

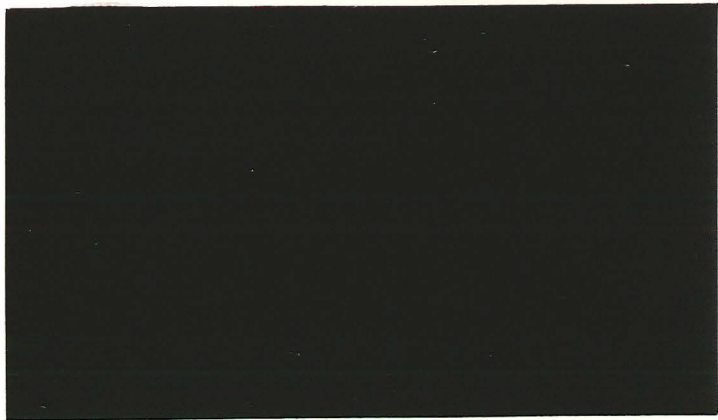
PRE-CONSTRUCT ARCHAEOLOGY

L I N C O L N

**ARCHAEOLOGICAL DESK-BASED
ASSESSMENT
LAND SOUTH OF HIGH FARM,
HALTON HOLEGATE, LINCOLNSHIRE**

Site Code: HAH 00
NGR: TF 41310 65650





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Report prepared for Cirque Energy (UK) Ltd
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November 2000

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Summary

- *An archaeological desk top study has been undertaken prior to the determination of a planning application for the construction of a temporary drill site, on land to the south of High Farm, Halton Hologate, Lincolnshire.*
- *The results of this study suggest that the archaeological potential of the site is high. A number of cropmarks have been identified in the vicinity of the site. These suggest the existence of an Early Neolithic causewayed enclosure and a Bronze Age barrow cemetery to the north-east; a barrow, a prehistoric-tradition enclosure and house, and medieval boundary features around High Farm, to the north-west; and a barrow to the west.*
- *There have been no previous excavations in this area, but fieldwalking and chance finds attest to activity in the Lower Palaeolithic, Later Mesolithic, Neolithic, Bronze Age, medieval and post-medieval periods. This material is largely comprised of lithic artefacts and pottery.*
- *Further lithic artefacts and sherds of medieval and post-medieval pottery have been recovered from the surface of the development area during the course of a site inspection.*

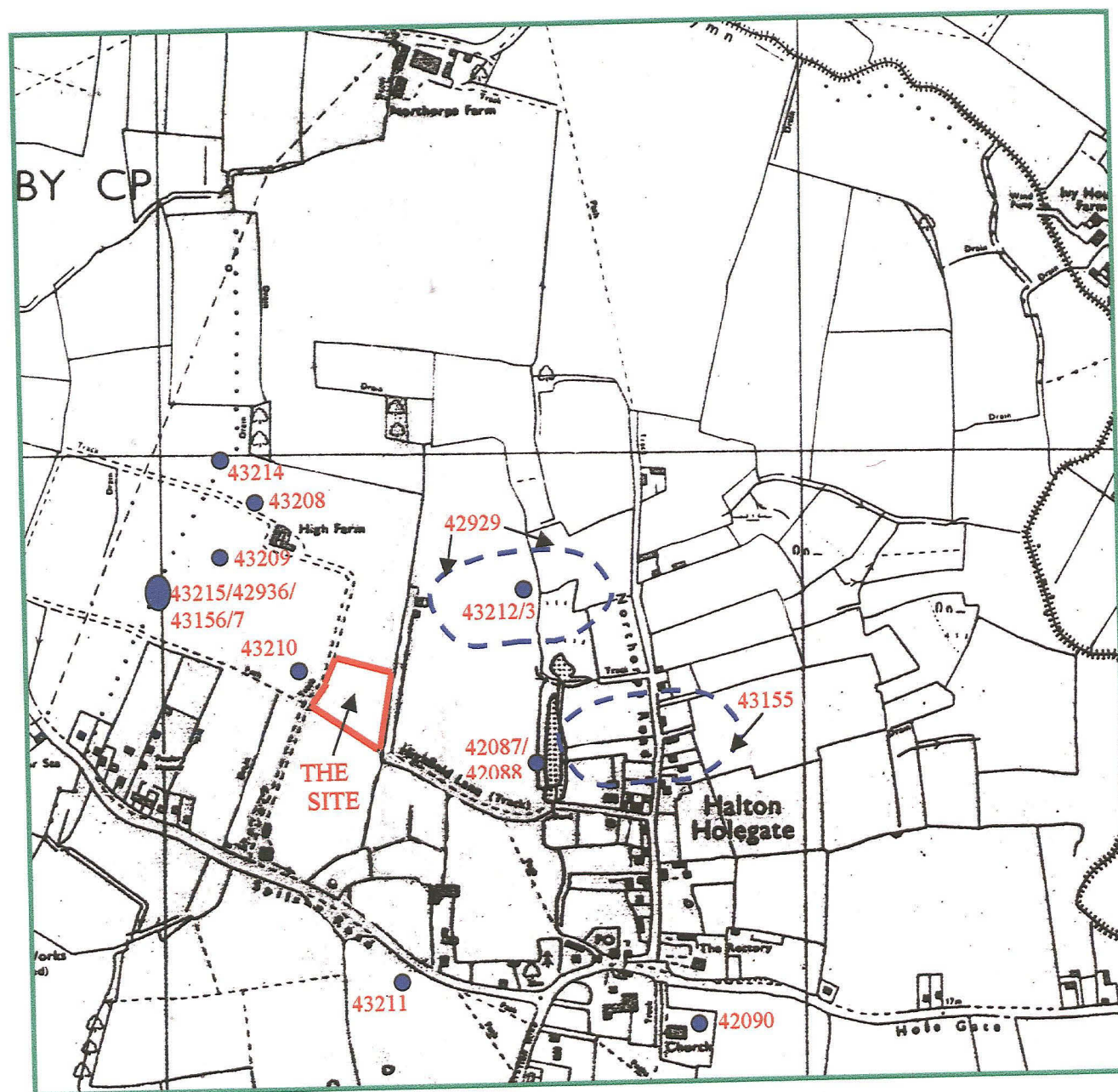


Figure 1: Site Location at a scale of 1: 10,000. Also shown are the location of archaeological features and materials recorded in the County Sites and Monuments Record (see Appendix 12.1 for details).

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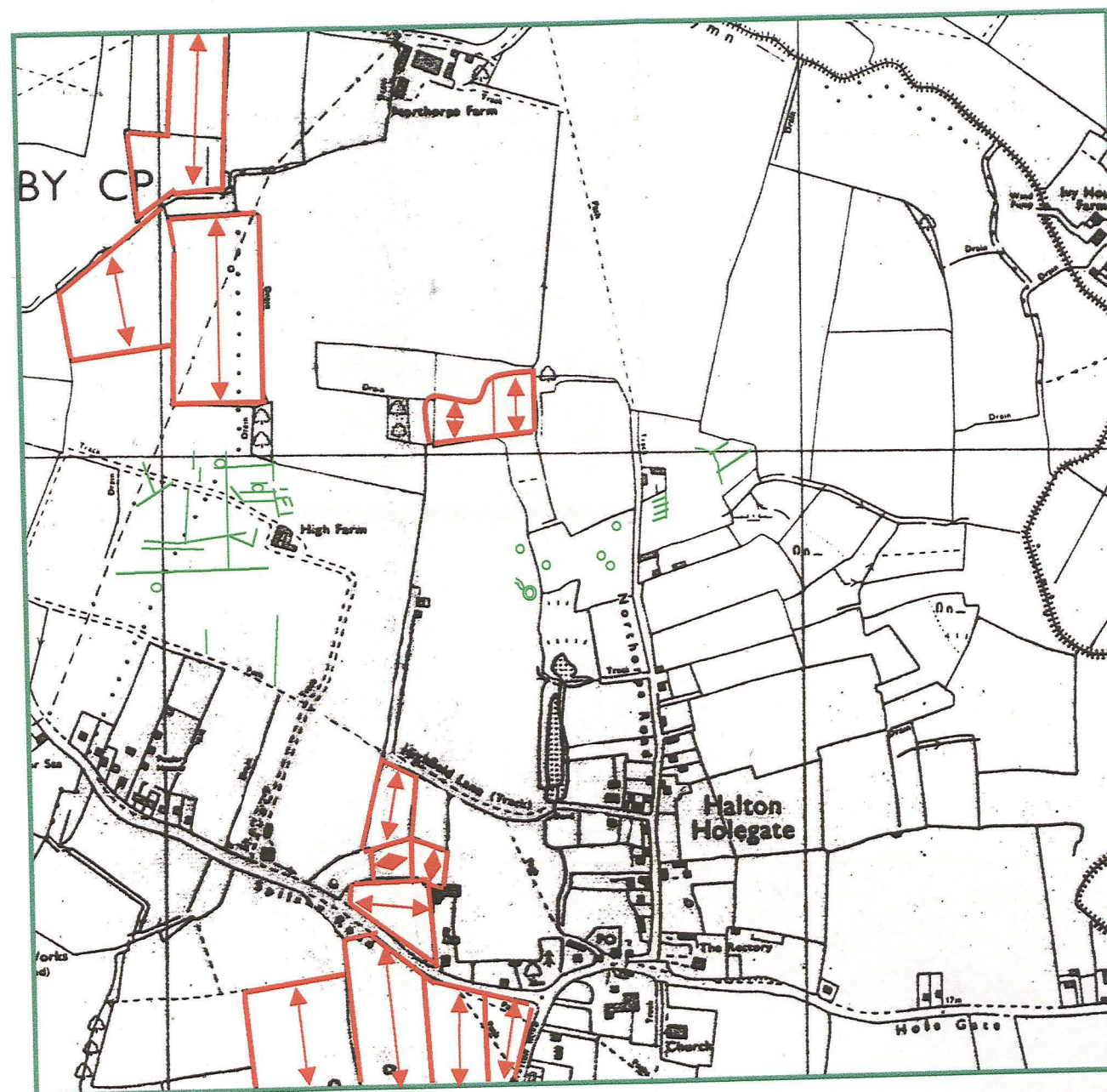


Figure 2: Archaeological data derived from aerial photographs. The red blocks show areas of extant ridge and furrow, while the green depicts cropmarks.

1.0 Introduction

Cirque Energy (UK) Ltd. commissioned Pre-Construct Archaeology (Lincoln) to undertake an archaeological desk top assessment and geophysical survey in advance of the determination of a planning application for the construction of a temporary drill site, on land to the south of High Farm, Halton Hologate, Lincolnshire.

This report details the results of the desk-based study, which sought to assess the overall archaeological potential of the site, without the use of intrusive fieldwork, and to determine the possible impacts of the development upon this resource.

Research was conducted in accordance with the procedures set out in the Lincolnshire County Council publication *Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice* (LCC, 1998); national guidelines produced by the Institute of Field Archaeologists were also adhered to (IFA, 1994).

2.0 Location and description

Halton Hologate lies at the southern edge of the Lincolnshire Wolds, within the administrative district of East Lindsey. It is situated approximately 43km east of Lincoln and 23km north-north-east of Boston.

