Geophysical Survey Report

Padbury Brook Solar Farm,

Stratton Audley,

Oxfordshire

For

JBM Solar Projects 8

Magnitude Surveys Ref: MSSP1362A

October 2022

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Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 67ha area of land at Padbury Solar Farm, Stratton Audley, Oxfordshire. A fluxgate gradiometer survey was successfully completed across the survey area. Approximately 3.19ha was not surveyed due to the presence of overgrown vegetation. The survey detected no anomalies of probable or possible archaeological origin. Agricultural anomalies have been detected in the form of former field boundaries, ridge and furrow cultivation, drainage features and ploughing trends. Variation in the natural geology that corresponds to previously recorded alluvial deposits has also been identified. Several anomalies of undetermined origin have been detected that may be of agricultural or natural origin but may also be related to possible archaeological activity. Modern interference was identified along the field edges and a buried service was detected in the north of the survey area. A scattered spread of ferrous debris has also been identified across the survey area. This spread could potentially obscure weak anomalies of anthropological origin if present.

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1. Introduction

1.1. Magnitude Surveys Ltd (MS) was commissioned by JBM Solar Projects 8 to undertake a geophysical survey over a c. 67ha area of land at Padbury Solar Farm, Stratton Audley, Oxfordshire (SP 62491 27308).

1.2. The geophysical survey comprised quad-towed, cart-mounted GNSS-positioned fluxgate gradiometer survey. Magnetic survey is the standard primary geophysical method for archaeological applications in the UK due to 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 featured buildings (SFBs) 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, 2020) and the European Archaeological Council (Schmidt *et al.,* 2015).

1.4. It was conducted in line with a WSI produced by MS (Dyulgerski, 2022).

1.5. The survey commenced on 5/09/22 and took 10 days 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 for Archaeological Prospection).

2.2. The directors of MS are involved in cutting edge 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 Paul Johnson has a PhD in archaeology from the University of Southampton, is a Fellow of the Society of Antiquaries of London and a Member of CIfA, 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, field and office staff have degree qualifications relevant to archaeology or geophysics and/or field experience.

3. Objectives

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

4. Geographic Background

4.1. The survey area was located c. 1km north-east of Stratton Audley (Figure 1). Gradiometer survey was undertaken across 8 fields under arable cultivation. The survey area is located immediately north of an unnamed road and south of Oldfields Copse, a small wooded area (Figure 2). Mill Road is located directly to the west of the survey area to the east of the survey area there is more agricultural land. An area of c.3.19ha was not surveyed due to the presence of overgrown vegetation and crop still being present in the field.

4.2. Survey considerations:

Survey Area	Ground Conditions	Further Notes
1	Area 1 comprised an arable field with short, harvested crop. The field sloped downhill from south to north from a point across the middle of the field.	The field was bordered on the northeast by a small, wooded area with a hedge and a fence. The remaining boundaries comprised of hedges. Mill Road lay beyond the western boundary.
2	Area 2 comprised an arable field with crop stubble and the field sloped downhill from south to north. An area of overgrown vegetation was located in the western part of the field.	The field was bordered by a fence to the north. The remaining borders comprised of hedges. Mill Road was located along the southern boundary.
3	Area 3 comprised of an arable field with crop stubble present. The field sloped downhill from south to north.	The field was bordered on all sides by hedges.
4	Area 4 comprised a flat recently ploughed, arable field. An area of overgrown vegetation was located in the south-eastern edge of the field.	The field was bordered to the north, east and south by a series of hedges, A hedge with a fence was located on the western border.
5	Area 5 comprised a recently ploughed arable field. An area of overgrown vegetation was located on the western boundary.	The field was bordered on the north, east and south by hedges. Overhead cables ran along the northern boundary.
6	The survey area comprised a recently ploughed flat arable field.	The field was bordered an all sides by hedgerows. Along the southern and eastern borders, beyond the hedges was a ditch. Overhead cables ran along the length of the southern border.
7	The survey area comprised a recently ploughed arable field. An area of overgrown vegetation was located along the the northern boundary.	The field was bordered on all borders by hedgerows, a ditch was located along the eastern borders beyond the hedgerow. Overhead cables ran across the field from a point midway on the southern boundary to the northern.
8	Area 8 comprised a flat pasture field.	The field was bordered to the north and west by Oldfields Copse. The remaining boundaries

		consisted of hedges with trees located along them. A series of overhead cables crossed the field diagonally from the southwest to the northeast.

4.3. The underlying geology comprises mudstone of the Peterborough Member formation however south and central sections of the site contain superficial deposits of Pleistocene age Diamicton and a band of Holocene alluvial clay, silt, and gravel on the eastern edge of Areas 6-8. (British Geological Survey, 2022).

4.4. The ground consist of slowly permeable and seasonally wet soils which are slightly acidic but base-rich with loamy and clayey textures (Soilscapes, 2022).

5. Archaeological Background

5.1. The following is a summary of a Historic Environment Search of a c. 1km radius of the survey area, produced and provided by the Oxfordshire HER (2022).

5.2. Prehistoric activity has been identified in the form of a Bronze Age ring ditch (MOX4951) located c. 234m northeast of the survey area. A cropmark of a rectangular enclosure (MOX23357) has also been identified c. 822m to the north. C. 57m to the northwest, a later prehistoric hut circle settlement (MOX12683) has also been identified from available cropmark data.

5.3. Romano-British evidence is recorded in the form of a possible Roman shrine (MOX12683) located c.690m northwest of the survey area. A large assemblage of coins pottery and votive objects have been identified in the area, which suggest the presence of a ritual site.

5.4. Medieval activity is evidenced by the presence of Godington medieval shrunken village (MOX4930) to the east. Currently, only four houses are present. A medieval grange (MOX492) off of Missenden Abbey has also been recorded c. 780m to the southeast of the survey area as well as a medieval water mill (MOX4921) c.457m to the north.

5.5. Post-Medieval remains have been identified in the form of a brick kiln to the south as well as a circular earthwork of a Civil War battery located c.193m northwest of the site.

6. Methodology

6.1. Data Collection

6.1.1. 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.

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

6.1.3. 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

6.1.4. The magnetic data were collected using MS' bespoke quad-towed cart system GNSS-positioned system.

6.1.4.1. MS' cart 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.

6.1.4.2. 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.

6.1.4.3. 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.

6.2. Data Processing

6.2.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to the EAC and Historic England guidelines for 'minimally enhanced data' (see Section 3.8 in Schmidt *et al.*, 2015: 33 and Section IV.2 in David *et al.,* 2008: 11).

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

<u>Zero Median Traverse</u> – 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.

<u>Projection to a Regular Grid</u> – 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.

<u>Interpolation to Square Pixels</u> – 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.

6.3. Data Visualisation and Interpretation

6.3.1. This report presents the gradient of the sensors' total field data as greyscale images, as well as the total field data from the lower sensors. 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 (Figures 9, 12, 15, 18, 21 and 24). XY trace plots visualise the magnitude and form of the geophysical response, aiding anomaly interpretation.

6.3.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street maps, satellite imagery, historical maps, LiDAR data, and soil and geology maps. Google Earth (2022) was also consulted, to compare the results with recent land use.

6.3.3. 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. Figures are provided with raster and vector data projected against OS Open Data provided by the client.

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 from further work, in order to constantly improve our knowledge and service.

7.2. Discussion

7.2.1. The geophysical results are presented in combination with satellite imagery and historical maps (Figures 4 and 6).

7.2.2. A fluxgate gradiometer survey was carried out over a c. 67ha area of land at Stratton Court Barn, Stratton Audley, Bicester. An area of c. 3.19ha was not surveyed due to the presence of overgrown vegetation, and crop still present in the fields. No anomalies of possible or probable archaeological origin have been identified. Anomalies of agricultural, natural and 'undetermined' origin, as well as drainage features have also been detected. Modern interference was primarily caused by extant field boundaries and by a buried service in the centre of the survey area.

7.2.3. Evidence of ridge and furrow cultivation has been identified across several areas these anomalies run in various orientations across the fields and present as a series of low magnitude linear anomalies. Two former field boundaries have been detected in the north of the survey area, in Areas 6 & 7. These anomalies correspond with field boundaries depicted on the historical OS mapping (Figure 6). Modern agricultural trends were identified across the survey area, these run in a different orientation to the ridge and furrow cultivation and align with the ploughing trends recorded on satellite imagery and at time of survey.

7.2.4. Several broad sinuous anomalies have been identified in the east of the survey area. These anomalies, which have a weak mottled magnetic signal appear to align with a previously recorded band of alluvial deposits.

7.2.5. Undetermined anomalies have been identified across several survey areas, these are of curvilinear and linear form and display both strong and weak magnetic signals. Due to their lack of identification with any defined features on historical mapping or other visible features, an archaeological origin cannot be ruled out. The survey has also identified a number of discrete anomalies that exhibit the magnetic characteristics associated with burning. However, due to the lack of any identifiable morphology, they have been interpreted as possible burning event of unknown date.

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. **Data Artefact** – Data artefacts usually occur in conjunction with anomalies with strong magnetic signals due to the way in which the sensors respond to very strong point sources. They are usually visible as minor ‘streaking’ following the line of data collection. While these artefacts can be reduced in post-processing through data filtering, this would risk removing ‘real’ anomalies. These artefacts are therefore indicated as necessary in order to preserve the data as ‘minimally processed’.

7.3.1.3. **Ferrous (Spike)** – Discrete dipolar anomalies are likely to be the result of isolated pieces of modern ferrous debris on or near the ground surface.

7.3.1.4. **Ferrous/Debris (Spread)** – A ferrous/debris spread refers to a concentration of multiple discrete, dipolar anomalies usually resulting from highly magnetic material such as rubble containing ceramic building materials and ferrous rubbish.

7.3.1.5. **Magnetic Disturbance** – The strong anomalies produced by extant metallic structures, typically including fencing, pylons, vehicles and service pipes, have been classified as ‘Magnetic Disturbance’. These magnetic ‘haloes’ will obscure weaker anomalies relating to nearby features, should they be present, often over a greater footprint than the structure causing them.

7.3.1.6. **Undetermined** – Anomalies are classified as Undetermined when the origin of the geophysical anomaly is ambiguous and there is no supporting contextual evidence to justify 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 distinct from those caused by ferrous sources.

7.3.2. Magnetic Results – Specific Anomalies

7.3.2.1. **Agricultural (Weak) –** Two weak, slightly dipolar linear anomalies have been identified running in a north-south direction across Areas 6 and 7 (Figures 20 and 23). These anomalies which do not correspond to any of the identified current agricultural regimes align with former boundaries identified on the OS mapping. (Figure 6).

