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**HYDES SOLAR FARM, LITTLE BARDFIELD, ESSEX
TRIAL TRENCH EVALUATION**

Authors: Samuel Egan (Fieldwork & Report) Peter Thompson (Archaeological Background)	
NGR: TL 6501 2948	Report No: 4598
District: Uttlesford	Site Code: LBAHS14
Approved: Claire Halpin MfA	Project No: P5508
Signed:	Date: 9 June 2014

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OASIS SUMMARY SHEET

Project details			
Project name	<i>Hydes Solar Farm, Little Bardfield, Essex</i>		
<i>In June 2014 Archaeological Solutions Ltd (AS) carried out an archaeological evaluation on land at Hydes Solar Farm, Little Bardfield, Essex (TL 6501 2948). The evaluation was commissioned by Lightsource Renewable Energy Ltd and conducted in compliance with a planning condition attached to planning permission to construct a solar farm (Uttlesford District Council Planning Ref. UTT/13/2207/FUL), based on the advise of Essex County Council Historic Environment Advisor (ECC HEA).</i>			
<i>There was a good correlation between the geophysical data and the archaeological features. The evaluation trench revealed three ditches. Ditch F1004 contained medieval (13th – 14th century) pottery, and also residual abraded fragments of Roman CBM, probably derived from tegula roof tile. Though it contained no finds Ditch F1006 was cut by Ditch F1004, and therefore is dated to the medieval period or earlier. Ditch F1002 is undated. F1004 and F1006 appear to be part of a medieval field system. The differences in alignment of these ditches to F1002 indicate that it is unlikely that they formed part of the same field system.</i>			
Project dates (fieldwork)	<i>June 2014</i>		
Previous work (Y/N/?)	<i>N</i>	Future work	<i>TBC</i>
P. number	<i>P5508</i>	Site code	<i>LBAHS14</i>
Type of project	<i>An archaeological evaluation</i>		
Site status			
Current land use	<i>Agricultural land</i>		
Planned development	<i>Solar Farm</i>		
Main features (+dates)	<i>Two medieval ditches and a undated ditch</i>		
Significant finds(+dates)	<i>Medieval pottery and residual Roman tegula</i>		
Project location			
County/ District/ Parish	<i>Essex</i>	<i>Uttlesford</i>	<i>Little Bardfield</i>
HER/ SMR for area	<i>Essex HER</i>		
Post code (if known)	<i>-</i>		
Area of site	<i>0.12ha</i>		
NGR	<i>TL 6501 2948</i>		
Height AOD (max/ min)	<i>Approximately 101m AOD</i>		
Project creators			
Brief issued by	<i>Essex County Council HER</i>		
Project Supervisor	<i>Sam Egan</i>		
Funded by	<i>Lightsource Renewable Energy Ltd</i>		
Full title	<i>Hydes Solar Farm. Little Bardfield, Essex. An Archaeological Evaluation</i>		
Authors	<i>Egan, S</i>		
Report no.	<i>4598</i>		
Date (of report)	<i>June 2014</i>		

HYDES SOLAR FARM, LITTLE BARDFIELD, ESSEX ARCHAEOLOGICAL TRIAL TRENCH EVALUATION

SUMMARY

In June 2014 Archaeological Solutions Ltd (AS) carried out an archaeological evaluation on land at Hydes Solar Farm, Little Bardfield, Essex (TL 6501 2948). The evaluation was commissioned in compliance with a planning condition attached to planning permission to construct a solar farm (Uttlesford District Council Planning Ref. UTT/13/2207/FUL), based on the advice of Essex County Council Historic Environment Advisor (ECC HEA).

The site lies in an area of archaeological potential recorded on the Essex Historic Environment Record (EHER). The development area has been previously under woodland. It retains a potential for archaeological deposits related to the woodland surviving as buried features, and also for occupation remains from the prehistoric to the Roman period which may be present. Cropmarks of earlier field systems are also known from the area (HER 19010 & 19013).

There was a good correlation between the geophysical data and the archaeological features. The evaluation trench revealed three ditches. Ditch F1004 contained medieval (13th – 14th century) pottery, and also residual abraded fragments of Roman CBM, probably derived from tegula roof tile. Though it contained no finds Ditch F1006 was cut by Ditch F1004, and therefore is dated to the medieval period or earlier. Ditch F1002 is undated. F1004 and F1006 appear to be part of a medieval field system. The differences in alignment of these ditches to F1002 indicate that it is unlikely that they formed part of the same field system.

