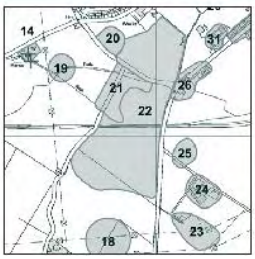
East Anglia TWO Offshore Windfarm

Appendix 24.2

East Anglia ONE North / TWO Offshore Windfarm Proposed Onshore Cable Corridor and Substation Sites: Geophysical Survey Interim Summary Report

Preliminary Environmental Information
Volume 3
EA2-DEVWF-ENV-REP-IBR-000819_002

EAON18







EAST ANGLIA ONE NORTH/TWO OFFSHORE WINDFARM PROPOSED ONSHORE CABLE CORRIDOR AND SUBSTATION SITES

Geophysical Survey: Interim Summary Report

For Scottish Power Renewables Ltd

November 2018

HEADLAND ARCHAEOLOGY

EAST ANGLIA ONE NORTH/TWO OFFSHORE WINDFARM PROPOSED ONSHORE CABLE CORRIDOR AND SUBSTATION SITES: GEOPHYSICAL SURVEY INTERIM SUMMARY REPORT

EXECUTIVE SUMMARY

Headland Archaeology (UK) Ltd has carried out a geophysical (magnetometer) survey, covering approximately 400 hectares, within the boundary comprising the Indicative Onshore Development Area (IODA) for the East Anglia One North/Two Offshore Windfarms. The aim of the survey is to provide further information about the archaeological potential of the IODA and therefore to help determine (where possible within the confines of other environmental and engineering constraints) the preferred cable route and sub-station locations. A further 60 hectares may still be surveyed dependent on access and crop harvest dates. This preliminary report discusses the broad areas of archaeological activity (AAA's) identified within the IODA to date and is intended to inform ongoing discussions with the relevant stakeholders (Heritage Steering Group- HSG). The interpretations are preliminary until all the outstanding areas have been surveyed and the desk-based assessment (DBA) has been finalised. A preliminary review of the DBA has however been made in order to give as accurate an understanding as possible of the archaeological potential of the IODA at this stage in the planning process. Nevertheless, the interpretations are not expected to change significantly. Non-archaeological anomalies (predominantly geological, agricultural or modern) are also highlighted on the interpretation graphics but not discussed in detail at this time. A full and detailed report on the geophysical survey will be produced at the conclusion of the fieldwork.

The survey carried out so far has clearly demonstrated that the prevailing geological and pedological conditions are favourable for the detection of sub-surface archaeological remains. Anomalies indicative of probable or possible archaeological features and activity have been identified throughout the IODA, the majority of which were previously unknown, thus adding significantly to the archaeological understanding of the landscape across which the cable corridor will traverse. Although the suspected archaeological remains extend throughout the IODA there are still large areas where no anomalies of archaeological potential have been identified from the geophysical survey. However, the low magnitude exhibited by some of the anomalies and the partial and discontinuous nature of others suggests that, in certain instances, the archaeological remains may be more extensive than revealed by the survey, either due to partial truncation by modern agricultural techniques and/or a lack of magnetic contrast on a variable geological substrate. Nevertheless, ten broad areas comprising both concentrations of anomalies or single clearly defined features are identified as AAP's. Most of the linear anomalies are interpreted as being the result of soil filled ditches forming an extensive and complex network of field systems and enclosures, most likely for animals, which extends across the full length and width of the IODA. These field systems and potential stock enclosures are of uncertain date but probably date to the later prehistoric or early Roman periods. Smaller, sub-divided, enclosures with numerous discrete anomalies are interpreted as more likely to have been the sites of human occupation. Several of these settlement sites are identified, particularly in the western half of the IODA, again varying dates are likely including medieval. As well as the enclosures and settlement sites two circular anomalies, interpreted as locating a round barrow of possible Bronze Age date and a windmill of likely post-medieval date, are also highlighted.

Preliminary Results

Unless specified all the linear anomalies described are likely to be due to soil filled cut features, such as ditches, forming clear patterns of enclosure and land division. With the variable magnetic background it is difficult to confidently discriminate between discrete anomalies which may be due to archaeological features, such as pits, which may be indicative of occupational activity, and those that are probably due to localised geological variation. For this reason most of the discrete anomalies within enclosures have been ascribed a possible archaeological origin with those outside, except where the responses are particularly broad or high in magnitude, interpreted as of non-archaeological origin.