7.3.2.2. **Agricultural (Ridge & Furrow)** – A series of linear and curvilinear anomalies, most evident in the Total field plots (Figures 6 and 8) were identified within the survey area (Figures 8, 11, 14, 17, 20 and 23). These anomalies present as a series of parallel, slightly curved linear anomalies with a strong, positive magnetic enhancement along their length. These anomalies, which are spaced at c. 5-6m apart have been interpreted as ridge and furrow regimes. Areas of ridge and furrow are especially evident in Areas 2, 3 and 6 (Figures 8, 11, 14 and 20).

7.3.2.3. **Agricultural (Trend) –** A series of linear agricultural trends have been identified across all survey areas (Figures 8, 11, 14, 17, 20 and 23). These trends present as a series of parallel linear anomalies that follow current ploughing trends identified in satellite imagery. An indicative number have been interpreted to demonstrate these anomalies.

7.3.2.4. **Natural (Strong, Weak, & Spread) –** A series of natural anomalies have been identified across the eastern extent of the survey area (Figures 8, 11, 14, 17, 20 and 23). These anomalies present as a series of weak sinuous anomalies that are more evident in the Total Field data. These anomalies appear to align with previously recorded alluvial superficial deposits (see Section 4.3). The weak magnetic signal is likely caused by the accumulation of enhanced material in lower topographical zones.

7.3.2.5. **Undetermined (Weak)** – Across the survey area, a number of linear and curvilinear anomalies exhibiting weak magnetic signal have been identified. These anomalies, which lack any significant morphological shape, do not align with any features identified on the OS mapping or satellite Imagery (Figure 4 and 6). As such, they have been interpreted to be of undetermined origin. These anomalies are likely caused by agricultural, geological, or modern activity, however an archaeological origin cannot be discounted.

7.3.2.6. **Undetermined (Strong)** – In Areas 1, 2, 3 and 7 the survey has identified a number of discrete anomalies with inverted dipolar signal (Figures 8, 10, 14 and 20). This characteristic magnetic signal can sometimes be associated with burning events.

However, due to the scattered position and lack of archaeological context of these anomalies, they have been interpreted to be undetermined origin.

7.3.2.7. **Ferrous/Debris (Spread)** – In the southern part of the survey area, a number of scattered strong dipolar magnetic anomalies have been identified (Figures 8, 11 and 14). These anomalies, which are most evident in the XY Trace Plot (Figures 9, 12 and 15) appear to form a spread of enhanced debris that could potentially mask any weaker magnetic anomalies. The exact nature of these spreads is unknown; however, they could potentially be caused by the use of green waste as a soil conditioner.

7.3.2.8. **Service** – A strong dipolar linear anomaly has been identified in the north-western corner of Area 6. The linear morphology and strong magnetic signal is characteristic of a buried service.

8. Conclusions

8.1. A fluxgate gradiometer survey has been successfully conducted over c.67ha of land at Padbury Solar Farm, Stratton Audley, Oxfordshire. An area of c. 3.19ha was not surveyed due to the presence of overgrown vegetation, and crop still present in the fields. The survey has primarily identified anomalies of agricultural, natural, and undetermined origin. Modern interference is limited to extant field boundaries and a buried service. The survey has also identified several spreads of ferrous debris that could potentially mask any weaker anomalies of anthropogenic origin.

8.2. No anomalies of possible or probable archaeological origin have been identified across the survey area.

8.3. Agricultural activity in the form of former field boundaries, ridge and furrow ploughing trends, drainage features and modern ploughing trends have also been identified within the survey area.

8.4. Natural variations were identified as a series of sinuous anomalies in the eastern part of the survey area. This corresponds with variations in the superficial deposits.

8.5. A buried service was identified in the north of the survey area.

8.6. A number of linear, curvilinear and discrete anomalies of variable magnetic signal have been identified throughout the survey area. These anomalies which have discontinuous morphology have been interpreted to be undetermined origin. These anomalies likely have an agricultural, natural, or modern origin; however, an archaeological origin cannot be discounted.

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 any dictated time embargoes.

10. Copyright

10.1. Copyright and 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

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12. Project Metadata

MS Job Code	MSSP1362
Project Name	Padbury Brook Solar Farm, Stratton Audley, Oxfordshire
Client	JBM Solar Projects 8
Grid Reference	SP 62491 27308
Survey Techniques	Magnetometry
Survey Size (ha)	67ha
Survey Dates	2022-09-05 to 2022-09-15
Project Lead	Krasimir Dyulgerski BA MRes
Project Officer	Krasimir Dyulgerski BA MRes
HER Event No	TBC
OASIS No	N/A
S42 Licence No	N/A
Report Version	0.2

13. Document History

Version	Comments	Author	Checked By	Date
0.1	Initial draft for Project Lead to Review	MS	KD	05 October 2022
0.2	Draft Report for Director Sign Off	KD	FPC	7 October 2022
0.3	Client Corrections	KD	FPC	12 October 2022

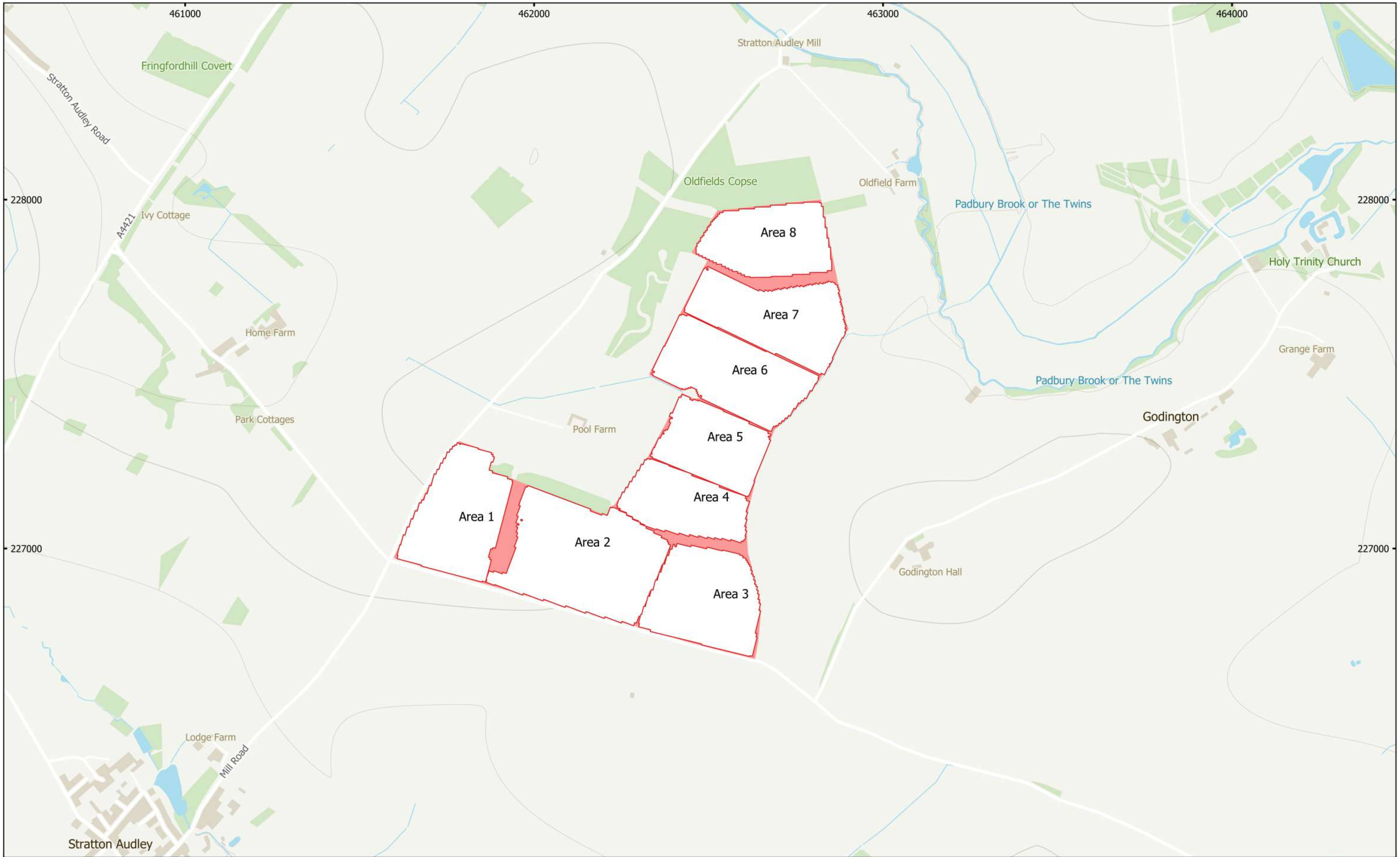
MSSP1362A: Stratton Court Barn, Bicester
Figure 1 - Site Location
1:25,000 @ A4

Site Boundary

N

0 0.5 1 km

magnitude surveys



MSSP1362A: Stratton Court Barn, Bicester
Figure 2 - Location of Survey Areas
1:10,000 @ A3

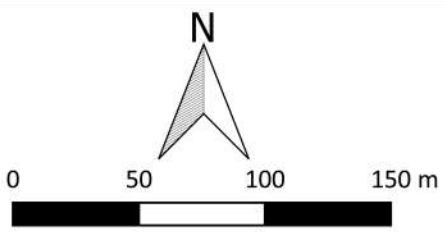
Survey Extent
Unable to survey

N

0 250 500 750 m

magnitude surveys

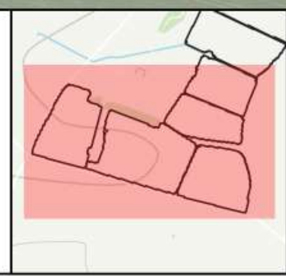
MSSP1362A: Stratton Court Barn, Bicester
Figure 3 - Magnetic Total Field (Lower Sensor) (Overview) (Areas 1 - 6)
1:3,000 @ A3



magnitude surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 4 - Magnetic Interpretation Over Historical Maps (Overview) (Areas 1 - 6)
1:3,000 @ A3

Agricultural (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Natural (Spread)
Natural (Strong)
Natural (Weak)
Undetermined (Strong)
Undetermined (Weak)
Agricultural (Trend)
Ridge and Furrow (Trend)
Drainage Feature
Ferrous (Spike)



