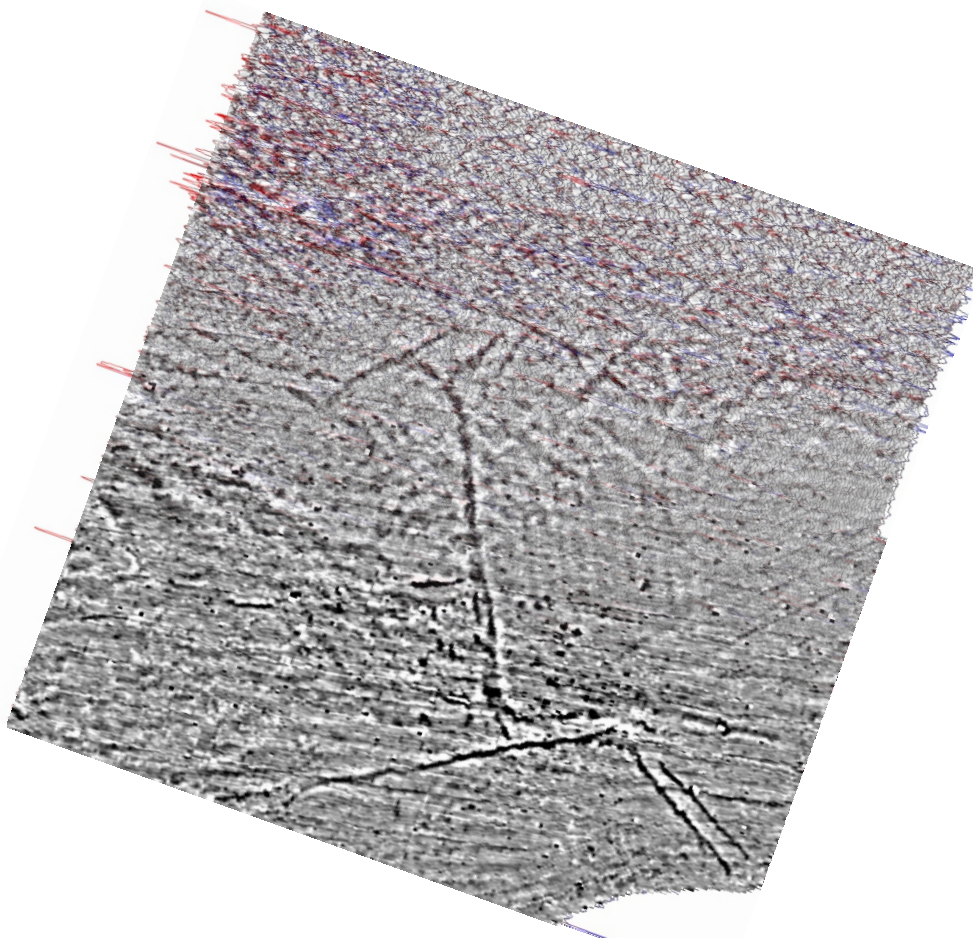




Woodsetts South Yorkshire

Detailed Gradiometer Survey Report



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Summary

A detailed gradiometer survey was conducted over land at Woodsetts, South Yorkshire (centred on NGR 454631 383811). The project was commissioned on behalf of INEOS Shale 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 a prospection site for shale gas extraction.

The site comprises an irregularly shaped survey area within a single arable field to the south of Dinnington Road, Woodsetts, South Yorkshire. The site covers 11.5 ha and the survey was undertaken between 2nd October 2017 and 5th October 2017. The detailed gradiometer survey has demonstrated the presence of a number of anomalies of archaeological origin. These are predominantly located to the west and of the survey area, consisting of sizable linear and curvilinear anomalies as well as a network of interconnected rectilinear anomalies indicative of former land divisions and enclosures.

Additionally, this archaeological investigation has detected anomalies consistent with the historical pattern of land division as well as agricultural activity, with former field boundaries and possible ridge and furrow prevalent across the survey area. Areas of increased magnetic response and further evidence of localised superficial geological variation are also noted, as well as the presence of field drains and a modern service.



Woodsetts, South Yorkshire

Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned on behalf of INEOS Shale to carry out a geophysical survey at Woodsetts, South Yorkshire (centred on NGR 454631 383811) (**Fig. 1**). The survey forms part of an ongoing programme of archaeological works being undertaken in support of a planning application for the development of a prospection site for potential shale gas extraction.

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 immediately west of the village of Woodsetts, South Yorkshire and 5.7 km north-west of Worksop, Nottinghamshire.

1.3.2 The survey consists of an irregular shaped area of 11.5 ha within a single field, currently utilised for crop. The survey area has open boundaries to the north, west, and south, with residential properties to the east. The field containing the survey area is bounded by Dinnington Road to the north, residential properties, and agricultural land to the east, with open boundaries leading to further agricultural land to the west and south. A small copse of woodland is located to the immediate south of the survey area. This is named as Dewidales Wood on Ordnance Survey mapping.

