BACTON TO KING'S LYNN

Natural Gas Pipeline

Post-Excavation Assessment of Potential for Analysis and Updated Project Design

Volume 1: Report

Version 3

Prepared by
Network Archaeology Ltd
on behalf of
Murphy Pipelines Ltd
for
Transco

July 2004

MURPHY

Transco

network archaeology

BACTON TO KING'S LYNN

NATURAL GAS PIPELINE

POST-EXCAVATION ASSESSMENT OF POTENTIAL FOR ANALYSIS AND UPDATED PROJECT DESIGN

POST-EXCAVATION MAP2 ASSESSMENT

Volume 1: Report

Version 3

Prepared by

NETWORK ARCHAEOLOGY LTD

on behalf of

MURPHY PIPELINES LTD

for

TRANSCO

July 2004

CONTENTS

LIST OF TABLES

CONTENTS OF VOLUME 2: APPENDICES

Appendix 1 Specialist Assessments and Reports

Appendix 2 Figures

EXECUTIVE SUMMARY

This assessment details the significance and potential for further analysis of archaeological findings along the course of the Bacton to Kings Lynn natural gas pipeline in Norfolk. Thirteen sites were confirmed by trench evaluation and excavated formally in advance of construction. A further eight sites were discovered and formally excavated during the course of a routine permanent presence watching brief. In addition, archaeological remains of low importance were found in 109 plots during the trench evaluations and watching brief. The remains within twenty-six of these plots are possibly associated with significant sites.

Results

Prehistoric activity was identified at nine sites. The most significant of these included: a Bronze Age burial mound which was apparently the focus for an Anglo-Saxon cemetery; a Bronze Age cremation cemetery; and at least three settlement sites. One of the settlements spanned the early Neolithic to Iron Age periods, one was late Neolithic to Early Bronze Age or Iron Age, and one was Iron Age. Another site yielded evidence of metal working which was either Iron Age or Anglo-Saxon in date.

Evidence dating to the Roman period was found at only four sites, and comprised the remains of an enclosed settlement, a corn drier; and two enclosure systems.

In addition to the Anglo-Saxon cemetery found in association with a Bronze Age burial mound and metal working dating to either the Iron Age or Anglo-Saxon period (see above), possible Anglo-Saxon activity was found in the vicinity of the Roman corn drier.

The Medieval period was represented at eleven sites. Seven comprised purely agricultural enclosures and field systems. Four sites, including two farmsteads, were domestic in nature.

Potential & Recommendations

All but two of the formally excavated sites have the potential to address regionally important research objectives. It is proposed that there will be no client report, but that the results of the formal excavations will be published in two volumes. One volume would be devoted entirely to the Anglo-Saxon cemetery, whilst the main volume would comprise all the other sites. The most significant sites ought to be published in detail, while notes or extended notes will be sufficient for the less significant ones. It is also recommended that the publication includes a period-by-period synthesis of archaeological data from this project, undertaken by regional period specialists.

1 INTRODUCTION

This document is an assessment of the research potential of data recovered during the excavations and watching brief along the route of the Bacton to King's Lynn natural gas pipeline, in Norfolk.

This document (hereafter 'the 2003 assessment') has been prepared in accordance with the guidelines presented in *Management of Archaeological Projects*, second edition (English Heritage, 1991) (hereafter 'MAP2). It represents the seventh stage in a phased programme of archaeological works commissioned by Murphy Pipelines Limited (MPL) for Transco.

The combined post-excavation programme for both the excavations and the watching brief is based upon the staged approach laid out in (MAP 2).

The archaeological work, carried out by Network Archaeology Limited between January and August 2003, has been assigned the project code BKL 02. In addition, it has been assigned the Norfolk Historic Environment Record (NHER) Number 37614, and each section and plot along the route (see section 2) was also given its own unique NHER number and parish code.

The 2003 assessment includes an itemised proposal for the comprehensive analysis and publication of the recovered data, broken down into specific tasks.

The 2003 assessment report has been prepared by Andrew Crutchley with the assistance of Gemma Riley and Catherine Holgate of Network Archaeology Ltd, acting in conjunction with the specialist archaeological consultants contracted to the project. Derek Cater provided the project management.

A list of other Network personnel involved in this phase of the project, along with a comprehensive list of the specialist archaeological consultants, is provided in the 'Acknowledgements' section of this report (see section 1)

2 PROJECT BACKGROUND

Transco constructed a new *c.*68 km long pipeline for the transportation of natural gas between a Gas Terminal at Bacton and a Compressor Station at King's Lynn, both in Norfolk (Figures 1a and 1b, Appendix 2). The 1220 mm (48 inch) diameter pipeline was constructed within a corridor normally measuring 42m in width, although this was expanded to 62m at road crossings.

Pipeline construction involved four main phases of work:

- *Rights of Way* activities, including hedge removal; cleaning, fluming and temporary bridging of ditches; fencing the working width; topsoil stripping of access areas and the installation of pre-construction drainage
- *Topsoil stripping* across the working width
- *Trench excavation and pipe-laying*

- *Reinstatement,* involving the replacement of topsoil and the installation of post-construction drainage

Topsoil stripping of the working width began on 31st March 2003 and finished on 28th May 2003. Excavation of the pipe trench started on 5th May 2003 and finished on 8th August 2003.

A numbering scheme was adopted in order to ensure clear communications between construction and archaeological personnel. This is normal procedure, implemented at the start of the detailed design stage (see section 3.1, below), of all Transco natural gas pipeline projects. All plots (fields or other land parcels) are given a unique identification number – on this project from plot 1 to 255. Additionally they are given the number of the 'construction section' within which they are located. A construction section comprises the group of fields lying between any two roads that the pipeline crosses. On this project the King's Lynn compressor station was in construction section 0; all of the plots that lay between the first and second road crossings were in construction section 1, etc; and the Bacton gas terminal was in the final construction section, number 57. This numbering system was adopted when referencing the location of archaeological sites.

In this report each site is referenced in the following manner: construction section/plot number (NHER number and parish code), thus: Site 1/251 (NHER 37617 WNE)

3 ARCHAEOLOGICAL WORK UNDERTAKEN

3.1 Staged approach to managing risk

The most cost-effective means of managing archaeological risk is to implement a staged approach to investigation and mitigation, as laid out in Table 1.

Stage of archaeological investigation		**Transco's phase of works**
Stage 1	Feasibility study & route corridor investigation study (R.C.I.S.)	Feasibility study & R.C.I.S.
Stage 2	Desk based assessment of route corridor	Conceptual design
Stage 3	Field survey of entire preferred pipeline route	Detailed design
Stage 4	Evaluation of targeted areas along preferred route	
Stage 5	Excavation	
Stage 6	Watching brief	Construction
Stage 7	Archive and publication	Post-construction

Table 1: Summary of the staged approach to investigation and mitigation implemented by Network Archaeology Limited

This assessment is primarily concerned with Stages 5 and 6 (excavation and watching brief).

3.2 Stage 1: Feasibility study & route corridor investigation study

Feasibility and route corridor investigation studies were undertaken by SLR Consulting (January 2001) for Transco. These studies sought to establish a suitable route corridor for the proposed pipeline, which was to be built under the requirements of *The Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1996.*

The studies collated the principle known environmental constraints lying within a pre-defined Area of Search, compared the environmental impacts of three proposed route corridor options and presented the results in a series of attribute ranking tables. The report made recommendations for further study during the Environmental Impact Assessment process encompassed by Transco's Detailed Design Stage.

3.3 Stage 2: Desk based assessment

Once a viable route corridor had been established, an archaeological desk based assessment was commissioned (Network Archaeology Limited 2002a). The purpose of the assessment was to consider the cultural heritage implications of the proposed pipeline, to assist in the selection of an archaeologically least damaging route, and to provide a basis for further stages of investigation. Specific objectives are presented in the desk based assessment report (Network Archaeology Ltd 2002a).

The desk based assessment collated known archaeological information, from national, county and local data-holding bodies, pertaining to a one kilometre wide study corridor.

A total of 574 known archaeological sites were identified within the one kilometre wide corridor. Impacts upon 149 of these sites were identified. The impacts on two legally protected sites were categorised as 'indirect or uncertain', but the scale of the impact was considered to be minimal. Three nationally important, but not legally protected, sites were impacted upon. It was recommended that the pipeline route be altered to avoid those sites where the impact was categorised as 'direct'. In the case of NSMR 7350, the site of a deserted medieval village and church near Saxthorpe, it was recommended that field survey should first be undertaken to elucidate the nature of the potential impact. Avoidance of a small number of regionally important sites was recommended. However, for most regionally and locally important sites the recommended investigative strategy was to conduct a suite of field surveys along the entire length of the proposed pipeline (3.4).

3.4 Stage 3: Non-intrusive field survey

This stage comprised field reconnaissance survey, fieldwalking survey, geophysical survey (magnetometer and magnetic susceptibility) and metal-detecting surveys.

The purpose of the field survey was to consider the cultural heritage implications of the proposed pipeline, to assist in the selection of an archaeologically least damaging route, and to provide a basis for further stages of investigation. The specific objectives are presented in the field survey report (Network Archaeology Ltd 2003b).

The surveys were carried out in two phases. The first was between September and November 2002, and the second in January 2003. Field reconnaissance comprised a visual inspection of the working width in every field along the pipeline route. Structured fieldwalking provided approximately 25% coverage of the pipeline's working width. The geophysical survey, which comprised a magnetometer survey of a 15m wide transect aligned and centred upon the pipe trench, supplemented by magnetic susceptibility testing, was carried out by *Preconstruct Geophysics Ltd.* The survey provided approximately 36% coverage of the proposed pipeline's working width, although a larger percentage was surveyed in areas of known high archaeological potential.

The combined surveys identified archaeological remains within 109 of the 249 plots crossed by the proposed pipeline route. One plot (39/88) contained archaeological remains potentially of national importance. These comprised a complex series of enclosures, structures and discrete features associated with a medieval church and manor house. Forty-three plots contained regionally important archaeological remains and seventy-one plots contained archaeology of local importance. Fifty sites identified by the desk based assessment remained uncorroborated by the field surveys.

Alternative pipeline routing was recommended in order to avoid archaeological remains in plots 3/236, 39/88, 40/72, 44/52, 44/48 and 46/46-45. With the exception of one plot (44/52), an alternative route was identified and implemented. This resulted in the loss of one road crossing at Suffield Church, making plots 46/46 and 46/45 into 45/46 and 45/45. Trench evaluation was initially recommended for a further thirty-four plots.

3.4.1 Stage 4: Trench evaluation

The purpose of the trench evaluation was to consider the cultural heritage implications of the proposed pipeline, to assist in the final selection of an archaeologically least damaging route and to provide a basis for further stages of investigation.

The specific objectives were to:

- gather sufficient information to establish the presence or absence, extent, condition, character, quality and date of any archaeological, ecofactual, environmental and organic remains
- provide a preliminary assessment of the significance of any remains
- assess the potential impact of the proposed pipeline route on the remains at each site
- determine any need for further evaluation and mitigation work prior to construction

One hundred and four evaluation trenches were excavated and recorded within thirty-one plots along the route. With the exception of Trench 104 in Plots 39/88B-39/88, all the trenches were between 30m and 50m long and approximately 1.8m wide.

The majority of the evaluation trenches were located specifically to investigate possible archaeological anomalies identified by the geophysical survey. The exceptions were plots 1/252 to 1/251, where a putative Anglo-Saxon cemetery required a less targeted trenching strategy, and land owned by the National Trust (plots 39/88b & 39/88), where work was carried out in accordance with a 'Method Statement for Archaeological Evaluation Excavations on Land within the Ownership of the National Trust' (Network Archaeology Ltd 2003a). This required the machine-excavation of a 4m wide strip, aligned on the centreline of the proposed pipe trench, throughout the two plots.

In four cases the proposed pipeline route was altered to avoid archaeological sites that were considered to be of potential regional or national importance. These were identified in plots 3/236, 39/88 and 40/72 and throughout plots 44/48 to 45/44. Although, in each case, the new route was designed to avoid the significant archaeological remains that had been identified, it was still considered desirable to re-survey each section and evaluate any potential archaeological anomalies that were picked up.

Of the 29 plots in which 'standard' evaluation trenches were located, twelve contained archaeological remains for which full, open-area excavation was recommended (Stage 5). An alternative strategy was recommended for a thirteenth site in plot 12/203. Here the depth of the overlying subsoil was considered to be sufficient for *in situ* preservation of the majority of the archaeological remains. Along the line of the pipe trench, however, preservation by record was recommended.

Most of the remaining 17 plots that were evaluated contained archaeological features judged to be of low archaeological importance. It was recommended that these should be recorded during the permanent-presence watching brief (Stage 6).

The evaluation of the National Trust land (plots 39/88b & 39/88) demonstrated that the proposed route was the least archaeologically intrusive available in this area of the Bure Valley. Nevertheless, the mitigation strategy adopted was a topsoil strip of the full working width in both plots followed by excavation of all the archaeological features exposed.

3.4.2 Stage 5: Excavation

The purpose of the excavations was to carry out site specific mitigation at agreed locations.

The general objectives of the excavations were to:

- excavate and record archaeological remains
- investigate the morphology, function, status and date range of each site
- investigate the landscape setting of each site
- establish the pattern of past activity revealed along the pipeline route (an east-west aligned transect across the centre of Norfolk), how it changed over time and across pedological and topographical zones
- explore material culture both as a means of elucidating the date, function and status of associated sites and to produce data to inform site-independent artefact studies
- investigate the environmental settings of the sites and to ascertain their change over time
- investigate site-formation processes and to ascertain the degree of on-site ecofactual and artefactual residuality
- consider possible biases in the recovered dataset in order to assess whether it is a representative sample of past activity along the pipeline route
- disseminate the findings of the project through the County Sites and Monuments Record and academic publication, where appropriate

The specific objectives and broad research aims are presented below (section 11).

The excavation procedures are defined in the Written Scheme of Investigation for Excavation (Network Archaeology Ltd 2003c) and its implementation was monitored by Transco's archaeological consultant for the project, Linda Bonnor.

In addition to the thirteen sites for which full formal excavation was recommended, a further ten sites were identified during the routine watching brief (stage 6) of the topsoil strip. These sites were subsequently sample excavated during the construction phase of the project.

3.4.3 Stage 6: Watching brief

3.4.3.1 Aims of stage

The purpose of the work was to conduct a general watching brief of ground disturbing construction work to identify and deal with any unanticipated archaeological remains encountered, and gain a better understanding of the archaeology of the region through which the pipelines passes. The general aims were to:

- provide a permanent-presence watching brief during all ground disturbing activities
- locate, recover, identify, and conserve (as appropriate) any archaeological artefacts
- locate, excavate and record archaeological remains
- locate, recover, assess and analyse (as appropriate) any palaeo-environmental, palaeo- economic and organic remains
- mitigate the physical impacts of the pipeline upon archaeological remains (archaeological, palaeo-environmental, palaeo-economic and organic remains, and the historic/built environment)
- recommend measures for preservation *in situ* of archaeological remains (where feasible and desirable)
- disseminate the findings of the project through the County Sites and Monuments Record and academic publication, where appropriate

The specific objectives and broad research aims are presented below (section 11).

Permanent presence monitoring was maintained by two suitably experienced archaeologists throughout topsoil stripping and pipe trench excavation and, where necessary, an excavation team was mobilised to investigate archaeological remains. The majority of archaeological sites encountered during the topsoil stripping were treated in the same way as those identified during the evaluations (see sections 3.4.1 & 3.4.2). For sites discovered during the excavation of the pipe trench, emphasis was placed on recording the archaeology, wherever safe and practicable, rather than identifying sites for excavation.

Topsoil stripping took place within a 42 m wide working width along the length of the pipeline. The surface of all stripped areas and spoil heaps was thoroughly searched for archaeological remains in advance of works traffic running on stripped surfaces. The potential of archaeological remains identified during topsoil stripping was judged by the watching brief team. Remains which were considered to be isolated were excavated and recorded by the watching brief team. Substantial remains were reported to Transco's archaeological advisor immediately and agreement sought over the need for, and nature of any mitigation. This was determined by representatives of Network Archaeology Limited, Transco, Murphy Pipelines Limited and Norfolk Landscape Archaeology.

Pipe trench excavation was preceded by a 4 m wide 'header trench' approximately 0.2m deep. Where this revealed archaeological remains, these were excavated immediately. The pipe trench was *c.*2.8 m wide and *c.*1.5-2 m deep, except at road, rail, river, ditch and service crossings where, for safety reasons, the pipe was installed in a wider and deeper trench. Pipe-trenches and bore-pits were closely monitored for alluvium and colluvium. A specialist palaeo-environmental sub-contractor (The Environmental Archaeological Consultancy) was commissioned to provide advice and recover samples when necessary.

Plot 39/84a was not on the route of the pipeline when construction began. However, a last-minute change of route meant that the pipeline followed the southern edge of plot 84a, rather than the northern edge of plot 84. Although the change in route was subtle in both geographical and topographical terms, it proved to be significant in archaeological terms, as routine observation of the topsoil strip identified an extensive complex of linear and pit-like features throughout the plot.

4 SCOPE OF THIS DOCUMENT

This document is a post excavation assessment of archaeology found along the route of the Bacton to King's Lynn natural gas pipeline, and contains an updated project design for full post-excavation analysis. The document is divided into four main parts: Introduction and background to the project; assessment of potential; updated project design; and appendices (figures and specialists' reports).

This assessment is concerned primarily with the results of open-area excavations, which were carried out on a total of twenty-three sites between February and June 2003.

This assessment is not specifically concerned with the results of the field evaluations carried out between January and March 2003. The data recovered during this phase of fieldwork, nevertheless, does have archaeological value and should be treated accordingly. So, for example, where evaluation identified a site that was subsequently excavated in full, the data has been incorporated within the assessment of that site. In cases where the evaluation did not identify an archaeological 'site', the data has been assessed on its own merits.

Similarly, although the data recovered during the observation of the topsoil strip and subsequent trenching operations is not of primary concern within the assessment process, it is clearly still of archaeological significance. As such, the watching brief data has also been assessed on its own merits.

This assessment is not, nor does it purport to be, an academic publication as defined by the documents 'MAP 2' (English Heritage 1991) and 'Standards and Guidance for Archaeological Excavation' (IFA 1999).

This assessment is not accompanied by illustrations, other than maps showing the route of the pipeline and the locations of the sites as well as other important areas described in the text (Appendix 2).

5 METHOD OF ASSESSMENT

5.1 Archive

Artefacts recovered during the project were processed as appropriate, weighed, quantified and catalogued according to accepted professional standards and guidelines. The artefacts were divided according to their material types, and the pottery was sub-divided into three main period groupings (Prehistoric; Late Iron Age and Roman; and Post Roman) and was sent to relevant specialists to obtain spot dates.

The written, drawn and photographic archives were checked for obvious omissions, errors and inconsistencies, and were corrected or clarified where necessary. Site plans were digitised using AutoCAD.

5.2 Stratigraphic Assessment

A matrix of contexts was prepared for each site using the written, drawn and, photographic records. Stratigraphic relationships and the preliminary pottery spot dates were used to sub-divide the matrix into phases. The current phasing scheme is not definitive and will undoubtedly need revising during the full analysis phase of the project.

5.3 Artefact Assessments

The following specialists were used:

Prehistoric pottery	Sarah Percival
Roman pottery	Alice Lyons
Post Roman pottery	Richenda Goffin
Daub/fired clay	Richenda Goffin
Ceramic building material	Lucy Talbot
Worked stone assessment	Hilary Major
Special finds	Julia Huddle
Coins	Adrian Marsden
Charcoal	Rowena Gale
Textiles	Penelope Walton Rogers
Anglo-Saxon brooches & dress fittings	Penelope Walton Rogers
Glass, coral & amber beads	Birte Brugmann
Struck flint	Sarah Bates
Slag	Jane Cowgill
Human bone	Kate Brayne
Environmental archaeology	James Rackham
Soils	Charles French

The specialists were commissioned to assess the assemblages on a site-by-site basis. The aim was to establish if further study of the assemblages had the potential to address questions posed in the research design (11.1). In addition, the specialists were invited to identify hitherto unidentified research aims that

further study would have the potential to answer. Assessment of the stratigraphic, artefactual, faunal and environmental datasets has sought to identify premium context groups, other contexts where residuality might be a problem and those contexts which require further artefactual study to determine their position in the phasing schemes.

The specialists were supplied with briefs which stated the requirements of the work. As a minimum, the reports were to include the following sections: introduction; methods of assessment; quantification of assemblage; discussion of results; and potential and recommendations for further work. Specialists were also given matrices augmented by written summaries of the stratigraphic phases; information regarding location, geology, pedology and topography; context descriptions; and intra-site location plans. The pottery specialists initially provided spot dates which were then circulated amongst the other specialists.

There are two exceptions to the specialist methodologies outlined above. Firstly, given the very small size of the coin assemblage, it was considered that an initial assessment would be unnecessary. As a result, a full report was commissioned straight away. Similarly, no assessment report was commissioned for the Anglo-Saxon beads from site 13/202. Instead, in order to take full advantage of Birte Brugmann's visit to England, a full report was commissioned in the first instance.

5.4 Integration of Data

Background information and the information provided by the specialists have been synthesised within this report. The results of the assessments and recommendations are summarised in the body of the report whilst the detail is presented in Appendix 1.

6 QUANTIFICATION OF THE SITE ARCHIVE

Table 2 (below) provides a full quantification of the written, drawn and photographic archive for evaluation trenches 1 to 104, the excavations and the watching brief.

Archive Component	Total Number
Context Sheets	7148
Other Written Sheets & Indexes	1569
A1 Drawing Sheets	168
A2 Drawing Sheets	237
A3 Drawing Sheets	242
Black & White Print Films	240
Colour Slide Films	232

Table 2: Quantification of the archive, by material type, for the trench evaluation, excavations and watching brief

7 SITE DESCRIPTIONS & STATEMENTS OF POTENTIAL

7.1 Site 1/251 (NHER 37617 WNE)

7.1.1 Location

The site was located within the parish of East Walton, approximately 10 km east-southeast of King's Lynn. The site was roughly 150 m north of a minor road between East Walton and East Winch, and *c.* 1 km west of the B1153 (TF 736171).

7.1.2 Aspect/Topography

The site was situated on the lower reaches of a very gentle, southwest-facing slope. It appeared to occupy a point of transition between the chalk 'downs' that stretch away to the north and east and the marshy 'fenland' surrounding the Wash to the south and west. Examination of the soil profile at the northern limit of the site indicated that deep ploughing had made a significant impact on the natural topography of this plot.

7.1.3 Geology/Soil Type

The natural drift geology consisted of moderately well compacted chalk lumps, with occasional pockets of degraded chalk and sand, as well as very infrequent flint inclusions. The overlying subsoil varied between a mid-brown and an orange-brown clayey-sand, with occasional chalk flecks and sub-angular flint inclusions.

7.1.4 Archaeological Background

Although this plot had tentatively been identified as the site of an Anglo-Saxon cemetery in the desk based assessment (Network Archaeology Ltd 2002a), this was not corroborated by the field survey (Network Archaeology Ltd 2003b). Fourteen evaluation trenches were excavated. One (Tr.7) identified prehistoric settlement remains. As a result, it was decided that the area should be topsoil-stripped and excavated in advance of construction.

7.1.5 Stratigraphic Assessment

Seven phases of activity were evident:

Phase 1 – Undated: A rectangular pit or post hole was recorded in the north western corner of the site.

Phase 2 - Early Neolithic: A discontinuous layer of dark, remnant subsoil was particularly evident in the western half of the site. A significant quantity of Early Neolithic pottery was retrieved from part of the layer. The nature of the human activity which led to the formation of this layer is uncertain.

Phase 3: Extensive clusters of stake holes were located to the south and east of a central chalk ridge. This phase has been assigned on the basis that the features were sealed by a black layer (phase 4), but it is possible that features actually cut the black layer, and were only visible where they cut into chalk. There was an absence of dateable finds from these features.

Phase 4 - Late Neolithic or Early Bronze Age: Three discrete spreads of a charcoal rich, black material (1120, 1121 & 1122) may originally have formed a continuous layer, which subsequently suffered plough damage. The material could have derived from the clearance of vegetation by fire, mixed with human occupation debris. Preliminary dating of a concentration of flint tools and pottery fragments in the north western corner of the site, suggests a Late Neolithic or Early Bronze Age date for this layer.

Phase 5 - ?Early Bronze Age: Most features, particularly on the eastern half of the site, have been assigned to phase 5. However, as stratigraphic relationships were frequently unclear, much of the phasing is tentative. Those features which can be phased with confidence include a ditch (1037 & 1486) that bisects the site, and two curvilinear ditch terminals (1340 & 1350), which probably formed a small circular enclosure.

Phase 6: Discrete patches of brown silt (1120 & 1122) may once have formed a continuous horizon that has since been disturbed by ploughing. The layer may well be a second element of the formation processes which created the charcoal rich layer representing phase 4, rather than a 'stratigraphic event' in its own right.

Phase 7 - ?Late Bronze Age or Iron Age: The ditch (1037 & 1486) that bisected the site in phase 5 appeared to have been replaced by a wider ditch on a similar alignment. Due to truncation during topsoil stripping, it is not possible to fully compare the form and function of the two ditches.

7.1.6 Stratigraphic Potential and Recommendations

Ascertaining the stratigraphic relationships between the phase 4 'black spread', the phase 6 'brown silt' and the various cut features will be crucial to the interpretation of activity on site. The potential for constructing a tolerably complete stratigraphic sequence for the western half of the site is fairly high; it is much lower for the eastern half of the site where post-depositional truncation has been more severe. Two groups of stratigraphy in the eastern half of the site (1121 and 1122) retain sufficient integrity to merit further study, however, and these should be analysed alongside the stratigraphy to the west.

The results of such a study, combined with an analysis of the significant artefactual and ecofactual assemblages recovered from this site, would add to knowledge of the nature of fen-edge settlement from the early Neolithic to the later Neolithic Bronze-Age transition. A programme of further analysis would therefore help to address specific research aims 1 to 3 and 5 to 10.

