

LAND ON BELLE HILL KINGSBRIDGE SOUTH HAMS DEVON

Results of a Desk-Based Assessment & Geophysical Survey



South West Archaeology Ltd. report no. 160830



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Land on Belle Hill, Kingsbridge, Devon Results of a Desk-Based Assessment & Geophysical Survey

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Work undertaken by SWARCH for CSA Architects
on behalf of Westcountry Land (Enterprises) Ltd.

SUMMARY

South West Archaeology Ltd. (SWARCH) was commissioned to undertake a desk-based assessment and geophysical survey on land on Belle Hill, Dodbrooke, Kingsbridge, Devon in advance of the application for planning for the residential development of the site and for related off site analysis and reporting.

The site is located across two fields on the northern fringe of the Dodbrooke district of Kingsbridge, off of Belle Hill. The desk-based assessment did not indicate the presence of any significant features or deposits on the site directly; although, two very small temporary structures have stood along the central boundary to the site in circa 1886 and several prehistoric/Romano-British artefacts and enclosures have been recovered and identified within 1km of the site.

The geophysical survey identified twelve groups of anomalies including enclosures, field systems or leats and boundaries associated with the existing medieval to post-medieval field system. There is also potential for discrete features associated with the undated linear anomalies. Due to the presence of Bronze Age and late Iron Age enclosures and findspots in the area identified in the desk-based assessment it is possible that the geophysical anomalies on the site relate to these periods.

Any development of the site would be likely to disturb potentially significant archaeological deposits and a programme of further archaeological works, such as evaluation trenching is recommended in order to inform mitigation strategies.



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1.0 INTRODUCTION

Location: Belle Hill, Dodbrooke
Parish: Kingsbridge
County: Devon
NGR: Centred on SX 73945 44961
SWARCH ref: KBH16

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Westcountry Land (Enterprises) Ltd. (the Client) to undertake a desk-based assessment and geophysical survey on land on Belle Hill, Dodbrooke, Kingsbridge, Devon in advance of the application for planning for the residential development of the site and for related off site analysis and reporting. This work was carried out in accordance with best practice and ClfA guidelines.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

Dodbrooke (formerly a separate parish) represents the eastern district of the small market town of Kingsbridge in the South Hams district of Devon. The site is located c.365m north of the Church of St Thomas of Canterbury immediately beyond the northern extent of the town with Buckwell Close along its southern boundary and Belle Hill Road along its eastern boundary, with farmland to its north and west. The site is comprised of two fields, currently under pasture, located on the west facing slope of Belle Hill. The site has a gently sloping plateau at its east and north-east ends and the slope becomes much steeper to the western end of the site. The site is at a height of between c.60m and c.90m AOD.

The soils in this area are the well drained fine loamy and fine silty soils over rock of the Denbigh 1 association (SSEW 1983), which overlie slate, siltstone and sandstone of the Meadfoot Group Formation (BGS 2016). A seam of Basaltic-rock aligned approximately east-west and down the existing slope, should also be present across the site (BGS 2016).

1.3 HISTORICAL BACKGROUND

Kingsbridge formerly comprised the two parishes of Kingsbridge and Dodbrooke. Dodbrooke is located in the hundred of Coleridge and the deanery of Woodleigh (Lysons 1822). Dodbrooke was subsumed by Kingsbridge in the 19th and early 20th centuries. Kingsbridge was established in the 10th century at the bridging point at the head of an estuary between two large manors. The settlements were important for local industry and trade, large ships being able to navigate to the head of the estuary into the 19th. The arrival of the railway in the 1890's prompted a shrinking in the growth of the settlements. Kingsbridge has since grown again due to its attractive holiday locale.

Dodbrooke is first mentioned in the Domesday survey of 1086 as '*Dodebroca*', meaning 'Dodda's Brook', in reference to the stream dividing Dodbrooke from Kingsbridge (Gover, Mawer & Stenton, 1931). The fields comprising the site all include the element 'buckwell' in their names in the c.1838 tithe apportionment, probably referring to the well or spring that deer frequent.

1.4 ARCHAEOLOGICAL BACKGROUND

THE site is located within an area characterised as Post-medieval 'Barton Fields' by the Devon Historic Landscape Characterisation (HLC) - *'These relatively large, regular enclosures seem likely to have been laid out between C15th-C18th. Some curving boundaries may be following earlier divisions in the pre-existing medieval fields. In Cornwall these are sometimes called Barton fields'* (HLC).

No direct investigation has previously been made in the fields in question, however a number of prehistoric enclosures and monuments have been identified in the local area via aerial photography (HER No.MDV36910 MDV37311, MDV36916). A Bronze Age axe (MDV103651) was found by a dog walker in the vicinity of the site. The Portable Antiquities Scheme (PAS) lists a few post-medieval and probable Medieval artefacts in the surrounding area: of interest is the a silver Roman coin (PAS ID: DEV-537183), dating to AD395-402 within c.1km north-east of the site.

1.5 METHODOLOGY

The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (CIfA 2014a), *Understanding Place: historic area assessments in a planning and development context* (English Heritage 2012), and *The Setting of Heritage Assets, GPA3* (Historic England 2015).

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.