1.3.3 The site is on a broadly north-east facing slope, falling from approximately 82 m above Ordnance Datum (aOD) at the western edge to approximately 75 m aOD at the north-east and eastern edge.

1.3.4 No overhead cables or water courses are noted within the site. An access track is noted traversing the eastern portion of the survey area.

1.3.5 The underlying bedrock geology comprises Dolostone of the Cadeby Formation with no overlying superficial deposits recorded across most the survey area. There is a small band of glaciofluvial deposits of sands and gravel noted to the north of the survey area, with a small fraction protruding into the site (BGS 2015).

1.3.6 The soils underlying the site are likely to consist of typical brown calcareous earths of the 511a (Aberford) association (SSEW SE Sheet 1-1 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 An archaeological and historic background was undertaken as part of the Environmental Report submitted with this application, which examines the potential for the survival of buried archaeological remains within the development area and a wider Study Area. The following summary was compiled in conjunction with information provided by the South Yorkshire Historic Environment Record (SYHER) and the National Heritage List for England (NHLE) online and considers resources within 1 km radius of the Site.

2.2 Summary of the known archaeological resource

2.2.1 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Conservation Areas or Historic Battlefields identified within 1 km of the Site, although three Grade II Listed buildings are recorded. The nearest of these is Hoades Farmhouse (NHLE No. 1151916), which is a Grade II Listed building approximately 60 m from the north-east corner of the survey area. The building was constructed in the late 18th Century.

2.2.2 There are no recorded artefacts from the Palaeolithic, Mesolithic or Neolithic periods noted within the wider study area, although several assemblages of stone and flint artefacts from these periods have been identified just outside the study area in the wider landscape.

2.2.3 An enclosure dating to the Roman period is located at Swinston Hill Wood approximately 850 m to the north of the survey area. Two brooches dating to AD 200 – 300 and a lead spindle whorl were recovered from inside the enclosure. In addition, a bronze torc dating to the Late Iron Age / early Roman period was recovered approximately 290 m to the north of the enclosure, outside the 1 km study area.

2.2.4 Evidence for early medieval activity in the study area comprises a number of finds, including a jetton hoard at Lindrick Dale (approximately 850 m to the south-west of the site), two Anglo-Danish girdle ends dating to 9th century, a copper styca (coin) of Aethelred II of Northumbria (AD 841 - 844), and a gilded bronze strap-end (with buckle attached). Agricultural activity dating to the medieval period is evident to the north of the site at Guildingwells in the form of ridge and furrow.

2.2.5 The enclosure of land surrounding the Site during the 18th and 19th centuries resulted in the creation of large rectilinear fields. These are interspersed with areas of mature woodland evident on early Ordnance Survey maps, most notably Swinston Hill Wood, Anston Stones Wood, Cotterhill Wood and two areas of woodland close to Woodsetts village (Dewidales Wood). The site appears to have been in arable cultivation from at least the late 19th century, however internal boundaries have changed over time.

2.2.6 Local industry during the 19th century comprised agriculture and limestone quarrying. Magnesian limestone is widely used in local buildings from small cottages to country mansions, with small limestone quarries opening in areas such as Lindrick and South Anston. A quarry at Lindrick Common (approximately 1.2 km to the south-east of the site) appears to have been in use from the Roman period to the industrial period. The quarry at Woodsetts (approximately 1.5 km to the south-east of the site) was operational from approximately 1920 to 1950.



3 METHODOLOGY

3.1 Introduction

3.1.1 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team between 2nd October 2017 and 5th October 2017. Field conditions at the time of the survey were generally good, being dry and under low crop. An overall coverage of 10.7 ha was achieved, with any reduction the result of over growing hedgerows, specifically along the eastern boundary as well as the trackway that traverses the eastern edge of the survey area.

3.2 Aims and objectives

3.2.1 The aims of the survey comprise the following:

- to conduct a detailed survey covering as much of the specified area as possible, allowing for artificial obstructions;
- to clarify the presence/absence and extent of any buried archaeological remains within the site;
- to determine the general nature of the remains present.

3.3 Fieldwork methodology

3.3.1 Individual survey grid nodes were established at 30 m x 30 m intervals using a Leica Viva RTK GNSS instrument, which is precise to approximately 0.02 m and therefore exceeds Historic England recommendations (2008).

3.3.2 The detailed gradiometer survey was conducted using a Bartington Grad601-2 fluxgate gradiometer instrument, which has a vertical separation of 1 m between sensors. Data were collected at 0.25 m intervals along transects spaced 1 m apart with an effective sensitivity of 0.03 nT, in accordance with Historic England guidelines (Historic England 2008). Data were collected in the zigzag method.

3.4 Data processing

3.4.1 Data from the survey were subjected to minimal data correction processes. These comprise a zero-mean traverse function (± 5 nT thresholds) applied to correct for any variation between the two Bartington sensors used, and a de-step function to account for variations in traverse position due to varying ground cover and topography. These two steps were applied throughout the survey area, with no interpolation applied.

