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**ARCHAEOLOGICAL WATCHING BRIEF
OF A PIPELINE BETWEEN
MOULTON AND WHAPLODE,
LINCOLNSHIRE
(MTW 03)**



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**ARCHAEOLOGICAL WATCHING BRIEF
OF A PIPELINE BETWEEN
MOULTON AND WHAPLODE,
LINCOLNSHIRE
(MTW 03)**

**Work Undertaken For
Anglian Water Services Ltd**

September 2003

Report Compiled by
Paul Cope-Faulkner BA (Hons) AIFA

National Grid Reference: TF 3198 2386 - TF 2985 2438
City and County Museum Accession No: 2003.135

ARCHAEOLOGICAL PROJECT SERVICES



APS Report No. 149/03



Quality Control
Moulton to Whaplode Pipeline
MTW 03

Project Coordinator	Gary Taylor
Supervisors	James Albone, Barry Martin, Fiona Walker
Finds Processing	Denise Buckley
Illustration	Paul Cope-Faulkner, Sue Unsworth
Photographic Reproduction	Sue Unsworth
Post-excavation Analyst	Paul Cope-Faulkner

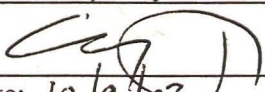

Checked by Project Manager	Approved by Senior Archaeologist
 Gary Taylor	 Tom Lane
Date: 10/9/03	Date: 11-01-03

Table of Contents

List of Figures

List of Plates

1.	SUMMARY	1
2.	INTRODUCTION	1
2.1	DEFINITION OF A WATCHING BRIEF	1
2.2	PLANNING BACKGROUND	1
2.3	TOPOGRAPHY AND GEOLOGY	1
2.4	ARCHAEOLOGICAL SETTING	1
3.	AIMS	2
4.	METHODS	2
5.	RESULTS	2
6.	DISCUSSION	3
7.	CONCLUSION	3
8.	ACKNOWLEDGEMENTS	3
9.	PERSONNEL	3
10.	BIBLIOGRAPHY	4
11.	ABBREVIATIONS	4

Appendices

1. Context descriptions
2. The Finds
3. Glossary
4. The Archive

List of Figures

- Figure 1 General location plan
- Figure 2 Site location plan
- Figure 3 Area 1 showing section locations
- Figure 4 Area 2 showing section location
- Figure 5 Area 3 showing section location
- Figure 6 Sections 1 to 4
- Figure 7 Sections 5 to 7

List of Plates

- Plate 1 General view showing the works in progress
- Plate 2 Section 1 showing the general sequence of deposits
- Plate 3 Section 6 showing ditch (021)
- Plate 4 Section 7 showing ditch (024)
- Plate 5 Section 4 showing the build-up of railway deposits in Area 3

1. SUMMARY

An archaeological watching brief was undertaken during trenching for a new pipeline between Moulton and Whaplode, Lincolnshire. The watching brief monitored the stripping of easements and the pipe trench.

Both Moulton and Whaplode lie close to known Romano-British (AD 43-410) settlement and salt-making sites, although due to later alluviation these are likely to lie at depth along the pipeline route.

Only two undated ditches were identified during the watching brief, both at the west end of the pipeline route. Finds retrieved during this investigation comprise two sherds of medieval pottery along with post-medieval pottery, brick, tile, glass and clay pipe.

2. INTRODUCTION

2.1 Definition of a Watching Brief

An archaeological watching brief is defined as "a formal program of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits maybe disturbed or destroyed." (IFA 1999).

2.2 Planning Background

Archaeological Project Services was commissioned by Anglian Water Services Ltd to undertake an archaeological watching brief during groundworks associated with a new rising main between Moulton and Whaplode, Lincolnshire. The watching brief was carried out between the 13th May and 30th June 2003.

2.3 Topography and Geology

Moulton is located 6km east of Spalding in South Holland District, Lincolnshire, with Whaplode situated a further 2km to the east (Fig. 1).

The pipeline extends from a pumping station along Cob Gate, National Grid Reference TF 3198 2386 and bypasses the southern edge of Moulton, following the route of a disused railway. The route terminates at a sewage works west of the village at National Grid Reference TF 2985 2438. The pipeline has a total length of 3.2km.

The pipeline mainly traverses soils of the Wisbech Series, typically coarse silty calcareous alluvial gley soils, although Romney Series, coarse silty gleyic brown calcareous alluvial soils, are found within the vicinity of Whaplode and Moulton (Robson 1990, 26, 36). These soils overlies a drift geology of marine alluvium which seals a solid geology of Jurassic West Walton mudstones (BGS 1992).

2.4 Archaeological Setting

The pipeline is located in an area of known archaeological remains dating from the Romano-British period. Artefacts of the period are known from south of both villages and are sometimes accompanied by cropmarks of enclosures and field boundaries. Some finds, such as large pancheon type bowls, are thought to indicate salt-production (Rayner 2000, 6).

Both Moulton and Whaplode are first mentioned in the Domesday Survey of c. 1086. Moulton, referred to as *Multune*, is derived from the Old English personal name *Mūla* and *tūn*, meaning settlement (Cameron 1998, 89). Whaplode is also Old English and is first referred to as *Copelade* and *Copolade* and may derive from *cwappa*, meaning an eel-pout, and *lād* meaning a watercourse (*ibid.*).

At the time of Domesday, Moulton was held by Ivo Taillebois and Guy of Craon and Whaplode was held by the King, Crowland Abbey, Count Alan with sokeland belonging to Guy of Craon (Foster and Longley 1976).

