LAND AT UGBROOKE PARK
CHUDLEIGH
DEVON

Results of a Geophysical Survey

South West Archaeology Ltd. report no. 250305

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LAND AT UGBROOKE PARK, CHUDLEIGH, DEVON

RESULTS OF A GEOPHYSICAL SURVEY

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Work undertaken by SWARCH for a Private Client

SUMMARY

The site is located at the Grade II Listed Registered Park and Garden of Ugbrooke Park, Chudleigh; this includes an area of geophysical survey at the Scheduled Castle Dyke Camp hillfort (SM 1003846). Castle Dyke is a univallate Iron Age hillfort, which includes an outer earthwork defining an inner- and outer enclosure. In the early 11th century Chudleigh was the site of a palace for the bishop of Exeter and a house and lands at Ugbrooke are recorded in the 13th century. This property eventually passed from the church through private ownership to the Clifford family in 1604. The current Grade I Listed House was built and modified from the 18th century onward with later outbuildings and an adjacent 17th century former house and chapel. In the late 17th/early 18th century the park and woodlands were improved, which included instatement of avenues that can be seen on mapping from 1740. Major remodelling occurred in the mid and late 18th century and the early 19th century. 1950's mapping depicts subdivisions of fields in and around the park, including at the hillfort.*

Desk Based analysis including processing of LiDAR data was carried out for the defined study area. This recorded 71 features of Prehistoric to modern date – some, such as the hillfort and outwork are already recorded and designated as heritage assets. The majority of features relate to boundaries or paths/tracks of likely post medieval or modern date within the parkland. A number of probable quarries have also been identified. The geophysical survey identified 35 anomaly groups comprised of <c.300 anomalies, of which c.232 were discrete anomalies associated with possible tree-throws or similar features.

The most noteworthy aspects of the geophysical survey results were the presence of an internal curvilinear feature to the inner enclosure of the Monument; the absence of other clear and distinct anomalies within the inner enclosure of the Monument; some improved clarity regarding the earthworks and potential enclosures between the inner and outer enclosures of the Monument associated with HER entry MDV37463; a possible ring ditch that may indicate a prehistoric structure between the inner and outer enclosure and possibly associated with other potential enclosures; relict field systems that seem to be associated with historical features and boundaries and possible tree-throws associated with the wooded nature of parts of the site as depicted on historic mapping. These anomalies cannot generally be dated. However, it seems likely that many of the curving anomalies associated with the inner and outer earthworks are either contemporary with the Iron Age hillfort, or respect and are associated with later modifications to the hillfort. It is not impossible that some ditches and a possible structural ring-ditch predate the hillfort. Medieval and civil war era aspects to the site are a possibility, however the majority of features appear to be associated with post-medieval enclosure, woodland and possible park management/design. Further archaeological works in the form of ground truthing of remote sensing data via walkover survey and targeted intrusive archaeological works outside of the currently Scheduled area of the site are recommended. The latter would test the efficacy and validity of the results of the geophysical survey and aid to confirm the presence or absence of any archaeological resource on the site.

CONTENTS

LIST OF FIGURES

Cover plate: View from the north-east corner of the geophysical survey area, looking towards the inner enclosure of Castle Dyke; viewed from the north-east (no scale).

LIST OF TABLES

LIST OF APPENDICES

ACKNOWLEDGEMENTS

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1.0 INTRODUCTION

LOCATION: UGBROOKE PARK
PARISH: CHUDLEIGH & KINGSTEIGNTON
COUNTY: DEVON
NGR: SX8751978103 (CENTROID)
SAM NO. 1003846
HE LICENCE REF. SL00234773
SWARCH REF. CUPC24
OASIS NUMBER. SOUTHWES1-529049

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by a private client to undertake a geophysical survey of the Scheduled Castle Dyke Camp within the RPG at Ugbrooke Park, Chudleigh, Devon. This work was undertaken as part of an agri-environment scheme application. This work was undertaken in accordance with best practice, CIfA guidance and a Written Scheme of Investigation (WSI; Boyd 2024). Works on the site were carried out under Scheduled Monument Consent (SMC), reference number SL00234773.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site lies to the south of Chudleigh and the A38, and overlaps the A380, bordering Olchard Lane at its eastern end, just before the settlement of Ideford (Figure 1). The site includes the designed and designated Registered Park and Garden landscape, as well as agricultural land, in a wider agricultural landscape. The site is located at a height of between c.38m and 102m AOD, higher at its northern and eastern ends, as the land rises out of the River Teign valley.

The soils of the site are a combination of the well drained loamy soils over sandstone of the Withnell 1 Association and the slowly permeable seasonally waterlogged clayey soils of the Hallsworth 1 Association (SSEW 1983). These overlie a series of bedrock types, including the mudstone and sandstone of the Crackington Formation, the limestone of the Chercombe Bridge Limestone Formation, the chert of the Teign Chert Formation, the sandstone of the Ugbrooke Sandstone Formation, the limestone of the East Ogwell Limestone Formation, the breccia of the Alphington Breccia Formation and Heavitree Breccia Formation, and the sandstone of the Upper Greensand Formation (BGS 2024).

1.3 METHODOLOGY

This work was undertaken in accordance with current best practice, CIfA guidance and WSI's drawn up in accordance with a brief drawn up in consultation with Historic England and Natural England. Works on the site were carried out under Scheduled Monument Consent (SMC).

Any desk-based assessment aspect of this report follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (CIfA 2020) and *Understanding Place: historic area assessments in a planning and development context* (English Heritage 2012).

The geophysical (gradiometer) survey follows the general guidance as outlined in: *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/European Archaeological Council 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2020b).

1.4 LIMITATIONS AND CAVEATS

This report is limited in scope by the brief issued by the client. The desk based assessment focuses on an analysis of the available LiDAR and aerial photography data available; although reference is made to other sources for context, they were not the focus of this study. No ground truthing of identified potential archaeological features was undertaken as part of this study. The study area comprises the Ugbrooke Registered Park and Garden excepting the majority of areas under tree cover, underwater and in separate ownership (Figure 2).

FIGURE 1: SITE LOCATION (THE SITE IS INDICATED). CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2024. THE OUTLINE OF THE STUDY AREA IS INDICATED IN RED AND THE GEOPHYSICAL SURVEY AREA IS SHOWN IN PURPLE.

2.0 DESK BASED ASSESSMENT

2.1 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The history of Ugbrooke and its landscape park has been considered in detail in a number of published and unpublished sources and is not repeated in this report. The following is a brief outline of the acquisition of the study area by the Clifford family. The site lies predominantly within the parish of Chudleigh although the south western extent of the study area extends into the parish of Kingsteignton. The parish of Chudleigh lay in the hundred of Exminster and deanery of Kenn. The manor of Chudleigh belonged historically to the see of Exeter, with a bishop's palace located close to the town. It was alienated to Thomas Brydges Esq in 1550 by Bishop Veysey and conveyed in 1598 to Thomas Hunt Esq. It was purchased by Hugh Lord Clifford in 1695 and descended in the Clifford Family whose main country seat was at Ugbrooke (Lysons 1822). Lysons states that Ugbrooke was formerly the residence of the precentors of Exeter Cathedral and probably alienated in the reign of Edward VI to Sir Peter Courtenay from whom it passed via his daughter to Anthony Clifford Esq of Borscombe, Wiltshire, ancestor of the Earls of Cumberland (Lysons 1822). Lysons also notes that Lawell, within the Ugbrooke Registered Park and Garden (RPG), was the residence of the Eastchurch family and passed into the ownership of James Shepherd Esq from whom it was purchased by Lord Clifford and was inhabited by his steward (Ibid). Kingsteignton Parish lay within the hundred of Teignbridge and deanery of Moreton. The manor, historically Crown demesne was given to Peter Burdon by Henry II and passed via the female line to the Thorpe family. In 1509 it passed in marriage to Thomas Clifford Esq.

The study area comprises the Ugbrooke Registered Park and Garden excepting the majority of areas under tree cover, underwater and in separate ownership (Figure 2). There are two Scheduled Monuments and seven Listed Buildings (1 Grade 1, 6 Grade II) as well as the Ugbrooke RPG within the study area boundary although one Scheduled Monument (1017681 Tramps Shelter, Chudleigh Rocks) lies on land outside the client ownership but within the Ugbrooke RPG. The Devon Historic Landscape Characterisation classifies much of the land within the study area as *Park/Garden: a park planted with ornamental trees or a garden round a house*, with small areas of *Other woodland: Broad-leaved plantations, re-planted ancient woodland or secondary woodland that has grown up from scrub; Rough Ground: rough grazing ground, heathland or moorland* and *Post Medieval Enclosures: Enclosures of post-medieval date. Fields laid out in the C18th and C19th commonly have many surveyed dead-straight field boundaries* around its edges. The study area and surrounding landscape are rich in documented archaeological remains from the prehistoric to modern periods.

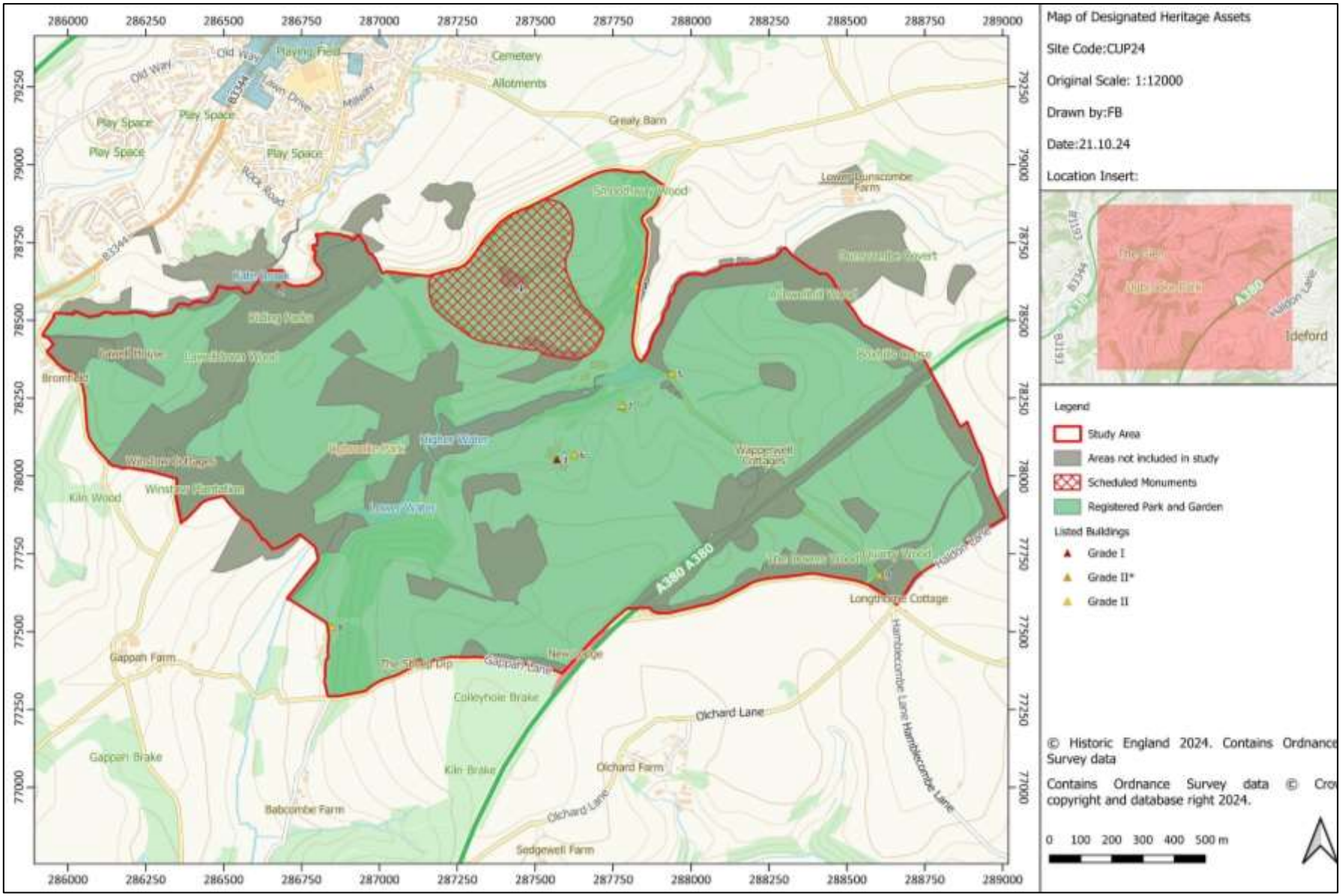

FIGURE 2: STUDY AREA SHOWN WITH DESIGNATED HERITAGE ASSETS WITHIN ITS VICINITY.

2.2 CASTLE DYKE CAMP (SCHEDULED MONUMENT)

The focus of the site is a Scheduled Monument (1003846) consisting of a large univallate hillfort with outwork. The scheduling text for the site reads:

Reasons for Designation
Large univallate hillforts are defined as fortified enclosures of varying shape, ranging in size between 1ha and 10ha, located on hilltops and surrounded by a single boundary comprising earthworks of massive proportions. They date to the Iron Age period most having been constructed and used between the fourth century BC and the first century AD, although evidence for earlier use is present at most sites. The size of the earthworks reflects the ability of certain social groups to mobilise the labour necessary for works on a large scale, and their function may have had as much to do with display as defence. Large univallate hillforts are also seen as centres of redistribution, both for subsistence products and items produced by craftsmen. The ramparts are often massive and can vary between 6m and 20m wide and may survive to a height of 6m. The ditches can measure between 6m and 13m wide and between 3m and 5m deep. Access to the interior is generally provided by one or two entrances, which often take the form of long passages formed by inturned ramparts and originally closed by a gate located towards the inner end of the passageway. Large univallate hillforts are important for understanding the organisation and regional structure of Iron Age society.

The large univallate hillfort, known as Castle Dyke Camp is unusual because it has an outwork of considerable size protecting the most vulnerable approach to the hillfort. The evidence for enclosures in the area between the outwork and main enclosure indicates its importance for stock rearing, possibly even as a market for livestock. The scale of the earthworks attests to significant levels of social organisation being present in the region during the Iron Age. Despite some cultivation of the hillfort interior, the monument survives well and will contain important archaeological layers, deposits and structures relating to its construction and use, as well as environmental evidence concerning its landscape context.

Details
This monument includes a large univallate hillfort with outwork occupying the ridge, which forms the watershed between the valleys of the Kate Brook and Ugbrooke. The hillfort survives as an oval enclosure defined by a bank and outer ditch with a linear outwork to the south. The oval enclosure measures approximately 225m long by 155m wide internally and is defined by an outer rampart bank up to 20m wide and 3m high surrounded by a partially buried outer ditch which measures up to 8m wide and 3m deep. There are inturned entrances to the north east and south west. Approximately 225m to the south is a linear outwork. This survives as a rampart measuring up to 12m wide, 3m high with a partially buried outer ditch measuring up to 8m wide and 2m deep. The outwork extends from the top of the scarp of one river valley to the other. This outwork also has a deeply inturned entrance at approximately the centre of its length. The enclosed area between the outwork and hillfort has cropmark evidence for enclosures.

The HER entry for the site (MDV9008) reads:

Castle Dyke an Iron Age hillfort in Ugbrooke Park with an outwork to the south. The ramparts and ditches of the earthwork are partly obscured by tree cover on aerial photographs of the 1940s and clearly visible on digital images derived from lidar data captured between 1998 and 2017.

Hutchinson, P. O., 1848-1894, Diaries (Un-published). SDV339321.
Site visited in 1849 and 1853. Elliptical earthwork approximately 200-250 metres diameter. Outer curved earthworks circa 100 metres out on south side. Further south again is another earthwork running eastwards down hill to pond, then back for circa 60 metres in direction of main earthwork, after which it turns northward to flank east side of camp. A similar earthwork recorded on the north-east side. Plan in manuscript.

Hutchinson, P. O., 1862, On the Hill Fortresses, Tumuli, and some other Antiquities of Eastern Devon, 64 (Article in Serial). SDV338169.
Ugbrooke Park Camp has otherwise been known as "Castle Dyke" and "The Round Field". Irregular oval shape with maximum dimensions of 240 metres long and nearly 180 metres wide. Nearly concentric with camp and in advance of it runs a large curve of rampart almost as bold in places as main rampart, which measures 14-15 metres on the outer slope. No outworks on north and west sides since slope affords natural defence. Outworks possibly of much later date, perhaps built at time of Civil War.

Ministry of Works, 1958, Castle Dyke, Ugbrooke Park (Schedule Document). SDV346756.
Castle Dyke in Ugbrooke Park is a fine Iron Age hillfort of south-west type with wide spaced defences situated on a ridge between the Kate and Ugbrooke valleys. The inner enclosure is circular, enclosed with a single rampart and ditch. There are two entrances on the north-east and south, and two recent gaps. The outer enclosure extends to the south of the inner: it is defended by a single line of rampart and ditch which extends along the contour from the edge of the Kate Brook scarp to end on the slope to the head of the Ugbrooke. The entrance is in the centre, marked by a deep inturn of the rampart on the east side. There are traces of another bank within the outer enclosure, suggesting an embanked entrance way, but reduced by ploughing. The condition is very good, the interior is now cultivated. Other details: Monument 170.

Gray, V. K., 1979, Castle Dyke, Ugbrooke Park (Report - Survey). SDV307852.
Site visited on 10th January 1979. Large circular inner enclosure with entrances on the north-east and south. There are some other more recent gaps made probably by horses ridden across the bank, but they are not very recent. The interior is level and cultivated. There are trees on the inner and outer enclosures. The owner has resisted proposals to carry the A38 road through it. He says that the soil on the top is poor and crops are no longer grown on it. The line of the outer enclosure is carried right round to the scarp of the hill in the north-east by an old driveway which has been made in the ditch.

Hegarty, C., Knight, S. and Sims, R., 2018-2019, The South Devon Coast to Dartmoor Aerial Investigation and Mapping Survey. Area 1, Haldon Ridge to Dart Valley (Interpretation). SDV361305.
The earthwork ramparts and ditches of Castle Dyke Camp, a univallate hilltop enclosure of probable later prehistoric date, are visible partly obscured by tree cover on aerial photographs of the 1940s and clearly visible on digital images derived from lidar data captured between 1998 and 2017.
The rampart is visible as a bank up to circa 10m wide, enclosing a roughly oval area circa 245m by 170m in size (circa 3.3ha). The outer ditch is on average circa 9m wide. Bank and ditch are pierced at five locations, but the thickened and slightly in-turned form of the bank and ditch terminals might support the interpretation that the break on the eastern face of the enclosure is the only original entrance.
A very slight curvilinear bank visible crossing the interior of the enclosure might be evidence that the enclosure developed over two phases. This possible bank is most clearly visible on simple local relief visualisations of the lidar data.
An outwork is visible on the slopes to the south-west of the enclosure, as a bank circa 13 to 16m wide with a narrower ditch on the south-facing side. The lidar derived images reveal the bank to be circa 475m long, curving to the south-east from circa SX87177859 to SX87557852, first crossing then following the contours of the slope. The outwork ditch has been used as a track and extended to the south-east as a footpath. A narrower bank follows this ditch extension and crosses the shallow coombe south of the outwork proper.
A second rectilinear or polygonal enclosure is visible within the area between hilltop enclosure and outwork from cropmark and earthwork evidence, recorded separately as MDV37463.

The outwork has its own HER Entry (MDV37463):

The plough reduced remains of a rectilinear bank and ditch defined enclosure of probable later prehistoric date are visible on aerial photographs of 1984 and lidar derived images as cropmarks and earthworks on the south-east facing slopes within the outer enclosure of Castle Dyke Camp, in Ugbrooke Park, Chudleigh

Ministry of Works, 1958, Castle Dyke, Ugbrooke Park (Schedule Document). SDV346756.
There are traces of another bank within the outer enclosure at Castle Dyke in Ugbrooke Park. It suggests an embanked entrance way but has been reduced by ploughing. Other details: Monument 170.

Hegarty, C., Knight, S. and Sims, R., 2018-2019, The South Devon Coast to Dartmoor Aerial Investigation and Mapping Survey. Area 1, Haldon Ridge to Dart Valley (AI&M) (Interpretation). SDV361305.
Cropmarks of ditches are visible on aerial photographs of 1984 defining a single or possible double ditched rectilinear or polygonal enclosure on the south-east facing slopes within the outer enclosure of Castle Dyke Camp, in Ugbrooke Park, Chudleigh. The cropmarks are up to circa 5m wide and define the south and west sides of an enclosure approximately 140m long, north to south, and 100m wide, east to west. Cropmarks of parallel out-turned ditches might support the interpretation of an entrance on the south-west corner of the enclosure and may also indicate the presence of levelled earthwork banks to the south-east, but these are not clearly identifiable. A second, narrower internal ditch may be visible to the north-west corner of the enclosed

area.
Images derived from lidar data captured between 1998 and 2017 support the interpretation that banks or ramparts do survive as low earthworks to the south-west and south-east corners of the enclosure, coinciding with the possible entrance visible as cropmarks. The lidar derive images also support the interpretation that the outer enclosure ditches were substantially broader than indicated by the cropmark evidence, the visible earthworks exceeding 15m wide in places. The broader ditches visible on lidar images have been transcribe using the 'extent of feature' symbology to distinguish from cropmark evidence and aid interpretation. The relationship between the cropmark and earthwork evidence is unclear supporting the suggestion that the earthworks may have been significantly spread by ploughing, particularly in the south-west corner of the enclosure.
The cropmark and earthwork evidence are interpreted as the remains of an enclosure of later prehistoric to Roman date, possibly post-dating Castle Dyke camp to the north and incorporating elements of the outer enclosure earthworks immediately to the south.
Cropmarks of narrow ditches are visible crossing the interior of the enclosure. These are interpreted as evidence of separate phases of activity and have been recorded as such.

2.3 UGBROOKE PARK REGISTERED PARK AND GARDEN (GRADE II*)

Parts of the listing text for the RPG are reproduced below:
An early C18 formal park landscape, remodelled in the mid and late C18 by Lancelot Brown, with C19 gardens and pleasure grounds around a mansion rebuilt by Robert Adam in the mid C18.

HISTORIC DEVELOPMENT
Castle Dyke Camp, an Iron Age earthwork within the park at Ugbrooke indicates early occupation of the site. In the late C11 Chudleigh became the site of a rural palace for the bishops of Exeter, and in 1282 'a house and cerytain lands at Ugbrooke' were annexed to the Precentor of Exeter. In 1547 the Duke of Somerset, Lord Protector, obtained a lease of ecclesiastical property at Chudleigh from Bishop Voysey, and in 1550 Ugbrooke was sold to Sir Piers Courtenay of Powderham Castle, Devon (qv). When Sir Piers' widow died in 1604 Ugbrooke passed to her grandson, Thomas Clifford (1572-1634). Thomas Clifford's grandson, also Thomas, supported the Crown during the Civil War, and in 1660 was elected to Parliament as member for Totnes. Knighted in 1664, Sir Thomas was a leading political figure and served as one of Charles II's five principal ministers in the 'Cabal' Ministry in 1669. Sir Thomas was created Lord Clifford of Chudleigh in April 1672, and in November 1672 became Lord Treasurer. The following year he announced his conversion to Catholicism, resigned his public offices and retired to Ugbrooke where he died later the same year, leaving £2000 in his will to complete the rebuilding of the house. Hugh, second Lord Clifford (d 1730) came of age in 1684 and added to the woodlands at Ugbrooke and made improvements to the park, in particular planting several formal avenues in the late C17 and early C18 (Pearson Assocs 1993), which were shown on a survey by William Doidge in 1740. John Dryden was entertained at Ugbrooke and reputedly wrote The Hind and the Panther (1687) in the park. During the minority of Hugh, fourth Lord Clifford between 1732 and 1747 the family fortune was depleted through mismanagement, and it was only in 1760 that he was able to commission plans for the rebuilding of the house from Robert Adam (1728-92). The new house was begun in 1760 and finished c 1769 when the chapel and library wing was completed, also to designs by Adam. Ugbrooke was shown with a house set in a park on Donn's Map of Devon (1765) but there is no evidence that Lancelot Brown (1716-83) was consulted by Lord Clifford until c 1770 when the reconstruction of the house was complete, and at a time when Brown was working at neighbouring Mamhead Park (qv), and at Tixall Hall, Staffordshire for Lord Clifford's brother (Pearson Assocs 1993). The fourth Lord Clifford died in 1783, and was succeeded by his son, Hugh Edward, who suffered from ill health and died at Munich in 1793. His younger brother Charles, a talented amateur artist and patron of Francis Towne, Varley, Prout and Bampfylde and other artists succeeded as sixth Lord Clifford. His son, who succeeded as seventh Baron in 1831, married Mary Weld, daughter of Thomas Weld of Lulworth Castle, Dorset (qv), created Cardinal Weld in 1830, and spent much of his time in Italy, with Ugbrooke being used by several religious bodies. In 1858 the eighth Lord Clifford resumed residence at Ugbrooke, but with the estate in a near bankrupt state he was able to make only modest changes to the House and grounds. The family fortune was gradually restored before his death in 1880, but successive death duties in 1918 and 1924 again depleted the estate. During the Second World War Ugbrooke was let to an evacuated school, and from 1945 to 1952 it was used as a hostel for disabled Polish soldiers. From 1952 until the succession of the twelfth Lord Clifford who returned from Australia in 1957, the House was unoccupied, with the ground floor used as a granary. A programme of restoration was implemented by the twelfth, thirteenth and fourteenth Lords Clifford from 1957 to c 1995, and a restoration scheme for the landscape was approved in 1993,

following extensive storm damage in 1990. Today (1999), Ugbrooke remains in private ownership, with Lawell House in separate private ownership.

LOCATION, AREA, BOUNDARIES, LANDFORM, SETTING Ugbrooke Park is situated some 2km south-east of the town of Chudleigh, and c 2km north-east of the village of Ideford. The A380 road from Exeter to Newton Abbot passes through the site, running from north-east to south through the park c 550m south-east of the House. The c 235ha site comprises c 5ha of gardens and pleasure grounds, c 200ha of parkland and woodland and c 30ha of pleasure grounds, parkland and woodland associated with Lawell House which afford views of the picturesque Chudleigh Rocks. The site is bounded to the north and south-east by rubble-stone walls c 3m high which enclose the park. Elsewhere the site is enclosed by traditional hedge banks which adjoin agricultural land and minor roads to the south and south-west of the site. Ugbrooke Park lies in the upper valley of the Ugbrooke, a stream which flows from north-east to west-south-west through the park. The ground rises to high points to the north at Castle Dyke Camp, and to the south-west. To the north of the Gappah to Biddlecombe road which forms the northern boundary of the park, the land falls steeply through Riding Parks to Lawell House and Chudleigh Rocks, an area of quarried land with cliffs, caves and exposed rocks. The site has extensive views north and west towards Dartmoor.

