ARCHAEOLOGICAL SERVICES WYAS

Land south of Broad Lane
Hodthorpe
Derbyshire

Geophysical Survey

Report no. 2747

April 2015

Client: JRP Associates

REGISTERED ORGANISATION CIfA

Land south of Broad Lane
Hodthorpe
Derbyshire

Geophysical Survey

Summary

A geophysical (magnetometer) survey, covering approximately 6 hectares, was carried out on agricultural land near Hodthorpe, prior to the submission of a planning application for the proposed development of the site. Anomalies indicative of ploughing, field drains, changes in the bedrock geology and possible localised stone extraction have been identified. No anomalies of obvious archaeological potential were identified. Fieldwalking carried out at the same time as the survey recovered only a background scatter of post-medieval and modern material and two pieces of flint, one possibly worked, corroborating the very low archaeological potential of the site.

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Report Information

Client:	JRP Associates
Address:	14 Mariner Court, Calder Park, Wakefield, WF4 3FL
Report Type:	Geophysical Survey
Location:	Hodthorpe
County:	Derbyshire
Grid Reference:	SK 545 764
Period(s) of activity:	post-medieval
Report Number:	2747
Project Number:	4384
Site Code:	HOD15
OASIS ID:	archaeol11-208855
Planning Application No.:	
Museum Accession No.:	n/a
Date of fieldwork:	March 2015
Date of report:	March 2015
Project Management:	Sam Harrison BSc MSc MCIfA
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Photography:	Site staff
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Authorisation for distribution: ----------

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1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by Laura Mepham of JRP Associates (the Client), to undertake a geophysical (magnetometer) survey of land at Hodthorpe, Derbyshire (see Fig. 1). The work was undertaken in order to inform a planning application (Ref. No 15/00006/OUT) for the proposed development of the site for housing. The work was undertaken in accordance with policy contained within the National Planning Policy Framework (DCLG 2012), in line with current best practice (CIfA 2014; David *et al.* 2008) and to a Project Design (Harrison 2015) approved by the Client and Steve Baker, Development Control Archaeologist for Derby and Derbyshire. The survey was carried out on March 4th and March 5th 2015 to provide additional information on the archaeological resource of the site.

Site location, topography and land-use

The proposed development area (PDA) comprises an irregularly shaped parcel of agricultural land, centred at SK 545 764, on the south-eastern edge of Hodthorpe. The site comprises two blocks of land separated by a track (see Fig. 2 and Plate 1) which leads to Hall Leys Farm to the east and is bordered by Broad Lane to the north and Green Lane to the west. Both blocks of land were under arable cultivation (see plates) at the time of survey. The site is flat and situated at approximately 70m above Ordnance Datum (aOD).

Soils and geology

The underlying bedrock mainly comprises dolostone of the Cadeby Formation. No superficial deposits are recorded (British Geological Survey 2015). The soils in this area are classified in the Aberford association, characterised as shallow, locally brashy, well-drained calcareous loams (Soil Survey of England and Wales 1983).

2 Archaeological Background

A consultation with Steve Baker, Development Control Archaeologist for Derby and Derbyshire, identified that '*there are numerous entries on the Derbyshire Historic Environment Record for finds of prehistoric flintwork in the fields north and north-east of Hodthorpe (HER 15126, 15141-15145 and 15149). These records refer to significant quantities of material, including artefacts of probable Neolithic-Bronze Age date. It seems therefore that there is a focus of prehistoric activity in the area, which may extend to the current proposal site. Indeed, geophysical survey of another proposed development site north of Broad Lane (and only metres from the current application boundary) has indicated prehistoric activity including field systems and areas of settlement*.'

3 Aims and Methodology

Magnetometer Survey

The aim of the geophysical survey as described in the Project Design (Harrison 2015) is to, as far as possible, identify the presence or absence, and extent and layout, of buried archaeological remains across the PDA, through the interpretation of magnetic anomalies identified following the processing of data gathered during the survey.