Land on Belle Hill, Kingsbridge, Devon

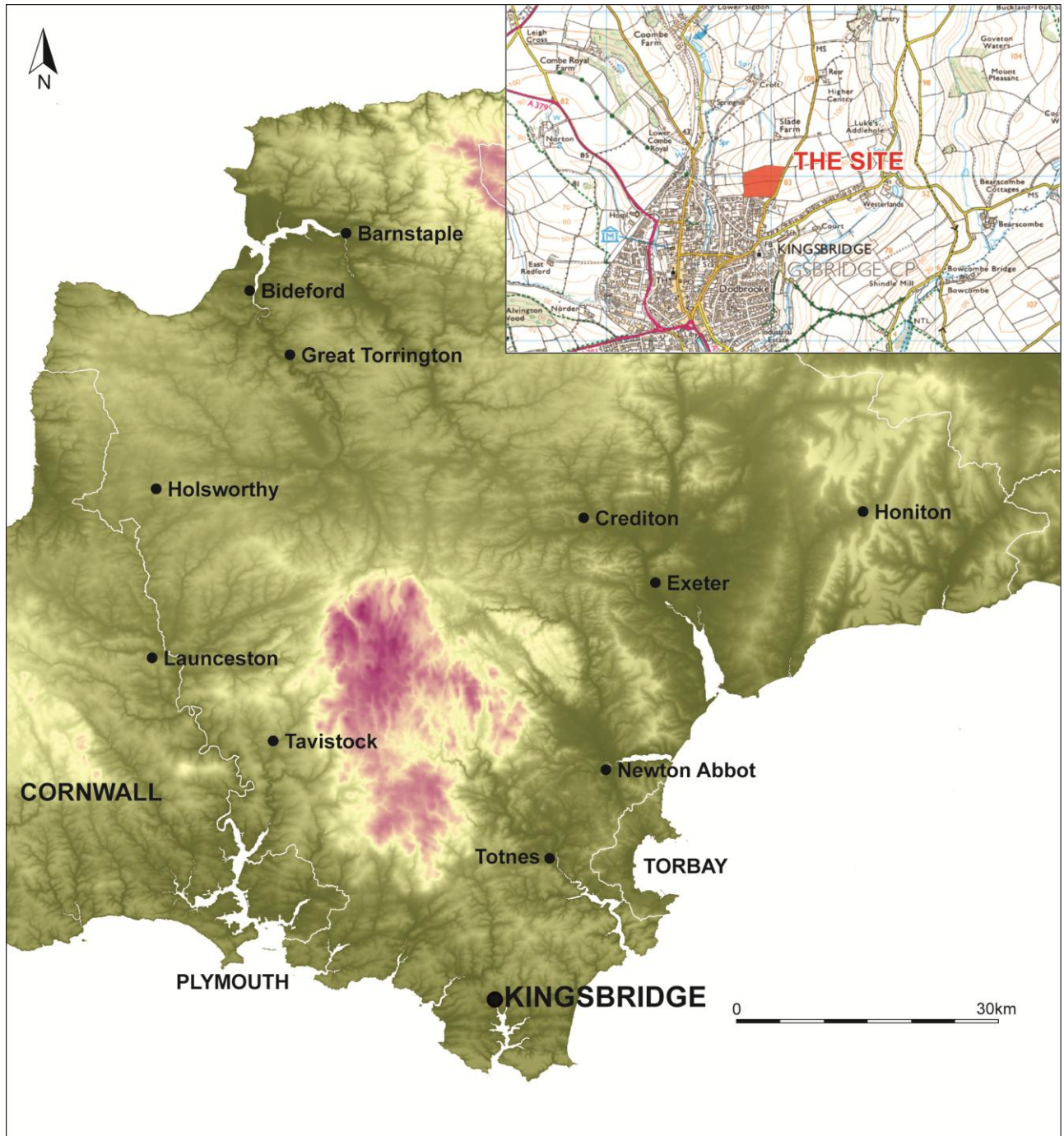


Figure 1: Site location (the site is indicated).

2.0 DESK-BASED ASSESSMENT

2.1 INTRODUCTION

The desk-based research involved the examination of cartographic, documentary and published sources held at the Devon Heritage Centre (DHC) as well as material held by the Devon County Council Historic Environment Record (HER) and online resources.

2.2 HISTORICAL BACKGROUND

Kingsbridge formerly comprised parts of three West Alvington, Kingsbridge and Dodbrooke. Dodbrooke is located in the hundred of Coleridge and the deanery of Woodleigh (Lysons 1822). It was a pre-existing Domesday manor (*Dodebroch*) that was held before the conquest by Beorhtric and subsequently by his widow, Godgifu (Godiva). It had 46 occupants and was worth 100 Shillings (Williams and Martin 2002). Godfigu held the name De Dodbrooke, the heiress of which married Alan Fitz Roald (Lysons 1822). It was granted a market in 1257, when the manor was held by Alan Fitz Roald and was recognised as a borough in 1319 (Lysons 1822; Hoskins 1954). Five descendants of Roald held the manor until the heiress married a Champernowne, from whom it passed to Northleigh, from whom it was inherited by H.H. Coxe Esq. who sold it to J.H. Southcote Esq. who sold it to Edward Hodges Esq., who held the barton house in 1822 (Lysons 1822). Lysons states that there was a hermitage at Dodbrooke in ancient times.

The growth of Dodbrooke from the 10th-11th centuries was hindered by the development of a town at Kingsbridge and by 1801 it was a largely rural settlement of 608 inhabitants. Through the 19th century its population doubled, largely in part due to thriving local industry and trade in Kingsbridge, including: an active coasting trade, a shipbuilding yard, a tannery, two breweries, an agricultural implement works and a cattle market each month. After the arrival of the railway in 1893 the population began to fall at Dodbrooke and Kingsbridge. The population of the towns has since risen due to its attraction as a holiday centre and Dodbrooke has been subsumed into Kingsbridge (Hoskins 1954) and various residential developments.

Kingsbridge was a new (and probably planned) town relative to Dodbrooke. It is located in the hundred of Stanborough and the deanery of Woodleigh. 'King's bridge' is first referred to in a charter in 962 and describes a bridge between two large, pre-conquest, royal estates, Alvington (West) and Chillington. In 1086 Alvington (*Alvintone*) was held by the king, had 20 occupants and was worth £7 and 5 Shillings. Chillington (*Cedelintone*) was also held by the king, had 103 occupants and was worth £24 (Williams and Martin 2002). Dodbrooke was therefore a relatively small manor between these two large royal estates and is recorded in Domesday as having been within the hundred of the Chillington. The manor of Kingsbridge was held by the Abbot of Buckfastleigh as a parcel of Churchstow manor and was a monastic possession until the Dissolution. It was then held by the Drake family and then the Petre family who sold it to John Scobell Esq. in 1793, who was till the owner in 1822. The 'new' town of Kingsbridge held a market from 1219 (confirmed in 1461 according to Lysons) and was recognised as a borough from 1238 (Hoskins 1954). The town had a thriving woollen and trade industry through the 19th century (Lysons 1822), utilizing the quays in the parishes of West Alvington and Dodbrooke, as were. In 1801 the parish of Kingsbridge had a population of 1117 and in 1811 of 1242 (Lysons 1822).

2.3 CARTOGRAPHIC SOURCES

2.3.1 ORDNANCE SURVEY SURVEYOR'S DRAFT OF 1803

The OS Surveyors Draft is the earliest available cartographic source available to this study (Figure 2). The site at this time appears to be two large rectangular fields that correspond to the extant fields. It is unclear whether an approximate north-south line divided the two fields into four is denoting a boundary, a slope or a crease; however it seems most likely to be the later two options. The field system is indicative of the adaptation of medieval strip fields in the post-medieval period into larger enclosures with occasional straight and rectified boundaries.

