Geophysical Survey Report of Land at West Lund Lane, Kirkbymoorside, North Yorkshire

For

York Archaeological Trust

On Behalf Of

Mulgrave Property Group Ltd &

Crossco (1377) Ltd

Magnitude Surveys Ref: MSSE776A

HER Event Number: ENY9120

OASIS Number: magnitud1-405005

October 2020

Unit 17, Commerce Court

Challenge Way

Bradford

BD4 8NW

01274 926020

info@magnitudesurveys.co.uk

Report By:

Leigh A. Garst BFA MSc

Report Approved By:

Dr Kayt Armstrong MCIfA

Issue Date:

08 October 2020

Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c.4ha area of land at West Lund Lane, Kirkbymoorside, North Yorkshire. A fluxgate gradiometer survey was successfully completed across the survey area. Potential archaeological activity has been recorded in the form of a large curving linear anomaly and further associated linear anomalies of unknown date. Anomalies related to historic agricultural use have been identified and interpreted as a former field boundary and an associated ridge and furrow ploughing regime, as well as a concentrated deposit of magnetic material. The impact of modern activity on the results consists of magnetic 'haloes' caused by buildings bordering the site and magnetic disturbance from field boundaries, as well as telegraph poles located within the survey area. A series of linear anomalies were identified in the north of the survey area; these could relate to agricultural use of the landscape, however, their origin is not clear in the magnetic data therefore these anomalies have been classified 'undetermined'.

Contents

List of Figures

1. Introduction

1.1. Magnitude Surveys Ltd (MS) was commissioned by York Archaeological Trust on behalf of Mulgrave Property Group Ltd and Crossco (1377) Ltd to undertake a geophysical survey on a c.4.1ha area of land at West Lund Lane, Kirkbymoorside, North Yorkshire (SE695859).

1.2. The geophysical survey comprised hand-carried GNSS-positioned fluxgate gradiometer survey. Magnetic survey is the standard primary geophysical method for archaeological applications in the UK for its ability to detect a range of different features. The technique is particularly suited for detecting fired or magnetically enhanced features, such as ditches, pits, kilns, sunken earth houses, and industrial activity (David *et al*., 2008).

1.3. The survey was conducted in line with the current best practice guidelines produced by Historic England (David et al., 2008), the Chartered Institute for Archaeologists (CIfA, 2014) and the European Archaeological Council (Schmidt et al., 2015).

1.4. It was conducted in line with a WSI produced by MS (Beck, 2020).

1.5. The survey commenced on 18/09/2020 and took 1 day to complete.

2. Quality Assurance

2.1. Magnitude Surveys is a Registered Organisation of the Chartered Institute for Archaeologists (CIfA), the chartered UK body for archaeologists, and a corporate member of ISAP (International Society of Archaeological Prospection).

2.2. The directors of MS are involved in the cutting edge of research and the development of guidance/policy. Specifically, Dr. Chrys Harris has a PhD in archaeological geophysics from the University of Bradford, is a Member of CIfA and is the Vice-Chair of the International Society for Archaeological Prospection (ISAP); Finnegan Pope-Carter has an MSc in archaeological geophysics and is a Fellow of the London Geological Society, as well as a member of GeoSIG (CIfA Geophysics Special Interest Group); Dr. Kayt Armstrong has a PhD in archaeological geophysics from Bournemouth University, is a Member of CIfA, the Editor of ISAP News, and is the UK Management Committee representative for the COST Action SAGA; Dr. Paul Johnson has a PhD in archaeology from the University of Southampton, has been a member of the ISAP Management Committee since 2015, and is currently the nominated representative for the EAA Archaeological Prospection Community to the board of the European Archaeological Association.

2.3. All MS managers have relevant degree qualifications to archaeology or geophysics. All MS field and office staff have relevant archaeology or geophysics degrees and/or field experience.