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. Features such as a ditch, pit or kiln can act like a small magnet, or series of magnets, that produce distortions (anomalies) in the Earth's magnetic field. In mapping these slight variations, detailed plans of sites can be obtained as buried features often produce reasonably characteristic anomaly shapes and strengths (Gaffney and Gater 2003). Further information on types of anomaly is provided as Appendix 1.

On this site a Sensys Magneto®MXPDA cart-based magnetometer system (see Plate 3) was employed. This system has five FGM650 fluxgate gradiometers mounted at 0.5m intervals with readings of between ±0.1nT and ±10,000nT recorded at 20Hz. The gradiometers are linked to a Trimble R6 Real Time Kinetic (RTK) differential Global Positioning System (dGPS) allowing for the geo-referencing of all measurement points within ±1cm accuracy. The data is recorded by Sensys Magneto®MXPDA software on a Personal Data Assistant (PeDA) device and stored on a Secure Digital (SD) memory card within the PeDA.

Data Processing

The gradiometer data has been presented in this report in XY trace and greyscale formats. In the former format the data shown is 'raw' with no processing other than grid biasing having been done. An XY plot presents the data logged on each traverse as a single line with each successive traverse incremented on the Y-axis to produce a 'stacked' plot. A hidden line algorithm has been employed to block out lines behind major 'spikes' and the data has been clipped. The main advantage of this display option is that the full range of data can be viewed, dependent on the clip, so that the 'shape' of individual anomalies can be discerned and potentially archaeological anomalies differentiated from 'iron spikes'. The data in the greyscale images has been interpolated and selectively filtered to remove the effects of drift in instrument calibration and other artificial data constructs and to maximise the clarity and interpretability of the archaeological anomalies. TerraSurveyor V3.0.25.0 software was used to process and present the data recorded by the cart-mounted system.

Fieldwalking

A site grid was established using a Trimble R6 VRS dGPS system and ranging poles positioned at 10m intervals. The gridded areas were systematically walked along traverses 10m apart with each individual collection being assigned a GPS coordinate using a Garmin eTrex Legend with an accuracy of ±3m.

Presentation

A general site location plan, incorporating the 1:50000 Ordnance Survey (OS) mapping, is shown in Figure 1. Figure 2 shows the processed data in greyscale format and Figure 3 shows the interpretation of all the anomalies across the whole site. Both these figures are produced at a scale of 1:2000. A distribution plot of the finds recovered during the fieldwalking is included as Figure 4 at a scale of 1:1250. Detailed data plots ('raw' and processed) and interpretative figures are presented at a scale of 1:1000 in Figures 5 to 10 inclusive.

Further information on magnetic survey and characterisation and interpretation of anomaly types are given in Appendix 1. Appendix 2 describes the composition and location of the site archive and Appendix 3 is an inventory of the artefacts recovered during the fieldwalking. Appendix 4 reproduces the OASIS form.

The survey methodology, report and any recommendations comply with the Project Design (Harrison 2015) and guidelines outlined by English Heritage (David *et al.* 2008) and by the Chartered Institute for Archaeologists (CIfA 2014). All figures reproduced from Ordnance Survey mapping are with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

Disclaimers

The figures in this report have been produced following analysis of the data in 'raw' and processed formats and over a range of different display levels. All figures are presented to most suitably display and interpret the data from this site based on the experience and knowledge of Archaeological Services staff.

The results and subsequent interpretation of data from geophysical surveys should not be treated as an absolute representation of the underlying archaeological and non-archaeological remains. Confirmation of the presence or absence of archaeological remains can only be achieved by direct investigation of sub-surface deposits.

Archaeological Services WYAS cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

4 Results and Discussion (see Figs 4 to 10 inclusive)

Fieldwalking (see Fig. 4 and Table 1)

A total of 44 artefacts were collected during the fieldwalking (see Table 1 - Appendix 3) and their distribution plotted (see Fig. 4). With the exception of the two flint items (one is a core and the other probably a scraper) all the artefacts are of likely post-medieval origin. There is no obvious clustering.

