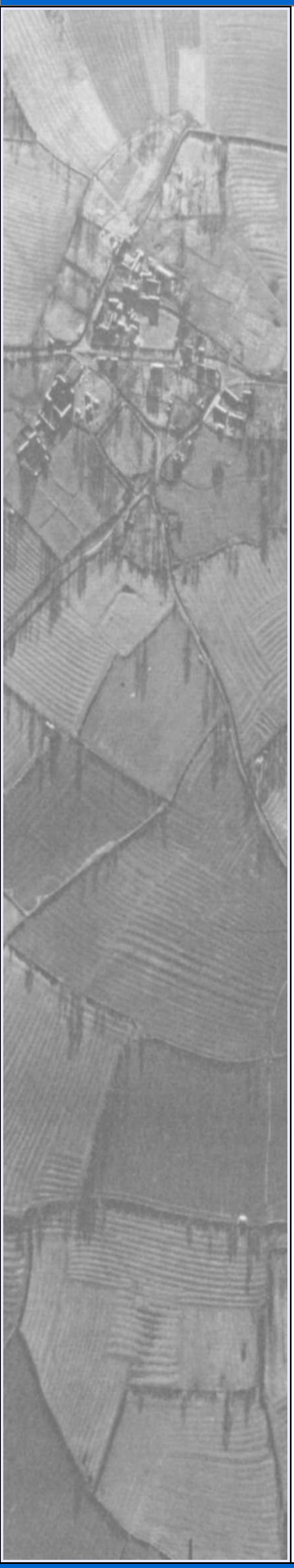

Bourne Farm
Piddlehinton
Dorset

MAGNETOMETER SURVEY REPORT

for

AC Archaeology Ltd

Kerry Donaldson & David Sabin

July 2016

Ref. no. J673

ARCHAEOLOGICAL SURVEYS LTD

Bourne Farm
Piddlehinton
Dorset

Magnetometer Survey Report

for

AC Archaeology Ltd

Fieldwork by David Sabin (Hons) MCIfA
Report by Kerry Donaldson BSc (Hons)
Report checked by David Sabin
Primary archive location - Archaeological Surveys Ltd, Yatesbury, Wiltshire

Survey date – 13th July 2016
Ordnance Survey Grid Reference – **SY 72892 97213**

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CONTENTS

LIST OF FIGURES

LIST OF PLATES

LIST OF TABLES

SUMMARY

Detailed magnetometry was carried out by Archaeological Surveys Ltd, at the request of AC Archaeology Ltd, ahead of a proposed development of an anerobic digester plant at Bourne Farm, Piddlhinton in Dorset. Approximately 20m to the west of the survey area is the location of a scheduled round barrow, with the remains of a field system also recorded within the field and extending over the barrow. The survey data demonstrate the presence of two ring ditches relating to previously unrecorded round barrows located 25m and 75m east of the scheduled barrow. One of the ring ditches appears to be crossed by an incomplete rectilinear ditch which has a similar orientation to elements of the field system recorded beyond the survey area, and it seems likely that it is related. Both ring ditches correlate with low mounds that have not produced any magnetic response. Other linear anomalies were classified as uncertain in origin, although some may relate to agricultural activity. Magnetic debris located in a shallow depression is likely to relate to material within a former chalk pit. The site contains small zones of magnetic debris and strong discrete responses indicative of dumping and spreading of ferrous and other magnetically thermoremnant material.

1 INTRODUCTION

1.1 Survey background

1.1.1 Archaeological Surveys Ltd was commissioned by AC Archaeology Ltd to undertake a magnetometer survey of an area of land at Bourne Farm, Piddlehinton, Dorset. The site has been outlined for a proposed development of an anaerobic digester and the survey forms part of an archaeological assessment of the site.

1.1.2 The survey area lies less than 20m east of a Scheduled Monument (List entry no 1004550, *Round barrow SW of Bourne Farm*), and due to the proximity of the barrow and the potential for further unrecorded monuments, the survey has been requested by Steve Wallis, Senior Archaeologist for Dorset County Council, after consultation with Keith Miller Historic England Inspector of Ancient Monuments.

1.1.3 The geophysical survey was carried out in accordance with a Written Scheme of Investigation (WSI) produced by Archaeological Surveys (2016) and approved by Steve Wallis and Keith Miller prior to conducting the fieldwork.

