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An Archaeological Desk-Based Assessment of Land off Preband Lane, Welton, Lincolnshire

NGR TF 010 800

prepared by

John Samuels Archaeological Consultants

on behalf of

**Allison Homes
Swallow House
Banbury Close
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Spalding, PE11 2BS**

JSAC 345/98/01

January 1998

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**An Archaeological Desk-Based Assessment
of land off Preband Lane, Welton, Lincolnshire**

NGR TF 010 800

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Summary

Allison Homes propose to develop an area of land on the western side of the village of Welton in Lincolnshire (NGR TF 006 800). The proposed development site covers approximately 4ha of land divided into three fields.

In response to the application for planning permission to construct 70 dwellings on this site (Planning Ref: 97/P/0965), the Lincolnshire County Council Archaeological Officer requested a field evaluation to determine the potential for archaeological remains to exist on the site. In addition, Allison Homes commissioned this desk-based assessment to incorporate the results of a geophysical survey with background archaeological data.

The desk-based assessment has identified numerous sites of archaeological interest in the parish and village of Welton. These include possible Roman and Iron Age settlements and an Anglo-Saxon cemetery, possibly also with an associated settlement. However, no finds have been reported from within the proposed development site and neither the rapid walkover survey or the geophysical survey identified anything of archaeological significance. It is therefore recommended that no further archaeological work is undertaken.

1.0 Introduction

- 1.1 The study area is situated to the rear of existing properties on the western side of Preband Lane, Welton, Lincolnshire, centred on NGR TF 010 800. The area proposed for development covers approximately 4ha of land currently under a mixture of pasture and arable cultivation, with farm buildings and a small orchard.
- 1.2 Allison Homes commissioned *John Samuels Archaeological Consultants* to undertake a desk-based assessment to identify any archaeological remains in advance of the development of the site.
- 1.3 This assessment is based on the requirements of *Planning Policy Guidance Note 16 : Archaeology and Planning* (DoE, 1990) and the *Standard Brief for Archaeological Projects in Lincolnshire* has been consulted. It is in accordance with current best archaeological practice and the appropriate national standards and guidelines, including:
- Standard and Guidance for Archaeological Desk-Based Assessments* (Institute of Field Archaeologists, 1994);
- Standard and Guidance for Archaeological Field Evaluations* (Institute of Field Archaeologists, 1994);
- Management of Archaeological Projects* (English Heritage, 1991).
- 1.4 This assessment was written by Nansi Rosenberg BA, PIFA in consultation with John Samuels BA, PhD, FSA, MIFA.

2.0 Methodology

- 2.1 Lincolnshire County Council provided the Sites and Monuments Records (SMR) for the study area. Documents, maps and published sources held in the Lincolnshire Archive Office have been examined and historic maps and references consulted are listed in section 6.0 of this report. Available published sources were examined for information on soils, geology, historical and archaeological background.
- 2.2 A site visit was undertaken on 16th December 1997 to check recorded information and identify any previously unrecorded archaeological features that might be visible, such as earthworks or standing buildings. Consideration was made of the suitability of ground conditions for other survey and evaluation methods should they be required.
- 2.3 The objectives of the assessment were to identify any archaeological remains which are known within the limits of the proposed development site and to assess, where possible, the potential for previously unknown archaeology being affected by the proposed development. Should the potential be considered high, the objectives are also to determine the most appropriate methods for evaluating any remains.
- 2.4 A geophysical survey was commissioned from GSB Prospection and carried out on 20th January 1998. A summary of the results is given in Section 4.0 of this report and the full report, including methodology, is included as Appendix C.

3.0 Archaeological and Historical Assessment

- 3.1 The proposed development site lies to the rear of existing residential buildings on the west side of Preband Lane, Welton, Lincolnshire. The site is largely under arable cultivation, although the southernmost part of the site is currently a paddock with a stand of trees and an orchard leading eastwards to the road. The underlying geology is of chalky till, with Jurassic limestone immediately to the west. This geology gives rise to generally loamy and clayey soils with some seasonal waterlogging (SSEW 1983). The village lies close to 'Old Man's Head Spring' from which it takes its name, Welton meaning 'settlement by the spring/stream' (Ekwall 1991)
- 3.2 The proposed development land was part of the prebend of Pans Hall in the early 18th century. Only two small fields adjacent to Preband Lane were enclosed prior to the award of 1733, the remainder of the site was formerly open field. The site remained undeveloped through the 19th and early 20th century. By the start of the 20th century, it had been enclosed as a number of small fields, in part used as allotments. No buildings are recorded to have been constructed there by 1906, although a number of structures, have since been built, including a blockwork building, possibly a former chicken shed.
- 3.3 Welton is recorded in the Lincolnshire Domesday Book as a manor held by the Bishop of Lincoln in Lawress Wapentake. The medieval core of the village (SMR 52143) was to the south of the proposed development site, centred around the parish church. The church of St Mary retains a few 13th and 14th century features although the remainder is 18th and 19th century. Ridge and furrow indicates use of some of the fields surrounding the village for agriculture during the medieval period.
- 3.4 No Anglo-Saxon charters are recorded for the manor but the archaeological record indicates there was some settlement prior to the Norman invasion. A small Anglo-Saxon inhumation cemetery of 11 graves with grave goods was excavated in 1971 (SMR 50590; *Med Arch* 1971, p.157). This site was located 150m to the southeast of the proposed development site and finds of pottery both from this site and a further 100m to the southwest (SMR 55203) suggest there may have been an associated settlement in the vicinity.
- 3.5 Extensive evidence exists for Roman settlement in Welton parish. A possible Roman villa has been identified 750m to the north of the study site (SMR 52214) and another possible Roman settlement site 300m to the southwest (SMR 52193). Other isolated finds have been made of Roman coins (SMR 52195 & 52207) and pottery (SMR 52202 & 54229), indicating an intensive use of the landscape during this period.
- 3.6 The Roman settlement of this area may have developed from a prehistoric presence suggested by cropmark enclosures seen on aerial photographs. Although these are largely undated, their form suggests they are prehistoric, and possibly Iron Age. To the north of the proposed development site, three cropmark enclosures have been identified, SMR 52225, 52224 & 52216. 52216 is recorded in the SMR as definitely prehistoric and is the

closest to the proposed development site, 350m to the northeast. Another prehistoric enclosure with a hut circle has been identified on the southeastern edge of the village, over one kilometre from the Preband Lane. A Neolithic axe was found 900m to the northeast of the study site, but as an isolated find does not necessarily indicate any *in situ* remains.

- 3.7 A rapid scan of the site by magnetometer was undertaken by GSB Prospection on 20th January 1998. Although background readings were generally quiet, three areas were targeted for detailed gradiometry. A number of pit-type and weak linear responses were noted but were considered unlikely to have an archaeological origin.