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 that are consistent with archaeological remains. Linear trends associated with modern and historical agricultural activity and areas of highly variable magnetic response are also evident. Results are presented as a series of greyscale plots, XY trace plots and archaeological interpretations at a scale of 1:2000 (**Fig. 2 to 4**). The data are displayed at -2 nT (white) to +3 nT (black) for the greyscale image and ± 25 nT at 25 nT per cm for the XY trace plots.
- 4.1.2 The interpretation of the datasets highlights the presence of potential archaeological anomalies, ferrous, burnt or fired objects, and magnetic trends (**Fig. 4**). 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 The geophysical survey has identified several features that are likely to be associated with archaeological remains. These are predominantly located towards the western and eastern extents of the survey area. These consist of linear and curvilinear anomalies as well as a network of interconnected rectilinear anomalies, and are indicative of ditch-like features. A substantial number of positive discrete anomalies have been identified that are consistent with pit-like features.
- 4.2.2 Located in the west of the site at **4000**, a positive linear anomaly aligned north-north-west to south-south-east has been identified. This anomaly measures 125 m long and is approximately 1.8 m wide. The anomaly is notably fragmented, particularly along the southern portion. This is likely the result of intensive agricultural activity, evidenced by the closely spaced, parallel trends crossing the entire site on an east to west alignment. Towards the southern end of **4000**, it appears the anomaly consists of two parallel linear anomalies. At the northernmost extent, the anomaly curves to the north-west and meets a shorter linear anomaly on a south-west to north-east alignment (**4001**). This anomaly measures 40 m long by approximately 1.5 m wide. The anomaly terminates a short distance to the north-east and continues to become rectilinear in shape at the south-western end. Two fragmented positive anomalies have been identified on the same projected alignment as the rectilinear anomaly to the north-west. These are likely to be a continuation of **4001**; although it is clearly fragmented as a result of agricultural activity.
- 4.2.3 At the southern end of **4000**, linear anomaly **4002** lies on a west-south-west to east-north-east alignment, measuring 127 m long and approximately 1.4 to 1.6 m wide. The anomaly



- extends out of the southwestern boundary of the survey area. In addition, toward the north-eastern end the anomaly turns and continues to the south-east where a second parallel linear anomaly has been identified (**4003**). These responses can be seen for a further 60 m and measures 1.8 m wide. None of these anomalies conforms to the historic pattern of land division visible on historic OS mapping and are therefore considered to be archaeological in origin. These anomalies are consistent with former land divisions or large ditched enclosures. Whilst considered to pre-date the post-medieval field systems evident on historic mapping, it is not possible to offer confident dating from the geophysical data alone.
- 4.2.4 An area of fragmented positive anomalies has been identified across the west of the area. Particularly to the north-west, a number of linear and rectilinear anomalies are clearly defined against an increased magnetic background at **4004** and **4005**. The anomalies at **4004** lie immediately north of the ditch features **4000** and **4001**. These anomalies are very fragmented, likely due to plough damage, but appear to be distributed coherently. A crescent-shaped curvilinear anomaly extends for approximately 25 m at the southeastern extent of **4004**, with an open southern side. To the west of this, two fragmented linear anomalies intersect, possibly forming a small complex of rectilinear features on a west-north-west to east-south-east alignment. These cover an area of approximately 60 m by 26 m, with four possible rectilinear enclosures evident.
- 4.2.5 Further west at **4005**, another area of linear and rectilinear anomalies is apparent. These follow the same west-north-west to east-south-east alignment, covering an area of approximately 72 m by 20 m. However, it is likely these continue beyond the bounds of the survey area. The anomalies seen across these areas are indicative of ditched enclosure features, and may relate to activity at **4000** to **4003**. However, they lie in an area of increased background variation and are heavily fragmented. This makes it difficult to distinguish between archaeological features, natural variation, and ploughing trends.
- 4.2.6 Rectilinear anomalies **4006** are located towards the southeastern extent of the survey area and are oriented broadly northeast-southwest, covering an area of approximately 110m by 100m. Numerous internal subdivisions can be seen within the larger enclosures formed by the rectilinear anomalies, which are consistent with a cluster of small fields. Although it is difficult to be certain, such features are typical of later prehistoric or Romano-British agricultural activity.
- 4.2.7 To the east of **4006**, an area of increased magnetic response has been identified at **4007**. Several linear anomalies have been identified within the area of elevated magnetic response, which continue further to the north-east at **4008**. It is considered likely this response is the result of ploughing activity impacting further archaeological features in the area. This results in the higher increased magnetic response as magnetically enhanced archaeological deposits become mixed with the subsoil.
- 4.2.8 The survey area shows a highly variable background magnetic response. This is likely to be the result of localised variations in the underlying superficial deposits. There are two notable areas where this generally increased background response is elevated further. At the north-easternmost point of the survey area, a notable trend can be seen on a north-west to south-east alignment (**4009**). This corresponds with a modern access track traversing the survey area before continuing north to south along the eastern edge of the survey area. Through the study of historic OS mapping from 1854-1855, it is clear this trackway used to be known as Cross Lane but is no longer a public road. The elevated magnetic response in this area is thought to be the result of discarded material used in the construction and surfacing of the historic trackway and gateway that has since been ploughed and spread further into the field.