The site is situated c. 600m to the north-west of the village core, in an area of cultivated agricultural land (fig. 1). The proposed development will be contained within a sub-rectangular unit of land, totalling approximately 1ha, which represents the southern end of the north-south arm of an 'L'-shaped field.

This field had recently supported a cereal crop. The surface cover comprised stubble, c. 0.15m high, and short weed species, particularly nettles and thistles, as well as deciduous leaves from nearby trees. This shrouded 50 – 80% of the surface of the topsoil.

The eastern perimeter of the site follows the edge of a grass track known as Highfield Lane. There is no physical boundary between them, but a fairly dense band of nettles grows along the interface, which suggests that they are rooted in the nutrient rich fill of a ditch. The ground surface rises quite markedly at the north-eastern corner of the plot. The eastern part of this mound has been terraced away to enable Highfield Lane to continue as a relatively horizontal surface. A band of compacted topsoil, which results from the use of a public footpath, defines the southern boundary. Close examination of the micro-topography indicates that there is slight bank or lynchet immediately to the south of this path. The latter may have developed along, and indicate the position of, a grubbed-out hedge. The western edge of the site is defined by a trackway constructed on a low bank, the rubble surface of which lies c. 0.4m above the surface of the field. At the south-west corner of the field this bank is orientated toward the north-east, but after c. 50m swings c. 15° toward the north to run almost parallel to the eastern boundary. The northern edge of the site is not clearly defined, the field continuing for approximately another 300m in this direction.

The site occupies the southern half of the crest of an east-south-east to west-north-west orientated ridge, which runs between Spilsby and the village of Halton Hologate. The ground surface drops relatively gently toward the southern edge of the site, with the crest of the ridge lying at c. 38m OD; in contrast the low ground some 250m to the south lies at c. 26m OD. There is one significant variation to this gently rolling topography, the mound situated in the north-east corner of the plot. This prominence is c. 70 - 90m in diameter, with the southern 60m lying within the confines of the site. It is slightly asymmetrical and convex, with the apex situated c. 2 - 2.5m above the surrounding ground level.

There are extensive views to the north and south, with the buildings and landscaping of the modern settlements of Spilsby and Halton Hologate impeding vision in the other directions.

The British Geological Survey (BGS, 1995) has not identified any drift deposits within the immediate vicinity of the site, although the presence of a clayey ploughsoil containing small quantities of (Claxby?) ironstone suggests that there is a thin veneer of such material covering the site (see also 6.2 and 6.4). The uppermost formation of the underlying solid geology is Spilsby Sandstone, a pale grey, green to brown-weathering, pebbly sandstone, deposited at the end of the Jurassic period. This forms the east-west ridge, while the valley to the south of the site is incised into the underlying clay formations of the Ancholme Group.

Central National Grid Reference: TF 41310 65650.

3.0 Planning background

Cirque Energy (UK) Ltd have applied to Lincolnshire County Council for planning permission to construct a temporary drill site for testing and evaluating a single explanatory borehole (planning ref. (E)572/-/00/CM/CEW). That authority, acting on the advice of their Built Environment Team, has requested that this document be produced to inform the decision making process and enable the application to be determined.

4.0 Objectives and methods

The purpose of this report is to identify and assess the nature of *in-situ* archaeological deposits that may be damaged or destroyed by groundworks associated with the creation of the temporary drill site and, if necessary, to suggest further methods by which the site may be evaluated in advance of construction works.

Data for this report was drawn from the following sources:

- Records held by the County Sites and Monuments Record for Lincolnshire (SMR)
- Records held at the Lincolnshire Archives Office (LAO)
- Aerial photographs held by the National Monuments Record, Swindon (NMR)
- Published and unpublished sources
- Information supplied by the client
- A detailed inspection of the site

The author visited the site to gather data on 14th November 2000.

5.0 Archaeological and historical background

Examination of the data held in the SMR indicates that there have not been any formal archaeological excavations undertaken within the parish of Halton Hologate. However, T. and H. Godfrey undertook a protracted programme of fieldwalking in the 1970s, which examined the fields flanking the northern half of the village (fig. 3). This essentially focussed upon the east-south-east to west-north-west orientated ridge on which the site is located. Lithic material constituted the majority of the artefacts recovered, and attests to an extended period of human activity in the prehistoric period.

The oldest artefact recovered was a Lower Palaeolithic bifacial handaxe, found toward the western edge of the field immediately to the west of the site. This item, like the others recovered, remains with the Godfreys, and relevant information in the public domain is fairly sparse. However, it is possible to state that the axe is a product of the Acheulean tradition, evident in Britain from c. 500,000 to 150,000 BC. As such, an archaic *Homo sapien* (i.e. a pre-anatomically human person) manufactured it prior to the last glaciation. Finding such handaxes on the surface occurs rarely; they are more commonly recovered from quarries and gravel workings.

A scatter of microlithic flints was recovered from the southern edge of the same field. These artefacts are characteristic of Later Mesolithic technologies, c. 6000 – 3500BC, and were fabricated to create composite tools. Such localised scatters are often the product of the expedient manufacture of tools by passing groups of hunter-gatherers.

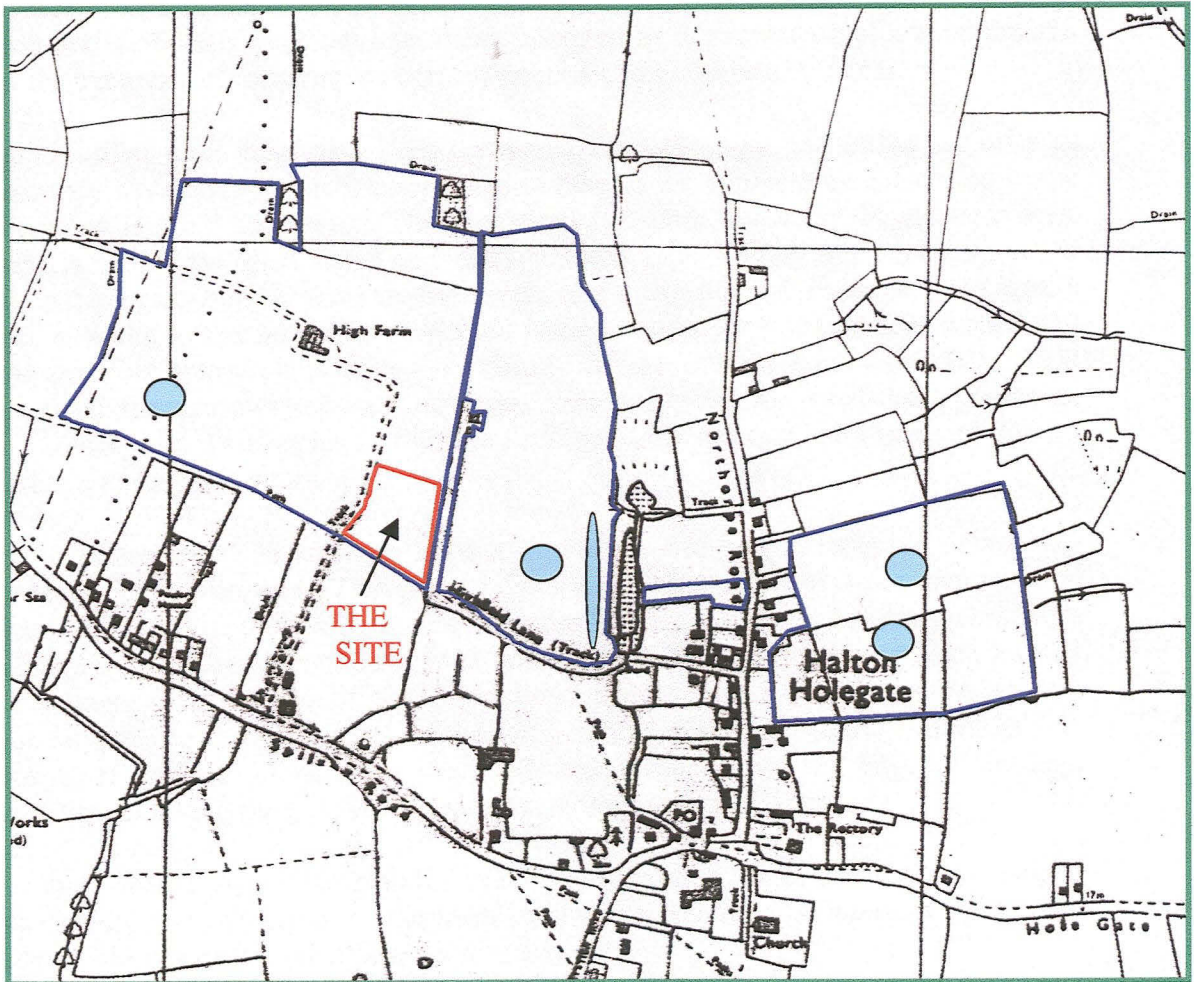


Figure 3: Summary of the fieldwalking programme undertaken by T. & H. Godfrey, based on data held in the SMR. The fields examined are outlined in blue, with concentrations of lithic artefacts marked as solid blue discs.

The Neolithic period is characterised not just by the introduction of agriculture, but also by the appearance of permanent structures, especially monuments and other ritual centres. It is with respect to the latter that a series of aerial photographs provide an insight into activity in the earlier Neolithic, as they have demonstrated the presence of a circular feature at the eastern edge of the field, which lies immediately to the east of the site (fig. 2). This takes the form of two concentric ditches, the inner having a diameter of c. 25m and the outer c. 40m. It is highly significant that both of these ditches appear to be punctuated in a number of places, which suggests that this represents the remains of a causewayed enclosure, constructed and utilised between c. 3,300 and 2,500BC. Such sites probably operated as important ritual and communal foci for a number of relatively mobile communities (*q.v.* Edmonds, 1993).

Neolithic flint tools have also been recovered from the area, but in the majority of cases they have not been differentiated from other lithic artefacts manufactured in the succeeding Bronze Age period. The exceptions represent extremely diagnostic pieces. These include a polished stone axe, manufactured from Spilsby Sandstone, found in Halton Holegate Fen, c. 4km to the south, and a comparable example from Keal's Field, c. 450m to the east. Also recovered were a number of Neolithic leaf-shaped and *petit tranchet* arrowheads, from the vicinity of the eastern boundary of the field containing the causewayed enclosure; this area overlooks the small lake known as Pine Goose, and the margins of the lake itself probably represented a rich and diverse source of game for hunters.

The undifferentiated assemblage is of a significant size and includes 76 cores, 411 scrapers, 176 knives, and 57 prepared points; associated debitage is not mentioned in the account held at the SMR, raising the possibility that only diagnostic pieces were recovered. Several concentrations were noted during fieldwalking, these being located in the immediate vicinity of the Palaeolithic handaxe, and also along the eastern boundary, and toward the centre, of the southern end of the field to the east of the site. Two other concentrations were identified, being situated on the edge of the high ground overlooking the Lindsey Marshes, c. 800m to the east of the site.

The only Bronze Age lithic material positively identified are two barbed and tanged arrowheads, one coming from the same area as its Neolithic counterparts, the other from the vicinity of the causewayed enclosure.

