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ARCHAEOLOGICAL WATCHING BRIEF  
AT  
GOBBOLD'S PARK DROVE,  
BOURNE,  
LINCOLNSHIRE  
(BGP 97)



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ARCHAEOLOGICAL  
PROJECT  
SERVICES

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**ARCHAEOLOGICAL WATCHING BRIEF  
AT  
GOBBOLD'S PARK DROVE,  
BOURNE,  
LINCOLNSHIRE  
(BGP 97)**

Work Undertaken For  
Mr S Hemmings  
on behalf of the  
Black Sluice Internal Drainage Board

Report Compiled by  
Neil Herbert BA (Hons)

March 1998

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## 1. SUMMARY

*An archaeological watching brief was undertaken during drainage works east of Gobbold's Park Drove, Bourne, Lincolnshire. Aerial photography has traced the route of a Romano-British canal (AD 43-410), connecting Bourne and Morton fens, crossing the area of the drove. It was anticipated that remains of this canal would be exposed during groundworks.*

*The watching brief recorded natural deposits, comprising clays, clayey silts, peats and part of a palaeochannel. Remains of the Bourne-Morton canal were not located and more likely pass north of the area of investigation.*

## 2. INTRODUCTION

### 2.1 Planning Background

Archaeological Project Services was commissioned by Mr Stuart Hemmings, on behalf of the Black Sluice Internal Drainage Board, to undertake an archaeological watching brief during drainage works east of Gobbold's Park Drove, Bourne Fen, Lincolnshire. The work was carried out on 24th February 1998, in accordance with a requirement for work agreed by Stuart Hemmings and Tom Lane.

An archaeological watching brief is defined as '*a formal programme of observation and investigation conducted during any operation carried out for non-archaeological purposes within a specified area, where there is a possibility that archaeological deposits may be disturbed or destroyed*' (IFA 1994, 1).

### 2.2 Topography, Geology and Soils

Gobbold's Park Drove is situated approximately 2km east of Bourne and 14km west of Spalding in South Kesteven district, Lincolnshire (Fig.1). The drove cuts across peaty soils within a broad expanse of low-lying fenland, punctuated by a rectilinear system of post-medieval drains (Figs.2, 3).

Ground surface at the site lies at approximately 1m OD on level topography and the area of drain improvements extends from NGR TF 1173 2139 south to NGR TF 1149 2088, against the east side of the drain that bounds the droveway (Fig.3).

Local soils are the Adventurers' 2 Association amorphous and semi-fibrous lowland peat soils formed in fen and carr peat. In Lincolnshire the peat mainly overlies river terrace sands, but near Bourne, marine clays and silts are common below the peat (Hodge *et. al.* 1984, 85-6). Natural deposits recorded during excavation comprised peats, clays and silts.

### 2.3 Archaeological Background

The proposed development site is located in an area of known archaeological remains of Romano-British and later date (Fig.2).

Fieldwalking by the Fenland Survey, west of Gobbold's Park Drove, recorded a scatter of Romano-British pottery and animal bone (A2) probably deposited during a period of occupation. Other finds of Roman pottery have been made in the same field (SK 12.33).

A linear feature is recorded on several aerial photographs (K17\AR\127-8 and 139) crossing the route of the drove (Plate 3; Fig.3). This is interpreted as the remains of the Bourne-Morton canal, believed to

have been constructed during the Romano-British period, and traversing the former peat lands between Bourne and Morton Fens (Trimble 1993). The purpose of the canal may well have been to combine limited, local drainage, by expelling the spring waters that are now taken by the Bourne Eau while, at the same time, providing access to the sites seaward of the peat (Hayes and Lane 1992, 136). In the fen the remains of the canal commonly take the form of a slightly elevated linear band of sand or silt showing through the ploughsoils.

Near scatter (A2) the canal has previously been recorded in a section of re-excavated drain, as a 0.2m thick layer of reddened silt. In this same field the mound of the canal was levelled in the early 1970s, disturbing a quantity of 3rd and 4th century pottery fragments.