- 4.2.9 In the western portion of the survey area, several fragmented variable linear responses have been identified at **4010** to **4015**, which do not share a common alignment with the archaeological anomalies identified. In addition, two similar fragmented linear responses have also been identified at **4016** and **4017** towards the easternmost extent of the survey. These anomalies all correspond with former field boundaries identified on historic OS mapping from 1854-1855.
- 4.2.10 Two areas of broadly spaced parallel linear trends have been identified in the west at **4018** and east at **4019**. These anomalies are on a broadly north to south alignment. Due to their spacing and parallel alignment, these anomalies are believed to be evidence of earlier agricultural activity. They do not conform to the modern pattern of ploughing and respect the historic pattern of land division identified throughout the survey area. This could therefore be evidence of medieval or post-medieval ridge and furrow, an interpretation supported by their broad (5 m to 6 m) spacing.
- 4.2.11 Broad, sinuous negative anomalies have been identified in the western portion of the survey area (**4020**) as well as to the north-east where further dipolar sinuous anomalies have been identified (**4021**). The anomalies are likely to be the result of localised variation in the superficial geological deposits.
- 4.2.12 In the south-eastern corner of the survey area, a highly magnetic, dipolar linear trend has been identified (**4022**). This anomaly is indicative of a modern service, such as a pipe or cable. In addition, broadly spaced, discrete parallel trends have been identified in the centre of the survey area (**4023**). Due to their spacing and alignment, these are believed to be field drains.

5 DISCUSSION

- 5.1.1 The detailed gradiometer survey has been successful in detecting anomalies relating to archaeological remains across the survey. These are predominantly located to the west and east of the survey area, comprising sizable linear and curvilinear anomalies as well as a network of interconnected rectilinear anomalies.
- 5.1.2 The archaeological anomalies to the west are on a broad north-north-west to south-south-east alignment and consistent with land divisions or large ditched enclosures, although the date of these features is not clear; however, their arrangement is typical of later prehistoric or Romano-British enclosure. To the east, the archaeological anomalies are on a more north-east to south-west alignment and are also likely to date to the Iron Age or Romano-British period. These anomalies are indicative of smaller enclosures and land division covering a sizeable area and, while they have been impacted by modern agricultural activity, are still well defined against the magnetic background. Without direct dating evidence, the attribution of these features to the Iron Age or Romano-British period is based solely on the form in plan of these anomalies.
- 5.1.3 There are several areas where an interpretation of possible archaeology has been attributed to responses that almost appear archaeological in their morphology but cannot be conclusively interpreted as being archaeological in origin. These are predominantly in the vicinity of the anomalies considered to be archaeological, and therefore are likely to be associated with archaeological features, possibly relating to different phases of land division or earlier features. However, these anomalies are generally on varying orientations and are not as clearly defined and therefore are interpreted as possible archaeology.



- 5.1.4 Anomalies interpreted as being indicative of historic land division and agricultural practice such as ridge and furrow have also been identified that are likely to date to the late medieval period. This corresponds to the agricultural land use in the area identified in the historic background since the 18th century.
- 5.1.5 A varying magnitude of background magnetic response is noted across the entire survey area. This is likely to be the result of variations in the underlying superficial geological deposits and may have had a minor impact on the detection of small or weak anomalies. The successful detection of archaeological anomalies is noted, but it cannot be ruled out that further archaeological anomalies may be present within the survey area.
- 5.1.6 Further anomalies consistent with modern agricultural practice as well as an underground service, likely to a pipe or cable, have been identified. These modern anomalies are afforded relatively little significance.



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Cartographic and documentary sources

Ordnance Survey 1983. *Soil Survey of England and Wales Sheet 1, Soils of Northern England*. Southampton.

Online resources

British Geological Survey Geology of Britain Viewer (accessed October 2017) <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Heritage Gateway (accessed October 2017) <http://www.heritagegateway.org.uk/>

Old Maps (accessed October 2017) <https://www.old-maps.co.uk>



APPENDICES

Appendix 1: Survey Equipment and Data Processing

Survey methods and equipment

The magnetic data for this project was acquired using a Bartington 601-2 dual magnetic gradiometer system. This instrument has two sensor assemblies fixed horizontally 1m apart allowing two 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 0.03nT over a ± 100 nT range, and measurements from each sensor are logged at intervals of 0.25m. All of the data are stored on an integrated data logger for subsequent post-processing and analysis.

Wessex Archaeology undertakes two types of magnetic surveys: scanning and detail. Both types depend upon the establishment of an accurate 20m or 30m site grid, which is achieved using a Leica Viva RTK GNSS instrument and then extended using tapes. The Leica Viva system 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 Historic England (English Heritage 2008) for geophysical surveys.

Scanning surveys consist of recording data at 0.25m intervals along transects spaced 10m apart, acquiring a minimum of 80 data points per transect. Due to the relatively coarse transect interval, scanning surveys should only be expected to detect extended regions of archaeological anomalies, when there is a greater likelihood of distinguishing such responses from the background magnetic field.

