Excavations along the Rearsby Bypass Road Scheme, Leicestershire

(SK 4648 3129 – SK 4663 3150).

Post Excavation Assessment and Updated Project Design.

by

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1 Project Background

1.1 Introduction

This report comprises a post-excavation assessment and updated project design for the analysis of the results of archaeological excavations carried out by University of Leicester Archaeological Services (ULAS) along the line of the proposed A607 Rearsby bypass, Leicestershire, on behalf of Leicestershire County Council, Department of Planning and Transportation, Highways Agency. The document follows guidelines set out by English Heritage in *Management of Archaeological Projects* (MAP2- English Heritage, 1991). A full account of the background to the project has previously been presented in the *Design Specification for Archaeological Work* (Beamish 2004) and also in the *Brief for Archaeological Excavation on the line of the proposed A607 Rearsby Bypass, Rearsby, Leicestershire* (Leicestershire County Council, Heritage Services).

1.2 Location and Geology

Archaeological excavations took place within 6 designated areas defined through previous evaluative archaeological fieldwork, located along the line of the proposed A607 Rearsby bypass, which is to be constructed within a 3.5km corridor of land between the junction with the A607 Syston bypass to the south-west and the A607 Melton Road to the north-east.

The route crosses a lowland topography of streams separated by low ridges, on the south side of the present village of Rearsby, from the east end of the Syston bypass, constructed in 1991/2, to Hives Farm in the north-west. The surface geology comprises occasional alluvial sediments above glacial drift deposits (Thrussington Till) and, near the eastern end of the route, an outcrop of Baginton sands and gravels (Thurmaston sand and gravel).

1.3 Assessment and Evaluation

Previous archaeological work (Stage 1) comprised a desk-based assessment and fieldwalking survey (Liddle 1995), which indicated that there were four areas of known archaeological potential within the by-pass corridor. The field numbers used in the fieldwalking survey are maintained in this document. These areas of potential comprised:

1) An area alongside Queniborough Brook and its tributary (Fields 1, 2 and 3 (SK 644 129) where there was potential for survival beneath alluvium.
2) Fields 4, 5 and 6 which is north of two groups of cropmarks and includes a flint scatter (SK 650 143).
3) Alluvium and colluvium deposits in Fields 12-14 (SK 657 143).
4) A flint scatter and alluvial deposits on either side of How Beck (SK 660 148) in Fields 16-19.

Further work has since indicated that the roadline crosses an outcrop of Baginton sand and gravels, which may contain deposits associated with the nationally important Lower Palaeolithic Bytham River. A previously unknown extensive Iron Age and Roman settlement has also been located 0.5 km to the east of the route emphasising the archaeological potential of the Wreake valley (Coward 2000; Barker, P. and Mercer, E., 2000).

More recent non-intrusive surveys have combined Magnetic Susceptibility and Magnetometry (Beamish 2003). Enhanced Magnetic Susceptibility with probable archaeological derivation was observed in Fields 5, 6 and 12. Gradiometer survey indicated buried archaeological features in Fields 5, and 6, and possibly in Field 13.

The anomalies in Field 5 included a discontinuous curvilinear anomaly, possibly surviving a ring ditch of c. 30m diameter (Beamish 2002 p12).

On the basis of this collective evidence, an intrusive programme of trenching and test-pitting was suggested by ULAS, in consultation with the then Senior Planning Archaeologist, Stephanie Chettle and submitted to Leicestershire County Council as a Design Specification (Clay 2002). In addition an earthwork survey was carried out on well surviving ridge and furrow in Field 2. This work was subsequently commissioned by Leicestershire County Council, Environmental Management.

During the course of the archaeological evaluation, 81 trenches, totalling 3786m^2 were excavated, positioned to provide maximum coverage along the length of the proposed roadline and across the footprints of the compensatory soil storage and balancing lake areas, aligned across known ridge and furrow. The excavations revealed a number of archaeological deposits, highlighting a series of potential occupation sites, with recovered artefactual evidence indicating a range of activity, dating from at least the middle to late Neolithic (c.3000-2000 BC), later prehistoric (c.1000-500 BC) and early Roman (c. AD 80-10) periods.

1.4 Excavation

On the basis of the results of the archaeological evaluation, it was recommended by the Senior Planning Archaeologist at Leicestershire County Council, in accordance with PPG16 (Archaeology and Planning), para. 6, that archaeological excavation of eight designated areas be carried out in advance of intrusive groundworks associated with the proposed development. The excavations were duly carried out between February and May 2004, under the direction of Sophie Clarke. The project was managed by Matthew Beamish.

