Great Harmeston Solar Farm

Environmental Statement

Technical Appendix 6.2
Geophysical Survey Report

Development of National Significance
Pre-Application Consultation

March 2026

Geophysical Survey Report

Great Harmeston Solar Farm

For

Pegasus Planning Group Limited

On Behalf Of

ASUK HoldCo4 Ltd (Arise Renewable Energy UK Ltd.)

Magnitude Surveys Ref: MSSM2260

March 2026

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Issue Date:

04 March 2026

Abstract

Magnitude Surveys was commissioned to undertake a geophysical survey across c. 112ha of land at Great Harmeston, Johnston, Pembrokeshire. A survey was successfully completed across c. 108.7ha with c. 3 ha unable to be surveyed due to the presence of young crop and c 0.3 ha due to scrubland. The survey has detected anomalies of archaeological, agricultural, natural, and undetermined origins. Archaeological activity includes anomalies corresponding to former clawdd (I.e. cloddiau) boundaries, a form of field boundary common to Wales. Further archaeological anomalies include possible enclosure systems, and ring ditches. Agricultural activity has been identified through former field boundaries, ridge and furrow, and modern cultivation. Anomalies typical of drainage features have also been detected. Natural anomalies relate to deposition of materials in the underlying geological strata, and hydrological features including former marshland and a spring. Anomalies for which a confident interpretation cannot be ascribed have also been detected.

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1. Introduction

1.1. Magnitude Surveys Ltd (MS) was commissioned by Pegasus Planning Group Limited on behalf of ASUK HoldCo4 Ltd (Arise Renewable Energy UK Ltd.) to undertake a geophysical survey over a c. 112ha area of land at Great Harmeston, Johnston, Pembrokeshire (SM 9260 0975).

1.2. The geophysical survey comprised quad-towed, cart-mounted and hand-carried 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 recommendations of the historic environment team at Welsh HER (The Welsh Archaeological Trust, 2024) and 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 (EAC) (Schmidt *et al*., 2015).

1.4. It was conducted in line with a Written Scheme of Investigation (WSI) produced by MS (Stead, 2025).

1.5. The survey commenced on 20th October 2025 and took four weeks 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 was 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 CIfA; 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 Chair of the Archaeological Prospection Community 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 was to assess the subsurface archaeological potential of the survey area.

4. Geographic Background

4.1. The survey area was located c. 500m southwest of Johnston Pembrokeshire (Figure 1). Gradiometer survey was undertaken across 26 fields under arable cultivation and pasture. The survey area was divided into two distinct sections, separated by the A4076. The section northwest of the A4076 comprised Areas 13 to 25. These were bordered by arable fields between Areas 13, 15, 18 and 19 - 21, and woods to the north, west and between Areas 22, 23, 24 and 25. The section southeast of the A4076, comprised Areas 1 to 12 and 26. The A477 separated Areas 6 -12 and 26 from Areas 1 -5. A railway line was located south of Areas 4 and 5 and between Areas 8 and 9. Church Road was located to the north of Area 5, housing north of Area 4, arable fields bordered the remaining areas on all other sides, and woodland was located west of Areas 7 and 9 and east of Areas 2 and 2 (Figure 2). An area of c. 3 ha was unable to be surveyed due to the presence of young crop and c 0.3 ha due to scrubland.

4.2. Survey considerations:

Survey Area	Ground Conditions	Further Notes
1	Flat pasture.	The survey area was bordered by hedgerows to the north, east and south, and by a wire fence in the west. A metal gate was located in the west.
2	Flat pasture.	The survey area was bordered on all sides by hedgerows. Wooden telegraph poles were located in the centre of the area, with overhead cables orientated east-west.
3	Pasture sloping down to the south.	The survey area was bordered on all sides by hedgerows. Wooden telegraph poles with overhead cables were located along the southern boundary.
4	Flat arable.	The survey area was bordered by hedgerows on all sides, with a metal fence and a brick wall along part of the northern boundary. Overhead cables crossed the survey area in the west orientated west to northeast. An area in the southeast was unable to be surveyed due to overgrown vegetation.
5	Flat arable.	The survey area was bordered by hedgerows on all sides with a railway line located beyond the southern boundary.
6	Undulating pasture.	The survey area was bordered by hedgerows and metal wire fencing on all sides. Overhead utility cables crossed the survey area orientated east to west in the south.
7	Undulating pasture.	The survey area was bordered by hedgerows on all sides. Overhead utility cables crossed the survey area from east to west in the south. Two metal gates were located along the northern boundary.

8	Flat arable.	The survey area was bordered by hedgerows on all sides. A railway line was located beyond the northern boundary.
9	Flat arable.	The survey area was bordered by hedgerows on all sides. A railway line was located beyond the southern boundary.
10	Flat arable.	The survey area was bordered on all sides by hedgerows. A metal fence was located along the northern boundary. Overhead cables crossed the survey area from west to north in the northeastern corner of the survey area.
11	Pasture sloping down from northeast to south.	The survey area was bordered by hedgerows on all sides. A metal fence was located on the western and southern boundaries and a wooden fence on the northern and eastern boundaries.
12	Flat pasture.	The survey area was bordered by hedgerows and metal fencing on all sides.
13	Flat arable.	The survey area was bordered by hedgerows on all sides. A hedgerow extended partway into the field from the eastern edge.
14	Arable sloping steeply downhill to the southwest.	The survey area was bordered on all sides by hedgerows.
15	Pasture sloping steeply downhill to the southwest.	The survey area was bordered by hedgerows on all sides.
16	Flat arable.	The survey area was bordered by hedgerows on all sides.
17	Flat arable.	The survey area was bordered by hedgerows on all sides. An area in the northwest was unable to be surveyed due to overgrown vegetation.
18	Arable sloping steeply downhill to the southwest.	The survey area was bordered by hedgerows on all sides. A metal gate was located in the northeastern corner.
19	Flat arable.	The survey area was bordered by hedgerows on all sides.
20	Flat arable	The survey area was bordered by hedgerows on all sides.
21	Flat pasture.	The survey area was bordered by hedgerows on all sides. A wind turbine was located in the centre of the survey area, an area around this was unable to be surveyed.
22	Flat pasture.	The survey area was bordered by hedgerows and trees on all sides.
23	Flat arable.	The survey area was bordered by hedgerows on all sides.
24	Flat arable.	The survey area was bordered by hedgerows on all sides.
25	Flat arable.	The survey area was bordered by hedgerows on all sides.
26	Flat pasture.	The survey area was bordered by hedgerows on all sides except the south which was undefined.

4.3. The underlying geology comprises interbedded sandstone and subequal/subordinate argillaceous rocks of the Rosemarket Formation across the majority of the survey area, with zones of conglomerate of the Rosemarket Formation in Areas 8, 9, 14, 16 and 17. A band of interbedded argillaceous rocks and subequal/subordinate sandstone of the Milford Haven Subgroup are recorded in the south of Areas 3, 6 and 7. Superficial deposits of alluvial clay, silt, sand and gravel are recorded in the west of Areas 17, 18, the east of Areas 22, 23 and the south of Areas 3, 6 and 7. No other superficial deposits are recorded in the survey area (British Geological Survey, 2025).

4.4. The soils consist of freely draining slightly acid loamy soils across the whole survey area (Soilscapes, 2025).

5. Archaeological Background

5.1. Tithe mapping of the survey area, provided by Pegasus Group, was consulted, and this indicated a continued agricultural utilisation of the landscape from the post-medieval period onwards. It is possible that some of the boundaries depicted on historical mapping are cloddiau (clawdd), a type of field boundary particular to Wales.

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 and hand-carried GNSS-positioned system.

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

6.1.4.2. 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).

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

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

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

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

6.3.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. 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 (2026) 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.

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 mapping (Figures 4, 7, 10 & 13).

7.2.2. A geophysical survey was successfully conducted across c. 108.7 ha of a c. 112ha survey area, c. 3.3ha were unable to be surveyed due to young crop . The survey has detected anomalies of archaeological, agricultural, natural and undetermined origins. The underlying geology of the survey area has resulted in a strong enhancement of the overall data which may have obscured some weaker anomalies, should they be present.

7.2.3. Archaeological activity has been detected across the survey area. Numerous closely spaced parallel linear and curvilinear anomalies have been detected throughout the survey area. These anomalies have characteristics indicative of ditches filled with strongly enhanced material **[3a, 4a, 6a, 7a-c, 9a, 13a & b, 14a, 15a, 17a, 18a, 21a]**, and have been interpreted as clawdd boundaries, a boundary type common to Wales and considered of archaeological interest. These boundaries often consisted of an earthen bank encased by drystone walls dug into the ground either side of the bank, a construction technique consistent with the strong parallel anomalies observed across the site. While some of these parallel linear and rectilinear anomalies correspond to mapped former field boundaries, where such anomalies do not correspond directly with mapped boundaries, their location and characteristics support a consistent interpretation and the presence of possible unmapped former field systems **[3b]**. Other anomalies of probable and possible archaeological origin have also been identified; these have an appearance distinct from the clawdd boundaries and are likely to be

former enclosures **[6b, 7d & e, 10a, 13c, 19a, 20a & b, 22a & 25a]** or ring ditches **[9b & c, 19b]**.

7.2.4. Evidence of agricultural activity has been identified, with anomalies corresponding to former field boundaries depicted on historical mapping, which are distinct from the clawdd boundaries as they appear as single linear trends rather than parallel linear ones. Other agricultural anomalies also include sinuous linear anomalies that are typical of ridge and furrow cultivation. Modern ploughing and drainage features have also been detected.

7.2.5. Anomalies resulting from variations in the underlying geology of the survey area have been detected across all survey areas. These anomalies are most apparent in the wider plotting ranges and in the total field data. Sinuous anomalies indicative of paleochannels were also detected. A strongly enhanced zone of anomalies in Area 1 correspond with marshland depicted on historical mapping, and a spring located immediately to the west.

7.2.6. Anomalies of an undetermined origin have been detected within the survey area. These anomalies lack sufficient diagnostic criteria to allow for a confident interpretation.

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. **Archaeology Probable (Strong & Weak)** – Across the survey area, pairs of strongly positive, parallel, linear and curvilinear anomalies have been detected (Figures 15 – 32 and 36 – 52). Anomalies of this appearance are typical of clawdd boundaries. Some of these anomalies correspond to former mapped field boundaries **[3a]** (Figures 51 & 52), **[4a]** (Figures 27 & 28)**, [6a, 7a-c] (**Figures 45 & 46), **[9a]** (Figures 42 & 43), **[13a & b]** (Figures 21 & 22), **[17a] (**Figures 15 & 16), **[15a & 18a]** (Figures 18 & 19) and **[21a]** (Figures 29 & 30). Those that do not correspond to any boundaries depicted on historical mapping are suggestive of former clawdd boundaries not visible on any mapping available at the time of writing.

7.3.2.2. **Archaeology Probable and Possible (Strong & Weak)** – Linear, rectilinear, curvilinear, penannular, and annular anomalies have been detected across the survey area (Figures 15 - 32, and 36 - 52). These anomalies do not correspond to mapped field boundaries and are distinct in appearance from those associated with the clawdd boundaries, as they are comprised of individual, rather than parallel, linear anomalies. It is possible that these anomalies represent possible trackways **[3b]** (Figures 51 & 52), former enclosure systems **[6b, 7d]** (Figures 45 & 46), **[9d]** (Figures 42 & 43) **[10a]** (Figures 27 & 28), **[13c]** (Figures 21 & 22), **[19a]** (Figures 36 & 37), **[20a & b]** (Figures 39 & 40), **[22a & 25a]** (Figures 33 & 34), and possible ring ditches **[9b & c, 19b]** (Figures 42 & 43). Anomalies of this appearance are typical of a prehistoric to Romano-British date. Anomalies identified as possible enclosures are typically rectilinear and vary in size between 15m x 20m and 25m x 40m. An anomaly has been identified, which is morphologically similar to a clawdd boundary **[14a]** (Figures 15 &16). However, it is of a smaller size than those identified and has a more rectilinear form which suggests it may be an enclosure. The anomalies interpreted as ring ditches are typically c. 15 – 20m in diameter some of which are associated with a discrete anomaly in their centre. A strong curvilinear anomaly has been detected in Area 7 **[7e]** (Figures 45 & 46). The characteristics of the anomaly are typical of a natural feature, but the close proximity to nearby archaeological anomalies may indicate anthropogenic re-use.

7.3.2.3. **Agricultural (Strong, Weak & Spread) –** A strongly positive linear anomaly was detected in the north of Area 12; this anomaly corresponds to a field boundary depicted on historical mapping (Figures 21 and 22). A similar weakly positive anomaly was detected in Area 13, also corresponding with a mapped former field boundary (Figures 24 and 25). A weakly positive amorphous anomaly

corresponding with a well depicted on historical mapping has been detected adjacent to this. These are all likely to be post-medieval as they are depicted on historical Ordnance Survey mapping.

7.3.2.4. **Natural (Strong, Weak & Spread) –** Across the survey area zones of strongly enhanced anomalies have been detected (Figures 15 – 52), this is particularly notable in the total field data for Areas 2 – 7 (Figures 24, 25, 27, 28, 48, 49, 51 & 52), 17 & 18 **[17b, 18b]** (Figures 18, 19), 20 **[20c]** (Figures 36 & 37), and 25 **[25b]** (Figures 30 & 31). Within these wider zones, sinuous anomalies likely to be evidence of former paleochannels have also been detected.

7.3.2.5. **Natural (Spread)** – A strongly enhanced zone of dipolar anomalies was detected across Area 1 **[1a]** (Figures 48 & 49). This area is depicted on historical mapping from the 1860s to the 1940s as marshland, with a spring located immediately west of the area flowing into it (Figure 13). This strong enhancement is likely to be a result of the accumulation of materials within the marsh environment also from materials deposited by the spring.

