LAND at MARTIN FARM DREWSTEIGNTON DEVON

Results of an Archaeological Gradiometer Survey

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Land at Martin Farm, Drewsteignton, Devon

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For

Kirsty Gibson

of

Aardvark EM Limited (the Client)

By

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Summary

This report presents the results of a gradiometry survey carried out by South West Archaeology Ltd. (SWARCH) on land at Martin Farm, Drewsteignton, Devon, as part of the pre-planning documentation for a proposed solar farm.

The gradiometer survey covered an area of approximately 18ha, close to the source of the River Troney near Whiddon Down, on the north-facing slopes of the valley, to the north and below Martin Farm.

An earlier desk-based assessment and walkover survey had identified earthworks relating to earlier 19th century farm buildings and possible contour leats to the south of the farmhouse, but no other archaeological features were observed. Some of the 19th century field-names are suggestive of earlier occupation (e.g. Land Hay Park), and there is a known cropmark enclosure to the north of the farm, which is on the county HER.

Twenty-nine anomalies or groups of anomalies of probable or possible archaeological origin were identified. This included three enclosures and associated features, and fragmentary remains of a possible fieldsystem. The survey also demonstrated that plough-damage is likely to be relatively pronounced.

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Acknowledgements

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Kirsty Gibson of Aardvark Envirnmental Matters
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1.0 Introduction

Location: Land at Martin Farm
Parish: Drewsteignton
County: Devon
NGR: SX685930
Type of survey: Twin-sensor Fluxgate Gradiometer
Dates of survey: 3rd-15th September
Area surveyed: 19.5Ha

1.1 Project Background

This report presents the results of a gradiometer survey carried out by South West Archaeology Ltd. (SWARCH) at Martin Farm, Drewsteignton, Devon (Figure 1). The work was commissioned by Kirsty Gibson of Aardvark Environmental Matters (the Agent) in order to identify any archaeological features that might be affected by the construction of a proposed solar farm.

1.2 Topographical and Geological Background

The proposed solar farm would be located within four fields immediately to the north and north-west of Martin Farm (see Figure 1). In addition a further four fields (a-d) to the south of these were subject to geophysical survey. These fields are located on the northern slopes of a high ridge of land separating the river valleys of the Troney and the Blackaton Brook, at an altitude of 205-275m AOD.

On the upper slopes the soils are the well-drained fine loamy and fine silty soils of the Denbigh 1 Association; on the lower slopes the soils are the slowly permeable clayey soils of the Halstow Assocation (SSEW 1983). The geology is complex, but the upper slopes and level summit of Whiddon Down is comprised of resistant siliceous mudstones with thin chert beds of the Teign Chert Formation; further downslope the bedrock is comprised of the mudstones and siltstones of the Ashton Mudstone Member and Crackington Formation. Parts of the Crackington Association and all of the Teign Chert Association fall within the metamorphic aureole of the Dartmoor Granitic intrusion (BGS 2014).

1.3 Historical Background

Unusually, this area is recorded in an authentic Anglo-Saxon charter of *c*.739. Hollycombe and Drascombe are named in the charter bounds, and it seems likely from the description Martin Farm was included within this grant. Martin Farm appears in the Domesday Book as a small manor, but its subsequent manorial history is obscure. The parish boundary of Drewsteignton follows a highly eccentric course, looping around the entire farm and almost certainly defines the limits of the original Domesday manor.

In the 19th century the farm was owned by the Hole family of North Tawton; in the early 1990s the farm was sold off in parcels. The fields subject to the proposed solar farm development are listed on the Devon Historic Landscape Characterisation as medieval enclosures based on strip fields.

1.4 Archaeological Background

A small amount of archaeological fieldwork has taken place in the wider area. Work in advance of improvements to the Whiddon Down junction revealed a single undated linear feature (AC Archaeology 2003), and historic building recording has taken place at Lovaton Farm (Keystone 1991). According to the owner (Nigel Dawe *pers. comm*.), monitoring in advance of the construction of a new farm building at Martin Farm revealed a number of unstratified flints, but these finds do not appear to have been reported. To the west of Martin Farm, a series of flint scatters have been found (part of the Greig Collection), and there are cropmarks of enclosures to the north and north-west (MDV6990 & MDV37557). To the south, a Roman coin hoard was recovered by metal-detectorists in 2007-8, and the area was subject to a geophysical survey. SWARCH carried out a Historic Area Assessment and walkover survey as part of this development (SWARCH report 140819).