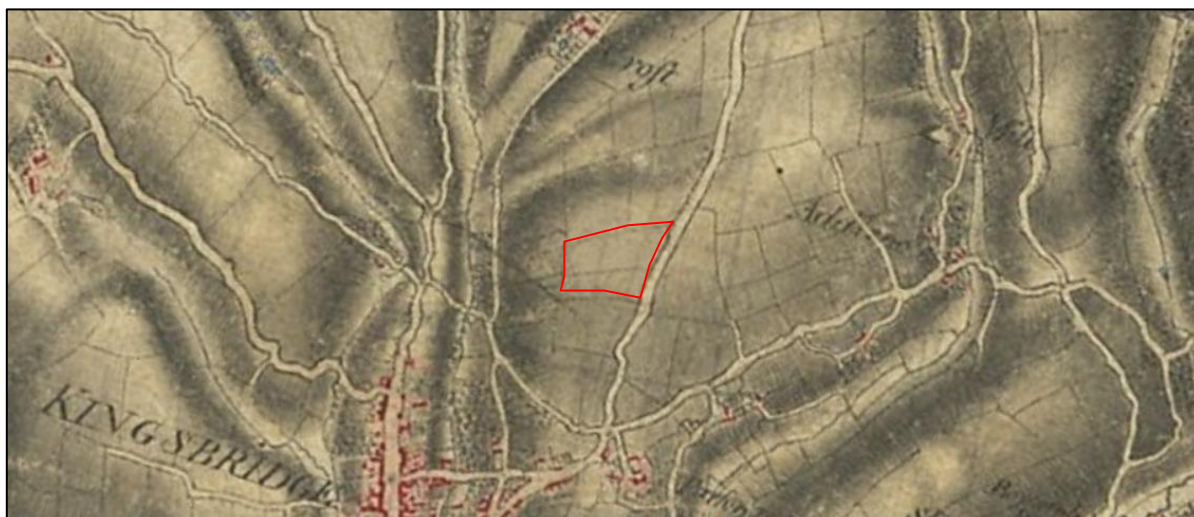


FIGURE 2: EXTRACT FROM THE SURVEYOR'S DRAFT MAP, 1803; THE SITE IS OUTLINED IN RED.

2.3.2 GREENWOOD MAP OF DEVON, 1827

C.J. Greenwood's map of Devon, surveyed at a scale of 1:50 000 and published 1827 shows continuity with the earlier Surveyor's draft map; once again with no sign of buildings, industrial activity or ancient monuments.

2.3.3 DODBROOKE TITHE MAP, 1839

The tithe map (Figure 3) is the first detailed cartographic source for the site. Its general continuity with the Surveyors draft validates the general accuracy of the 1803 map. The site corresponds to fields numbered 38, 39 and 40, the northern of the two fields currently under consideration being at that time subdivided into two smaller plots: 38, to the east and 39, to the west. The tithe apportionment provides the information that all three were part of the *High House* estate and owned by *John Gillard*, 38 and 39 being recorded as *arable* and occupied by *Robert Langworthy*, number 40, the larger plot, as *pasture* and occupied by *William Rogers*. The corresponding field names are: 38 *Higher Buckwell*; 39 *West Buckwell*; 40 *Middle Buckwell*. Plot 41, immediately south of the site, was named *Lower Buckmill*. The *High House* estate appears to have been sold off, having various owners and tenants across its plots. The land about the site is predominantly listed as *pasture* and the field names as generally prosaic, describing location, shape, use or personal names. However, reference to 'well meadow' and 'well orchard' and 'buckwell', as on the site, does reflect the abundance of springs along the ridges and the field names of the site would indicate a well or spring frequented by deer. Plot 42, south of the site, is listed as *Saffron Field*, and although under pasture at the time of the apportionment it does indicate the relatively unusual and interesting production of saffron on the site at some time. A 'Stamping Mill Meadow' and 'Windmill Park' to the

north and north-east of the site also indicate possible earlier land use and removed structures near to the site.

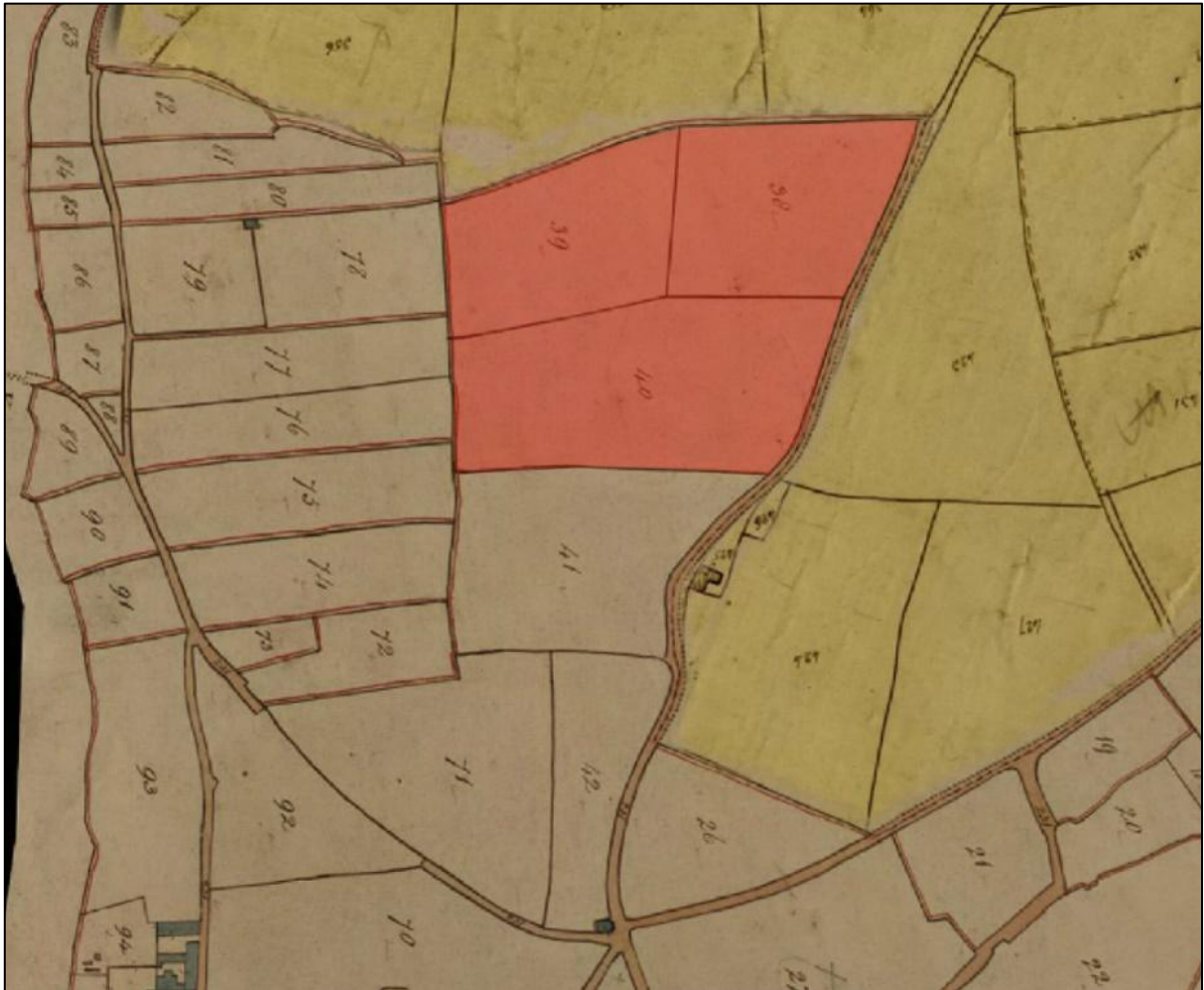


FIGURE 3: EXTRACT FROM THE DODBROOKE TITHE MAP, 1838; THE SITE IS HIGHLIGHTED IN RED.

