APPENDIX 8.2

ARCHAEOLOGY GEOPHYSICAL SURVEY

magnitude surveys

Geophysical Survey Report

of

Land at Ford Airfield,

West Sussex

For

Orion Heritage

On Behalf Of

Wates Developments & Redrow Homes

Magnitude Surveys Ref: MSSU354

September 2018

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Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 105ha area of land at Ford Airfield, West Sussex. A fluxgate magnetometer survey was successfully completed across the site, revealing numerous anomalies of diverse origins. The geophysical results are dominated by the remains and associated debris of the WWI and WWII Ford Airfield, including runways, hangars and tie-down areas. The disused Portsmouth to Arundel canal has been identified, as have a number of former field boundaries, footpaths and sites of Post-Medieval farm buildings; these are all well-correlated with multiple historic maps. Furthermore, four different previously un-recorded areas of archaeological activity have been identified, expanding the archaeological understanding of the area. These are likely to be Prehistoric to Romano-British in date. They are in appearance not associated to each other; however, it is feasible more recent military usage of the fields may have truncated a larger settlement area. Limited modern and natural activity has also been identified .

ARUN DISTRICT COUNCIL F/4/20/OUT

Contents

Abstract 2
List of Figures 4
1. Introduction 5
2. Quality Assurance 5
3. Objectives 5
4. Geographic Background 6
5. Archaeological Background 8
6. Methodology 9
6.1. Data Collection 9
6.2. Data Processing 9
6.3. Data Visualisation and Interpretation 10
7. Results 10
7.1. Qualification 10
7.2. Discussion 10
7.3. Interpretation 12
7.3.1. General Statements 12
7.3.2. Magnetic Results - Specific Anomalies 12
8. Conclusions 15
9. Archiving 16
10. Copyright 16
11. References 16

ARUN DISTRICT COUNCIL F/4/20/OUT

List of Figures

Figure 1:	Site Location	1:25,000 @ A4
Figure 2:	Location of Survey Areas	1:8,000 @ A3
Figure 3:	Magnetic Total Field (Lower Sensor) Overview	1:8,000 @ A3
Figure 4:	Magnetic Gradient Overview	1:8,000 @ A3
Figure 5:	Magnetic Interpretation Over Satellite Imagery Overview	1:8,000 @ A3
Figure 6:	Magnetic Interpretation Over Historic Maps Overview	1:8,000 @ A3
Figure 7:	Magnetic Greyscale (Areas 1 and 2)	1:2,000 @ A3
Figure 8:	Magnetic Interpretation (Areas 1 and 2)	1:2,000 @ A3
Figure 9:	XY Trace Plot (Areas 1 and 2)	1:2,000 @ A3
Figure 10:	Magnetic Greyscale (Areas 2, 3 and 4)	1:2,000 @ A3
Figure 11:	Magnetic Interpretation (Areas 2, 3 and 4)	1:2,000 @ A3
Figure 12:	XY Trace Plot (Areas 2, 3 and 4)	1:2,000 @ A3
Figure 13:	Magnetic Greyscale (Area 5)	1:2,000 @ A3
Figure 14:	Magnetic Interpretation (Area 5)	1:2,000 @ A3
Figure 15:	XY Trace Plot (Area 5)	1:2,000 @ A3
Figure 16:	Magnetic Greyscale (Areas 1, 2, 6 and 7)	1:2,000 @ A3
Figure 17:	Magnetic Interpretation (Areas 1, 2, 6 and 7)	1:2,000 @ A3
Figure 18:	XY Trace Plot (Areas 1, 2, 6 and 7)	1:2,000 @ A3
Figure 19:	Magnetic Greyscale (Areas 8, 9 and 10)	1:2,000 @ A3
Figure 20:	Magnetic Interpretation (Areas 8, 9 and 10)	1:2,000 @ A3
Figure 21:	XY Trace Plot (Areas 8, 9 and 10)	1:2,000 @ A3
Figure 22:	Magnetic Greyscale (Areas 9, 10 and 11)	1:2,000 @ A3
Figure 23:	Magnetic Interpretation (Areas 9, 10 and 11)	1:2,000 @ A3
Figure 24:	XY Trace Plot (Areas 9, 10 and 11)	1:2,000 @ A3

ARUN DISTRICT COUNCIL F/4/20/OUT

1. Introduction

1.1. Magnitude Surveys Ltd (MS) was commissioned by Orion Heritage on behalf of Wates Developments & Redrow Homes to undertake a geophysical survey on a c.105ha area of land at Ford Airfield, Arundel, West Sussex (SU 99314 03086).

1.2. The geophysical survey comprised quad-towed, cart-mounted fluxgate magnetometer survey.

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

1.4. The survey commenced on 13 August 2018 and took 9 working 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 of Archaeological Prospection).

2.2. Director Graeme Attwood is a Member of CIfA, as well as the Secretary of GeoSIG, the CIfA Geophysics Special Interest Group. Director Finnegan Pope-Carter is a Fellow of the London Geological Society, the chartered UK body for geophysicists and geologists, as well as a member of GeoSIG, the CIfA Geophysics Special Interest Group. Director Chrys Harris has a PhD in archaeological geophysics from the University of Bradford and is the Vice-Chair of the International Society for Archaeological Prospection.

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

3. Objectives

3.1. The geophysical survey aimed to assess the subsurface archaeological potential of the survey area.

ARUN DISTRICT COUNCIL F/4/20/OUT

4. Geographic Background

4.1. The site is located at Ford, 4.9km southwest of Arundel, West Sussex (Figure 1). Survey was undertaken on a large area of mainly arable, flat land. At the time of survey the site was under stubble. Individual fields were intersected by a runway and industrial units. To the North Ford Lane runs West-East. Along the South-Western boundary the B2233 borders site. (Figure 2).