1.2 Survey objectives and techniques

1.2.1 The objective of the survey was to use magnetometry to locate geophysical anomalies that may be archaeological in origin so that they may be assessed prior to development of the site. The methodology is considered an efficient

and effective approach to archaeological prospection.

1.2.2 The survey and report generally follow the recommendations set out by: English Heritage (2008) *Geophysical survey in archaeological field evaluation;* and Institute for Archaeologists (2002) *The use of Geophysical Techniques in Archaeological Evaluations*. The work has been carried out to the Chartered Institute for Archaeologists (2014) *Standard and Guidance for Archaeological Geophysical Survey.*

1.3 Site location, description and survey conditions

1.3.1 The site is located at Bourne Farm to the east of Piddlehinton in Dorset. It is centred on Ordnance Survey National Grid Reference (OS NGR) SY 72892 97213, see Figs 01 and 02.

1.3.2 The geophysical survey covers approximately 1.5ha within the corner of a wheat field where the immature crop had been removed to allow the work to proceed. The site tends to slope down towards the east and north east and is bounded along the eastern side by scrubby ground cover and saplings, to the south by a farm track and to the west and north by a standing wheat crop. An inspection chamber is located within the eastern part of the survey area, and there is evidence of possible made ground containing modern debris along the southern side of the site.

Plate 1: Survey area looking east

1.3.3 The ground conditions across the site were generally considered to be favourable for the collection of magnetometry data. Weather conditions during

the survey were fine and warm.

1.4 Site history and archaeological potential

1.4.1 The survey area lies approximately 20m to the east of a Scheduled Monument (List entry no 1004550, *Round barrow SW of Bourne Farm*) which comprises a Bronze Age bowl barrow, located on a north east facing slope of a prominent ridge which forms the watershed between the valleys of two tributaries of the River Piddle or Trent. It survives as a round mound 18m in diameter and up to 0.5m high surrounded by a buried quarry ditch. Three other scheduled barrows lie over 1.4km to the east (List entry nos 1002874 & 1002875).

1.4.2 The site lies within an area containing the remains of an Iron Age or Romano-British field system, partly overlain by medieval cultivation. The earthworks have been largely ploughed out but the main axis was oriented north west to south east, forming generally rectangular fields varying between 0.2ha and 0.6ha with evidence of it extending over the scheduled barrow to the west. These have been recorded from aerial photographs and lie outside of the application area, mainly to the west and north.

1.4.3 Approximately 1km to the west and south west are the locations of two medieval settlements of Little Piddle (List entry no 1019410) and North Louvard (List entry no 1019411). They are part of a network of small settlements along the Piddle valley and are listed in the Domesday record but appear to have been deserted by the 18th century.

1.4.4 Situated approximately 500m south west of the site is a possible Romano-British or Saxon inhumation cemetery recorded during the construction of part of Bourne Camp in 1961. Within 200m of the application area are a number of post-medieval chalk pits.

1.4.5 The location of round barrow less than 20m west of the survey area and the presence of a prehistoric or Romano-British field system in the vicinity may indicate that there is potential for the site to contain other unrecorded archaeological features.

1.4.6 Observations during the course of the survey indicate the presence of a low mound associated with the scheduled barrow to the west of the survey area. In addition, a low mound and depression were noted within the central and southern parts of the survey area respectively.

1.5 Geology and soils

1.5.1 The underlying solid geology across the site is from the Newhaven Chalk Formation (BGS, 2016).

1.5.2 The overlying soil across the survey area is from the Andover 1 association and is a brown rendzina. It consists of a shallow, well drained, calcareous, silty

soil over chalk (Soil Survey of England and Wales, 1983).

1.5.3 Magnetometry survey carried out across similar soils has produced good results. The underlying geology and soils are therefore considered acceptable for magnetic survey.

2 METHODOLOGY

2.1 Technical synopsis

2.1.1 Magnetometry survey records localised magnetic fields that can be associated with features formed by human activity. Magnetic susceptibility and magnetic thermoremnance are factors associated with the formation of localised fields. Additional details are set out below and within Appendix A.

2.1.2 Iron minerals within the soil may become altered by burning and the break down of biological material; effectively the magnetic susceptibility of the soil is increased, and the iron minerals become magnetic in the presence of the Earth's magnetic field. Accumulations of magnetically enhanced soils within features, such as pits and ditches, may produce magnetic anomalies that can be mapped by magnetic prospection.