1.5 Aims and objectives of the project

The specific objectives of the project were to record a sufficient amount of the archaeological remains within the development area to establish their extent, date range, quality, character and form. In addition the sites at Rearsby were identified as having the potential to contribute to the following research questions, originally outlined in the *Project Design*:

3.1.1 *Neolithic:* Although in recent years there has been a notable increase in the incidence of sealed Neolithic material, in particular Later Neolithic (Clay 2001, p18), the quantity of stratified material from Leicestershire is still low compared to later periods. All stratified diagnostic Neolithic material is regionally rare, and augments the existing distribution maps on which *models of occupation* (Clay 2001 p.20) can be built. They contribute to the research themes of mobility and sedentarism that have polarized research in this period of prehistory. If such deposits were to contain the remains of foodstuffs, or other environmental remains, then there would also be the potential to contribute specifically to themes such as *The introduction, character and development of agricultural practices* (Clay 2001, p22), a theme which develops earlier theories of *Hunter-gatherers into Farmers* and *Change and diversification in farming communities (EH 1997).* Careful sampling of dated deposits from this period will be undertaken.

3.1.2 *Later prehistoric*. Occupation deposits possibly relating to the later Bronze Age and Iron Ages are likely to be discovered within the road corridor. The specific dating and form of the deposits will affect the rarity and the research potential. Diagnostic material dating to between 1000BC and 500BC is generally regionally rare (Willis 2001), and as such any dated sealed deposit augments known distributions.
Key gaps in our knowledge of this period have been identified (Willis 2001 p.57). The dating of 1st millennium BC archaeology is often problematic due to long-lived pottery styles (e.g. Elsdon 1992; Marsden 1998; 2000) and duplicity in the calibration of C14 dates (Stuiver *et al* 1993). If such deposits are suspected, a multiple single entity radiocarbon (AMS) dating programme will be employed where practicable, as advised (Willis 2001 p.56). Our knowledge of Late Bronze Age and Early Iron Age settlement is poor. Any such remains dating to this period are important in redressing the imbalance with Middle and Late Iron Age material.

For the Middle and Later Iron Ages which are the best represented prehistoric periods, research themes include the enclosure of open settlement, its' meaning, causation and possible sequence; settlements and field systems; the emergence of land divisions, 'filled' landscapes, and the emergence of aggregated settlements and 'village' like clusters (Willis 2001 p.60), as recently identified at Humberstone, Leicester, (Thomas forthcoming). Environmental data is still lacking despite increased sampling regimes over the last 15 years, and the identification of deposits containing agricultural and dietary information remains important. Eastern Leicestershire has been identified as worse represented than other areas of the East Midlands (Willis 2001 p.60).

3.1.3 *Romano British.* A settlement comprising ditches, gullies, pits and postholes has been identified toward the eastern end of the by-pass. A human burial was also observed. If contemporary with one

another, there would appear to be the elements of a small rural farmstead dating, on the basis of the pottery collected in the evaluation to the early Roman period (80-150B.C.) (Beamish 2003 p.40).

Our knowledge of Roman rural settlement is generally good in its extent, but not in detail. Knowledge of settlement chronology and development remains poor. Small, enclosed settlements exist in both Late Iron Age and Early Roman periods, but the degree to which this tradition is dominant in the Early Roman period in the region though is still uncertain (Taylor 2002 p.10).

Roman rural settlements remain poorly understood, and it is recommended that opportunities for excavation on a significant scale should be taken whenever possible (Taylor 2002 p.26). Specific objectives for the early Roman period that the Rearsby material may contribute to include improved knowledge of pottery production and industry particularly in the transition period from the Late Iron Age (Taylor 2002 p.24) and the pattern of settlement continuity from Late Iron Age to Early Roman. The presence of a burial probably of contemporary date with the settlement gives an opportunity to investigate Early Roman burials, which are rare. The location and association of this and any further burials will be an important element of the excavation, and will contribute to the study of the context of Roman burial (Pearce 1998)

There would appear to be a good potential for the survival of remains containing environmental remains within the area of Roman occupation. Sampling and analysis of these deposits can potentially provide evidence on the agricultural practices of the settlement.
3.3 Within the health and safety constraints of the site it is ULAS policy to involve the local community as much as possible in the process of archaeological discovery. One of the aims of the work will be to provide information to the people of Leicestershire on their archaeological heritage. If the results of the site warrant it is hoped to include an open day with guided tours of the site. ULAS staff will also provide talks to local schools and groups. With the co-operation of Heritage Services we would hope to provide display material for both temporary and permanent displays on the results of the work.

1.6 Excavation methodology

The scheme for archaeological work involved open-area excavation within eight designated areas, as defined in the *'Brief'* and in the evaluation report (Beamish 2003), following the Institute of Archaeologists (IFA) *Code of Conduct* and adhering to their *Standard and Guidance for Archaeological Excavations,* and *Guidelines and Procedures for Archaeological Work in Leicestershire and Rutland,* Leicestershire County Council.
Within each designated area, topsoil and subsoil layers were removed in level spits, using a tracked mechanical excavator fitted with a two metre wide toothless ditching bucket, under full archaeological supervision, until archaeological deposits or undisturbed geological substrata were encountered.

In accordance with the *Project Design*, each designated area was initially stripped using a system of 'windrows', exposing a *c*. 8m wide strip of archaeology, enabling the dumping of spoil in the areas left in between. Where significant archaeological deposits were discovered, larger areas were subsequently opened up for excavation. The significance of archaeological deposits was assessed in accordance with their date, quality and extent and the judgement to open up larger areas for excavation was made in consultations with the Senior Planning Archaeologist and Leicestershire County Council Environmental Control.