4.0 Conclusions and Recommendations

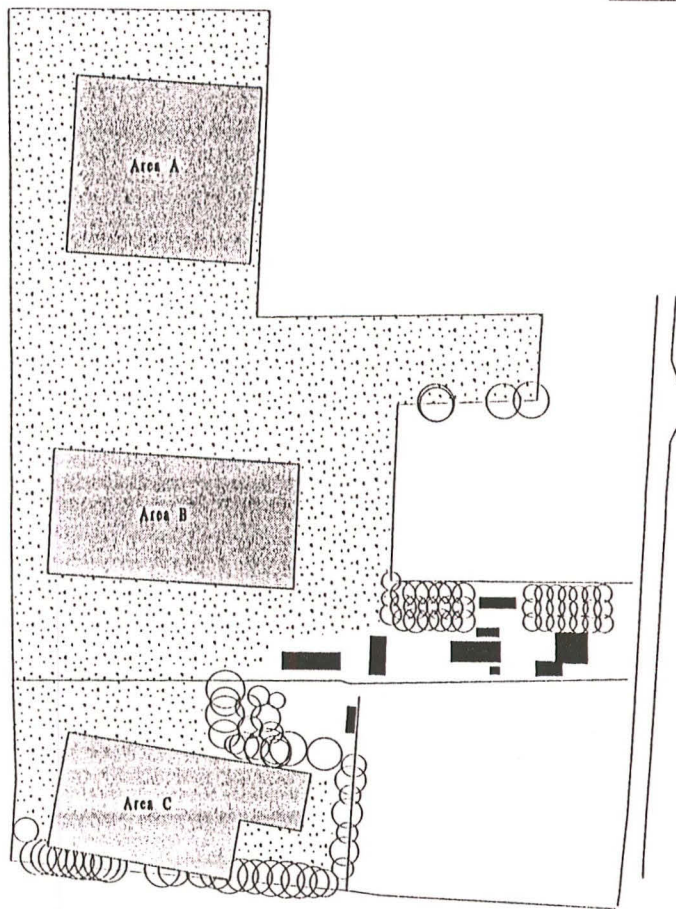
- 4.1 A number of sites of archaeological interest exist in the vicinity.
- 4.2 It is considered unlikely that any significant medieval remains would exist on the site. It lies outside the historic core of the village and appears to have been unenclosed until the 18th century.
- 4.3 A settlement is likely to exist that relates to the Anglo-Saxon cemetery to the south of the proposed development site. The small size of this cemetery may indicate a short period of use or a small settlement. The available evidence would place this settlement to the southwest of the cemetery where a scatter of Roman and Saxon pottery has been found, possibly associated with the Roman settlement site only 50m to the southwest.
- 4.4 Greater evidence exists for settlement in the Roman and prehistoric periods. Numerous cropmark sites and pottery scatters are known in the area but none have been identified in the proposed development site.
- 4.5 A few weak linear and pit-type anomalies were identified in the geophysical survey. None of these were considered to be of significant archaeological potential. No archaeological remains have been identified within the site either through the desk-based study or the geophysical survey. The closest known remains are 150m away and the potential for as yet unidentified remains within the proposed development site is considered to be low. It is therefore recommended that no further archaeological work be undertaken.



5.0 Figures

Figure 1 : Location of the proposed development site

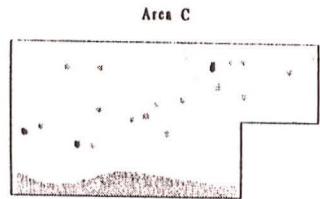
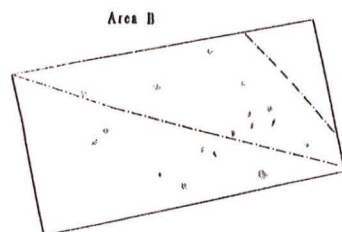
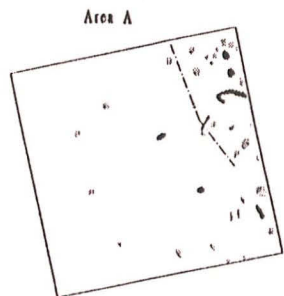
Figure 2 : Known archaeological remains in the surrounding area




Figure 3 : Geophysical survey results - Summary Interpretation



-  Extent of Staging
-  Detailed Survey

GSB PROSPECTION	
PROJECT: 98/08 WELTON, Lincolnshire	
TITLE: Sketch Location Diagram	
<small>Based on a plan supplied by Allison House</small>	Figure 1



-  Linear Trend
-  Natural
-  Ferrous

GSB PROSPECTION	
PROJECT: 98/08 WELTON, Lincolnshire	
TITLE: Summary Interpretation	

Figure 3 : Geophysical survey results - Summary Interpretation

6.0 References and Sources Consulted

Ekwall, E., 1991 (4th edition), *The Concise Oxford Dictionary of English Place-Names*, Clarendon Press, Oxford

Foster, C.W. & Longley, T., 1924, *The Lincolnshire Domesday and the Lindsey Survey*, The Lincoln Record Society Volume 19

Medieval Archaeology Volume XVI, 1972

Mee, A., 1949, *The King's England : Lincolnshire*, Hodder & Stoughton

Owen, D.M., 1971, *History of Lincolnshire V : Church and Society in Medieval Lincolnshire*, Lincolnshire Local History Society

Pevsner, N. & Harris, J. (revised by Antram, N.), 1989, *The Buildings of England : Lincolnshire*, Penguin Books

Soils Survey of England and Wales, 1983, *Soil Map of England and Wales Scale 1 : 250 000*

Maps

Lindsey Enclosure Award & Plan 95, 1773

Ordnance Survey 1" Sheet 29 : Lincoln, 1st edition, 1824

Ordnance Survey 6" Sheet LXI.NE, 2nd edition

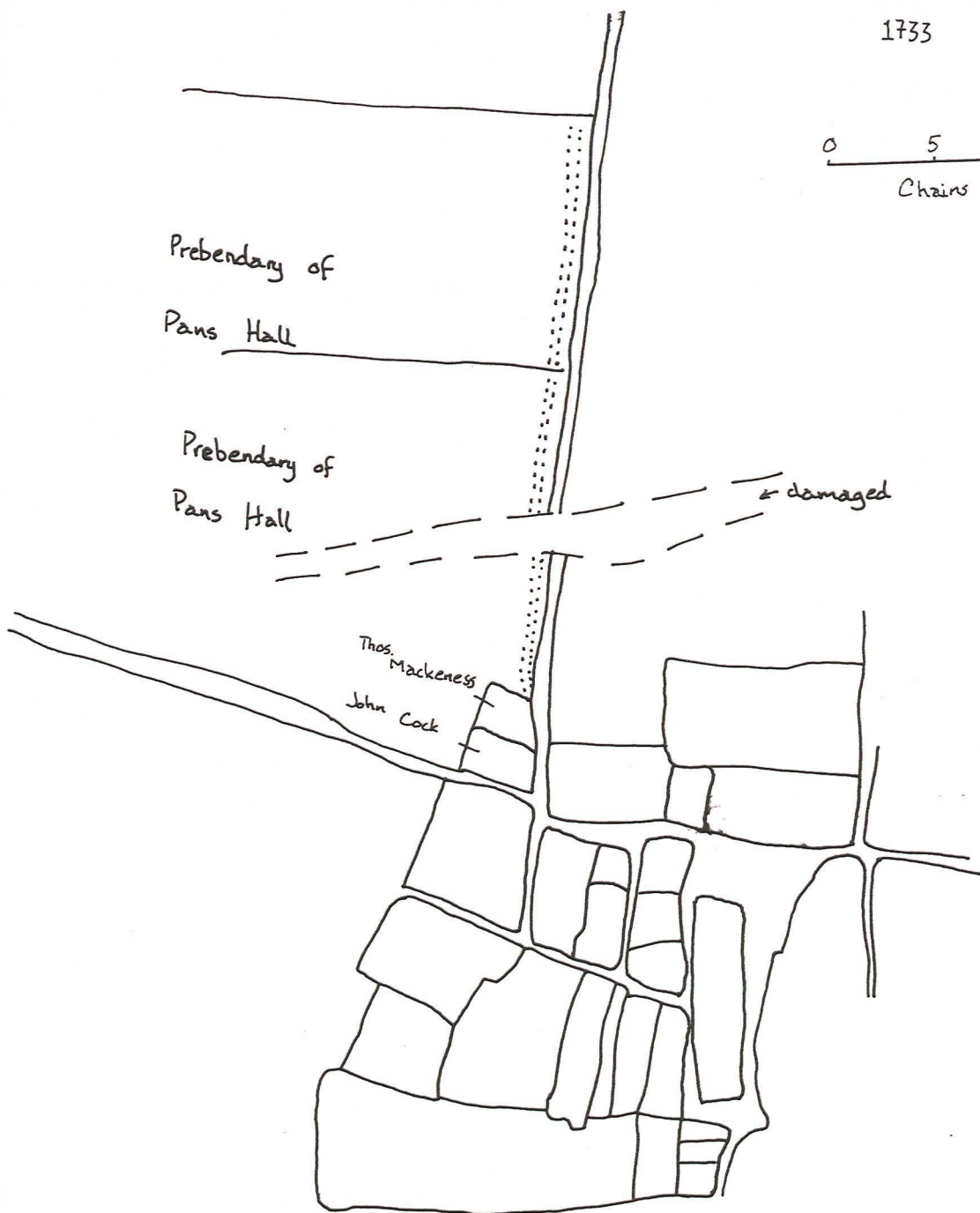
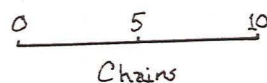
Ordnance Survey 25" Sheet LXI.4, 2nd edition, 1906