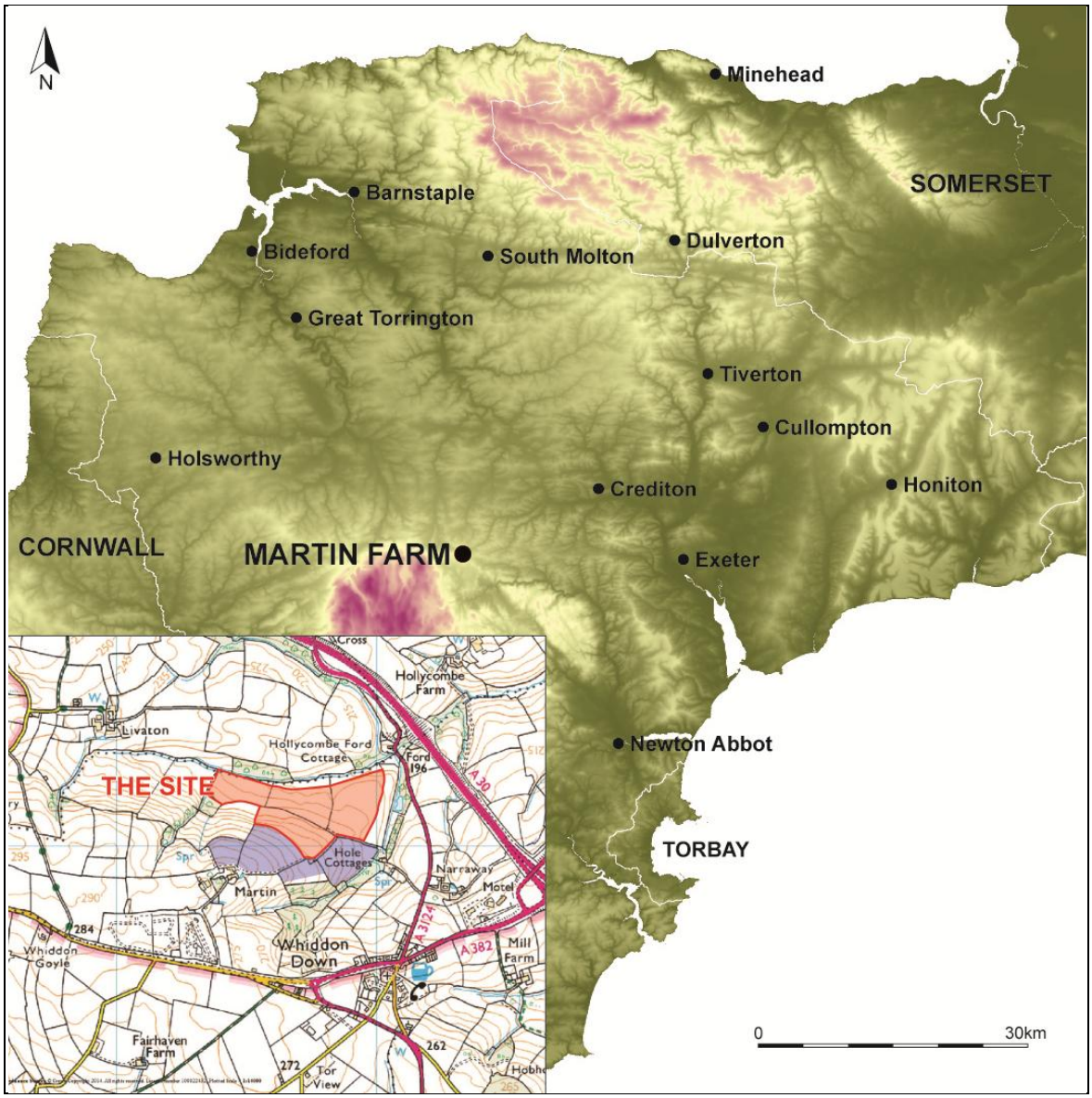

Figure 1: Site location (the proposed extent of the site is indicated in red with the additional surveryed fields in purple).

1.5 Methodology

The gradiometer survey follows the guidance outlined in *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (IfA 2011, updated 2013).

The data was collected by SWARCH personnel between the 3rd and 15th September using a Bartington Gradiometer 601 and the data processed using Terrasurveyor version 3.0.25.0.

The results of the survey will, as far as possible, inform on the presence or absence, character, extent and in some cases, apparent relative phasing of buried archaeology. A mitigation strategy can then be formulated in order to mitigate the threat the archaeological resource may pose to the development.

Figure 2: Detailed site plan; the fields covered by the gradiometry survey are indicated.

2.0 Site Inspection and Archaeological Background

2.1 Site Inspection

The farm was visited on August 13th 2014 by B Morris, and the four fields (and the adjoining farmland) subject to a rapid walkover survey in order to identify any features of archaeological interest (see Figure 2). It had rained intermittently but heavily the night before and in the morning, but the rapid walkover survey was conducted under dry and sunny conditions. The full details of the walkover survey and desk-based assessment can be seen in SWARCH report 140819. All of the fields have been subject to recent arable cultivation, and no archaeological earthworks of any kind were observed.

Fields 1, 2, 3 and 4 had been sown with oats; these had been harvested and Fields 1, 2 and 3 had been baled but the crop in Field 4 still lay in rows for baling; these had been baled and partially cleared by the time of the gradiometer survey. Fields c and d have been cut for hay, baled and the fields cleared of bales. Fields a and b had a standing crop of ripe spring barley which prevented any archaeological features from being identified during the walkover survey; these had been harvested by the time of the gradiometer survey. With the exception of the historic farmstead, the only historic features observed were the traditional hedgebanks. These were typically *c*.2m wide and up to 1.5m high, topped with hedge shrubs. Almost all the hedgerows were cut and trimmed, with surprisingly few mature trees. A number of field boundaries have been lost or rationalised since 1840, but none of these boundaries were particularly evident on the ground. The exception is the boundary between Fields 1 and 2, which was very obvious and appears to have been removed in the last year. The soils in the eastern fields were brownish-grey silty loams with common to frequent small stones; in the base of the valley these soils were clayey and clearly seasonally waterlogged. In Field 1 large chunks of thick iron pan were observed. The soils in the western fields were a rusty-brown silty loam with frequent angular blocky stones.

Figure 3: Greyshade plot of the whole survey area, showing the features of interest.

3.0 Gradiometer Survey

The purpose of this survey was to identify and record magnetic anomalies. While the anomalies may relate to archaeological deposits and structures, the dimensions of recorded anomalies may not directly correspond with any associated archaeological features.

3.1 Results

Figures 3-11 shows the interpretation of the survey across all survey areas including the anomaly groups identified as pertaining to probable and potential archaeological deposits along with their numbers. Table 1 provides a detailed analysis of the survey data and the identified anomalies. These figures and table comprise the analysis of the survey data.

Plots of the processed data are provided in Figures 12-18 (Appendix 1).