2.3.4 ORDNANCE SURVEY MAPPING

The Ordnance Survey (OS) 1st edition (Figure 4) shows the site divided into four fields; two north fields as on the 1838 tithe map and the south field divided in half by a north-south boundary. Two small markings indicative of structures are visible in the north-east field, along its southern boundary; one in the south-west corner of the field. These were probable sheds or lean-to's as they are both very small and not shaded in as dwellings. Also, they were presumably temporary shelters as they are only visible on this map. The general landscape and field system show continuity with the 1838 tithe map, however the fields immediately west of the site have been altered from strips to larger and more rectangular or square enclosures.

The OS 2nd edition (Figure 5) depicts continuity in the general landscape and field system with the 1st edition map. It shows that the town of Kingsbridge, including Dodbrooke, is starting to expand northwards; to the west of *Belle Cross* and near *Wallingford* and it shows the late 19th century railway line to the west of the map. On the site it depicts the north half of the site, still divided into two fields, as '*Allotment Gardens*', which by the revision published in 1938 is no longer stated. It also shows an absence of the structures in the north-east field indicated on the first edition map. The southern half of the site is once again shown as a single large field. The boundary present on the 1st edition therefore may have only been a temporary boundary, such as a fence line.

Land on Belle Hill, Kingsbridge, Devon



FIGURE 4: EXTRACT FROM THE ORDNANCE SURVEY 1ST EDITION, 25 INCH SERIES, SURVEYED 1884, PUBLISHED 1886; THE SITE IS OUTLINED IN RED.

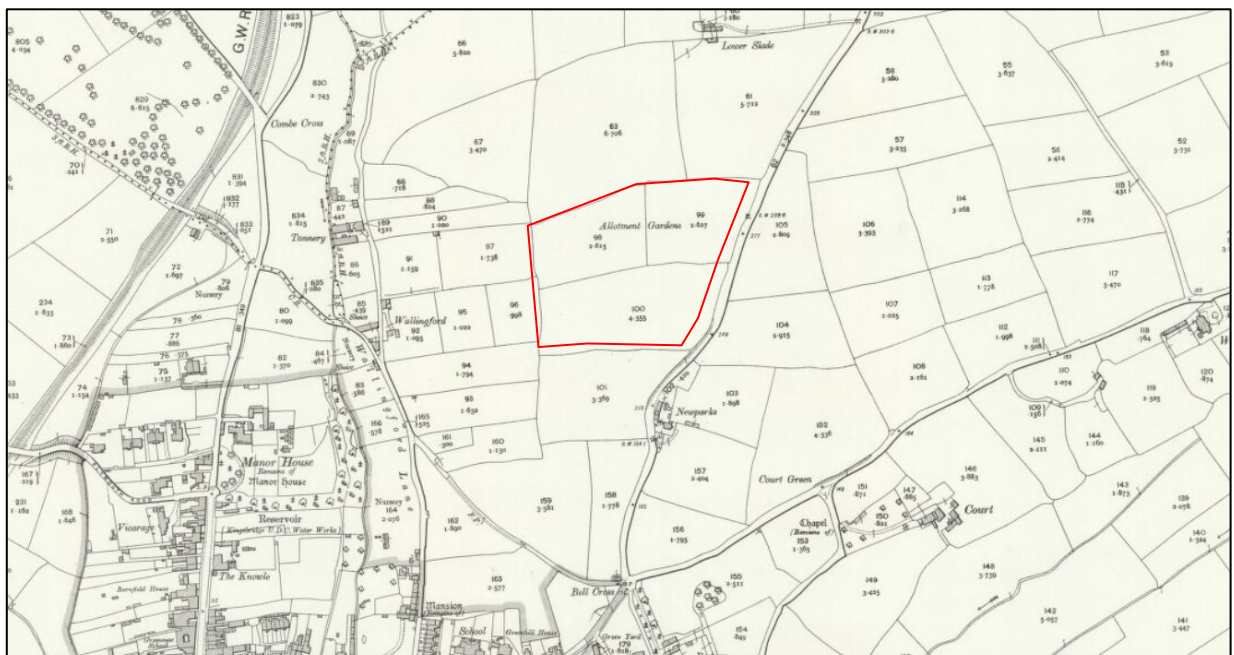


FIGURE 5: EXTRACT FROM THE ORDNANCE SURVEY 2ND EDITION, 25 INCH SERIES, SURVEYED 1904-5, PUBLISHED 1906; THE SITE IS OUTLINED IN RED.

2.3.5 MODERN DEVELOPMENTS

Today the site exists as two large fields. Sometime after 1938 the boundary dividing the northern field in two was removed. Aerial photography and satellite imagery shows the site as commonly under pasture in recent times, although worked for silage and hay as opposed to simple grazing. LiDAR imagery (Figure 6) may be used to identify that ridge and furrow ploughing was being conducted in the wider landscape, close to the site and the potential for it to have occurred across the site. It also shows a ridge or mound extant in the south-west of the site, although in line with

features indicative of the natural topography. Possible contour leats can also be identified in the wider landscape and a possible curving linear feature in the south-east of the site may be associated with these, although it is not clear from any sources.



FIGURE 6: DETAILED TOPOGRAPHICAL IMAGE BASED ON LIDAR DATA. THIS IS A QGIS-GENERATED IMAGE (TERRAIN ANALYSIS>SLOPE) OF TELLUS LIDAR SURVEY DATA [CONTAINS FREELY AVAILABLE LIDAR DATA SUPPLIED BY NATURAL ENVIRONMENT RESEARCH COUNCIL (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY); ©NERC (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY)].

2.4 DOCUMENTARY EVIDENCE

The Will of John Gillard, owner of the three fields numbered 38, 39 and 40 on the tithe map, is accessible at the Devon Heritage Centre. Interestingly, he mentions those fields which form his wife's marriage settlement by name, but unfortunately does not name the residue of his property, which presumably included the fields under consideration, nor any structures or activities directly associated with them (1078/IRW/G/307).

2.5 ARCHAEOLOGICAL BACKGROUND

No direct investigation has previously been made in the fields in question, however a number of prehistoric enclosures and monuments have been identified in the local area via aerial photography. Enclosures have been identified in Buckland Tout Saints parish (SX 7448 4608), to the north-west of Centry within 1km north of the fields under consideration (HER No.MDV36910), in Kingsbridge parish (SX 7473 4584) (HER No.MDV37311), within 1km to the east of the site, and near Shindle Mill, to the south-east (SX 7460 4439) in West Alvington Parish, (HER No.MDV36916). A Bronze Age axe (MDV103651) was found by a dog walker in the vicinity of the site around Kingsbridge. Transcriptions of relevant Devon Historic Environment Records (HER) can be seen in Appendix 1. The Portable Antiquities Scheme (PAS) lists a few post-medieval and probable Medieval artefacts in the surrounding area: of interest is the find of a silver Roman coin (PAS ID: DEV-537183), dating to AD395-402 within c.1km north-east of the site.

2.6 KEY POINTS OF THE DESK BASED ASSESSMENT

The land under consideration appears to have existed as pasture and arable farmland from at least the period of the Tithe Commutation Act (1836) and from the early twentieth century to the present day it has served predominantly as pasture.