A single section of the canal has been subject to archaeological excavation almost 4km northeast of Gobbold's Park Drove (Trimble 1993). These investigations recorded a channel measuring approximately 13m wide and 3m deep. A smaller, almost half size, recut had been constructed through the canal. Augering on the route of the canal in Dyke Fen, near to Bourne, suggested that the canal only survived to a depth of 0.4m (*ibid*). The comparatively small size of the feature is probably a result of the desiccation and shrinkage of peats into which it was originally cut (Lane *pers comm*).

Following the disuse of the canal, the area is likely to have remained a peaty morass (Hayes and Lane 1992, 136). Gobbold's Park Drove is first recorded during the 14th century as a boundary to reclaimed ground, known as '*Gobbald's Park*'.

Post-medieval drainage and development, in order to maintain viable agriculture, has

created a distinctive landscape in the area surrounding the Drove and has heralded the decline of the peat fens.

### 3. AIMS

The aim of the watching brief was to record and interpret archaeological features exposed during excavation and cleaning of the drains.

### 4. METHODS

A ditching machine with a toothless bucket excavated vegetation and a small amount of sediment from the eastern side of the drain (Figs.2 and 3). During excavations the area was monitored for the presence of archaeological remains. Where features were apparent, the surface area of the drain was cleaned by hand and examined to identify the nature of the remains. Natural features, typically palaeochannels, were observed but not recorded. Spoil removed from the drain was examined for artefacts, though none were found.

Due to the sloping side of the excavated drain it was not possible to record a 'true' section and so features were surveyed as an oblique plan. Archaeological features were recorded using a Geodolite TST in conjunction with a Psion datalogger.

All deposits and cuts encountered during investigations were allocated a unique reference number and were recorded using the Museum of London Archaeology Service system (MOLAS 1994). Black and white photographs were taken during the excavations, depicting the setting of the site and recording the deposits encountered.

## 5. RESULTS

### 5.1 The Stratigraphic Sequence

Records of deposits exposed during groundworks were examined. A list of all contexts and interpretations appears as Appendix 2. Grouping was assigned based on the nature of the deposits and recognisable relationships between them. A stratigraphic matrix of all identified deposits was produced. Two groups were identified:

Group 1: Geological deposits

Group 2: Ploughsoil deposits

Archaeological contexts are described below. The numbers in brackets are the context numbers assigned in the field.

### 5.2 Group 1: Geological deposits

A deposit of orangish-grey silty clay (008) was recorded from a depth of 1.9m to the limit of excavations. Lenses of bluish coloured sediments were observed within (008) and it was noted that the percentage of clay increased toward the base of the deposit. Soft, light grey clay (007) sealed (008) to a thickness of 0.7m. Cumulatively, these deposits represent alluvial deposition.

Dark brown peat (006) overlay (007) and probably represents accumulation within a stillwater or marsh environment. This was sealed by light, brownish-grey clay (005) containing a moderate amount of roots, that reflects a marine or freshwater transgression. The southernmost extent of (005) and (006) rise to form a convex profile probably reflecting the position of a levee, a feature associated within the edge of a channel.

A layer of yellowish-brown clayey silt (004) developed over (005) prior to the formation of a broad horizon of peat (003),

marking a return to marshy conditions.

### 5.3 Group 2: Ploughsoil deposits

Mid grey-brown silty clay with lenses of yellowish-brown clay (002) sealed the latest peat horizon and was overlain by dark brown-grey silty clay (001). The latter deposits have formed as a result of recent agricultural development and are respectively interpreted as subsoil and ploughsoil.

## 6. DISCUSSION

The earliest recorded deposits comprised light orange and light grey clays, representing a prolonged period of marine or freshwater deposition.

This sedimentation was interrupted by a marine regression, causing the earliest recorded peat horizon to form. A return to brackish conditions was represented by deposits of clays and silts, developed over the surface of peat.