1 INTRODUCTION

1.1 In June 2014 Archaeological Solutions Ltd (AS) carried out an archaeological evaluation on land at Hydes Solar Farm, Little Bardfield, Essex (TL 6501 2948; Figs.1 - 2). The evaluation was commissioned by Lightsource Renewable Energy Ltd and conducted in compliance with a planning condition attached to planning permission to construct a solar farm (Uttlesford District Council Planning Ref. UTT/13/2207/FUL), based on the advice of Essex County Council Historic Environment Advisor (ECC HEA).

1.2 An archaeological desk-based assessment has been prepared (Keen 2013), and also a geophysical survey (Prestidge 2014). Solar farms are largely non-destructive, and the evaluation targeted geophysical anomalies recorded during the previous survey.

1.3 The evaluation was conducted in accordance with a brief issued by the ECC HEA (dated 15/04/2014), and a written scheme of investigation prepared by Archaeological Solutions (dated 17/04/2014). The project adhered to appropriate sections of Gurney (2003) 'Standards for Field Archaeology in the East of England', *East Anglian Archaeology Occasional Paper 14*, and the Institute for Archaeologists' *Code of Conduct and Standard and Guidance for Archaeological Field Evaluation* (revised 2008).

1.4 The aim of the trial trenching was to determine the location, date, extent, character, condition significance and quality of any archaeological remains liable to be threatened by the proposed development. In particular to accurately identify the date and function of the features in the south east corner of the site identified as geophysical survey anomalies

Planning policy context

1.5 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.6 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance with substantial harm to designated heritage assets (i.e. listed buildings and scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

2 DESCRIPTION OF THE SITE

2.1 The site is located near Little Bardfield, near Braintree in Essex. It is to the south of Markwood Farm, and is an open area of arable land extending to some 18.75ha. It is currently in arable use, under wheat stubble and the topography is mainly flat

3 GEOLOGY AND SOILS

3.1 Little Bardfield is located on a hill with Hyde's Solar Farm situated at approximately 102m AOD. The underlying geology is London Clay Formation – Clay, silt and sand. The drift geology is Lowestoft Formation - Diamicton. The overlying soils are known as Hanslope which are typical slowly permeable calcareous clayey soils (Soil Survey of England and Wales, Sheet 6 South East England).

4 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

4.1 Desk-Based Assessment

A desk based assessment has been undertaken (Keen 2013). In summary:

Palaeolithic – Iron Age

Evidence for prehistoric archaeological remains in the wider landscape has to date been a small collection of Neolithic worked flints found at Shalford, along with Early Bronze Age burials (ECC FAU, 2010). Iron Age occupation of the surrounding landscape has been revealed to some extent by excavations at Thaxted of prehistoric flint and late Bronze Age to early Iron Age pottery (Rozwadowski, M., 2008), at Great Bardfield, of finds dating to the late Iron Age and late Bronze Age (Orr, K., CAT, 2007) and at Finchingfield where evidence was revealed for mid and late Iron Age occupation (Benfield, S., 2005, Lister, C., 2006).

To the north west of the site and east of Marks Wood, a series of cropmarks show the remnants of ancient field boundaries (SMR No 19010). A further collection of similar cropmarks lie south east of the proposed site (SMR No 19013). The latter are possibly part of a celtic field system dating from the Bronze Age through to the early Middle Ages, these are often coaxial i.e. forming a system by which boundaries of adjacent fields make a series of long roughly parallel lines.

Romano-British

Some evidence to date has been found for the wider Roman landscape surrounding the proposed site. Roman tile has been recorded as present in the walls of St Katharine's Church (SMR No 1519). Earth banks near Lodge Wood were thought to represent part of a Roman road. Roman finds consisting of second century pottery and a wall foundation, and believed to form part of a Roman settlement were found at Finchingfield (Benfield, S., 2005, Lister, C., 2006, SMR Nos 1505, 1506). A Roman burial was found at Great Bardfield (Orr, K., CAT, 2007). Excavations at Thaxted revealed Roman pottery (Rozwadowski, M., 2008). Roman ditches were discovered at Shalford (ECC FAU, 2010). No evidence to date has been uncovered for Roman activity within or in the vicinity of the proposed site.

