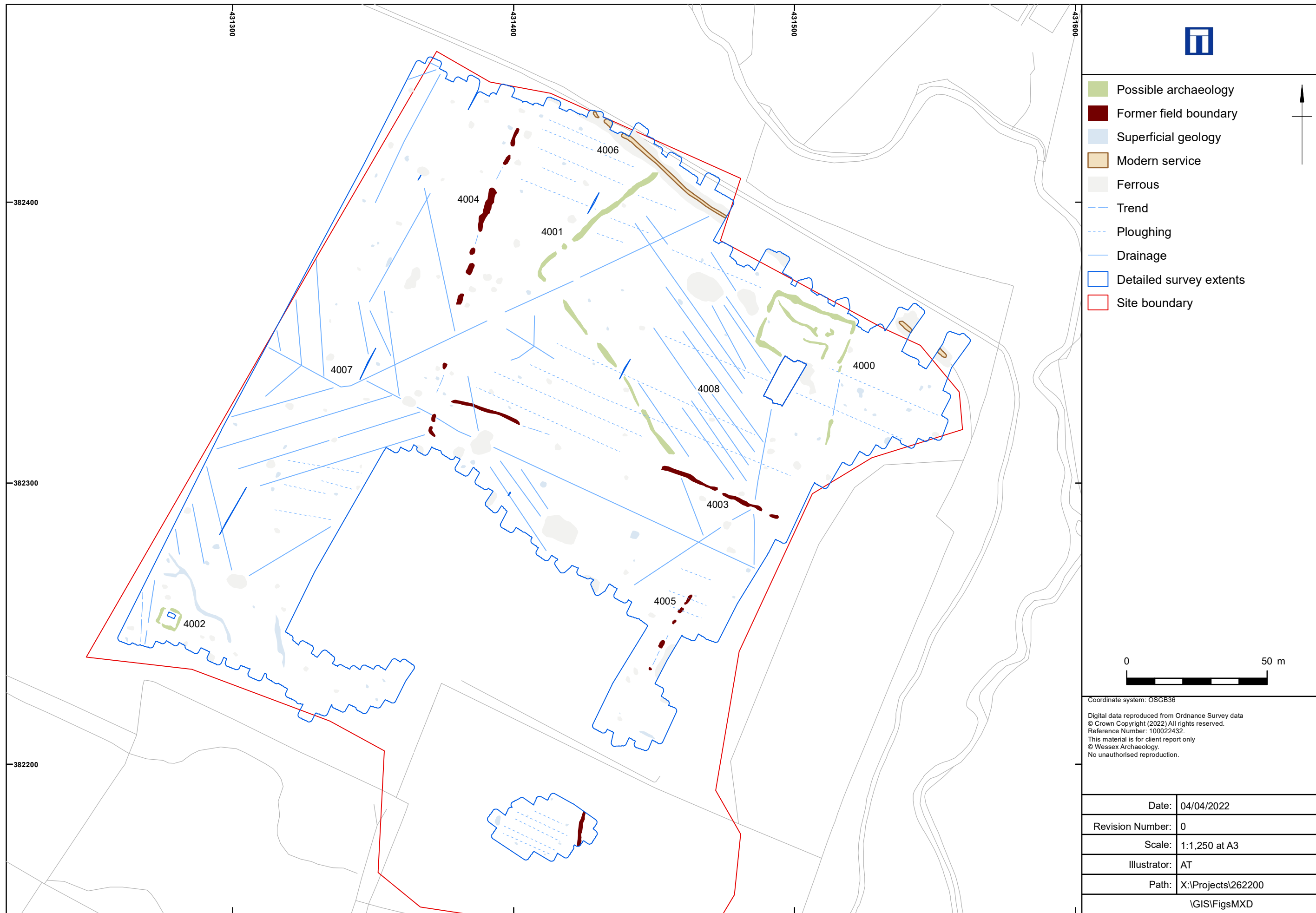


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Detailed gradiometer survey results: greyscale plot

Figure 2



- Possible archaeology
- Former field boundary
- Superficial geology
- Modern service
- Ferrous
- Trend
- Ploughing
- Drainage
- Detailed survey extents
- Site boundary



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Detailed gradiometer survey results: interpretation

Figure 3



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