

An archaeological gradiometer survey

**Land at Daddon Hill Farm, Northam
Bideford, Devon**

Centred on NGR: 243830,128580

Report: 1510DAD-R-2

Ross Dean BSc MSc MA MCifA

12 November 2015

Substrata
Archaeological Geophysical Surveyors
Office 1, 5 Mill Street
Bideford, Devon EX39 1GX
Tel: 01237 237599
Email: geophysics@substrata.co.uk
Web: substrata.co.uk

Client:
Terrace Hill (Northam) Ltd
16 Queen Square
Bristol BS1 4NT

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Accompanying CD-ROM

Report.....	Adobe PDF format
Copies of report figures.....	Adobe PDF format
Raw and processed grid & composite files	DW Consulting TerraSurveyor 3 formats
Minimal processing data plots and metadata	DW Consulting TerraSurveyor 3 formats
Final data processing data plots and metadata	DW Consulting TerraSurveyor 3 formats
GIS project, shape files and classification schema	
GIS project	Manifold 8 ‘.map’ file
GIS shape files	ESRI standard
GIS classification schema	Adobe PDF format
AutoCAD version of the survey interpretation	AutoCAD DXF

Website: substrata.co.uk

For an overview of Substrata, our archaeological geophysical surveying techniques and the results we obtain.

1 Survey description and summary

1.1 Survey

Type: twin-sensor fluxgate gradiometer
Date: between 2 and 29 June and between 28 October to 2 November 2015
Area: 32.5 ha
Author: Ross Dean BSc MSc MA MifA
Lead surveyor: Mark Edwards, BSc

1.2 Client

Terrace Hill (Northam) Ltd, 16 Queen Square, Bristol BS1 4NT

1.3 Location

Site: Land at Daddon Hill Farm
Civil Parish: Northam
District: Torridge
County & Unitary Authority: Devon
Nearest Postcode: EX39 1BJ
NGR: SS 438 285
Ordnance Survey NGR (E/N): 243830,128580 (point)

1.4 Archive

OASIS number: substrat1-220741
Archive: At the time of writing, the archive of this survey will be held by Substrata and will be deposited with the ADS in due course.

1.5 Introduction

This report was commissioned by Phoenix Consulting Archaeology Ltd on behalf of Terrace Hill (Northam) Ltd (the Client). The survey is part of a programme of archaeological works commissioned in support of an outline planning application for a residential development at the above site. The proposed development site (the Site) was the subject of an Archaeological Desk-Based Assessment completed in 2014 (Francis 2014). The location of the site is shown in Figure 1.

To aid with the analysis and discussion, the Site was sub-divided into survey areas 1 to 8 as shown in Figure 2.

This report replaces an earlier version (Substrata report 1508DADR/1, 19 August 2015) which was issued whilst waiting for crops to be harvested in areas 3 and 8.

1.6 Summary

The magnetic contrast across the area was sufficient to be able to differentiate between anomalies representing possible archaeological features and background magnetic responses.

One-hundred-and-thirty-one magnetic anomaly groups were identified as possibly representing archaeological deposits or features, the majority of which are fragmented linear and curvilinear groups that are most likely to relate to past field boundaries, field tracks and other enclosures of unknown date and more than one phase of land management. Thirty-one of these anomaly groups represent former field boundaries and tracks mapped on the 1839 Northam Tithe map and on later historical Ordnance Survey maps.

On the western side of the site, designated area 2 in Figure 2, three groups may reflect archaeological deposits in the form of large pits or natural deposits and one of these may represent a larger structure such as a mine shaft or well. One group could represent a line of pits or a disrupted linear deposit such as a ploughed-out ditch.

In the same area, two groups could represent Prehistoric archaeological deposits in the form of ring-ditches or round-houses.

On the central and south-eastern parts of the site (areas 5, 6 and 7 in Figure 2), there is some evidence supporting the presence of a former rectilinear field system or other collection of relatively small enclosures.

2 Survey aims and objectives

2.1 Aims

The main aim of the geophysical survey was to establish the presence or absence, extent and character of any archaeological features and deposits within the Site. The results of the survey and any subsequent trial trenching will be reviewed and used to inform any subsequent mitigation.

The site specific aims are to:

- Establish the presence/absence of archaeological remains;
- Determine the extent, condition, nature, character and significance of any archaeological remains encountered;
- Establish the nature of activity on the Site;
- Identify any deposits or structures that may relate to the occupation or use of the Site;
- Provide further information on the archaeology of the Site from any archaeological remains encountered.

2.2 Survey objectives

1. Complete a gradiometer survey across agreed parts of the Site.
2. Identify any magnetic anomalies that may be related to archaeological deposits, structures or artefacts.
3. Within the limits of the techniques and dataset, archaeologically characterise any such anomalies or patterns of anomalies.
4. Accurately record the location of the identified anomalies.
5. Produce a report based on the survey that is sufficiently detailed to inform any subsequent development on the site about the location and possible archaeological character of the recorded anomalies.

3 Standards

The standards used to complete this survey are defined by the Chartered Institute for Archaeologists (2014a) and English Heritage (2010). The codes of approved practice that were followed are those of the Chartered Institute for Archaeologists (2014b) and Archaeology Data Service/Digital Antiquity Guides (undated). The document text was written using the house style of the Chartered Institute for Archaeologists (Chartered Institute for Archaeologists, undated).

4 Site description

4.1 Landscape and land use

The Site is located within the south-western part of the Civil Parish of Northam. The proposed development site currently comprises a number of fields. The majority of these are improved pasture, with the exception of a large field at the north-eastern part of the Site (area 3), which is arable, and one small arable field at the south-western corner, adjacent to Silford Cross (area 8). Within the south-eastern part of the site is the former Daddon Hill Farm.

The Site is bounded to the north and east by the gardens of modern houses. To the south, the Site is bounded by a lane, which has a steep northern bank formed by a cut into the hill slope.

To the west are Buckleigh Road and further residential and commercial properties. Most external boundaries comprise dense, well-established hedgerows.

The topography of the Site is undulating and ranges between the 90m and 50m OD contours, with a southerly and easterly aspect. In the south-eastern quadrant, north of the farm, is a small natural hillock at 89m AOD. (Francis 2014, 7-8).

4.2 Geology

The solid geology across the site comprises mudstone, siltstone and sandstone of the Carboniferous Bideford Formation. The lower third of this sequence (the Westward Ho! Member) comprises thin-bedded mudstones, siltstones and sandstones, some of which are turbiditic and others cross laminated and wave rippled. The Westward Ho! Member includes several channels filled by slumped and disturbed strata or, more rarely, cross-bedded or cross laminated sandstones (British Geological Society undated).

The superficial geology is not recorded in the source consulted (ibid).

The soils across the Site are of the Denbigh 2 Association, being well drained loam soils over slate rubble. These merge with soils of the Neath Association to the east and of the Manod Association to the immediate north (Francis 2014, 8).

5 Archaeological background

The proposed site was the subject of an Archaeological Desk-Based Assessment completed by Phoenix Consulting Archaeology Ltd (Francis 2014). The following information is taken from that document.

5.1 Heritage Assets within the survey area

There are no previously recorded heritage assets within the Site.

The Site does include part of the old Parish boundary separating Northam and Abbotsham, which was possibly used as a routeway in the past to Westward Ho! (Francis 2014, 9).

5.2 Heritage Assets within 500m of the Application Area

The Site lies within a wider landscape of minimal recorded below-ground archaeology. The majority of sites recorded on the HER are represented by extant, standing buildings of post-Medieval date (ibid).

5.2.1 Recorded heritage assets thought relevant to the analysis of the survey data

HER 55991; to the north of the Site (NGR: SS 44 29)
Medieval field system. The field pattern in the area north and west of Northam has the appearance of a medieval open field system.

HER 19796; to the south of the Site (NGR: SS 437 281)
The slight remains of an earthwork nearly destroyed by tillage on Silford Moor. Possibly associated with battles between the English & the Danes in 9th century.

HER 102423; to the south of the Site (NGR: SS 4382 2827)
A 19th century water-meadow to east of Silford Cross. A levelled earthwork visible on 20th-century aerial photographs as a series of earthwork ditches. Site now developed.

HER 472; to the south of the Site (NGR: SS 4411 2813)
Lenwood Prehistoric bowl barrow, thought to be Bronze Age. Scheduled Monument No. 1016212. Situated in an elevated position with commanding views over Bideford. Survives as a 24m diameter circular mound, up to 1.2 metres high.

HER 34052; to the south of the Site in Silford (NGR: SS 4388 2814)
Cartographic evidence for a Post-medieval quarry marked on 6" OS map of 1932 but not shown on 6" OS map of 1975.

HER 104114; to the west of the Site (NGR: SS 4315 2861: Linear features and possible enclosure ditch identified during archaeological evaluation off Buckleigh Road. These appear to be of medieval date or later.

5.3 Historic landscape characterisation (HLC)

Areas 1 to 7:

HLC Modern: Modern enclosures adapting medieval fields

These modern fields have been created out of probable medieval enclosures. The sinuous medieval boundaries survive in places.

HLC Post-medieval: Medieval enclosures based on strip fields

This area was probably first enclosed with hedge-banks during the later middle ages. The curving form of the hedge-banks suggests that earlier it may have been farmed as open strip-fields.

Area 8:

HLC Modern and Post-medieval: Medieval enclosures based on strip fields

This area was probably first enclosed with hedge-banks during the later middle ages. The curving form of the hedge-banks suggests that earlier it may have been farmed as open strip-fields.

(Devon County Council undated)

6 Results, discussion and conclusions

This survey was designed to record magnetic anomalies. The anomalies themselves cannot be regarded as actual archaeological features and the dimensions of the anomalies shown do not represent the dimensions of any associated archaeological features. The analysis presented below identifies and characterises anomalies and anomaly groups that may relate to archaeological deposits and structures.

The terms ‘archaeological features’ and ‘archaeological deposits’ refer to any artefacts, material deposits or disturbance of natural deposits thought to be the result of human activity and not undertaken as recent land maintenance or farming.

To aid with the analysis and discussion, the Site was sub-divided in to survey areas 1 to 8 as shown in Figure 2.

The reader is referred to section 7.