3. Objectives

3.1. The objective of this geophysical survey was to assess the subsurface archaeological potential of the survey area.

4. Geographic Background

4.1. The survey area was located c.480m south from Kirkbymoorside (Figure 1). Gradiometer survey was undertaken across one fields under grassland pasture. The survey area was bounded by West Lund Lane to the west, Gawtersike Lane to the south, and housing to the north and east (Figure 2).

4.2. Survey considerations:

Survey Area	Ground Conditions	Further Notes
1	The field consisted of grassland pasture sloping down gradually from east to west.	The field was bounded by hedgerows and trees to the north, west and south and a small corner to the east. Housing and an industrial building bounded the area to the northeast and southeast. The access point to the east was bounded by wooden fences and a metal gate. A tree line, crossing the survey area east-west divided the field into two parts but these were surveyed as one area. A telegraph pole was present with associated overhead cables running from the northeast to the southwest.

4.3. The underlying geology comprises undifferentiated mudstone of Ampthill and Kimmeridge Clay Formation. No superficial deposits have been recorded (British Geological Survey, 2020).

4.4. The soils consist of slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils (Soilscapes, 2020).

5. Archaeological Background

5.1. The following is a summary of an Archaeological Desk Based Assessment Report for West Lund Lane, Kirkbymoorside, produced and provided by York Archaeological Trust (YAT, 2020).

5.2. Prehistoric activity in the vicinity if the survey area is recorded as a Bronze Age round barrow at Howe End (c.500m northeast of the survey area) and a series of Prehistoric findspots, the closest of which was located c.115m east of the survey area. Records of Later Prehistoric and Roman activity consist of two enclosure ditches of Iron Age date, located off Kirkdale Road c. 1.km northwest of the survey area.

5.3. Evidence for medieval activity in Kirkbymoorside comprises findspots dated from the 9th century onwards and some evidence of agricultural activity in the form of ridge and furrow ploughing c.620m east-southeast of the survey area.

5.4. During the post-medieval period, a railway station was constructed c.180m east of the survey area in 1871 (closed in 1964) and a map regression of the area has shown that the survey area was used as agricultural land throughout this period and up to modern day.

6. Methodology

6.1. Magnetometer surveys are generally the most cost effective and suitable geophysical technique for the detection of archaeology in England. Therefore, a magnetometer survey should be the preferred geophysical technique unless its use is precluded by any specific survey objectives or the site environment. For this site, no factors precluded the recommendation of a standard magnetometer survey. Geophysical survey therefore comprised the magnetic method as described in the following section.

6.2. Data Collection

6.2.1. Geophysical prospection comprised the magnetic method as described in the following table.

6.2.2. Table of survey strategies:

Method	Instrument	Traverse Interval	Sample Interval
Magnetic	Bartington Instruments Grad-13 Digital Three-Axis Gradiometer	1m	200Hz reprojected to 0.125m

6.2.3. The magnetic data were collected using MS' bespoke hand-carried GNSS-positioned system.

6.2.3.1. MS' hand-carried system was comprised of Bartington Instruments Grad 13 Digital Three-Axis Gradiometers. Positional referencing was through a multi-channel, multi-constellation GNSS Smart Antenna RTK GPS outputting in NMEA mode to ensure high positional accuracy of collected measurements. The RTK GPS is accurate to 0.008m + 1ppm in the horizontal and 0.015m + 1ppm in the vertical.

6.2.3.2. Magnetic and GPS data were stored on an SD card within MS' bespoke datalogger. The datalogger was continuously synced, via an in-field Wi-Fi unit, to servers within MS' offices. This allowed for data collection, processing and visualisation to be monitored in real-time as fieldwork was ongoing.

6.2.3.3. A navigation system was integrated with the RTK GPS, which was used to guide the surveyor. Data were collected by traversing the survey area along the longest possible lines, ensuring efficient collection and processing.

6.3. Data Processing

6.3.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to Historic England's standards for "raw or minimally processed data" (see sect 4.2 in David et al., 2008: 11).

Sensor Calibration – The sensors were calibrated using a bespoke in-house algorithm, which conforms to Olsen et al. (2003).