4.2. Survey considerations:

Survey Area	Ground Conditions	Further Notes
1	Arable field, under stubble at the time of survey, with mostly flat topography.	To the North the survey area was bordered by a roadway and a small industrial block. To the East a trackway bounds site, linking the main road to the haulage yard to the South-East. All boundaries except the southern are lined with trees and hedges, possible wire fencing within.
2	Arable field, under stubble at the time of survey, with mostly flat topography.	To the North of site the area is bounded by a roadway. Trees and hedges line the South, East and Western boundaries. Heavy goods vehicles were active immediately adjacent to the southern boundary at the time of survey.
3	Arable field, under stubble at the time of survey with mostly flat topography.	The area was bounded by a hedgerow in the north, west, and southeast, a metal fence to the southwest, open to the road in the southeast, a stone wall was present in the northeast. A public right of way runs across the area aligned sub N-S, and across the western half aligned sub E-W.
4	Arable field, under stubble at the time of survey with flat topography.	The area was bounded to the south and east by a roadway, trees in the west, and garden fencing to the north. A manhole cover was noted in the south of the site.
5	Arable field, under stubble at the time of survey with mostly flat topography.	The area was bounded to the north by a roadway, to the south and northwest by hedgerows, trees to the east, and a metal fence to the southwest. A manhole cover was noted to the northwest.
6	Arable field, under stubble at the time of survey with flat topography.	The area was bounded by metal fencing in the northwest and southwest, hedgerows in the west and northeast, and was open to the bordering roadway in the southeast and east. Three boreholes were present in the area, one in the southwest corner, and two in the north of the eastern half.
7	Arable field, rolled at the time of survey with flat topography.	The area was bounded by trees in the north, west, and south west, metal fencing in the southeast, and a grass verge in the east. A public footpath ran along the northern boundary of the area.
8	Arable field, rolled at the time of survey with flat topography.	The area was bounded by hedgerows with metal fence in the north, south, and west, and bounded by trees in the east. A borehole was present in the southwest of the field.
9	Arable field, under stubble at the time of survey, mostly flat topography with a slight downward slop to the North.	A roadway was noted to the West, with a hedge line boundary. To the South and East metal fencing and a runway border.

ARUN DISTRICT COUNCIL F/4/20/OUT

10	Arable field, under stubble at the time of survey, with mostly flat topography.	Bordered by runways to the North-West and North East. Metal fencing makes up the majority of the perimeter to the survey area. Survey pegs, Boreholes and burnt ground were noted within the survey area at the time of survey.
11	Arable field, under stubble at the time of survey, with mostly flat topography.	To the South-West a roadway borders the site. Hedge Rows make up the majority of the site's perimeter. A Hangar was noted to the East.
12	High thistles and grass were noted at the time of survey	At the time of survey this area was un-surveyable.

4.3. The underlying geology comprises an undifferentiated chalk formation, combining: the Lewis Nodular, Seaford, Newhaven, Culver and Portsdown chalk formations. Superficial deposits comprise mainly of river terrace deposits, such as silts and muds. To the North, in areas 4 and 8 coarse grained raised beach deposits, sands and gravels are noted (British Geological Survey, 2018).

4.4. The soils consist of freely draining, slightly acidic loamy soil (Soilscapes, 2018).

ARUN DISTRICT COUNCIL F/4/20/OUT

5. Archaeological Background

5.1. The following section provides a brief overview of the archaeological background of the site and its surrounding landscape, summarising information provided in a heritage desk-based assessment by Orion (2015).

5.2. The site falls within a West Sussex County Council Archaeological Notification Area (DWS8485). A number of heritage assets have been identified within survey areas: Five late Neolithic/Bronze Age flakes and 7 burnt flints (MWS6980) were recorded to the centre of Area 5. Sherds of three separate vessels (MWS6683) of Late Iron Age/Roman period have been recorded to the centre of Area 10. A Medieval flagon handle (MWS6981) was identified to the southeast of Area 3. Lower Farm (MSW12220), a Post-Medieval farm building is depicted to the west of Area 3 in historic maps (see Figure 6). Fordground Barn (MWS10605), a Post-Medieval barn is depicted to the southwest of Area 3 in historic maps (see Figure 6). The route of the Post-Medieval Portsmouth to Arundel canal (MWS5754) runs on a west-east orientation across the centre of the site. Ford Airfield (MWS2412) was opened in 1917, remaining in military usage during both World Wars. Multiple WWII and Cold War structures have been recorded, including a blister hangar (MWS8137) recorded to the east of Area 11 and an anti-aircraft battery (MWS7129) recorded to the centre-north of Area 5.

5.3. Intense and multiperiod activity of prehistoric date has been recorded adjacent to the centre-southeast of the survey area, including: Late Mesolithic lithic industry MWS6921), Late Iron Age cremations and co-axial field system, trackways, pits and post-holes (EWS1149); three late Bronze Age unurned cremations (MBW9678); several prehistoric ditches (EWS717); a possible Iron Age field system and enclosure (EWS717); Late Bronze Age field system with evidences of ritual activity. Further prehistoric activity is recorded within the site's wider environs, such as Neolithic stone axe (MWS3221) recovered c.550m to the northeast of the site; a number of Late Bronze Age pits, ditches and gullies with associated material (MWS6998, MWS6999, MWS7001 and MWS7003) were recovered c.450m to the southeast of the site.

5.4. Within the same area of intense prehistoric activity, late Iron Age/Roman features were recovered, including two cremations, enclosure, pits and a possible iron working shelter (MWS6291). More Roman boundary ditches (MWS7001) have been recorded c.450m southeast of site.

5.5. Saxon activity is limited to a ditch-feature (MWS7003) recorded c.450m south of the site, though a prehistoric origin has also been considered likely.

5.6. Medieval pit (MWS6993) and ditch/field boundary (MWS6999) were recorded 500m southeast and 450m south respectively of site.

5.7. The area remained as agricultural enclosed fields during Post-Medieval period as recorded in historic maps, with a number of field boundaries and footpaths being removed before the construction of the airfield. Details of the airfield can be seen on a RAF vertical aerial photograph made in 1946.

ARUN DISTRICT COUNCIL F/4/20/OUT

6. Methodology

6.1. Data Collection

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

6.1.2. Table of survey strategies:

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

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

6.1.3.1. 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.

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

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

6.2. Data Processing

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

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

6.2.3. 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.

6.2.4. 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.

6.2.5. 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.

ARUN DISTRICT COUNCIL F/4/20/OUT

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 upper and/or 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 at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plots. XY trace plots visualise the magnitude and form of the geophysical response, aiding in 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, historic maps, LiDAR data, and soil and geology maps. Google Earth (2018) was consulted as well, to compare the results with recent land usages.

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 and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

7.2.Discussion

7.2.1.The geophysical results are presented in consideration with satellite imagery (Figure 5) and historic maps (Figure 6).

7.2.2.The fluxgate magnetometer survey has responded well to the survey area's environment. The majority of the geophysical data is characterised by a rather magnetically enhanced ferrous-type anomalies, mostly caused by the military usage of the site as an active airfield during both World Wars and by **modern** underground services, fencing along the edges and spreads of ferrous responses on or near the surface likely caused by nearby housing and roads.

7.2.3. At the time of survey, the site was mainly occupied with agricultural activity; however, a small industrial estate and airfield were also situated within the site. Historic evidence shows the site was used as an **airfield** during both world wars, the extents of the runways and tie down areas have since been changed; however, large areas of magnetically enhanced material extending from the modern-day runways are visible. The width and

ARUN DISTRICT COUNCIL F/4/20/OUT

orientation of these responses correlates directly to the extant airfield (Figure 5). The geophysical data has also recorded previously unmapped airfield features: anomalies which exhibit similar responses of clusters of greater density of ferrous anomalies (best visible in the XY traces) but that weren't recorded in historic evidence of the airfield, have been also classified as 'Airfield' related structures.