All archaeological deposits encountered were hand-cleaned by trowel or hoe and the exposed areas were planned using a Topcon GTS303 Total Station Electronic Distance Measurer, linked to a Psion hand-held data logger. The resulting data were processed using n4ce survey software and CAD drawing software to enable the swift production of site plans, to act as a guide for preliminary analysis and to aid site excavation strategy.

All surface deposits and removed spoil layers were scanned by metal detector. All archaeological deposits encountered were subject to sample excavation in order to adequately address the site objectives: to establish the stratigraphic and chronological sequence of deposits, to recognise and understand any structural features encountered and to recover evidence pertaining to the economical, artefactual and environmental history of each site.

Where possible, linear features such as ditches and gullies were excavated at regular intervals along their length, with particular attention paid to terminals and intersections with other features. Separate context numbers were assigned to each 1m excavated section in order to preserve the spatial distribution of finds as an aid to further analysis. Discreet pits and postholes were generally half-sectioned, but were fully excavated if they were considered important or contained large groups of finds.

In consultation with the ULAS environmental specialist, the strategic sampling of archaeological deposits was carried out in order to provide a background into the environmental history of each site. Soil samples were generally taken from dateable deposits, containing either pottery or charcoal, and from features selected to cover all periods represented by the activity on site. Particular attention was paid to waterlogged deposits, which were sampled for pollen, plant macro fossils and insect remains, under the guidance of the ULAS environmental specialist.

All excavated sections were recorded and hand drawn at a scale of 1:10 or 1:20, levelled and tied into the National Grid and Ordnance Survey datum. Spot heights were taken as appropriate. Where large groups of artefacts were revealed during excavation of features, ongoing written, drawn and photographic records were maintained to fully detail the original context of the finds. All written records were entered onto pro-forma ULAS context record sheets and regularly updated site indices were maintained. The written record was regularly checked by the site director.

2 Summary of the results

Archaeological excavations along the proposed Rearsby bypass have revealed evidence of a landscape rich in archaeological activity, locating a number of occupation sites ranging from the perhaps the 3rd or 4th millennium B.C. through to the 4th century A.D. Roman period. A four-post structure of possible Neolithic date was located close to a number of pits, found to contain burnt stone and sherds of early Bronze Age pottery (Site 2; XA.36.2004). Part of a possible pit alignment, located within Site 4 (XA.38.2004) may be of later Bronze Age origin.

Iron Age occupation was represented at two sites along the proposed roadline. Evidence of settlement was located at Site 5 (XA.39.2004), in the form of an enclosure ditch and the remains of a roundhouse structure found in association with several, deep, stone-filled pits. Excavations at Site 1 (XA.35.2004) produced evidence of transitional Iron Age to Roman enclosure and boundary systems, in addition to a second circular structure and a further ring ditch with central pit, which may represent the remains of a funerary monument. A group of parallel beam slot features may represent a long rectangular building or several smaller rectangular structures. Evidence of Roman settlement and agricultural activity was located at Site 6 (XA.40.2004), in the form of structures, ditch systems, a probable watering hole for livestock and the remains of three possible graves.

3 Stratigraphic: Assessment for Further Analysis

3.1 Condition of the records and Methods of Data Collection

All quantities for the stratigraphic and structural assessment have been taken from the site archives. Provisional assessment and grouping of deposits has been made following discussions with finds specialists and based on initial assessments of the excavated evidence.

The details of deposits were recorded on site and entered onto pro forma context sheets. To date these records are complete in paper form and the process of entry onto a digital database is underway.
All survey files are tied to NGR grid references and basic information from them has been selected to compile initial site plans.
All quantities for assessment have been taken from the digital and paper archive. Qualitative assessment of the archive has involved the production of site plans, the checking of site records and the integration of information supplied by the finds and environmental specialists. Owing to the general lack of stratigraphic relationships between features within each site, it has not been possible at this stage to establish individual site phasing; instead the encountered remains have, at this preliminary stage, been placed into provisional groups, based on their spatial distribution.
A large body of survey data was produced during the course of the project. The files are currently stored on PC and backed up onto compact disc. Hard copies of all survey files will be produced.
The photographic archive catalogue has been partially completed.

Context numbers are quoted where appropriate. The cuts of negative features are prefixed by C, whilst deposits are not. Context numbers allocated during the evaluation phase of fieldwork have been suffixed with an 'E'.

The following information is presented in Site number order.

A plan of each site accompanies the description. All plans are provisional and are based upon raw survey data. The integration of hand drawn plans will greatly enhance their accuracy, detail and resolution.