7.3.2.6. **Ridge and Furrow –** Across Areas 3, 6 and 10 – 13, parallel sinuous linear anomalies with a spacing between c. 6 and 8m have been detected. The appearance of these anomalies is consistent with ridge and furrow cultivation.

7.3.2.7. **Drainage Features –** Linear anomalies have been identified in Areas 4, 5 and 23 (Figures 24, 25, 30 & 31). These anomalies are consistent with drainage features. These are possibly of a post-medieval date.

7.3.2.8. **Agricultural (Trend) –** Linear and curvilinear anomalies corresponding to modern ploughing visible in satellite imagery have been detected in Areas 4, 5, 10, 11, 13, 14, 16-19, and 22-24. An indicative sample of these have been drawn.

7.3.2.9. **Undetermined (Strong and Weak) –** Across the survey area, anomalies of varying enhancements and appearance have been detected. These anomalies lack sufficient diagnostic criteria to allow for a confident interpretation. A pair of weakly positive parallel linear anomalies in Area 13 **[13d]** with a northwest to southeast orientation are similar to appearance in the clawdd boundaries identified elsewhere in the area, but their weaker enhancement would suggest a different origin. The anomalies are visible in aerial photography of the area (Google Earth, 2023) as a cropmark and it is possible that they represent a former trackway.

8. Conclusions

8.1. A fluxgate gradiometer survey was successfully conducted across c. 108.7 ha of a c. 112ha survey area, with the remainder unable to be surveyed due to young crop. The survey has detected anomalies of archaeological, agricultural, natural, and undetermined origins.

8.2. Archaeological activity has been identified. Parallel linear anomalies typical of clawdd boundaries are present across the survey area, some of which correspond to mapped field boundaries, whereas some do not but have a form and position consistent with field divisions. These are possibly of a post-medieval date. Other archaeological anomalies that have been identified include enclosure systems and ring ditches. These are likely of a prehistoric to Romano-British origin.

8.3. Agricultural anomalies identified within the survey area include mapped former field boundaries, ridge and furrow and modern cultivation trends, and drainage features. All of which are likely of a medieval to post medieval date.

8.4. Variations in the underlying geology, likely to be the result of hill wash or other processes, have been detected across the survey area. A zone of anomalies corresponding to a former marshland has also been detected.

8.5. Anomalies have been detected across the survey area for which a confident interpretation cannot be assigned. These have been classified as undetermined. One of these anomalies is similar in appearance to the clawdd boundaries but of a weaker magnetic signal and may represent a former trackway.

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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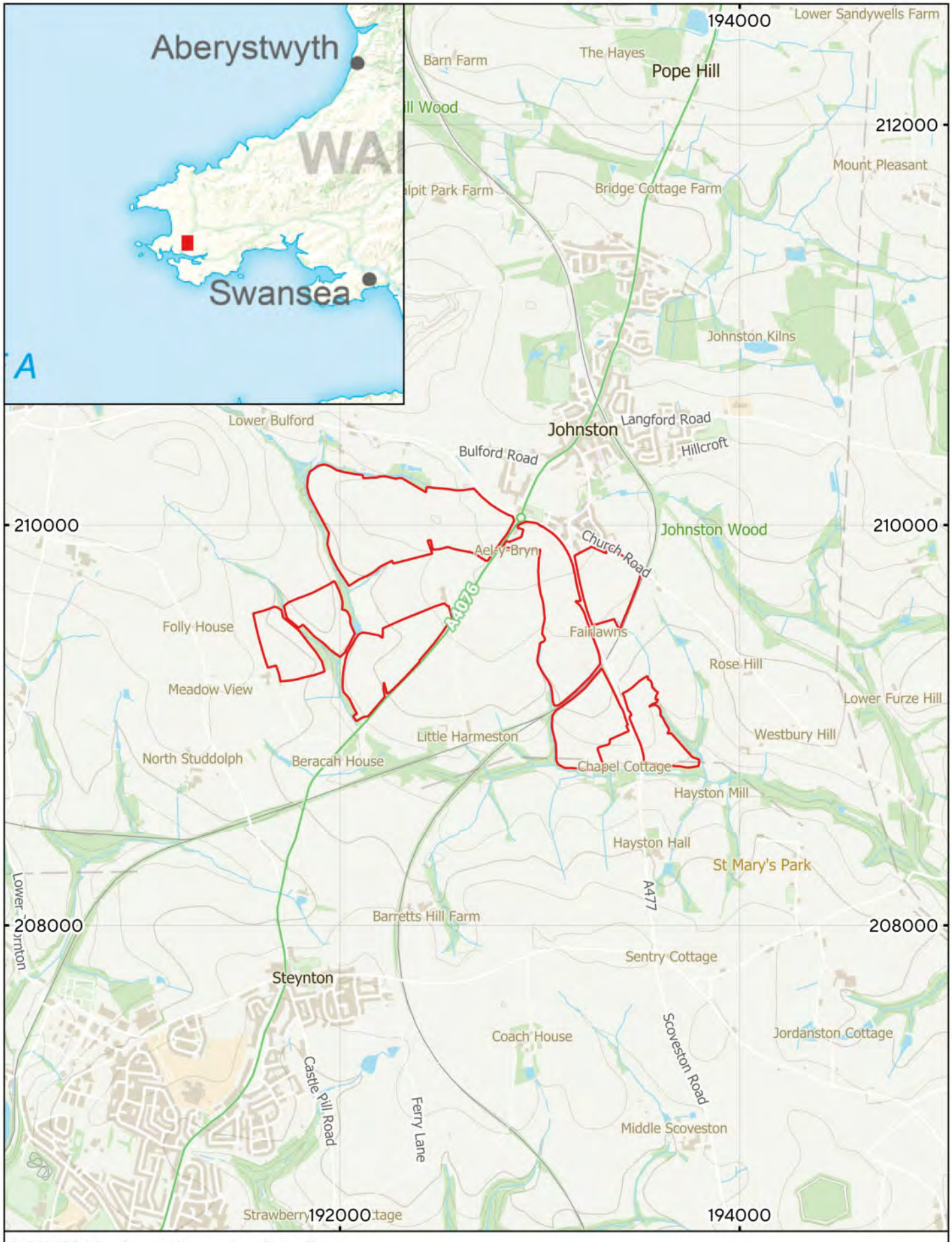
12. Project Metadata

MS Job Code	MSSM2260
Project Name	Great Harmeston Solar Farm
Client	Pegasus Planning Group Limitedon
Grid Reference	SM 9260 0975
Survey Techniques	Magnetometry
Survey Size (ha)	112ha
Survey Dates	2025-10-20 to 2025-11-12
Project Lead	Matthew Stead BA (Hons) MA ACIfA
Project Officer	Matthew Stead BA (Hons) MA ACIfA
HER Event No	N/A
OASIS No	TBC
S42 Licence No	N/A
Report Version	0.4

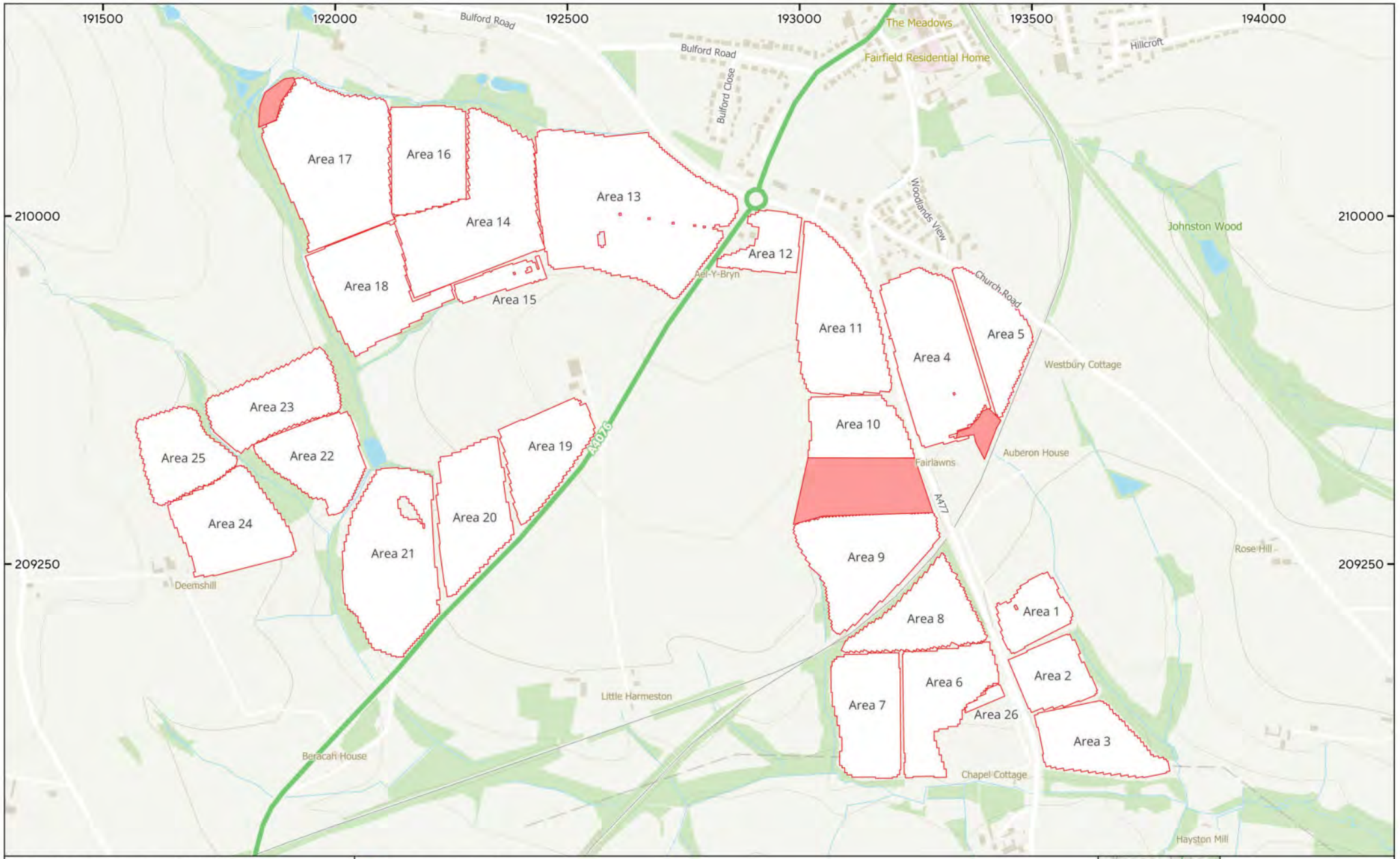
13. Document History

Version	Comments	Author	Checked By	Date
0.1	Initial draft for Review	MS	BP	07 January 2026
0.2	Sign Off	MS	PJ	14 January 2026
0.3	Sign off following Director Approval	MS	PJ	16 January 2026
0.4	Client Corrections	MS	PJ	04 March 2026



MSSM2260 - Great Harmeston Solar Farm
Figure 1 - Geophysical Survey Location
1:25,000 @ A4

Geophysical Survey Areas



MSSM2260 - Great Harmeston Solar Farm
Figure 2 - Geophysical Survey Areas
1:7,500 @ A3

Geophysical Survey Areas
Unable to be Surveyed

Magnitude Surveys

0 70 140 210 280 m

MSSM2260 - Great Harmeston Solar Farm
Figure 3 - Magnetic Total Field Overview (Areas 12-18)
1:3,000 @ A3

48,997 — 49,005

Magnitude Surveys

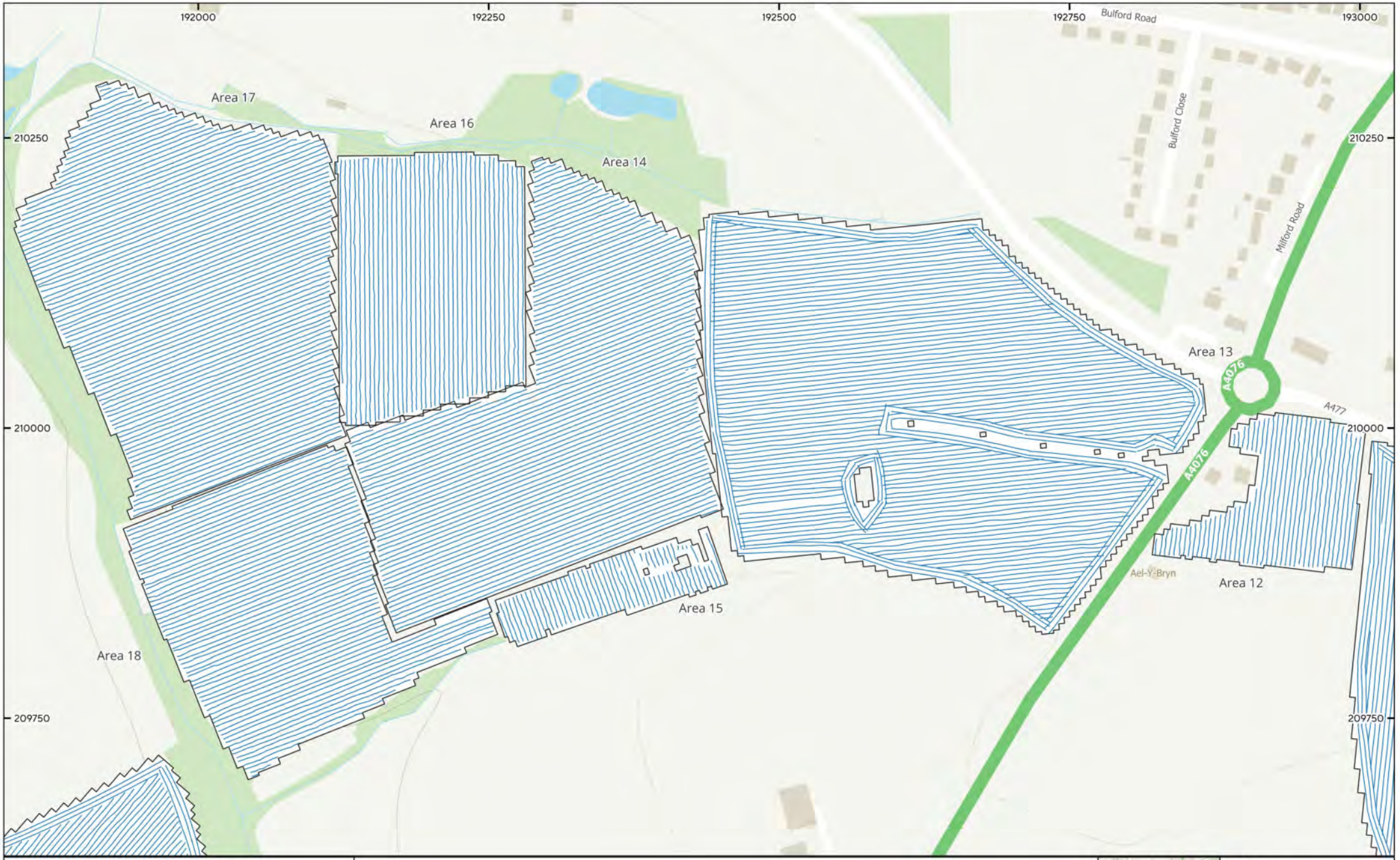
0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 4 - Magnetic Interpretation over Historical Mapping and Satellite Imagery Overview (Areas 12-18)
1:3,000 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Strong)
- Undetermined (Weak)
- Magnetic Disturbance
- Ridge and Furrow (Trend)
- Drainage Feature
- Agricultural (Trend)