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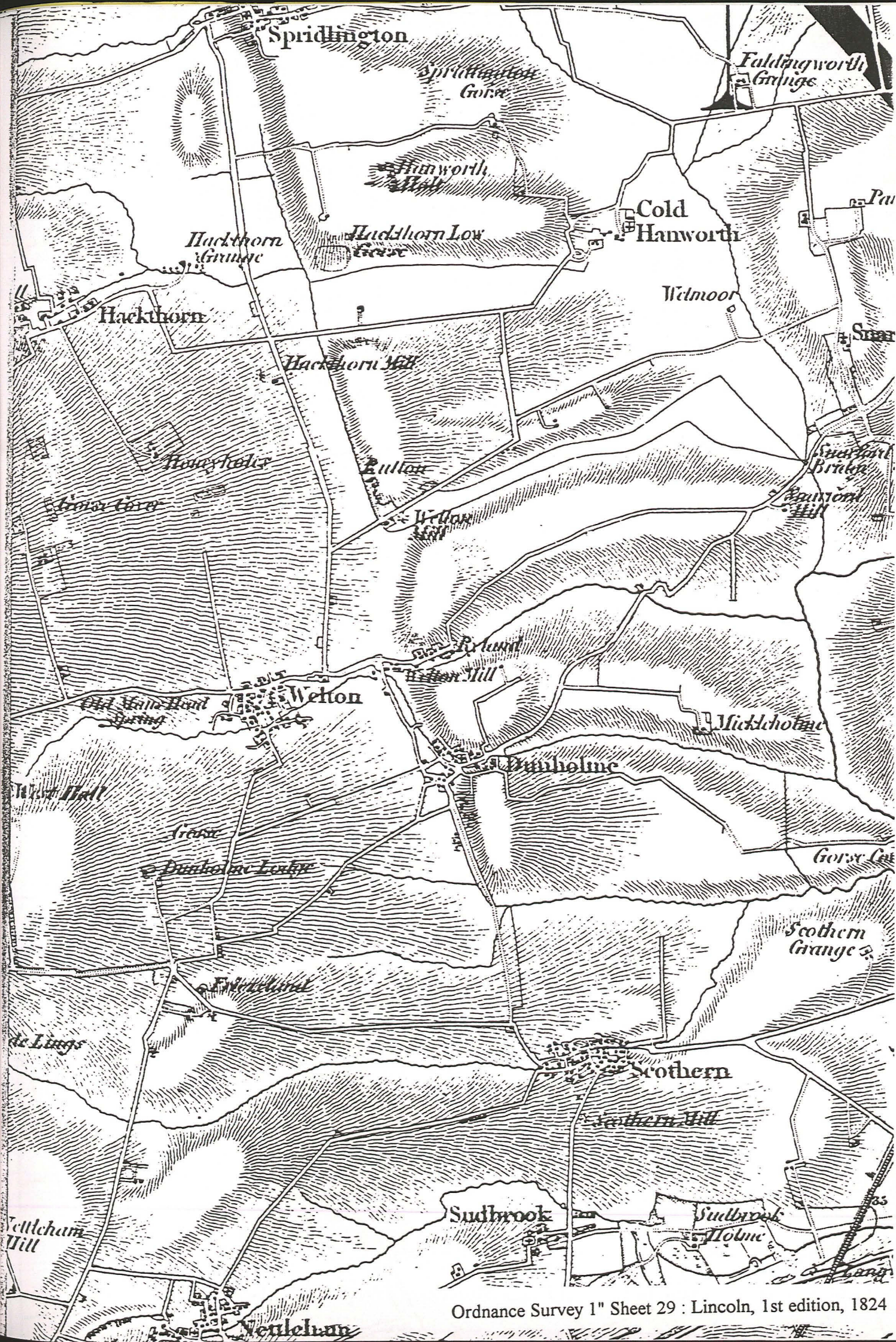
Appendix A :
Historic Maps

Lindsey Enclosure Award 95

1733



Lindsey Enclosure Award 95, 1733



Spridlington

Faldingworth Grange

Spridlington Grange

Hanworth Hall

Cold Hanworth

Hackthorn Grange

Hackthorn Low Grange

Welmor

Hackthorn

Hackthorn Mill

Honeyholes

Bullton

Sudbrook Bridge

Welmor Mill

Welmor Mill

Welmor

Welmor Mill

Mickelthorpe

Welton

Dunholme

Old Water Mill

West Hall

Grass

Dunholme Lodge

Grange Lane

Sothern Grange

Welmor

Sothern

Sothern Mill

Sudbrook

Sudbrook Mill

Nettleham Mill

Nettleham





Ordnance Survey 25" Sheet LXI.4, 2nd edition, 1906

*An Archaeological Desk-Based Assessment of land
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Appendix B :
Relevant SMR Entries

SMR Entries

SMR No.	Description	NGR
50504	Fishponds south of Norbeck Lane	TF 0090 7955
50590	Anglo-Saxon inhumation cemetery	TF 0077 7980
52143	Welton Medieval settlement	TF 011 798
52184	Disused WWII airfield	SK 9999 7850
52190	Medieval iron arrowhead	TF 0114 7976
52193	Roman site and possible building	TF 005 796
52194	Medieval pottery	TF 009 797
52195	Mid 4th century Roman coin	TF 0127 7966
52202	Roman pottery	TF 0065 7965
52203	Anglo-Saxon pottery	TF 0065 7965
52204	Post-medieval finds	TF 008 798
52207	Early 4th century Roman coin	TF 013 799
52208	Post-medieval Nuremberg jetton	TF 0202 8010
52210	Neolithic stone axe	TF 0134 8066
52214	Possible Roman villa	TF 007 809
52216	Prehistoric enclosure	TF 0081 8057
52217	WWII searchlight battery	TF 0099 8015
52218	Ridge and furrow, medieval ploughing remains	TF 0160 8081
52219	Ridge and furrow, medieval ploughing remains	TF 0200 8017
52224	Undated cropmark enclosure	TF 0075 8076
52225	Undated cropmark enclosure	TF 0070 8060
52228	Undated quarry	TF 0180 7995
53155	Prehistoric enclosure and hut circle	TF 0200 7968
54229	Single sherd of Roman pottery	TF 0200 7975

*An Archaeological Desk-Based Assessment of land
off Preband Lane, Welton, Lincolnshire*

Appendix C :
Geophysical Survey
by GSB Prospection

SITE SUMMARY SHEET

98 / 08 Welton, Lincolnshire

NGR: TF 006 800

Location, topography and geology

The area under investigation lies approximately 9 km north-northeast of Lincoln City Centre, on the western limits of the Village of Welton, Lincolnshire. The site occupies three generally level fields which had differing ground cover (seeded, ploughed and pasture) at the time of survey. The site is defined to the north, south and east by houses. The application area lies on the boundary of two soil associations; Beccles 1 and Aswarby. The former comprise chalky till with fine loamy over clayey soils while the latter consists of Jurassic limestone and clay with calcareous fine loamy soils over limestone (SSEW 1983). Limestone was noted in the topsoil within the north-eastern quadrant of the application area.