7.1.7 Summary of Artefact Assessment

7.1.7.1 Prehistoric Pottery

The site yielded 311 prehistoric sherds weighing 1662g and dating from the earlier Neolithic (4000-3000BC) to the Iron Age. Most was earlier Neolithic with the next largest group from the later Neolithic to Early Bronze Age (3000-1000BC). Domestic vessels were a major part of the assemblage. Further study of the pottery, including comparison with other assemblages of 'domestic' Beaker and other Later Neolithic Early Bronze Age pottery from the Fen edge environment, has the potential to elucidate the use of the site.

Recommendations for further work comprise the full integration of context information and preparation of publication text, the selection of sherds for illustration and production of a catalogue.

7.1.7.2 Ceramic Building Material

Two small fragments of abraded 18th century brick weighing 5g were recovered. No further work is recommended.

7.1.7.3 Fired Clay

Twenty-four fragments of fired clay weighing 125g were recovered from a number of deposits, some of which are provisionally dated to the late Neolithic to Early Bronze Age. No further work is recommended.

7.1.7.4 Struck Flint

The site produced 151 pieces of struck flint and one burnt fragment. Most of the assemblage was unmodified, and included a large number of blades. Retouched pieces included scrapers and a backed-knife consistent with a late Neolithic or Bronze Age date. Ten utilised flakes and five utilised blades were also present. It is recommended that the diagnostic flints a re-examined in conjunction with the contexts from which they were obtained.

7.1.7.5 Worked Stone

A natural sarsen pebble with area of differential wear is interpreted as a rubber. The pebble should be included in a publication text.

7.1.7.6 Environmental Archaeology

Fifty-eight bulk samples, two column samples and 891 hand-collected fragments of bone (weighing 6632g) were submitted for analysis. Most of the bulk samples and both column samples were taken from a dark, truncated, buried soil horizon. The remainder of the samples were from pit fills, charcoal rich horizons and a post hole. A low level of contamination was evident in most of the samples, but was not sufficient to prejudice the results.

The samples provided poor palaeo-economic and botanical evidence and can be taken little further than showing cereals were cultivated or consumed at the site and that hazelnuts were gathered and eaten. The bone remains indicate that cattle, sheep/goat, pig, red deer, eel and perhaps small birds and other fish were eaten, but poor preservation makes assessment of the relative importance

of each taxa problematic. The bulk of the material seems to have been derived from domestic waste and presumably reflects its area of discard.

Contrastingly, the palaeo-environmental evidence is quite rich. Small vertebrates and terrestrial snails are ubiquitous, but their evidence is contradictory. The small vertebrate remains suggest lots of vegetation cover and possible scrub or local woodland. In contrast, the bulk of the snail evidence is for an open country or grassland environment. Snail assemblages of woodland character, from a number of pit samples, indicate that woodland was local to the site for part of its history.

Owing to the poor condition of the hand-collected bone assemblage, it can be assumed that some material will have been completely lost in the soil. This will have a major impact on the interpretive value of the assemblage, as small bones and bones of birds, young pigs and other juveniles may all have been lost, whilst robust cattle bones and teeth have survived. Cattle bones were recovered from over twice as many contexts as any other species, with sheep bones the next most frequent. Pig bones, horse, deer, human, dog and red deer were also recorded.

The hazelnuts, red deer bone, eels (and possibly other small fish and bird bones) indicate use of wild resources, but their importance cannot be assessed from these assemblages, merely their presence. However, even identification of their presence is of value for a site of this period. The evidence also shows that the husbanding of cattle, sheep and pigs was taking place, but their importance and individual husbandry may not be recoverable from these remains. The palaeo-environmental evidence has the most potential and could answer questions concerning the local environment.

Recommendations for further work are therefore as follows:

- Specific identification of the cereal and charred seed remains.
- Identification of the charcoal in context (1311).
- Identification of the small bird and fish remains, with specific attention to the presence of fossil fish.
- Analysis of the distribution of charred seed, hazelnut shell, charcoal, animal bone and fish remains from the samples.
- Identification, quantification and analysis of a number of the snail assemblages, in addition to specific spatial and chronological analysis of those reflecting different habitats.
- The cataloguing and analysis of the excavated animal bone, with specific attention to the taphonomic problems of the assemblage.
- Description and analysis of the two column samples by a geoarchaeologist.

7.1.7.7 Hand-Collected Charcoal

Fewer than 30 fragments of charcoal were recovered from three contexts (1028, 1124 and 1422) of probable prehistoric date. Seven fragments were identified as ash (Fraxinus excelsior), alder (Alnus glutinosa) and blackthorn (Prunus spinosa). No further work is recommended.

7.1.8 Recommendations for AMS dating

It is recommended that up to three AMS dates are obtained in order to more accurately date the stratigraphic sequence and calibrate the dates of significant late prehistoric ceramic groups.

7.2 Site 6/226 (NHER 37821 RGH)

7.2.1 Location

The site was located within the parish of Rougham. It was situated approximately 1 km west of the A1065, Fakenham to Swaffham road, and roughly 1 km north of the village of West Lexham (TF 831184).

7.2.2 Aspect/Topography

The site occupied the middle reaches of a slight spur projecting out from a south-facing valley slope. It was situated near to the head of the valley, which probably once carried a tributary of the River Nar that runs to the southeast. The slope had a steep gradient, but the site itself occupied a fairly level terrace.

7.2.3 Geology/Soil Type

The natural drift geology comprised primarily bright orange silty sand, with frequent flint inclusions. There were also frequent patches of firm, yellowish clay. The overlying subsoil was a fine, mid-to-dark reddish brown sandy silt, with frequent small, sub-angular flint inclusions.

7.2.4 Archaeological Background

The fieldwalking survey identified a small, but significant, concentration of cultural material towards the western boundary of this plot. In addition, the geophysical survey identified a number of significant linear and pit-like anomalies in the same area. In response, three targeted evaluation trenches (Trs. 97, 98 & 99) were excavated. On the basis of the results, the surrounding area was immediately stripped of topsoil and the revealed archaeological features were sample excavated.

7.2.5 Stratigraphic Assessment

The evidence clearly shows that a small settlement had been established by the 1st century AD. A small quantity of residual Iron Age pottery suggests pre-Roman activity on the site, perhaps the remains of a small, Romanised Iron Age community. Two phases of enclosure have been tentatively identified:

Phase 1: This phase comprises pits (6127 & 6128); post holes (6129); narrow gullies (6122) aligned on a rectilinear grid within a double ditched enclosure

(6121 & 6125), and a third ditch (6126) on a similar alignment, which was probably associated with the enclosure.

Phase 1ii: Two enclosure ditches (6044 & 6123) have been assigned to phase 1ii on the basis of their orientation and morphology. In Phase 1i the shape and orientation of the enclosure appeared to have been defined by the topography of the hillside, whereas Phase 1ii is indicative of a move towards a more imposed, rectangular enclosure. The phase 1ii ditches contained pottery indicating they had been backfilled in the 2nd century or later.

7.2.6 Stratigraphic Potential and Recommendations

The potential to formulate a coherent, phased chronology through detailed analysis and interpretation of the stratigraphy is limited by a number of factors: truncation by ploughing; a lack of dateable artefacts in a significant proportion of the features, combined with a lack of stratigraphic links with other (dateable) features; and a general lack of stratigraphic links between different features. Residuality, however, may not be a significant problem as all the dateable features can be attributed to the Roman period with a reasonable degree of confidence.

Comparisons of fills, profiles and watching brief data may enable a more comprehensive and reliable phased chronology to be developed and some of the general objectives of the project to be addressed. However, the work is unlikely to address any specific research aims.

7.2.7 Summary of Artefact Assessment

7.2.7.1 Struck Flint

Twelve pieces of struck flint were recovered during excavation in addition to two found during the evaluation. The majority are blades and blade-like pieces, some of which are likely to be earlier Neolithic. As the site was predominantly Roman, it is therefore likely that the material was residual. It is recommended that the assemblage is considered in the light of any further dating evidence obtained from the site.

7.2.7.2 Environmental Archaeology

A single bulk sample was taken from an early Roman ditch (6042). There was little evidence of contamination. Archaeological evidence included three sherds of pottery, baked clay, flint flakes (probably un-worked), animal bone and a flake of hammerscale. The environmental assemblage includes charred cereal grains, a single piece of chaff, charred weed seeds, nutshell fragments and a few shells of C. acicula and Vallonia excentrica. Barley, possible wheat and hazelnut have been preliminarily identified. The charcoal includes numerous small twigs and twisted woody fragments, which might be heather, as well as larger wood charcoal. The assemblage has domestic characteristics, although the proportion of charred weed seeds to the cereal grains is also indicative of crop processing. The charcoal may represent the selection of heather as a fuel in ovens or as tinder. The potential of the sample is limited and there are no recommendations for further work.

7.2.7.3 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a ditch (6042). One fragment of narrow oak (Quercus sp.) roundwood was identified. No further work is recommended.

7.3 Site 8/219-217 (NHER 37741/37826-37 LEX, 37741/37828 WAS)

7.3.1 Location

The site was located within the parishes of Lexham and Weasenham All Saints (TF 855195), between the villages of West Lexham and Weasenham All Saints, and approximately 0.5 km east of the A1065, Fakenham to Swaffham road.

7.3.2 Aspect/Topography

The site occupied a generally level plateau on a relatively gentle south facing valley slope on the north side of the River Nar. The land rose almost imperceptibly to the north and east, reaching a height of just over 80m AOD at TF 872214. The natural topography is likely to have been changed only by the effects of deep ploughing.

7.3.3 Geology/Soil Type

The natural drift geology consisted primarily of loose, light brownish yellow sand, with frequent flint nodules, although there were also patches of firm, mid-orange clay.

The subsoil was friable, mid orange brown to light yellowish brown silty sand, with frequent flint inclusions.

7.3.4 Archaeological Background

Neither the fieldwalking survey nor the geophysical survey identified any significant concentrations of cultural material or strong geophysical anomalies within these plots; however a scatter of weak linear and pit-like anomalies was identified by the geophysical survey throughout plots 219 and 218, and at the western end of plot 217. The site was identified during topsoil stripping and time was subsequently made available to fully expose and excavate a sample of the archaeological features identified.

7.3.5 Stratigraphic Assessment

The majority of features contained no dateable finds and have not presently been phased. However, five main phases of activity can be defined:

Phase 1 – *Neolithic:* Ditch 8395 appears to be a significant boundary upon which the orientation of the site in plot 219 was hung. Pits recorded by the

geophysical survey run in lines at right-angles to the ditch. Plot 218 contained: a series of ditches (including 8402 & 8403), which may define an elongated enclosure or field system; and a seemingly random scatter of pits (including 8316 & 8327). No direct relationship has been discerned between the two groups of features. One early Neolithic feature, a small, heavily truncated pit (8852), was present in Plot 217.

Phase 2 – *Late Neolithic to Early Bronze Age:* The most notable feature assigned to this transitional phase is a small, circular pit (8119) in plot 219, which cut a phase 1 ditch (8395). Two features in plot 218 are provisionally placed in this phase: a circular ditch (8362) and a large pit (8385). The circular ditch lay northeast of the main focus of Neolithic activity and probably had a ceremonial or funerary- rather than a domestic function.

Phase 3 - *Late Bronze Age:* Two pits (8009 & 8118) were present in plot 219, and a small, isolated pit (8285) was recorded in plot 218.

Phase 4 - *Iron Age:* Three clusters of post holes (8399, 8400 & 8401) in plot 218 were the most striking features of this phase. It is possible that the clusters indicate structures immediately beyond the south eastern edge of the spread. A further two pits (8026 & 8095) were recorded in plot 219 and two more pits (8003 & 8005) in plot 217. Another pit (8092) may be attributable to the Roman period.

Phase 5 – Medieval / Post Medieval: A single ditch (8850) at the western end of plot 217, although not shown on post medieval maps, is likely to be of this date, because it runs at right angles to field boundaries that are shown on the maps.

Un-phased: The most striking un-phased features comprised a group of irregularly spaced, short, narrow and heavily truncated parallel linear ditches (8398) at the eastern end of plot 219. It is likely that they are a remnant of a medieval or earlier agricultural system.

7.3.6 Stratigraphic Potential and Recommendations

Features were best preserved in plot 218. Here, groups of post holes and a number of Neolithic pits, with deep vertical sides, survived intact. However, truncation of features in plots 219 and 217 limited the potential of the stratigraphy to address the research aims in these areas.

Some groups of well preserved features in plot 218 were closely dated, but across the rest of the site significant proportions of the features contained no dateable artefacts and remain un-phased. However, it is apparent that the nature of activity on site changed relatively little throughout its use. As such, the lack of artefacts may not detract from our understanding of the site's function.

Comparison of the stratigraphy with the artefact assemblages indicates that levels of residuality are negligible in plots 218 and 217, although abraded Iron Age pottery in pits (8003 & 8005 - plot 217) may be residual.

Features in all three plots were generally isolated with no stratigraphic links with which to formulate coherent and phased chronologies. Nonetheless, there were closely dateable groups of well preserved features, particularly on the western half of plot 218, which with additional analysis have the potential to address the research aims. Further study of the site could enhance the understanding of the prehistoric landscape around Weasenham Lyngs.

Recommendations for further work include a limited programme of research to compare the profiles and fills of features that are not phased or dated with those that are, in order to construct a more comprehensive and reliable phased chronology for the site; and an attempt to refine this chronology by correlating the worked flint in features that do not contain pottery with the flint in features that do. This is particularly important for the groups of post holes along the southern fringe of the site, where dating evidence from the pottery and worked flint is sometimes contradictory. In addition, comparison of the results from plot 219 with data from both the geophysical survey is recommended. A programme of further analysis would therefore help to address specific research aims 5 to 7, 9, 10 and 14.

7.3.7 Summary of Artefact Assessment

7.3.7.1 Prehistoric Pottery

An assemblage of 547 sherds weighing 3802g was recovered from the site. The earlier Neolithic through to the Earlier Iron Age were represented, with the majority of pottery dating to the earlier Neolithic. Most of the later Bronze Age pottery was recovered from one pit and if it can be demonstrated to be domestic, will be of particular interest because it is similar to examples from Grimes Graves. Fragmentary remains of two mid to late Bronze Age collared urns, recovered from a pit are also of particular interest. Mid to later Iron Age pottery from a small rectangular pit was comparable with examples found during excavations at Beeston with Bittering.

Further work to define the nature of the earlier Neolithic and Later Bronze Age assemblages would comprise analysis and writing-up to publication standard, selection of sherds for illustration and the production of an illustrated sherd catalogue.

7.3.7.2 Romano-British Pottery

Two sherds of abraded Romano-British coarse ware pottery weighing 21g were recovered. Both sherds were residual and no further analysis is recommended.

7.3.7.3 Ceramic Building Material

The site yielded seven pieces of post medieval and modern pantile weighing 23g. No further work is recommended.

7.3.7.4 Fired Clay

Two fragments weighing 2g were recovered.

7.3.7.5 Struck Flint

The site yielded 269 pieces of flint, the majority of which are unmodified. Flint debitage from the site probably dates to the early Neolithic. A fairly large number of flints, recovered from deposits provisionally dated to the earlier Neolithic, appeared to be *in-situ*. A scraper was recovered from a small ring ditch of probable later Neolithic or Early Bronze Age date, and a microlith of likely Mesolithic date was probably residual within ditch 8291.

It is recommended that the nature and the distribution of the flint are considered in relation to the different phases of activity represented in different areas across the site. Registered flints from the site should be described, dated where possible and considered alongside the rest of the site's assemblage. A number of flints are recommended for illustration.

7.3.7.6 Worked Stone

A fragment of saddle quern was recovered from a context provisionally dated to the Bronze Age. The fragment should be included in a publication text.

7.3.7.7 Environmental Archaeology

Two bulk samples were taken in plot 219; one from a from a small late Neolithic / early Bronze Age pit (8119) and the other from a later Bronze Age pit (8092). No archaeological finds were recovered from the samples and, no environmental finds were present other than some charcoal, probably intrusive snail shells and two fragments of charred hazelnut shell. The limited data has little potential for further analysis and none is recommended.

Ten bulk samples from plot 218 were submitted for analysis. They were from features assigned to Phases 1 to 4 (Neolithic to Iron Age), with one sample (from context 8313) un-phased at present. Low levels of contamination were apparent, and as a lack of animal bone from the site clearly indicates that the deposits were entirely decalcified, it is likely that the few shells present are also contaminants.

Archaeological debris has the largest presence in samples from phases 3 and 4. Pottery is consistently present. There is flint in three of the samples, baked clay and burnt flint in some and flakes of hammerscale in two.

The environmental evidence is concentrated in the features from the later phases, but occurs at low densities in all but one of the samples. All identifiable charred grain is concentrated in the samples from a small group of post-holes (8174, 8176 & 8178) in the centre and east of the plot. Hazelnut shells occur in one un-phased sample, one Phase 2 sample and one Phase 3 sample. Only two samples contain more than 10 charred weed seeds.

Little information can be gained from the samples from the early phases of activity, but the concentrations of pottery and charred cereal grain in the Iron Age deposits, particularly the group of three post-holes (8173, 8175 and

8177), suggests that these later features are receiving domestic rubbish. Preliminary identifications of the material indicate that wheat, barley and hazelnuts were present. Other taxa might be added after specialist identification. The concentration of hammerscale in the samples is too low to attach any significance to these finds.

A burnt deposit from pit [8312] at the northwest end of the plot is un-phased, but its residue is entirely composed of burnt flint and has produced the largest flot from the site (over a litre of charcoal). Analysis of the charcoal assemblage in this context would be a useful comparanda for similar deposits excavated at other sites along the pipeline and may reflect either fuel selection or the character of the local woodland. The charcoal also offers the opportunity to date the deposit by radiocarbon dating.

Two areas of further work are suggested:

- Identify and study the charred cereal and seed assemblages from the Bronze Age and Iron Age contexts (Phases 3 and 4).
- Study the charcoal from context (8313), but only after further archaeological information or dating becomes available.

7.3.7.8 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a pit (8316) in plot 218. One fragment of charcoal was identified as hazel (Corylus avellana). No further work is recommended.

7.4 Site 12/203 (NHER 37621 TTL)

7.4.1 Location

The site was located within the parish of Tittleshall (TF 890201), on the western side of a minor road connecting Tittleshall and Mileham (RDX 13). The site lay approximately 0.75 km southwest of Tittleshall and 2.5 km northwest of Mileham

7.4.2 Aspect/Topography

The site occupied the middle and upper reaches of a relatively gentle, east-facing valley slope. It is likely that only deep ploughing has altered the natural topography. This has resulted in the movement of soil down the slope, leading to the accumulation of colluvium where the gradient of the slope levels out.

7.4.3 Geology/Soil Type

The natural drift geology consisted mainly of a friable, mid orange brown sand, with very frequent patches of flint brash at the western end of the plot, becoming more occasional to the east.

The overlying subsoil was a mid to light orange brown clayey sand, with occasional sub-angular flint inclusions.

7.4.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material within this plot. A number of significant linear and pit-like anomalies were, however, identified by geophysical survey in the western half of the plot. As a result, two targeted evaluation trenches were excavated. Although a number of significant archaeological features were identified, the depth of the overlying subsoil enabled them to be largely preserved in situ. As a result, only those identified along the line of the pipe trench were excavated.

7.4.5 Stratigraphic Assessment

The limited excavation of this site identified seven features in addition to those observed during the field evaluation. The scant evidence suggests that there were a maximum of two phases of activity:

Phase 1 - *?Prehistoric:* A large pit (12015) contained residual flint and three Iron Age pottery sherds, which may also have been residual. No other features on the site contained dateable artefacts, nor were there stratigraphic links between them.

Phase 2 – *Post medieval:* A field boundary (12000), dated by its morphology, was identified at the western end of the plot.

7.4.6 Stratigraphic Potential and Recommendations

The recovered data has little or no potential to address even the more general research aims of the project, given that the dating of the features themselves remains uncertain. As such, it is only recommended that an overall plan of the site, combining the evaluation and excavation data, should be prepared for inclusion with the deposited archive.

7.4.7 Summary of Artefact Assessment

7.4.7.1 Prehistoric Pottery

Three Iron Age sherds weighing 14g were recovered from the fill of a pit. The sherds were probably residual and no further work on them is recommended.

7.4.7.2 Struck Flint

Three ?Neolithic flints were found during the evaluation. During the excavation, a blade and flake were recovered from a pit containing Iron Age pottery considered to be residual. As the blade and flake appear to pre-date the Iron Age, they do not aid interpretation of the pit. No further work is recommended.

7.5 Site 13/202 (NHER 37622 TTL)

7.5.1 Location

The site was located within the parish of Tittleshall (TF 893203), on the east side of a minor road between Tittleshall and Mileham (RDX 13). The site lay approximately 0.5 km south of Tittleshall and 2 km northwest of Mileham.

7.5.2 Aspect/Topography

The site occupied the westerly portion of a plateau and upper and middle reaches of an adjoining relatively gentle, west-facing valley slope. It is likely that only deep ploughing has altered the natural topography. This has resulted

in the movement of soil down the slope, leading to the accumulation of colluvium where the gradient of the slope levels out.

7.5.3 Geology/Soil Type

The natural drift geology comprised a mixture of light, orange brown sand and yellowish brown silty sand, with sub-rounded and sub-angular flint inclusions and pockets of sub-angular flint nodules.

The overlying subsoil was a mid to light orange brown silty sand with occasional sub-angular flint inclusions.

7.5.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material. A number of significant linear and curvilinear anomalies were, however, identified by geophysical survey and as a result three targeted evaluation trenches were excavated. On the basis of the results, the surrounding area was stripped and excavated in full.

7.5.5 Stratigraphic Assessment

Provisional pottery spot dates and preliminary stratigraphic, morphological and spatial analysis identified thirteen phases of activity:

Phase 1 - Undated: A feature (13206) of probable natural origin.

Phase 2 - Neolithic: A small pit (13071) yielded Neolithic pottery.

Phase 3 - Neolithic: Two linear features (13122 & 13127) represent either prehistoric gullies or natural features. Neither produced any dateable artefacts, but their profiles suggest that they were probably man made. They could represent a sub-phase of Phase 2, and definitely pre-date phase 4.

Phase 4 - Late Neolithic / Bronze Age: A segmented, curvilinear ditch (13210, 13211 & 13212) towards the northern edge of the spread is interpreted as the remains of a ploughed out round barrow, or ring ditch. Two pit-like features (13271 & 13274) and a post hole (13231) were located within the area enclosed by the ring ditch.

Phase 5 - ?Bronze Age: Backfilling of the segmented ditch (13210, 13211 & 13212) is thought to have significantly post dated Phase 4, but there is no direct evidence of this. The backfilling could equally have taken place soon after the ditch was dug.

Phase 6 / 7 - Bronze Age: A second ring ditch (13215) is believed to have been constructed around the original (13210, 13211 & 13212). The later date of the outer ditch is posited from comparison with similar barrow sequences elsewhere, and the location of a cremation (13110) between the two ditches, and three pits and a post hole (13310) which cut the fill of the inner ditch.

These features had presumably been placed within an extended mound which had filled and covered the earlier construction.

Phase 8 - Iron Age: A sub-rectangular enclosure (13214) was found to the south east of the round barrow, and a scatter of pits was seen further up the valley slope.

Phase 9 - Iron Age: The outer ditch (13215) of the round barrow was finally backfilled and the barrow mound was either levelled or significantly remodelled. Prior to this, the ditch appeared to have silted up naturally.

Phase 10 - Iron Age: Most of the Iron Age activity took place during this phase. The sub-rectangular enclosure ditch (13216) was re-cut and a considerable number of pits and post holes were dug on the higher valley slopes. Two ditches (13222 & 13228), constructed to the east of the crest of the slope are also likely to have been associated with this phase.

Phase 11 – Anglo-Saxon: A small cemetery (13213), focused on the remains of the round barrow, was established. Twenty-five inhumations, two cremations (13106 & 13305), a skull placed upside down within a small pit (13082) and an 'empty' grave (13067), containing only a pottery vessel, were found. Other features included a grave shaped pit (13129) that contained no evidence for an inhumation or grave goods, and a small pit, which contained a single amber bead.

Phase 12 - Post Medieval: A rectilinear field system (13216) was established.

Phase 13 – Undated: A small number of features, including the grave (13074) of a dog, appear to post date the phase 12 field system.

This phasing is only provisional as there is little or no distinction between some types of Iron Age and early Saxon pottery (a problem which also affects sites 24/144 & 25/138-136). The uncertainty affects three main aspects of the site phasing. Firstly, the infilling of the outer barrow ditch (13215), currently assigned to phase 9, could be the result of Anglo-Saxon (phase 11) activity, although it is more likely to be prehistoric. Secondly, the construction of the sub-rectangular enclosure (13214) may need to be moved from Phase 8 to Phase 11. Thirdly, at least some of the pits and post holes around the crest of the hill, currently assigned to Phase 10, may also need to be moved to Phase 11.

7.5.6 Stratigraphic Potential and Recommendations

Despite variable levels of preservation including heavy truncation of the Saxon graves (phase 11), the stratigraphy does have the potential to address both general and specific research aims. Close association of the probable round barrow and the Anglo-Saxon cemetery is of considerable regional interest. Further analysis of the stratigraphy in conjunction with artefact dating has the potential to elucidate methods of construction, development and demolition of the round barrow and the dates of these developments; the date

of the rectangular enclosure and its relationship with the probable round barrow. Three dimensional examination of the burial sequence in the Anglo-Saxon grave 13125 has the potential to allow more accurate correlation of grave goods with individual skeletons.

Detailed pottery analysis may resolve some issues of phasing and dating. Issues of artefact residuality may be resolved by further analysis of the contentious Iron Age/Early Saxon fabrics, which constitute a substantial proportion of the pottery assemblages from Phase 8 to 10 in particular. The presence of small quantities of residual Iron Age and Roman pottery within the fills of the Anglo-Saxon graves (Phase 11) does not pose a significant problem for the interpretation of the burials themselves.