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magnitude surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 5 - Magnetic Total Field (Lower Sensor) (Overview) (Areas 5 - 8)
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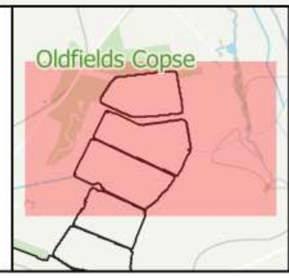
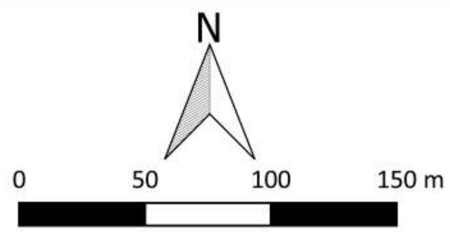
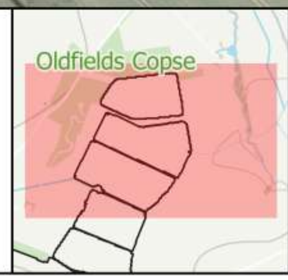


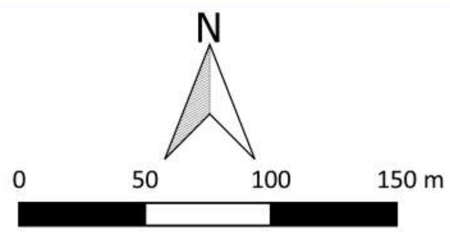


magnitude surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 6 - Magnetic Interpretation Over Historical Maps (Overview) (Areas 5 - 8)
1:3,000 @ A3

Agricultural (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Natural (Spread)
Undetermined (Strong)
Undetermined (Weak)
Agricultural (Trend)
Data Artefact
Service
Ridge and Furrow (Trend)
Ferrous (Spike)





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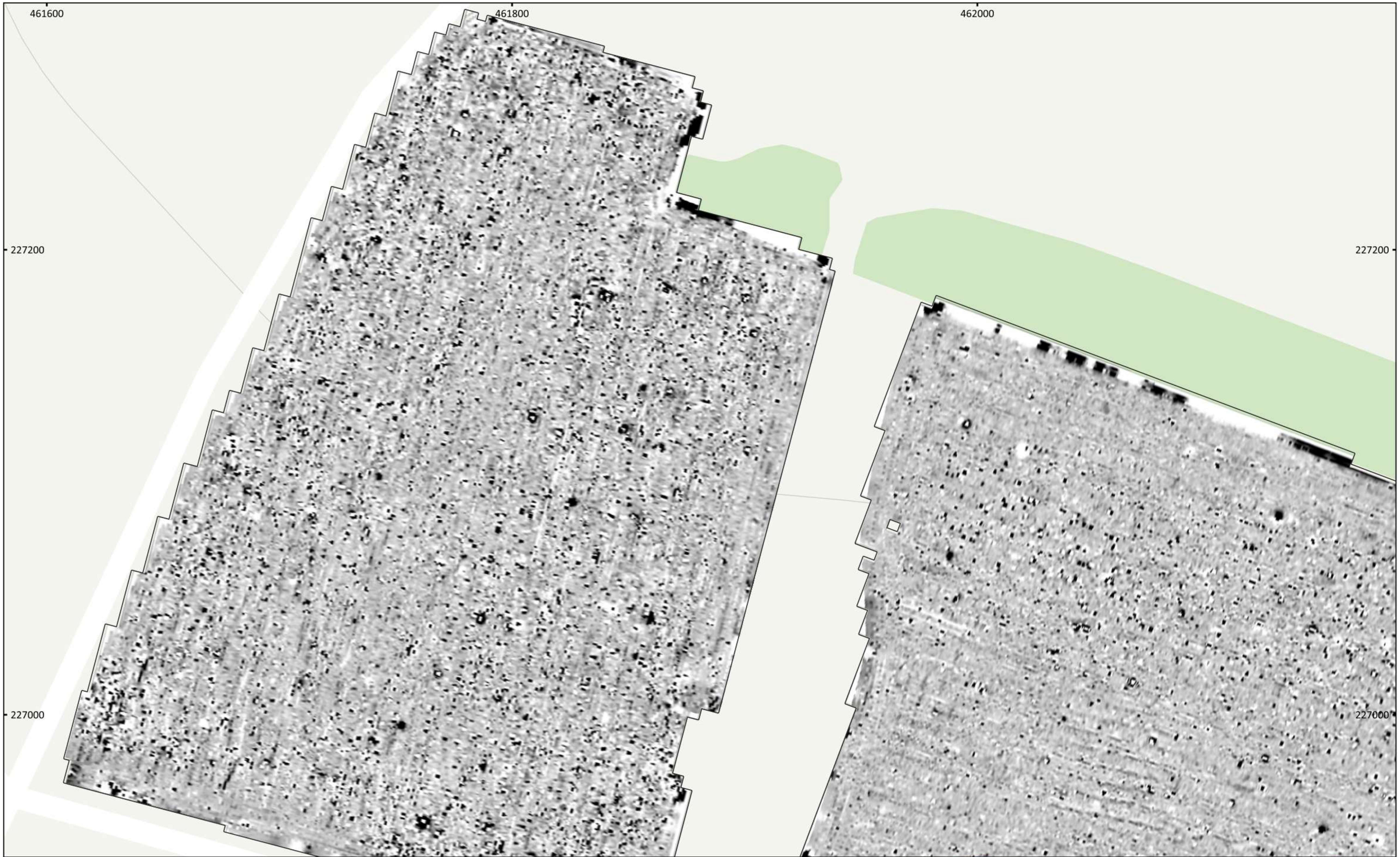
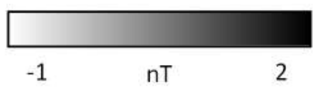
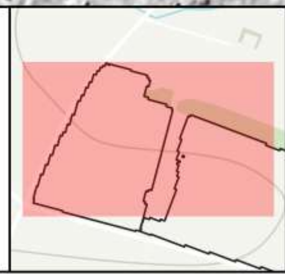
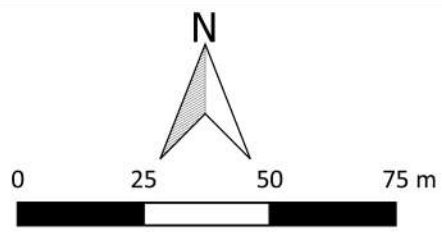


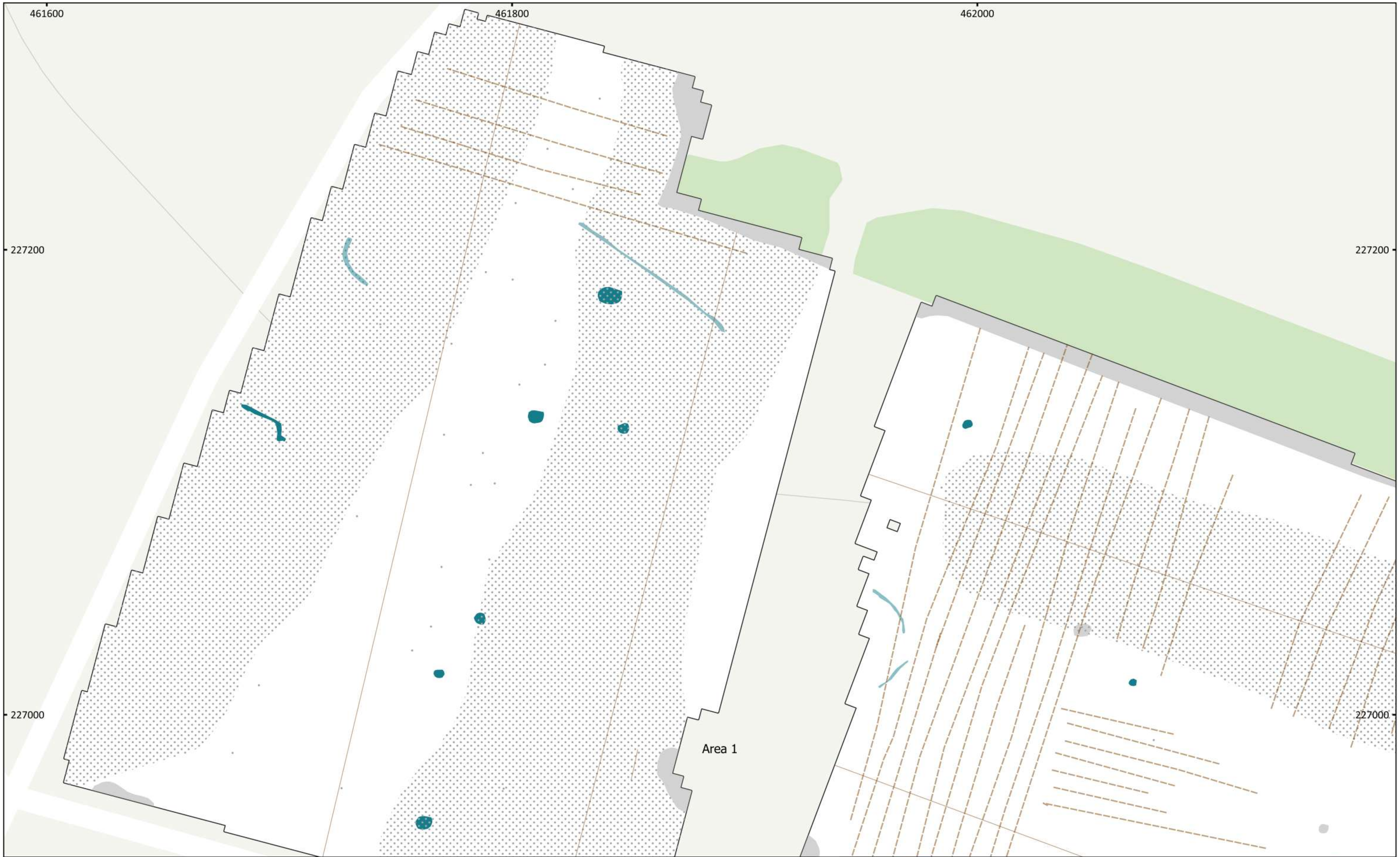
MSSP1362A: Stratton Court Barn, Bicester
Figure 7 - Magnetic Gradient (Areas 1 - 2)
1:1,500 @ A3