Some of the deposits recorded at the southernmost extent of the section appeared to form a levee (Plate 1), representing the course of a palaeochannel. Levees reflect a reduction in capacity, or an increase in the volume of material that a channel is expected to carry. A levee may therefore result from seasonal flooding or from continued silting of a channel, causing the water to overflow and deposit material outside of the cut; this creates a convex profile in section (Fig.4).

Peat sealed all of these deposits and marked a return to freshwater conditions. This layer probably continued to develop until the post-medieval period when drainage of the fens began in earnest. Modern ploughing had impacted into the surface of the natural peat, causing a more

fragmented and mixed subsoil and ploughsoil to develop. Lenses of clay within these soils probably reflect material disturbed from earlier deposits through deep ploughing.

## 7. CONCLUSIONS

Archaeological watching brief during drain improvements has recorded a sequence of natural geology and modern ploughsoils. The geological sequence suggests the area has been subject to alternate periods of marine transgression and regression.

The Bourne-Morton canal was not located and it is more likely that this feature passes slightly to the north of the area of investigation.

Horizons of peat were recorded during the watching brief. These contained fragments of wood and smaller organic remains. Consequently, environmental data is likely to be well-preserved.

## 8. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr Stuart Hemmings who commissioned the investigation on behalf of the Black Sluice Internal Drainage Board. The work was coordinated by Tom Lane and this report was edited by Gary Taylor and Tom Lane. Jenny Stevens, the Community Archaeologist for South Kesteven District Council, kindly permitted access to the relevant parish files.

## 9. PERSONNEL

Project Coordinator: Tom Lane  
Site Supervisor: Neil Herbert  
Site Assistant: Ian McGregor

Illustration: Neil Herbert  
Post-Excavation Analysis: Neil Herbert

## 10. BIBLIOGRAPHY

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## 11. ABBREVIATIONS

EAA	East Anglian Archaeology
IFA	Institute of Field Archaeologists
MOLAS	Museum of London Archaeology Service
NGR	National Grid Reference
RGS	Royal Geographical Society