PARK The extensive park surrounds the House and gardens, and includes high ground to the north and south-west of the Ugbrooke valley, and areas to the east of the House which are now separated from the majority of the park by the late C20 A380 road from Exeter to Newton Abbot. Today (1999) the park from north-west to south-east of the House remains predominantly pasture with scattered trees and boundary plantations which broadly correspond to the disposition shown on a late C18 design attributed to Lancelot Brown (private collection). To the north and north-east of the House areas of the park are today (1999) broken, although C18 and C19 planting survives. The Ugbrooke flowing through the valley to the north-west of the House is dammed to form two irregular lakes c 130m north-west and c 400m west of the House. The north-west lake or Higher Water is separated from the lower lake by a high earth dam and a picturesque rocky cascade (repaired late C20) c 380m west of the House. South of the cascade the gravelled carriage drive to Lawell which crosses the dam passes through a watersplash formed by the overflow from Higher Water and the outflow of a rocky spring immediately adjacent to the south-east. A late C20 timber footbridge adjoins the carriage drive at the watersplash. A simple stone-vaulted boathouse constructed c 1778 (Pearson Assocs 1993) survives on the south bank of Higher Water c 270m west-south-west of the House, while south of the cascade c 430m west-south-west of the House, a late C18 icehouse, also incorrectly known as Old Limekiln, survives with remnants of evergreen planting and rustic rockwork. The quarry to the south-east of the adjacent carriage driveway is exploited as a picturesque feature (ibid). To the south-east of the quarry and c 370m south-west of the House, Dryden's Seat is a grassy knoll named to commemorate Dryden's reputed composition of The Hind and the Panther at Ugbrooke in the late C17. No structure survives today (1999), but a levelled area may be the site of an C18 seat or structure (ibid). The lakes and associated features form part of Lancelot Brown's late C18 scheme for Ugbrooke and can be dated from a series of drawings by Francis Towne to 1777-8 (private collection). The Higher Water originally extended east to the Ideford to Biddlecombe road, but in the mid C19 the upper or eastern end of the lake was separated to form a mill pool to power sawmills constructed to the north and south of the lake. Today (1999) remains of the mills, mill race and a stone bridge survive, together with a group of C20 farm buildings c 290m north-east of the House.

Brown's late C18 scheme included the diversion in 1773 of the road from Gappah to Biddlecombe to a new course north of Castle Dyke Camp (scheduled ancient monument) c 650m north-north-west of the House. The earlier course of the road across the park survives as a length of double bank c 800m north-west of the House. The drive to Lawell which crosses the dam and watersplash between the Higher and Lower Waters before running along the north side of Lower Water and turning north-west across the park also formed part of Brown's plan. Some 1.1km west of the House the Lawell drive passes through a late C18 stone arch under the late C18 Gappah to Biddlecombe road east of Winstow Cottages. Further park drives were developed in the early C19, including a drive leading north from Higher Water to Mount Pleasant c 800m north-west of the House on the northern park boundary. Here gates flanked by massive circular-section rubble-stone piers gave access through the park wall to a circuit of walks and carriage drives in Riding Parks north-west of the road from Gappah to Biddlecombe. The Mount Pleasant drive was planted as an avenue of oaks in the late C19, some of which survive today (1999). The main road from Exeter to Newton Abbot which historically ran through the park c 530m east of the House was diverted to a new course some 500m further east and outside late C18 or early C19 parkland boundary plantations c 1830. The new road was carried over the road from Ideford to Biddlecombe on a single stone arch, Ideford Arch, which survives c 1km east-south-east of the

House. Longthorn Cottage, an early C19 thatched rubble-stone cottage orné stands c 50m south-east of Ideford Arch and appears to mark the extent of the early C19 ornamental landscape. The stopping-up of the old Exeter road in the early C19 allowed the full integration of the previously established parkland bounded to the north, east and south by Ashwellhill Wood, Long Plantation and The Downs Wood into the park. These areas were once again detached when the late C20 A380 road was constructed through the park on a course slightly to the east of the earlier Exeter road.

Evidence of the early C18 park shown on Doidge's Plan of 1740 survives within the late C20 landscape. To the south-east of the House the remains of the early C18 formal avenue survives, having been formed into clumps by Brown in the late C18, while some 200m south-south-west of the House a rectangular depression enclosed by grass banks and remnants of stone rubble walls is the remains of the 'Pitt Garden' shown on the 1740 Plan.

2.4 HISTORIC MAPPING

Although outside the remit of this study to examine historic mapping in detail, some historic mapping has been included in Appendix 1 (Figures 1-15) for context and comparison with aerial photographic and LiDAR data. Some detailed historic map extracts of the area of the geophysical survey have also been included where they add additional context. The 1765 Donn map of Devonshire shows the study area as the landscape around two established mansions; Ugbrooke and Lawell, the latter in the ownership of the Shepherd family at this date. An enclosed deer park is depicted around Ugbrooke and trees indicate the extensive park accompanying the property. Limited landscape change within the study area is indicated by the historic mapping from the mid 19th century into the 20th century, with the designed landscape well established. More notable change is evident from the second half of the 20th century when significant areas of the parkland are subdivided, apparently into agricultural use, including the land around Castle Dyke.

2.5 LIDAR DATA AND AERIAL PHOTOGRAPHY

LiDAR data is available at a survey interval of 1m for the site and for the surrounding area. Whilst a 25cm interval is preferable for the identification of archaeological features, especially within woodland, a 1m interval can be used, particularly for the identification of larger archaeological features. The LiDAR data is a 2022 data set. Digital Surface Model (DSM) and Digital Terrain Model (DTM) LiDAR data has been processed and examined for the site, with images supplied in Appendix 1 (Figures 16-23) and Appendix 2 (Figures 40-42). Both data sets have been processed using QGIS 3.22 multi-hillshade and slope visualisations. Features of possible archaeological origin visible have been examined and discussed below.

Available aerial photographs have also been examined. Aerial images from 2002 and 2022 are included in Appendix 1. Historical aerial imagery from c.1946 has also been consulted but is not reproduced in this report. Aerial imagery has been compared alongside LiDAR data and where relevant, notes are included in the table below.

2.6 ANALYSIS OF POTENTIAL ARCHAEOLOGICAL FEATURES

The map and table below indicate potential archaeological features identified on LiDAR imagery and where possible cross checked with historic mapping and aerial photographs to provide a likely indication of date or origin. These features have not been ground truthed (although some areas were subject to geophysical survey, see below) and, due to the limitations of LiDAR data analysis would require on the ground assessment to confirm whether their origin is archaeological. Only parts of the RPG identified as within the study area of this report have been examined.

The analysis has recorded 71 features of Prehistoric to modern date – some, such as the hillfort and outwork are already recorded and designated as heritage assets. The majority of features relate to boundaries or paths/tracks of likely post medieval or modern date within the parkland. A number

of probable quarries have also been identified. Of notable interest and priority in ground truthing was the identification of a possible enclosure in the north eastern area of the parkland, north east of Home Farm; and possible platforms in the location of buildings shown on the tithe map, in the central area of the parkland, east south east of Ugbrooke House. Other features documented below would also benefit from ground truthing before being recorded as archaeological in origin in the historic environment record.

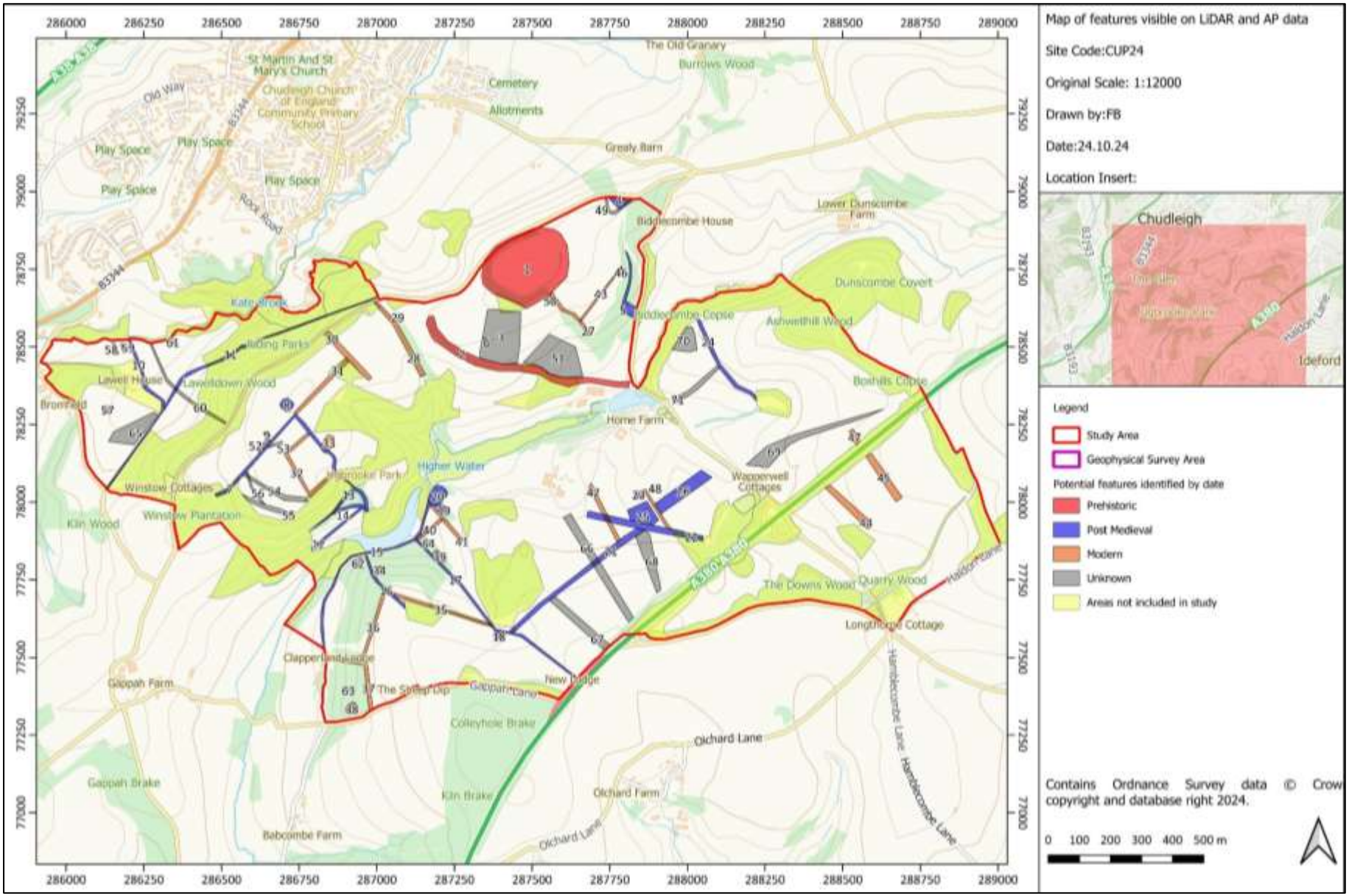

FIGURE 3: POTENTIAL ARCHAEOLOGICAL FEATURES VISIBLE ON LIDAR AND AERIAL PHOTOGRAPHY DATA.

TABLE 1: FEATURES IDENTIFIED ON LIDAR AND AERIAL PHOTOGRAPHY DATA

No	Type	Category	Period
1	Hillfort with evidence for modern agricultural activity within (Scheduled Monument)	Hillfort	Prehistoric
2	Outwork associated with hillfort (Scheduled Monument)	Hillfort	Prehistoric
3	Earthwork banks – May correspond with enclosures described in Scheduling text for Castle Dyke Camp	Hillfort	Unknown
4	Quarry Shown on First Edition Ordnance Survey Map	Quarry	Post Medieval
5	Boundaries shown on historic mapping, associated with Smoothway Lodge	Boundary	Post Medieval
6	Mound with trees. Trees indicated in this location on historic Ordnance Survey maps	Parkland Feature	Post Medieval
7	Boundary shown on historic Ordnance Survey maps	Boundary	Post Medieval
8	Tree Ring or Mound shown on historic Ordnance Survey maps and named Cardinal's Clump	Parkland Feature	Post Medieval
9	Trees, possibly planted on mounds shown on historic Ordnance Survey mapping	Parkland Feature	Post Medieval
10	Drive/path to Lawell House shown on historic mapping	Path	Post Medieval
11	Track/Path shown on historic mapping	Path	Post Medieval
12	Trackway shown on tithe map	Linear	Post Medieval
13	Road/Path shown on historic Ordnance Survey mapping	Linear	Post Medieval
14	Path shown on historic Ordnance Survey mapping	Linear	Post Medieval
15	Track shown on historic Ordnance Survey mapping	Linear	Post Medieval
16	Boundary shown on historic Ordnance Survey mapping	Boundary	Post Medieval
17	Boundary shown on historic Ordnance Survey mapping	Boundary	Post Medieval
18	Quarry shown on historic Ordnance Survey mapping	Quarry	Post Medieval
19	Quarrying shown on historic Ordnance Survey mapping	Quarry	Post Medieval
20	Quarrying depicted on historic Ordnance Survey mapping. Old Limekilns also labelled in this location	Quarry	Post Medieval
21	Path or Boundary shown on historic Ordnance Survey mapping	Linear	Post Medieval
22	Path shown on historic Ordnance Survey mapping	Path	Post Medieval
23	Quarry shown on historic Ordnance Survey mapping	Quarry	Post Medieval
24	Boundary shown on historic Ordnance Survey mapping	Boundary	Post Medieval
25	Possible platforms in area of buildings shown on tithe map but not depicted on Ordnance Survey First Edition map	Platform	Post Medieval
26	Double boundary visible on 1946 AP but not shown on historic Ordnance Survey mapping; Avenue shown on 1740 map	Boundary	Post Medieval
27	Boundary shown on mid-20th century Ordnance Survey map	Boundary	Modern
28	Boundary shown on mid-20th century Ordnance Survey Map	Boundary	Modern
29	Structure shown on mid 20th century Ordnance Survey Map	Structure	Modern
30	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
31	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
32	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
33	Pond not evident on historic mapping	Pond	Modern
34	Quarry shown on historic (2nd Edition) Ordnance Survey mapping	Quarry	Modern
35	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern

36	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
37	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
38	Quarrying depicted on early 20th century (2nd Edition) Ordnance Survey map	Quarry	Modern
39	Enclosure shown on mid 20th century Ordnance Survey mapping	Platform	Modern
40	Boundary visible on 1946 AP but not on historic Ordnance Survey mapping	Boundary	Modern
41	Boundary visible on 1946 AP but not on historic Ordnance Survey mapping	Boundary	Modern
42	Boundary shown on mid 20th century Ordnance Survey mapping	Boundary	Modern
43	Boundary not shown on historic Ordnance Survey mapping	Linear	Modern
44	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
45	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
46	Modern Pond visible on recent aerial imagery	Pond	Modern
47	Boundary shown on mid 20th century Ordnance Survey map	Boundary	Modern
48	Boundary shown on 1946 Ap but not on historic Ordnance Survey mapping	Boundary	Modern
49	Track or path	Linear	Unknown
50	Possible track or quarrying	Unknown	Unknown
51	Terracing visible on LiDAR data and some historic aerial photographs including 1946 image	Terrace	Unknown
52	Possible quarrying	Quarry	Unknown
53	Gully/Drain	Linear	Unknown
54	Linear not indicated on historic Ordnance Survey mapping	Linear	Unknown
55	Linear not indicated on historic Ordnance Survey mapping	Linear	Unknown
56	Probable track - not shown on historic Ordnance Survey mapping	Linear	Unknown
57	Unknown - area of disturbed ground visible on some aerial photographs and LiDAR data	Unknown	Unknown
58	Linear visible on LiDAR data	Linear	Unknown
59	Linear visible on LiDAR data	Linear	Unknown
60	Linear visible on LiDAR data	Linear	Unknown
61	Gully/Drain visible on LiDAR data	Linear	Unknown
62	Possible Quarrying	Quarry	Unknown
63	Possible Quarrying	Quarry	Unknown
64	Enclosure shown on mid 20th century Ordnance Survey mapping	Platform	Unknown
65	Possible banks/terracing	Bank	Unknown
66	Linear not shown on historic Ordnance Survey mapping	Linear	Unknown
67	Slight linear not shown on historic Ordnance Survey mapping	Linear	Unknown
68	A hollow and a feint linear are visible on LiDAR data but not shown on historic Ordnance Survey mapping	Linear	Unknown
69	Possible hollow way visible on LiDAR data	Linear	Unknown
70	Possible banks forming an enclosure are visible on LiDAR Data	Bank	Unknown
71	Linear not shown on historic Ordnance Survey mapping	Linear	Unknown

3.0 GEOPHYSICAL SURVEY

3.1 INTRODUCTION

An area of *c.*20ha was subject to a magnetometry survey. This area corresponded to the surveyable area of the Scheduled Monument at Ugbrooke Houses' Castle Dyke (SM no.1003846) and its extended SHINE (Selected Heritage Inventory for Natural England). The purpose of the magnetometry survey was to identify and record magnetic anomalies within the proposed site. While identified anomalies may relate to archaeological deposits and structures the dimensions of recorded anomalies may not correspond directly with any associated features. The following discussion attempts to clarify and characterise the identified anomalies. The survey was undertaken on the 6th and 17th of January 2025 by SWARCH personnel and the survey data was processed by J. Bampton. A brief site inspection was conducted across the site prior to- and at the time of the geophysical survey (see Section 3.3).

3.2 METHODOLOGY

The magnetometry (gradiometer) survey followed the general guidance as outlined in: *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/European Archaeological Council 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2020).

The magnetometry survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to *c.*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- and set out using a Leica CS15 GNSS Rover GPS. The data was downloaded onto Grad601 Version 3.16 and processed using TerraSurveyor64 Version 4.1.11.14. The primary data plots and analytical tools used in this analysis were Shade and Metadata. Details of the survey metadata can be seen in Table 2. Details of the data processing are as follows:

Processes:

DeStripe all traverses, median; used to equalise underlying differences between grids (potentially caused by instrument drift or directional effects inherent in magnetic instruments).

DeStagger all traverses out- and inbound by 0m (grids aa1-20, ma6-9, pc22, ps4); by -0.25m (grids ea1-12, eb1-13, ma1-5, ma10-15); by -0.5m (ja2-10, ja12-13, ja15-21, jc1, jc3-5, jc6-22, jc25-29, jc31-32, jd1-2, jd6-7, jd10-12, jd15, jd18-29, je1-3, je5, je7-16, jf1-22, jg1-13, pc1-21, pc23-26, pb1-13, ps1-3, ps5-12); by -0.75m (grids ja1, ja5, jb1-32, jc2, jc23-24, jd3-5, jd9-8, jd13-14, jd16, jd17, je4, je6, jg14-21, jh1-7); by -1m (ja11, ja14, ja22, jc30); reduces staggering effects within data derived from zig-zag collection method.

Clip +/- 1SD; removes extreme data point values.

TABLE 2: SURVEY DETAILS AND METADATA OF RESPONSE VALUES.

The Site: Area Surveyed (ha) 19.938					
Metadata:	**Max (nT)**	**Min (nT)**	**Standard Deviation (nT)**	**Mean (nT)**	**Median (nT)**
Raw Values:	98.46	-100.00	7.49	-0.10	-0.14
Adjusted Values:	123.27	-104.72	7.21	0.14	0.00
Values post-clipping at 1SD:	7.35	-7.06	2.76	0.12	0.00

3.2.1 Assessment of Methodology

The geophysical survey produced a usable and meaningful set of data and results. The magnetometry survey provided data that corresponded to discernible potential archaeological features, including historical features. Archaeological evaluation/excavation would test the efficacy and validity of the results of the geophysical survey and aid to confirm the presence or absence of any buried archaeology resource on the site.

3.3 Site Inspection

The site was visited by SWARCH personnel at the time of the accompanying geophysical survey between the 6th and 17th of January 2025. The site was predominantly under approximately ankle length grass that was used as sheep pasture. Fields 1-4 had been being used for grazing immediately prior to- and during the survey; field 5 had recently cut cover crop and revealed a stony topsoil; field 6 was a grassy meadow/pasture; and field 7 was under a meadow/crop and was not surveyable.

Field 1 was contiguous with field 2. Its north and east sides were relatively level, while its southern corner was a very steep south-west facing slope. Fields 2 and 6 contained topographic features that may have alluded to former field boundaries with possible associated platforms or terraces associated with the slope and possibly farming practices and field divisions. Occasional trees were located in association with these topographic features. Many of these features that were visible on the ground can be identified on LiDAR imagery of the site (Figures 40-42). Field 6 also contained an avenue of trees leading up to the internal enclosure of Castle Dyke and a steep coombe aligned approximately north-south. The coombe allowed a degree of drainage and areas of wet and boggy ground in the southern part of the field. Field 3 corresponded to the inner enclosure of Castle dyke and along with Field 4 it generally lacked distinct topographic features; although gentle and broad terraces seemed to compliment a gentle east facing slope and was ostensibly the natural undulation of the slope but could be associated with farming and ploughing across the slopes with possible lynchets (although extremely broadly spaced) or former internal boundaries. A modern concrete reservoir was located in the northern earthworks of Castle Dyke, adjacent to the field 3 fence line. The north-east corner of Field 4 contained an approximate right-angled ridge and area of possible made-up ground. Some fallen trees beyond the boundary in this corner of the site demonstrated the potential for very large tree-throws and disturbance of underlying mudstones/slates. Field 5 was lined on its south-east side by a large bank and track corresponding to a possible former ditch and the extended SHINE.

Supporting photographs for this section can be seen in Appendix 3.

3.4 Results

Table 3 with the accompanying Figures 4 and 5 show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 2.

TABLE 3: INTERPRETATION OF MAGNETOMETRY SURVEY DATA.

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Very weak to weak positive, probable	Linear	Ditches, boundaries, (or tracks)	Approximately 12 linear positive anomalies indicative of cut and in-filled features, such as ditches. Ostensibly equate to 6 sets of generally double ditched features, such as former boundaries with some areas of possible very weak negative responses indicative of bank material or compaction between parallel positive anomalies. Located in Fields 1, 2, 4 and 6. Parallel and perpendicular to-, and therefor probably associated with Groups 2, 26, 27 and 28. Mostly very straight anomalies, these anomalies are probably associated with post-medieval enclosures and tracks and may have been respectful of earlier tracks or boundaries in the landscape. Response strengths of <*c.*+10nT.
2	Very weak positive, possible and probable	Linear	ditches	4 examples of linear positive anomalies indicative of cut and in-filled features, such as ditches. These are mostly short and intermittent probable ditch-type features aligned parallel and perpendicular to Groups 1 and 26. Located in Fields 2, 4 and 6. Associated with Groups 1, 26, 27, and 28. Probably Medieval-modern in date. Response strengths of <*c.*+6nT.
3	Weak positive, probable	Curvi-linear	ditch	A curvi-linear anomaly lining the edge of the SHINE earthwork on the western side of the site (Fields 1 and 2). Indicative of a cut and in-filled feature, such as a ditch. Respects a large topographic feature and probably post-dates it and demonstrates the historical edge of the farmed fields. Associated with Groups 4, 5 and 6. Response strengths of <*c.*+10nT.
4	Very weak positive, possible	Linear	Ditch	An ephemeral and diffuse response that may be indicative of a cut and in-filled feature, such as a ditch or shallow ground disturbance. Can be extrapolated from the outside edge of the earthworks between Fields 1 and 2. Possibly a relict part of the extant Scheduled earthwork. Response strengths of <*c.*+5nT.
5	Weak positive, probable	Curvi-linear	Ditch	A curvi-linear anomaly extending from north of the outer Scheduled earthworks to the south-east and curving across Field 2 and then following an approximate contour towards the east corner of the field. Indicative of a cut and in-filled feature, such as a ditch. Also possibly crosses Group 8 at a corner and may be associated with Groups 1, 3, 4, 7, 8 12, and 14. Response strengths of <*c.*+8nT.
6	Weak negative, probable	Curvi-linear	Drain, bank	Curvi-linear anomaly running parallel to Group 3 and the extant outer Scheduled earthworks, on their inside in Field 2. Indicative of stony or compacted material, such as a track, drain or bank material. Associated with Groups 3 and 4. Response strengths of <*c.*-8nT.
7	Weak positive, probable	Linear	Ditch	An intermittent linear anomaly aligned approximately ENE-WSW across Field 2. Indicative of the cut and in-filled feature, such as a ditch. Approximately parallel to aspects of ploughing activity and possible tracks and boundaries and ditches represented by other groups. Associated with Groups 1, 5, 12 and 14. Response strengths of <*c.*+10nT.
8	Weak-moderate positive and occasional weak negative, probable	Linear, polygon	Enclosure ditch, boundary	Approximately 5 segments equating to 4 sides of a possible enclosure with a roughly hexagonal western end. Indicative of cut and in-filled features, such as a ditch with occasional associated negative responses indicative of possible compacted or stony material that may equate to former banks. The ends of this anomaly may respect extant boundaries and contours on its north and south sides. The south-west segment, aligned north-west by south-east, may also be represented on a 19th century site plan drawn by Orlando Hutchinson (Figure 10). Possible features associated with this anomaly group are represented by Groups 9, 1, 11, 12, 15 and 16, as well as other nearby and ''inter-cutting/-crossing'' anomaly groups. Response strengths of <+16nT and <-8nT.
9	Moderate positive, probable	Linear, polygon	Enclosure, ditch	Three lengths in Field 2 of an anomaly indicative of a cut and in-filled feature, such as a ditch. Defines a possible enclosure within another enclosure defined by Group 8. Its respective ends may be contiguous with Groups 10 and 11. Possibly associated with Group 15 and other adjacent/near-by features. Response strengths of <*c.*+12nT.
10	Moderate positive and weak negative, probable	Linear	Ditch, boundary, historical	Linear positive and negative response aligned north-east by south-west in Field 2. May be contiguous with part of Group 9 or 8. Indicative of a cut and in-filled feature, such as a ditch; with an associated negative response that may indicate former bank material or compacted ground. Possible associated with a kink in the ''Advanced Earth Works'' as recorded in the 19th century by Orland Hutchinson (Figure 10) Associated with Groups 8 and 9. Response strengths of <*c.*+18nT and <*c.*-10nT.
11	Weak-moderate positive and associated negative, probable	Linear/ recti-linear	Ditches, boundary	Two linear anomalies aligned approximately north-south forming a possible rectangular enclosure or area with part of Group 8 in Field 2. Indicative of cut and in-filled features, such as ditches and/or shallow ground disturbance that may include bank or possibly track material. Possibly contiguous with Group 9 and associated with Groups 8, 9, and 12. Response strengths of <+12nT and *c.*-5nT.
12	Weak positive, probable	Curvi-linear	Ditch	Intermittent linear and curvi-linear anomalies indicative of a cut and in-filled feature, such as a ditch. Located in Field 2 Possibly associated with a confluence or nodal point of anomalies, where Groups 8, 9 and 10 meet. Also associated with Groups 5, 7 and 14. Response strengths of <c.+10nT.