magnitude surveys



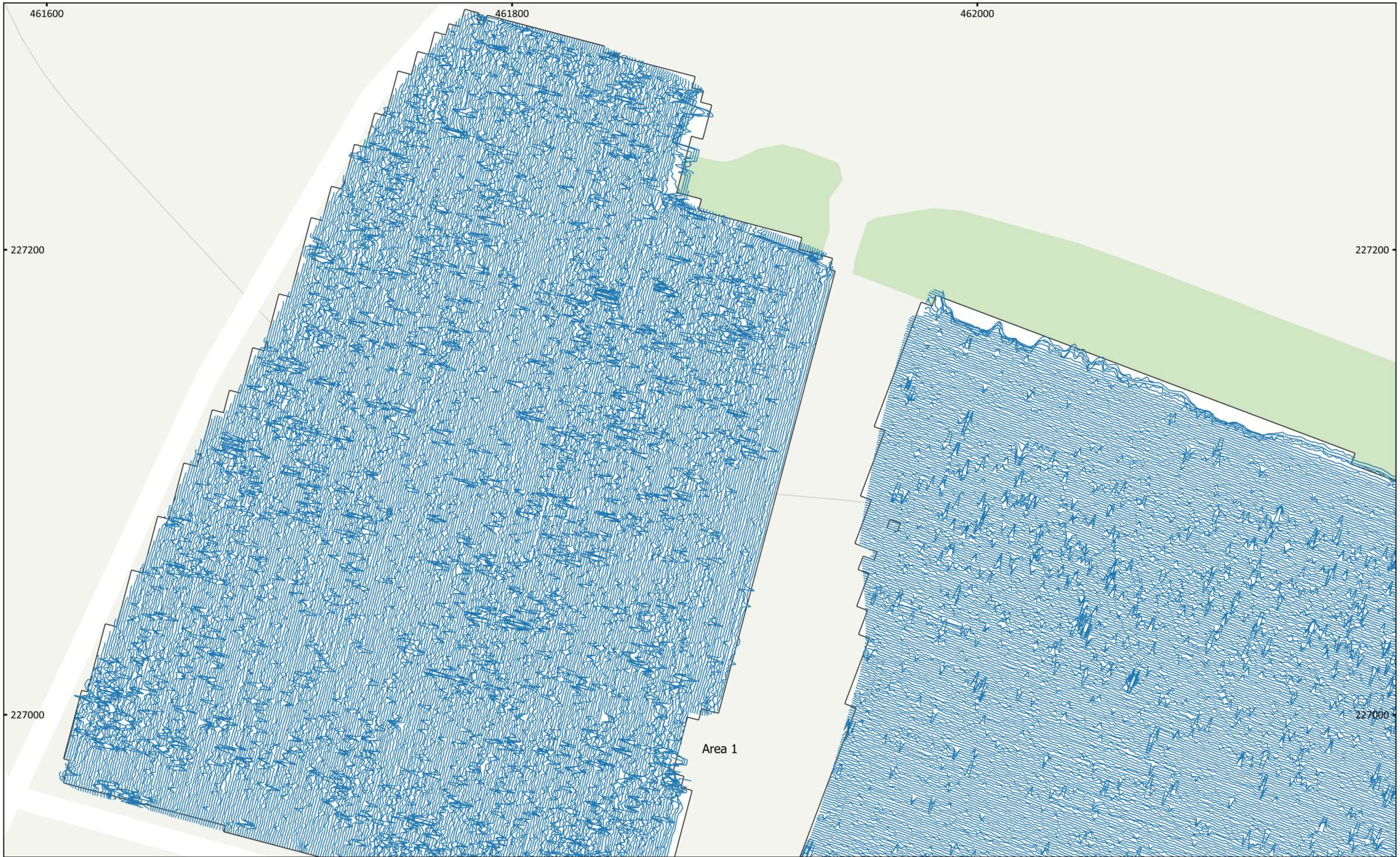
MSSP1362A: Stratton Court Barn, Bicester
Figure 8 - Magnetic Interpretation (Areas 1 - 2)
1:1,500 @ A3

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

N

0 25 50 75 m

magnitude surveys

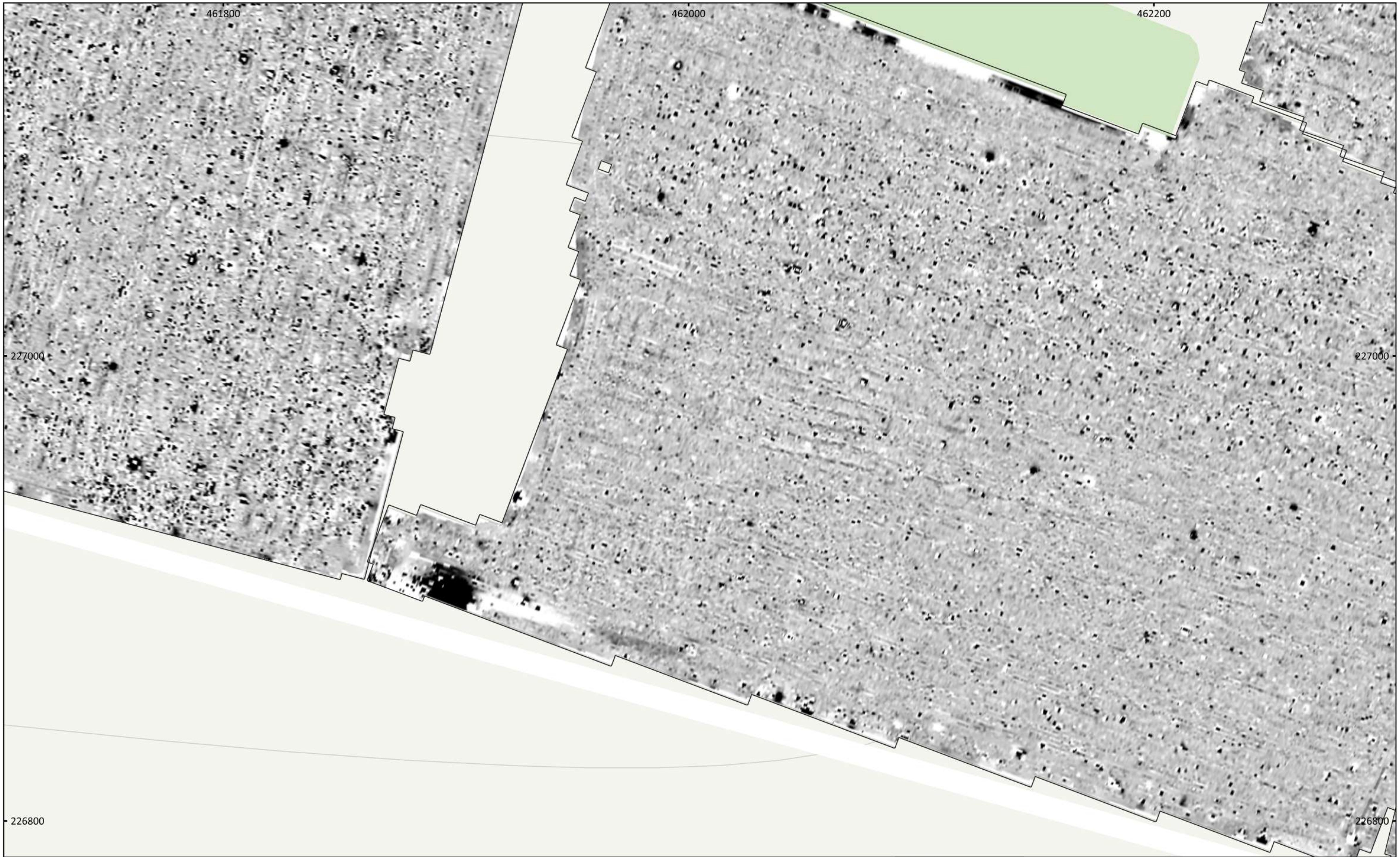


MSSP1362A: Stratton Court Barn, Bicester
Figure 9 - XY Trace Plot (Areas 1 - 2)
30nT/cm at 1:1,500 @ A3

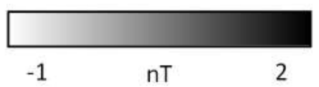
N

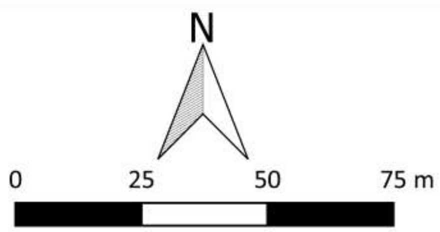
0 25 50 75 m

magnitude surveys

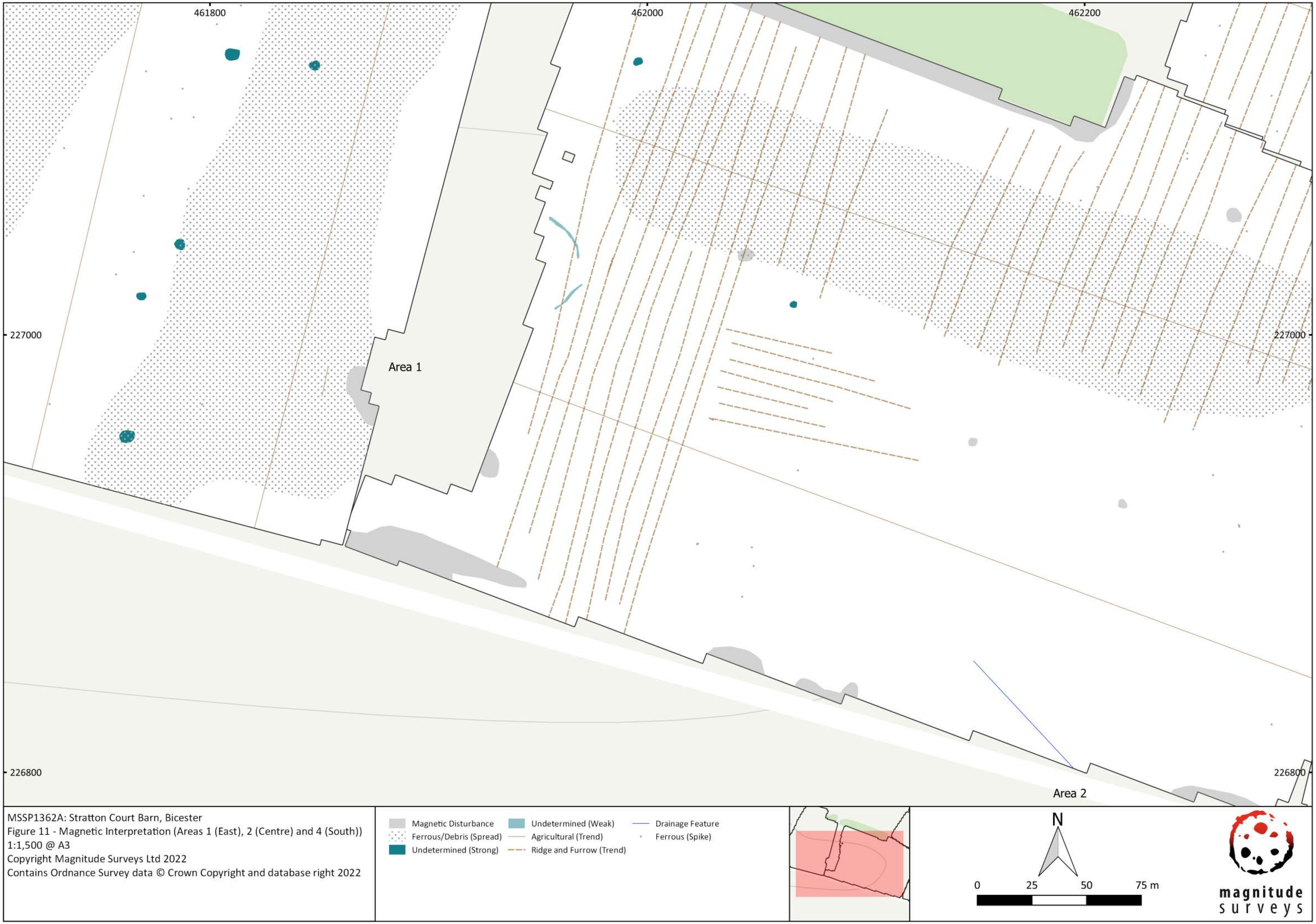


MSSP1362A: Stratton Court Barn, Bicester
Figure 10 - Magnetic Gradient (Areas 1 (East), 2 (Centre) and 4 (South))
1:1,500 @ A3