Two small structures have briefly been associated with the site, during the latter part of the nineteenth century, probably temporary field shelters. Footings or remains associated with these structures may survive in the hedgebank or beneath the surface and in close proximity to the central dividing hedge.

A number of prehistoric enclosures have been identified in the wider Kingsbridge area, with one recorded within a kilometre of the centre of the proposed site. A Bronze Age axe and Roman coin have also been found in the area within 1km of the site.

3.0 GRADIOMETER SURVEY

3.1 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 15th and 16th August 2016 by J. Bampton in sunny conditions. The survey data was processed by J. Bampton. An area of approximately 3.3ha was surveyed. The survey identified twelve groups of anomalies.

3.2 SITE INSPECTION

The site was comprised of two fields under pasture with short grass divided by a central east-west boundary. The fields were bounded by hedgebanks that were up to 1.50m high and c.2m wide along the north, east, south and east half of the central boundary. The bank of the west half of the central boundary was nearer 1m high and the western boundary only survived up to c.0.50m high. All of the boundaries were surrounded with very high and thick bushes and shrubs, although this was thinner along the southern boundary of the site, which included more deciduous trees and had been overgrown with ivy. Bracken had also grown along the edges of the boundaries. The boundaries were largely or fully obscured by the overgrowth, although some earth banks were visible and stone lining at the ends of the boundaries. The majority of the site was also bounded by a wire and post fence against the bank.

Across the site no clearly archaeological earthworks were present. A large number of wheel ruts could be seen across the site, particularly between the north-east and south-west corners of the south field. General undulations in the topography were visible across the site and appeared natural, as did changes in the colour of the grass near to the gate in the south field that signified 'fairy rings' of some kind. A potential mound, approximately 24m across and in line with a natural ridge on the slope was visible in the south-west corner of the south field. The road along Belle Hill was set lower than the ground in the field and the ground along the west boundary of the site and beyond fell away steeply before more gradually sloping down the valley. It appeared as though soil had built up at the west end of the site, down slope, against the boundary; the ground in the south-west corner of the site, adjacent to Buckwell Close, had clearly been deposited as had waste material intermittently along the south boundary of the site. The site had existing entrances in the middle of the east boundary, middle of the central boundary and north end of the western boundary. Overgrown or blocked gates appeared to have existed in the north end of the eastern boundary and south end of the western boundary. A compliment of supporting photographs of the site can be seen in Appendix 2.

3.3 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 2014b).

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 (grids a15, a16, a19, a21), 0 offset (grid a18), offset in- and outbound by -1 interval (all other grids).

Details: 3.25ha surveyed; Max. 95.58nT, Min. -102.98nT; Standard Deviation 4.51nT, mean 0.28nT, median 0.00nT.

3.4 RESULTS

Table 1 with the accompanying Figures 7, 8 and 9 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 3.

Anomaly group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Weak negative with flanking weak positive, probable	Linear	Historic field boundary	Boundary visible on 19 th and 20 th century mapping. Responses vary <+3 and +5nT. Removed after 1938.
2	Moderate positive, probable	Linear	Field/enclosure boundary ditch	A linear anomaly, defining a sub-rectangular enclosure on the more gentle aspect of the slope. On a different alignment to surrounding fieldscape. Possibly prehistoric. Response of c.+15nT.
3	Weak-moderate positive, probable	Linear	Boundary ditch	Linear anomaly curving at its south end possibly associated with Group 2 or a contour leat system. Possibly prehistoric-medieval. Response of between c.+5nT to +10nT.
4	Very weak positive, probable	Linear	Ditch associated with Group 3	Ephemeral linear anomaly curving at its south end possibly associated with Group 2 or a contour leat system. Possibly prehistoric-medieval. Response of <+4nT.
5	Weak positive, probable	Linear	Ditch	Linear anomaly. Possibly associated with Group 3, extant field system or earlier. Response of <+6nT.
6	Weak positive, possible	Ovoid	Pits	Possible pits across the site possibly indicative of geological variation – the site has frequent weak background variation that can appear to form discreet anomalies. Response of c.+8nT.
7	Weak-moderate positive, possible	Irregular	Pits/gullies	A variety of weak anomalies, linear, ovoid and amorphous along the eastern side of the site and within the possible enclosure of Group 2. Responses of between +8nT to +15nT.
8	Weak positive, possible-probable	Linear	Ditches associated with Group 1	Linear anomalies running parallel to the historic field boundary of Group 1. Responses <+5nT.
9	Moderate-strong mixed, possible	Ovoid	Mound	Mound or ridge defining the south-west end of a more abrupt break of slope on the site. Possible natural undulation or made-up ground. Responses of between +/-20nT.
10	Very weak-weak positive, possible	Ovoid	Ground disturbance	A series of ovoid, ring-shaped anomalies in the middle section of the northern field. The responses are generally within the parameters of the natural geology of the site (+/-4nT), but occasionally up to c.+7nT. It is probably that these are shallow anomalies within the topsoil

Land on Belle Hill, Kingsbridge, Devon

				indicative of cattle ring-feeders having been on the site or simply coincidental patterns in the underlying geology, or overlying soils caused by modern agricultural activity.
11	Very weak positive, possible	Linear	Ridge and furrow or geological variation	Linear anomalies aligned with the general slope of the land indicative of geological variation or possibly the ephemeral remains of ridge and furrow ploughing. Responses of <+5nT.
12	Moderate-strong positive with associated negative, probable	Linear	Relict field boundary	Linear anomaly surviving half way across the northern field. Indicative of a boundary associated with the existing field pattern but predating the removed historic boundary or cartographic record. Possibly Medieval. Responses of c.+30nT to -20nT.

TABLE 1: INTERPRETATION OF GRADIOMETER SURVEY DATA.

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FIGURE 7: SHADE PLOT OF GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.