7.2.4. Anomalies of probable and possible **archaeological** origin have been detected across four different areas, further enlarging the archaeological register of the site's wider environs (see 5. Archaeological Background). Considering the abundance of archaeological heritage assets of Late Prehistoric to Roman date recorded within the site itself and the immediate surrounding, in conjunction with the characteristic responses exhibited in the geophysical data, it has been considered the anomalies identified as archaeological in origin are likely to be of Late Prehistory to Romano-British period. Based on the geophysical data, these clusters of archaeological activity aren't joined or related to each other. However, Group 2 and Group 3, c.350m apart and with airfield features running between them, might have been related since they exhibit similar responses (right turns, double ditches, trackway features, linearity) and magnetic strength. It is feasible a larger settlement area might have been truncated by modern and military usage of the site. Furthermore, Group 4 has been identified in the same location as sherds of three separate vessels (MWS6683) of Late Iron Age/Roman period had been previously recorded to the centre of Area 10.

7.2.5. Historic mapping (Figure 6) shows a former **canal** extending through the centre of site along an E-W alignment. This feature has since been drained and backfilled. At the time of survey this portion of the site was under agricultural control with no visible evidence of historic excavation or backfill. The results show a strong, broad linear response extending along the same line as the canal route.

7.2.6. **Agricultural** activity is also evident across the site and reflect the agricultural usage of the site during Post-Medieval times. historic and modern usages. Strong linear features have been identified corresponding directly to former field boundaries and adjoining footpaths. Clusters of highly magnetic responses have been related to the former Lower Farm and former Fordground Barn as well as a now infilled pond; these had previously been recorded as heritage assets on site (5. Archaeological Background) and have been well-correlated with feature denoted on historic maps (see Figure 6).

ARUN DISTRICT COUNCIL F/4/20/OUT

7.3.Interpretation

7.3.1. General Statements

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

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

7.3.1.3. **Ferrous (Discrete/Spread)** – Discrete ferrous-like, dipolar anomalies are likely to be the result of modern metallic disturbance on or near the ground surface. A ferrous spread refers to a concentrated deposition of these discrete, dipolar anomalies. Broad dipolar ferrous responses from modern metallic features, such as fences, gates, neighbouring buildings and services, may mask any weaker underlying archaeological anomalies should they be present.

7.3.2. Magnetic Results - Specific Anomalies

7.3.2.1. **Archaeology Probable (Group 1)** – Within Area 1 there are several linear features which have been interpreted as possible archaeology occupying an area of c. 0.4ha. A configuration of weaker linear anomalies on a NW-SE alignment appear to define a distinct archaeological area, possibly containing internal subdivisions. Four strong responses on a NE-SW orientation seem to be connected with the weaker responses, suggesting a correlation between the strong and weak responses.

7.3.2.2. **Archaeology Probable (Group 2) –** Proximal to the eastern boundary of Area 1, a complex of linear features has been identified as probable archaeology. The form, location and strength of these responses is endemic of archaeological presence. Linear responses of varying strength form within a double-ditch like feature, measuring approximately 114m x130m. Numerous, internal sub-divisions are present within the feature along with a possible trackway, along a NW-SE alignment proximal to the eastern boundary of Area 1 measuring c.59m. The relatively quiet, undisturbed response produced by this anomaly distinguishes itself from the surrounding, contemporary features.

7.3.2.3. **Archaeology Probable (Group 3)** – To the south of Area 2, a rectilinear configuration of strong and weak responses c. 55m x 60m has been identified. The longest features merge creating a 90-degree corner on the NE side of the anomaly. This type of strong, negative magnetic response is typical of stone features or removed earthworks.

ARUN DISTRICT COUNCIL F/4/20/OUT

7.3.2.4. **Archaeology Probable (Group 4) –** A curvilinear response has been identified towards the centre of Area 10. Compared to the feature noted to the North in Area 1, this has a more curvilinear form. Measuring approximately 115m x 56m and oriented in a general N-S alignment. To the South the features has been truncated by a modern service line.

7.3.2.5. **Archaeology Possible (Group 5) –** To the north of Area 11, a complex of linear features has been identified as possible archaeology. Due to the weak response, it has not been possible to classify these features as probable archaeology. However, these anomalies are located c. 184m SW from Group 4, highlighting the archaeological potential of these features.

7.3.2.6. **Airfield** – A number of responses have been classified as being associated with the airfield. The majority of them had been mapped; furthermore, a number of anomalies don't appear on historic mapping or aerial photographic records (see Section 5.2). Despite this, due to their juxtaposition with the mapped airfield features and exhibiting a similar type of response, an airfield origin has also been considered. There are a few particularly distinct responses. One of the most identifiable is runways, characterised by large delimited rectangular spreads of ferrous-type responses which are located in Areas 2, 5, 6 and 9. These features range in width from c. 50m at the largest, to c. 13m. Large spreads, located in Area 6 and 7, have been identified with tie-down areas which are characterised by circular internal structuring. Other anomalies have been associated to hangars, located mainly in Areas 1, 2 and 5, exhibit as clusters of highly magnetic responses. The rest of the anomalies classified as 'Airfield' have been identified with remnant debris due to the lack of structural elements.

7.3.2.7. **Canal** – Several strong, linear anomalies have been identified in Areas 4, 5 and 6 which are associated with a Post-Medieval canal (see Section 5.2). The Post-Medieval feature runs across the three areas on a NE-SW alignment, the canal ranges in width from c. 30m at the largest, to c. 4.9m. The magnetic response of the canal is strong and clear in Areas 4 and 6. On the other hand, the anomaly has a weaker response in Area 5, which is likely to be connected to the presence of significant ferrous responses in the area.

7.3.2.8. **Agricultural (Former Field Boundaries/Footpaths/ Ploughing)** – Several anomalies appear to reflect historical agricultural field boundaries identifiable in historic OS maps (see Section 5.7). Other agricultural activities can be identified through weak linear anomalies located in several areas reflecting past or present ploughing features.

7.3.2.9. **Agricultural (Farm/Barn/Pond)** – Two strong anomalies have been identified in Area 3. The two rounded features are within the locations of two ponds identified in historic OS map. These agricultural anomalies have a circumference of c. 17m x 32m the southernmost, and c. 18m x 28m the northernmost. Another small pond is located in Area 10 which is in line with a field boundary,

ARUN DISTRICT COUNCIL F/4/20/OUT

it has a circumference of c. 18m x 6m. Other agricultural activities are identifiable through spread responses which are related with possible demolishing residuals of a Post-Medieval farm and barn identified on historical maps (see Section 5.2).