3.2 Site 1. Late Iron Age/Roman Settlement.

Accession Number X.A35.2004
SK 4648 3128
Field No. 2A
Natural Substrata- Sands and Gravels

Figure 1 *p. 58*

3.2.1 Quantity of Records

The site archive consists of:

184 context records
86 pencil drawn plans and section drawings on 15 A1 permagraph sheets
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software
4 colour films, containing 135 slides
Monochrome contact sheets and negatives
1 box of pottery
3 boxes of animal bone
Small finds

1 box of flint
Environmental samples

3.2.2 Provenance

In accordance with the '*Brief*', an area measuring *c*. 75m X 60m was stripped by mechanical excavator, centred upon the undated ring gully segment that was originally located within Trench 56 of the prior archaeological evaluation.

A substantial part of the site was recorded. This was owing to the site falling within the Compensatory Flood storage area rather than the roadline.

3.2.3 Range and Variety

All of the remains revealed and recorded were negative, earth-fast features. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices. Preliminary site results indicate that the majority of contexts belong to the transitional late Iron Age/ early Roman period, with all of the pottery finds being roughly dated to the 1st century. Further analysis may determine whether some of the currently undated contexts belong to this phase of activity.

The archaeological deposits located within this area comprised pits, postholes and linear gullies, forming possible structures, bound both to the north and to the south by substantial boundary ditches. To the east of these features was a clearly defined ring-ditch, **C1002**, measuring *c*.5m in diameter, with a centrally placed pit. The form of this feature, which yielded sherds of Late Iron Age pottery, coupled with rare bone fragments noted upon the surface of the pit after machining, is suggestive of a funerary monument, or barrow, although these are more commonly associated with the earlier Bronze Age period. Further stripping to the south of **C1002**, revealed a ring gully, pertaining to a possible round house structure, initially located during the evaluation as gully segment (**C600E**). It was not possible to expose the ring gully in its entirety, due to the presence of an electricity pylon located immediately to the south, although the projected form suggests a structure measuring *c*. 7.5m in diameter, and with a clear west-facing entrance. A number of small pits were located in the vicinity of the entrance, two being located internally.

To the east of the main stripped area, was a segment of ditch, aligned north/south, with a sharp right angled turn to the west. It is likely that this feature forms part of a sub-rectangular enclosure, although the full extent of this was not revealed. A large pit was located within the confines of the enclosure, although this was unexcavated.

Rapid assessment of the pottery finds from Site 1, indicates that the activity represented by the deposits located is likely to be contemporary and can be roughly dated to the 1st century AD, representing the transition from the Iron-Age to the Romano-British period.

Group 1: Ring ditch with central pit

Cuts 1000 and 1002. Ring ditch measuring c. 5m in diameter and c. 1m wide. Possible funerary monument.; Cut 1004 – central pit feature.

Group 2: Ring gully/Roundhouse.

A pennanular gully, c. 7.5m in diameter, with west-facing entrance and associated features. Partially obscured by safety zone surrounding nearby electricity pylon.
Cut 1168 – eaves-drip gully ; Cut 1173 – internal post-hole; Cut 1179 – elongated pit; Cuts 1184 and 1167 – post-holes; Cut 1171 – pit

Group 3: Ditch

Boundary ditch, located to south of site, aligned east/west.
Cut 1008 =1177- ditch cut; Cut 1023=1120; ; Cut 1036; Cut 1045; Cut 1053; Cut 1070 – pit cut into top of ditch; Cut 1118 – narrow gully associated with ditch; Cut 1122 – possible recut of 1120;

Group 4: Ditch

Possible boundary ditch, located to north of the site, aligned east/west, with butt-end to east and associated features.
Cut 1099 – Curvilinear gully, possible drainage feature cut into ditch.; Cut 1021 – E/W ditch; Cut 1062 – shallow pit; Cut 1088 – elongated pit to south of ditch

Group 5: Features located to south of southern boundary ditch

Cut 1078 – pit; Cut 1108 – linear gully, aligned east/west; Cut 1110 – linear gully, aligned north/south; Cuts 1124 and 1127 – pits; Cut 1134 – post hole; Cut 1175 – gully

Group 6: Ditch

Partially revealed enclosure ditch, aligned north/south, with right-angled turn to the west, and associated pit.
Cut 1015 – ditch cut; Cut 1017 = 1165 – recut of [1015]

Group 7: Possible six-post structure

A regular, rectangular arrangement of five post holes, with land-drain truncation of a possible sixth post-hole, suggestive of a structural form.
Cut 1019 – small, oval pit; Cuts 1093, 1161, 1163 – post holes

Group 8: Assorted features to the west of site

A number of discreet pit and post hole type features located on the western side of the stripped area, with no clear association or function.
Cuts 1101, 1111 – post holes; Cuts 1102 and 1129 – pits; Cuts 1141, 1151 and 1153 – pits; Cuts 1144, 1146 and 1149 – post holes.