Prior to this watching brief, the site was visited on the 6th May 2003 when the stripped sections of easements were walked and examined archaeologically. However, conditions at the time were unsuitable for the identification of archaeological features. However, a few medieval sherds were noted west of Moulton, though no concentrations were apparent.

3. AIMS

The requirements of the watching brief were to locate and record archaeological deposits and, if present, determine their nature, function, date and origin.

4. METHODS

An easement 5m wide was stripped of topsoil along selected portions of the pipeline trench route. A trench for the new pipeline was then excavated by machine to depths required by Anglian Water. The stripping was monitored archaeologically, as was the pipe trench.

Selected portions were then cleaned and recorded and deposits examined to determine their nature and to retrieve artefactual material. Each deposit encountered was allocated a unique reference number (context number) with an individual written description. A list of all contexts and their descriptions appears as Appendix 1. Sections were drawn at a scale of 1:10 and a photographic record was compiled. Recording was undertaken according to standard Archaeological Project Services' practice.

Following excavation the records were checked and a stratigraphic matrix produced. Finds were also examined and a period date assigned where possible (Appendix 3). Phasing was assigned based on the nature of the deposits and recognisable relationships between them and supplemented by artefact dating.

5. RESULTS

Following post-excavation analysis three phases were identified;

Phase 1	Natural deposits
Phase 2	Undated deposits
Phase 3	Recent deposits

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

Phase 1 Natural deposits

Natural deposits were encountered in only three locations along the route of the pipeline. Alongside the railway line (Area 3), natural deposits comprised a yellowish to greyish brown silt (015).

In the vicinity of the sewage works (Fig. 3), natural consisted of yellowish brown silt (017) and south of the sewage works it was recorded as a yellowish brown sandy silt (025) which was over 1.1m thick.

Developed above the natural deposits in the vicinity of the sewage works were layers of subsoil. These varied from yellowish brown silt (003, 007, 011 and 016) to brownish grey silt (005) and reddish brown silt (009).

Phase 2 Undated deposits

At the northwestern end of the monitored area, cut into the natural silt (017) was an east-west aligned linear ditch (021). This was 1.97m wide by 0.56m deep (Fig. 7,

Sections 5 and 6). Three fills were recorded, a primary fill of grey and yellowish brown silty clay (020) which was sealed by reddish brown silt (019) and yellowish brown silt (018).

A second ditch (024) was recorded 45m south of ditch (021) as cutting natural (025). This was 2m wide by 0.45m deep (Fig. 7, Section 7) and contained a single fill of greyish brown sandy silt (023).

Phase 3 Recent deposits

Sealing natural and undated deposits were layers of topsoil. These comprised reddish brown silt (001, 002, 004 and 006) and in the vicinity of the sewage works, topsoil consisted of yellowish brown silt (008, 010 and 022).

Alongside the former railway line (Area 3) a topsoil of brown silt (014) was overlain by a dumped deposit of yellowish brown silt (013) and grey slag with rubble, sand and silt (012). These latter two deposits are associated with the former railway.

6. DISCUSSION

Natural deposits (Phase 1) comprise silts and sandy silts of the underlying drift geology. These deposits originated as marine alluvium and are possibly post-Roman in date (*pers. comm.* Tom Lane).

Two undated ditches (Phase 2) were identified and recorded during the watching brief. As these features are apparently cut into the post-Roman silts, they are likely to be medieval or later.

The earliest artefacts retrieved during the investigation were two sherds of 12th – 14th century pottery. Later, post-medieval, wares were also retrieved along with brick, drain, glass and clay pipe. These artefacts were probably deposited in manuring scatters and this, in turn, suggests the area

had an agricultural function in the medieval and post-medieval periods.

7. CONCLUSION

An archaeological watching brief was undertaken along the route of a new pipeline between Moulton and Whaplode as it crossed areas of archaeological interest, notably Romano-British salt-producing sites.

However, only two undated features, both ditches, were recorded at the western end of the pipeline route. The remaining lengths of the pipeline route only revealed natural, subsoil and topsoil deposits.

A range of finds were collected and comprise medieval and post-medieval pottery along with brick, drain, glass and clay pipe.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wish to acknowledge the assistance of Mr N. Godfrey of Anglian Water Services Ltd for commissioning the fieldwork and post-excavation analysis. The work was coordinated by Gary Taylor who edited this report along with Tom Lane. Dave Start kindly permitted access to the parish files and library maintained by Heritage Lincolnshire.

9. PERSONNEL

Project Coordinator: Gary Taylor
 Site Supervisors: James Albone, Barry Martin, Fiona Walker
 Finds processing: Denise Buckley
 Photographic reproduction: Sue Unsworth
 Illustration: Paul Cope-Faulkner, Sue Unsworth
 Post-excavation analysis: Paul Cope-Faulkner

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11. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