Areas of Archaeological Activity (AAA's

Ten distinct areas of archaeological activity (AAA's) have been identified which are discussed below from the east, where the cable makes landfall, through to the western end of the IODA, where the sub-stations will be sited. The areas of archaeological potential range from individual features to extensive areas of settlement or enclosure.

AAA1

The largest area of archaeological activity comprises a c. 3km section of the IODA extending northwards from the point at which the cable route makes landfall. Numerous conjoining linear anomalies form a huge, complex, system of land division and enclosure covering an area of approximately 116 hectares. The most coherent pattern of former fields is seen in fields GO-02, 03, 04, 05, 07, 08 and 24. The densest, most complete, pattern of fields is recorded in GO-03 and GO04; a likely Bronze Age barrow is also identified in GO-04. Further to the north (beyond the defined AAA) the anomalies become fragmentary and less coherent in GO-09, 10, 11 and 12 but nevertheless are still present albeit in a more truncated pattern. The size and shape of the enclosures varies but all are broadly rectilinear in morphology and are generally aligned on a similar orientation to the current field pattern. It is not certain at this stage whether this former system of land division is of prehistoric (Bronze Age) origin or possibly of later (Romano-British) date. No anomalies indicative of settlement activity have been interpreted at this stage but further processing and analysis may refine the current interpretation.

AAA2

AAA2 in GO-16 encloses a single circular anomaly which is interpreted as the ploughed down remains of a Bronze Age barrow. Two discrete anomalies immediately north of the probable former monument could be pits or areas of burning.

AAA3

AAA3 encompasses another very large area (approximately 98 hectares) which covers five fields extending from GO-21 in the south-west to GO-16 and 17 in the north-east. The single most well-defined feature is a rectangular enclosure in GO-20, aligned broadly north/south. A less well-defined enclosure is identified appended to the west with other linear anomalies extending to both the south and west. In GO-21 a D-shaped enclosure is identified in the south-eastern corner of the field with other less well-defined enclosures extending to the north and west.

AAA4

Immediately west of Aldeburgh Road is AAA4 within which three main foci of archaeological activity can be discerned. At the eastern end of BE-07 a complex arrangement of linear anomalies indicates a ladder-like series of smaller enclosures aligned north/south across the full width of the field being particularly dense at the southern edge of the field. Here, at the southern end of the complex, the enclosures are much smaller than those identified further east along the cable corridor (AAA1-AAA3). There are also a plethora of discrete anomalies which may identify an area of settlement. Approximately two hundred and fifty metres to the west is a trackway, clearly defined by two parallel ditches, probably affording access to larger fields visibly extending on an east/west axis to the east and west of the trackway. Noteworthy is a small circular anomaly. The third element in this AAA is another disparate and discontinuous arrangement of anomalies along the northern edge of BE-03. The small sizes of enclosure and the number of discrete anomalies could again point towards an area of settlement activity.

AAA5

Moving west along the cable corridor into BE-01 and BE-04 individual linear anomalies can be seen in the centre of the fields. Along the western edge of BE-04 part of an enclosure can be clearly discerned, parallel with the road, with part of another (smaller) enclosure within it. Discrete anomalies within these two enclosures are indicative of settlement, possibly of medieval date.

AAA6

AAA6 comprises a little cluster of small, sub-rectangular enclosures in the centre of field RM-13 which may potentially be dated to the Middle Bronze Age through to the early Roman period. The partial remains of another barrow, less than 100m to the north-east, could suggest a prehistoric date for the enclosures to be more likely. Linear anomalies suggest the partial remains of larger enclosures to the north and east in RM-10, 11 and 12. Another small isolated rectilinear enclosure is identified on the northern limit of the survey area in RM-10.

AAA7

A circular anomaly with a cross-shaped anomaly central within it in field RM-04 locates a post-medieval windmill.