Group 9: Short linear gullies to north

A series of 'sausage' shaped, deep gullies, of possible structural function.
Cut 1132 – short, linear gully, aligned north/south; Cut 1113 – short, linear gully, aligned east/west, cutting pit and gully [1115] and [1117]; Cut 1025 – Butt-end of curving gully; Cut 1033 – modern land drain; Cut 1115 – pit; Cuts 1117 and 1132 – gullies; Cuts 1136 and 1143 – gullies; Cuts 1155, 1157 and 1158 – gullies

Group 10: Short linear gullies to south

Two 'sausage' shaped gullies, similar to those of Group 9, further to the south; Cut 1090 – butt-ending gully, aligned east/west; Cut 1095 – butt-ending gully, aligned east/west, cut by post hole [1097]; Cut 1097 – post hole

Group 11: A series of intercutting pits

Poorly defined pitting, in addition to discreet pit containing articulated pig skeleton.
Cut 1066 – pit with pig skeleton; Cuts 1080, 1082, 1086 – pits; Cut 1084 – gully

3.2.4 Statement of Potential for Future Analysis

The site is a rare example of a Late Iron Age occupation with clear Gallo-Belgic influence on the pottery assemblage. Occupation appears chronologically restricted to the Iron Age, possibly the Late Iron Age only. Most recutting and intercutting is focussed at feature level. It appears that the site was not dramatically remodelled during its life.

The site is adjacent to a ditched boundary feature. The presence of substantial ditched features (Groups 4, 3 and 6) to north and south of the identified focus would imply that the site was at least partially enclosed.

Groups 9 and 10 are distinctive evidence of rectangular structures. The majority of identified Iron Age buildings are circular, although rectangular buildings have been identified in the region at a few sites (Willis 2001 p.30). The example from Normanton-le-Heath (Thorpe et al. 1994) is particularly comparable as it is not posthole based.

Group 1 may represent a ceremonial feature, although the excavation evidence is unlikely to yield clear interpretative evidence. Group 7 may represent a related structure possibly forming a screen. Group 2 represents a small circular enclosure or structure that was probably not domestic. Smaller circular structures having non-domestic functions is an emerging pattern; other similar incidences have been collated (Willis 2001 p.30).

For the Middle and Later Iron Ages which are the best represented prehistoric periods, research themes include the enclosure of open settlement, its' meaning, causation and possible sequence; settlements and field systems; the emergence of land divisions, 'filled' landscapes, and the emergence of aggregated settlements and 'village' like clusters (Willis 2001 p.60), as recently identified at Humberstone, Leicester, (Thomas forthcoming). Environmental data is still lacking despite increased sampling regimes over the last 15 years, and the identification of deposits containing agricultural and dietary information remains important. Eastern Leicestershire has been identified as worse represented than other areas of the East Midlands (Willis 2001 p.60).

The dating of 1st millennium BC archaeology is often problematic due to long-lived pottery styles (e.g. Elsdon 1992; Marsden 1998; 2000) and duplicity in the calibration of C14 dates (Stuiver *et al* 1993). If

such deposits are suspected, a multiple single entity radiocarbon (AMS) dating programme will be employed where practicable, as advised (Willis 2001 p.56). Our knowledge of Late Bronze Age and Early Iron Age settlement is poor. Any such remains dating to this period are important in redressing the imbalance with Middle and Late Iron Age material.

3.3 Site 2. Neolithic/Bronze Age pits, Roman activity

Accession Number X.A36.2004
SK 4652 3136
Field 5-6
Natural Substrata- sands and gravels

Figure 2 *p59*

3.3.1 Quantity of Records

Quantity and Condition
104 context records
84 pencil drawn plans and section drawings on 8 A1 permagraph sheets (currently misplaced)
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software
5 colour films, containing 98 slides
Monochrome contact sheets and negatives
1 box of pottery
3 small finds
1 box of flint
11 environmental samples

3.3.2 Provenance

In accordance with the '*brief*', the excavations of Site 2 were located within an area measuring *c.* 500m x 30m, defined by the parameters of the proposed roadline, to include Trenches 14 –22 of the evaluation. This area was stripped using the 'windrow' method, as outlined above (section 1.6.3); as a result 6500 sq metres of land was subject to archaeological investigation.

3.3.3 Range and Variety

All of the remains revealed and recorded were negative, earth-fast features. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices. Initial scanning of the stratified flint and pottery finds from Site 2, indicates a Neolithic date for the activity present, with the exception of five contexts, which produced sherds of early Roman pottery.

The archaeological deposits of Site 2 comprised a series of pits and post holes, of uncertain and apparently unrelated function and grouped therefore according to spatial proximity. The features of Group 32, however, are more coherent and appear to represent possible structural remains, consisting of four substantial postholes (**C2034, C2050, C2056, C2059**), containing large packing stones, surrounding a larger, central, sub rectangular pit (**C2045**). Although the form of the possible structure is reminiscent of the four-post tradition of the Iron Age, pottery obtained from the Group has been summarily dated to the Neolithic/early Bronze Age. Similar dating was obtained from nearby Group 33, a collection of well-defined pits and possible post holes.

