

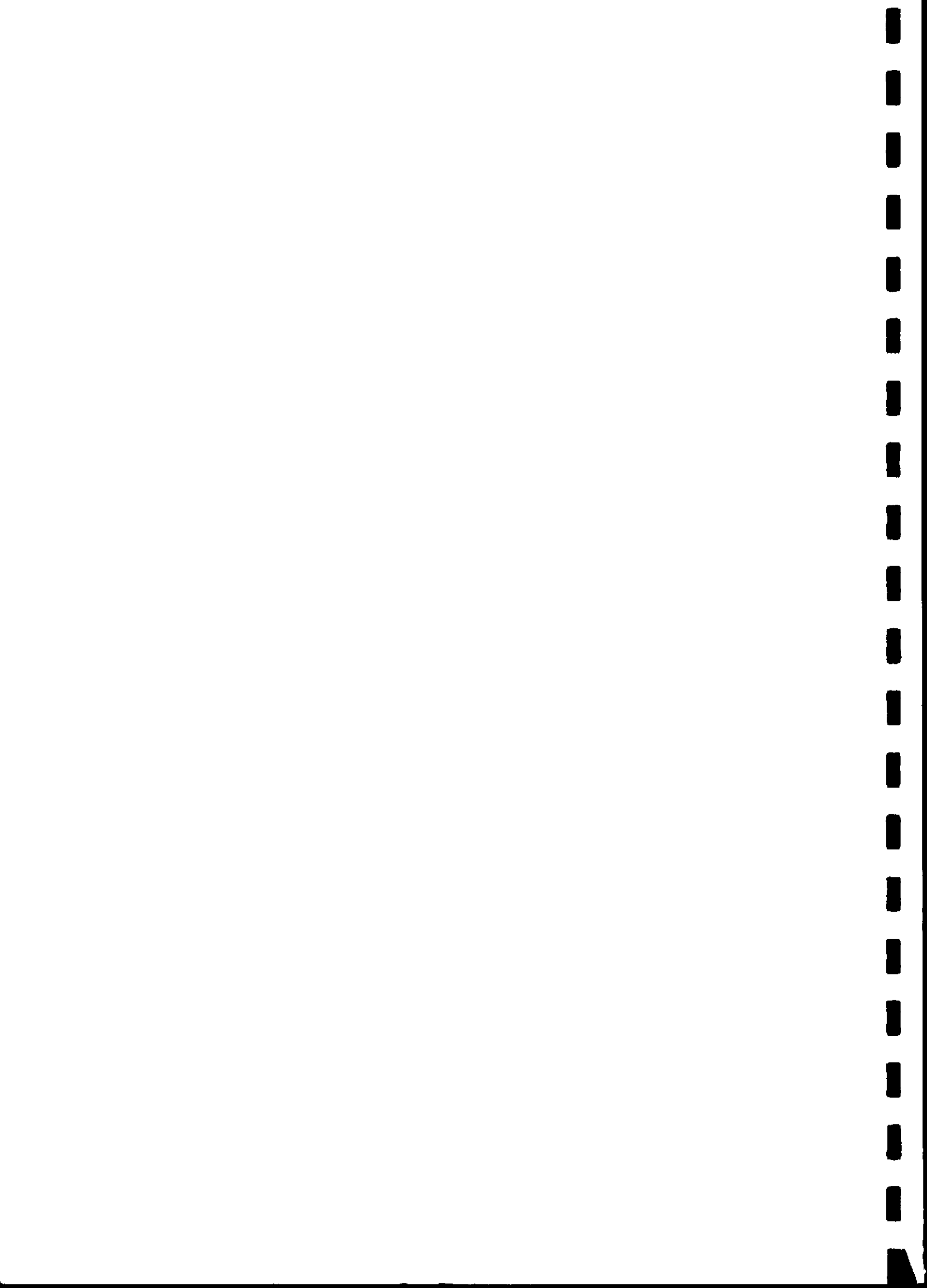
MARSH LEYS FARM
ARCHAEOLOGICAL FIELD EVALUATION
Stages 1, 2 and 3

Document 1999/01
Project MLF544

8th January 1999

Produced for:
Old Road Securities plc

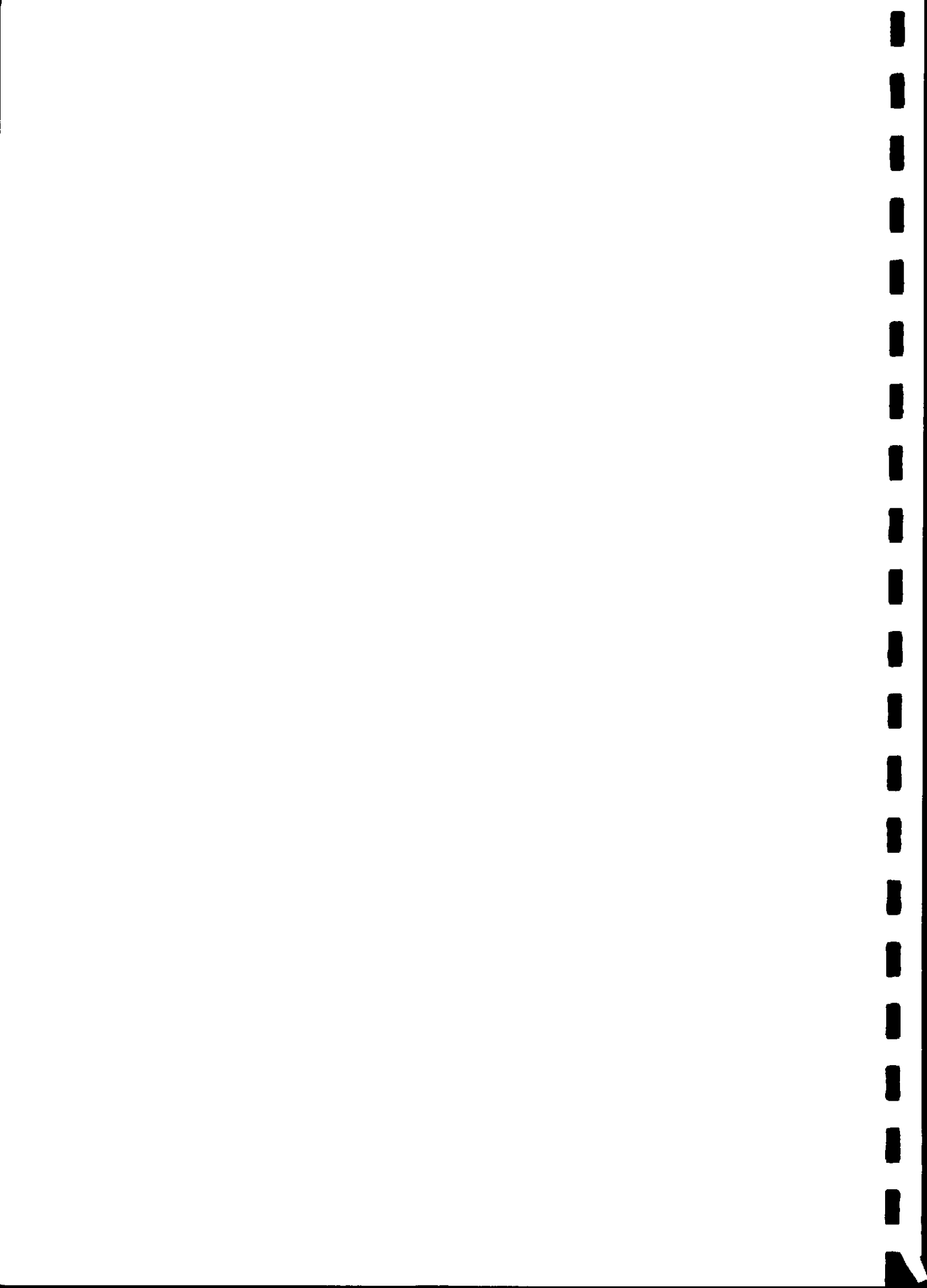
© Copyright Bedfordshire County Archaeology Service 1998, *all rights reserved*





Contents

| | |
|---|-----------|
| List of Tables | 3 |
| List of Figures | 3 |
| Preface | 4 |
| Acknowledgements | 4 |
| Key terms | 4 |
| Non-Technical Summary | 5 |
| 1. INTRODUCTION | 6 |
| 1.1 Background to the project | 6 |
| 1.2 Site location and description | 6 |
| 1.3 Archaeological background | 6 |
| 1.4 Method statement | 7 |
| 1.5 Structure of the report | 8 |
| 2. AIR PHOTOGRAPH ANALYSIS AND PLOTTING | 9 |
| 2.1 Introduction | 9 |
| 2.2 Method statement | 9 |
| 2.3 Sources of photographs | 9 |
| 2.4 Types of photographs | 9 |
| 2.5 Transcription methods | 9 |
| 2.6 Limitations and reliability of the evidence | 10 |
| 2.7 Aerial photographs consulted | 11 |
| 2.8 Results of the aerial photographic analysis | 12 |
| 2.9 Summary | 19 |
| 3. FIELD ARTEFACT COLLECTION | 21 |
| 3.1 Introduction | 21 |
| 3.2 Method statement | 21 |
| 3.3 The artefact assemblage | 21 |
| 3.4 Artefact distribution | 24 |
| 3.5 Summary | 25 |
| 4. GEOPHYSICAL SURVEY | 26 |
| 4.1 Introduction | 26 |
| 4.2 Method statement | 26 |
| 4.3 Summary of the results of the detailed geophysical survey | 26 |
| 4.4 Summary | 28 |
| 5. LIMITATIONS OF NON-INTRUSIVE EVALUATION | 29 |
| 5.1 Introduction | 29 |
| 5.2 Aerial photographs | 29 |
| 5.3 Field artefact collection | 29 |
| 5.3 Geophysical survey | 30 |
| 6. CHRONOLOGICAL SUMMARY OF RESULTS | 31 |
| 6.1 Prehistoric | 31 |
| 6.2 Late Iron Age | 31 |
| 6.3 Roman | 31 |
| 6.4 Medieval | 32 |
| 6.5 Post-medieval | 32 |
| 6. REFERENCES | 33 |





List of Tables

| | |
|--|----|
| TABLE 1: VERTICAL AERIAL PHOTOGRAPHS EXAMINED | 11 |
| TABLE 2: OBLIQUE AERIAL PHOTOGRAPHS EXAMINED | 11 |
| TABLE 3: POTTERY TYPE SERIES FROM FIELD ARTEFACT COLLECTION..... | 22 |
| TABLE 4: POTTERY TYPE SERIES FROM ADDITIONAL COLLECTED MATERIAL IN B78 . | 23 |
| TABLE 5: KILOMETRE A - FINDS SUMMARY BY NUMBER | 35 |
| TABLE 6: KILOMETRE A - FINDS SUMMARY BY WEIGHT | 35 |
| TABLE 7: KILOMETRE B - FINDS SUMMARY BY NUMBER | 36 |
| TABLE 8: KILOMETRE B - FINDS SUMMARY BY WEIGHT (G)..... | 37 |
| TABLE 9: KILOMETRE C - FINDS SUMMARY BY NUMBER | 38 |
| TABLE 10: KILOMETRE C - FINDS SUMMARY BY WEIGHT (G)..... | 38 |

List of Figures

1. Study Area location plan and adjacent HER sites.
2. Aerial photograph interpretation plan.
3. Field 1, trackway A: 1976 photograph and plan
4. Field 2, ditches B and C, enclosure D: 1976 photograph and plan
5. Field 5, ditches H, I and J, enclosures G and F: 1976 photograph and plan
6. Field 5, ditches E and I: 1976 photograph and plan
7. Field 7, enclosure R and pits Q: 1996 photograph and plan
8. Field 7, enclosure M and O, pits N: 1996 photograph and plan
9. Field 7, enclosure P: 1996 photograph and plan
10. Field artefact collection hectare divisions
11. Worked flint distribution
12. Late Iron Age and Roman artefact distribution
13. Medieval pottery distribution
14. Post-medieval pottery distribution
15. Late medieval/post medieval CBM distribution
16. Undiagnostic pottery and CBM distribution
17. Ferrous slag distribution
18. Geophysical interpretation plan

All figures are bound at the back of this report (including 1:2500 aerial photograph interpretation plans).



Preface

Every effort has been made in the preparation of this document to provide as complete an assessment as possible, within the terms of the specification. All statements and opinions in this document are offered in good faith. Bedfordshire County Archaeology Service (BCAS) cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

Acknowledgements

Mike Luke (Project Officer) directed the evaluation under the overall management of Drew Shotliff (Project Manager). Rob Edwards (Project Supervisor) undertook the aerial photograph analysis with assistance from Jonathan Edis (Archaeological Aerial Photograph Consultant from Palisade Consultants). The field artefact collection was undertaken by Ian Beswick, Sally Dicks, Craig Halsey and Joan Lightning (Archaeological Technicians) and Rob Edwards or Christiane Meckseper (Project Supervisors). Artefacts were catalogued and analysed by Jackie Wells (Artefact Supervisor). This report has been prepared by Mike Luke with assistance from Rob Edwards and Jackie Wells. All illustrations have been prepared by Joan Lightning.

Bedfordshire County Archaeology Service would like to acknowledge the co-operation of the library staff at CUCAP and NLAP and the landowner's agent Mr P Mavro of Warmingtons. The assistance of Kate Sylvester-Kilroy (Old Road Securities plc) and Martin Oake (County Archaeological Officer) is also appreciated.

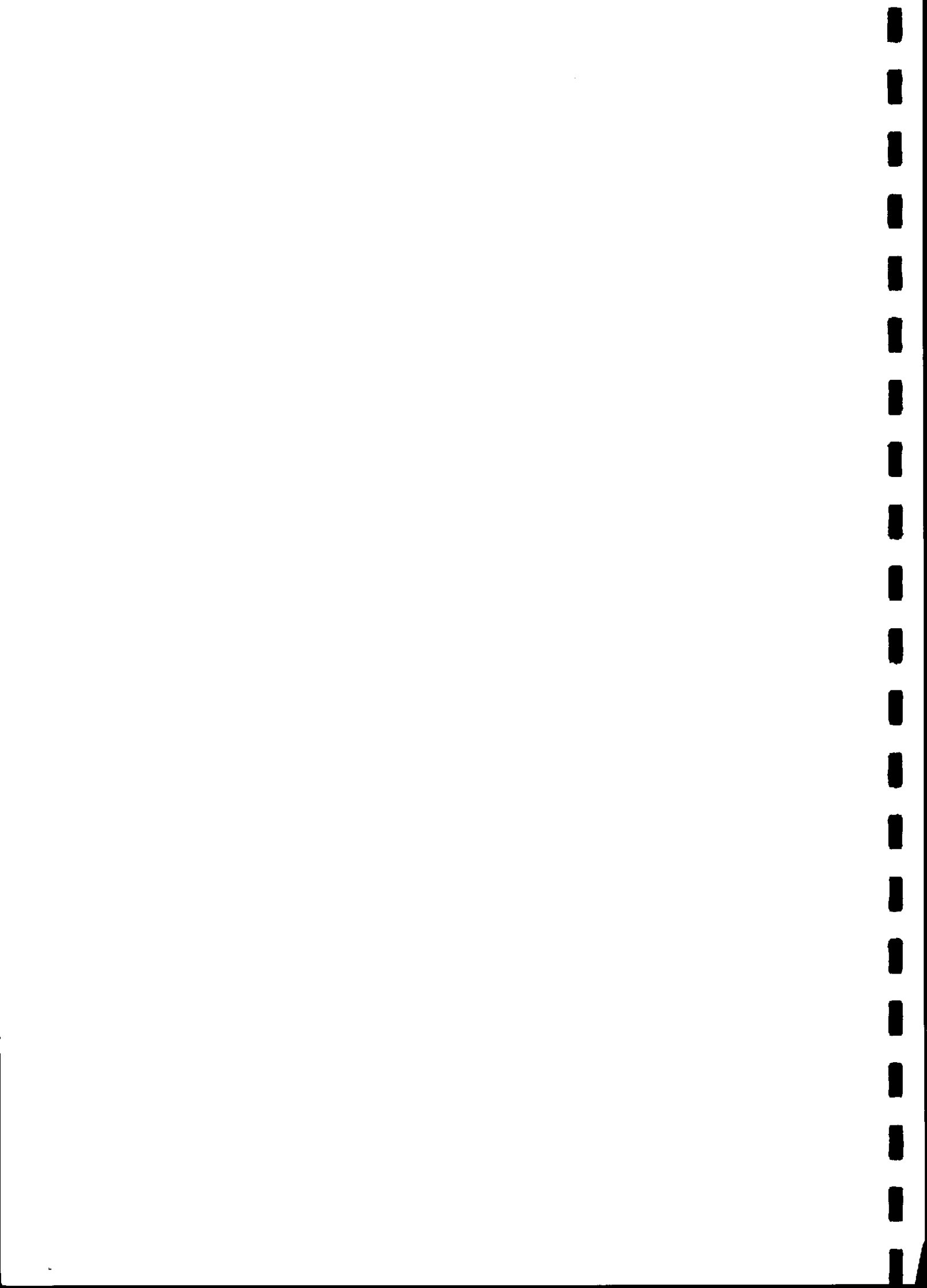
Bedfordshire County Archaeology Service
 St Mary's Church Archaeology Centre
 Bedford, MK42 0AS
 ☎: 01234 270002/6/9
 Fax: 01234 370587
 e-mail: bcas@dial.pipex.com

8th January 1999

Key terms

Throughout this document the following terms or abbreviations are used:

| | |
|-------------------|---|
| CAO | County Archaeological Officer of BCC |
| BCAS | Bedfordshire County Archaeology Service |
| BCC | Bedfordshire County Council |
| Client | Old Road Securities plc |
| The Specification | Document: <i>Specification for the Archaeological Field Evaluation of land at Marsh Leys Farm, Kempston, Bedfordshire</i> |
| WYAS | West Yorkshire Archaeology Service |





Non-Technical Summary

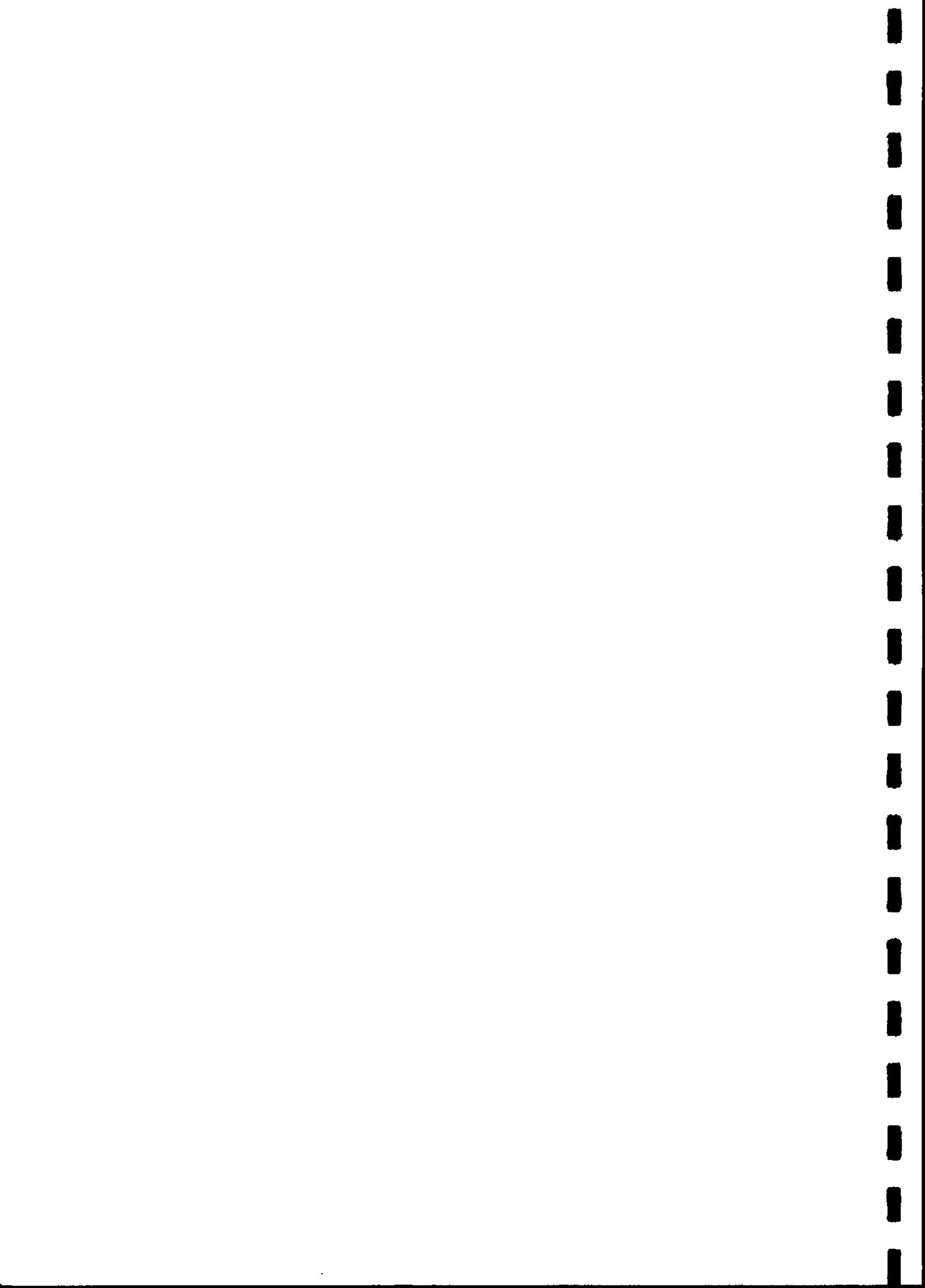
Prior to the recent evaluation the County Council's Historical Environment Record contained details of two extensive archaeological sites within the Study Area. The nature, date and extent of these have been evaluated through non-intrusive methods, along with the remainder of the evaluation area.

The aerial photograph analysis has confirmed the location of several trackways and field systems. A number of these are visible on historical maps but others may be Iron Age or Roman in date. In the fields adjacent to Marsh Leys Farm there are three areas where the nature of the cropmarks suggests settlement type features including enclosures. These appear to be part of the south-west to north-east trend of enclosures adjacent to the course of the Elstow Brook, visible to the east of the railway. The nature and arrangement of these enclosures suggests that they could be assigned to the late Iron Age or Roman periods on typological grounds.

The majority of the worked flint collected during Field artefact collection dates to the late Neolithic/early Bronze Age periods on typological grounds. No distinct concentrations were identified to suggest the location of settlements of this period, although the flint was generally concentrated to the north and south. The field artefact collection located a concentration of Roman material within the ploughsoil that probably relates to the cropmark enclosure identified to the east of Marsh Leys Farm. The material included local, regional and continental pottery, ceramic building material and a glass bead. A general scatter of Roman material was recovered from the four fields walked but was concentrated to the north. The distribution of medieval and post-medieval material does not suggest settlements of these periods within the Study Area.

The geophysical survey was undertaken once the results of the earlier stages of evaluation were known. Detailed survey was concentrated over areas of anomalies detected during the initial "scanning" survey and over areas where cropmarks had been identified. To the east of Marsh Leys Farm the areas including the cropmark enclosure was found to contain settlement type geophysical responses. The extent of this area, and that to the south-west of the Study Area, were defined. The geophysical survey did not detect all the linear cropmarks and it is possible that, if genuine archaeological features, these have been heavily truncated by modern ploughing.

In summary three areas of settlement type features including enclosures, ditches and pits, have been located by the evaluation to date. One has been dated by association with artefacts within the ploughsoil to the Roman period. Another appear to continue the trend identified to the north-east of the Study Area and on typological grounds would be Iron Age or Roman in date. Less concentrated cropmarks and artefact concentration indicate activity of prehistoric and indeterminate date elsewhere in the Study Area.





1. INTRODUCTION

1.1 *Background to the project*

Old Road Securites plc have submitted a planning application (98/992/OUT) to Bedford Borough Council for outline consent for commercial development of this Study Area.

The CAO of BCC has advised that the area under consideration is archaeologically sensitive. It was further advised that any planning application for the site would need to be accompanied by further information on the archaeology of the site. This is in line with Local Plan policy and the guidance contained in PPG 16 *Archaeology and Planning*. In order to assess the archaeological implication of the proposed scheme a *Specification* was issued by the CAO for a staged Archaeological Field Evaluation.

On 17th November 1998 BCAS were appointed to undertake the first three Stages of this project (as outlined in the *Specification*). This report presents the results of the Archaeological Field Evaluation undertaken to date.

1.2 *Site location and description (Fig 1)*

Marsh Leys Farm is located on the southern edge of Kempston on the western edge of Bedford. The Study Area is 59 ha in extent centred on TL 0263 4570 and is divided into four arable fields centred on the farm. It is bounded by roads to the north, west and south, and the Bedford-Bletchley railway line to the east.

Topographically the Study Area is within the Marston Vale, a clay vale lying to the south of Bedford. It is situated within the upper reaches of the Elstow Brook, a tributary of the River Great Ouse, which until re-alignments in the 1980s flowed through the Study Area. The land is fairly flat at 30m AOD, but there is a gentle drop from the south-west to the north-east.

The geology of the area is Oxford Clay, with alluvial deposits associated with the Elstow Brook likely to occur to the east.

1.3 *Archaeological background (Fig 1)*

BCC has a catalogue of archaeological sites and historic buildings, the Historic Environment Record (HER), in which all known discoveries in Bedfordshire are recorded. One HER site is located adjacent to Marsh Leys Farm and a large number are known in the vicinity, some of which may be significant for the Study Area.

Cropmarks are visible on aerial photographs both within the Study Area (HER 9600) and immediately adjacent (HER 16323). A number of the linear cropmarks to the north-east of Marsh Leys Farm may reflect medieval land divisions. To the south-west of the farm a complex of small rectangular enclosures may represent Roman farmsteads established within a field system. Ridge and furrow survives within the Study Area both as earthworks to the





south of the farm and is visible on aerial photographs.

Immediately north-east of the Study Area, beyond the railway, a substantial cropmark complex is known (HER 16323). This comprises a system of trackways, enclosures and linear boundaries parallel to and on either side of the Elstow Brook. They are undated but may be of later prehistoric or Roman date. Their arrangement suggests they may continue into the Study Area. In 1851 a substantial quantity of Roman pottery was recovered during clay digging to the north-east (HER 265).

A moated enclosure (HER 303) is situated to the south-east of the Study Area. This is associated with the sunken lane (HER 11532) which forms the southern boundary of the Study Area and may have acted as the Kempston parish boundary. This lane is associated with Hardwick Bridge on the limit of the Study Area which is first recorded as "Herwykbrigg" in AD1430 (HER 4442). The lane is connected to another known as the Portway (HER 11535) to the west of the Study Area. Another bridge, "Fulbekbrig", of medieval origin was located to the north-west in the vicinity of the Woburn Road industrial estate roundabout on the A421 (HER 11687).

1.4 Method statement

Throughout the project, the standards set in *BCC's Procedures Manual for Archaeological Fieldwork and the Analysis of Fieldwork Records* (1996), the Institute of Field Archaeologists' Code of Conduct, English Heritage's *Management of Archaeological Projects* (1991) and *Preparing Archaeological Archives for Deposition in Registered Museums in Bedfordshire* (1993) were adhered to.

Section 4.3 of the *Specification* stated that the following information was required.

- The location, extent, nature and date of any archaeological features or deposits that are present.
- The integrity and state of preservation of any archaeological features or deposits that are present.

The *Specification* stipulated four stages, utilising different evaluation techniques. Only the non intrusive stages have been undertaken to date. The methodology of each stage is therefore described separately in this report. An additional element involving historic map research was undertaken prior to the commencement of the aerial photograph analysis.





1.5 **Structure of the report**

This report is structured around each of the stages of the evaluation undertaken to date. The results of each stage is presented in the order in which they were undertaken. The stages comprise:-

| | |
|-----------|--|
| Stage I | Air Photographic Plotting and Analysis |
| Stage II | Field Artefact Collection |
| Stage III | Geophysical Survey |

The limitations and reliability of each of the non-intrusive stages is discussed in Section 5. The results of each stage are combined in Section 6, Synthesis of Results, which provides a summary of the archaeological evidence.





2. AIR PHOTOGRAPH ANALYSIS AND PLOTTING

2.1 Introduction

Given suitable conditions, including soil and crop type, aerial photographs can record surviving sub-surface archaeological features. Generally, cropmarks are most visible within ripe crops, frequently during the months of June and July. Cropmark visibility can vary for a wide number of reasons. This means that absence cannot be taken as a categorical indication of the absence of archaeological features.

2.2 Method statement

The object of the analysis (*Specification* section 5.5.2) was to identify all cropmarks and map them at a scale of 1:2,500. This was undertaken over the area indicated on Plan B in the *Specification*. All available aerial photographs were examined, converted as appropriate to a digital format (rectifying oblique photographs as necessary), drawn and interpreted.

2.3 Sources of photographs

The Study Area and its immediate environs were subject to aerial photographic library searches during November 1998. The three collections studied comprised:

- **Historic Environment Record (HER)**- County Hall, Bedford.
- **National Library of Air Photographs (NLAP)**- Kemble Drive, Swindon.
- **Cambridge University Collection of Aerial Photographs (CUCAP)**- Mond Building, Free School Lane, Cambridge.

2.4 Types of photographs

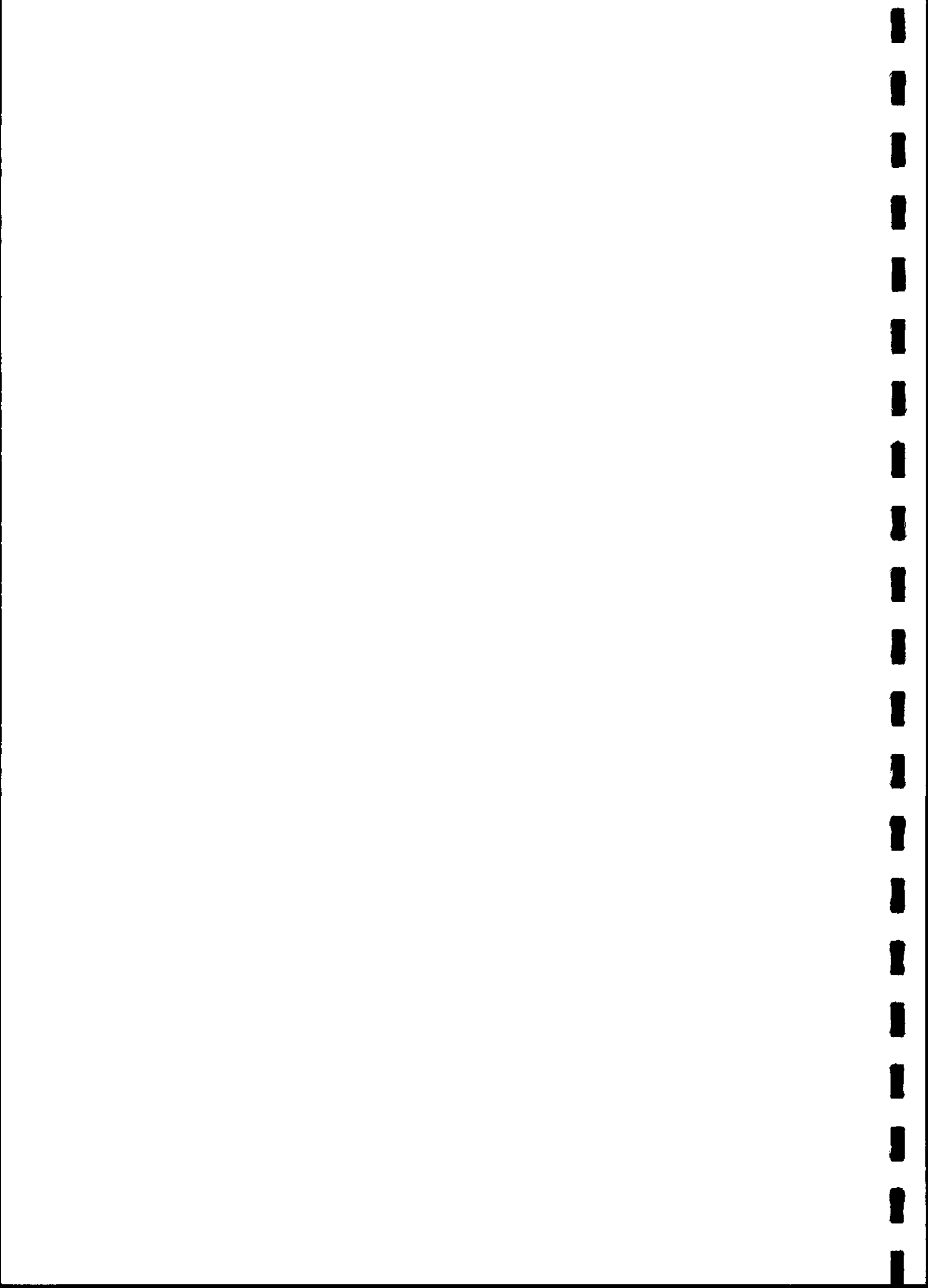
The searches comprised:

- **Vertical photographs**- taken by a camera mounted inside an aircraft providing 'blanket' coverage at a fixed scale. These have been taken for a variety of purposes and by a range of organisations including the Ministry of Defence and *BCC*.
- **Oblique photographs**- frequently taken by archaeologists, with a hand held camera from inside an aircraft providing 'specialist' coverage of identified cropmarks.

Photographs containing cropmarks were noted and all those necessary to produce a rectified plot were identified. No photographs are held by CUCAP.

2.5 Transcription methods

All photographs were examined both by eye and in a digital format. Vertical and oblique photographs were scanned at 800 dots per inch (DPI) using a Hewlett Packard Scanjet 4c and saved as Tagged Information Format (TIF) image files. Vertical photograph files were individually loaded into Gsys 2.8g (an archaeological Geographical Information System) and geo-referenced. This process requires at least two OS co-ordinate points to be identified on the





aerial photographs.

Oblique photographs were rectified in Aerial 4.2, an aerial photograph rectification software developed specifically for archaeology (Haigh 1993). Rectification in Aerial requires a minimum of four OS co-ordinate points. The rectified photographs were then geo-referenced within Gsys.