The detailed surveys consist of 20m x 20m or 30m x 30m grids, and data are collected at 0.25m intervals along traverses spaced 1m apart. These strategies give 1600 or 3600 measurements per 20m or 30m grid respectively, and are the recommended methodologies for archaeological surveys of this type (English Heritage 2008).

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 0.125m intervals along traverses spaced up to 0.25m apart, resulting in a maximum of 28800 readings per 30m grid, exceeding that recommended by Historic England (English Heritage 2008) for characterisation surveys.

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:

- 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.
- 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.



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	Woodsetts, South Yorkshire				
Type of project	Field evaluation – Geophysical Survey				
Project description	<p>A detailed gradiometer survey was conducted over land at Woodsetts, South Yorkshire (centred on NGR 454631 383811). The project was commissioned on behalf of INEOS Shale 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 a prospection site for shale gas extraction.</p> <p>The site comprises an irregularly shaped survey area within a single arable field to the south of Dinnington Road, Woodsetts, South Yorkshire. The site covers 11.5 ha and the survey was undertaken between 2nd October 2017 and 5th October 2017. The detailed gradiometer survey has demonstrated the presence of a number of anomalies of archaeological origin. These are predominantly located to the west and of the survey area, consisting of sizable linear and curvilinear anomalies as well as a network of interconnected rectilinear anomalies indicative of former land divisions and enclosures.</p> <p>Additionally, this archaeological investigation has detected anomalies consistent with the historical pattern of land division as well as agricultural activity, with former field boundaries and possible ridge and furrow prevalent across the survey area. Areas of increased magnetic response and further evidence of localised superficial geological variation are also noted, as well as the presence of field drains and a modern service.</p>				
Project dates	Start: 02-10-2017		End: 06-10-2017		
Previous work	DBA (Not by WA)				
Future work	Not Known				
Project Code:	118460	HER event no.	N/A	OASIS form ID:	wessexar1-297279
		NMR no.	N/A		
		SM no.	N/A		
Planning Application Ref.					
Site Status	None				
Land use	Arable				
Monument type		Period			

Project Location:

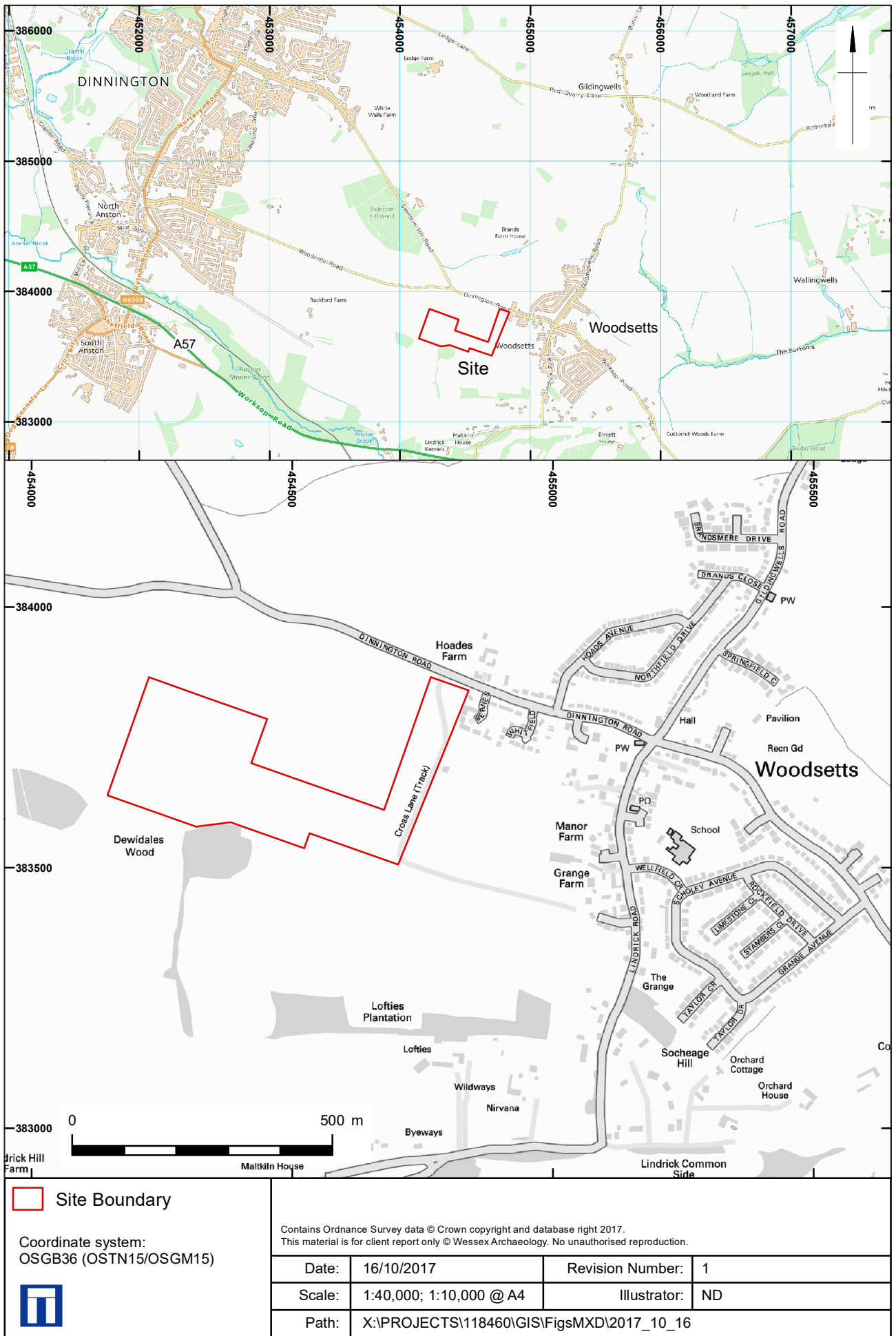
Site Address	South of Dinnington Road, Woodsetts, South Yorkshire		Postcode	S81 8RG	
County	South Yorkshire	District	Worksop	Parish	Woodsetts
Study Area	11.5 ha	Height OD	75 – 82 m aOD	NGR	454631 383811