Magnetometer Survey

Overview

The magnetic background changes either side of the track leading to Hall Leys Farm (see Fig. 2). To the north of the track the data is relatively 'quiet' with numerous linear trend anomalies recorded, the majority of which are likely to be agricultural in origin (see below). To the south of the track the magnetic background appears much stronger and with anomalies likely to be geological in origin, possibly indicative of small scale mineral extraction. Against this background other anomalies have been identified by the survey which are discussed below and cross-referenced to specific examples depicted on the interpretative figures, where appropriate.

Ferrous Anomalies

Ferrous anomalies, as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris or material is common on rural sites, often being present as a consequence of manuring or tipping/infilling. Magnetic disturbance around the perimeters of the site or adjacent to the track is caused by ferrous material within, or forming part of the field boundary.

A single linear dipolar anomaly, **A**, aligned north-west/south-east immediately south of, and parallel with, the farm track is caused by a buried pipe.

Geological Anomalies

As mentioned in the overview (see above) there is variation in the magnetic background across the site with numerous discrete anomalies particularly to the south of the farm track and in a band immediately north of the track, although these type of anomalies are recorded throughout the site. These anomalies are interpreted as geological in origin.

Three distinct clusters of anomalies, **B**, **C** and **D**, are specifically highlighted to the south of the track. It is considered possible that these clusters may locate areas of small scale quarrying. None of these anomalies is considered to be of archaeological potential.

Agricultural Anomalies

Analysis of historical maps indicates that two boundaries, shown on late 19th century mapping, have been removed since the late 19th century. These former features are identified in the data as linear anomalies **E**, aligned north-north-east/south-south-west to the south of the track, and **F**, aligned north-west/south-east at the northern corner of the site.

Across all of the site numerous linear trend anomalies are identified. The majority are aligned north-west/south-east. It is considered most likely that these anomalies are due to ploughing, probably ridge and furrow cultivation. However, there are also several other linear anomalies that appear to intersect with these possible ploughing trend anomalies and it is considered more likely that these anomalies, which are broadly aligned south-west/north-east, are field drains. This raises the possibility that some of the anomalies identified as due to ploughing could also, in fact, be due to drains. Either way none of these linear trends is considered likely to be of archaeological potential.

5 Conclusions

The survey data is dominated by anomalies interpreted as being due to agricultural activity, geological variation and possible small scale extraction. No anomalies of obvious archaeological potential have been identified.

The apparently ‘negative’ results of the survey have been backed up by the results of the fieldwalking. Overall the assemblage is fairly small and overwhelmingly of post-medieval origin. Only two pieces of flint, one possibly worked, have been recovered. Therefore, on the basis of the evaluation the archaeological potential of the site is considered to be very low.