Magnitude Surveys

0 30 60 90 120 m



MSSM2260 - Great Harmeston Solar Farm
Figure 5 - GNSS Plot (Areas 12-18)
1:3,000 @ A3

Magnitude Surveys

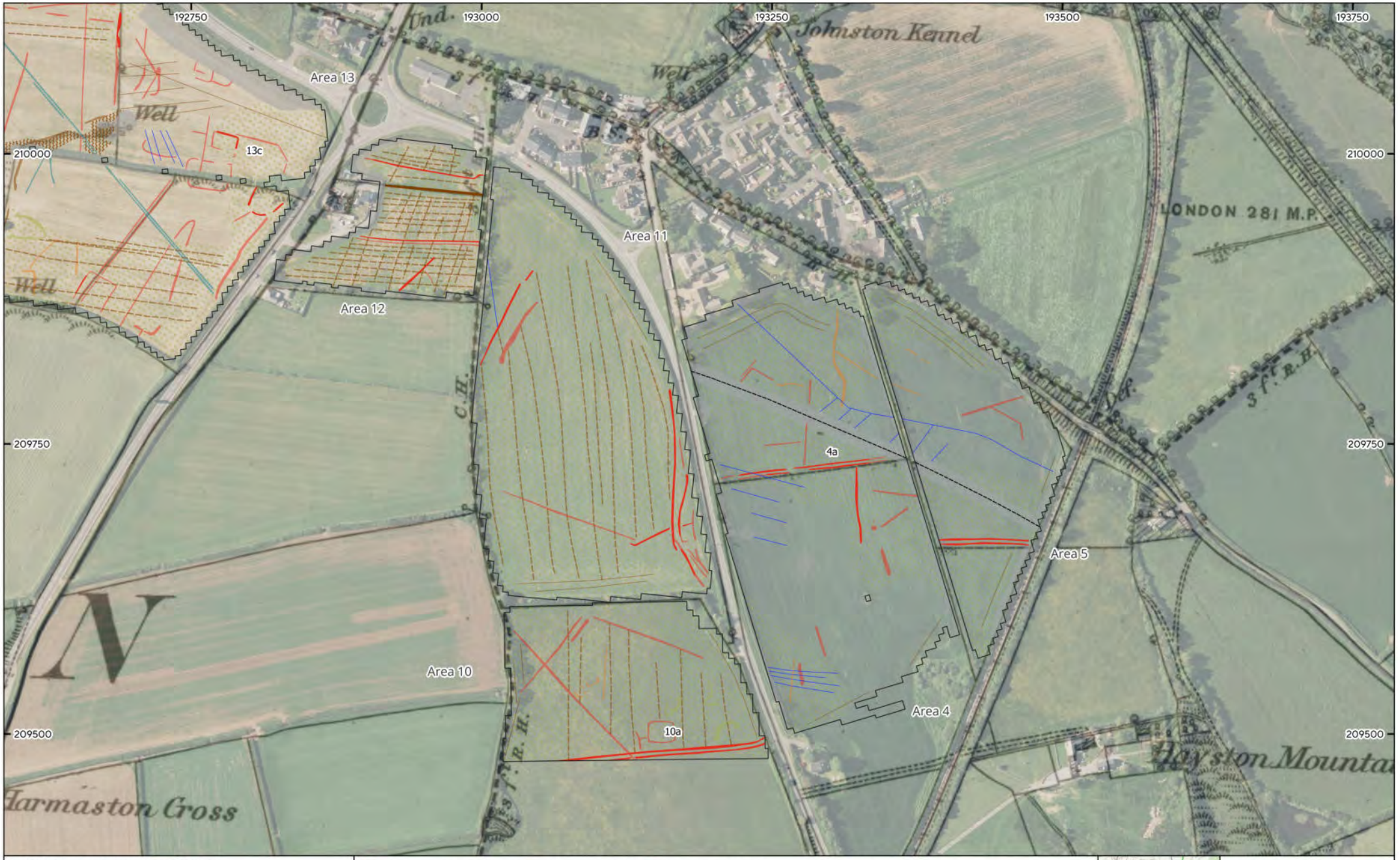
0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 6 - Magnetic Total Field Overview (Areas 4, 5, 10, 11, 12 & 13 (east))
1:3,000 @ A3

48,997 — 49,005

Magnitude Surveys

0 30 60 90 120 m



MSSM2260 - Great Harmeston Solar Farm
Figure 7 - Magnetic Interpretation over Historical Mapping and Satellite Imagery Overview (Areas 4, 5, 10, 11, 12 & 13 (east))
1:3,000 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Ridge and Furrow (Trend)
- Drainage Feature
- Agricultural (Trend)
- Service

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 8 - GNSS Plot (Areas 4, 5, 10, 11, 12 & 13 (east))
1:3,000 @ A3

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 9 - Magnetic Total Field Overview (Areas 19-25)
1:3,000 @ A3

48,997 — 49,005

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 10 - Magnetic Interpretation over Historical Mapping and Satellite Imagery Overview (Areas 19-25)
1:3,000 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Agricultural (Strong)
- Natural (Strong)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Ridge and Furrow (Trend)
- Drainage Feature
- Agricultural (Trend)
- Service

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 11 - GNSS Plot (Areas 19-25)
1:3,000 @ A3

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 12 - Magnetic Total Field Overview (Areas 1-3, 7-9 & 26)
1:3,000 @ A3

48,997 — 49,005

Magnitude Surveys

0 30 60 90 120 m

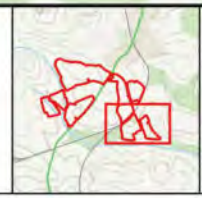
MSSM2260 - Great Harmeston Solar Farm
Figure 13 - Magnetic Interpretation over Historical Mapping and Satellite Imagery Overview (Areas 1-3, 7-9 & 26)
1:3,000 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Agricultural (Weak)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Strong)
- Undetermined (Weak)
- Magnetic Disturbance
- Ridge and Furrow (Trend)
- Agricultural (Trend)
- Service

Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 14 - GNSS Plot (Areas 1-3, 7-9 & 26)
1:3,000 @ A3



Magnitude Surveys

0 30 60 90 120 m

MSSM2260 - Great Harmeston Solar Farm
Figure 15 - Magnetic Gradient (Areas 14 (North), 16, 17 & 18 (North))
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

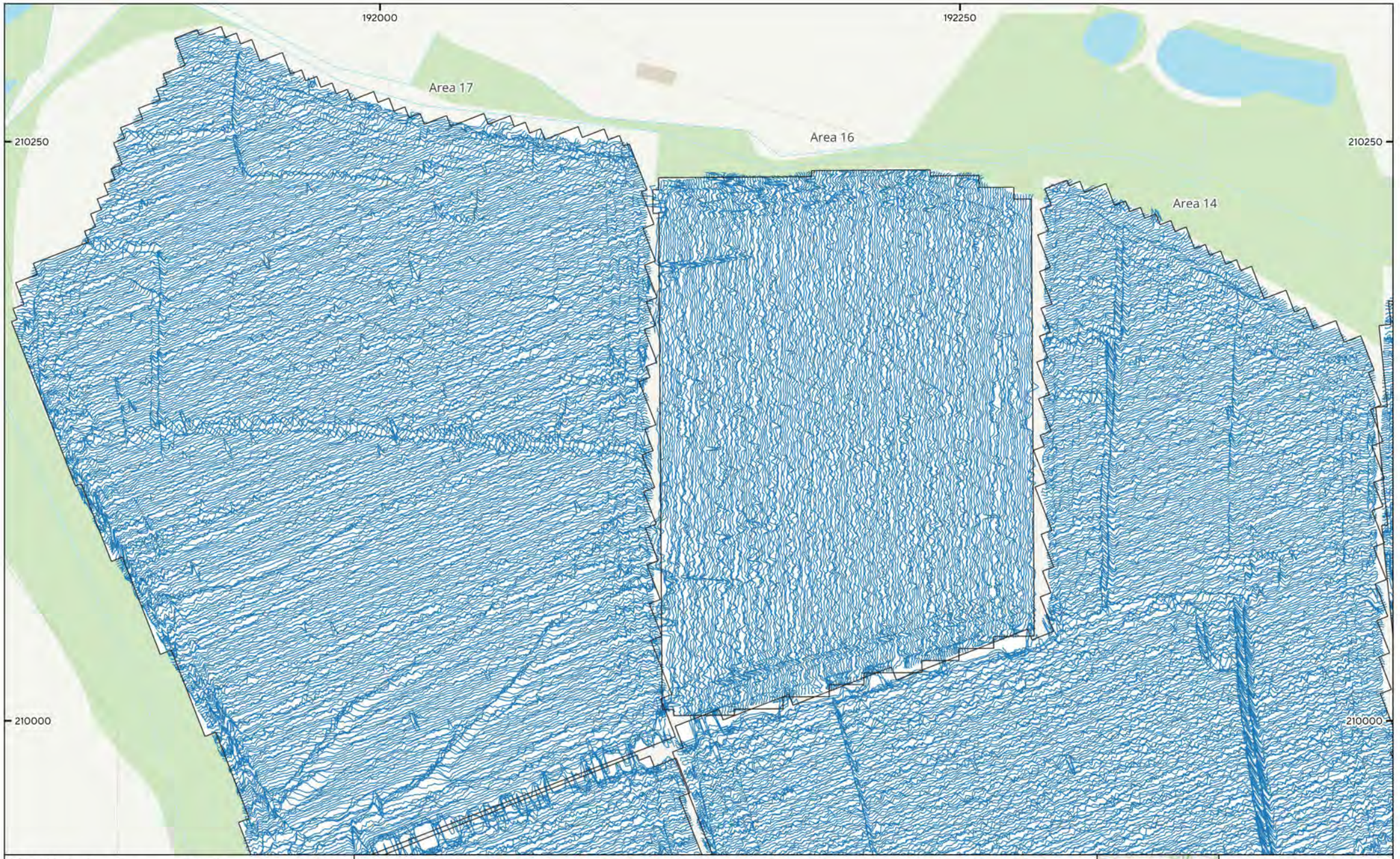
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 16 - Magnetic Interpretation (Areas 14 (North), 16, 17 & 18 (North))
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Weak)
Natural (Weak)
Natural (Spread)
Magnetic Disturbance
Ridge and Furrow (Trend)
Agricultural (Trend)

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 17 - XY Plot (Areas 14 (North), 16, 17 & 18 (North))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