Archaeology

No archaeological remains are known to exist within the application area, although the site does lie in a landscape rich in buried archaeological deposits. Approximately 400m to the north of the application area Roman and prehistoric cropmarks have been recorded and a Saxon cemetery is known to exist 150m south of the survey area. In addition, a Roman road passes approximately 3 km to the west of the site and medieval remains lie some 5km to the southwest of the village of Welton.

Aims of Survey

Gradiometry was undertaken, in both scanning and detailed modes, with the aim of locating and defining any anomalies of possible archaeological interest within the application area. This geophysical survey forms part of an archaeological evaluation being undertaken by **John Samuels Archaeological Consultants (JSAC)**, on behalf of **Allison Homes**.

Summary of Results *

Scanning indicated a quiet level of background response although increased magnetic noise was observed along the perimeter of the survey area, adjacent to the houses. Three areas were targeted for detailed gradiometry based on the results of the scanning. No clear concentrations of archaeological type anomalies have been located. Although a few pit like responses and weak linear trends have been noted, an archaeological interpretation for these is tentative.

* It is essential that this summary is read in conjunction with the detailed results of the survey.

SURVEY RESULTS

98 / 08 Welton, Lincolnshire

1. Survey Area

- 1.1 The whole application area covers approximately 4ha of land with varied ground cover. The limit of the area of scanning is shown in Figure 1 by a thick black line.
- 1.2 Three areas, A - C, were selected for detailed gradiometry totalling approximately 1ha. The location of these areas is shown in Figure 1 at a scale of 1:1250.
- 1.3 The survey grid was set out by **GSB Prospection** and tied in to existing features using an EDM system. Detailed tie-in information has been lodged with the client. In addition, wooden stakes have been left in the field boundaries to facilitate relocation of the grid.

2. Display

- 2.1 Figures 2 and 3 are a summary greyscale image and a summary interpretation, respectively, of the three detailed survey blocks in their correct relative location, at a scale of 1:1000.
- 2.2 The results from the gradiometer survey are also displayed as X-Y traces and dot density plots at a scale of 1:500 in Figures A.1 to C.1.
- 2.3 The display formats referred to above are discussed in the *Technical Information* section at the end of the text, and a complete list of figures precedes the diagrams.

3. General Considerations - Complicating factors

- 3.1 In general, the conditions for survey were good, with the fields being under either short crop, pasture or stubble.
- 3.2 Small areas within the application area were not available for survey because of trees, buildings and farm machinery.
- 3.3 Within all of the gradiometer data sets, isolated ferrous type responses have been detected. These are most likely to be due to modern material in the topsoil. Only the most prominent of these have been noted on the interpretation diagrams.

4. Results of Scanning

- 4.1 With gradiometers in scanning mode the application area was examined along traverses spaced at intervals of approximately 10m. During this operation the instruments displays were observed for any significant variations. The immediate vicinity of any potential archaeological anomalies was investigated by a detailed scan to determine their likely origin. Anomalies of interest were marked with canes for subsequent detailed survey.
- 4.2 Scanning of the most northerly field, which was seeded at the time of survey, suggested a fairly low level of background response, although more ferrous noise was apparent in the eastern half of the area. Two pit type anomalies were noted during scanning, although ferrous type responses were also found in the vicinity the anomalies. To clarify the nature of the responses detailed gradiometry was undertaken in the eastern half of this field (Area A) where a significant amount of limestone was visible in the topsoil.
- 4.3 The central ploughed field was found to be noticeably quieter during scanning except along the perimeter of the field, adjacent to houses, etc. A few isolated pit type responses were noted and investigated by detailed gradiometry (Area B).
- 4.4 Scanning within the pasture field in the south of the application area was generally quiet away from it's southern limit. A few isolated responses of possible interest were noted in the western half of this field and surveyed in detail (Area C).

5. Results of Gradiometer Survey

5.1 Area A

- 5.1.1 The data confirm the results of the scanning; a generally quiet background with an increase in ferrous type noise along the eastern edge, adjacent to the houses.
- 5.1.2 A few anomalies have been noted as potentially natural in origin. Although an archaeological origin for these cannot be dismissed, the ferrous responses and the lack of associated ditches make such an interpretation tentative. These responses may reflect natural variations in the topsoil or more deeply buried ferrous material.
- 5.1.3 A very weak linear trend is discernible in the eastern half of the survey, aligned approximately NW-SE. It is likely that this is of agricultural origin.

5.2 Area B

- 5.2.1 The background level of response across this area is noticeably quieter than Area B, although several isolated ferrous responses are apparent throughout the data set.
- 5.2.2 The weak linear anomaly in the east of the survey is on the same alignment as the response in Area A and supports an agricultural origin.

5.2.3 A similar linear trend runs diagonally through the site aligned approximately east and west and is also likely to have an agricultural origin.

5.3 Area C

5.3.1 The broad band of ferrous response along the southern edge of this survey area is due to fencing marking the southern limit of the application area. It is possible that a small pipe runs along the southern limit of the survey area.

5.3.2 A few anomalies of possible natural origin have been noted. These isolated responses are unlikely to be archaeological in origin but rather the product of natural variations in the topsoil or more deeply buried ferrous material.

5.3.3 No responses from the ridge and furrow, which is visible on the surface, are apparent within the data.

6. Conclusions

6.1 Scanning failed to locate any anomalies of obvious archaeological potential, although a few isolated pit type anomalies were noted for detailed investigation.

6.2 Detailed gradiometry has confirmed the lack of archaeological type responses. A few anomalies have been noted as potentially natural in origin. While an archaeological origin for these cannot be dismissed, the lack of any associated responses makes an archaeological origin unlikely.

Project Co-ordinators: Dr S M Ovenden-Wilson
Project Assistants: Dr C Gaffney & A Shields

Date of Survey: 15th & 16th January 1998
Date of Report: 20th January 1998

Reference

SSEW, 1983 *Soils of England and Wales. Sheet 4 Eastern England.*
Soil Survey of England and Wales, 1983

TECHNICAL INFORMATION

The following is a description of the equipment and display formats used in **GSB Prospection (GSB)** reports. It should be emphasised that whilst all of the display options are regularly used, the diagrams produced in the final reports are the most suitable to illustrate the data from each site. The choice of diagrams results from the experience and knowledge of the staff of **GSB**.

All survey reports are prepared and submitted on the basis that whilst they are based on a thorough survey of the site, no responsibility is accepted for any errors or omissions.

Instrumentation

(a) Fluxgate Gradiometer - Geoscan FM36

This instrument comprises of two fluxgates mounted vertically apart, at a distance of 500mm. The gradiometer is carried by hand, with the bottom sensor approximately 100-300mm from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is conventionally measured in nanoTesla (nT), or gamma. The fluxgate gradiometer suppresses any diurnal or regional effects. Generally features up to one metre deep may be detected by this method. Readings are normally logged at 0.5m intervals along traverses 1.0m apart.