7.3.2.10. **Natural** – Throughout the site a number of weaker, natural, responses have been identified. Characterised as such these features don't show a correlation to one-another or surrounding features mapped on historic mapping or more contemporary cartographic sources. Variations in size, irregular form and reduced signal strength to surrounding features indicate a natural origin. To the north of area 3, numerous natural trends and broader responses have been identified. Considering the general depositional superficial geology of the site (see 4.3) and the mismatch in feature alignment, possible fluvial or flooding instances could produce similar responses.

7.3.2.11. **Undetermined** – There are several strong linear anomalies that have been identified in area 1 and 3 on a NW-SE alignment. Though these features appear to have the characteristics of field boundaries, their alignment is different from the agricultural features recorded in the area and these anomalies do not appear on historic maps. The linear feature that runs across area 1 is in proximity of several archaeological features (Group 2). However, due to the different response is not possible to relate the linear feature with the archaeological anomalies located on the eastern side of area 1. Other strong and week anomalies have been recorded in area 8, 10 and 11. These features appear to be defined by linear anomalies, possibly reflecting human activities.

7.3.2.12. **Ferrous (Strong/Service)** – Throughout the site large areas of ferrous disturbance have been identified. Primarily situated around the borders of individual survey areas, these sorts of responses are often endemic of modern-day perimeter fencing or off-site activity. To the south of area 10 a large concentration of service lines truncates a grouping of archaeology (Group 4) along an E-W alignment. With the construction and subsequent partial demolition of the airfield within site it is possible these ferrous disturbances may supersede weaker, more ephemeral archaeological responses nearby. Various other agricultural, undetermined features have also been truncated by modern services.

7.3.2.13. **Ferrous (Spread)** Categorised areas of ferrous (spread) features represent a higher concentration of individual ferrous responses. To the west of area 9 site is dominated by these ferrous (spread) responses, likely produced by the destruction of the historic airfield extent and installation of service lines present nearby.

ARUN DISTRICT COUNCIL F/4/20/OUT

8. Conclusions

8.1. A fluxgate magnetometer survey has been successfully completed across the site at Ford Airfield. The survey has responded well to the conditions of the survey area, despite its former usage as an airfield. The results demonstrate that many airfield features, such as runways and tie-down areas, are significantly recorded throughout the survey area. Several anomalies have also been mapped as airfield features; however, due to the lack of structural features has not been possible to identify their specific purpose.

8.2. Anomalies identified as probable archaeology on the Sites comprise linear, rectilinear and curvilinear responses which form three distinct groups. The geophysical results from Area 1 support the existence of archaeological features with multiple sub-divisions and a possible trackway, Group 1 and 2. Rectilinear configuration, Group 3, is probably related to a stone feature according to its magnetic response. In the central part of Area 10, it has been recorded as a curvilinear anomaly, Group 4. Additionally, it has been possible to identify features that have been interpreted as possible archaeology, Group 5. Overall, these archaeological responses demonstrate the intensive occupation of Ford Airfield.

8.3. Agricultural activities have been identified in the form of field boundaries, historic and modern ploughing, and debris of a farm and barn which are recorded on historic OS map. The results have also demonstrated the presence of a canal which runs through site.

8.4. The survey area encompasses different types of anomalies, which have been identified with ferrous and natural responses. In addition, it has been possible to identify a canal which was recorded on historic OS map.