Cropmarks identified on the aerial photographs were digitised within Gsys as closed polyline drawing entities and assigned a status of either:

- geological
- archaeological
- possible archaeological
- furrow of ridge and furrow
- modern

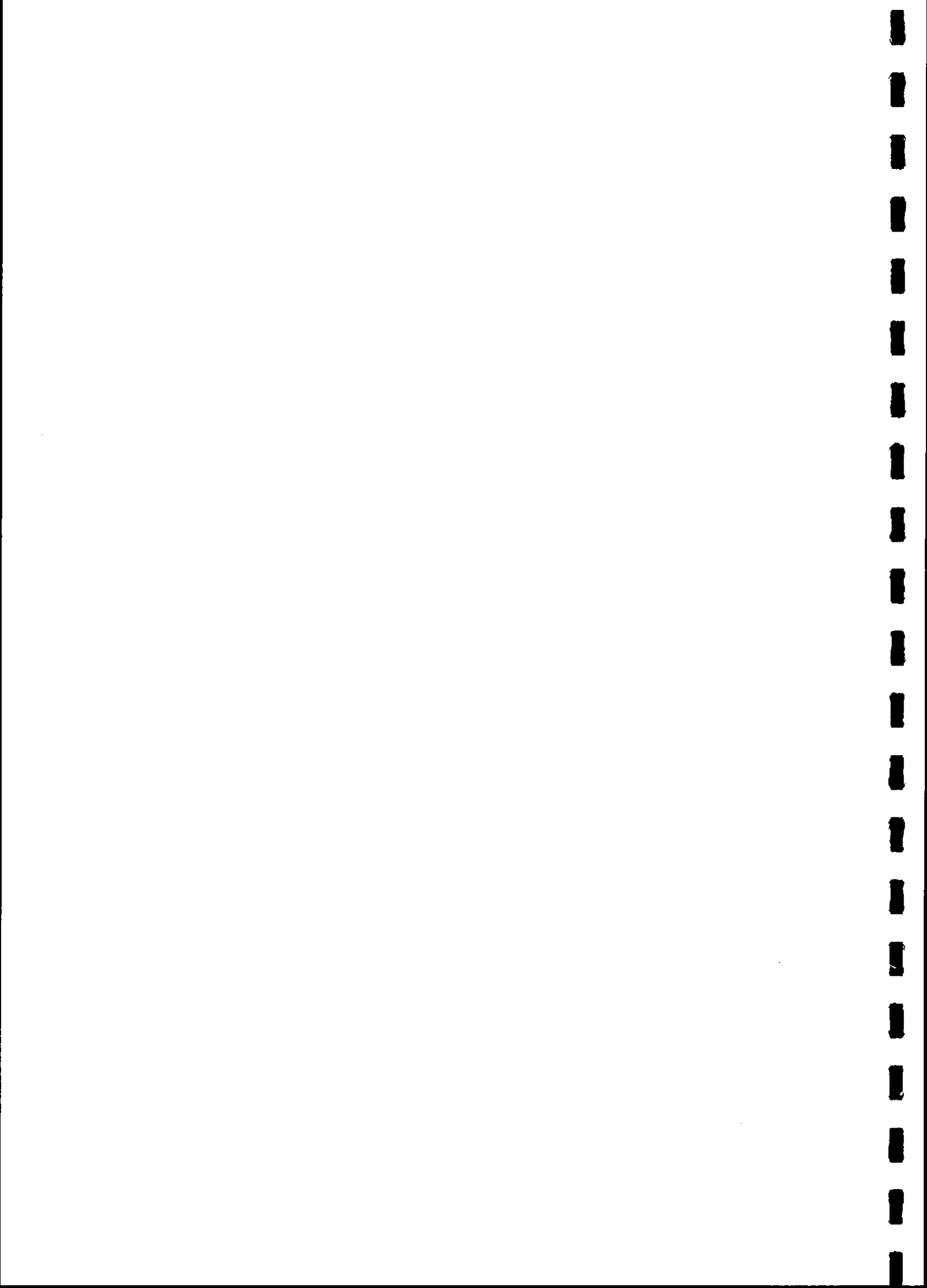
2.6 Limitations and reliability of the evidence

Historical maps indicate the Study Area has been under cultivation from at least the 18th Century. The first aerial photographs covering the area were taken in 1946 and indicate a modern agricultural regime had been established by that time.

Photographs have inevitably been taken at a variety of different times during the year and therefore conditions have not always been suitable for cropmarks to be visible. With such a large Study Area it is inevitable that not all the fields contained crops revealing cropmarks at the same time. It is fortunate that the 1996 photograph was taken at a time when the ground was very dry as normally cropmarks/parchmarks would not normally show up in grass fields. The fields immediately adjacent to Marsh Leys Farm have been under one ownership since the 1970s. This has often meant these fields have been under cultivation at the same time, although sometimes one field has been left fallow. The area to the north-east was divided into a number of different fields until the early 1990s. The 1996 photograph reveals cropmarks in this area but not in the fields immediately adjacent to Marsh Leys Farm.

Many of the photographs, especially 1976 and 1996, show patches and large swathes of darker crop. Although this effect sometimes reflects variations in the application of fertiliser (Wilson 1982) it is likely that it is mainly a reflection of changes in the underlying geology or topography. This is likely to have at the very least confused the interpretation of archaeological type cropmarks and in some areas completely obscured them. Geological features, such as ice wedges, often reveal themselves as linear cropmarks, which can be confused with those of archaeological origin. Although a few linear cropmarks of geological origin are visible within the Study Area, they are distinct from those of archaeological origin.

The historical map research has assisted in identifying linear cropmarks which indicate the location of post-medieval field boundaries. Maps provided by the utilities (gas, water and electricity) indicate no services are located within the Study Area. Elsewhere (BCAS 1998) these have explained linear cropmarks.





To test the accuracy of the digital photographs images, the OS map was loaded within the Gsys computer program as an overlay. By comparing field boundaries, roads and buildings it is possible to gauge the accuracy of the digitised cropmark drawing. It appears this varies within the Study Area. In the vicinity of Marsh Leys Farms the error in places is only 2m, but to the north-east of the railway the error increases to 5m in places.

2.7 Aerial photographs consulted

Table 1 and Table 2 detail the aerial photographs that were examined during the analysis. The photographs are presented in the order in which they were taken.

| | Ref | Run | Repository | Scale | Date |
|-------------------|-------|-----|------------|---------|------------|
| 106G/UK/1562 | 374 | | MOD | 1:9800 | 07/06/1946 |
| CPEE/UK/1792 | 487 | | MOD | 1:9800 | 11/11/46 |
| CPE/UK/1952 | 554 | | MOD | 1:10000 | 25/03/47 |
| CPE/UK/2097 | 652 | | MOD | 1:10000 | 28/05/47 |
| 58/392 | 1045 | | MOD | 1:5100 | 22/03/50 |
| 58/1674 | 1614 | | MOD | 1:10000 | 4/03/55 |
| 543/674 | 1942 | | MOD | 1:10750 | 24/08/59 |
| 58/5517 | 2125 | | MOD | 1:11400 | 18/10/62 |
| 82/1080 | 4000 | | MOD | 1:10000 | 10/02/55 |
| 82/1080 | 4000 | | MOD | 1:10000 | 10/02/55 |
| 82/1080 | 4000 | | MOD | 1:10000 | 10/02/55 |
| MAL/78016 | 7527 | | NMR | 1:3000 | 27/05/78 |
| MAL/78019 | 7529 | | NMR | 1:3000 | 13/06/78 |
| MAL/78019 | 7529 | | NMR | 1:3000 | 13/06/78 |
| OS/64196 | 9307 | | NMR | 1:7500 | 12/09/64 |
| OS/64196 | 9307 | | NMR | 1:7500 | 12/09/64 |
| OS/72415 | 10306 | | NMR | 1:7200 | 06/10/72 |
| OS/72415 | 10306 | | NMR | 1:7200 | 06/10/72 |
| OS/72416 | 10307 | | NMR | 1:7200 | 06/10/72 |
| OS60031 | 20072 | | NMR | 1:4100 | 31/05/60 |
| OS60031 | 20072 | | NMR | 1:4100 | 31/05/60 |
| HSL/UK/76 | 1087 | 13 | Beds C.C. | 1:6000 | 24/06/76 |
| AEROFILMS/96C/564 | 2339 | 9 | Beds C.C. | 1:10000 | 18/07/96 |
| AEROFILMS/96C/564 | 2340 | 9 | Beds C.C. | 1:10000 | 18/07/96 |
| AEROFILMS/96C/564 | 2341 | 9 | Beds C.C. | 1:10000 | 18/07/96 |
| AEROFILMS/96C/564 | 2342 | 9 | Beds C.C. | 1:10000 | 18/07/96 |

Table 1: Vertical aerial photographs examined

| | Accession No. | Frame | Repository | Date |
|----------|---------------|-------|------------|----------|
| TL0245/1 | NMR 4988 | 34 | NMR | 06/06/90 |
| TL0245/2 | NMR 4988 | 35 | NMR | 06/06/90 |
| TL0245/3 | NMR 4989 | 03 | NMR | 06/06/90 |
| TL0245/4 | NMR 4989 | 04 | NMR | 06/06/90 |
| TL0245/5 | NMR 4986 | 07 | NMR | 06/06/90 |
| TL0245/6 | NMR 4986 | 11 | NMR | 06/06/90 |
| TL0245/7 | NMR 4986 | 12 | NMR | 06/06/90 |

Table 2: Oblique aerial photographs examined





2.8 Results of the aerial photographic analysis (Fig 2)

The Study Area for aerial photograph analysis covered an area of 125 ha. This includes fields to the north and north-east which were known to contain cropmark evidence. These may be associated with or even directly linked to those present within the development area. Due to the extent of the area subject to aerial photograph analysis the results are discussed individually by each of the six main fields.

2.8.1 Field 1 (Fig 3)

This is the northern field within the Study Area, centred at TL 026459. The 1976 Photograph (HSL/UK/76, run 13, frame 1087) reveals the majority of the cropmarks for this field. All cropmarks described were visible on this photograph unless otherwise stated.

Cropmarks of geological origin

Frequent irregular dark and light patches are visible within this field. These may represent changes in the underlying geology.

Cropmarks of archaeological origin

A linear cropmark (I) orientated north-east to south-west is situated within the south-west corner of this field. This represents the continuation of the ditch in field 5 to the south-west. This does not respect modern boundaries, is not visible on historical maps and is therefore interpreted as archaeological in origin.

Towards the north of this field two parallel linear cropmarks were visible (A). These were 4m apart and aligned south-east to north-west, although there is a slight change in alignment to the north. It is probable these represent ditches defining a trackway. This clearly continues into field 2 to the east becoming obscured around the field boundary (an effect of ploughing). This trackway would coincide with that identified by Wood (1984 map 2). He suggested this was the pre-enclosure trackway from Bell End to Kempston Hardwick, known as the High Causeway. It is mentioned in the enclosure acts (though not by name) for Kempston Parish, as the road from "ancient enclosure at Kempston Hardwick to ancient enclosure at East End". The act also refers to it being down graded to a 4ft wide footpath. This trackway is part of those cropmarks referenced within the HER as 9600.

Cropmarks of ridge and furrow

A number of linear cropmarks aligned north-west to south-east are interpreted as furrows. These are visible sporadically on the aerial photographs, in places becoming obscured by farm tractor tracks. They clearly represent the continuation of those visible in field 2 to the south-east.

2.8.2 Field 2 (Fig 4)

This field is situated to the east of Marsh Leys Farm, centred at TL 028456. Cropmarks are mainly visible on the 1976 photograph (HSL/UK/76, run 13, frame 1087) and faintly on the 1996 photograph (AEROFILMS/96C/564, run 9, frames 2340 and 2341). The arrangement of a number of the linear





cropmarks is clarified on the oblique photographs taken in 1990 (NMR 4986). These cropmarks are referenced in the HER as 9600.

Cropmarks of geological origin

As in field 1 there are frequent irregular dark patches visible on the aerial photographs.

Cropmarks of archaeological origin

Cropmarks indicating the continuation of trackway A from field 1 continue for 103m into this field. The full extent as indicated by Wood (1984) is not evident.

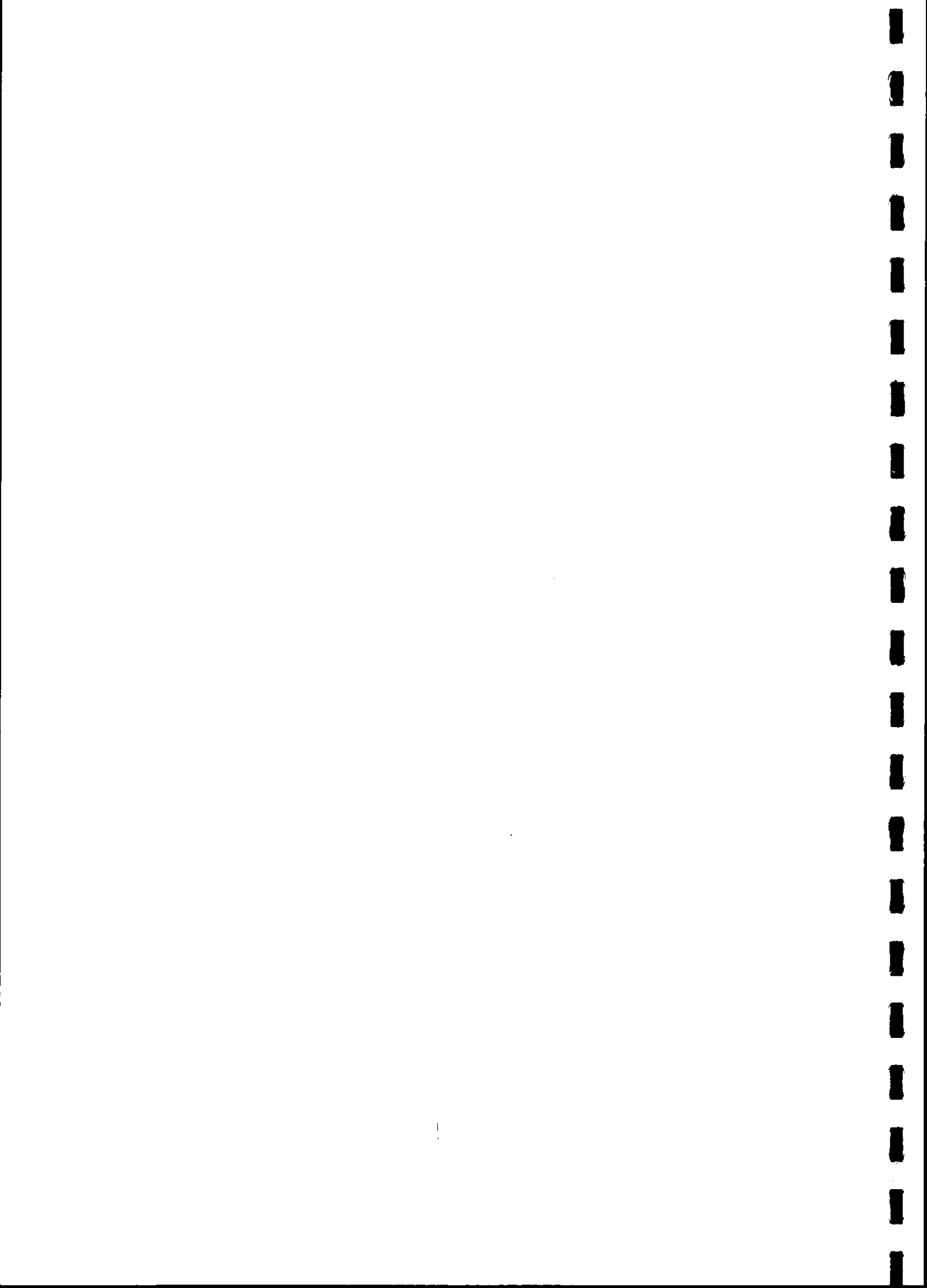
Four linear cropmarks (B) are visible on the 1976 photograph just south of the modern field boundary with field 1. They share a common south-west to north-east alignment, but at least two overlap and therefore suggest they are not all contemporary. They may represent a shifting ditched field boundary, although the two pairs of linears may represent ditches defining a trackway. These are perpendicular in orientation to the furrow type cropmarks but the relationship is unclear. One of the linear cropmarks continues into the field north of the Study Area. The break in this feature at the modern field boundary is probably due to the agricultural action at the edge of the field, or the masking effects of deposits dug out from the modern boundary ditch.

Four further linear features (C) are visible on both the 1976 vertical and 1990 oblique photograph (NMR 4986/11 and 12). These are orientated approximately parallel and under 100m to the south. They probably represent ditches defining two trackways. The oblique photograph (NMR 4986/12) indicates these are the continuation of trackway A within Field One. The relationship with the ridge and furrow is again uncertain. One of the linears cropmarks shows a substantial break. If this was the result of destruction by the ridge and furrow it would suggest the linear was of an earlier date. However, it is equally possible the presence of furrow type cropmarks has obscured the linear cropmarks. At least two of linears continue into the field north of the Study Area.

Ditch type cropmarks (D) visible on the 1976 photograph to the west of the field possibly define a sub square enclosure, 24.6m by 22.7m. Although a 4.5m wide gap is detectable centrally to the north, it is very close to a gap in the present hedge and therefore may not be a real entranceway. Although visible as faint cropmarks on the 1990 oblique photographs the arrangement is not clarified.

Cropmarks of possible archaeological origin

A number of cropmarks in the vicinity of enclosure D may be associated. These however are much less clear and may be the effects of geological variations in this area. If genuine they could indicate associated enclosures and field systems. The HER record suggests a number of linked enclosures in this area and these cropmarks are probably the basis for this interpretation.





Cropmarks of ridge and furrow

Furrow type cropmarks survive only sporadically within the northern half of this field. Orientated north-west to south-east, they clearly represent the continuation of those visible in field 1. Within the southern half of the field furrow type cropmarks are far more extensive and clearly visible on the 1990 oblique photograph (NMR 4986/12). This system survives as earthworks within the paddock to the north-west of this field. They may also continue to the south beyond the railway. There appears to be some variety in the gaps between furrow type cropmarks in this field. Those to the north (and field 1) are approximately 4.4m apart, in contrast to those at the south which appear to be approximately 8.8m apart. This is likely to be an effect of their visibility rather than really indicating a wider spacing. A possible north-east to south-west aligned headland was observed during field artefact collection towards the south of this field but is not visible on any aerial photographs.

Cropmarks of modern origin

A linear north-west to south-east aligned cropmark coincides with the position of a field boundary on the 1st edition 1881 OS map. A number of the linears B and C may be of relatively modern origin, for example a public drain, identified on the 1804 enclosure map, may explain at least one of the linear cropmarks C.

2.8.3 Field 3

This field is located to the south-east of Marsh Leys Farm, centred at TL 028456. Cropmarks are mainly visible on the 1976 photographs (HSL/UK/76 run 13, frame 1087 and run 9, frames 2340 and 2341). These cropmarks are referenced in the HER as 9600.

Cropmarks of geological origin

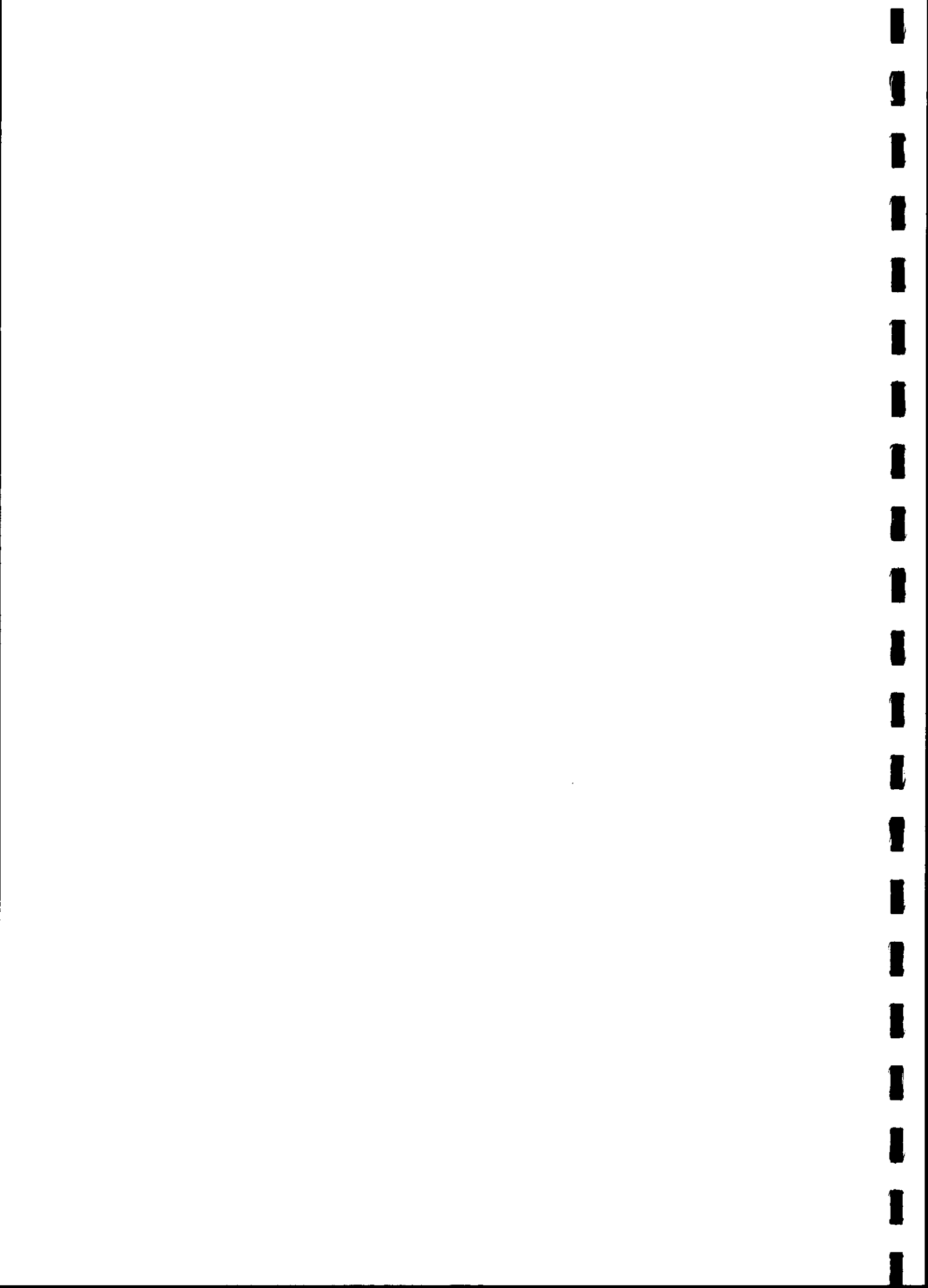
Frequent irregular dark patches are visible on the 1996 photograph (AEROFILMS/96C/564, frame 2340). This reveals large areas of lighter crop on a south-west to north-east alignment probably the result of variations in the underlying geology. A small number of dark irregular linear and sub circular/oval features are visible in the lighter crop area. These probably represent periglacial features within the clay or gravel subsoil.

Cropmarks of archaeological origin

No cropmarks that could clearly be defined as archaeological in origin were observed in this field.

Cropmarks of possible archaeological origin

Two linear cropmarks are visible on the 1976 photograph, but are not visible on that taken in 1996. They were aligned north-west to south-east and appear to converge towards the north. Both could be interpreted as ditches but were rather diffuse in nature. The northern ditch is visible for over 62m and may be a continuation of linear J in field 5. The southern of the two is visible for over 90m and may be a continuation of linear K, in field 5. These presumed ditches do not respect the alignment of the furrows in this field.





Cropmarks of ridge and furrow

Toward the south-western boundary of this field a small area of parallel furrow type cropmarks was observed. These are on a similar orientation to the furrows visible in neighbouring fields despite be located adjacent to the sunken road.

Cropmarks of modern origin

No cropmarks coincided with the field divisions shown on the historical maps.

2.8.4 Field 4

This triangular field is situated at the very south of the Study Area centred at TL 026450. It is divided from Field 3 to the north by the Hardwick Brook. Cropmarks within this field are visible on the 1976 photographs (HSL/UK/76 run 13, frame 1087 and run 9, frames 2340 and 2341). A similar cropmark pattern is also visible on the 1996 photograph.

Cropmarks of geological origin

Light and dark cropmarks are visible on both the 1976 and 1996 photographs. As in the other fields these are presumed to reflect changes in the geology and given the proximity to the Brook a higher moisture content. The cropmarks appear to have a south-west to north-east trend.

Other cropmarks

No cropmarks of archaeological or modern origin were identified within this field.

2.8.5 Field 5 (Fig 5 and 6)

This field is situated towards the south-west of the Study Area, centred at TL 026459. Cropmarks are visible on the 1976 photograph (HSL/UK/76, run 13, frame 1087) and the 1990 oblique (NMR 4986/7).

Cropmarks of geological origin

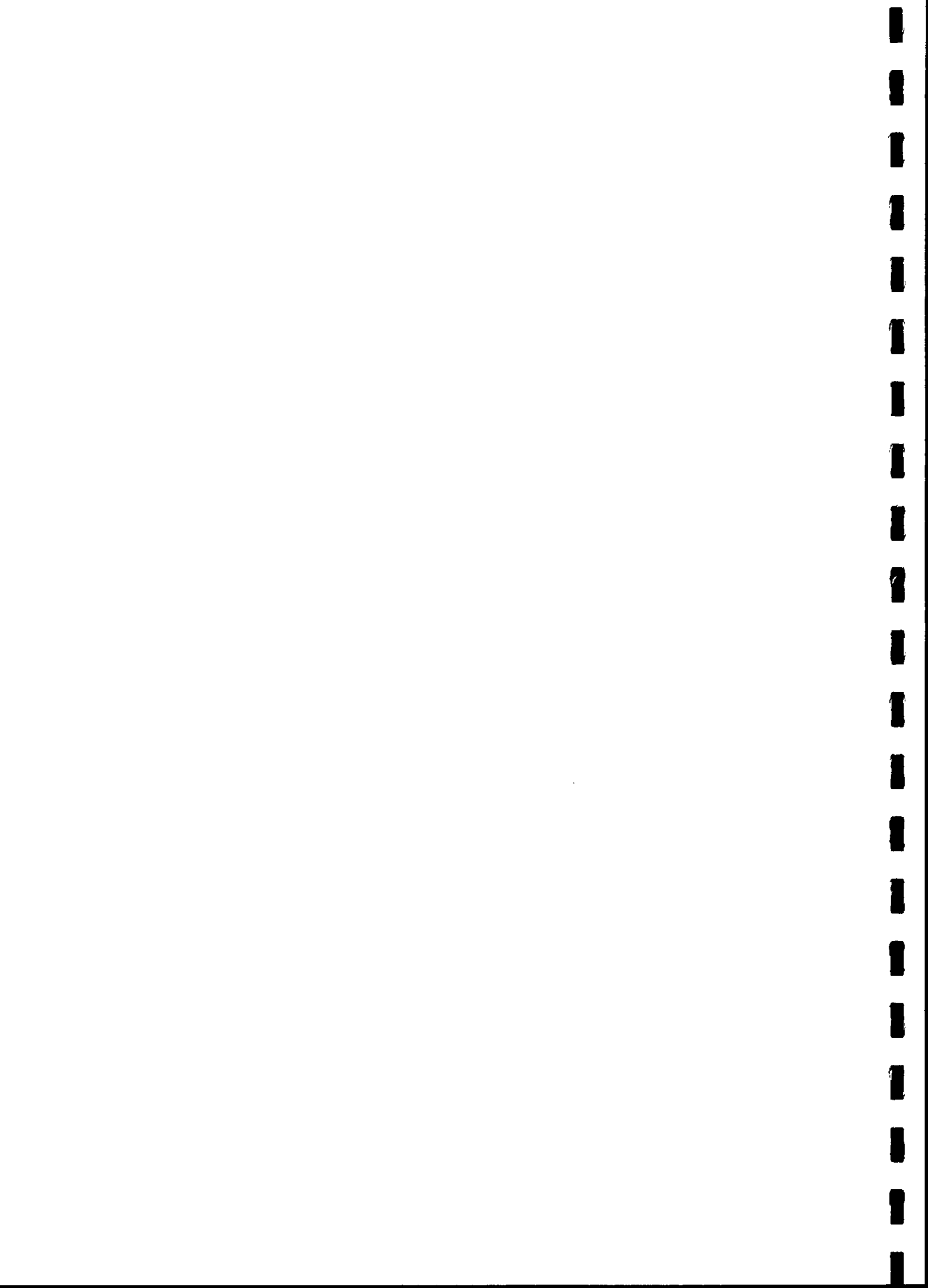
Irregular shaped dark cropmarks are visible which obscure/confuse cropmarks interpreted as of archaeological origin. These reflect changes in the underlying geology.

Cropmarks of archaeological origin (Fig 5)

Cropmarks interpreted as of archaeological origin are most clearly seen within the lighter crop on the 1976 photograph. A number of the linear cropmarks are over 200m in length. The main concentration of archaeological type cropmarks is located to the west of the Study Area adjacent to the A421.

Linear cropmark (J) orientated from north-west to south-east is probably a continuation of that visible in Field 3. It is visible for 254m with two breaks up to 50m in length. These may be the result of visibility rather than representing actual entranceways. The ditch type cropmarks are not respected by the furrows suggesting they are not contemporary.

It is unclear from the 1976 photograph if cropmark J continues to the western





limit of the Study Area because its alignment is obscured by darker cropmarks. The oblique photograph taken in 1990 (NMR 4986/7) indicates linear cropmark **I** may be the continuation of the ditch type cropmark **J**, although aligned perpendicular to it. This was visible for 300m and appeared to have only one possible gap, 4.3m wide, towards the western end. This may not be a real entranceway. This cropmark is the continuation of that visible in Field 1.

Two converging north-west to south-east aligned cropmarks (**G**) appear to cross linear cropmark **I** towards the south-west. They are up to 60m in length with the southern cropmark being more distinct. It is possible this curves northwards at the south-east and therefore could form an enclosure with the northern linear cropmark. These are not respected by the furrow type cropmarks although they are on similar alignments.

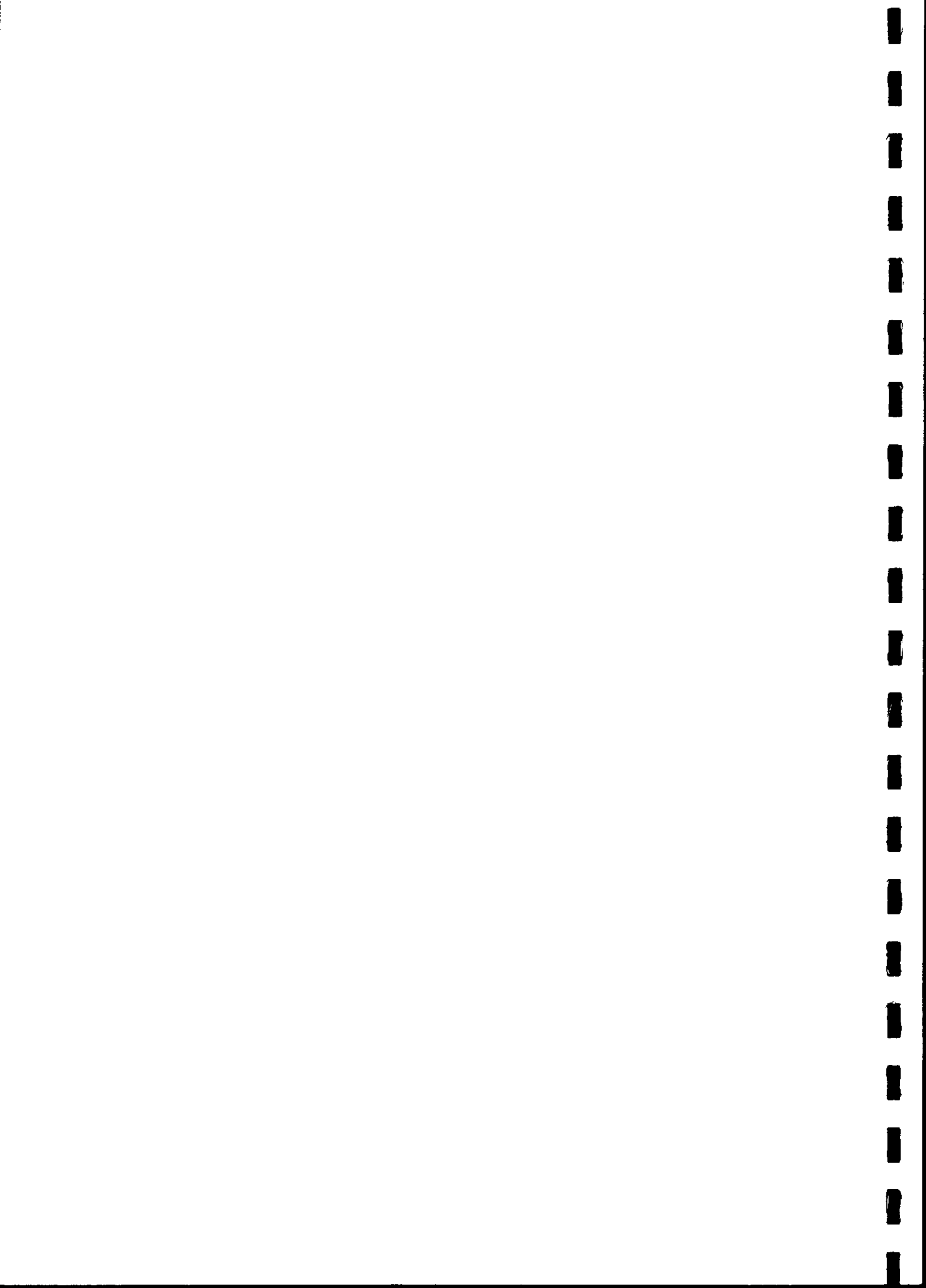
Cropmarks of possible archaeological origin (Fig 5 and 6)

The diffuse and/or irregular cropmarks within this field may be archaeological in origin especially as they appear to be clustered together.

Towards the south-east of ditches **G** a linear cropmark extends for 55m parallel to **I** but 25m to the south. It may relate to the dark geological cropmarks that confuse this area of the field. An intermittent linear cropmark (**H**) approximately 250m in length is visible to the south of **I**. The breaks in the cropmark are up to 40m in length and therefore unlikely to be genuine entrances. This linear cropmark is parallel to the modern field boundary and may therefore represent a land drain intermittently visible due to differential filling. It is possible linear cropmark **K** continued from Field 3 for approximately 100m but in this field it is represented by lighter crop.

Dark cropmarks towards the south-west of linear **I** appear to define two sub rectangular areas (**F**). The western area is better defined on the photograph than the eastern one. The ditch type cropmarks define areas approximately 15m by 15m and 12m by 11m. No gaps suggestive of entranceways are visible. These are on a different orientation to the furrow type cropmarks and are clearly not contemporary with linear **I**. They are not clearly defined and therefore may not represent enclosures. A geological explanation cannot therefore be ruled out. Approximately 100m to the south-west is a dark sub oval cropmark 20m by 7m. This could indicate a quarry pit or may be part of the general pattern of irregular darker cropmarks.

Visible in the north-east corner of this field are a number of short linear cropmarks (**E**). Two are aligned approximately parallel for 67m on a curving north to south alignment. These are 4m apart and may indicate ditches defining a trackway. It is unclear if the 9m gap in the western ditch type cropmark is a genuine entrance, or simply an area obscured by other dark irregular cropmarks. To the south-west further short linear cropmarks are visible. The HER has suggested these are part of a system of two or three enclosures, associated with the trackway. One irregular sub oval cropmark, 5.5m in diameter, may indicate a quarry pit. These cropmarks do not share or





respect the furrow-type cropmarks observed in this area.

Cropmarks of ridge and furrow

Furrow type cropmarks are visible within this field, mainly aligned from north-west to south-east, approximately 8m apart. Although on a similar alignment to the modern tractor tracks they deviate slightly to the north-west. They are clearly visible within the lighter crop towards the centre of this field and represent the continuation of those surviving as earthworks in the paddocks to the south-east of this field.