13	Weak positive, probable	Slight curvi-linear	Ditch	Slight curvi-linear anomaly aligned approximately ENE-WSW in Field 2. Indicative of a cut and in-filled feature, such as a ditch. Associated with Groups 8, 11, 12 and 14. Response strengths of <c.+7nT.
14	Very weak positive, possible	Diffuse linear	Ditches or ploughing activity	Three segments of ephemeral and diffuse linear anomalies indicative of cut and in-filled features, such as ditches or ploughing activity; although on a slightly different alignment to the predominant modern ploughing activity. Possibly associated with relict boundary and ploughing or drainage directions. Thus parallel to- and perpendicular with aspects of Group 1, 5, 7, 13 and 12. Response strengths of <c.+4nT.
15	Very weak positive, possible	Curvi-linear, partial ring	Partial ring-ditch, roundhouse	Diffuse weak response indicative of shallow ground disturbance or a cut and in-filled feature, such as a ring-ditch for a possible prehistoric roundhouse. Only the northern, up-slope half of this a potential ring-ditch is present in the survey data, which may allude to poor survival or truncation of a potential associated feature. Located on the south side of Field 2, within possible enclosures defined by Groups 8, 9, 11 and 12. Response strengths of <c.+5nT.
16	Weak positive, possible	Linear	Ditch	Approximately 3 intermittent linear responses including a roughly right angled return. These are indicative of cut and in-filled features such as ditches and may demonstrate a parallel ditch to part of Group 8 and a possible entrance way or area of ground disturbance. Response strengths of <c.+7nT.
17	Weak positive, possible	Curvi-linear	Ditch	Intermittent responses indicative of a cut and in-filled feature, such as a ditch, that may split in to two ditches at its northern end. This would define an enclosure within the inner enclosure of the Scheduled monument (Field 3). Response strengths of <c.+7nT.
18	Very weak positive, possible	Linear	Ditch	A very ephemeral anomaly indicative of a cut and in-filled feature, such as a ditch, or ploughing activity, or shallow ground disturbance. Aligned approximately north-east by south-west in Field 3. Although this is at odds to the majority of ploughing evident in the data set, it is possible perpendicular to some aspects of possible ploughing or shallow ground disturbance. This may indicate a modern agricultural reason for this anomaly. Associated with Group 2 and ploughing activity. Response strengths of <c.+5nT.
19	Weak positive, probable	Linear	Ditch	Segments of a linear anomaly aligned north-west by south-east that is indicative of a cut and in-filled feature, such as a ditch. This probable ditch runs along the line of- and between the avenue of trees leading up the hill fort from Ugbrooke House, on the east side of Field 6. Associated with extant boundaries. Response strengths of <c.+8nT.
20	Weak positive, possible	Linear	Ditches, geology, drainage, ground disturbance	Two linear anomalies aligned approximately east-west in Field 6 and leading into the edge and/or the base of the extant coombe in the field. These are indicative of cut and in-filled features, such as ditches; but may also allude to naturally silted-up channels/paleaochannels. This coombe is also known to have been subject to groundworks that entailed stripping of soil and deposition of silt in the 1990s. This material/groundwork was subsequently reversed: the instated ground being removed. Such groundworks may have left evidence of ground disturbance in the geophysical record, such as spreads, platforms or channels/trench-lines or terraces. Some aspects of Group 25 may equate to equivalent features. Possible associated with Groups 1, 2, 21 and 25. Response strengths of <c.+10nT.
21	Weak-moderate positive and negative, possible	Rectilinear	Platforms, ground disturbance	Two areas of mixed response that may indicate cut and fill activity resulting in responses similar to both ditches and deposits. Located in both the wet and boggy ground of Field 6 and the area subject to groundworks in the 1990s, these responses are most likely associated with modern groundworks and/or deposits. Associated with Groups 20 and 25. Response strengths of <c.+/-6nT (northern example) and <-25nT and +12nT (southern example).
22	Moderate positive, possible	Linear	Ditch, agricultural activity	Intermittent, short linear response aligned north-east by south-west in the south corner of Field 4. Indicative of a cut and in-filled feature, such as a ditch. Generally comparable to Group 2 and ostensibly perpendicular to a Group 1 anomaly in the same area, but also possibly parallel to predominant ploughing activity. Associated with Groups 1 and 2 and ploughing activity. Response strengths of <c.+19nT.
23	Very weak-weak positive, possible	Amorphous/ linear spread	Spread, ground disturbance	Two anomalies in the south of Field 4, adjacent to- and possibly respecting a Group 1 anomaly. Indicative of a possible deposit within slight hollows or areas of ground disturbance. Possibly associated with the more distinct discrete features of Group 35 that may represent tree-throws. Response strengths of <c.+5nT and +9nT.
24	Weak positive and negative, probable	Amorphous/ linear spread	Extant bank/ridge material, natural features	An area equating to the existing steep bank and ridge-line along the northern edge of Field 6. Some of the negative and positive responses are relative to one-another; although the southern linear negative responses are indicative of the ridges lower break of slope and aspects of more positive responses towards the top of the bank may be indicative of deposited material of tree-throw-type features. This area is considered to probably be natural/geological in nature with some possible ground disturbance. Response strengths of <c.+10nT and -8nT.
25	Weak positive and negative, probable	Sinuous curvi-linear spreads	Geological variation, palaeochannels associated with coombe	A series of sinuous curvi-linear spreads indicative of probable silted-up palaeochannels and underlying geological variation associated with the extant coombe and topography in Field 6. Includes a negative linear response along the base of the coombe that may equate to a drainage feature or a relative response associated with flanking positive responses associated with the bank and colluvial/alluvial deposits across the base of the coombe. Associated with Group. 20, 21 and 32. Response strengths of <c.+/-10nT.

26	Weak-moderate positive and negative, probable	Curvi-linear	Historical track	Parallel positive anomalies flanking a negative response across Fields 1, 2 and 4. Typically, similar anomalies are indicative of former boundaries with ditches flanking a former bank. However, in this instance the intermittent and occasionally diffuse and broad negative responses and variable positive responses appear to represent compacted or stony/gravelly track material and possible flanking ditches or worn/rutted lengths of ground. The slightly irregular consistency in response may indicate ground disturbance associated with a track as opposed to deeper cut and in-filled boundary ditches. This Anomaly group equates to a track that is represented on estate maps from 1740 and the 1770s. The track is represented less distinctly across Field 4 on the later mapping; although, it is still present. By the time of the early 19th century Surveyor's draft map for the area the track appears to have shifted from the south-side of the inner enclosure to run through the enclosure. On later mapping and aerial photography from the late 19th century and mid-20th century trees are depicted following this route-way/track, particularly clearly across Field 2. Continuity of these features is evident on modern satellite imagery. Anomalies of possible relict field systems in the dataset may respect and be associated with this Group. Associated with Groups 1, 2 and 27. Response strengths of <c.+14nT and c.-5nT.
27	Moderate positive and very weak negative, probable	Linear	Historical boundary	Parallel linear positive anomalies flanking a negative response; indicative of a typical Devon field boundary with ditches flanking possible compacted ground or former bank material. Aligned approximately north-south in Field 2. Ostensibly equates to a boundary depicted on estate mapping from 1740. This boundary is depicted running approximately south from a track (Group 26) and to the south-east end of the banked and ditched section of the outer earthworks to the Scheduled monument on this side of the site. Associated with groups 1, 2 and 26. Response strengths of <c.+18nT and c.-4nT.
28	Very weak positive, probable	Linear	Historical boundary ditches	Intermittent parallel linear anomalies indicative of cut and in-filled features, such as ditches. Aligned north-west by south-east in Field 1. Equates to a boundary as depicted on 18th and 19th century mapping and 20th century aerial photography. A boundary in this location is absent from 21st century satellite imagery. Associated with and comparable to Group 1. Response strengths of <c.+4nT.
29	Moderate positive, probable	Linear	Ditch, service, drain	Indicative of a cut and in-filled feature, such as a ditch. This response is stronger than most of the examples in the dataset and is very straight and suspiciously aligned with a length and bend in the modern service on the site represented by Group 30. Aligned north-east by south-west in Field 1. Possible a drainage ditch or soak-away associated with a service pipe junction for Group 30. However also perpendicular to Group 28 and possibly associated with ditches and field systems represented by Groups 1, 2 and 28. Response strengths of <c.+20nT.
30	Very strong bipolar, probable	Linear	Modern service	Running across the north sides of Fields 1, 2 and 3 this anomaly is indicative of a modern, possibly metallic service or within a trench in-filled with modern material, concrete or debris. It runs between gateways in Field 1 and between Fields 2 and 3. It runs to a modern concrete structure located just north of the Field 3 survey boundary within the earthworks of the monument and includes a length of non-metallic pipework in Field 3. This may be associated with a gravity fed service. Associated with Group 29. Response strengths of <c.+/-100nT.
31	Moderate mixed, probable	Linear/ curvi-linear	Trackway (extant)	Alternating positive and negative linear anomalies along the south-east edge of the site/survey area. Indicative of possible track deposits and shallow ground disturbance associated with vehicles and possible drainage channels and landscaping for an extant track. This runs between field access points in Field 6 and along the south-east edge of Field 5, just above the SHINE. Response strengths of between <c.+/-10nT and +/-20nT.
32	Bipolar, probable	Linear	Modern drainage	Located in the southern tip of Field 6 at the mouth of the coombe in the field. A large plastic drainage pipe was visible in the ground in this approximate location that would allow for drainage from the field and coombe to run under the tracks along this side of the site. Response strengths of between <c.+80nT and -10nT.
33	Weak positive, possible	Linear	Drainage, ditch, ploughing	One of a pair of parallel linear anomalies with Group 34, one negative and one positive running straight north-west by south-east. These are indicative of possible intense ploughing or a ditch and possible stony drain. These are parallel with and very likely associated with the modern/more intense ploughing of the site (e.g. green lines on Figure 5). Response strengths of <c.+7nT.
34	Weak negative, possible	Linear	Drainage, ditch, ploughing	One of a pair of parallel linear anomalies with Group 33, one negative and one positive running straight north-west by south-east. These are indicative of possible intense ploughing or a ditch and possible stony drain. These are parallel with and very likely associated with the modern/more intense ploughing of the site (e.g. green lines on Figure 5). Response strengths of <c.-7nT.
35	Moderate positive, possible	Oval	Tree-throws, pits, geological variation	An extremely large number of examples of positive responses are present across the site, particularly Fields 1, 2, 3 and 4, with some outliers in Field 5. These are represented in orange in Figure 4. These are indicative of cut and in-filled features such as pits or tree-throws. Typically weaker examples may be presumed in cases to have natural origins, but essentially small discrete features can be indistinguishable from some man-made features or natural variation. In this instance these responses include, oval shapes and in some cases 'kidney-bean' shapes and faint rings. These can be assigned to typical tree-throw formations. Extant tree-throws and fallen trees can be seen in the site boundaries and illustrate the potential for relatively large pit-type shapes over 5m across and deep enough to disturb the underlying geology. Although there are sporadic instances of this anomaly group, some patterns and concentrations can be identified: on the north side of Group 26 in Field 2; lining the outer edge of the inner enclosure earthworks; in the vicinity of Group 15 and possible relict enclosures on the south side of Field 2; along the line of a probable former ditch (Group 17) in Field 3; a small patch possibly corresponding to a copse in Field 4, represented on late 18th century mapping

				attributed to Capability Brown and late 19th century OS mapping and mid-20th century aerial photography; and finally a broad swathe along the line of Group 26 in Field 4, which corresponds to an ostensibly heavily wooded area represented on late 18th century mapping and subsequent sources up until after 1946. The OS revision from 1955 indicates that Field 4 had been cleared of its woodland. Response strengths of <c.+21nT (typically *c.*+15nT).
Other anomalies				
-	Moderate-strong dipolar, probable	Point/ ovoid	Geology/ Ferrous objects/debris	Black crosses in Figure 5. The site has a relatively frequent number of dipolar responses. The strongest examples are indicative of ferrous objects that are typically presumed to be modern, such as machinery fragments or modern debris/features. Similar and weaker responses can be indicative of geological features/anomalies. These are highly probable to be non-archaeological or modern in nature. Responses of <*c.* +/-100nT.
-	Magnetic disturbance, probable	Linear/ amorphous spread	Magnetic disturbance	Hachured areas in Figure 5. Typically these types of response are near the edges of sites and fields due to the magnetic disturbance from fence lines as well as areas of debris and farm/modern equipment. In this instance, these responses are primarily associated with fence lines on and around the site. Three other patches of this response of note are a patch of probable ground disturbance between Field 2 and the western access to Field 3; a rectilinear platform of made-up or disturbed ground near the north-east access/corner to Field 4; and an area of ground disturbance in the west corner of Field 6 that could be indicative of silt or other modern ground disturbance. Responses of <+/-100nT.
-	Very weak-weak, positive and negative, probable	linear	Plough lines/scars	These are evident in the greyscale shade plots of the survey data and examples of these are represented by green lines in Figure 5. Within range of probable natural variation. Intermittent linear responses indicative of shallow ground disturbance such as agricultural activity; specifically ploughing. In this instance these generally run parallel and perpendicular to both slopes and boundaries. Evidence of this is also visible in satellite- and LiDAR imagery of the site. Responses of <*c.*+/-2nT.

3.5 Discussion

3.5.1 Overview

The geophysical survey identified 33 anomaly groups comprised of between 60 to 70 larger anomalies (depending on how one defines broken or intermittent linear anomalies) and *c.*230 discrete anomalies associated with possible tree-throws or similar features. These anomaly groups were indicative of: three examples of probable historical field boundaries (Groups 27, 28 and 34); *c.*10 examples of possible relict field system and ditches associated with the historical field system (Groups 1 and 2); a historical trackway (Group 26); a ditch associated with the extant avenue of trees on the east side of Field 4 (Group 19); four probable ditches and features associated with the extant outer earthworks of the Scheduled Monument (Groups 3, 4, 5 and 6); *c.*15 possible ditches associated with enclosures and additional features in Field 2 (Groups 7, 8, 9, 10, 11, 12, 13, 14 and 16); a possible partial ring-ditch within the area of possible enclosures in Field 2 (Group 15); a probable ditch defining a possible internal or earlier enclosure within the inner earthwork of the monument/Field 3 (Group 17); an ephemeral possible ditch segment in Field 3 (Group 18); modern features and activity including services and drainage (Groups 29, 30 and 32), an extant trackway (Group 31), modern ploughing and/or drainage (Groups 33 and 34), and two rectilinear areas of possible modern ground disturbance (Group 21); areas of geological variation including across and extant bank (Group 24), and a coombe (Group 25); and *c.*232 examples of discrete anomalies including two possible spreads or areas of ground disturbance, and *c.*230 possible tree-throws or similar features, such as pits (Group 35). Anomalies indicative of magnetic disturbance or debris, and agricultural activity including ploughing were also discernable in the survey data.

The general 'noise' (inherent geological variation) of the site was relatively consistent and moderate-low across the site, *c.*+/-2nT, with very occasional low fluctuations/spikes <*c.*+8nt and -4nT. Anomalies of a comparable strength are probably/possibly natural and/or geological in nature. The direction of perceived ploughing and agricultural activity in the geophysical data is both what one might expect and is corroborated by satellite and LiDAR imagery of the site.

3.5.2 Probable Modern Anomalies

Groups 29-33 all represent probable modern features and activity on the site including a service pipe, a trackway, modern ploughing, or drainage. Some of these, such as Groups 30, 32 and parts of 31 have visible evidence on the ground of their existence. The track (Group 31) was also depicted on mapping from 1740 (Figure 6) and its presence as a farm/field side rutted earth track in Field 5 is all that generally remains. Other anomalies probably associated with modern activity include a pair of approximately rectilinear anomalies (Group 21) in an area that was subject to groundworks in the 1990's (see Appendix 3, photo #1). The ground here was partially stripped and made-up before being reinstated to its original levels due to being within the existing Scheduled area of the site. Although these may represent ground disturbance or other activity in this part of the site, it seems probable that is associated with the known works to have occurred in this area.

3.5.3 Anomalies Associated with Cartographic Sources (Possible Historical Anomalies)

A large number of the anomaly groups are associated with the historical field-scape and trackways across the site: Groups 10, 26, 27, 28, 34 and part of Group 8 directly; and Groups 1, 2 and 19 by association based on form and orientation. Both Group 10 and aspects of Group 8, although represented on historical mapping also correspond to extant topographic features, which may simply suggest that they were evident and utilized/respected at various later dates. Group 35 is probably representative of wooded areas as shown on historic mapping.

Groups 26, 27 and 28 were all represented on mapping from 1740 (Figure 6); Group 27 shown as a boundary and the other two shown as tracks/routeways. The tracks were shown on later 18th century mapping, ostensibly by Capability Brown (Figure 9). Early 19th century OS mapping (Figure 8) indicates that the track that once ran around the southern edge of Castle Dyke (Group 26) may

have been superseded by a track cutting through the Castle Dyke. Subsequent OS mapping from the late 19th century (Figures 11 and 12) depicts the site as relatively open, although with wooded areas and lines of trees denoting possible different fields and routeways around the site. In the 20th century the OS mapping starts to denote boundaries along these tree-lined and wooded areas; defining the internal partitions of the site. Although absent from the OS 1st edition, *c.*1887, but alluded to by tree-lines, the tracks associated with Groups 28 and the western half of Group 26 (across Fields 1 and 2) were depicted through the 20th century on OS mapping. The eastern length of Group 26, across Field 4 ostensibly became less well defined and ceased to be maintained or used.

Group 34 represents an ephemeral response that equates to a field boundary depicted on a 1950s OS revision (Figure 15) and removed in the later 20th century.

Groups 1 and 2 are indicative of ditch-type features, particularly a number of double ditch-type features, such as former boundaries. Their similarity in form and relative orientations indicate that these may have been part of the field system that overlapped in date to that depicted on the 1740s mapping. This ''park''-land associated with Ugbrooke House may have been subject to enclosure or partial enclosure prior to- or after the 1740 mapping with the extant field system and boundaries only slightly rectifying the field system. It general the boundaries across the site appear to respect the sites topography and the large standing earthworks of the Scheduled hillfort. The historical tracks (Groups 26 and 28) respect the contours and topography of the site as well as the Castle Dyke inner- and outer earthworks. However, the boundaries (Groups 1 and 27) and respecting ditches (Group 2) appear to run off these features and are very straight; indicative of post-medieval to modern enclosure.

Group 10 and a segment of Group 8 may also correspond to historically recorded aspects of the site. A 19th century plan of the site by Orlando Hutchinson (Figure 10) depicts a kink in the "Advanced Earth Works". This kink ostensibly equates to Group 10 and the south-west segment of Group 8. This angular formation defines a rough platform topographic feature with a copse of trees at its north end extant on the site at the time of the survey. Another slight platform may have been present on this slope, just to the east in the interior angle of part of Group 11. These historical aspects associated with Group 8 and 10 features may allude to a relatively recent date for associated enclosures with these anomalies. However, it seems as likely that any recent boundaries or features may have respected surviving and partially relict earthworks and topographic features associated with the hillfort. The kink defined by Group 10 and part of Group 8 may represent an original feature associated with the outer earthworks of the site.

The cartographic sources generally depict avenues of trees and/or wooded areas across the site; although with definite concentrations along boundaries, tracks and the northern part of the site. The Group 35 anomalies are indicative of pit-like features, such as man-made pits and tree-throws and in some cases geological variation. Although this anomaly group does not have a particularly strong geophysical response, it is comparable to other identifiably probable archaeological anomalies. In this case, the majority of these responses seem concentrated along the line of the probable trackway of Group 26, which corresponds to the most wooded areas as depicted in the cartographic record. Group 35 even includes a patch that ostensibly corresponds to a copse of trees depicted on OS mapping in Field 4. Group 35 also includes shapes that are typical of tree-throws, including slight kidney-bean shaped anomalies and diffuse ring-shaped anomalies. Although this anomaly group could include pits, it seems very probable that this group demonstrates tree-throws associated with a woodland, which may have begun to be cleared systematically after the war. Aerial photography from 1946 shows the site as still largely wooded in continuity with the earlier mapping; although OS mapping from the 1950's depicts Field 4 as cleared of woodland.

3.5.4 Anomalies Associated with the Outer Earthworks

Adjacent to the outer earthworks of the current Scheduled Monument were a series of associated linear and curvilinear anomalies. Group 3 probably directly corresponds to a ditch skirting around the edge of the earthworks. This may define the typically farmable limit of the fields up to the edge of the monument or additional drainage wrapping the monument.

Group 4 depicts a possible extension to the earthwork, although its relatively weak and diffuse nature is not what one might expect from a major earthwork and it seems probable that the current end of the earthwork is an original limit. Periodic extensions to this boundary or drainage tied into the earthworks ditches may account for a possible cut and in-filled feature, such as a ditch, associated with Group 4.

The Group 5 anomaly also extends the probable ditch and boundary associated with the outer earthworks; however, it also appears to turn and extend eastwards approximately half-way down the slope of the site to potentially define separate enclosures or defensive lines within the area between Castle Dyke and the outer earthworks.

Group 6 is a negative response running parallel to- and on the inside of the outer earthworks. This form of response typically indicates an area of compacted or stony ground and can be associated with former boundary banks, tracks and stone-lined/filled drains. Group 6 ostensibly meets at a confluence of historical anomalies, Groups 10 and 27, and is possibly associated with post-medieval activity associated with these.

3.5.5 Possible Enclosures and Field Systems between the Inner and Outer Earthworks

Between the inner and outer enclosures of the Scheduled Castle Dyke, in Field 2 were a large concentration of anomalies indicative of enclosures, field systems and possibly settlement activity. These include Groups 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16, as well as elements of Group 35. Some of these may have been contemporary with the hillfort, while others could be modern. It is particularly difficult to attempt to date these potential features because surviving aspects and modifications to the original hillfort may have been respected by later features.

Group 8 forms a polygonal enclosure that respects a historical track and boundary at its north end and on its south-west side probably corresponds with an earthwork depicted on a mid-19th century plan of the site (Figure 10). Groups 8, 9, 10 and 11 all form a series of straight sided polygonal enclosures and areas of slight platforms in the corners of Groups 8 and 10 and Group 11. These anomalies are associated with earthworks included on the HER (MDV37463). Group 16 may represent internal features near the edge of a Group 8 enclosure. Parts of the Group 8 and 10 anomalies respect and/or define a possible defended access through the outer earthworks of the monument and have been speculatively associated with possible civil war modifications at the site by Hutchinson in the 1850s and 1860s (see Figure 10; MDV9008). Although these features and anomalies might be associated with civil war defences, which is not uncommon at other anciently defensible sites (e.g. Penstowe Castle, 1003079; Pendennis Castle, 1270096; Castle Dore, 1006691); it may be noteworthy that Lysons (1822) does not mention this.

The curvilinear probable ditches of Groups 12 and 13 may define earlier enclosures in the same location and may be comparable to- and associated with the probable ditch of Group 5. Groups 7 and 14 ostensibly represents ditches that may be associated with a contemporary field system to Groups 12, 13 and 5, due to running parallel and perpendicular to each other.

Group 15 may represent a partial ring-ditch to a possible prehistoric roundhouse within the enclosures. This could represent an Iron Age ring-ditch, but it does have a relatively broad and diffuse response that may indicate a partial sunken featured aspect on its upslope side, which may

be indicative of a Bronze Age structure. This anomaly may or may not be associated with one or more of the possible enclosure ditches identified near to it.

3.5.6 Anomalies within the Inner Earthwork

Inside the inner enclosure of the Scheduled Castle Dyke (Field 3) is a curvi-linear anomaly indicative of a ditch defining the higher, south-west side of the enclosure (Group 17). This response is not particularly substantial and may not represent a large defensive earlier earthwork; although it may define a drainage channel, internal boundary division to the enclosure, or possibly an earlier hillfort or initial hilltop enclosure that was levelled and replaced. Some of the Group 35 anomalies seem to be present on the line of this probable ditch, which may indicate a former wooded boundary; or as these discrete anomalies are located near to each other on the east side of the probable ditch, perhaps they indicate features associated with a former entrance to the enclosure.

Group 18 represents a very ephemeral segment of a possible ditch, which may be indicative of modern agricultural activity or an undated ephemeral feature.

3.5.7 Natural and Geological Anomalies

In Field 6 were Groups 24 and 25, which correspond to the extant topographic features on the site: the bank/ridge on the north side of the field; and the coombe running approximately north-south through the field. A number of probable palaeochannels and geological variation associated with the coombe are also discernible in the dataset.

Although aspects of the discrete Group 35 anomalies (possible tree-throws or pits) have been discussed in relation to the possible Group 15 structure, probable Group 17 ditch and along the line of the Group 26 historical trackway; they ostensibly represent a mix of naturally occurring woodland and trees and managed and landscaped tree-planting as represented on the historic mapping. The possibility of some of these anomalies representing pits or geological variation remains. The landscaped tree-planting on the site, such as avenues of tees along routeways is/was ostensibly post-medieval to modern in date. Any naturally seeded woodland was ostensibly after the typical use-life of the hillfort as a wooded slope, such as in Field 4 would hinder the vantage points and defensive nature of the monument.