IFA Institute of Field Archaeologists

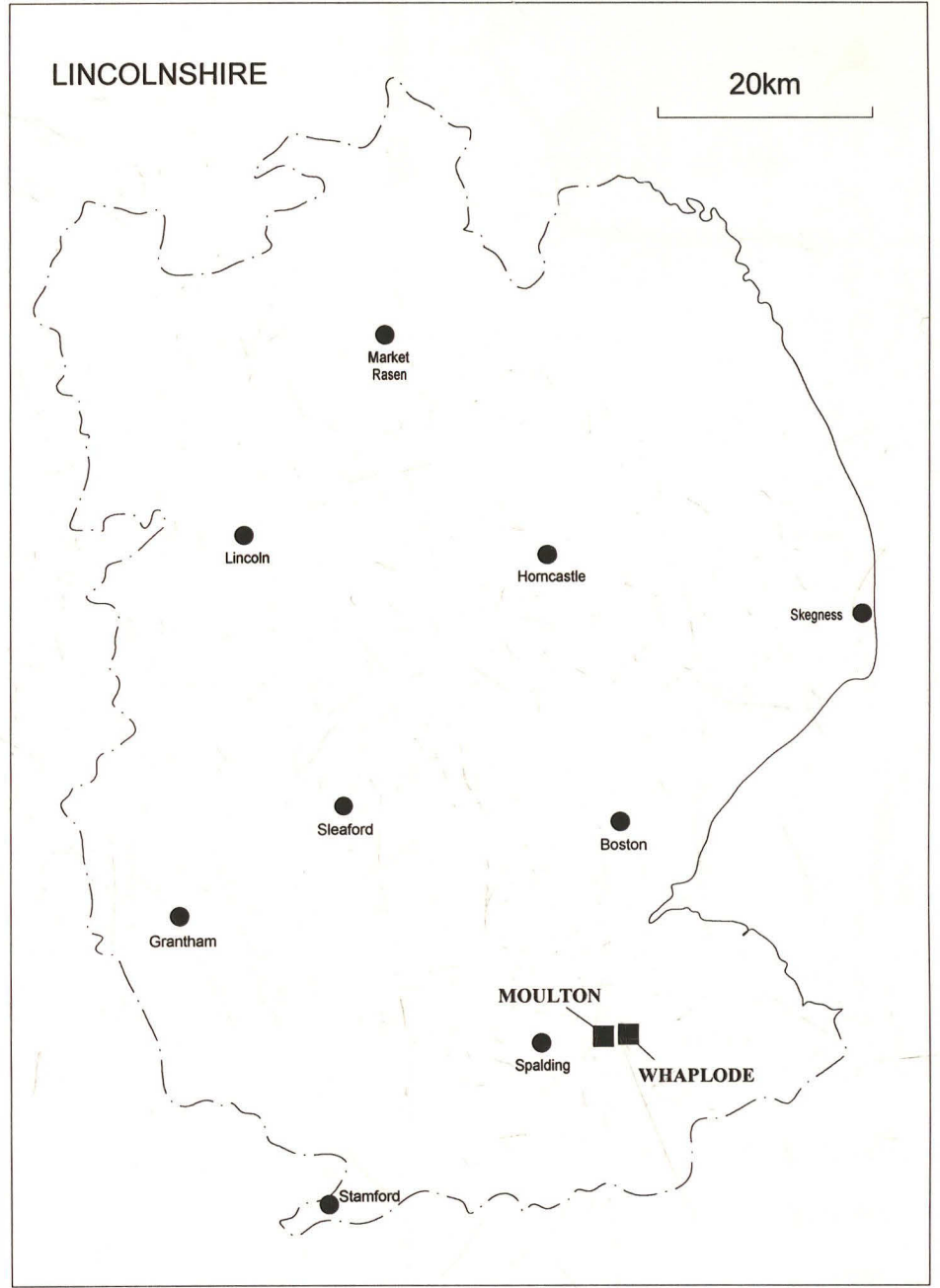
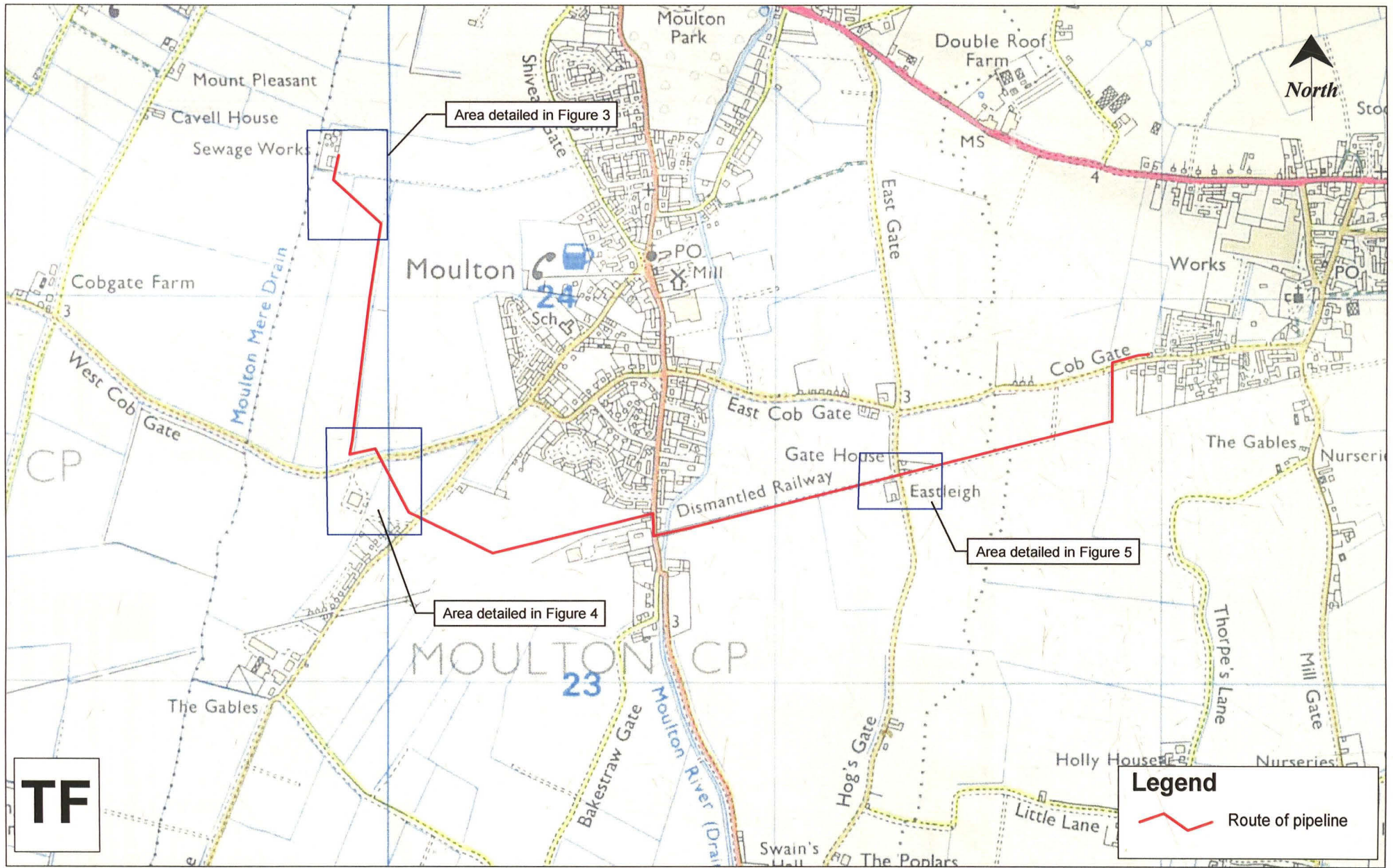