AAA8

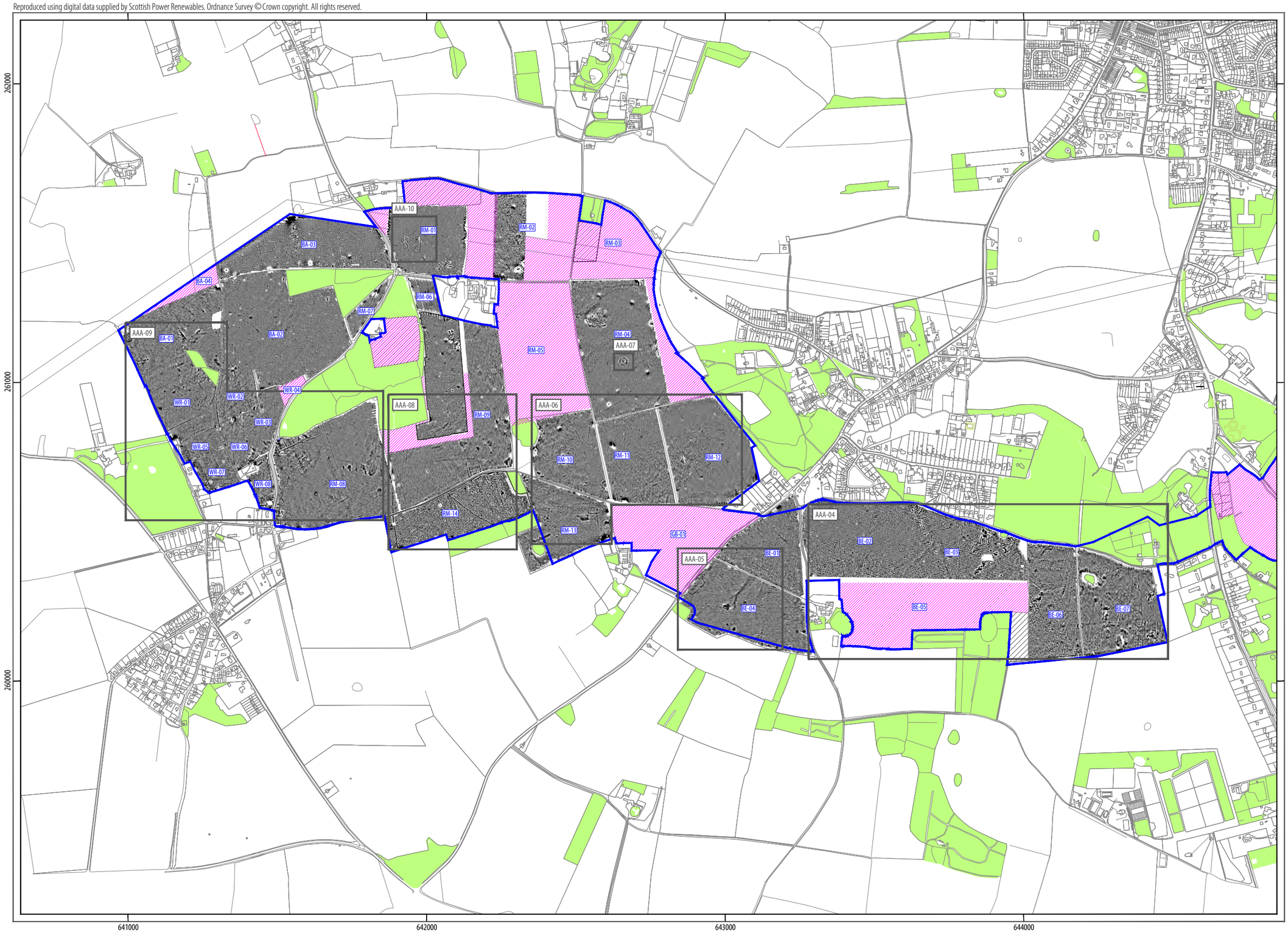
Three or four conjoining rectangular enclosure aligned north/south are identified on the southern boundary of RM-09. Other discontinuous linear anomalies throughout this field and in RM-14 to the south indicate the presence of other much larger fields.