Cropmarks located in the field to the east of that containing the causewayed enclosure appear to indicate the position of at least four single-ditched round barrows. While such funerary monuments were constructed, intermittently, from the later Neolithic until the Anglo-Saxon period, the majority are associated with Early and Middle Bronze Age burials. It is probable that this necropolis was deliberately constructed adjacent to, and in reference to, the existing Neolithic monument, a site long associated with ritual and ancestral activity. Such juxtapositions are relatively common (e.g. Arbor Low, Derbys; Barrow Hills, Oxon; West Cotton, Wilts.) and can occur on all sides of the monument, generally in locations from which there is inter-visibility. Consequently, it is unsurprising to find that cropmarks suggest the presence of further barrows to the west of the site, one lying close to the handaxe find-spot, the other in the east-west arm of the field containing the site, c. 150m to the north-west of High Farm.

The SMR does not contain data specifically relating to activity in the Iron Age and Romano-British periods. Additionally, there is no mention of the recovery of Roman pottery during fieldwalking; this is surprising, as this material is fairly ubiquitous in most other areas of county. However, the aerial photographs provide some indication that there was some form of activity at this time. There appear to be several sub-rectangular enclosures, one containing a possible circular house gully and an associated linear boundary, situated to the immediate west and north-west of High Farm. These cropmarks have morphological characteristics, which suggest that they represent settlement and boundary features of a Late Bronze Age to Romano-British date (*q.v.* Winton, 1998).

Other cropmarks demonstrate that there is a pair of ditches running from the north-west corner of the causewayed enclosure toward High Farm. These ditches probably define the edges of a trackway. The latter is not a typical component of a Neolithic monument, but probably represents a much later appendage. Similar relationships have been noted at other sites, including the large Neolithic barrow at Duggelby Howe, East Yorkshire (P. Horne, *pers. comm.*) and the causewayed enclosure at Barholm, Lincolnshire (Boutwood, 1996). Such encircling and radiating linear features are generally interpreted as components of more extensive systems of landscape division, probably created in the Iron Age.

There is no archaeological evidence for Anglo-Saxon activity in the parish. However, the etymology of the place-name suggests that the origin of the modern settlement lay in the later Anglo-Saxon period. The village appears as *Haltun* in the *Domesday Book*, a word utilising Old English components *halh* and *tun*, meaning 'farmstead in a nook or corner of land' (Mills, 1993). In contrast, the suffix, Hologate, has an Old Scandinavian origin, from *holr* and *gata*, meaning 'road in a hollow'. This road has continued to be used to the present day, as Hole Gate, part of the B1195 to Wainfleet All Saints. The cutting or 'hollow' is located to the north of St Andrew's Church, allowing a gradual descent from the edge of the Wolds, at c. 24m OD, to the Lindsey Marshes, at c. 17m OD. It is conceivable that the differing origins of the two components of the place-name indicate a sequence of activity, with the farmstead being established initially, and the road being created or formalised later, during the period of Danelaw, or even subsequent to the Domesday Survey. It is probable that the road was created to allow passage for livestock onto the fertile grassland of the marshes, and also to facilitate the transportation of salt inland from production sites on the coast.

The *Domesday Book* indicates that although Count Alan controlled some property in and around the village, Ivo Tallboys, the nephew of King William, held much of the land in the parish. This estate was managed from the manor at Bolingbroke, in which wapentake Halton lay (Morgan & Thorn, 1986). In addition to 9 carucates of land and 120 acres of meadow, Ivo also held 4 mills and a church. Although the present church contains no fabric of this date, it is likely that St Andrew's overlies the site of this Saxon or Saxo-Norman precursor and indicates the general location of the Domesday settlement.

The 13th-14th century south doorway represents the oldest surviving fabric, with the majority of the church being constructed from local Spilsby Sandstone, in the

Perpendicular style, during the 15th century (Pevsner & Harris, 1989). As with many medieval churches, there was considerable renovation and rebuilding in the 19th century, the aisles being rebuilt in 1846 and the tower and east end of the nave in 1866-7.

The church also contains three monuments of note. The earliest is the 13th century Purbeck marble grave slab commemorating Sir Walter de Bec (Mee, 1970). In the south aisle lies the early 14th century figure of a knight cross-legged and praying, possibly representing Sir John de Fenés. Affixed to the south wall is a small brass of 1658 depicting Bridget Rugeley.

Elements of the medieval field system still exist as earthworks. Several of the fields bracketing Spilsby Road, to the south of the site, contain extant ridge and furrow. Further surviving strips can be found at the north-west corner of the parish, to the north of High Farm and west of Northorpe Farm, which appear to represent a small component of a much larger system belonging to Spilsby. Immediately to the south of these strips, and surrounding High Farm, are a series of cropmarks representing linear boundaries and a trackway. These have been interpreted as other elements of the medieval field system, although it should be noted that they appear to overlie the remains of a late prehistoric settlement and enclosures (see above).

The Grange is a farm lying c. 1.4km to the south-east of the site. Although no documentary evidence appears to survive to support the proposal, it is possible that this building overlies a medieval estate centre, operated as commercial concern by a monastic organisation. However, there is also a tradition of post-medieval farms taking the name as an affectation to imply a long ancestry (*q.v.* Hodges, 1991).

There are several other interesting buildings in the village. These include the Old Rectory, an early 18th century building, which was altered in the early 19th century to conform to contemporary architectural fashion. Similarly, Halton Manor is an 18th century building, with a 19th century façade, and the Old Hall, an 18th century brick building with later additions (Pevsner & Harris, 1989).

Two linear cropmarks, running northwards from the southern boundary of the field to the west of the site, have been interpreted as post-medieval field boundaries.

6.0 Archaeological potential

The specification for this desk-based assessment requested a synthesis based on maps, published and unpublished sources, and previous archaeological investigations, as well as a site inspection. Study of these sources has resulted in the collection of a body of data, which relates more specifically to the development site. This will be examined in more detail in the sections that follow.

6.1 Cartographic Evidence

The following maps were found to contain data relating specifically to the site:

- Ordnance Survey, 1892 – Sheet 83NW, First Edition, large-scale map (6": 1 mile), forms the basis for all subsequent maps produced by the survey to the present day (fig. 4). The surveying for this map was conducted in 1887.
- Ordnance Survey, 1906 – Sheet LXXXIII.5, Second Edition, large-scale map 1: 2,500 (fig. 5). The surveying for this map was conducted in 1904.

The following maps and surveys of land and estates in Halton Hologate were also examined, but were found not to contain directly relevant data:

- 'A map showing the situation of the inclosed lands belonging to John Rennardson, esq., in the parish of Ashby and his estates in adjoining parishes of Halton and Partney, in the county of Lincoln' 1799, produced by Gibbons and Arden. (LAO ref. *H103/F*).
- 'Plan of an estate situate in Halton Hologate, in the county of Lincoln, the property of M^r James Malkinson' (LAO ref. *Misc. Don 1000/14/6*).
- 'Plan of estate of R^t Hon Lord Willoughby de Eresby' 1847 (LAO ref. *2 Anc 5/10A*).

Both of the Ordnance Survey maps show essentially the same information, namely that the site has changed relatively little in the last 113 years. The eastern, western and southern boundaries are unchanged, while the original northern boundary ran from a point just to the north of the house that lies to the north-north-east of the site. The present 'L'-shaped field represents an amalgamation of 5 fields extant in the Victorian and Edwardian periods.

All of the field boundaries defining the site are shown as solid lines, suggesting that they were hedged, and the First Edition O.S. map also shows a few trees growing along the western perimeter. The footpath running along the southern boundary was in existence prior to 1887, and was probably flanked by hedges on both sides. Additionally, both Highfield Lane and the track to High Farm had already been constructed. The 1892 edition depicts a trackway running along the southern edge of the northern boundary, between High Farm and the other house adjacent to the site. However, by 1906 this track appears to have been expunged from the landscape.

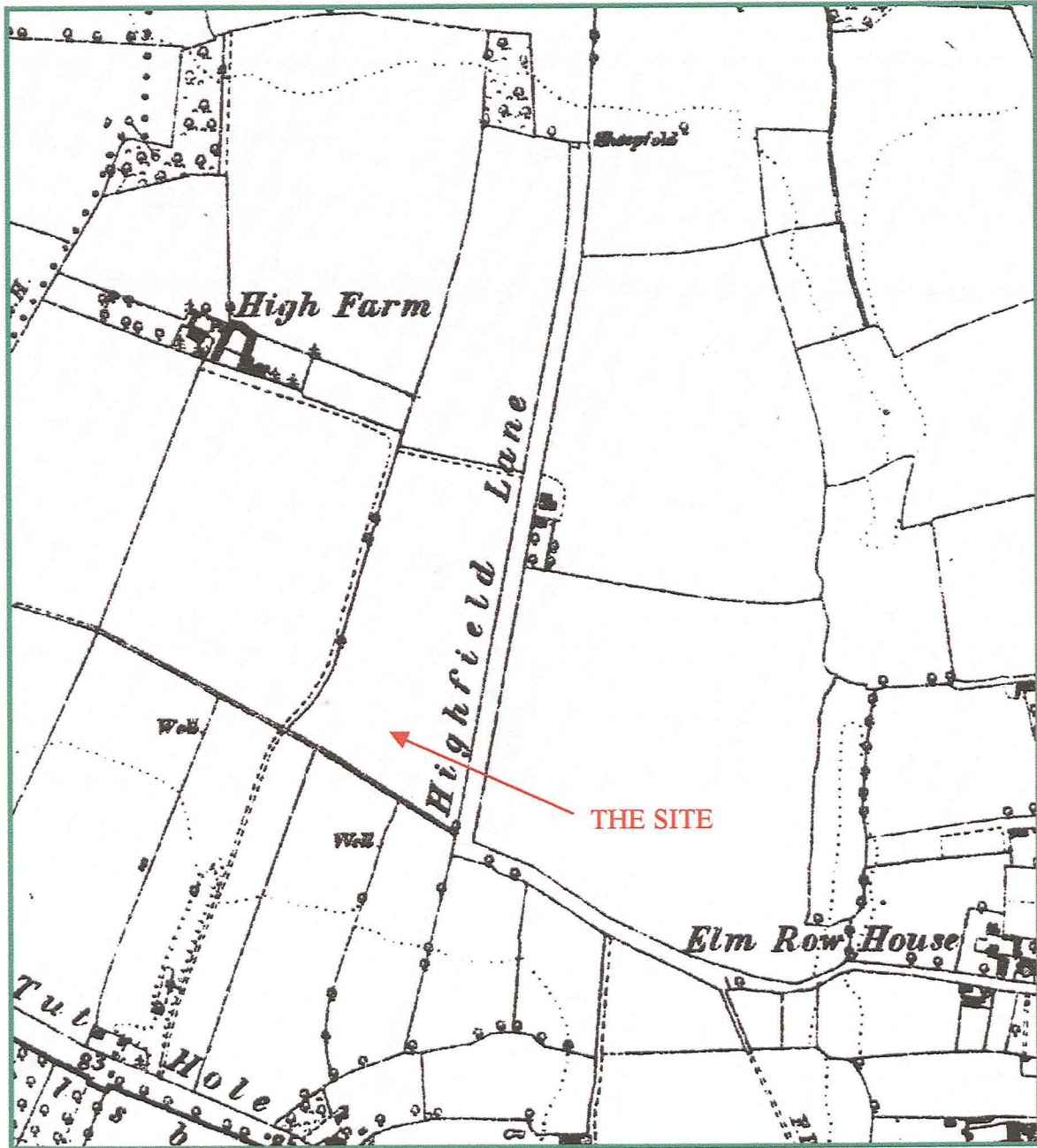


Figure 4: Extract from the First Edition Ordnance Survey map (Sheet 83NW - 6'' : 1 mile) of 1892.