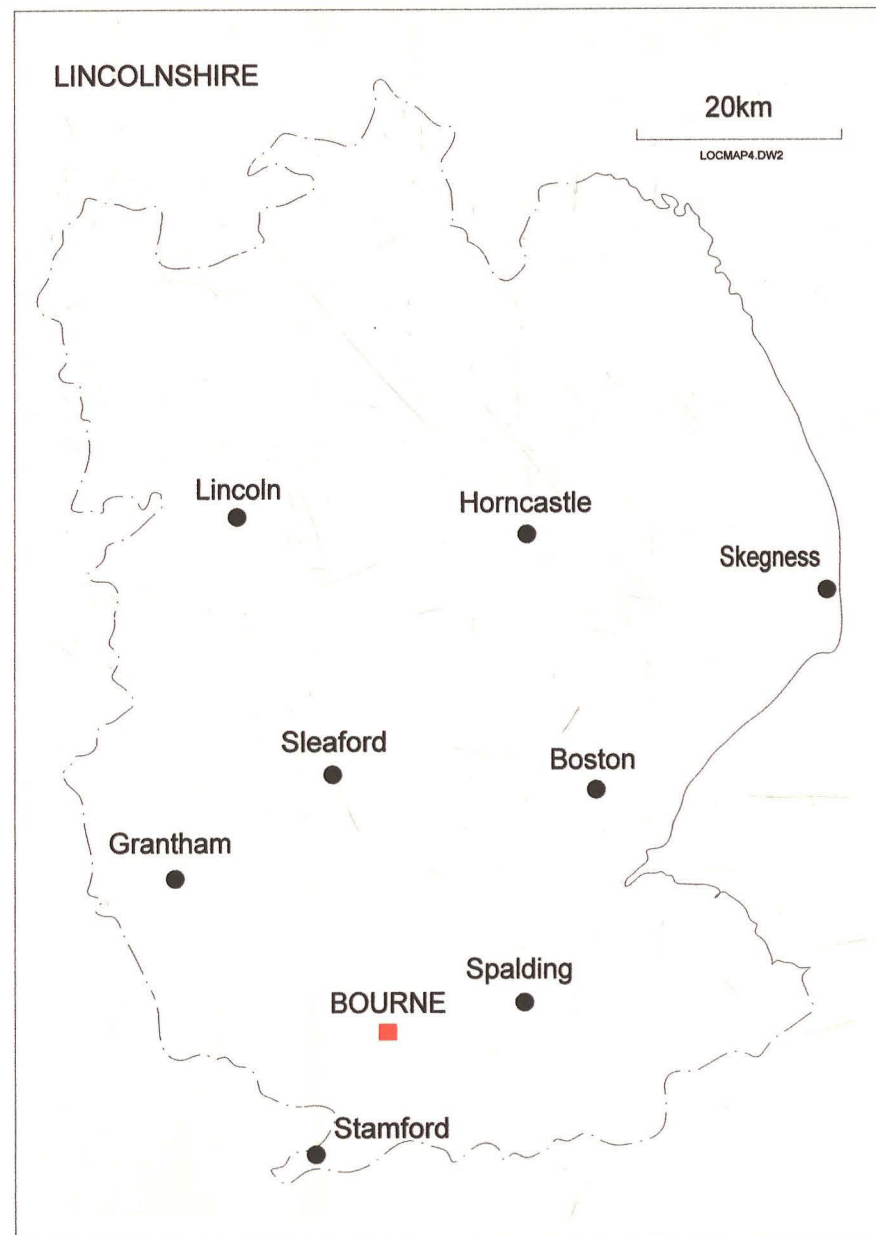