A programme of further analysis would therefore help to address specific research aims 4, 5, 9, 10, 14, and 18-23.

7.5.7 Summary of Artefact Assessment

7.5.7.1 Prehistoric Pottery

The site yielded 199 sherds weighing 2588g and ranging from the earlier Neolithic to the Iron Age. The majority of the sherds were earlier Neolithic carinated bowl fragments, all recovered from one pit (13071). Five sherds of Neolithic Early Bronze Age Beaker pottery exhibited forms of decoration common to other Fen-edge assemblages associated with domestic occupation. Iron Age pottery was mostly found in association with a rectangular enclosure (13214) or in the fills of a scatter of pits. A similar assemblage comes from Harford Farm on the Norwich Southern Bypass, which occupied a comparable valley-side location.

Saxon pottery was also recovered from this site (see below). This is problematic as Iron Age and Saxon pottery types were made in a similar way from a similar clay source and therefore can be indistinguishable.

Further recommended work includes full integration of context information, preparation of a publication text, selection of sherds for illustration, production of a catalogue, and analysis to pinpoint exact dates for the Iron Age / Saxon sherds.

7.5.7.2 Post Roman Pottery

The site yielded 543 sherds (6210g) of possible early Saxon pottery. Several vessels, provisionally dated to the late 5th to 6th century, were associated with burials in an inhumation cemetery. A considerable quantity of possible early Saxon pottery was found within the outer barrow ditch (13515), a sub-rectangular enclosure (13214) and a range of pits and post-holes which also contained similar pottery fabrics provisionally dated to the Iron Age (see above). The only evidence of the middle Saxon period at the site was a single sherd of pottery retrieved from topsoil. Only one other fragment of middle Saxon pottery was retrieved from the project as a whole. The medieval period was represented by 17 sherds of pottery weighing 78g. Some appeared to be intrusive within Saxon graves.

The issue of the ambiguous Iron Age / early Saxon pottery needs to be resolved (see relevant pottery appendices). The condition of individual sherds should be recorded in order to provide some indication of residuality. A study of the early Saxon ceramics from the other features on the site, as well other sites along the pipeline could help establish a dating sequence for different phases on the sites. The lack of middle Saxon ceramics should be discussed in an overview. The medieval pottery should be re-examined to ensure accuracy of dating.

7.5.7.3 Bulk Metal Finds

Six fragments of iron weighing 6g were recovered. No further work is recommended.

7.5.7.4 Anglo-Saxon Iron Work

Thirteen out of twenty-four Anglo-Saxon graves yielded ironwork which mostly comprised knives and associated objects such as buckles or suspension rings, as well as a shield and a spear. In addition, the remains of an iron tub were found on the machined surface of the site. Textile remains adhered to some of the objects. Corrosion and damage to most of the objects means that they are no more precisely datable than 5th – 6th century, although the iron bound tub could be 6th -7th century. The small size and unremarkable nature of the assemblage limit its potential. However, further work would help to corroborate other dating evidence from the cemetery. It is recommended that objects obscured by sand and soil are cleaned and all objects illustrated. The tub should be reconstructed so that it can be compared with similar objects. The knives should be compared with those from other East Anglian cemeteries.

7.5.7.5 Anglo-Saxon Dress Accessories, Textiles and Costume

Approximately 60 items were examined. They included sixteen brooches, nine pairs of sleeve clasps, three buckles and other belt fittings, two pins and two pendants from graves. Subsoil in the vicinity of the graves yielded two brooches (one of them Iron Age), fragments of a third brooch, fragments of two sleeve clasps and a Roman finger ring. Thirty-seven items incorporated mineral preserved textile, often with more than one textile per item. The site has probably yielded in the region of seventy textiles. Over 388 beads recovered from the cemetery are reported separately (see below). The metal evidence indicates a date range from the late 5th century to shortly after the mid 6th century, but the beads extend this span to the late 6th or early 7th century. Pre-Saxon objects from the Anglo-Saxon cemetery were either residual or were 'heirlooms' when they were deposited. A number of items are of national importance.

Further analysis is recommended. The material needs to be conserved. Analysis of the material will need to take place variously before and / or after conservation. The Iron Age and Roman objects should be looked at by a specialist in that field. Nationally important objects should be fully researched and published. The assemblage as a whole should be compared with

collections from other cemeteries of Norfolk. Full publication of the material with illustrations, diagrams and plates is recommended.

7.5.7.6 Anglo-Saxon Beads

Over 388 beads were retrieved from seven inhumation graves. Most of the beads were made of amber or glass, and a small number were rock crystal. One bead was either made of or covered with silver sheet. The beads have already been subject to full analysis and there are no recommendations for further work, save supervision of photography, proofing of the report and liaison.

7.5.7.7 Coins

Three coins were recovered. A fourth coin (SF 70499) was actually a silver disc. Two of the coins dated to the late Roman period, but were pierced for suspension as pendants, which is purely a Saxon phenomenon, commonly found in late fifth to seventh century cemeteries. The third coin was intrusive as it dated to the early fourteenth century. No further work is recommended.

7.5.7.8 Ceramic Building Material

A single piece of post medieval plain roof tile weighing 13g was collected from topsoil. No further work is recommended.

7.5.7.9 Fired Clay

Twenty-one fragments weighing 87g were recovered, some from a ring ditch and some from the graves of two Saxon inhumations. No further work is recommended.

7.5.7.10 Struck Flint

One flake was found during the evaluation and 273 pieces of struck flint were recovered during the excavation of the site. The majority were unmodified flakes, probably of Bronze Age or Iron Age date and contemporary with pottery from some of the excavated features. Some blades and blade-like pieces were characteristic of the Neolithic. It is recommended that the flint is considered in relation to the site's phases and the contexts from which it was recovered. Illustration is recommended for a selection of the flints.

7.5.7.11 Human Bone

Twenty-four skeletons of varying degrees of completeness were recovered. All are believed to be Anglo-Saxon. In addition, there were three cremation burials. One is believed to be Bronze Age and the other two are Anglo-Saxon. Further analysis is recommended in order to establish the demographic and palaeopathological profiles of the individuals recovered, gain information about cremation pyre technology, and find out about rituals and customs and so add to the bank of knowledge about the Bronze Age and Anglo-Saxon populations of Britain.

7.5.7.12 Slag

The assemblage comprises 1411g of slag, which were recovered from five contexts. Seven pieces (1396g) of possible block slags suggest iron smelting on or close to the site. However, the slags are all abraded and it is feasible that

they are slightly unusual iron-smithing slags. If they are block slags it would suggest a late Iron Age, or possibly Saxon, date for the assemblage. No further work is required, but the assemblage should be incorporated in the site report.

7.5.7.13 Environmental Archaeology

Four bulk samples and 132 fragments of hand-collected animal bone were submitted for analysis. Two of the samples (71480 & 71481) were taken from a Neolithic pit. The two remaining samples (71476 & 71477) were from a Bronze Age ring ditch. There is very little evidence of contamination in the samples. The presence of snail shells in largely decalcified deposits is certainly intrusive.

Archaeological debris includes pottery in three of the samples, a few flint flakes from all the samples, and flint from one of the ring ditch samples (context 13205) and the lower fill (13078) of the Neolithic pit. The environmental assemblages are poor. All the samples produced one or two unidentifiable fragments of charred cereal grain. Two contained a single charred seed and three contained intrusive snail shells. All the flots comprised largely comminuted charcoal, although identifiable fragments were retrieved from context 13205. Hand-collected animal bones were recovered from three contexts. Most of the bones were from a poorly preserved, ?post-medieval dog burial (13075).

The potential of the samples is limited, although it is recommended that analysis of the charcoal assemblage within sample 71477 (context 13205) would be worth pursuing. The quantity of burnt flint in this sample is substantial and the charcoal presumably represents the fuel used in the fires that burnt this flint. It is recommended that the charcoal is compared with the assemblages from the other prehistoric sites on this pipeline where charcoal and burnt flints have been found together in order to establish the types of wood selected for fires. The charcoal would also be suitable for radiocarbon dating.

7.5.7.14 Hand-Collected Charcoal

Fewer than 250 fragments of charcoal were recovered from 16 contexts, mainly inhumation graves. Fifty-six of the charcoal fragments were identified. The taxa identified included Oak (Quercus sp.), Maple (Acer sp.), hazel (Corylus avellana), hawthorn/Sorbus group (Pomoideae), blackthorn (Prunus spinosa) and ash (Fraxinus excelsior). This is typical of a woodland community in a valley environment. No further work is recommended.

7.5.8 Recommendations for AMS dating

Two AMS dates are recommended for this site. The first is required to establish whether cremation 13110 is of Bronze Age or Anglo-Saxon date. The second AMS date is needed in order to verify the date of groups of pottery currently identified as either Iron Age or Anglo-Saxon date.

7.6 Site 22/148 (NHER 37623 BTE)

7.6.1 Location

The site was located within the parish of Bintree, roughly 0.5 km south of the village of Bintree, and west of the A1067 (TG 021229).

7.6.2 Aspect/Topography

The site occupied a relatively level, natural plateau on high ground to the northeast of the valley of the River Wensum.

7.6.3 Geology/Soil Type

The drift geology consisted of friable, brownish orange sandy clay, with occasional sub-angular flint inclusions and patches of flint nodules.

The overlying subsoil was a slightly friable, mid orange-brown sandy-clay, with infrequent sub-angular flint inclusions.

7.6.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material, but the geophysical survey identified a concentration of linear and pit like anomalies at the eastern end of the plot. On the basis results obtained from three targeted evaluation trenches, the surrounding area was topsoil stripped and sample excavated in advance of construction.

7.6.5 Stratigraphic Assessment

Phase 1 – Early Medieval: The remains of a small farmstead appeared to be represented by two post-built structures (22333 & 22334) and a collection of pits clustered around a possible sub-rectangular enclosure (22347). A second sub-rectangular enclosure (22341), represented by a substantial ditch on the same alignment as 22347, appeared to be internally partitioned by a number of ditches (22162, 22089, 22281, 22365 & 22367).

Phase 2 – Early Medieval or Medieval: A sub-rectangular enclosure was located slightly to the west of its phase 1 predecessors. At least one internal partition was evident (22345). Some pits may also be of this phase.

Phase 3 – Medieval: A rectilinear field system represented by ditches (22004, 22353, 22359, 22376 & 22377) appeared to replace the phase 2 enclosure. The system seemed to be arranged around the junction of at least two tracks.

Phase 4 - Later Medieval: An episode of pit digging took place across the western half of the site. The character of the fills suggested that metalworking, and probably smithing, had taken place on or near the site, but no furnace or forge was identified.

Phase 5 – ?Post Medieval: The features assigned to this could be of medieval origin, although a post medieval date is perhaps more likely. A metalled track crossed the western half of the site, following the alignment of most of the phase 4 pits. The track was flanked by a series of drainage ditches (22351, 22357, 22371, 22373, 22024, 22028, 22169 & 22245), which appeared to have filled during the 18th or 19th centuries, although they are likely to be of much earlier origin as the northernmost ditch contained metalworking debris similar to that of some phase 4 features. A number of boundary ditches (22012, 22041 & 22369), two large extraction pits (22276 & 22290), and a number of smaller pits were associated with the track.

Phase 6 – Early Modern: Three ditches (22292, 22335 & 22339) appeared to be part of a field system.

7.6.6 Stratigraphic Potential and Recommendations

A reasonably extensive programme of further analysis of the stratigraphic data would have the potential to address both general and specific research aims. Despite extensive truncation, some of the more important features can be phased stratigraphically and many features can be fairly closely dated by the artefacts that they contain.

Levels of residuality in phases 1 to 3 appear to be low. Higher levels of residuality occurred in phase 4. This was suggested by the presence of Bronze Age pottery in a pit which also contained medieval metal working debris. Phase 5 demonstrated the highest levels of residuality. Significant quantities of earlier medieval pottery within these post medieval features indicate substantial re-working of earlier medieval deposits during Phase 5.

It is recommended that the phase 1 and 2 gullies and post holes in the middle of the site are examined to define the number of structures present, their nature and their relationships with the enclosure ditches. Close comparison of the pottery dates and the stratigraphy could define a more detailed chronological sequence, particularly with regard to phases 3 to 5. A programme of further analysis would therefore help to address specific research aims 25-29.

7.6.7 Summary of Artefact Assessment

7.6.7.1 Prehistoric Pottery

Twelve pottery sherds weighing 39g were retrieved from contexts dated to the medieval period, and therefore are residual. No further work is recommended.

7.6.7.2 Romano-British Pottery

A sherd of severely abraded pottery, weighing 1g, was retrieved from a late medieval (pit (22045). This pottery was residual and no further analysis is recommended.

7.6.7.3 Post Roman Pottery

The site produced 652 fragments (5692g) of mainly domestic medieval pottery. The pottery is associated with several phases of small scale settlement

within an enclosure, and a later phase characterised by substantial pitting, some of which contained quantities of metalworking debris. A fragment of possible kiln furniture was also identified. Thirty-three sherds (1242g) of post medieval pottery were recovered. It is recommended that the medieval pottery is subject to further analysis and written up as discrete component of an individual site report, with illustrations and a photograph or illustration of the possible kiln furniture. The post medieval pottery should be summarised in a table.

7.6.7.4 Special Finds

Ten special finds (20 fragments) recovered from medieval and post-medieval contexts, included a buckle, a horseshoe, nails, sheet fragments and two possible knife blades. The finds were typical of a small farmstead. No further work is recommended.

7.6.7.5 Bulk Metal Finds

Twenty-two pieces of iron, retrieved from soil samples, comprised nails and formless fragments. No further work in recommended.

7.6.7.6 Ceramic Building Material

Five fragments of post medieval brick weighing 0.389kg and a single piece of pantile (27g) were recovered from ditches or were unstratified.

7.6.7.7 Fired Clay

Forty-seven fragments weighing 285g were recovered mainly from ditches and pits of probable medieval date. The surfaces of four fragments appeared to have been limewashed, a treatment applied to protect external walls from the elements. No further work is recommended.

7.6.7.8 Struck Flint

Forty-eight struck flints were recovered. Half were spalls mainly from one context. A small number were flakes and blades. Six utilised pieces were recovered and a scraper which was probably late Neolithic or Early Bronze Age. As the features at the site were mainly medieval, the flint must therefore be residual. No further work is recommended.

7.6.7.9 Worked Stone

Two fragments of lava stone were found in different contexts, but could be part of the same possible pot quern. The rim of a mortar in shelly limestone was also recovered. It is recommended that the stone is identified by a geologist and that the upper fragment of the lava quern and the mortar rim are illustrated. Local parallels should be sought for the pot quern to help determine whether it is medieval. The assemblage should be included in a publication text.

7.6.7.10 Slag

The assemblage comprises 4204g of slag from ten contexts. There were broadly two groups of slag. Those in the first group tended to be fresh, small and quite dense. Coal was the only fuel noted. The slag in the second group (from context 22332) contained an unusual ratio of plate hammerscale to

spheroidal hammerscale. The latter dominates, whereas the ratio between the two from a smithing site is normally about 50:1, with plate scale being by far the most common. Contradictory conclusions were drawn from the analysis of the hammerscale and slag from this group. The quantity and size of the hammerscale pieces suggest that smithing occurred on or close to the site and the by-products were disposed of rapidly. However, most of the slag is fragmented and leached, suggesting trampling and weathering on a ground surface before becoming deposited.

The slag should be fully catalogued and quantified. The location and distribution of both groups of slag needs to be considered with the aim of aiding the interpretation and understanding of the site. Particular attention should be paid to establishing whether the slag from 22332 is a coherent assemblage. It is possible that the unusual hammerscale to spheroidal hammerscale bias occurred during sample processing. This could be clarified by washing an unprocessed sample from context 22332 and examining the ratios of the different types of hammerscale within it. Contradictory evidence from the hammerscale and slag from 22332 also needs to be resolved.

7.6.7.11 Environmental Archaeology

Two bulk samples and 121 fragments of hand-collected animal bone weighing 1369g were submitted for processing and assessment. The samples were taken from a large pit (22095) provisionally dated to the later medieval period (Phase 4). There was little evidence of contamination.

Archaeological debris in both samples comprises a little baked clay, a few flint flakes (possibly natural), a little animal bone (including burnt fish bone) and a large magnetic component. This is largely composed of fired earth and suggests either *in-situ* burning of the soil or re-deposition of a hearth floor. The environmental assemblages of both samples comprised high concentrations of charred cereal grains, charred legumes and weed seeds. Wheat, barley, oats and peas have been preliminarily identified. Charcoal in both samples includes small twiggy material, twisted stems and larger wood. The potential of the bulk samples is limited. Cattle, sheep, pig, horse and dog bones were present amongst the hand collected animal bone assemblage. Most is in a reasonably good condition and it is unlikely that there has been significant loss through degradation in the soil. However, the sample is small and any further work will do little more than confirm the species present, their approximate frequency and possibly their age at death.

The bulk samples show appreciable concentrations of charred cereals and other plant remains, some possibly indicating selection of fuel. The identification and analysis of the seeds and charcoal is worth pursuing, but the archaeological context of the deposits needs to be reviewed before further work is undertaken. The animal bone from this site could be catalogued.

7.6.7.12 Hand-Collected Charcoal

Fewer than 20 fragments of charcoal, collected from a ditch (22332), were identified as oak (Quercus sp.). No further work is recommended.

7.7 Site 24/144 (NHER 37892 FLS)

7.7.1 Location
(Parish/Grid Ref)

The site was located within the parish of Foulsham, mid-way between Norwich and Fakenham, on the east side of a minor road running north towards Foulsham and approximately 0.5 km north of the A1067 (TG 029232).

7.7.2 Aspect/Topography

The site was situated on a plateau to the northeast of the valley of the River Wensum.

7.7.3 Geology/Soil Type

The drift geology comprised a mixture of: malleable, light orange clay, with occasional flint inclusions; iron-stained sands and gravels; and patches of sticky yellow and bluish grey clays.

The overlying subsoil was mid brownish orange clayey sand, with frequent flint inclusions.

7.7.4 Archaeological Background

Neither the fieldwalking survey nor the geophysical survey identified any significant concentrations of cultural material or anomalies to warrant further investigation. The site was identified when the remains of a kiln were exposed during the topsoil strip. The surrounding area was immediately stripped by machine and sufficient time was made available to excavate and record a sample of the features identified.

A site visit was made by Geoquest Associates in order to date the kiln by archaeomagnetic means. A total of 21 samples of fired clay were removed from the kiln, specimens being oriented in situ. Three of the samples yielded archaeomagnetic vectors that were anomalous. The mean archaeomagnetic vector in the remaining 18 samples suggested that the last firing of the structure occurred in the date range 170-230AD, when compared with the UK Master Curve (Geoquest Associates 2003).

7.7.5 Stratigraphic Assessment

Provisional pottery spot dates and preliminary stratigraphic, morphological and spatial analysis identified three main phases of activity:

Phase 1 - ?Iron Age: The majority of Iron Age features had been heavily truncated by Roman activity and more recent agricultural practices. However, a substantial circular ditch (24136), with an associated cluster of post holes,

(24261), a field boundary or enclosure ditch (24260) and four pits (24049, 24076, 24139 & 24206) were identified.

Phase 2i - ?Roman: A series of narrow linear gullies (24017, 24085, 24258 & 24262) may have formed an enclosure or field system. Pits 24226 and 24235 clearly pre-date the most characteristic phase 2ii feature (kiln / oven 24059).

Phase 2ii - Roman: A pottery kiln or drying oven (24059) was set within a system of ditches (24263 & 24265), which may have formed a series of enclosures. These ditches may subsequently have been extended or re-designed (24228, 24259 & 24264).

Phase 2iii – Roman: A significant number of pits were located around the stokehole of the furnace (24266).

Phase 2iv - Roman: Evidence from pit 24116 demonstrates that the life of the furnace had come to an end. Archaeomagnetic dating indicates its last firing was between170 and 230 AD.

Phase 3 - Medieval or Post Medieval: A ditch (24257) roughly corresponded to a field boundary on the 1838 Tithe Map.

As with a number of other sites along the pipeline route, it was difficult to distinguish between some early Saxon and Iron Age pottery types. The phasing of two rectangular pit-like features (24049 & 24139) and a ditch (24064) is therefore not reliable.

7.7.6 Stratigraphic Potential and Recommendations

The features and deposits assigned to phases 1 and 3 were isolated and truncated, with little potential to address the more specific research objectives; although phase 1 features could potentially address questions regarding the morphology, function, status and date range of the site.

Small quantities of residual prehistoric (mainly Iron Age) pottery were present in a number of Phase 2 (Roman) contexts. Despite this, the data set from features and deposits assigned to Phase 2 has the potential to address both general and specific research objectives.

Distinguishing between the problematic pottery fabrics, which occur throughout phases 1 and 2, is the key to understanding the site and its wider significance. The possibility of either Iron Age or early Saxon settlement on the site needs to be confirmed or discounted. Issues of phasing, dating and residuality, which cannot be resolved by further stratigraphic analysis, may be elucidated by this level of pottery analysis. Specialist examination of the kiln / dryer (by Alice Lyons) and a limited programme of further stratigraphic and pottery analysis may link the kiln/dryer complex more closely to the surrounding ditch system. No further work is required on the Phase 3 data. A programme of further analysis would therefore help to address specific research aims 11, 17 and 23.

7.7.7 Summary of Artefact Assessment

7.7.7.1 Prehistoric Pottery

The site produced an assemblage of thirty-one sherds weighing 407g. Later Neolithic and early Bronze Age sherds were evidently residual having been found in a Roman ditch (24082). Early Iron Age and mid to later Iron Age pottery was also recovered from the site. No further work is recommended.

7.7.7.2 Romano-British Pottery

An assemblage of 366 sherds weighing 5269g was recovered. All but one Samian sherd were locally produced, coarse, utilitarian wares. Nearly one third of the assemblage was from a kiln and associated features. Misfired pottery and wasters amongst the assemblage are unlikely to have been moved any distance. It is possible therefore that the kiln structure was used for drying pottery (the kiln's shape was not suitable for generating high temperatures for firing) and that pottery manufacture took place nearby.

Recommended further work includes: more detailed stratigraphic analysis to establish whether and which parts of the pottery assemblage could have been manufactured in the 'kiln'; full descriptions and illustrations of the pottery to help refine existing pottery chronologies in the area; further research of the use of the 'kiln', including the analysis of environmental samples (if possible), the location of parallels within the region and examination of literary sources.

7.7.7.3 Post Roman Pottery

The site produced 239 fragments of pottery weighing 2236g. Inconclusively Iron Age / Early Saxon pottery was recovered from two possible sunken featured buildings, and part of a ditch.

The issue of the ambiguous Iron Age / Early Saxon pottery should be resolved. The condition of individual sherds should be recorded in order to provide some indication of residuality. A study of the Saxon ceramics from the other features on the site, as well other sites along the pipeline could help establish a dating sequence for different phases on the sites.

7.7.7.4 Special Finds

A triangular ceramic loom weight from an Iron Age deposit and a possible nail shank from a Roman deposit require no further work.

7.7.7.5 Ceramic Building Material

Fifteen fragments of Roman and post medieval brick and bonding tile weighing 6678g were recovered. Two pieces of conjoining bonding tile were recovered from the kiln. This may have been used in the construction of the kiln itself, possibly to build up the arches on which the superstructure rested. The small quantity of Roman material from Plot 24/144 should be considered in relation to the possible kiln and other parallels sought

7.7.7.6 Fired Clay

Two hundred and twenty-six fragments weighing 7556g were recovered. One hundred and nineteen of the fragments were recovered from the Roman kiln structure and display a number of characteristics which are congruous with kiln material assemblages. Other fragments of fired clay were recovered from pits and ditches of probable Iron Age or Roman date. The fabrics should be re-examined and reported on.

7.7.7.7 Struck Flint

Thirty-six pieces of struck flint and one burnt fragment of flint were recovered. Most were unmodified flakes and there were a small number of blades. The assemblage appeared to be of more than one period, with some earlier Neolithic blades and some Bronze Age or Iron Age irregular retouched pieces. Some of the material is residual. It is recommended that some of the flint is considered in relation to a number of possible Iron Age features on the site.

7.7.7.8 Environmental Archaeology

Twelve bulk samples and fifty-five hand-collected fragments of bone were submitted for processing and assessment. Most of the samples were taken from a Roman kiln structure. Further samples were from Roman pits, and a rectangular feature and ring ditch both dating to the Iron Age. There is little evidence of contamination.

Archaeological debris comprises pottery, fired earth and hammerscale. The pottery and fired earth may be waste debris from the kiln. The hammerscale suggests that iron smithing was also undertaken at the site. The environmental component of the samples is dominated by charcoal, which is mainly from larger pieces of wood, with little evidence for twigs, straw or other plant stems. Rich charcoal deposits were recovered from the northern chamber of the kiln, pit 24226 and the rectangular feature. Charred plant remains are present in all samples, and charred grain was particularly concentrated in the southern chamber of the kiln. The charred remains from the remaining samples occur at fairly low densities. Conditions were evidently unsuitable for the survival of bone and snail shells, and the very few snail shells present are certainly contaminants. Most of the surviving bone in the samples is burnt, but fragments of sheep, rodent, frog or toad and a possible fragment of a dog mandible are present. The hand-collected animal bone is extremely poorly preserved and the only identifiable fragment is a molar tooth of a horse. The poor bone preservation makes it impossible to establish whether animal bone was ever a significant component of the deposits.

Further analysis of the kiln could answer a number of questions. Evidently the north and south chambers of the kiln contained very different assemblages which suggest the chambers had either different functions or the kiln had a secondary use. Identification of the wood (roundwood, billet, etc.), from which the concentration of charcoal in the southern chamber was derived, could establish the selection of timber used to fire the kiln. This could be compared with the charcoal from the rectangular feature and pit 24226 to see if there was any specific selection of timber for the kiln. The cereal grains concentrated in

the north chamber suggest use as a corn drier, but the grains are perhaps more likely to have been waste burnt as fuel. Most of the grains were oats with some wheat grains. They could have been derived from a single event or from several events using the same crop type. Low densities of chaff and weed seeds mean that it is unclear whether they derive from crop processing activities. Specific identification of these charred plant remains by an archaeo-botanist could help to resolve some of these issues.