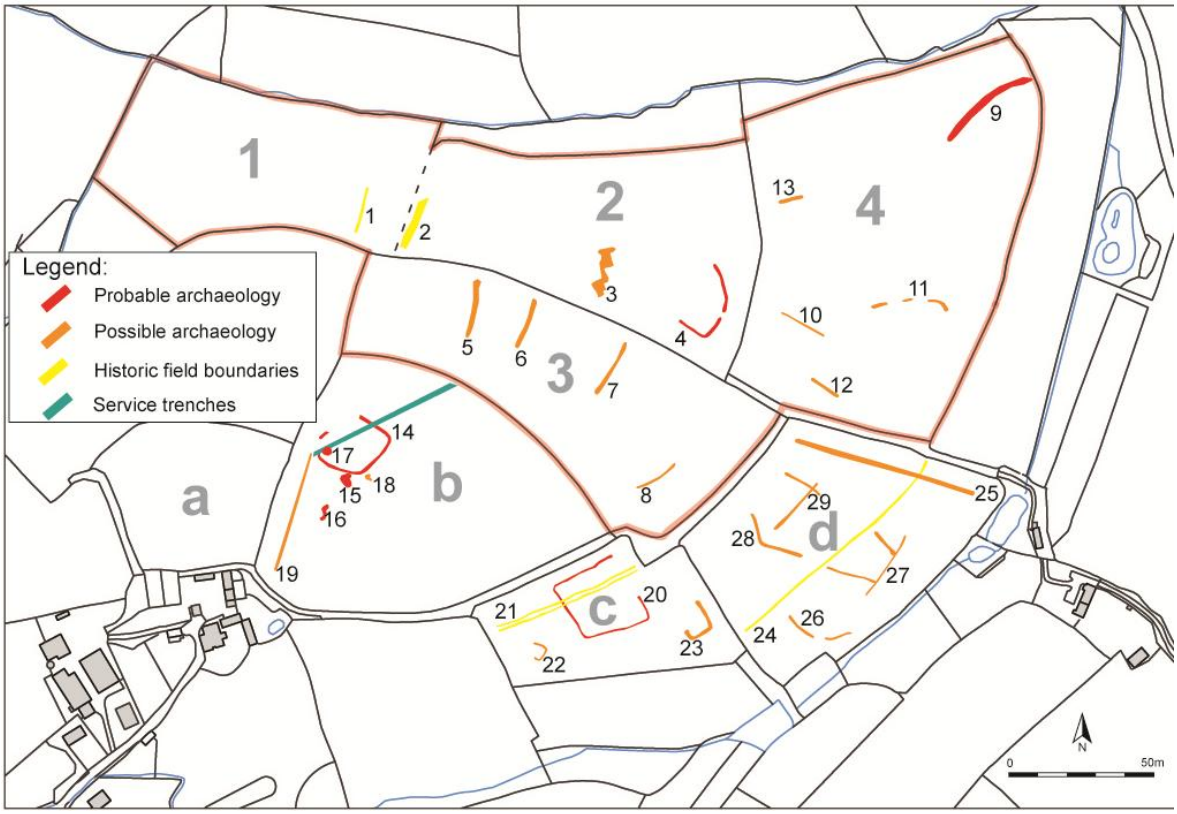

Figure 4: Interpretation of the results of the geophysical survey, showing the features of interest (the numbers relate to Table 1, below).

Anomaly group	Associated group(s)	Certainty and class	Form	Archaeological charaterisation	Comments
Fields 1 and 2					
1		2x probable positives flanking probable negative	Linear	Field boundary	Removed field boundary, not on historic mapping
2		2x probable positives flanking probable negative	Linear	Field boundary	Recently-removed field boundary
3		Potential postives	Disrupted linear		In a slight combe, possible a former spring
4		Probable positive	Curvilinear	Enclosure	Archaeological feature, unfinished enclosure?
Field 3					
5	6,7 and 8	Probable positive	Linear	Field Drain	
6	5,7 and 8	Probable positive	Linear	Field Drain	
7	5, 6 and 8	Probable positive	Linear	Field Drain	
8	5, 6 and 7	Probable positive	Linear	Field Drain	
Field 4					
9		Probable positive and negative	Linear	Trackway	Orientated towards fording point
10	12	Probable positive	Linear	Field Drain	
11		Possible positive	Disrupted linear		
12	10	Possible positive	Linear	Field Drain	
13		Possible positive	Linear		
Field a					
Field b					
14	15 and 17	Probable positive and negative	Sub-rectangular	Enclosure	Enclosure identified on Devon HER from Aerial Photos
15	14 and 17	Probable positive	Sub-ovoid	Outwork or entrance	
16		Probable positive	Disrupted linear	Pit group?	
17	14 and 15	Probable positive	Circular	Roundhouse?	
18		Possible positive	Oval	Large Pit	
19		Probable negative	Linear		Orientated with field boundary – i.e. ploughmark?
Field c					
20		Probable positive and negative	Sub-rectangular	Enclosure	
21		2x probable positives flanking probable negative	Linear	Field boundary	Removed historic field boundary, shown on 1886 map
22		Possible positive	Sub-rectangular	Enclosure?	
23		Possible positive	Sub-rectangular	Enclosure?	
Field d					
24		Probable positive and negative	Linear	Field boundary	Removed historic field boundary, shown on 1840 map
25		2x probable positives flanking probable negative	Linear	Field boundary	Removed field boundary, not on historic mapping
26		Possible positive and negative	Curvilinear	Field boundary?	Fragments of earlier field system?
27	28	Possible positive	Linear	Field boundary?	Fragments of earlier field system?
28	27	Possible positive	Linear	Field boundary?	Fragments of earlier field system?
29		Possible positive	Linear	Field boundary?	Fragments of earlier field system?

Table 1: Data analysis.

