LAND AT EDGAR ROAD
WAINHOUSE CORNER
BUDE
CORNWALL

Results of a Geophysical Survey

South West Archaeology Ltd. report no. 160702

ARCHAEOLOGICAL SERVICES & HISTORIC BUILDING RECORDING
SOUTHWEST ARCHAEOLOGY

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Land at Edgar Road, Wainhouse Corner, Bude, Cornwall
Results of a Geophysical Survey

By P. Webb
Report Version: Final
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Work undertaken by SWARCH for Debbie Newcombe
of R.A. Rowe & Co.
on behalf of Andrew Piper

EXECUTIVE SUMMARY

South West Archaeology Ltd. was commissioned by Debbie Newcombe of R.A. Rowe & Co. (the Agent) on behalf of Andrew Piper (the Client) to undertake a geophysical survey on land at Edger Road, Wainhouse Corner, Bude, Cornwall. The work was carried out as part of a planning application for the residential development of the site, and builds upon desk-based and impact assessments carried out by Thames Valley Archaeological Services (TVAS).

The site is located at the eastern end of the hamlet of Wainhouse Corner, c.11km south-south-west of Bude, to the east of the A39, and on the border of the parish boundary between Jacobstow and St Gennys. The site is situated on agricultural land in a field immediately adjacent to a Scheduled Prehistoric round barrow.

The geophysical survey would indicate that there are relatively few features of archaeological origin present within the area of the proposed development. Of the two main anomalies identified, the linear feature is not recorded on the Ordnance Survey mapping; its alignment suggesting that it may form a historic boundary, part of a relict Medieval field system that is still (in part) represented in the wider landscape. The possible enclosure in the south-west corner of the site may similarly have formed part of this. Despite the strong evidence for prehistoric activity in the surrounding landscape, including the scheduled barrow in the adjacent eastern field, and a suspected barrow recorded within the survey area, to the north of the proposal site, the geophysical survey did not identify features which could be conclusively linked to this. It is possible; however, that the two areas of disturbed ground could reflect the destruction of the suspected barrow, though there is no evidence of the expected surrounding ditch.

Any development of the site would be unlikely to disturb significant archaeological deposits. The possible enclosure in the south-west corner of the site and the linear field boundary towards the eastern edge appear to be the only identified anomalies of possible archaeological merit, and likely to reflect parts of Medieval or later field systems.

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Report: Peter Webb
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1.0 INTRODUCTION

Location: Edgar Road, Wainhouse Corner
Parish: Jacobstow
County: Cornwall
NGR: Centred on SX 18500 5490
SWARCH ref: JWC16

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Debbie Newcombe of R.A. Rowe & Co. (the Agent) on behalf of Andrew Piper (the Client) to undertake a geophysical survey on land at Edgar Road, Wainhouse Corner, Bude, Cornwall as part of a planning application (PA15/06961) for residential development of the site. This work was carried out in accordance with CIfA guidelines.

This report builds upon the work of a previous heritage impact assessment undertaken by Trent Valley Archaeological Services, South West (TVAS) (Dawson and Preston 2016).

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

Wainhouse Corner is located on the border between the parishes of Jacobstow and St. Gennys, *c.*11km south-south-west of Bude and immediately to the east of the A39 (see Figure 1). The site is situated on agricultural land, at the southern end of a larger rectangular parcel of land on the south-facing slope of a small hill, at a height of *c.*170m AOD and to the east of the settlement.

The soils in this area are the well drained fine loamy soils of the Neath Formation bordering the slowly permeable seasonally waterlogged clayey soils of the Hallsworth 1 Formation (SSEW 1983), which overlie the sandstones of the Crackington Formation (BGS 2016).

1.3 HISTORICAL BACKGROUND

Wainhouse Corner is located within the hundred of Stratton, deanery of Trigg-Major (Lysons 1814), and parish of Jacobstow. The place-name Wainhouse Corner is derived from the Middle English *Wīnhouse* and refers to a lost wine-house or inn. A settlement of this name is first recorded in 1417, becoming *Wainhouse Corner* in 1748 (Watts 2002). Two fairs were annually held at Wainhouse Corner (Lysons 1814), probably a result of the settlement's location off one of the key turnpike roads that ran through Cornwall.