Recommended further work includes specific identification and interpretation of the cereal and charred seed remains, and identification of the charcoal in feature 24049, pit 24226 and the northern chamber of the kiln, specifically contexts 24115 and 24126.

7.7.7.9 Hand-Collected Charcoal

Fewer than 30 fragments of charcoal, from three contexts, yielded nine identifiable fragments. The identifications included oak (Quercus sp.) from ditch 24231, alder (Alnus glutinosa) and blackthorn (Prunus spinosa) from ditch 24249 and oak from pit 24200. No recommendations are made for further work.

7.7.8 Recommendations for AMS Dating

An AMS date is needed in order to verify the date of groups of pottery currently identified as either Iron Age or Anglo-Saxon date.

7.8 Site 25/138 & 136 (NHER 37624 & 37625 FLS)

7.8.1 Location

The site was located within the parish of Foulsham, approximately 1 km west of the hamlet of Themelthorpe and 1.5 km east-southeast of the village of Foulsham, which is adjacent to the A1067 (TG 046239).

7.8.2 Aspect/Topography

The site occupied the upper reaches and crest of a very gentle, southwest-facing slope, which rose from road crossing 25, just over 0.5 km to the southwest. The natural topography is likely to have been changed only by the effects of deep ploughing, although the excavation of the drainage ditch separating plot 138 from 136 may have had a minor impact.

7.8.3 Geology/Soil Type

The natural drift geology varied from orange clay, with frequent flint inclusions, at the western end of plot 138, to firm, light yellowish brown clay, with frequent chalk flecks, at its eastern end. In plot 136, the natural drift geology was light brownish orange clay, becoming slightly sandier towards the northeast.

The overlying subsoil was light brownish orange clayey silt, with occasional charcoal and mineral flecking and sub-angular flint inclusions, becoming darker in plot 136.

7.8.4 Archaeological Background

A significant concentration of medieval pottery was identified at the eastern end of plot 138 during the fieldwalking survey. In addition, the geophysical survey clearly showed a substantial oval enclosure, as well as a number of other linear anomalies in the same area. As a result, five evaluation trenches were excavated in plots 138 and 136. Given the density of archaeological features identified, it was decided to strip the topsoil from above the site and conduct an open area excavation.

7.8.5 Stratigraphic Assessment

Study of pottery spot-dates and preliminary stratigraphic, morphological and spatial analysis has identified four main phases of activity:

Phase 1 - Undated: A dispersed scatter of small pits lay on either side of a post medieval ditch dividing plot 138 from 136. The majority (25014, 25017, 25028, 25026 & 25030) had strikingly similar fills, and they each contained a large quantity of burnt flint.

Phase 2- ?Late Iron Age to Early Roman: A substantial rectangular enclosure, (25308 & 25311) was situated just below the crest of the hill. A scatter of pits and post holes within the enclosure, as well as a possible well or watering hole (25195) outside, suggest that it was essentially settlement related. A rectilinear feature (25324) at the centre of the enclosure may represent the corner of another, smaller enclosure extending beyond the northern limit of excavation. The rectilinear feature (25324) adopted a strikingly different alignment to the first enclosure (25308 & 25311) and is therefore likely to belong to a different phase of activity. A large, irregular pit group (25296) produced quantities of the problematic Iron Age / Anglo-Saxon pottery, which was also found at several other sites along the pipeline route.

Phase 3i – Medieval: An oval, hilltop enclosure (25164, 25300, 25302 & 25306), defined by a fairly insubstantial ditch, had an entrance either to the north or south.

Phase 3ii – Medieval: A similarly shaped enclosure (25073, 25116 & 25265) was constructed on essentially the same hilltop site as the enclosure in phase 3i. The later enclosure appeared to be a remodelling with far more substantial ditches and an entrance on its western side. Evidence suggested that it was relatively long lived. A dense cluster of post holes was probably the remains of a structure within the enclosure.

Phase 4 – Post Medieval: This phase comprised a field boundary (25245) at the western edge of the site, a number of field drains (25291 & 25294) and the remains of a probable hedgerow (25292).

7.8.6 Stratigraphic Potential and Recommendations

The handful of isolated features currently assigned to phase 1 have little potential to address the research objectives. Comparison with similar features seen elsewhere along the pipeline route may elucidate their date and function.

Contentious Iron Age / early Saxon fabrics occur in two context groups that are currently assigned to phase 2. In both cases, the features are equally likely to be of Iron Age or Early Saxon date and further stratigraphic analysis will be unable to resolve the issue. The pits and post holes within the rectangular (phase 2) enclosure, are imprecisely dated, isolated and truncated by modern ploughing. As such, they have little potential to address specific research aims. However, a limited programme of further analysis, which concentrates on refining the chronological framework of the features, may address more general objectives.

Stratigraphic data from phase 3 has the potential to address general research objectives, and ascertain settlement form, function, status and date, in order to inform discussion of regional settlement patterns. Despite modern ploughing that has truncated all archaeological features and layers, and possibly removed some shallower features in their entirety, there is a substantial, dated corpus of evidence for the development of the second enclosure. Residuality seems to be low (where judgement is not clouded by problems of distinguishing Iron Age from early Saxon pottery). Only a single sherd of Roman pottery and six sherds of Iron Age pottery were identified within medieval contexts (phase 3). Close comparison of the pottery dates with the stratigraphy would define a more detailed chronological sequence for the enclosure's development. Careful examination of the pits and post holes in the eastern half of the site might identify evidence of a structure and its relationship with the enclosure ditches. A programme of further analysis would therefore help to address specific research aims 11, 14, 23, 25 and 29.

7.8.7 Summary of Artefact Assessment

7.8.7.1 Prehistoric Pottery

The site yielded 115 sherds weighing 802g. All dated to the Iron Age, with the possible exception of one, which was either Iron Age or Saxon. Further recommended work entails full integration of context information, preparation of publication text, selection of sherds for illustration and the production of a catalogue.

7.8.7.2 Romano-British Pottery

Sixty-four very abraded sherds weighing 0.482g were recovered. The pottery forms and fabrics are consistent with an early Roman date and differ in character from other assemblages found along the pipeline. Most of the pottery was retrieved from a substantial rectangular enclosure and corroborated its postulated late Iron Age / early Roman date. It is recommended that the assemblage is documented in the main report.

7.8.7.3 Post Roman Pottery

Fifteen sherds of ambiguous Iron Age or Early Saxon pottery (9g) were recovered from two contexts (25036 & 25037) and four more of these sherds were unstratified. Five hundred and eighty-seven medieval sherds weighing 3991g were associated with an enclosed settlement.

The issue of the ambiguous Iron Age / Early Saxon pottery should be resolved. The condition of individual sherds should be recorded in order to provide some indication of residuality. A study of the Saxon ceramics from the other features on the site, as well other sites along the pipeline could help establish a dating sequence for different phases on the sites. It is recommended that the fabric identifications for the medieval pottery are checked and the assemblage written up as a component of an individual site report with illustrations.

7.8.7.4 Special Finds

Three fragments of loom weight and fifteen metal objects were mostly of a personal or domestic nature. An additional fragment of Iron plate was retrieved from a soil sample. No further work is recommended.

7.8.7.5 Ceramic Building Material

Fifteen fragments of post medieval brick and roof tile weighed 234g and two pieces of possible Roman date (57g) were recovered. No further work is recommended.

7.8.7.6 Fired Clay

The site produced 476 fragments weighing 2064g. Many fragments of possible daub were associated with a late Iron Age to early Roman ditch and well. One of the fragments appeared to have been limewashed, a treatment applied to protect external walls from the elements. The remainder of fragments were associated with medieval ditches and pits but were probably residual. It is recommended that a summary of the assemblage is produced.

7.8.7.7 Struck Flint

Twenty-three struck flints were found during the evaluation and a further eight were retrieved during the excavation of the site. Most of the assemblage comprised unmodified flakes and shatter pieces. A blade and blade-like flake, both from a possible late Iron Age or Roman well, are probably residual as the blade is earlier Neolithic. No further work is recommended.

7.8.7.8 Worked Stone

A natural sandstone slab from a medieval context was probably used as a whetstone. The slab should be included in a publication text.

7.8.7.9 Slag

One fragment of slag and a possible crucible fragment weighing a total of 27g were recovered from two contexts. No further work is recommended.

7.8.7.10 Hand-Collected Charcoal

Fewer than 40 fragments of charcoal were recovered from two pits (25026 & 25083) and a ditch (449 & 25138). Nine fragments were identified as oak

(Quercus sp.), ash (Fraxinus excelsior) and the hawthorn/ Sorbus group (Pomoideae). No further work is recommended.

7.8.8 Recommendations for AMS Dating

An AMS date is needed in order to verify the date of groups of pottery currently identified as either Iron Age or Anglo-Saxon date.

7.9 Site 27/128 (NHER 37626 THM)

7.9.1 Location

The site was located within the parish of Themelthorpe, approximately 0.5 km north of the hamlet of Themelthorpe and 2.5 km east of the village of Foulsham, which is adjacent to the A1067 (TG 058247).

7.9.2 Aspect/Topography

The site occupied an almost entirely level area of land between two streams, one of which runs west towards Foulsham and the other southeast towards Reepham.

7.9.3 Geology/Soil Type

The drift geology consisted of firm, mid orange brown silty sand, with occasional patches of gravel and frequent flint nodules.

The overlying subsoil was a firm, light greyish brown silty sand, with occasional flint inclusions.

7.9.4 Archaeological Background

Concentrations of medieval pottery and metalworking debris were identified during the fieldwalking survey and, although geophysical survey could add little detail, two evaluation trenches were excavated. Given the density of archaeological features identified, it was decided to strip the topsoil from above the site and conduct an open area excavation, in advance of construction.

7.9.5 Stratigraphic Assessment

Seven main phases of medieval activity were identified:

Phase 1: The phase is represented by a short ditch (27597) in the north eastern corner of the site; a large, ovoid pit (27604), which may have formed part of a kiln or oven; a gully (27529, 27574) which appears to have been contiguous with the oven and may have been a flue (although it showed no signs of having been heated).

Phase 2: A domed structure (27606) with an oval ground plan was constructed on virtually the same site as the phase 1 oven. The precise purpose of the domed structure is presently unclear, and it is described as a kiln / oven / corn dryer. It was built within a ditched enclosure (27579 & 27596). A second enclosure (27586), rectangular in plan, was identified in the south western corner of the site.

Phase 3: A sub-rectangular enclosure (27585 & 27587), located in the centre of the site, overlay the phase 2 enclosure (27586).

Phase 4: A large, rectangular, ditched enclosure (27601) cut through both the phase 2 and phase 3 enclosures. Evidence of re-cutting suggests a long period of use.

Phase 5: The northern terminus of a ditch (27590) cut the phase 4 enclosure in the south eastern corner of the site.

Phase 6: Two parallel ditches (27598 & 27581), at the western and eastern ends of the site respectively, had been re-cut and widened on several occasions (27599, 27600 & 27582). The ditches truncated the phase 4 enclosure in the north western corner of the site.

Phase 7: A series of large pits or ponds (groups 27580, 27593 & 27594) overlay the phase 4 enclosure. The pits may, in fact, be contemporary with the Phase 6 ditches, but there is no direct stratigraphic evidence to confirm this.

7.9.6 Potential and Recommendations

The level of residuality on this site appears to be extremely low. Only five sherds of pottery, for which a medieval date cannot be proposed, were recovered during the excavations. Of these, just three pre-date the medieval period. However, the relatively broad date ranges of the pottery fabrics make it difficult to assess precisely the extent to which the later phases of activity on the site contain residual earlier medieval ceramics.

Despite truncation by modern ploughing the site retains a substantial corpus of dateable features, which are linked stratigraphically and have the potential to shed light on the site's morphology, function and status.

Close comparison of the pottery dates with the stratigraphy would define a more detailed chronological sequence, particularly for the later phases and un-phased pits. The agricultural and industrial functions of the site and how they might have changed over time could be defined by establishing the source of the metalworking debris found on the site. A programme of further analysis would therefore help to address specific research aims 25 to 29.

7.9.7 Summary of Artefact Assessment

7.9.7.1 Prehistoric Pottery

Three sherds weighing 2g were recovered. They were not closely datable and no further work is recommended.

7.9.7.2 Post Roman Pottery

The site yielded 826 fragments of medieval pottery weighing 6679g, associated with settlement remains, and two sherds of post medieval pottery weighing19g. Further analysis of the medieval assemblage is recommended, followed by inclusion in an individual site report with illustrations. The post medieval pottery should be summarised in a table.

7.9.7.3 Special Finds

Sixty-seven fragments were recovered from the site. Most of the fragments were from medieval contexts or were diagnostic of the medieval period. Two probable punches and metal working debris were found amongst the assemblage. It is suggested that the punches are shown to a specialist in this type of tool. No other recommendations are made.

7.9.7.4 Bulk Metal Finds

Twelve undated iron fragments were recovered. No further work is recommended.

7.9.7.5 Ceramic Building Material

The site yielded seventeen fragments of post medieval brick, roof tile and an undiagnostic fragment weighing 647g. No further work is recommended.

7.9.7.6 Fired Clay

The site produced 459 fragments weighing 4483g. Several pieces had probable structural impressions on their surfaces. In particular, one fragment from a cleaning layer over the possible medieval kiln/oven or corn dryer (27137) has complex structural impressions. Twenty-six fragments of fired clay were found in the foundation trench for the kiln structure, but do not appear to have been associated with the structure. Much of the material was recovered from medieval ditches and pits. It is recommended that a summary of the assemblage is produced.

7.9.7.7 Struck Flint

Eighteen pieces of flint were recovered. Most were small undiagnostic flakes, probably of later prehistoric date. As most of the features at the site are dated to the medieval period, flints recovered from these must be residual. There are no recommendations for further work.

7.9.7.8 Worked Stone

Lava quern fragments came from seven medieval contexts. The assemblage should be included in a publication text.

7.9.7.9 Slag

The assemblage comprises 26609g of slag, recovered from 26 contexts. Most, if not all, of the slag from this site forms a single coherent assemblage of iron smithing slag. Most of the hearth bottoms are rounded, flattish plates and form

a distinctive type and group. Most of the slag appears to be in a fresh condition and evidently has not been trampled on a ground surface before being buried because, being so cindery, it is quite fragile. Both plate and spheroidal scale has been identified from context 27315.

The slag should be fully catalogued and quantified. The assemblage should then be spatially analysed to identify the location of the smithy that must have been on or very close to the site. As the slag forms a single assemblage, it will be possible to look for patterns of redeposition in later contexts and study its movement around the site.

Some iron objects extracted from the slag had hammerscale amongst their corrosion products, suggesting that these may be smithing off-cuts. This form of evidence will be apparent on the X-radiographs and therefore co-ordination will be required by the two different researchers examining these two different categories of finds from the site.

7.9.7.10 Environmental Archaeology

Seven bulk samples and 204 hand-collected fragments of bone were submitted for processing and assessment. The samples came from pits, linear features and a pit associated with a possible oven, kiln or corn drier. All the samples are dated to the medieval period. There was very little evidence of contamination.

Archaeological debris from one sample (context 27292) included a high density of hammerscale, 50g of slag and six iron objects. This suggests the feature had a fairly direct association with smithing activity on the site. The environmental assemblages from all seven samples are fairly rich, with large flots and abundant charcoal, several fragments of which are potentially identifiable. Charred cereal grain is common in all samples, but no chaff was recorded in any. A sample from pit context 27487 contained a high concentration of charred grain apparently dominated by wheat. This is consistent with this structure being a corn-dryer. A few fragments of bird (?chicken) eggshell, fish bone, cockleshell and animal bone were also recovered. The snail assemblages include taxa characteristic of both open country and grassland habitats and those of shaded and woodland environments. Two samples include rare shells of aquatic taxa. Despite generally good conditions, the hand-collected bone is fairly poorly preserved and some material is likely to have been lost completely from some of the contexts. The only species recorded were cattle, sheep/goat, pig and horse.

Recommendations for further work include:

- Identification of the cereal and charred seed remains from all the samples, specifically their origin, evidence for different stages of crop processing and the dietary importance of the food plants themselves.
- Identification of the charcoal in contexts 27201, 27292, 27358, 27203 and 27487 specifically to consider potential differences in the wood selected for smithing, fuelling the corn-dryer (or oven) and domestic use.

- Basic identification of the mammal and fish bones for presence data on the species consumed at the site.
- Identification and quantification of three or four of the richest snail assemblages for their palaeoenvironmental information.

7.9.7.11 Hand-collected Charcoal

Fewer than 80 fragments of charcoal were recovered from three pits (27100, 27133 & 27575) and five ditch segments (27141, 27171, 27208, 27249 & 27445). Fifteen fragments were identifiable. Oak was common to all the samples except ditch 27171. Pit 27575 produced hazel (Corylus avellana), and ditch 27208 produced maple (Acer sp.). Ditch 27171A single fragment of very degraded, but uncarbonized, blackthorn (Prunus spinosa) stem was from. No further work is recommended.

7.10 Site 28/119 (NHER 37628 WDG)

7.10.1 Location

The site was located within the parish of Wood Dalling, approximately 3 km north northwest of Reepham, and 0.5 km south of the hamlet of Wood Dalling (TG 090265).

7.10.2 Aspect/Topography

The site occupied a relatively level, low-lying plot of ground between the catchments of three streams. The land rose very gently north towards the village and church at Wood Dalling. There was evidence to indicate that the effects of deep ploughing had substantially altered the natural topography of the plot.

7.10.3 Geology/Soil Type

The drift geology consisted primarily of firm, mid to light brownish orange sandy clay, mottled grey in places, with some iron staining, flecks of manganese and occasional sub-angular flint and chalk inclusions.

No subsoil was identified in plot 119. The drift geology lay directly beneath topsoil, which was a firm, mid to dark brownish grey silty clay, with occasional sub-angular flint inclusions and chalk flecks. Where subsoil was identified at the western end of plot 118 it was firm, mid brownish orange, slightly clayey sand.

7.10.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material in either plot. The geophysical survey did, however, identify linear anomalies in the western half of plot 119, interpreted as possible rectangular, enclosed garden plots. Two targeted evaluation trenches produced ambiguous results, and the site was only properly identified when more

features were exposed during topsoil stripping. Sufficient time was subsequently made available to fully expose and sample excavate the archaeological features observed during the watching brief.

7.10.5 Stratigraphic Assessment

Pre-Conquest activity is suggested by a small but significant quantity of residual late Saxon pottery in gully 28025 (see phase 1 below). The majority of features appeared to be medieval. Consideration of pottery spot dates and preliminary stratigraphic, morphological and spatial analysis have identified four main phases of activity:

Phase 1 – Medieval: This phase is represented by a rectilinear system of ditches (28033, 28036, 28043, 28054, 28077, 28091 & 28092) and short gullies (28025 & 28095).

Phase 2 – Medieval: An apparent D-shaped enclosure was super-imposed on the phase 1 ditch system.

Phase 3 – Post Medieval: A wall of a relatively insubstantial brick structure, possibly an early post medieval barn, was identified at the extreme western end of the plot and appeared to extend into plot 120.

Phase 4 – Post Medieval: Two parallel ditches (28060 & 28063) were located at the western end of the plot. They may relate to an extant track that defines the plot's western limit.

Unphased features include a ditch (28070) in the south eastern corner of the site and a number of pits and post holes. Preliminary assessment, however, suggests that they are attributable to the medieval period.

7.10.6 Stratigraphic Potential and Recommendations

The narrow date range of the medieval pottery indicates a low level of residuality amongst the artefactual assemblages.

Despite the small size and relatively disparate nature of the dataset, it may be possible to establish the form and date of the medieval field system (phase 1). Comparisons with the watching brief data from plots 28/120 and 28/118 could place it within a wider, landscape based, context. Preparation of a plan of the field boundaries in the three plots concerned could enable a more comprehensive phased chronology to be constructed for the features recorded on the site itself. A programme of further analysis would therefore help to address specific research aims 25, 27 and 29.

7.10.7 Summary of Artefact Assessment

7.10.7.1 Prehistoric Pottery

The site yielded three prehistoric sherds weighing 2g. The sherds were not closely datable, and no further work is recommended.

7.10.7.2 Post Roman Pottery

Ten sherds of Late Saxon pottery, weighing 40g, were residual within features containing medieval pottery. Three hundred and eighty fragments of medieval pottery weighing 2454g were recovered, mainly from features associated with a D-shaped enclosure.

It is recommended that the late Saxon identifications are checked and summarised. The medieval pottery should be subject to further analysis and written up as part of the site report, accompanied by illustrations.

7.10.7.3 Special Finds

Four metal fragments were recovered including nails and a horseshoe. Three of the fragments are dated to the medieval period. No further work is recommended.

7.10.7.4 Ceramic Building Material

The site produced twenty pieces of post medieval brick, pantile and undiagnostic material and two complete bricks. The assemblage weighed 7752g. The dimensions of the complete bricks are catalogued. No further work is recommended.

7.10.7.5 Fired Clay

Twelve fragments weighing 42g were recovered from medieval pits and ditches. No further work is recommended.

7.10.7.6 Struck Flint

A flake and a piece of shattered flint were recovered. The flake was from a medieval ditch and was therefore residual and the shattered flint was found in the subsoil. No further work is recommended.

7.10.7.7 Worked Stone

Lave quern fragments were retrieved from topsoil and three medieval contexts. The assemblage should be included in a publication text.

7.10.7.8 Hand-Collected Animal Bone and Shell Assessment

A small quantity of cattle, pig, sheep and horse bone fragments were recovered. No further work is recommended.

7.11 Site 36/97 (NHER 37629 ZVL)

7.11.1 Location

The site was located within the parish of Oulton, approximately 6 km northwest of Aylsham and mid-way between the villages of Saxthorpe and Blickling (TG 135296).

7.11.2 Aspect/Topography

The site occupied an almost imperceptible southeast facing slope at the north eastern end of a spur of high ground between the valley of the River Bure and one of its tributary streams. Deep ploughing and the B1354 (road crossing 37) have probably had a minor impact on the natural topography of the hillside.

7.11.3 Geology/Soil Type

The drift geology varied from fairly coarse, bright orange brown silty sand with frequent flint inclusions, to soft, orange yellow sand.

The overlying subsoil was firm, mid to dark orange brown silty sand, with occasional sub-rounded flint inclusions.

7.11.4 Archaeological Background

The fieldwalking survey did not identify any significant concentrations of cultural material within this plot. The geophysical survey, however, identified a number of pit-like and curvilinear anomalies towards the eastern end of the plot. As a result, three targeted evaluation trenches were excavated. On the basis of the results, the topsoil was stripped from the surrounding area and the exposed features were sample excavated.

7.11.5 Stratigraphic Assessment

While a small number of features were possibly late Bronze Age in date, the majority were of early Iron Age date. Consideration of provisional pottery spot dates and preliminary stratigraphic, morphological and spatial analysis have identified three main phases of activity, whilst eight features presently remain unphased:

Phase 1 - Late Bronze Age or Early Iron Age: Three pits (36065=144=142= 140, 36069 & 36036) and a substantial, elongated pit or short gully (36067=36077) are attributable to this phase of activity.

Phase 2 - Early Iron Age: Little change in the nature of the activity between phases 1 and 2 suggests that phase 2 was a continuation of Phase 1. However, there were distinct differences between the pottery assemblages. The majority of phase 2 features were pits. A small number of post holes (36081) also survived, but there was no indication that they formed a domestic structure. As with other sites (such as 13/202 and 24/144) along the pipeline route, it was difficult to distinguish between some early Saxon and Iron Age pottery fabrics. Significant quantities of this pottery were recovered from pits 36010 and 36017. As most of pottery from these pits was Iron Age, it is assumed that the ambiguous pottery is too.

Phase 3 – ?Roman: A narrow gully (36050) produced a single sherd of abraded pottery that might be residual.

7.11.6 Stratigraphic Potential and Recommendations

Levels of residuality are negligible. One Iron Age (phase 2) pit (36073) contained residual Later Bronze Age / early Iron Age pottery. An abraded Roman sherd was found in a gully (36050) that mainly contained Iron Age pottery. The Roman sherd was probably intrusive.

The features were isolated and appeared to be randomly distributed. There was also heavy truncation by modern ploughing. These limitations prevent issues such as the morphology, function and status from being addressed. However, further analysis of the pottery and comparison of the characteristics of undated features with phased and dated features has the potential to refine the phased chronology. Incorporation of the watching brief data from plot 36/98 would also be informative. A programme of further analysis would therefore help to address specific research aims 12, 14 and 16.

7.11.7 Summary of Artefact Assessment

7.11.7.1 Prehistoric Pottery

A substantial assemblage of 800 sherds weighed 8894g and spanned the later Bronze to the Iron Age. Most of the sherds dated to the earlier Iron Age. The assemblage is closely comparable with a definitive earlier Iron Age assemblage from West Harling.

Further work is recommended to define dating for the assemblage and provide a detailed comparison with other sites in the region, in particular West Harling. A full publication report should be produced and sherds selected for illustration and production of a catalogue.

7.11.7.2 Romano-British Pottery

One abraded sherd, dated to between the late 1st and 3rd centuries AD, was retrieved from gully 36050. The sherd's condition indicated that it was residual. No further work is recommended.

7.11.7.3 Fired Clay

Fifty-eight fragments weighing 1180g were recovered mostly from Iron Age pits, although eleven were from a later Bronze Age or early Iron Age pit. No further work is recommended.

7.11.7.4 Struck Flint

Two flakes were recovered during the evaluation and eight pieces of struck flint were retrieved during the excavation. Most of the flints were undiagnostic. One burnt blade may date to the earlier prehistoric whilst the remainder of the assemblage could be contemporary with late Bronze Age or Iron Age features excavated at the site. The flint should be considered in relation to these features. No other work is recommended.