The machine stripping of Site 2 proved to be quite difficult- the shallow depth of topsoil overburden, coupled with the very soft, sandy nature of the geological substratum made it very difficult to machine to the correct levels. In addition to this, fresh plough scarring into the natural subsoil is an indication that the current agricultural use to which the land is presently put, is having a damaging impact upon the underlying archaeological deposits that are present in this area. As a result, few of the deposits recorded during the preliminary evaluation, noted at the time to be highly truncated, were relocated during the excavation phase.

Group 32: Possible structure

Pit with associated structural post holes.
Cuts 2024 and 2027 – pits; Cuts 2056, 2034, 2050, 2056, 2059 – post holes;Cut 2045 – central pit

Group 33: Features adjacent to possible structure

Cuts 2060, 2052, 2048, 2066 – post holes; Cut 2054 – linear feature; Cuts 2015, 2047, 2064, 2094, 2098 – pits

Group 34: Group of Neolithic pits

Cuts 2073, 2072, 2085 – pits

Group 35: Pits

Pits in the vicinity of Trench 21 of the evaluation
Cuts 2009, 2013, 2019, 2021, 2023, 2033 – pits

Group 36: Pits

Pits in the vicinity of Trench 22 of the evaluation
Cuts 2007, 2012, 2037 – pits

Group 37: Linear feature

Features to the south of Trench 22
Cut 2101 – possible Roma n gully

Group 38: Various features

Features in the vicinity of Trench 19 of the evaluation
Cut 2075 – linear gully; Cuts 2083, 2088 – pits

Group 39: Various features

Features in the vicinity of Trench 16 of the evaluation
Cuts 2086, 2091, 2096, 2100, 2104

3.3.4 Condition

At the time of writing, the hand drawn plans and section drawings taken from Site 2, X.A36.2004, comprising 8 A1 permagraph sheets, have been misplaced.

3.3.5 Statement of Potential for Future Analysis

Although in recent years there has been a notable increase in the incidence of sealed Neolithic material, in particular Later Neolithic (Clay 2001, p18), the quantity of stratified material from Leicestershire is still low compared to later periods. All stratified diagnostic Neolithic material is regionally rare, and augments the existing distribution maps on which *models of occupation* (Clay 2001 p.20) can be built. They contribute to the research themes of mobility and sedentarism that have polarized research in this period of prehistory. If such deposits were to contain the remains of foodstuffs, or other environmental remains, then there would also be the potential to contribute specifically to themes such as *The introduction, character and development of agricultural practices* (Clay 2001, p22), a theme which develops earlier theories of *Hunter-gatherers into Farmers* and *Change and diversification in farming communities (EH 1997).*

3.4 Site 3: Undated activity

Accession Number X.A37.2004 and XA.82.2003
SK 4654 3139
Field No. 7
Natural Substrata – Boulder Clay

Figure 3 *p60* Figure 4 *p61*

3.4.1 Quantity

Survey files (processed using N4ce survey software)
Evaluation archive held under Accession Number XA.82.2003.

3.4.2 Provenance

An area measuring 32m X 24m was stripped of topsoil and subsoil, located to target Trench 11 of the evaluation. The original feature found during the evaluation was easily relocated but appeared in isolation. No other features of archaeological significance were revealed within the stripped area and it was therefore decided, following consultation with the Senior planning archaeologist, not to continue with the full extent of the stripping, as outlined in the '*brief*'.

3.4.3 Statement of Potential for Future Analysis

There is no potential for further analysis.

3.5 Site 4: Pit Alignment and associated pits

Accession Number XA38.2004
SK 4656 3142
Field No. 10
Natural Substrata – Boulder Clay

3.5.1 Quantity of Records

51 context records
Pencil drawn plans and section drawings on 3 A1 permagraph sheets
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software
3 colour slide films, containing 49 slides
Monochrome contact sheets and negatives
4 pollen samples

3.5.2 Provenance

Site 4 consisted of a stripped area, measuring *c*. 24m X 27m, located to target three partially exposed, undated features (Cuts **2E, 4E, 8E**), originally revealed within Trench 7 of the evaluation.

3.5.3 Range and Variety

All of the remains revealed and recorded were negative, earth-fast features. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices.

No dating evidence was obtained from the pitting activity recorded in Site 4, although soil samples were taken for pollen analysis and radio-carbon dating may be considered, if the charcoal content is good and the deposits are thought to warrant it.

The evaluation pits **2E** and **4E** were revealed as two fairly substantial, sub-circular pits, forming part of a pit alignment. Seven pits were exposed, aligned north/south across the eastern corner of the stripped area and covering a distance of 17.5 metres.

A second grouping of pits, Group 14, was located to the west of the pit alignment. These were mostly smaller in size, more irregularly shaped and less clearly spatially related. However, a small rectangular or square structure approximetely 4m x 4m may be present in the south of the area.

Group 13: Pit Alignment

S*even sub-circular pits, forming part of a north/south pit alignment.*
Cuts 4002, 4004, 4006, 4008, 4010, 4051 and [6] from evaluation.