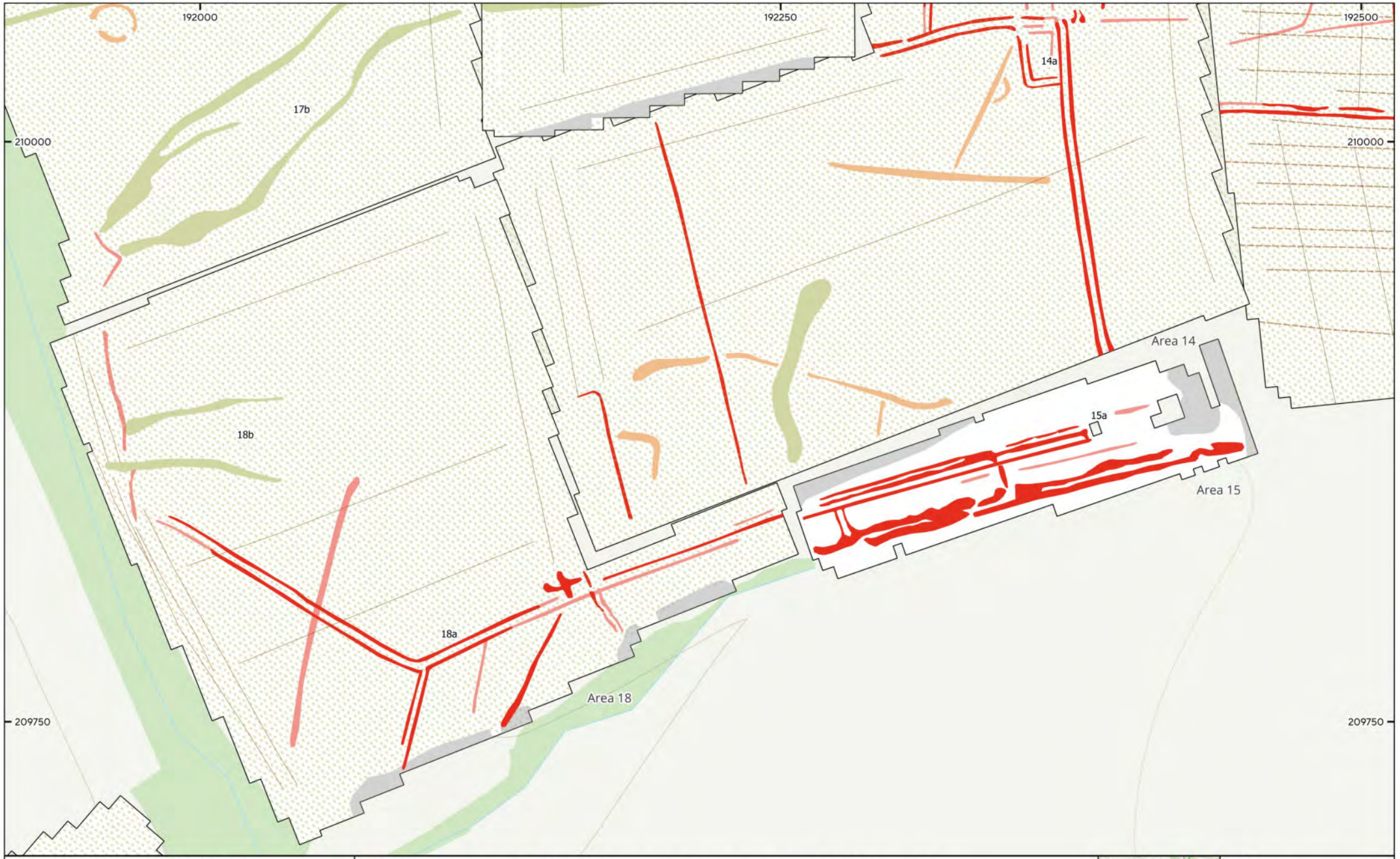
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 18 - Magnetic Gradient (Areas 14 (South) & 15, 16 (South), 17 (South) & 18)
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 19 - Magnetic Interpretation (Areas 14 (South) & 15, 16 (South), 17 (South) & 18)
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Weak)
Natural (Weak)
Natural (Spread)
Magnetic Disturbance
Ridge and Furrow (Trend)
Agricultural (Trend)

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 20 - XY Plot (Areas 14 (South) & 15, 16 (South), 17 (South) & 18)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

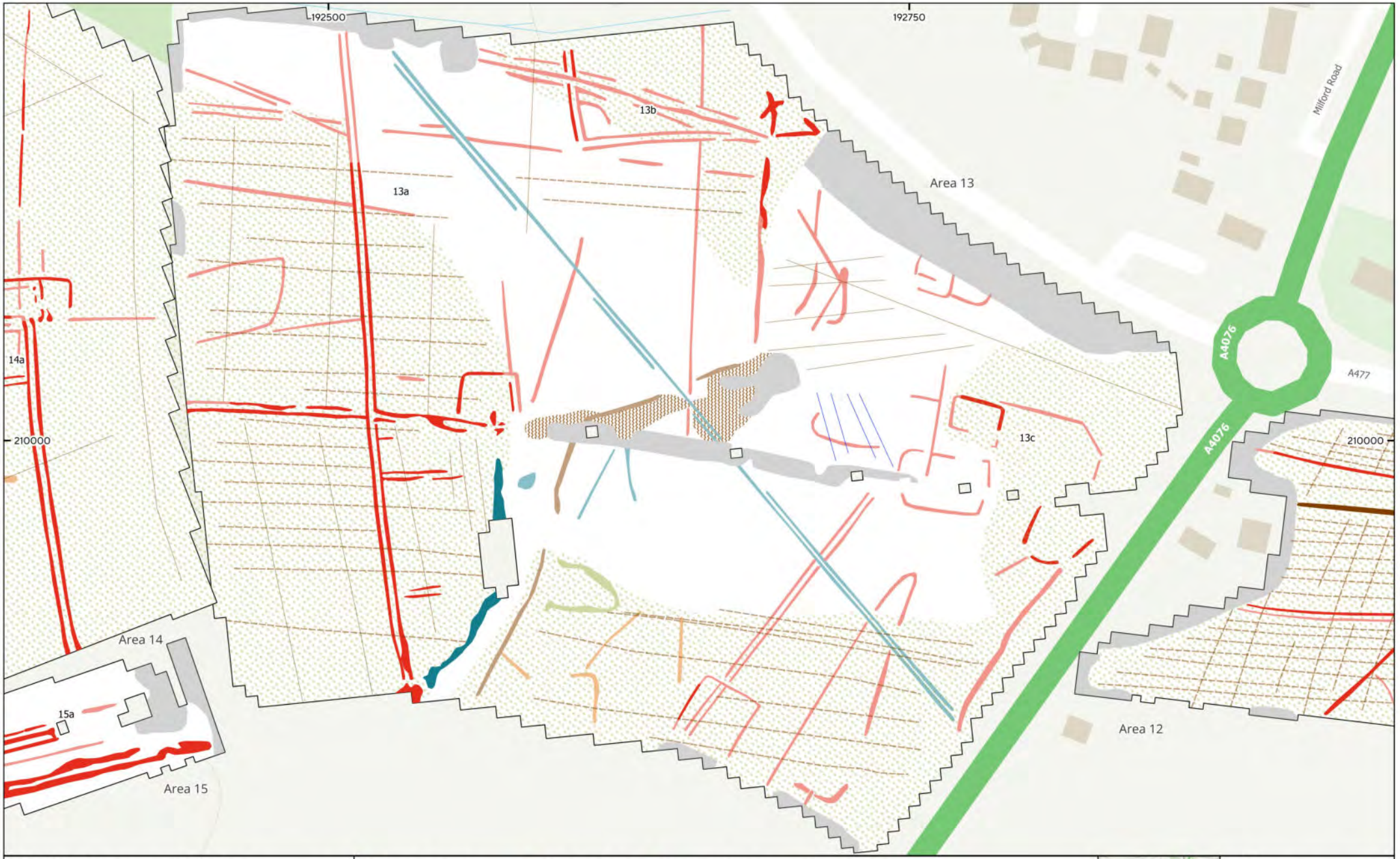
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 21 - Magnetic Gradient (Areas 12 (West), 13, 14 (East) & 15 (East))
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m

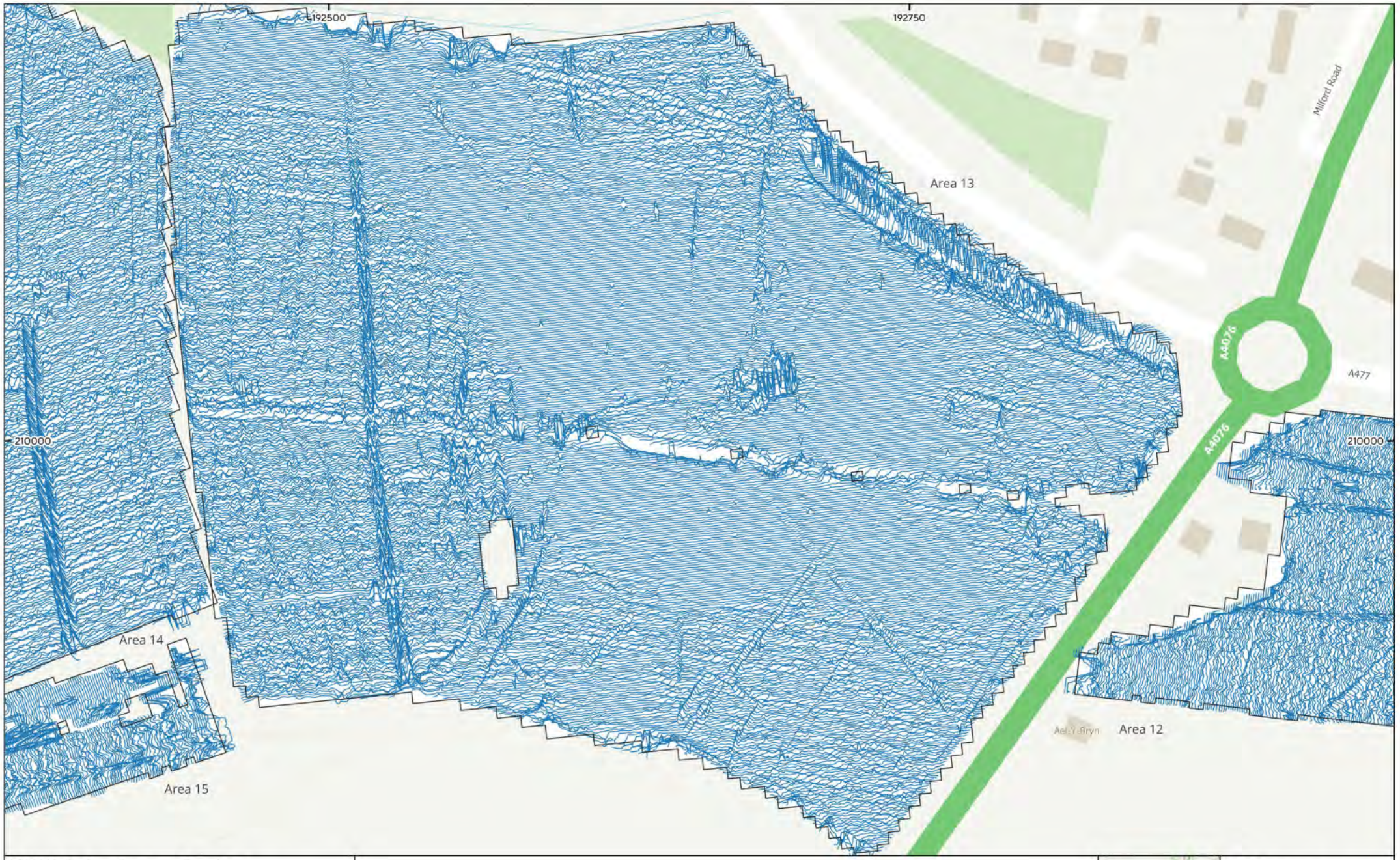


MSSM2260 - Great Harmeston Solar Farm
Figure 22 - Magnetic Interpretation (Areas 12 (West), 13, 14 (East) & 15 (East))
1:1,500 @ A3

- Agricultural (Spread)
- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Agricultural (Weak)
- Agricultural (Strong)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Undetermined (Strong)
- Ridge and Furrow (Trend)
- Drainage Feature
- Agricultural (Trend)

Magnitude Surveys

0 15 30 45 60 m

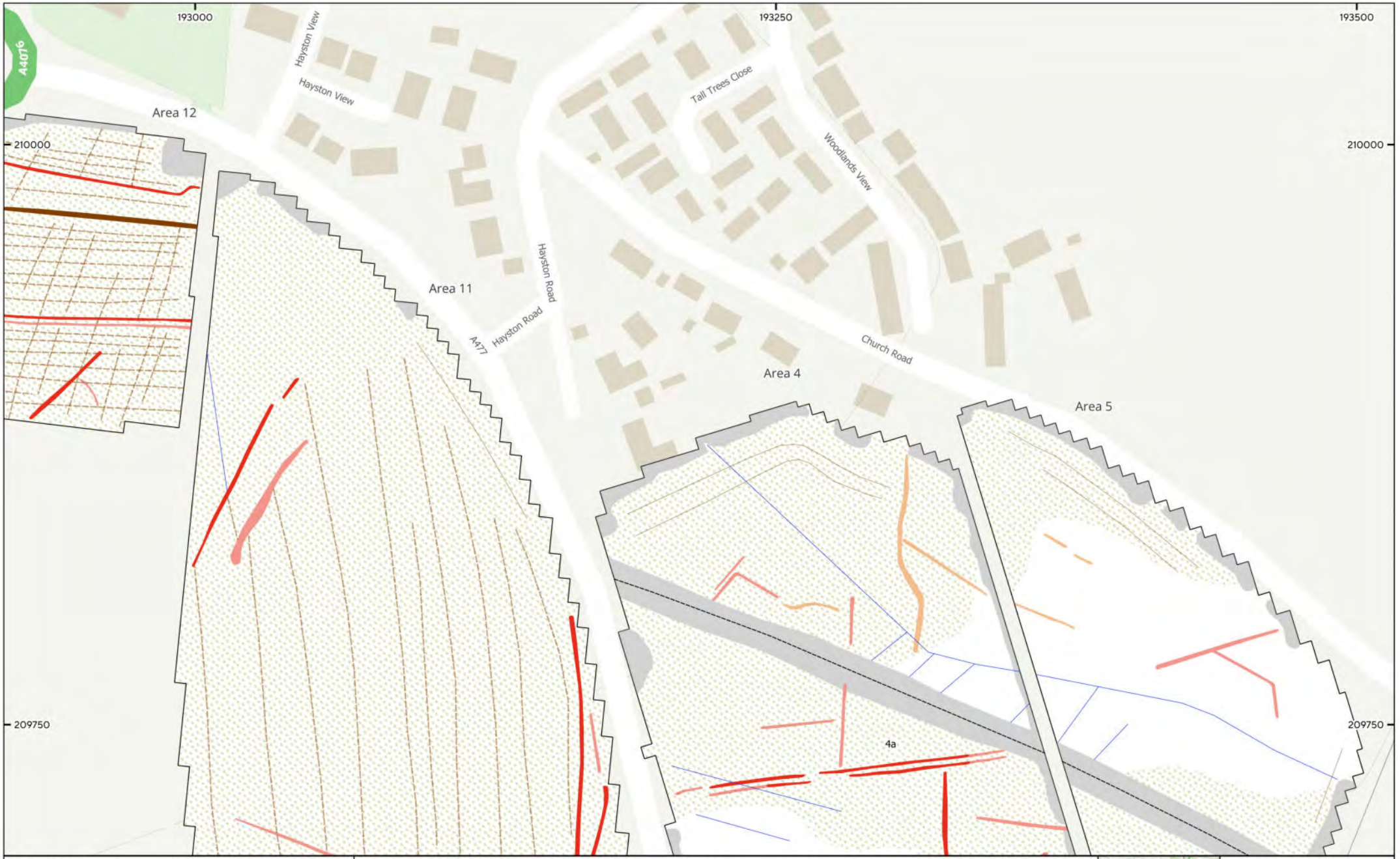


MSSM2260 - Great Harmeston Solar Farm
Figure 23 - XY Plot (Areas 12 (West), 13, 14 (East) & 15 (East))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 24 - Magnetic Gradient (Areas 4 (North), 5 (North), 11 (North) & 12 (East))
1:1,500 @ A3