(b) Resistance Meter - Geoscan RM4 or RM15

This measures the electrical resistance of the earth, using a system of four electrodes (two current and two potential.) Depending on the arrangement of these electrodes an exact measurement of a specific volume of earth may be acquired. This resistance value may then be used to calculate the earth resistivity. The "Twin Probe" arrangement involves the pairing of electrodes (one current and one potential) with one pair remaining in a fixed position, whilst the other measures the resistance variations across a fixed grid. The resistance is measured in Ohms and the calculated resistivity is in Ohm-metres. The resistance method as used for area survey has a depth resolution of approximately 0.75m, although the nature of the overburden and underlying geology will cause variations in this generality. The technique can be adapted to sample greater depths of earth and can therefore be used to produce vertical "pseudo sections". In area survey readings are typically logged at 1.0m x 1.0m intervals.

(c) Magnetic Susceptibility

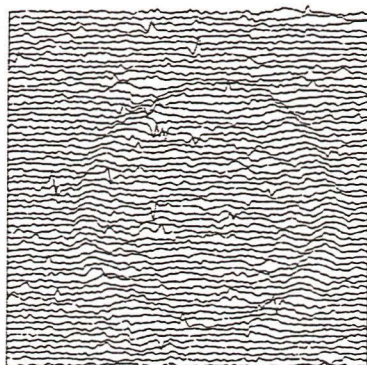
Variations in the magnetic susceptibility of subsoils and topsoils occur naturally, but greater enhanced susceptibility can also be a product of increased human/anthropogenic activity. This phenomenon of susceptibility enhancement can therefore be used to provide information about the "level of archaeological activity" associated with a site. It can also be used in a predictive manner to ascertain the suitability of a site for a magnetic survey. The instrument employed for measuring this phenomenon is either a field coil or a laboratory based susceptibility bridge. For the latter 50g soil samples are collected in the field. Sampling intervals vary widely but are often at the 10m or 20m level.

Display Options

The following is a description of the display options used. Unless specifically mentioned in the text, it may be assumed that no filtering or smoothing has been used to enhance the data. For any particular report a limited number of display modes may be used.

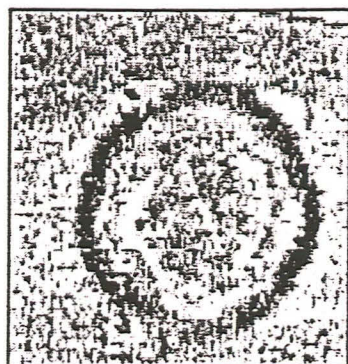


(a) **Dot-Density** In this display, minimum and maximum cut-off levels are chosen. Any value that is below the minimum will appear white, whilst any value above the maximum will be black. Any value that lies between these two cut-off levels will have a specified number of dots depending on the relative position between the two levels. The focus of the display may be changed using different levels and a contrast factor (C.F.). Usually the C.F. = 1, producing a linear scale between the cut-off levels. Assessing a lower than normal reading involves the use of an inverse plot. This plot simply reverses the minimum and maximum values, resulting in the lower values being presented by more dots. In either representation, each reading is allocated a unique area dependent on its position on the survey grid, within which numbers of dots are randomly placed. The main limitation of this display method is that multiple plots have to be produced in order to view the whole range of the data. It is also difficult to gauge the true strength of any anomaly without looking at the raw data values. This display is much favoured for producing plans of sites, where positioning of the anomalies and features is important.



(b) **X-Y Plot** This involves a line representation of the data. Each successive row of data is equally incremented in the Y axis, to produce a stacked profile effect. This display may incorporate a hidden-line removal algorithm, which blocks out lines behind the major peaks and can aid interpretation. Advantages of this type of display are that it allows the full range of the data to be viewed and shows the shape of the individual anomalies. Results are produced on a flatbed plotter.

This display joins the data values in both the X and Y axis. The display may be changed by altering the horizontal viewing angle and the angle above the plane. The output may be either colour or black and white.



(c) Grey-Scale

This format divides a given range of readings into a set number of classes. These classes have a predefined arrangement of dots or shade of grey, the intensity increasing with value. This gives an appearance of a toned or grey scale.

Similar plots can be produced in colour, either using a wide range of colours or by selecting two or three colours to represent positive and negative values. While colour plots can look impressive and can be used to highlight certain anomalies, grey-scales tend to be more informative.

Glossary of terms commonly used in the graphical interpretation of gradiometer data

Ditch / Pit

This category is used only when other evidence is available that supports a clear archaeological interpretation e.g. cropmarks or excavation.

Archaeology

This term is used when the form, nature and pattern of the response is clearly archaeological but where no supporting evidence exists. These anomalies, whilst considered anthropogenic, could be of any age. If a more precise archaeological interpretation is possible then it will be indicated in the accompanying text.

? Archaeology

The interpretation of such anomalies is often tentative, with the anomalies exhibiting either weak signal strength or forming incomplete archaeological patterns. They may be the result of variable soil depth, plough damage or even aliasing as a result of data collection orientation.

Natural

These responses form clear patterns in geographical zones where natural variations are known to produce significant magnetic distortions e.g. palaeochannels or magnetic gravels.

? Natural

These are anomalies that are likely to be natural in origin i.e geological or pedological.

Areas of Magnetic Disturbance

These responses are commonly found in places where modern ferrous or fired materials are present e.g. fence-lines, pylons or brick rubble. They are presumed to be modern.

Areas of Increased Magnetic Response

These responses show no visual indications on the ground surface and are considered to have some archaeological potential.

Ferrous Response

This type of response is associated with ferrous material and may result from small items in the topsoil or larger buried objects such as pipes. Ferrous responses are usually regarded as modern. Individual burnt stones, fired bricks or igneous rocks can produce responses similar to ferrous material.

Ridge and Furrow

These are regular and broad linear anomalies that are presumed to be the result of ancient cultivation. In some cases the response may be the result of modern activity.

Ploughing Trend

These are isolated or grouped linear responses. They are normally narrow and are presumed modern when aligned to current field boundaries or following present ploughing.