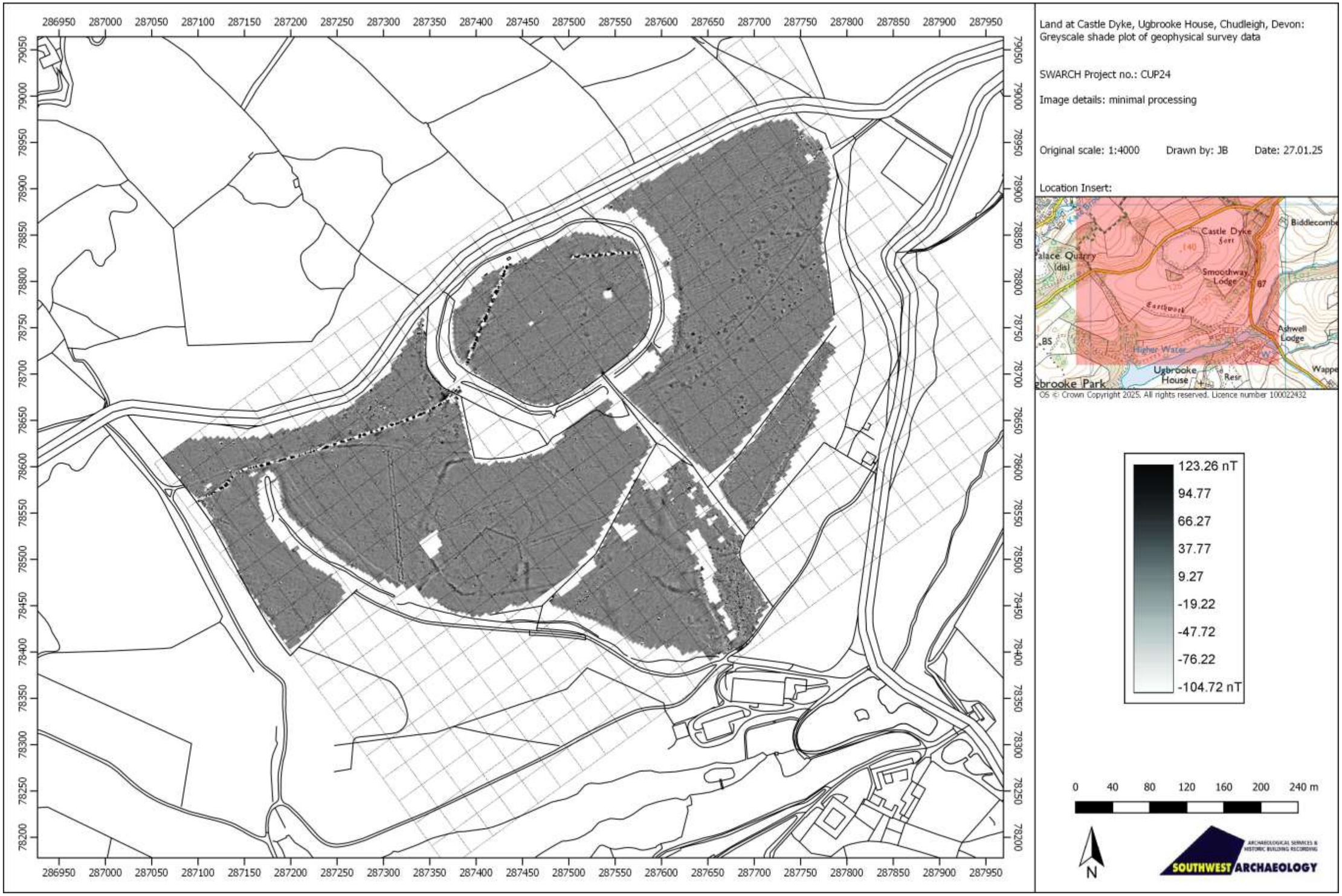

FIGURE 4: GREYSCALE SHADE PLOT OF MAGNETOMETRY SURVEY DATA; MINIMAL PROCESSING.

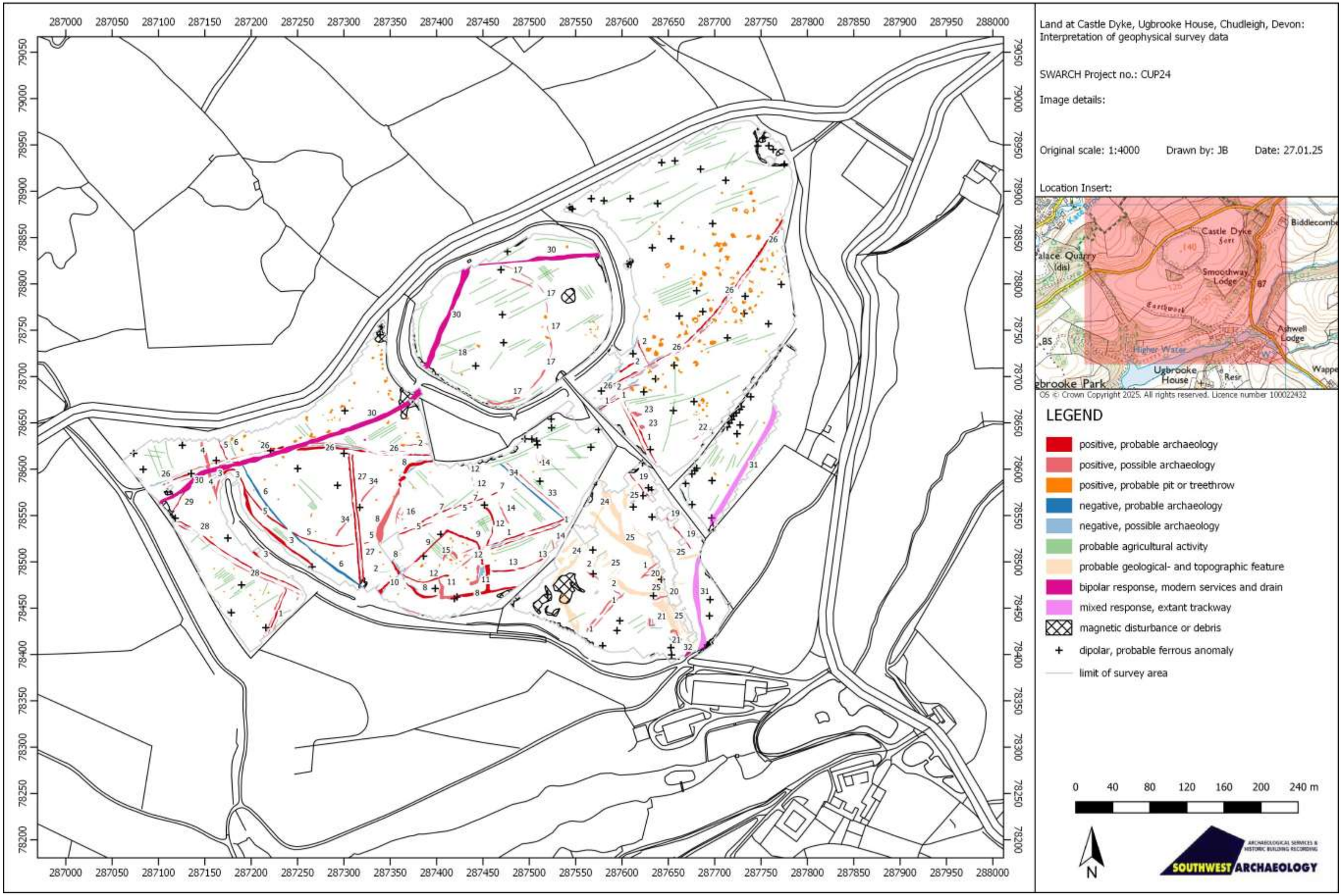

FIGURE 5: INTERPRETATION OF MAGNETOMETRY SURVEY DATA.

4.0 CONCLUSION

4.1 CONCLUSION

The site is located at the Grade II* Listed Registered Park and Garden of Ugbrooke Park, Chudleigh; this includes an area of geophysical survey at the Scheduled Castle Dyke Camp hillfort (SM 1003846). Castle Dyke is a univallate Iron Age hillfort, which includes an outer earthwork defining an inner- and outer enclosure. In the early 11th century Chudleigh was the site of a palace for the bishop of Exeter and a house and lands at Ugbrooke are recorded in the 13th century. This property eventually passed from the church through private ownership to the Clifford family in 1604. The current Grade I Listed House was built and modified from the 18th century onward with later outbuildings and an adjacent 17th century former house and chapel. In the late 17th/early 18th century the park and woodlands were improved, which included instatement of avenues that can be seen on mapping from 1740. Major remodelling occurred in the mid and late 18th century and the early 19th century. 1950's mapping depicts subdivisions of fields in and around the park, including at the hillfort.

Desk Based analysis including processing of LiDAR data was carried out for the defined study area. This recorded 71 features of Prehistoric to modern date – some, such as the hillfort and outwork are already recorded and designated as heritage assets. The majority of features relate to boundaries or paths/tracks of likely post medieval or modern date within the parkland. A number of probable quarries have also been identified.

The geophysical survey identified 35 anomaly groups comprised of between +/- 60 to 70 anomalies (depending on how one defines broken or intermittent linear anomalies) and *c.*230 discrete anomalies associated with possible tree-throws or similar features.

The most noteworthy aspects of the geophysical survey results are:

1. The presence of an internal curvilinear feature to the inner enclosure of the Monument.
2. The absence of other clear and distinct anomalies within the inner enclosure of the Monument.
3. Some improved clarity regarding the earthworks and potential enclosures between the inner and outer enclosures of the Monument associated with HER entry (MDV37463).
4. A possible ring ditch that may indicate a prehistoric structure between the inner and outer enclosure and possibly associated with other possible enclosures.
5. Relict field systems that seem to be associated with historical features and boundaries.
6. Possible tree-throws associated with the wooded nature of parts of the site as depicted on historic mapping. However, these may obfuscate possible pit-type anomalies of a more significant archaeological nature.

These anomalies cannot generally be dated. However, it seems likely that many of the curving anomalies associated with the inner and outer earthworks are either broadly contemporary with the Iron Age hillfort, or respect and are associated with later modifications to the hillfort. It is not impossible that some ditches and a possible structural ring-ditch pre-date the hillfort. The site is in the area of an ecclesiastical estate from the 11th century, with a house recorded at Ugbrooke from the 13th century; therefore, it is possible that the land including and around the Monument was a park in the Medieval sense and may have lacked sub-enclosure and been wooded at times. The majority of relict field systems and historic field systems represented on the site include straight sided boundary-type anomalies and are presumed to be Post Medieval in date. Although it utilises and respects the Monument earthworks, the polygonal enclosure on the site and its associated aspects that form an access through the outer earthworks are of unknown date; the assertion that they may be associated with civil war era modifications (MDV9008) is a possibility, but this is likely to require intrusive archaeological investigation to further determine.

4.2 Recommendations for Potential Further Works

The LiDAR analysis recorded a number of potential archaeological features within the study area; of notable interest and priority in ground truthing is the identification of a possible enclosure in the north eastern area of the parkland, north east of Home Farm; and possible platforms in the location of buildings shown on the tithe map, in the central area of the parkland, east south east of Ugbrooke House. Other features documented would also benefit from ground truthing before being recorded as of archaeological in origin in the historic environment record.

Further archaeological works at the site may include intrusive investigations to better understand the geophysical survey outside of the current Scheduled area and prior to any potential extension to the Scheduled area associated with the SHINE area. The area defined by the SHINE may be appropriate for Scheduling. Further archaeological works in the form of archaeological excavation or evaluation trenching would test the efficacy of the survey results, validate and clarify the results, and aid to confirm the extent, condition and significance of any buried archaeology resource on the site.

Due to the Scheduled nature of the site and the commercial visitor attraction of Ugbrooke House, a public engagement scheme to better understand the area around the Monument could be an effective way to promote the estate, provide public benefit and enrich the archaeological record.

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Ordnance Survey 2nd edition, 25 inch map, Sheet: Devon CXXIV.8, revised 1892, published 1895

Ordnance Survey, 1930s revision, 25 inch map, Sheet: Devon CXXIV.8, revised 1933, published 1935

Ugbrooke Estate (source: the Client via the Agent)

Capability Brown plan of Ugbrooke park

Peter Orlando Hutchinson sketch of Castle Dyke, *c.*1853

William Doidge 'Plan of the Barton of Ugbrooke…', 1740

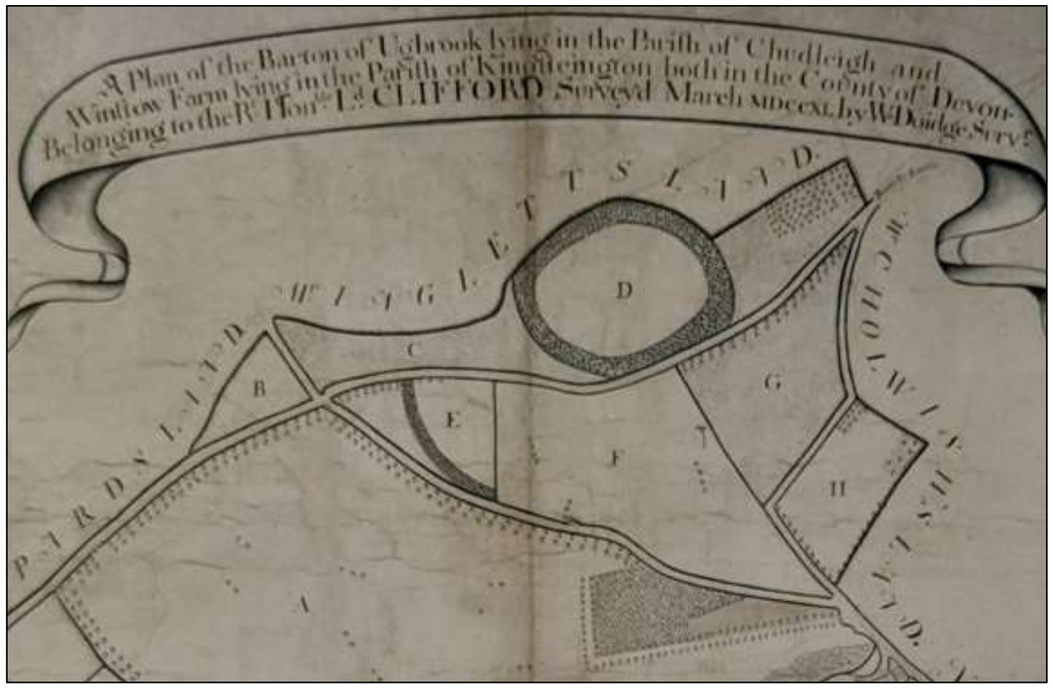


FIGURE 6: EXTRACT FROM 1740 WILLIAM DOIDGE MAP SHOWING THE AREA SUBJECT TO GEOPHYSICAL SURVEY AROUND CASTLE DYKE.

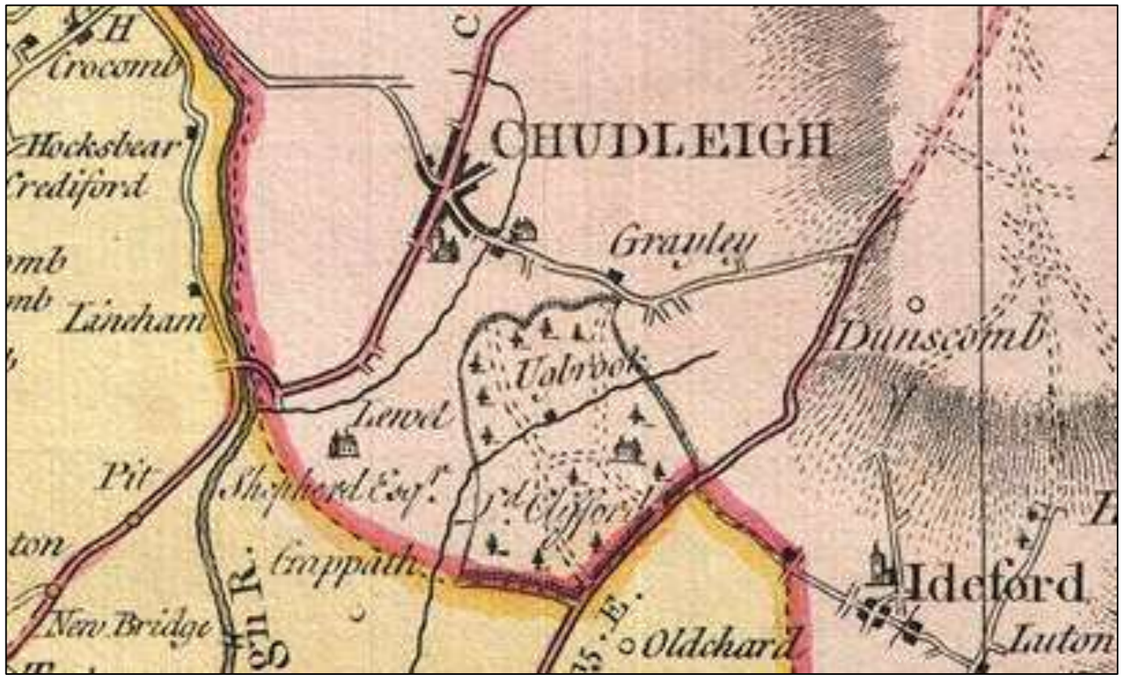


FIGURE 7: EXTRACT FROM DONN'S MAP 'A MAP OF THE COUNTY OF DEVON, WITH THE CITY & COUNTY OF EXETER.' 1765

FIGURE 8: EXTRACT FROM THE 1801 SURVEYORS DRAFT MAP FOR EXMOUTH (BL)

FIGURE 9: EXTRACT FROM AN UNDATED PLAN BY CAPABILITY BROWN SHOWING THE AREA SUBJECT TO GEOPHYSICAL SURVEY AROUND CASTLE DYKE

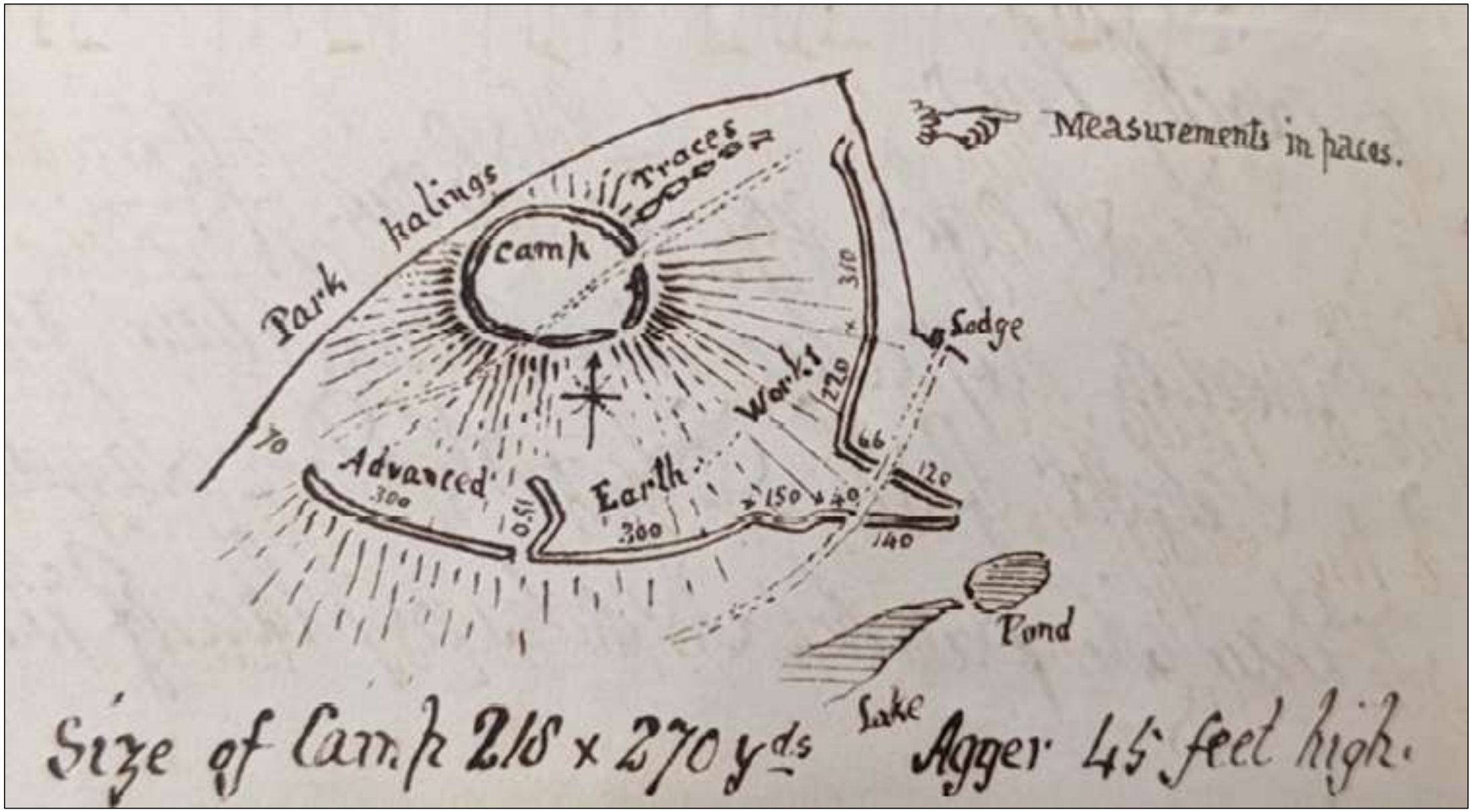


FIGURE 10: SKETCH OF CASTLE DYKE ATTRIBUTED TO PETER ORLANDO HUTCHINSON 1853.

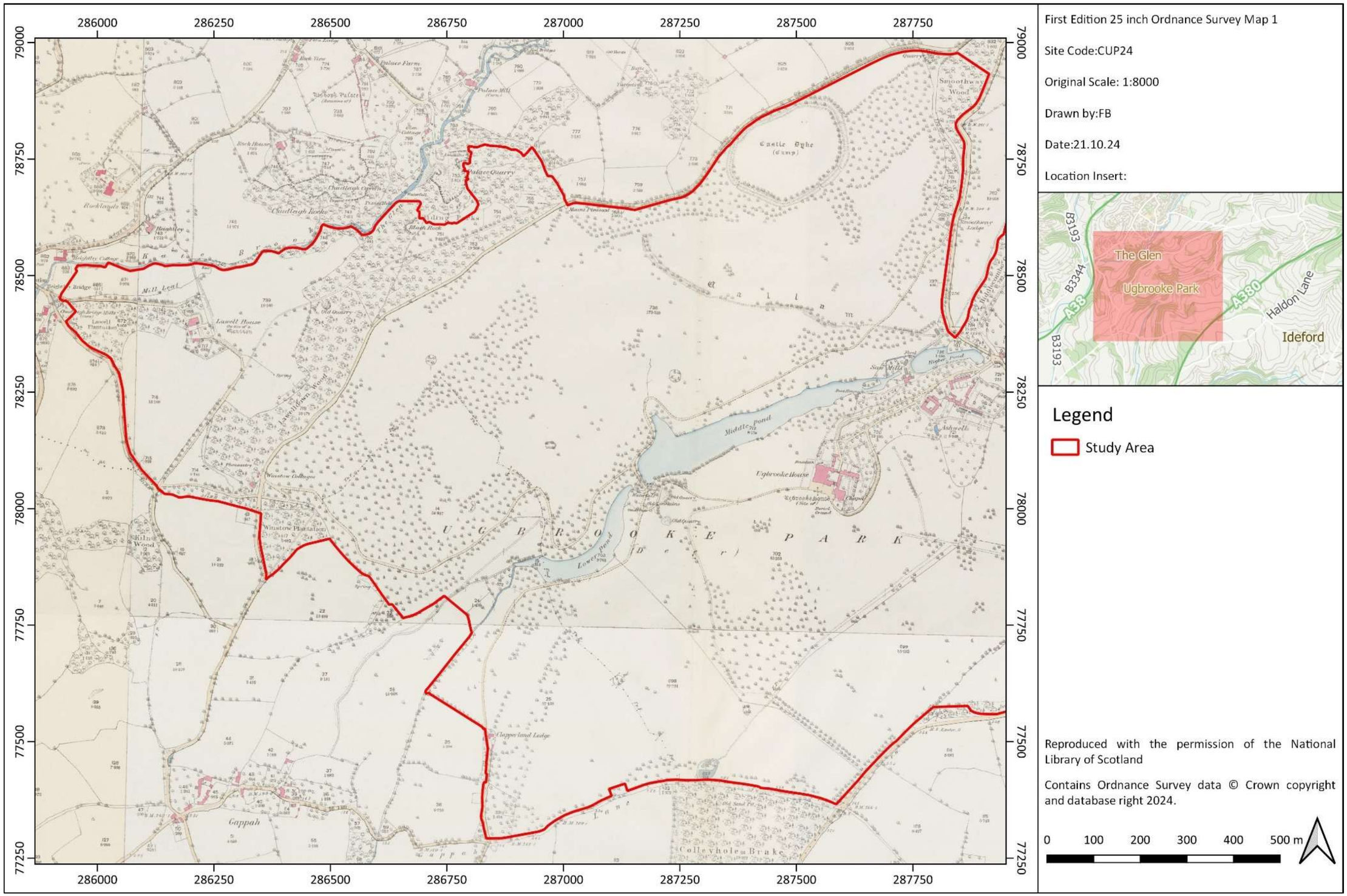


FIGURE 11: ORDNANCE SURVEY FIRST EDITION MAP 1887.

First Edition 25 inch Ordnance Survey Map 2

Site Code:CUP24

Original Scale: 1:8000

Drawn by:FB

Date:21.10.24

Location Insert:

Legend

Study Area

0 100 200 300 400 500 m

FIGURE 12: ORDNANCE SURVEY FIRST EDITION MAP 1887.