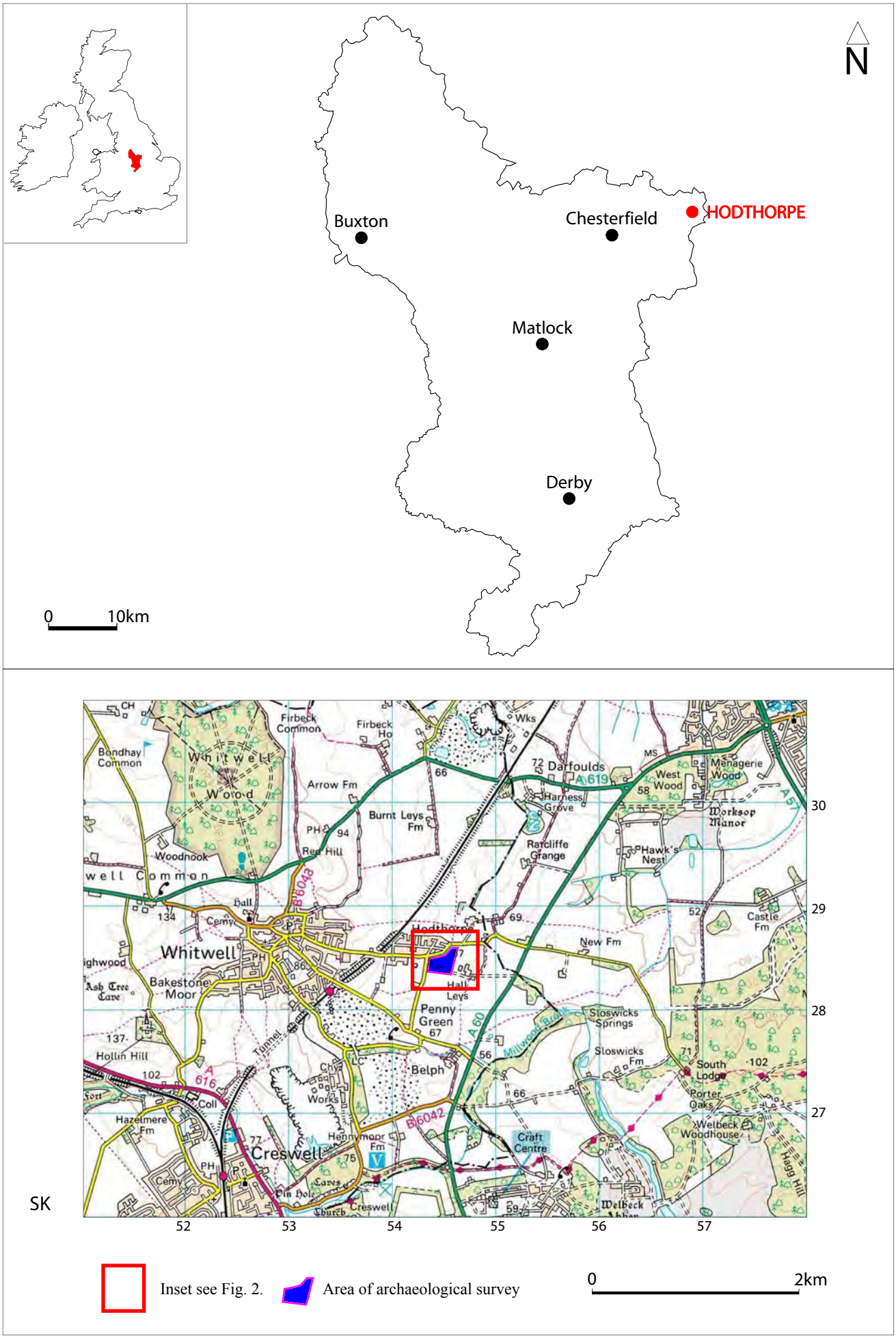

Fig. 1. Site location

PROPOSED DEVELOPMENT AREA

LOCATION AND DIRECTION OF PLATES

SECTOR BOUNDARY

N

Hodthorpe

Saboum

New Cottages

Karrah

Halcyon Place

ST MARTINS WALK

GREENFIELD AVENUE

BIRCH ROAD

BIRKS CLOSE

BROAD LANE

64.0m

61.3

75.0m

KING STREET

72.2m

70.1m

Play Area

BROAD PLACE

El Sub Sta

Club

LB

QUEENS ROAD

Allotment Gardens

Hodthorpe Primary School

Portland View

The Sycamores

Greenacres

Hall Leys Farm

Hall Leys Farm Cottage

SECTOR 2
SEE FIGS 8-10

SECTOR 1
SEE FIGS 5-7

1

2

3

5.0

-5.0

nT

3766 00

3764 00

4542 00

4544 00

4546 00

4548 00

0

100m

Archaeological Services W Y A S
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Fig. 2. Survey location showing greyscale magnetometer data (1:2000 @ A3)

	PROPOSED DEVELOPMENT BOUNDARY
	SECTOR BOUNDARY

TYPE OF ANOMALY		INTERPRETATION
•	DIPOLAR ISOLATED	FERROUS MATERIAL
	DIPOLAR LINEAR	SERVICE PIPE
	MAGNETIC DISTURBANCE	FERROUS MATERIAL
	LINEAR TREND	FIELD DRAIN
	LINEAR TREND	AGRICULTURAL
	LINEAR TREND	FORMER FIELD BOUNDARY
	MAGNETIC ENHANCEMENT	GEOLOGY
	MAGNETIC ENHANCEMENT	QUARRYING?