Linear Trend

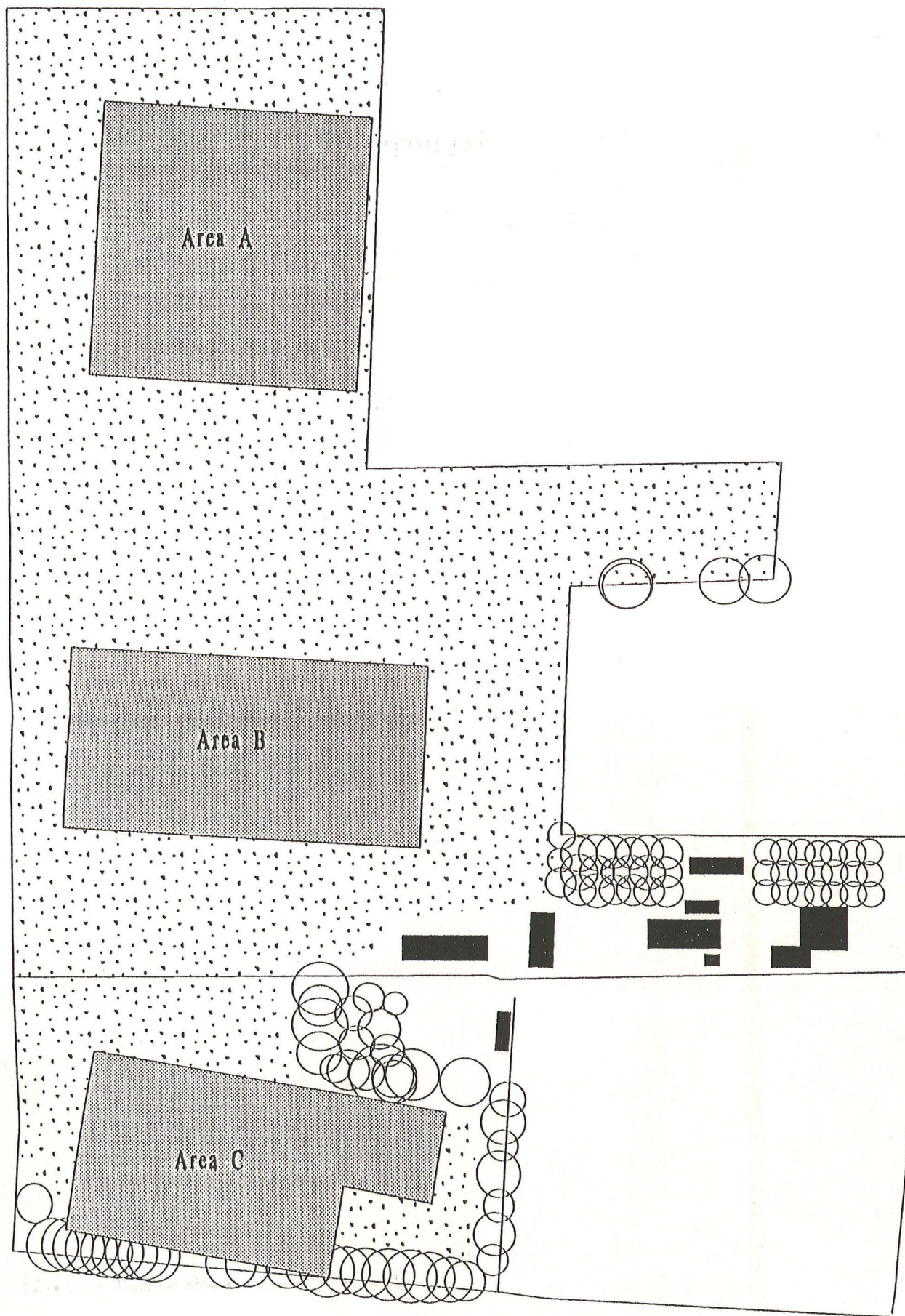
This is usually a weak isolated linear anomaly of unknown cause or date.

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Figure A.2	Area A: Interpretation	1:500
Figure B.1	Area B: X-Y trace, dot density plot & Interpretation	1:500
Figure C.1	Area C: X-Y trace, dot density plot & Interpretation	1:500



0 metres 50



Extent of Scanning



Detailed Survey

GSB PROSPECTION

PROJECT: 98/08 WELTON, Lincolnshire

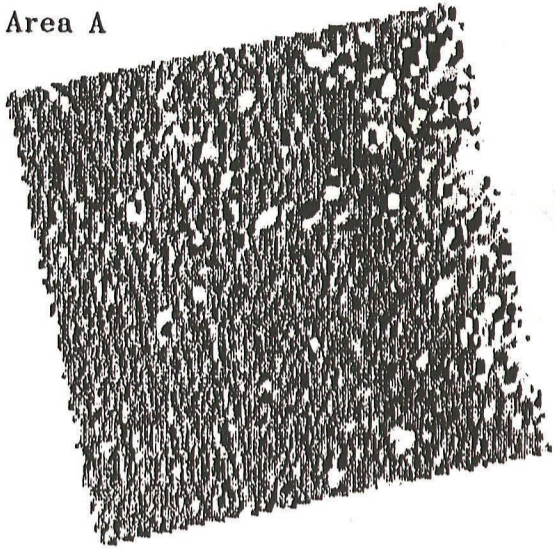
TITLE: Sketch Location Diagram

Based on a plan supplied by
Allison Homes

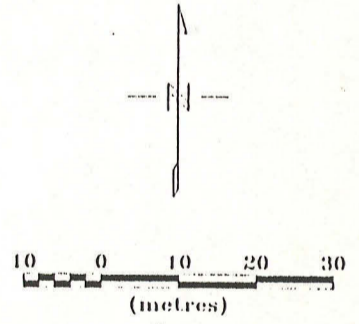
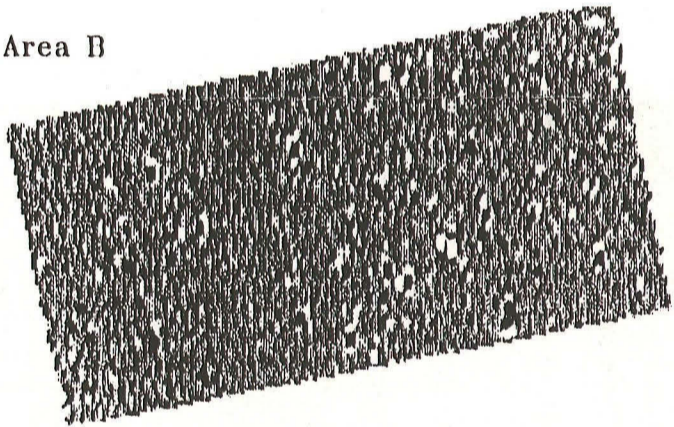
Figure 1