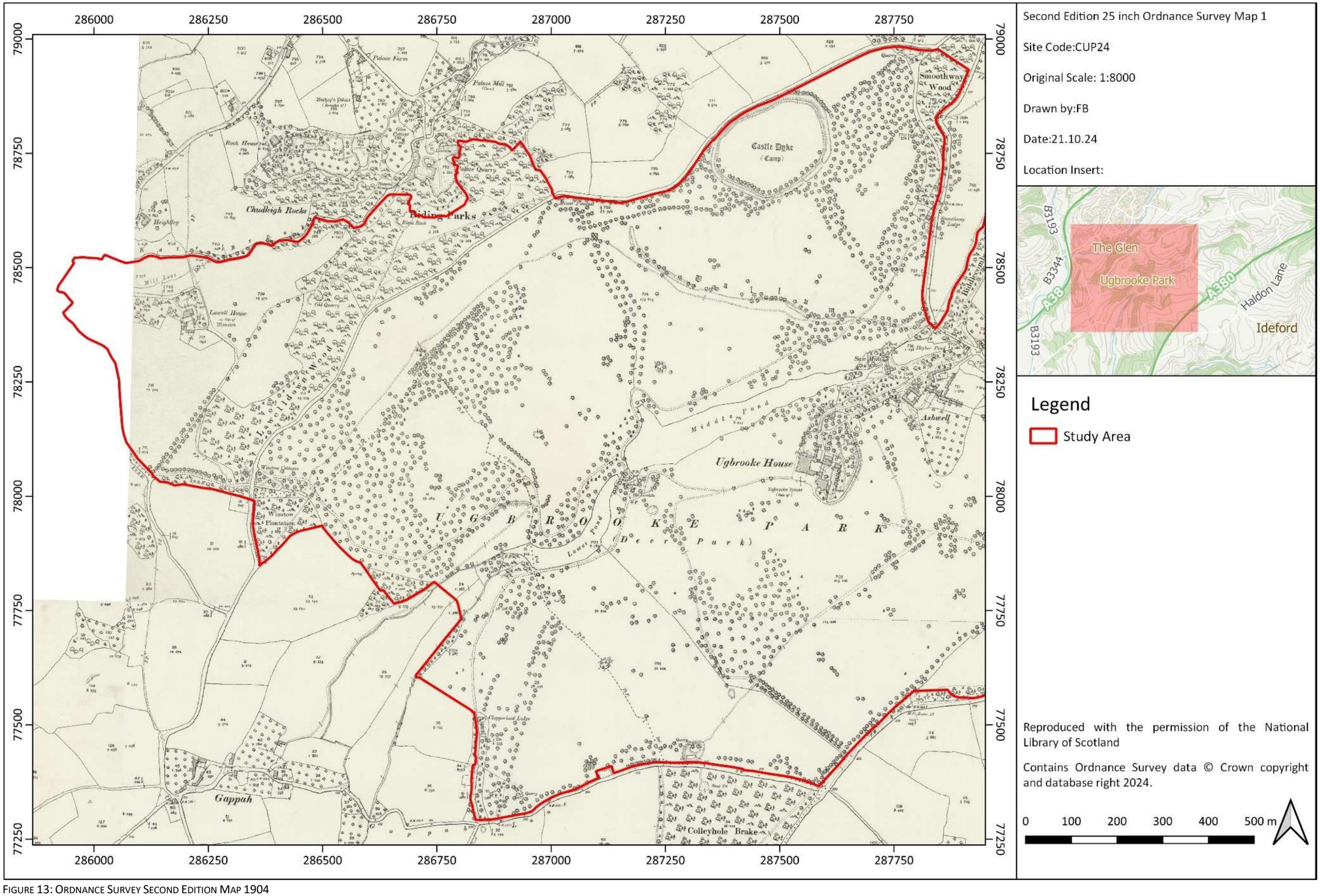


FIGURE 13: ORDNANCE SURVEY SECOND EDITION MAP 1904

Second Edition 25 inch Ordnance Survey Map 1

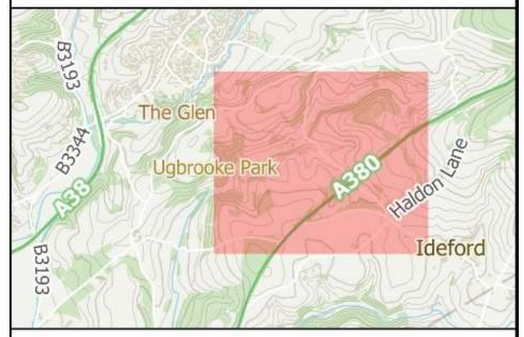
Site Code:CUP24

Original Scale: 1:8000

Drawn by:FB

Date:21.10.24

Location Insert:



Legend

Study Area

0 100 200 300 400 500 m

FIGURE 14: ORDNANCE SURVEY SECOND EDITION MAP 1904

Revised Second Edition 25 inch Ordnance Survey Map

Site Code:CUP24

Original Scale: 1:12000

Drawn by:FB

Date:21.10.24

Location Insert:

Legend

Study Area

0 100 200 300 400 500 m

Figure 15: Ordnance Survey Revised Second Edition Map c.1955

FIGURE 16: 2002 AERIAL PHOTOGRAPH OF THE STUDY AREA

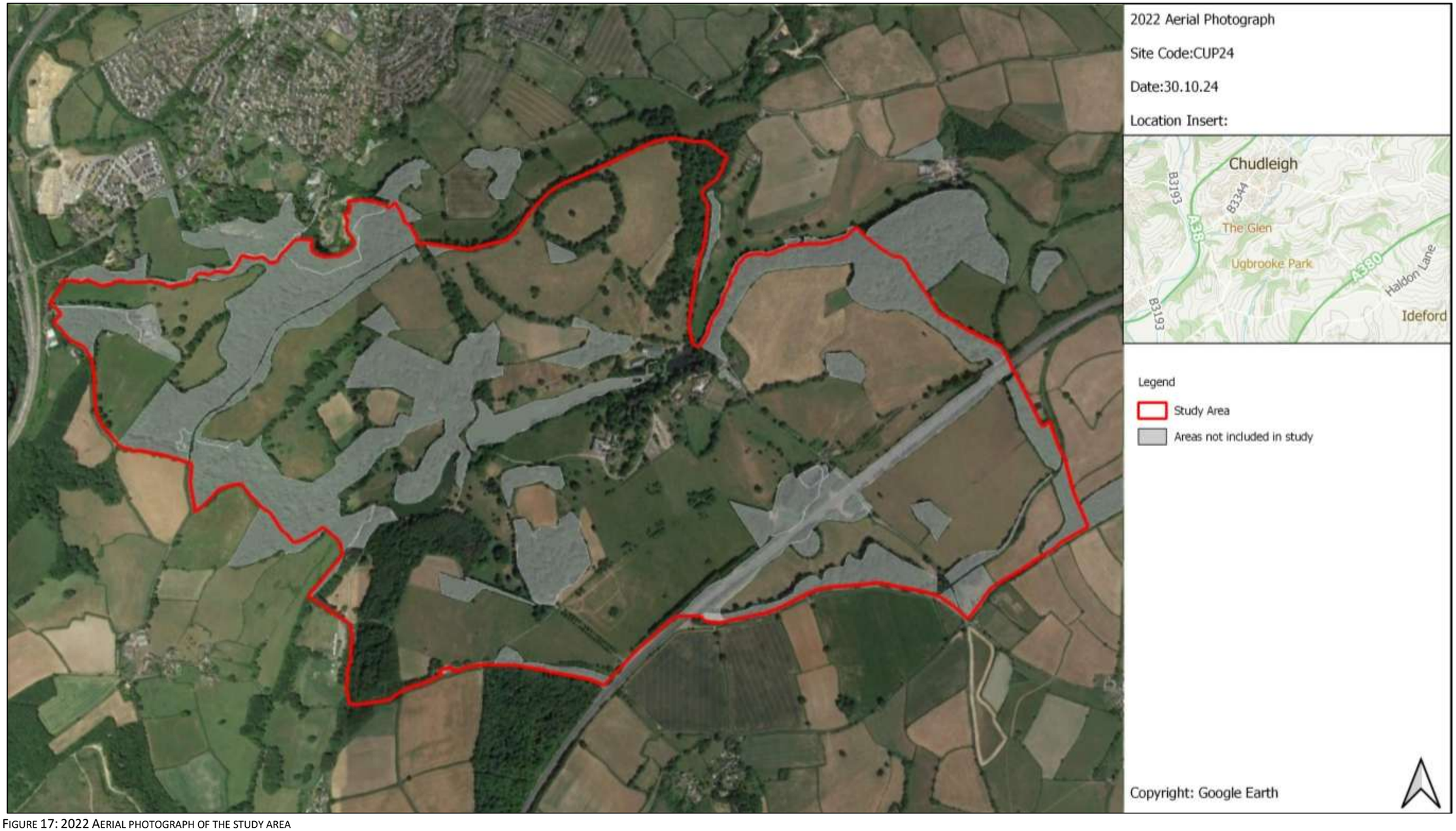


FIGURE 17: 2022 AERIAL PHOTOGRAPH OF THE STUDY AREA

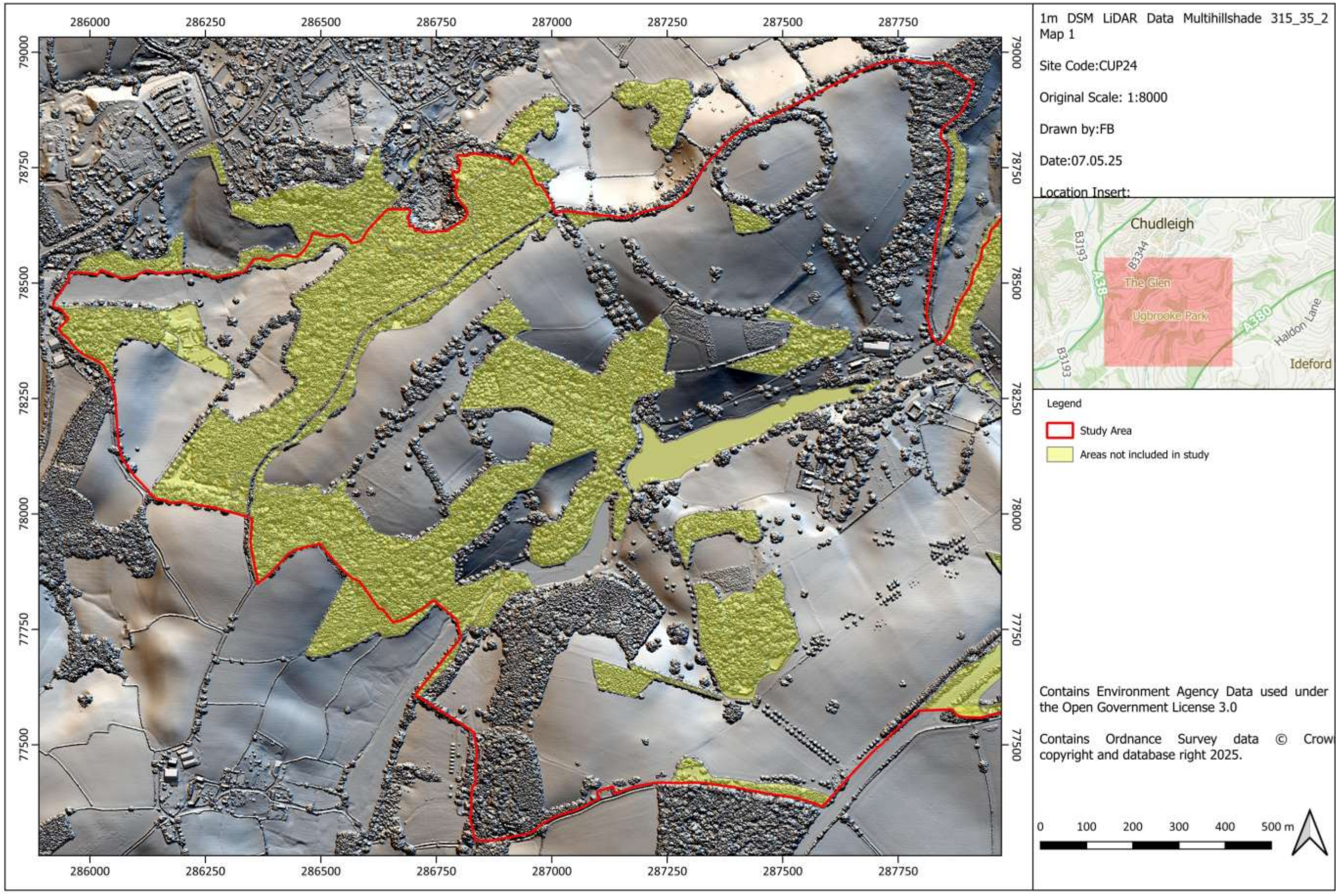


FIGURE 18. DSM LIDAR IMAGE OF STUDY AREA

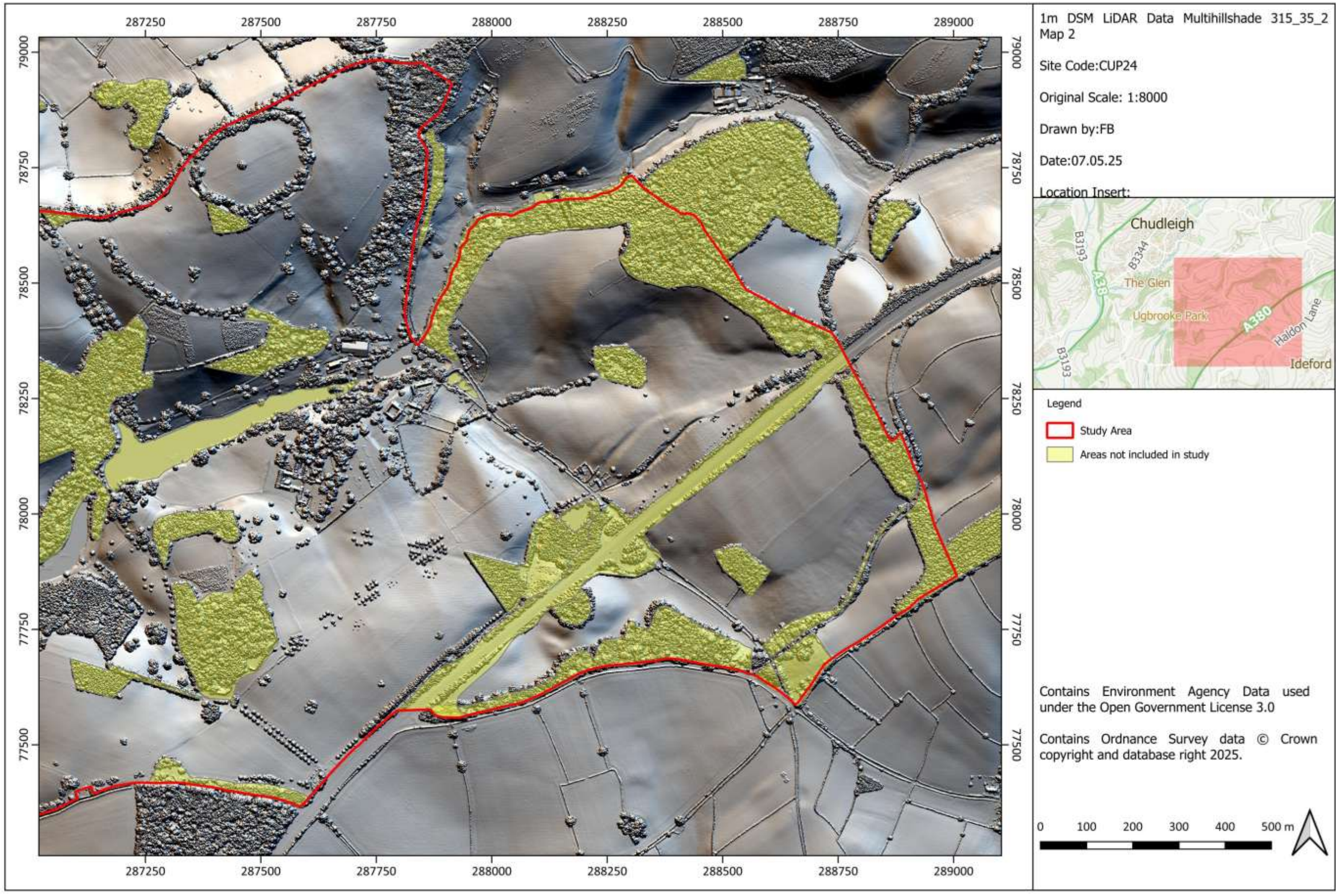


FIGURE 19: DSM LIDAR IMAGE OF STUDY AREA

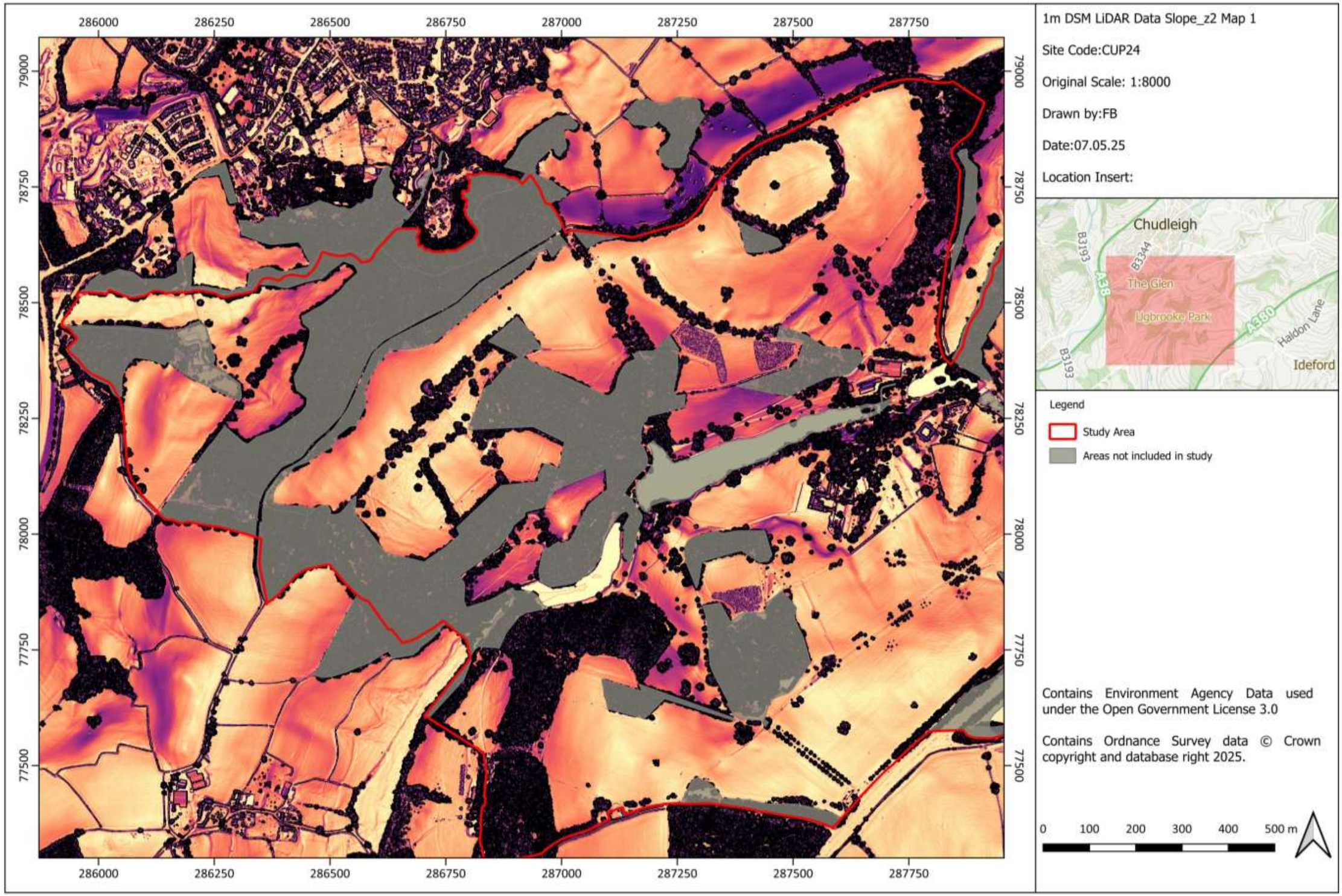


FIGURE 20: LIDAR IMAGE OF THE STUDY AREA; DSM, SLOPE.

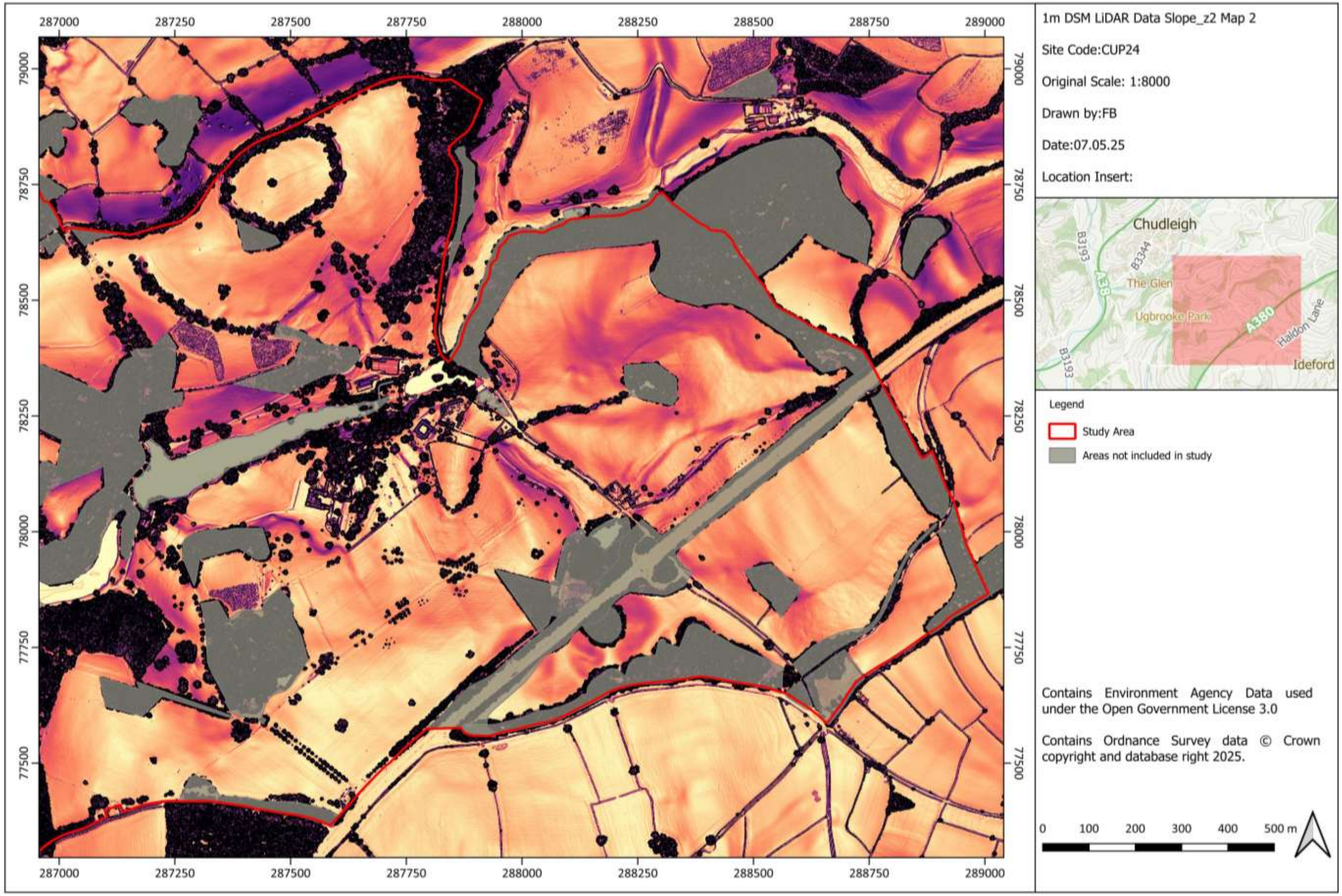


FIGURE 21: LIDAR IMAGE OF THE STUDY AREA; DSM, SLOPE.