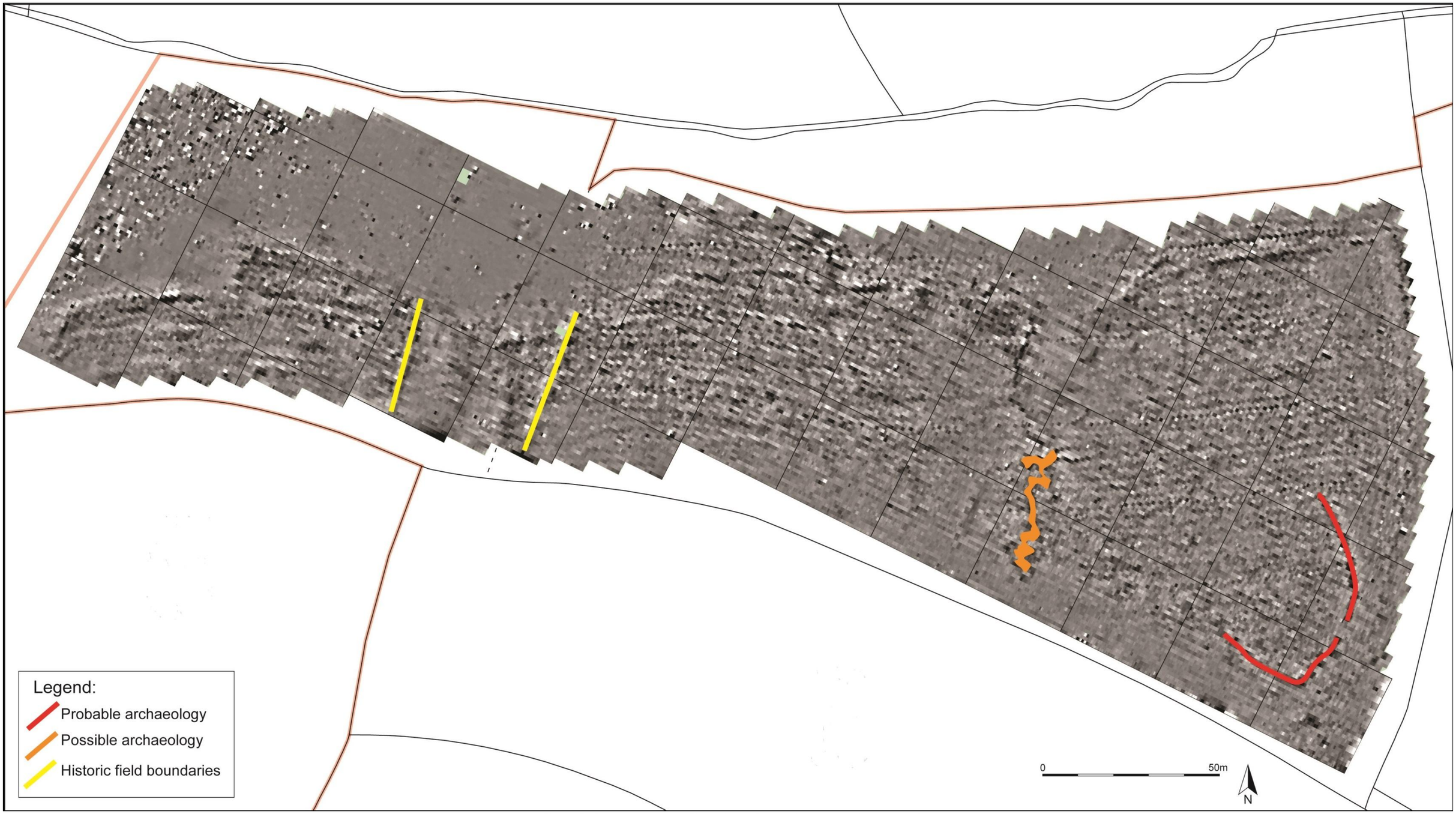

Figure 5: Greyshade plot of Fields 1 and 2, showing geophysical anomalies.