6.1 Results

Figure 2 shows the interpretation of the survey data over all the survey areas and Figures 3 to 8 provide a larger scale plots of areas 1 and 2, 3, 4, 5, 6 and 7, and 8 respectively. Each plot includes the anomaly groups identified as relating to archaeological deposits along with their numbers. Tables 1 to 3 are extracts of the detailed analysis of the survey data of areas 1 and 2, 3 and 4, and 5 to 8 respectively. The complete analysis is provided in the attribute tables of the GIS project on the accompanying CD-ROM and in the project archive.

Figures 2 to 8 and Tables 1 to 3 comprise the analysis of the survey data. Plots of the processed data are provided in Figures 9 to 15.

6.2 Discussion

6.2.1 General points

Not all anomalies or anomaly groups identified in Table 1 are necessarily discussed below. All identified anomaly groups are recorded in the GIS project on the accompanying CD-ROM.

Anomalies thought to relate to natural features were not mapped.

Recent man-made objects such as manholes, water management equipment, drains, cables and other services were only mapped where they comprised significant magnetic responses across the dataset that needed clarification. If mapped, they are listed in Table 1 but are not discussed below.

There are numerous anomaly groups that could be interpreted as relating to large postholes or pits although most will have natural origins. Anomalies of this sort are only mapped as potential archaeology if they are clustered in groups or otherwise form recognisable patterns.

Data collection along the survey area edges was restricted as shown in Figures 2 to 15 due to the presence of magnetic materials in and adjacent to field and roadside boundaries. Strong magnetic responses mapped close to the field and roadside boundaries are likely to relate to these materials except where otherwise indicated in Figures 2 to 8.

All of the surveyed fields display one or more groups parallel linear magnetic anomaly patterns. Except where indicated in the analysis, these patterns are likely to reflect relatively recent disturbance of the soils and sub-soils by ploughing.

6.2.2 Data relating to historical maps and other records

The following magnetic anomaly groups were recorded on historical maps between 1839 and 1993 as specified in Tables 1 to 3:

12, 14, 30, 31 and 32 in area 2;
122 and 126 in area 3;
43, 45 to 50, 55 and 58 in area 4;
66, 72, 77, 82 to 85, 87, 99 and 100 in area 5;
102, 108, 109, 111 and 112 in area 6.

Of these, groups **72, 83, 84, 85** and **87** in area 5 are part of a relatively small sub-rectangular field discussed in Section 6.2.3 below.

6.2.3 Data with no previous archaeological provenance

The majority of magnetic anomaly groups mapped as relating to potential archaeological deposits are linear and curvilinear groups that are most likely to relate to past field boundaries or other enclosures of unknown date. Many of these are conformable with the anomalies coinciding with field boundaries and field tracks recorded on historical maps but a number are at odds with the alignment of the extant field system suggesting more than one phase of past land enclosure.

Groups **4** to **6** (area 1) are typical of anomalies representing former lanes, tracks and roads and also relatively recent informal or temporary vehicle routes. Without further archaeological investigations it is not possible to determine whether they relate to ancient or modern activities in the area.

Groups **8, 13** and **38** (area 2) may reflect either archaeological deposits in the form of large pits or natural deposits. Group **8** may represent a larger structure such as a mine shaft or well. Group **34** (area 2) could represent a line of pits or a disrupted linear deposit.

Groups **19** and **20** (area 2) could represent Prehistoric archaeological deposits in the form of ring-ditches or round-houses.

Group **123** (area 3) is most likely to represent a former quarry.

Group **52** (area 4) appears to represent a sub-circular deposit but, while this is possible, the group is more likely to represent relatively recent ground disturbance.

The magnetic data for area 5 reflects a number of former field boundaries mapped between 1839 and 1993, associated features removed before 1839 and enclosures that may be unrelated to the Modern and Post-medieval field systems. The sub-rectangular field with field tracks to the southern and eastern sides (magnetic anomaly groups **72, 83, 84, 85** and **87** was mapped on the 1839 Northam Tithe map and on Ordnance Survey maps produced up to 1932 before the field was removed leaving only the lanes which survived until after 1975-76 but were removed before 1993-95. This field shape is unusual when compared to the extant field system. It is positioned on a spur of land overlooking land to the west, south and east. Anomaly groups **71, 68** and **69** suggest that the field once had additional field tracks or similar features on the western and northern sides. Further, groups **77, 80 to 83** and group **86** suggest that the field was likely to have been part of a larger complex of enclosures. It is possible that this sub-rectangular field is a remnant of a rectilinear field system and reflects an earlier

enclosure of some kind. Traces of this rectilinear field system or other smaller enclosures may also be present in areas 6 and 7 (groups **103 to 105**, **109 to 112**, **113**, **115** and **117**).

Magnetic anomaly groups **73** and **74** are unusual in that they are likely to represent a spread of deposits and archaeologically negative features with a general east-west trend. The most likely explanation is that the groups reflect quarrying or a combination of quarrying and stone robbing from field walls or other structures.

6.3 Conclusions

The magnetic contrast across the area was sufficient to be able to differentiate between anomalies representing possible archaeological features and background magnetic responses.

One-hundred-and-thirty-one magnetic anomaly groups were identified as possibly representing archaeological deposits or features, the majority of which are fragmented linear and curvilinear groups that are most likely to relate to past field boundaries, field tracks and other enclosures of unknown date and more than one phase of land management. Thirty-one of these anomaly groups represent former field boundaries and tracks mapped on the 1839 Northam Tithe map and on later historical Ordnance Survey maps.

On the western side of the site, designated area 2 in Figure 2, three groups may reflect archaeological deposits in the form of large pits or natural deposits and one of these may represent a larger structure such as a mine shaft or well. One group could represent a line of pits or a disrupted linear deposit such as a ploughed-out ditch.

In the same area, two groups could represent Prehistoric archaeological deposits in the form of ring-ditches or round-houses.

On the central and south-eastern parts of the site (areas 5, 6 and 7 in Figure 2), there is some evidence supporting the presence of a former rectilinear field system or other collection of relatively small enclosures.

7 Disclaimer and copyright

The description and discussion of the results presented in this report are the authors, based on his interpretation of the survey data. Every effort has been made to provide accurate descriptions and interpretations of the geophysical data set. The nature of archaeological geophysical surveying is such that interpretations based on geophysical data, while informative, can only be provisional. Geophysical surveys are a cost-effective early step in the multi-phase process that is archaeology. The evaluation programme of which this survey is part may also be informed by other archaeological assessment work and analysis. It must be presumed that more archaeological features will be evaluated than those specified in this report.

Ross Dean, trading as Substrata, will assign copyright to the client upon written request but retains the right to be identified as the author of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988 (Chapter IV, s.79).

8 Acknowledgements

Substrata would like to thank Terrace Hill (Northam) Ltd for commissioning the survey. We also thank Andy Richmond of Phoenix Consulting Archaeology Ltd and Barry Crabb of Urban and Civic plc for managing the commissioning process, providing assistance in communicating with the land users and owner and for the management of the project.

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Appendix 1 Analysis table and supporting plots

General Guidance

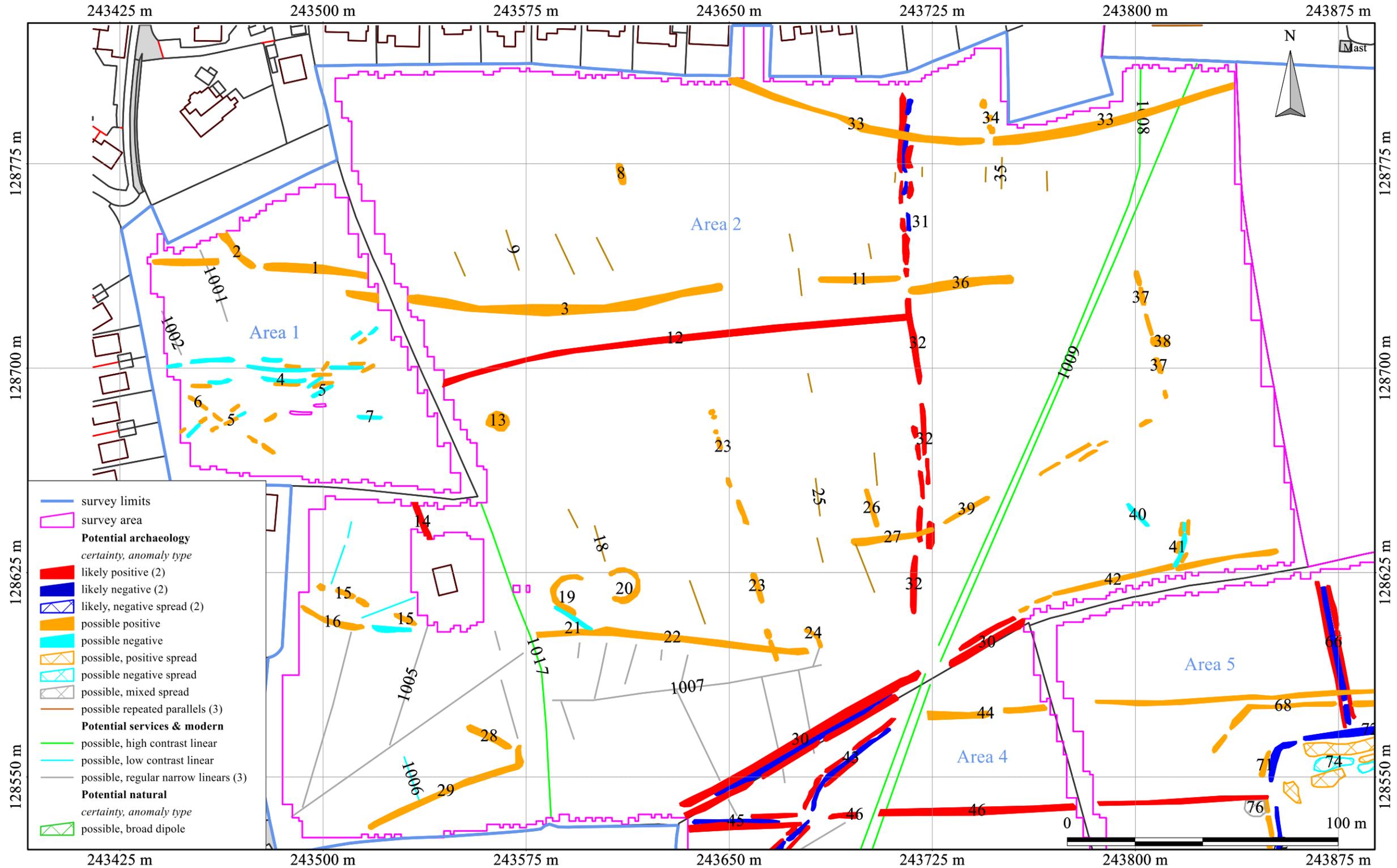
The anomalies represented in the survey plots provided in this appendix are magnetic anomalies. The apparent size of such anomalies and anomaly patterns are unlikely to correspond exactly with the dimensions of any associated archaeological features.