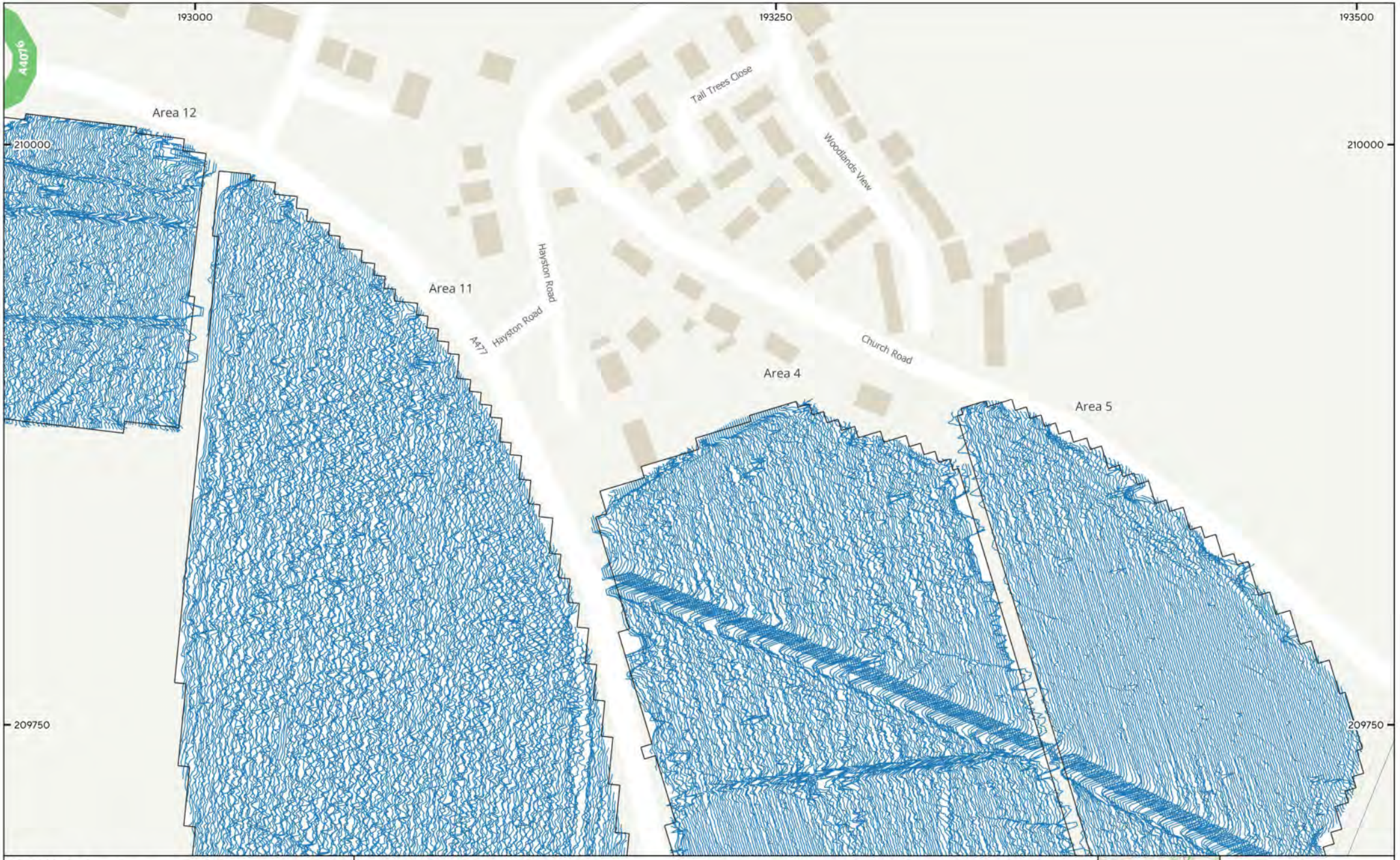


MSSM2260 - Great Harmeston Solar Farm
Figure 25 - Magnetic Interpretation (Areas 4 (North), 5 (North), 11 (North) & 12 (East))
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Weak)
Agricultural (Strong)
Natural (Spread)
Magnetic Disturbance
Ridge and Furrow (Trend)
Drainage Feature
Agricultural (Trend)
Service

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 26 - XY Plot (Areas 4 (North), 5 (North), 11 (North) & 12 (East))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

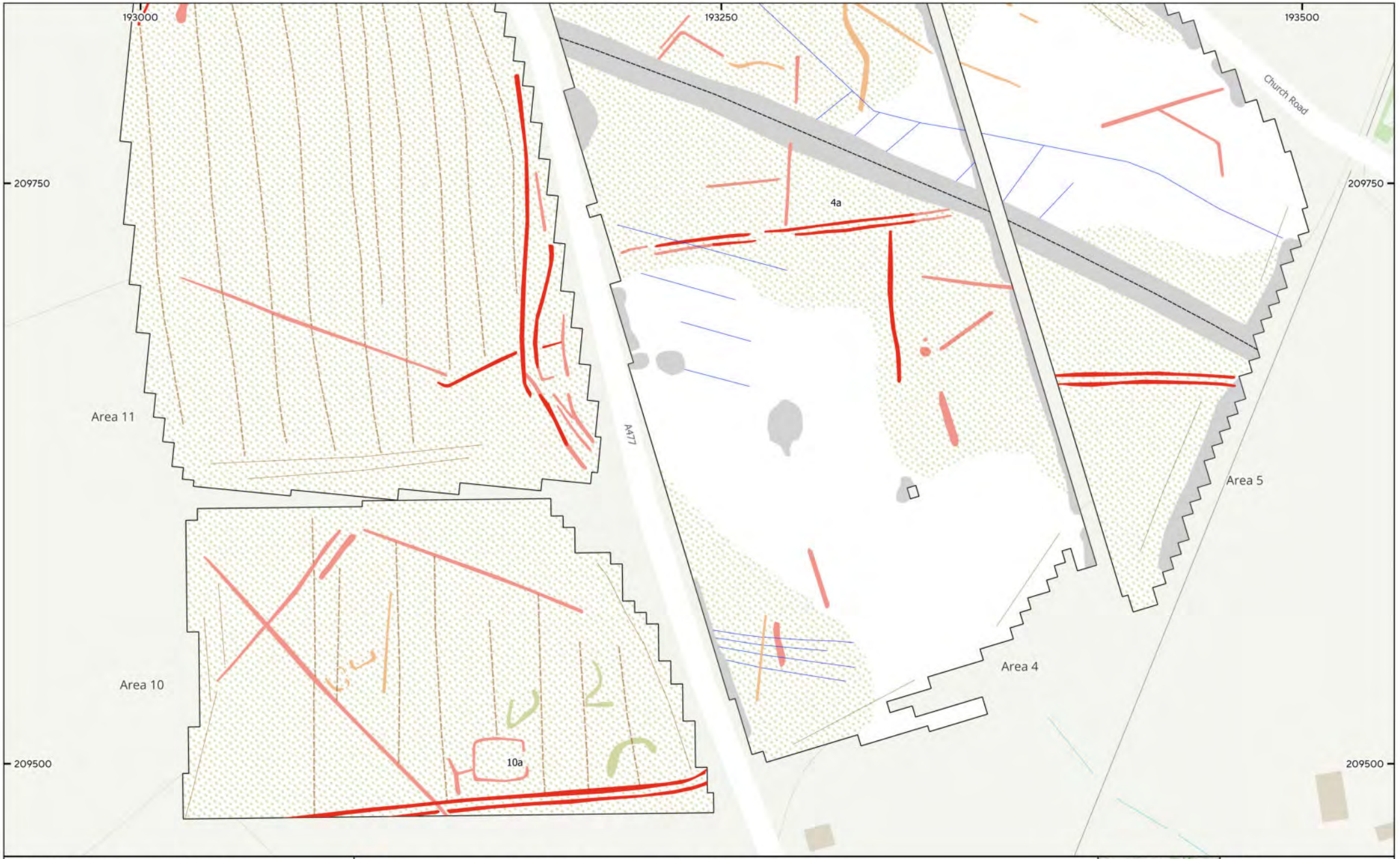
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 27 - Magnetic Gradient (Areas 4 (South), 5 (South), 10 & 11 (South))
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m

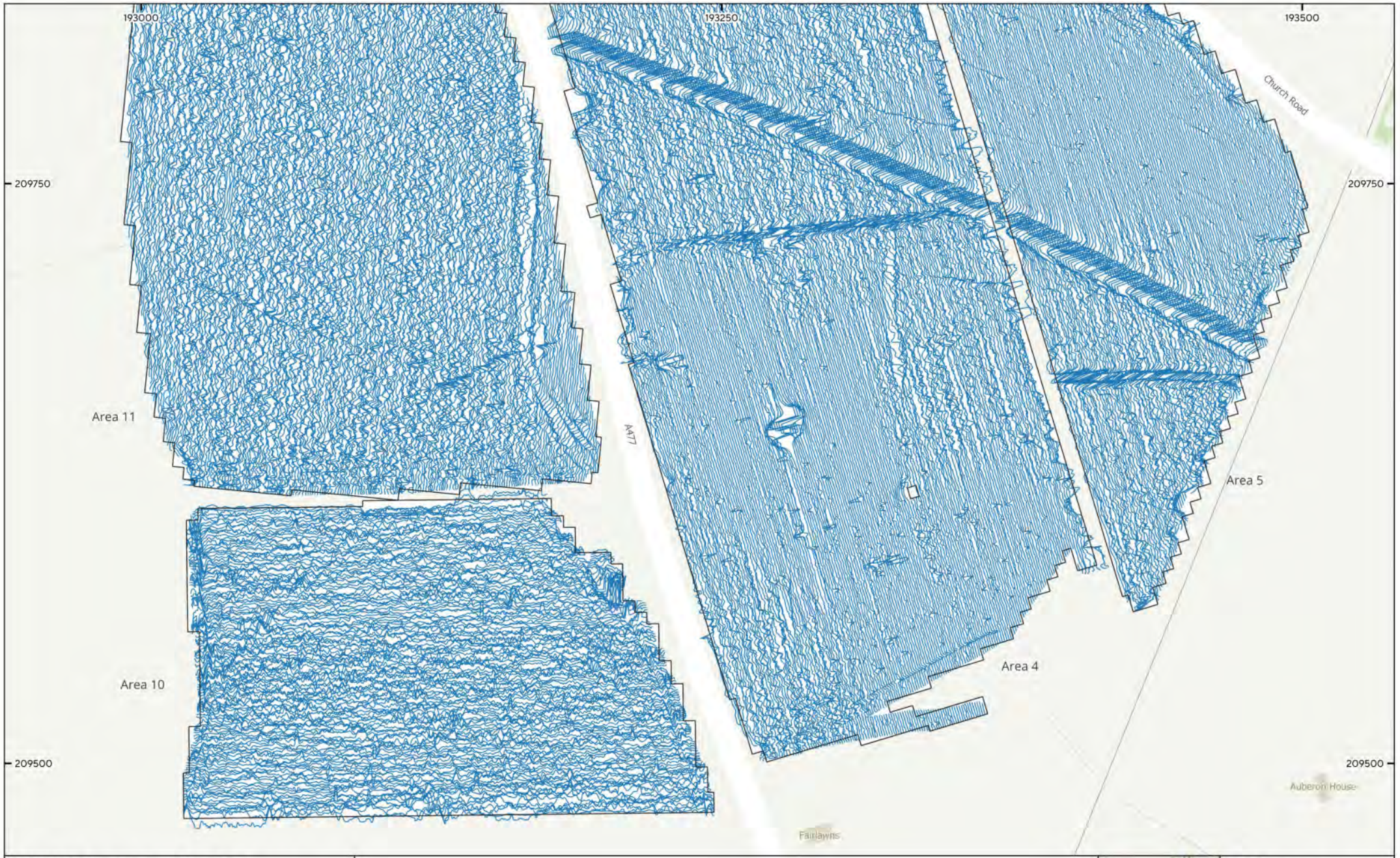


MSSM2260 - Great Harmeston Solar Farm
Figure 28 - Magnetic Interpretation (Areas 4 (South), 5 (South), 10 & 11 (South))
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Weak)
Natural (Weak)
Natural (Spread)
Magnetic Disturbance
Ridge and Furrow (Trend)
Service
Drainage Feature
Agricultural (Trend)