Zero Median Traverse – The median of each sensor traverse is calculated within a specified range and subtracted from the collected data. This removes striping effects caused by small variations in sensor electronics.

Projection to a Regular Grid – Data collected using RTK GPS positioning requires a uniform grid projection to visualise data. Data are rotated to best fit an orthogonal grid projection and are resampled onto the grid using an inverse distance-weighting algorithm.

Interpolation to Square Pixels – Data are interpolated using a bicubic algorithm to increase the pixel density between sensor traverses. This produces images with square pixels for ease of visualisation.

6.4. Data Visualisation and Interpretation

6.4.1. This report presents the gradient of the sensors' total field data as greyscale images. The gradient of the sensors minimises external interferences and reduces the blown-out responses from ferrous and other high contrast material. However, the contrast of weak or ephemeral anomalies can be reduced through the process of calculating the gradient. Consequently, some features can be clearer in the respective gradient or total field datasets. Multiple greyscale images of the gradient and total field at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plot (Figure 6). XY trace plots visualise the magnitude and form of the geophysical response, aiding in anomaly interpretation.

6.4.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street maps, satellite imagery, historic maps, LiDAR data, and soil and geology maps. Google Earth (2020) was consulted as well, to compare the results with recent land usages.

6.4.3. Geodetic position of results - All vector and raster data have been projected into OSGB36 (ESPG27700) and can be provided upon request in ESRI Shapefile (.SHP) and Geotiff (.TIF) respectively.

7. Results

7.1. Qualification

7.1.1. Geophysical results are not a map of the ground and are instead a direct measurement of subsurface properties. Detecting and mapping features requires that said features have properties that can be measured by the chosen technique(s) and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

7.2. Discussion

7.2.1. A fluxgate gradiometer survey was carried out over c.4.1ha area of land at West Lund Lane, Kirkbymoorside, North Yorkshire. The geophysical results are presented in consideration with satellite imagery and historic maps (Figure 5).

7.2.2. The fluxgate gradiometer survey was successfully carried out over the survey area. Anomalies of possible archaeological and of agricultural origins have been identified. Modern interference located along edges of the field in proximity to housing and telegraph poles with associated overhead cables which were located within the southern half of the survey area as potentially obscured weaker anomalies in these areas. Anomalies likely relating to natural variations have been identified in the northern part of the survey area, with deposits of slightly enhanced material following topographic changes down the slope.

7.2.3. Possible archaeological activity is present in the southern end of the survey area in the form of a large curving anomaly. A series of shorter linear anomalies, located further to the north and southeast, may be related. Their appearance in the geophysical results indicate possible cut features, such as enclosure ditches. However, there are no characteristics of these anomalies diagnostic of a specific period or type of activity. These anomalies appear to continue beyond the survey extent to the south west, east and south.

7.2.4. Elsewhere the geophysical results primarily reflect the survey area's agricultural use, with anomalies relating to ridge and furrow cultivation identified across the area, and an historic field boundary (Figure 5). A concentration of magnetic material identified in the north-eastern corner of the southern field likely relates to modern or historic agricultural activity.

7.2.5. Anomalies classified as undetermined have been identified in the northern part of the survey area; these have no readily apparent likely cause, and an archaeological explanation cannot be ruled out.

7.3.Interpretation

7.3.1. General Statements

7.3.1.1. Geophysical anomalies will be discussed broadly as classification types across the survey area. Only anomalies that are distinctive or unusual will be discussed individually.

7.3.1.2. **Ferrous (Spike)** – Discrete ferrous-like, dipolar anomalies are likely to be the result of isolated modern metallic debris on or near the ground surface.

7.3.1.3. **Ferrous/Debris (Spread)** – A ferrous/debris spread refers to a concentrated deposition of discrete, dipolar ferrous anomalies and other highly magnetic material.

7.3.1.4. **Magnetic Disturbance** – The strong anomalies produced by extant metallic structures along the edges of the field have been classified as 'Magnetic Disturbance'. These magnetic 'haloes' will obscure the response of any weaker underlying features, should they be present, often over a greater footprint than the structure they are being caused by.