ARUN DISTRICT COUNCIL F/4/20/OUT

9. Archiving

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

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

10. Copyright

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

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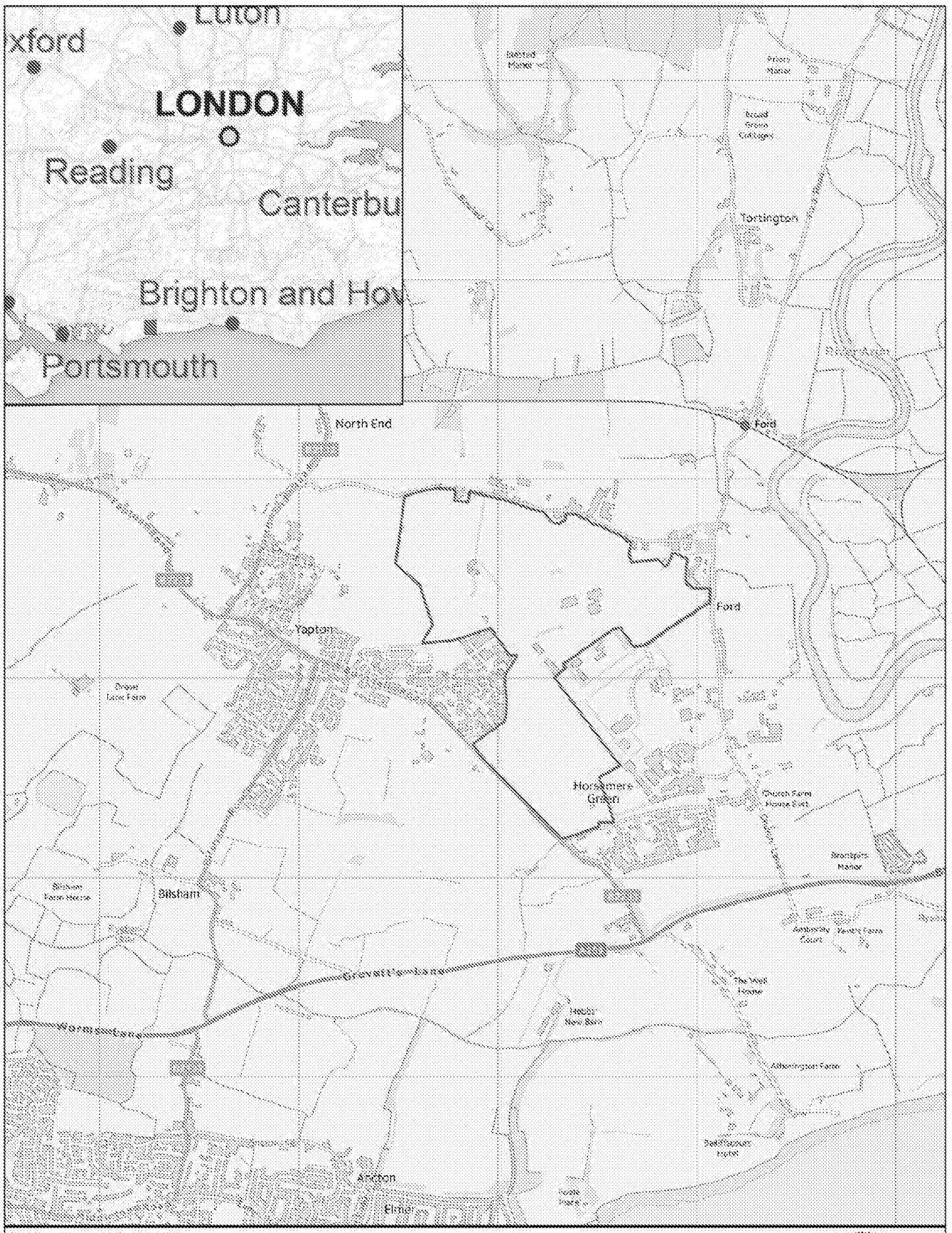
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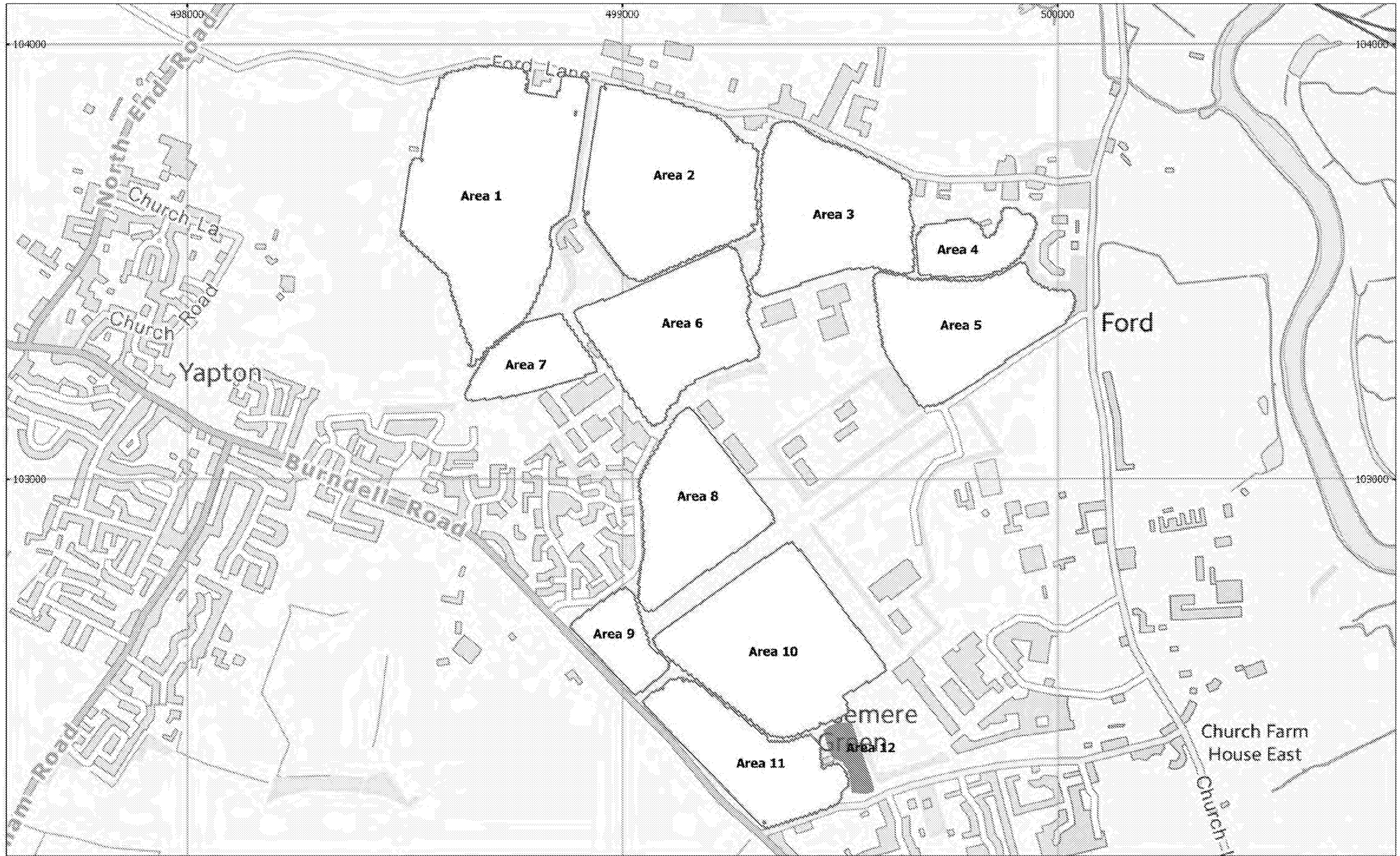
M5SU354 - Ford Airfield
Figure 1 - Site Location
1:25,000 @ A4
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Site Boundary

N

0 0.5 1 km

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MSSU354 - Land at Ford, West Sussex
Figure 2 - Location of Survey Areas
1:8,000 @ A3
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Survey Extent
Unsurveyable