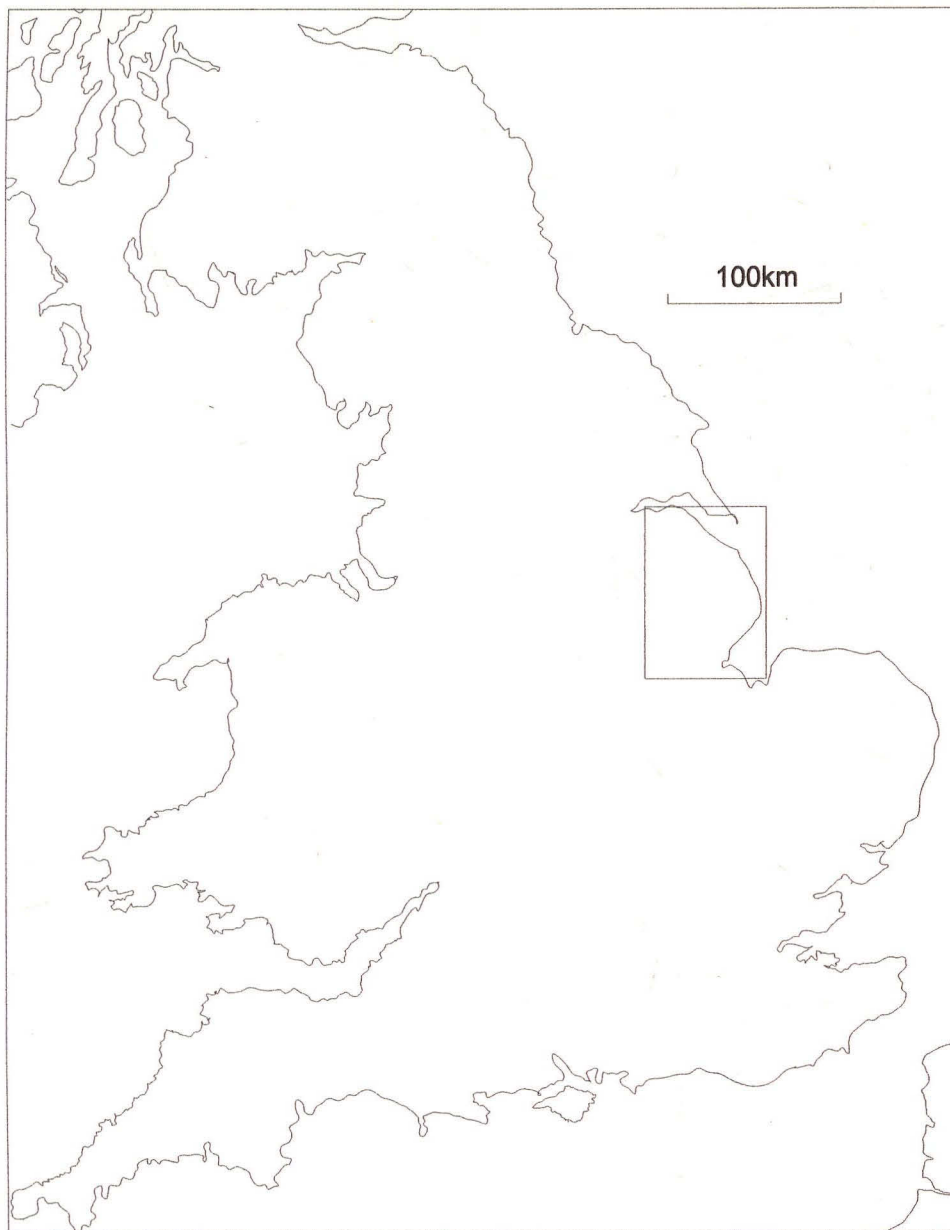