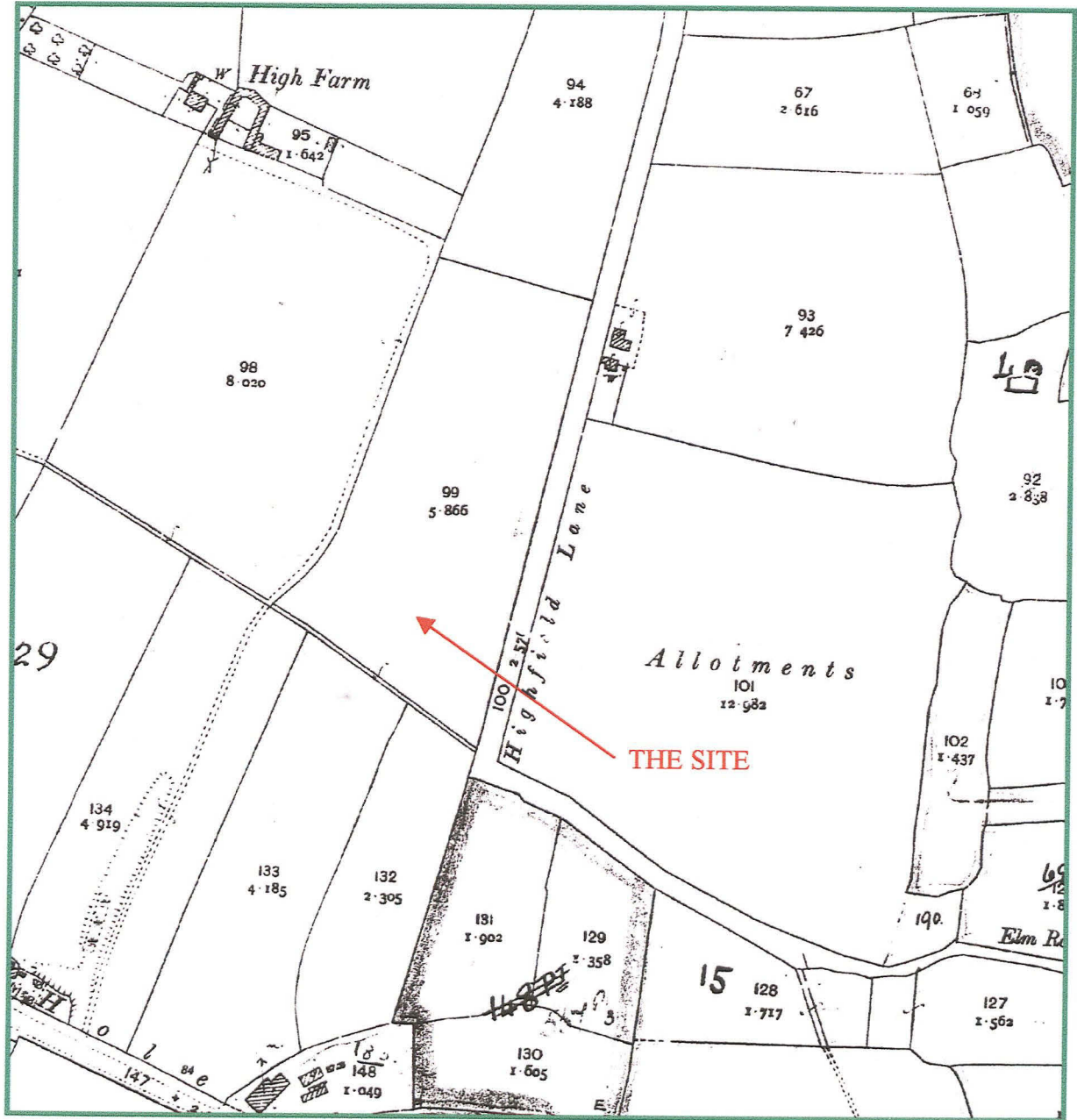


Figure 5: Extract from the Second Edition Ordnance Survey map (Sheet LXXXIII.5 - 1: 2,500) of 1906.

The form of High Farm and the other house, mentioned above, appears to be the same on both maps, and they still appear to be virtually identical on modern Ordnance Survey editions, despite both being derelict.

6.2 Air photographic evidence

The SMR contained three oblique air photographs that showed the site or its immediate environs (see Appendix 12.2):

- *ABK.81* – The only picture to show the site; taken from the north-east, the site lies toward the top right corner. There are no cropmarks evident within this field, apart from those defining the original northern boundary and associated trackway (see 6.1). However, there is highly visible change in vegetation or ground cover overlying the mound occupying the north-east corner of the site. This seems to occupy an area of c. 30m north-south by c. 60m east-west, and abuts the eastern boundary of the field. While the resolution is insufficient to determine the nature of this differential utilisation, it is evident from shadows that there were at least three above-ground structures or vehicles situated within this area. There are dark lines defining the eastern, southern and western boundaries, suggesting that a hedge bounded the field at the time the photo was taken.

The photo also shows that the field to the south of the site was sub-divided into three sub-rectangular units. The hedges that have subsequently been removed probably defined the furlong boundaries of strip fields running perpendicular to Spilsby Road. The fields located to the south east of the site are shown to contain extant ridge and furrow. The field to the east of the site appears to be divided into three smaller units, all containing cropmarks. The central area contains the causewayed enclosure and associated trackway, while there are linear cropmarks, probably defining boundaries, in opposing corners of the northern and southern areas.

There appears to be some variation in the soils and/or drift geology across the area photographed. The whole of the field containing the site, and the western two-thirds of the field to the east have produced significantly darker vegetation. This seems to indicate that the soils over these areas are less permeable. It was noted when examining the ploughsoil (see 6.4) that it contained a large clay component, which would account for such water retaining properties. In contrast, the eastern edge of the field to the east of the site would seem to lack a clayey mantle, resulting in an enhancement of the moisture-stress imposed upon supported vegetation. The corollary of this suspected differential soil cover is that the site is less likely to produce cropmarks than the area to the east, in which the causewayed enclosure is so clearly seen.

- *ABK.82* – The site is not shown, as it lies just beneath the lower right hand corner of the photograph. High Farm lies at the centre of the picture. It partially overlies a complex of cropmarks, the majority of which are situated to its north-west, west and south. Most represent components of a relatively coherent rectilinear field system, interpreted by the RCHME as being of medieval date. However, there are other less regular features, which have a different alignment to the above. These

have a morphology more redolent of later prehistoric or Romano-British settlement. The fields along the top edge of the photograph all contain extant ridge and furrow.

- *TF 4165/1* – Taken by Paul Everson on 31st July 1977, looking toward the south-east. It shows the northern end of the field to the east of the site. The northern two sub-divisions of the field, as noted in *ABK.81*, have been amalgamated. The causewayed enclosure and associated trackway are shown near the centre of the picture, with more diffuse linear boundaries to the bottom left. Four ring ditches, probably round barrows, are visible in the field to the east of the causewayed enclosure.

A search of the air photograph collection held at the NMR revealed that they also held TF4165/1, in addition to the following (see Appendix 12.2):

- *TF 4165/2* – Taken by Paul Everson on 31st July 1977, essentially the same area as *TF 4165/1*, but looking toward the south-west, rather than the south-east. The causewayed enclosure appears toward the centre of the picture, with the barrow cemetery just off the bottom left corner and the site just beyond the top right corner. The causeways interrupting the ditch are particularly distinct.
- *TF 4165/3* – Taken on 31st July 1977, showing the eastern edge of the field to the east of the site, taken looking toward the north; the site is not shown. The causewayed enclosure and trackway is visible toward the centre of the picture, with slight indications of a further ring ditch located c. 50m to the north of this.
- *TF4166/1* - Taken on 31st July 1977, showing the north-east corner of the 'L'-shaped field containing the site, and the northern end of the field to the east. The causewayed enclosure appears toward the bottom of the right hand edge of the picture. There are indications that at least one sub-rectangular enclosure is located in this field, adjacent to the derelict house at the end of Highfield Lane. The site itself is not visible.

6.3 SMR data and documentary sources

The data gathered from the SMR has been synthesised into the general archaeological and historical narrative, 5.0 above, and is presented in summary form in Appendix 12.1. The only information directly relating to the site concerned the programme of fieldwalking undertaken by the Godfreys (fig. 3). Although it is likely that lithic material was recovered from the site, information in the public domain is insufficiently detailed to attribute any items specifically to this piece of land.

A search through a variety of documentary sources failed to locate any information directly concerning the site. This was to be expected, as it is unusual for a piece of land that lies at distance from the village core, and appears to have been under cultivation for a sustained period, to merit any mention in either a published or unpublished source.

An examination of documents held at the LAO failed to provide a date for the Enclosure of this part of Halton Hologate. However, the Gibbons and Arden map of 1799 demonstrates that Enclosure in the neighbouring parish of Ashby-by-Partney, lying to the north, was a piecemeal affair, with areas of enclosure and open fields existing side-by-side. Although the map fails to make a similar relationship so explicit in Halton, it can be tentatively inferred from the spatial organisation of the Enclosed land. Additionally, Beastall (1978) suggests that the farms incorporating the word 'high' into their title, of which there are a number in the southern Wolds, were all plantations of a similar date. Specifically, he relates them to the breaking in of the more inaccessible areas of the Wolds in the late 18th and first half of the 19th centuries. High Farm, lying just to the north-west of the site, is one such example; its proximity suggesting that the Enclosure of the site occurred at a similar time to the farm's construction.

6.4 Site visit

A site visit was conducted in order to examine the surface and topography of the site, its boundaries, and landscape context. Examination of the field demonstrated that more than half of the ground surface was obscured by vegetation. A rapid walk over survey was conducted, which resulted in the recovery of a range of artefactual material, and the identification of other coarse components within the ploughsoil. These were as follows:

- *naturally occurring materials* – sub-rounded pebbles of Spilsby Sandstone, ironstone, some flint? (the majority appears to be worked), quartzite pebbles
- *early –modern and modern materials* – pale blue-grey slate, dark grey slate (Welsh?), granite chippings, coal fragments, handmade brick, tile, land drain, plastic, shotgun cartridge caps, a fragment of concrete paving slab, white glazed pottery (19th-20th century), animal bone.
- *archaeological materials* – 42 pieces of worked flint, 1 small hammer-stone, 1 fragment of probable medieval tile, 6 sherds of medieval pottery (including 2 rims and 1 piece with a carination), 1 sherd of Frecken (Bellamine) ware (16th-17th century).