Cropmarks of modern origin

A number of the linear cropmarks may indicate the location of modern land drains but no obvious pattern was visible so these were assigned a possible archaeology interpretation.

2.8.6 Field 6 (Figs 7, 8 and 9)

The field was subject to aerial photograph analysis but not field artefact collection or geophysical survey. It is separated from the main Study Area by the Bedford to Bletchley railway and is centred on TL 033/458. Cropmarks are visible only on the 1996 photograph (AEROFILMS/96C/564, run 9, frames 2340 and 2341). This reveals a vast number of cropmarks, many of which are referenced within the HER as 16323. Many of the cropmarks are strikingly dark and well defined and are therefore interpreted as of archaeological origin. A large number of lighter, less well defined cropmarks are visible which, given their association with the darker ones, may be archaeological in origin.

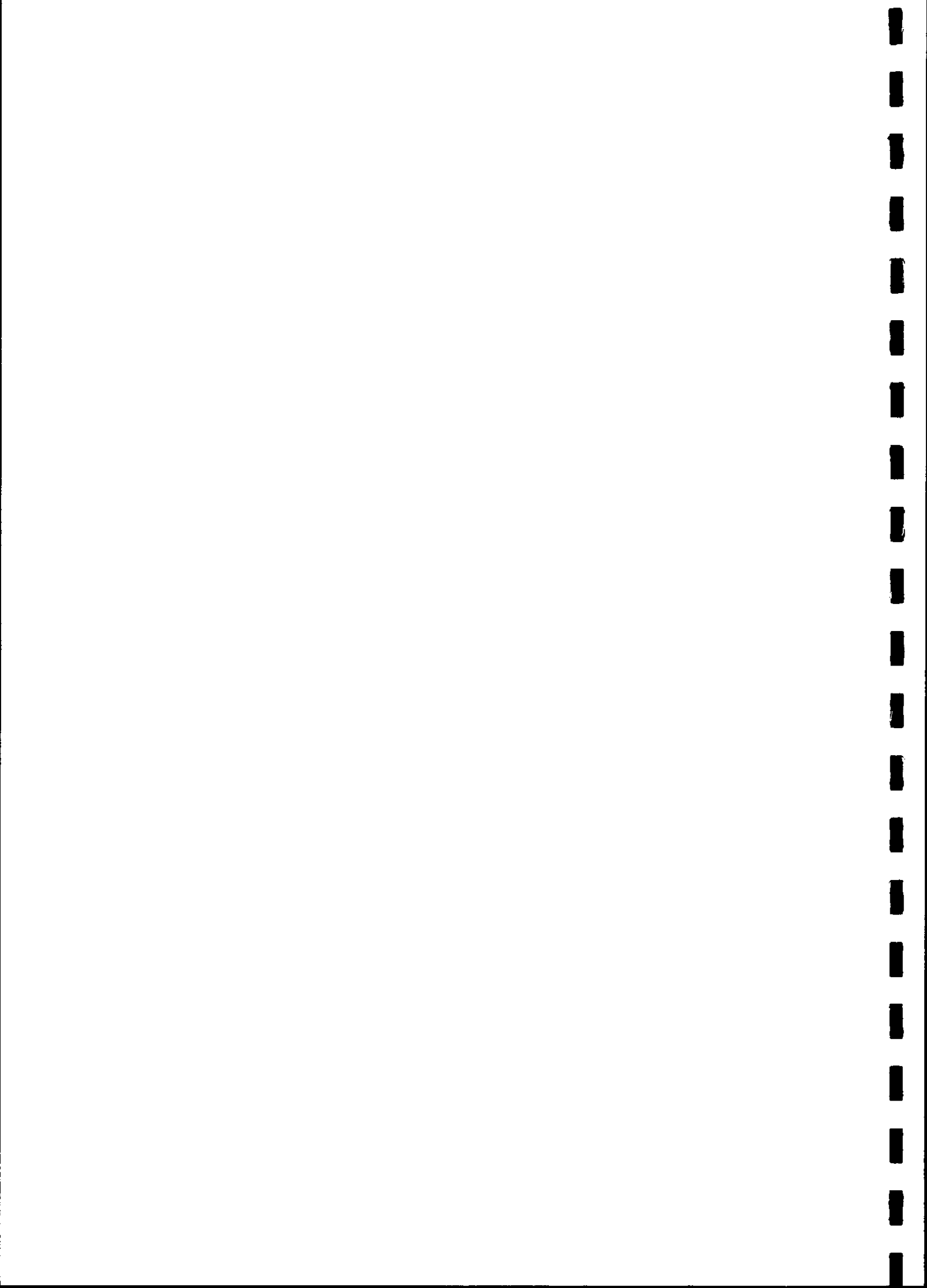
Cropmarks of geological origin

The grass was generally lighter in colour to the north and south of this field. It was strikingly darker towards the central part of the field. This may reflect geological differences and the presence of damper lowlying ground associated with the former stream course. Within the dark cropmark a sinuous lighter coloured cropmark is clearly visible. This represents the backfilled course of the Elstow Brook and is visible in this location on the 1976 photograph.

Cropmarks of archaeological and possible archaeological origin

Due to the complexity of the cropmarks in this field, cropmarks interpreted as of definite archaeological origin are discussed alongside those whose character is less obviously of archaeological origin. The ditch and pit type cropmarks suggestive of archaeological features are visible to the north and south of the wide dark cropmark.

To the south of this field a number of linear cropmarks are visible. Three ditch type cropmarks define a rectangular enclosure **R** close to the southern limit of the Study Area (Fig 7). This is aligned north-west to south-east and is 60m by 70 m. The south-eastern enclosure ditch is not visible and has probably been obscured due to its proximity to the modern field boundary. There are no breaks in the cropmarks suggestive of entrances and no internal features are visible. Possible archaeological linear cropmarks to the north-east may suggest an additional adjoining enclosure. This is in an area of darker crop and is





therefore not clearly defined. It would be 25m from south-west to north-east and over 25m in length continuing beyond the modern field boundary. Approximately 60m to the north of enclosure **R** are a number of discrete dark cropmarks (**Q**). These do not have well defined shapes and are therefore slightly dubious. If archaeological they could indicate the location of pits.

Two linears to the north of enclosure **R** may be of archaeological origin. These are perpendicular to each other and are in areas of diffuse darker cropmarks. The possible ditch type cropmark on a south-west to north-east alignment would appear to be situated at the edge of the damper ground (as defined by the dark cropmarks) which might support its archaeological interpretation.

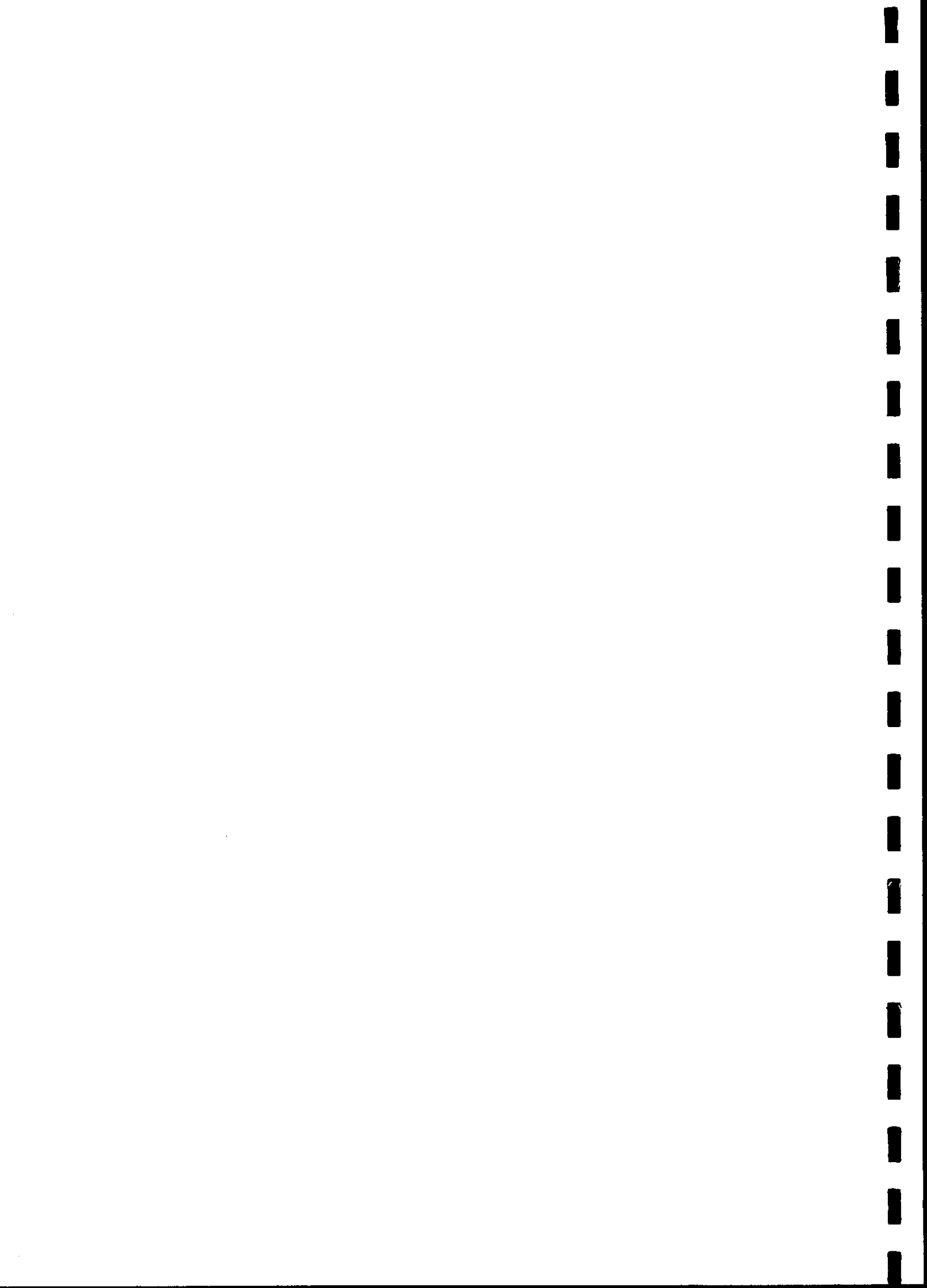
Approximately 260m north-east of enclosure **R** are a number of roughly parallel north-west to south-east aligned linear cropmarks. These appear to indicate the location of ditches which are at least 45m in length. It is unclear if they continued further north-west as they may be masked by darker crop.

To the north-east of this field linear cropmarks define an enclosure **M**, aligned south-west to north-east (Fig 8). This appears to be rectangular in shape, approximately 55m by 40m. The ditches defining the enclosure are very dark except on the south-east side. A lighter coloured crop probably indicates the boundary on this side and a break may suggest an entranceway. A number of additional linear cropmarks suggest this enclosure was sub-divided to the east. A number of sub-circular dark cropmarks generally less than 2m in diameter are located to the north of the enclosure. Another is situated immediately adjacent to the possible south-eastern ditch of the enclosure and is 7m in diameter. This clearly represents a substantial pit.

Situated 70m to the south-west of enclosure **M** are further linear cropmarks aligned parallel (**O**). Their number and arrangement make it uncertain if they represent one or several enclosures (Fig 8). The darker well defined cropmarks suggest a trapezoid shaped enclosure 160m in length by 53m at the north-west and 100m at the south-east. The western side of this enclosure is suspiciously straight but does not coincide with any field boundaries visible on historical maps. The arrangement of ditches to the north-west suggests alteration to the size of the enclosure. A number of short dark linear cropmarks may indicate sub-divisions of this enclosure to the south-east. These could however be associated with enclosures that may not be contemporary. The short lengths of ditch type cropmarks within the enclosure are not entirely inconsistent with the cropmarks to the west and east. It is therefore possible that a number of these may reflect geological features.

A large number of sub-circular dark cropmarks are visible both within enclosure **O** and outside. These may indicate the location of pits. These are generally dispersed but there appears to be at least one concentration (**N**), just to the east of the enclosure.

Approximately 80m to the south-west of enclosure **M** further ditch type cropmarks define another enclosure (**P**). This comprises one enclosure, 70m





by 52m, which contained an inner smaller enclosure 51m by 42m (Fig 9). Their arrangement suggests they are not contemporary. This is aligned south-west to north-east and well defined on all sides except the south-east. No breaks in the ditch lengths were located to suggest the positions of entranceways. No internal features or sub-divisions were visible. Although the ditch type cropmarks define corners of the enclosures, a number coincide with positions of recent field boundaries (some visible on the 1976 photograph). This could suggest a number of the enclosures are relatively recent in date. However, it could also reflect a high degree of continuity in the landscape. This can occur where prehistoric and Roman boundary features survive as earthworks long enough to be incorporated into more recent field systems.

Cropmarks of ridge and furrow

Cropmarks revealing the location of furrows were only visible to the south-west of this field. They are on a similar alignment to those visible in the fields to the north-west although the southern group would be situated to the south of the Elstow Brook.

Cropmarks of modern origin

A number of the linear cropmarks are visible as field boundaries on the 1976 photographs. A number are also visible on the historical maps.

2.9 Summary

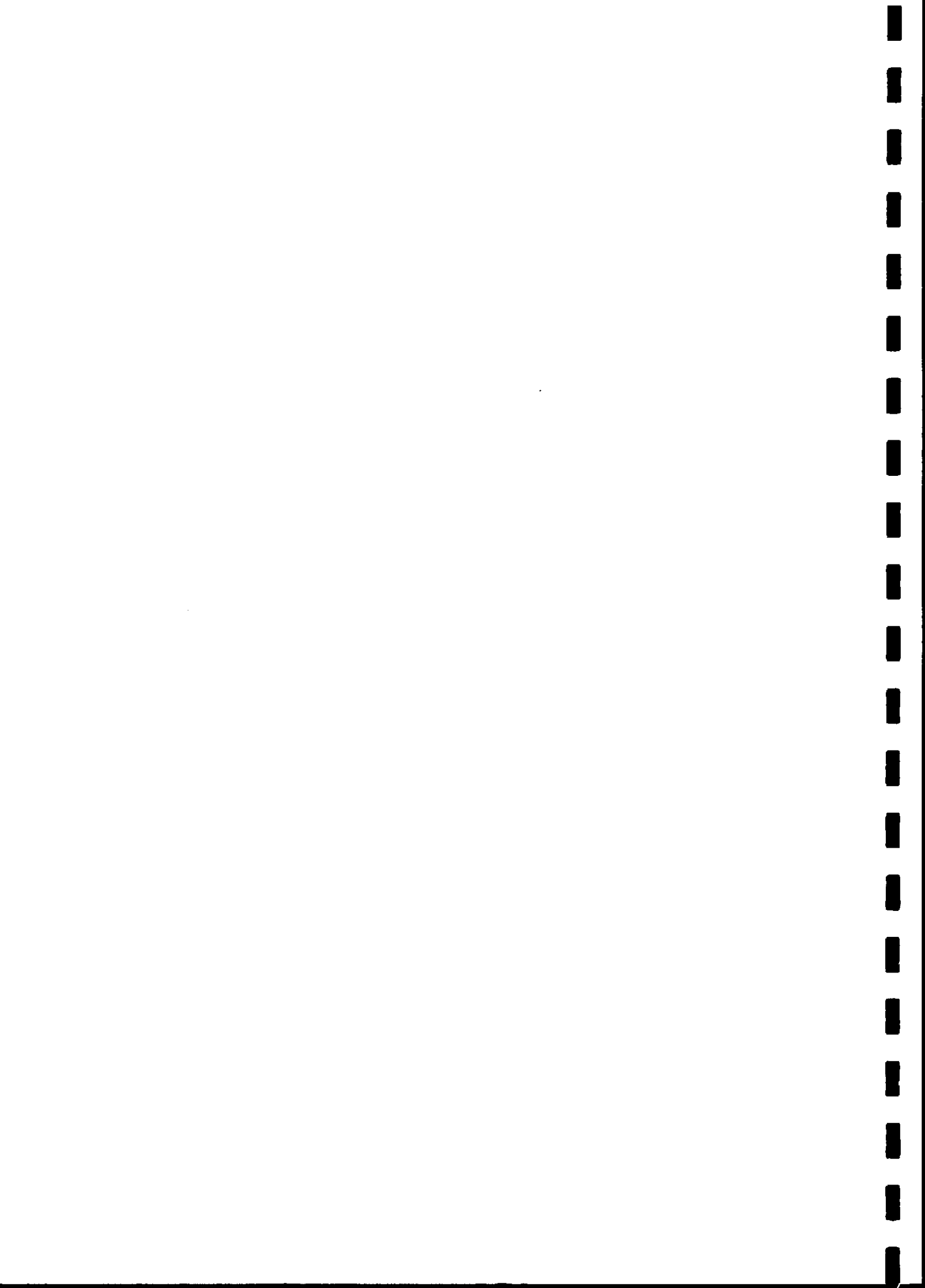
Aerial photograph analysis has identified a variety of cropmarks within the Study Area.

Geological variations appear to be visible as irregular dark cropmarks which in a number of areas either confuse or may mask those of archaeological origin. The larger areas of dark crop may be a reflection of the damper, low-lying ground associated with former courses of the Elstow Brook.

Within the core Study Area linear cropmarks are mainly visible. A number of these are visible on the historical maps and are therefore likely to be fairly recent in origin. Other linears do not respect either the present field layout or the ridge and furrow system and are therefore likely to be of some antiquity. Concentrations of shorter cropmarks which may indicate settlement locations were located to the west and north-east of Field 5, and to the north-east of Marsh Leys Farm in Field 2.

To the north-east of the railway line a series of enclosures are located to the north-west and south-east of the former course of the Elstow Brook. These are generally sub-rectangular in shape. Some contained sub-divisions, internal and external features. Enclosure O is the most complex and is likely to represent a number of separate enclosures which have developed over time. The presence of pit type cropmarks both within and outside a number of the enclosures suggests settlement activity. No certain entranceways were located, but the darker cropmarks on the Elstow Brook side made identification difficult.

Evidence for ridge and furrow was located in many of the fields. This was the





predominant farming system during the medieval period but also continued into post-medieval times. In some areas this may have obscured further cropmarks. It is however useful in determining which cropmarks respect the alignment of the furrows.

The historical maps suggest a number of the linears reflect field boundaries present within the Study Area over the last 300 years. It is suspicious that a number of the enclosures respect these boundaries. Otherwise, on typological grounds, the enclosures could be assigned to the Iron Age or Roman periods. This may reflect the continuity of ancient landscape features into the modern period most commonly observed with Roman roads.



3. FIELD ARTEFACT COLLECTION

3.1 Introduction

Given suitable conditions (including soil, weathering, crop growth and light), artefacts can be seen within ploughed soil. The distribution of artefacts can suggest the location of past human activity.

3.2 Method statement

Approximately 41 hectares were walked over a five day period between 19th and 26th November by a team of five experienced fieldwalkers. Weather conditions were consistently overcast and dull, with one day of heavy rainfall. The Study Area was sown with a cereal crop in an early stage of growth, and visibility was generally good within Fields 1 to 4. The CAO advised that the advanced state of crop in the south-western field meant this field was not suitable for field artefact collection.

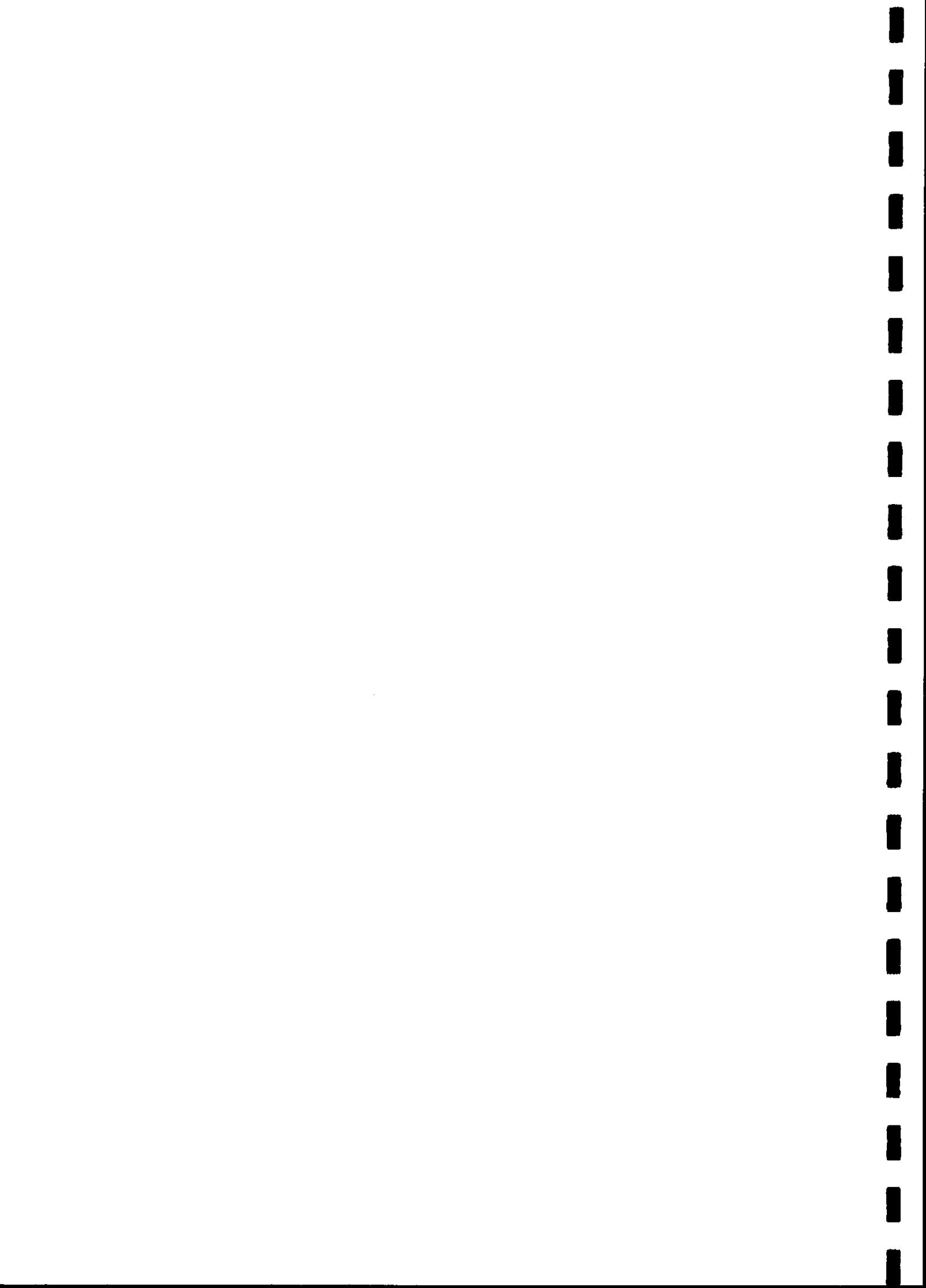
The collection units were based on the national grid. This use of permanent reference points facilitates the integration with other data sets. The survey was undertaken within three O.S. kilometre squares A (TL 0246), B (TL 0245), and C (TL 0244) which were subsequently sub-divided into 53 hectares (Fig 10). Each hectare was sub-divided into 20 metre square collection units, labelled A-Z (excluding O), which were marked out prior to walking, starting from the SW corner. The team members then walked the centre line of each collection unit and retrieved archaeological material from a one metre strip on either side. A ten percent sample of the Study Area was therefore walked. Artefacts recovered from each 20m transect were placed in individually labelled bags noting the relevant project, hectare and collection unit.

3.3 The artefact assemblage

All material considered to be humanly-made was retrieved. Debris of an obviously modern nature was ignored as far as possible. The artefacts were washed, quantified, weighed and recorded on field artefact collection data sheets, and where possible, diagnostic objects were dated. Pottery identifications are alpha-numeric codes in accordance with the Bedfordshire Ceramic Type Series, held by BCAS. The assemblage is summarised in Table 5 - Table 10.

3.31 Flint

Forty-three pieces of worked flint, weighing 353g were recovered. The majority comprises debitage and cores (five examples). Core products include flakes, retouched flakes and possible core rejuvenation flakes. The presence of multi-platform cores and flakes struck with a hard hammer suggest a late Neolithic/early Bronze Age date for the majority of the assemblage. Tools are restricted to two end-and-side scrapers. Four blade fragments suggest a component of the assemblage is of earlier date. The material includes both patinated and unpatinated flint which has sustained edge damage characteristic of a plough zone assemblage.





3.3.2 Pottery

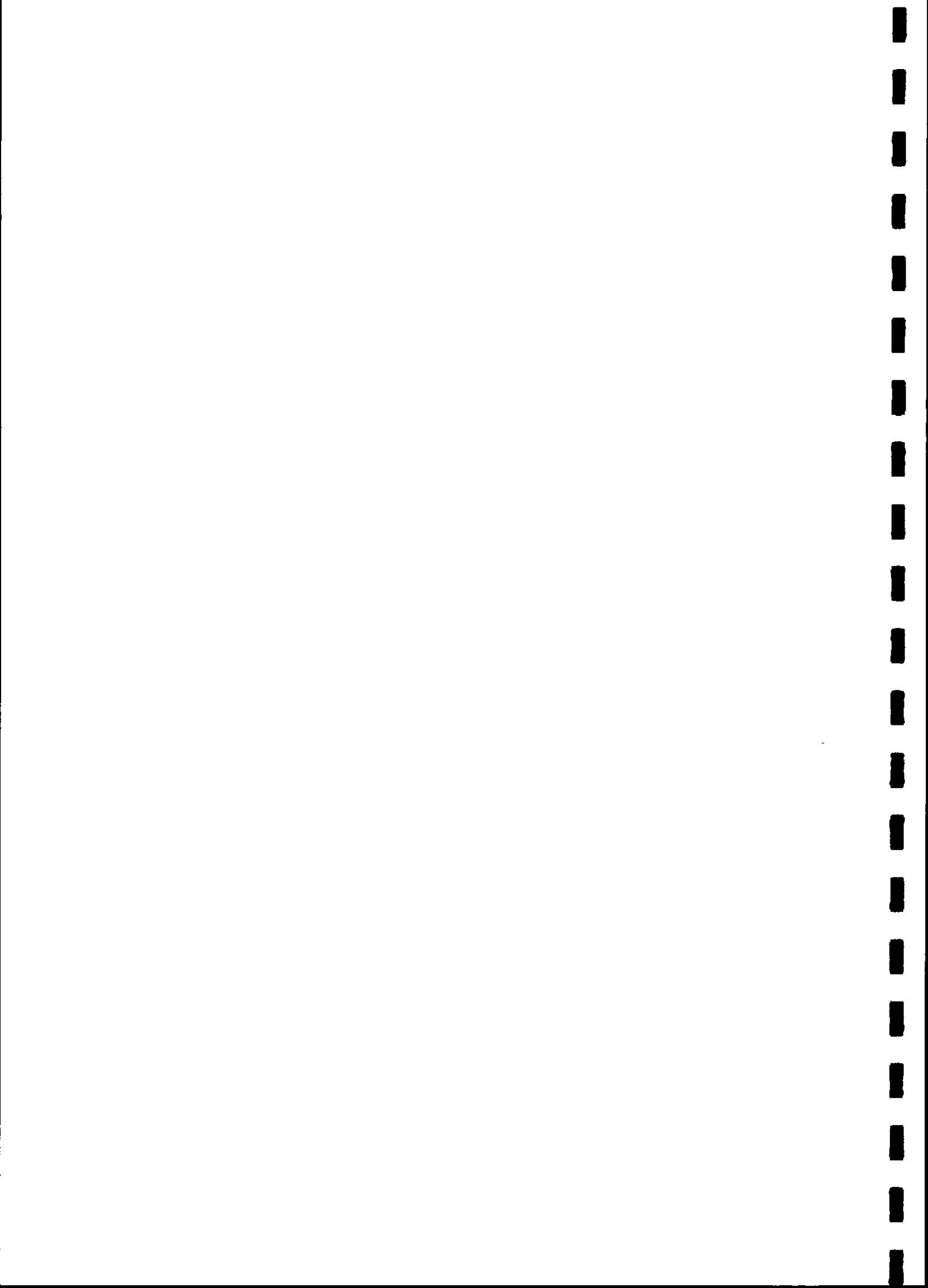
A total of 144 datable sherds of pottery was recovered, ranging in date from the late Iron Age to post-medieval periods. A further 23 sherds could not be attributed to a particular period. It was not always possible to distinguish between coarsewares of Roman and medieval date. Pottery fabric identifications were assigned alpha-numeric codes in accordance with the Bedfordshire Ceramic Type Series, held by BCAS. Fabric types are listed below in approximate chronological order (Table 3). With the exception of the post-medieval material, all sherds are small and fairly abraded (unsurprising given their recovery from ploughsoil).

The majority of the pottery from all periods is locally produced. The Roman assemblage did however include Samian ware (R01) imported from France and a pink gritty fabric (R18A) which may have been produced in the St. Albans area.

| Period/fabric type | Sh:Wt | Manufactured | Common Name | Date Range |
|--|-----------------|--|---|--|
| 'Belgie' Iron Age <i>5% diag. assemblage</i> Type F05 Type F09 | 7:71 | Local Local | grog & shell grog & sand | c 100BC-100AD c 100BC-100AD |
| Roman <i>31% diag. assemblage</i> Type R01 Type R07B Type R18A Type R05A Type R06B Type R06C Type R13 | 45:286 | Continental Local Regional ? Local Local Local Local | Samian ware black sand tempered pink gritty (Verulanium ?) orange sand tempered coarse greyware fine greyware shell tempered (Harrold) | C2 C2 C2 C2+ C2+ C2+ C2+ |
| Medieval <i>5% diag. assemblage</i> Type C05 Type C71 Type C09 Type E02 Type E03 | 7:24 | Local Local Regional Local Local | sand tempered buff-grey cored gritty Brill/Boarstall type oxidised sand tempered oxidised smooth | C12-15 C12-14 C13-15 C14-15 (16) C14-15 (16) |
| Post-medieval <i>59% diag. assemblage</i> Type P14 Type P01 Type P02 Type P03 Type P36A Type P48 | 85:934 | Regional Local Local Regional Regional Regional | blackware fine glazed red earthenware coarse glazed red earthenware black-glazed earthenware brown salt-glazed stoneware English stoneware | C16-17 C17-18 C17-18 C17-18 C17-18 C18-19 |
| Total | 144:1315 | | | |

Table 3: Pottery type series from field artefact collection

Eight additional sherds of pottery (Table 4) were collected as a discrete exercise from hectare B78. These have not been integrated with the main assemblage to prevent the introduction of a bias to the distribution plots. The material is, unsurprisingly, similar in character to that recovered during field artefact collection, although the sherds are larger and diagnostic forms survive.





| Period/fabric type | Sh:Wt | Manufactured | Common Name | Form | Date Range |
|--------------------------|--------------|--------------|-----------------------------|--------------------------|---------------|
| 'Belgic' Iron Age | 2:37 | | | | |
| Type F05 | | Local | grog & shell | undiagnostic | c 100BC-100AD |
| Type F09 | | Local | grog & sand | undiagnostic | c 100BC-100AD |
| Roman | 5:186 | | | | |
| Type R07B | | Local | black sand tempered | jar | C2 |
| Type R06C | | Local | fine greyware | 'dog' dish | C2+ |
| Type R13 | | Local | shell tempered | lid-seated & storage jar | C2+ |
| Type R21 | | Regional | whiteware mortaria | mortaria | C2+ |
| Post-medieval | 1:12 | | | | |
| Type P01 | | Local | fine glazed red earthenware | undiagnostic | C17-18 |
| Total | 8:235 | | | | |

Table 4: Pottery type series from additional collected material in B78

3.3.3 Ceramic Building Material (CBM)

Roman - 2 fragments, 687g

Two highly abraded Roman brick fragments were recovered. Additionally, a probable Roman brick fragment was retrieved from additional collection within hectare B78 (but does not feature on the distribution plots).

Late medieval/post-medieval - 52 fragments, 1.3kg

The majority of the ceramic building material derives from sand tempered flat roof tiles of peg type, with smaller quantities of brick also present. The fragments are mostly small and battered.

Twenty-six additional fragments (1.7kg) of post-medieval/modern origin comprise mainly pieces of land drain and modern brick.

Undiagnostic - 50 fragments, 1.3kg

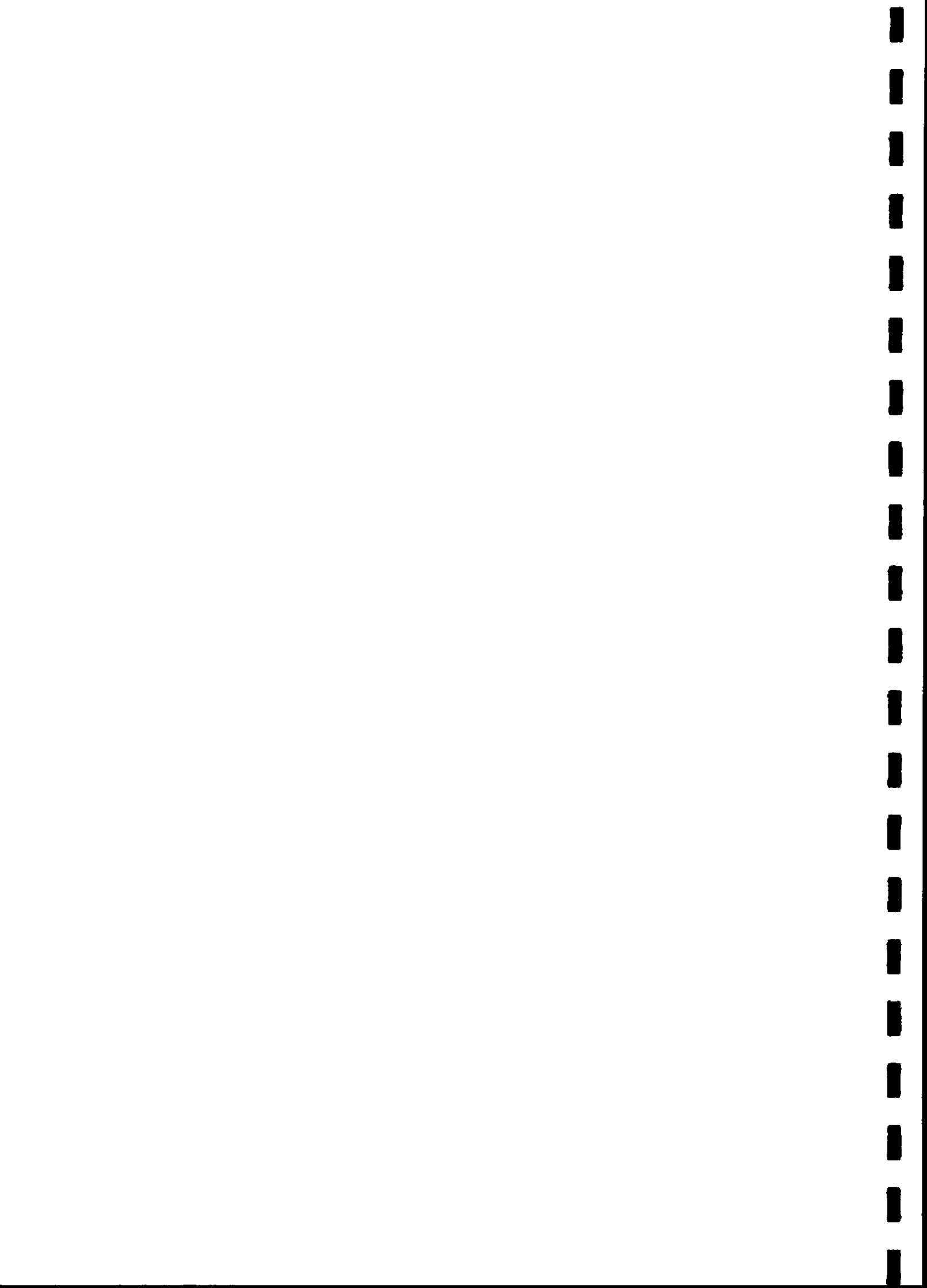
A number of pieces were too fragmentary, undiagnostic and degraded to be accurately classified.