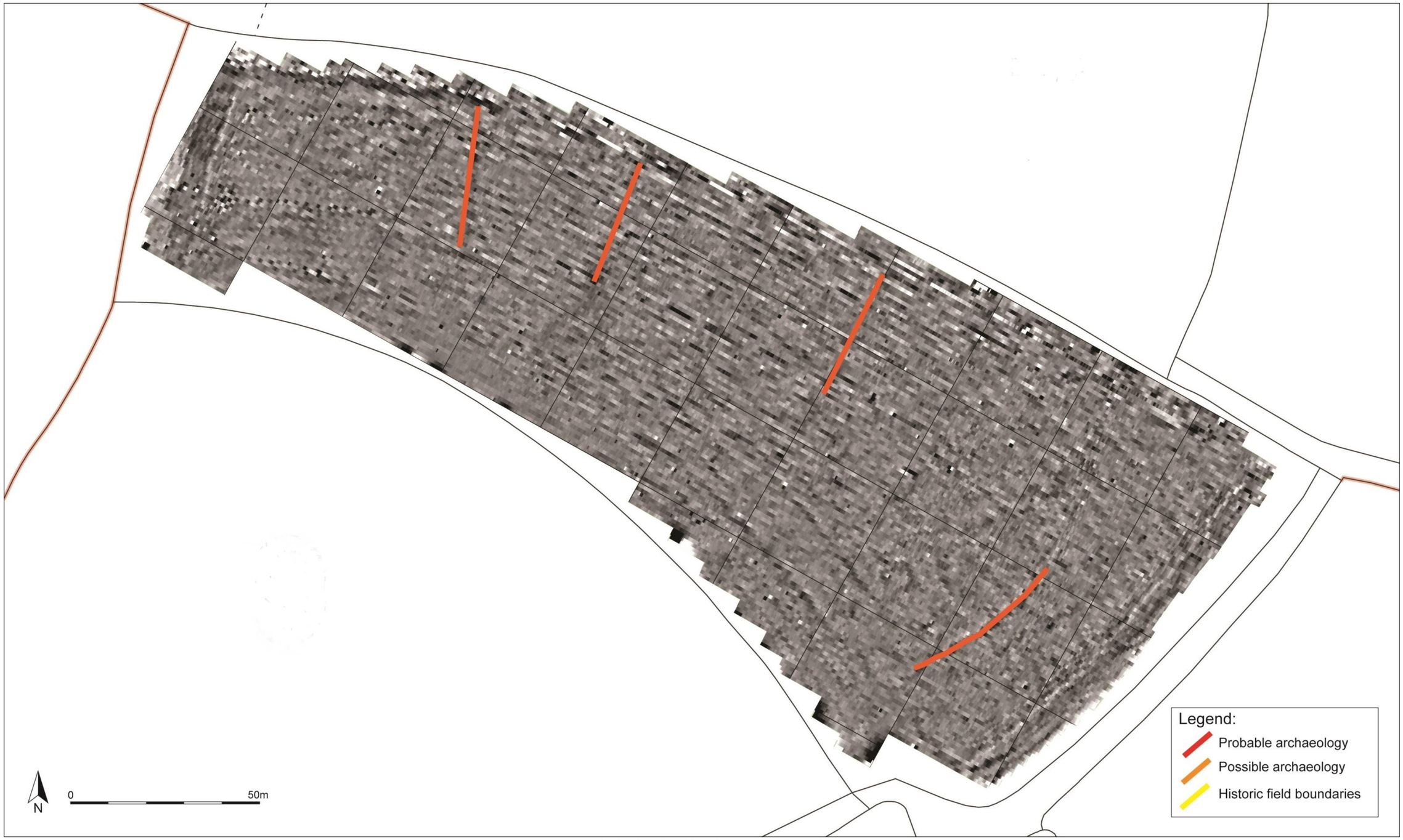

Figure 6: Greyshade plot of Field 3, showing geophysical anomalies.

Figure 7: Greyshade plot of Field 4, showing geophysical anomalies.

Figure 8: Greyshade plot of Field a.

Figure 9: Greyshade plot of Field b, showing geophysical anomalies, including the known cropmark enclosure MDV65832.

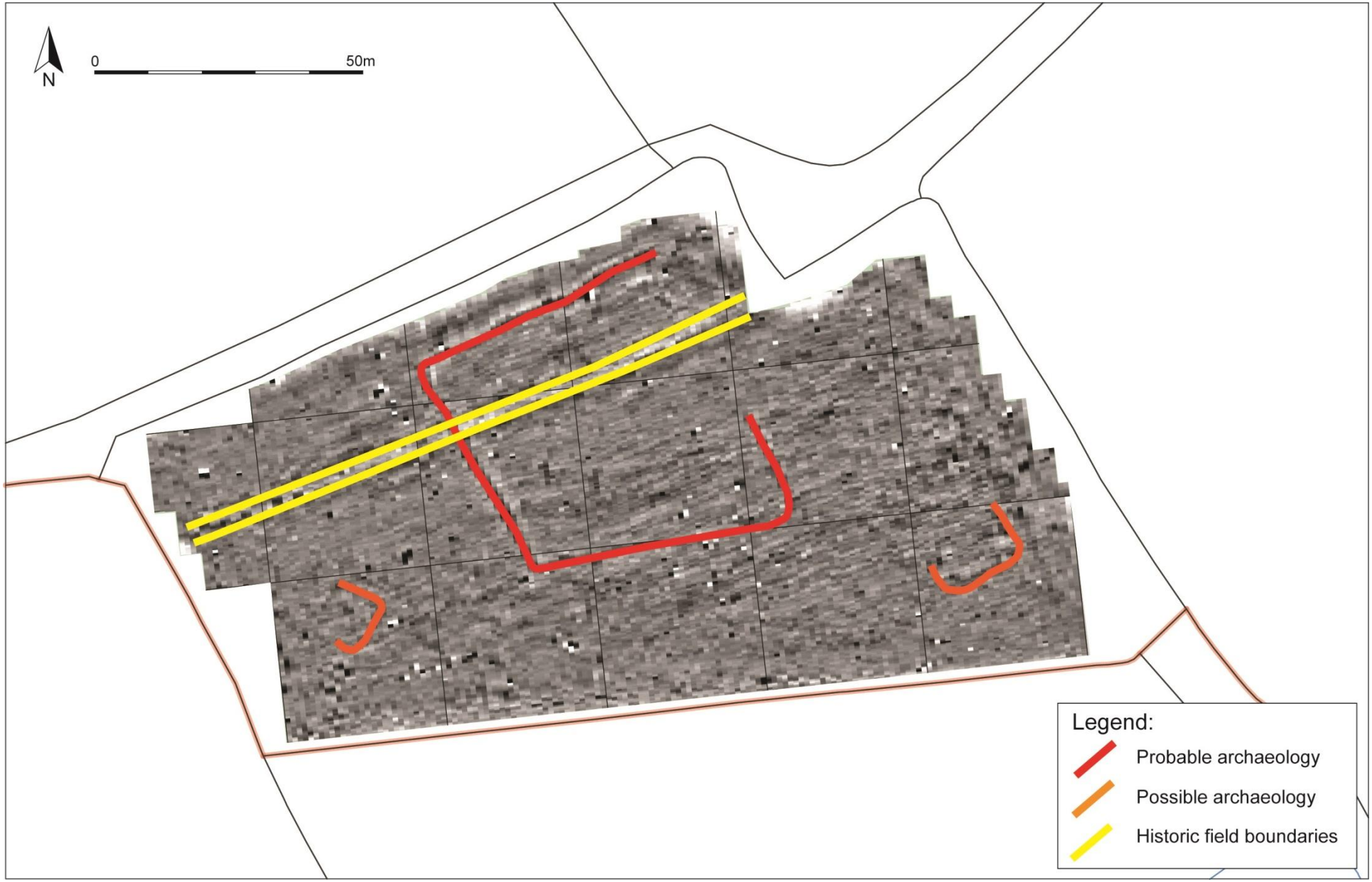

Figure 10: Greyshade plot of Field c, showing geophysical anomalies.

Figure 11: Greyshade plot of Field d, showing geophysical anomalies.

4.0 Discussion and Conclusion

4.1 Discussion

The gradiometer survey has identified a number of removed field boundaries (anomalies 2, 21 and 24) and a probable service trench. A number of possible land drains were also identified. Based on the extensive coverage of closely-spaced parallel straight or slightly-curving anomalies, all fields have been subject to plough damage, despite the probablility the lower slopes behind field boundaries should have been protected by the development of colluvium.