Figure 1 - General Location Plan



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31

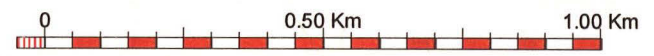


Figure 2 - Site location plan

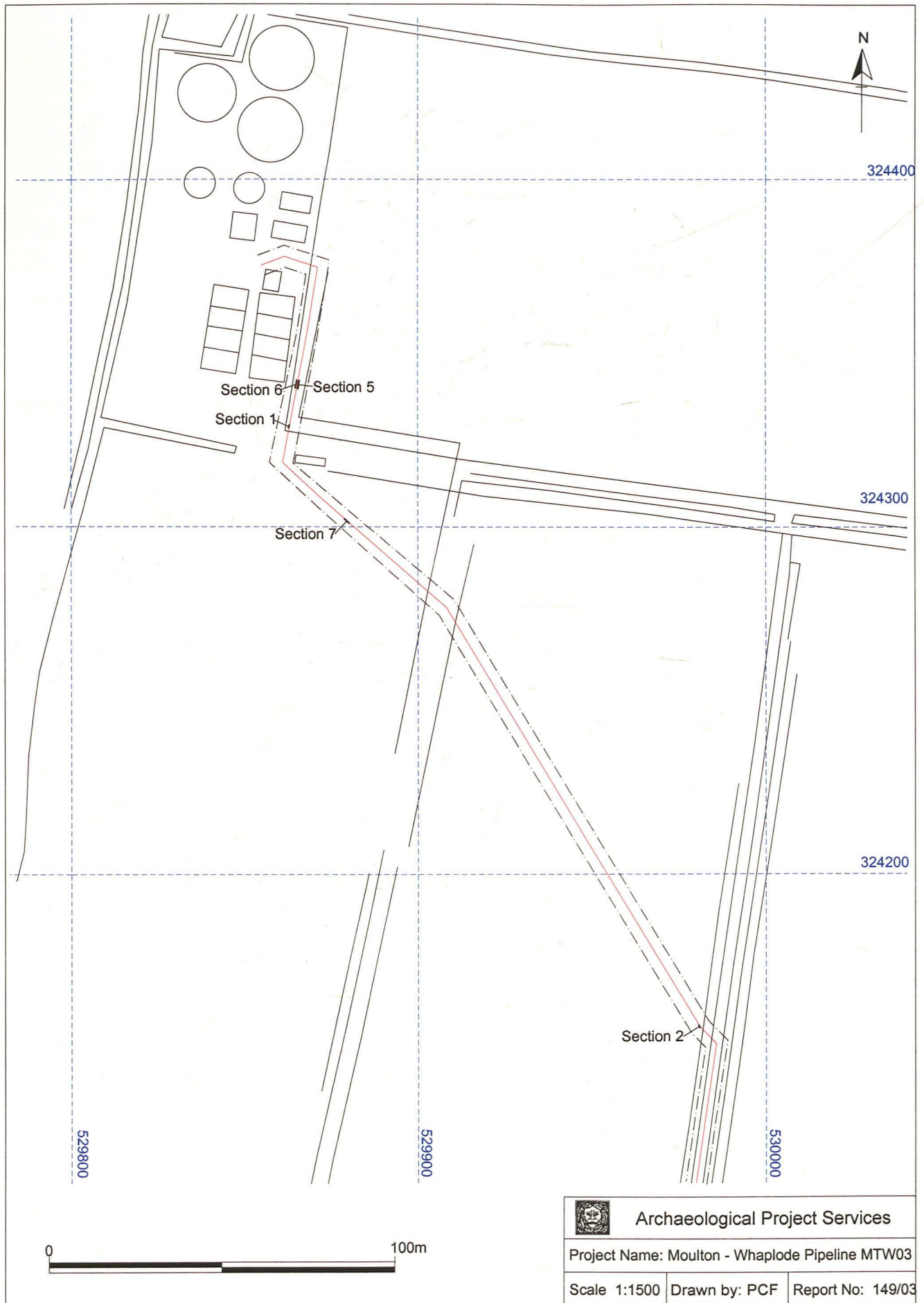
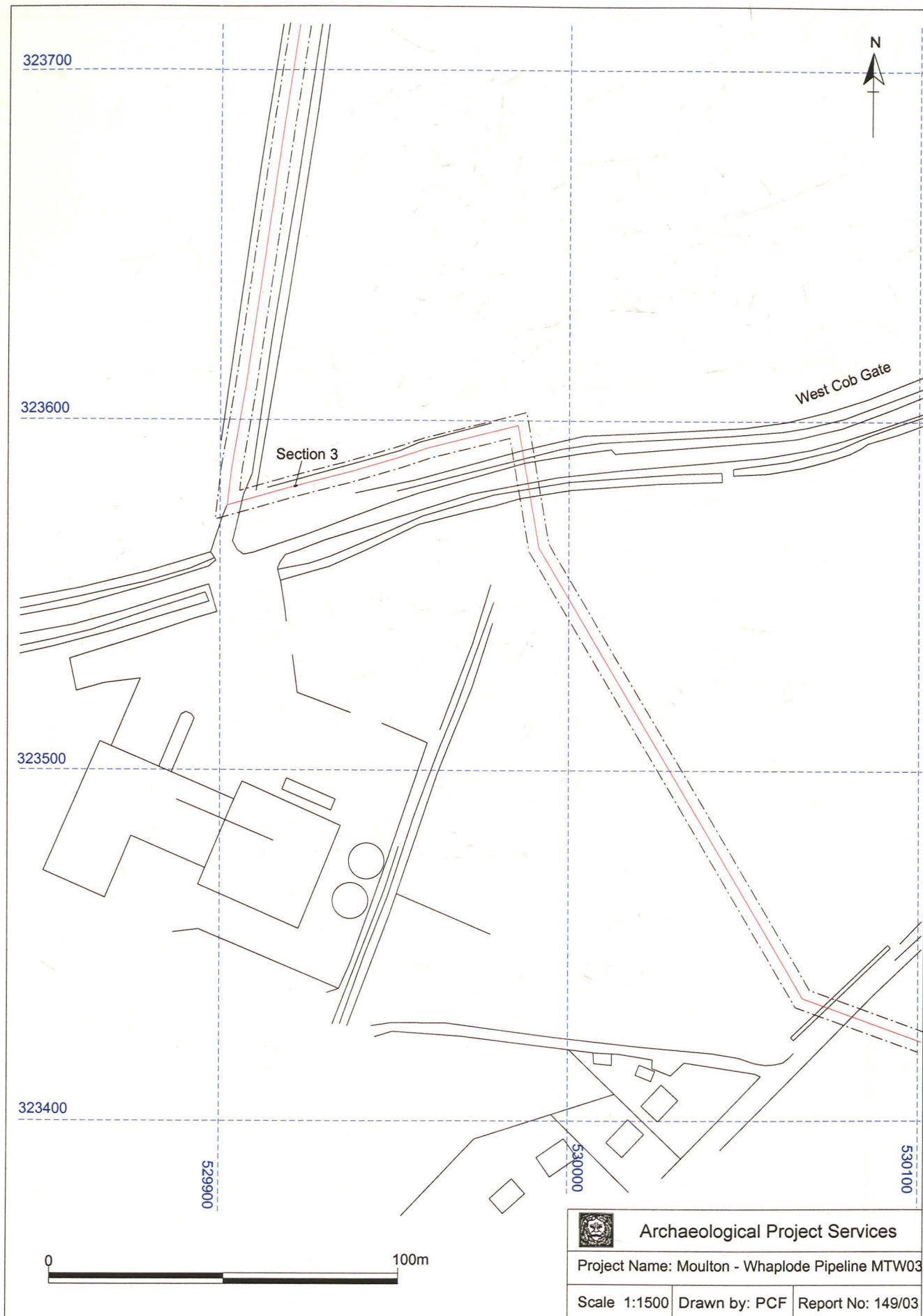