Magnitude Surveys

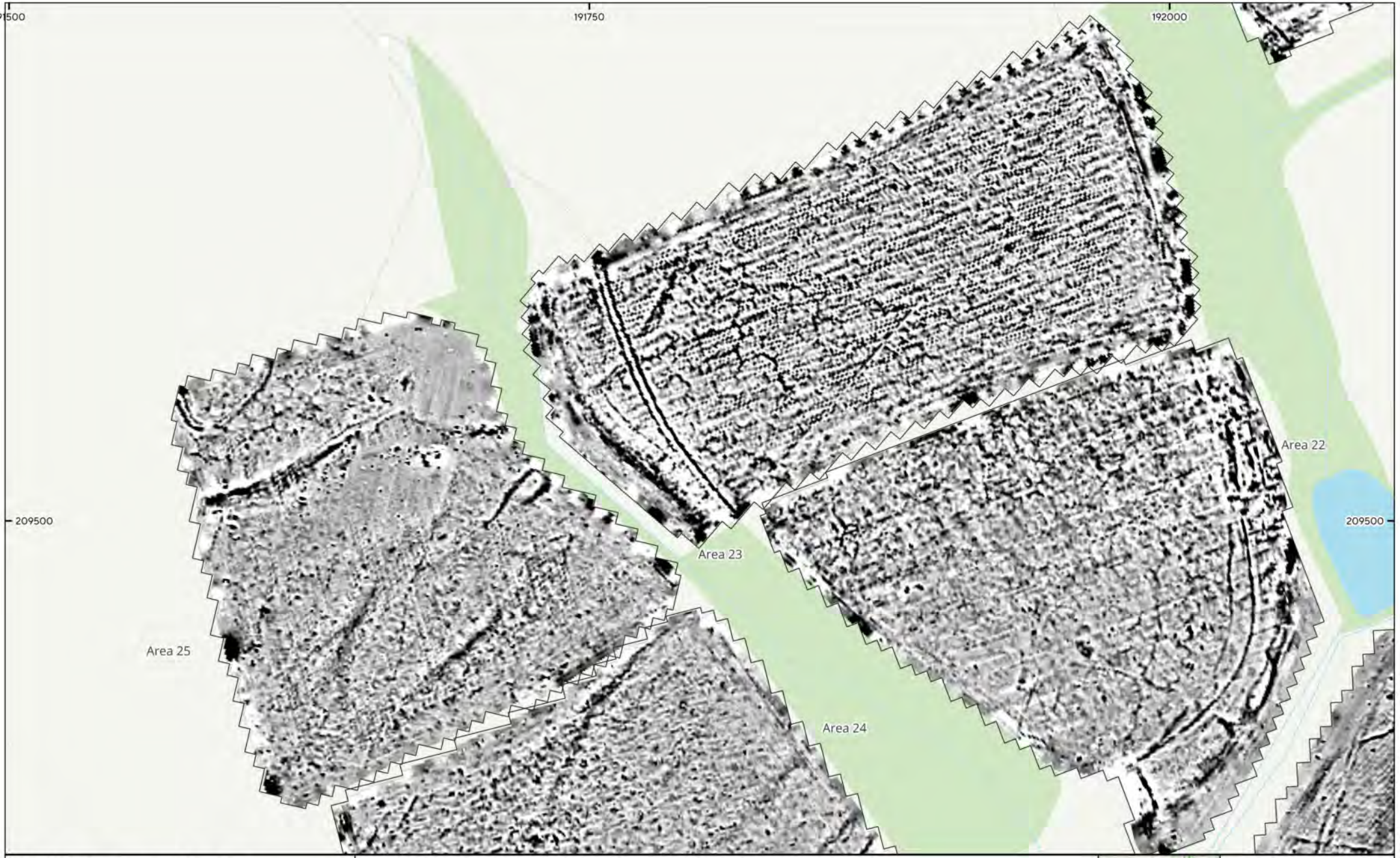
0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 29 - XY Plot (Areas 4 (South), 5 (South), 10 & 11 (South))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 30 - Magnetic Gradient (Areas 22, 23, 24 (North) & 25)
1:1,500 @ A3

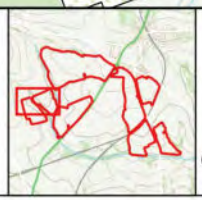
-3 nT 5

Magnitude Surveys

0 15 30 45 60 m

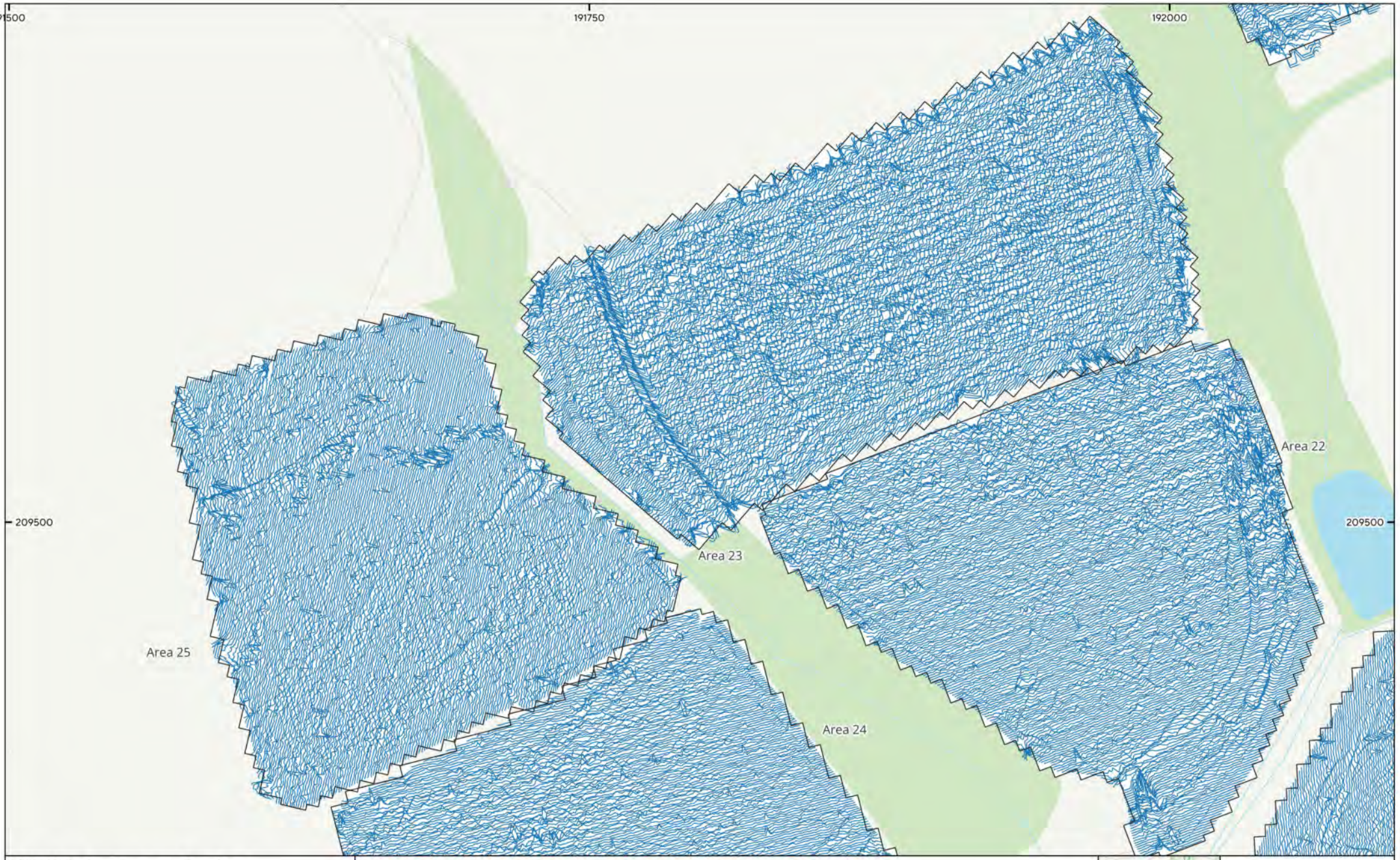
MSSM2260 - Great Harmeston Solar Farm
Figure 31 - Magnetic Interpretation (Areas 22, 23, 24 (North) & 25)
1:1,500 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Natural (Strong)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Drainage Feature
- Agricultural (Trend)



Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 32 - XY Plot (Areas 22, 23, 24 (North) & 25)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 33 - Magnetic Gradient (Areas 22, 23 (South), 24 & 25)
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

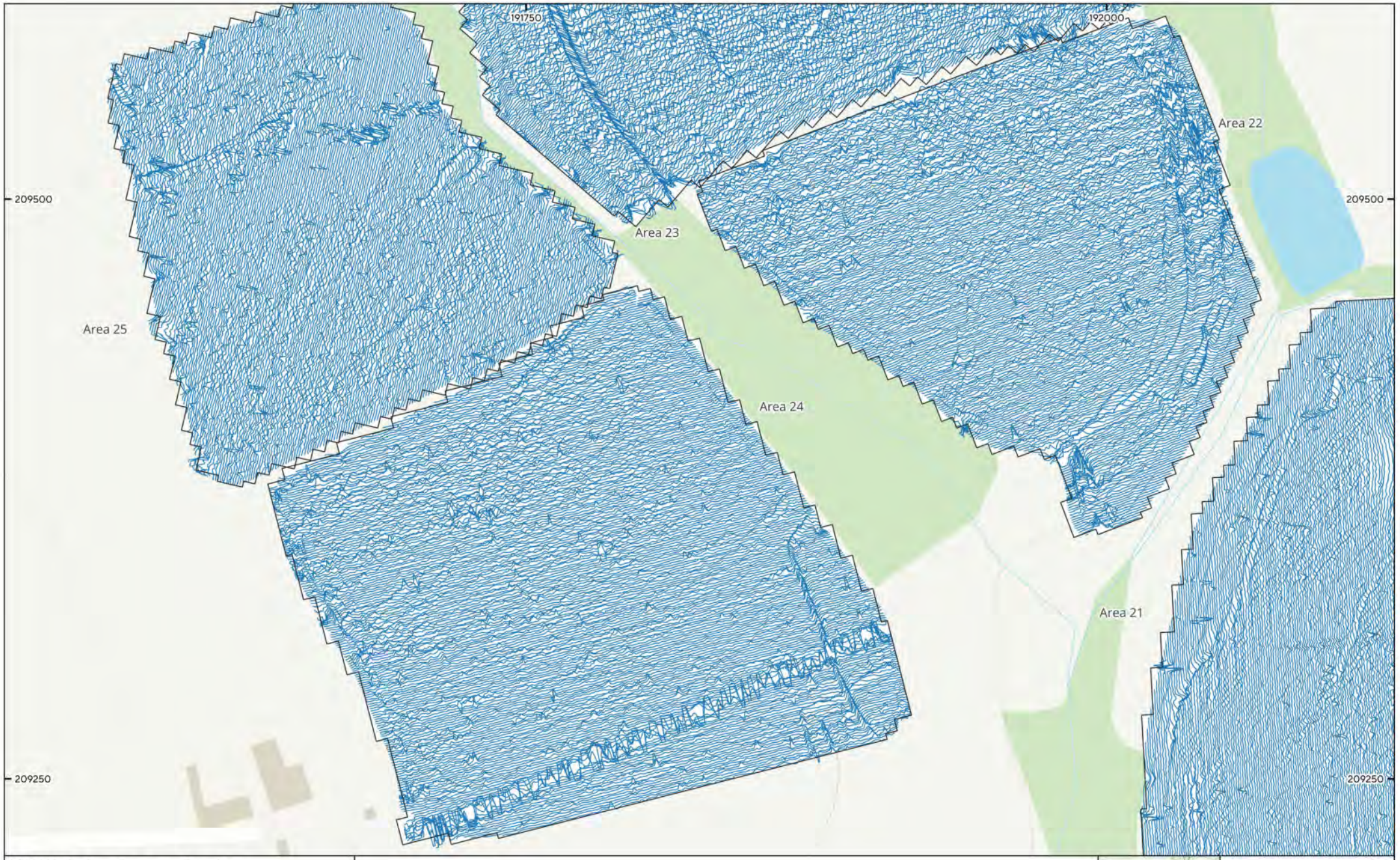
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 34 - Magnetic Interpretation (Areas 22, 23 (South), 24 & 25)
1:1,500 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Natural (Strong)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Drainage Feature
- Agricultural (Trend)
- Service

Magnitude Surveys

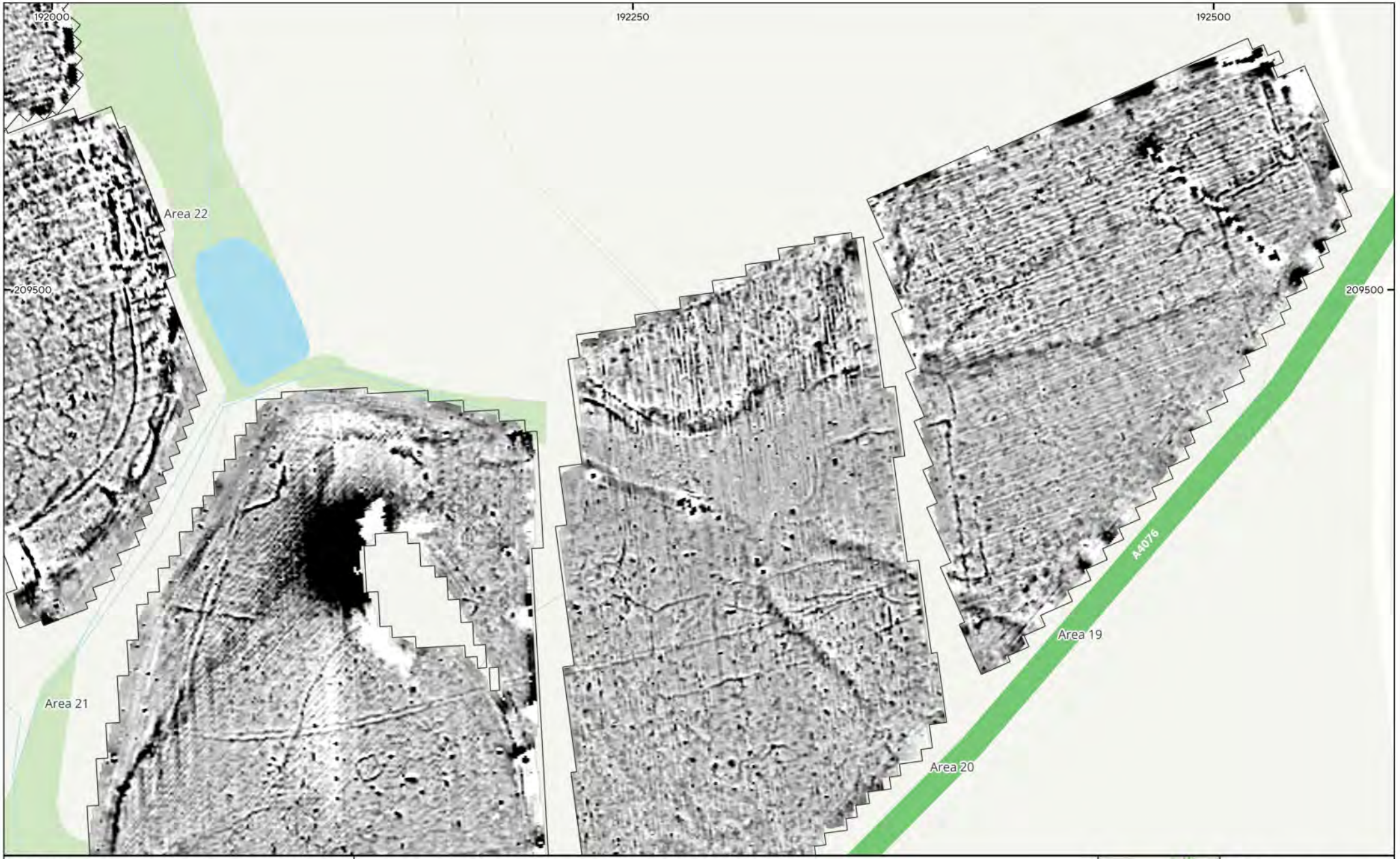
0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 35 - XY Plot (Areas 22, 23 (South), 24 & 25)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 36 - Magnetic Gradient (Areas 19, 20 (North), 21 (North) & 22 (East))
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 37 - Magnetic Interpretation (Areas 19, 20 (North), 21 (North) & 22 (East))
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Strong)
Archaeology Possible (Weak)
Agricultural (Strong)
Natural (Weak)
Natural (Spread)
Undetermined (Weak)
Magnetic Disturbance
Agricultural (Trend)
Service