Land on Belle Hill, Kingsbridge, Devon

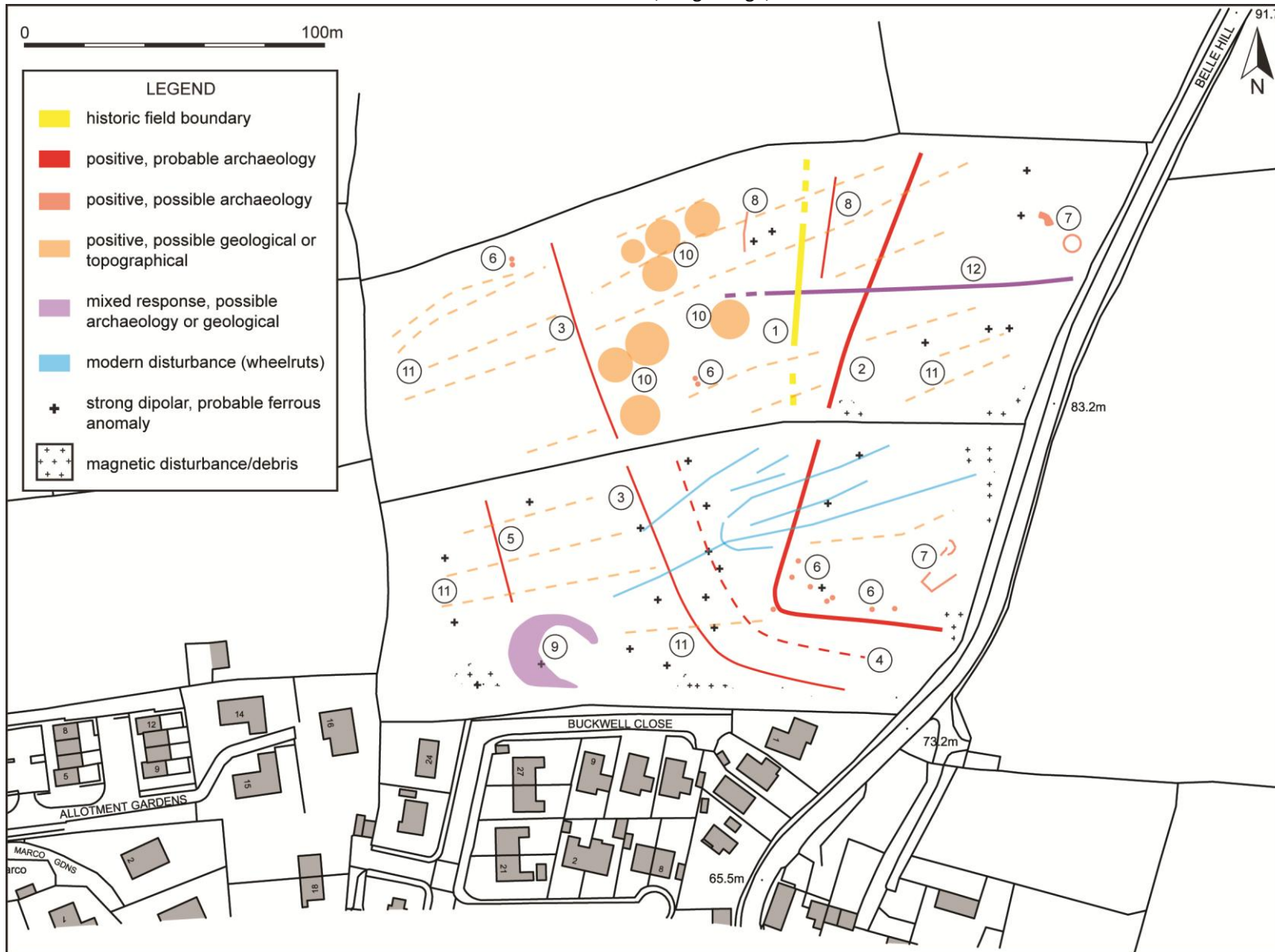


FIGURE 8: INTERPRETATION OF GRADIOMETER SURVEY DATA.

Land on Belle Hill, Kingsbridge, Devon

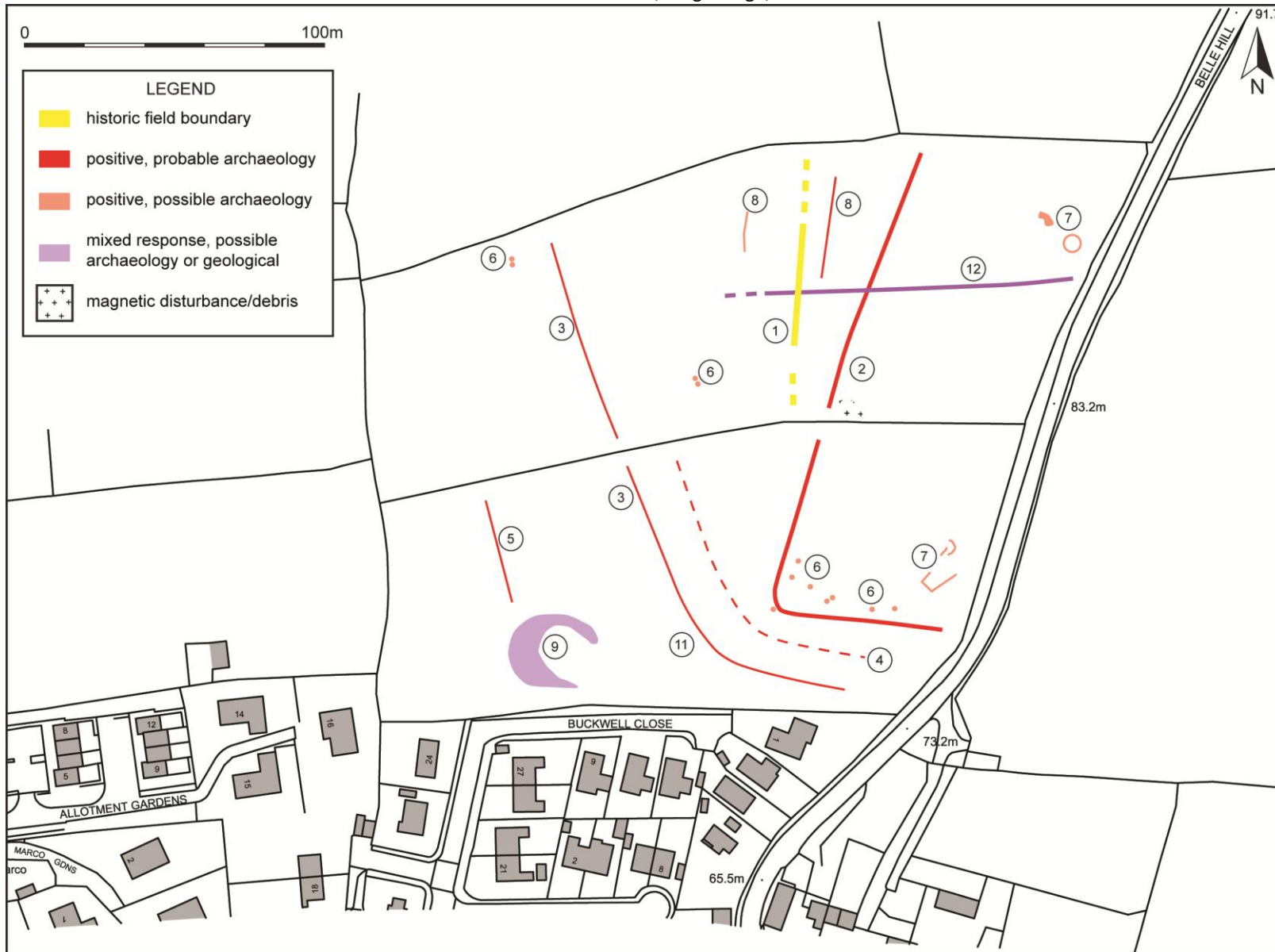


FIGURE 9: INTERPRETATION OF GEOPHYSICAL SURVEY DATA EXCLUDING THE LESS ARCHAEOLOGICALLY RELEVANT ANOMALY GROUPS, SUCH AS MODERN DISTURBANCES.