Figure 3 - Area 1 showing section locations




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Figure 4 - Area 2 showing section location

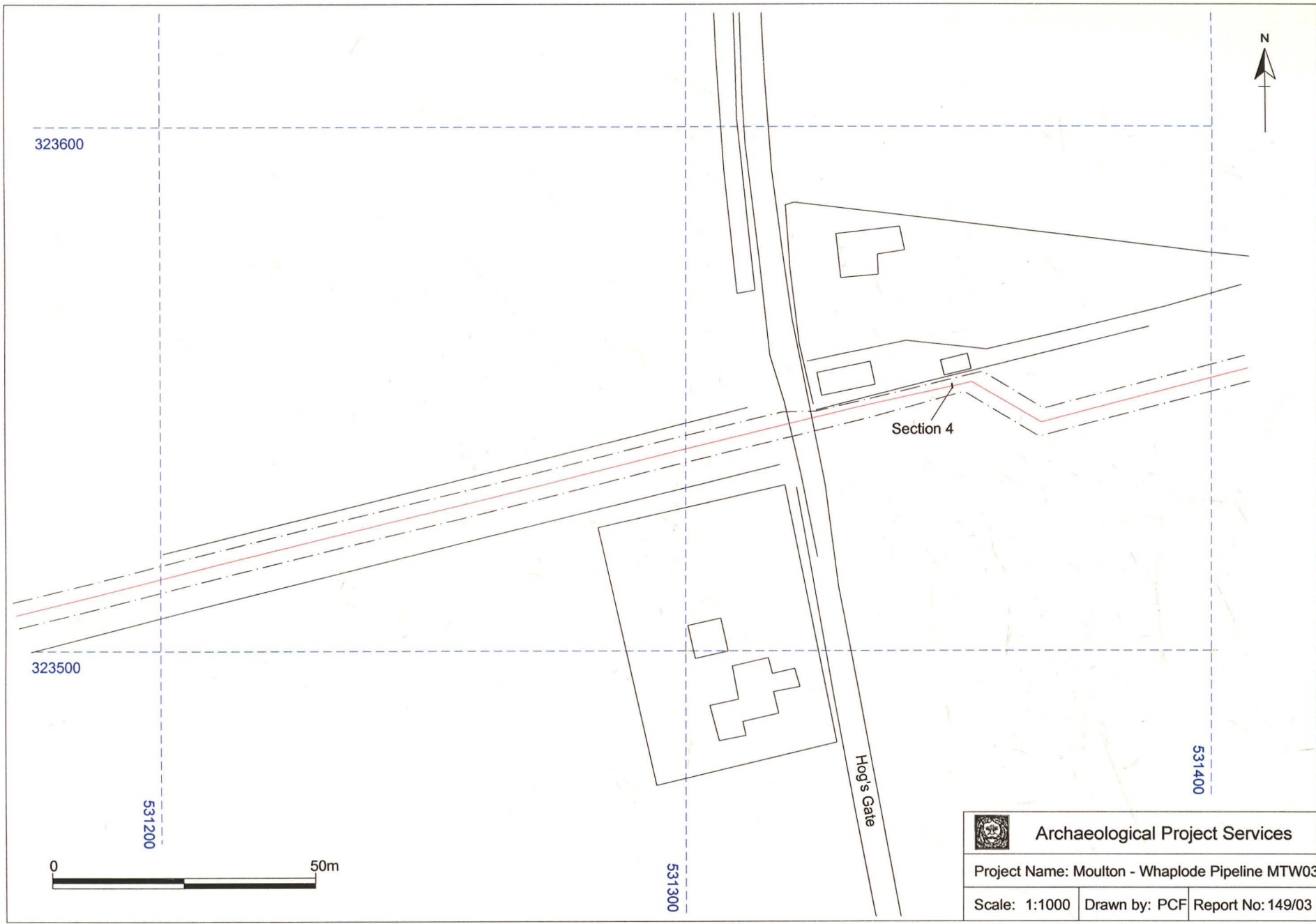
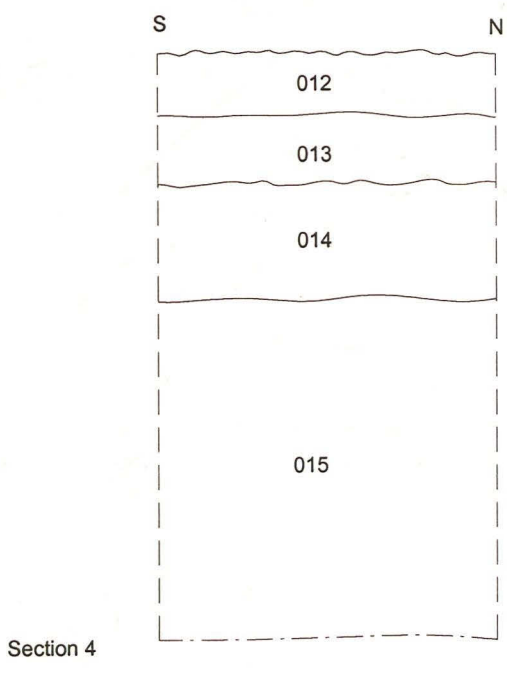
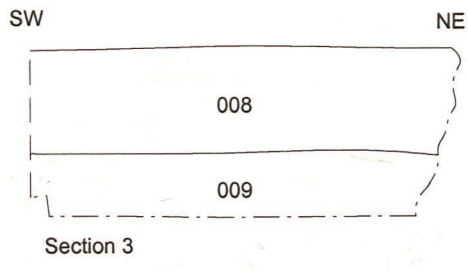
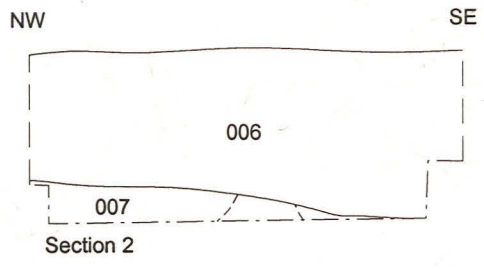
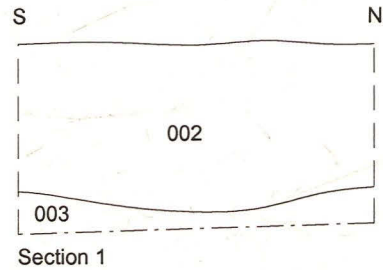