In terms of the archaeological features identified, the cropmark enclosure in Field b (MDV65832) shows very clearly, and can be associated with a number of probable and possible archaeological features. Two further partial enclosures were also identified. Anomaly 20 in Field c defines a sub-rectangular enclosure *c*.45×50m across; it appears unfinished as it is partially open on its north-east side. Associated with this enclosure are two smaller, partial and less obvious sub-rectangular features 10-15m across; it is just possible these represent structures. Anomaly 4 in Field 2 defines a sub-oval area *c*.45m across, with a clear entrance to the south-east; however, the western half of the enclosure is missing/incomplete.

In addition to these posited enclosures, the linear anomalies in Field 4 and Field d appear to define the remnants of earlier field boundaries. If so, they would be of Prehistoric or Romano-British date and associated with one or other of the enclosures identified.

The presence of three enclosures within such a small area is not unprecedented, but is noteworthy, as is the fact that two of them appear incomplete. This may, however, simply reflect differential survival. The three enclosures need not be contemporary, but it would imply that, just as in the medieval period, this area was a core settlement zone during the Prehistoric and Romano-British period. Given the results of the survey, plough-damage appears inevitable, and only the known enclosure (MDV37557) has any clear associated features.

4.2 Conclusion

The survey undertaken at Martin Farm has identified the remains of three enclosures of probable Prehistoric or Romano-British date, and the fragmentary remains of a possible field system. This would suggest that this essentially medieval landscape formed part of the core farmland of the Prehistoric and Romano-British landscape as well. The survey also indicates plough damage would appear relatively severe.

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Keystone 1991c: *The Disused Farmhouse at East Week*.

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SWARCH 2014: *Land at Martin Farm, Drewsteignton, Devon: results of a desk-based assessment and walkover survey*. SWARCH report 140819.

Appendix 1
Grayshade Plots

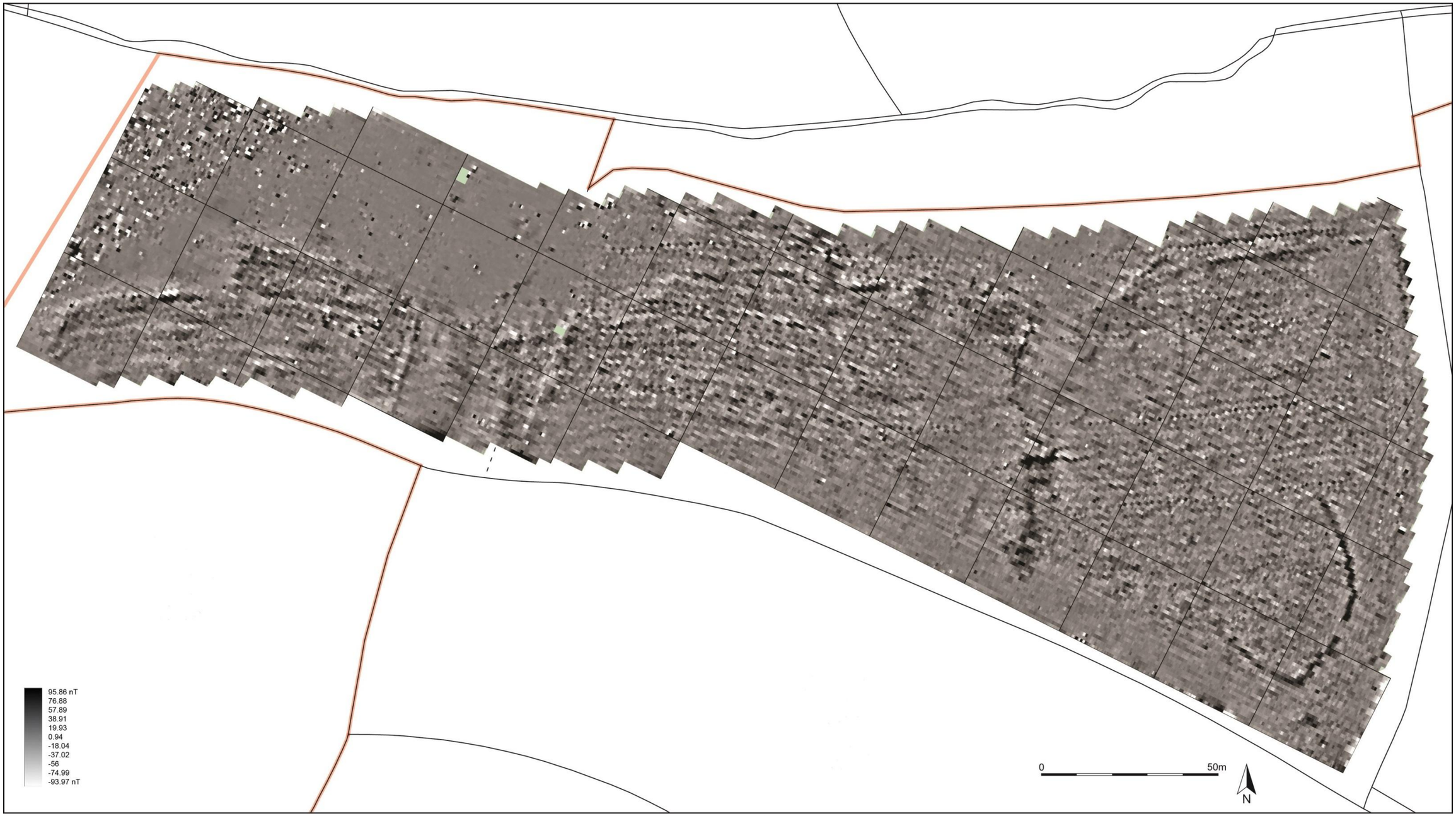

Figure 12: Greyshade plot of Fields 1 and 2.