This material appeared to be fairly evenly distributed across the site, with no distinct concentrations apparent. Disparities in the amount of ground cover, and the degree of contrast between the colour of artefacts and the ploughsoil, constituted the most significant limitations to recovery. Consequently, it is likely that a structured programme of fieldwalking would be of limited use, as any biases in the distribution of artefacts would probably reflect the degree of difficulty in identifying and recovering material, rather than indicating the position of localised activity zones. Additionally, it is probable that the field has been examined on more than one occasion (e.g. by the Godfreys), resulting in the removal of a number of artefacts. As with all programmes of fieldwalking, this work is likely to have had some inherent sample biases, for example, the ability to identify lithic tools, but not the associated debitage. Again, this could significantly distort subsequent programmes of investigation.

Despite the limitations outlined above, it is still possible to formulate some hypotheses from the materials recovered, which will provide some insight into the past use of the site. Of particular interest is the recovery of medieval pottery. All six sherds were from different vessels, and all, including the fragment of tile, were moderately to very abraded. This could suggest that they were in fragmentary condition when introduced to the site and subsequently remained in the ploughsoil for a long period. It is probable that this pottery was introduced in medieval midden material, spread to improve the fertility of cultivated land. This leads to the proposal that prior to Enclosure, the site was a component of the open field system between Halton and Spilsby. Areas of surviving ridge and furrow exist immediately to the south-east and c. 400m to the north-west, their proximity providing further support for this theory. The recovery of a piece of Frecken ware pottery also raises the possibility that, rather than reverting to pasture, these strip fields continued to be cultivated throughout the earlier post-medieval period.

The lithic material also provides some interesting insights. Much of the assemblage, 18 pieces or 43%, was comprised of chips and chunks of flint, which are generally the product of core reduction. This indicates that unworked or part-worked cores were being brought to the site for preparation, prior to the production of flake-blanks and ultimately, tools. It can be stated with some degree of confidence that this work was actually taking place within the confines of this field, as such debitage is considered to be superfluous at the time of manufacture and rarely moves far, except as a result of soil creepage.

An account held in the SMR, detailing the results of the fieldwalking programme conducted by the Godfreys, suggests that only flint derived from glacial deposits was utilised. This presumably would have originated from areas of the Wolds lying to the north. Examination of the sample recovered from the site indicates that a large quantity of Wolds flint was used, but also indicates that flint from at least six other points of origin reached the site. Some of this seems to have come from mixed flinty gravels (i.e. redeposited material), suggesting a source in a river valley, but there are also one or two pieces of dark brown or black glassy flint of very high quality, which may have come from mines or quarries. These factors demonstrate that the procurement of raw materials was not simply expedient and reliant upon finding nodules of relatively poor quality Wolds flint lying upon the surface. Rather, it appears that material was deliberately brought to the site from a number of sources, the latter possibly reflecting the movement of a number of relatively mobile, but disparate, groups.

Further evidence that flint was worked on site is provided by the hammer-stone that was recovered. This is a small sub-oval piece of local sandstone that has become rounded as a result of spheroidal weathering. It has one dished and abraded face, resulting from its utilisation. Such pebbles are readily available in this locality and consequently are unlikely to have been carried far from their point of use, due to the ease with which they could be acquired.

It is also interesting to note that 12 pieces of flint (29%) were burnt. This is a common feature of many lithic assemblages, although the purpose is not clearly understood. Heating of some flint can improve its flaking qualities, but most of the examples in

this assemblage have been severely burnt, to the point of being unsuitable for any use. While the purpose of such reworking cannot be ascertained, it is important to note that quantities of burnt flint signifies that there must have been one or more prehistoric hearths in the immediate vicinity. The geophysical survey identified a number of discrete anomalies, which may represent the remains of such hearths (Rylatt & Bunn, 2000: Appendix 12.2). However, it is also possible that such features, which must have sat on the prehistoric ground surface, have been completely removed by subsequent agricultural activity.

Only two utilised flakes or tools (5%) were recovered, one was a relatively crude notched-flake, while the other was an end and side scraper produced from relatively high quality flint. Such a small number of finished pieces do not enable the confirmation or refutation of the Godfrey's assertion, that the standard of craftsmanship evident in the artefacts was relatively poor.

During the site visit, the opportunity was taken to examine auger samples from a number of locations within the development area. This demonstrated that the ploughsoil contained a large component of clay particles, making it relatively sticky and helping to retain moisture. In contrast, the underlying subsoil and natural deposits encountered were largely comprised of coarse sands; the latter represent the *in-situ* deposits, with the ploughsoil being active and subject to constant reworking. It was evident that the sandy soils were free draining and it is also likely that they are acidic. As a consequence, it is concluded that the archaeo-environmental potential of the site is low. Survival of human and animal bone, an organic material such as leather and, organic and inorganic macro- and microfossils is unlikely in such aerobic conditions.

Observation of the topography demonstrated that the mound located at the north-east corner of the site has no obvious parallels in the surrounding area. While it is probable that this is a natural feature, maybe resulting from some form of highly localised glacial or post-glacial deposition, it is also necessary to consider the possibility that it is a man-made structure. Whatever its origin, its current dimensions and profile certainly reflect reworking by medieval and later ploughing.

Circular features having a diameter of 70m or more are not unknown. Those having comparable dimensions and morphology include mounds created in the medieval and post-medieval periods to support post-mills, or large prehistoric round barrows. With respect to the former, it should be remembered that Ivo Tallboys held 4 mills in the parish in the late 11th century. While some of these may have been water powered and situated upon the River Lymn, others may have been wind powered. Additionally, the examination of the 'Malkinson' plan (LAO ref. *Misc. Don 1000/14/6*) confirmed the existence of at least one windmill within the parish in the early 19th century, this lying in the southern part of the village adjacent to the road running southwards to Halton Fenside. Round barrows having such dimensions are relatively rare, but do occur in landscapes containing complexes of monuments. For example, the Neolithic funerary monument of Duggleby Howe is larger than the mound under consideration here.

6.5 Summary of the geophysical survey results

A fluxgate gradiometer survey was conducted in an attempt to detect the presence of sub-surface features (Appendix 12.3). The soils were found to exhibit relatively limited magnetic variability, which restricted the effectiveness of the survey. However, this variability could be resolved into a series of magnetic anomalies, most of which, on morphological grounds, are likely to reflect modern activity or geological processes.

Of the remaining anomalies, several appear to represent linear features. A series of short, parallel anomalies, (7), entered the southern edge of the site. These probably represent the remains of a medieval ridge and furrow field system, the majority of which would extend downhill, through the field to the south. Two further linear anomalies, (10) and (11), were detected along the western edge of the survey area. These may represent earlier land divisions, but too little was evident to discern any coherent patterning.

The morphological characteristics of two penannular anomalies, (8) and (9), situated toward the north-western corner of the site, raises the possibility that they represent the outer ditches of round barrows. There are certainly a number of comparable cropmarks in the vicinity of the site, a factor that provides some circumstantial support for this hypothesis.

It was also noted that a series of discrete anomalies, (12), were randomly distributed across the survey area. While it is possible that these anomalies result from localised geological variation, they may also have been generated by episodes of burning. The recovery of burnt flint from the surface of the site indicates that such activity was occurring in its immediate environs during the prehistoric period. It is therefore tempting to correlate these anomalies with the burnt flint.

7.0 Impacts to the archaeological resource

If the site does contain archaeological remains, it is likely that they will have suffered some level of attrition as a result of the subsequent utilisation of the area.

Much of the artefactual material recovered during the site visit is a product of prehistoric activity. While some of it may originally have been deposited in pits, or other sub-surface features, much of the lithic debitage is likely to have been discarded upon the contemporary ground surface. The recovery of medieval pottery suggests that the site has been cultivated, whether continuously or intermittently, for a considerable period of time. Consequently, the creation, maintenance and working of the *selions* associated with medieval arable farming would have impacted upon the prehistoric deposits. This destruction and homogenisation of *in-situ* archaeological horizons is likely to have been exacerbated by Victorian steam ploughing and modern deep ploughing. Therefore, it is likely that a large proportion of the prehistoric material lies unstratified within the plough zone.

If *in-situ* deposits survive they are likely to be located within features with a depth exceeding 0.3m (i.e. beneath the base of the ploughsoil).

8.0 Conclusions

It is concluded that the archaeological potential of the site is high, but that some of the archaeological deposits have been disturbed as a result of subsequent agricultural activity.

Worked lithic materials have been recovered, both from the site and from surrounding fields. The field situated to the west of the site contained a Palaeolithic handaxe, Mesolithic microliths, Neolithic and Bronze Age flint and a series of cropmarks. The latter appear to indicate the position of a round barrow, late prehistoric enclosures and superimposed medieval and post-medieval field systems. This complex of features extends to the north into the east-west arm of the field containing the site. The field to the east of the site also contained a large quantity of flint, including both Neolithic and Bronze Age arrowheads. A circular cropmark situated near its eastern edge appears to indicate the location of an early Neolithic causewayed enclosure, which is flanked to the north and east by a group of round barrows. The nature and suspected function of the features encircling the site suggests that the immediate area was of considerable ritual and social importance throughout much of later prehistory.

The recovery from the site of medieval pottery suggests that it lay within the medieval open fields surrounding Halton Hologate. It was probably laid out as a series of *selions* aligned from north to south, thus crossing the contours to facilitate drainage. This theory appears to be supported by the discovery of a series of magnetic anomalies along the southern edge of the site, which seem to represent the northern ends of a block of *selions*, each c. 11m wide.

9.0 Mitigation

It has been deduced from the documentary and physical sources assessed, that the site has high archaeological potential. However, the exact form of any *in-situ* deposits remains partially unresolved, because in this instance, it was not possible to fully address the site's potential with the non-intrusive techniques employed. As a consequence of these limitations, it is not feasible to quantify the impact of the proposed scheme of development upon the archaeological resource. It is therefore concluded that a phase of limited intrusive intervention will be necessary to establish fully the nature of the extant resource.

Features associated with settlement or activity, certainly prior to the Late Bronze Age, are often fairly ephemeral. Therefore, further investigation of the possible ring gullies, and the areas identified as potentially having been subject to episodes of burning, should be considered a priority.

Once the nature of the archaeological resource has been fully determined, the impacts of the development can be fully addressed. At present, the exact form of this remains relatively fluid and the exploratory borehole and associated cabins will occupy only a small fraction of the 1ha area of the site. Consequently, there is a high degree of flexibility regarding the siting of the individual components; this will enable the developer to mitigate against significant impacts upon the archaeological resource.

10.0 Acknowledgements

Pre-Construct Archaeology (Lincoln) would like to thank Cirque Energy (UK) Ltd for commissioning this desktop study, and special thanks are extended to Steve Bushell for his assistance. Additionally, we are extremely grateful to Jim Bonnor, Senior Built Environment Officer, and Mark Bennet, SMR Officer, of Lincolnshire County Council, and to the staff of the Lincolnshire Archives Office for their help and advice. Thanks are also expressed to the site agent, John Price, the landowner, Mr Lumsden, and Pete Horne of the RCHME/English Heritage for assistance and information.