Figure 5 - Area 3 showing section location




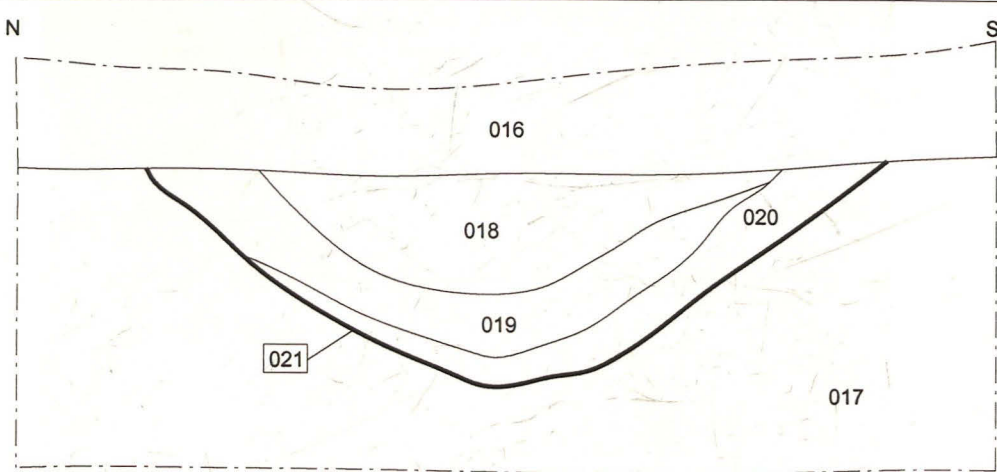
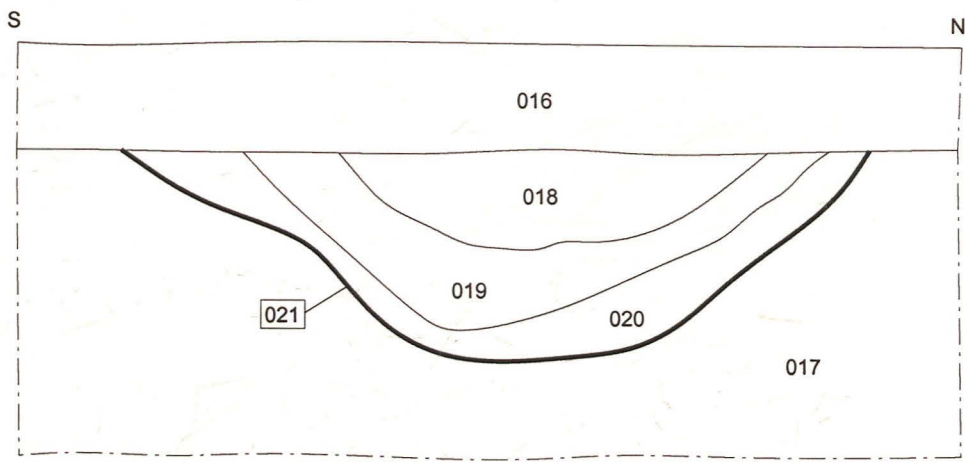
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Figure 6 - Sections 1 to 4

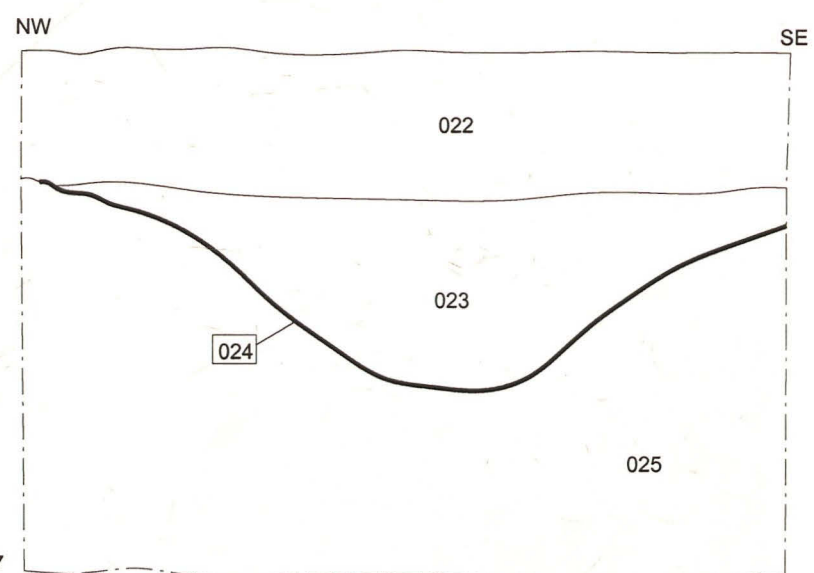
Section 5



Section 6



Section 7




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Project Name Moulton-Whaplode Pipeline MTW03		
Scale 1:20	Drawn by: SU	Report No: 149/03

Figure 7 - Sections 5 to 7



Plate 1 - General view showing the works in progress



Plate 2 - Section 1 showing the general sequence of deposits, looking west



Plate 3 - Section 6 showing ditch (021), looking west



Plate 4 - Section 7 showing ditch (024), looking northeast



Plate 5 - Section 4 showing the build-up of railway deposits in Area 3, looking west

Appendix 1

CONTEXT DESCRIPTIONS

No.	Section	Area	Description	Interpretation
001	-	1	Firm mid reddish brown silt, 0.4m thick	Topsoil
002	1	1	Firm mid reddish brown silt, 0.42m thick	Topsoil
003	1	1	Firm mid yellowish brown silt, >100mm thick	Subsoil
004	-	1	Firm mid reddish brown silt, 0.3m thick	Topsoil
005	-	1	Firm mid brownish grey silt	Subsoil
006	2	1	Firm mid reddish brown silt, 0.5m thick	Topsoil
007	2	1	Firm mid yellowish brown silt, >100mm thick	Subsoil
008	3	2	Firm mid yellowish brown silt, 0.3m thick	Topsoil
009	3	2	Firm mid reddish brown silt, >0.15m thick	Subsoil
010	-	2	Firm mid yellowish brown silt, 0.3m thick	Topsoil
011	-	2	Firm light yellowish brown silt,	Subsoil
012	4	3	Loose mid grey slag, rubble with sand and silt, 0.18m thick	Hardcore for railway
013	4	3	Loose light yellowish brown silt, 0.18m thick	Dumped deposit
014	4	3	Loose mid brown silt, 0.3m thick	Former topsoil
015	4	3	Loose light yellowish to greyish brown silt, >0.9m thick	Natural deposit
016	5, 6	1	Firm light yellowish brown silt, 0.25m thick	Subsoil
017	5, 6	1	Firm light yellowish brown silt, >0.8m thick	Natural deposit
018	5, 6	1	Firm light yellowish brown silt	Fill of (021)
019	5, 6	1	Firm mid reddish brown silt	Fill of (021)
020	5, 6	1	Firm mottled light grey and yellowish brown silty clay	Fill of (021)
021	5, 6	1	Linear feature, aligned east-west, >0.6m long by 1.97m wide by 0.56m deep, gradual sides and rounded base	Ditch
022	7	1	Soft mid yellowish brown silt, 0.4m thick	Topsoil
023	7	1	Firm dark greyish brown sandy silt	Fill of (024)
024	7	1	Linear feature, aligned northeast-southwest, >0.6m long by 2m wide by 0.45m deep, gradual sides and rounded base	Ditch
025	7	1	Firm light to mid yellowish brown sandy silt, >1.1m thick	Natural deposit