3.3.4 Glass bead

An undecorated, translucent, annular glass bead (diameter 21mm) was identified. Given the circumstances of recovery, the artefact survives in remarkably good condition. Beads of this type are thought to be probable imports of around the first century BC to first century AD, which continued in use sporadically throughout the Roman period (Guido 1978, 66).

3.3.5 Slag

Twenty-one fragments of ferrous slag weighing 1.0kg were recovered. These are likely to derive from smithing processes, although no date range can be assigned to this class of material.





3.4 Artefact distribution

3.4.1 Prehistoric (Fig 11)

Lithic (flint) material was identified in low density over much of the Study Area. In no collection units were two flints recovered. It is possible a dispersed cluster occurs towards the north of Field 1 (around Hectares A61, 71, 72, 73 and 74). A more confined concentration is located towards the south-west of Field 3 (Hectares B43 and 53). It is unclear if these represent anything more than sporadic activity during the earlier prehistoric period.

3.4.2 Late Iron Age (Fig 12)

The sample of 'Belgic' Late Iron Age pottery is too small to be spatially significant. Pottery of this date was only recovered from the north and extreme south of the Study Area. Only one hectare contained two sherds (B70). The presence of late Iron Age material suggests some form of activity within the Study Area during this period.

3.4.3 Roman (Fig 12)

The distribution of Roman material is more meaningful than the previous artefact types. The largest concentration (14 pottery sherds) is situated to the east of Marsh Leys Farm (Hectares B78, 88 and 89). There is a general scatter of pottery to the north and south of this field. Hectare B99 produced a cluster of five Roman sherds (including a single samian ware sherd) and the annular glass bead. Single fragments of diagnostic Roman building material derived from hectares B89 and B87.

3.4.4 Medieval (Fig 13)

The distribution of medieval pottery is restricted to Fields 1 and 2. Although the sample is too small to be spatially significant, its presence suggests limited activity of this period.

3.4.5 Post-medieval (Fig 14 and 15)

The dispersed nature of the post-medieval artefacts suggests random deposition. The distribution is broadly replicated by both building material and pottery. Denser concentrations were recorded from Fields 1 and 2. It is likely that the distribution of late medieval/post-medieval material is a result of agricultural practices, such as manuring.

3.4.6 Undiagnostic pottery and CBM (Fig 16)

Pottery sherds and tile/brick fragments recovered from ploughsoil are frequently small and abraded. Identification based purely on fabric type is, in some cases unreliable and therefore, these fragments have been assigned to an undiagnostic group. The distribution of ceramic building material broadly corresponds with that of the late medieval/post-medieval brick and tile, while that of the pottery does not appear to relate to the period concentrations identified.

3.4.7 Slag (Fig 17)

The incidence of ferrous slag is restricted in the main to Field 1. Single pieces



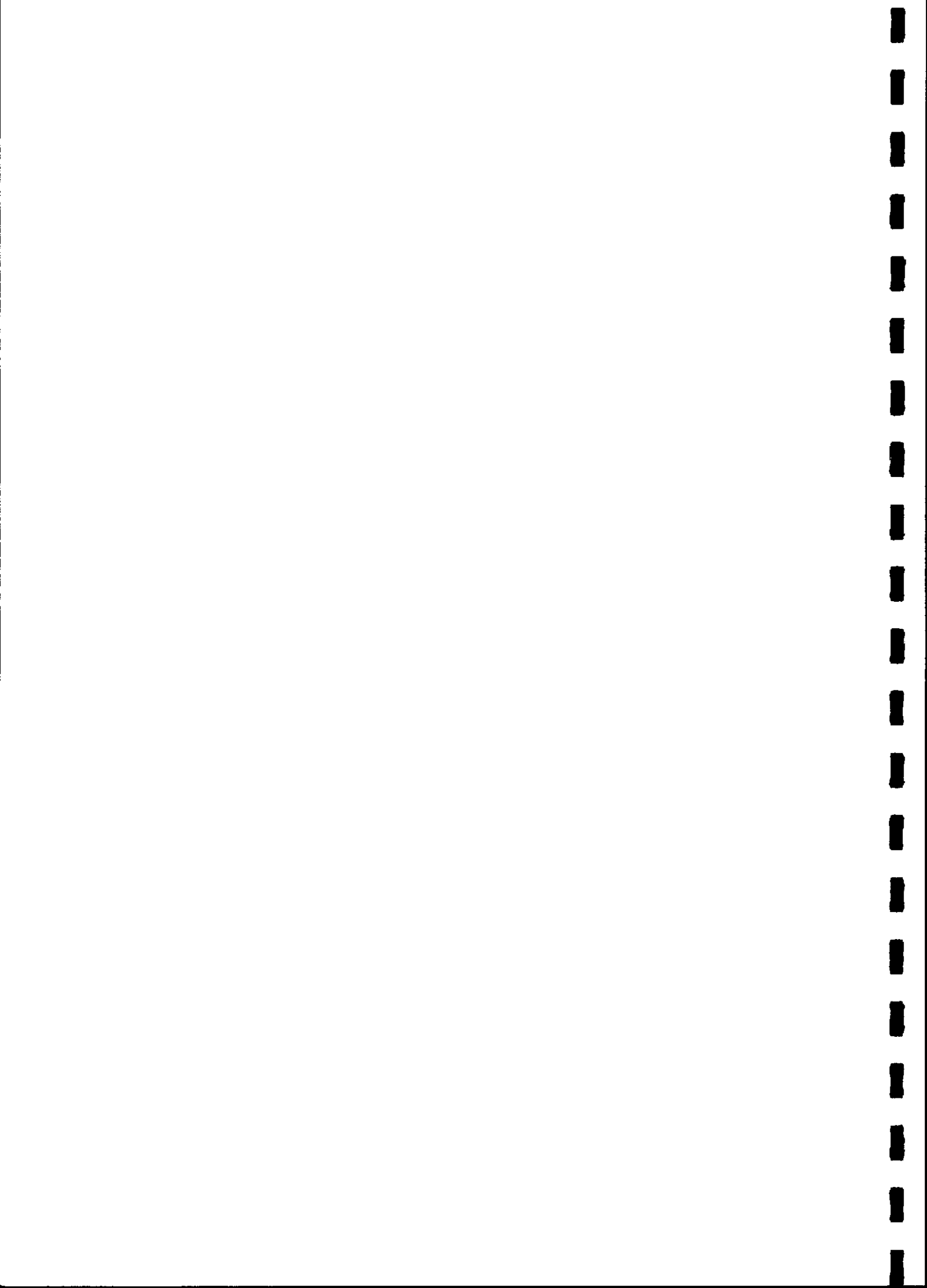


were also recovered from Fields 2 (Hectare B85) and 4 (Hectare B61). The material is undatable, but does attest to industrial activity. Given that this or craft material is not spread evenly, it is possible its presence indicates localised activity situated in this field.

3.5 Summary

Artefacts recovered from field artefact collection comprised pottery of late Iron Age, Roman, medieval and post-medieval periods, ceramic building of Roman and late medieval/post-medieval periods, worked flint, an annular glass bead and ferrous slag. No significant artefact concentrations were identified from the pre- or post-Roman periods.

Roman material, however, was concentrated to the east of Marsh Leys Farm and may indicate the location of a settlement of this period. The general scatter of Roman material adjacent to the main concentration may reflect the spreading of manure on adjacent Roman fields rather than more widespread activity. The recovery of the annular glass bead is of considerable interest, as artefacts of this type are rarely recovered during field artefact collection. Single fragments of diagnostic Roman building material may suggest the presence of substantial structures within the locality, although given the scarcity of this material, these are likely to be situated beyond the limits of the Study Area.





4. GEOPHYSICAL SURVEY

4.1 Introduction

A specialist contractor, West Yorkshire Archaeology Services (WYAS), undertook the geophysical survey between 7th and 16th December. The full results are submitted in a separate report (WYAS 1998). For more detailed information, technical data and scaled plots of the results the specialist report should be consulted.

4.2 Method statement

The survey was conducted in two stages. In the first stage the entire Study Area was scanned with fluxgate gradiometers along traverses approximately 12-15m apart. Any fluctuations in magnetic response were investigated further. Those deemed to be of possible archaeological origin were marked on a plan and in the ground with bamboo canes. The scanning revealed generally quiet levels of magnetic background.

The results of the scanning identified a number of areas containing potential archaeological type responses. The results of the scanning were discussed with the CAO prior to the second stage of the geophysical survey being undertaken. This comprised detailed gradiometer survey over 10ha of the Study Area. Eleven detailed survey areas (labelled A to K) were investigated:

- archaeological type anomalies (Areas A and B)
- strong magnetic anomalies (Area J).
- areas of cropmarks where no anomalies were detected during scanning (Area K).
- areas where, if the trend of cropmarks to the north-east of the railway continued, further archaeological features might be expected (Area C).
- an even distribution of areas within the Study Area even if no responses were detected during scanning (Areas D to H).

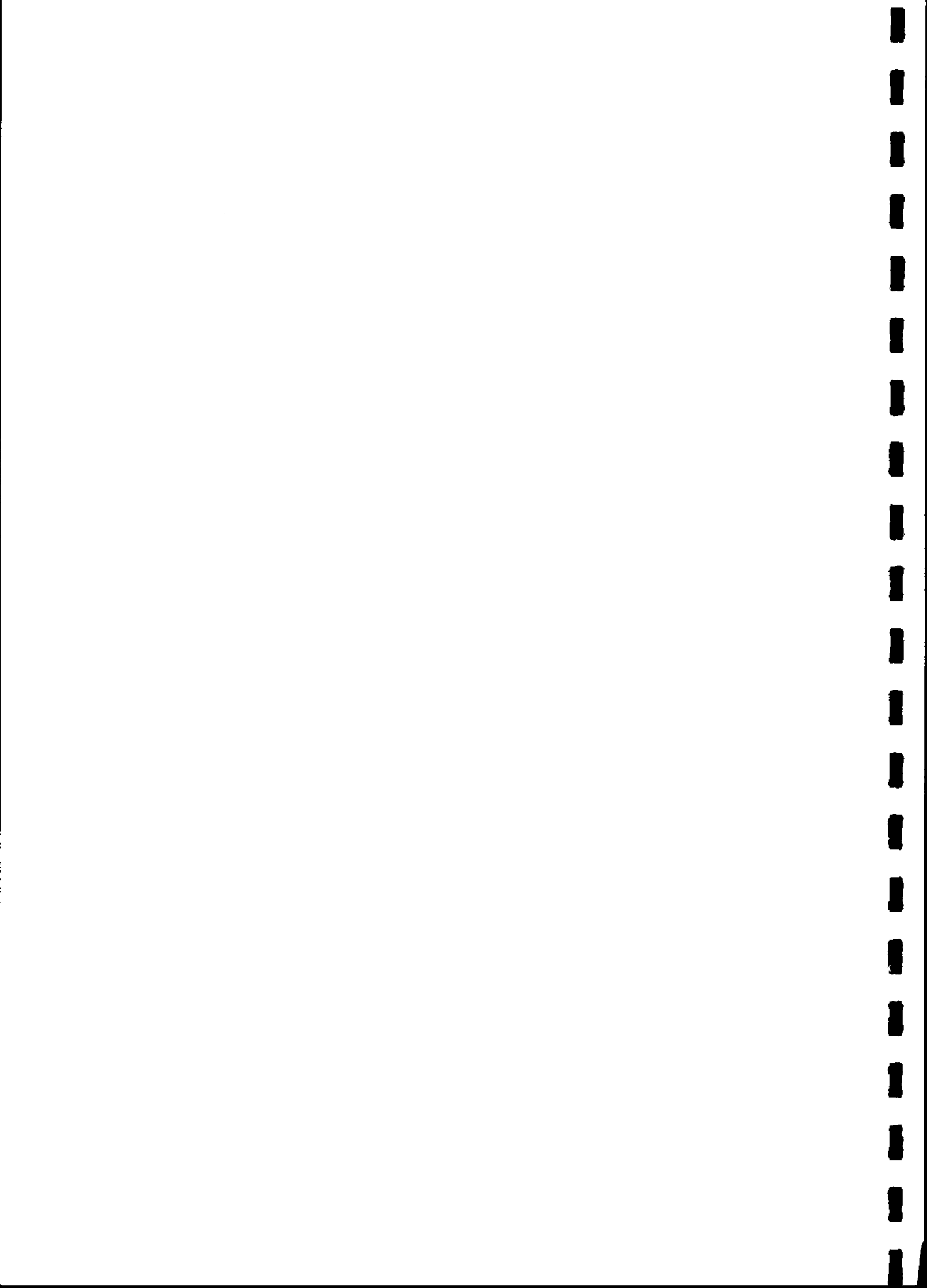
4.3 Summary of the results of the detailed geophysical survey (Fig 18)

The detailed results are presented in the separate report (WYAS 1998), the following represents a summary of each area subject to detailed survey.

4.3.1 Area A

Scanning to the south-west of Marsh Leys farm had located a large number of anomalies in an area which corresponded to cropmarks visible on the aerial photographs. Detailed survey was therefore undertaken to clarify these anomalies and define their extent.

A large number of linear anomalies were detected in this area. These were generally aligned from south-west to north-east or south-east to north-west. The linear anomalies in at least three areas appear to define enclosures which were generally D-shaped approximately 445 square metres in extent. Although a number of the linear anomalies may indicate the location of furrows, others





are clearly on different alignments and therefore represent field boundary ditches.

Pit type anomalies were detected generally within the central part of this survey area. These were mostly 1.5m in diameter and were located both inside and outside the D-shaped enclosures. The pit-type anomalies appear to be concentrated in the vicinity of the enclosures.

A non-ferrous pipe was detected within the survey area and this was on a different alignment to the other linear anomalies. Two areas of magnetic disturbance were located which may reflect material in the ploughsoil or disturbed ground.

4.3.2 Area B

During scanning anomalies were located that appeared to correspond with cropmarks. Detailed survey was therefore undertaken to clarify these anomalies and define their extent in an area which had produced a concentration of Roman artefacts.

A number of linear anomalies were detected generally on a south-west to north-east or south-east to north-west alignment. In two areas the linears may define small sub-rectangular enclosures 350 square metres in extent. That situated close to the northern field boundary may correspond to the enclosure visible on aerial photographs. A number of the linear anomalies probably indicate the location of furrows.

Pit-type anomalies were concentrated within and adjacent to the northern enclosure. This is therefore likely to have functioned as a settlement enclosure.

4.3.3 Area C

Scanning in this area produced no strong anomalies suggestive of archaeological features. The detailed survey area was situated adjacent to the railway to clarify if the system of ditches, enclosures and pits visible on aerial photographs to the north-east continued into this field.

With the exception of one short linear anomaly to the north-east, no magnetic anomalies were identified.

4.3.4 Area D

Scanning in the field to the south of the brook produced no anomalies. The field was extremely heavy underfoot which may reflect the presence of alluvial deposits. A detailed survey was undertaken in the area where a small quantity of Iron Age and Roman pottery was recovered.

No anomalies were located in this survey area except magnetic responses likely to reflect material in the ploughsoil.

4.3.5 Area E and F

Scanning in the field north of the brook produced no anomalies. Like the field





to the south, conditions were extremely heavy underfoot possibly the result of alluvial clays underlying the ploughsoil. Detailed survey areas were located to confirm the results of the scanning and in Area F over a flint cluster detected during field artefact collection.

No anomalies were located in these two areas during detailed survey.

4.3.6 Areas G and H

Although scanning did not detect any anomalies in this field two detailed survey areas were positioned over cropmarks visible on aerial photographs.

No anomalies were located in these two survey areas except for magnetic responses, typical of material within the ploughsoil.

4.3.7 Areas I and J

No anomalies were detected during scanning in the field to the north of Marsh Leys Farm. Detailed survey Area I was positioned over a concentration of Roman pottery in the ploughsoil. The location of a linear cropmark to the south of this field was investigated by detailed survey Area J.

No anomalies were located in these two detailed survey areas. A background level of magnetic responses reflects isolated material within the ploughsoil.

4.3.8 Area K

Cropmarks interpreted as being of archaeological and possible archaeological origin were located immediately west of Marsh Leys Farm. Scanning did not detect any anomalies in this area and therefore a detailed survey area was located in the vicinity of the cropmarks.

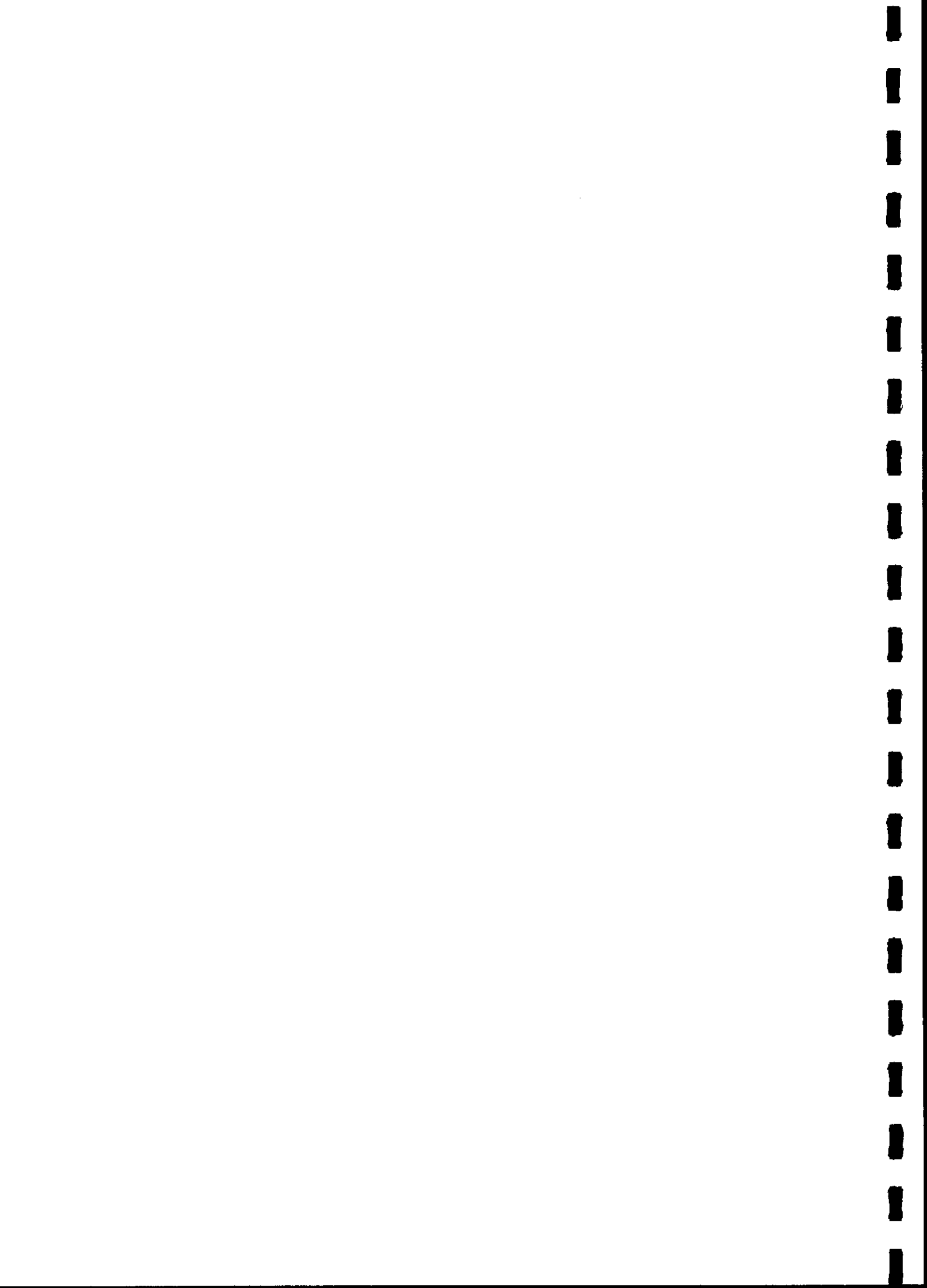
No anomalies were located in this detailed survey area except the usual background magnetic responses.

4.4 Summary

The geophysical survey has identified ditch type and pit type anomalies, many of which are likely to be of human origin. These were concentrated in two areas.

Area B to the east of Marsh Leys Farm contained a discrete area of pit type anomalies associated with a possible ditched enclosure. To the south of this area another enclosure was located immediately adjacent to the former field boundary which was not associated with any pit type anomalies and therefore may not relate to settlement activity.

Approximately 300m south-west of the Farm a larger area of ditch and pit type anomalies was located. The presumed ditches appear to form both D-shaped enclosures and field boundaries. The pit type anomalies were generally concentrated in the vicinity of the enclosures supporting the interpretation of these as areas of settlement.





5. LIMITATIONS OF NON-INTRUSIVE EVALUATION

5.1 *Introduction*

The three stages of investigation so far undertaken were all non-intrusive. Each has provided valuable information on the location and extent of archaeological remains within the Study Area. It is important to consider the limitations of the different types of non-intrusive investigation undertaken. Furthermore, there are a number of inconsistencies between the different data sets, which need to be considered.

5.2 *Aerial photographs*

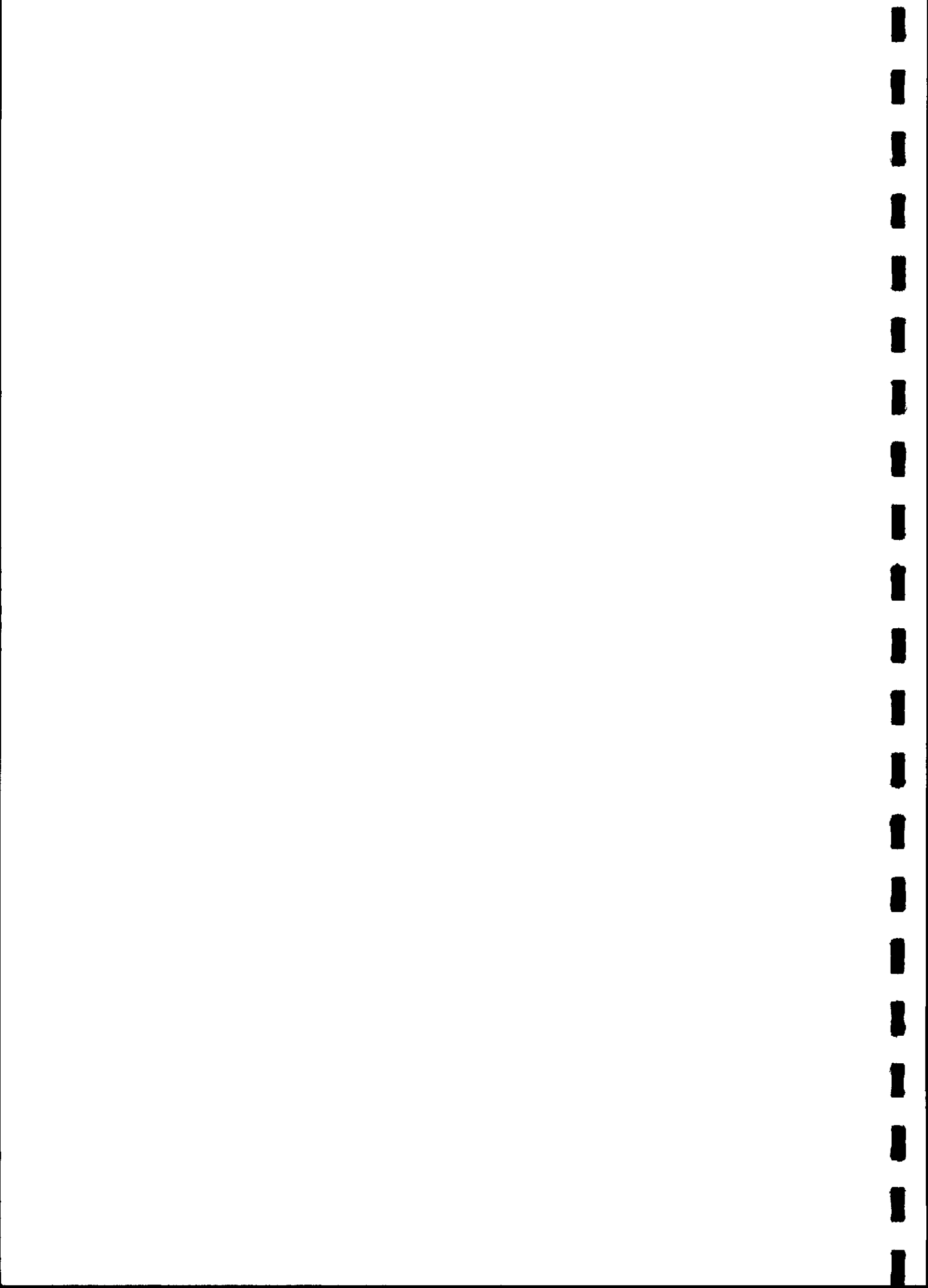
Aerial photographs provide a relatively quick method of identifying whether archaeological sites are present. Under certain conditions aerial photographs can reveal previous human activity in the form of earthworks, soilmarks and cropmarks. Earthworks representing ridge and furrow are visible in the paddocks south of the farm in several of the photographs. Cropmarks within the Study Area suggest the location of former ditches and pits. The nature of the underlying geology in places obscures the visibility of cropmarks. In other areas the pattern of the cropmarks suggests many may represent underlying geological features. These can easily be mis-interpreted as of an archaeological origin due to their similar nature.

The presence or absence of cropmarks is not simply related to the presence or absence of archaeological features. It also relates to the type and condition of the crop at the time of photography, soil type and time/type of photography undertaken. Wilson (1982) states "in evaluating cropmarks a fundamental rule is not to rely on negative evidence". This is because when cropmarks are present the probable causes can be inferred, but when absent no inference can be made. In addition, although cropmarks can indicate the location of past human activity, they do not always suggest the function or intensity of activity.

On their own cropmarks cannot be accurately dated. Historical maps can suggest a recent origin, as they did for a number of the ditch-type cropmarks within the Study Area. Similarities between the arrangement of cropmarks and the modern field pattern can also suggest a relatively recent date. The typological form of the enclosures visible to the north-east of the railway is typical of the late Iron Age and Roman period.

5.3 *Field artefact collection*

Artefact concentrations often indicate the location of past human activity. Within the Study Area a concentration of Roman material indicates the location of a settlement of this period. The reliability of the evidence is often dependent on the conditions at the time of field artefact collection. Although there was some crop growing at the time of the collection within the Study Area the ploughsoil had weathered sufficiently to permit good visibility of artefacts.





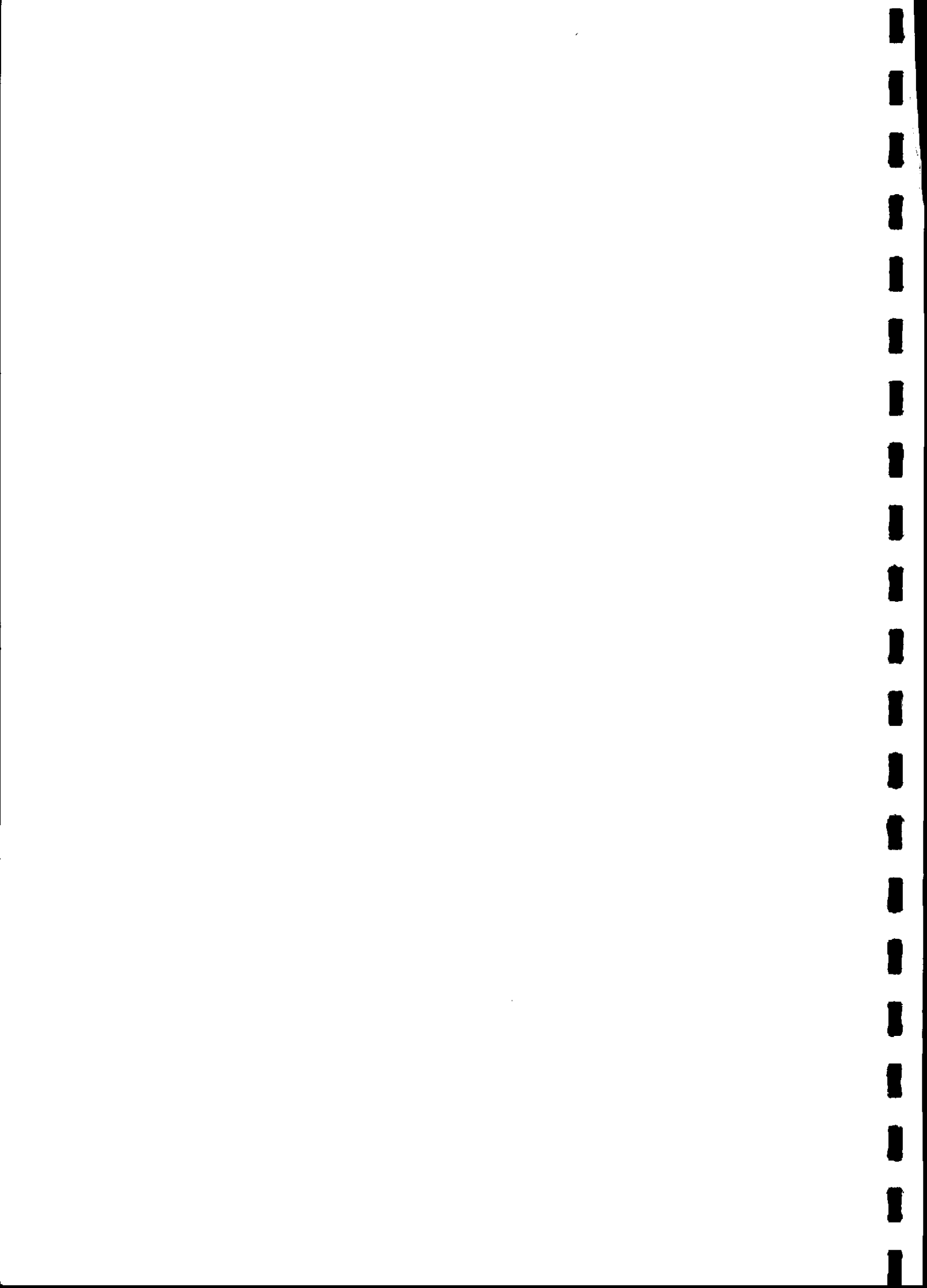
Field artefact collection can sometimes fail to detect underlying settlements. Factors including the durability of the artefact (pottery fabrics dominated by grog and shell inclusions may not survive), depth and regularity of ploughing, soil type, nature of rubbish disposal in antiquity and presence of alluvial deposits overlying archaeological remains can all play a part. The absence of concentrations therefore cannot be used to categorically state there are no settlement sites.

The correlation of artefact concentrations and other data-sets often produces the most reliable evidence, for example when combined with geophysical anomalies (Maddle Farm, Berkshire (Gaffney and Tingle 1989)). This appears to be the case with the Roman artefact concentration to the east of Marsh Leys Farm, which coincided with both cropmarks and geophysical anomalies. The general scatter of material of prehistoric and Roman periods elsewhere in the Study Area may suggest the location of further settlements. It may on the other hand simply reflect past manuring and present plough action. The results from Maxey East (Pryor *et al* 1985) led the excavator to conclude, "a site cannot be characterised by field survey alone". It is unfortunate that due to dense crop cover the field to the south-west of the Study Area was not suitable for field artefact collection.

5.3 Geophysical survey

The geophysical survey undertaken within the Study Area was of the magnetic susceptibility type. This detects variations in the magnetic susceptibility between topsoils, subsoils and rocks making it possible to detect ditches, pits and other silted up features (Clark 1990). The survey identified concentrations of anomalies potentially of archaeological origin in two main areas within the Study Area. The southern part of the Study Area produced no anomalies. It is possible that the alluvial deposits believed to be situated in this area have sealed features and therefore prevented them being detected. Elsewhere, a number (but not all) of the anomalies coincide with cropmarks.

There are several reasons why not all the cropmarks were detected during the geophysical survey. It is possible the features represented by the cropmarks were infilled with material that has a low magnetic susceptibility. This would result in there being no detectable magnetic contrast between the feature infill and the topsoil. The anomalies detected by geophysical survey may contain material of higher magnetic susceptibility due to the presence of settlement in the immediate vicinity. It is equally possible that the features visible as cropmarks have been destroyed by ploughing since the photographs were taken.





6. CHRONOLOGICAL SUMMARY OF RESULTS

The following synthesis is presented in chronological order. This largely based on the field artefact collection results, but is also based on the typological forms of the cropmark and geophysical features, with the historical maps providing evidence for the last 200 years. Without trial excavation the results should be viewed only as an interim statement of the major periods of activity within the Study Area.

6.1 Prehistoric

Pottery of this period rarely survives within the ploughsoil, but flint artefacts are more resilient and relatively easy to recognise (Holgate 1985). The worked flint assemblage recovered during field artefact collection comprised mainly late Neolithic/early Bronze Age artefacts. A small quantity of early Neolithic artefacts were also recovered. The assemblage suggests some form of activity within the Study Area during this period. No obvious concentrations of flint artefacts were located to suggest the location of settlements. However, a dispersed cluster towards the north and a more confined concentration to the south indicated, at the least, activity areas.

No cropmarks or geophysical anomalies were located that coincided with the flint clusters or, which on typological grounds, would be assigned to this period. The most characteristic feature detectable by geophysical survey and visible on aerial photographs typical of the Bronze Age are burial ring ditches (barrows). None of the cropmarks to the east of the railway, nor those within the development area represent a ring ditch.