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Appendix 12.1: Catalogue of material derived from the Lincolnshire County Sites and Monuments Record

NGR	SMR Code	Description
TF41176564	42936	Lower Palaeolithic bifacial flint handaxe.
TF41006570	43157	Scatter of flint microliths, found at the same location as the flint scrapers (43156).
TF41566577	43212	Possible causewayed enclosure – a cropmark showing concentric interrupted ditches, with associated trackway.
TF41006570	43156	Flint scrapers, found at the same location as the microliths (43157).
TF419618	42935	Neolithic polished stone axe (probably Spilsby Sandstone) found in Halton Hologate Fen, and polished axe fragment.
TF41606550	42087	Scatter of Neolithic and Bronze Age flint, including 10 scrapers, 6 cores, blades and flakes.
TF41706550	43155	Flints found at TF415655 and flints and arrowheads found at TF419655.
TF41586580	42929	Cropmarks of 5+ ring ditches, consists of 4 small single-ditched circles and a larger double-ditched circle. The former probably represent a small barrow cemetery, while the latter is interpreted as either a large barrow or a causewayed enclosure (see also 43212). Faint traces of other possible ring ditches.
TF41006581	43215	Cropmark of single ring ditch, possible round barrow.
TF41086598	43214	Cropmark of single ring ditch, possible round barrow.
TF41536579	43213	Possible prehistoric trackway, having spatial association with the causewayed enclosure.
TF41156593	43208	Possible prehistoric cropmark enclosure, hut circle and linear boundary, partly overlain by medieval cropmarks (43209).
TF41116584	43209	Medieval linear boundaries and trackway.
TF41356520	43211	Blocks of medieval ridge and furrow on both sides of Spilsby Road running up to the south-east corner of the site.

- TF41796509 42090 St Andrew's Church, predominantly 15th century fabric with 19th century renovation.
- TF41606550 42088 Half groat of Henry VIII.
- TF41906410 42093 The Grange, Halton Hologate. Place-name evidence for possible existence of a medieval grange.
- TF41186568 43210 Cropmarks of possible post-medieval boundaries, also noted at TF 4105 6571.
- TF41826515 42092 The Old Rectory, early 18th century structure, with early 19th century remodelling.
- TF41606508 42091 Halton Manor House, Georgian structure, with a pilastered 19th century façade.
- TF42406480 42089 Pewter cruet stands and plate, post-medieval, probably 19th century.

Appendix 12.2: Aerial photographs



Film/frame No.	ABK.81
NGR Index No.	
NGR	TF 415 658
Date	
Held at	SMR



Film/frame No.	ABK.82
NGR Index No.	
NGR	TF 411 658
Date	
Held at	SMR



Film/frame No.	PLE 5166/21
NGR Index No.	TF 4165/1
NGR	TF 4158 6580
Date	31 July 1977
Held at	SMR & NMR



Film/frame No.	PLE 5166/22
NGR Index No.	TF 4165/2
NGR	TF 415 656
Date	31 July 1977
Held at	NMR



Film/frame No.	PLE 5166/23
NGR Index No.	TF 4165/3
NGR	TF 415 656
Date	31 July 1977
Held at	NMR



Film/frame No.	PLE 5166/24
NGR Index No.	TF 4166/1
NGR	TF 415 660
Date	31 July 1977
Held at	NMR

Appendix 12.3: Geophysical survey report

**FLUXGATE GRADIOMETER SURVEY
LAND AT HALTON HOLEGATE,
LINCOLNSHIRE**

NGR

TF 4131 6565

Report prepared for Pre-Construct Archaeology (Lincoln)
on behalf of Cirque Energy (UK) Ltd
by Jim Rylatt and David Bunn



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November 2000

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- Fig.5** Interpretive plan. Scale 1:1000.

Table 1 Summary of survey parameters

Summary

- *As part of an integrated desk top assessment, a fluxgate gradiometer survey was undertaken on approximately 1.0 hectare of land at Halton Holegate, Lincolnshire*
- *This survey identified relatively limited magnetic variation over much of the site, but this variability can be resolved into a series of magnetic anomalies*
- *Whilst some of the anomalies can be directly associated with modern activities, others appear to reflect the presence of buried archaeological features*
- *Some of the anomalies possibly represent earlier land divisions (field boundaries), and a series of short linear anomalies, along the southern edge of the survey area, probably represent the remains of a ridge and furrow field system*
- *The survey also detected traces of one, or possibly two, penannular features, which may indicate the location of prehistoric barrows*
- *A series of small, randomly distributed discrete anomalies probably result from agricultural activity (e.g. loss of equipment and midden spreading), while others may attest to the occurrence of localised fires*

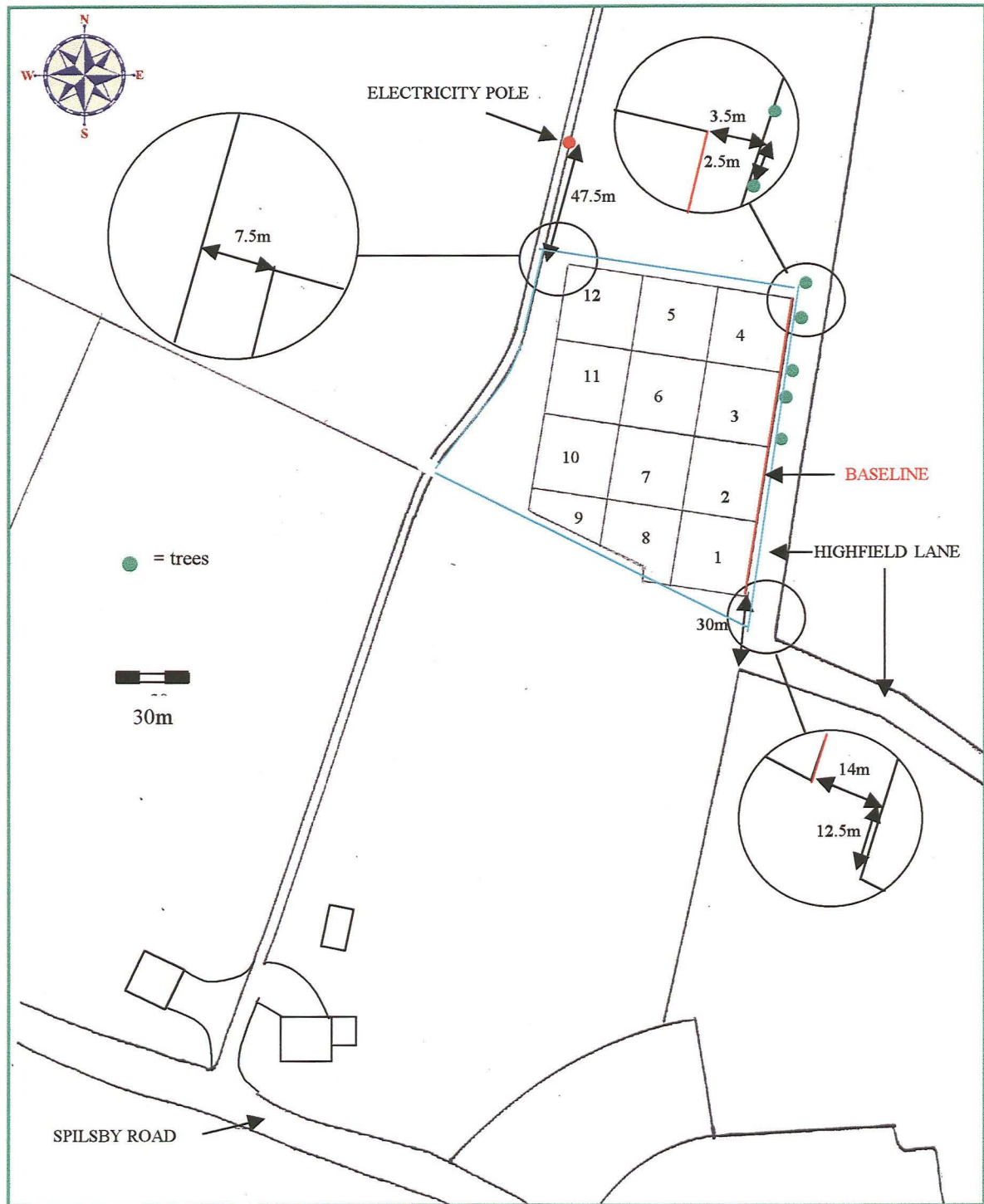


Fig.1: Location of survey grids Scale 1:2000

1.0 Introduction

Cirque Energy (UK) Ltd. commissioned Pre-Construct Archaeology (Lincoln) to undertake an archaeological desk top assessment and a geophysical survey in advance of the determination of a planning application for the construction of a temporary drill site, on land to the south of High Farm, Halton Hologate, Lincolnshire.

Pre-Construct Geophysics undertook the gradiometer survey in accordance with a specification prepared by Pre-Construct Archaeology (Palmer-Brown, 2000).

The gradiometer survey methodology was based upon guidelines set out in the English Heritage document '*Geophysical Survey in Archaeological Field Evaluation*' (David, 1995).

2.0 Location and description

Halton Hologate is located approximately 43km east of Lincoln and 23km north-north-east of Boston, within the administrative district of East Lindsey. High Farm is situated midway between the town of Spilsby and Halton Hologate. The site lies c. 600m to the north-west of the village core, on the crest of an east to west orientated ridge, which runs between the two settlements.

The ground surface drops relatively gently toward the southern edge of the site, but there is a convex mound situated in the north-east corner, the apex of which, lying in survey grid 4, is c. 2 – 2.5m above the surrounding ground level.

The eastern boundary to the site is defined by Highfield Lane; the western edge by a slightly raised agricultural track (Fig.1). The site is unbounded along the northern and southern edges, although the latter is defined by a public right of way.

At the time of the survey, the ground cover comprised cereal stubble interspersed with low weed vegetation.

Drift deposits have not been identified within the immediate vicinity of the site, while the uppermost formation of the solid geology is the Upper Jurassic Spilsby Sandstone (BGS, 1995). This forms the east-west ridge, while the valley to the south of the site is incised into the underlying clay formations of the Ancholme Group.

Central National Grid Reference: TF 41310 65650.

3.0 Methodology

Detailed area survey using a fluxgate gradiometer is a non-intrusive method of evaluating the archaeological potential of a site. The fluxgate gradiometer detects magnetic anomalies created by areas of high or low magnetic susceptibility. These areas are caused by changes in the composition of the subsoil or the underlying geology. Archaeological features result from man-made changes to the soil and the introduction of intrusive materials such as brick and stone. These features can create detectable magnetic anomalies. In addition, activities that involve heating and burning will create magnetic anomalies, as will the presence of ferrous metal objects.

The anomalies detected by a fluxgate gradiometer survey can often be resolved into entities sharing morphological characteristics with features of known archaeological provenance. This enables the formulation of an informed, but subjective interpretation.

Magnetic variation between archaeological or naturally produced features and the natural background level can result from:

- different depth or density of fill, with respect to the depth or density of surrounding soils magnetically similar to the fill
- the magnetic properties of materials introduced as a result of human activity (e.g. rubble, stone, brick/tile, ferrous metal etc.) in contrast to those within surrounding natural deposits
- the magnetic susceptibility of areas of burning, as opposed to unburnt areas
- the magnetic properties of localised, naturally deposited minerals, such as occur in the fill of palaeo-channels, in contrast to those of the surrounding soils.