A rough rule for interpreting magnetic anomalies is that the width of an anomaly at half its maximum reading is equal to the width of the buried feature, or its depth if this is greater (Clark, 2000: 83). Caution must be applied when using this rule as it depends on the anomalies being clearly identifiable and distinct from adjacent anomalies. In northern latitudes the position of the maximum of a magnetic anomaly will be displaced slightly to the south of any associated physical feature.



Figure 1 Land at Daddon Hill Farm, Northam, Devon: Site Location.
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After Francis (2014)



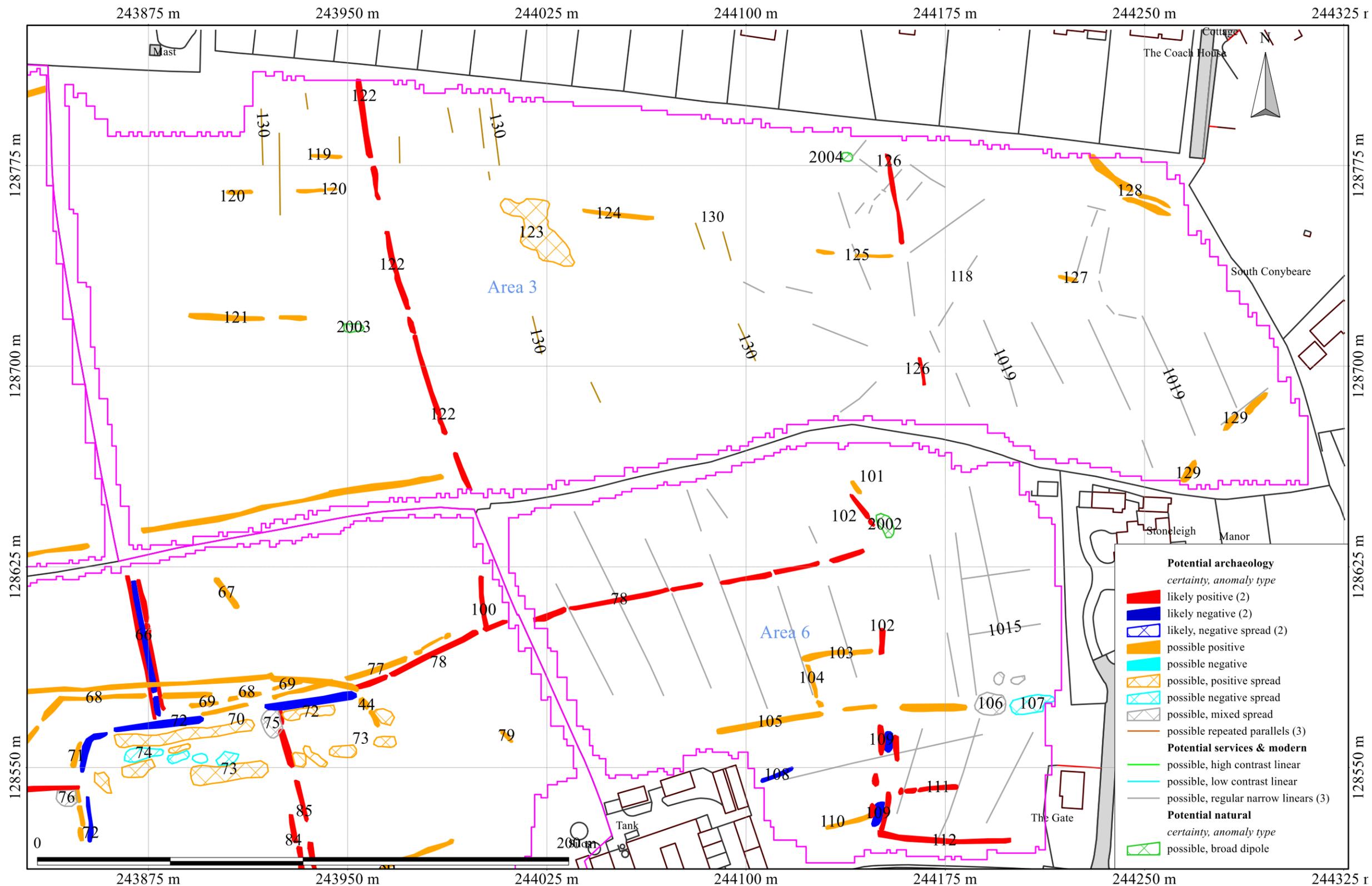
British Grid
centre X: 243639.69 m, centre Y: 128675.01 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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Base map: Ordnance Survey (c) Crown Copyright 2015.
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Notes:

1. All interpretations are provisional and represent potential archaeological deposits.
2. Anomalies designated "likely archaeology" have supporting evidence e.g. historical maps and or visible earthworks.
3. Representative; not all instances are mapped.
4. Anomalies likely to represent geological or other natural deposits are not mapped unless relevant to potential archaeological events or deposits.

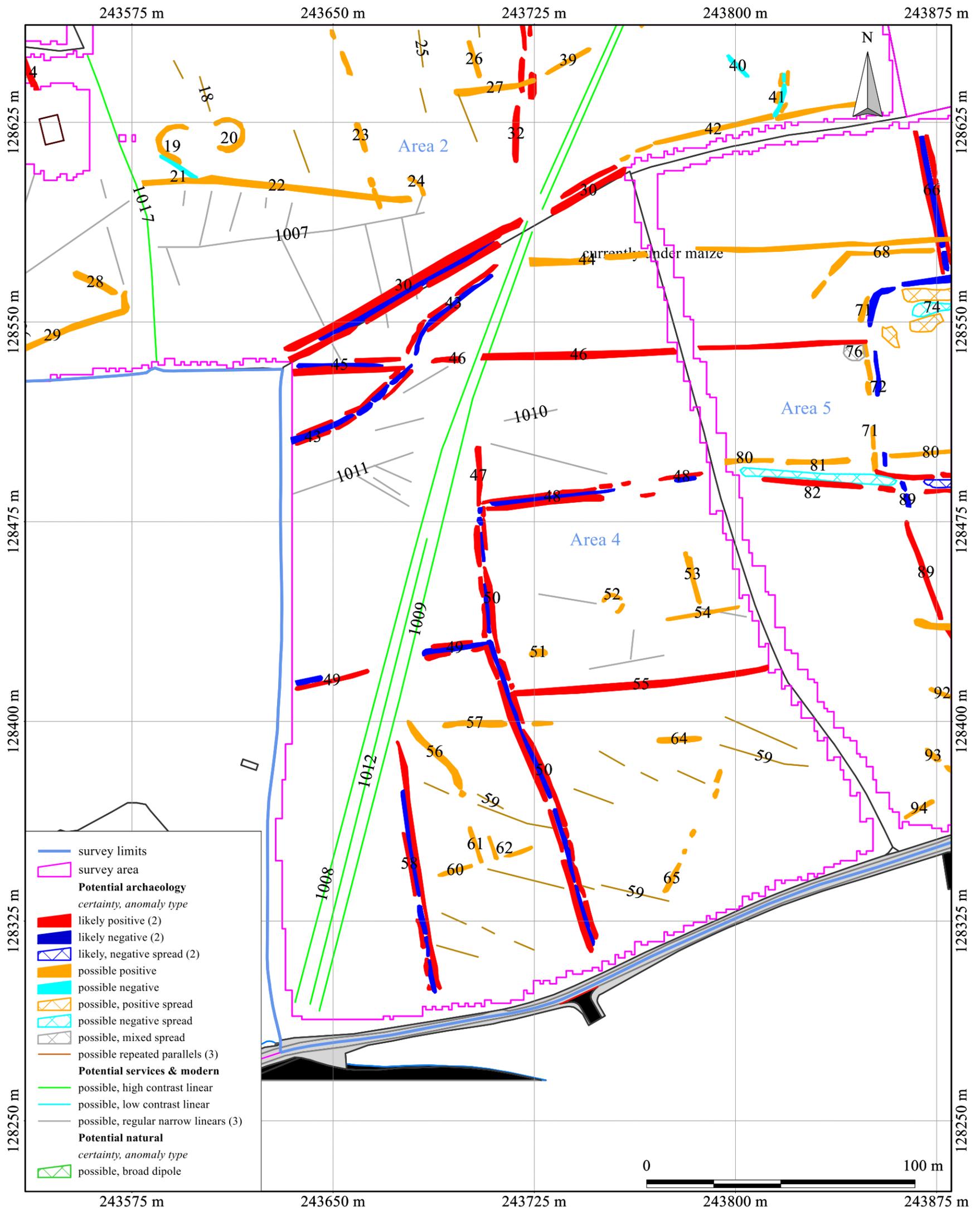


British Grid
centre X: 244078.02 m, centre Y: 128669.74 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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British Grid
centre X: 243707.86 m, centre Y: 128442.50 m