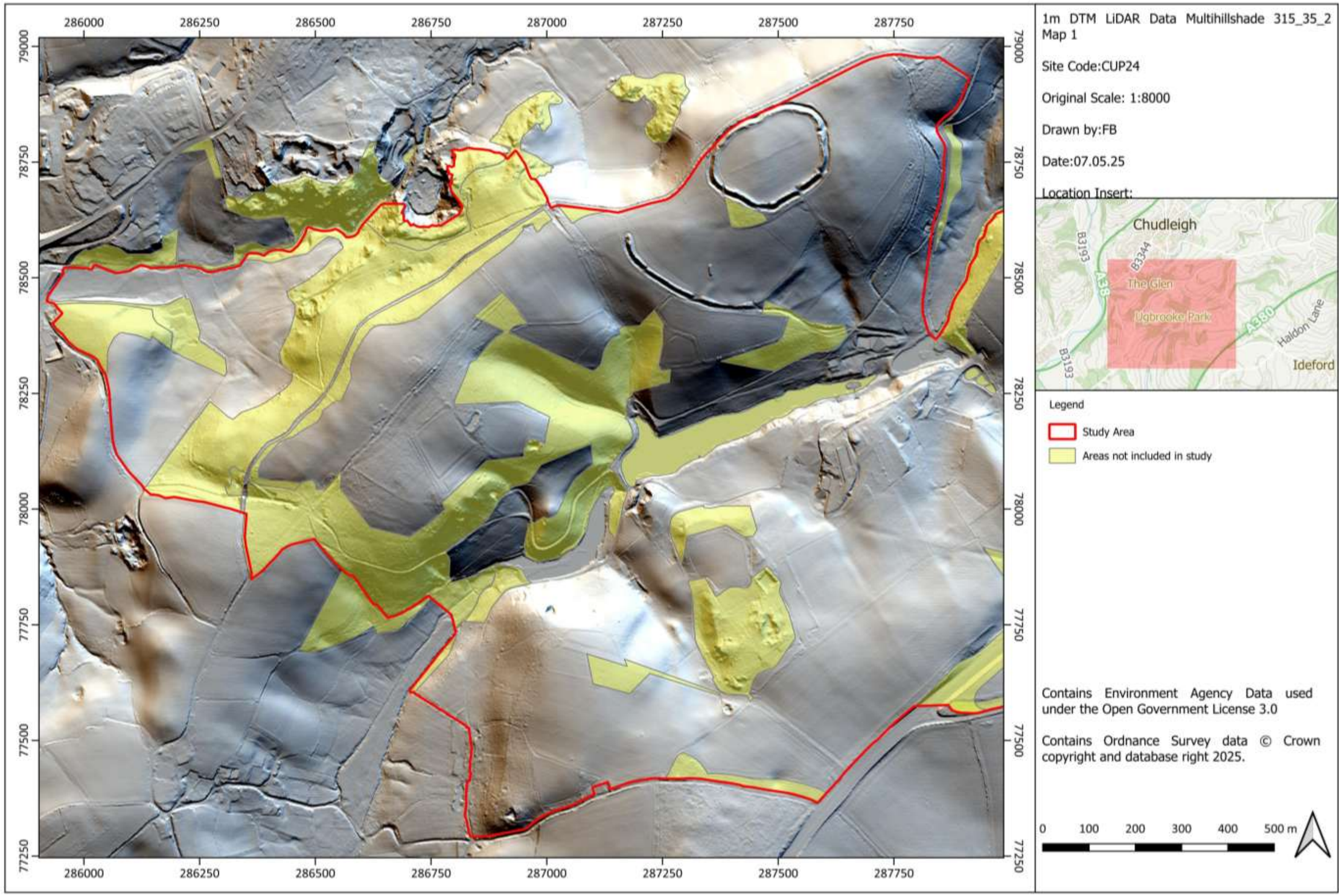


FIGURE 22: DTM LIDAR IMAGE OF STUDY AREA

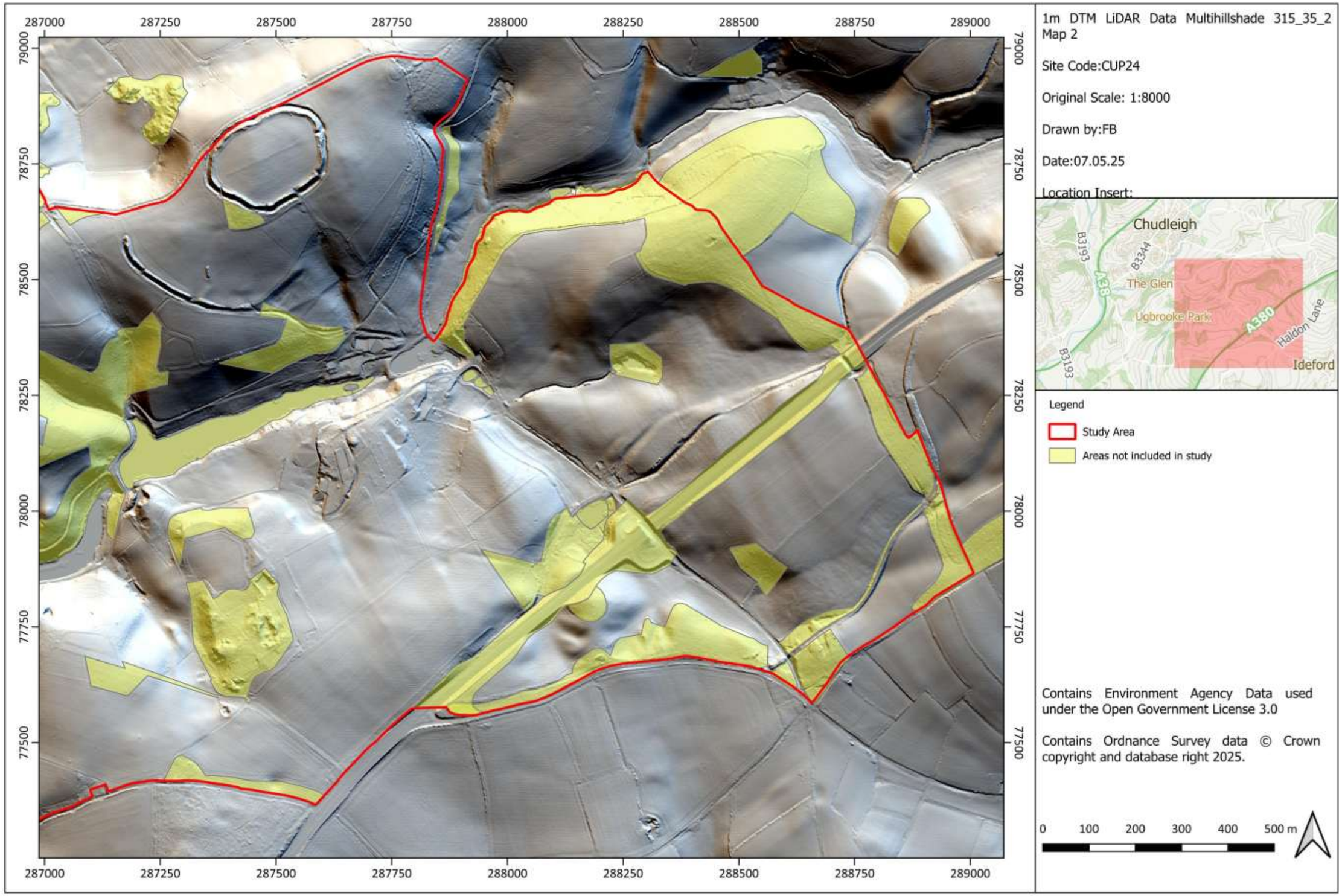


FIGURE 23: DTM LIDAR IMAGE OF STUDY AREA

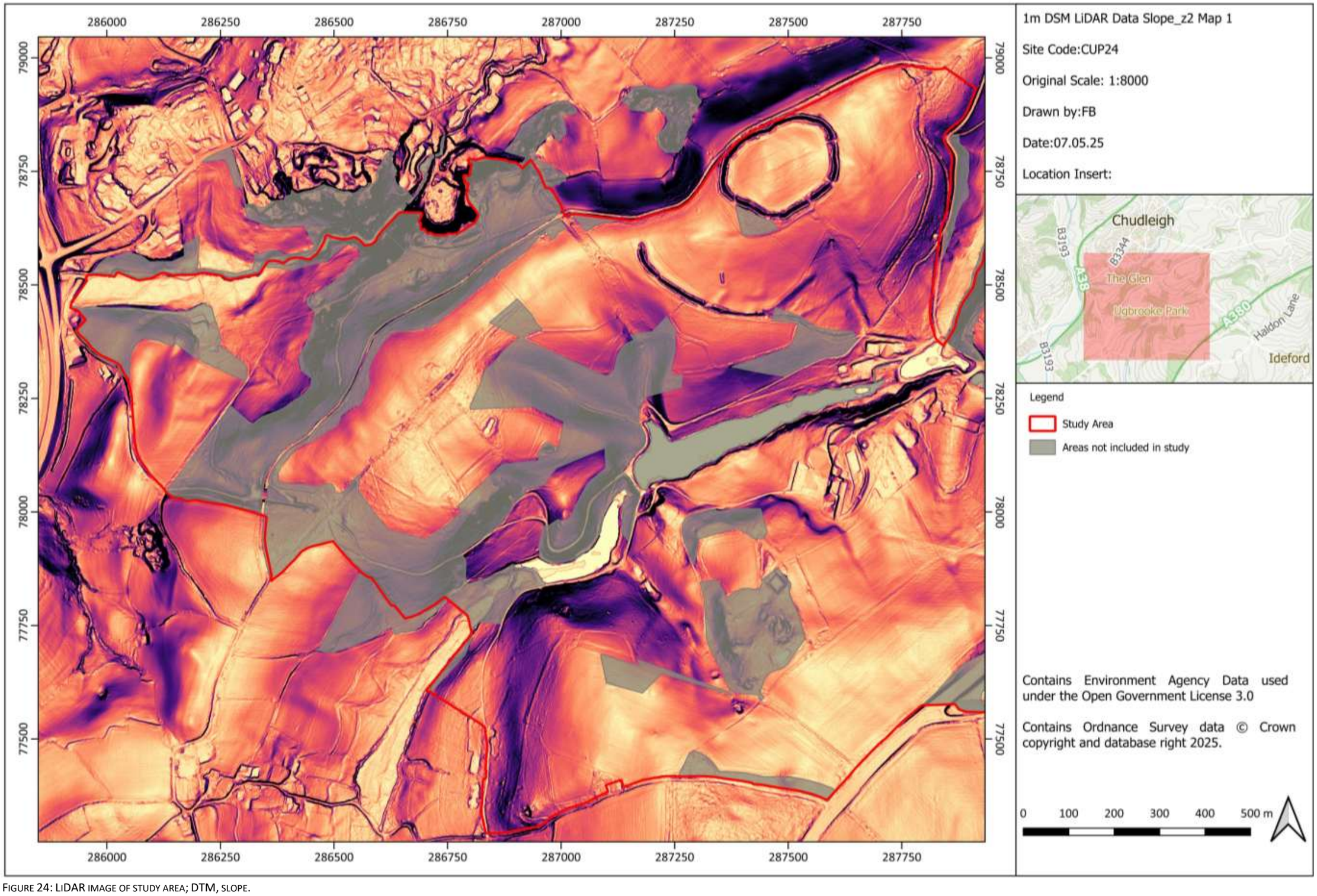


FIGURE 24: LIDAR IMAGE OF STUDY AREA; DTM, SLOPE.

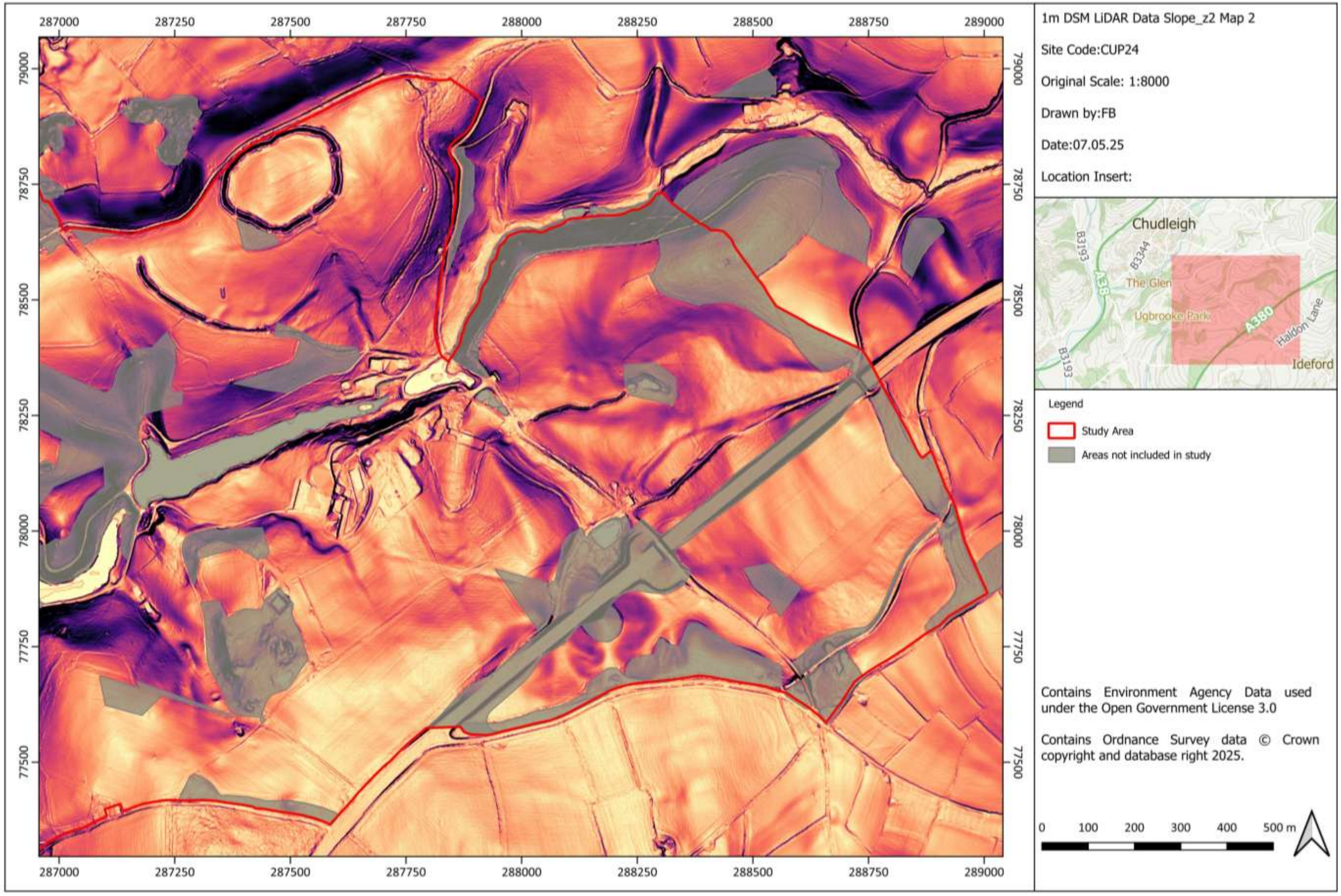


FIGURE 25: LIDAR IMAGE OF THE STUDY AREA; DTM, SLOPE.

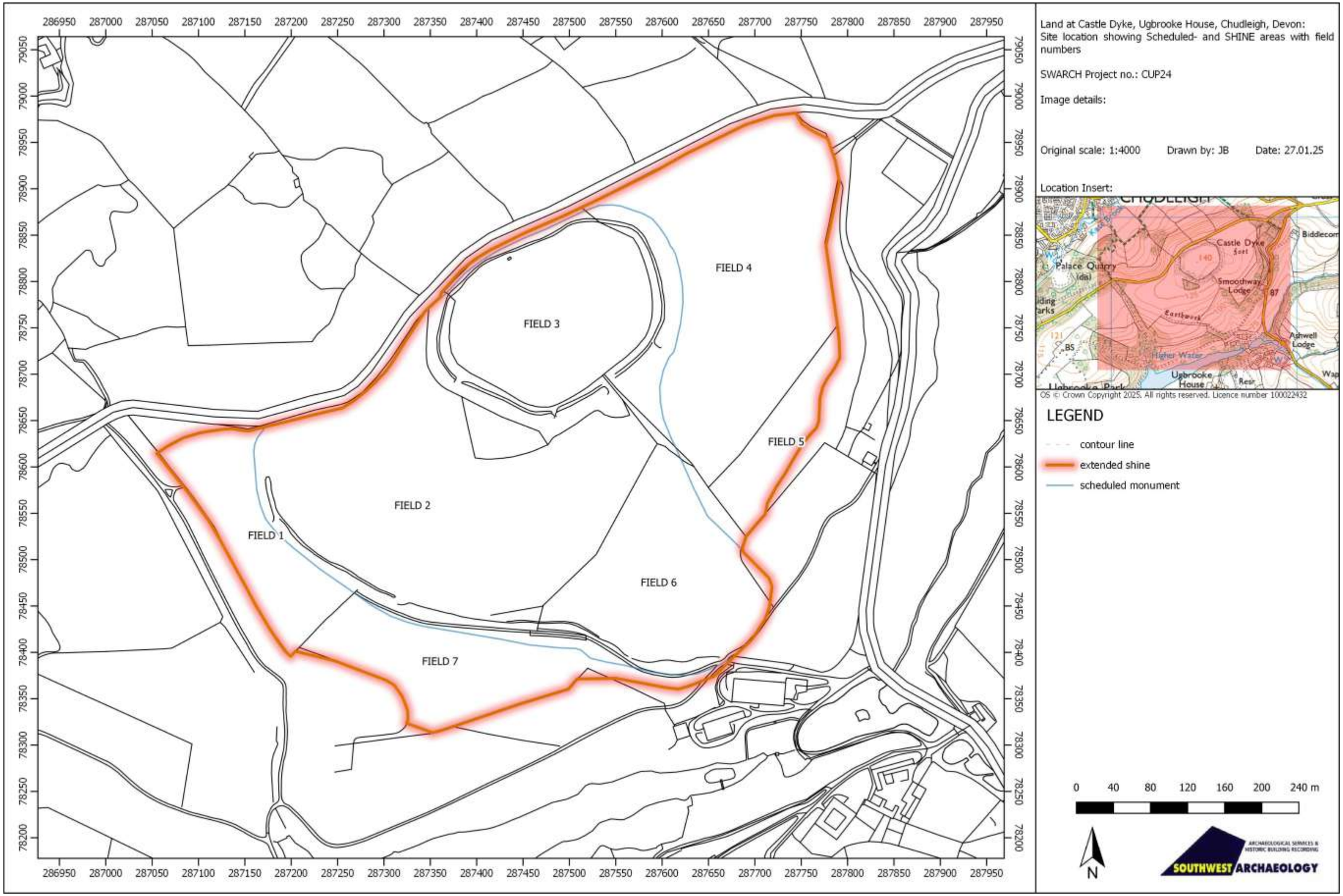


FIGURE 26: LOCATION AND FIELD NUMBERS OF THE GEOPHYSICAL SURVEY; SHOWING THE SHINE AND SCHEDULED MONUMENT AREAS.

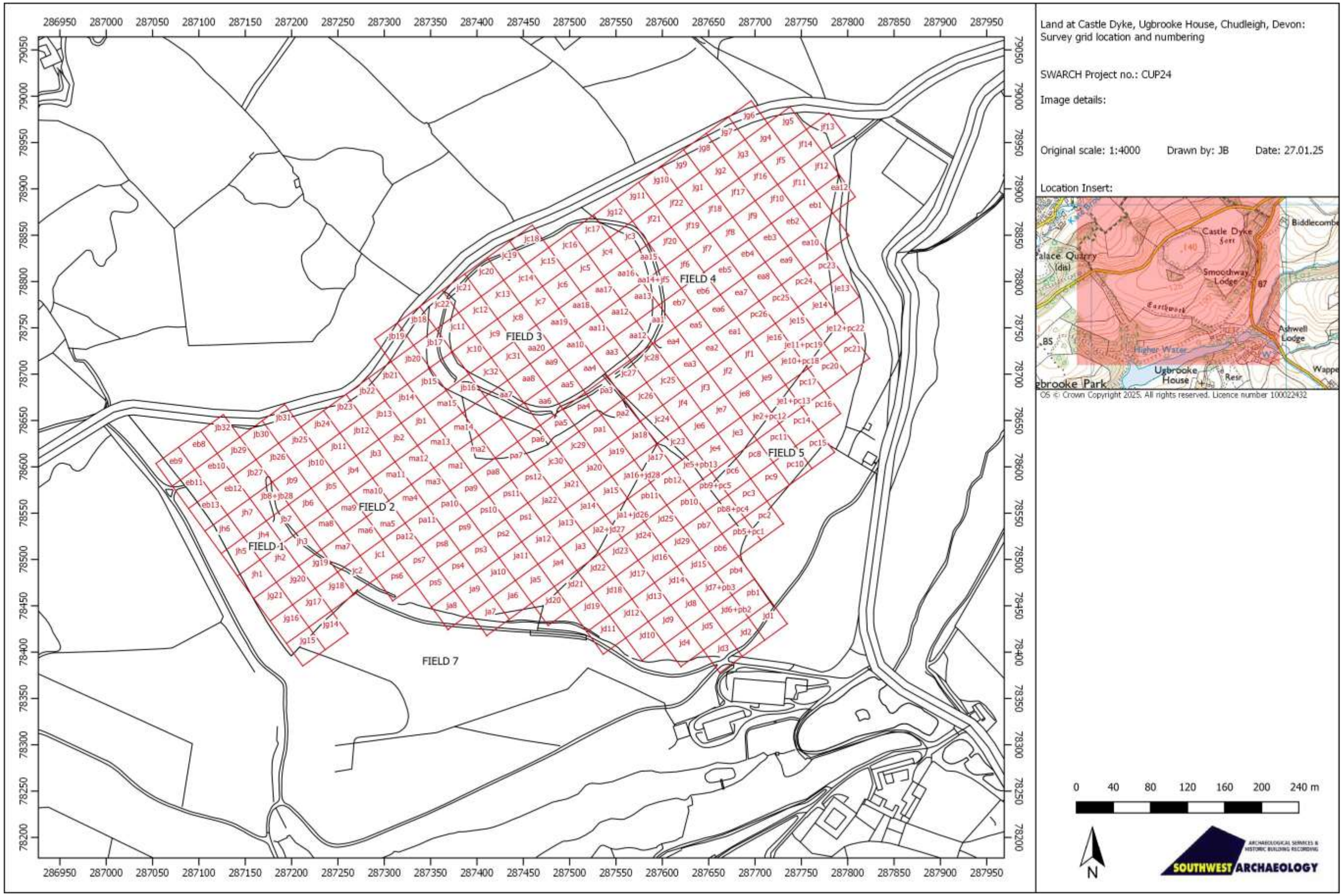


FIGURE 27: GRID LOCATION AND NUMBERING OF THE GEOPHYSICAL SURVEY.

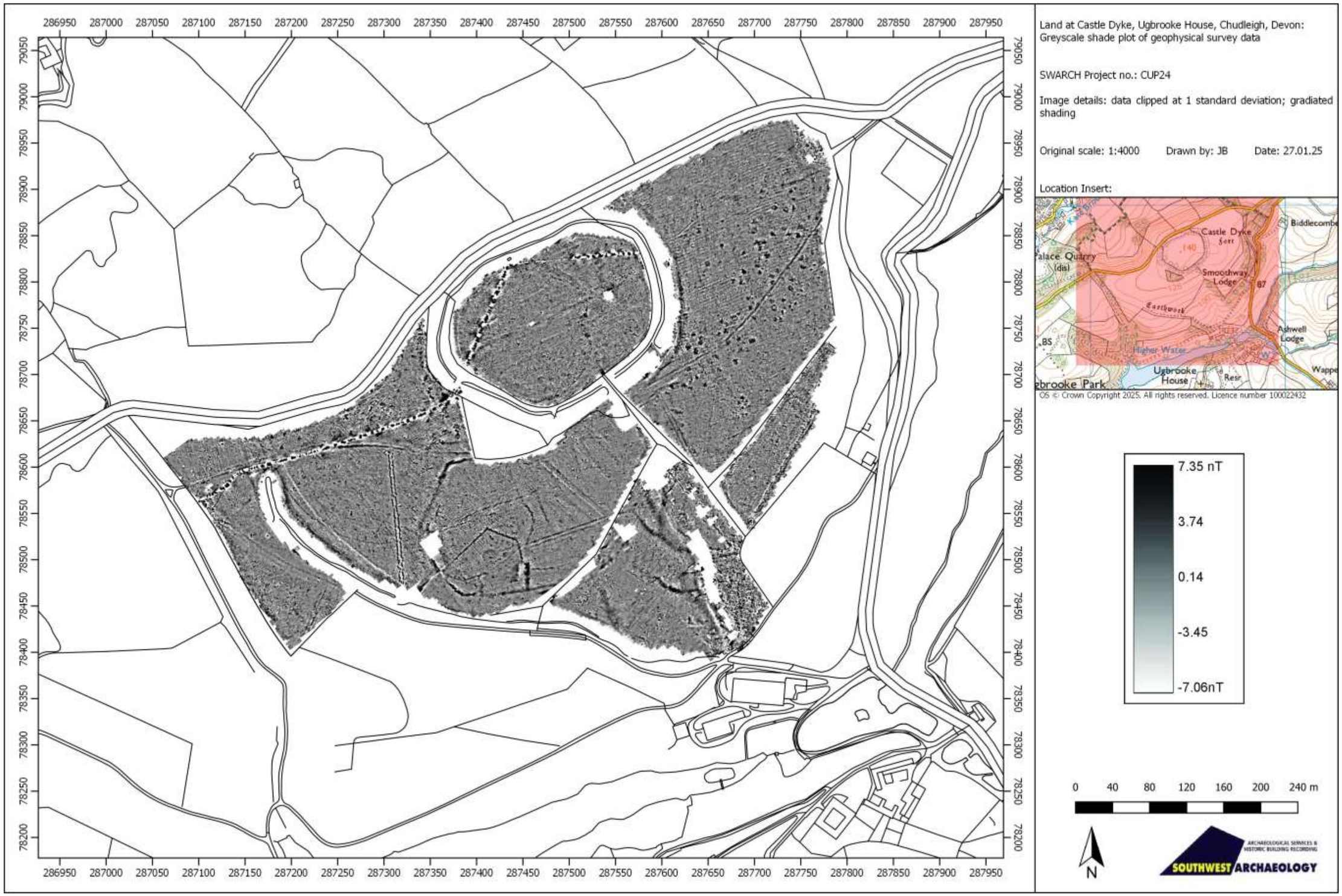


FIGURE 28: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; DATA CLIPPED AT 1 STANDARD DEVIATION.

FIGURE 29: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; FIELD 1, WEST SIDE OF THE SURVEY AREA.

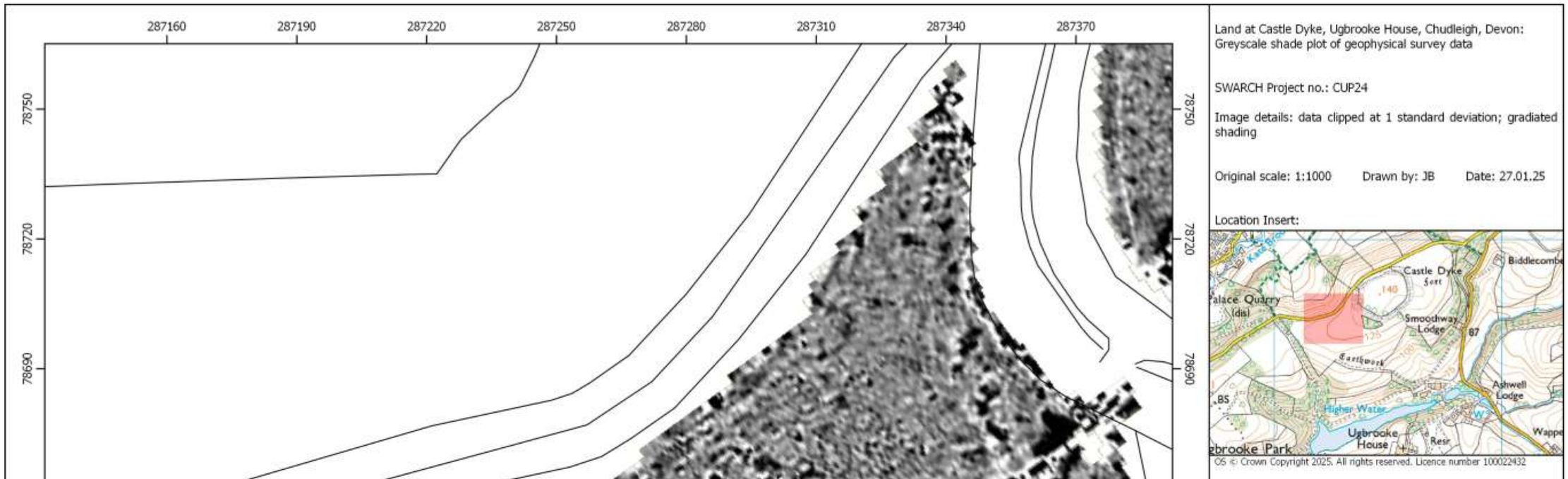


FIGURE 30: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; NORTH SIDE OF FIELD 2.