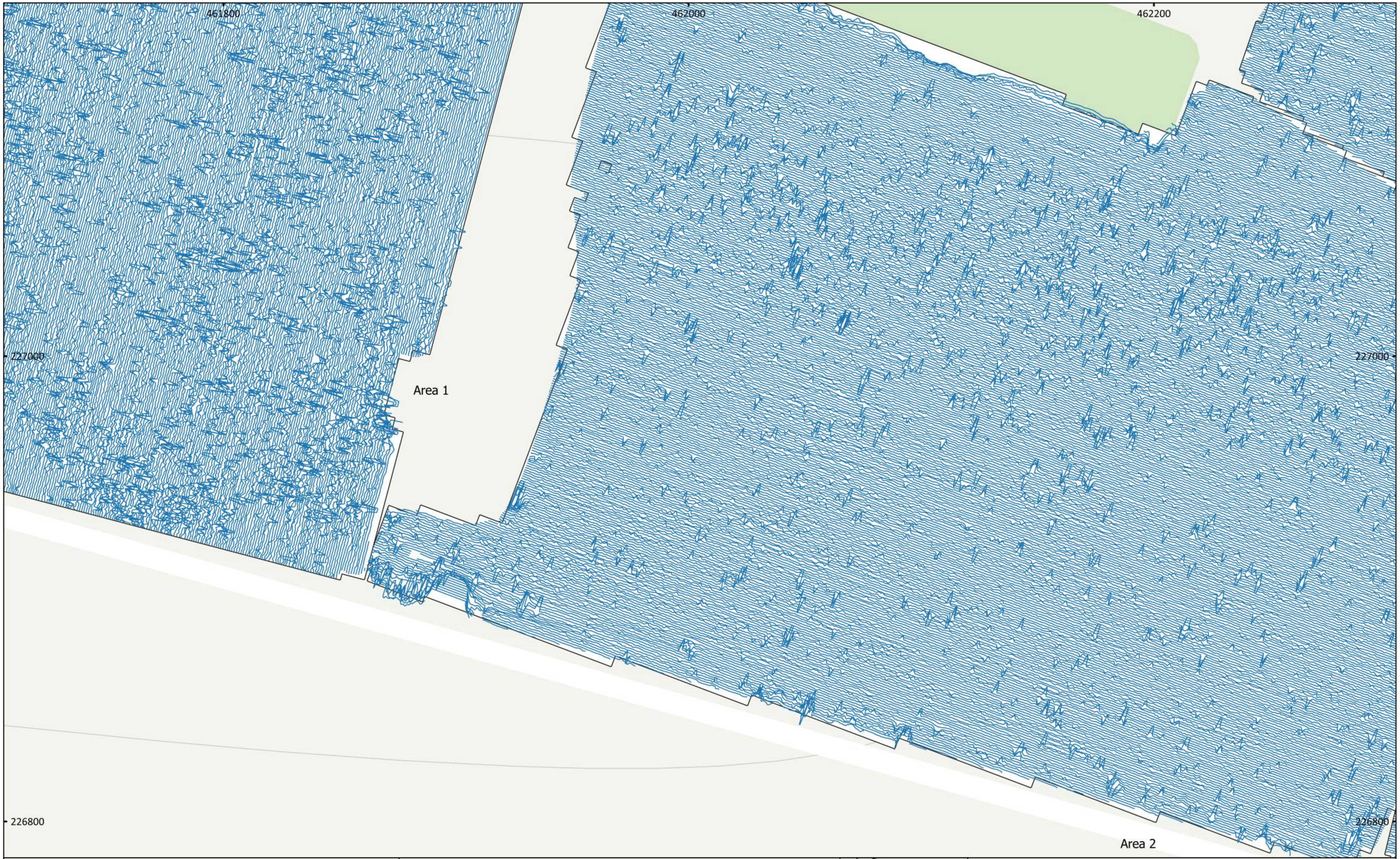




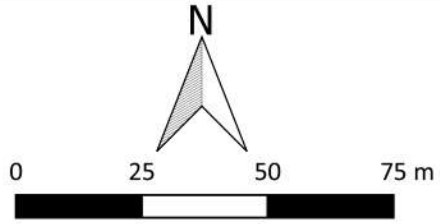
magnitude surveys



MSSP1362A: Stratton Court Barn, Bicester
Figure 11 - Magnetic Interpretation (Areas 1 (East), 2 (Centre) and 4 (South))
1:1,500 @ A3

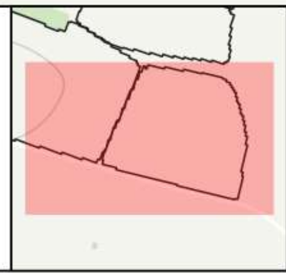


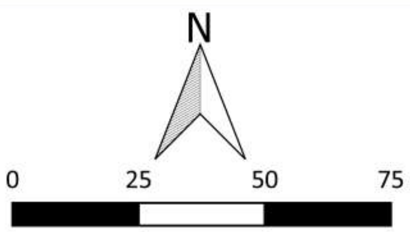
MSSP1362A: Stratton Court Barn, Bicester
Figure 12 - XY Trace Plot (Areas 1 (East), 2 (Centre) and 4 (South))
30nT/cm at 1:1,500 @ A3



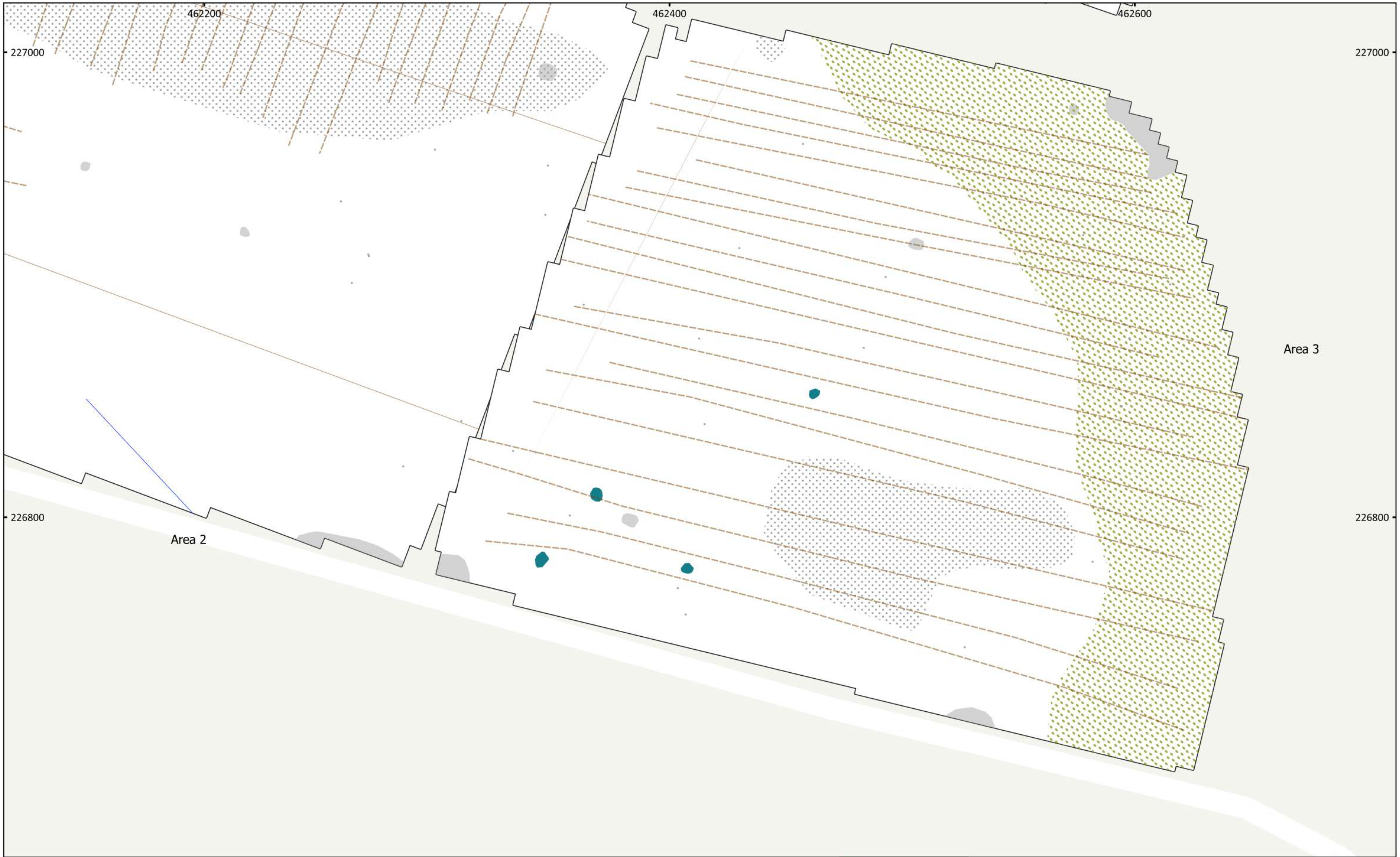
magnitude surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 13 - Magnetic Gradient (Areas 2 (East) and 3)
1:1,500 @ A3