AAA9

AAA9 also encompasses a large area, approximately 45 hectares, extending across several fields, BA-01, WR-01, WR-02, WR-03, WR-05, WR-06, WR-07, WR-08 and RM-08. Of greatest note is the cluster of conjoining enclosures in field RM-08 which extends for approximately 225 metres on a north-east/south-west alignment from the adjacent lane, bordering the south-western section of Grove Wood. The numerous discrete anomalies are indicative of occupation and this cluster of anomalies is probably the remains of a roadside settlement of likely medieval date. To the north-western side of the lane the anomalies become much weaker and disparate but are likely to indicate the continuation of the settlement. Throughout the remainder of AAA9 discontinuous linear anomalies are again indicative of a former system of field division of uncertain date.

AAA10

The final area of archaeological activity comprises another small cluster of recti-linear enclosures in the far north-west of the IODA in RM-01. These enclosures again could date from the later prehistoric through to the early post-Roman periods.



geophysical survey area / IODA
unsurveyed
areas of archaeological activity

0 250m
1:12,500 @ A3

PROJECT EAON18
East Anglia One North/Two Indicitive Onshore Development Area (IODA)

CLIENT Suffolk
Scottish Power Renewables

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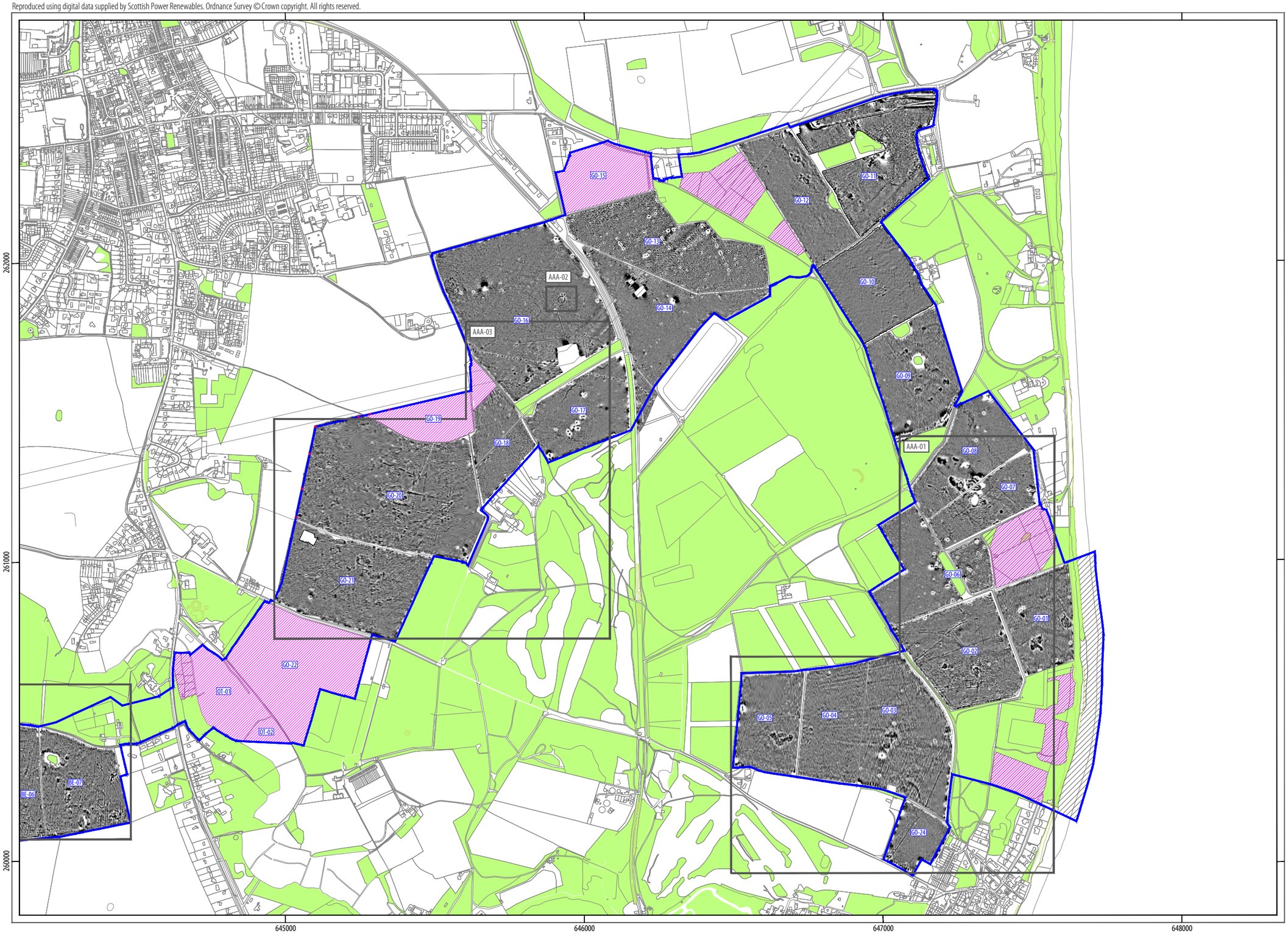
ILLUS 1a Minimally processed greyscale magnetic data; western end of IODA.