7.3.1.5. **Undetermined** – Anomalies are classified as Undetermined when the anomaly origin is ambiguous through the geophysical results and there is no supporting or correlative evidence to warrant a more certain classification. These anomalies are likely to be the result of geological, pedological or agricultural processes, although an archaeological origin cannot be entirely ruled out. Undetermined anomalies are generally not ferrous in nature.

7.3.2. Magnetic Results - Specific Anomalies

7.3.2.1. **Possible Archaeology** – A positive strong and weak curving linear anomaly [**1a**] that crosses the full east-west extent of the survey area has been identified in the southern part of the survey area. A number of shorter weak linear anomalies have also been identified directly southeast of this, as well as further weak linear anomalies on the northern side of [**1a**] (Figures 3-5). The magnetic signal of these anomalies is suggestive of a cut feature with magnetically enhanced fill. Whilst these do not present a morphology characteristic of any particular period or function, their defined edges and concentration in just a portion of the survey area means these should be considered to have a possible archaeological origin. The main two curvilinear elements appear to continue beyond the survey extent to the west, south and east.

7.3.2.2. **Agricultural** – A series of short linear anomalies have been identified in a line crossing the centre of the survey area from east to west. They exhibit a positive strong and weak magnetic signal, typical of a cut feature with magnetically enhanced fill (Figure 4). These anomalies correlate well with a former field boundary depicted on historic 1882-1918 OS mapping (Figure 5).

The dispersed response of the anomalies suggests the extant tree line which divides the field was continuous at one point in time but that sections have since been removed, leaving behind sub-surface fills creating these anomalies.

7.3.2.3. **Ridge and Furrow** – Strong linear trends were identified to the north and south of the former field boundary and are indicative of ridge and furrow ploughing regimes. The alignment of the ridge and furrow running parallel to the former field boundaries suggests that these anomalies are contemporary, supported by wider separation of the furrows in the southern portion of the field in comparison to the northern portion (Figure 4).

7.3.2.4. **Ferrous/Debris (Spread)** – Located close to the eastern boundary of the survey area, a concentration of discrete strong dipolar anomalies has been identified [**1b**]. The anomalies are characteristic of a spread of highly magnetic material, spread across this section of the survey area. This material is located in a corner of the southern of the former fields and appears to be bound by the former field boundary. This suggests a relationship with the boundary, which could indicate an agricultural origin of historic or modern date. There are no structures depicted on available historic maps in this location.

7.3.2.5. **Undetermined** – Multiple short curving linear anomalies with weaker positive signals have been identified across the survey area. Like [**1a**] detected to the south these anomalies do not present a clear layout and although they do have defined edges their comparatively weak magnetic signal is inconclusive. Although these anomalies may have archaeological potential, an agricultural origin is just as likely considering their proximity to ridge and furrow cultivation. A more accurate origin cannot be arrived at from the magnetic data, therefore without further context, they have been classified here as 'Undetermined'.

8. Conclusions

8.1. A fluxgate gradiometer survey has successfully been undertaken across the survey area. The geophysical survey has detected anomalies of possible archaeological and historic agricultural origin. Modern interference has been recorded in the form of magnetic disturbance from neighbouring properties and field boundaries, as well as telegraph poles with associated overhead cables which were located within the survey area.

8.2. Anomalies interpreted as a possible large curvilinear ditched feature have been detected in the southern end of the survey area and identified as potential archaeology of unknown date and function.

8.3. Agricultural activity has been detected across the site in the form of a former field boundary and potentially contemporaneous ridge and furrow regimes. A deposit of magnetic material of likely agricultural origins was also identified.

8.4. A series of weak and discontinuous curvilinear anomalies have been identified across the survey area but are of undetermined classification: these may have an anthropogenic origin or be related to natural processes.