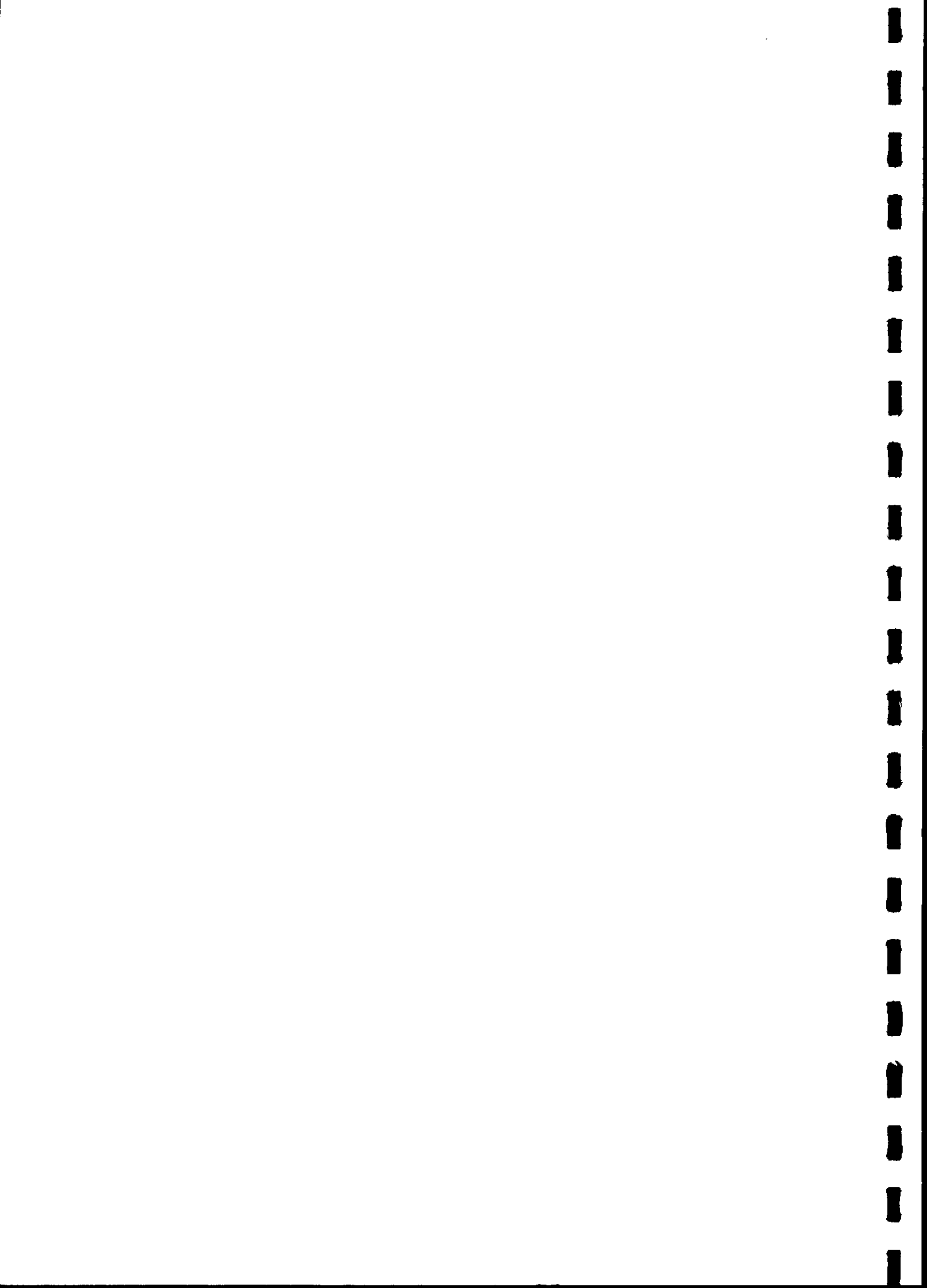
6.2 Late Iron Age

A small quantity of 'Belgic' late Iron Age pottery was recovered during field artefact collection. The distribution of this pottery approximately corresponds to the distribution of Roman artefacts. A similar small number of Iron Age sherds was recovered from the ploughsoil at Maxey (Pryor *et al* 1985), where later excavations revealed underlying ditched settlement enclosures. The distribution is dispersed and therefore does not suggest the location of settlements. Its presence does suggest the later Roman activity may have origins in this period.

The cropmark and geophysical enclosures could, on typological grounds be assigned to this period.

6.3 Roman

Forty-five sherds of Roman pottery were recovered during field artefact collection. The majority was locally produced, although a sherd of Samian ware (imported from France) and a pink gritty fabric (probably manufactured in the St. Albans area) were also present. Other artefacts typically Roman in date include three brick fragments and an annular glass bead. The distribution of Roman artefacts is concentrated immediately to the east of Marsh Leys Farm. It is also scattered randomly in the two fields adjacent to the farm.





The Roman artefact concentration coincided with the location of a possible ditched enclosure visible on aerial photographs. Additional ditch and pit type anomalies were located in this area by the geophysical survey. The arrangement of enclosures and pits is replicated by geophysical anomalies to the west of Marsh Leys Farm. No field artefact collection was undertaken in this field but many of these features are likely to date to this period. The cropmarks to the east of the railway probably represent further settlement enclosures, some of which are likely to be contemporary. There appears to be a general south-west to north-east trend in the arrangements of enclosures within the whole Study Area. This is likely to reflect settlements concentrated on the slightly higher ground to the north of the Elstow Brook. If this trend is genuine, the cropmark features located immediately west to the Farm but not detected by geophysical survey may be given greater credibility. These could represent an additional settlement, possibly un-enclosed.

6.4 Medieval

Seven sherds of medieval pottery were recovered during field artefact collection. These are predominantly locally produced wares and the distribution does not suggest the location of any settlement within the Study Area. It is likely to reflect the manuring of fields during this period.

The cropmark and geophysical evidence reveals the location of ridge and furrow within the Study Area. This survives as earthworks to the south-west of the farm. Ridge and furrow developed in agricultural fields that were subject to strip ploughing (common from the late Saxon period and into the post-medieval period). The relationship between cropmark or geophysical furrows and other cropmarks is a useful chronological indicator.

6.5 Post-medieval

The vast majority of the ceramic material recovered from field artefact collection was of this period. No concentrations are evident within this distribution and it is therefore assumed the material is the result of manuring. Ferrous slag was mainly recovered from the northern field. This is not diagnostic of a particular period of time and may have derived from the manuring of this field with slightly different material.

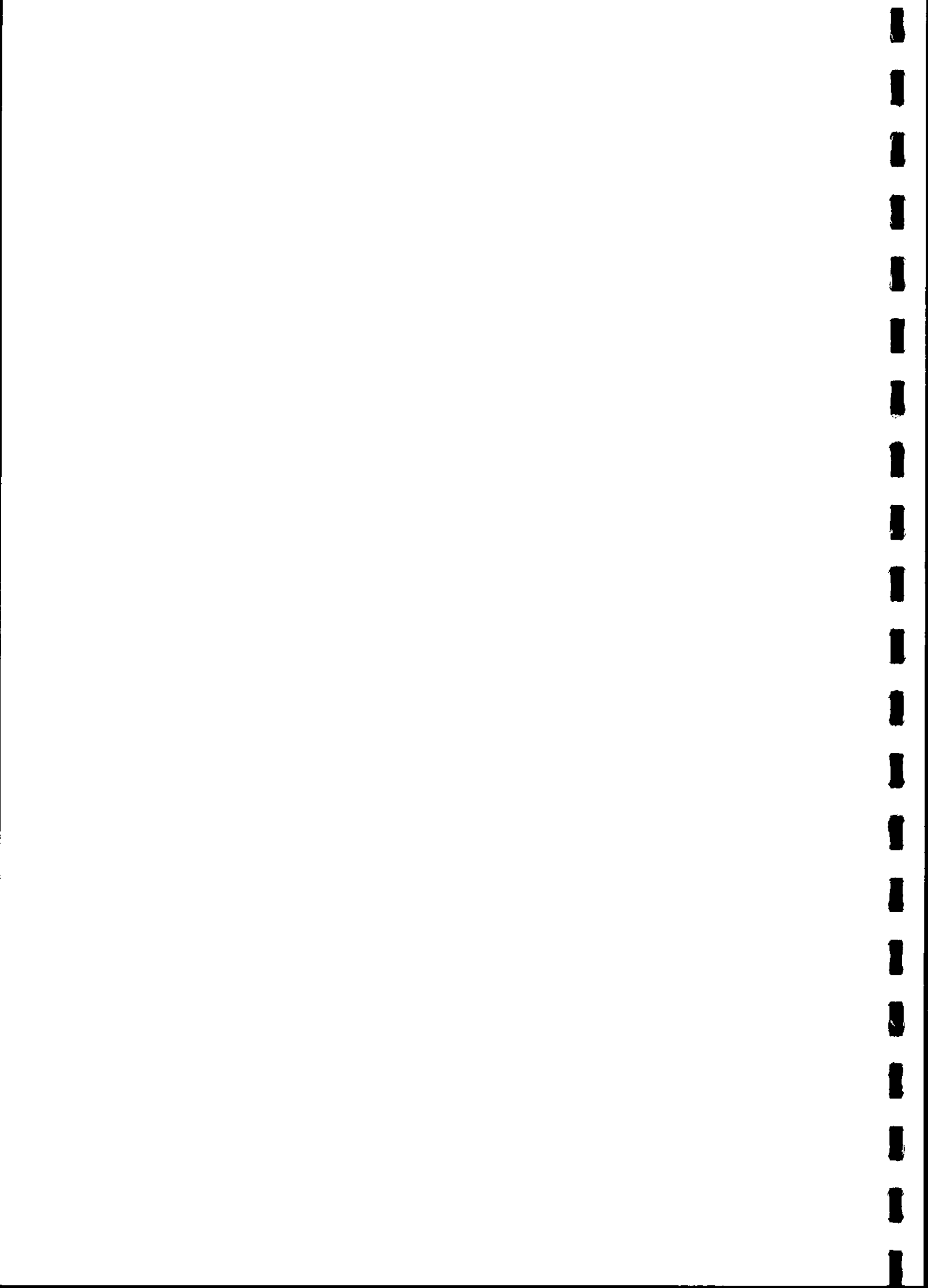
The linear cropmarks indicating ditches defining trackways, do not have a well defined relationship with the furrow type cropmarks. Given that the northern trackway (probably known as the High Causeway) is visible on early historical maps and mentioned in the enclosures act it is likely that the trackways that join this are also post-medieval in date. The trackways are not present on the 1848 Ratings Survey Map although some elements of the High Causeway survive in field boundaries and field names. The 1848 map is the first to show Marsh Leys Farm. Associated with it are two ponds to the south-west (only one survives today).





6. REFERENCES

- BCAS, 1998, *Toplers Hill: archaeological evaluation Stage 1* (Report 98/61).
- Clark, A, 1990, *Seeing beneath the soil: prospecting methods in archaeology*.
- Gaffney, V and Tingle, M, 1989, *The Maddie Farm Project: an integrated survey of Prehistoric and Roman landscapes on the Berkshire Downs*. BAR 200.
- Guido, M, 1978, *The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland*.
- Haigh, JGB, 1993, *A new issue of AERIAL- Version 4.20. AARGnews 7*.
- Haselgrove, C, Millet, M and Smith, I, 1985, *Archaeology from the ploughsoil*.
- Holgate, R, 1985, "Identifying Neolithic settlements in Britain: the role of field survey in the interpretation of lithics scatters", in Haselgrove, Millet and Smith, 1985.
- Pryor, F, *et al*, 1985, "The Fenland Project No. 1: archaeology and environment in the Lower Welland Valley" in *East Anglian Archaeology Report No. 27*.
- Wilson, DR, 1982, *Air photo interpretation for archaeologists* Fig 101.
- Wood, J, 1984, *Kempston: Bedfordshire parish survey, historic landscape and archaeology*.
- WYAS, 1998, Proposed development at Marsh Leys Farm, Bedfordshire:
Gradiometer Survey





TABLES





| KILOMETRE A | Hectare | | | | | | | | Total number |
|---------------------------------|---------|----|----|----|----|----|----|----|--------------|
| | 51 | 52 | 61 | 62 | 71 | 72 | 81 | 82 | |
| Description | | | | | | | | | |
| Worked flint | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 11 |
| Late Iron Age pottery | | | 1 | | | | | | 1 |
| Roman pottery | 2 | | | | 1 | | | | 3 |
| Medieval pottery | | | 1 | | 1 | | | | 2 |
| Late medieval/post-medieval CBM | 5 | 1 | | 3 | 2 | 1 | | 2 | 14 |
| Post-medieval pottery | 2 | | 3 | 3 | 1 | 6 | 1 | 3 | 19 |
| Post-medieval/modern CBM | | | 2 | 1 | | | | 3 | 6 |
| Undiagnostic CBM | | | 2 | | 6 | | | | 8 |
| Undiagnostic pottery | | | | | | 2 | | 2 | 4 |
| Ferrous Slag | | | 1 | 1 | 2 | 1 | | | 5 |
| Total number | 10 | 2 | 12 | 9 | 15 | 12 | 2 | 11 | 73 |

Table 5: Kilometre A - finds summary by number

| KILOMETRE C | Hectare | | Total number |
|---------------------------------|---------|----|--------------|
| | 60 | 70 | |
| Description | | | |
| Roman pottery | 0 | 2 | 2 |
| Late medieval/post-medieval CBM | 2 | 0 | 2 |
| Post-medieval pottery | 0 | 1 | 1 |
| Post-medieval/modern pottery | 1 | 0 | 1 |
| Undiagnostic CBM | 0 | 2 | 2 |
| Undiagnostic pottery | 0 | 2 | 2 |
| Total number | 3 | 5 | 8 |

Table 6: Kilometre A - finds summary by weight





| KILOMETRE B | Hectare | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total number | | | | | | | | | | | | | | | | |
|------------------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|-----|---|-----|----|----|----|----|
| | 42 | 43 | 44 | 51 | 52 | 53 | 54 | 55 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 69 | 70 | 71 | 72 | 73 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | | 85 | 86 | 87 | 88 | 89 | 90 | 97 | 98 | 99 | 100 | | | | | | |
| Worked flint | 2 | | 3 | 2 | 3 | 1 | | 2 | | 2 | 1 | 1 | | | 1 | | | 2 | 2 | 1 | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 3 | | | | | | | 32 | | | | |
| LIA pottery | | | | 1 | | | | | | | 1 | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | 6 | | | |
| Roman pottery | | | 1 | 2 | | | | 1 | | | | | | 1 | | 1 | 1 | 2 | 1 | | 2 | | | 2 | | | 5 | 1 | 2 | | | | 3 | 3 | 7 | 2 | | | | | 5 | | | 40 | | | |
| Roman CBM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | 2 | | | | |
| Med pottery | | | | | | | | | | | 1 | | | | | 1 | | | 1 | | | 1 | | | 1 | | 1 | | | | | | | | | | | | | | | | | 5 | | | |
| LW/PM CBM | | | | 6 | 1 | 1 | | | 3 | 5 | 2 | 3 | 1 | | | 2 | 1 | 2 | 2 | 2 | 1 | | 3 | 4 | 1 | | 1 | 2 | | 2 | 1 | 1 | 1 | | | | 2 | | | 2 | | | | 52 | | | |
| Post-med pottery | 1 | | 2 | | 3 | 1 | 1 | | 1 | 3 | 3 | | 1 | | | 2 | 2 | 4 | 1 | 6 | | 1 | 3 | 6 | | | 3 | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | | | 1 | 2 | 1 | | | | 65 | | | |
| Clay pipe | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | 4 | | | |
| PM/modern CBM | | | | 1 | | | | | 1 | 1 | 2 | 1 | | | | | | 1 | 3 | | | | 1 | | | 2 | | | 3 | | 1 | 1 | 1 | | | | | 3 | | | | | | 4 | 26 | | |
| Undiag CBM | 1 | 1 | | | | 1 | 3 | | 2 | 1 | 3 | | | 4 | | 2 | | 1 | 6 | 6 | | | 1 | 3 | 3 | | | 1 | | | | | | | 3 | 3 | 2 | | | | 1 | 1 | 1 | 50 | | | |
| Undiag pottery | | | 1 | | | | 2 | 2 | | | 4 | | 1 | | 1 | | | | 2 | 2 | | | 1 | | | | | | 2 | | | | | | | | | | | | 1 | | | | 1 | 23 | |
| Glass bead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Iron nail | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| Ferrous slag | | | | | | | | | | 1 | 2 | 1 | | | | | | 2 | 1 | 2 | 1 | | | | | | | 2 | | | | | | | | 1 | | | | | | | | | | | 16 |
| Total number | 1 | 4 | 2 | 15 | 3 | 9 | 7 | 4 | 8 | 9 | 20 | 9 | 3 | 6 | 1 | 7 | 5 | 8 | 22 | 15 | 12 | 1 | 8 | 12 | 11 | 7 | 5 | 9 | 2 | 11 | 3 | 13 | 16 | 16 | 6 | 12 | 2 | 3 | 10 | 6 | | | 323 | | | | |

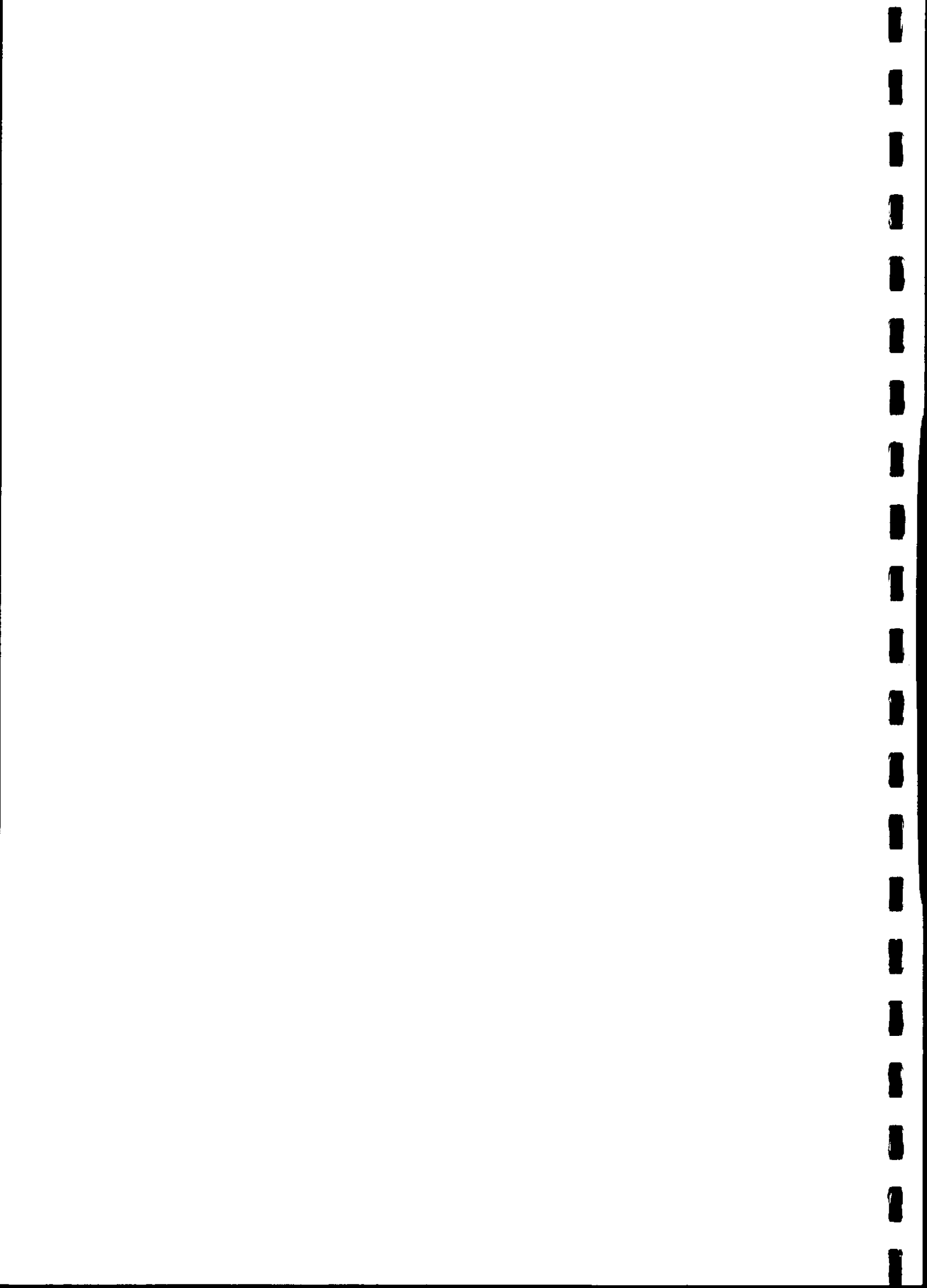
Table 7: Kilometre B - finds summary by number





| KILOMETRE B | Hectare | | | | | | | | | | | | | | | | | | | | | | | | | | | Total weight (g) | | | | | | | | | | | | | | | | | | | | | |
|------------------|---------|-----|----|-----|----|-----|----|----|-----|-----|-----|-----|-----|----|----|-----|----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|------------------|----|-----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|---|-----|------|---|--|--|----|
| | 42 | 43 | 44 | 51 | 52 | 53 | 54 | 55 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 69 | 70 | 71 | 72 | 73 | 75 | 76 | 77 | 78 | 79 | | 80 | 81 | 82 | 85 | 86 | 87 | 88 | 89 | 90 | 97 | 98 | 99 | 100 | | | | | | | | |
| Worked flint | | 5 | | 16 | 9 | 82 | 10 | | 10 | | 19 | 1 | 1 | | | 9 | | | | 44 | 7 | 1 | | | | | | 11 | | 10 | | 4 | | 1 | 2 | 2 | | 13 | | | | | | | | | | | |
| LIA pottery | | | | | 11 | | | | | | | 7 | | | | | | | | | 27 | | | | | | | | | | | | | | | 4 | | | 15 | | | | | | | | | | |
| Roman pottery | | | 9 | 5 | | | | 6 | | | | | | 8 | | 4 | 4 | | | 8 | 12 | | | 6 | | | 32 | 7 | | 15 | | | | 11 | 8 | 16 | 43 | | | | | 67 | | | | | | | |
| Roman CBM | | | | | | | | | | | | 6 | | | | | | | | | | 3 | | | | | | | | | | | | | | | 353 | | | 334 | | | | | | | | | |
| Med pottery | | | | | | | | | | | | 6 | | | | | 2 | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LWPM CBM | | | | | | 129 | 37 | 16 | | | 71 | 137 | 52 | 57 | 20 | | 62 | 23 | 54 | 93 | 31 | 15 | | 67 | 93 | 19 | | 8 | 63 | 0 | 65 | 49 | 53 | 39 | | | | | 39 | | | | | 35 | | | | | |
| Post-med pottery | 80 | | | 9 | | 26 | 10 | 3 | | | 5 | 61 | 25 | | 4 | | 35 | 32 | 27 | 4 | 29 | | 8 | 54 | 114 | | | 16 | 12 | 24 | 30 | 39 | 27 | 25 | 30 | | | | | 23 | 7 | 3 | | | | | | | |
| Clay pipe | | | | | | | | 2 | | | | | | | | | | 3 | | | | | | | | | 8 | | | | | | | | | | | | | 4 | | | | | | | | | |
| PW/modern CBM | | | | | | 86 | | | | 17 | 161 | 46 | 106 | | | | | | | 39 | 175 | | | | 11 | | | | | | | 58 | 5 | 71 | 18 | | | 272 | | | | | | 379 | | | | | |
| Undiag pottery | 1 | 19 | | | | 16 | 37 | | 12 | 4 | 55 | | | 60 | | 100 | | 29 | 66 | 389 | | | | 172 | 47 | 46 | | | 8 | | | | | | | 203 | 17 | 25 | | | | 3 | 7 | 28 | | | | | |
| Undiag CBM | | | 8 | | | | | 4 | 3 | | | 21 | | 2 | | 1 | | | | | | | | 10 | | 2 | | | | | | | | | | | 8 | | | | | 8 | | | | 1 | | | 9 |
| Glass bead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Iron nail | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| Ferrous Slag | | | | | | | | | | 3 | 220 | 16 | | | | | | | | | 130 | 37 | 21 | 66 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total weight (g) | 1 | 104 | 17 | 256 | 46 | 142 | 61 | 12 | 110 | 310 | 487 | 205 | 23 | 72 | 1 | 177 | 85 | 284 | 443 | 504 | 119 | 1 | 264 | 204 | 181 | 263 | 130 | 104 | 22 | 159 | 79 | 359 | 525 | 94 | 423 | 454 | 24 | 10 | 117 | 416 | | | | | 7268 | | | | |

***Table 8:** Kilometre B - finds summary by weight (g)*





| KILOMETRE C Description | Hectare | | Total number |
|---------------------------------|----------|----------|--------------|
| | 60 | 70 | |
| Roman pottery | 0 | 2 | 2 |
| Late medieval/post-medieval CBM | 2 | 0 | 2 |
| Post-medieval pottery | 0 | 1 | 1 |
| Post-medieval/modern pottery | 1 | 0 | 1 |
| Undiagnostic CBM | 0 | 2 | 2 |
| Undiagnostic pottery | 0 | 2 | 2 |
| Total number | 3 | 5 | 8 |

Table 9: Kilometre C - finds summary by number

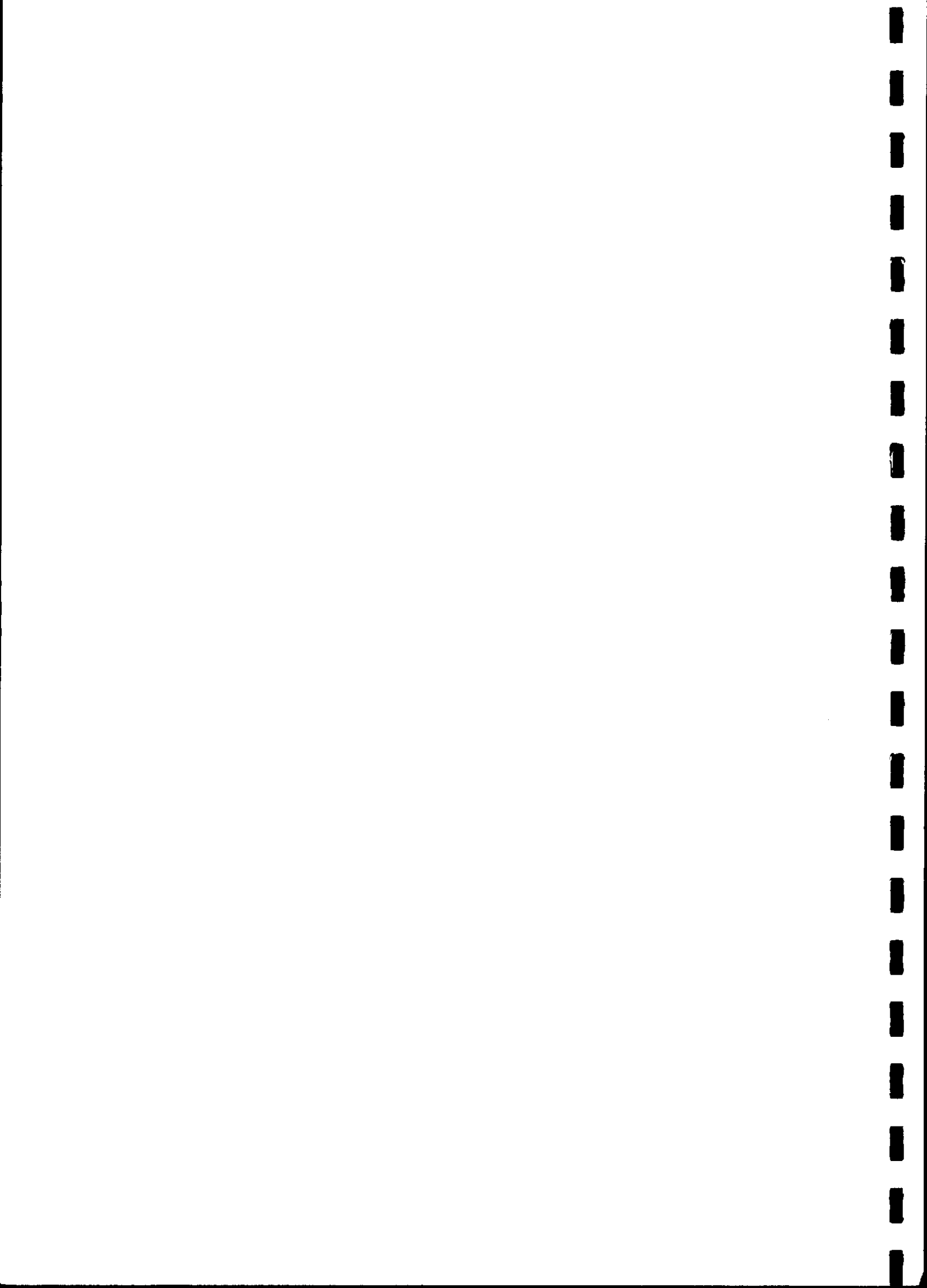
| KILOMETRE C Description | Hectare | | Total weight (g) |
|---------------------------------|------------|-----------|------------------|
| | 60 | 70 | |
| Roman pottery | 0 | 8 | 8 |
| Late medieval/post-medieval CBM | 44 | 0 | 44 |
| Post-medieval pottery | 0 | 8 | 8 |
| Post-medieval/modern CBM | 161 | 0 | 161 |
| Undiagnostic CBM | 0 | 14 | 14 |
| Undiagnostic pottery | 0 | 10 | 10 |
| Total weight (g) | 205 | 32 | 237 |

Table 10: Kilometre C - finds summary by weight (g)





FIGURES



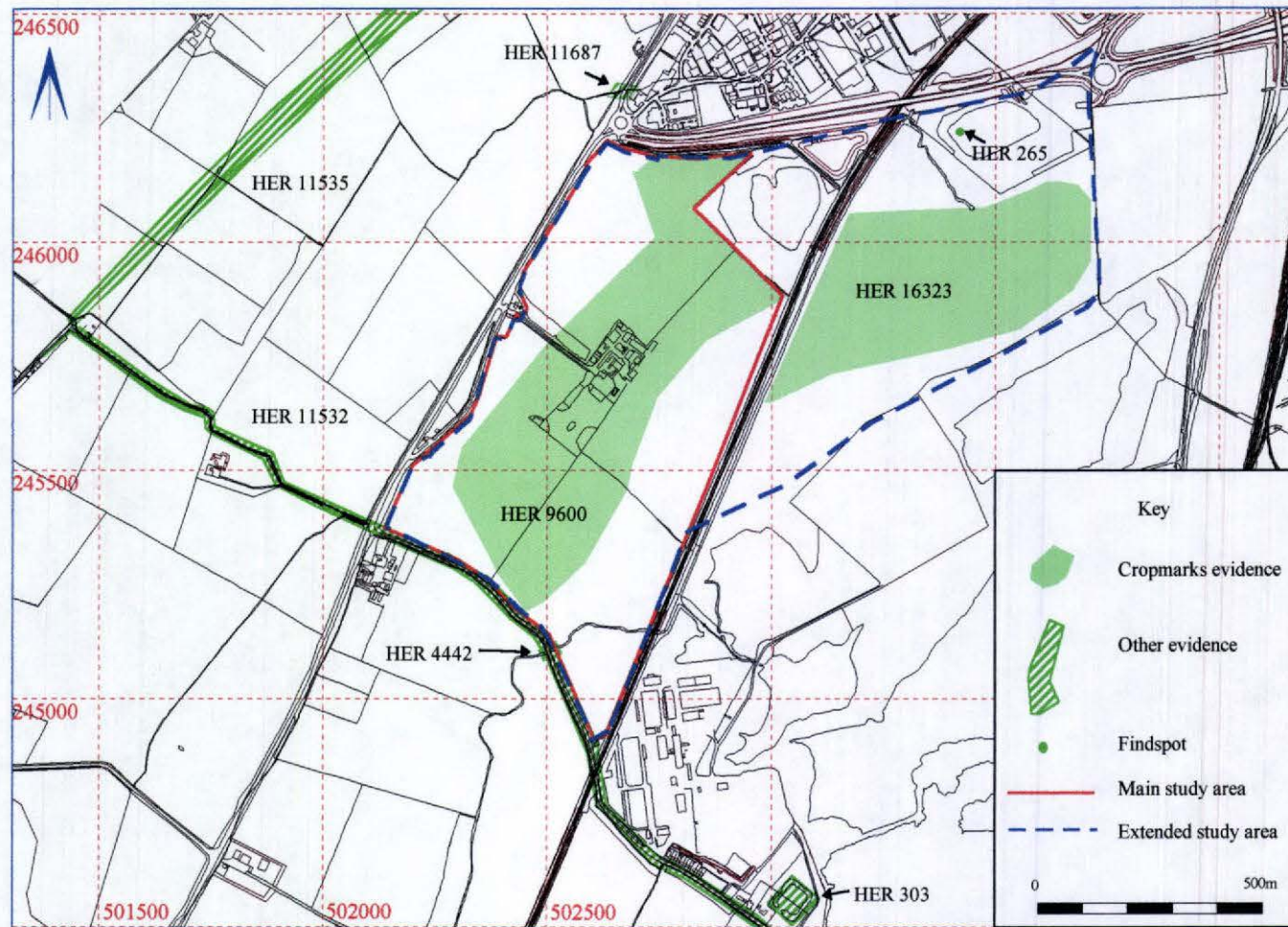
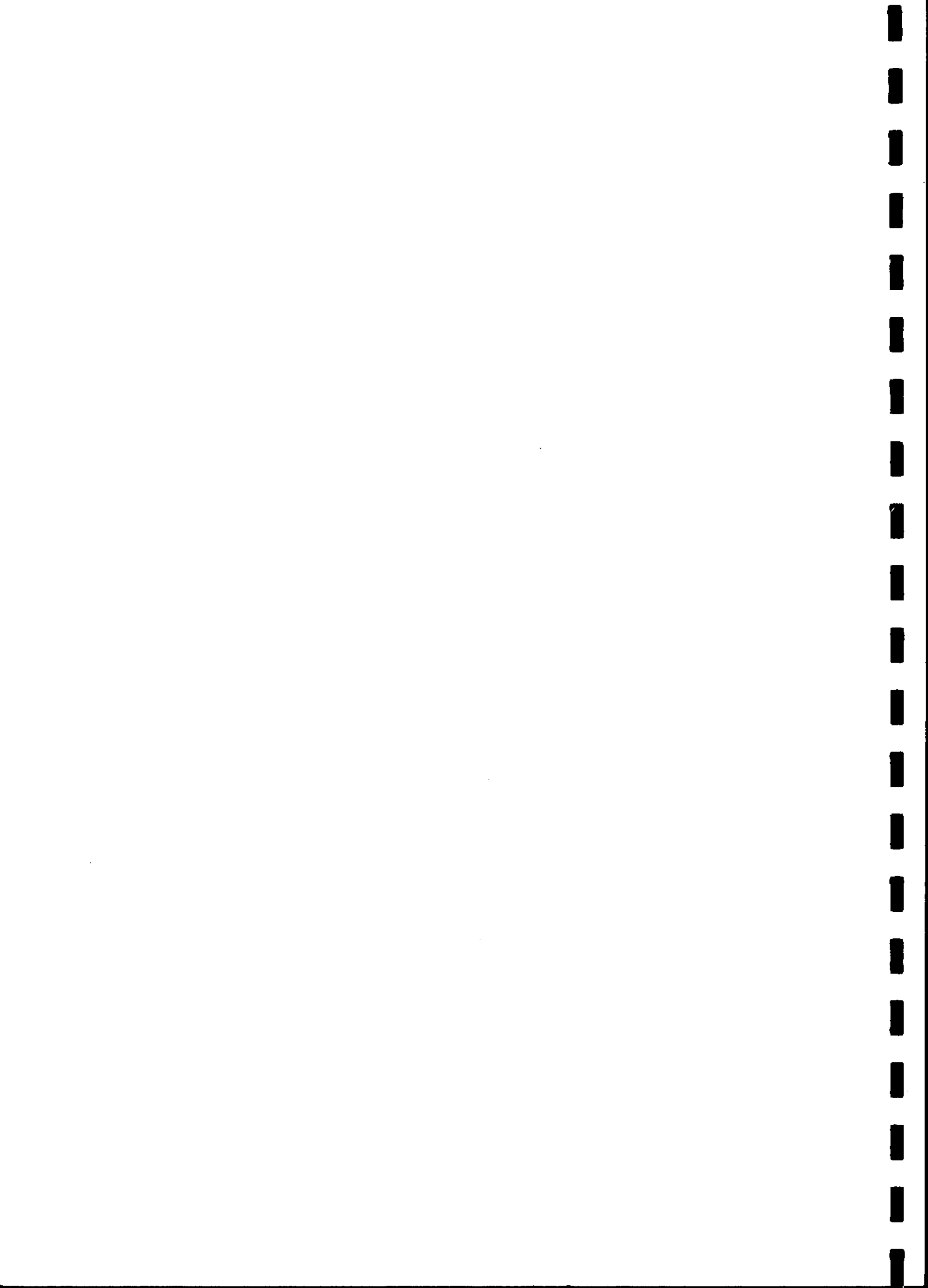