1.4 ARCHAEOLOGICAL BACKGROUND

The site is located within an area characterised as Post-Medieval enclosed land by the Cornwall Council Historic Landscape Characterisation (HLC). This is closely bordered to the north, east and west, and more distantly to the south by Medieval farmland with elements of plantations/scrub. Medieval farmland is categorised as *Anciently Enclosed Land* (AEL) and formed the agricultural heartland of Cornwall, with the settlements and field systems typically having clear medieval antecedents and the remains of Prehistoric and Romano-British archaeology are noted as widely surviving within AEL.

The Cornwall Historic Environment Record (HER) records several heritage assets in close proximity to the proposed development site, with several relating to: Medieval settlement and field systems; and Post-Medieval quarrying and extractive activities. However, the site lies within a landscape littered with Bronze Age barrow cemeteries, there being one barrow (SAM 1004385) immediately to the east of the proposal site, and a suspected ploughed-out barrow (MCO 3944) immediately to the north.

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* (CIfA 2014b).

'Archaeological geophysical survey uses non-intrusive and non-destructive techniques to determine the presence or absence of anomalies likely to be caused by archaeological features, structures or deposits, as far as reasonably possible, within a specified area or site on land, in the inter-tidal zone or underwater. Geophysical survey determines the presence of anomalies of archaeological potential through measurement of one or more physical properties of the subsurface.' (Standard and Guidance for Archaeological Geophysical Survey 2014).

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 leading to the formulation of a strategy to mitigate a threat to the archaeological resource.

Figure 1: Site location (the site is indicated).

2.0 GRADIOMETER SURVEY

2.1 INTRODUCTION

The purpose of this survey was to identify and record magnetic anomalies within the proposed site. While the anomalies may relate to archaeological deposits and structures, the dimensions of recorded anomalies may not directly correspond with any associated archaeological features. The following discussion attempts to clarify and characterise identified anomalies. The survey was undertaken on the 24th June 2016 by P. Webb in overcast conditions. The survey data was processed by P. Webb. An area of approximately 1.07ha was surveyed, though the proposal site itself covers an area of 0.4ha at the southern end of the surveyed area.

The survey identified six groups of anomalies. These included linear anomalies which may represent removed historic field boundaries and a number of undated sub-oval pit-like anomalies of a possible archaeological nature. Group 1 represents a possible small rectangular enclosure, or modern water pipe. Group 2 may represent an historic field boundary, possibly part of a medieval strip-field system. Group 3 represents possible pits or tree-throws. Group 4 represents ferrous anomalies, likely buried metallic artefacts. Group 5 represents two areas of weak magnetic mixed responses indicative of ground disturbance. Group 6 represents interference related to the existing field boundaries.

2.2 SITE INSPECTION

The site was bounded on its north, east and south sides by hedgebanks, and on its west side by a wooden post and wire fence. The hedgebanks were all overgrown, containing hawthorn, brambles and fern. The entrance was located at the south-east corner and formed by a break in the east hedgebank boundary. A crop of grass had recently been cut on the site. Some slight topographic variation of the site was identified centrally in the site towards the eastern boundary, in the approximate location of the un-designated barrow site. A compliment of supporting photographs of the site can be seen in Appendix 1.

2.3 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014).

The survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 30×30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.25.0*. The primary data plots and analytical tools used in this analysis were *Shade* and *Metadata*. The details of the data processing are as follows:

Processes: Clip +/- 3SD; DeStripe all traverses, median; DeStagger, offset in- and outbound by +2 intervals (all grids).

Details: 1.07ha surveyed; Max. 125.88nT, Min. -91.98nT; Standard Deviation 10.73nT, mean 0.03nT, median -0.02nT.

2.4 RESULTS

Table 1 with the accompanying Figure 2 show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 2.

Anomaly group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Moderate negative with associated positive, probable	Recti-linear	Possible enclosure	A possible rectilinear enclosure in the south-west corner of the site. Responses vary between +36nT and -42nT. Elements appear bipolar suggesting there may be a modern service pipe.
2	Weak positive, possible	Linear	Possible historic field boundary	A linear anomaly, possibly forming a removed historic field boundary, perhaps related to Medieval strip fields. Weak positive responses of up to 11nT.
3	Positive, possible	Sub-oval/ amorphous	Pits	At least ten discreet anomalies, *c.*<+40nT. Indicative of cut features such as pits or tree-throws.
4	Dipolar, possible	Sub-oval	Metallic deposit	A series of large dipolar response (up to +60/-35nT) indicative of metallic deposits. Likely to be associated with metallic artefacts.
5	Weak mixed, possible	Spread	Disturbance	Two amorphous spreads of weak mixed positive and negative responses (up to +/-12nT). Possibly associated with heavily disturbed ground.
6	Strong positive and negative, probable	Linear	Existing field boundaries	Responses reflecting proximity to existing field boundaries. Readings of up to +125/-92nT.