9. Archiving

9.1. MS maintains an in-house digital archive, which is based on Schmidt and Ernenwein (2013). This stores the collected measurements, minimally processed data, georeferenced and un-georeferenced images, XY traces and a copy of the final report.

9.2. MS contributes reports to the ADS Grey Literature Library upon permission from the client, subject to the any dictated time embargoes.

10. Copyright

10.1. Copyright and the intellectual property pertaining to all reports, figures, and datasets produced by Magnitude Services Ltd. is retained by MS. The client is given full licence to use such material for their own purposes. Permission must be sought by any third party wishing to use or reproduce any IP owned by MS.

11. References

British Geological Survey, 2020. Geology of Britain. [Kirkbymoorside, North Yorkshire] http://mapapps.bgs.ac.uk/geologyofbritain/home.html/]. [Accessed 22/09/2020].

Chartered Institute for Archaeologists, 2014. Standards and guidance for archaeological geophysical survey. CIfA.

David, A., Linford, N., Linford, P. and Martin, L., 2008. Geophysical survey in archaeological field evaluation: research and professional services guidelines (2nd edition). Historic England.

Google Earth, 2020. Google Earth Pro V 7.1.7.2606.

Magnitude Surveys, 2020. Written Scheme of Investigation For a Geophysical Survey of West Lund Lane, Kirkbymoorside, York, North Yorkshire. Magnitude Surveys. Bradford.

Olsen, N., Toffner-Clausen, L., Sabaka, T.J., Brauer, P., Merayo, J.M.G., Jorgensen, J.L., Leger, J.M., Nielsen, O.V., Primdahl, F., and Risbo, T., 2003. Calibration of the Orsted vector magnetometer. *Earth Planets Space* 55: 11-18.

Schmidt, A. and Ernenwein, E., 2013. Guide to good practice: geophysical data in archaeology. 2nd ed., Oxbow Books, Oxford.

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. European Archaeological Council: Belgium.

Soilscapes, 2020. [Kirkbymoorside, North Yorkshire]. Cranfield University, National Soil Resources Institute [http://landis.org.uk]. [Accessed 22/09/2020].

YAT, 2020. Desk Based Assessment Report for West Lund Lane, Kirkbymoorside.

12. Project Metadata

MS Job Code	MSSE776A
Project Name	Land at West Lund, Kirkbymoorside, North Yorkshire
Client	York Archaeological Trust
Grid Reference	SE695859
Survey Techniques	Magnetometry
Survey Size (ha)	4.1ha (Magnetometry)
Survey Dates	2020-09-18
Project Lead	Lauren Beck BA
Project Officer	Lauren Beck BA
HER Event No	ENY9120
OASIS No	magnitud1-405005
Report Version	1.0

13. Document History

Version	Comments	Author	Checked By	Date
0.1	Initial draft for Project Lead to Review	LAG	LB	24 September 2020
0.2	Draft following project lead corrections.	LB	KA	28 September 2020
0.3	Draft following Director corrections.	LB	KA	02 October 2020
0.4	Addition of Archaeological Background.	LB	KA	07 October 2020
1.0	Issued as Final	LB	KA	08 October 2020