Figure 1; Study Area location plan and adjacent HER sites



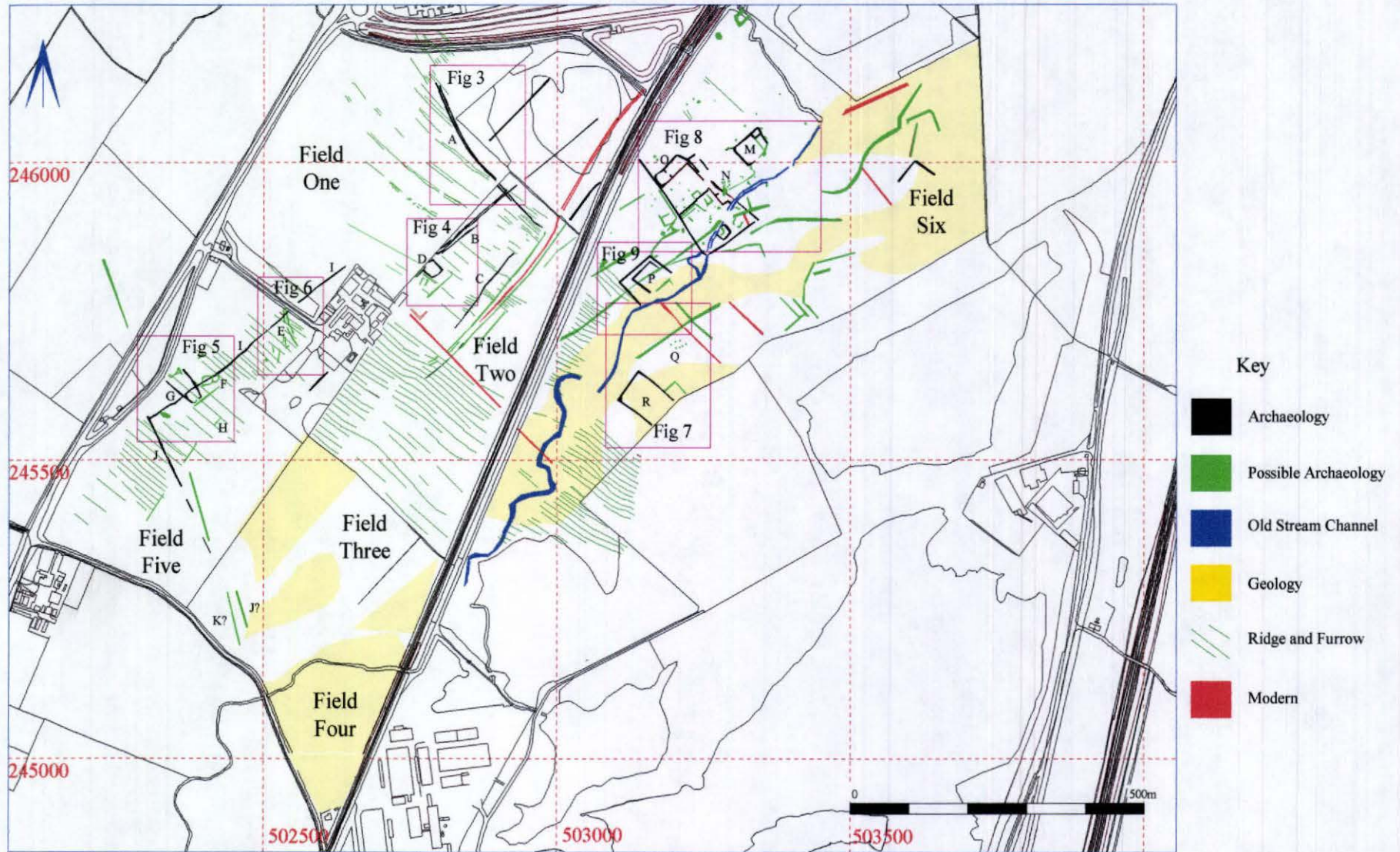
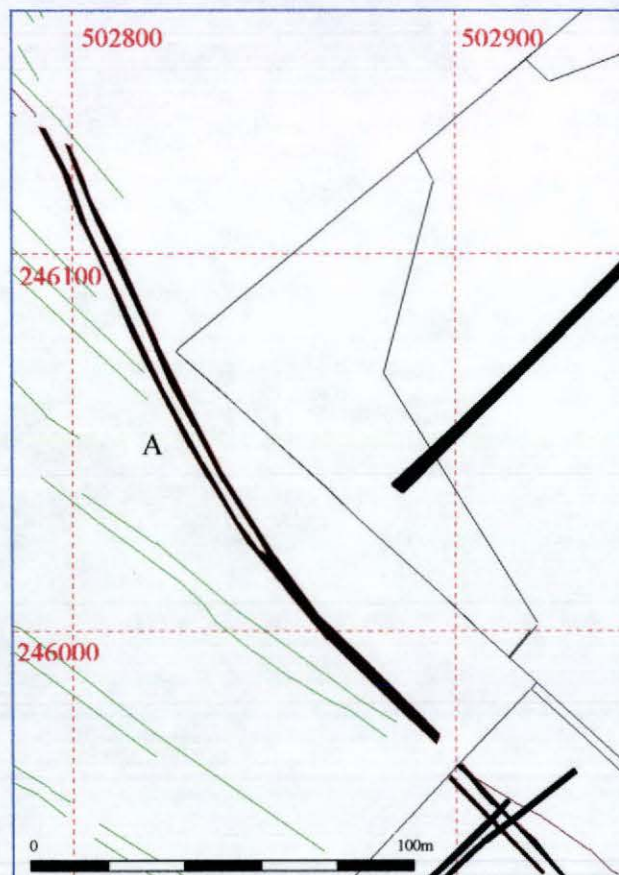
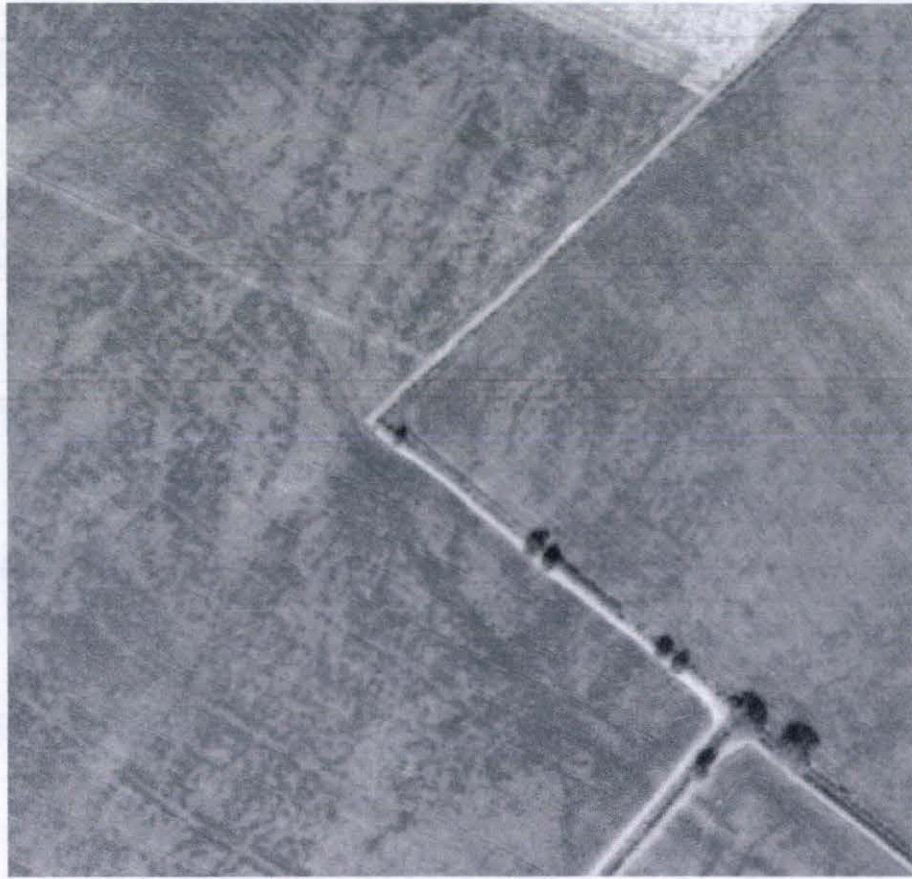






Figure 2; Aerial photography interpretation plan



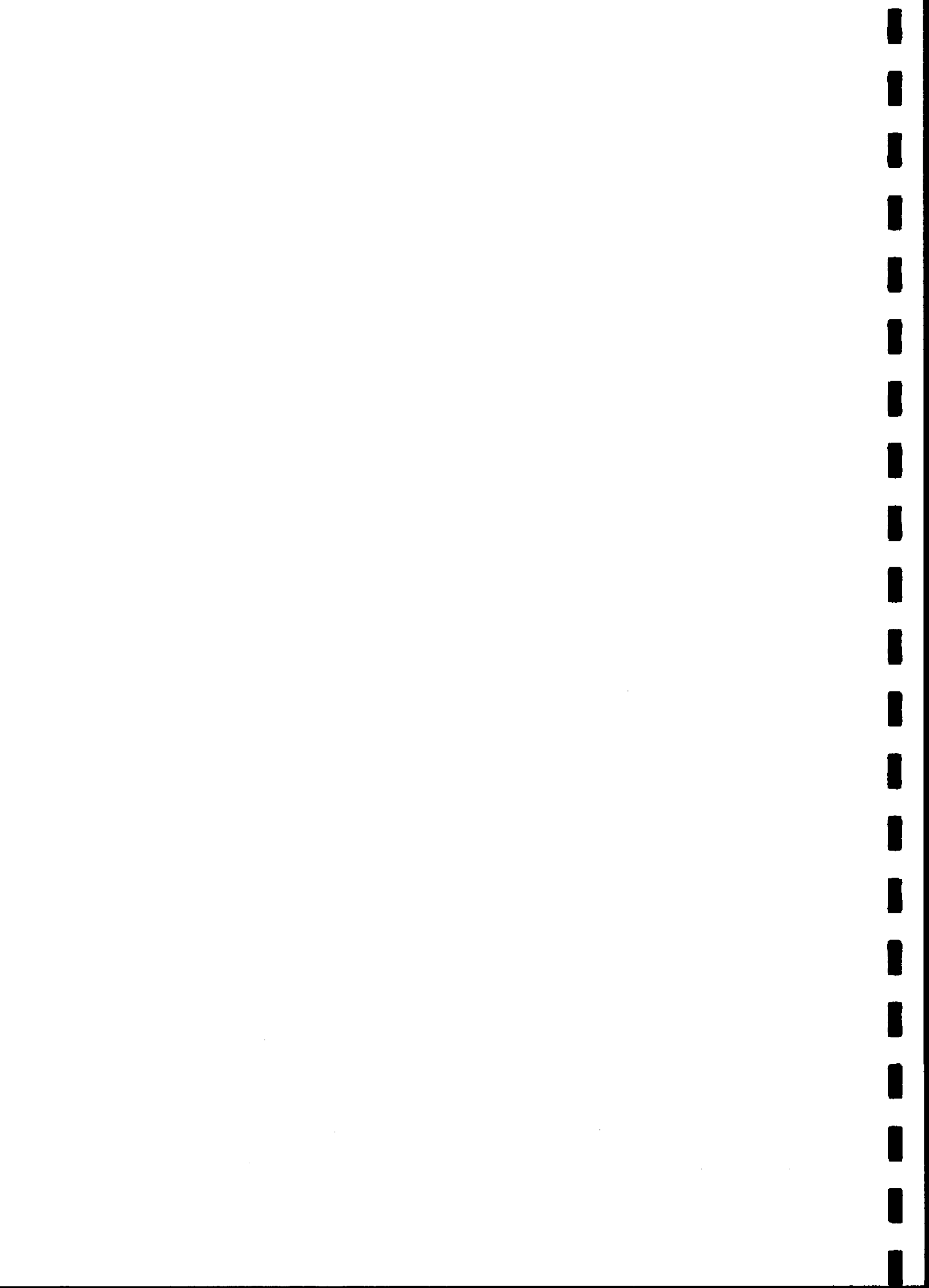


Key

-  Archaeology
-  Possible Archaeology
-  Geology
-  Ridge and Furrow

note; the interpretation may contain features visible on other aerial photographs

Figure 3; Field, trackway A: 1976 photograph and plan



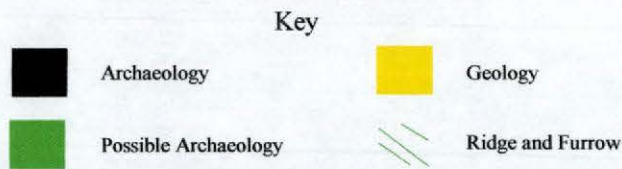
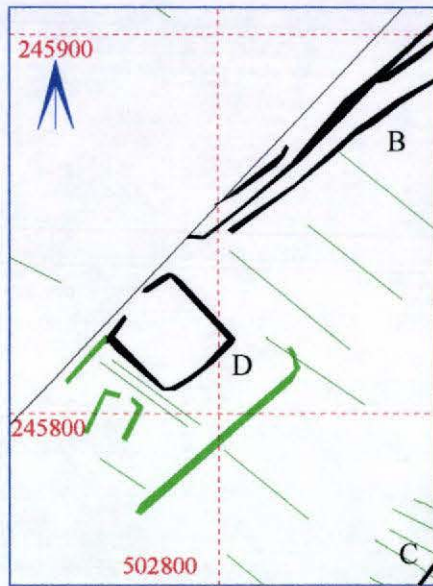
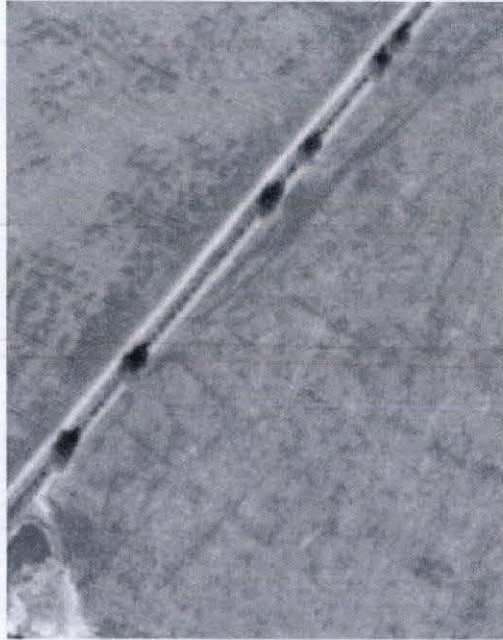
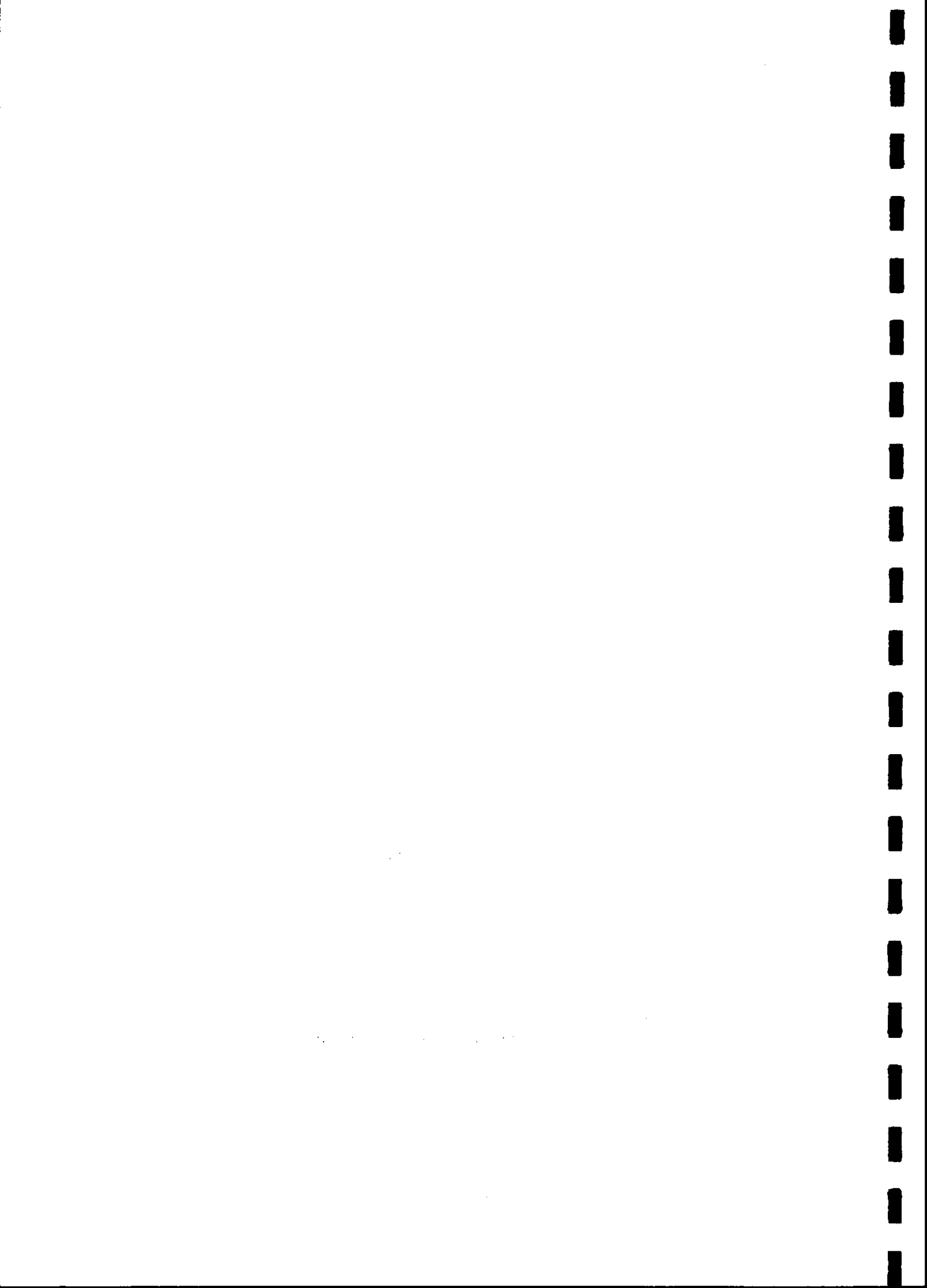


Figure 4; Field 2, ditches B and C, enclosure D: 1976 photograph and plan
note; the interpretation may contain features visible on other aerial photographs



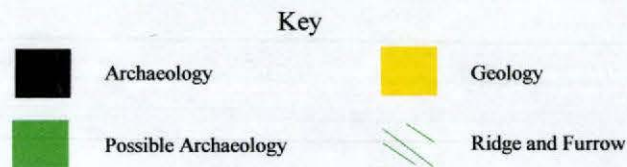
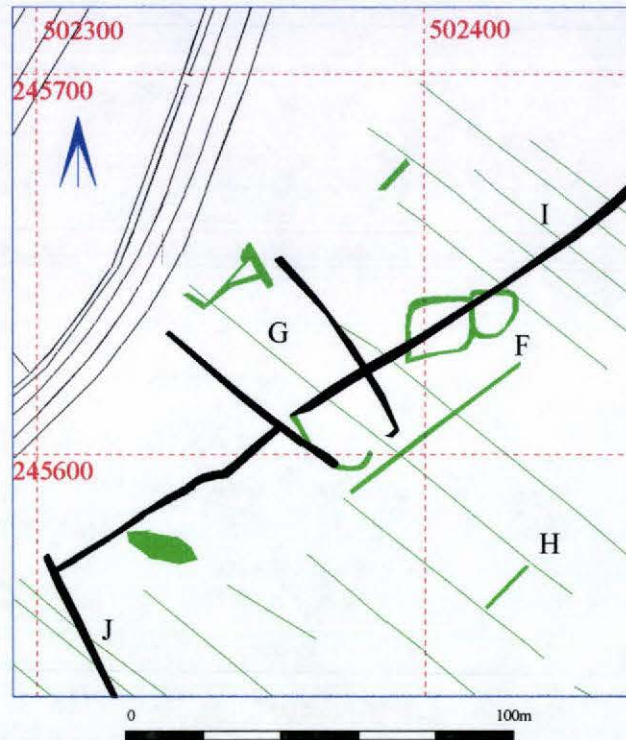
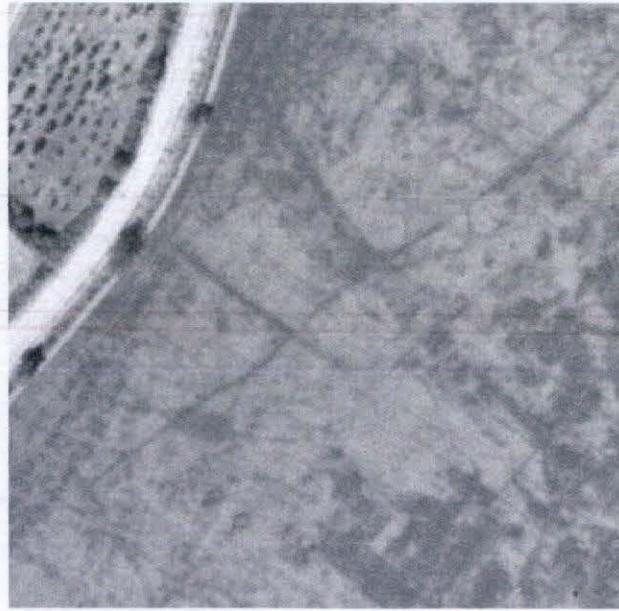


Figure 5; Field 5, ditches H, I and J, enclosures G and F: 1976 photograph and plan
note; the interpretation may contain features visible on other aerial photographs



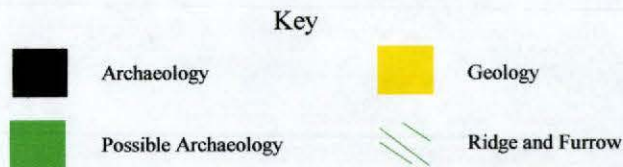
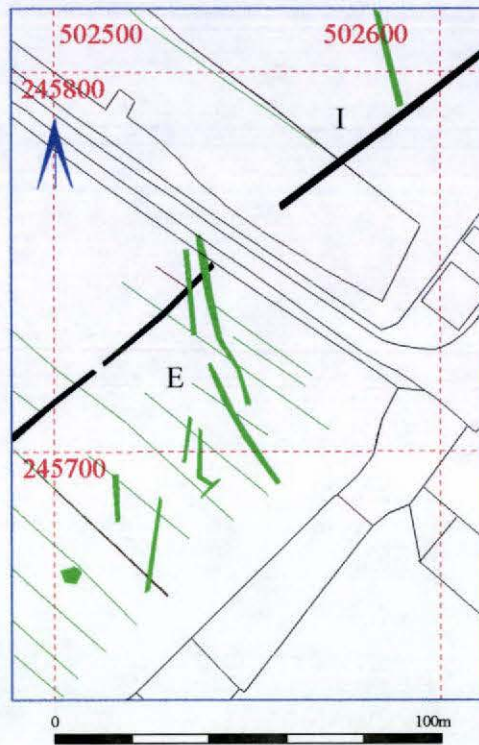
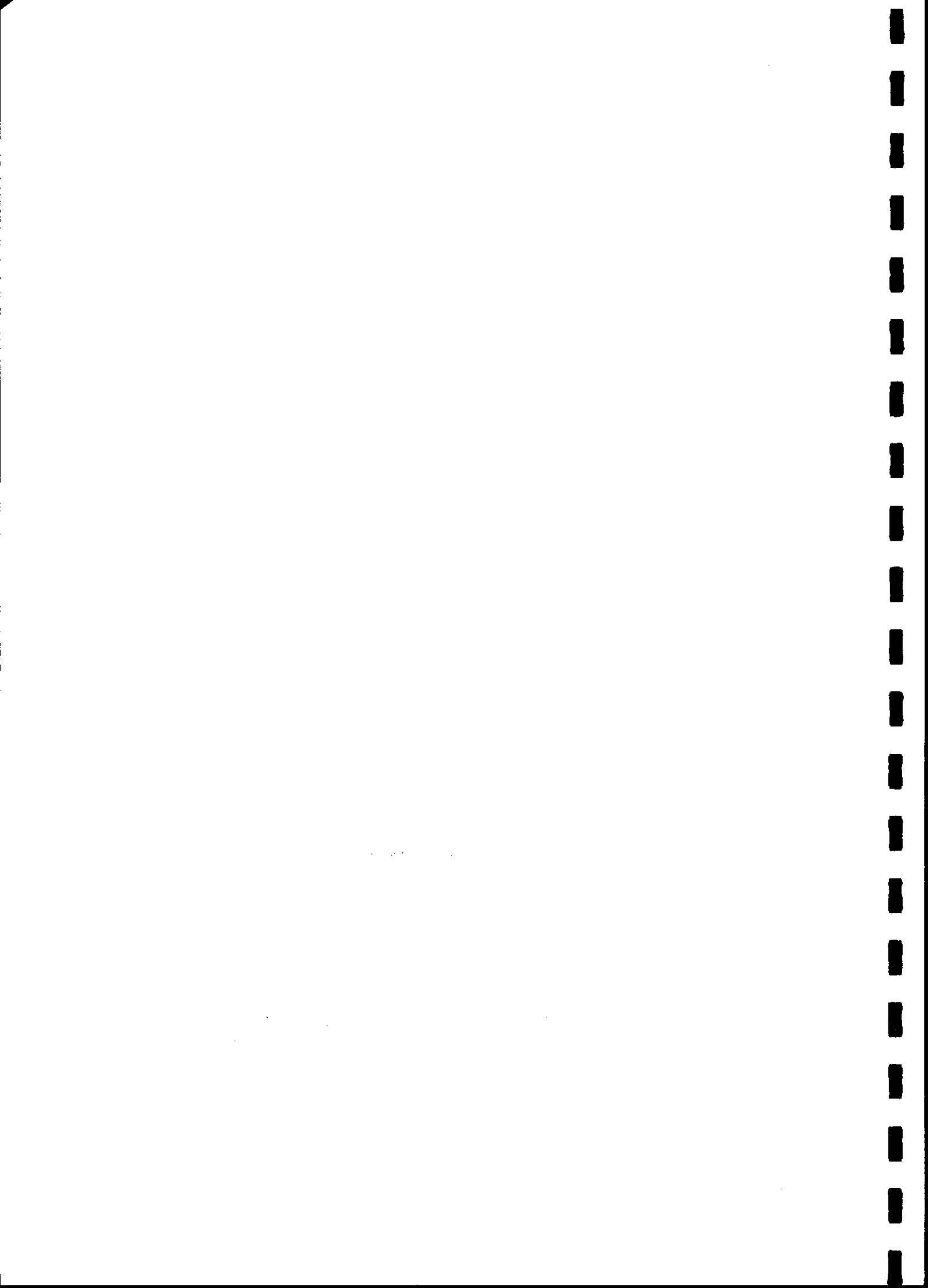


Figure 6; Field 5, ditches E and I, 1976 photograph and plan
note; the interpretation may contain features visible on other aerial photographs



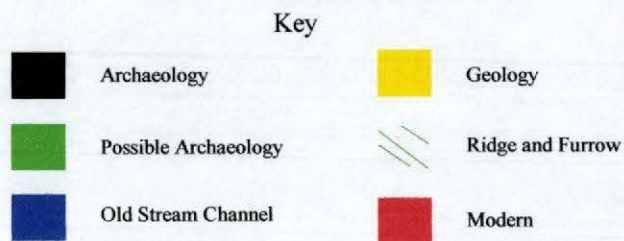
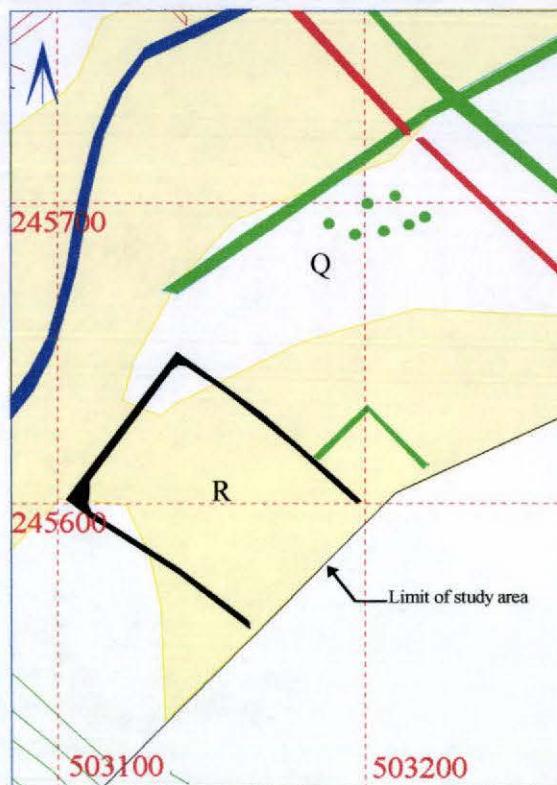


Figure 7; Field 7, enclosure R and pits Q:1996 photograph and plan
 note; the interpretation may contain features visible on other aerial photographs





Key







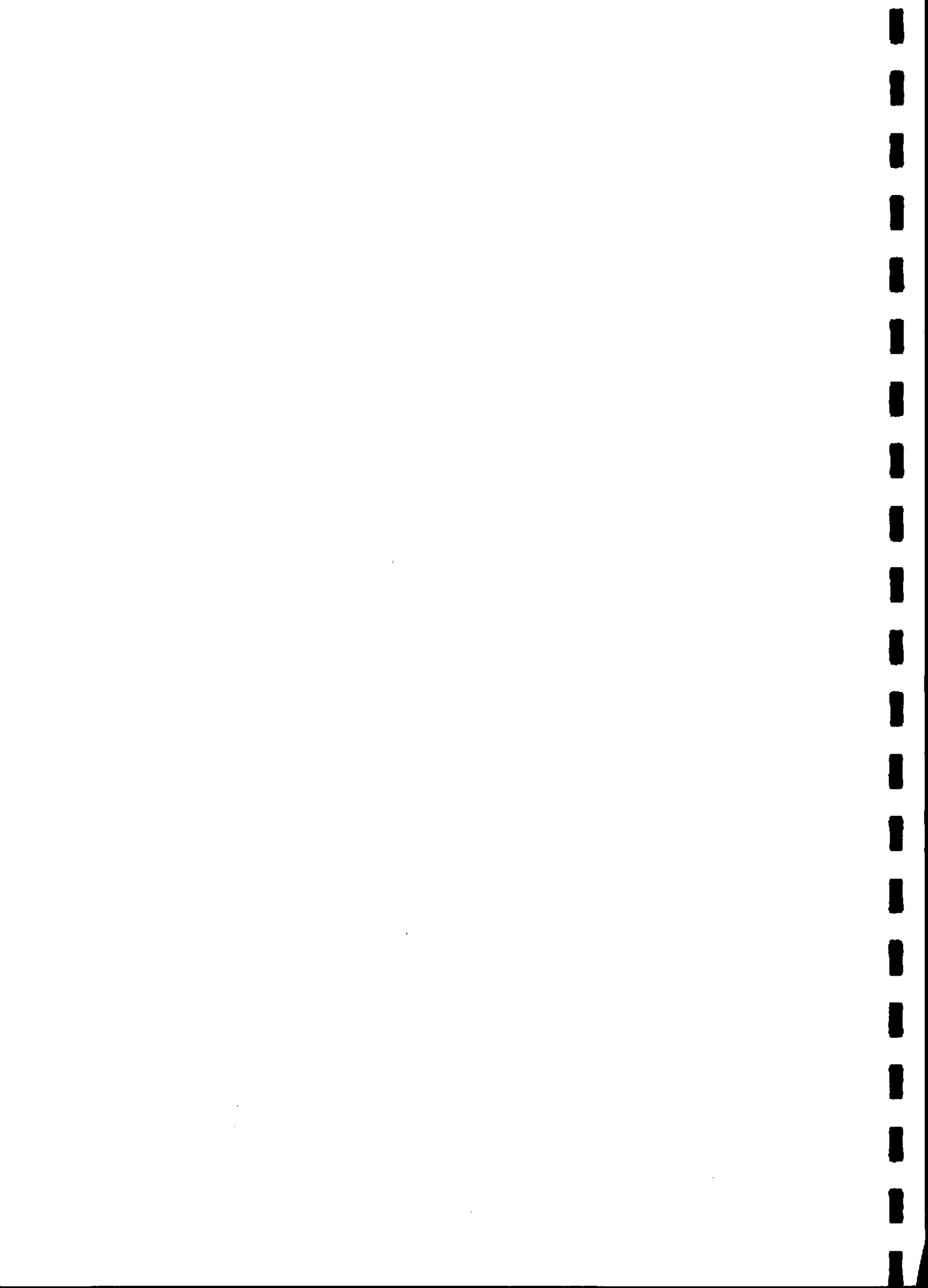
| | | | |
|---|----------------------|---|------------------|
|  | Archaeology |  | Geology |
|  | Possible Archaeology |  | Ridge and Furrow |
|  | Old Stream Channel |  | Modern |

Figure 8; Field 7, enclosures M and O, pits N: 1996 photograph and plan note; the interpretation may contain features visible on other aerial photographs