TABLE 1: INTERPRETATION OF GRADIOMETER SURVEY DATA.

FIGURE 2: SHADE PLOT OF GRADIOMETER SURVEY DATA; MINIMAL PROCESSING (LEFT); INTERPRETATION OF GRADIOMETER SURVEY DATA (RIGHT).

2.5 DISCUSSION

The survey identified six groups of anomalies: Group 1 represents a possible small rectangular enclosure, or modern service pipe. Group 2 may represent an historic field boundary, possibly part of a medieval strip-field system. Group 3 represents possible pits or tree-throws. Group 4 represents ferrous anomalies, likely buried agricultural artefacts. Group 5 represents two areas of weak magnetic mixed responses indicative of ground disturbance. Group 6 represents interference related to the existing field boundaries.

Group 1 are negative with positive anomalies forming a small rectangular enclosure in the south-west corner of the site. This enclosure is not marked on the OS mapping, although the northern east to west orientated linear approximately aligns with a historic boundary in fields to the west. The primarily negative nature of the response indicates that it may be a low bank-like feature. However, there are elements of bipolarisation which may indicate the presence of a modern service pipe.

Group 2 constitutes a weak linear positive anomaly indicative of a ditch feature. It runs parallel to the existing north to south boundaries, and is likely to have formed a boundary as part of a Medieval strip-field system.

Group 3 is composed of at least ten discrete positive anomalies. These are generally caused by in-filled cut features and could be pits of archaeological origin. However, they could equally be indicative of naturally occurring tree-throws or geological features.

Group 4 are four discrete dipolar anomalies. They are moderately strong responses and may indicate metallic objects, which given the agricultural nature of the site may be agricultural in origin.

Group 5 comprises two areas of mixed magnetic positive and negative responses. The weakness of the anomalies indicates that they relate to areas of disturbed ground. Their location is consistent with slight ridges either side of a depression in the field, also the approximate location of the possible ploughed-out barrow. These results indicate that if a barrow did exist it has been almost completely destroyed.

Group 6 are two positive and negative linear anomalies along the boundary of the site. They are strong responses and reflect interference caused by proximity to the existing field boundaries which contain metal fencing.

3.0 CONCLUSION

The results of the geophysical survey would suggest that there are relatively few features of archaeological origin present within the area of the proposed development. Of the two main anomalies identified, the linear feature is not recorded on the Ordnance Survey mapping; its alignment suggesting that it may form a historic boundary, part of a relict Medieval field system that is still (in part) represented in the wider landscape. The possible enclosure in the south-west corner of the site may similarly have formed part of this, or be a modern service pipe. Despite the strong evidence for prehistoric activity in the surrounding landscape, including the scheduled barrow in the adjacent eastern field, and a suspected barrow recorded within the survey area, to the north of the proposal site, the geophysical survey did not identify features which could be conclusively linked to the prehistoric period. It is possible that the areas of disturbed ground highlighted in the survey could remnants of the destroyed barrow, though there is no evidence of the expected surrounding ditch.

Any development of the site would be unlikely to disturb significant archaeological deposits. The possible enclosure in the south-west corner of the site and the linear field boundary towards the eastern edge appear to be the only identified anomalies of possible archaeological merit, and likely to reflect the Medieval field system.

4.0 BIBLIOGRAPHY

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APPENDIX 1: SUPPORTING PHOTOGRAPHS: SITE INSPECTION

SCHEDULED ANCIENT MONUMENT 1004385 BOWL BARROW IN THE ADJACENT EAST FIELD; VIEWED FROM THE SOUTH.

THE PROPOSED DEVELOPMENT AREA; VIEWED FROM THE EAST.

THE WIDER FIELD (AND SURVEY AREA) IN WHICH THE PROPOSED DEVELOPMENT AREA IS LOCATED; VIEWED FROM THE SOUTH-EAST.

DETAIL OF THE HEDGEBANK FORMING THE EASTERN SITE BOUNDARY; VIEWED FROM THE NORTH-NORTH-WEST.