The area survey was conducted using a *Geoscan Research* fluxgate gradiometer (model FM36) with an electronic sample trigger set to take four readings per metre (a sample interval of 0.25m). The zigzag traverse method of survey was used, with 1m wide traverses across 30m x 30m grids. The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla. The base line was established along the eastern edge of the survey area (Fig.1).

The data from the survey was processed using *Geoplot (v. 3.0)*. It was desloped (a means of compensating for sensor drift during the survey) and clipped to reduce the distorting effect of extremely high or low readings caused by discrete pieces of ferrous metal. The results are plotted as greyscale and trace images.

The area survey was carried out by David Bunn on the 13th of November 2000.

Instrument	Geoscan Research fluxgate gradiometer FM36 Sample trigger ST1
Grid size	30m x 30m
Sample interval	0.25m
Traverse interval	1.0m
Traverse method	Zigzag
Sensitivity	0.1nT
Processing software	Geoplot (v. 3.0)
Weather conditions	Fine, sunny
Area surveyed	1.09ha

Table 1: Summary of survey parameters

4.0 Results

The survey detected only relatively limited magnetic variability, which is represented graphically in the greyscale and trace images (Figs. 2-5).

Figure 2 presents the raw data and highlights in colour the features that display the strongest magnetic variation. It is probable that these anomalies result from modern activity, although an archaeological derivation remains possible.

Two groups of strong dipolar anomalies, (1) and (2), were detected in the north-east corner of the survey area, being situated on the top of the mound. An aerial photograph of the site, (*ABK.81*), indicates that these anomalies have close spatial correspondence with the location of a number of structures, or other above-ground features; the low resolution of the photo means that their nature remains uncertain. Consultation with the current landowner has yielded no clues as to the character of these features, as he has no recollection of anything being located on the site within the last fifty years (Mr. Lumsden, *pers comm.*). However, the photograph was taken after the Second World War and before July 1977. Consequently, it must be concluded that the entities visible in the picture represent some form of temporary utilisation.

Anomaly (3) may represent a data processing deficiency caused by the extreme magnetic distortion generated by (1) and (2). However, further reference to the aerial photograph indicates that the features noted above were contained within some form of compound, or enclosure, which abutted the eastern boundary of the field and extended c. 30m north-south by c. 60m east-west. Therefore, there is a possibility that (3) represents the easterly 40m of the southern boundary of this compound.

The random distribution of small, discrete anomalies (examples shown as (4)), probably reflects agricultural activity on the site. The stronger anomalies possibly mark the location of thrown horseshoes, ploughshares, etc, while the weaker ones may represent ceramic debris, which is often a constituent of midden material.

Figure 4 represents the clipped data. The relatively limited magnetic variability of the majority of the data indicates that magnetic differences between any archaeological features and the background levels of natural deposits may have been too small to be

detected. The diffuse nature of the majority of this variation suggests that it denotes geological processes; the latter could mask man made features and impair the effectiveness of the survey. However, despite these potential limitations, a number of possibly significant anomalies were detected.

A series of faint linear anomalies were detected in the southern half of the survey area (Fig.5). Anomaly (5) runs parallel to the southern edge of the survey. The location and orientation of (5) corresponds to a footpath, the surface of which was constituted by compacted topsoil; this would produce a negatively enhanced magnetic signature. However, anomaly (5) has a dipolar component, suggesting that it represents more than compaction. The darker, positive element of this anomaly could denote the remains of an earlier boundary. An examination of Ordnance Survey maps and the aerial photograph *ABK.81*, suggests that this footpath was originally bounded on both sides by a hedge. It is therefore possible that the positive component of the anomaly results from the grubbing-out of these hedges, or equates to a ditch lying adjacent to one of them.

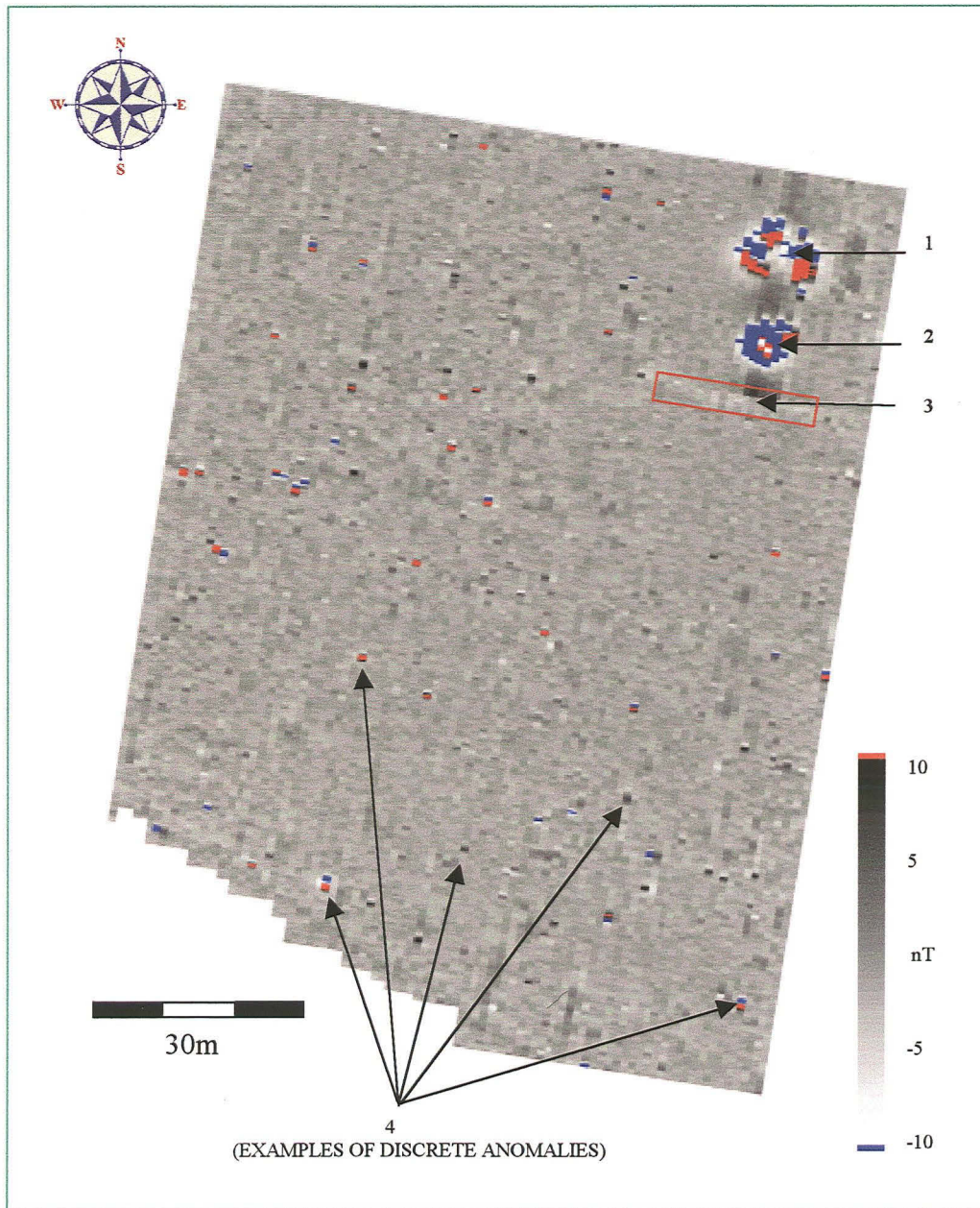
Another, more diffuse, linear anomaly, (6), was observed to run c. 10m to the north of, and roughly parallel to, anomaly (5). While this may mark an earlier alignment of the footpath, the O.S. maps suggest that the location of the latter has remained constant. A group of six, short, linear anomalies, (7), were detected at the southern edge of the survey; they were aligned across the contours, from north-north-east to south-south-west, and each was separated from its neighbours by an interval of c. 11m. While it is not clear whether they, (7), continued southwards beyond the limit of the survey, their northern extent is readily apparent. It corresponds with the location of linear anomaly (6). The spatial relationships of the components of (7) suggest that they define a series of furrows separating the *selions* of a medieval open field. The correspondence of the ends of these features to (6) raises the possibility that the latter represents a headland, the anomaly resulting either from compaction or the differential accumulation of its component soils.

A diffuse, penannular anomaly, (8), c. 20m in diameter, was detected in the northern part of the site. A similar, but more diffuse feature, (9), was located c. 15m to its west. It is possible that these anomalies have a natural origin, reflecting localised geological variation. However, their morphology and dimensions could also indicate that they constitute the remains of ring ditches encircling round barrows. While this proposal remains tentative, cropmarks in fields lying both to the east and the west of the site indicate that several such barrows are located in the vicinity.

A faint linear anomaly, (10), runs from the south-west corner of the survey, for c. 40m, to a point roughly midway along the western edge of the site. While it diverges from the orientation of the survey grids, it does appear to run parallel to the southern end of the trackway forming the western boundary of the site. This spatial correlation with an existing landscape feature may indicate that (10) was a ditch defining a smaller block of land, c. 30m wide, immediately prior to the creation of the present field.

Anomaly (11) may represent the traces of another linear feature, orientated from south-west to north-east.

A number of discrete magnetic anomalies were detected across the survey area (Fig. 4: example (12), ringed in red). Some, or all, of these may signify the location of pits or *in-situ* burnt materials.



**Fig. 2: Greyscale of the raw data
(showing small discrete anomalies and those of possible modern origin, in colour)
Scale 1:1000**