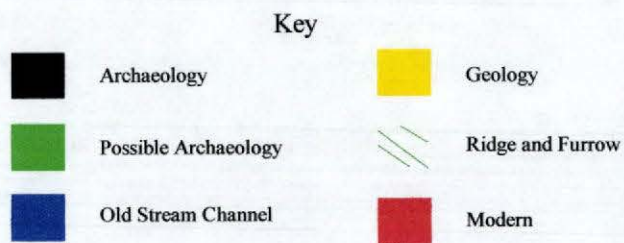
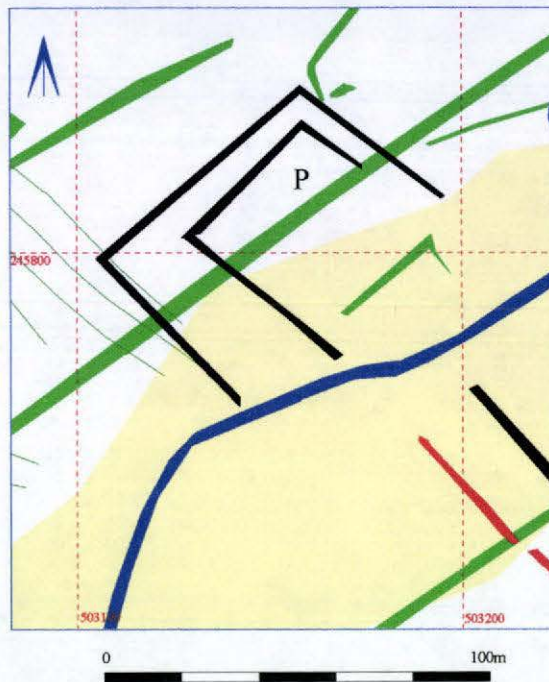


Figure 9; Field 7, enclosure P: 1996 photograph and plan
note; the interpretation may contain features visible on other aerial photographs



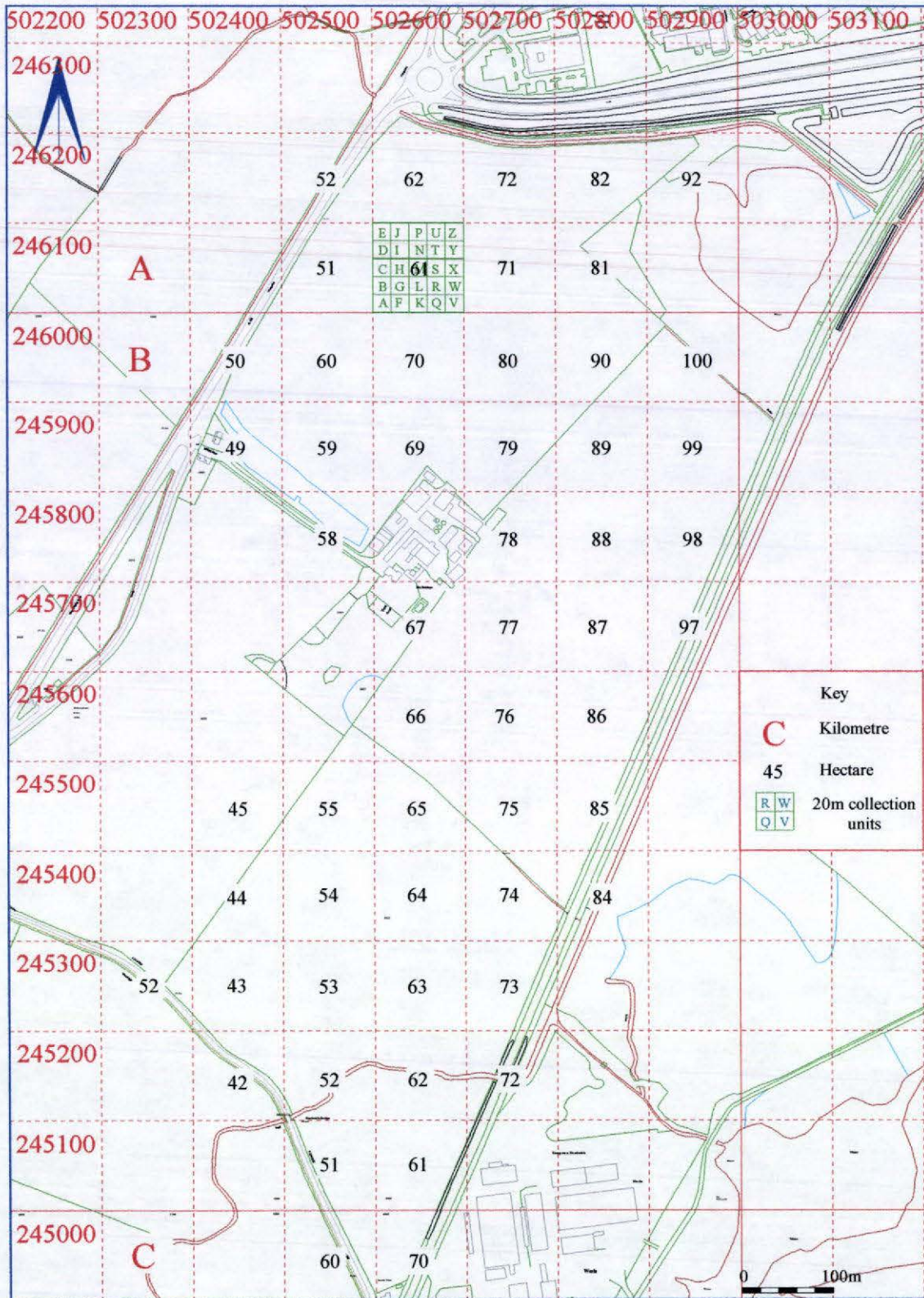
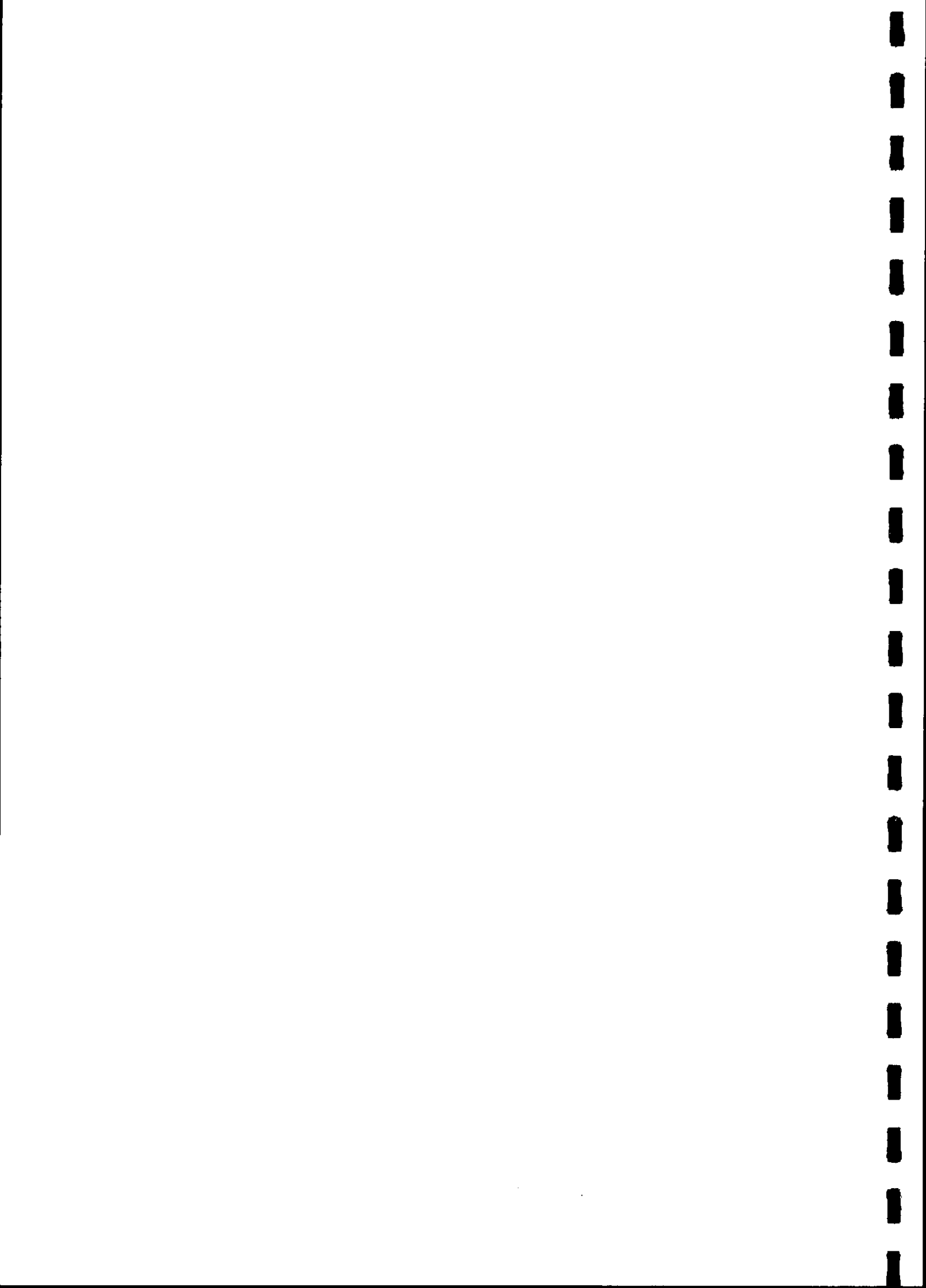


Figure 10; Field artefact collection hectare divisions



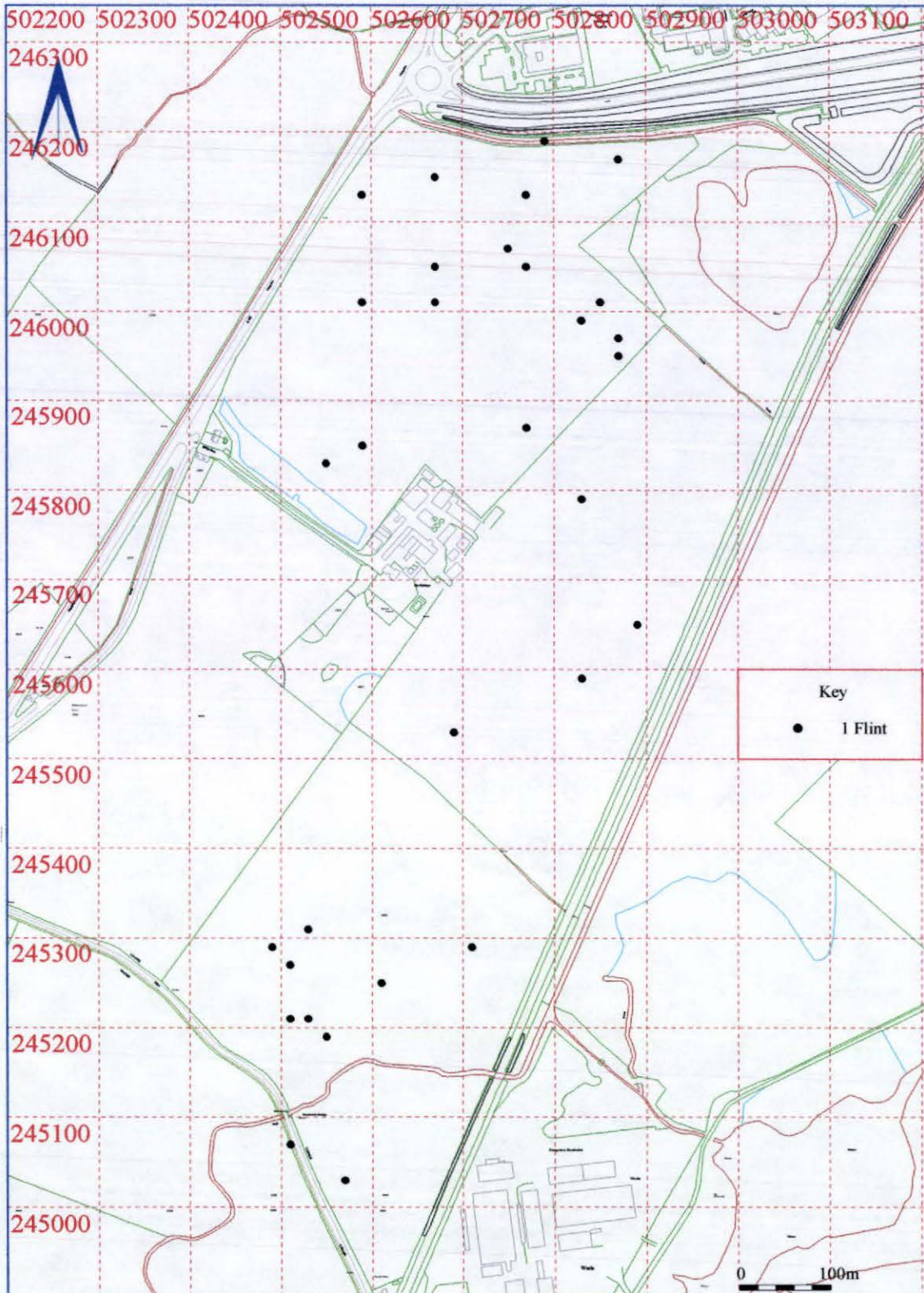
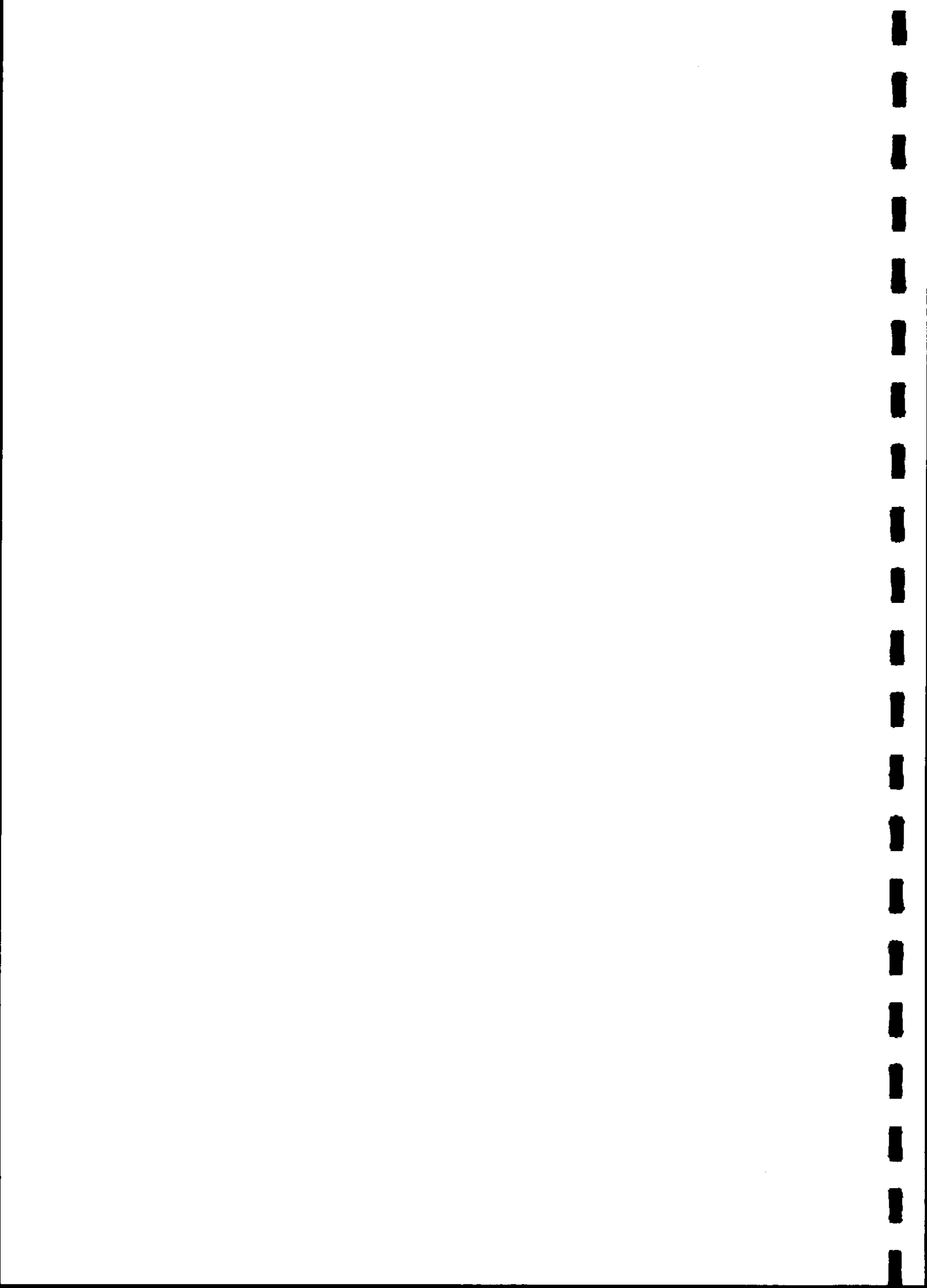


Figure 11; Worked flint distribution



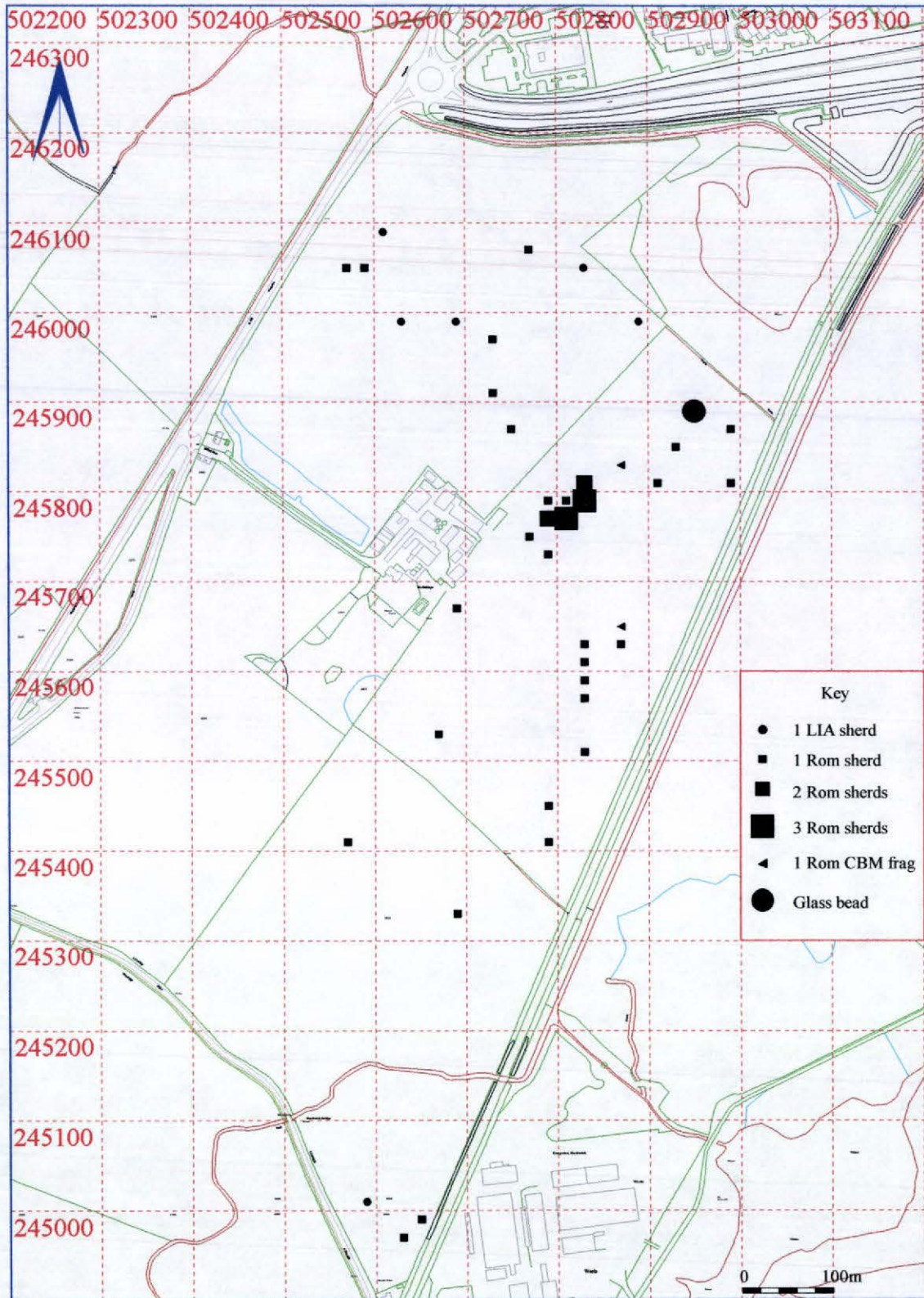


Figure 12; Late Iron Age and Roman artefact distribution



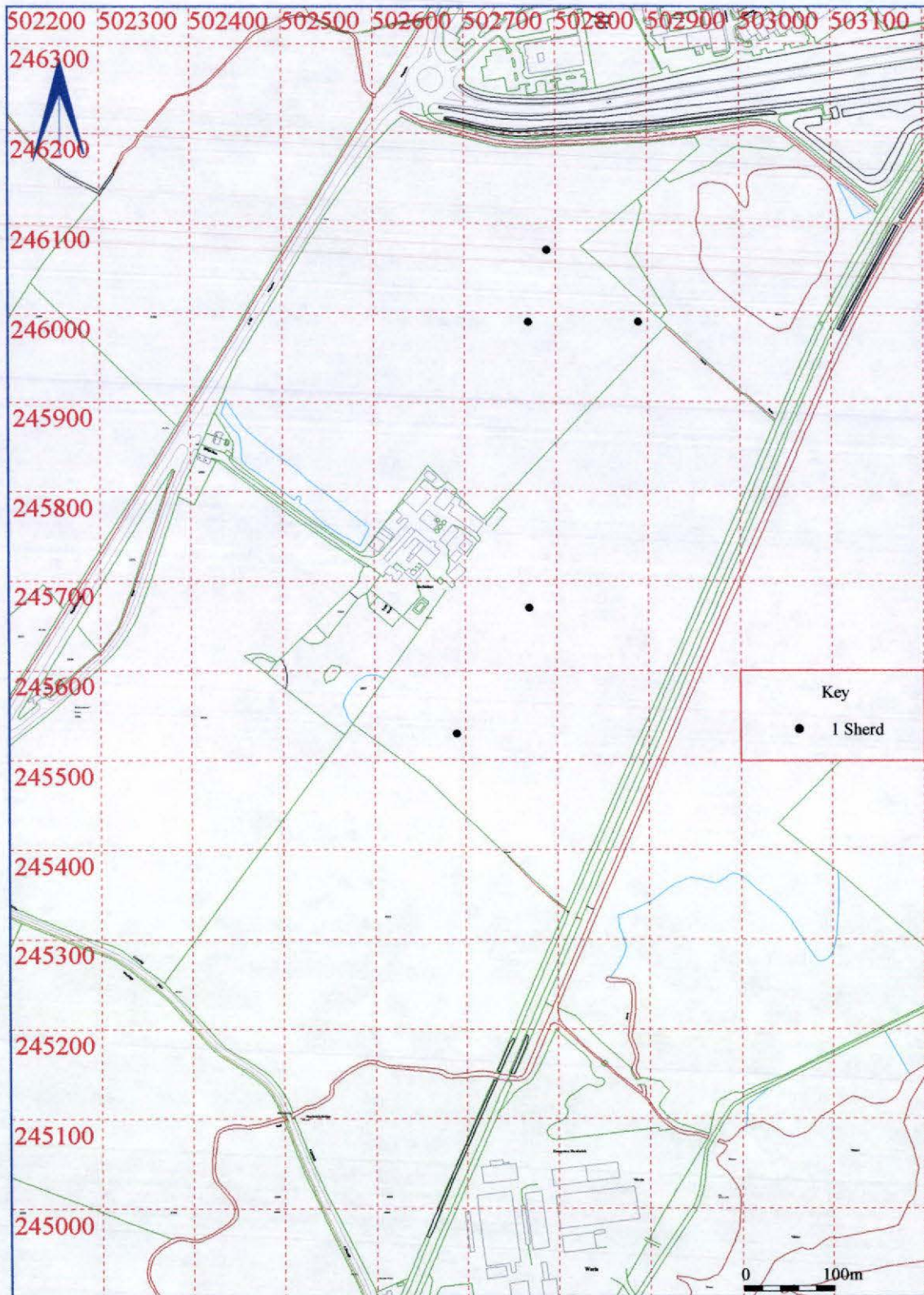


Figure 13; Medieval pottery distribution



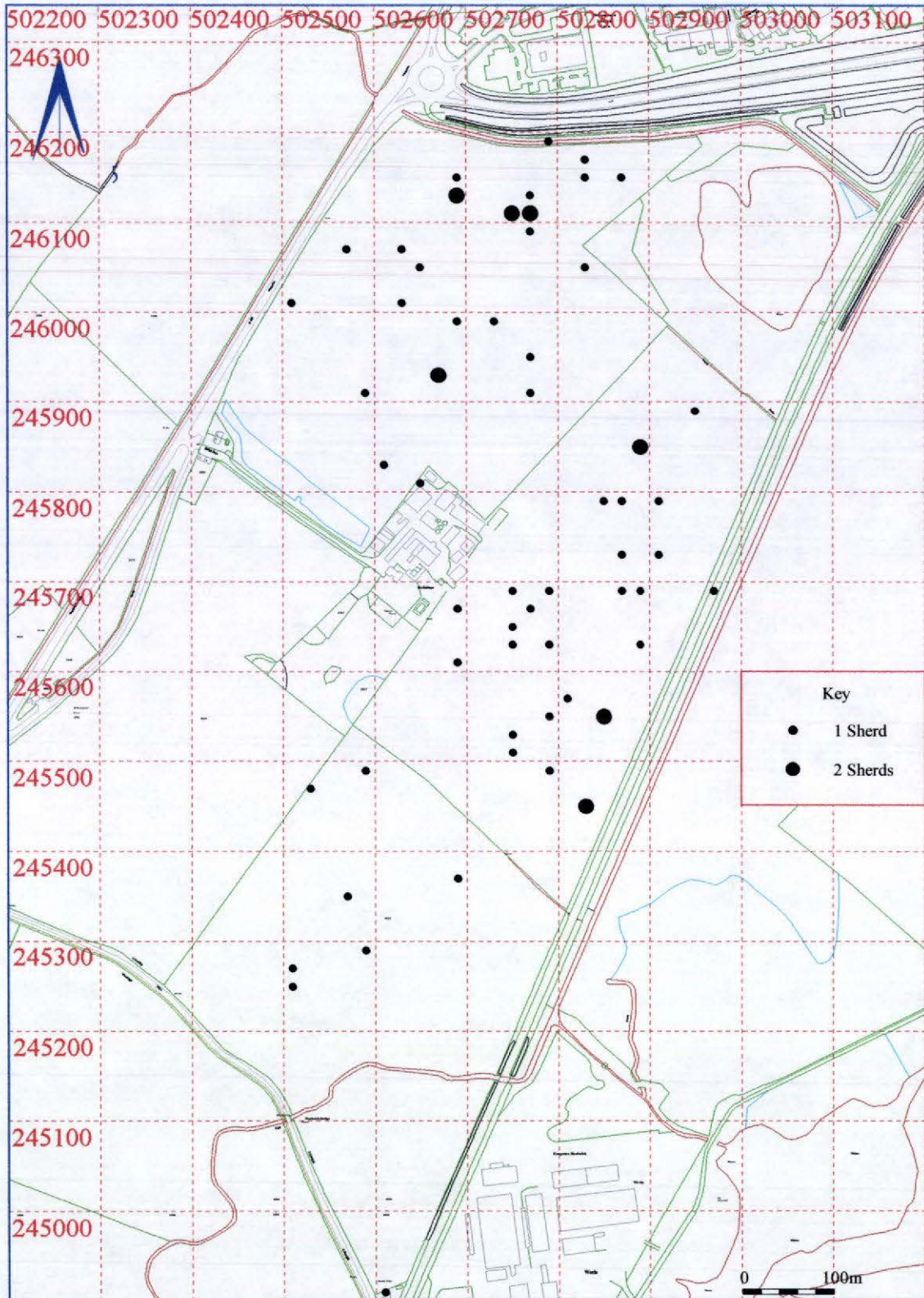


Figure 14; Post-Medieval pottery distribution



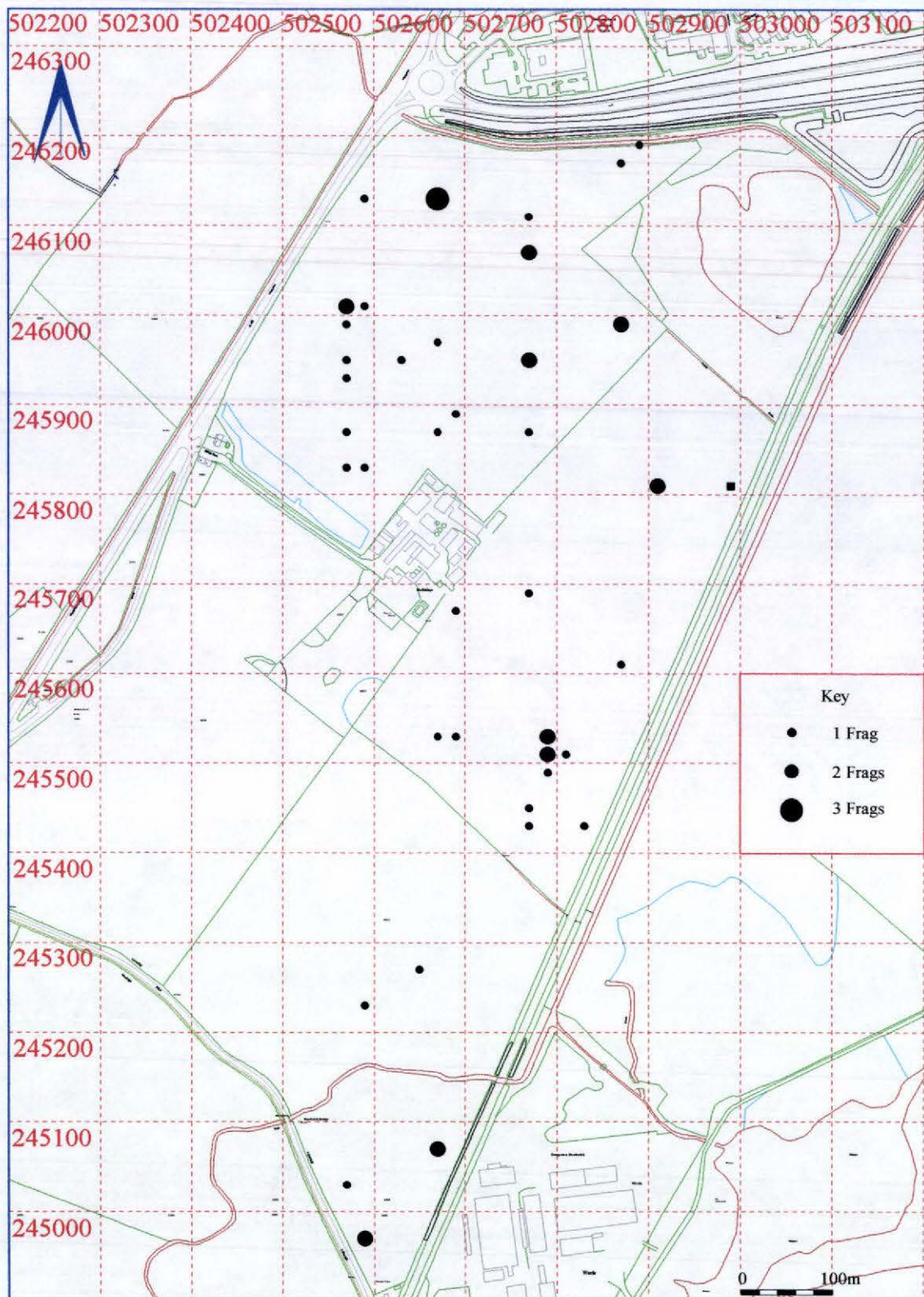
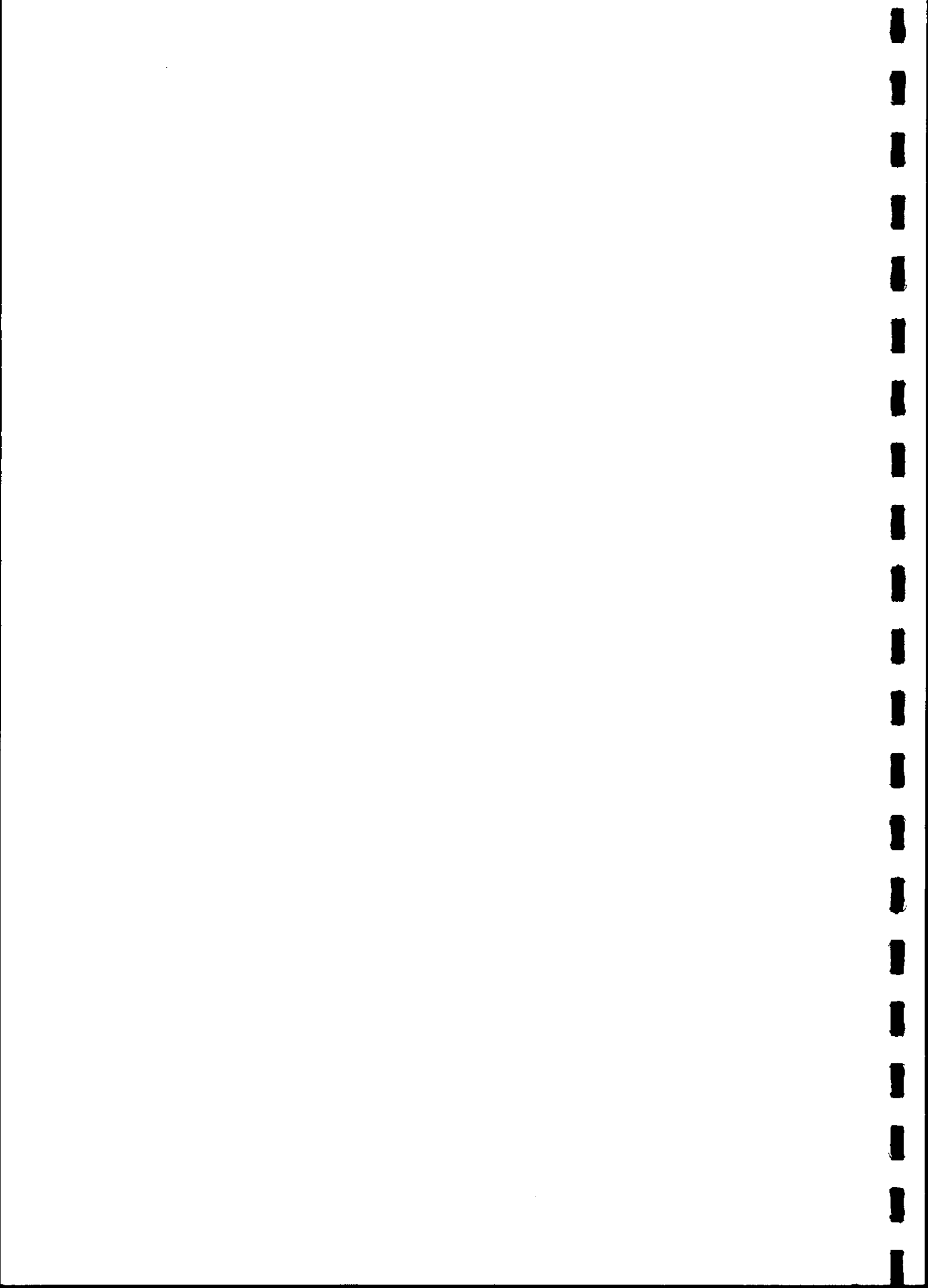