Figure 1: General Location Map

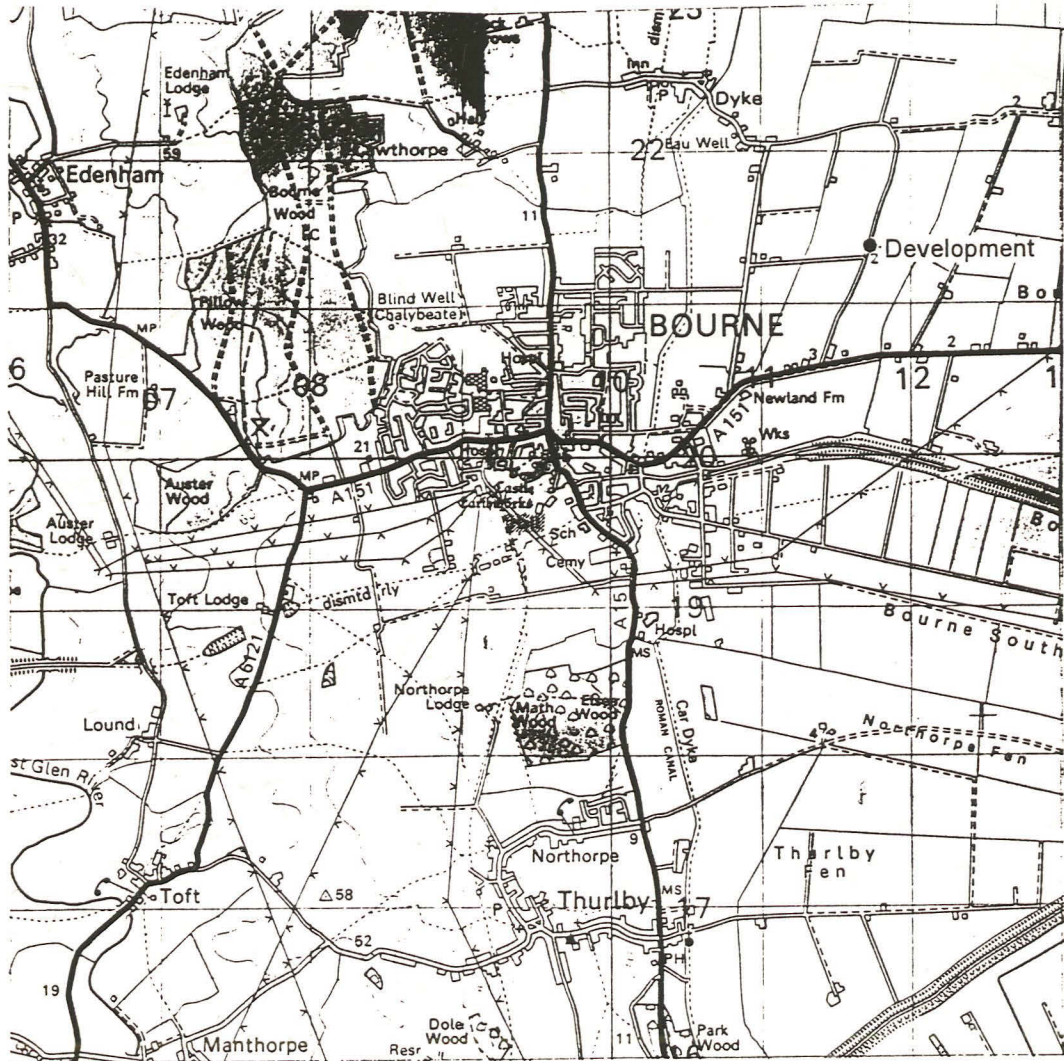


Figure 2: Extract from Ordnance Survey map (1:50000) showing location of development