Anglo-Saxon and Medieval

The proposed site falls in an Anglo-Saxon/medieval landscape within the parish of Little Bardfield. The early medieval landscape was dominated by two manors, Little Bardfield Hall and Mole Hall. At the time of the Domesday survey the manor of Little Bardfield was held by Eustace Earl of Bologne and his under tenant Adelolf de Merk. From the name Adelolf de Merk, or Merks, it is deemed that many placenames in Essex were derived, it is possible that the name Marks Wood was also derived from this source. The manor was held by Henry de Merk from 1210 until 1268 and remained in the family held by Andrew de Merk until at least 1283. In 1351 the manor of Little Bardfield and its lands was passed to the Abbey and Convent of St John's in Colchester.

Within a radius of 1.5km there are several sites recorded in the Essex heritage environment records of Anglo-Saxon and medieval buildings, and medieval field boundaries and moats. To the north east of the site lies the village of Little Bardfield and the Church of St Katharine, the church is dated as early as Saxon with the large west tower being one of the few outstanding pieces of Saxon architecture in Essex (SMR Nos 1519, 1520, 1521 and 1522). To the west of the church, earthworks and fish ponds have been recorded, which are the remains of a possible deserted medieval village SMR No 1523).

The proposed site lies within the proximity of cropmarks, which show the remains of medieval field boundaries, at New Barn, The Lodge, Bustard Green, The Hydes and Stones. The field boundaries reflect the reorganisation in the medieval period into extensive 'open' or subdivided field systems, associated with hamlets of families who worked strips of land dispersed through the systems. (Figure 4, SMR Nos 46576, 46577, 46582, 46590, and 46592).

Remnants of medieval life also remain in the form of medieval moats and buildings at Fanns Farm, The Grove and west of Little Bardfield

Hall (HER Nos 1196, 1280, 1566). A medieval Hedingham ware kiln was also found in Great Bardfield (Orr, K., CAT, 2007). The most notable evidence of medieval life in the vicinity of the site is Markswood Farmhouse, a grade II listed building (Figure 12, SMR No 38196).

Post-Medieval

The manorial estate of Little Bardfield remained in church hands until the dissolution of the monasteries in 1539, when it was then granted to Robert Foster Esq by King Henry VIII. The manor passed on to William Chishull Esq on 3 April 1541 until his death on 12 Aug 1570. From 1570 to 1777 the manorial estate was held by a series of landowners, William Smith, John Buttal, Christopher Buttal, Thomas Wale and Henry Wale Esq. The name of Henry Wale can be found encribed on Chapman and Andre's map of 1777 (Figure 5), and mentioned by the Rev Phillip Morant as the present landowner at his time of writing the History and Antiquities of Essex in 1763.

The land on which the proposed site lies belonged in the nineteenth century to William Walford and was occupied by William Phillips. In context with the wider early post medieval landscape the proposed site lies to the south of the site of sixteenth century, Little Hyde, house and farm building, now demolished and under plough (SMR No 1566). On the proposed site itself, current boundaries on the north east, south west and part of the south east can be traced back to the 1838 tithe map. The proposed field for the site therefore has retained some historical boundaries, in spite of being covered by woodland until at least 1838. The woodland known as Marks Wood still remains, but in much reduced size to the north west of the site.

4.2 Geophysical Survey

A geophysical survey has been undertaken (Prestidge 2014). In summary:

A detailed gradiometry survey was conducted over approximately 18.75 hectares of agricultural land (Fig.2).

A number of features of archaeological origin have been identified throughout the survey area. These include cut features and possible enclosures. These features most likely relate to the possible "...celtic field system dating from the Bronze Age through to the early Middle Ages..." mentioned in the desk-based assessment. The evidence within the survey data correlates with the description that the features "...are often coaxial i.e. forming a system by which boundaries of adjacent fields make a series of long roughly parallel lines."

Two former field boundaries, visible on historic mapping of 1876, are also present.

Other modern and natural features have also been identified including magnetic disturbance, magnetic spikes and ploughing.

5 METHODOLOGY

5.1 The brief required trial trenching of the geophysical anomalies identified in the south-eastern part of the site (Fig.2). A single trench of c.60m x 1.8m across the area of anomalies was excavated using a tracked 360° mechanical excavator fitted with a toothless ditching bucket.