N

Hodthorpe

BROAD LANE

BIRKS CLOSE

ST MARTIN'S WALK

GREENFIELD AVENUE

BIRCH ROAD

BROAD PLACE

Saboum

Play Area

El Sub Sta

QUEENS ROAD

Club

LB

Portland View

The Sycamores

Hodthorpe Primary School

Allotment Gardens

Greenacres

GREEN LANE

Hall Leys Farm

Hall Leys Farm Cottage

72.2m

70.1m

64.0m

61.3

A

B

C

D

E

F

SECTOR 1
SEE FIGS 5-7

SECTOR 2
SEE FIGS 8-10

3766 00

3764 00

4542 00

4544 00

4546 00

4548 00

0 100m

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Fig. 3. Overall interpretation of magnetometer data (1:2000 @ A3)

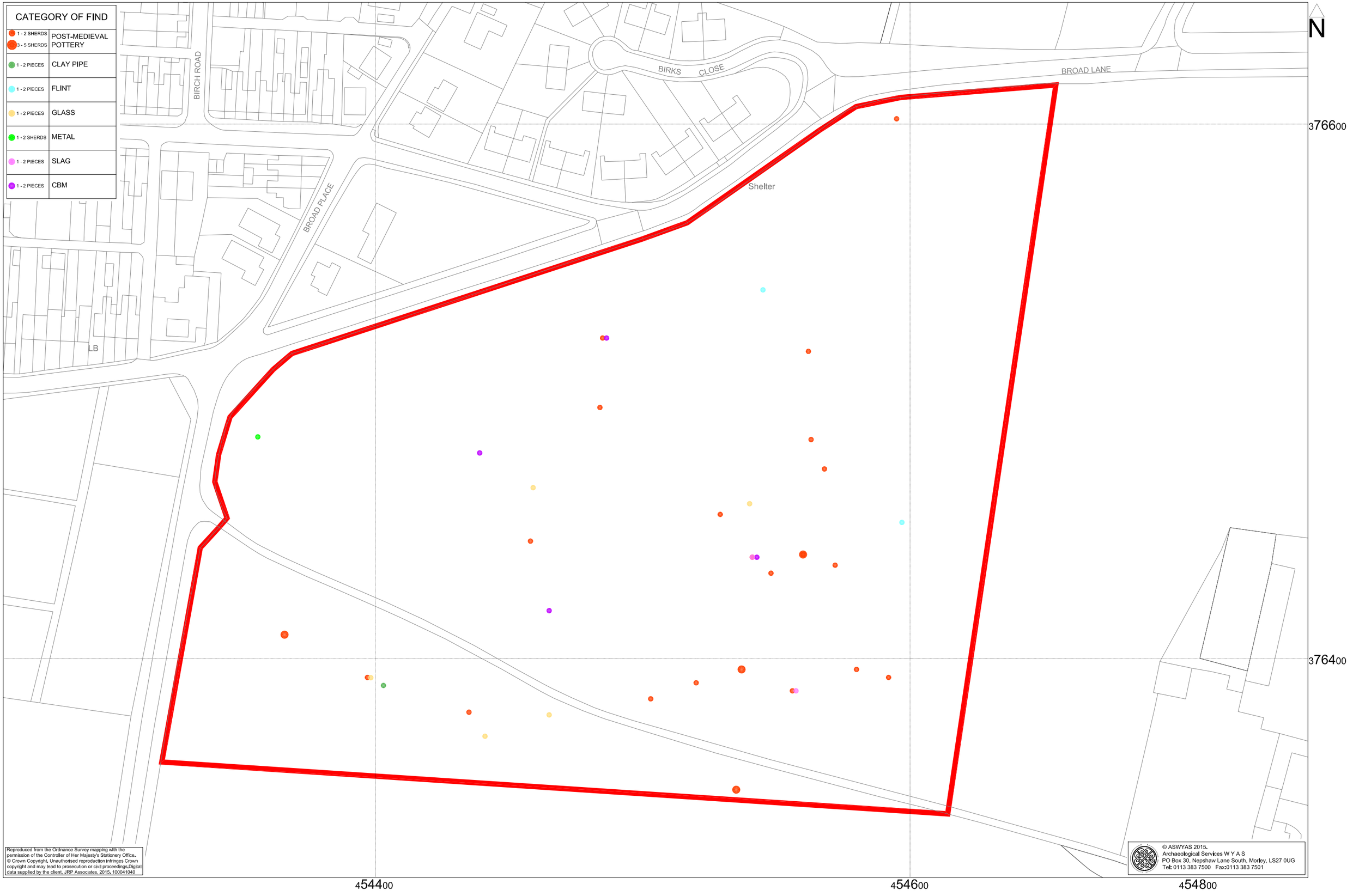

Fig. 4. Distribution of artefacts recorded during fieldwalking (1:1250 @ A3)

SECTOR BOUNDARY

N

Sabourn

BIRCH ROAD

BROAD PLACE

BIRKS CLOSE

70.1m

Club

2.0

-1.0

nT

3766 00

3764 00

4544 00

0 30m

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Fig. 5. Processed greyscale magnetometer data; Sector 1 (1:1000 @ A3)

SECTOR BOUNDARY

N

Sabourn

BIRCH ROAD

BIRKS CLOSE

BROAD PLACE

Club

70.1m

3766 00

3764 00

4544 00

15.0 nT/cm

0 30m

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Fig. 6. XY trace plot of minimally processed magnetometer data; Sector 1 (1:1000 @ A3)

— —	SECTOR BOUNDARY

TYPE OF ANOMALY		INTERPRETATION
•	DIPOLAR ISOLATED	FERROUS MATERIAL