Figure 3: Plan showing route of Bourne-Morton canal and areas of archaeological interest

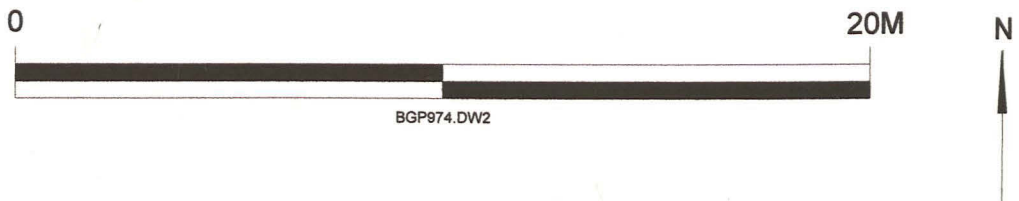
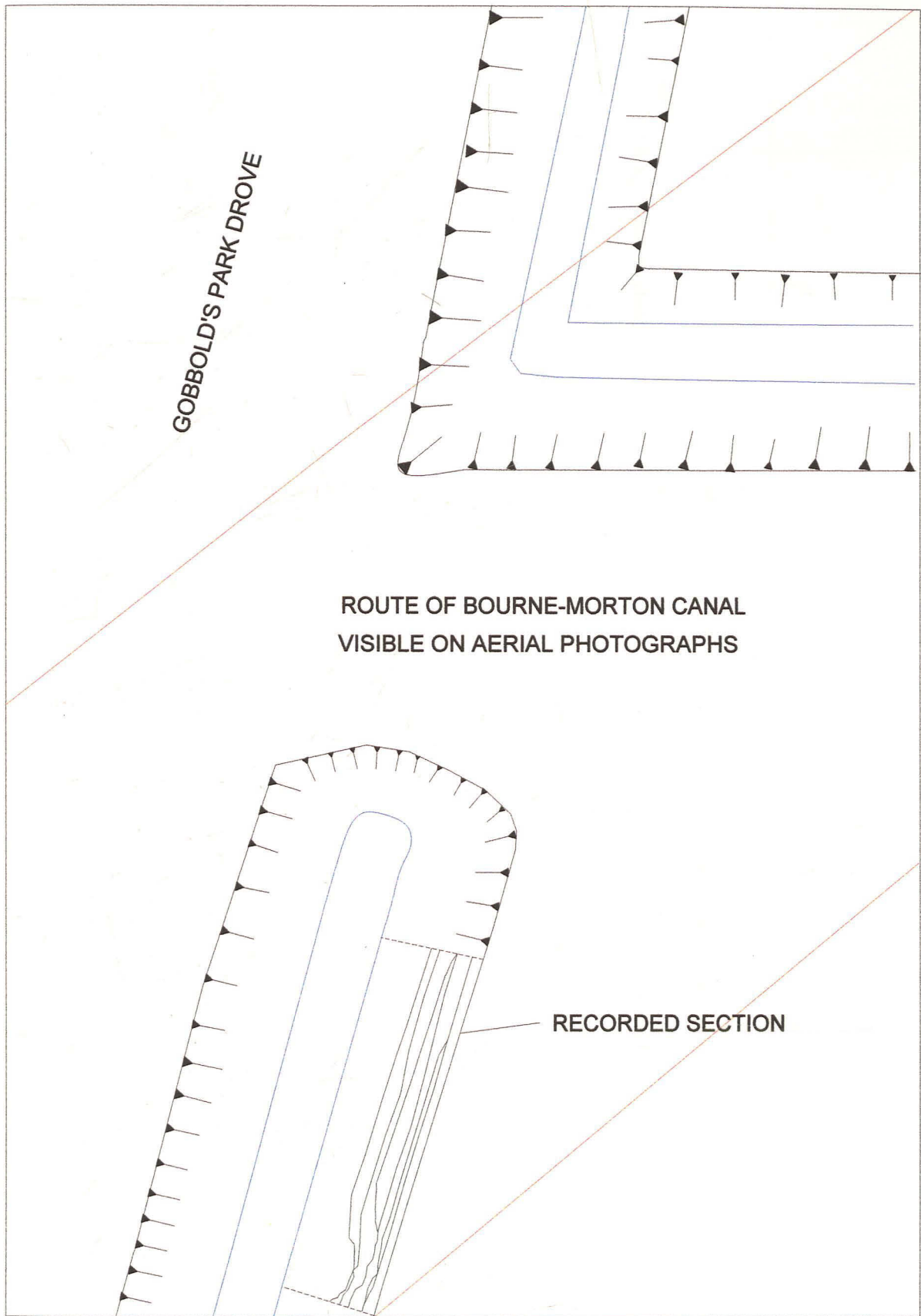