THE PROPOSAL SITE WITHIN THE WIDER FIELD; VIEWED FROM THE NORTH-EAST.

THE PROPOSAL SITE WITHIN THE LARGER FIELD; VIEWED FROM THE SOUTH-WEST.

VIEW ALONG THE WESTERN FIELD BOUNDARY; VIEWED FROM THE SOUTH.

VIEW ALONG THE NORTHERN FIELD BOUNDARY; VIEWED FROM THE WEST.

VIEW ALONG THE EASTERN FIELD BOUNDARY, ACROSS THE LOCALE OF THE SUSPECTED PLOUGHED-OUT BARROW; VIEWED FROM THE NORTH.

THE WIDER FIELD TO THE NORTH OF THE PROPOSAL SITE, SHOWING THE SLIGHT DEPRESSION BETWEEN TWO RIDGES AGAINST THE EASTERN SITE BOUNDARY; VIEWED FROM THE SOUTH-WEST.

APPENDIX 2: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY

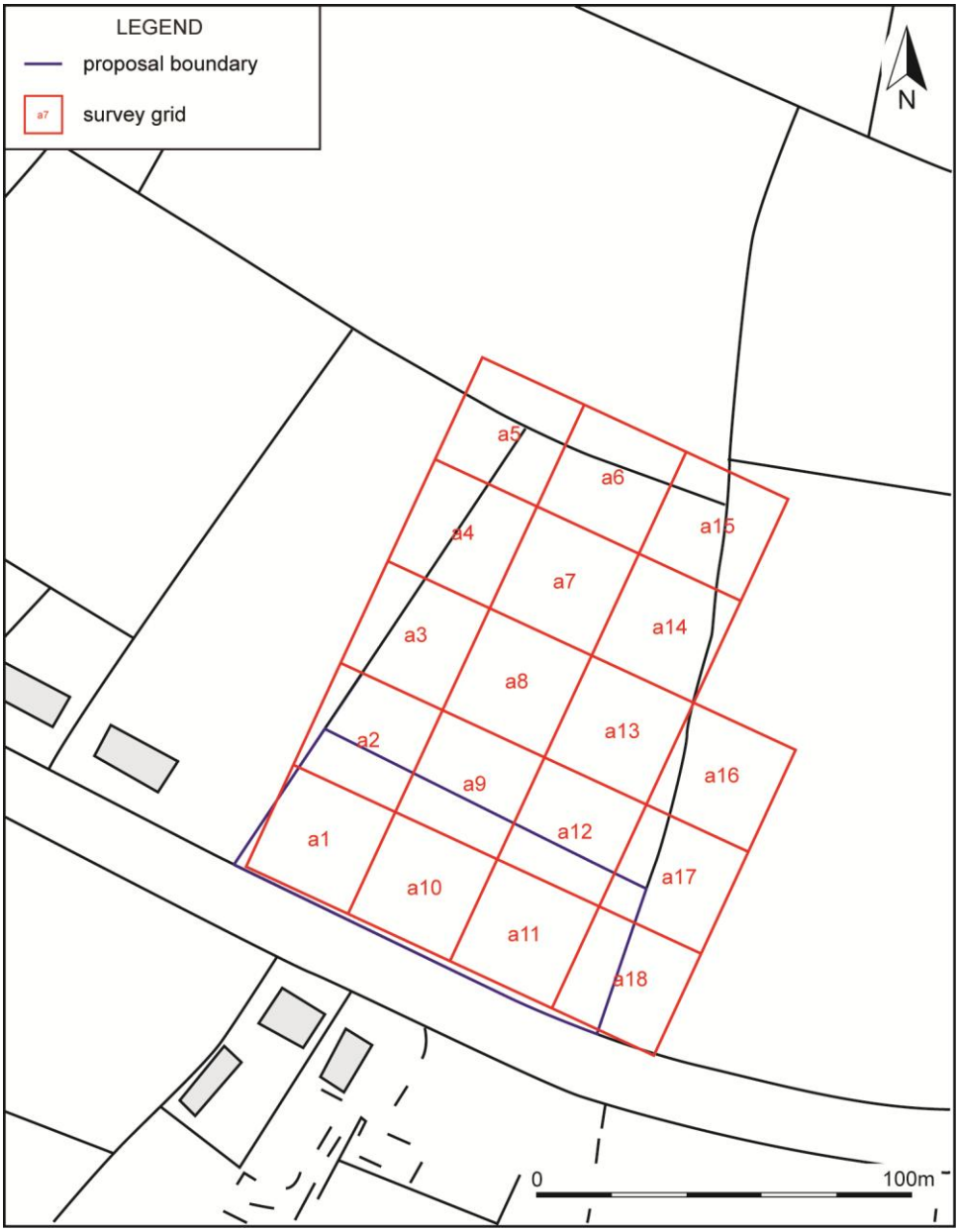

FIGURE 3: GEOPHYSICAL SURVEY GRID LOCATION, LAYOUT AND NUMBERING.