Project Creators:

Name of Organisation	Wessex Archaeology				
Project brief originator	INEOS		Project design originator	WA	
Project Manager			Project Supervisor		

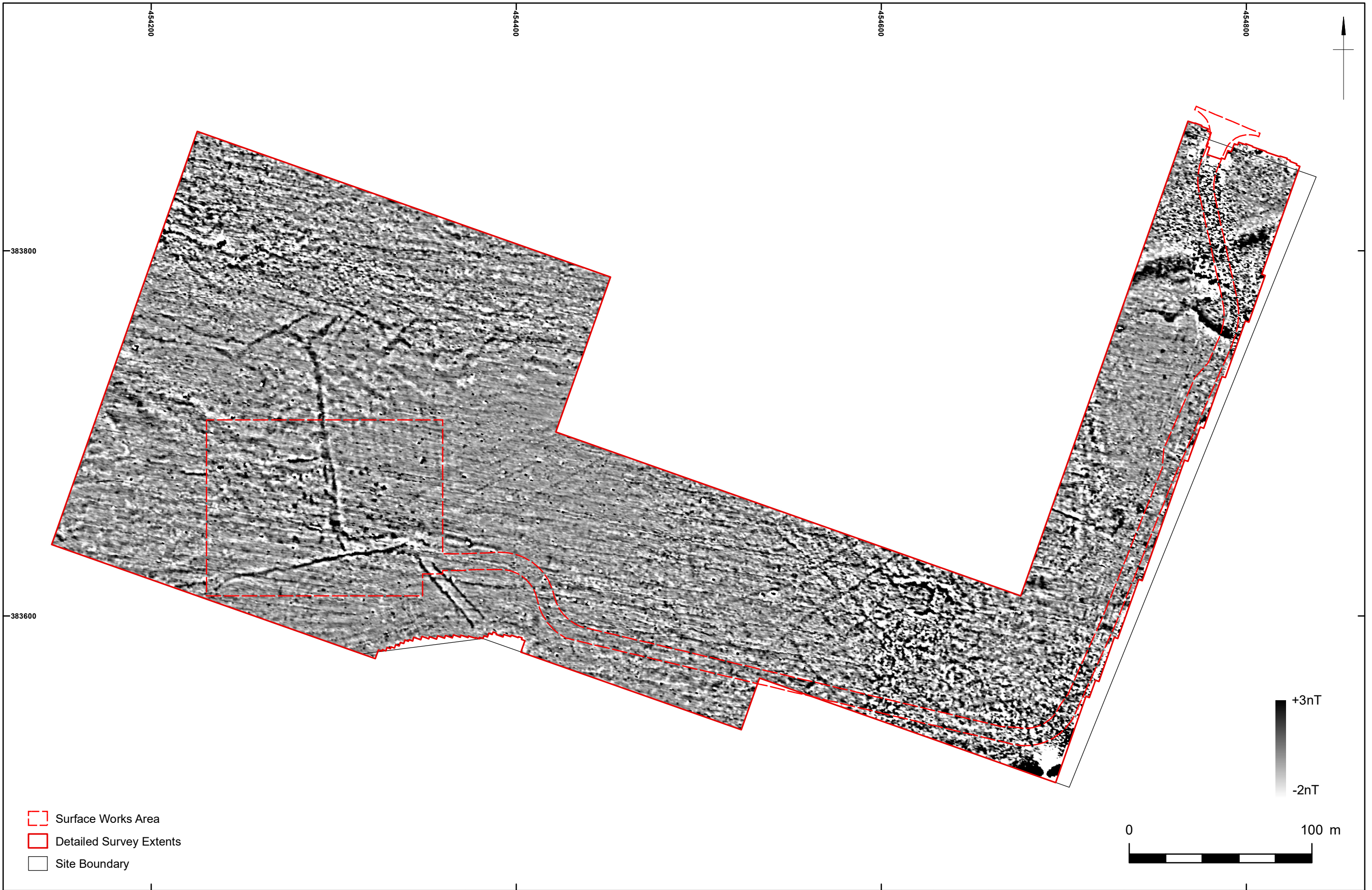


Sponsor or funding body	Client (?)	Type of Sponsor			
Project Archive and Bibliography:					
Physical archive	N/A	Digital Archive	Geophysics, survey and report	Paper Archive	N/A
Report title	Woodsetts, South Yorkshire: Detailed Gradiometer Survey			Date	2017
Author	Wessex Archaeology	Description	Unpublished report	Report ref.	118460.03