5.2 Undifferentiated overburden was removed under close archaeological supervision using a mechanical excavator fitted with a toothless ditching bucket. Thereafter, all further investigation was undertaken by hand. Exposed surfaces were cleaned as appropriate and examined for archaeological features and finds. Deposits were recorded using *pro forma* recording sheets, drawn to scale and photographed. Excavated spoil was checked for finds and the trenches were scanned by metal detector.

6 DESCRIPTION OF RESULTS

Individual trench description presented below.

Trench 1 (Figs. 2-3)

<i>Sample section 1A:</i> <i>South-south east End, West-south west facing</i> <i>0.00m = 102.51m AOD</i>		
0.00m–0.38m	L1000	Topsoil. Firm, dark greyish brown silty clay with occasional small and medium sub-rounded chalk inclusions
0.38m+	L1001	Natural. Compact, pale yellowish grey, silty clay with occasional small to medium sub-rounded chalk

<i>Sample section 1B:</i> <i>North-north west end, West-south west facing</i> <i>0.00m = 102.05m AOD</i>		
0.00 – 0.35m	L1000	Topsoil. As above.
0.35m +	L1001	Natural. As above.

Description: Trench 1 contained an undated ditch (F1002), a medieval ditch (F1004), and a ditch (F1006) dating to the medieval period or earlier. A modern land drain traversed the trench.

F1002 was a large linear ditch (2.00m+ x 2.30m x 0.60m), orientated NE/SW. It had moderately sloping sides and a concave base. Its fill, L1003, was a firm, mid greyish brown silty clay with occasional small and medium sub-rounded chalk. It contained no finds.

F1004 was also a large ditch (1.80m+ x 1.87m x 0.43m), orientated E/W. It had irregular steep to moderate sides and a concave base. Its fill, L1005, was a firm, dark greyish brown silty clay with occasional small and large angular flint. It contained medieval pottery (13th – 14th century) pottery (28g) and Roman CBM (181g). F1004 cut Ditch F1006.

F1006 was also a large ditch (1.80m+ x 0.80m x 0.12m), orientated E/W. It had moderate sloping sides and a concave base. Its fill, L1007, was a compact, mid orange brown silty clay with moderate flecks of chalk. It contained no finds. F1006 was cut by Ditch F1004.

7 CONFIDENCE RATING

7.1 It is not felt that any factors inhibited the recognition of archaeological features of finds.

8 DEPOSIT MODEL

8.1 Uppermost was Topsoil L1000, a firm, dark greyish brown silty clay with occasional small and medium sub-rounded chalk (0.34-0.38m thick). L1000 directly overlay the natural, L1001, a compact, pale yellowish grey, silty clay with occasional small to medium sub-rounded chalk. L1001 was 0.34 – 0.38m below the current ground surface.

9 DISCUSSION

9.1 The features recorded in Trench 1 are tabulated:

Trench	Context	Description	Date
1	F1002	Ditch	Undated
1	F1004	Ditch	Medieval (13 th – 14 th C)
1	F1006	Ditch	Medieval or earlier

9.2 Ditch F1004 contained medieval (13th – 14th century) pottery. The sherds are in fairly good condition indicating a primary deposition, and derive from the body of a jug containing green glaze over white slip, indicating a 13th-14th century date (Pottery Report below). The ditch also contained three residual abraded fragments of Roman CBM, probably derived from tegula roof tile (CBM Report below).

9.3 Though it contained no finds Ditch F1006 was cut by Ditch F1004, and therefore is dated to the medieval period or earlier. Ditch F1002 is undated.

9.4 There was a good correlation between the geophysical data and the archaeological features (Fig.2).

9.5 The interpretation of F1002 is uncertain as no dateable material was present within its fill. The ditch may be part of the Bronze Age through to early medieval field system as it correlates with the geophysical survey data.

9.6 F1004 and F1006 appear to be part of a medieval field system. The differences in alignment of these ditches to F1002 indicate that it is unlikely that they formed part of the same field system. Field boundaries associated with the medieval open fields of the area have been recorded at locations surrounding the current site. The dating evidence from F1004 and F1006 might be consistent with these features having also formed part of this system; by approximately AD 1300 much of England was being cultivated under the open field system (Adkins and Adkins 2003, 251).

Research potential

9.7 The physical confirmation of the results of the geophysical survey, in the form of Ditch F1002, but the lack of dating evidence from this feature indicates that there remains the potential for the site to contain a field system of any date from Bronze Age to early medieval. Medlycott (2011) raises research questions related to the field systems and the organisation of the rural landscape for most of these periods.