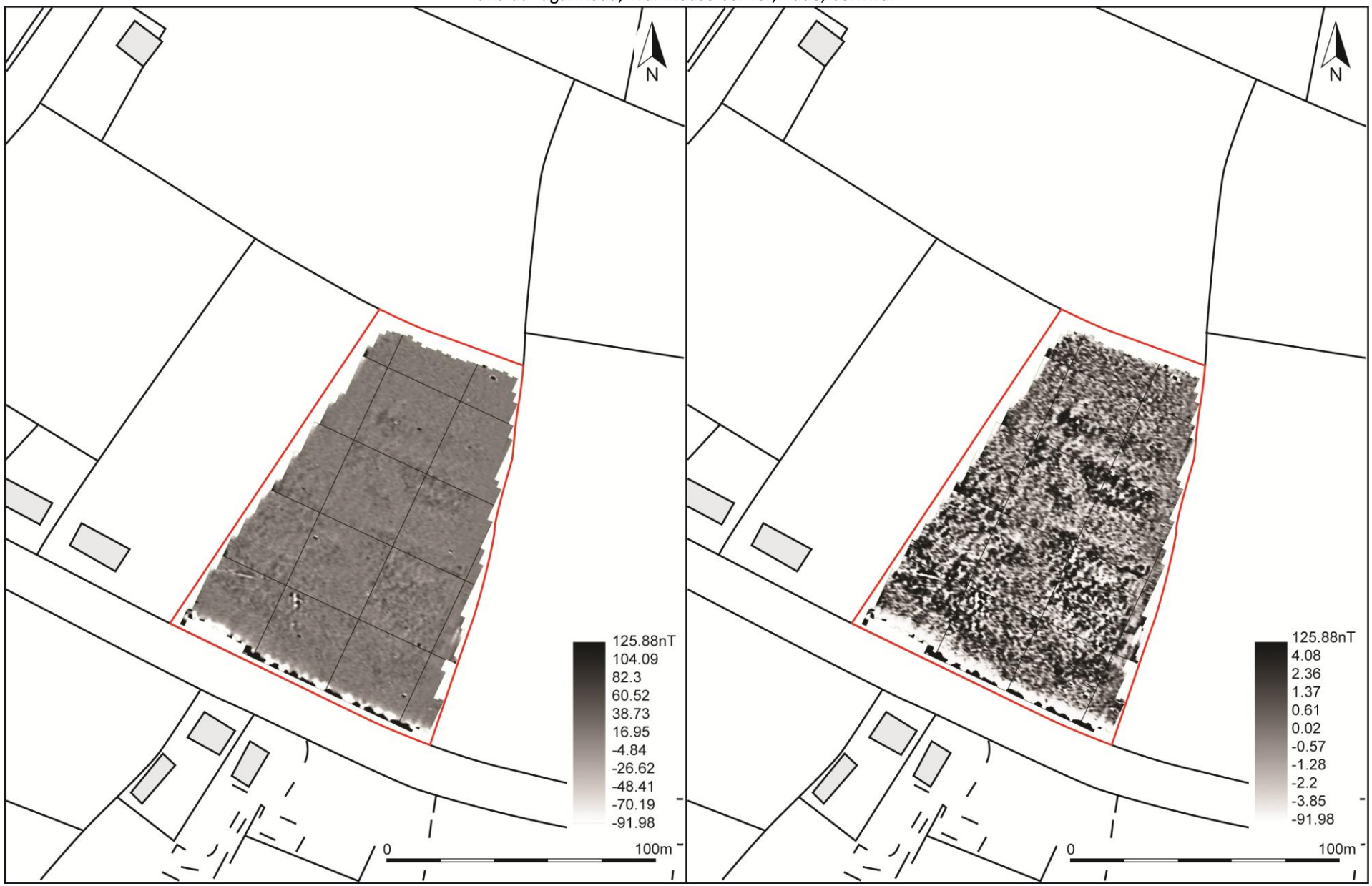

FIGURE 4: GREYSCALE SHADE PLOT OF GRADIOMETER SURVEY DATA: GRADIATED SHADING (LEFT); BAND WEIGHT EQUALISED, GRADIATED SHADING (RIGHT).