2.1.3 Magnetic thermoremnance can occur when ferrous minerals have been heated to high temperatures such as in a kiln, hearth, oven etc. On cooling, a permanent magnetisation may be acquired due to the presence of the Earth's magnetic field. Certain natural processes associated with the formation of some igneous and metamorphic rock may also result in magnetic thermoremnance.

2.1.4 The localised variations in magnetism are measured as sub-units of the Tesla, which is a SI unit of magnetic flux density. These sub-units are nano Teslas (nT), which are equivalent to 10^{-9} Tesla (T).

2.2 Equipment configuration, data collection and survey detail

2.2.1 The detailed magnetic survey was carried out using a SENSYS MAGNETO®MXPDA 5 channel cart-based system. The instrument has 5 fluxgate gradiometers spaced 0.5m apart with readings recorded at 20Hz. The gradiometers have a range of recording data between 0.1nT and 10,000nT. The sensors are not zeroed in the field, as the vertical axis alignment is fixed using a tension band system. In order to produce visible, useful greyscale images a zero median traverse process is undertaken in TerraSurveyor. The system is linked to a Leica GS10 RTK GPS with data recorded by SENSYS MAGNETO®MXPDA software on a rugged computer.

2.2.2 Data are collected along a series of parallel survey tracks wherever possible. The length of each track is variable and relates to the size of the survey area

and other factors including ground conditions. A visual display aids accurate placing of tracks and their separation.

2.2.3 Data are not collected within fixed grids and data points are considered to be random even though the data are collected in a systematic manner covering all accessible areas (Aspinall, Gaffney and Schmidt, 2009).

2.3 Data processing and presentation

2.3.1 Magnetic data collected by the MAGNETO®MXPDA cart-based system are initially prepared using SENSYS MAGNETO®DLMGPS software. Survey tracks are analysed and georeferenced raw data (UTM Z30N) are then exported in ASCII format for further analysis and display using TerraSurveyor.

2.3.2 The data are collected between limits of ±10000nT and clipped for display at ±3nT. Data are interpolated to a resolution of effectively 0.5m between tracks and 0.15m along each survey track. A zero median traverse function is required in order to remove fixed offset values present within the sensors which do not undergo a zeroing procedure in the field. The approach ensures that the gradiometer sensors are very accurately aligned and fixed to the vertical magnetic field and are not influenced by localised magnetic fields or disturbed by vibration. Although a zero median traverse algorithm can remove anomalies aligned with the survey tracks, in practice this rarely occurs due to the use of long traverses, high resolution measurement and variability within the magnetic susceptibility of long linear features.

2.3.3 Appendix C contains metadata concerning the survey and data attributes and is derived directly from TerraSurveyor. Reference should be made to Appendix B for further information on any processes, such as clipping, carried out on the data.

2.3.4 A TIF file is produced by TerraSurveyor software along with an associated world file (.TFW) that allows automatic georeferencing (OSGB36 datum) when using GIS or CAD software. The main form of data display used in the report is the minimally processed greyscale plot.

2.3.5 The raster images are combined with base mapping using ProgeCAD Professional 2014, creating DWG (2010) file formats. All images are externally referenced to the CAD drawing in order to maintain good graphical quality. The CAD plots are effectively georeferenced facilitating relocation of features using GPS, resection method, etc.

2.3.6 An abstraction and interpretation is also drawn and plotted for all geophysical anomalies located by the survey. Anomalies are abstracted using colour coded points, lines and polygons. All plots are scaled to landscape A3 for paper printing.

2.3.7 A brief summary of each anomaly, with an appropriate reference number, is

set out in list form within the results (Section 3) to allow a rapid and objective assessment of features within the survey area.

2.3.8 A digital archive is produced with this report, see Appendix D below. The main archive is held at the offices of Archaeological Surveys Ltd.

3 RESULTS

3.1 General assessment of survey results

3.1.1 The detailed magnetic survey was carried out over approximately 1.3ha within a single area.

3.1.2 Magnetic anomalies located can be generally classified as positive responses of archaeological potential, positive and negative anomalies of an uncertain origin, areas of magnetic debris and disturbance, strong discrete dipolar anomalies relating to ferrous objects and strong multiple dipolar linear anomalies relating to buried services or pipelines. Anomalies located within the survey area have been numbered and are described in 3.4 below.

3.2 Statement of data quality

3.2.1 Data are considered representative of the magnetic anomalies present within the site. There are no significant defects within the dataset. The survey area contains localised zones of magnetic disturbance and areas of magnetic debris; however, these are considered unlikely to have obscured other anomalies of archaeological potential.