WELTON
Summary Greyscale

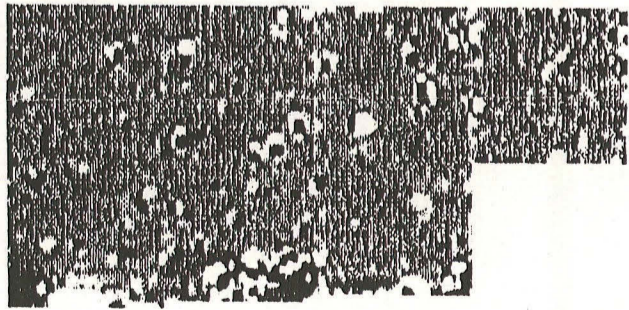
Area A



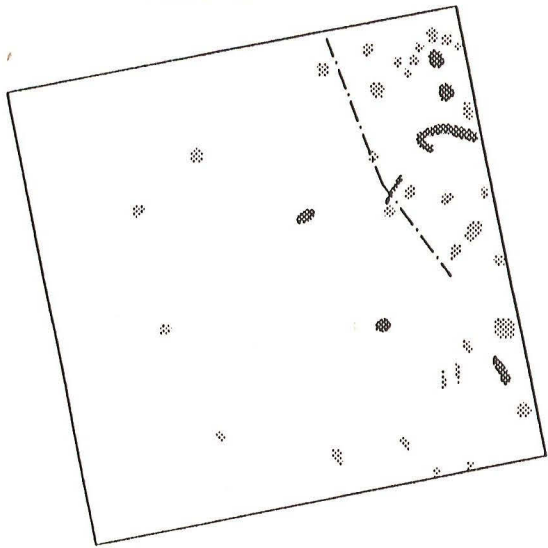
Area B



Area C

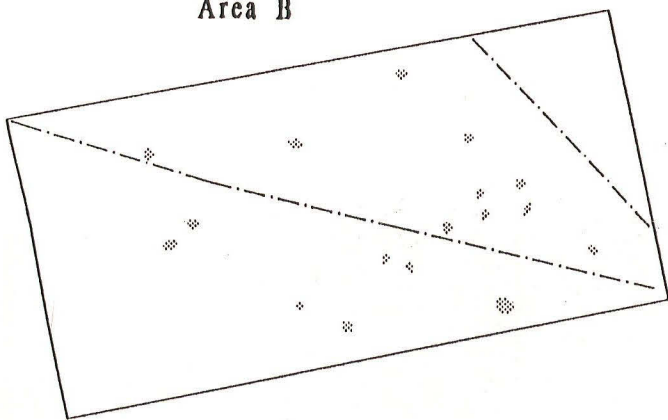


Area A

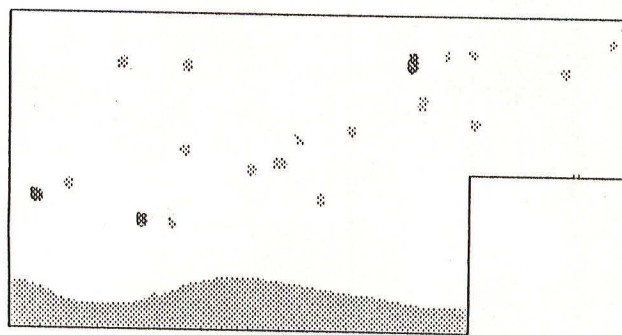


0 metres 40

Area B



Area C



Linear Trend



?Natural



Ferrous

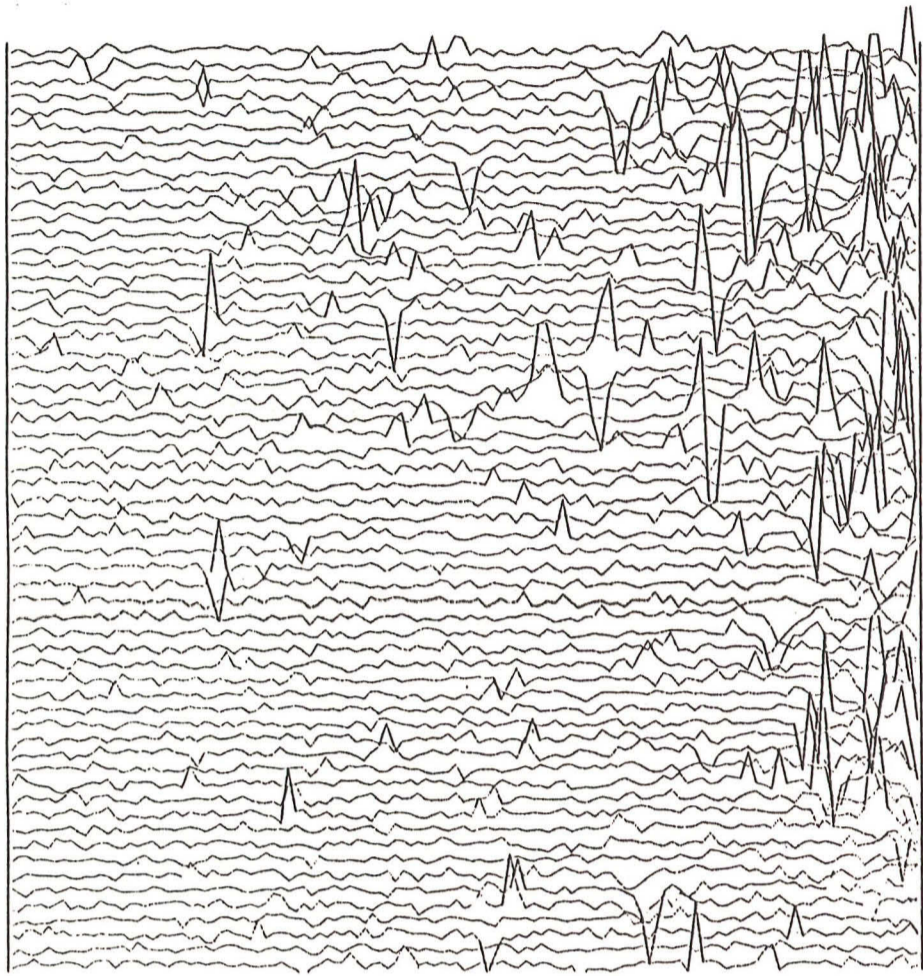
GSB PROSPECTION

PROJECT: 98/08 WELTON, Lincolnshire