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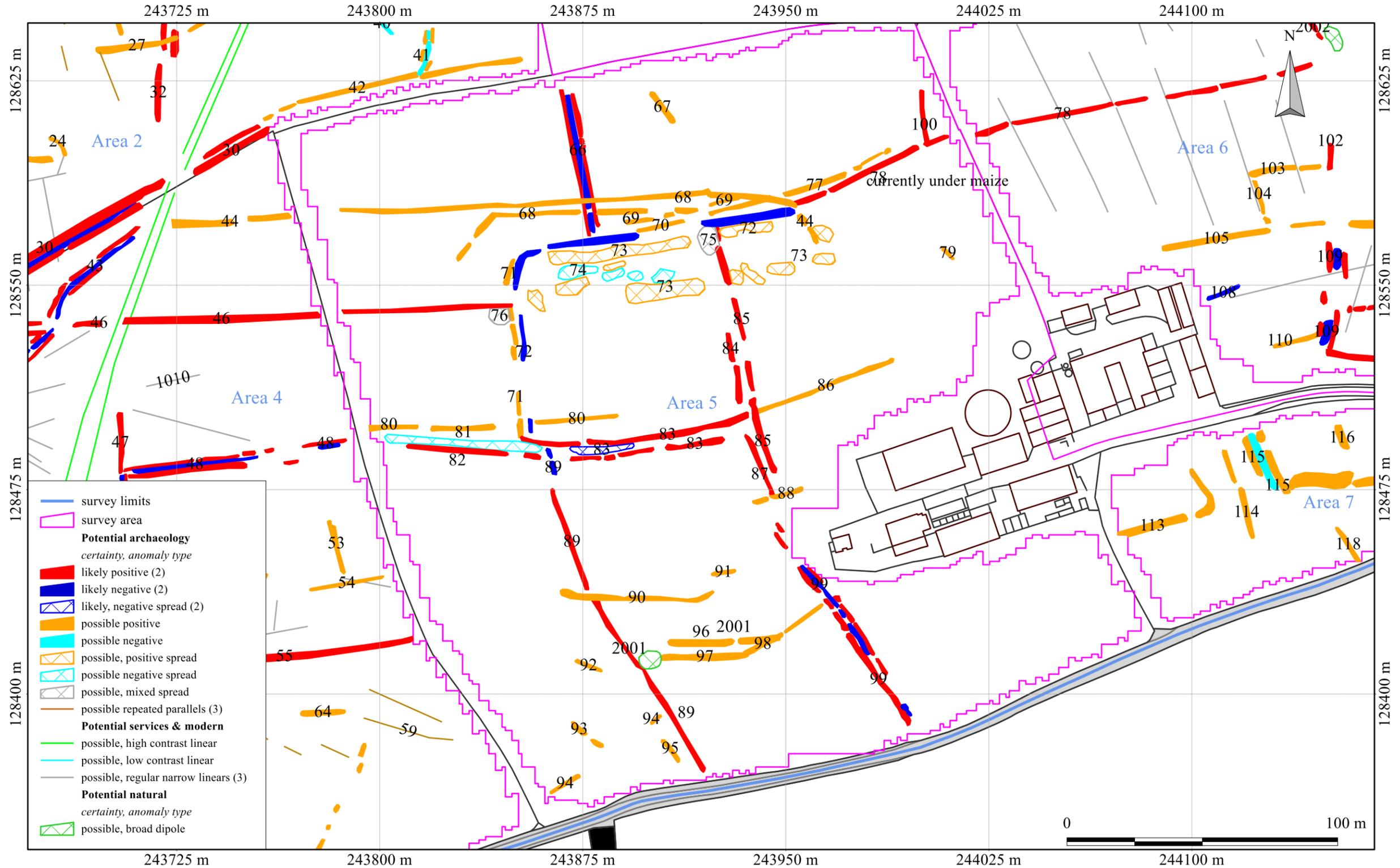
Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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Substrata
Office 1, 5 Mill Street, Bideford, Devon EX39 2JT
Tel: 01237 237599, Email: geophysics@substrata.co.uk
Web: substrata.co.uk

Figure 5: survey interpretation, area 4



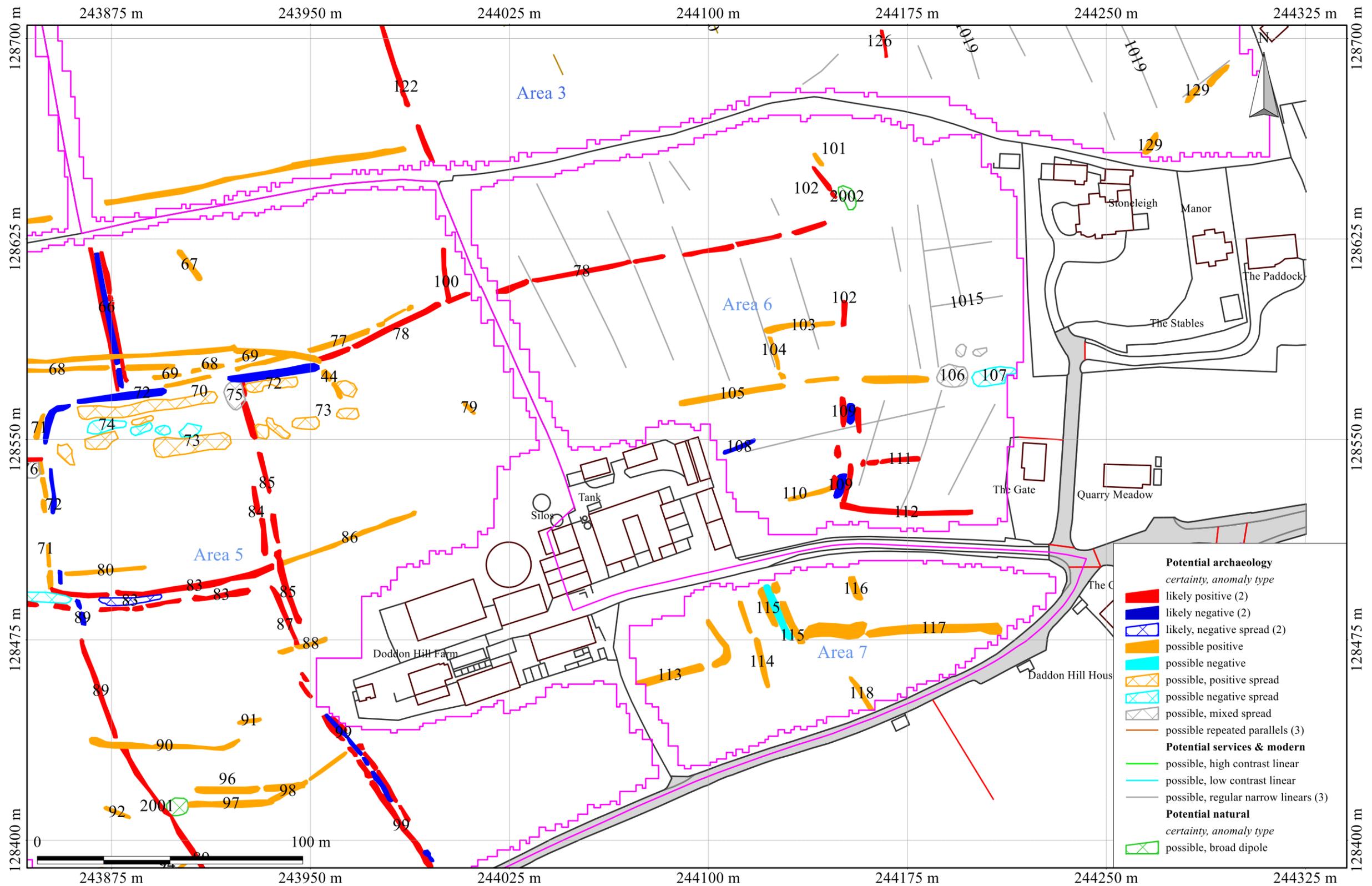
British Grid
centre X: 243918.72 m, centre Y: 128494.57 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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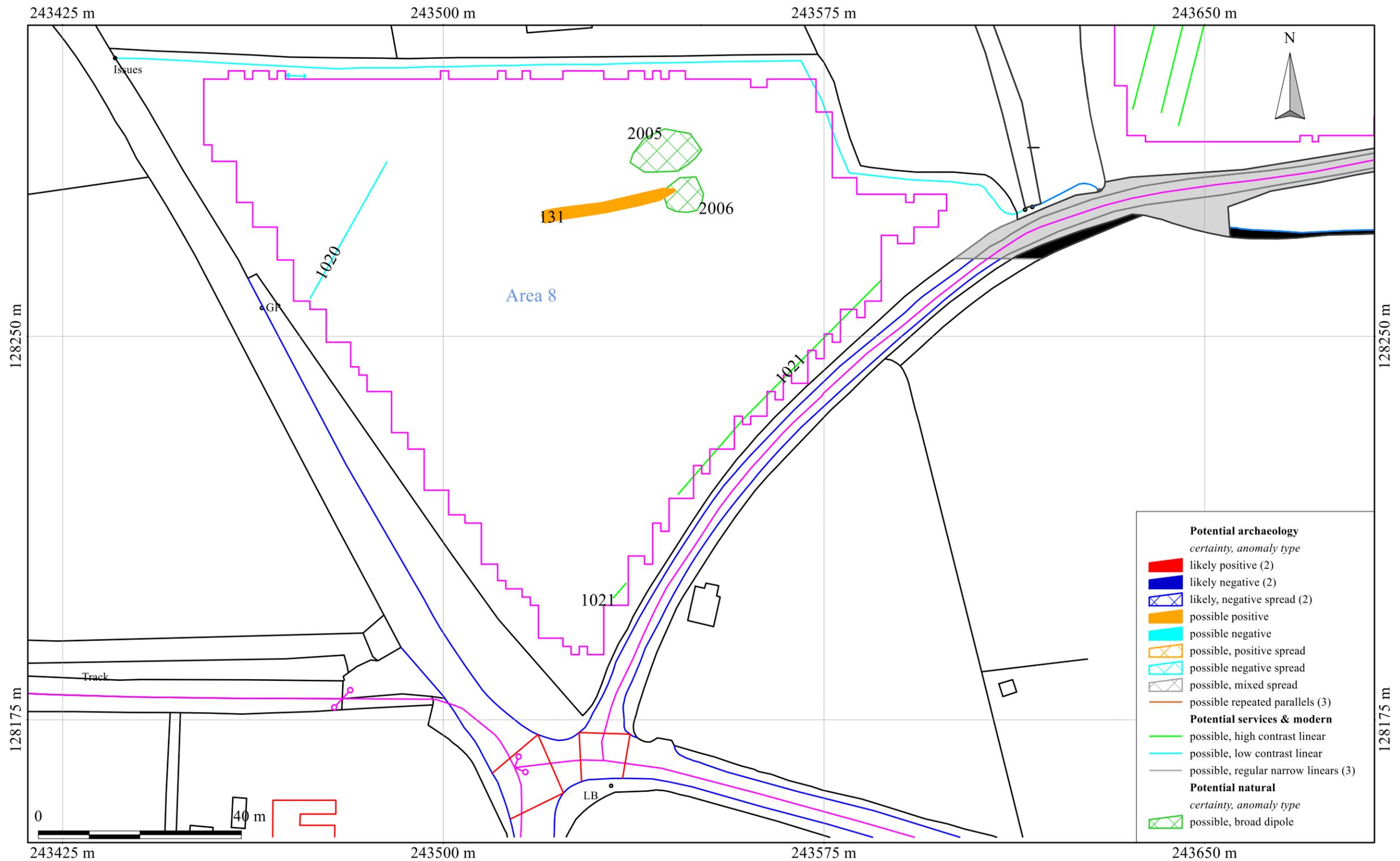
British Grid
centre X: 244091.89 m, centre Y: 128547.31 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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British Grid
centre X: 243550.79 m, centre Y: 128230.92 m