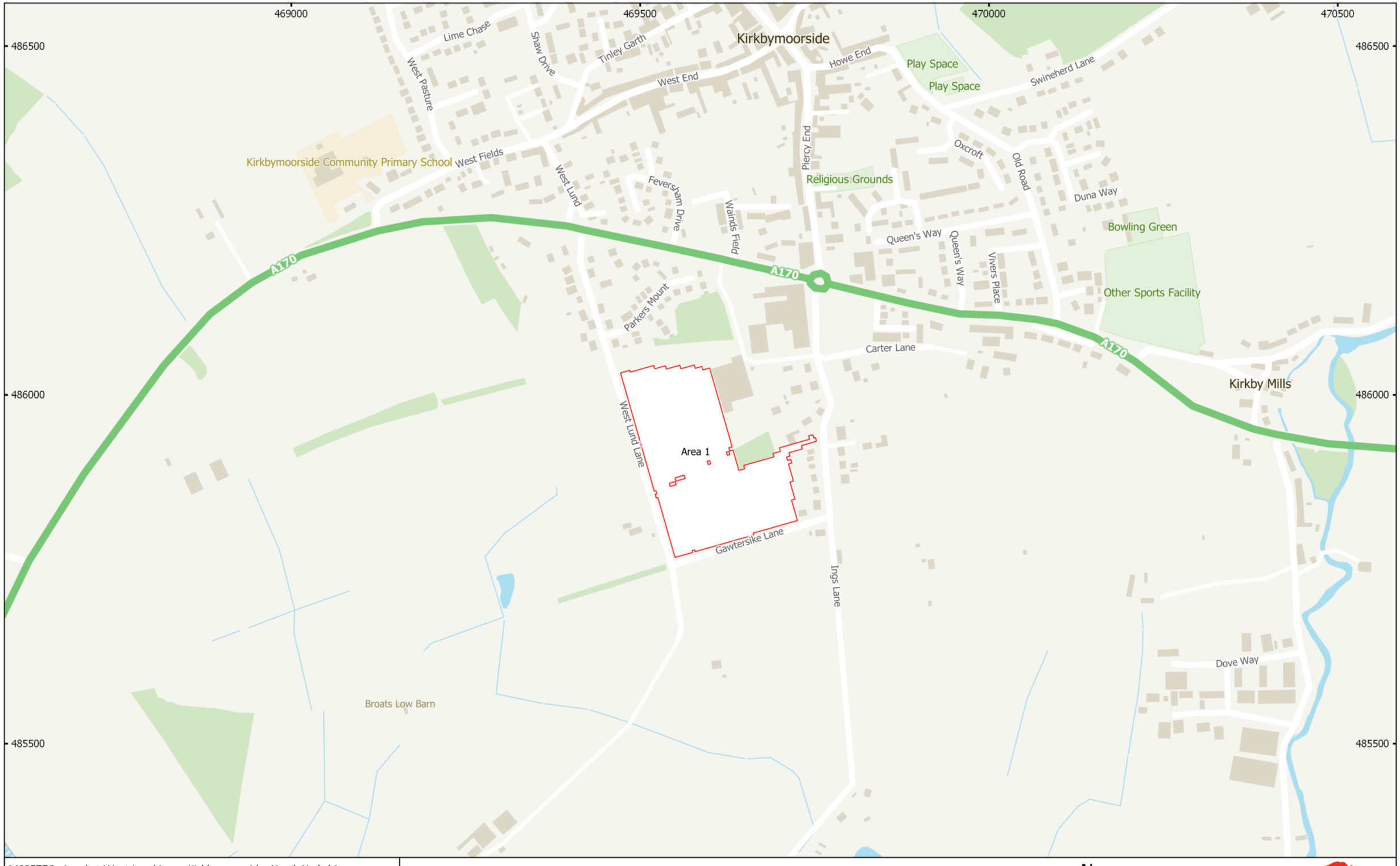
MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 1 - Site Location
1:25,000 @ A4

Site Boundary

N

0 0.5 1 km

magnitude surveys



MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 2 - Location of Survey Area
1:5,000 @ A3

Survey Extent

N

0 100 200 300 m

magnitude surveys

469400
469600
469800
Ings Lane
Carter Lane
486000
486000
Area 1
West Lund Lane
Ings Lane
Ings Lane
485900
485900
485800
485800
Gawtersike Lane

MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 3 - Magnetic Gradient
1:1,500 @ A3

-1 nT 2

N

0 50 100 150 m

magnitude surveys

469400
469600
469800
486000
485900
485800
Ings Lane
Carter Lane
West Lund Lane
Area 1
1b
1a
Ings Lane
Ings Lane
Gawtersike Lane

MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 4 - Magnetic Interpretation
1:1,500 @ A3

- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Agricultural (Strong)
- Agricultural (Weak)
- Natural (Weak)
- Magnetic Disturbance
- Ferrous/Debris (Spread)
- Undetermined (Strong)
- Undetermined (Weak)
- Ridge and Furrow (Trend)
- Ferrous (Spike)