7.11.7.5 Slag

One piece of tap slag and a fragment of furnace slag weighing 184g were recovered from one context (39011). Both fragments suggest that iron smelting took place on or close to the site. No further work is recommended.

7.11.7.6 Environmental Archaeology

Thirteen bulk samples and 103 hand-collected fragments of bone from eight contexts were submitted for processing and assessment. All samples were from pits, one of which was late Bronze Age, and the rest were early Iron Age (Phase 2). There was very little evidence for contamination in most of the samples.

Pottery and flint was present in all samples and was abundant in several. Most of the samples also produced burnt flint which was most abundant in the western and central parts of the site. This distribution probably reflects the location of the activities that generated the flint debris. A few flakes of hammerscale in four samples and tap slag in context 36030 are indicative of iron smelting nearby. Charcoal from context 36018 had the appearance of a wooden object that had been burnt. The environmental finds are largely limited to charred plant remains. Although fragments of animal bone were recovered from many of the samples, only two samples produced identifiable material: sheep, cattle and field vole. A burnt coracoid of a small bird (context 36046) may be identifiable. The flots are not generally large and none contain sufficient charcoal to warrant its study. However, considering the age of the site, the samples are rich in charred cereal and seed remains. This material is in an extremely poor condition and most of the grain will not be identifiable to species. Pulses (possibly peas), hazelnut shells and a number of other seeds are present, as are one or two fragments of chaff. The general dominance of charred cereal grains suggests the bulk of the material derives from cleaned grain. The snail shells assemblages are too small to interpret. The only species identified from the hand collected animal bone assemblage are cattle and sheep.

Three areas of further work are recommended:

- Study of a lamb skeleton from context 36030 to establish whether it is a burial and at what age it died.
- Identification and study the charred cereal and seed assemblages.
- Study of the charcoal 'object', including determination of the wood species and possibly some effort at reconstruction of the larger pieces to help its identification.

7.11.7.7 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a ditch (36067). Three of the fragments were identified as oak (Quercus sp.). No further work is recommended.

7.12 Site 38/90 (NHER 37939 JTT)

7.12.1 Location

The site was located within the parish of Itteringham, approximately 5 km northwest of Aylsham and 0.5 km southeast of the hamlet of Itteringham (TG 149303).

7.12.2 Aspect/Topography

The site occupied a relatively level terrace above the floodplain on the western side of the River Bure. The site was bounded to the east by a minor road from Itteringham to Itteringham Common. This road probably demarcates the inhabitable land to the west from the seasonally inundated floodplain to the east.

7.12.3 Geology/Soil Type

The drift geology consisted of fine, friable, mid to light brown sandy silt, with very occasional flint inclusions.

The overlying subsoil was diffuse, and comprised friable, mid greyish brown silt, with occasional flint inclusions.

7.12.4 Archaeological Background

A number of pits were observed during topsoil stripping of land owned by the National Trust. The surrounding area was topsoil stripped and all the exposed features were sample excavated and recorded.

7.12.5 Stratigraphic Assessment

Two phases were identified:

Phase 1 – Medieval: Pits and post holes were concentrated within the south eastern corner of the plot and more diffusely spread across the rest of the site. A circular structure (38272) was defined by a group of post holes, an external drip gully and a concave surface. The concentration of pits and the structure appeared to have been respected by a curvilinear enclosure or boundary ditch (38275).

Phase 2 – Post Medieval: Two ditches (38273 &38274) were identified. They probably formed part of a rectilinear field system. Ditch 38273 appeared to correspond with a field boundary represented on the 1839 tithe map.

7.12.6 Stratigraphic Potential and Recommendations

Approximately two thirds of the excavated cut features did not contain datable pottery, which poses problems for phasing the site. However, many of the undated features were component parts of other, dated structures. Further analysis would therefore have the potential to define the stratigraphic sequence, which would facilitate a fuller understanding of the structures and features on site.

A programme of further analysis would help to address specific research aims 25 and 29.

7.12.7 Summary of Artefact Assessment

7.12.7.1 Prehistoric Pottery

The site produced a single undiagnostic body sherd of Iron Age pottery weighing 2g. The sherd was recovered from later medieval features. No further work is recommended.

7.12.7.2 Post Roman Pottery

Ten sherds of late Saxon pottery, weighing 96g, were residual within features containing medieval pottery. Four hundred and eighty-one sherds of medieval pottery weighing 2895g were recovered mainly in association with a concentration of activity in the south eastern corner of the site. Most of the material was domestic. Two sherds of post medieval pottery weighing 72g were also recovered.

It is recommended that the late Saxon identifications are checked and the wares summarised. The medieval pottery requires further analysis and should be written up with illustrations as a discrete report to be included with the site report. The post medieval pottery should be summarised in a table.

7.12.7.3 Ceramic Building Material

Sixteen pieces of post medieval brick, pantile and possible floor tile weighing 158g, were recovered from ditch fills and unstratified layers. No further work is recommended

7.12.7.4 Fired Clay

Thirty-nine fragments weighing 291g were recovered from medieval pits and post holes. It is possible that some of the fired clay fragments were from moulds. It is recommended that the material is re-examined to establish whether mould fragments are present. If so, the fragments will need to be catalogued.

7.12.7.5 Struck Flint

Ten pieces of struck flint were recovered from the site. None of the flint was diagnostic, but as the site was medieval, the flints must be residual. No further work is recommended.

7.12.7.6 Worked Stone

Fragments of lava quern and a schist whetstone were recovered from the site. The assemblage should be included in a publication text.

7.12.7.7 Hand-Collected Animal Bone and Shell Assessment

One hundred and twenty-five poorly preserved bone fragments were derived from sixteen medieval contexts. Tooth fragments including cattle and sheep make up the majority of the assemblage, the preservation of which is insufficient to allow a contribution to the understanding of the pastoral economy of the site. There are no recommendations for further work.

7.12.7.8 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a gully (38081). One fragment was identified as oak (Quercus sp.). No further work is recommended.

7.13 Site 39/89 (NHER 37940 JTT)

7.13.1 Location

The site was located within the parish of Itteringham, approximately 5 km northwest of Aylsham and 0.5 km southeast of the hamlet of Itteringham (TG 150303).

7.13.2 Aspect/Topography

The site occupied a gently sloping, east-facing terrace on the western edge of the floodplain of the River Bure. The western side of the site was bounded by a minor road from Itteringham to Itteringham Common. This road probably demarcates the boundary between inhabitable land and the seasonally inundated floodplain. The River Bure bounded the eastern side of the site.

7.13.3 Geology/Soil Type

The drift geology consisted of firm, mid reddish orange silty sand, with frequent flint inclusions.

The overlying subsoil was soft, light brownish orange silty sand, with occasional flint inclusions.

7.13.4 Archaeological Background

The site was identified during routine monitoring of topsoil stripping on land owned by the National Trust. Although a number of potentially significant archaeological features were observed, the depth of the overlying subsoil enabled them to be largely preserved in situ. As a result, only those identified along the line of the pipe trench were excavated.

7.13.5 Stratigraphic Assessment

Three broad phases of a field or enclosure system were identified:

Phase 1 – Medieval: A ditch (39811) was located at the western end of the site.

Phase 2 – Medieval: A rectilinear ditch system (39803, 39805, 39806, 39813, 39817 & 39823) truncated the phase 1 ditch (39811).

Phase 3 – Post Medieval: A rectangular enclosure (39825 = 39807) at the western end of the site appeared to have adopted the alignment of the existing road to the west (road crossing 39). A single ditch (39800), on a similar alignment, was located some way to the east.

Two pits (39804 & 39815) remain unphased and undated.

7.13.6 Stratigraphic Potential and Recommendations

The potential of the stratigraphic data to address the research aims is limited by the circumscribed nature of the archaeological investigations in this plot, the general isolation of the features and small quantity of dateable artefacts. Extensive further analysis of the stratigraphic data is therefore not recommended, but the existing data should be considered alongside that from site 38/90. This would help to address specific research aim 27.

7.13.7 Summary of Artefact Assessment

7.13.7.1 Prehistoric Pottery

Two large sherds were retrieved from an undated subsoil layer. Both sherds probably date towards the end of Beaker currency (2600-1800BC). No further work is recommended.

7.13.7.2 Post Roman Pottery

Twenty-six fragments of medieval pottery weighing 201g were recovered. These were associated with a ditch system and rectangular enclosure. One sherd of post medieval pottery weighing 2g was also found. It is recommended that the assemblage is summarised in a table.

7.13.7.3 Special Finds

Two unrecognisable fragments of iron, one from a medieval context, require no further work.

7.13.7.4 Struck Flint

Seven pieces of flint were recovered. A blade core and two blades of probable early Neolithic date were retrieved from topsoil. As the site was mainly medieval, the lithic assemblage does not contribute to the dating or interpretation of the site. No further work is recommended.

7.13.7.5 Worked Stone

Fragments of lava with no surviving surfaces came from one context. The assemblage should be included in a publication text.

7.14 Site 39/88b (NHER 39518 JTT)

7.14.1 Location

The site was located within the parish of Itteringham, on the eastern side of the River Bure, approximately 4.5 km northwest of Aylsham (TG 154304).

7.14.2 Aspect/Topography

The site occupied the lower reaches of a steep, west-facing slope. Deep ploughing and consequent soil erosion is likely to have altered the natural topography.

7.14.3 Geology/Soil Type

The drift geology consisted of a mixture of coarse, light orange and yellowish sands, with frequent flint inclusions; pockets of flint brash; and firm, coarse, reddish sand, with very frequent flint inclusions, particularly to the east.

The overlying subsoil was fine, light orange silt, with infrequent flint inclusions.

7.14.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material along either the adopted route, or in the surrounding area. The geophysical survey (January 2003) did, however, identify two substantial curvilinear anomalies, believed to relate to a large, kidney shaped enclosure, within this plot. A 4m wide evaluation trench, centred and aligned upon the then proposed pipe trench, was excavated. On the basis of the results, the topsoil was stripped from across the full working width throughout the plot and all exposed features were sample excavated.

7.14.5 Stratigraphic Assessment

Consideration of the pottery spot dates and preliminary stratigraphic, morphological and spatial analyses have allowed five phases of activity to be identified:

Phase 1 - ?Saxo-Norman: Curvilinear gully segments (39396, 39459, 39460 & 39261) and a substantial, sub-rectangular pit (39092) have been assigned to this phase. Additionally, significant quantities of residual late Saxon pottery were recovered from medieval features.

Phase 2 – Medieval: A rectilinear arrangement of ditches (39461, 39462, 39463, 39464 & 39465) may represent a field system or sub-rectangular enclosure.

Phase 3 – Medieval: A large, kidney shaped enclosure was in part defined by two broad, curvilinear ditches (39466 & 39467). The enclosure had already been identified by the magnetometer survey.

Phase 4 - ?Medieval: Two ditches (39470 & 39471) may represent field boundaries.

Phase 5 - ?Late Medieval or Post Medieval: A series of narrow ditches appear to define a rectilinear field system

7.14.6 Stratigraphic Potential and Recommendations

Approximately two thirds of the excavated cut features did not contain datable pottery, which poses some problems for phasing the site. This is less problematic for the phasing of the various enclosure ditches and gullies, many

of which are stratigraphically linked. It is more problematic for the phasing of the discrete cut features. This can be partially resolved by means of a comparison of the forms of undated and dated features, which should allow some further definition of the stratigraphic sequence, as will a consideration of the spatial arrangement of features.

Further analysis and definition of the stratigraphic sequence would help elucidate settlement forms and changing settlement patterns from the late Anglo-Saxon to the later medieval periods in this part of the Bure Valley, particularly when this site is considered together with those in plots 89, 90 and 84a, and in relation to the magnetometer survey results in Plot 88 (Nower's manor and St Nicholas Chapel). A programme of further analysis would therefore help to address specific research aims 25, 27 and 29.

7.14.7 Summary of Artefact Assessment

7.14.7.1 Prehistoric Pottery

The site yielded an assemblage of nineteen sherds weighing 116g and ranging from the Bronze Age to the later Iron Age. The assemblage is not closely datable and it is recommended that no further work is carried out unless close dating of the features is required.

7.14.7.2 Romano-British Pottery

One sherd of abraded pottery, weighing 4g, was recovered from a deposit (39056) within a pit. The pottery is likely to be residual and no further analysis is recommended.

7.14.7.3 Post Roman Pottery

Eighteen sherds of late Saxon pottery, weighing 90g, were mainly residual within features containing medieval pottery. One hundred and seven fragments of medieval pottery weighing 391g were recovered from the site.

It is recommended that identifications of the late Saxon pottery are checked and summarised. The medieval pottery should be written up as a discrete report with illustrations to be included in an overall site report or summary.

7.14.7.4 Special Finds

Eleven metal fragments are undated except for a post medieval harness mount. No further work is recommended.

7.14.7.5 Ceramic Building Material

A single piece of post-medieval brick weighing 443g was recovered from a ditch fill. No further work is recommended.

7.14.7.6 Fired Clay

Twenty-eight fragments weighing 136g were recovered from both plots 88 and 88b. The material was recovered from medieval pits, ditches and gullies. No further work is recommended.

7.14.7.7 Worked Stone

Fragments of lava stone with no surviving surfaces came from three contexts. The assemblage should be included in a publication text.

7.14.7.8 Slag

An abraded fragment of hearth bottom weighing 86g was recovered from just one context (39344). No further work is recommended.

7.14.7.9 Environmental Archaeology

One bulk sample taken from base of a waterlogged ditch or channel (39422) was submitted for processing and assessment. The ditch was provisionally dated to the medieval period. The sample showed very little evidence of contamination. Archaeological debris from the sample comprised a single sherd of pottery and a flint flake. The environmental finds comprise nine charred cereal grains, and other seeds that may have survived due to waterlogging. A slightly mineralised crumb of very degraded peat, or organic sediment, making up most of the flot, indicates that the deposit was originally waterlogged. There is little potential for further analysis and none is recommended.

7.14.7.10 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a pit (39341). Three fragments of poorly preserved 'hawthorn-type' (Pomoideae) charcoal were identified. No further work is recommended.

7.15 Site 39/88 (NHER 37942 JTT)

7.15.1 Location

The site was located within the parish of Itteringham, on the eastern side of the River Bure, about 4.5 km northwest of Aylsham (TG 155304).

7.15.2 Aspect/Topography

The site occupied the lower and middle reaches of a relatively steep, west-facing slope on the eastern side of the Bure Valley. The natural topography is likely to have been altered only by the impact of deep ploughing and consequent soil erosion.

7.15.3 Geology/Soil Type

The drift geology consisted of a mixture of coarse, light orange and yellowish sands, with frequent flint inclusions; pockets of flint brash and firm, coarse, reddish sand, with very frequent flint inclusions.

The overlying subsoil was fine, light orange silt, with infrequent flint inclusions.

7.15.4 Archaeological Background

The fieldwalking survey failed to identify any significant concentrations of cultural material along either the adopted route, or in the surrounding area. The geophysical survey, however, identified a substantial group of linear and pit-like anomalies, which appeared to relate to known manorial and ecclesiastical buildings, enclosures, and associated field systems. Similarly to plot 88B, the archaeology was evaluated using a 4 m wide trench aligned on the proposed pipe trench. On the basis of the results, the surrounding area was subsequently stripped of topsoil and all exposed features were sample excavated.

7.15.5 Stratigraphic Assessment

Consideration of the pottery spot dates and preliminary stratigraphic, morphological and spatial analyses have tentatively identified three phases of activity:

Phase 1 – Late Prehistoric: A dispersed scatter of pits and post holes (39455 & 39457) was recorded. It did not appear to conform to any particular pattern and there is no evidence that any of the features defined or were component parts of one or more buildings. Later prehistoric pottery from two large pits (39223 & 39106) was amongst the few dateable artefacts recovered. The site was heavily truncated.

Phase 2 - Undated: A series of gullies (39453 & 39454) with similar alignments, profiles and plan forms appeared to define a rectilinear field system. Its precise date is unknown, but it is not depicted on post medieval maps.

Phase 3 - ?Medieval or Later: This phase is represented by two small pits (39145 & 39155) and a probable post-hole (39215).

7.15.6 Stratigraphic Potential and Recommendations

Very few of the excavated features yielded datable pottery sherds or were linked stratigraphically. No further stratigraphic or material analysis is recommended, however, comparison of the site with those in plots 88b, 89 and 90 could help to address specific research aims 25 and 27.

7.15.7 Summary of Artefact Assessment

7.15.7.1 Ceramic Building Material

A single fragment of abraded undiagnostic post medieval material weighing 193g was recovered. No further work is recommended.

7.15.7.2 Struck Flint

One retouched flake was found during the evaluation and forty pieces of struck flint were recovered during the excavation of the site. A number of unmodified flakes were of probable Bronze Age or Iron Age date. Probable

Neolithic artefacts (three small blades and a flake from a polished implement) were retrieved from a ditch which was probably medieval. The flint was therefore residual. No struck flints were recovered from any features containing prehistoric pottery. The flint assemblage probably represents activity in the vicinity during more than one period. No further work is recommended.

7.15.7.3 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a pit (39192). Three fragments were identified and included oak (Quercus sp.) and willow (Salix sp.) or poplar (Populus sp.). No further work is recommended.

7.16 Site 39/84a (NHER 39520 JTT)

7.16.1 Location

The site was located within the parish of Itteringham, approximately 4.5 km north northwest of Aylsham, mid way between Blickling Hall and Wolterton Park. (TG 164307).

7.16.2 Aspect/Topography

The site occupied a relatively level plot of land on the northern edge of the floodplain of the River Bure. Immediately south of the site, the land became marshy and was seasonally inundated by the floodwaters of the River Bure. There was evidence to suggest the site was located at the interface between the marshy floodplain to the south, and the more habitable, high ground to the north.

7.16.3 Geology/Soil Type

The drift geology predominantly comprised firm, light yellowish brown boulder clay, which merged into a mixture of fine, light orange and brown sands towards the eastern end of the plot.

The drift geology was directly overlain by malleable, very dark grey silty clay topsoil. There was no definable subsoil, although machine stripping of the site did identify a subtle interface between the topsoil and the natural substrate.

7.16.4 Archaeological Background

A last minute change of route meant that this site was only identified during topsoil stripping in advance of cutting the pipe trench. Neither the fieldwalking survey nor the geophysical survey had identified any concentrations of cultural material or archaeological anomalies on the original route, immediately to the south. On the basis of a preliminary assessment of the revealed features and associated pottery scatters, the entire plot was topsoil stripped exclusively by means of a back-hoe excavator using a toothless bucket, rather than in combination with bulldozers, which would have been

more destructive of the underlying archaeological deposits. Time and resources were subsequently made available to excavate a sample of the features exposed.

7.16.5 Stratigraphic Assessment

Three broad phases of medieval activity have been identified.

Phase 1 - Medieval: This phase is represented by a number of pits and post holes.

Phase 2 - Medieval: An extensive arrangement of rectilinear boundary and drainage ditches delineated numerous small fields, probable stock enclosures and a drove way. The ditch system evidently was organic in its development and must have changed significantly over time. There was no evidence of settlement, which had probably been located further north on higher, drier ground.

Phase 3 – Medieval / Post Medieval: This phase is represented by pits and post holes the majority of which were large and rectangular. Many of these pits could have been infilled borrow pits, where the extracted material was clay. The form and dimensions of the pits suggests that they were not originally excavated for the disposal of unwanted refuse (either domestic or industrial).

7.16.6 Stratigraphic Potential and Recommendations

Too few stratigraphic relationships were tested to allow a detailed phasing scheme to be produced. However, a sufficient sample size was excavated to characterize significant changes in land use. A programme of further analysis would therefore help to address specific research aims 27 and 29.

7.16.7 Summary of Artefact Assessment

7.16.7.1 Romano-British Pottery

Two severely abraded, coarse ware utilitarian sherds were recovered. Both were residual in a medieval ditch and enclosure system (57373 & 57418). No further analysis is recommended.

7.16.7.2 Post Roman Pottery

The site yielded 1010 sherds of medieval pottery weighing 5987g and two sherds of post medieval pottery weighing 6g. It is recommended that the medieval assemblage is considered in the context of settlement patterns along the Bure Valley and written up as an individual component of an overall site report with illustrations. The post medieval material should be summarised in a table.

7.16.7.3 Special Finds

Twenty-one metal fragments were recovered from medieval or later contexts. A small group of diagnostic finds, comprising two buckles (one possibly

gilded), two strap loops and a knife, dated to the medieval period. It is recommended that the gilded buckle is cleaned and the two buckles are illustrated as they have no known close parallels.

7.16.7.4 Ceramic Building Material

The site produced one fragment of post medieval brick and two of pantile weighing 107kg. No further work is recommended.

7.16.7.5 Fired Clay

Eighty-six fragments weighing 451g were recovered from medieval ditches and pits. No further work is recommended.

7.16.7.6 Struck Flint

A blade, four flakes and a retouched flake were recovered. The blade is probably Neolithic, whilst the other pieces probably date to the later prehistoric. The flints were residual within medieval contexts. No further work is recommended.

7.16.7.7 Worked Stone

A schist whetstone was recovered. The assemblage should be included in a publication text.

7.16.7.8 Hand-Collected Animal Bone and Shell Assessment

Two hundred and fifteen poorly preserved bone fragments weighing 1045g were recovered mainly from medieval deposits. Cattle, sheep, horse and dog were identified. Shells were also present, including terrestrial snail shells (elements of local fauna) and marine shells. Most of the marine shells were found in phase 2 contexts and reflect the medieval trade of shellfish. No further work is recommended unless more of the contexts can be dated.

7.16.7.9 Hand-Collected Charcoal

Fewer than twenty fragments of charcoal were recovered. Five fragments from two features were identified. Feature 57225 yielded ash (Fraxinus excelsior) and blackthorn (Prunus spinosa). Poorly preserved oak (Quercus sp.) was recovered from ditch 57574. No further work is recommended.

7.17 Site 43/58 (NHER 37972 CLB)

7.17.1 Location

The site was located within the parish of Colby, approximately 4 km north northeast of Aylsham, and half way between the A140 and the minor road linking the hamlets of Colby and Banningham (TG 213309).

7.17.2 Aspect/Topography

The site was situated on an almost imperceptible southeast facing slope.

7.17.3 Geology/Soil Type

The drift geology was a mixture of firm, light orange and yellowish brown clayey silts with occasional flint inclusions at the west end of the plot, and similarly coloured clayey sands, with occasional flint inclusions towards the eastern end.

The overlying subsoil was moderately firm, mid to dark orange brown clayey silt, with very infrequent sub-angular flint inclusions and flecks of ceramic building material.

7.17.4 Archaeological Background

Neither the fieldwalking survey nor the geophysical survey identified any significant concentrations of cultural material or archaeological anomalies within this plot. However, once the site had been identified during the topsoil strip, the surrounding area was stripped and the exposed archaeological features were sample excavated.

7.17.5 Stratigraphic Assessment

Initial dating of metal waste and preliminary stratigraphic, morphological and spatial analyses identified three phases of activity:

Phase 1 – Iron Age / Anglo-Saxon: A probable metalworking furnace or smelting hearth (43900) and six post holes that probably formed a simple structure (43898) were situated some distance apart. They were linked by the quantities of metalworking waste within their fills.

Phase 2 – Iron Age / Anglo-Saxon: A beam slot (43899) was situated over the phase 1 structure (43898). The beam slot may have been connected with the furnace or smelting hearth, but its precise function remains unclear. A scatter of pits, which may have been domestic in nature, was clustered around the beam slot.

Phase 3 – ?Post Medieval: This phase was represented by a boundary ditch (43886).

7.17.6 Stratigraphic Potential and Recommendations

In the main, levels of residuality were not quantifiable because no readily dateable artefacts, such as pottery sherds, were recovered from the site. However, the truncation of some Phase 1 post holes by the Phase 2 beam slot resulted in the re-deposition of small quantities of slag within the later feature.

The stratigraphic data does have the potential to address the research aims, but only if accurate dates are obtained. This could be done through radiocarbon dating of the charcoal assemblage. Links could be established between the phase 2 pits and with similar features recorded during the watching brief in plot 43/57. This could be achieved through a limited programme of

stratigraphic analysis that examines profiles and fills. A programme of further analysis could address specific research aims 11 & 13 (if the features prove to be of Iron Age date) or 24 (if they are of Anglo-Saxon date).

7.17.7 Summary of Artefact Assessment

7.17.7.1 Bulk Metal Finds

Three formless fragments of Iron require no further work.

7.17.7.2 Fired Clay

The site yielded 519 fragments weighing 1944g. They were recovered from a furnace or smelting hearth. It is recommended that the assemblage is included in a summary description of the hearth/furnace.

7.17.7.3 Slag

Slags weighing 24864g were recovered from fifteen contexts. The presence of tap slags and a 50:50 ratio of plate to spheroidal scale suggest that metallic iron was smelted at the site. The iron was smelted from local ores, but as there was very little ore amongst the slag, the source used is uncertain. It is likely that the ore processing was undertaken elsewhere and the prepared ore brought to the furnaces. The tap slags are not large plate fragments (the most common type encountered), but are very small dribbles, flows and amalgams of these. The larger conglomerates of these were moulded by extremely large pieces of charcoal, the fuel used for the smelting.

The quantity of plate hammerscale suggests that smithing also took place at the site, and there is one possible hearth bottom (context 43868) which might represent this activity.

It is recommended that the slag is fully catalogued and quantified. The information in the catalogue and spatial analysis should then be used to quantify variations between the groups of slag recovered from different contexts, and establish the locations of activity areas. As the slag forms a single assemblage, it will be possible to look for patterns of re-deposition in later contexts and study its movement around the site.

7.17.7.4 Charcoal

Fewer than 230 fragments of charcoal were recovered from a metal-smelting furnace (43855), three pits (43870, 43873 & 43876) and a post hole (43880). The charcoal from all five features is likely to have been originated as fuel waste from the furnace. Twenty-seven fragments of charcoal were identified and appeared to be almost exclusively oak (Quercus sp.), including both roundwood and fragments of heartwood from slow grown large wood. Holly (Ilex aquifolium) was also recovered from pit 43876.