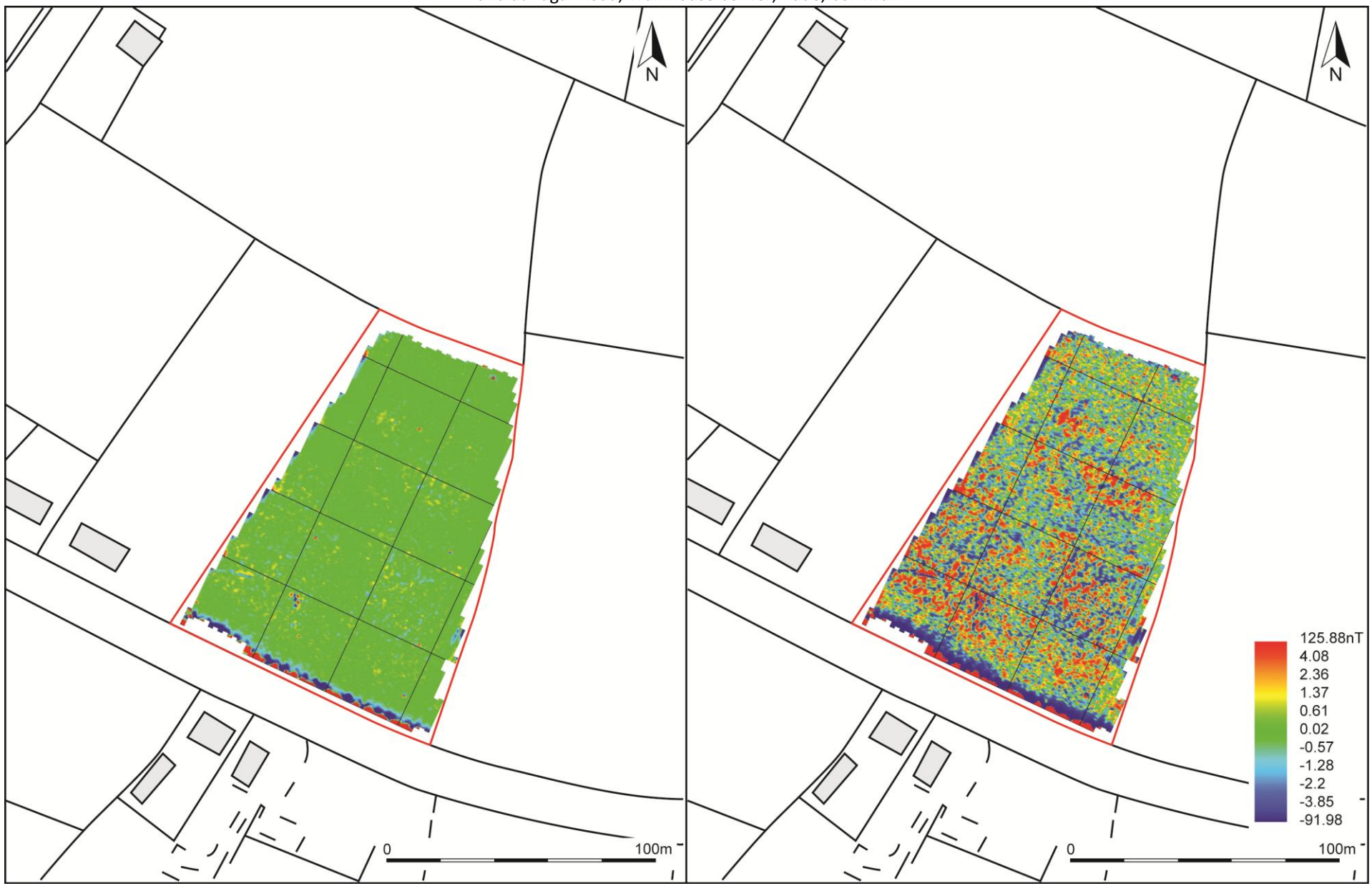

FIGURE 5: RED-BLUE-GREY (2) SHADE PLOT OF GRADIOMETER SURVEY DATA: GRADIATED SHADING (LEFT); BAND WEIGHT EQUALISED, GRADIATED SHADING (RIGHT).