Site location

Figure 1

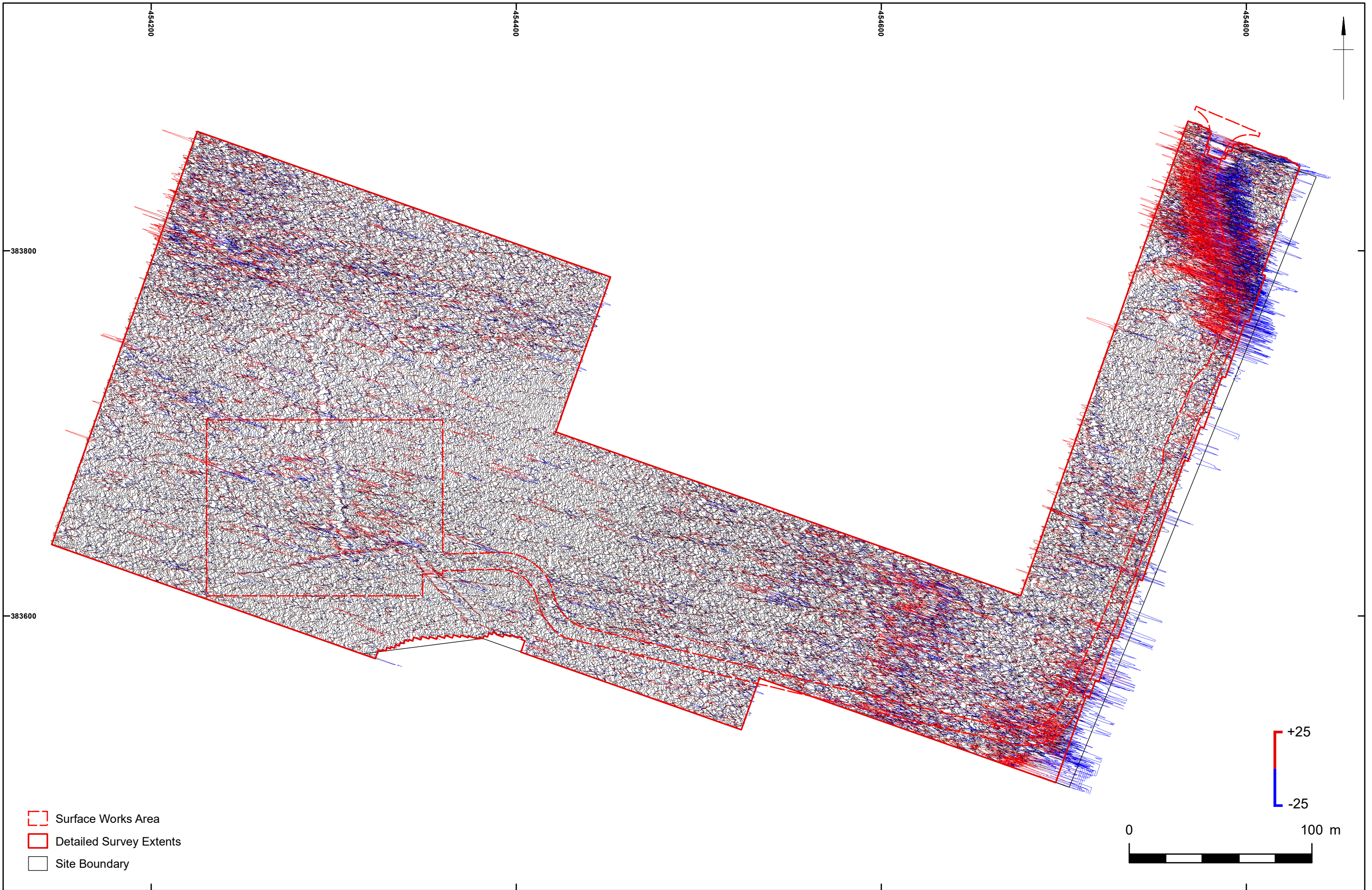


- Surface Works Area
- Detailed Survey Extents
- Site Boundary

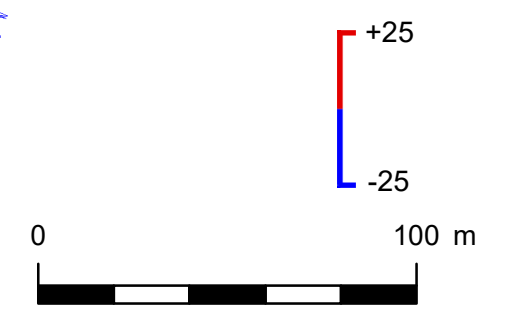
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Detailed Gradiometer Survey: Greyscale Plot