N

0 200 400 600 m

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498000
499000
500000
104000
103000
Ford Lane
Area 1
Area 2
Area 3
Area 4
Area 5
Area 6
Area 7
Area 8
Area 9
Area 10
Area 11
Northend Road
Church La
Church Road
Yapton
Ford
Bridle Road
Church Farm House East
Church
N
0
200
400
600 m
48,995
nT
49,010
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MSSU354 - Ford Airfield, West Sussex
Figure 3 - Magnetic Total Field (Lower Sensor) Overview
1:8,000 @ A3
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498000
499000
500000
104000
103000
Area 1
Area 2
Area 3
Area 4
Area 5
Area 6
Area 7
Area 8
Area 9
Area 10
Area 11
Ford Lane
North End Road
Church La
Church Road
Yapton
Ford
Green
Church Farm House East
Church
Road
MSSU354 - Ford Airfield, West Sussex
Figure 4 - Magnetic Gradient Overview
1:8,000 @ A3
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OS (100056946)
-1
nT
2
N
0
200
400
600 m
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M5SU354 - Ford Airfield, West Sussex
Figure 5 - Magnetic Interpretation Over Satellite Imagery Overview
1:8,000 @ A3
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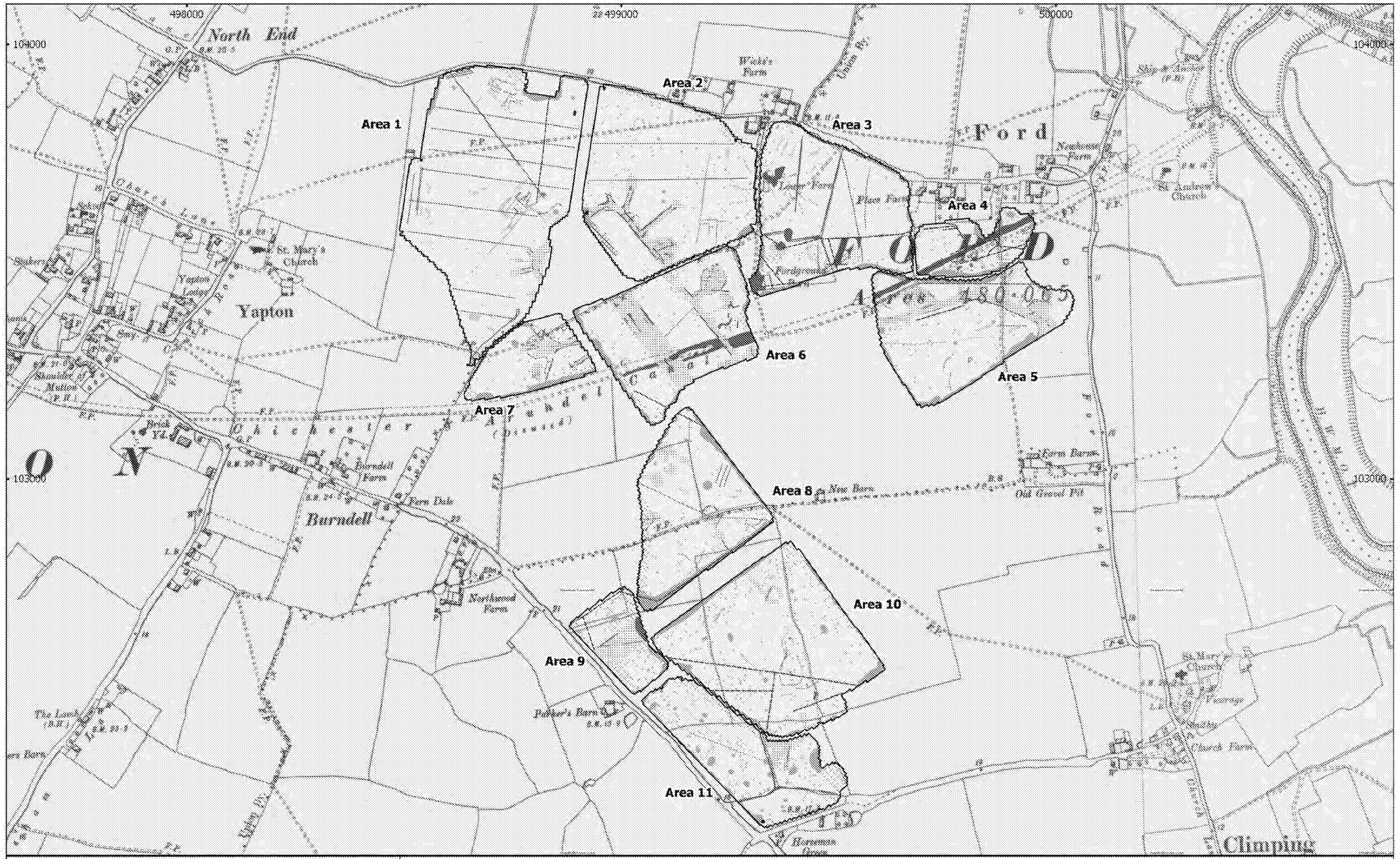
- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 200 400 600 m

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MSSU354 - Ford Airfield, West Sussex
Figure 6 - Magnetic Interpretation Over Historic Maps Overview
1:8,000 @ A3
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Contains historic maps: Ordnance Survey, 6" 2nd edition c. 1882-1913 © National Library of Scotland

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 200 400 600 m

magnitude surveys

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MSSU354 - Land at Ford, West Sussex
Figure 7 - Magnetic Greyscale (Areas 1 and 2)
1:2,000 @ A3
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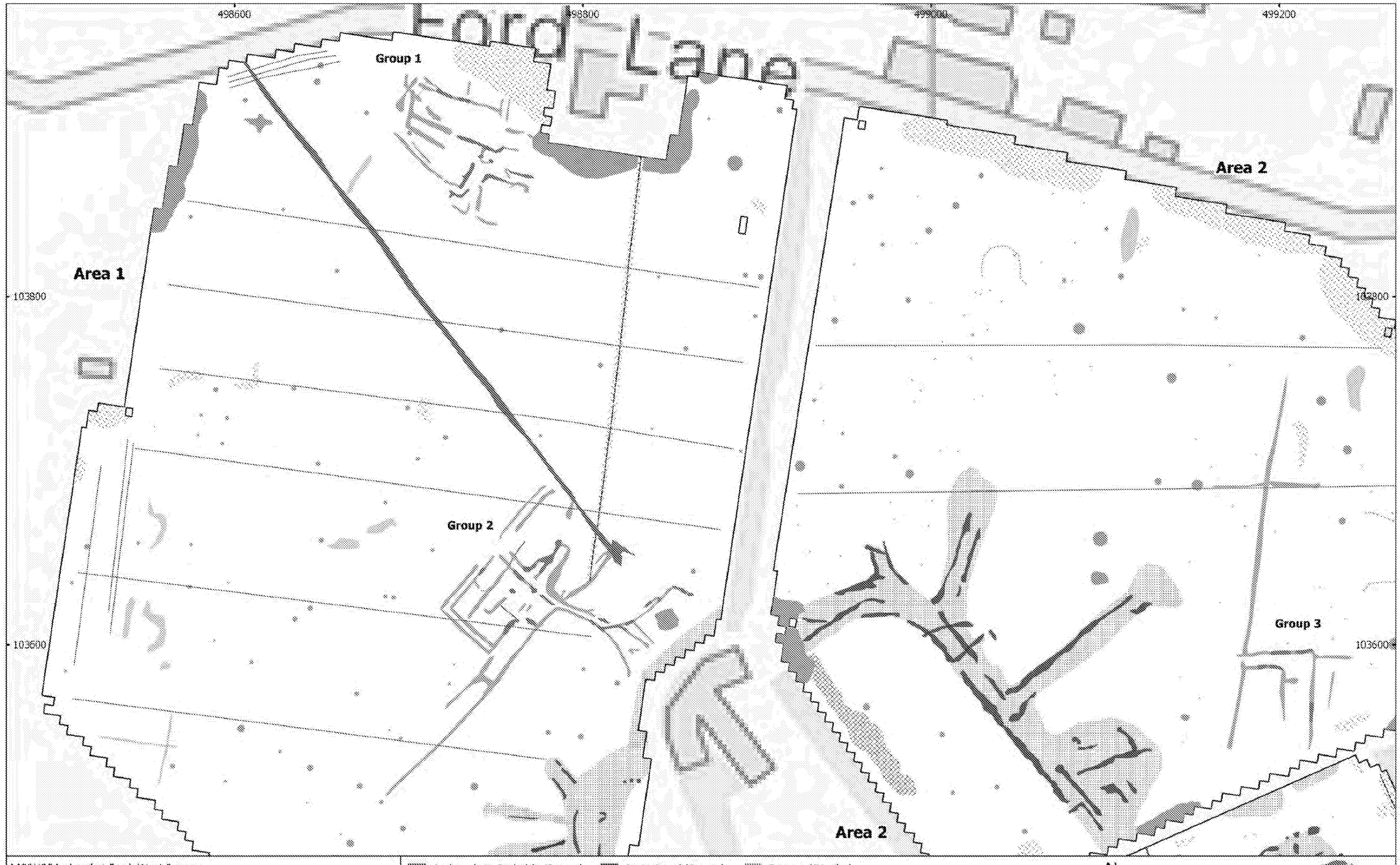
-1 nT 2