9.8 The identification residual Roman tile during this evaluation adds the known distribution of Roman material in the surrounding area and indicates that Roman period activity must have occurred in the vicinity. Given the small quantity and the abraded character of this CBM it is, however, unlikely that this activity occurred within the site or its immediate environs.

9.9 The identification of medieval boundaries, potentially linked to the open field system, indicates that the results of this evaluation can add to the current understanding of the division and layout of the medieval landscape in and around Little Bardfield.

10 DEPOSITION OF ARCHIVE

10.1 Archive records, with an inventory, will be deposited at Saffron Walden Museum. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data.

11 ACKNOWLEDGEMENTS

Archaeological Solutions Limited would like to thank Lightsource Renewable Energy Ltd for their co-operation and funding of the evaluation, in particular Mr Jonathan Wright.

AS is pleased to acknowledge the advice and input of Mr Richard Havis the Essex County Council Historic Environment Advisor.

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APPENDIX 1 CONCORDANCE OF FINDS

LBHS14, Hydes farm, Little Bardfield

Concordance of finds by feature

Feature	Context	Trench	Description	Spot Date	Pottery	CBM (g)	A.Bone (g)	Other
1004	1005	1	Fill of Ditch	13th-14th C	(5) 28g	181	5	

APPENDIX 2 SPECIALIST REPORTS

The Pottery

by Peter Thompson

The evaluation recovered 5 sherds of Colchester ware weighing 25g from Ditch F1004 (L1005). The sherds are in fairly good condition indicating a primary deposition, and derive from the body of a jug containing green glaze over white slip, indicating a 13th-14th centuries date.

The Ceramic Building Materials

Andrew Peachey MfA

Ditch F1004 (L1005) contained three abraded fragments (181g) of Roman CBM, comprising 15mm thick flat tile, probably derived from tegula roof tile. The fragments occurred in a coarse fabric with orange surfaces with a sandwich, mid grey core. Inclusions comprise common quartz (typically <0.5mm, occasionally to 1mm) with sparse flint, red iron-rich grains and chalk (all 1-5mm).

PHOTOGRAPHIC INDEX



1
General shot of Trench 1 looking north



2
General shot of Trench 1 looking south



3
Ditch 1002 looking north-east



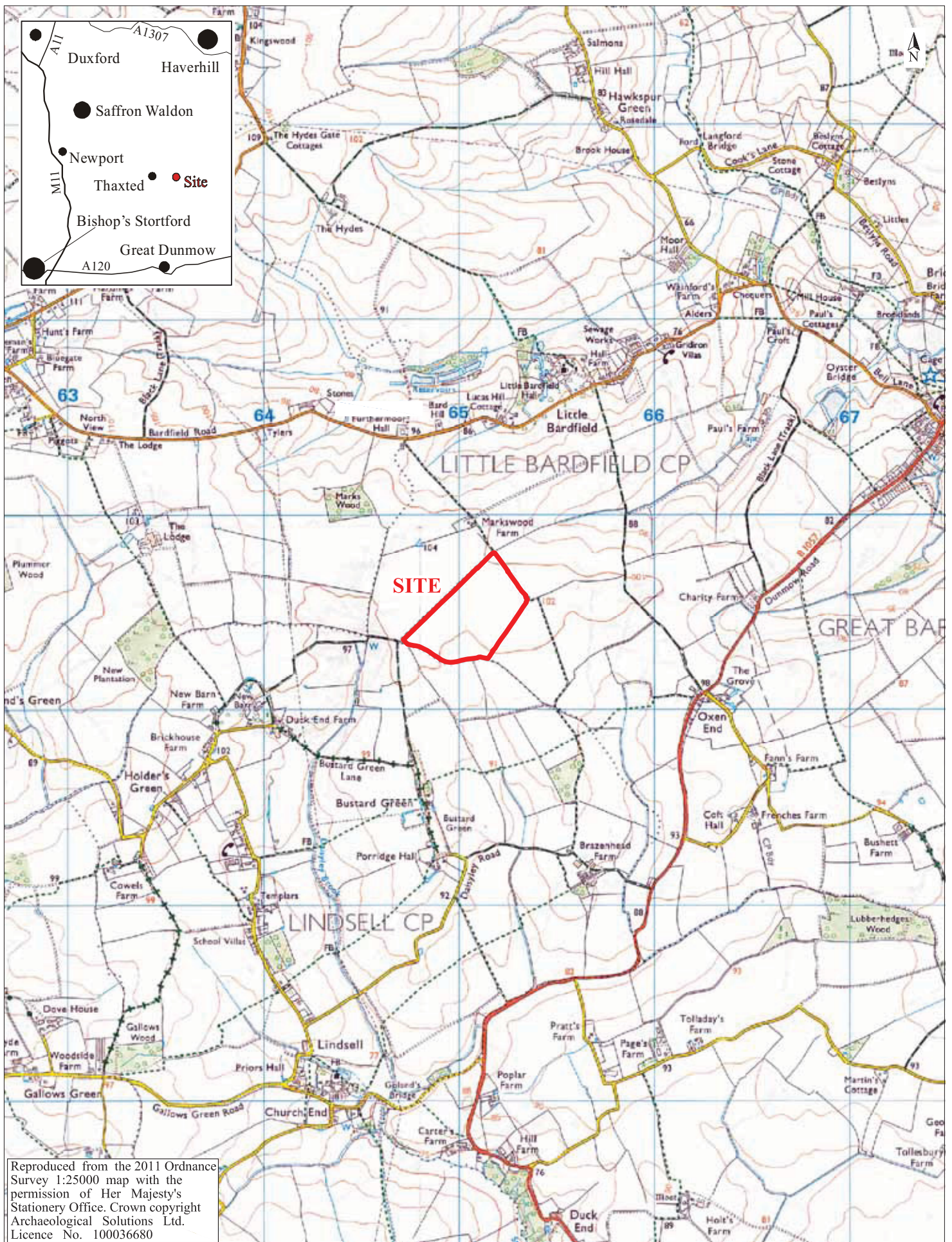
4
Ditches 1004 & 1006 looking north-east