Figure 2



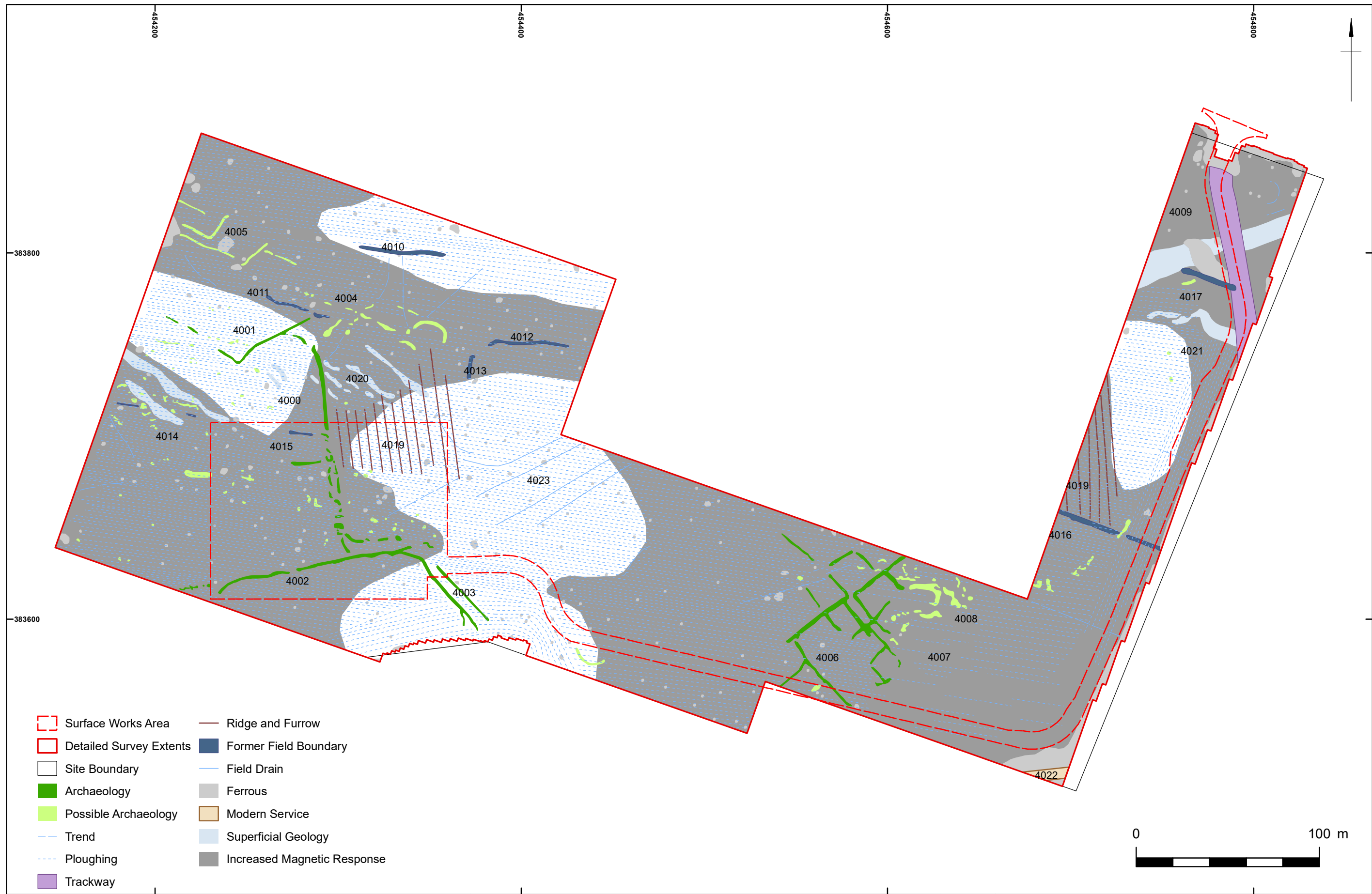
- Surface Works Area
- Detailed Survey Extents
- Site Boundary



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					Scale: 1:2000 @ A3	Illustrator: ND
					Path: X:\PROJECTS\118460\GIS\FigsMXD\2017_10_16	

Detailed Gradiometer Survey: XY Trace Plot

Figure 3



- Surface Works Area
- Detailed Survey Extents
- Site Boundary
- Archaeology
- Possible Archaeology
- Trend
- Ploughing
- Trackway
- Ridge and Furrow
- Former Field Boundary
- Field Drain
- Ferrous
- Modern Service
- Superficial Geology
- Increased Magnetic Response



Coordinate system:
OSGB36 (OSTN15/OSGM15)

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