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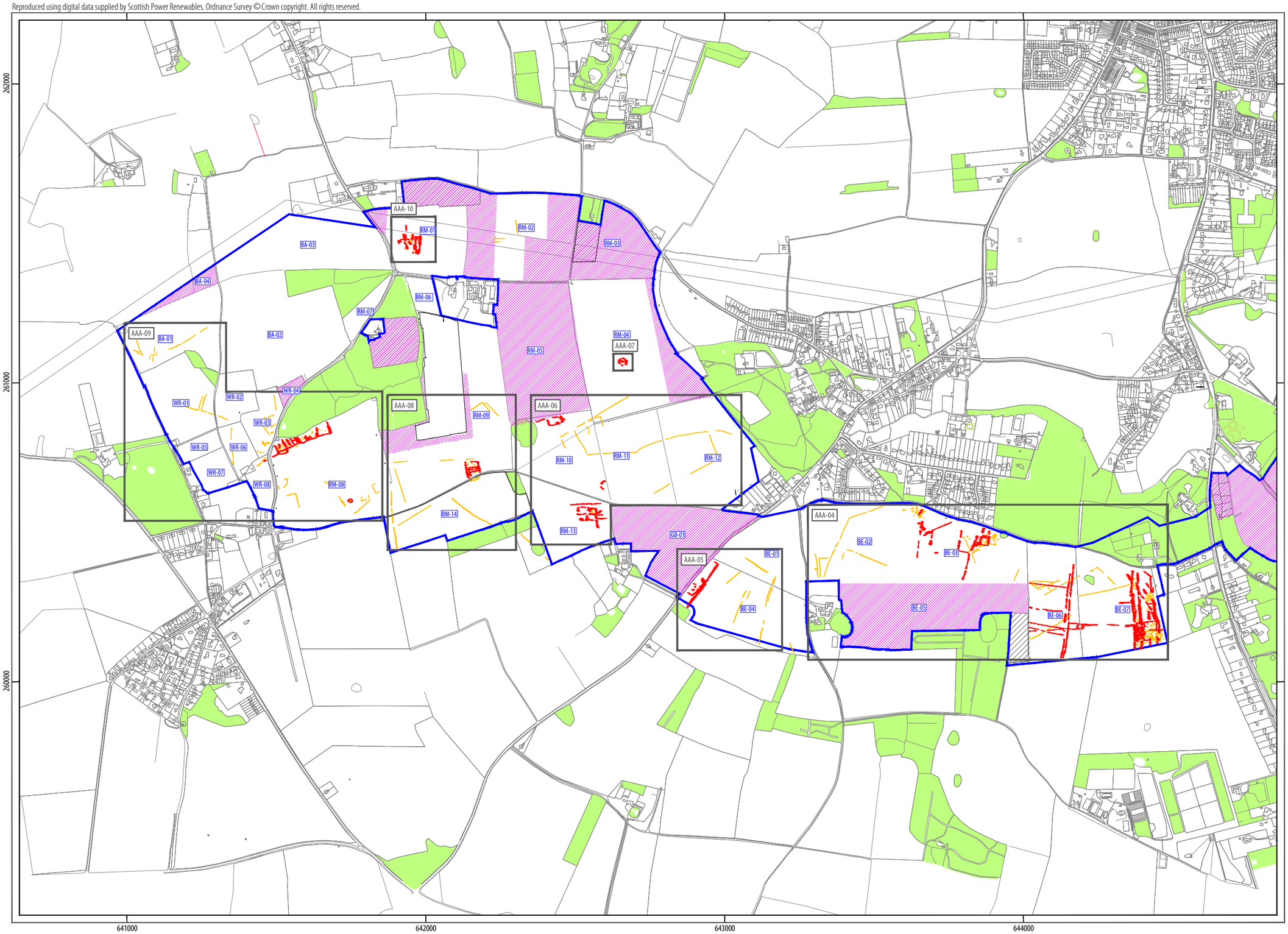
ILLUS 1b Minimally processed greyscale magnetic data; eastern end of IODA.