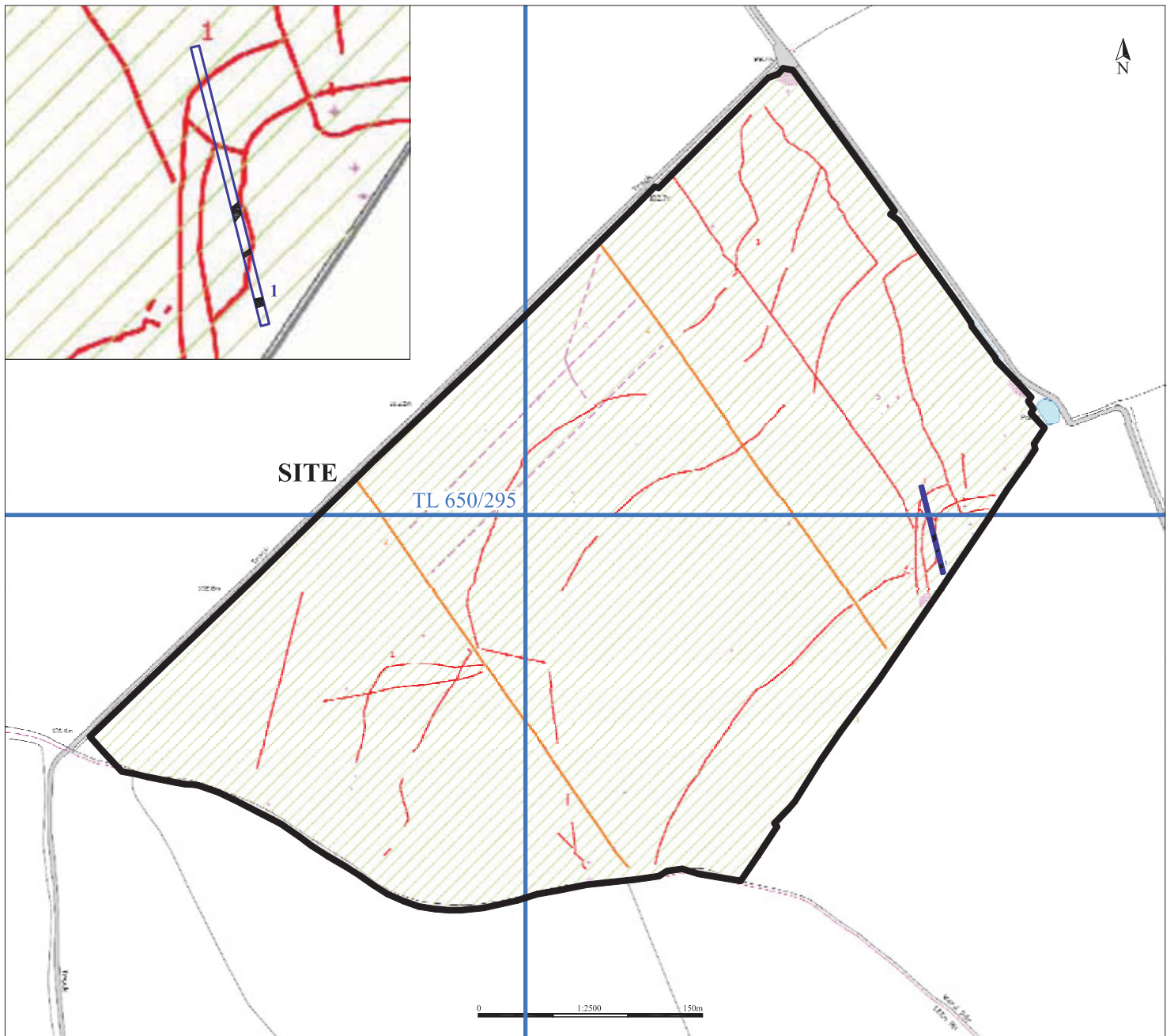
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Sample section 1A looking east