Scale: 1:800 @ A3. Spatial Units: Meter. Do not scale off this drawing

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field number (s)	group	anomaly	associated anomalies	anomaly characterisation certainty & class	anomaly form	additional archaeological characterisation	comments	supporting evidence
1	1			possible, positive				
1	2			possible, positive	possible, positive			
1	2	3		possible, positive	curvilinear			
1	4			possible, positive & negative	disrupted parallel linears	track, road or routeway	anomaly group has characteristics typically resulting from disturbed ground often associated with former tracks and roads	
1	5			possible, positive & negative	disrupted parallel linears	track, road or routeway	anomaly group has characteristics typically resulting from disturbed ground often associated with former tracks and roads	
1	6			possible, positive	disrupted linear			
1	7			possible, negative	linear			
1	1001			possible, regular narrow linears		field drain		
1	1002			possible, regular narrow linears		field drain		
2	8			possible, positive	linear			
2	9			possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow	anomaly groups may represent traces of ridge-and-furrow cultivation in slightly deeper soils	
2	10			possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow	anomaly groups may represent traces of ridge-and-furrow cultivation in slightly deeper soils	
2	11			possible, positive	linear	archaeological deposit or recent ploughing disturbance		
2	12			likely, positive	curvilinear	field boundary	anomaly group coincides with a field boundary mapped between 1888-89 and 1963 but removed before 1975-76	Ordnance Survey map 1888-89 1:2500 to 1975-76 1:10560
2	13			possible, positive	sub-circular	large pit, quarry, well or mineshaft		
2	14			likely, positive	linear	enclosure boundary	anomaly group coincides with an enclosure boundary mapped by the OS between 1888-89 and 1932 but removed before 1958-1961	Ordnance Survey map 1888-89 1:2500 to 1958-61 1:2500
2	15			possible, positive	disrupted linear			
2	16	17		possible, positive	curvilinear			
2	17	16		possible, negative	curvilinear			
2	18			possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow	anomaly groups may represent traces of ridge-and-furrow cultivation in slightly deeper soils	
2	19			possible, positive	sub-circular	ring ditch or round house		
2	20			possible, positive	sub-circular	ring ditch or round house		
2	21			possible, negative	linear			
2	22			possible, positive	linear			
2	23			possible, positive	disrupted linear			
2	24			possible, positive	curvilinear			
2	25			possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow	anomaly groups may represent traces of ridge-and-furrow cultivation in slightly deeper soils	
2	26			possible, positive	linear			
2	27			possible, positive	linear			
2	28			possible, positive	linear			
2	29			possible, positive	multilinear			
2	30			likely, positive/negative/positive	disrupted linear	field boundary - possibly a Devon bank	anomaly group coincides with a field boundary mapped between 1979-80 and on modern maps but now removed	Ordnance Survey 1979-80 1:1250 to 2015 digital tile
2	31	32		likely, positive/negative/positive	disrupted linear	field boundary and parish boundary	anomaly group coincides with a field boundary and former parish boundary mapped between 1839 and 1975-76 as a field boundary and as the boundary between Abbotsham and Northam parishes until 1979-80; may have formed part of a routeway to Westward Ho!	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1979-80 1:2500; unpublished Phoenix Consulting Archaeology Ltd document PC427a
2	32	31		likely, positive	disrupted linear	field boundary and parish boundary	anomaly group coincides with a field boundary and former parish boundary mapped between 1839 and 1975-76 as a field boundary and as the boundary between Abbotsham and Northam parishes until 1979-80; may have formed part of a routeway to Westward Ho!	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1979-80 1:2500; unpublished Phoenix Consulting Archaeology Ltd document PC427a
2	33			possible, positive	disrupted curvilinear			
2	34			possible, positive	ovals	line of pits or natural deposits	anomaly group may represent a line of pits or large postholes but a natural origin is equally likely	
2	35			possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow	anomaly groups may represent traces of ridge-and-furrow cultivation in slightly deeper soils	
2	36			possible, positive	linear			
2	37			possible, positive	disrupted linear			
2	38			possible, positive	oval	pit		
2	39			possible, positive	disrupted parallel linear			
2	40			possible, negative	linear			
2	41			possible, pos/neg/pos	disrupted linear	field boundary - possibly a Devon bank		
2	42			possible, positive	disrupted multilinear	field boundary	anomaly group may represent an earlier expression of the adjacent extant field boundary and may represent this feature	
2	1003			possible, low contrast linear		service trench		
2	1004			possible, low contrast linear		service trench		
2	1005			possible, regular narrow linears		field drain		
2	1006			possible, low contrast linear		service trench		
2	1007			possible, regular narrow linears		field drain		
2	1017			possible, high contrast linear		service cable, pipe or drain	anomaly group is likely to represent a service following the line of a former field boundary	

Table 1: data analysis, areas 1 and 2

Site: An archaeological gradiometer survey
Land at Daddon Hill Farm, Northam, Torrington, Devon
Centred on NGR: 243830,128580
Report: 1510DAD-R-2

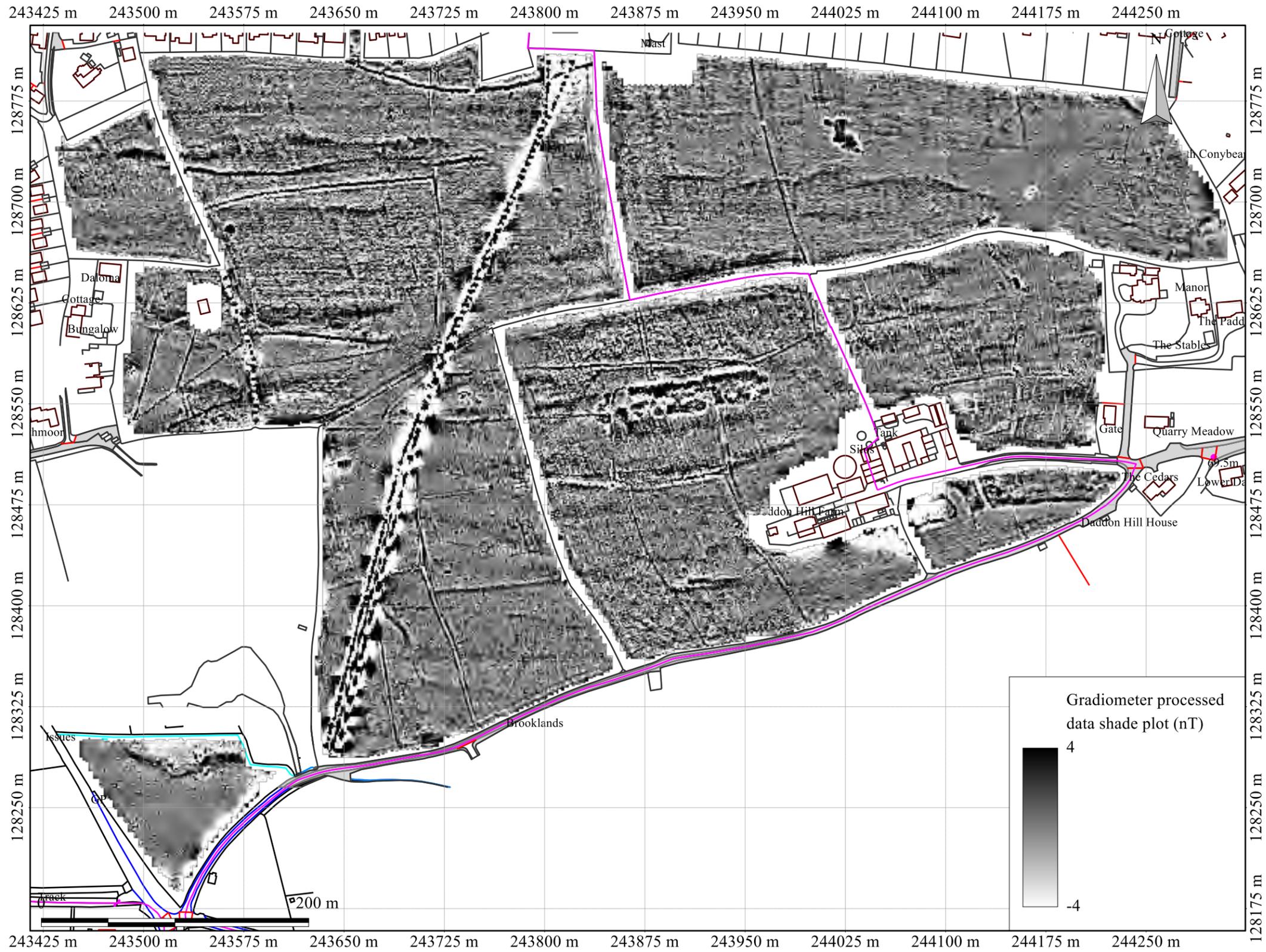
3	119		possible, positive	linear			
3	120		possible, positive	disrupted linear			
3	121		possible, positive	disrupted linear			
3	122		likely, positive	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1979-80	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1975-76 1:10000
3	123		possible, positive spread	irregular	disrupted deposits - quarry	anomaly groups may represent archaeological deposits such as those resulting from quarrying or robbing of stone	
3	124		possible, positive	linear			
3	125		possible, positive	disrupted linear			
3	126		likely, positive	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1979-80	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1975-76 1:10000
3	127		possible, positive	linear			
3	128		possible, positive	disrupted curvilinear		anomaly group may represent an archaeological deposit in relatively wet ground	
3	129		possible, positive	disrupted curvilinear			
3	130		possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow		
3	1018		possible, regular narrow linears		field drain		
3	1019		possible, regular narrow linears		field drain		
3	2003		possible, broad dipole		spring		
3	2004		possible, broad dipole		spring or wet area		
4	43		likely, positive/negative/positive	disrupted curvilinear	field boundary & parish boundary - Devon bank	anomaly group coincides with a field boundary and former parish boundary mapped between 1839 and 1975-76 (northern section - the southern section is not mapped after 1839) as a field boundary and as the boundary between Abbotsham and Northam parishes until 1979-80; may have formed part of a routeway to Westward Ho!	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1979-80 1:250; unpublished Phoenix Consulting Archaeology Ltd document PC427a
4	44		possible, positive	disrupted linear			
4	45	46	likely, positive/negative/positive	linear/disrupted linear	field boundary - possibly a Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
4	5	46	45	likely, positive	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 but removed before 1958-61
4	47		likely, positive	linear	field boundary	anomaly group coincides with a field boundary mapped in 1839 but not later	1839 Northam Tithe map
4	48		likely, positive/negative/positive	disrupted linear	field boundary - Devon bank	anomaly group coincides with a field boundary mapped in 1839 but not later	1839 Northam Tithe map
4	49		likely, positive/negative/positive	disrupted linear	field boundary - possibly a Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
4	50		likely, positive/negative/positive	disrupted linear	field boundary - Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 (below intersection with group 49, the northern section being mapped in 1839 only) but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
4	51		possible, positive	linear			
4	52		possible, positive	sub-circular	recently disturbed ground or archaeological deposit	anomaly group superficially looks to be sub-circular but may be a coincidental arrangement and recent ploughing disturbance	
4	53		possible, positive	linear			
4	54		possible, positive	linear			
4	55		likely, positive	linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 but removed before 1958-61	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1958-61 1:2500
4	56		possible, positive	disrupted curvilinear			
4	57		possible, positive	disrupted linear			
4	58		likely, positive/negative/positive	linear/disrupted linear	field boundary - Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
4	59		possible, repeated parallels		ploughing disturbance - possible ridge-and-furrow		
4	60		possible, positive	linear			
4	61		possible, positive	linear			
4	62		possible, positive	linear			
4	63		possible, positive	linear			
4	64		possible, positive	linear			
4	65		possible, positive	disrupted linear			
4	2	1008	possible, high contrast linear		service cable, pipe or drain		
4	2	1009	possible, high contrast linear		service cable, pipe or drain		
4	1010		possible, regular narrow linears		field drain		
4	1011		possible, regular narrow linears		field drain		
4	1012		possible, high contrast linear		service cable, pipe or drain		
4	1013		possible, regular narrow linears		field drain		