—	DIPOLAR LINEAR	SERVICE PIPE
	MAGNETIC DISTURBANCE	FERROUS MATERIAL
	LINEAR TREND	FIELD DRAIN
	LINEAR TREND	AGRICULTURAL
	LINEAR TREND	FORMER FIELD BOUNDARY
	MAGNETIC ENHANCEMENT	GEOLOGY
	MAGNETIC ENHANCEMENT	QUARRYING?

N

BIRKS CLOSE

BIRCH

BROAD PLACE

70.1m

Club

A

B

C

D

E

3766 00

3764 00

4544 00

0 30m

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Fig. 7. Interpretation of magnetometer data; Sector 1 (1:1000 @ A3)

SECTOR BOUNDARY

N

64.0m

BROAD LANE

BIRKS CLOSE

2

1

7

5

3766 00

3764 00

4544 00

Hall Leys Farm

2.0

-1.0

nT

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0 30m

Fig. 8. Processed greyscale magnetometer data; Sector 2 (1:1000 @ A3)

SECTOR BOUNDARY

N

64.0m

BIRKS CLOSE

BROAD LANE

Hall Leys Farm

3766 00

3764 00

4544 00

15.0 nT/cm

0 30m

Archaeological Services W Y A S
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Tel: 0113 383 7500 Fax:0113 383 7501

Fig. 9. XY trace plot of minimally processed magnetometer data; Sector 2 (1:1000 @ A3)

— —	SECTOR BOUNDARY

TYPE OF ANOMALY		INTERPRETATION
•	DIPOLAR ISOLATED	FERROUS MATERIAL
	MAGNETIC DISTURBANCE	FERROUS MATERIAL
	LINEAR TREND	FIELD DRAIN
	LINEAR TREND	AGRICULTURAL
	LINEAR TREND	FORMER FIELD BOUNDARY
	MAGNETIC ENHANCEMENT	GEOLOGY