Appendix 2

THE FINDS

by Rachael Hall, Hilary Healey, Tom Lane and Gary Taylor

Recording of the pottery was undertaken with reference to guidelines prepared by the Medieval Pottery Research Group (Slowikowski *et al.* 2001) and the pottery was quantified using the chronology and coding system of the Lincolnshire ceramic type series. A total of 19 fragments of pottery weighing 149g was recovered from 3 separate contexts. In addition to the pottery, a small quantity of other artefacts, brick/tile, clay pipe, glass and stone, comprising 13 items weighing a total of 385g, was retrieved. No faunal remains were recovered.

Provenance

The material was recovered from topsoil deposits along the course of the pipeline route.

Most of the earlier pottery types were made in moderate proximity to Moulton/Whaplode at Bourne, 20km to the west. However, many of the later pieces were probably manufactured in Staffordshire.

Range

The range of material is detailed in the tables.

Table 1: Pottery

Context	Fabric Code	Description	No.	Wt (g)	Context Date
001	LSTON	Grey stoneware preserve jar, late 19 th -early 20 th century	1	24	Late 19 th -early 20 th century
	BL	Red painted earthenware, black-glazed, 18 th century	1	8	
	BOU	Bourne D ware, 16 th -17 th century	1	12	
008	WHITE	White glazed tableware, 19 th -20 th century	1	1	19 th -20 th century
	UGRE	Plant pot, 19 th -20 th century	1	12	
	BOU?	Bourne D ware? abraded,	1	3	
010	CRMWARE	Late creamware, early 19 th century	2	7	19 th century
	WHITE	White glazed tableware, blue painted, 19 th century	1	3	
	PEARL	Pearlware, late 18 th -early 19 th century	1	2	
	WS	White salt-glazed stoneware, 18 th century	1	2	
	BL	Red painted black-glazed earthenware, 18 th century	1	18	
	STMO	Staffordshire mottled ware, 18 th century	2	27	
	MP	Midlands Purple ware, 17 th century	1	14	
	BOU	Bourne D ware, 16 th -17 th century	2	4	
BOUA	Bourne A/B ware, abraded, 12 th -14 th century	2	12		

Pottery of 12th-14th century date is the earliest material recovered, but was restricted in quantity and the remainder and bulk of the small assemblage is later, mostly dating from the 18th to 19th centuries. It is probable that most, if not all, of the pottery entered the area in manuring scatter. This would, in turn, imply that the land traversed by the pipeline was in arable usage from the medieval period onwards.

Table 2: Other Artefacts

Context	Material	Description	No.	Wt (g)	Context Date
002	CBM	Vented machine-made brick, 20 th century	2	73	20 th century
	CBM	Handmade brick, post-medieval	2	14	
	Stone	Gravel coated with bitumen, 20 th century	1	12	
006	Clay pipe	Stem, bore 5/64"	1	2	18 th century
008	CBM	Machine-made brick, mortar adhering, 20 th century	1	68	20 th century
	CBM	Field drain, post-medieval	1	37	
010	Clay pipe	Stem, bore 7/64", 17 th century	1	3	
	Glass	Very dark green bottle, 19 th century	1	44	
	Stone	Granite	1	106	
	Flint	Natural	2	26	

Condition

All the material is in good condition and present no long-term storage problems. Archive storage of the collection is by material class.

Documentation

There have been previous archaeological investigations in the general area around Moulton and Whaplode that are the subjects of reports. Details of archaeological sites and discoveries in the area are maintained in the Lincolnshire County Council Sites and Monuments Record.

Potential

The moderate collection of medieval and post-medieval artefacts is of limited local potential and significance. It seems that likely that much of the collection entered the area in manuring scatter, indicating the agricultural use of the land from the medieval period.

The lack of any material earlier than the 12th century is informative and suggests that archaeological deposits dating from prior to this period are absent from the area, or were not disturbed by the development, or were of a nature that did not involve artefact deposition.

References

Slowikowski, A., Nenk, B. and Pearce, J., 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*, Medieval Pottery Research Group Occasional Paper 2

Appendix 3

GLOSSARY

Context	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 interpretations 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).
Cropmark	A mark that is produced by the effect of underlying archaeological features influencing the growth of a particular crop.
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Dumped deposits	These are deposits, often laid down intentionally, that raise a land surface. They may be the result of casual waste disposal or may be deliberate attempts to raise the ground surface.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).
Layer	A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saltern	Salt producing site typified by ash, derived from fuel needed to evaporate sea water, and briquetage.

Appendix 4

THE ARCHIVE

The archive consists of:

25	Context records
5	Sheets of scale drawings
2	Photographic record sheets
1	Stratigraphic matrix
1	Bag of finds

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

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Museum Accession Number: 2003.135

Archaeological Project Services Site Code: MTW 03

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 development site but away from the 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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