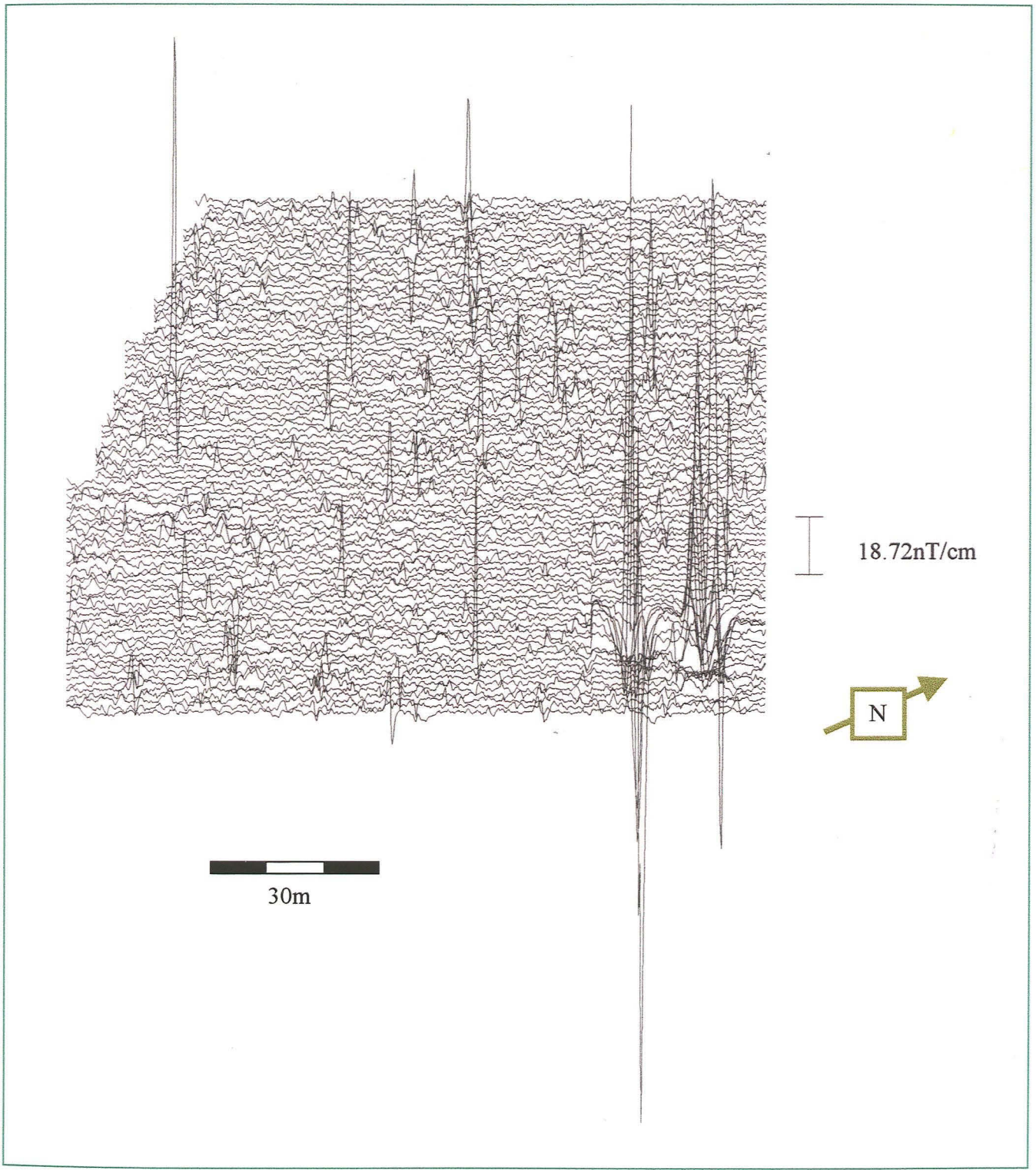


Fig.3: Trace plot of raw data. Scale 1:1000

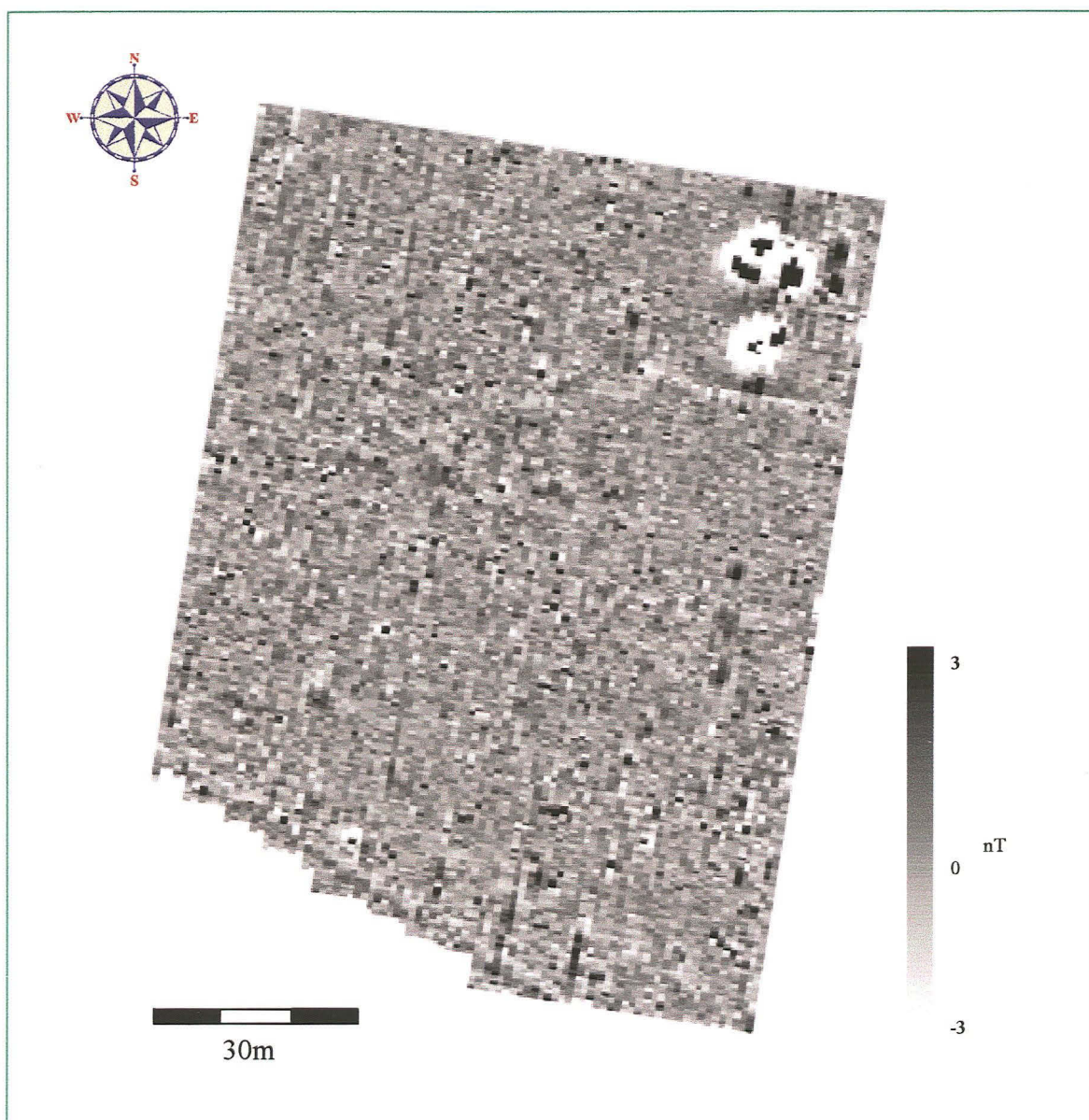


Fig.4: Greyscale image of clipped data. Scale 1:1000

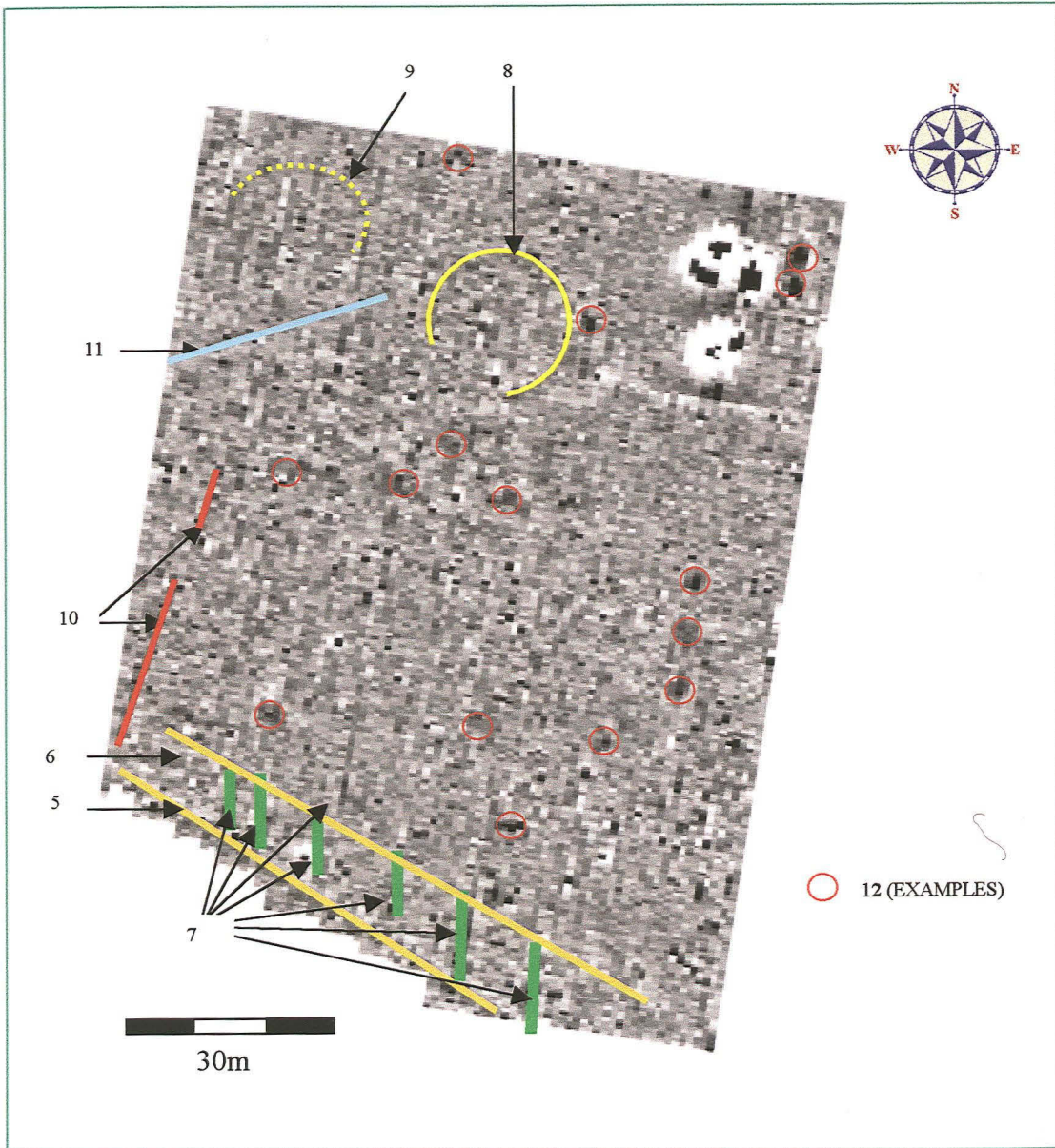


Fig.5: Interpretive plan. Scale 1:1000

5.0 Conclusions

The limited magnetic variability exhibited by the site has served to restrict the effectiveness of the survey. Several auger samples were examined, which indicate that the subsoil is predominantly comprised of fairly coarse sands. Such material is generally free draining, raising the possibility that much of the organic material indirectly responsible for the generation of the magnetic anomalies, which correspond to archaeological features, has been leached from the profile or otherwise degraded. Consequently, it is likely that modern activity and geological processes account for the majority of the variability detected.

However, the detection of several linear anomalies, particularly (7), (10) and (11), suggests that there are some traces of earlier land division and agricultural usage. The morphological similarities between (7) and ridge and furrow field systems, suggests that at least one phase relates to medieval activity.

The morphological characteristics of anomalies (8) and (9) appear to complement those displayed by cropmarks lying in close proximity to the site. This raises the possibility that the site contains the remains of one or more round barrows. Additionally, it was noted that a series of discrete anomalies, (12), were randomly distributed across the survey area. While these may represent geological variation, it is also possible that they result from episodes of burning. The recovery of burnt flint from the surface of the site indicates that such activity was occurring in this area during the prehistoric period. It is therefore tempting to correlate these anomalies with the burnt flint. The uncertainty inherent in these interpretations indicates that anomalies (8), (9) and (12) warrant further investigation.

6.0 Acknowledgements

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7.0 References

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