3.3 Data interpretation

3.3.1 The list of sub-headings below attempts to define a number of separate categories that reflect the range and type of features located during the survey. A basic explanation of the characteristics of the magnetic anomalies is set out for each category in order to justify interpretation, a basic key is indicated to allow cross referencing to the abstraction and interpretation plot. CAD layer names are included to aid reference to associated digital files (.dwg/.dxf). Sub-headings are then used to group anomalies with similar characteristics within the survey area.

Report sub-heading CAD layer names and plot colour	Description and origin of anomalies
Anomalies with archaeological potential AS-ABST MAG POS LINEAR ARCHAEOLOGY AS-ABST MAG POS CURVILINEAR RING DITCH	Anomalies have the characteristics (mainly morphological) of a range of archaeological features such as pits, ring ditches, enclosures, etc..
Anomalies with an uncertain origin	The category applies to a range of anomalies where there is not

AS-ABST MAG POS LINEAR UNCERTAIN AS-ABST MAG NEG LINEAR UNCERTAIN AS-ABST MAG POS DISCRETE UNCERTAIN 	enough evidence to confidently suggest an origin. Anomalies in this category may well be related to archaeologically significant features, but equally relatively modern features, geological/pedological features and agricultural features should be considered. Positive anomalies are indicative of magnetically enhanced soils that may form the fill of 'cut' features or may be produced by accumulation within layers or 'earthwork' features; soils subject to burning may also produce positive anomalies. Negative anomalies are produced by material of comparatively low magnetic susceptibility such as stone and subsoil.
Anomalies with an agricultural origin AS-ABST MAG AGRICULTURAL AS-ABST MAG RIDGE AND FURROW 	The anomalies are often linear and form a series of parallel responses or are parallel to extant land boundaries. Where the response is broad, former ridge and furrow is likely; narrow response is often related to modern ploughing.
Anomalies associated with magnetic debris AS-ABST MAG DEBRIS AS-ABST MAG STRONG DIPOLAR 	Magnetic debris often appears as areas containing many small dipolar anomalies that may range from weak to very strong in magnitude. It often occurs where there has been dumping or ground make-up and is related to magnetically thermoremnant materials such as brick or tile or other small fragments of ferrous material. This type of response is occasionally associated with kilns, furnace structures, or hearths and may therefore be archaeologically significant. Strong discrete dipolar anomalies are responses to ferrous objects within the topsoil.
Anomalies with a modern origin AS-ABST MAG DISTURBANCE AS-ABST MAG SERVICE 	The magnetic response is often strong and dipolar indicative of ferrous material and may be associated with extant above surface features such as wire fencing, cables, pylons etc.. Often a significant area around such features has a strong magnetic flux which may create magnetic disturbance; such disturbance can effectively obscure low magnitude anomalies if they are present. Fluxgate sensors may respond erratically and with hysteresis adjacent to strong magnetic sources. Buried services may produce characteristic multiple dipolar anomalies dependant upon their construction.

Table 1: List and description of interpretation categories

3.4 List of anomalies

Area centred on OS NGR SY 72892 97213, see Figs 03 & 04.

Anomalies of archaeological potential

(1) - A positive curvilinear anomaly relates to a ring ditch with an external diameter of 19m and a width of 1.6m. The response is weakest on the eastern side (1.5-2nT) and stronger on the western side (3nT) with several stronger (5-8nT), discrete responses clustered along the western edge. It appears to have been crossed by anomaly (2). The associated internal barrow can be seen in the field as a very low mound.

(2) - Two positive linear anomalies appear to cross or truncate the northern and southern edges of anomaly (1), but the anomaly cannot be seen to join towards the centre of the ring ditch which may be a result of denudation of the barrow by ploughing. The southern extent may have been truncated by (7) as it appears to

end abruptly. The orientation is similar to that of a field system that is recorded from earthworks and cropmarks within the field and an association is likely.

(3) - A positive curvilinear anomaly is located at the western edge of the survey area and relates to a second ring ditch. The western side of the feature lies beyond the limit of the survey but the diameter can be calculated at approximately 16m, and the width of the response to the ditch is less than 1m. The response is generally 1-1.5nT and it is indistinct. It lies approximately 38m south-south-west of anomaly (1) and 25m south-south-east of the scheduled barrow to the west. Again, the associated barrow is just visible as a very low mound.

Anomalies with an uncertain origin

(4) - The survey area contains a small number of short weakly positive and negative linear and curvilinear anomalies. It it not possible to determine if they relate to anthropogenic or natural features.