N

64.0m

BIRKS CLOSE

BROAD LANE

1

7

5

F

E

Hall Leys Farm

3766 00

3764 00

4544 00

Archaeological Services W Y A S
PO Box 30, Nepshaw Lane South, Morley, LS27 0UG
Tel: 0113 383 7500 Fax:0113 383 7501

0 30m

Fig. 10. Interpretation of magnetometer data; Sector 2 (1:1000 @ A3)

Plate 1. General view of survey area, looking east

Plate 2. General view of survey area, looking south

Plate 3. The Sensys Magneto MXPDA five sensor cart-based magnetometer system

Appendix 1: Magnetic survey - technical information

Magnetic Susceptibility and Soil Magnetism

Iron makes up about 6% of the Earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haemetite. These minerals have a weak, measurable magnetic property termed magnetic susceptibility. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms. Areas of human occupation or settlement can then be identified by measuring the magnetic susceptibility of the topsoil because of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently comes to fill features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected by a magnetometer (fluxgate gradiometer).

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which causes the most recognisable responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected. The magnetic susceptibility of a soil can also be enhanced by the application of heat and the fermentation and bacterial effects associated with rubbish decomposition. The area of enhancement is usually quite large, mainly due to the tendency of discard areas to extend beyond the limit of the occupation site itself, and spreading by the plough. An advantage of magnetic susceptibility over magnetometry is that a certain amount of occupational activity will cause the same proportional change in susceptibility, however weakly magnetic is the soil, and so does not depend on the magnetic contrast between the topsoil and deeper layers. Susceptibility survey is therefore able to detect areas of occupation even in the absence of cut features. On the other hand susceptibility survey is more vulnerable to the masking effects of layers of colluvium and alluvium as the technique, using the Bartington system, can generally only measure variation in the first 0.15m of ploughsoil.

Types of Magnetic Anomaly

In the majority of instances anomalies are termed 'positive'. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as 'negative' anomalies that, conversely, means that the response is negative relative to the mean magnetic background.

Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

It should be noted that anomalies interpreted as modern in origin might be caused by features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

The types of response mentioned above can be divided into five main categories that are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes)

These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance

These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Linear trend

This is usually a weak or broad linear anomaly of unknown cause or date. These anomalies are often caused by agricultural activity, either ploughing or land drains being a common cause.

Areas of magnetic enhancement/positive isolated anomalies

Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an XY trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic exhibited by an area of magnetic disturbance or of an 'iron spike' anomaly (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post-holes or by kilns. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies

Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

Appendix 2: Geophysical archive

The geophysical archive comprises:-

- an archive disk containing compressed (WinZip 8) files of the raw data, report text (Microsoft Word 2000), and graphics files (Adobe Illustrator CS2 and AutoCAD 2008) files; and
- a full copy of the report.

At present the archive is held by Archaeological Services WYAS although it is anticipated that it may eventually be lodged with the Archaeology Data Service (ADS). Brief details may also be forwarded for inclusion on the English Heritage Geophysical Survey Database after the contents of the report are deemed to be in the public domain (i.e. available for consultation in the Derbyshire Historic Environment Record).