3.5 DISCUSSION

The survey identified twelve groups of anomalies totalling 46 possible archaeological or natural features. Instances of probable ferrous objects or fragments across the site and areas of modern disturbance and deposits along the edges of the site, particularly the southern edge adjacent to Buckwell Close, were also identified.

Group 1 was a weak linear negative response with flanking positive responses (c.-1nT to -4nT and <c.+3nT to +5nT) associated with a historic boundary present on the 1838 tithe map and Ordnance survey mapping up to 1938. An area of disturbance, at the south end of Group 1 is near to the potential site of a temporary structure identified on the 1886 OS 1st edition map.

Group 2 was a moderate linear positive response (<c.+15nT) indicative of a possible boundary ditch to a sub-rectangular enclosure. Its alignment suggests it predates the existing field-scape and is therefore most likely prehistoric or Roman. Findspots in the area include a Bronze Age axe and, to the north-east, a late Roman Coin. Given the relatively right-angled bend in this anomaly it is speculatively possible that it is associated with Roman activity in the area.

Group 3 was a weak-moderate linear positive response (+5nT to +10nT) indicative of a possible boundary ditch. It curved at its southern end, seemingly in respect of the Group 2 anomaly. Therefore, it may define a wider enclosure associated with Group 2. However, LiDAR imagery indicates that leats were present and utilizing the springs in the surrounding landscape and it may be possible that this anomaly represents part of a leat system. It may be prehistoric to medieval, or later.

Group 4 was a very weak linear positive response (<+4nT) that ran parallel with Group 3 and is probably a cut feature associated with it.

Group 5 was a weak linear positive response (<+6nT) in the west half of the southern field. Its alignment may indicate an association with the existing field system or the Group 3 anomaly.

Group 6 was a weak ovoid positive response (c.+8nT) indicative of either pits or natural variation. If the anomalies are indicative of pits it appears as though they are predominantly associated with the interior of an enclosure defined by Group 2.

Group 7 was a weak-moderate irregular positive series of responses (+8nT to +15nT) near to the eastern edge of the site and potentially within an enclosure (Group 2) The patterns and responses are not all definitive, however, their proximity or potential association within a potential prehistoric enclosure increases their potential significance.

Group 8 was a weak positive linear response (<+5nT) indicative of ditches or ploughing associated with and parallel to the historic field boundary (Group 1).

Group 9 was a moderate-strong mixed ovoid response (+/-20nT) associated with a mound visible on the ground that defines a natural ridge. It may be a geological anomaly or a man-made feature. If it is man-made it could be associated with industrial, domestic or funerary activity.

Group 10 was a very weak-weak positive series of ovoid responses (+/-4nT to +8nT). The strength of these responses may imply a shallow nature, within the topsoil, which would suggest modern ground disturbance such as from vehicles turning or the presence of cattle feeders. However it may imply a redeposit of natural or poor survival of sub-surface deposits. The shape of these anomalies may be indicative of disturbed ring-gullies, although their pattern may indicate mineral prospecting along the slope of the site. The nature of these anomalies is not clear and they cannot confidently be defined as

archaeological; they may simply indicate geological variation human disturbance of the surface and subsurface geologies.

Group 11 was a very weak series of linear positive responses (<+5nT) indicative of geological variation and striation that follow the slope of the land and intrusive seams of geological material in the area. However, they may indicate a wide series of ridge and furrow plough marks that follow the long boundaries of the site, down the slope of the site, although only a slight curve at the ends of the anomalies can be discerned. LiDAR imagery does show other examples of ridge and furrow in the area, within 500m north of the site.

Group 12 was a moderate to strong linear positive with associated negative response (c.+30nT and c.-20nT) indicative of a relict field boundary. This anomaly may define a series of medieval strip fields associated with the extant field system. That it only survives in the eastern half of the north field may indicate a lack of survival down slope on the site or that it only extended across approximately half the current field. Although apparently contemporary with the origins of the extant field system, this potential feature predates the cartographic resources available to this report.

4.0 CONCLUSION

The desk-based assessment does not indicate the presence of any significant features or deposits on the site directly; although, two very small structures have stood along the central boundary to the site in later 19th century and prehistoric artefacts and enclosures have been identified in the wider landscape, within 1km of the site.

The results of the geophysical survey would suggest that there are a number of undated features across the site including potentially prehistoric and medieval enclosures, field systems or leats and boundaries associated with the existing medieval to post-medieval field system. There is also potential for discrete features associated with the undated linear anomalies.

Due to the presence of Bronze Age and late Iron Age enclosures and findspots in the area it is possible that the geophysical anomalies on the site, specifically the possible enclosure relates to these periods.

Any development of the site would be likely to disturb potentially significant archaeological deposits and a programme of archaeological evaluation trenches would be advisable in order to inform appropriate mitigation strategies.

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Devon County Historic Environment Service (DCHES)

- HER No's: MDV36910 MDV36916 MDV37311 MDV36532 MDV51254

APPENDIX 1: RELEVANT DEVON HISTORIC ENVIRONMENT RECORD (HER) ENTRIES

- MDV36910** Enclosure in the Parish of Buckland-Tout-Saints Monument
Double ditched or 2 phase irregular enclosure, recorded from the air 1984. Aerial Photograph (ap). Vis=25/11/1987 (robinson). 2/3/1988 (griffith and robinson). Lies on moderate e slope. Possible scarp on n side (dprfp).
Date: ((Between) Prehistoric - 698000 BC to 42 AD)
Evidence: Cropmark
Location: Centred SX 7448 4608
- MDV36916** Enclosure northwest of Shindle Mill Monument
Site of an enclosure with a circular feature to the southwest and a linear feature to the east shown as a crop mark on aerial photograph to the northwest of Shindle Mill.
Date: ((Between) Prehistoric - 698000 BC to 42 AD)
Evidence: Cropmark
Location: Centred SX 7460 4439
- MDV37311** Enclosure in the Parish of Kingsbridge Monument
Single ditched round enclosure, diam 40-50m. Recorded from the air 1984.(ap). Vis=25/11/1987 (robinson), 2/3/1988 (griffith and robinson). Site lies in small hollow in moderate w slope. Possible faint ridge coincides with n side (dprfp).
Date: ((Between) Prehistoric - 698000 BC to 42 AD)
Evidence: Cropmark
Location: Centred SX 7473 4584
- MDV36532** Langstone Cross Field, Belle Cross Monument
A triangular field named Langstone Cross in the mid 18th century, at the junction of Belle Hill and Belle Cross Road. Cartographic. Ordnance Survey, 1880 - 1899, First Edition Ordnance Survey 25 inch map Map object based on this Source.
Date: Standing stone (Unknown date)
Evidence: Placename
Location: Centred SX 7398 4466
- MDV51254** Farmstead in the Parish of Buckland-Tout-Saints Monument
Higher centry. Pnd gives 'centry' as corruption of 'sanctuary'. Terrier of 1601 records glebe land at higher sanctuarie (awdas).
Date: Farmstead ((Between) Early Medieval to Post Medieval - 1066 AD to 1750 AD)
Location: SX 742 457
- MDV103651** Bronze Age Axe, Kingsbridge Findspot
Bronze Age Axe, Kingsbridge, found by walker. Ritchie, A, 15/08/2003, *Rare Bronze Age Axe, Found by Walker*. (Article in Serial). SDV350944. A complete Bronze Age axe has been presented to Cookworthy Museum, Kingsbridge after being found by an amateur archaeologist. The location of the find is to be kept a secret.
Date: Findspot (Middle Bronze Age - 1500 BC to 1001 BC (Between))
Evidence: Findspot/Artefact
Associated Finds: FDV5307 - AXEHEAD (Middle Bronze Age - 1500 BC to 1001 BC)
Location: SX 737 451