(5) - Towards the southern edge of the survey area are at least two positive linear responses. They are parallel with the southern edge of the site and a track to the south and appear to correspond to a linear depression at the edge of the field. They may be related to cultivation edges or edges of truncation or ground levelling/make-up. Several other anomalies are located to the north, but parallel with them, which may indicate an agricultural origin.

Anomalies with an agricultural origin

(6) - Parallel linear anomalies oriented west-south-west to east-north-east relate to agricultural activity.

Anomalies associated with magnetic debris

(7) - A well defined patch of magnetic debris is located to the south-west of anomalies (1) and (2) and also relates to a shallow depression within the field. It seems likely that this relates to material used to infill a former chalk pit, as several are recorded from aerial photographs within the field and wider area. It is possible that there has been some truncation of anomaly (2), but this is not clear.

(8) - Several patches of strongly magnetic debris indicate that ferrous and other magnetically thermoremnant material has been dumped and spread across the site.

(9) - The site contains widespread and numerous strong, discrete, dipolar anomalies which are a response to ferrous and other magnetically thermoremnant objects, such as brick and tile, within the topsoil.

Anomalies with a modern origin

(10) - A buried pipe extends from the south-eastern corner of the site towards an inspection chamber. Both of these have caused magnetic disturbance.

4 CONCLUSION

4.1.1 The results of the magnetometer survey carried out to the east of a scheduled round barrow indicate the presence of two ring ditches with 19m and 16m diameters. Both are associated with low mounds in the field. One of the ring ditches appears to have been crossed by a rectilinear ditch that has a similar orientation to a series of cropmarks and earthworks that relate to a field system to the west and north of the site.

4.1.2 A patch of magnetic debris appears to be located within a shallow depression that is likely to relate to a former chalk pit. Several positive linear anomalies of uncertain origin were located, although it is possible that are some are agricultural in origin.

5 REFERENCES

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Appendix A – basic principles of magnetic survey

Iron minerals are always present to some degree within the topsoil and enhancement associated with human activity is related to increases in the level of magnetic susceptibility and thermoremnant material.

Magnetic susceptibility is an induced magnetism within a material when it is in the presence of a magnetic field. This can be thought of as effectively permanent due to the presence of the Earth's magnetic field.

Thermoremnant magnetism occurs when ferrous material is heated beyond a specific temperature known as the Curie Point. Demagnetisation occurs at this temperature with re-magnetisation by the Earth's magnetic field upon cooling.

Enhancement of magnetic susceptibility can occur in areas subject to burning and complex fermentation processes on biological material; these are frequently associated with human settlement. Thermoremnant features include ovens, hearths, and kilns. In addition thermoremnant material such as tile and brick may also be associated with human activity and settlement.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil can create an area of enhancement compared with surrounding soils and subsoils into which the feature is cut. Mapping enhanced areas will produce linear and discrete anomalies allowing an assessment and characterisation of hidden subsurface features.

It should be noted that areas of negative enhancement can be produced from material having lower magnetic properties compared to the topsoil. This is common for many sedimentary bedrocks and subsoils which were often used in the construction of banks and walls etc. Mapping these 'negative' anomalies may also reveal archaeological features.

Magnetic survey or magnetometry can be carried out using a fluxgate gradiometer and may be referred to as gradiometry. The SENSYS gradiometer is a passive instrument consisting of two fluxgate sensors mounted vertically 65cm apart. The instrument is carried about 10-20cm above the ground surface and the upper sensor measures the Earth's magnetic field as does the lower sensor but this is influenced to a greater degree by any localised buried field. The difference between the two sensors will relate to the strength the magnetic field created by the buried feature.

There are a number of factors that may affect the magnetic survey and these include soil type, local geology and previous human activity. Situations arise where magnetic disturbance associated with modern services, metal fencing, dumped waste material etc., obscures low magnitude fields associated with archaeological features.

Appendix B – data processing notes

Clipping

Minimum and maximum values are set and replace data outside of the range with those values. Extreme values are removed improving colour or greyscale contrast associated with data values that may be archaeologically significant. It has been found that clipping data to ranges between ±5nT and ±3nT often improves the appearance of features associated with archaeology. Different ranges are applied to data in order to determine the most suitable for anomaly abstraction and display.