magnitude surveys

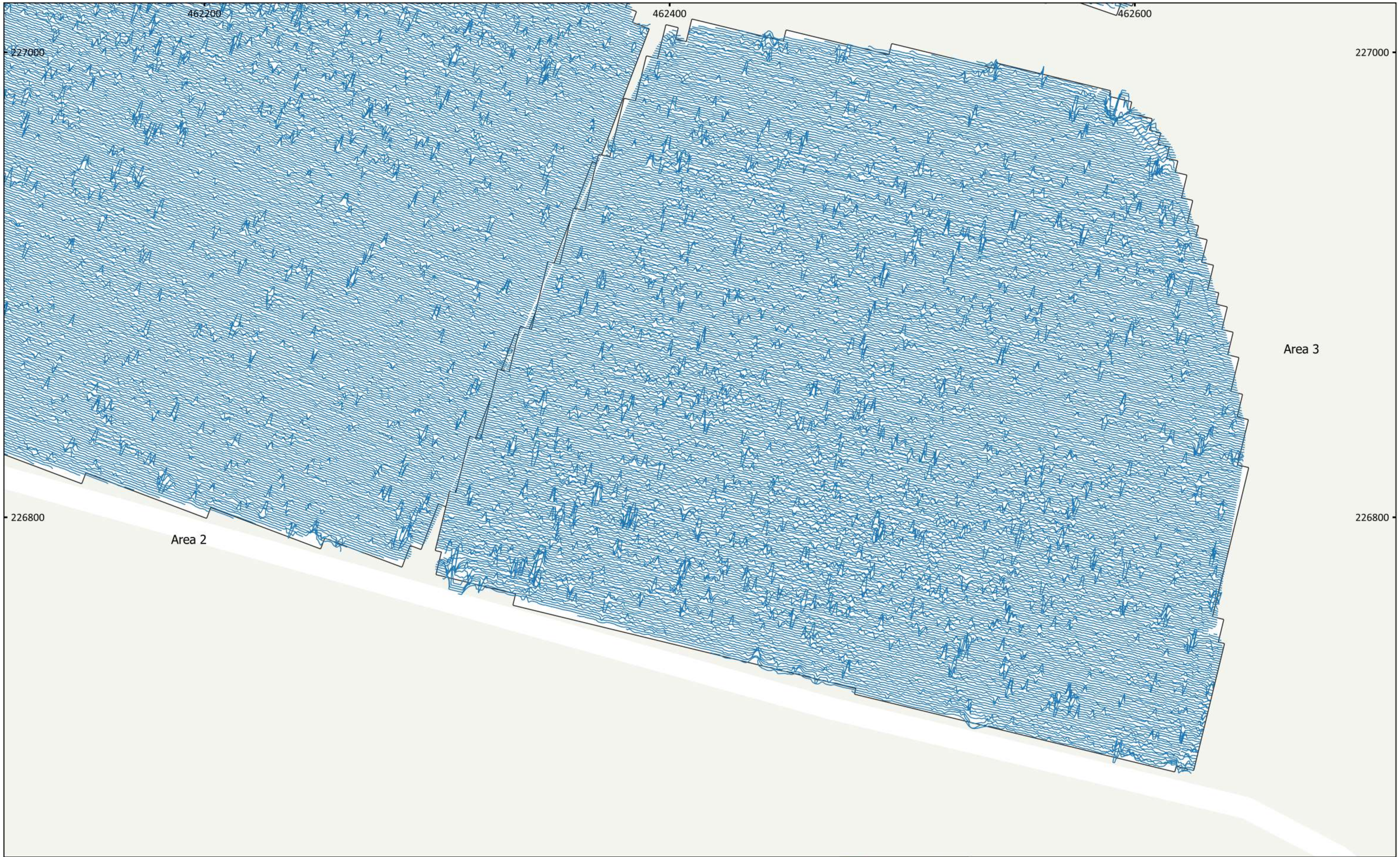


MSSP1362A: Stratton Court Barn, Bicester
Figure 14 - Magnetic Interpretation (Areas 2 (East) and 3)
1:1,500 @ A3

Agricultural (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Natural (Spread)
Undetermined (Strong)
Agricultural (Trend)
Ridge and Furrow (Trend)
Drainage Feature
Ferrous (Spike)

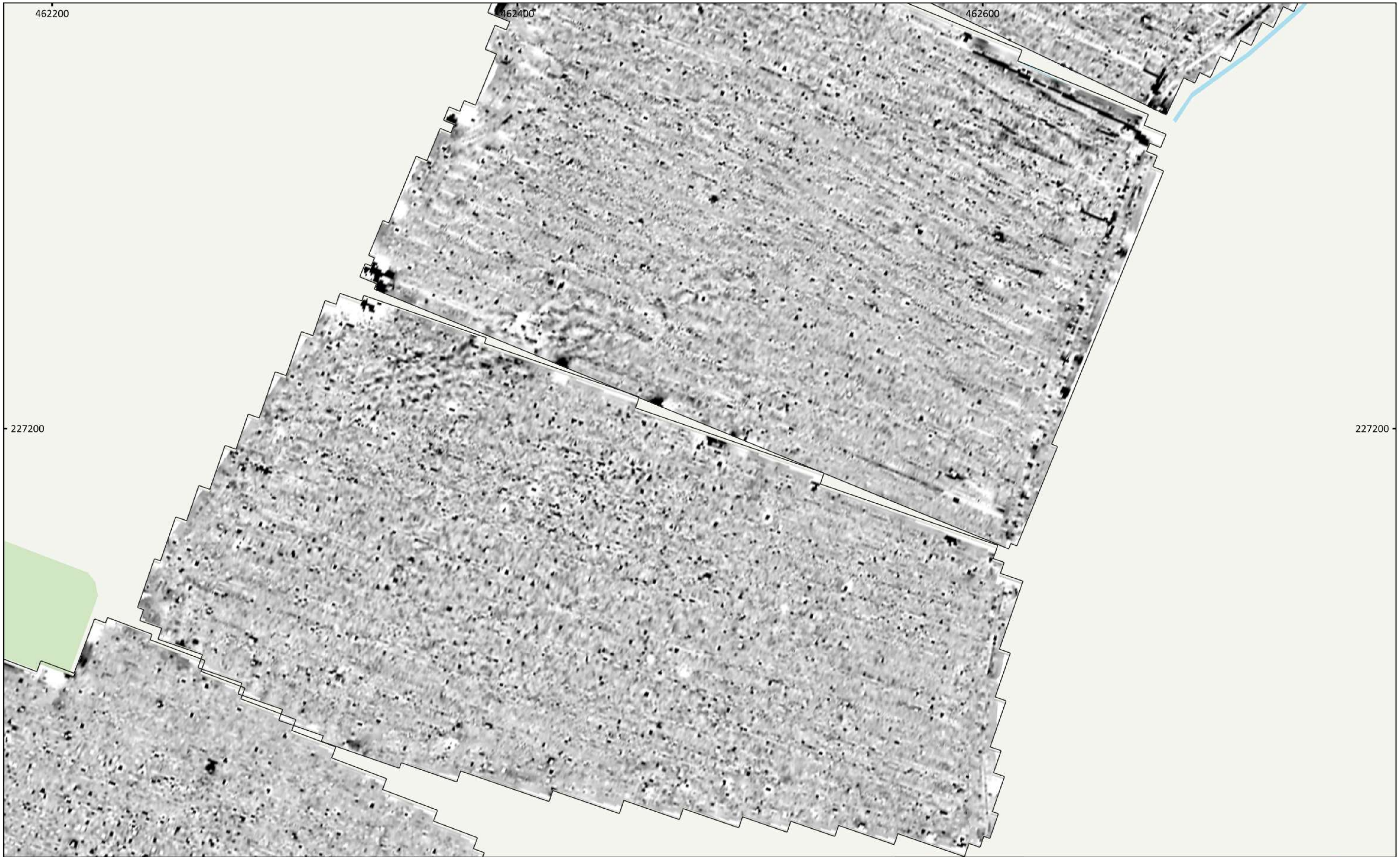
N
0 25 50 75 m

magnitude surveys



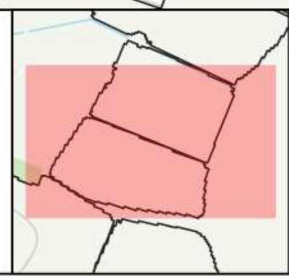
MSSP1362A: Stratton Court Barn, Bicester
Figure 15 - XY Trace Plot (Areas 2 (East) and 3)
30nT/cm at 1:1,500 @ A3

magnitude surveys



MSSP1362A: Stratton Court Barn, Bicester
Figure 16 - Magnetic Gradient (Areas 2 - 6)
1:1,500 @ A3