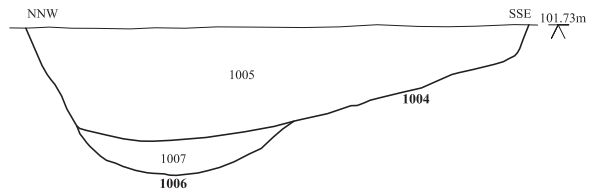
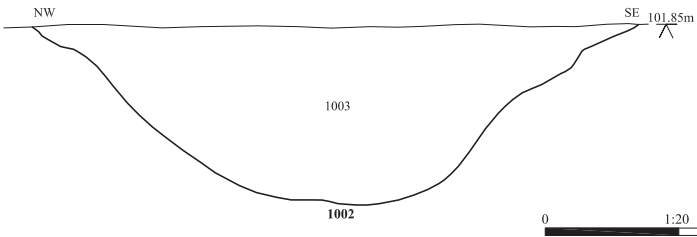
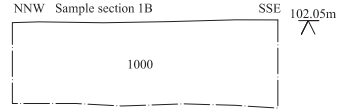
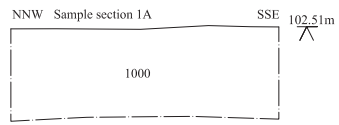
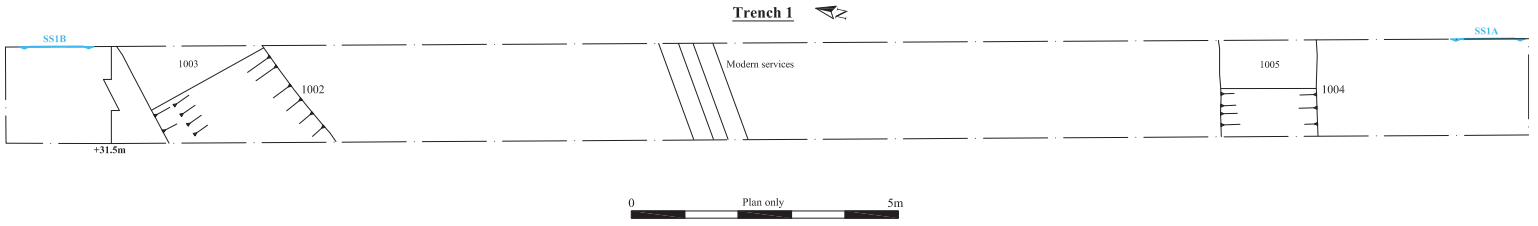
6
Sample section 1B looking east



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Fig. 1 Site location plan
 Scale 1:25,000 at A4



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Fig. 2 Detailed site location plan
Scale 1:2,500 and 1:1,250 at A4



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Fig. 3 Trench plan and sections
Scale 1:100 and 1:20 at A4