Zero (destripe) Median/Mean Traverse

The median (or mean) of each traverse is calculated ignoring data outside a threshold value, the median (or mean) is then subtracted from the traverse. The process is used to equalise differences between the baseline value of gradiometer sensors.

High Pass Filtering

A mathematical process used to remove low frequency anomalies relating to survey tracks and modern agricultural features.

Appendix C – survey and data information

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Units:                  nT
UTM Zone:               30U
Survey corner coordinates (X/Y):OSGB36
Northwest corner:       372810.473526752, 97300.9987105483 m
Southeast corner:       372953.573526752, 97116.0487105483 m
Collection Method:      Randomised
Sensors:                5
Dummy Value:            32702

Source GPS Points:      494400

Dimensions
Composite Size (readings):  954 x 1233
Survey Size (meters):       143 m x 185 m
Grid Size:              143 m x 185 m
X Interval:             0.15 m
Y Interval:             0.15 m

Stats
Max:                    3.32
Min:                    -3.30
Std Dev:                1.36
Mean:                   -0.09
Median:                 0.06
Composite Area:         2.6466 ha
Surveyed Area:          1.4005 ha

PROGRAM
Name:                   TerraSurveyor
Version:                3.0.23.0

Processes:    1
  1   Base Layer

GPS based Proce4
  1   Base Layer.
  2   Unit Conversion Layer (Lat/Long to OSGB36).
  3   DeStripe Median Traverse:
  4   Clip from -3.00 to 3.00 nT
```

Appendix D – digital archive

Archaeological Surveys Ltd hold the primary digital archive at their offices in Wiltshire. Data are backed-up onto an on-site data storage drive and at the earliest opportunity data are copied to CD ROM for storage on-site and off-site.