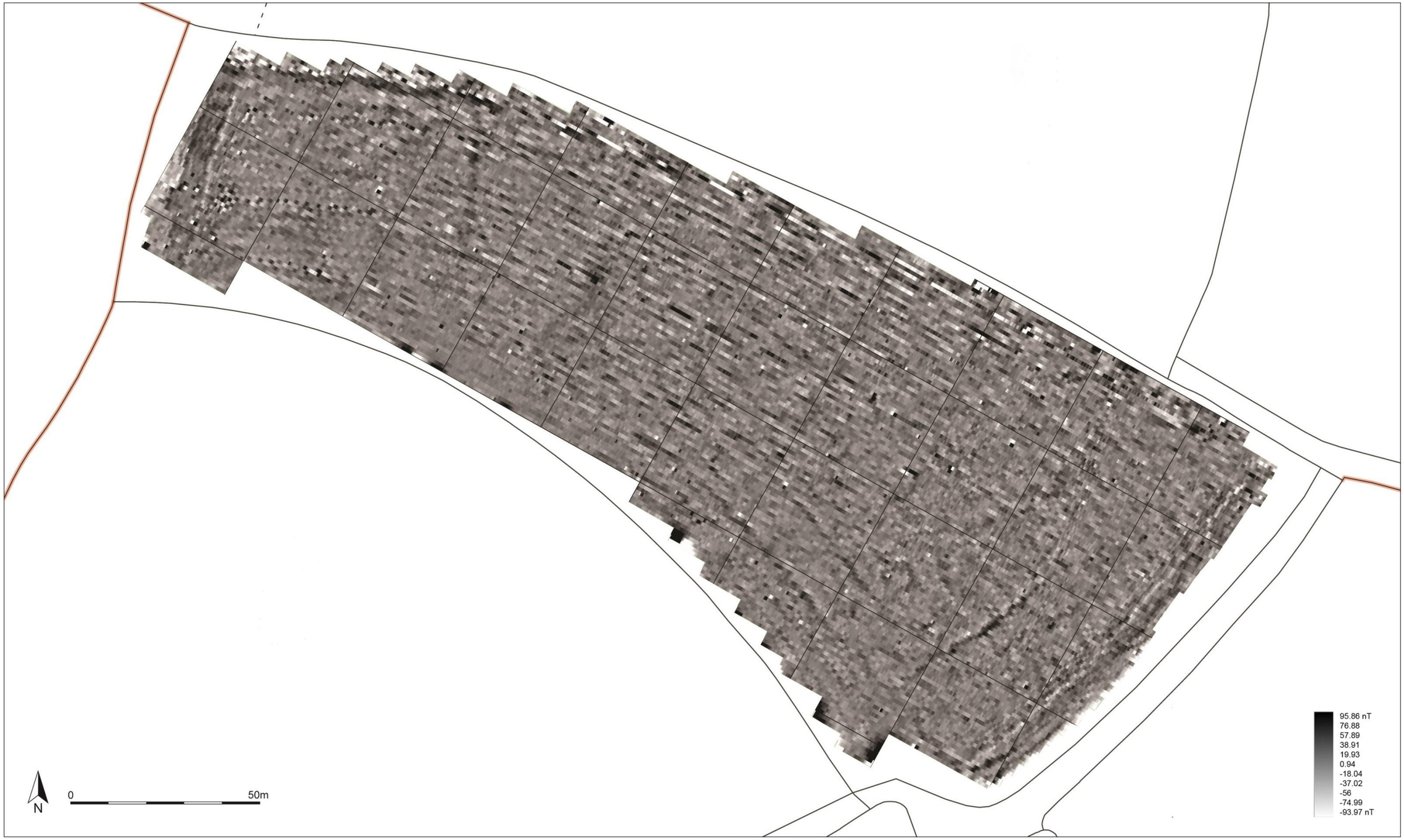

Figure 13: Greyshade plot of Field 3.

Figure 14: Greyshade plot of Field 4.