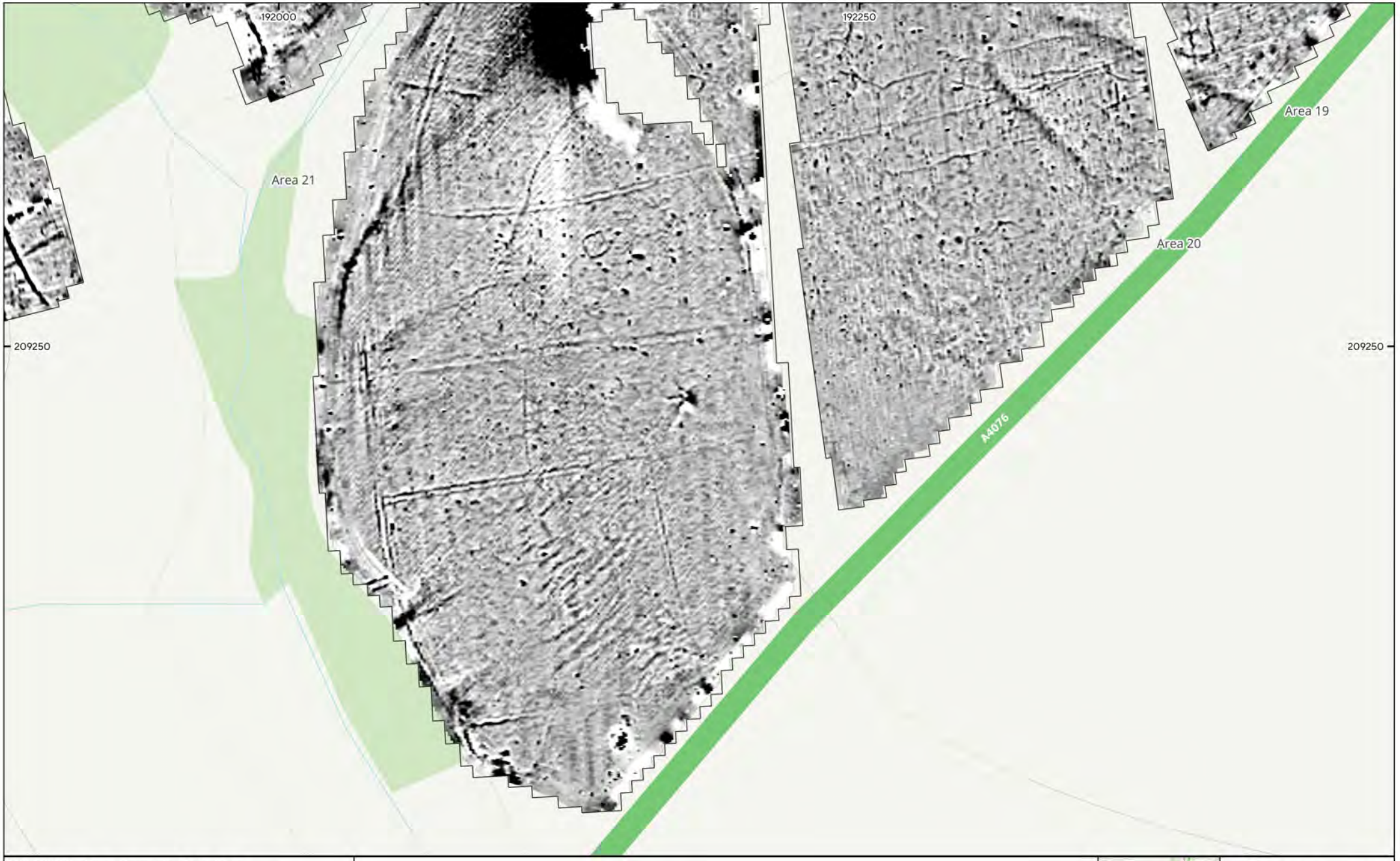
Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 38 - XY Plot (Areas 19, 20 (North), 21 (North) & 22 (East))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

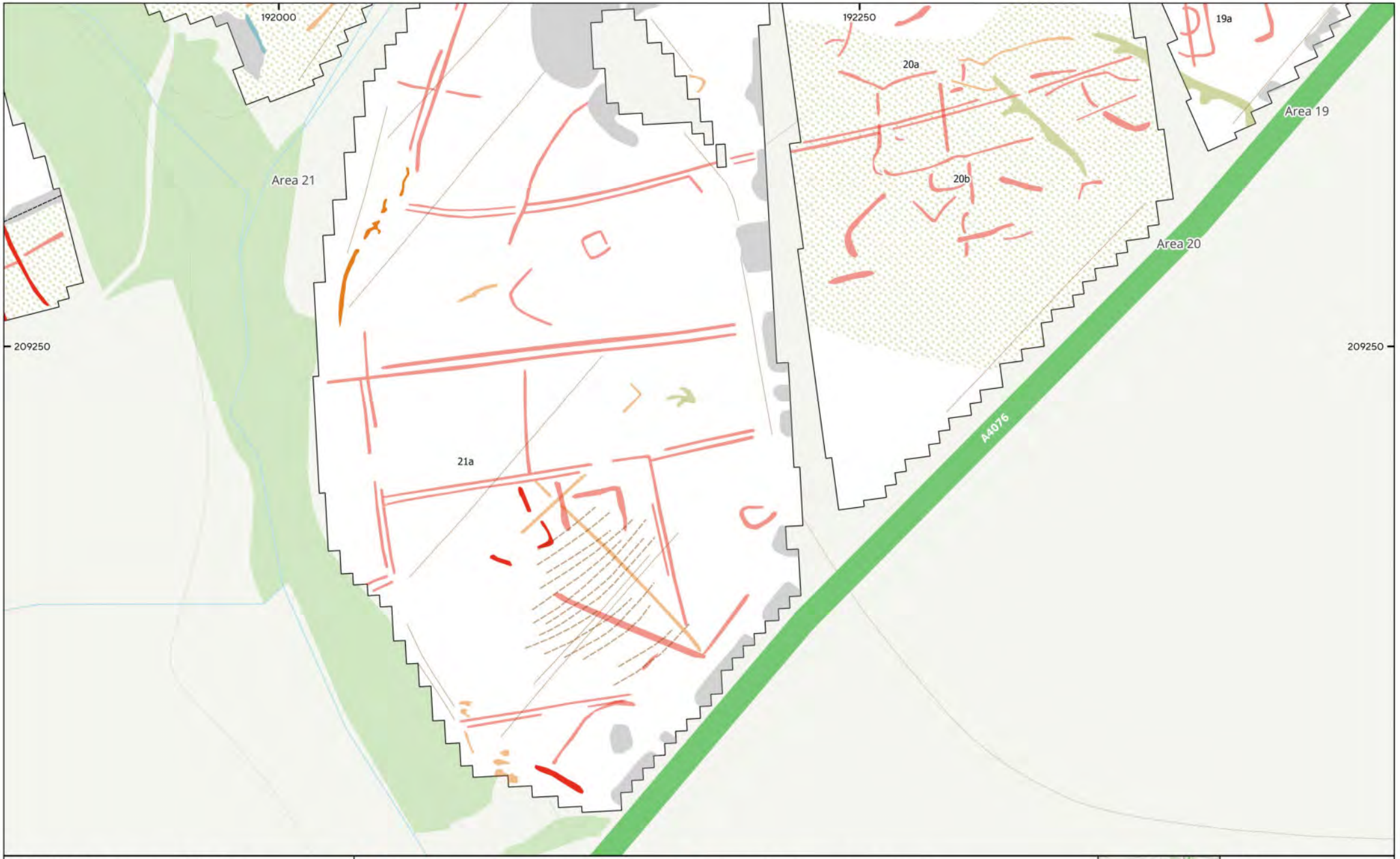


MSSM2260 - Great Harmeston Solar Farm
Figure 39 - Magnetic Gradient (Areas 19 (South), 20 (South), 21 (South), 22 (South) & 24 (East))
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 40 - Magnetic Interpretation (Areas 19 (South), 20 (South), 21 (South), 22 (South) & 24 (East))
1:1,500 @ A3

Archaeology Probable (Strong)
Archaeology Probable (Weak)
Archaeology Possible (Strong)
Archaeology Possible (Weak)
Natural (Weak)
Natural (Spread)
Undetermined (Weak)
Magnetic Disturbance
Ridge and Furrow (Trend)
Agricultural (Trend)
Service

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 41 - XY Plot (Areas 19 (South), 20 (South), 21 (South), 22 (South) & 24 (East))
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 42 - Magnetic Gradient (Areas 1 (West), 8 & 9)
1:1,500 @ A3

MSSM2260 - Great Harmeston Solar Farm
Figure 43 - Magnetic Interpretation (Areas 1 (West), 8 & 9)
1:1,500 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Undetermined (Strong)
- Service
- Agricultural (Trend)

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 44 - XY Plot (Areas 1 (West), 8 & 9)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

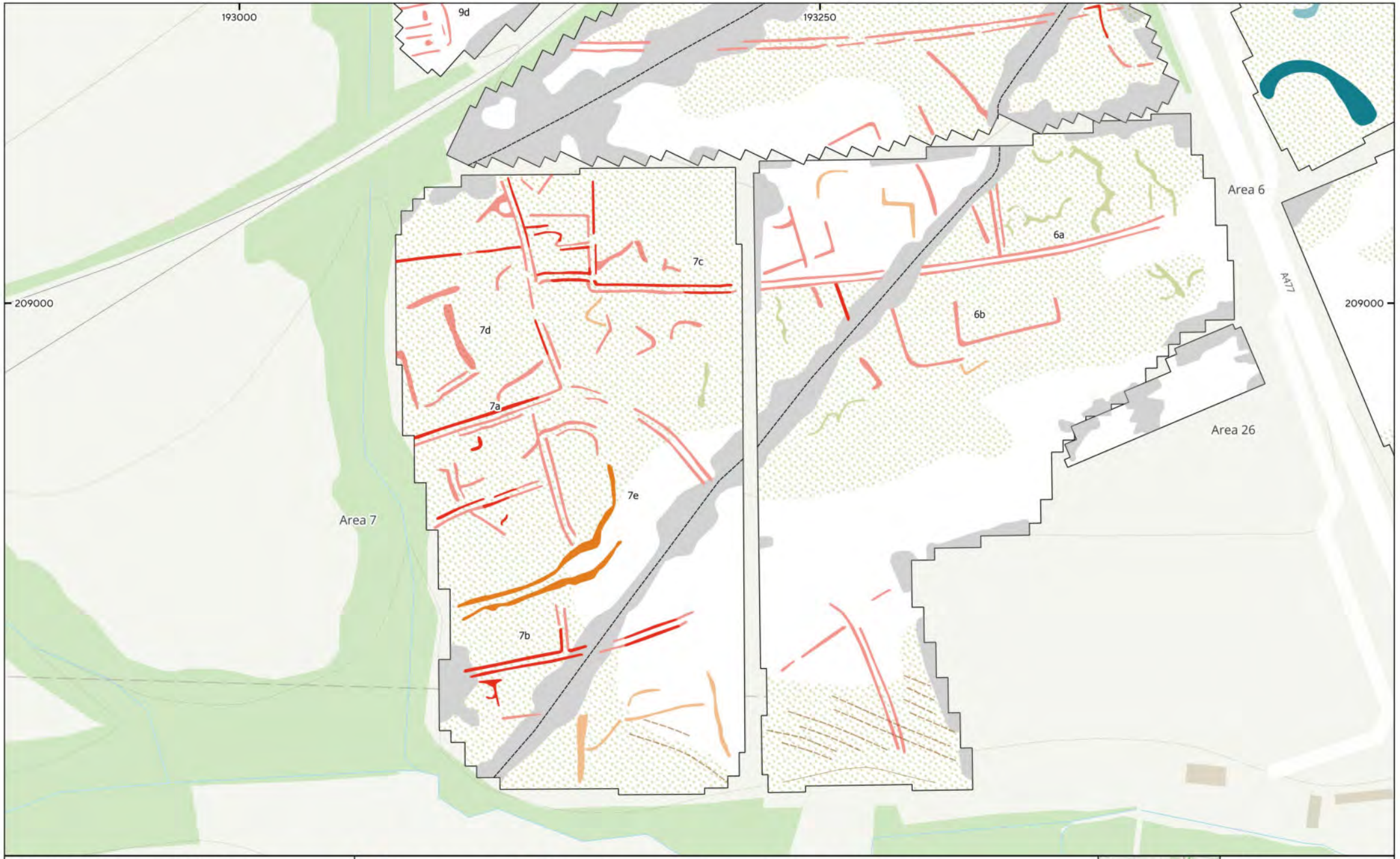
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 45 - Magnetic Gradient (Areas 6, 7, 8 (South) & 26)
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