N

0 50 100 150 m

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MSSU354 - Land at Ford, West Sussex
Figure 8 - Magnetic Interpretation (Areas 1 and 2)
1:2,000 @ A3
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- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

magnitude surveys

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M5SU354 - Land at Ford, West Sussex
Figure 9 - XY Trace Plot (Areas 1 and 2)
40nT/cm @ 1:2,000 @ A3
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N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

499400
499600
499800
500000
103800
103600
Area 2
Area 3
Area 4

MSSU354 - Land at Ford, West Sussex
Figure 10 - Magnetic Greyscale (Areas 2, 3 and 4)
1:2,000 @ A3
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-1 nT 2

N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

499400 499600 499800 500000

103800 103600

Area 2

Area 3

Area 4

M5SU354 - Land at Ford, West Sussex
Figure 11 - Magnetic Interpretation (Areas 2, 3 and 4)
1:2,000 @ A3
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- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

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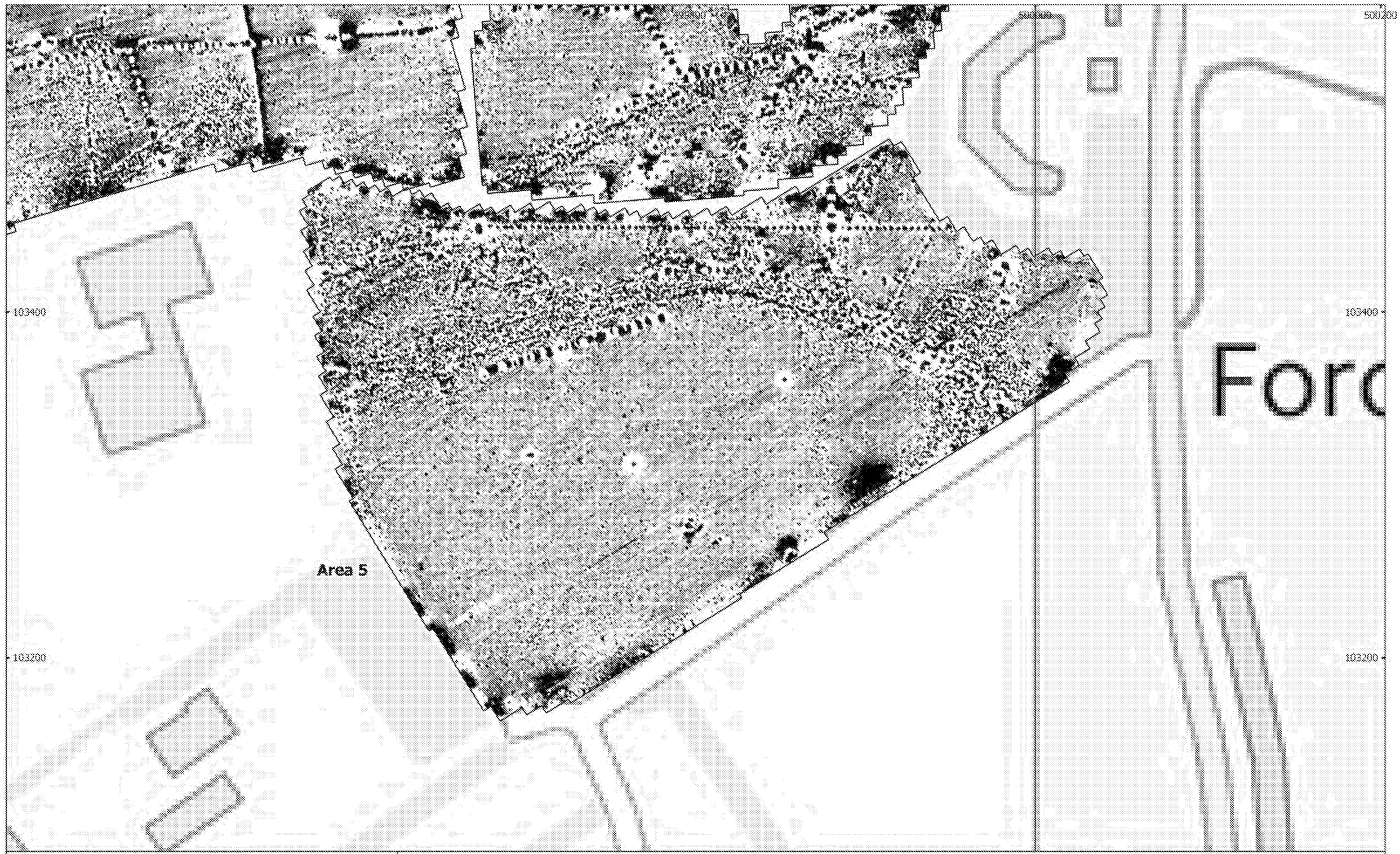
499400
499600
499800
500000
103800
103600
Area 2
Area 3
Area 4

MSSU354 - Land at Ford, West Sussex
Figure 12 - XY Trace Plot (Areas 2, 3 and 4)
40nT/cm @ 1:2,000 @ A3
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N
0 50 100 150 m

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MSSU354 - Land at Ford, West Sussex
Figure 13 - Magnetic Greyscale (Area 5)
1:2,000 @ A3
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-1 nT 2

N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

499600
499800
500000
500200
103400
103200
Area 5
Ford

M5SU354 - Land at Ford, West Sussex
Figure 14 - Magnetic Interpretation (Area 5)
1:2,000 @ A3
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OS (100056946)

- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

magnitude surveys

ARUN DISTRICT COUNCIL F/4/20/OUT

500000

500200

103400

103400

Area 5

103200

103200

MSSU354 - Land at Ford, West Sussex
Figure 15 - XY Trace Plot (Area 5)
40nT/cm @ 1:2,000 @ A3
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N

0 50 100 150 m

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Area 1

Area 2

Area 6

Area 7

103400

103200

MSSU354 - Land at Ford, West Sussex
Figure 16 - Magnetic Greyscale (Areas 1, 2, 6 and 7)
1:2,000 @ A3
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-1 nT 2