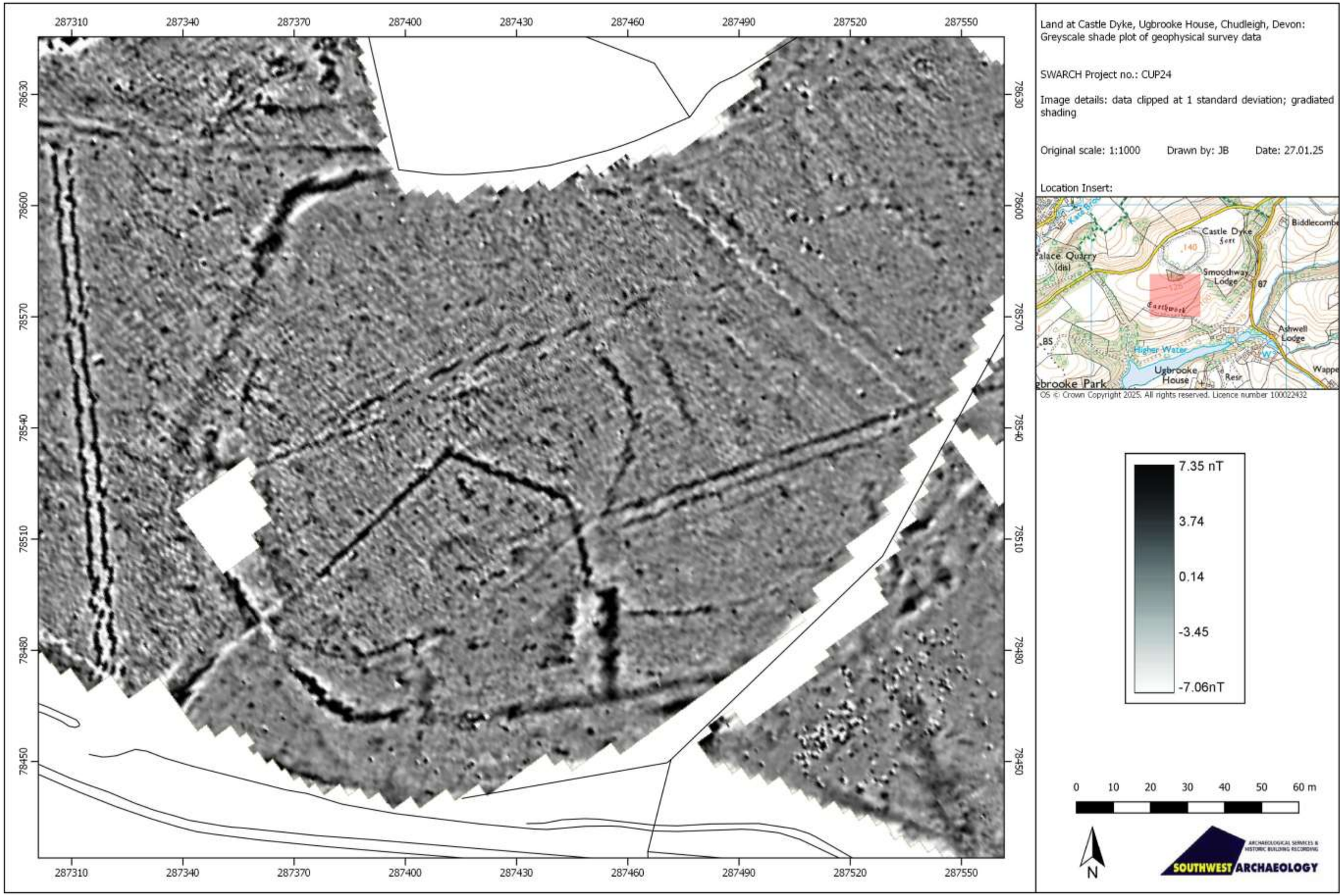


FIGURE 31: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; SOUTH SIDE OF FIELD 2.

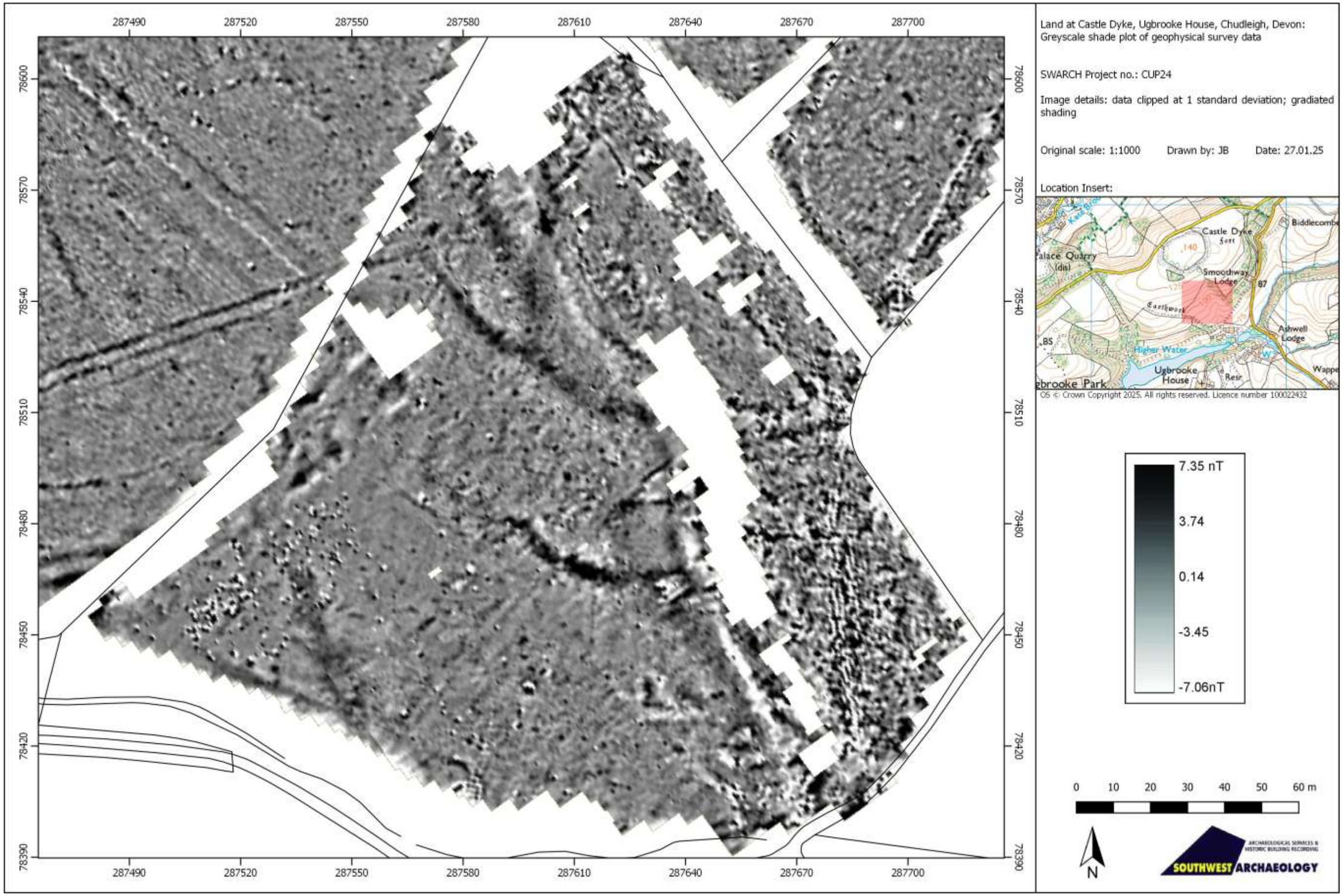


FIGURE 32: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; FIELD 6, SOUTH SIDE OF THE SURVEY AREA.

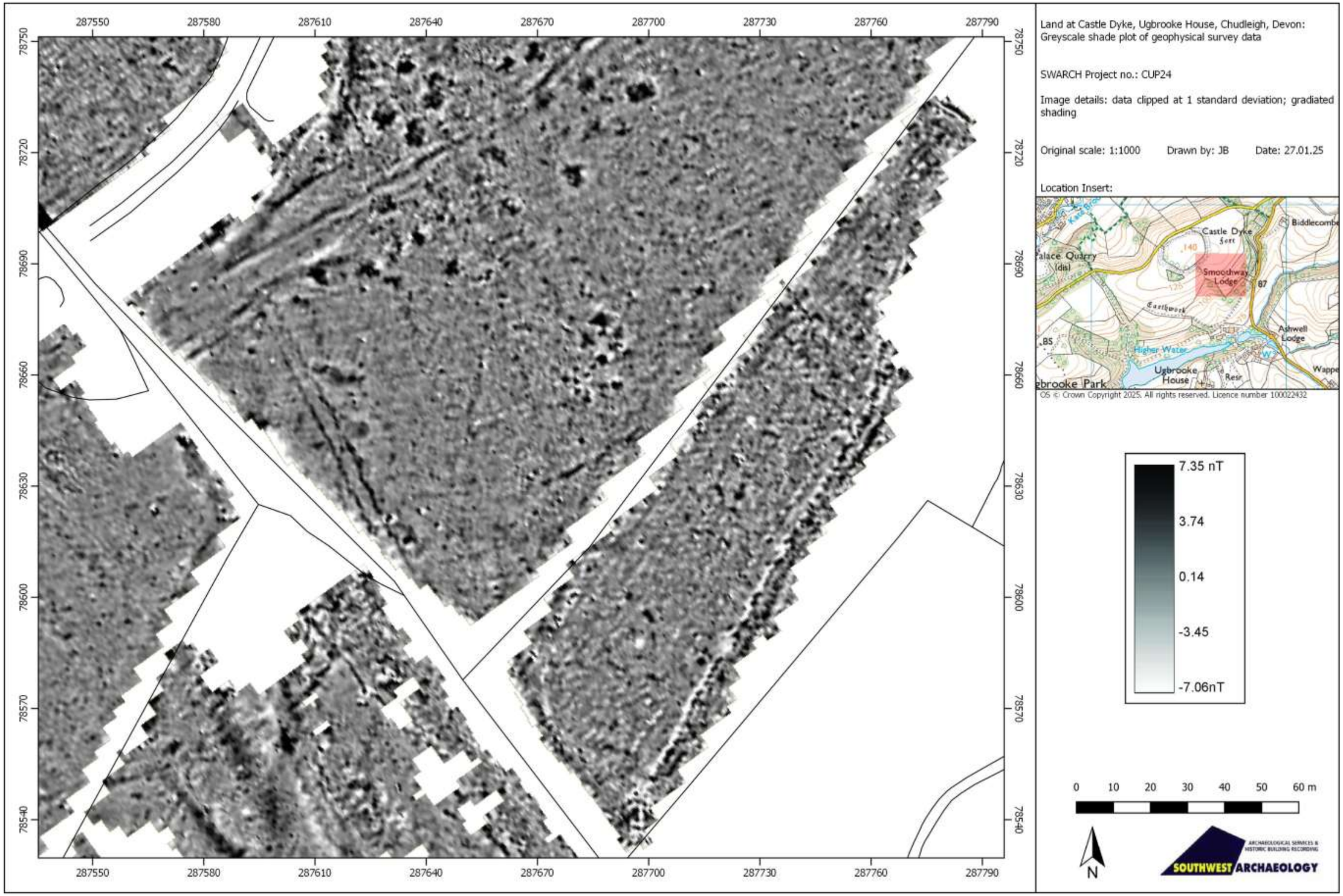


FIGURE 33: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; FIELD 5 AND THE SOUTH SIDE OF FIELD 4, EAST SIDE OF THE SURVEY AREA.

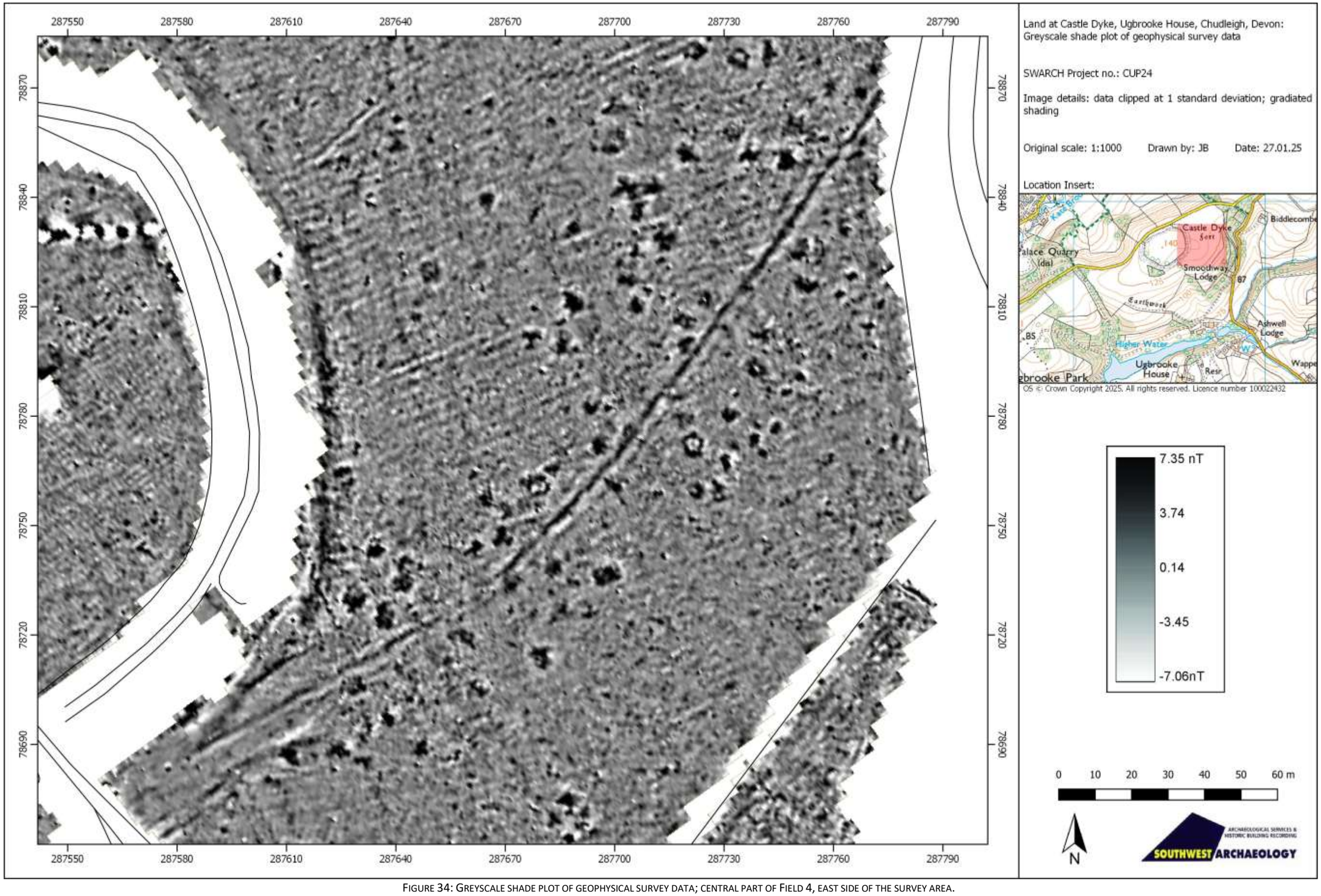


FIGURE 34: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; CENTRAL PART OF FIELD 4, EAST SIDE OF THE SURVEY AREA.

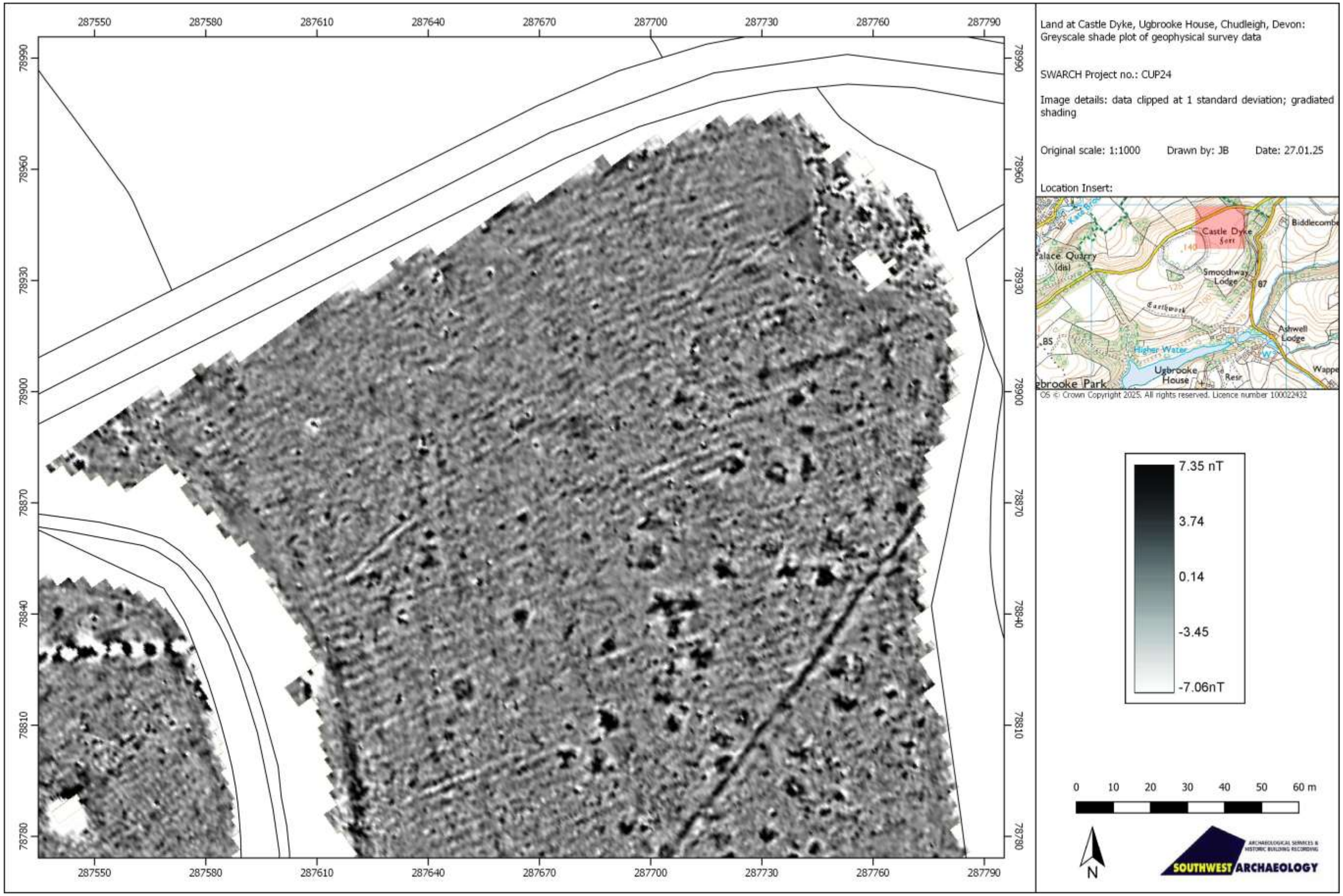


FIGURE 35: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; NORTH SIDE OF FIELD 4, NORTH-EAST CORNER OF SURVEY AREA.

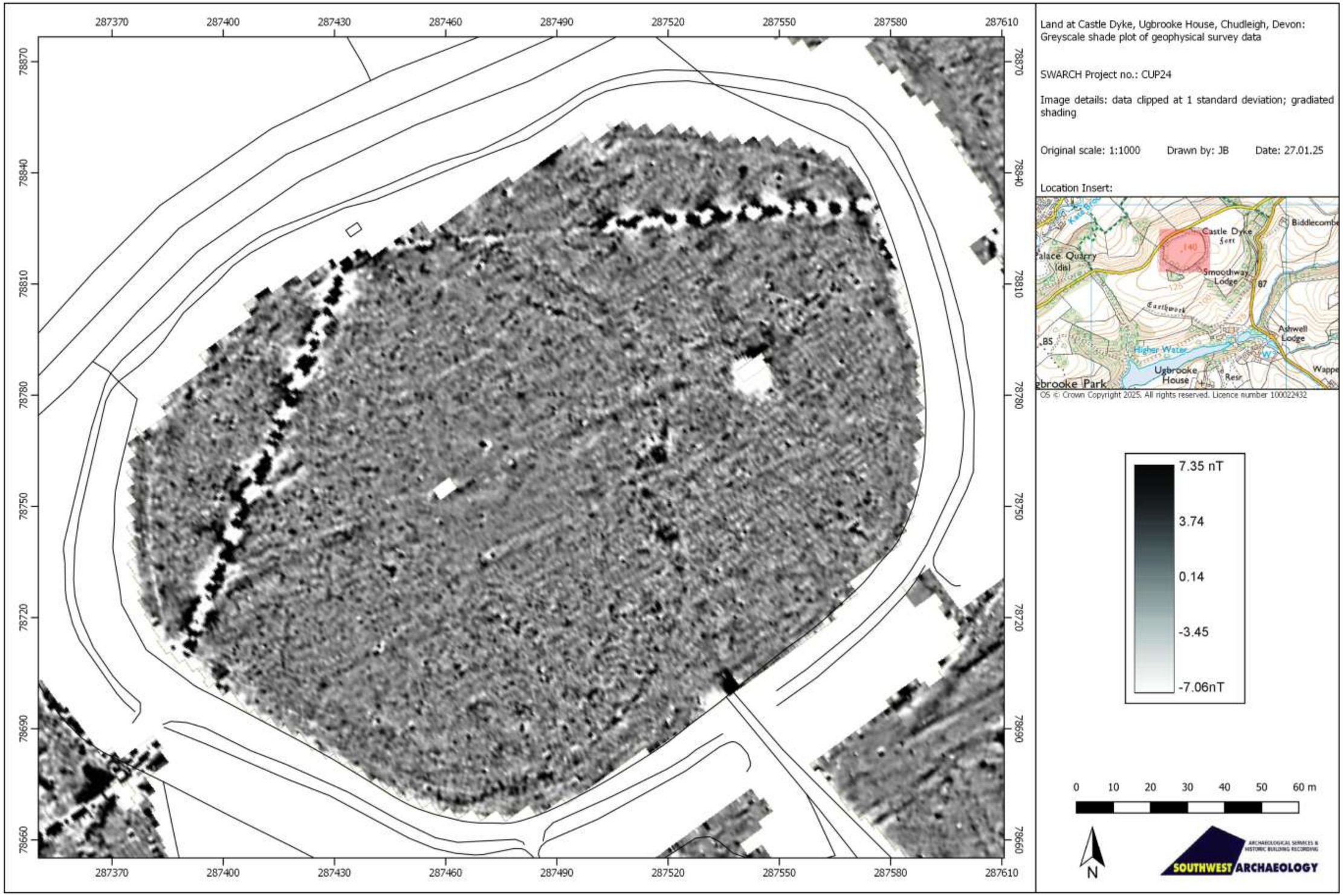


FIGURE 36: GREYSCALE SHADE PLOT OF GEOPHYSICAL SURVEY DATA; FIELD 3, NORTH-CENTRAL PART OF THE SURVEY AREA.

FIGURE 37: ELEVATION SHADE PLOT OF GEOPHYSICAL SURVEY DATA; DATA CLIPPED.

FIGURE 38: ELEVATION SHADE PLOT OF GEOPHYSICAL SURVEY DATA.

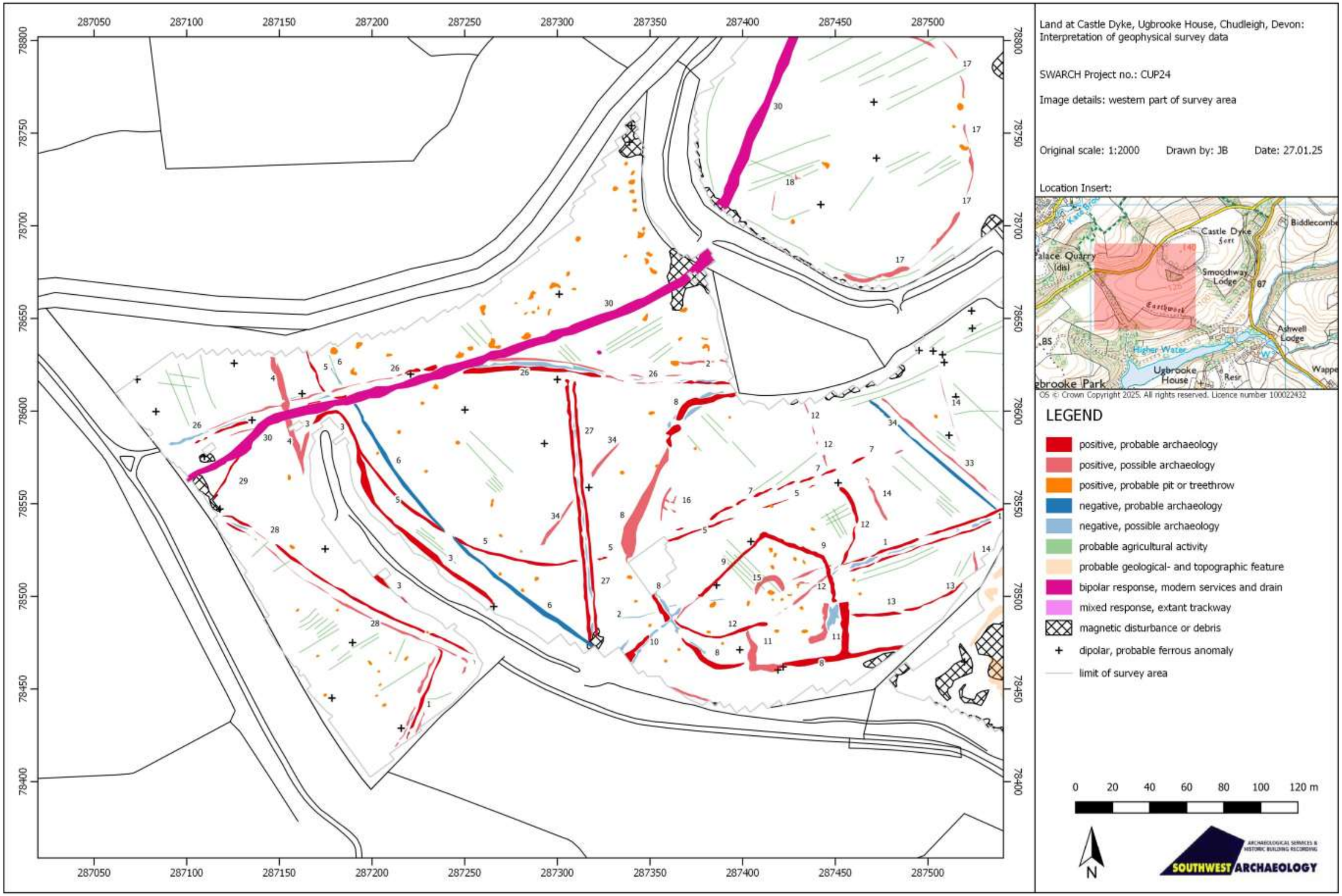


FIGURE 39: INTERPRETATION OF GEOPHYSICAL SURVEY DATA; WEST SIDE OF THE SURVEY AREA.