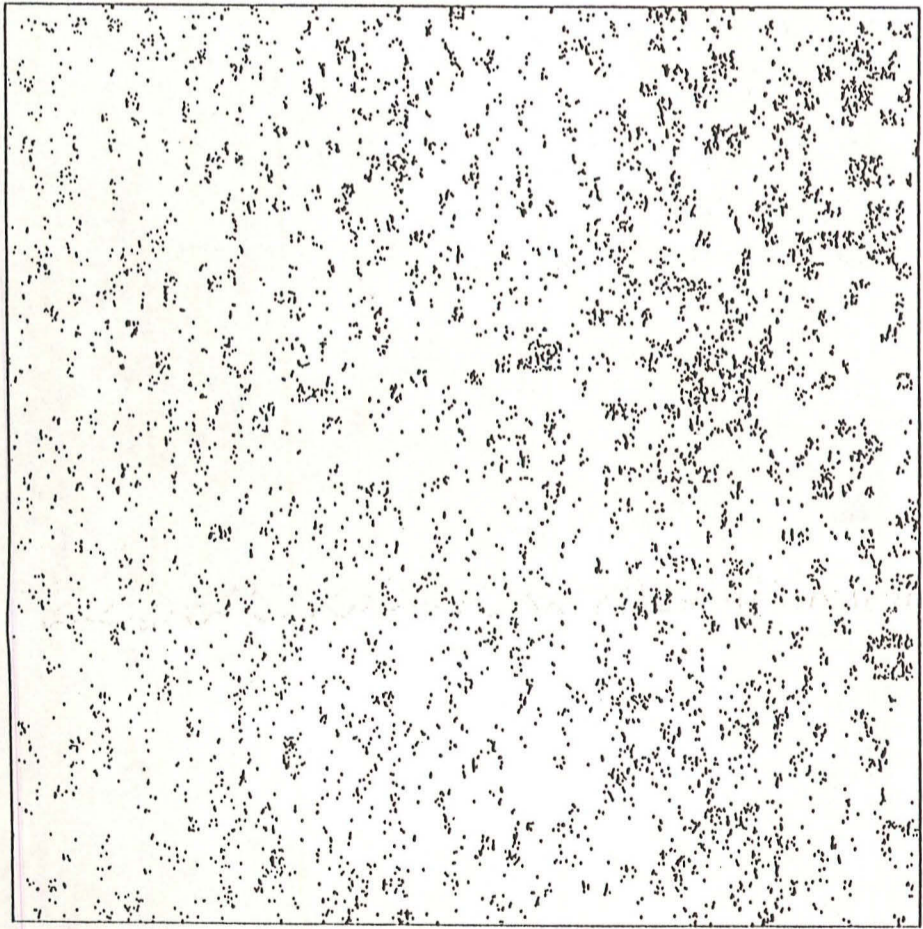
TITLE: Summary Interpretation

Figure 3

WELTON Area A



15 nT



2.0
nT
0.1



0 m 20

WELTON Area A



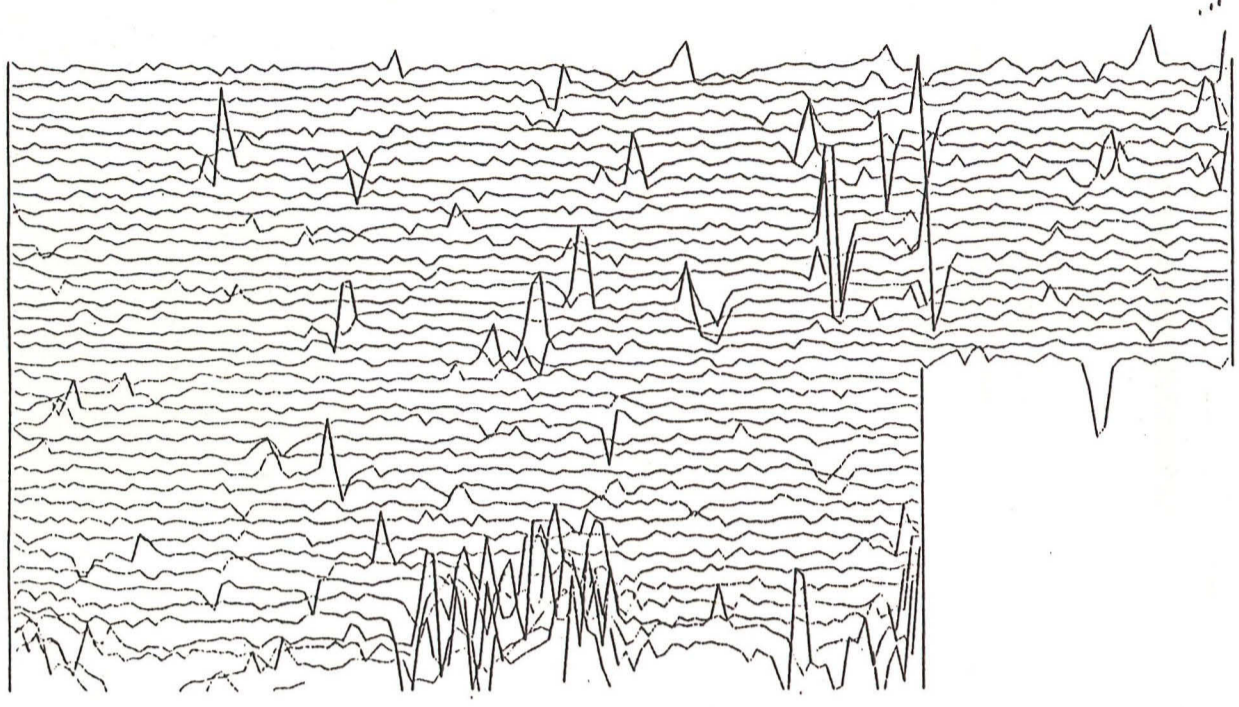
Linear Trend

?Natural

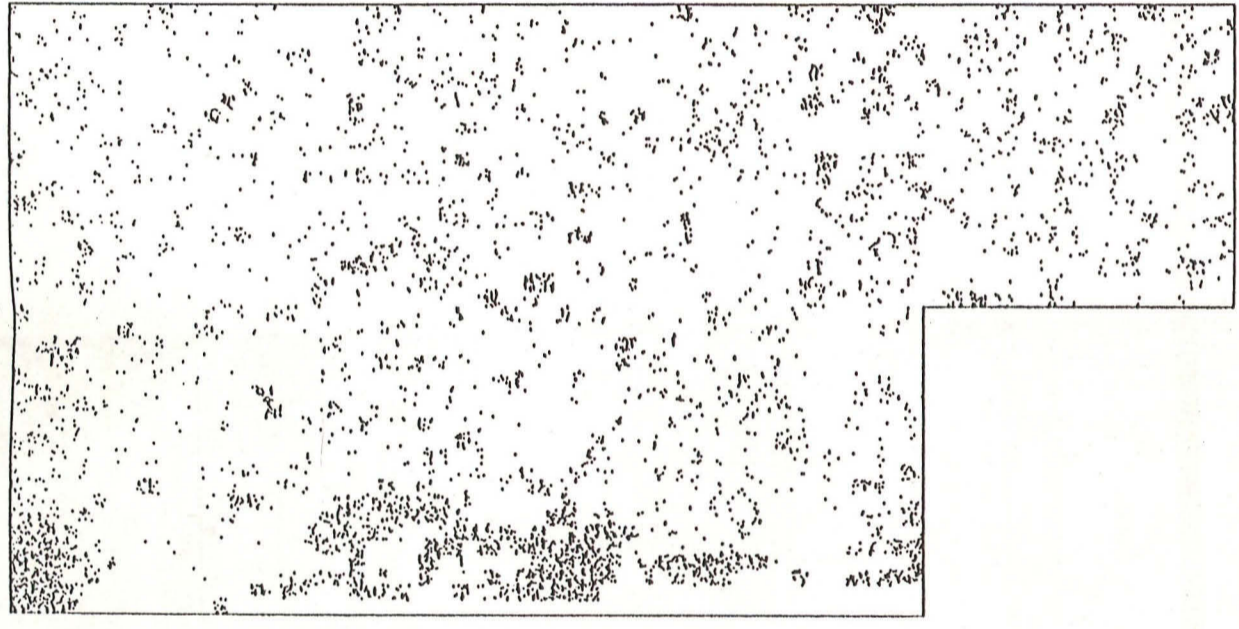
Ferrous



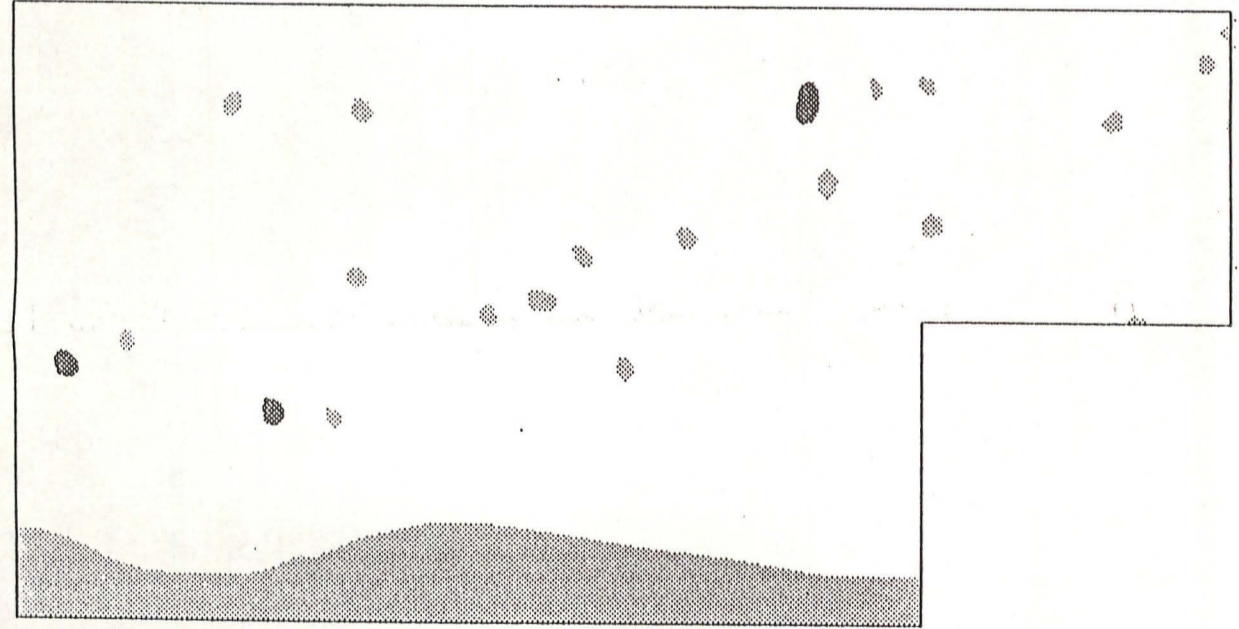
WELTON Area C



15 nT



2.0
nT
0.1



■ ?Natural
■ Ferrous



0 m 20