Figure 15; Late medieval/post-medieval CBM distribution



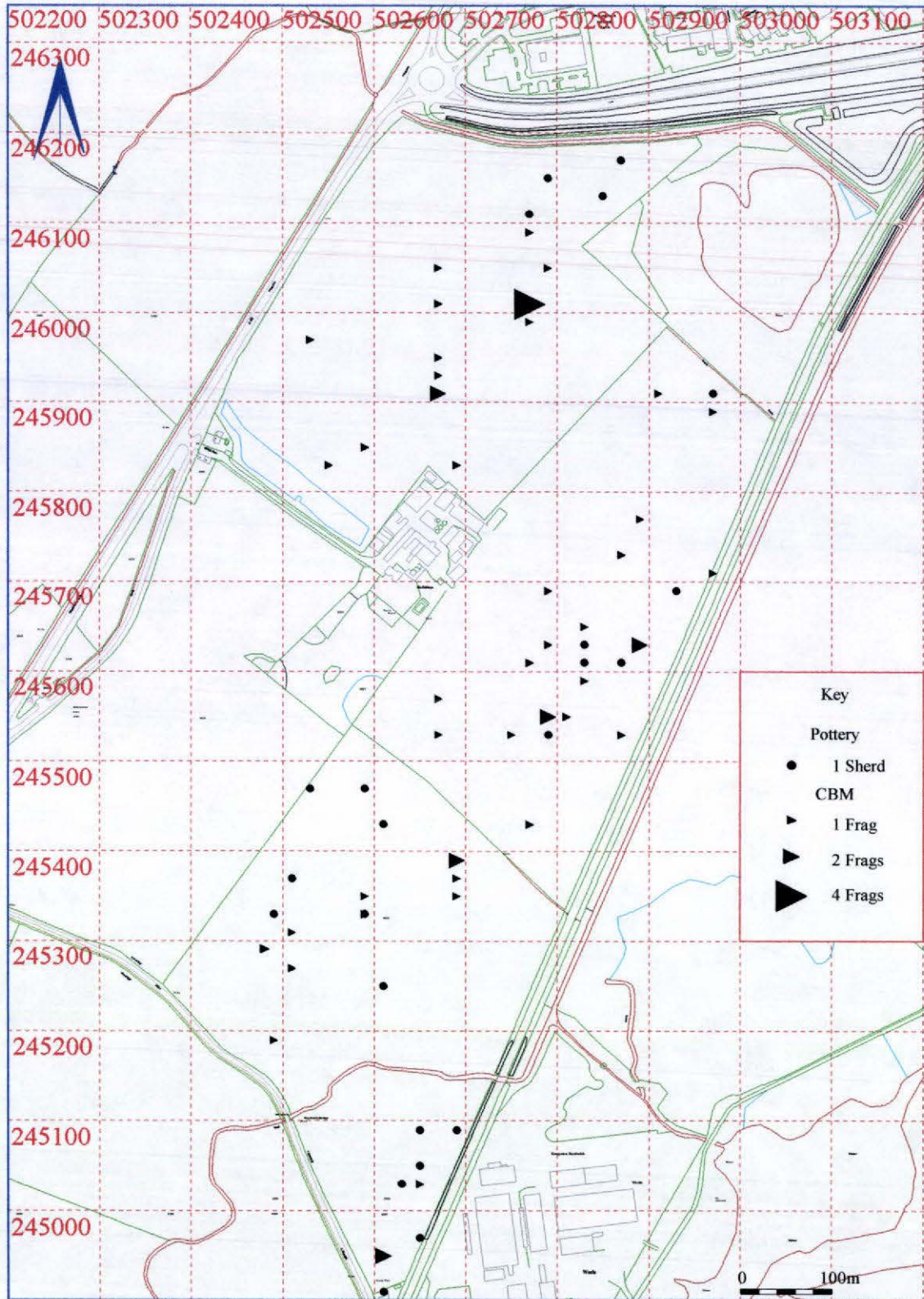
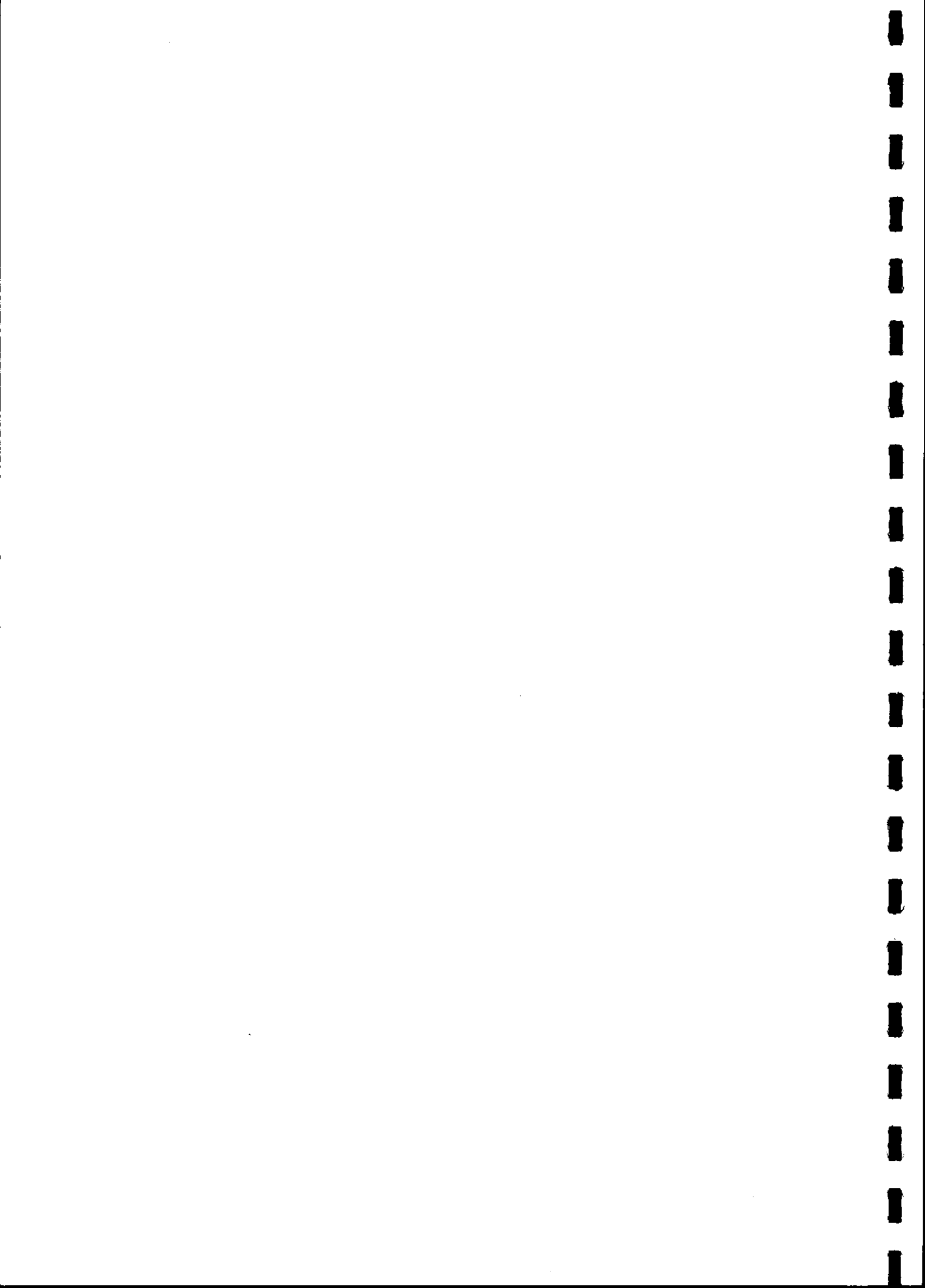


Figure 16; Undiagnostic pottery and CBM distribution



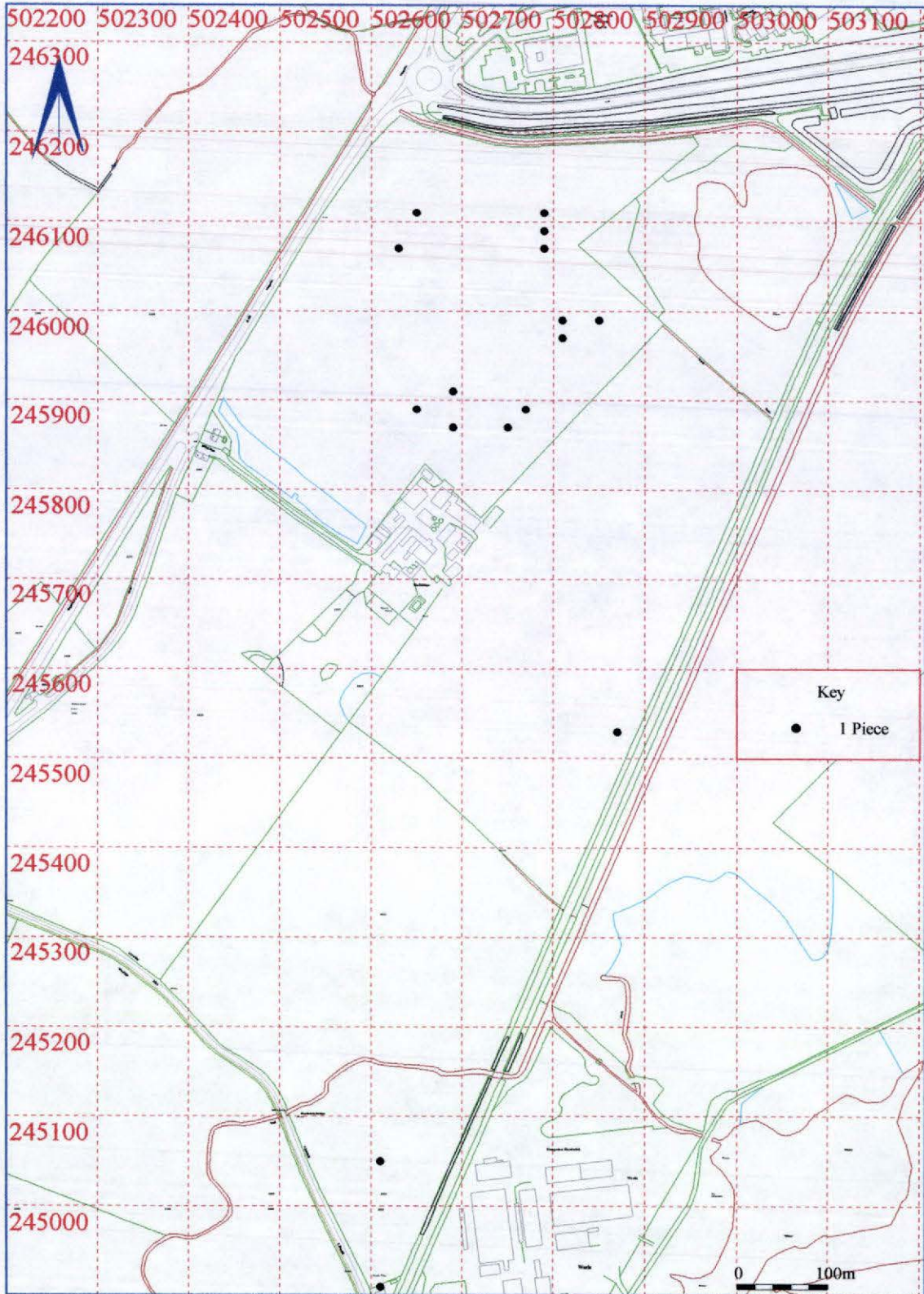


Figure 17; Ferrous slag distribution



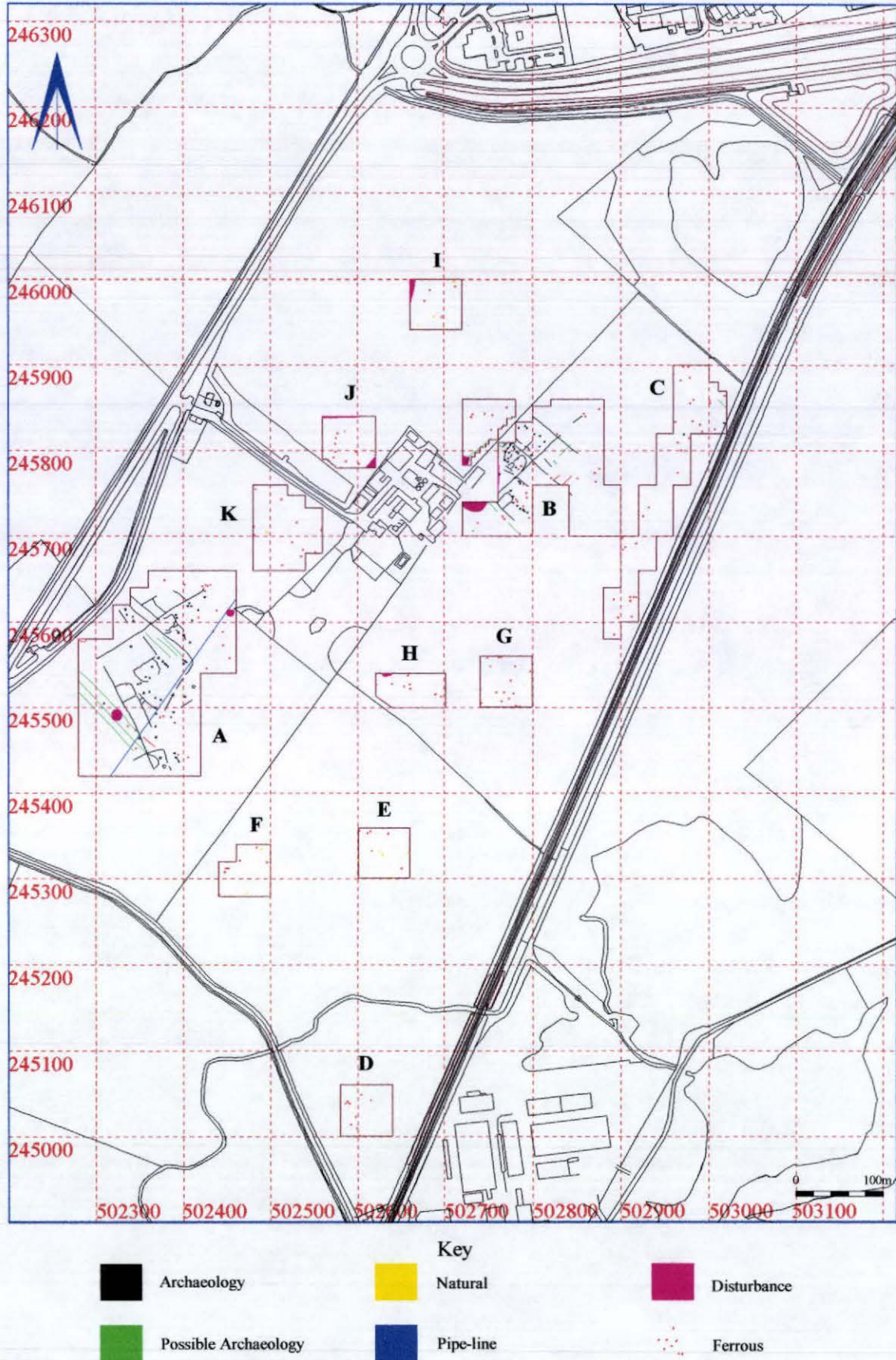
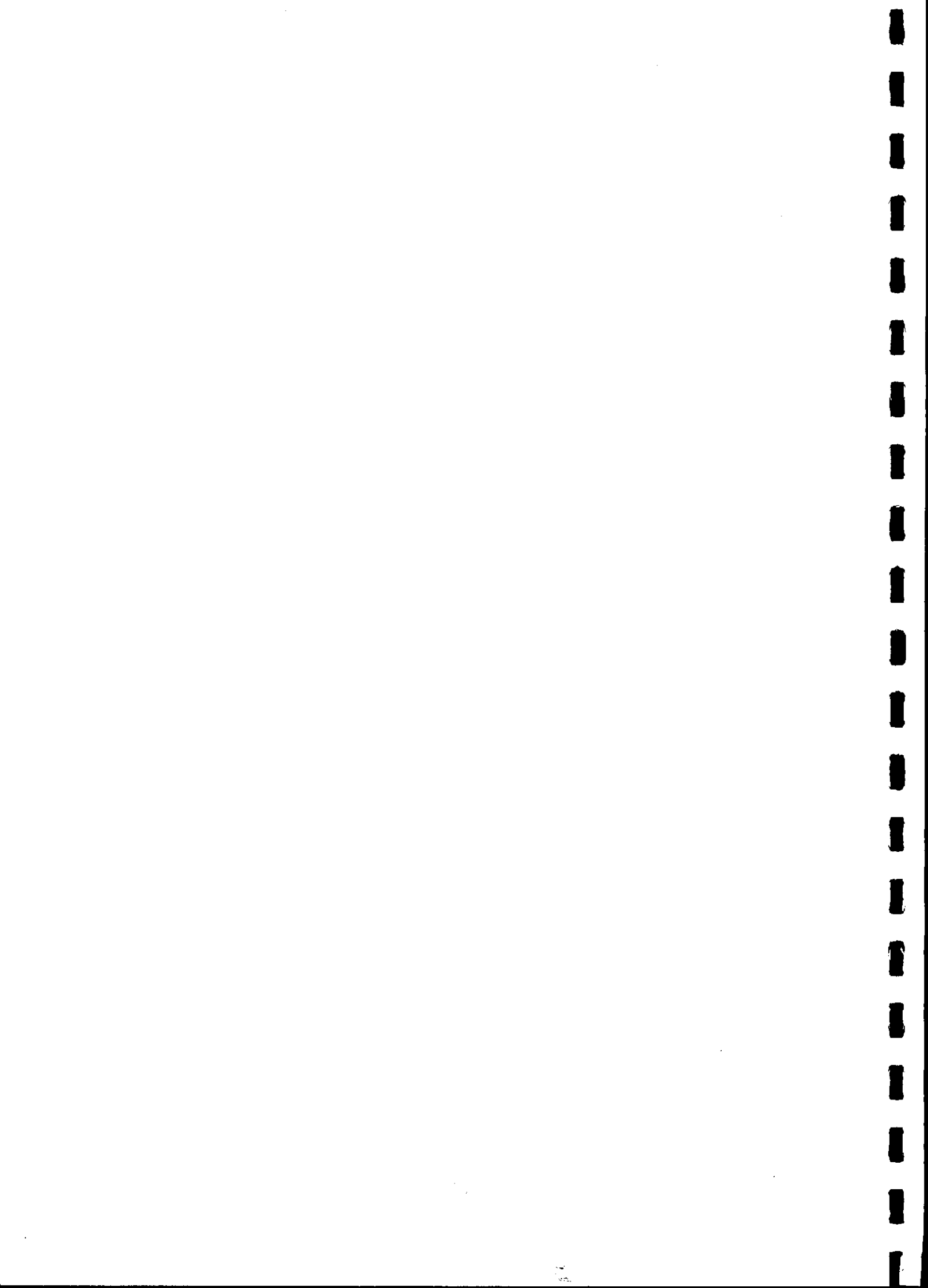
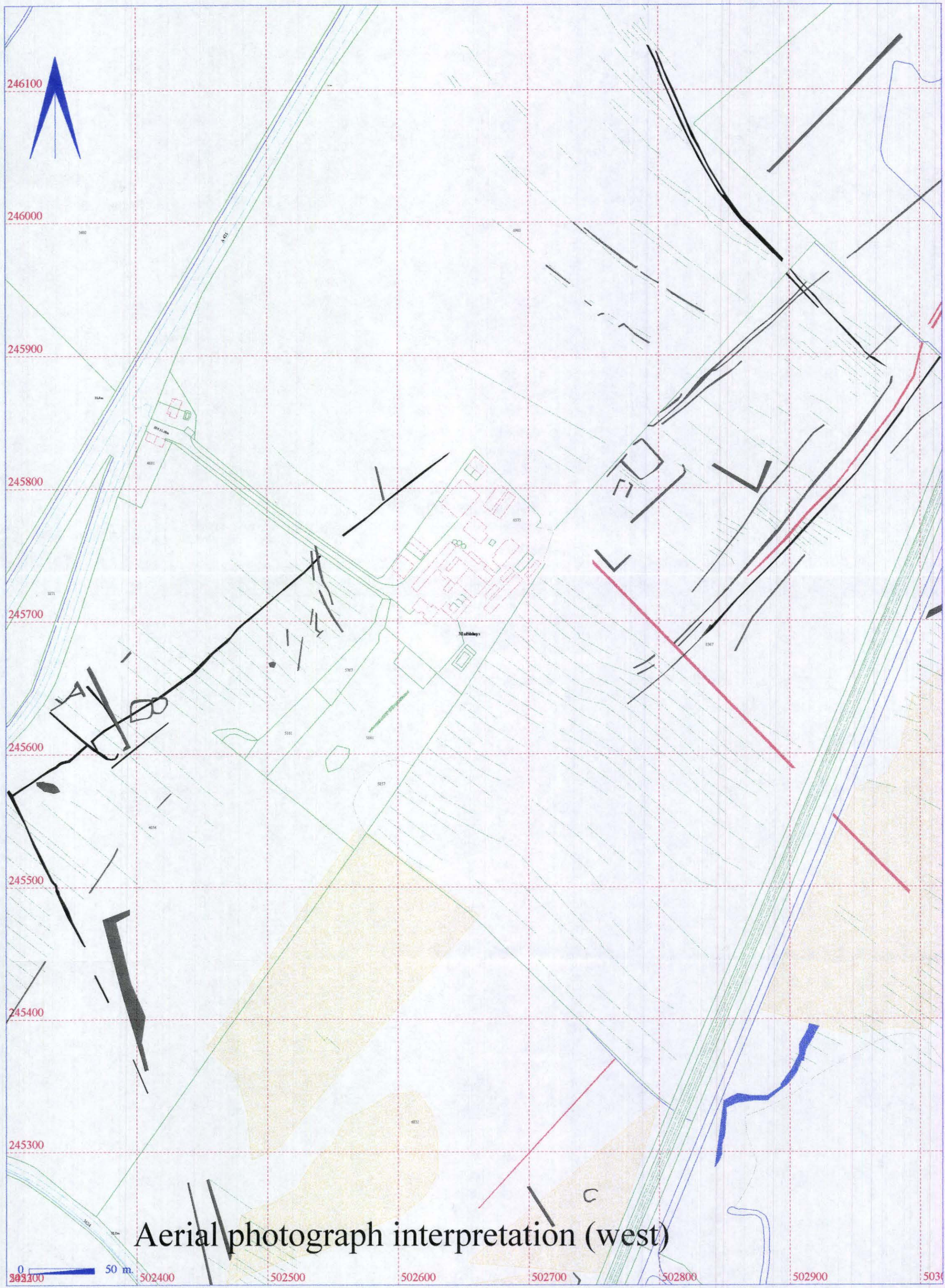
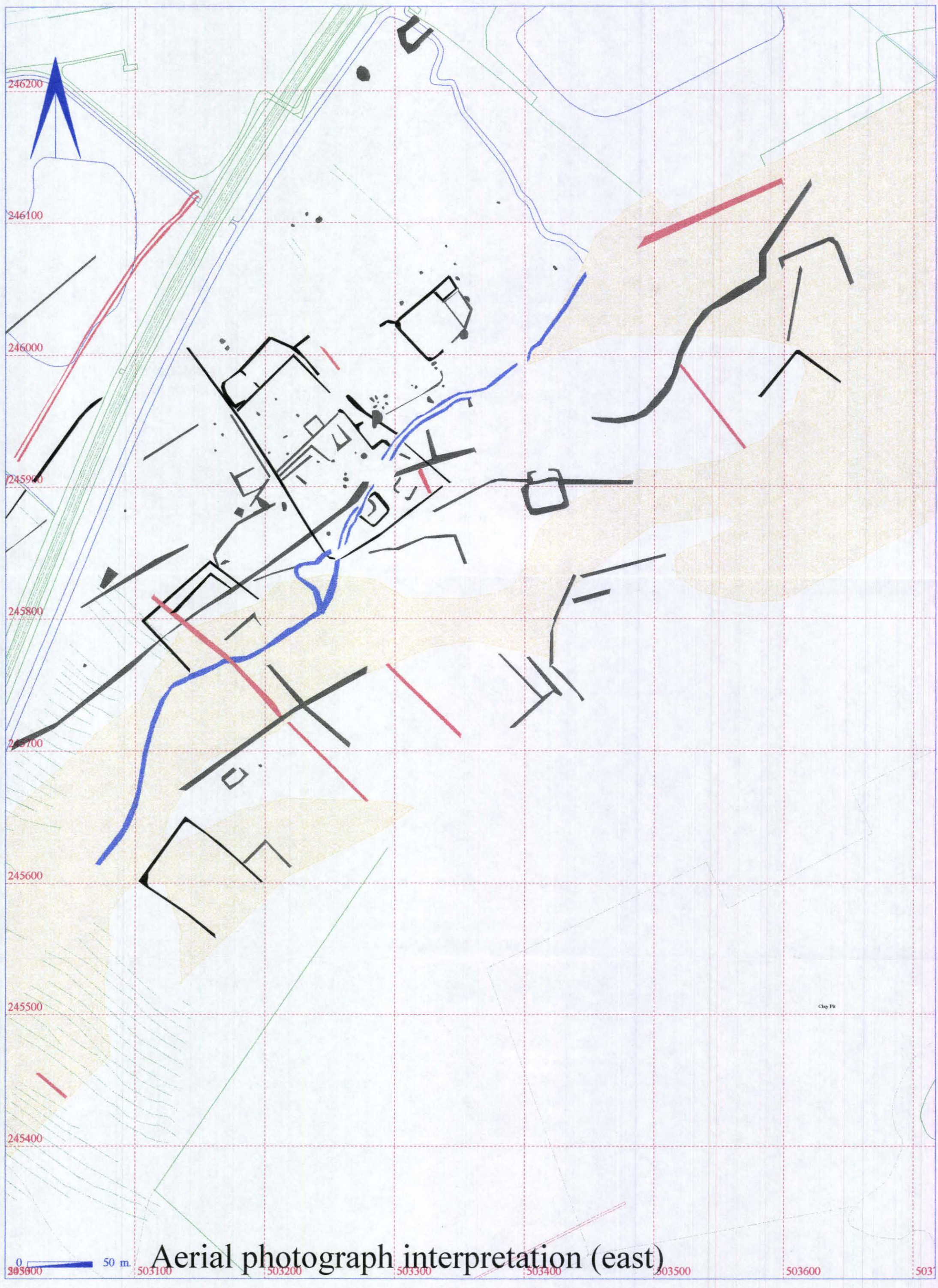


Figure 18; Geophysical interpretation plan

Marsh Leys Farm
Archaeological Field Evaluation Stages 1,2 and 3







Aerial photograph interpretation (east)

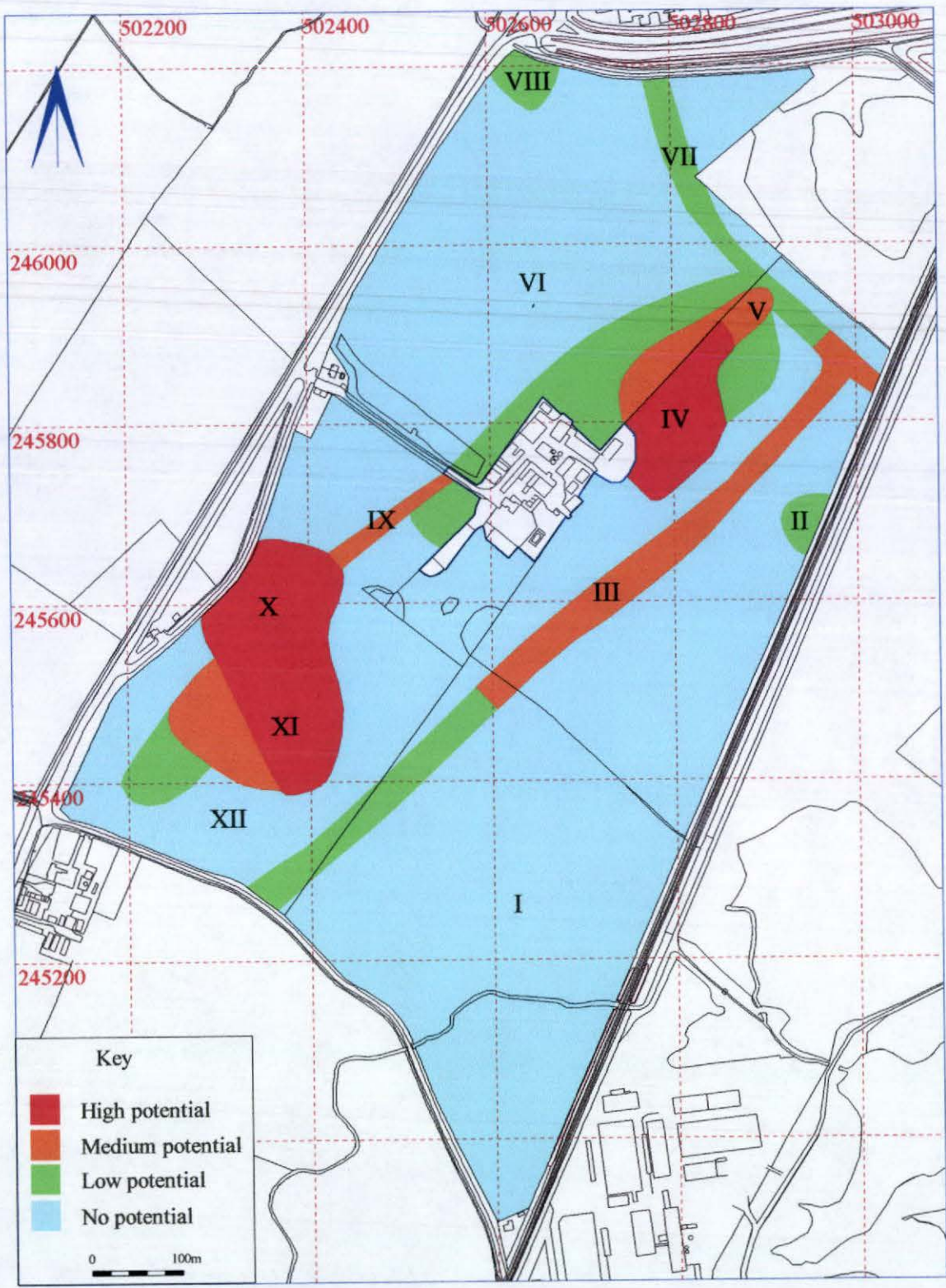


Figure 1; Areas with potential to contain archaeological data

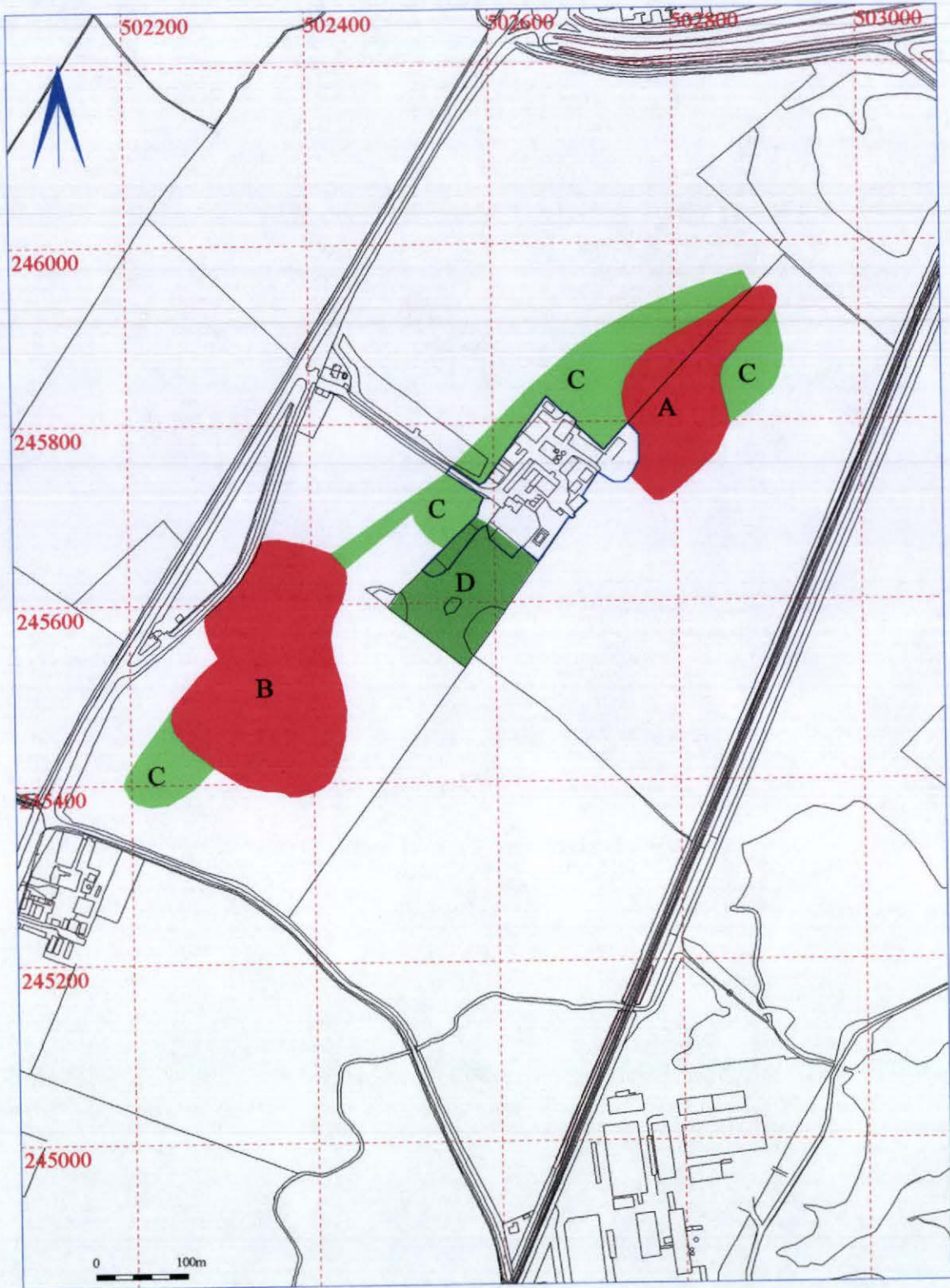


Figure 2; Zones requiring archaeological investigation