Further work is recommended for all samples except for furnace fill 43858. Identification of the type (species) and character of the iron-working fuel and whether it was obtained from managed or unmanaged woodland would be useful. Evidence of woodland management, e.g. cropping cycles and season of felling could be collected. With regard to C14 dating, suitable material for

AMS has already been selected from four contexts. Sufficient quantities for conventional dating may be forthcoming when further material is examined from the samples.

7.17.8 Recommendations for AMS Dating

As discussed above, four AMS dates are recommended in order to date the iron working at this site.

7.18 Site 44/48 (NHER 37729 SFF)

7.18.1 Location

The site was located within the parish of Suffield, immediately west of Suffield Church, approximately 1.5 km south southeast of the hamlet of Suffield itself and approximately 5 km west northwest of North Walsham (TG 232312).

7.18.2 Aspect/Topography

The site occupied the lower and middle reaches of a steep, west facing valley slope. Immediately west of the site, the land becomes marshy and is divided by a series of water filled ditches. To the east, the land rises steadily to Suffield Church and then rises more gently for at least a further 2 km.

7.18.3 Geology/Soil Type

The drift geology consisted of highly variable, soft, mid to light orange, yellowish brown or mid grey sand, with occasional sub-rounded flint inclusions and patches of loose flint gravel.

The overlying subsoil was friable, mid orange brown silty-sand, with infrequent charcoal flecks and flint inclusions.

7.18.4 Archaeological Background

Two phases of fieldwalking survey did not reveal significant concentrations of cultural material. The geophysical survey, however, identified a significant number of linear anomalies. Six targeted evaluation trenches were excavated. The results of these led to a decision to strip the topsoil from the surrounding area, in advance of construction, and to conduct an open area excavation.

7.18.5 Stratigraphic Assessment

Preliminary stratigraphic analysis has identified three broad phases of activity, the second of which has been divided into four sub-phases:

Phase 1 - ?Prehistoric: A large, circular pit (44018), located in the centre of the site, may originally have been associated with a Bronze Age 'burnt

mound'. An irregular shaped hollow (44318, 44160, 44385 & 44387), to the west, also contained burnt flint, although its precise origin remains unclear. Large quantities of burnt flint found in phase 2 features suggest that the mound was levelled and the flints re-deposited during the medieval period.

Phase 2i – ?Late Saxon: A series of narrow ditches (44377, 44515, 44513, 44516, 44498, 44494, 44481, 44202, 44473, 44467 & 44527) were concentrated mainly at the western end of the site. The ditches were probably the remains of a field system (possibly strip fields). A scatter of residual late Saxon ceramics perhaps suggests a pre-Conquest origin. A possible lime mixing pit (44496) was also recorded.

Phase 2ii – Medieval: The (phase 2i) field system was modified, forming a more rectilinear system of narrow ditches (44461 & 44471) and a substantial curvilinear ditch (44463) at the eastern end of the site that appears to define the western side of a droveway.

Phase 2iii – Medieval: A much more substantial rectilinear field system clearly replaced the narrow strip fields of Phase 2i. It included ditches (44519, 44509, 44504, 44500, 44484 & 44479).

Phase 2iv – Medieval: Two parallel ditches (44491 & 44511) could have formed another droveway at the western end of the site.

Phase 3 – *Post Medieval:* A brick built drain within ditch 44525, emptied into ditch 44526. The features were located in the south western corner of the site.

7.18.6 Stratigraphic Potential and Recommendations

Dating the site and assessing levels of residuality is hampered by the low density of artefacts recovered. However, it is apparent that a sherd of Bronze Age pottery and a significant quantity of burnt flint found in Medieval (phase 2) ditches were residual.

Stratigraphic data can be used to phase the site with a reasonable degree of confidence, but the evidence is insufficient to assign absolute dates to the stages of development. Also, investigation of the small number of features that remain un-phased will add little to the interpretation of the site. The potential for further analysis is therefore considered to be low and none should be undertaken. Current understanding of the site could address specific research aim 27.

7.18.7 Summary of Artefact Assessment

7.18.7.1 Prehistoric Pottery

The site produced a single Bronze Age sherd that was not closely datable. No further work is recommended.

7.18.7.2 Post Roman Pottery

A single sherd of post medieval pottery weighing 38g should be summarised in a table.

7.18.7.3 Special Finds

Eighteen fragments were recovered. Only one could be assigned a date; an 18^{th}-19^{th} century livery button. No further work is recommended.

7.18.7.4 Ceramic Building Material

One complete post medieval brick weighing 3137g was retrieved from a drain structure. Complete dimensions are catalogued. No further work is recommended.

7.18.7.5 Fired Clay

Four fragments weighing 9g were recovered. No further work is recommended.

7.18.7.6 Struck Flint

One flake was recovered during the evaluation and a blade and blade-like flake were recovered by the excavation. The flint was undiagnostic, but one piece was retrieved from a pit of possible Bronze Age date and the other was residual within a medieval ditch. No further work is recommended.

7.18.7.7 Worked Stone

Crumbs of lava stone were recovered from one context. The assemblage should be included in a publication text.

7.18.7.8 Environmental Archaeology

Two bulk samples and 76 fragments of hand-collected animal bone were submitted for processing and assessment. The samples were from a large Bronze Age pit (44018) and a medieval ditch (44172), which was thought to contain re-deposited material from pit 44018. There was very little evidence for contamination. A very high proportion of burnt flint, present in both samples, was thought to signify the remains of a burnt mound, but there was a much greater amount in the medieval ditch than in the Bronze Age pit. The environmental data comprised charcoal, three charred cereal grains and a few snails that are probably intrusive. Charcoal is abundant and appears to have been derived from branches, timber or billets, amongst which many fragments are identifiable. No small roundwood or twigs were noted during the assessment. The hand-collected animal bone, all of which was very degraded, could not be identified to species. The deposits of burnt flint from context 44143 have the potential for radio-carbon dating the 'burnt mound' and yielding some information on the types and species of wood exploited for this activity in the Bronze Age.

7.19 Site 46/38 (NHER 37987 ANT)

7.19.1 Location

The site was located within the parish of Antingham, approximately 1.5 km northwest of North Walsham (TG 260317).

7.19.2 Aspect/Topography

The site was situated on an almost imperceptible east facing valley slope A low natural knoll on the northern side of the working width appeared to form the focus for a Bronze Age cremation cemetery. Deep ploughing had evidently impacted significantly upon the landscape.

7.19.3 Geology/Soil Type

The drift geology comprised a mixture of mid orange brown sandy silt and similarly coloured sands and gravels.

The overlying subsoil was friable, mid brown to mid orange brown sandy silt.

7.19.4 Archaeological Background

Although the desk based assessment identified a field system with associated enclosures and tracks, the field survey found no concentrations of cultural material that would corroborate their existence, or establish their date. The geophysical survey found very few significant archaeological anomalies, other than faint traces of two ditches. The site was identified during the watching brief topsoil strip when the remains of a cremation urn were exposed. As a result the surrounding area was stripped exclusively by means of a back-hoe excavator using a toothless bucket, rather than in combination with bulldozers, which would have been more destructive of the underlying archaeological deposits. Sufficient time was then made available to excavate all of the revealed cremations and a sample of the non-burial related features and layers.

7.19.5 Stratigraphic Assessment

Preliminary stratigraphic, morphological and artefactual assessment has identified five phases of activity:

Phase 1 - Bronze Age: A small cremation cemetery (46065), comprising six cremations and a heavily truncated pit (46030) filled with burnt flint, was recorded.

Phase 2 - ?Iron Age: A buried soil horizon (46064) was identified across the central portion of the site.

Phase 3 - Iron Age: A low density scatter of pits and post holes (46066) included pit 46054, which contained an important socketed iron axe head (SF 72909).

Phase 4 – Medieval: Two ditches at the eastern end of the site appeared to have formed part of an enclosure or field system (46063).

Phase 5 – Post Medieval: Elements of a field system (46062), excavated at the western end of the site, are shown on post medieval maps.

7.19.6 Stratigraphic Potential and Recommendations

Residuality appears to be low level. However, a single Roman pottery sherd within the Iron Age (phase 2) buried soil horizon was intrusive.

The stratigraphic data from phases 1 to 4 is limited by the isolation, truncation and small number of features. However, general and specific research objectives potentially could be addressed. Phase 5 has little potential for further analysis.

Comparison of the profiles and fills of undated with dated features is recommended, in order to refine the phased chronology. This would be particularly useful with regard to phase 3. Clarification of the function of the phase 4 ditches could be achieved by comparing them with crop marks on aerial photographs. A programme of further analysis would therefore help to address specific research aims 4 to 7, 10, 12, 14, 15 and 27.

7.19.7 Summary of Artefact Assessment

7.19.7.1 Prehistoric Pottery

A substantial assemblage of 1035 sherds weighing 9330g was obtained. The majority of the assemblage which includes five semi-complete or truncated urns from a small cremation cemetery [46065], dated to the Bronze Age. A substantial part of the assemblage dated to the earlier Iron Age and came from a low density scatter of Iron Age pits and post holes across the site.

Further work is recommended to define dating for the assemblage and provide a detailed comparison with other sites in the region, in particular for the cremation vessels. A full publication report with a selection of illustrated sherds and a catalogue should be produced.

7.19.7.2 Romano-British Pottery

Two sherds of abraded pottery weighing 3g were recovered. One was residual within a post medieval ditch system (46056). The other was probably intrusive within a prehistoric buried soil horizon. No further work is recommended.

7.19.7.3 Post Roman Pottery

Two sherds of post medieval pottery weighing 11g should be summarised in a table.

7.19.7.4 Special Finds

Eight metal finds were recovered. Of intrinsic and national importance is an Iron Age axe head found *in situ*. The rest of the objects were either post

medieval or modern. It is recommended that the axe head is conserved, stabilised and x-rayed as soon as possible. Then it should be studied by a specialist in this field and illustrated.

7.19.7.5 Ceramic Building Material

Twenty-one post medieval and modern brick, roof tile and undiagnostic pieces weighing 0.256kg were recovered from ditch fills and topsoil. No further work is recommended.

7.19.7.6 Fired Clay

Six fragments weighing 59g were recovered; five from an Iron Age pit and one from a possible post medieval pond. No further work is recommended.

7.19.7.7 Struck Flint

Samples taken during the evaluation produced fourteen spalls. Eighteen pieces of struck flint, mostly flakes, were recovered during the excavation. Half of the flint came from the topsoil and subsoil. A small number of undiagnostic flints came from two Iron Age pits and two medieval or post medieval ditches. It is recommended that the flint is considered in relation to the excavated features, and that one core or tool is illustrated.

7.19.7.8 Human Bone

Six Bronze Age cremation burials were found. Poor preservation means that there is limited potential for further analysis. However further study is recommended in order to establish a demographic profile of the individuals recovered, gain information about cremation pyre technology, to find out about rituals and customs and so add to the bank of knowledge about the Bronze Age population of Britain.

7.19.7.9 Environmental Evidence

Six bulk samples and eight fragments of hand-collected animal bone were submitted for processing and assessment. The samples were all from pits. The deposits had all suffered a low level of contamination.

The archaeological debris comprised pottery, flint flakes, burnt flint, hammerscale, slag, coal and a little burnt bone. The whole of the residue from context 46031 comprised fire-cracked flint. The coal is assumed to be intrusive but the hammerscale and small fragments of slag may indicate blacksmithing that was undertaken on the site during the Iron Age. Of the environmental remains, only charred plant remains have survived and, apart from the charcoal, these occur in very low densities in most of the samples. One sample (context 46020), produced an assemblage of small weed seeds that may justify study. A single mussel shell fragment from sample 73809 is likely to be a contaminant. One sample (context 46040) produced a large volume of charcoal, but few other charred remains. The hand-collected animal bone was from a single context (46006). All of this bone was burnt and unidentifiable. Clearly, animal bone did not survive at this site unless it had been burnt. The bulk of the archaeological debris appears to have been derived from domestic activity.

Two areas of further work are suggested:
- The charred crop remains and weed seeds should be specifically identified.
- The charcoal in context (46040) should be identified and studied, but only if the archaeological context of the feature and age can be reliably established.

7.19.7.10 Hand-Collected Charcoal

Fewer than thirty fragments of charcoal were recovered from two cremation fills (46018 & 46033) and one pit fill (39343). Nine fragments were identified. The taxa within the pyre fuel debris of the cremations included alder (Alnus glutinosa) and hazel (Corylus avellana). The pit contained fragments of very slow grown oak (Quercus sp.). No further work is recommended.

7.19.8 Recommendations for AMS Dating

Two AMS dates are recommended in order to securely date the nationally important socketed iron axe head.

7.20 Site 47/34 (37631 WLN)

7.20.1 Location

The site was located within the parish of North Walsham, near the A149 and mid way between North Walsham and the village of Antingham (TG 265321).

7.20.2 Aspect/Topography

The site occupied the lower portion of a relatively steep, east facing valley slope. The eastern fringe of the site spread over a slight terrace above the floodplain to the east.

7.20.3 Geology/Soil Type

The drift geology comprised very pale, predominantly light orange brown, sand, with occasional patches of fine, blue sand that was much firmer.

The overlying subsoil was friable, light yellowish brown, to light orange brown, silty sand.

7.20.4 Archaeological Background

The geophysical survey identified a number of linear anomalies towards the eastern end of this plot. In addition, an area of dense pit-like anomalies, which coincided with high magnetic susceptibility readings, could be discerned. Subsequently, three evaluation trenches were excavated, the most easterly of which revealed significant medieval features. As a result, the surrounding area was stripped of topsoil in advance of construction and a sample of the revealed archaeological features was excavated.

7.20.5 Stratigraphic Assessment

Preliminary stratigraphic, morphological and artefactual assessments have identified five phases of activity:

Phase 1 – Neolithic or Iron Age: This phase comprises five pits (47003, 47113, 47115, 47117 & 47124) and a ditch (47019).

Phase 2 – ?Medieval: A rectilinear pattern of ditches (47111, 47255, 47256, 47257], [47258, 47259, 47260 & 47261) is likely to be the remains of a field system.

Phase 3 – Medieval: A narrow ditch (47262), which cut the Phase 2 ditch system, was associated with a large concentration of pits. A hearth (47123) is likely to be associated with this change in emphasis, from agricultural to domestic land-use.

Phase 4 - Medieval: Two lines of post holes in the western half of the site respected the phase 3 ditch (47262) and are probably later.

Phase 5 –Late Medieval: Two ditches (47268 & 47269) and a number of large pits (47265) were recorded. Ditch 47268 is shown on the 1842 tithe map, but is likely to be late Medieval in origin. Ditch 47269 is stratigraphically earlier than ditch 47268 but is probably broadly contemporary.

7.20.6 Stratigraphic Potential and Recommendations

Further analysis would allow the stratigraphic sequence to be refined, and a more accurate characterisation of the nature of activity in the prehistoric and medieval periods to be produced. Comparison of the profiles and fills of undated and dated features is recommended in order to refine the phased chronology. The character of the medieval occupation is of prime importance, but some time should also be spent clarifying the date of the provisional phase 1 pits. A programme of further analysis would therefore help to address specific research aims 6, 7, 25-27 and 29.

7.20.7 Summary of Artefact Assessment

7.20.7.1 Prehistoric Pottery

The site produced an assemblage of 48 sherds of which 44 were either earlier Neolithic or Iron Age. All the sherds were found in one pit (47003). No further work is recommended.

7.20.7.2 Post Roman Pottery

Four hundred and seventy-four sherds of medieval pottery weighing 3833g, and nine sherds of post medieval pottery weighing 141g were recovered. It is recommended that the medieval assemblage is written up as a discrete report to be included in an overall site report with illustrations. The post medieval pottery should be summarised in a table.

7.20.7.3 Special Finds

Eleven fragments of iron were recovered from late medieval, post medieval or modern contexts. No further work is recommended.

7.20.7.4 Fired Clay

Fifty-three fragments weighing 940g were recovered. They were associated with medieval and later pits and ditches. No further work is recommended.

7.20.7.5 Struck Flint

Twenty-four fragments of struck flint were recovered. The assemblage comprised mainly unmodified flakes and spalls of later Neolithic to Iron Age date. Some blades and blade-like pieces of earlier Neolithic or Mesolithic date, three utilised pieces and a possible notched flake were also present. The distribution of the flints in relation to the features at the site should be examined.

7.20.7.6 Worked Stone

Crumbs of lava stone and a schist whetstone were recovered. The assemblage should be included in a publication text.

7.20.7.7 Environmental Archaeology

Nine bulk samples and twenty-one hand-collected fragments of animal bone were submitted for processing and assessment. The samples are from a sequence of fills in two medieval pits and an undated hearth. There is very little evidence of contamination.

The frequency of pottery in the fills of the two pits suggests that these were probably receiving domestic rubbish. Low densities of hammerscale within the samples indicate that iron smithing was undertaken at the site at some distance from the pits and hearth. The environmental assemblages from all nine samples are very similar. All samples include small volumes of charcoal, numerous small tubers and charred plant stems, charred cereal grain, occasional pulses (probably peas), other legumes and an abundance of small round seeds of various sizes. In particular, the last suggest a similar origin for most of the plant material in all the sampled contexts. This indicates that the pits and the hearth may be contemporary. Poor conditions for bone preservation are evident and the absence of bone from the samples and excavated features cannot be given any significance. Of the hand-excavated animal bones only tooth fragments of pig could be identified.

Only the charred plant remains justify further work as follows:
- Specific identification and interpretation of the cereal and charred seed remains in samples 73900, 73901, 73905 and 73906.
- Identification of the larger plant remains (cereals and pulses) from the other samples that have already been sorted.

7.20.7.8 Hand-Collected Charcoal

Fewer than ten fragments of charcoal were recovered from a pit (47195). One fragment was identified as alder (Alnus glutinosa). No further work is recommended.

7.21 Site 50/26 (NHER 37996 SLD)

7.21.1 Location

The site was located within the parish of Swafield, approximately 2 km north northwest of North Walsham, on the east side of the minor road running south from the hamlet of Bradfield (TG 273329).

7.21.2 Aspect/Topography

The site occupied the lower and middle reaches of a gentle, east facing valley slope. East of the site, the land became more level and increasingly marshy, the shallow valley being dissected by a number of streams. Deep ploughing had significantly altered the natural topography. The resulting movement of soil down the slope, had lead to the accumulation of colluvium where the gradient of the slope levelled out.

7.21.3 Geology/Soil Type

The drift geology was predominantly mottled, orange brown sandy clay, which became siltier towards the eastern end of the plot.

The subsoil was mid brown to mid orange brown sandy clay, with occasional flint inclusions.

7.21.4 Archaeological Background

Both the fieldwalking survey and geophysical survey identified evidence for considerable archaeological activity within this plot. As a result, seven targeted evaluation trenches were excavated. In response to the results, the eastern end of the plot was stripped of topsoil in advance of construction and the exposed features were sample excavated.

7.21.5 Stratigraphic Assessment

Preliminary stratigraphic, morphological and artefactual assessments have identified three phases of activity:

Phase 1 - Middle Bronze Age: A small concentration of features, which appears to be settlement related, includes pits (50269, 50201 & 50169), gullies (50270, 50271 & 50272) and a post hole (50250). The features appear to be broadly contemporary although only one pit (50269) contained dateable pottery.

Phase 2 – Romano-British or Post-Roman: This phase of activity is defined by two substantial, rectangular enclosures. The westernmost enclosure (50273), appears to have had a second ditch circuit (50274), whilst its counterpart (50275) to the east, did not. One may have been used for settlement, and the other for stock.

Phase 3 – Medieval: A series of ditches (50223, 50280, 50281, 50005, 50032, 50283, 50284 & 50286) defined the evolution and maintenance of a field system. Within this field system, three ditches (50277, 50278 & 50279) probably formed a small stock enclosure. Ditch 50279 bounded an area heavily disturbed by animal activity (50282). A scatter of pits hinted at nearby settlement but only small quantities of cultural material were recovered.

7.21.6 Stratigraphic Potential and Recommendations

Further analysis would allow the stratigraphic sequence to be refined, and a more accurate characterisation of the nature of activity in the prehistoric and medieval periods to be produced. Comparison of the profiles and fills of undated with dated features is recommended in order to refine the phased chronology. A programme of further analysis should help to address specific research aims 2 and 3, and would address research aims 27 and 29.

7.21.7 Summary of Artefact Assessment

7.21.7.1 Prehistoric Pottery

The site produced 37 sherds of Biconical Urn weighing 494g and one Iron Age sherd weighing 2g. The biconical urn sherds were recovered from two large, rectangular pits (50159/50199 and 50186) and are comparable with sherds from a site near Witton which were associated with charcoal radiocarbon dated to 3090 ±60 BP. The Iron Age sherd was not closely dateable. No further work is recommended.

7.21.7.2 Romano-British Pottery

Twenty-five sherds weighing 0.134kg were recovered. All of the pottery comprised locally produced utilitarian coarse wares and no individual vessel types were identified. There were no significant concentrations of sherds. No further work is recommended.

7.21.7.3 Post Roman Pottery

A hundred and sixty-two fragments of medieval pottery weighing 0.897kg, were associated with a possible stock enclosure and pit scatter. One sherd of post medieval pottery weighing 3g was also recovered. It is recommended that the assemblage is written up as a discrete report to be included in an overall site report with illustrations. The post medieval pottery should be summarised in a table.

7.21.7.4 Ceramic Building Material

The site produced six small fragments of pantile and brick weighing 40g, from a pit fill, ditch fill and topsoil. No further work is recommended.

7.21.7.5 Fired Clay

The site produced 217 fragments weighing 4021g. Some of the material was associated with Bronze Age pits whilst some was retrieved from medieval ditches and pits. No further work is recommended.

7.21.7.6 Struck Flint

Nineteen pieces of flint, including two late Neolithic / early Bronze Age scrapers and part of a polished Neolithic axe, were found during the evaluation. A further ninety struck flints and a burnt fragment, recovered during the excavation of the site, mainly comprised unmodified flakes. There were few diagnostic pieces, but as some of the features on the site appeared to be middle Bronze Age, and given the nature of the assemblage it is likely that most of the assemblage could be of this period. One large piece of flint from a medieval ditch had probably been part of a building. It is recommended that some of the flints are illustrated.

7.21.7.7 Worked Stone

Fragments of eroded lava quern were recovered from three contexts. The assemblage should be included in a publication text.

7.21.7.8 Environmental Evidence

One bulk sample and 53 fragments of hand-collected animal bone were submitted for processing and assessment. The bulk sample was taken from an un-phased burnt deposit (240). There was little evidence of contamination. The sample produced very little: burnt flint, one flake of hammerscale, a single charred barley grain, a fragment of charred hazelnut shell, two other charred seeds, and charcoal. The hand-collected animal bone is very degraded and fragmented. The only identifiable fragments cattle teeth in context (50200). The sample has little potential for further analysis and none is recommended.

7.21.7.9 Hand-Collected Charcoal

Fewer than thirty fragments of charcoal were recovered from two pits (50186 & 50199). Six fragments identified included Alder (Alnus glutinosa), present in both features, and oak (Quercus sp.) only in pit 50186. No further work is recommended.

8 SUMMARY OF DATA RECOVERED FROM THE TRENCH EVALUATIONS

For the purposes of this assessment, the data recovered from the trench evaluations has been broken down into two groups:

- Data from plots subsequently subject to full formal excavation (i.e. plot 1/251). Although included within the evaluation archive, the data has generally been discussed alongside the formal excavation data (above).
- The remaining data, recovered from sixteen plots that were not subsequently excavated in full, is summarised in Table 3.

Table 3: Summary of the data recovered from evaluations carried out in plots not subsequently excavated as archaeological sites

Plot	NHER Reference	Trench Numbers	Results
1/253	37615 WNE	1,2,3	Post holes (802 & 803) were identified in Trench 1, whilst Trench 2 revealed the remains of a possible post medieval brick kiln. The structure had largely been ploughed away and only relatively ephemeral traces survived.
1/252	37616 WNE	4,5,6	Two probable ditches in Trench 6 and a small cluster of pits and post holes in Trench 5 were identified at the eastern end of this plot. Although possibly related to the site excavated in plot 1/251, these features, in themselves, did not justify preconstruction excavation.
2/250	37618 WNE	21,22	Both trenches were essentially devoid of archaeological features, however. Trench 21 did identify the remains of a disused pond, or possibly a palaeochannel.
3/236	37811 WAC	100,101,102,103	Trenches 100, 101 and 102 were all essentially devoid of archaeological features. A single N-S linear ditch (811) at the eastern end of Trench 103 was possibly a former field or property boundary.
9/214a	37619 LTC	23,24	A single N-S linear ditch in Trench 23 was considered to be a former (post medieval) field boundary. Trench 24 was essentially devoid of archaeological features.
10/213a	37620 LTC	25,26	Both trenches were essentially devoid of archaeological features.
28/120	37627 WDG	42	This trench, at the eastern end of the plot, uncovered the remains of a trench built, N-S, red, brick wall. This structure was considered to be of post medieval origin and was probably part of a barn.
40/70	37959 JNW	94,95,96	Substantial ditches were identified in both Trenches 94 and 95. A post hole (Trench 94) and a gully (Trench 95) were also identified.
44/52	37630 CLB	48,49,50,51,52,53	The trenches in this plot revealed an assortment of ditches, probable extraction pits and semi-natural features. The archaeological features did not appear to be settlement related and so preconstruction excavation was not considered to be justified.
45/46	37730 SFF	78,79,80,81	Only Trench 80 was devoid of archaeological features. The remaining trenches all identified several ditches, which, in most cases, seemed to have been primarily for land division and drainage. The pre-construction excavation of these features was not considered to be justified.
45/45	37731 SFF	82,83	The two trenches identified a total of seven ditches and a post hole, but there was no evidence to suggest that they were settlement-related. The pre-construction excavation of these features was not considered to be justified

Plot	NHER Reference	Trench Numbers	Results
45/44	37732 SFF	84,85,86	Trench 84 identified three N-S linear ditches (398, 400 & 412) and a post hole (422), whilst two parallel NW-SE linear gullies (414 & 417) were found in Trench 86. Although described as 'timber beam slots', they are unlikely to have been settlement-related.
48/33	37632 WLN	57	A single NW-SE linear ditch, probably a field boundary, was identified at the eastern end of this trench.
49/28a	37633 FLD	58,59,60,61,62	Trench 62 contained the remains of a broadly E-W metalled track (154) with flanking ditches, incl. 163. A series of ditches in Trenches 59, 61 and 62 were probably field boundaries, although clearly of more than one phase.
52/21	37634 FLD	63,64,65,66	All of the trenches were essentially devoid of archaeological features. Nonetheless, a number of apparently natural features were identified.
52/20	37635 FLD	67,68,69,70,71	Although Trench 70 was devoid of archaeological features, the remaining four trenches identified a series of ditches. These were considered to have formed part of a field system.