Figure 4: Location of Section 1 and projected route of Bourne-Morton canal

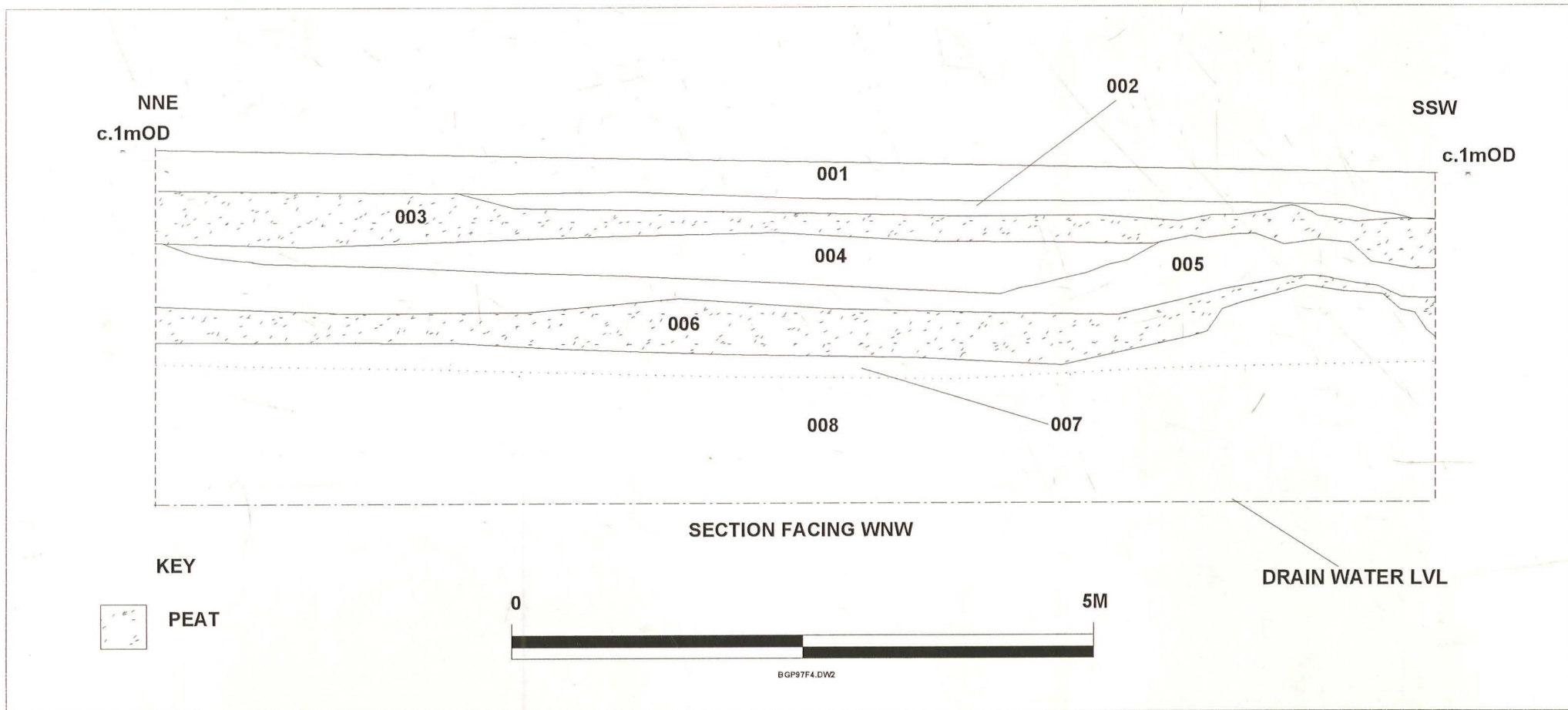


Figure 5: Section 1 showing profile of recorded deposits, with visible levee (right)



Plate 1 : Looking east, showing Section 1 with visible levee (right) and bands of darker peaty deposits (above and below centre scale)



Plate 2 : Looking northeast, along the route of the Bourne-Morton Canal towards Morton Fen. The sequence of deposits continues either side of the recorded section.



Plate 3 : Showing route of Bourne-Morton canal and network of palaeochannels within Bourne and Dyke Fen.  
Area of investigation is boxed.

## Appendix 1

### Context Summary

Context Number	Description	Phase	Interpretation
001	Firm, dark brownish-grey clayey silt containing moderate small stones and frequent roots.	4	Ploughsoil, overlying (002)
002	Firm and sticky mid grey-brown silty clay containing occasional small stones and roots.	4	Subsoil, overlying (003)
003	Friable, dark greyish-brown peat containing occasional small stones and frequent roots.	3	Natural deposit, overlying (004)
004	Friable, mid yellowish-brown clayey silt containing occasional small stones and moderate roots.	2	Natural deposit, overlying (005)
005	Friable, light brownish-grey clay containing moderate roots.	2	Natural deposit, overlying (006)
006	Loose, dark brown to black peat containing moderate wood fragments and frequent roots.	2	Natural deposit, overlying (007)
007	Soft, light grey clay containing frequent roots.	1	Natural deposit, overlying (008)
008	Soft, light bluish-orange clay containing moderate roots and sandy lenses.	1	Natural deposit recorded to the limit of excavation



## Appendix 2

### The Archive

The archive consists of:

8	Context records
4	Scale drawings
1	Photographic Record Sheet
1	Stratigraphic Matrix

All primary records and finds are currently kept at:

Archaeological Project Services  
The Old School  
Cameron Street  
Heckington  
Sleaford  
Lincolnshire  
NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum  
12 Friars Lane  
Lincoln  
LN2 1HQ

Archaeological Project Services project code:	BGP97
City and County Museum Accession Number:	298.97

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the proposed development site but away from those areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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### Appendix 3

#### Glossary of Terms

<b>Context</b>	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> (004).
<b>Layer</b>	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
<b>Medieval</b>	The Middle Ages, dating from approximately AD 1066-1500.
<b>Natural</b>	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.
<b>Post-medieval</b>	The period following the Middle Ages, dating from approximately AD 1500-1800.
<b>Romano-British</b>	Pertaining to the period from AD 43-410 when Britain formed part of the Roman Empire.