N

0 50 100 150 m

magnitude surveys

MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 5 - Magnetic Interpretation Over Satellite Imagery and Historic Maps
1:3,000 @ A3

- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Agricultural (Strong)
- Agricultural (Weak)
- Natural (Weak)
- Magnetic Disturbance
- Ferrous/Debris (Spread)
- Undetermined (Strong)
- Undetermined (Weak)
- Ridge and Furrow (Trend)
- Ferrous (Spike)

N

0 100 200 300 m

magnitude surveys

469400
469600
469800
486000
485900
485800
Ings Lane
Carter Lane
Area 1
West Lund Lane
Ings Lane
Ings Lane
Gawtersike Lane

MSSE776 - Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Figure 6 - XY Trace Plot
30nT/cm at 1:1,500 @ A3

N

0 50 100 150 m

magnitude surveys

OASIS DATA COLLECTION FORM: England

OASIS ID: magnitud1-405005

Project details

Project name	Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Short description of the project	Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c.4ha area of land at West Lund Lane, Kirkbymoorside, North Yorkshire. A fluxgate gradiometer survey was successfully completed across the survey area. Potential archaeological activity has been recorded in the form of a large curving linear anomaly and further associated linear anomalies of unknown date. Anomalies related to historic agricultural use have been identified and interpreted as a former field boundary and an associated ridge and furrow ploughing regime, as well as a concentrated deposit of magnetic material. The impact of modern activity on the results consists of magnetic 'haloes' caused by buildings bordering the site and magnetic disturbance from field boundaries, as well as telegraph poles located within the survey area. A series of linear anomalies were identified in the north of the survey area; these could relate to agricultural use of the landscape, however, their origin is not clear in the magnetic data therefore these anomalies have been classified 'undetermined'.
Project dates	Start: 18-09-2020 End: 07-10-2020
Previous/future work	Not known / Not known
Any associated project reference codes	MSSE776A - Contracting Unit No.
Any associated project reference codes	ENY9120 - HER event no.
Type of project	Field evaluation
Current Land use	Grassland Heathland 5 - Character undetermined
Monument type	DITCH Uncertain
Monument type	RIDGE AND FURROW Uncertain
Monument type	FIELD BOUNDARY Uncertain
Significant Finds	NONE None
Methods & techniques	"'Geophysical Survey"'
Development type	Not recorded
Prompt	Unknown
Position in the planning process	Not known / Not recorded
Solid geology	AMPTHILL AND KIMMERIDGE CLAY
Drift geology	Unknown
Techniques	Magnetometry

Project location

Country	England
Site location	NORTH YORKSHIRE RYEDALE KIRKBYMOORSIDE Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Postcode	YO62 6AH
Study area	4 Hectares
Site coordinates	SE 695 859 54.263873332423 -0.932851103619 54 15 49 N 000 55 58 W Point

Project creators

Name of Organisation	Magnitude Surveys Ltd
Project brief originator	York Archaeological Trust
Project design originator	Magnitude Surveys Ltd
Project director/manager	Chrys Harris
Project supervisor	Megan Clements
Type of sponsor/funding body	Developer

Project archives

Physical Archive Exists?	No
Digital Archive recipient	North Yorkshire HER
Digital Archive ID	MSSE776
Digital Contents	"Survey"
Digital Media available	"GIS","Geophysics","Text"
Paper Archive Exists?	No

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Geophysical Survey Report of Land at West Lund Lane, Kirkbymoorside, North Yorkshire
Author(s)/Editor(s)	Garst, L.
Other bibliographic details	1.0
Date	2020
Issuer or publisher	Magnitude Surveys
Place of issue or publication	Bradford
Description	Digital Report in PDF format

Entered by	Lauren Beck (info@magnitudesurveys.co.uk)
Entered on	12 October 2020

OASIS:

Please e-mail Historic England for OASIS help and advice