0 15 30 45 60 m

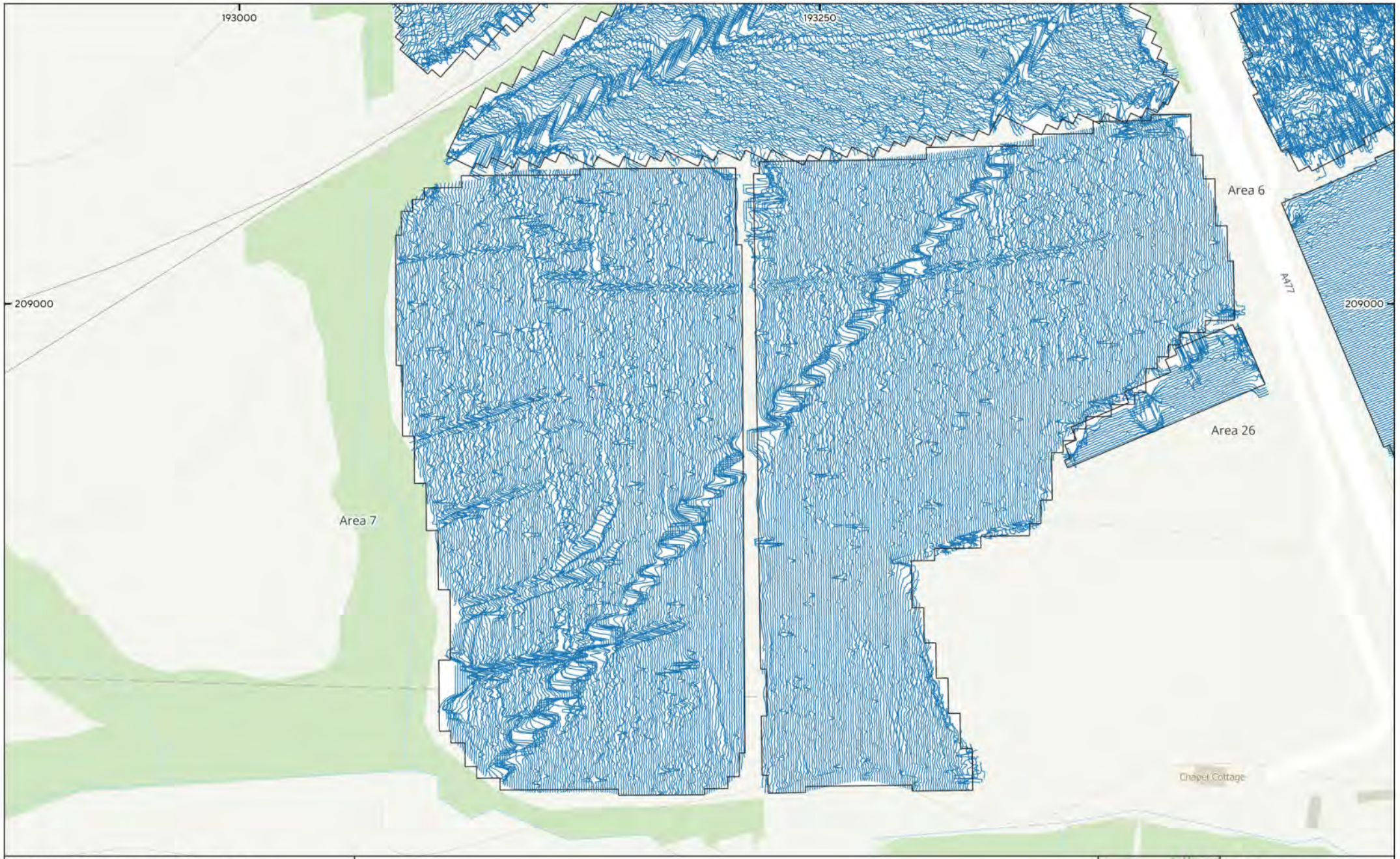


MSSM2260 - Great Harmeston Solar Farm
Figure 46 - Magnetic Interpretation (Areas 6, 7, 8 (South) & 26)
1:1,500 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Undetermined (Strong)
- Ridge and Furrow (Trend)
- Agricultural (Trend)
- Service

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 47 - XY Plot (Areas 6, 7, 8 (South) & 26)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 48 - Magnetic Gradient (Areas 1, 2, 3 (North), 6 (North), 8 (East) & 26)
1:1,500 @ A3

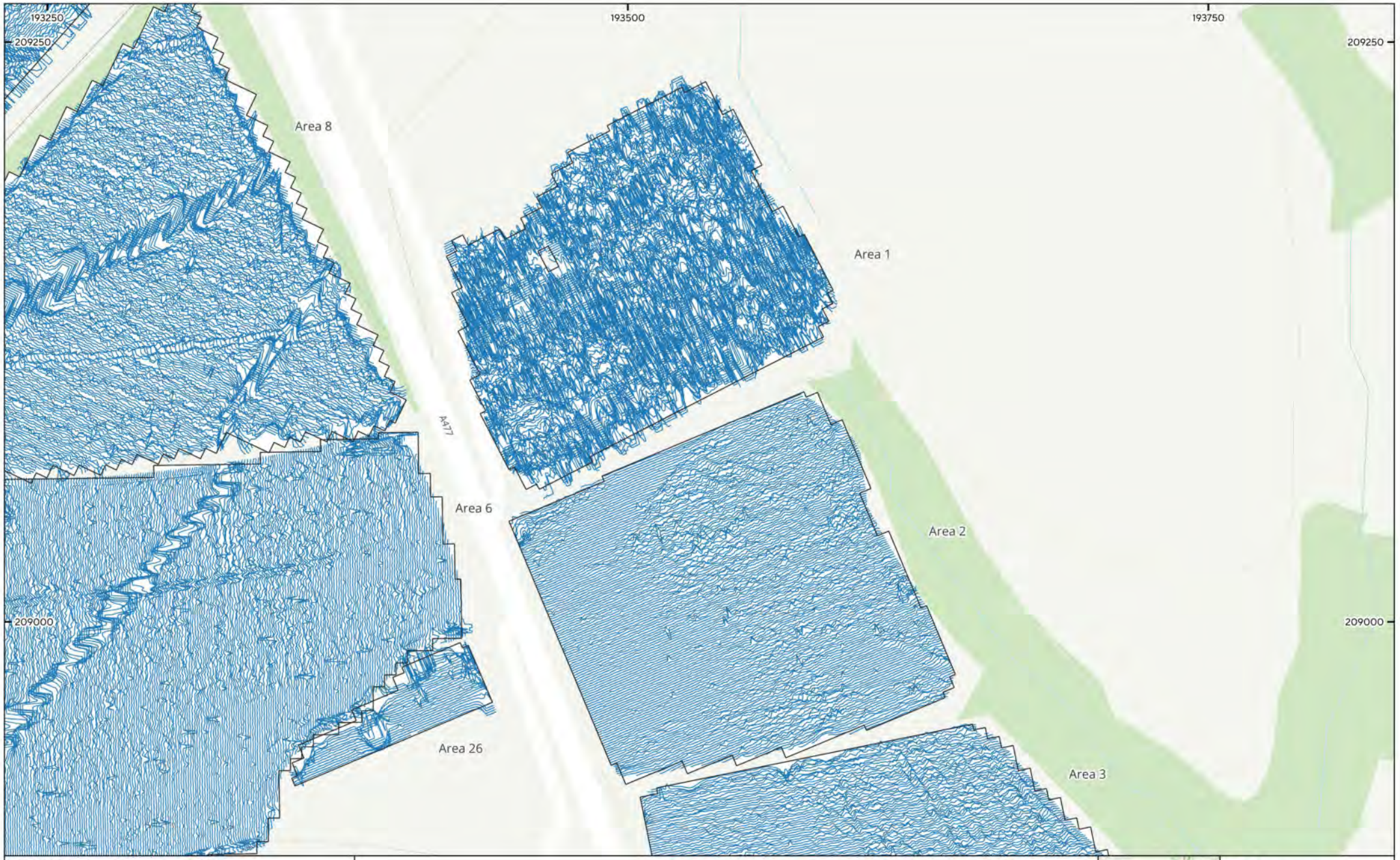
Magnitude Surveys

MSSM2260 - Great Harmeston Solar Farm
Figure 49 - Magnetic Interpretation (Areas 1, 2, 3 (North), 6 (North), 8 (East) & 26)
1:1,500 @ A3

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Undetermined (Strong)
- Ridge and Furrow (Trend)
- Agricultural (Trend)
- Service

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 50 - XY Plot (Areas 1, 2, 3 (North), 6 (North), 8 (East) & 26)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 51 - Magnetic Gradient (Areas 1 (South), 2, 3, 6 (East) & 26)
1:1,500 @ A3

-3 nT 5

Magnitude Surveys

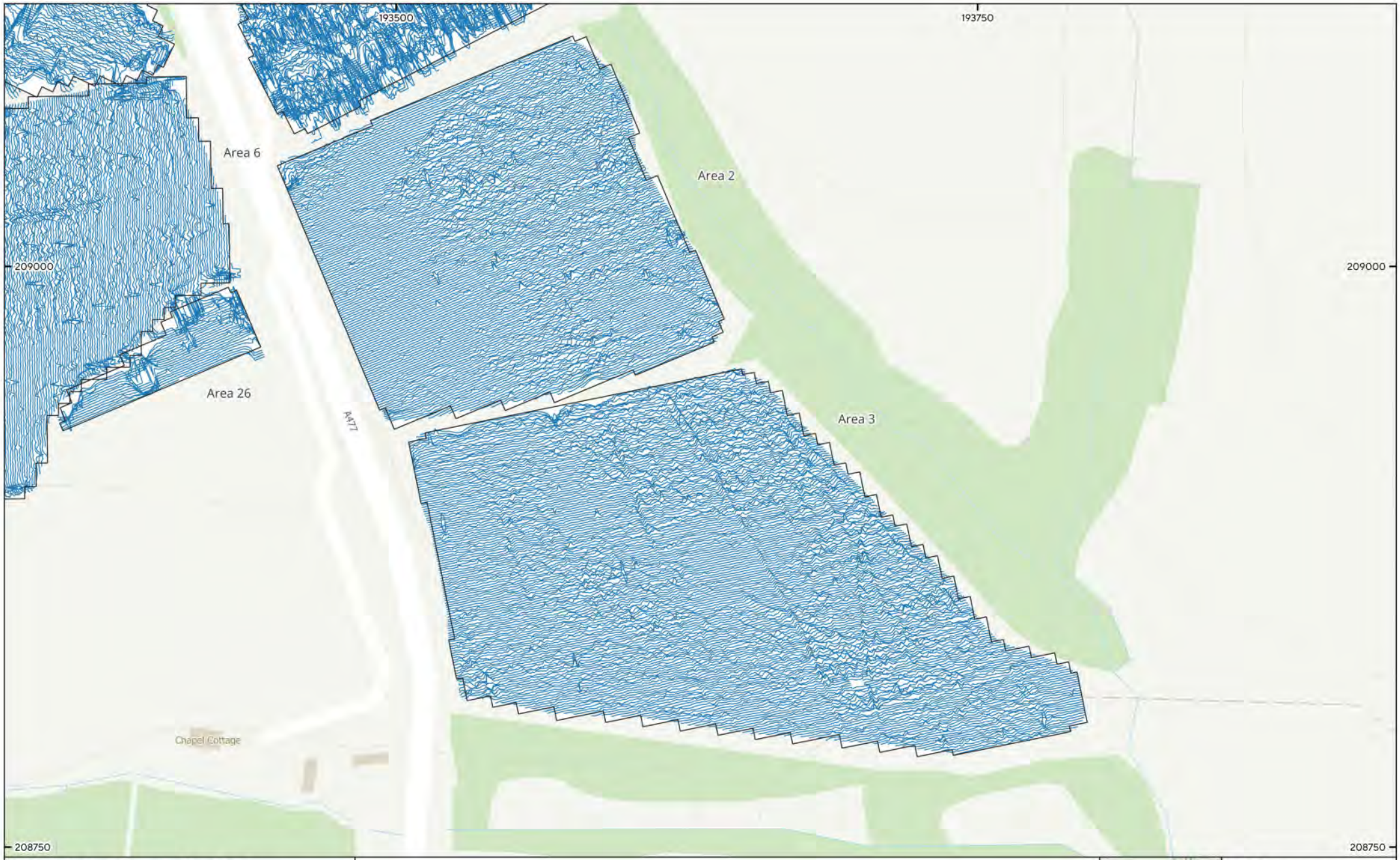
0 15 30 45 60 m

MSSM2260 - Great Harmeston Solar Farm
Figure 52 - Magnetic Interpretation (Areas 1 (South), 2, 3, 6 (East) & 26)
1:1,500 @ A3

- Archaeology Probable (Weak)
- Archaeology Possible (Weak)
- Agricultural (Weak)
- Natural (Weak)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Undetermined (Strong)
- Ridge and Furrow (Trend)
- Agricultural (Trend)
- Service

Magnitude Surveys

0 15 30 45 60 m



MSSM2260 - Great Harmeston Solar Farm
Figure 53 - XY Plot (Areas 1 (South), 2, 3, 6 (East) & 26)
1:1,500 @ A3
90nT/cm at 1:1,500 @ A3

Magnitude Surveys

0 15 30 45 60 m