Appendix 3: Fieldwalking artefact inventory

Appendix 2: Concordance of artefacts from fieldwalking

Coordinates	Description	Artefacts
454356, 376483	1921 Penny	Coin (1)
454366, 376409	2 Stoneware 2 whiteware	Pottery (4)
454397, 376393	2 bottle glass, 2 pottery	Pottery (2), Glass (2)
454403, 376390	Claypipe	Claypipe (1)
454434, 376341	Stoneware	Pottery (1)
454435, 376380	1 Stoneware 1 whiteware	Pottery (1)
454439, 376477	CBM	CBM (1)
454441, 376371	Bottle glass	Glass (2)
454458, 376444	Whiteware	Pottery (1)
454459, 376464	Glass jar base	Glass (1)
454465, 376379	1 Moulded jar base, 1 window	Glass (2)
454465, 376418	CBM	CBM (1)
454484, 376494	Stoneware rim	Pottery (1)
454485, 376520	1 whiteware 1 CBM	Pottery (1), CBM (1)
		Pottery (1)
454503, 376385	Stoneware rim	
454520, 376391	1 whiteware 1 stoneware	Pottery (2)
454529, 376454	1 Earthernware 1 glass	Pottery (1), Glass (1)
454535, 376351	2 white ware, 1 stoneware	Pottery (3)
454537, 376396	Pottery Base	Pottery (1)
454540, 376458	2 Stoneware 1 whiteware 1	Pottery (4), Glass (1)
454541, 376438	1 whiteware 1 CBM 1 Clinker	Pottery (1), CBM (1), Clinker (1)
454545, 376336	3 whiteware 1 glass	Potterry (3), Glass (1)
454545, 376538	Flint Scraper	Flint (1)
454548, 376432	Stoneware bottle neck	Pottery (1)
454556, 376388	1 pot 1 cinder	Pottery (1), Cinder (1)
454560, 376439	Pottery	Pottery (3)
454562, 376515	Whiteware	Pottery (1)
454563, 376482	1 Pancheon rim, 1 whiteware	Pottery (2)
454568, 376471	Ceramic Leg	Pottery (1)
454572, 376435	1 Whiteware	Pottery (1)
454573, 376339	1 Stoneware 5 whiteware	Pottery (5)
454580, 376396	Transfer printed	Pottery (1)
454592, 376393	Miniature tea pot	Pottery (1)
454595, 376602	Pottery	Pottery (1)

454597, 376451	Flint Core	Flint (1)
455513, 376444	CBM	CBM (1)

Appendix 4: OASIS Form

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: archaeol11-208855

Project details

Project name	Land south of Broad Lane, Hodthorpe
Short description of the project	A geophysical (magnetometer) survey, covering approximately 6 hectares, was carried out on agricultural land near Hodthorpe, prior to the submission of a planning application for the proposed development of the site. Anomalies indicative of ploughing, field drains, changes in the bedrock geology and possible localised stone extraction have been identified. No anomalies of obvious archaeological potential were identified. Fieldwalking carried out at the same time as the survey recovered only a background scatter of post-medieval and modern material and two pieces of flint, one possibly worked, corroborating the very low archaeological potential of the site.
Project dates	Start: 04-04-2015 End: 05-04-2015
Previous/future work	Not known / Not known
Any associated project reference codes	4384 - Contracting Unit No.
Any associated project reference codes	HOD15 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	N/A None
Monument type	N/A None
Significant Finds	N/A None
Significant Finds	N/A None
Methods & techniques	"Geophysical Survey"
Development type	Housing estate
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Between deposition of an application and determination
Solid geology (other)	Cadeby Formation

Drift geology (other)	None
Techniques	Magnetometry

Project location

Country	England
Site location	DERBYSHIRE BOLSOVER WHITWELL Land south of Broad Lane, Hodthorpe
Study area	6.00 Hectares
Site coordinates	SK 545 764 53.2814943664 -1.18249187986 53 16 53 N 001 10 56 W Point

Project creators

Name of Organisation	Archaeological Services WYAS
Project brief originator	JRP Associates
Project design originator	Archaeological Services WYAS
Project director/manager	Harrison, S.
Project supervisor	Harrison, S
Type of sponsor/funding body	Developer

Project archives

Physical Archive Exists?	No
Digital Archive Exists?	No
Digital Media available	"Geophysics"
Paper Archive Exists?	No
Paper Media available	"Report"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land south of Broad Lane, Hodthorpe: Geophysical Survey
Author(s)/Editor(s)	Webb, A.
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