The majority of plots evaluated contained archaeological features. Most were post medieval field boundaries, but the remains of reasonably extensive field systems were identified in plots 44/52, 45/46, 45 and 44, 49/28a and 52/20.

Few dateable artefacts were recovered from stratified contexts. A cluster of features at the eastern limit of plot 1/252 is considered to be of prehistoric origin, due to its proximity to morphologically similar, prehistoric features in plot 1/251 (see 7.1). This possible relationship will need to be examined in conjunction with the watching brief data. Most of the remaining archaeology was considered to be medieval or, more probably, post medieval.

Avoidance of four nationally important sites had been recommended. Trench evaluations of the re-routes demonstrated successful avoidance of a probable Iron Age and Roman settlement in plot 3/236 and a probable Roman enclosure in plot 40/72. However, archaeological sites were identified on re-routes in plots 39/88 and 44/48. Despite this, the routes adopted were undoubtedly the least archaeologically sensitive options and the mitigation measures employed were clearly appropriate.

The truncated and fragmentary remains of a probable post medieval brick kiln in plot 1/253 and a metalled track in plot 49/29a did not warrant further preconstruction excavation. The kiln was found south of a field described as 'Brick Kiln Close' on 19th century maps (Network Archaeology Ltd, 2002a), and was also identified by the geophysical survey (Pre-Construct Geophysics, 2003). The track had flanking ditches on either side. Its date is uncertain, but it is clearly aligned on an extant causeway across the marshy ground east of the former North Walsham and Dilham Canal (NSMR 13534). The track is therefore likely to be of post medieval origin, possibly constructed to service

bone mills (NSMR 15835) and a boathouse described in the Norfolk Sites and Monuments Record.

9 AN ASSESSMENT OF THE WATCHING BRIEF DATA

9.1 Background

In addition to sites identified by the watching brief team that have already been discussed, features were observed in a further 106 plots. Observation of the construction phase topsoil strip identified archaeological features in fourteen plots, and subsequent trenching operations identified archaeological features in a further 99 plots. The latter had not been seen during the topsoil strip because they had been sealed beneath thick subsoil horizons

9.1.1 Stratigraphic Assessment

For the purposes of this assessment, the data recovered during the watching brief has been broken down into two groups, as follows:

Features that are possibly related to the formally excavated sites (

- Table 4).

- Other isolated features, many of which were component parts of, or were otherwise related to, known field boundaries (Table 5).

Table 4: Summary of Watching Brief data that might be related to the formally excavated sites

Plot	NHER Reference	Nature of Features
1/252	37616 WNE	Pits, Ditches and Buried Soils
6/227	37820 CAA	Boundary Ditch
6/226	37821 RGH	Boundary Ditch
8/219	37826 LEX	Pits, Post holes, Ditches and Gullies
8/218	37827 LEX	Pits, Post holes, Ditches and Gullies
8/217	37828 WAS	Pits and Post holes
9/216A	39517 LTC	Pit
9/216	37829 LTC	Probable Pit
9/215A	37830 LTC	Probable Pit
9/214A	37619 LTC	Pit
10/213A	37620 LTC	Probable Pit
10/213	37831 LTC	Pits and Ditches
10/210	37832 LTC	Pits and Ditches
11/209	37833 TTL	Pit
13/202	37622 TTL	Pits
22/148	37623 BTE	Pits and Gully
25/138	37624 FLS	Pits, Post holes and Ditches
25/136	37625 FLS	Fire Pit
27/128	37626 THM	Pits, Ditches and Gullies
28/120	37627 WDG	Ditches
28/118	37911 WDG	Ditches
36/98	37930 ZVL	Pits and Ditch
38/90	37939 JTT	Ditch
39/84A	37614 JTT	Pit or Ditch

Plot	NHER Reference	Nature of Features
43/57	37973 CLB	Pits and Ditch
44/48	37729 SFF	Pot Boiler

The volume of data summarised in
Table 4 is small. Nonetheless, it has the potential to enhance our understanding of the individual excavated sites with which it might be related. This is particularly true of the data from plots 1/252 and 9/216A to 11/209 because it has the potential to place the prehistoric sites at 1/251 and 8/219-217, respectively, within their broader context. Indeed, with regard to site 1/251, the watching brief data suggests that Neolithic and Bronze Age activity may have been more extensive than first thought and was possibly focused on a mere or lake. Moreover, preliminary assessment of the watching brief data makes it clear that the excavated 'sites' in plots 8/219 to 8/217 are, in fact, simply part of a much more extensive prehistoric landscape that extends eastwards along the ridge of high ground towards Tittleshall.

The remaining watching brief data comprises a seemingly random scatter of features spread along the pipeline route. This data is undoubtedly biased by the limitations of the collection methodology (see 3.4.3). For instance, during the topsoil strip, features only tended to be identified in plots where the overlying subsoil horizon was patchy or poorly developed. Moreover, the data from the pipe trench is undoubtedly biased towards those sections of the route where the drift geology was more stable (i.e. chalk), as it was often too dangerous to record features where it crossed areas of sandier (less stable) geology.

The large volume of non-site related data from the watching brief is not fully documented in this report. Table 5 (below) summarises those plots that contained non-site related data.

Table 5: Summary of non-site related data recovered during the watching brief

Section	Plots Containing Features	NHER references
1	253	37615 WNE
2	249a, 244, 242	37797 WNE, 37803 WAC, 37805 WAC
3	240	37807 WAC
4	235, 234	37812 CAA, 37813 CAA
5	230	37817 CAA
6	228, 225	37819 CAA, 37822 RGH
7	224, 223	37823 RGH, 37824 RGH
13	200, 198A, 195A, 193, 192	37840 TTL, 37842 TTL, 37843 TTL, 37846 TTL, 37847 TTL
14	191, 190, 188, 187, 186	37848 TTL, 37849 TTL, 37851 WHS, 37852 WHS, 37853 WHS
15	184, 183, 182, 181	37855 HTF, 37856 HTF, 37857 HTF, 37858 HTF
16	177, 176, 175, 174	37862 HTF, 37863 HTF, 37864 ELN, 37865 ELN
17	172, 169, 166	37867 ELN, 37871 ELN, 37872 ELN
18	162	37876 ELN
20	155	37884 BTE
21	151, 149	37888 BTE, 37890 BTE
24	142, 139	37894 FLS, 37897 FLS
25	132	37901 FLS
27	127, 126	37904 THM, 37905 THM

Section	Plots Containing Features	NHER references
28	123, 122	37908 REP, 37910 WDG
29	117	37912 WDG
30	116, 115	37913 WDG, 37914 WDG
31	114	37915 WDG
32	112	37917 HEY
35	102, 100	37926 CRP, 37928 ZVL
37	95A, 92c	37931 ZVL, 37934 ZVL
39	87A, 85, 78, 77	37943 JTT, 37945 JTT, 37952 HNW, 37953 JNW
40	70, 69	37959 JNW, 37960 JNW
41	65	37965 JNW
44	54, 52	37976 CLB, 37630 CLB
45	46, 45, 44, 43, 41, 40,	37730 SFF, 37731 SFF, 37731 SFF, 37982 ANT, 37984 ANT, 37985 ANT
46	39	37986 ANT
47	36, 35	37989 WLN, 37990 WLN
49	28A	37633 FLD
51	23	38000 FLD
52	21, 20	37634 FLD, 37635 FLD
53	16	38005 KNP
54	13, 12	38008 KNP, 38009 KNP
55	3,1	38018 BAC, 38020 BAC

Plot 31/114 contained a significant concentration of features, all of which were observed in the sides of the pipe trench. Six ditches, six pits, a buried soil horizon and a probable sunken track indicate the existence of a deserted medieval settlement in the vicinity. Plots 4/235, 14/190 and 55/3 each contained small groups of features that inferred the existence of nearby sites. The quality of data from all these plots is low and it is not possible to place it in its fuller context.

'Fire pits' (in plots 15/181, 24/139, 25/132, 27/127, 30/115, 35/102 & 37/95A), possible 'pot boilers' or burnt mounds (in plots 39/77 & 52/20) and a possible well or watering hole (in plot 39/78) were noted during the watching brief. The 'fire pits' were generally shallow, circular pits, with baked edges and fills containing dense concentrations of charcoal. None produced any closely dateable artefacts. The 'pot boilers' were large, shallow, features containing dense concentrations of fire-cracked flint and charcoal. The proximity of the burnt mound in plot 39/77 to one listed by the Norfolk Sites and Monuments Record (NSMR 28897) is of interest. Nevertheless, once again, the quality of this data is rather limited and may only really be placed within a wider context by comparing it with other 'findspots' on the Norfolk Historic Environment Record.

Anglo-Saxon pottery found during the watching brief should be analysed and the results included in a synthesis of all such material in order to address specific research aim 23.

No other research aims would be addressed by further analysis of the non-site related watching brief data and so none is recommended. Data which does not require further analysis should be recorded on a standard NHER form and submitted to the Norfolk SMR.

10 ARCHIVE MANAGEMENT

The project archive will be managed and prepared in accordance with the following guidelines:

- *Management of Archaeological Projects* (English Heritage1996)
- *Selection, Retention and Dispersal of Archaeological Collections* (Society of Museum Archaeologists 1997)
- *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (Walker 1990)
- *Archaeological Archives* (Ferguson and Murray 1997)
- *Microfilming and Archaeological Archives (Handley 1999)*

Norfolk Castle Museum will receive the full integrated finds and document archive, excluding that for plots 88 and 88b which will be received by the National Trust. Norfolk County Sites and Monuments Record will receive copies of the post-excavation assessment report and client report, and a selection of colour transparencies.

Online Access to the Index of Archaeological Investigations (OASIS) data capture forms will be completed for every site subject to formal excavation and will be submitted to the English Heritage National Monuments Record.

An appropriate discard policy will be agreed with Norfolk Castle Museum and implemented prior to deposition.

Network Archaeology Ltd will be responsible for arranging the signing of consent forms by landowners and for the transfer of title of artefacts to the relevant museums.

The archive will include copies of electromagnetically stored or processed data, supplied on compact disc.

11 UPDATED PROJECT DESIGN

11.1 Original Research Aims

11.1.1 General Objectives

- To investigate the morphology, function, status and date range of each site.
- To investigate the landscape setting of each site.
- To establish the pattern of past activity revealed along the pipeline route (an east-west aligned transect across the centre of Norfolk), how it changed over time and across pedological and topographical zones.

- To explore material culture both as a means of elucidating the date, function and status of associated sites and to produce data to inform site-independent artefact studies.
- To investigate the environmental settings of the sites and to ascertain their change over time.
- To investigate site-formation processes and to ascertain the degree of on-site ecofactual and artefactual residuality.
- To consider possible biases in the recovered dataset in order to assess whether it is a representative sample of past activity along the pipeline route.
- To disseminate the findings of the project through the County Sites and Monuments Record and academic publication, where appropriate.

11.1.2 Period Specific Objectives

Neolithic and Bronze Age

1. To investigate change in the agricultural economy between the early Neolithic & the Bronze Age (Plot 251).
2. To investigate environmental change over this period (Plot 251).
3. To study earlier Neolithic and Bronze Age pottery assemblages, considering how these excavated assemblages fit with currently known distributions (Plots 251, 217-219, 202, 38 & 26).
4. To critically evaluate the evidence for the focus of Iron Age activity and the Anglo-Saxon cemetery in Plot 202 being a Bronze Age burial mound.
5. To consider distribution of burial evidence in relation to previously derived distribution patterns.

Iron Age

6. To study Iron Age pottery assemblages, considering how these excavated assemblages fit with currently known distributions (Plots 251, 217-219, 202, 144, 136-138, 97 & 38).
7. To use phasing information and absolute dating methods to refine existing pottery chronologies.

Roman

8. To study the form and function of the kiln in Plot 144 and to compare it to kilns of similar date within the region.
9. To establish, through stratigraphic analysis, whether and which parts of the pottery assemblage could have been manufactured in the kiln (which has already been archaeomagnetically dated) in Plot 144, and to consider whether this might aid in refining existing pottery chronologies.

Anglo-Saxon (Plot 202)

10. To investigate and analyse information concerning the sex, age, pathology and palaeodemography of the human skeletal remains.
11. To study the landscape context of the cemetery, and particularly the reuse of an earlier earthwork.
12. To study the morphology of the cemetery and individual grave structure.
13. To study costume and weapon sets and accessory vessels, as indicators of date, status and cultural affiliation.
14. To compare and contrast the results of these studies with those of other cemeteries of similar date within the region.

Medieval

15 To ascertain settlement form, function, status and date, in order to inform discussion of regional settlement patterns (Plots 148, 136-138, 88 & 88b).
16 To contribute to an understanding of geographical variation in crop production and agrarian change by processing and analysing crop remains contained in environmental samples taken from settlement sites (Plots 148, 136-138, 88 & 88b).
17 To establish the form and date of recorded field systems (Plots 88, 88b, 84a & 26).
18 To contribute to the debate on the extent to which rural society was self-sufficient in the production of its required craft and industrial products and indeed whether rural products were also exported to the region's towns, through the study and publication of rural craft product assemblages and industrial infrastructure (Plots 148, 136-138, 128, 88 & 88b).

Undated

19 To establish the date and characterise the technology and processes involved in the iron production site recorded in Plot 58.

11.2 Updated Research Aims

Study of the recovered dataset would allow a number of the research aims, set out in the Post-Excavation project Design and outlined above, to be addressed.

Every effort has been made to relate the following updated research aims to the key regional research issues set out and discussed in Glazebrook (ed) 1997 and Brown and Glazebrook (eds) 2000.

11.2.1 General Objectives

To establish the pattern of past activity revealed along the pipeline route and how it changed over time and across pedological and topographical zones.

To explore material culture, both as a means of elucidating the date, function and status of associated sites and to produce data to inform site-independent artefact studies.

To investigate the morphology, function, status and date range of each site.

To investigate the landscape setting of each site.

To investigate the environmental settings of the sites and to ascertain how they changed over time.

To investigate site-formation processes and to ascertain the degree of on-site ecofactual and artefactual residuality.

To consider possible biases in the recovered dataset, in order to assess whether it is a representative sample of past activity along the pipeline route.

To disseminate the findings of the project through the County Sites and Monuments Record and academic publication, where appropriate.

11.2.2 Period-Specific Research Objectives

Neolithic and Bronze Age

The recovered data set has the potential to address the following research aims, which are based upon those identified in Brown and Murphy 2000:

1. To add to knowledge of the form, function and location of early Neolithic settlement within the region.

2. To add to knowledge of the form, function and location of late Neolithic and early Bronze Age settlement sites to 'enable a fuller understanding of the inter-relationship between settlement, field, barrows and other monuments to be established' (Brown and Murphy 2000).

3. To add to knowledge of the range and density of late Bronze Age settlement sites within the region.

4. To add to knowledge of burial practice within the region.

5. To add to an understanding of Neolithic and Bronze Age ceramics and their development.

6. To add to an understanding of Neolithic and Bronze Age lithics.

7. To contribute to an understanding of the human impact on the natural landscape, through studies of the palaeoeconomies and palaeoecologies of sites.

8. To place the interpretation of Site 251 within the context of contemporary fen-edge sites within the region and to consider how it might have related to contemporary upland sites.

9. To place the interpretation of Sites 219, 218 and 217 within the context of contemporary and comparable sites within the Weasenham Lyngs, and within the context of Sites 251 and 202.

10. To critically assess the evidence for continuity of site use from the earlier Neolithic to the Iron Age and to place it within the context of similar multi-period sites within the region

Iron Age

The recovered data set has the potential to address the following research aims, which are based upon those identified in Bryant 2000:

11. To add to knowledge of the nature, location and distribution of settlements of Iron Age date within the region.

12. To add to knowledge of the palaeoeconomies and palaeoecologies of sites of Iron Age date.

13. To add to knowledge of iron production techniques and practices within the region during the Iron Age.

14. To contribute to the establishment of a regional pottery sequence through the analysis and quantification of significant stratified Iron Age pottery assemblages.

15. To study the regional and national parallels of the socketed iron axe head, recovered from Site 38.

16. To study the carbonised wooden object recovered from Site 97

Roman

The data set for the Roman period has the potential to address the following research aim, which is based upon one identified in Going 1997.

17. To add to knowledge of pottery production in central Norfolk during the mid-Roman period, through a study of the function and use of the cruciform 'drying oven', and by means of further study of the associated pottery assemblage.

Early Anglo-Saxon

Site 13/202

18. To study the sex, age, pathology and palaeodemography of the burial community.

19. To study material culture as indicators of date, status and cultural affiliation.

20. To study the morphology of the cemetery and individual grave structure.

21. To study the landscape context of the cemetery, in particularly the reuse of prehistoric monuments.

22. To place the interpretation of this site within the context of contemporary and comparable sites within the region.

Other Sites

23 To contribute to regional ceramic studies by means of the full analysis and quantification of early Anglo-Saxon ceramic assemblages from along the pipeline route.

24 To add to knowledge of iron production techniques and practices within the region during the Anglo-Saxon period.

Medieval

The data set for the medieval period has the potential to address the following research aims, which are based upon those identified in Wade (2000).

25 To date and characterise individual rural settlements and their material cultures, in order to inform discussion of local and regional settlement patterns.

26 To study the palaeoecologies and palaeoeconomies of individual dated rural settlement sites, in order to inform discussion on environmental and agrarian change and geographical variations in crop production.

27 To add to current knowledge of medieval field systems.

28 To add to current knowledge of rural craft production.

29 To analyse the spatial patterning of significant artefact assemblages from along the pipeline route, in order to establish centres of production and patterns of local, regional, national and international trade.

11.3 Publication Synopsis

EXCAVATIONS ALONG THE BACTON TO KING'S LYNN GAS PIPELINE, VOLUME I.

Summary

Chapter 1 Introduction

Project Background
Location of Sites along Route
Excavation Aims and Methods
Post-Excavation Analysis
Radiocarbon Dating
Finds and Archive

Chapter 2 Excavations at East Walton – Site 37617 (1/251)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:
1 Plan of all features
2 Two-Tone Phase Plans
5 Feature Plans
5 sections
2 Plates

Specialist Reports
Prehistoric Pottery by Sarah Percival 12 Illustrations
Summary of the Fired Clay by Richenda Goffin
Struck Flint by Sarah Bates 6 Illustrations
Summary of the Worked Stone by Hilary Major
Environmental Archaeology by James Rackham
Soils by Charles French

Discussion

Chapter 3 Excavations at Lexham and Weasenham All Saints - Sites 37826, 37827 & 37828 (8/217, 218 & 219)

Summary

Introduction

Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:
1 Plan of all Features
2 Two-Tone Phase Plans

Specialist Reports
Prehistoric Pottery by Sarah Percival 32 Illustrations
Struck Flint by Sarah Bates 13 Illustrations
Summary of the Worked Stone by Hilary Major
Environmental Archaeology by James Rackham

Discussion
1 Plan of Landscape setting

Chapter 4 Excavations at Tittleshall – Site 37622 (13/202)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
(Early Anglo-Saxon activity in summary form only, with full description and discussion in Volume II)
Illustrations:
1 Plan of all Features
2 Two-tone Phase Plans
3-5 Sections

Specialist Reports
Prehistoric Pottery by Sarah Percival 15 Illustrations
Struck Flint by Sarah Bates 3 Illustrations
Summary of the Fired Clay by Richenda Goffin
Summary of the Slag by Jane Cowgill

Discussion

Chapter 5 Excavations at Bintree – Site 37623 (22/148)

Summary
Introduction
Location and Geology

Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:
1 Plan of all Features
3 Two-Tone Phase Plans
2 Detail Plans
10 Sections

Specialist Reports
Medieval Pottery by Richenda Goffin 16 Illustrations
Summary of the Post Medieval Pottery by Richenda Goffin
Special Finds Catalogue by Julia Huddle
Summary of Bulk Metal by Julia Huddle
Summary of the Fired Clay by Richenda Goffin
Summary of the Struck Flint by Sarah Bates
Worked Stone by Hilary Major 2 Illustrations
Slag Report by Jane Cowgill
Environmental Archaeology by James Rackham

Discussion

Chapter 6 Excavations at Foulsham – Site 37892 (24/144)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:
1 Plan of all Features
1-2 Two-Tone Phase Plans
1 Detail Plan
5 Sections

Specialist Reports
Summary of the Prehistoric Pottery by Sarah Percival
Roman Pottery by Alice Lyons Illustrations
Early Anglo-Saxon Pottery by Richenda Goffin Illustrations
Struck Flint by Sarah Bates 3 Illustrations
Fired Clay by Richenda Goffin 2 Illustrations
Summary of the Ceramic Building Material by Lucy Talbot
Special Finds Catalogue by Julia Huddle
Environmental Archaeology by James Rackham

Discussion
(Including discussion of Roman pottery drier by Alice Lyons)

Chapter 7 Excavations at Foulsham – Site 37624 & 37625 (25/138 & 136)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:
1 Plan of all Features
2 Two-Tone Phase Plans
2 Detail Plans
5 Sections

Specialist Reports
Prehistoric Pottery by Sarah Percival 10 Illustrations
Summary of the Roman Pottery by Alice Lyons
Early Anglo-Saxon Pottery by Richenda Goffin (dating of assemblage to be confirmed)
Medieval Pottery by Richenda Goffin 12 Illustrations
Summary of Struck Flint by Sarah Bates
Summary of the Worked Stone by Hilary Major
Summary of the Fired Clay by Richenda Goffin
Catalogue of the Special Finds by Julia Huddle
Summary of the Bulk Metal by Julia Huddle
Summary of the Slag by Jane Cowgill
Environmental Archaeology by James Rackham

Discussion

Chapter 8 Excavations at Themelthorpe – Site 37626 (27/128)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
Illustrations:

1 Plan of all Features
4 Two-Tone Phase Plans
1 Detail Plan
5 Sections
2 Plates

Specialist Reports
Summary of the Prehistoric Pottery by Sarah Percival
Medieval Pottery by Richenda Goffin 6 Illustrations
Struck Flint by Sarah Bates
Fired Clay by Richenda Goffin
Summary of the Ceramic Building Material by Lucy Talbot
Slag by Jane Cowgill
Worked Stone by Hilary Major 1 Illustration
Summary of the bulk metal by Julia Huddle
Environmental Archaeology by James Rackham

Discussion

Chapter 9 Excavations at Wood Dalling – Site 37628 & 37911 (28/119 & 118)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods
Location Plan

Results by Phase
(Post Medieval activity in summary form only)
Illustrations:
1 Plan of Medieval Features

Specialist Reports
Summary of Late Saxon Pottery by Richenda Goffin
Medieval Pottery by Richenda Goffin 12 Illustrations
Summary of the Fired Clay by Richenda Goffin
Summary of Struck Flint by Sarah Bates
Worked Stone by Hilary Major
Special Finds Catalogue by Julia Huddle
Summary of the Baked Clay by Richenda Goffin
Summary of the Ceramic Building Material by Lucy Talbot

Discussion

Chapter 10 Excavations at Oulton – Site 37629 (36/97)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods

Results
Illustrations:
1 Plan of all Features

Specialist Reports
Prehistoric Pottery by Sarah Percival 12 Illustrations
Summary of the Fired Clay by Richenda Goffin
Struck Flint by Sarah Bates 3 Illustrations
Summary of the Slag by Jane Cowgill
Environmental Archaeology by James Rackham

Discussion

Chapter 11 Excavations at Itteringham – Sites 37939 & 37940 (38/90 & 39/89)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods

Results by Phase
(Prehistoric activity in summary form only)
Illustrations:
1 Plan of all Medieval Features
1 Detail plan

Specialist Reports
Summary of Late Anglo-Saxon Pottery by Richenda Goffin
Medieval Pottery by Richenda Goffin 5 Illustrations
Summary of the Fired Clay by Richenda Goffin
Worked stone by Hilary Major 1 Illustration
Summary Special Finds Catalogue by Julia Huddle

Discussion

Chapter 12 Excavations at Itteringham – Sites 39518 & 37942 (39/88b & 88)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods

Results by Phase
(Prehistoric activity in summary form only)
Illustrations:
1 Plan of all Medieval Features

Specialist Reports
Summary of the Prehistoric Pottery by Sarah Percival
Struck Flint by Sarah Bates
Summary of the Late Anglo-Saxon Pottery by Richenda Goffin
Medieval Pottery by Richenda Goffin 2 Illustrations
Summary of the Worked Stone by Hilary Major
Summary of the Slag by Jane Cowgill
Summary of Environmental Archaeology by James Rackham

Discussion
1 Illustration of Magnetometer Survey

Chapter 13 Excavations at Itteringham – Site 39520 (39/84a)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods

Results by Phase
Illustrations:
3 Medieval Phase Plans

Specialist Reports
Summary of the Late Anglo-Saxon Pottery by Richenda Goffin
Medieval Pottery by Richenda Goffin 20 Illustrations
Special Finds Catalogue by Julia Huddle 2 Illustrations
Summary of Struck Flint by Sarah Bates
Worked Stone by Hilary Major 1 Illustration
Summary of Environmental Archaeology by James Rackham

Discussion

Chapter 14 Excavations at Colby – Site 37972 (43/58)

Summary

Introduction

Location and Geology
Archaeological Background
Aims and Methods

Results
Illustrations
1 Plan of all features
1 Photograph

Specialist Reports
Slag and Industrial Technology by Jane Cowgill
Charcoal by Rowena Gale
Fired Clay by Richenda Goffin

Discussion

Chapter 15 Excavations at Antingham – Site 37987 (46/38)

Summary

Introduction
Location and Geology
Archaeological Background
Aims and Methods

Results by Phase
(Including Catalogue of 5 Bronze Age Cremations)
Illustrations:
1 Plan Bronze Age and Iron Age Features
3-5 Sections
2 Plates

Specialist Reports
Prehistoric Pottery by Sarah Percival 4 Illustrations
Special Finds Catalogue by Julia Huddle
Socketed Iron Axe Head by John Davies 1 Illustration
Summary of the Fired Clay by Richenda Goffin
Struck Flint by Sarah Bates 1 Illustration
Human Bone by Kate Brayne
Environmental Archaeology by James Rackham

Discussion

Chapter 16 Excavations at North Walsham – Site 37631 (47/34)

Summary

Introduction
Location and Geology
Archaeological Background

Location; Archaeological Background; Phasing; Features and Structures; Finds

Note on the Results of the Watching Brief

Chapter 19 Synthesis

Prehistoric Period by Trevor Ashwin
Roman Period by Alice Lyons
Medieval Period by Andrew Rogerson
Synthetic Discussion of Post-Roman Pottery by Richenda Goffin
Synthetic Discussion of Medieval Stone Artefacts

Estimated length of Volume 1: 250 pages

EXCAVATIONS ALONG THE BACTON TO KING'S LYNN GAS PIPELINE, VOLUME II: ANGLO-SAXON CEMETERY AT TITTLESHALL, NORFOLK, SITE 37622 (13/202).