N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

498600
498800
499000
499200
103400
103200
Area 1
Area 2
Area 6
Area 7

MSSU354 - Land at Ford, West Sussex
Figure 17 - Magnetic Interpretation (Areas 1, 2, 6 and 7)
1:2,000 @ A3
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- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

magnitude surveys

ARUN DISTRICT COUNCIL F/4/20/OUT

Area 1

Area 2

Area 6

Area 7

103400

103400

103200

103200

MSSU354 - Land at Ford, West Sussex
Figure 18 - XY Trace Plot (Areas 1, 2, 6 and 7)
40nT/cm @ 1:2,000 @ A3
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N

0 50 100 150 m

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MSSU354 - Land at Ford, West Sussex
Figure 19 - Magnetic Greyscale (Area 8, 9 and 10)
1:2,000 @ A3
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-1 nT 2

N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

499000
499200
499400
499600
103200
103000
102800
102800
Area 8
Area 9
Area 10

MSSU354 - Land at Ford, West Sussex
Figure 20 - Magnetic Interpretation (Area 8, 9 and 10)
1:2,000 @ A3
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- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

magnitude surveys

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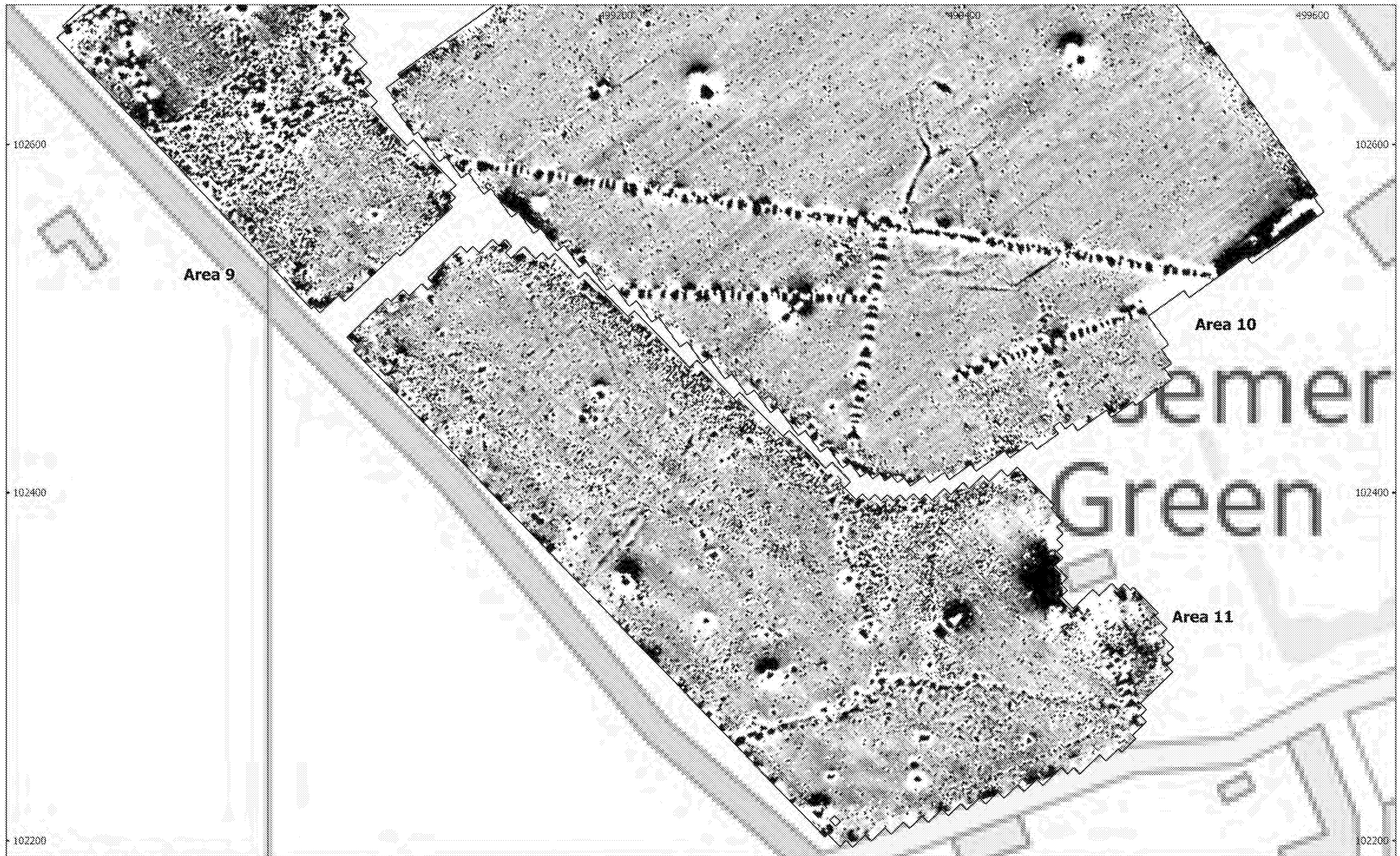
MSSU354 - Land at Ford, West Sussex
Figure 21 - XY Trace Plot (Area 8, 9 and 10)
40nT/cm @ 1:2,000 @ A3
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N

0 50 100 150 m

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MSSU354 - Land at Ford, West Sussex
Figure 22 - Magnetic Greyscale (Areas 9, 10 and 11)
1:2,000 @ A3
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-1 nT 2

N

0 50 100 150 m

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ARUN DISTRICT COUNCIL F/4/20/OUT

499000
499200
499400
499600
102600
102400
102200

Area 9
Group 4
Group 5
Area 10
Area 11

MSSU354 - Land at Ford, West Sussex
Figure 23 - Magnetic Interpretation (Areas 9, 10 and 11)
1:2,000 @ A3
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- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Archaeology Probable (Trend)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Airfield (Strong)
- Airfield (Spread)
- Canal
- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Farm/Barn
- Agricultural (Trend)
- Natural (Strong)
- Natural (Weak)
- Natural (Trend)
- Ferrous (Dipolar)
- Ferrous (Spread)/Magnetic Disturbance
- Undetermined (Strong)
- Undetermined (Weak)
- Undetermined (Spread)
- Undetermined (Trend)
- Service

N

0 50 100 150 m

magnitude surveys

ARUN DISTRICT COUNCIL F/4/20/OUT

499600

102600

Area 9

Area 10

Green

102400

Area 11

102200

MSSU354 - Land at Ford, West Sussex
Figure 24 - XY Trace Plot (Areas 9, 10 and 11)
40nT/cm @ 1:2,000 @ A3
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N

0 50 100 150 m

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