Group 14: Other Pits

Cuts 4012, 4014, 4016, 4018, 4020,; 4022, 4024, 4026, 4028, 4030, 4032, 4034, 4036, 4038, 4040, 4042, 4044, 4046, 4048, 4050

3.5.4 Statement of Potential

Pit alignments have been shown to date from the later prehistoric period. Although appearing to develop as common landscape features in the Iron Age, they can have Neolithic and Bronze Age origins.

An initial assessment has demonstrated that there was very limited preservation of pollen in the pit alignment deposits (below p.41). In the absence of dating evidence, interpretative potential is limited.

3.6 Site 5: Late Iron Age Settlement

Accession Number X.A39.2004
SK 4659 3146
Field Nos. 14 and 15
Natural Substrata – Sands and Gravels

Figure 5 *p.62*

3.6.1 Quantity of Records

75 context records
40 pencil drawn plans and section drawings on 7 A1 permagraph sheets
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software
2 Colour slide films
Monochrome contact sheets and negatives
1 box of pottery
1 box of flint
1 box of miscellaneous finds, including industrial residue, daub, charcoal and slate
10 environmental samples

3.6.2 Provenance

The archaeology of Site 5 can be divided up into two main areas, the first of which consisted of an area measuring *c*. 24m X 35m, centred on pits **C101E** and **C105E**, located in Trench 26 of the evaluation, which were found to contain Iron Age pottery.

The second area lay further to the north-east and measured c. 60m x 20m. It comprised two excavation areas bisected by a field boundary

3.6.3 Range and Variety

All of the remains revealed and recorded were negative, earth-fast features. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices.

Pottery recovered from the features of Site 5 can be firmly dated to the Late Iron Age, distinguishing the activity from the later Roman occupation of nearby Site 6.

The archaeology of the southern area consisted of further Iron Age pits, located to the west of Trench 26, with evidence to suggest that the activity may continue towards the north, outside the parameters of the proposed roadline.

To the north-east the corner of what appeared to be a sub-rectangular enclosure ditch was recorded. This was revealed as a short stretch of ditch (**C5006**), aligned northwest/southeast, turning at a 90° angle to form a second leg, aligned southwest/northeast and truncated by the field boundary. Evidence of a second right-angled turn beneath the field boundary was indicated by a third stretch of the enclosure, just visible within Field 15 on the eastern side of the boundary, aligned northwest/southeast following the line of the hedgerow. Excavation through the ditch indicated several phases of recutting and produced sherds of Iron Age pottery.

On the western side of the field boundary pitting (Group 17) and structural deposits (Group 18) of Iron Age date were recorded. Group 18 comprised a sub-circular ring-gully (**C5055 = C5063**), partially truncated to the northwest by evaluation Trench 27 and to the southeast by the edge of excavation. A convincing butt-end located on the eastern side is indicative of a possible east-facing entrance to this probable structure. Two large, stone-filled pits were located within the ring gully. Pit **C5052** was of a similar form to pit **C5034** of Group 17; both lozenge-shaped in plan, with a single post hole at either end, located at diagonally opposed corners.

Group 15: Ditches and pits to the west of main area

Cut 5014 – post hole; Cuts 5028, 5030, 5045, 5046, 5048 – pits; Cuts 5038, 5039, 5050 – post holes

Group 16:Enclosure ditch

Cut 5003 – ditch recut; Cut 5004 – early ditch phase; Cut 5005 – early ditch phase; Cut 5006 – ditch cut

Group 17: Pitting to the west of the round house

Cut 5002 – lozenge shaped pit; Cut 5024 – butt-ending gully; Cut 5026 – stone-filled pit; Cut 5032 – post hole; Cut 5034 – large pit; Cuts 5041, 5073, 5074 – pits

Group 18: Ring gully/round house, with associated features

Cuts 5021 and 5043 – pits; Cut 5052 – large pit with stones, similar to C5034; Cut 5055=5063 – ring gull; Cuts 5058 and 5060 – post holes associated with 5052; Cuts 5071 – linear gully

Group 19: Two pits to north of round house

Cuts 5017 and 5019 – pits

3.6.4 Statement of Potential for Future Analysis

Two small areas of Iron Age occupation have been identified. It is not clear whether the remains were related to open or enclosed settlement types as the windrow stripping regime left some unexposed areas in which enclosure ditches may have lain.

One area consists of a pit group, and the second includes a possible domestic dwelling, although the asymmetric diameter of less than 7 metres would make such a structure very small.

The dating of 1st millennium BC archaeology is often problematic due to long-lived pottery styles (e.g. Elsdon 1992; Marsden 1998; 2000) and duplicity in the calibration of C14 dates (Stuiver *et al* 1993). To help bring some resolution to the dating of th site, a multiple single entity radiocarbon (AMS) dating programme will be employed (Willis 2001 p.56).

For the Middle and Later Iron Ages which are the best represented prehistoric periods, research themes include the enclosure of open settlement, its' meaning, causation and possible sequence; settlements and field systems; the emergence of land divisions, 'filled' landscapes, and the emergence of aggregated settlements and 'village' like clusters (Willis 2001 p.60), as recently identified at Humberstone, Leicester, (Thomas forthcoming). Environmental data is still lacking despite increased sampling regimes over the last 15 years, and the identification of deposits containing agricultural and dietary information remains important. Eastern Leicestershire has been identified as worse represented than other areas of the East Midlands (Willis 2001 p.60).