APPENDIX 2: SUPPORTING PHOTOGRAPHS: SITE INSPECTION



FIGURE 10: SOUTH FIELD, NORTH-EAST CORNER; LOOKING WEST (NO SCALE).



FIGURE 11: SITE ENTRANCE FROM BELLE HILL; LOOKING WEST (2M SCALE).



FIGURE 12: EASTERN BOUNDARY TO THE SOUTH FIELD; LOOKING SOUTH (2M SCALE).



FIGURE 13: EASTERN BOUNDARY TO THE SOUTH FIELD; LOOKING SOUTH (2M SCALE).



FIGURE 14: SOUTHERN BOUNDARY TO THE SITE WITH BUCKWELL CLOSE BEYOND; LOOKING SOUTH (2M SCALE).



FIGURE 15: VIEW ALONG THE WESTERN BOUNDARY OF THE SOUTH FIELD; LOOKING SOUTH (2M SCALE).



FIGURE 16: VIEW FROM THE NORTH-WEST CORNER OF THE SOUTH FIELD TOWARDS THE POSSIBLE MOUND; LOOKING SOUTH-EAST (NO SCALE).



FIGURE 17: VIEW OF THE CENTRAL BOUNDARY FROM THE NORTH-WEST CORNER OF THE SOUTH FIELD; LOOKING EAST (NO SCALE).



FIGURE 18: CENTRAL BOUNDARY AT THE ENTRANCE IN ITS MIDDLE; LOOKING EAST (2M SCALE).



FIGURE 19: ENTRANCE IN THE NORTH-WEST-CORNER OF THE NORTH FIELD; LOOKING WEST (2M SCALE).

APPENDIX 3: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



FIGURE 20: GEOPHYSICAL SURVEY GRID LOCATION, LAYOUT AND NUMBERING.

Land on Belle Hill, Kingsbridge, Devon



FIGURE 21: RED-GREY-BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA: GRADIATED SHADING; BAND WEIGHT EQUALISED.

Land on Belle Hill, Kingsbridge, Devon

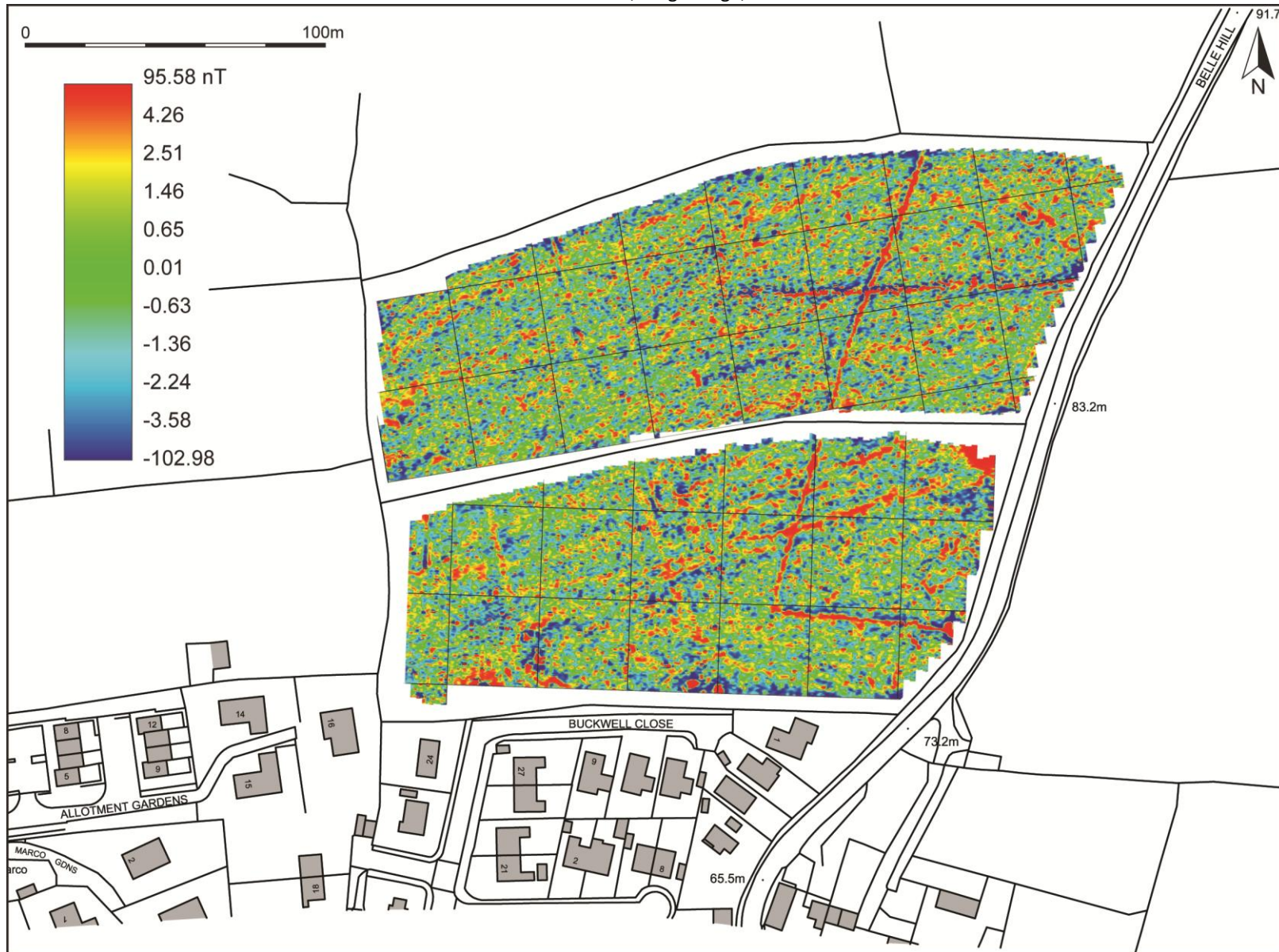


FIGURE 22: RED-BLUE-GREY (1) SHADE PLOT OF GRADIOMETER SURVEY DATA: GRADIATED SHADING; BAND WEIGHT EQUALISED.

Land on Belle Hill, Kingsbridge, Devon



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