Table 2: data analysis, areas 3 and 4

Site: An archaeological gradiometer survey
Land at Daddon Hill Farm, Northam, Torridge, Devon
Centred on NGR: 243830,128580
Report: 1510DAD-R-2

field number (s)	anomaly group	associated anomalies	anomaly characterisation certainty & class	anomaly form	additional archaeological characterisation	comments	supporting evidence
5	66		likely, positive/negative/positive	disrupted linear	field boundary - Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
5	67		possible, positive	linear			
5	68		possible, positive	disrupted multilinear			
5	69		possible, positive	disrupted linear			
5	70		possible, positive	linear			
5	71	72	possible, positive	disrupted rectilinear			
5	72	71	likely, negative	disrupted rectilinear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1958-61	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1958-61 1:10560
5	73		possible, positive spread	broad linear	disrupted deposits	anomaly groups may represent archaeological deposits such as those resulting from quarrying or robbing of stone, and/or demolition and robbing of stone structures	
5	74		possible, negative spread	broad linear	disrupted deposits	anomaly groups may represent archaeological deposits such as those resulting from quarrying or robbing of stone, and/or demolition and robbing of stone structures	
5	75		possible, mixed spread	oval	area of archaeological activity	anomaly group has characteristics often associated with heated materials and/or disturbed ground	
5	76		possible, mixed spread	oval	area of archaeological activity	anomaly group has characteristics often associated with heated materials and/or disturbed ground	
5	77	78	possible, positive	disrupted linear	field boundary and possible field track	anomaly group may have once been part of a field track or Devon bank field boundary	
5	6 78	77	likely, positive	disrupted linear	field boundary and possible field track	anomaly group coincides with a field boundary mapped in 1839 but not on later maps; anomaly group may have once been part of a field track or Devon bank field boundary	1839 Northam Tithe map
5	79		possible, positive	linear			
5	80		possible, positive	disrupted linear			
5	81	81 82 83 87	possible, negative spread	disrupted curvilinear	field track	anomaly group coincides with a field track mapped between 1839 and 1889-90 and thereafter as a field boundary removed after 1932 and before 1958-61	1839 Northam Tithe map
5	82	81 82 83 87	likely, positive	linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1975-76 and removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
5	83	81 82 83 86 87	likely, negative spread	disrupted linear	field track	anomaly group coincides with a field track mapped between 1839 and 1975-76 and removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
5	84	85	likely, positive	disrupted linear	field track and field boundary	anomaly group coincides with a field track mapped between 1839 and 1889-90	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 and 1:10560
5	85	84	likely, positive	disrupted linear	field track and field boundary	anomaly group coincides with a field track and field boundary mapped between 1839 and 1975-76 (the northern section of the track last mapped in 1932) but removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
5	86	83	possible, positive	linear	field boundary		
5	87	81 82 83 87	likely, positive	linear	field track	anomaly group coincides with a field track mapped between 1839 and 1975-76 and removed before 1993-95	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1993-95 1:10000
5	88		possible, positive	disrupted linear			
5	89		likely, positive & negative	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1958-61	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1958-61 1:2500
5	90		possible, positive	disrupted curvilinear			
5	91		possible, positive	linear			
5	92		possible, positive	linear			
5	93		possible, positive	disrupted linear			
5	94		possible, positive	disrupted linear			
5	95		possible, positive	linear			
5	96		possible, positive	disrupted linear			
5	97		possible, positive	linear			
5	98		possible, positive	disrupted linear			
5	99		likely, positive/negative/positive	disrupted linear	field boundary - probably a Devon bank	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1958-61	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1958-61 1:2500
5	100		likely, positive	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped in 1839 and 1963 but removed before 1975-76	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1975-76 1:10000
5	2001		possible, broad dipole		spring		
6	101	102	possible, positive	linear			
6	102	101	likely, positive	disrupted curvilinear	field boundary	anomaly group coincides with a field boundary mapped between 1839 and 1932 and removed before 1958-61	1839 Northam Tithe map; Ordnance Survey maps 1888-89 1:2500 to 1958-61 1:10560
6	103		possible, positive	disrupted linear			
6	104		possible, positive	disrupted linear			
6	105	107	possible, positive	disrupted linear			
6	106		possible, mixed spread	irregular	rubble		
6	107	105	possible, negative spread	broad linear	field boundary		
6	108		likely, negative	linear	garden boundary	anomaly group coincides with a garden boundary mapped in 1839 but not later	
6	109		likely, positive & negative	disrupted linear	field track	anomaly group coincides with a field track mapped in 1839 but not later	
6	110		possible, positive	linear			
6	111		likely, positive	disrupted linear	field boundary	anomaly group coincides with a field boundary mapped in 1839 but not later	1839 Northam Tithe map
6	112		likely, positive	linear	field boundary	anomaly group coincides with a field boundary mapped in 1839 but not later	1839 Northam Tithe map
6	1014		possible, regular narrow linears		field drain		
6	1015		possible, regular narrow linears		field drain		
6	1016		possible, regular narrow linears		field drain		
6	2002		possible, broad dipole		spring		
7	113		possible, positive	disrupted curvilinear			
7	114		possible, positive	disrupted linear			
7	115		possible, positive/negative/positive	disrupted linear	track or Devon bank field boundary		
7	116		possible, positive	linear			
7	117		possible, positive	disrupted linear			
7	118		possible, positive	linear			
8	131		possible, positive	linear		anomaly group represents either archaeological deposits or a drainage ditch on the edge of a palaeochannel	
8	1020		possible, low contrast linear		service trench		
8	1021		possible, high contrast linear		service cable, pipe or drain		
8	2005		possible, broad dipole		spring or wet area		
8	2006		possible, broad dipole		spring or wet area		

Table 3: data analysis, areas 5 to 8



British Grid
 centre X: 243869.70 m, centre Y: 128494.87 m

Scale: 1:3200 @ A3. Spatial Units: Meter. Do not scale off this drawing

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British Grid
 centre X: 243639.69 m, centre Y: 128675.01 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