A PDF copy will be supplied to the Dorset Historic Environment Record with printed copies on request. The report will also be uploaded to the Online AccesS to the Index of archaeological investigationS (OASIS).

Archive contents:

Geophysical data - path: J673 Piddlehinton\Data				
Path and Filename	**Software**	**Description**	**Date**	**Creator**
piddle1\MX\.prm, .dgb, .disp	Sensys MXPDA	Proprietary data formats representing magnetometer survey traverses logged to a PDA.	13/07/16	D.J.Sabin
piddle1\MX\J673-mag.asc	Sensys DLMGPS	ASCII CSV (tab) file representing survey area in eastings, northings (UTM Z30N), magnetic measurement, traverse file and sensor number.	14/07/16	K.T. Donaldson
Mag\comps\J673-mag.xcp	TerraSurveyor 3.0.23.0	Composite data file derived from ASCII CSV.	14/07/16	K.T. Donaldson
Mag\comps\J673-mag-proc.xcp	TerraSurveyor 3.0.23.0	Processed composite data file (zmt and clipping to ±3nT).	14/07/16	K.T. Donaldson
Graphic data - path: J673 Piddlehinton\Data				
Mag\graphics\ J673-mag-proc.tif	TerraSurveyor 3.0.23.0	TIF file showing a minimally processed greyscale plot clipped to ±3nT.	14/07/16	K.T.Donaldson
Mag\graphics\ J673-mag-proc.tfw	TerraSurveyor 3.0.23.0	World file for georeferencing TIF to OSGB36.	14/07/16	K.T.Donaldson
CAD data - path: J673 Piddlehinton\CAD				
J673 version 1.dwg	ProgeCAD 2016	CAD file for creating plots of greyscales, abstraction, interpretation and mapping. Grid coordinates as OSGB. AutoCAD 2010 format.	30/06/16	K.T.Donaldson
Text data - path: J673 Piddlehinton\Documentation				
J673 report.odt	OpenOffice.org 3.0.1 Writer	Report text as an Open Office document.	18/07/16	K.T.Donaldson

Appendix E – copyright and intellectual property