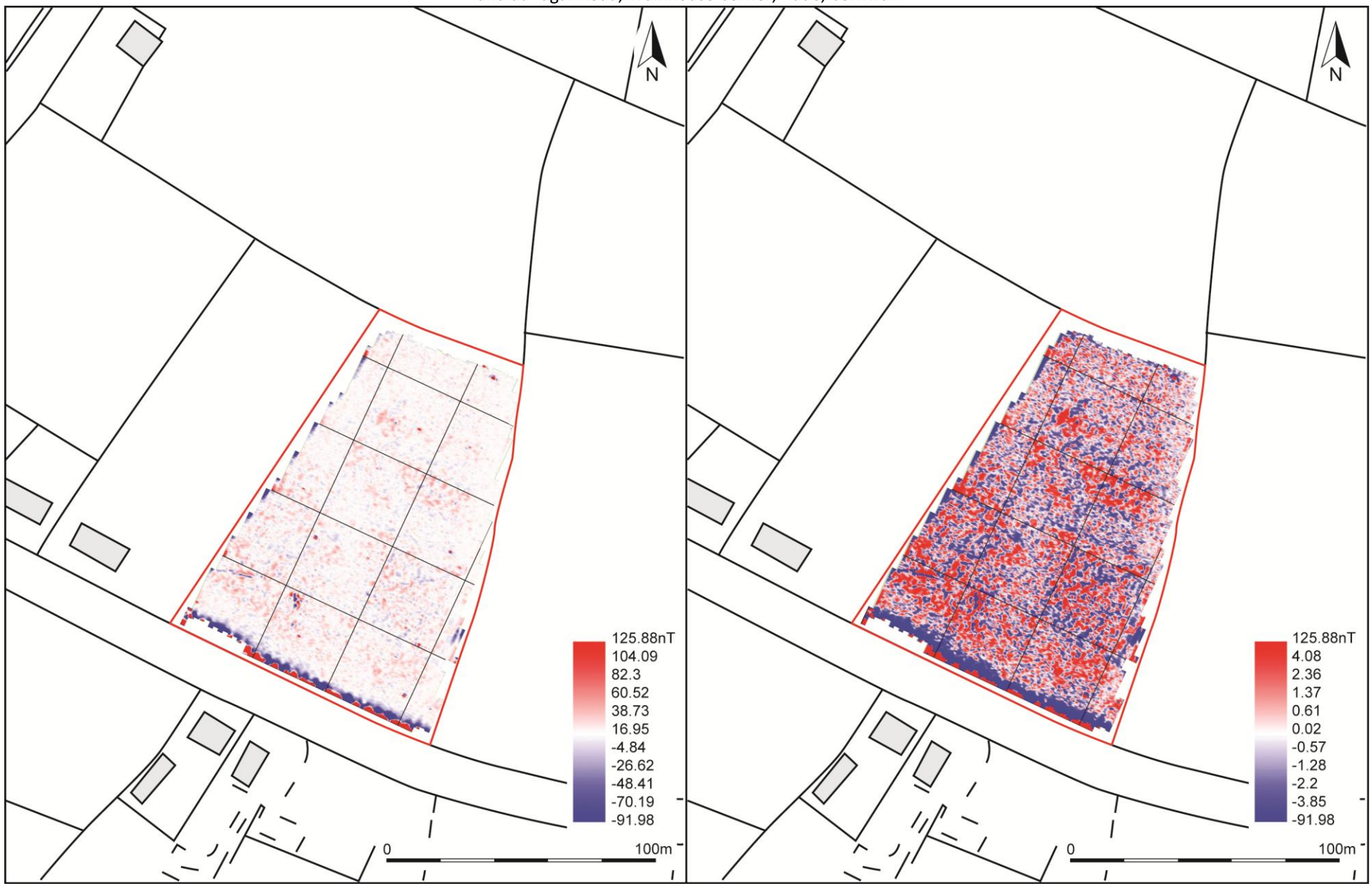

FIGURE 6: RED-WHITE-BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA: GRADIATED SHADING (LEFT); BAND WEIGHT EQUALISED, GRADIATED SHADING (RIGHT).

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