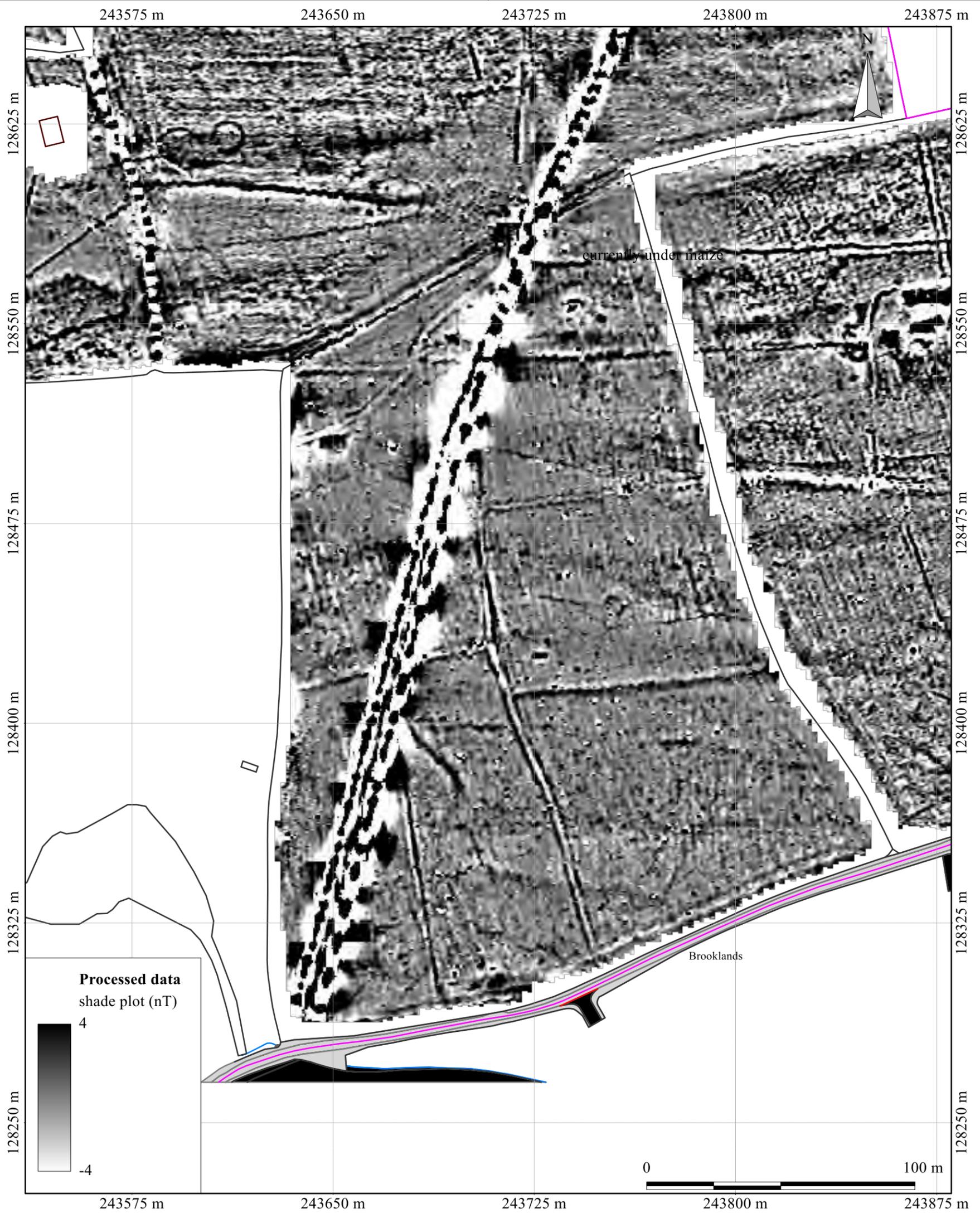
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British Grid
centre X: 244078.02 m, centre Y: 128669.74 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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British Grid
 centre X: 243707.86 m, centre Y: 128442.50 m

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Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

An archaeological gradiometer survey
 Land at Daddon Hill Farm, Northam, Torrington, Devon
 Centred on NGR: 243830,128580
 Report: 1510DAD-R-2

Substrata
 Office 1, 5 Mill Street, Bideford, Devon EX39 2JT
 Tel: 01237 237599, Email: geophysics@substrata.co.uk
 Web: substrata.co.uk

Figure 12: shade plot of processed data, area 4

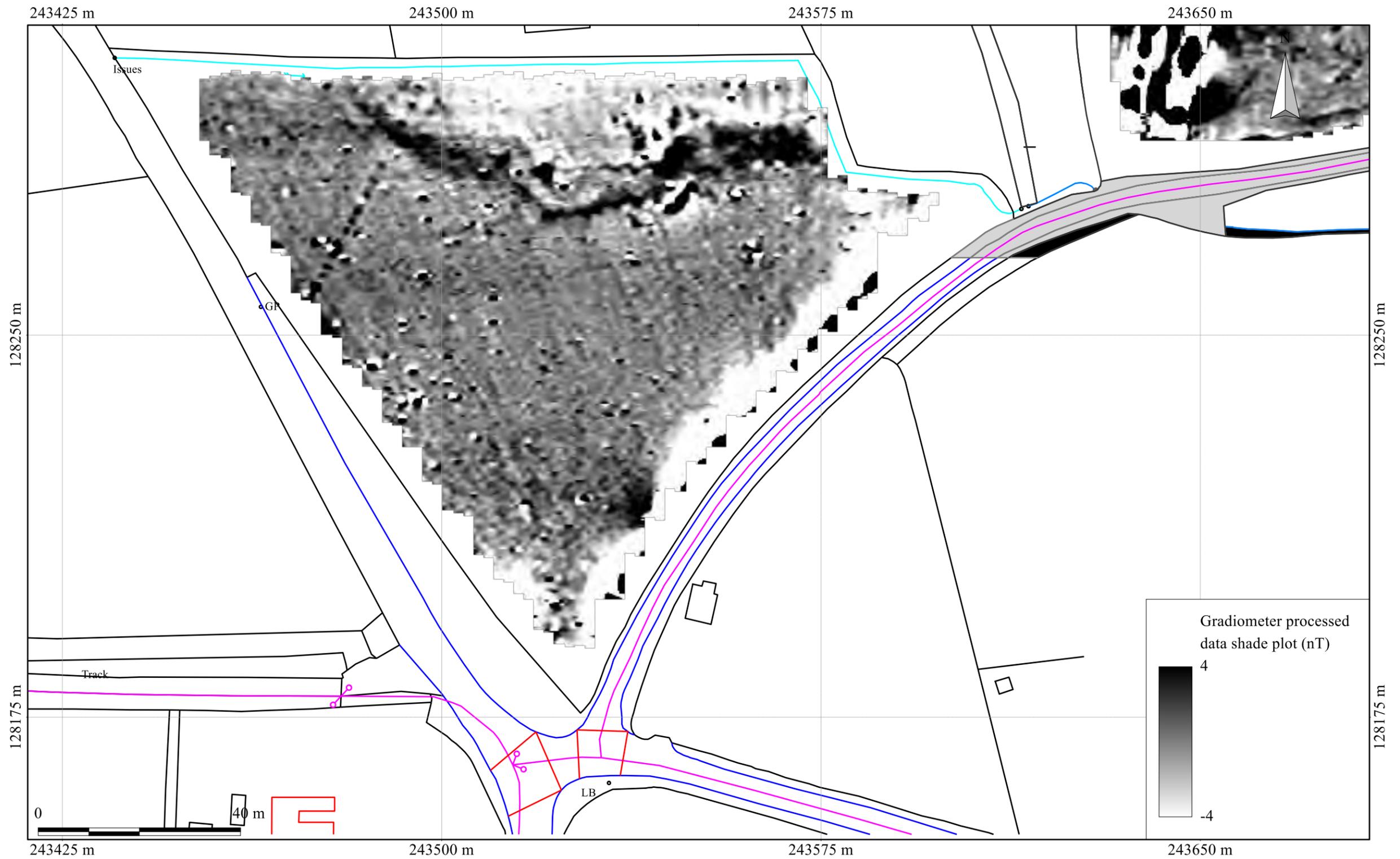


British Grid
centre X: 243918.72 m, centre Y: 128494.57 m

Scale: 1:1500 @ A3. Spatial Units: Meter. Do not scale off this drawing

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British Grid
 centre X: 243550.79 m, centre Y: 128230.92 m

Scale: 1:800 @ A3. Spatial Units: Meter. Do not scale off this drawing

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Appendix 2 Methodology Summary

Table 4: methodology summary	
<p>Documents Survey methodology statement: Dean (2015)</p>	
<p>Methodology</p> <ol style="list-style-type: none"> 1. The work was undertaken in accordance with the survey methodology statement. The geophysical (gradiometer) survey was undertaken with reference to standard guidance provided by the Chartered Institute for Archaeologists (2014) and Archaeology Data Service/Digital Antiquity Guides (undated). 2. The survey grid location information and grid plan was recorded as part of the project in a suitable GIS system. 3. Data processing was undertaken using appropriate software, with all anomalies being digitised and geo-referenced. The final report included a graphical and textual account of the techniques undertaken, the data obtained and an archaeological interpretation of that data and conclusions about any likely archaeology. 	
<p>Grid <i>Method of Fixing:</i> DGPS set-out using pre-planned survey grids and Ordnance Survey coordinates. <i>Composition:</i> 30m by 30m grids <i>Recording:</i> Geo-referenced and recorded using digital map tiles. <i>DGPS used:</i> Spectra Precision PM5V2 GPS with external antenna and survey pole and DigiTerra Explorer 7 as the survey control program.</p>	
<p>Equipment <i>Instrument:</i> Bartington Instruments grad601-2 <i>Firmware:</i> version 6.1</p>	<p>Data Capture <i>Sample Interval:</i> 0.25-metres <i>Traverse Interval:</i> 1 metre <i>Traverse Method:</i> zigzag <i>Traverse Orientation:</i> GN0</p>
<p>Data Processing, Analysis and Presentation Software IntelliCAD Technology Consortium IntelliCAD 7.2 DW Consulting TerraSurveyor3 Manifold System 8 GIS Microsoft Corp. Office Excel 2013 Microsoft Corp. Office Publisher 2013 Adobe Systems Inc Adobe Acrobat 9 Pro Extended</p>	