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Archaeological Surveys Ltd

Geophysical Survey
Bourne Farm
Piddlehinton
Dorset

Map of survey area

Map of survey area

Survey location

Site centred on OS NGR
SY 72892 97213

SCALE 1:25 000

0m 500m 1000m

SCALE TRUE AT A3

FIG 01

Archaeological Surveys Ltd

Geophysical Survey
Bourne Farm
Piddlehinton
Dorset

Referencing information

Referencing grid to OSGB36 datum at 50m intervals

Data collected at 20Hz and georeferenced to ETRS89 zone 30 with conversion to OSGB36 using OSTN02

372850 97150

Scheduled area boundary

Tumulus

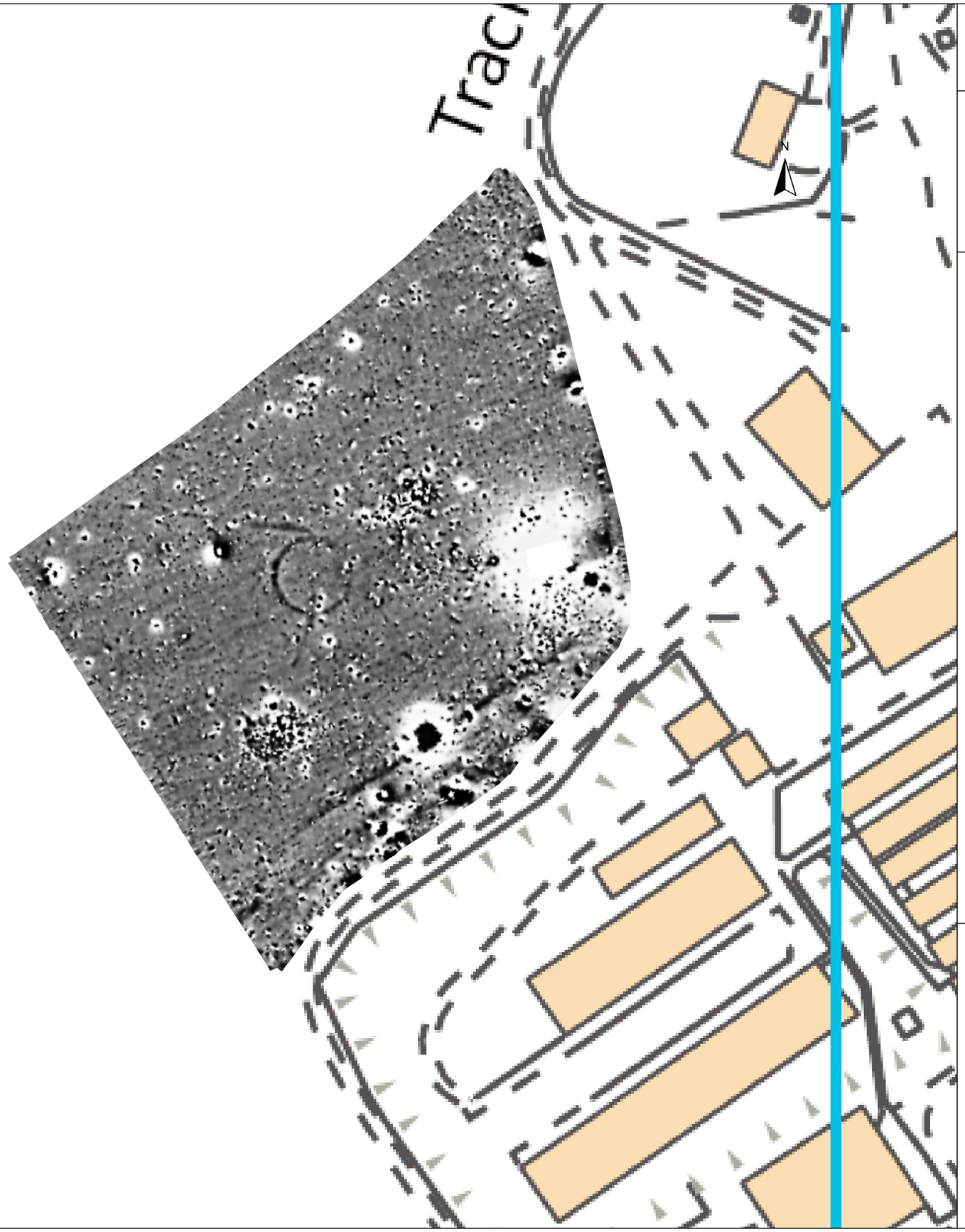
SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

FIG 02

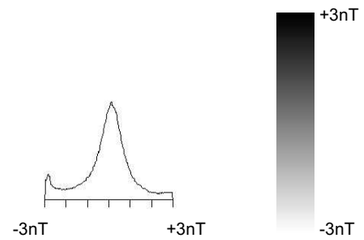
Tumulus



Archaeological Surveys Ltd

Geophysical Survey
Bourne Farm
Piddlehinton
Dorset

Greyscale plot of minimally processed magnetometer data



SCALE 1:1000

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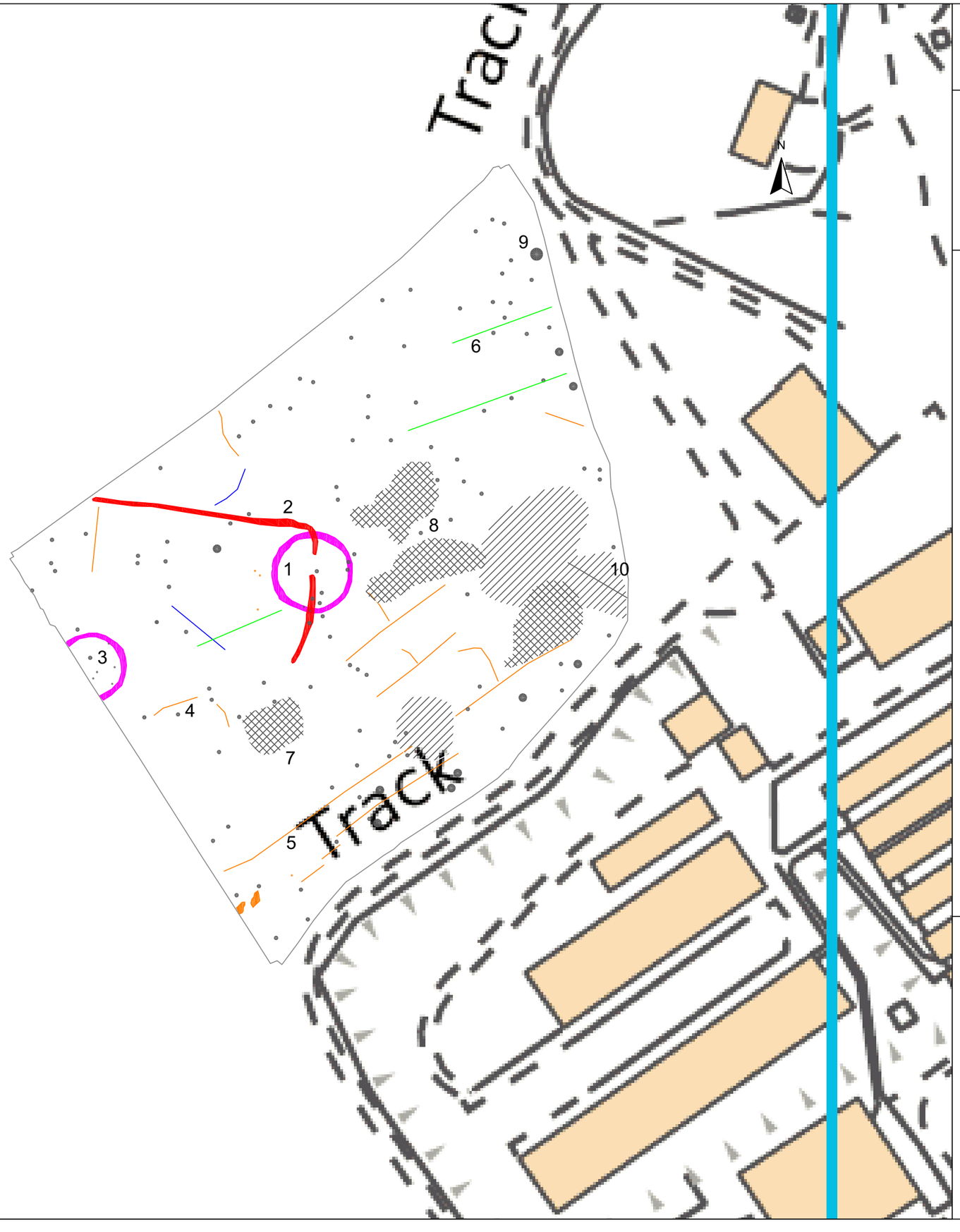
SCALE TRUE AT A3

FIG 03

Tumulus



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Bourne Farm
Piddlehinton
Dorset

Abstraction and interpretation of magnetometer anomalies

- Positive linear anomaly - cut feature of archaeological potential
- Positive curvilinear anomaly - ring ditch
- Positive linear anomaly - possible ditch-like feature
- Negative linear anomaly - material of low magnetic susceptibility
- Linear anomaly - of agricultural origin
- Discrete positive response - possible pit-like feature
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Magnetic disturbance from ferrous material
- Strong multiple dipolar linear anomaly - pipeline / cable / service
- Strong dipolar anomaly - ferrous object

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

FIG 04