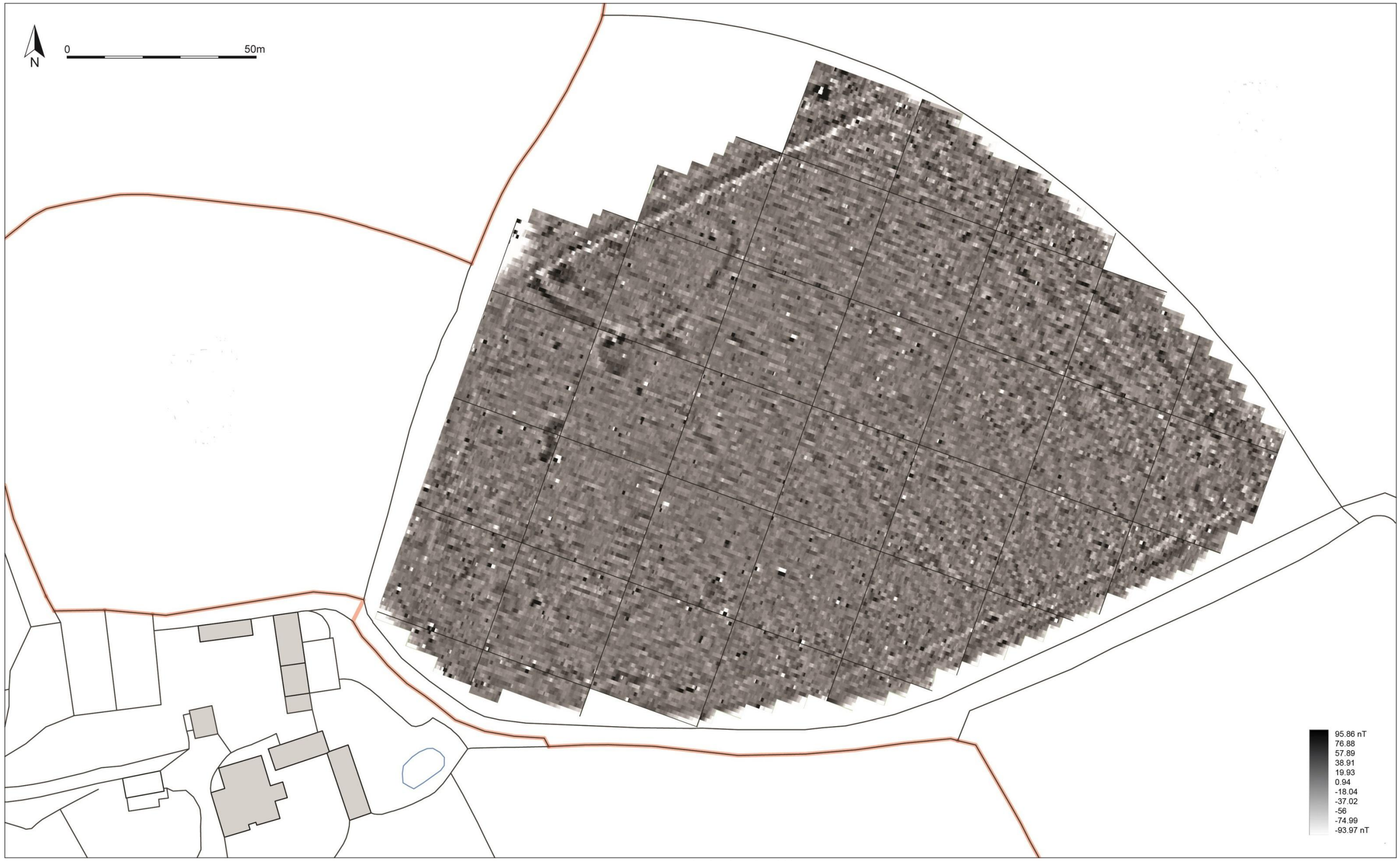

Figure 15: Greyshade plot of Field b

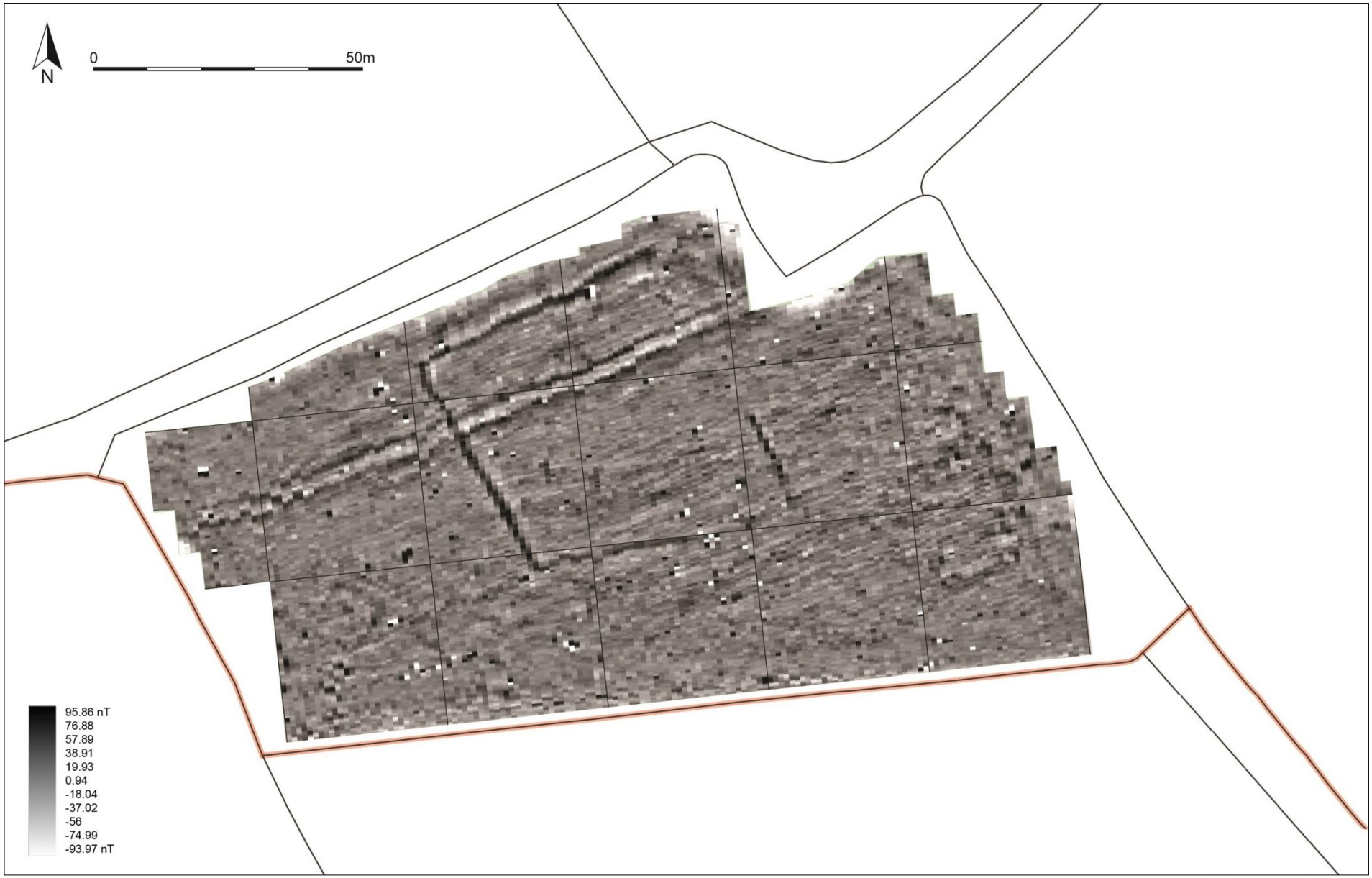

Figure 16: Greyshade plot of Field c.

Figure 17: Greyshade plot of Field d.

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