Table 5: gradiometer survey - processed data metadata	
SITE	
Instrument Type:	Bartington Grad 601
Units:	nT
Direction of 1st Traverse:	0 deg
Collection Method:	ZigZag
Sensors:	2 @ 1.00 m spacing.
Dummy Value:	32702
PROGRAM	
Name:	TerraSurveyor
Version:	3.0.25.0
Stats	
Max:	381.83
Min:	-402.34
Std Dev:	23.50
Mean:	-0.14
Median:	0.00
Processes: 53	
1 Base Layer	
2 Clip at 1.00 SD	
3 DeSlope (Area: Top 90, Left 2640, Bottom 239, Right 2759) using Vert Polynomial	
4 DeSlope (Area: Top 90, Left 2640, Bottom 239, Right 2759) using Horz Polynomial	
5 De Stagger: Grids: All Mode: Both By: -2 intervals	
6 De Stagger: Grids: dk18.xgd Mode: Both By: 1 intervals	
7 De Stagger: Grids: dk6.xgd Mode: Both By: -1 intervals	
8 De Stagger: Grids: dj7.xgd dj8.xgd dj9.xgd dl19.xgd dl20.xgd dl21.xgd dl22.xgd dl23.xgd dl24.xgd Mode: Both By: -1 intervals	
9 De Stagger: Grids: dl24.xgd Mode: Both By: 1 intervals	
10 De Stagger: Grids: dl16.xgd dl15.xgd dl14.xgd Mode: Both By: -2 intervals	
11 De Stagger: Grids: dm1+de10.xgd dm7.xgd dm2+de9.xgd dm6.xgd dm8.xgd dm13.xgd dm14.xgd dm3.xgd dm5.xgd dm9.xgd dm12.xgd dm15.xgd dm18.xgd dm4+df11.xgd dm10+df12.xgd de11+dm11.xgd df18+dm16.xgd dm17.xgd Mode: Both By: 1 intervals	
12 De Stagger: Grids: dm2+de9.xgd Mode: Both By: -2 intervals	
13 De Stagger: Grids: df20.xgd de19.xgd Mode: Both By: -2 intervals	
14 De Stagger: Grids: dc3.xgd Mode: Both By: -2 intervals	
15 De Stagger: Grids: db16.xgd da18.xgd Mode: Both By: -2 intervals	
16 De Stagger: Grids: df9.xgd Mode: Both By: -1 intervals	
17 De Stagger: Grids: df14.xgd Mode: Both By: 1 intervals	
18 De Stagger: Grids: df17.xgd Mode: Both By: 1 intervals	
19 De Stagger: Grids: de14.xgd de15.xgd de16.xgd Mode: Both By: -1 intervals	
20 De Stagger: Grids: dj9.xgd dj10.xgd Mode: Both By: 1 intervals	
21 De Stagger: Grids: dc26.xgd Mode: Both By: -2 intervals	
22 De Stagger: Grids: da20.xgd dc1.xgd Mode: Both By: 1 intervals	
23 De Stagger: Grids: dc3.xgd Mode: Both By: 1 intervals	
24 De Stagger: Grids: da20.xgd Mode: Both By: -2 intervals	
25 De Stagger: Grids: dl5.xgd Mode: Both By: 1 intervals	
26 De Stagger: Grids: dl5.xgd Mode: Both By: -1 intervals	
27 De Stagger: Grids: dg27.xgd Mode: Both By: 1 intervals	
28 De Stagger: Grids: dg25.xgd Mode: Both By: 1 intervals	
29 DeStripe Median Traverse: Grids: di1.xgd di17.xgd di2.xgd di6.xgd di3.xgd di15.xgd di4.xgd di14.xgd di5.xgd di13.xgd di6.xgd di12.xgd di7.xgd di11.xgd di8.xgd di10.xgd dh1.xgd dh9.xgd dh10.xgd dh15.xgd dk1.xgd dk20.xgd di9.xgd dh2.xgd dh8.xgd dh11.xgd dh16.xgd dk2.xgd dk19.xgd dl1.xgd dh3.xgd dh7.xgd dh12.xgd dh17.xgd dk3.xgd dk18.xgd dl2.xgd dh4.xgd dh6.xgd dh13.xgd dh18.xgd dk4.xgd dk17.xgd dl3.xgd dg6.xgd dg7.xgd dh5+dg14.xgd dh14+dg15+dg21.xgd dh19.xgd dk5.xgd dk16.xgd dl4.xgd dg5.xgd dg8.xgd dg13.xgd dg22+dg16.xgd dh20.xgd dk6.xgd dk15.xgd dl5.xgd dg1.xgd dg4.xgd dg9.xgd dg12+dg20.xgd dg23.xgd dg30.xgd dk7.xgd dk14.xgd dl6.xgd dg2.xgd dg3.xgd dg10.xgd dg11+dg19.xgd dg24.xgd dg29.xgd dk8.xgd dk13.xgd dl7.xgd dg18.xgd dg25.xgd dg28.xgd dk9.xgd dk12.xgd dl8.xgd dl7.xgd dg26.xgd dg27.xgd dk10.xgd dk11.xgd di9.xgd	
30 De Stagger: Grids: dl5.xgd Mode: Both By: -1 intervals	
31 De Stagger: Grids: dl14.xgd Mode: Both By: 2 intervals	
32 DeStripe Median Traverse: Grids: di18.xgd di19.xgd di20.xgd di21.xgd di22.xgd di23.xgd	
33 DeStripe Median Traverse: Grids: dl18.xgd dl17.xgd dl16.xgd dl15.xgd dl14.xgd dl13.xgd dl12.xgd dl11.xgd dl10.xgd	
34 DeStripe Median Traverse: Grids: dj1.xgd dj18.xgd dj2.xgd dj17.xgd dj3.xgd dj16.xgd dj4.xgd dj15.xgd dj5.xgd dj14.xgd dj6.xgd dj13.xgd dj7.xgd dj12.xgd dj8.xgd dj11.xgd dj9.xgd dj10.xgd dj19.xgd dj36.xgd dj20.xgd dl35.xgd dl21.xgd dl34.xgd dl22.xgd dl33.xgd dl23.xgd dl32.xgd dl24.xgd dl31.xgd dl25.xgd dl30.xgd dl26.xgd dl29.xgd dl27.xgd dl28.xgd	
35 DeStripe Median Traverse: Grids: dj19.xgd dj20.xgd dj21.xgd dj22.xgd dj23.xgd da1+dj24.xgd da2+dj25.xgd da3+dj26.xgd dj27+da4.xgd dn1+da5.xgd dn2.xgd dn3.xgd dn4.xgd	
36 DeStripe Median Traverse: Grids: dn6.xgd dn7.xgd dn8.xgd	
37 DeStripe Median Traverse: Grids: dj32.xgd dj31.xgd dj30.xgd db1+dj29.xgd dj28+db2.xgd dd1.xgd db3.xgd db4.xgd db5.xgd db6.xgd dn15.xgd dn14.xgd dn13.xgd dn12.xgd dn11.xgd	
38 DeStripe Median Traverse: Grids: db18.xgd da16.xgd dd2.xgd db17.xgd da17.xgd dd3.xgd dd12.xgd dd15.xgd de5.xgd de6.xgd db16.xgd da18.xgd dd4.xgd dd13.xgd de1.xgd de4.xgd de7.xgd	
39 DeStripe Median Traverse: Grids: db15.xgd da19.xgd dd5.xgd dd14.xgd db13.xgd da20.xgd dd6.xgd de11.xgd db12.xgd de1.xgd dd7.xgd de10.xgd db10.xgd de2.xgd dd8.xgd dc9.xgd db9.xgd dc3.xgd dd9.xgd dc8.xgd db8.xgd dc4.xgd dd10.xgd dc7.xgd db7.xgd dc5.xgd dd11.xgd dc6.xgd	
40 DeStripe Median Traverse: Grids: dc12.xgd de20.xgd dc13.xgd dc19.xgd dc28.xgd de14.xgd de18+dc21.xgd de27.xgd dc15.xgd de17+de22.xgd de26.xgd de16.xgd de23.xgd de25.xgd	
41 DeStripe Median Traverse: Grids: dm1+de10.xgd dm2+de9.xgd	
42 DeStripe Median Traverse: Grids: df1.xgd df2.xgd df3.xgd df4.xgd df5.xgd	
43 DeStripe Median Traverse: Grids: dm7.xgd dm6.xgd dm8.xgd dm13.xgd dm14.xgd dm5.xgd dm9.xgd dm12.xgd dm15.xgd dm18.xgd dm4+df11.xgd dm10+df12.xgd de11+dm11.xgd df18+dm16.xgd dm17.xgd df10.xgd df13.xgd de12.xgd df19.xgd df9.xgd df14.xgd de13.xgd df20.xgd df8.xgd df15.xgd de14.xgd de19.xgd df7.xgd df16.xgd de15.xgd de18.xgd df6.xgd df17.xgd de16.xgd de17.xgd	
44 DeStripe Median Traverse: Grids: dj34+da15.xgd da14+dj35.xgd da13.xgd da12.xgd da11.xgd da10.xgd da9.xgd da8.xgd da7.xgd	
45 De Stagger: Grids: w10.xgd Mode: Both By: 1 intervals	
46 De Stagger: Grids: w13.xgd Mode: Both By: 1 intervals	
47 DeStripe Median Sensors: w6.xgd w8.xgd w5.xgd w9.xgd w1.xgd w4.xgd w10.xgd	
48 DeStripe Median Sensors: w2.xgd w3.xgd	
49 DeStripe Median Sensors: dn18+t1.xgd t2+dn19.xgd dn20+t3.xgd t4+dn21.xgd t5+dn22.xgd	
50 DeStripe Median Sensors: t10.xgd t13.xgd t24.xgd u1.xgd u12.xgd u13.xgd u23+dc24.xgd t9.xgd t14.xgd t23.xgd u2.xgd u11.xgd u14.xgd u22.xgd t8.xgd t15.xgd t22.xgd u3.xgd u10.xgd u15.xgd u21.xgd t7.xgd t16.xgd t21.xgd u4.xgd u9.xgd u16.xgd u20.xgd t6.xgd t17.xgd t20.xgd u5.xgd u8.xgd u17.xgd u19.xgd t18.xgd t19.xgd u6.xgd u7.xgd u18.xgd	
51 DeStripe Median Sensors: u25.xgd u32.xgd v1.xgd v8.xgd v10.xgd v17.xgd v20.xgd v25.xgd u26.xgd u31.xgd v2.xgd v7.xgd v11.xgd v16.xgd v21.xgd v24.xgd u27.xgd u30.xgd v3.xgd v6.xgd v12.xgd v15.xgd v22.xgd u28.xgd u29.xgd v4.xgd v5.xgd v13.xgd v14.xgd v23.xgd	
52 DeStripe Median Sensors: v18.xgd v19.xgd v26.xgd	
53 De Stagger: Grids: t10.xgd t13.xgd t24.xgd u1.xgd u12.xgd u13.xgd t9.xgd t14.xgd t23.xgd u2.xgd u11.xgd u14.xgd t8.xgd t15.xgd t22.xgd u3.xgd u10.xgd u15.xgd t7.xgd t16.xgd t21.xgd u4.xgd u9.xgd u16.xgd t17.xgd t20.xgd u5.xgd u8.xgd u17.xgd t18.xgd t19.xgd u6.xgd u7.xgd u18.xgd Mode: Both By: -1 intervals	
Note: converting the gradiometer data into ESRI GIS files imposed an x=y interpolation on the entire dataset	