Summary

Introduction
Project Background
Location and Geology
Archaeological Background
Excavation Methodology
Phasing
Archive

Catalogue of Graves
Inhumation 1 -24
Cremation 1-2

Grave Goods: Discussion of Types

Grave Structure and Burial Practice

Specialist Reports
Human Bone by Kate Brayne
Beads by Birte Brugmann
Garment Accessories by Penelope Rogers
Iron Objects by Kenneth Penn
Textiles by Penelope Rogers
Pottery by Richenda Goffin

Discussion and Conclusions by Ken Penn

Figures

1	Location map
2	Grave location plan
3-28	Individual grave plans
29-30	Artefact distribution plans
31-66	Dress accessory and textiles illustrations
66-104	Ironwork
104-119	Pottery

Plates
Dress Accessories = 21 plates
Beads = 20 plates

Estimated length of Volume 1: 150-175 pages.

11.4 Project Personnel

It is proposed that the following personnel be used during the analysis and reporting stages of work:

Network Archaeology personnel:

• Derek Cater BA (Hons), PGDipArch	Project Manager
• Catherine Holgate BA (Hons)	Reports Manager
• Derek Cater BA (Hons), PGDipArch	Analysis and reporting
• Charlotte Bentley BA (Hons)	Illustrations Manager
• Karen Dennis BA (Hons), PIFA	Illustrator
• Julian Sleap	Context databases
• Wendy Booth BA (Hons)	Finds Officer
• Kealey Manvell	Archives Officer
• Adam Holman BSc	IT Officer

External specialists:

• Prehistoric pottery	Sarah Percival
• Roman pottery	Alice Lyons
• Post Roman pottery	Richenda Goffin
• Daub/fired clay	Richenda Goffin
• Ceramic building material	Lucy Talbot
• Worked stone	Hilary Major
• Special finds	Julia Huddle
• Coins	Adrian Marsden
• Charcoal	Rowena Gale
• Mineralized textiles	Penelope Walton Rogers
• Anglo-Saxon brooches & dress fittings	Penelope Walton Rogers
• Anglo-Saxon beads	Birte Brugmann
• Struck flint	Sarah Bates
• Slag	Jane Cowgill

- Human bone — Kate Brayne
- Environmental archaeology — James Rackham
- Soils — Charlie French
- Prehistoric synthesis — Trevor Ashwin
- Roman synthesis — Alice Lyons
- Anglo-Saxon cemetery — Ken Penn
- Medieval synthesis — Andrew Rogerson

11.5 Task List

Table 6: Task list

Task no.	Description	Personnel	Duration (days)
1	***Project Management***		
2	Review assessment	Derek Cater	2
3	Prepare specifications and issue instructions	Derek Cater	10
4	External liaison	Derek Cater	20
5	Project monitoring	Derek Cater	20
6	***Analysis and Reporting***		
7	Stratigraphic analysis	Derek Cater	67
8	Complete and update context database	Julian Sleap	30
9	Introduction and results text	Derek Cater	58
10	Prehistoric pottery analysis and reporting	Sarah Percival	20
11	Roman pottery and kiln analysis and reporting	Alice Lyons	6
12	Post-Roman pottery analysis and reporting	Richenda Goffin	41
13	Fired clay analysis and reporting	Richenda Goffin	6
14	Oven base analysis and reporting	Jane Cowgill	1
15	Ceramic building material analysis and reporting	Lucy Talbot	1
16	Struck flint analysis and reporting	Sarah Bates	11
17	Worked stone analysis and reporting	Hilary Major	5
18	Stone identification	British Geological Survey	N/A
19	Collect Anglo-Saxon dress fittings for conservation	Kealey Manvell	1

Task no.	Description	Personnel	Duration (days)
20	Deliver dress fittings to conservation lab	Kealey Manvell	1
21	Specialist-requested x-radiography and conservation	Debbie Forkes, Conservator, Norwich Castle Museum	10
22	Anglo-Saxon Ironwork analysis and reporting	Ken Penn	8
23	Socketed axe head analysis and reporting.	John Davies	1
24	Special finds analysis and reporting	Julia Huddle	5
25	Bulk Metal analysis and reporting	Julia Huddle	1
26	Collect finds from Norfolk specialists for illustration	Kealey Manvell	1
27	Deliver Anglo-Saxon dress fittings for analysis	Kealey Manvell	1
28	XRF analysis of brooches	Phil Clogg, University of Durham	N/A
29	Anglo-Saxon dress fittings, costumes & textiles analysis and reporting	Penelope Rogers	20
30	Collect Anglo-Saxon dress fittings for illustration	Kealey Manvell	1
31	Photograph Anglo-Saxon dress fittings	tbc	2
32	Deliver beads for photographing	Kealey Manvell	1
33	Photograph beads	Ian Cartwright, Institute of Archaeology, Oxford	1
34	Anglo-Saxon beads analysis and reporting	Birte Brugmann	3
35	Collect beads	Kealey Manvell	1
36	Environmental archaeology analysis and reporting (incl. hand-collected animal bone and shell)	James Rackham	50
37	Soils analysis and reporting	Charles French	2

Task no.	Description	Personnel	Duration (days)
38	Site 43/58 charcoal analysis	Rowena Gale	3.5
39	AMS dating of sites 251, 202, 144, 138, 58 and 38	Beta Analytic	N/A
40	Slag analysis and reporting	Jane Cowgill	20
41	Human bone analysis and reporting	Kate Brayne	13
42	Location maps	Karen Dennis	10
43	Phase and detail plans	Charlotte Bentley	50
44	Section drawings	Charlotte Bentley	10
45	Finds illustrations	Charlotte Bentley	70
46	Report plates	Charlotte Bentley	5
47	Archaeological discussions	Derek Cater	48
48	Archaeological discussions - Anglo-Saxon Artefacts	Ken Penn	8
49	Synthesis - Prehistory	Trevor Ashwin	10
50	Synthesis - Roman	Alice Lyons	5
51	Synthesis - Anglo-Saxon	Ken Penn	10
52	Synthesis - Medieval	Andrew Rogerson	15
53	Collate and edit first draft of report	Catherine Holgate	10
54	Submit first draft of report to EAA	Catherine Holgate	0.5
55	Print and dispatch client report	Catherine Holgate	5
56	Report Materials	N/A	
57	Corrections to report	Catherine Holgate	4
58	Submit second draft of report to EAA	Catherine Holgate	0.5
59	Proof reading	Catherine Holgate	4
60	Publication cost	N/A	N/A
61	***Archiving***		
62	Landowner liaison	Kealey Manvell	12
63	Complete and submit OASIS forms for all plots	Derek Cater	22
64	Label all records with NHER numbers	Kealey Manvell	7
65	Agree dispersal policy with museum	Wendy Booth	0.5
66	Disperse non-retained material	Wendy Booth	1

Task no.	Description	Personnel	Duration (days)
67	Order & package final archive	Kealey Manvell	15
68	Archiving materials	N/A	N/A
69	Deliver archive to county repository	Kealey Manvell	1

11.6 Schedule to project completion (including archive deposition)

Bacton to King's Lynn Natural Gas Pipeline - archaeological analysis and reporting

ID	Task Name	Duration	Start	Finish
1	Project Management	20 days	Mon 02/08/04	Mon 30/08/04
2	Review assessment	2 days	Mon 02/08/04	Wed 04/08/04
3	Prepare specifications and issue instructions	10 days	Wed 04/08/04	Wed 18/08/04
4	External liaison	20 days	Mon 02/08/04	Mon 30/08/04
5	Project monitoring	20 days	Mon 02/08/04	Mon 30/08/04
6	Analysis and Reporting	[illegible]	Mon 02/08/04	Tue 23/05/06
7	Stratigraphic Analysis	67 days	Wed 18/08/04	Fri 19/11/04
8	Complete and update context database	30 days	Fri 08/10/04	Fri 19/11/04
9	Introduction and results text	58 days	Fri 19/11/04	Fri 18/02/05
10	Prehistoric pottery analysis and reporting	20 days	Mon 21/02/05	Mon 21/03/05
11	Roman pottery and kiln analysis and reporting	8 days	Mon 21/02/05	Tue 01/03/05
12	Post-Roman pottery analysis and reporting	41 days	Fri 22/04/05	Fri 17/06/05
13	Fired clay analysis and reporting	8 days	Fri 18/02/05	Mon 28/02/05
14	Oven base (Plot 128) analysis and reporting	1 day	Tue 18/01/05	Wed 19/01/05
15	Ceramic building material analysis and reporting	1 day	Mon 21/02/05	Tue 22/02/05
16	Struck flint analysis and reporting	11 days	Mon 21/02/05	Tue 08/03/05
17	Worked Stone analysis and reporting	5 days	Wed 01/12/04	Wed 08/12/04
18	British Geological Survey Stone ID	30 days	Mon 02/08/04	Mon 13/09/04
19	Collect Anglo-Saxon dress fittings for conservation (York)	1 day	Mon 02/08/04	Tue 03/08/04
20	Deliver dress fittings to conservation lab (Norwich)	1 day	Tue 03/08/04	Wed 04/08/04
21	Specialist-requested x-radiography and conservation	10.88 days	Wed 18/08/04	Thu 30/12/04
22	Anglo-Saxon ironwork analysis and reporting	8 days	Fri 22/04/05	Wed 04/05/05
23	Socketed axe head analysis and reporting	1 day	Tue 03/05/05	Wed 04/05/05
24	Special finds analysis and reporting	5 days	Tue 26/04/05	Tue 03/05/05
25	Bulk Metal analysis and reporting	1 day	Tue 03/05/05	Wed 04/05/05
26	Collect finds from Norfolk specialists for illustration	1 day	Tue 03/05/05	Wed 04/05/05
27	Deliver Anglo-Saxon dress fittings for analysis	1 day	Fri 31/12/04	Fri 31/12/04
28	XRF analysis of brooches	5 days	Mon 25/04/05	Fri 29/04/05
29	Anglo-Saxon dress fittings, costumes & textiles analysis and reporting	20 days	Fri 03/06/05	Thu 30/06/05
30	Collect Anglo-Saxon dress fittings for illustration	1 day	Fri 01/07/05	Fri 01/07/05
31	Photograph Anglo-Saxon dress fittings	2 days	Mon 04/07/05	Tue 05/07/05
32	Deliver beads for photographing	1 day	Mon 04/10/04	Tue 05/10/04
33	Photograph beads	1 day	Tue 05/10/04	Wed 06/10/04
34	Anglo-Saxon beads analysis and reporting	3 days	Mon 04/10/04	Thu 07/10/04
35	Collect beads	1 day	Thu 07/10/04	Fri 08/10/04
36	Environmental analysis and reporting (incl. bone and shell)	50 days	Mon 20/12/04	Fri 25/02/05
37	Soils analysis and reporting	2 days	Thu 24/02/05	Fri 25/02/05
38	Site 45/58 charcoal analysis	3.5 days	Mon 06/12/04	Thu 09/12/04
39	AMS dating of sites 251, 202, 144, 138, 58 & 38	90 days	Mon 02/08/04	Mon 06/12/04
40	Slag analyses and reporting	20 days	Thu 09/12/04	Thu 06/01/05
41	Human bone analysis and reporting	13 days	Mon 02/08/04	Thu 19/08/04
42	Location maps	10 days	Mon 03/01/05	Mon 17/01/05
43	Phase and detail plans	50 days	Mon 03/01/05	Mon 14/03/05
44	Section drawings	10 days	Mon 14/03/05	Mon 28/03/05
45	Finds illustrations	70 days	Fri 29/04/05	Fri 05/08/05
46	Report plates	5 days	Fri 05/08/05	Fri 12/08/05
47	Archaeological discussions	48 days	Mon 20/06/05	Wed 24/08/05
48	Archaeological discussions - Anglo-Saxon Artefacts	8 days	Fri 01/07/05	Tue 12/07/05
49	Synthesis - Prehistory	10 days	Thu 25/08/05	Wed 07/09/05
50	Synthesis - Roman	5 days	Thu 25/08/05	Wed 31/08/05
51	Synthesis - Anglo-Saxon	10 days	Wed 13/07/05	Tue 26/07/05
52	Synthesis - Medieval	15 days	Thu 25/08/05	Wed 14/09/05
53	Collate and edit first draft of report	10 days	Thu 15/09/05	Wed 28/09/05
54	Submit first draft of report to EAA	0.5 days	Thu 29/09/05	Thu 29/09/05
55	Print and dispatch client report	5 days	Thu 29/09/05	Thu 06/10/05
56	Report materials cost	1 day	Thu 06/10/05	Fri 07/10/05
57	Corrections to report	4 days	Thu 16/03/06	Wed 22/03/06
58	Submit second draft of report to EAA	0.5 days	Wed 22/03/06	Wed 22/03/06
59	Proof reading	4 days	Thu 18/05/06	Tue 23/05/06
60	Publication cost	0 days	Tue 23/05/06	Tue 23/05/06
61	Archiving	91.5 days	Thu 30/06/05	Fri 04/11/05
62	Landowner liaison	12 days	Thu 30/06/05	Mon 18/07/05
63	Complete and submit Oasis data capture forms	22 days	Mon 03/10/05	Wed 02/11/05
64	Label all records with NHER numbers	7 days	Mon 03/10/05	Wed 12/10/05
65	Agree dispersal policy	0.5 days	Wed 12/10/05	Wed 12/10/05
66	Disperse non-retained material	1 day	Wed 12/10/05	Thu 13/10/05
67	Order & package final archive	15 days	Thu 13/10/05	Thu 03/11/05
68	Archiving materials	0 days	Thu 03/11/05	Thu 03/11/05
69	Deliver archive to county repository	1 day	Thu 03/11/05	Fri 04/11/05

Project: BKL02 Analysis & Reporting
Date: Wed 14/07/04

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline

12 ACKNOWLEDGEMENTS

Network Archaeology Ltd would like to thank the following people for their help and support throughout the project to date:

Transco

- Martin Magee — *Project Manager*
- Barry Robinson — *Project Supervisor*
- Nick Sherriff — *Assistant Project Supervisor*
- Paul Crook — *Assistant Project Supervisor*
- Linda Bonnor — *Archaeological Advisor*
- Edward Pine — *Agricultural Liaison Officer*
- Robert Beeston — *Land Agent*

Murphy Pipelines Ltd

- Gearoid O'Connell — *Project Manager*
- Shane and Trevor Jestin — *Construction Managers*
- Kevin McTaggart — *Assistant Construction Manager*
- Bill MacDonald — *Manager*
- Jim Aspinall — *Senior Quantity Surveyor*
- Mick Fitzpatrick — *Project Engineer*
- Bob Williams — *Health and Safety Advisor*
- John Slator — *CAD*

Curatorial

- David Gurney — *Principal Landscape Archaeologist, Norfolk Landscape Archaeology*

Archaeological Specialists

- Sarah Bates — *Struck flint*
- Kate Brayne — *Human bone*
- Birte Brugmann — *Anglo-Saxon beads*
- Jane Cowgill — *Slag*
- Rowena Gale — *Charcoal*
- Geoquest Associates — *Archaeomagnetic dating*
- Richenda Goffin — *Post Roman pottery & Daub/fired clay*
- Julia Huddle — *Special finds*
- Alice Lyons — *Roman pottery*
- Hilary Major — *Worked stone*
- Adrian Marsden — *Coins*

• Sarah Percival	*Prehistoric pottery*
• James Rackham	*Environmental archaeology*
• Penelope Rogers	*Mineralized Textile, brooches & dress fittings*
• Lucy Talbot	*Ceramic building material*
•	

13 BIBLIOGRAPHY

Ashwin, T. & Bates, S. 2000, *Excavations on the Norwich Southern Bypass, 1989-91,* East Anglian Archaeology 91, Gressenhall.

Bamford, H.M. 1982, *Beaker Domestic Sites in the Fen Edge and East Anglia* East Anglian Archaeology 16, Gressenhall.

Bates, S. 2003, 'Excavations at Two Mile Bottom, Thetford, 1995-6 Site 5738', *The excavation of Romano-British Pottery Kilns at Ellingham, Postwick and Two Mile Bottom, Norfolk 1995-7,* East Anglian Archaeology Occasional Paper 13, Gressenhall.

Brown, N. forthcoming, *Excavations at the Stumble, Essex,* East Anglian Archaeology, Gressenhall.

Brown, N. & Glazebrook, J. 2000, *Research and Archaeology: A Framework for the Eastern Counties 2. research agenda and strategy.* East Anglian Archaeology Occasional Paper No. 8, Scole Archaeological Committee, Gressenhall.

Brown, N & Murphy, P 2000, 'Neolithic and Bronze Age', *Research and Archaeology: A Framework for the Eastern Counties 2. research agenda and strategy*, eds. N. Brown, N. & J. Glazebrook, East Anglian Archaeology Occasional Paper No. 8, Gressenhall.

Bryant S.2000, 'The Iron Age', *Research and Archaeology: A Framework for the Eastern Counties 2. research agenda and strategy*, eds. N. Brown, N. & J. Glazebrook, East Anglian Archaeology Occasional Paper No. 8, Gressenhall.

Clark, J.G.D. & Fell, C.I. 1953, 'The Early Iron Age site of Micklemoor Hill, West Harling, Norfolk, and its Pottery', *Proceedings of the Prehistoric Society*, Volume 29, pp 1-40.

Department of Trade & Industry 1999, *The Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1999.*

Ellison, A.1988, 'Discussion', *Excavations at Grimes Graves, Norfolk, 1972-76, Fascicule 2: The Neolithic, Bronze Age and Later Pottery*, eds. I. Longworth, A. Ellison, & V. Rigby, London.

English Heritage 1991, *Management of Archaeological Projects*, 2nd edn, (London).

Garwood, P. 1999, 'Grooved Ware in Southern Britain: Chronology and Interpretation', *Grooved Ware in Britain and Ireland*, eds. R Cleal & A. MacSween, Neolithic Studies Group Seminar Papers 3

Geoquest Associates 2003, *Archaeomagnetic Analysis of Possible Romano-British Kiln or Corn Drying Oven, Context 24059, Bintree, Norfolk.*

Gibson, A.M. 1982, *Beaker Domestic Sites, A Study of the Domestic Pottery of the Late Third and Early Second Millennium BC in the British Isles,* British Archaeological Report 107.

Glazebrook, J. (ed) 1997, *Research and Archaeology: A Framework for the Eastern Counties, 1. resource assessment*, East Anglian Archaeology Occasional Paper No. 3, Scole Archaeological Committee, Gressenhall.

Going, C. 1997, 'Roman', *Research and Archaeology: A Framework for the Eastern Counties, 1. resource assessment*, ed J. Glazebrook, East Anglian Archaeology Occasional Paper No. 3, Scole Archaeological Committee, Gressenhall.

Gurney, D. 2003, *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Paper No. 14, Gressenhall.

Healy, F. 1988, *The Anglo-Saxon Cemetery at Spong Hill, North Elmham, Part VI: Occupation During the Seventh to Second Millennium B.C.,* East Anglian Archaeology 39, Gressenhall.

Healy, F. 1995, 'Pots, Pits and Peat: Ceramics and Settlement in East Anglia', *Unbaked Urns of Rudely Shape, Essays on British and Irish Pottery for Ian Longworth,* I Kinnes & G. Varndell, Oxbow Monograph 55, Oxford.

Healy, F. 1996, *The Fenland Project, Number 11: The Wissey Embayment: Evidence for pre-Iron Age Occupation*, East Anglian Archaeology 78, Gressenhall.

Healy, F., Cleal, R.M.J. & Kinnes, I. 1993, 'Excavations on Redgate Hill, Hunstanton, 1970 and 1971', *Excavations at Redgate Hill, Hunstanton and at Tattershall Thorpe,* Lincolnshire, R. Bradley, P., Chowne, R.M.J Cleal, F Healy & I Kinnes, East Anglian Archaeology 57, Gressenhall.

Herne, A. 1988, 'A time and place for the Grimston Bowl' *The Archaeology of Context in the Neolithic and Bronze Age: Recent Trends*, eds J.C. Barrett & I.A. Kinnes, Sheffield Department of Archaeology and Prehistory

Hines, J. 1984, *The Scandinavian Character of Anglian England in the Pre-Viking Period*37618 WNE, British Archaeological Report 124

Hines, J. 1997, *A New Corpus of Anglo-Saxon Great Square-Headed Brooches*, Society of Antiquaries of London.

Hirst, S.M. 1985, *An Anglo-Saxon Inhumation Cemetery at Sewerby, East Yorkshire*, York University Archaeological Publications 4

Lawson, A.J. 1980, 'The evidence for Later Bronze Age settlement in Norfolk', *Settlement and society in the British Later Bronze Age*, eds J. Barret & R. Bradley, British Archaeological Report 83

Lawson, A.J.1983, *The Archaeology of Witton, near North Walsham*, East Anglian Archaeology 18, Gressenhall.

Longworth, I., Wainwright, G.J. & Wilson, K.E. 1971, *The Grooved Ware site at Lion Point, Clacton*, British Museum Quarterly, Number 35, pp 93-124.

Margeson, S. 1993, *Norwich Households, Medieval and Post Medieval Finds from Norwich Survey Excavations 1971-78*, East Anglian Archaeology 58, Gressenhall.

Network Archaeology Ltd. 2002a, *Bacton to King's Lynn Proposed Gas Pipeline: Archaeological Desk based Assessment* client report number 179.

Network Archaeology Ltd. 2002b, *Bacton to King's Lynn Proposed Gas Pipeline: Written Scheme of Investigation for Archaeological Evaluation.*

Network Archaeology Ltd. 2003a, *Bacton to King's Lynn Proposed Gas Pipeline: Method Statement for Archaeological Evaluation Excavations on Land Within the Ownership of the National Trust.*

Network Archaeology Ltd. 2003b, *Bacton to King's Lynn Proposed Gas Pipeline: Archaeological Field Reconnaissance, Fieldwalking, Metal Detecting and Geophysical Survey, Volume 1* client report number 184.

Network Archaeology Ltd. 2003c, *Bacton to King's Lynn Proposed Gas Pipeline: Written Scheme of Investigation for Archaeological Excavations.*

Pre-construct Geophysics. 2003, *Fluxgate Gradiometer and Magnetic Susceptibility Surveys: Bacton to King's Lynn Gas Pipeline, Volume 1.*

Percival, S.A. 1996, 'The Pottery', *Excavations at Park Farm, Silfield, Wymondham*, T. Ashwin, Norfolk Archaeology, Volume 45.

Percival, S.A. 1999, 'The Pottery', *The Launditch and its Setting* T. Ashwin, Norfolk Archaeology, Volume 43.

Percival, S.A. forthcoming, 'The Pottery', *Excavations At The John Innes Centre, Colney, Norfolk*, Whitmore, Norfolk Archaeology.

Petersen, F.F. & Healy, F. 1986, 'The Excavation of two Round Barrows and a Ditched Enclosure on Weasenham Lyngs, 1972' *Barrow Excavations in Norfolk*, A.J. Lawson, East Anglian Archaeology 29, Gressenhall.

Green, B., Rogerson, A. & White, S.G. 1987, *The Anglo-Saxon cemetery at Morning Thorpe, Norfolk*, East Anglian Archaeology 36, Gressenhall.

Swan, V.G. 1984, *The Pottery Kilns of Roman Britain*, HMSO, London.

Thomas, J. 1999, *Understanding the Neolithic* Routledge, London.

Wade, K. 2000, 'Anglo-Saxon and Medieval (Rural)', *Research and Archaeology: A Framework for the Eastern Counties 2. research agenda and strategy*, eds. N. Brown, N. & J. Glazebrook, East Anglian Archaeology Occasional Paper No. 8, Gressenhall.

Wainwright, G.J. 1972, 'The excavation of prehistoric and Romano-British settlements at Eaton Heath, Norwich', *Archaeology Journal,* Volume 130, pp 1-43.

Network Archaeology Ltd
28 West Parade
Lincoln
LN1 1JT

Tel: 01522 532621
Fax: 01522 532631
Email: lincs@netarch.co.uk

Network Archaeology Ltd
22 High Street
Buckingham
MK18 1NU

Tel: 01280 816174
Fax: 01280 816175
Email: bucks@netarch.co.uk

www.netarch.co.uk