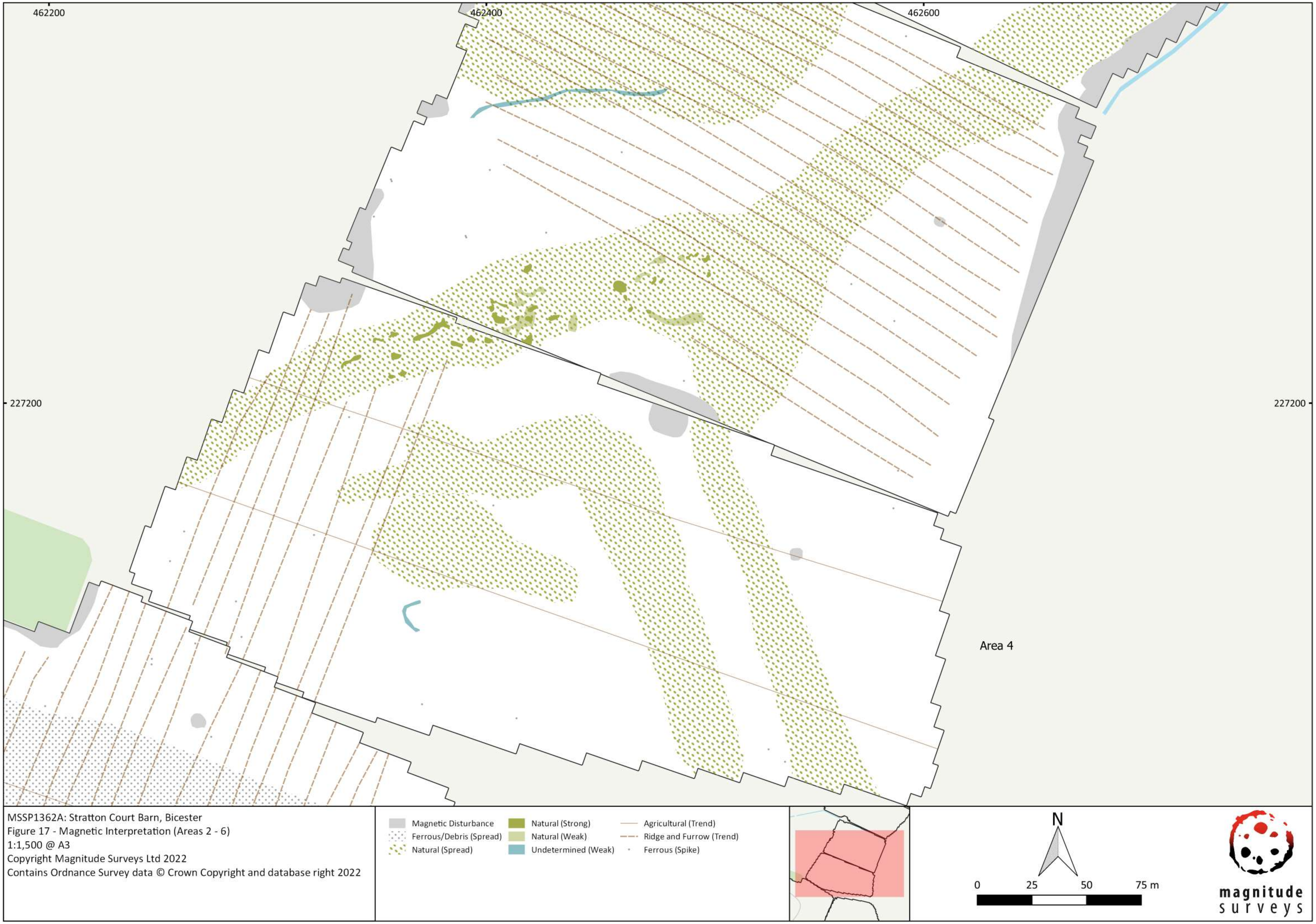
-1 nT 2



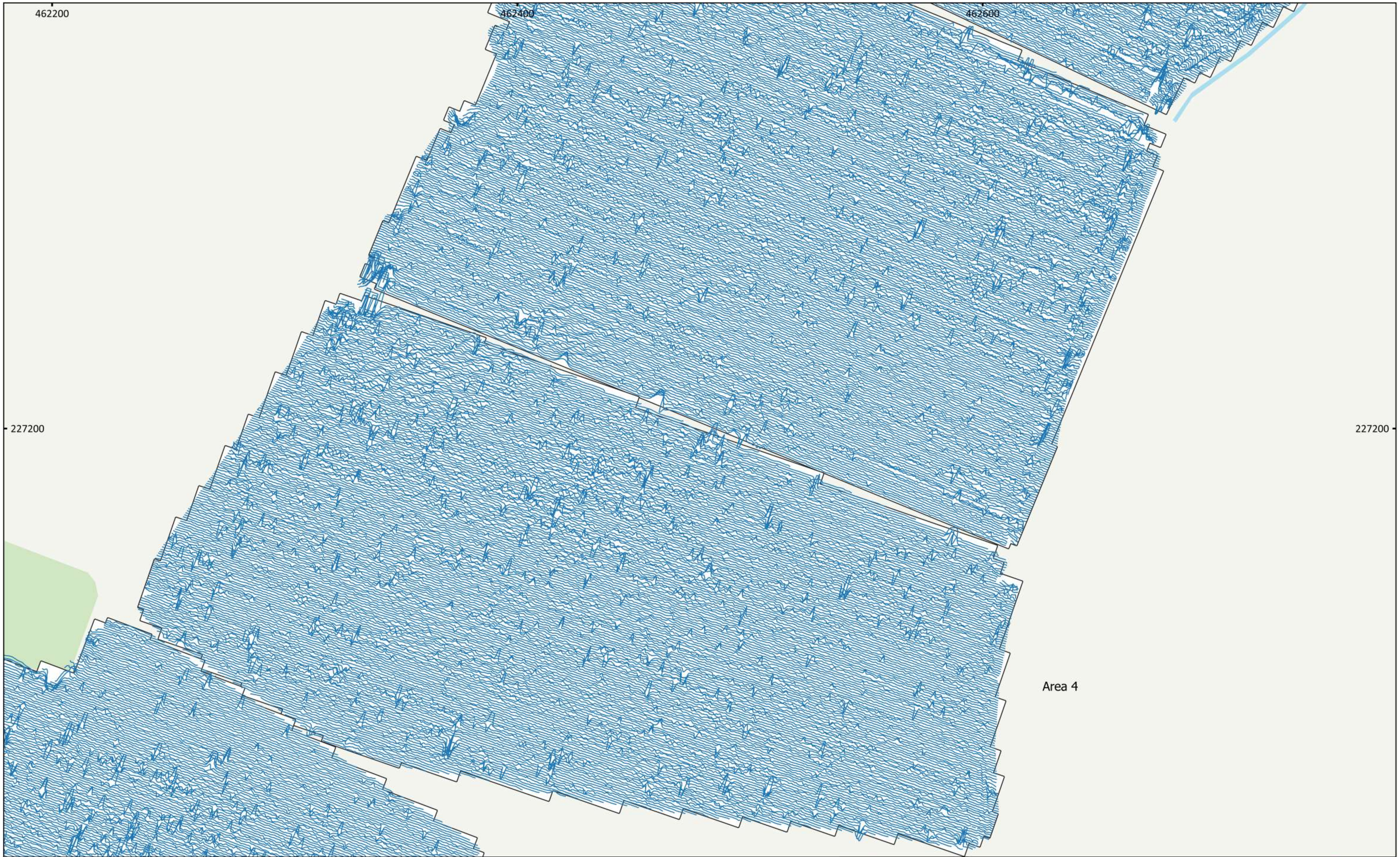
N

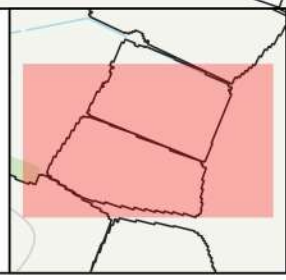
0 25 50 75 m

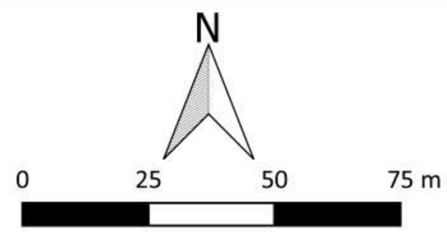
magnitude surveys



MSSP1362A: Stratton Court Barn, Bicester
Figure 17 - Magnetic Interpretation (Areas 2 - 6)
1:1,500 @ A3





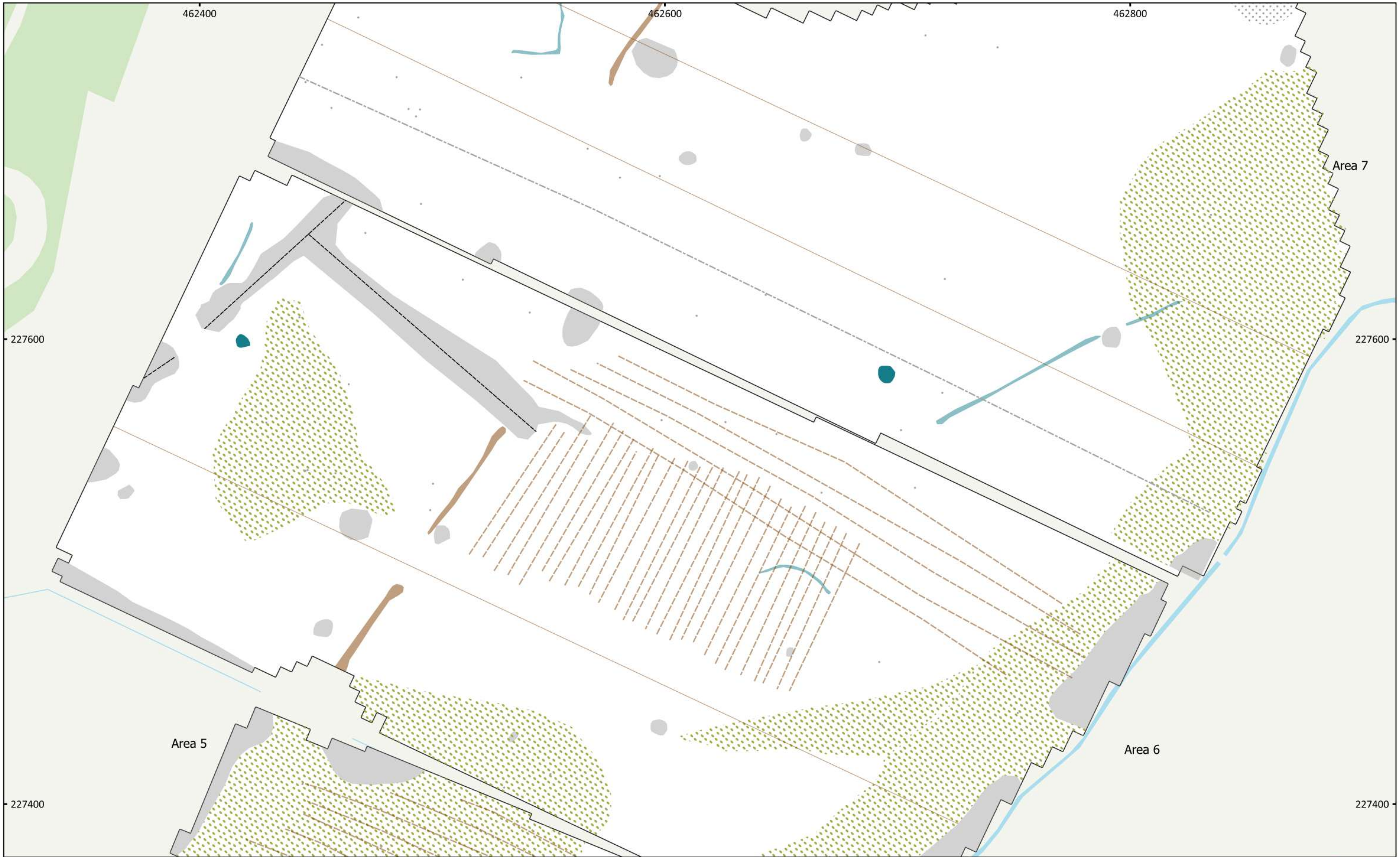


MSSP1362A: Stratton Court Barn, Bicester
Figure 18 - XY Trace Plot (Areas 2 - 6)
30nT/cm at 1:1,500 @ A3

magnitude surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 19 - Magnetic Gradient (Areas 5 (North), 6 and 7)
1:1,500 @ A3