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- areas of archaeological activity
- probable archaeology
- possible archaeology

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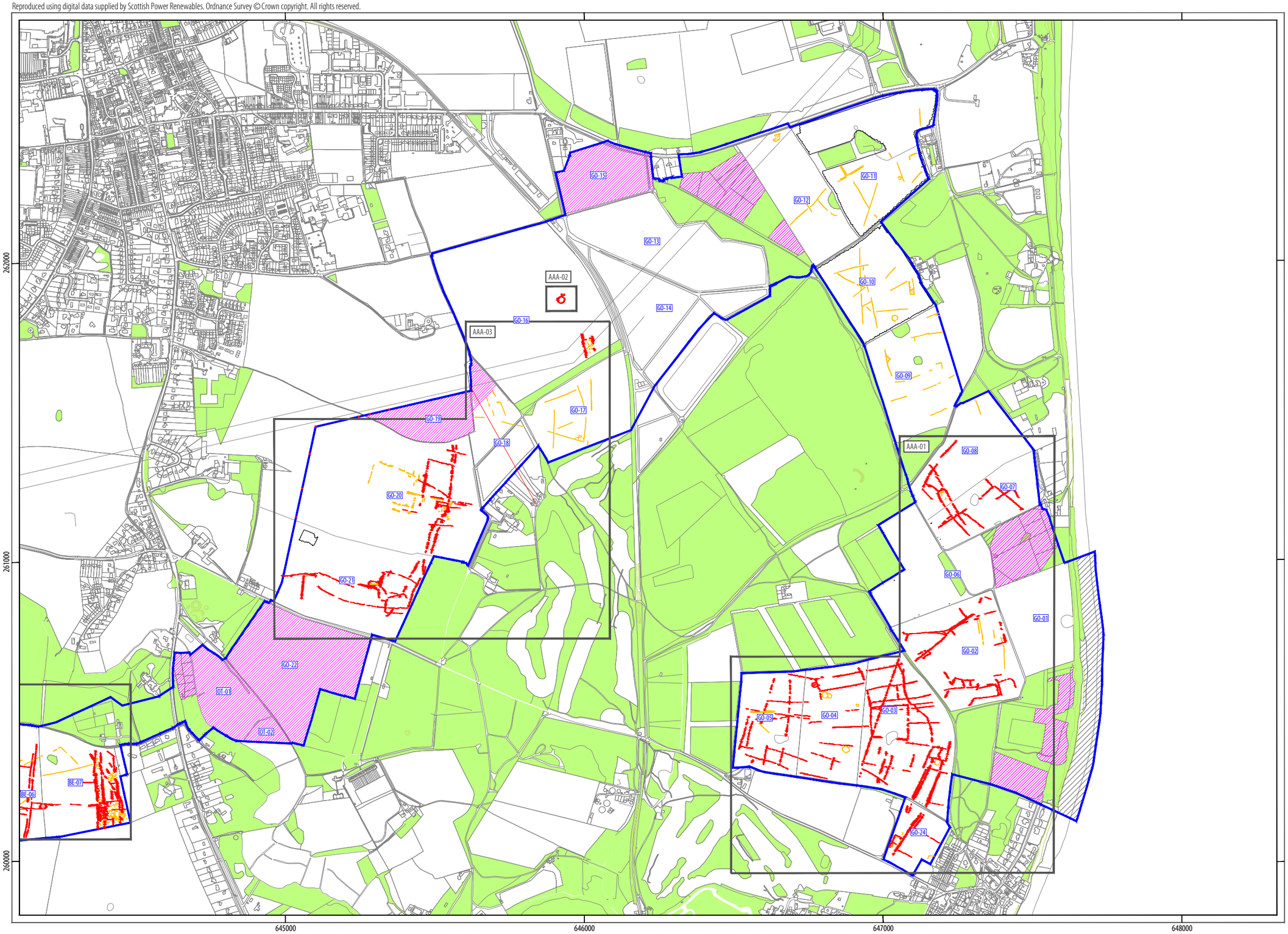
ILLUS 2a Draft interpretation of anomalies of archaeological potential showing Areas of Archaeological Activity; western end of IODA.