Land at Castle Dyke, Ugbrooke House, Chudleigh, Devon:
Interpretation of geophysical survey data

SWARCH Project no.: CUP24

Image details: southern part of survey area

Original scale: 1:2000 Drawn by: JB Date: 27.01.25

Location Insert:

LEGEND

- positive, probable archaeology
- positive, possible archaeology
- positive, probable pit or treethrow
- negative, probable archaeology
- negative, possible archaeology
- probable agricultural activity
- probable geological- and topographic feature
- bipolar response, modern services and drain
- mixed response, extant trackway
- magnetic disturbance or debris
- \+ dipolar, probable ferrous anomaly
- limit of survey area

0 20 40 60 80 100 120 m

N

SOUTHWEST ARCHAEOLOGY

FIGURE 40: INTERPRETATION OF GEOPHYSICAL SURVEY DATA; CENTRAL PART OF THE SURVEY AREA.

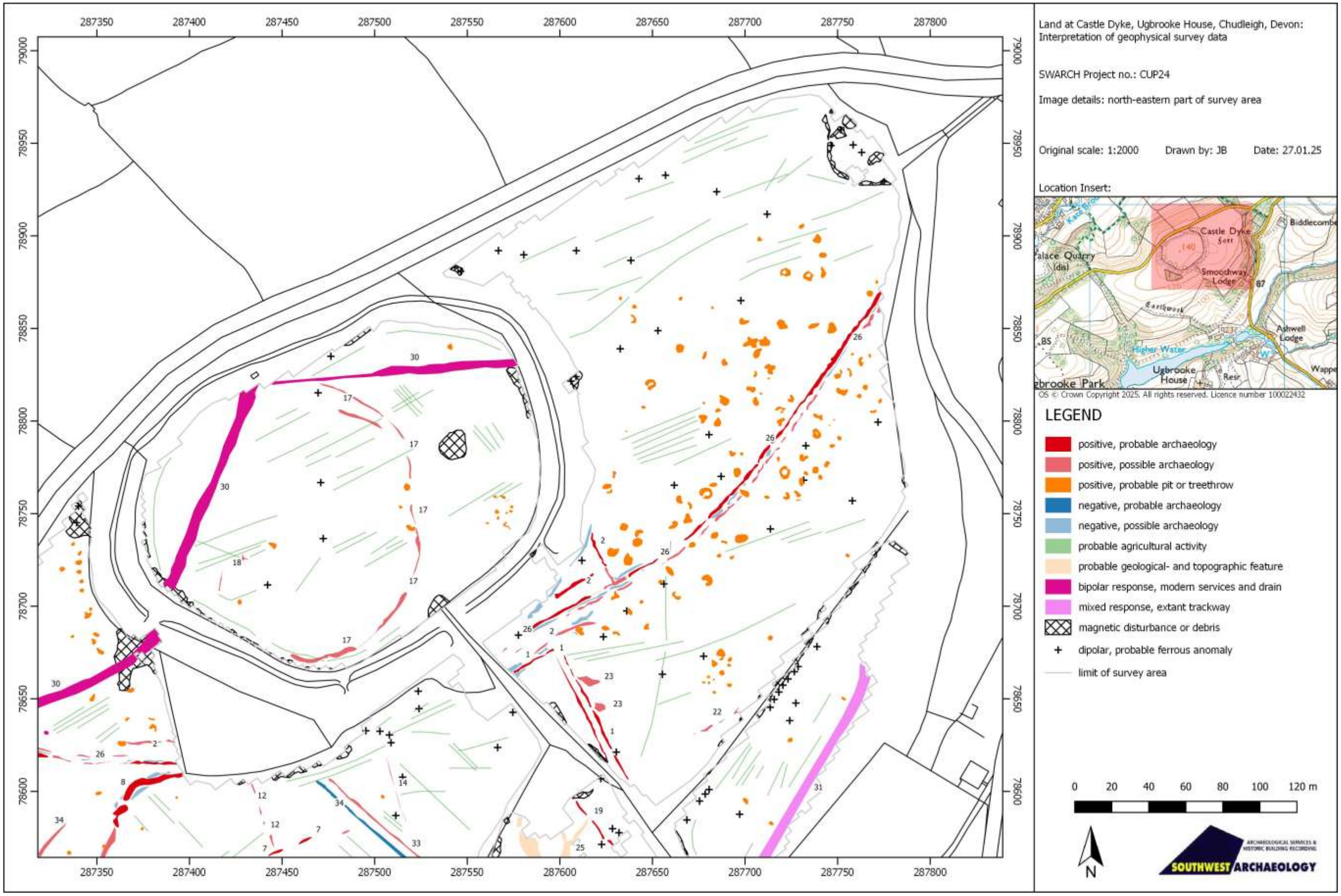


FIGURE 41: INTERPRETATION OF GEOPHYSICAL SURVEY DATA; EAST SIDE OF THE SURVEY AREA.

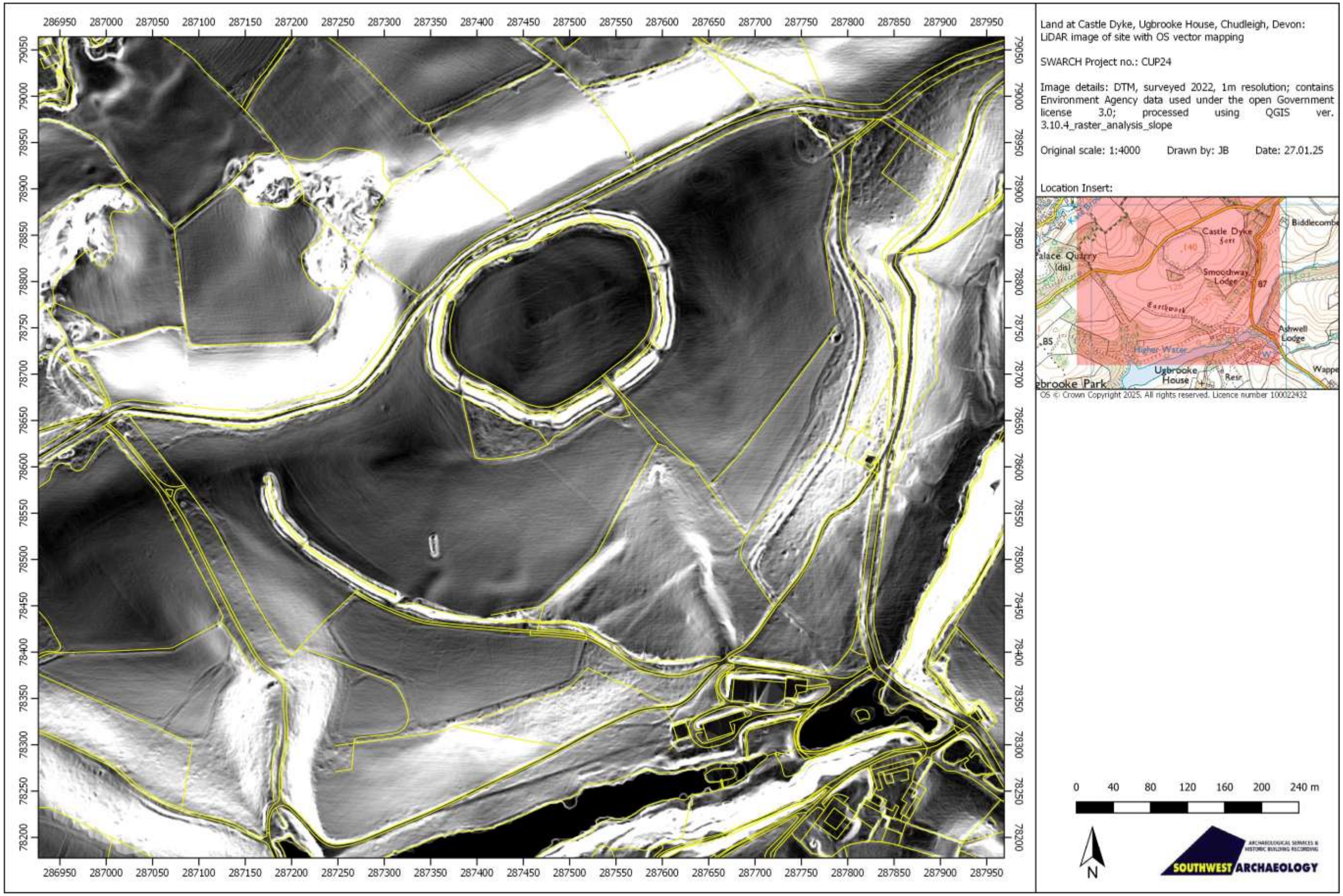


FIGURE 42: LIDAR IMAGE OF THE GEOPHYSICAL SURVEY AREA IN 2022, OVERLAIN BY OS VECTOR MAPPING.

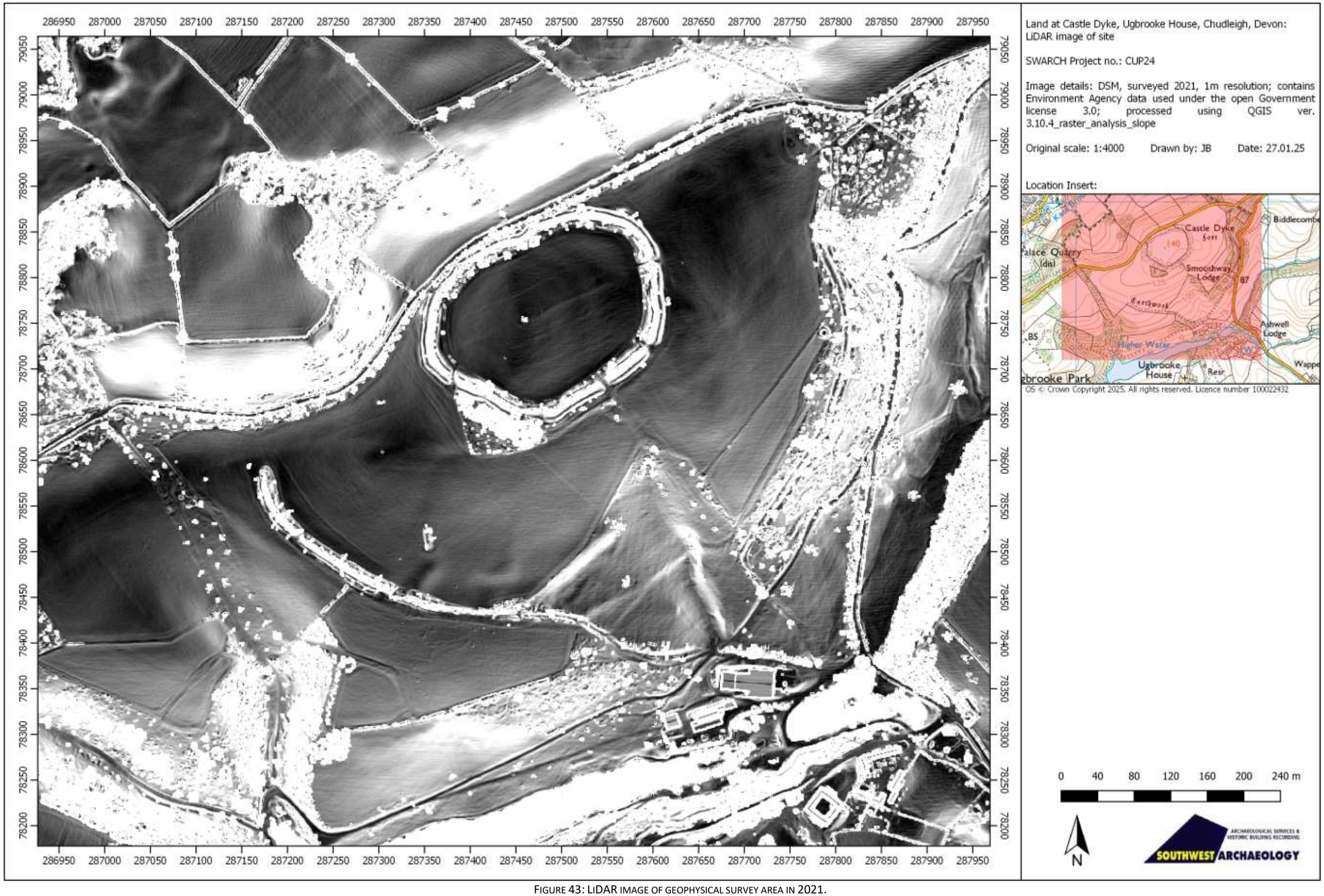


FIGURE 43: LIDAR IMAGE OF GEOPHYSICAL SURVEY AREA IN 2021.

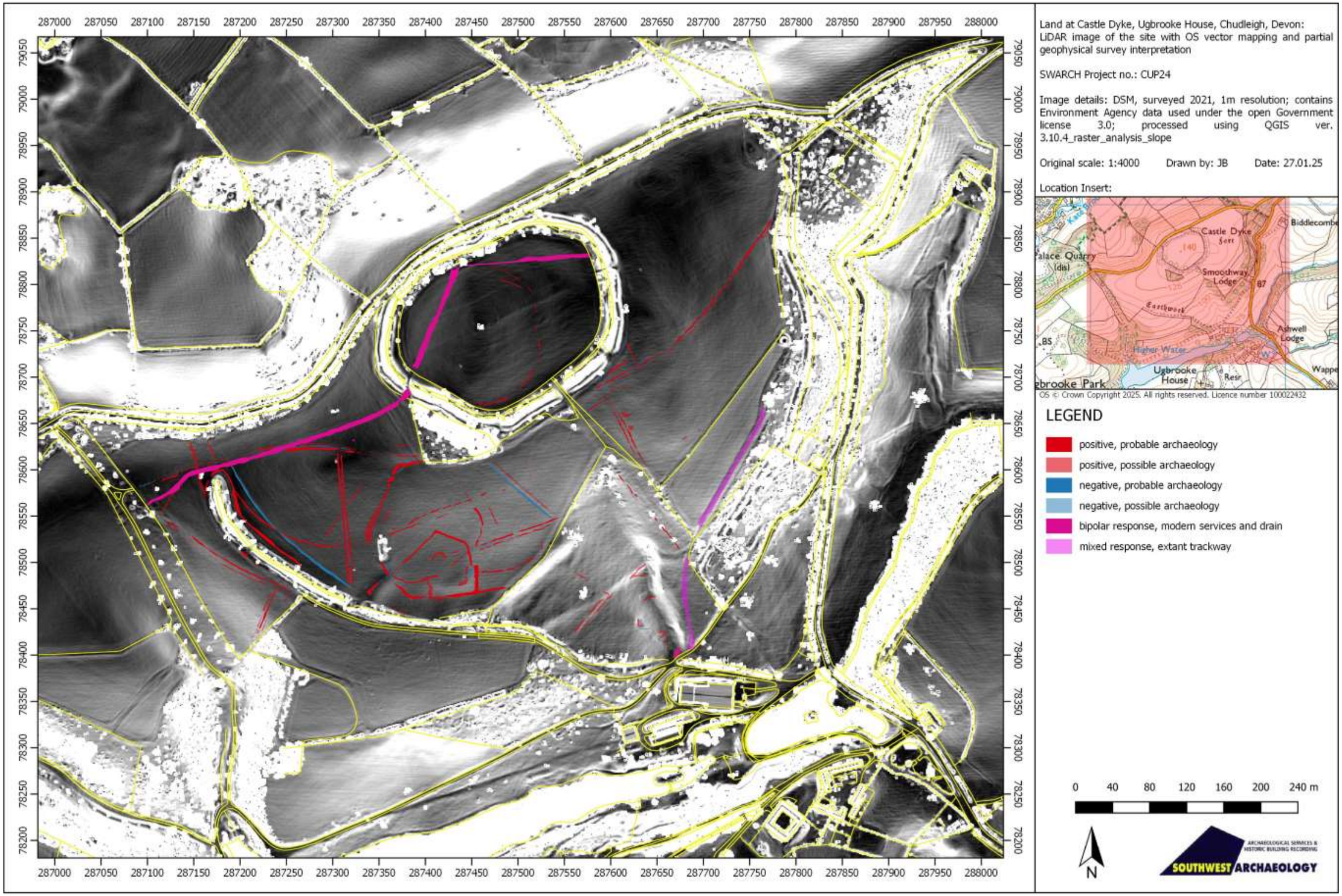


FIGURE 44: LIDAR IMAGERY OF THE GEOPHYSICAL SURVEY AREA OVERLAIN BY OS VECTOR MAPPING AND PARTIAL INTERPRETATION OF THE GEOPHYSICAL SURVEY DATA.

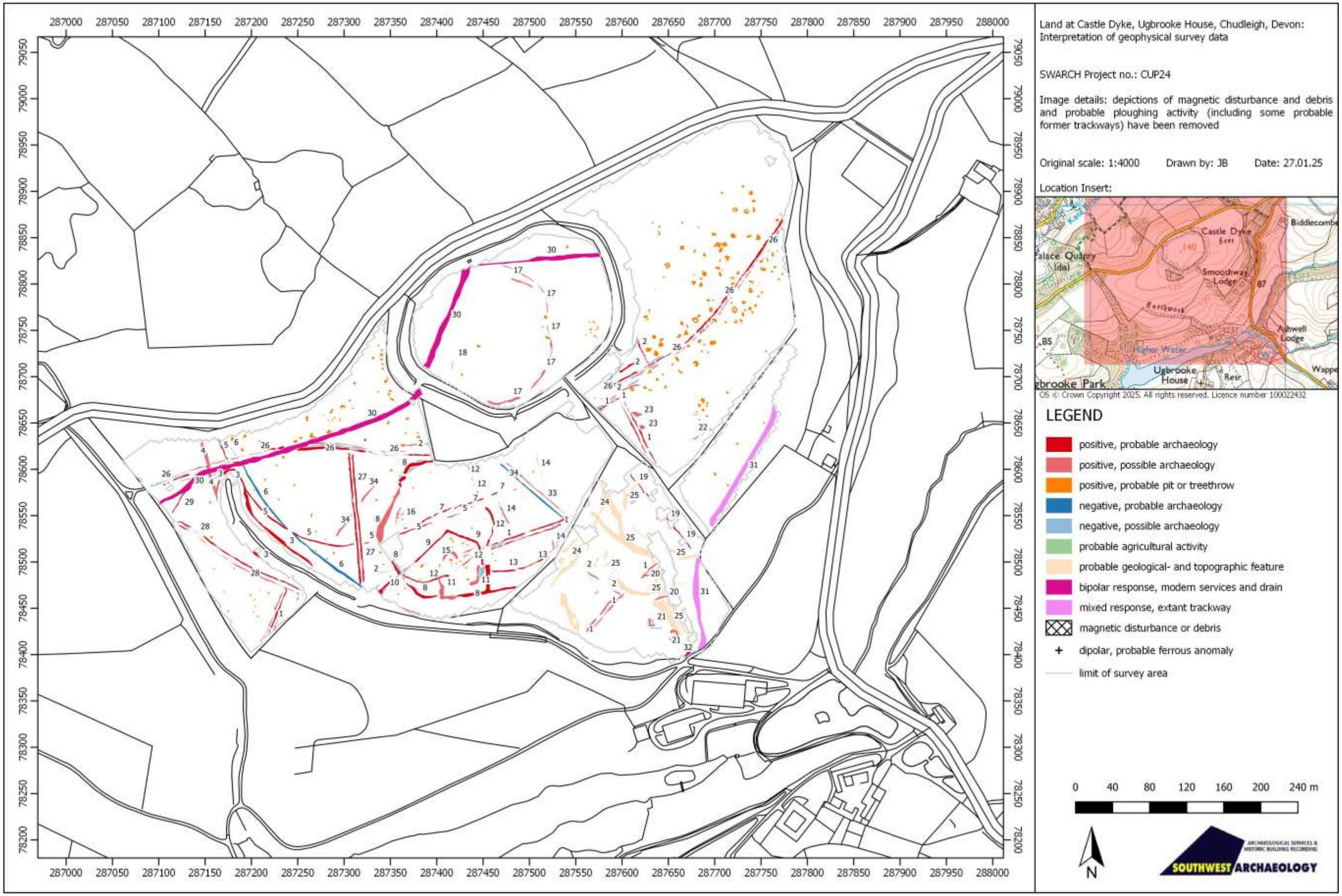


FIGURE 45: SIMPLIFIED INTERPRETATION OF GEOPHYSICAL SURVEY DATA SHOWING ANOMALY GROUPS AND WITH ADDITIONAL ANOMALIES REMOVED.

APPENDIX 3:SUPPORTING PHOTOGRAPHS (no scale)

1. SOUTH END OF FIELD 6 AND ITS COMBE DURING GROUNDWORKS IN 1994; VIEWED FROM THE SOUTH (SOURCE: THE AGENT & CLIENT).

2. CONCRETE TANK ON THE NORTH SIDE OF FIELD 3; VIEWED FROM THE EAST.

3. SOUTH-WEST HALF OF FIELD 3; VIEWED FROM THE SOUTH-WEST.

4. SOUTH SIDE OF FIELD 3; VIEWED FROM THE WEST.

5. EXAMPLE OF RAMPARTS TO INNER ENCLOSURE/FIELD 3 ON ITS SOUTH-WEST SIDE; VIEWED FROM THE NORTH-WEST.

6. EXAMPLE OF RAMPARTS TO INNER ENCLOSURE/FIELD 3 ON ITS WEST SIDE; VIEWED FROM THE SOUTH.

7. NORTH SIDE OF FIELD 2; VIEWED FROM THE NORTH-EAST.

8. NORTH SIDE OF FIELD 2; VIEWED FROM THE SOUTH-WEST.

9. NORTH-WEST END OF OUTER EARTHWORKS; VIEWED FROM THE NORTH.

10. EXAMPLE OF RAMPARTS TO OUTER EARTHWORKS; VIEWED FROM THE NORTH-WEST.

11. CASTLE DYKE INNER ENCLOSURE FROM ACROSS FIELD 2; VIEWED FROM THE SOUTH.

12. EARTHWORKS IN SOUTH-WEST PART OF FIELD 2; VIEWED FROM THE EAST.

13. EARTHWORKS IN SOUTH-WEST PART OF FIELD 2; VIEWED FROM THE SOUTH-EAST.

14. VIEW ACROSS THE OUTER EARTHWORKS TO FIELD 7; VIEWED FROM THE NORTH.

15. VIEW BETWEEN THE OUTER EARTHWORKS AND FIELD 7; VIEWED FROM THE EAST.

16. FIELD 6; VIEWED FROM THE NORTH-WEST.

17. VIEW ALONG THE BOUNDARY BETWEEN FIELDS 2 AND 6; VIEWED FROM THE SOUTH-WEST.

18. TREES DEFINING THE INNER ENCLOSURE OF CASTLE DYKE; VIEWED FROM THE SOUTH.

19. SOUTH-WEST PART OF FIELD 2; VIEWED FROM THE EAST.

20. FIELD 6; VIEWED FROM THE NORTH.

21. ROUTE TO THE INNER ENCLOSURE/FIELD 3, BETWEEN FIELDS 2 AND 4; VIEWED FROM THE SOUTH-EAST.

22. FIELD 4; VIEWED FROM THE SOUTH-WEST.

23. VIEW ALONG THE ROUTE BETWEEN FIELDS 4 AND 6; VIEWED FROM THE NORTH-WEST.

24. THE SOUTH SIDE OF FIELD 2; VIEWED FROM THE NORTH-EAST.

25. FIELD 5; VIEWED FROM THE SOUTH-WEST.

26. WEST PART OF FIELD 6; VIEWED FROM THE EAST.

27. NORTH PART OF FIELD 6; VIEWED FROM THE SOUTH.

28. EAST SIDE OF FIELD 6; VIEWED FROM THE WEST.

29. SOUTH SIDE OF FIELD 6; VIEWED FROM THE NORTH-WEST.

30. VIEW ALONG THE SOUTH END OF THE NORTH-EAST BOUNDARY TO FIELD 6; VIEWED FROM THE SOUTH-EAST.

31. VIEW ALONG THE FORMER TRACK RUNNING SOUTH-EAST FROM CASTLE DYKE TO THE MAIN ROAD BRIDGE; VIEWED FROM THE WEST-NORTH-WEST.

32. THE SOUTH-EAST END OF THE OUTER EARTHWORK; VIEWED FROM THE EAST.

33. FIELD 6, WEST SIDE; VIEWED FROM THE SOUTH-EAST.

34. FIELD 6 AND COOMBE; VIEWED FROM THE SOUTH.

35. FIELD 6, EAST SIDE; VIEWED FROM THE SOUTH-WEST.

36. NORTH SIDE OF THE BARNS IMMEDIATELY SOUTH OF THE SITE; VIEWED FROM THE WEST.

37. FORMER TRACK TO CASTLE DYKE FROM THE SOUTH-EAST OF THE SITE; VIEWED FROM THE SOUTH-EAST.

38. FIELD 5; VIEWED FROM THE NORTH-EAST.

39. NORTH-EAST END OF FIELD 5 WITH MODERN POND; VIEWED FROM THE SOUTH-WEST.

40. SHINE RAMPART AND TRACK EAST OF FIELDS 4 AND 5; VIEWED FROM THE SOUTH.

41. SHINE RAMPART AND TRACK EAST OF FIELD 5; VIEWED FROM THE NORTH-EAST.

42. FIELD 4, EAST SIDE; VIEWED FROM THE SOUTH.

43. FIELD 4; VIEWED FROM THE SOUTH-SOUTH-EAST.

44. FIELD 4, LOOKING TOWARDS THE INNER ENCLOSURE OF CASTLE DYKE; VIEWED FROM THE SOUTH-EAST.

45. VIEW ALONG THE BOUNDARY BETWEEN FIELDS 4 AND 5; VIEWED FROM THE NORTH-EAST.

46. NORTH-EAST END OF FIELD 5 AND MODERN POND; VIEWED FROM THE NORTH-WEST.

47. VIEW BEYOND THE NORTH-EAST ACCESS TO FIELD 4; VIEWED FROM THE SOUTH.

48. VIEW ALONG THE ACCESS NORTH-EAST OF FIELD 4; VIEWED FROM THE SOUTH-WEST.

49. FIELD 4; VIEWED FROM THE NORTH-EAST.

50. THE NORTH SIDE OF FIELD 4; VIEWED FROM THE EAST.

51. SOUTH SIDE OF FIELD 4; VIEWED FROM THE NORTH-NORTH-EAST.

52. THE NORTH-EAST CORNER OF FIELD 4; VIEWED FROM THE SOUTH-WEST.

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