magnitude surveys

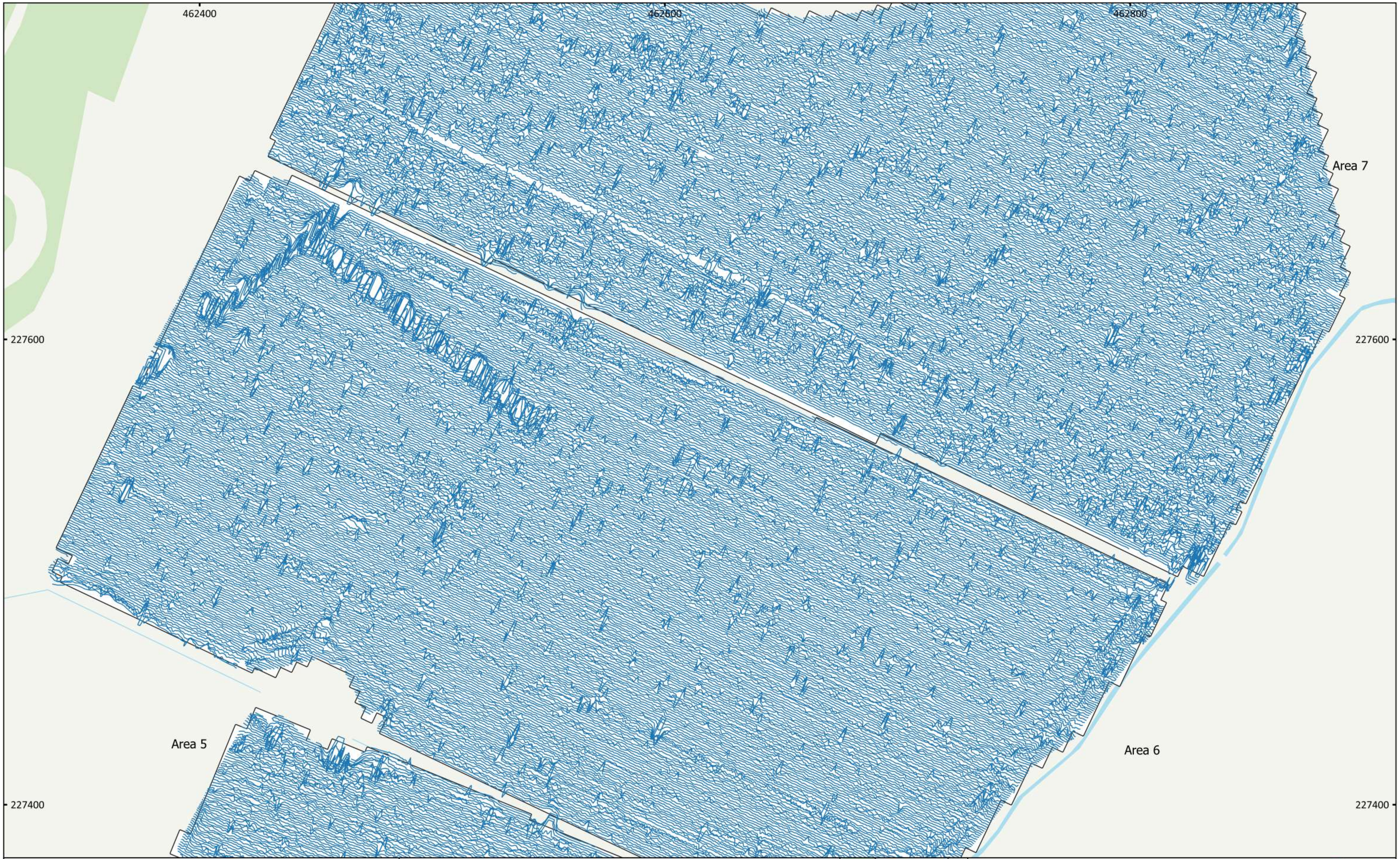


MSSP1362A: Stratton Court Barn, Bicester
Figure 20 - Magnetic Interpretation (Areas 5 (North), 6 and 7)
1:1,500 @ A3

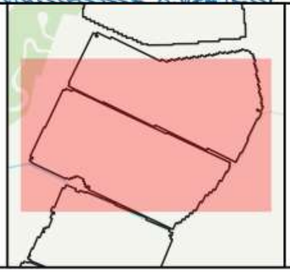
Agricultural (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Natural (Spread)
Undetermined (Strong)
Undetermined (Weak)
Agricultural (Trend)
Data Artefact
Service
Ridge and Furrow (Trend)
Ferrous (Spike)

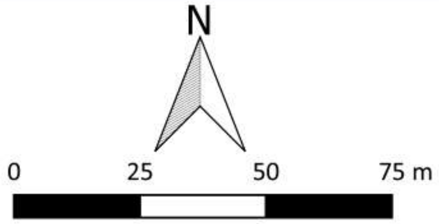
N
0 25 50 75 m

magnitude surveys



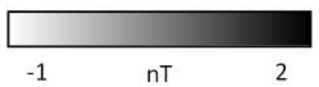
MSSP1362A: Stratton Court Barn, Bicester
Figure 21 - XY Trace Plot (Areas 5 (North), 6 and 7)
30nT/cm at 1:1,500 @ A3

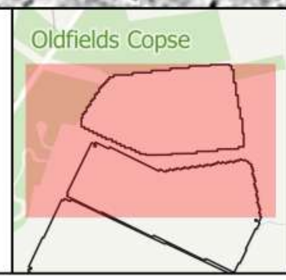


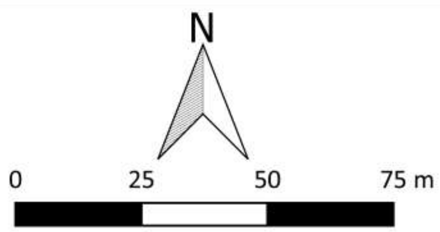


magnitude
surveys

MSSP1362A: Stratton Court Barn, Bicester
Figure 22 - Magnetic Gradient (Areas 6 (North) and 7 - 8)
1:1,500 @ A3



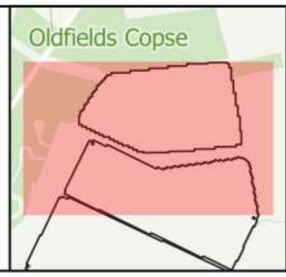




magnitude surveys

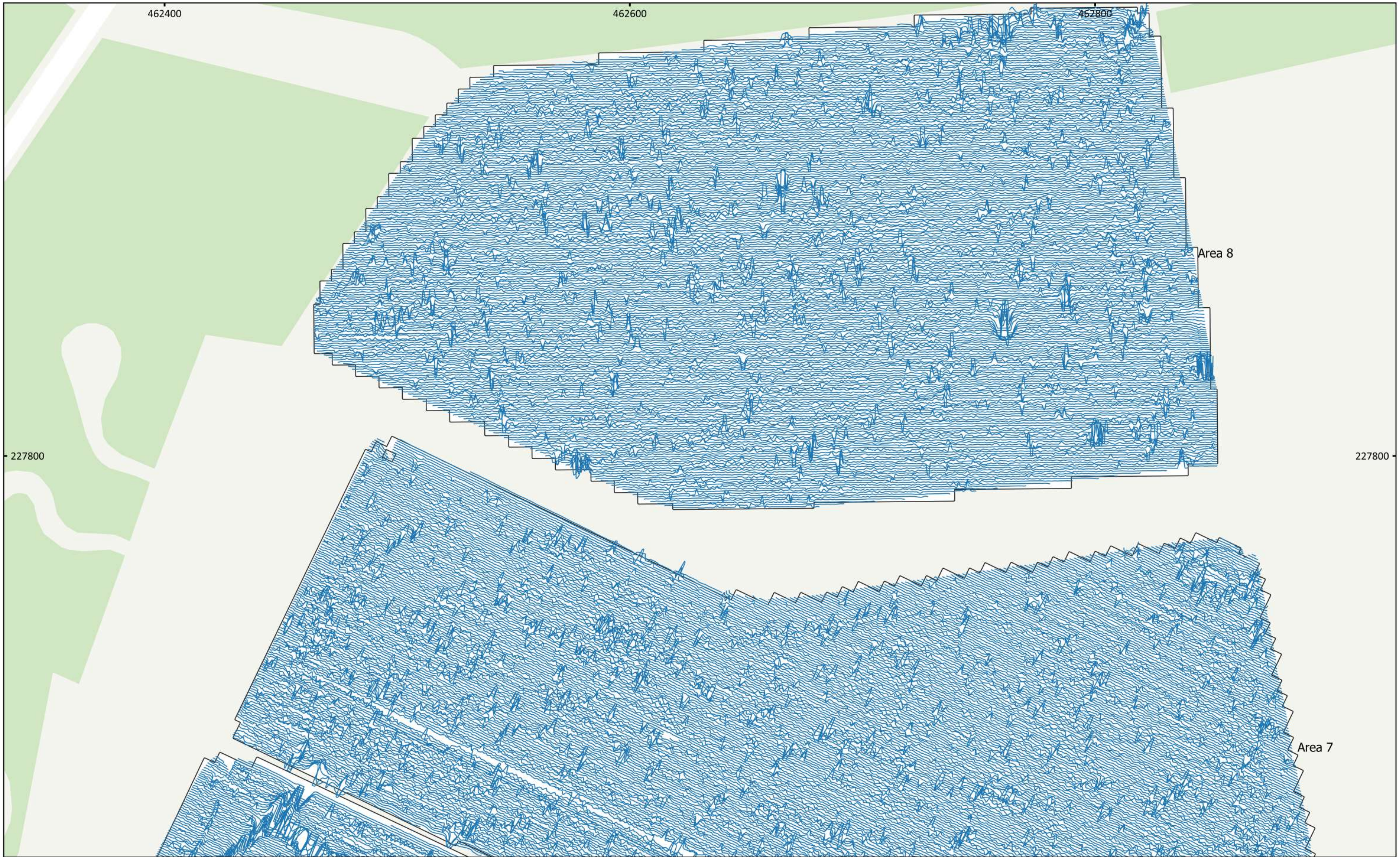
MSSP1362A: Stratton Court Barn, Bicester
Figure 23 - Magnetic Interpretation (Areas 6 (North) and 7 - 8)
1:1,500 @ A3

Agricultural (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Natural (Spread)
Undetermined (Weak)
Agricultural (Trend)
Data Artefact
Service
Ferrous (Spike)

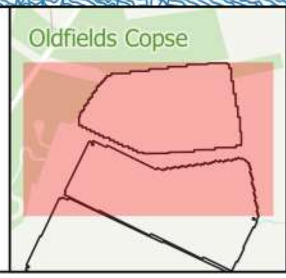


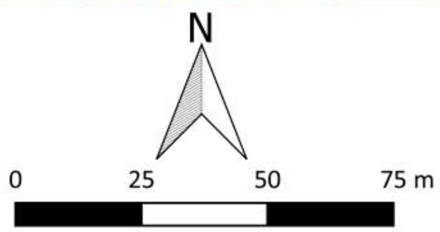
N
0 25 50 75 m

magnitude surveys



MSSP1362A: Stratton Court Barn, Bicester
Figure 24 - XY Trace Plot (Areas 6 (North) and 7 - 8)
30nT/cm at 1:1,500 @ A3





magnitude surveys