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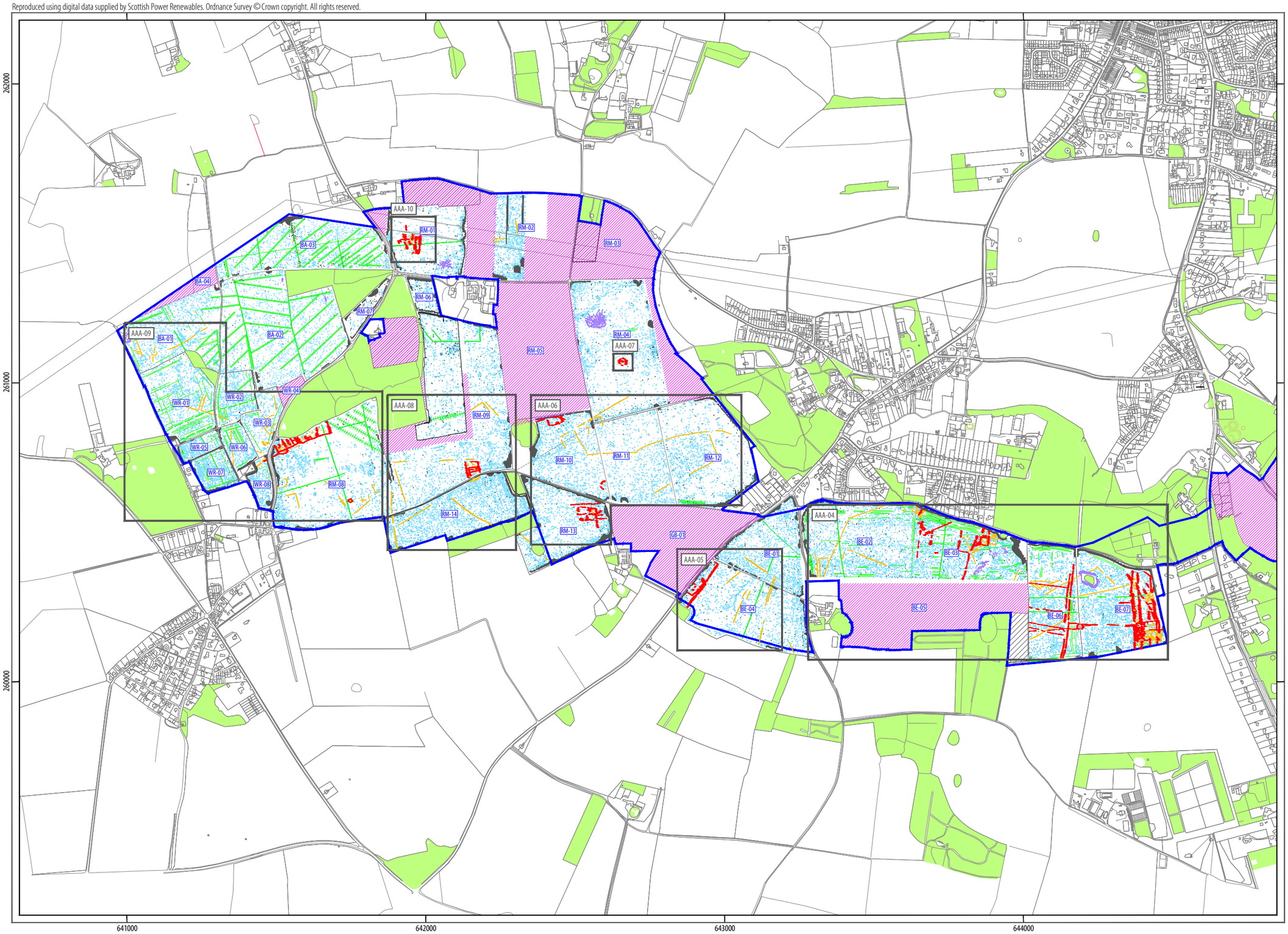

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- areas of archaeological activity
- probable archaeology
- possible archaeology
- agricultural activity
- quarrying activity
- magnetic enhancement - geology
- magnetic disturbance

0 250m
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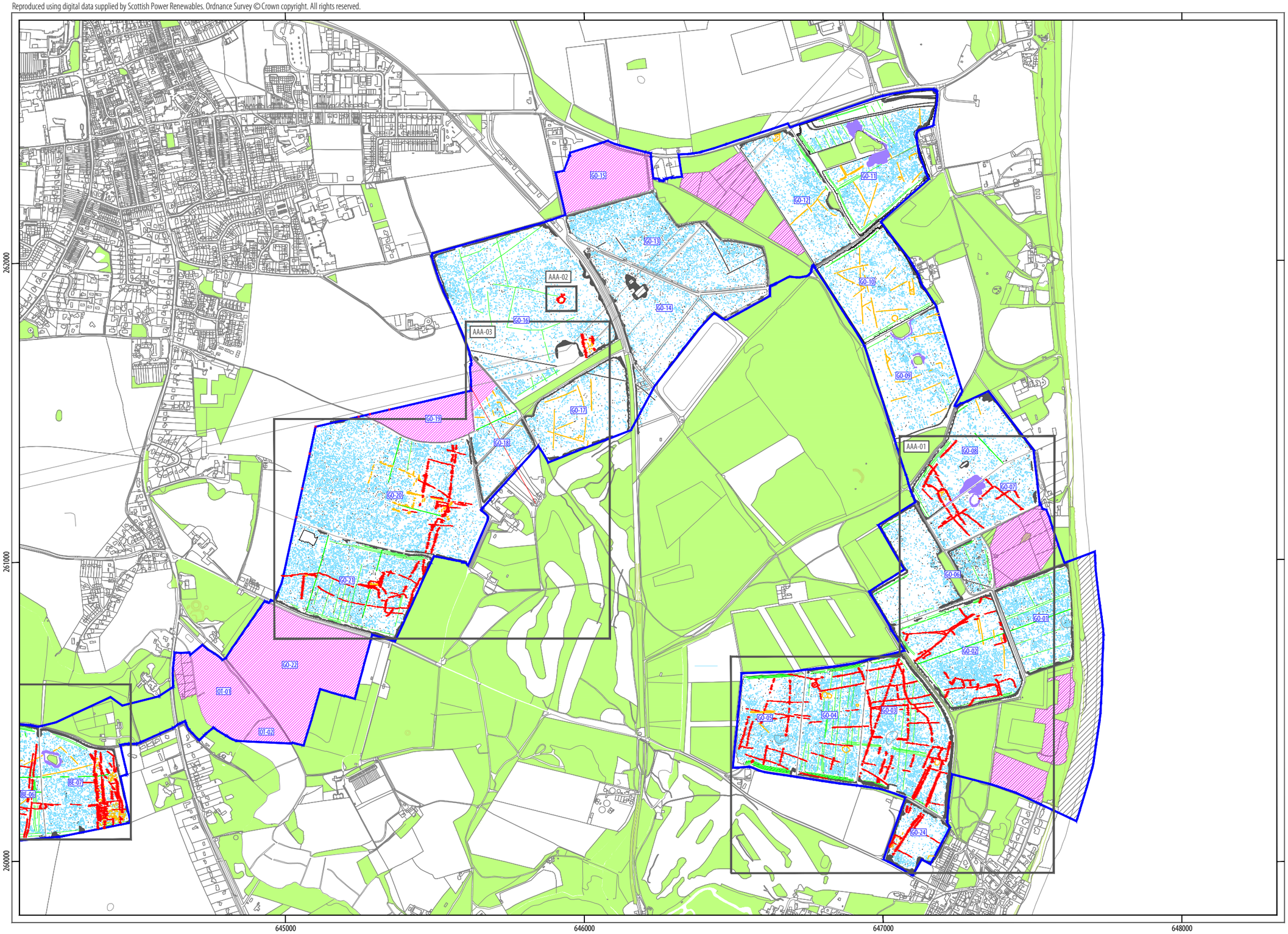
ILLUS 3a Draft interpretation of all anomalies showing Areas of Archaeological Activity; western end of IODA.



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