3.7 Site 6: Roman Occupation

Accession Number X.A40.2004
SK 4660 3148
Field No. 15
Natural Substrata – sands and gravels

Figure 6 *p63*

3.7.1 Quantity of Records

152 context records
107 Pencil drawn plans and section drawings on 23 A1 permagraph sheets
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software
3 colour slide films, containing 75 slides
Monochrome contact sheets and negatives
4 boxes of pottery
1 box of animal bone
22 Small finds
1 box of flint and miscellaneous finds
1 box of CBM and slate
25 environmental samples

3.7.2 Provenance

Site 6 consisted of a stripped area measuring *c*. 24m X 44m, centred on the linear Roman features revealed within evaluation Trench 29.

3.7.3 Range and Variety

The remains revealed and recorded were mostly negative, earth-fast features but also included a disturbed cobble spread. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices.

The groups of Site 6 suggest occupation from the early Roman period, with evidence of nearby settlement, perhaps in the form of a small farmstead, during the 1st/2nd centuries. Although the pottery finds indicate that activity continued into the 3rd and 4th centuries, later pottery types appear to occur in much smaller quantities, suggesting a shift in the focus of any nearby settlement activity and it is possible that by this time, the land may have been given over to another use, possibly grazing.

The earliest phase of activity appears to be represented by the features of Group 20, consisting of the apparent remains of a ring-gully (**C6023**), with nearby post holes which may be associated. A second group of features (Group 28) located to the north, may also be structural in origin, although heavy disturbance within this area, probably occurring in antiquity, appears to have destroyed any obvious form that any such structure might have taken. The group consisted mainly of occupation layers, including a disturbed cobble surface, which were removed to reveal a series of butt-ending gullies, one of which (**C6042**), was found to contain a substantial amount of near complete pottery vessels, including a Samian dish, stamped ROPPUS.FE and dated AD100-140.

In the southwestern corner of Site 6 were the remains of three sub-rectangular pits, thought to represent possible grave cuts. These deposits were in linear formation, aligned roughly north/south and truncated by ditch **C6051**. Although no bone was recovered from these features, due, possibly to the sandy, acidic nature of the fills, **C6050** was lined with medium sized cobbles, whilst both **C6050** and **C6048** were found to contain coffin nails.

Both possible structural groups and the graves appeared to be truncated by a network of intercutting ditches, which characterises the archaeology of much of the remainder of the site. With the exception of **C6027**, which may form part of a sub-rectangular enclosure, all other ditches appeared to be linear in plan and all ditches were found to contain sherds of 1st/2nd century pottery. An initial assessment of the pottery finds suggests that the latest phase of activity on site may be represented by a large,

waterlogged pit, containing pottery dating from the 2nd to the 4th century, which may represent the remains of a sump, or a well (**C6114**).

The windrow strip to the northeast of the main area was found to contain a possible continuation of ditch **C6056**, in addition to a square cut pit (**C6100**), surrounded by a possible trample-zone, thought to represent a cattle watering hole.

The features of Group 30 were located within a series of windrow strips to the north of the main Site 6 area, to cover land proposed as a future balancing pond. The archaeology within this area can be characterised mainly as a series of linear ditches and gullies, in addition to a large stone-filled pit. Initial assessment of the pottery recovered from Group 30, gives a late 1st century AD date for the activity represented, suggesting that this Group is an extension of the same site seen within the main stripped area.

3.7.4 Watching Brief

A watching brief during an extension of the balancing pond to the south and west, failed to identify any further archaeological deposits (pers. comm. Cathy Coutts, Warwckshire Museum Field Archaeology Unit).

Group 20: Ring gully/ Round house

Cut 6023= 6024=6025 – ring gully; Cuts 6071 – pit; Cut 6073 – post hole

Group 21: Rectilinear gully/ditch

Cut 6027 – gully

Group 22: Features sealed by layer, including possible sump

Layer 6139; Cuts 6141, 6143, 6145, 6147, 6095, 6097– post holes; Cuts 6149, 6151 – pits; Cut 6093 – gully; Cut 6114 – pit; sump/well?

Group 23: Ditch

Cuts 6020=6038

Group 24: Ditch

Cut 6103=6034

Group 25: Ditch

Cut 6151 = 6033 = 6019= 6021

Group 26: Ditch

Cuts 6051

Group 27: Graves and associated linear features

Cut 6048 – grave; Cut 6044 = 6062 – east/west gully; Cut 6050 – grave; Cut 6109 – gully; Cut 6111 – grave

Group 28: Possible structural remains

Layer 6013; Cut 6046 – pit; Cut 6047 – butt-ending gully; Cut 6036 – ditch; Cut 6042 – gully; Cut 6053 – gully; Cut 6080 – pit

Group 29: Pits

Cuts 6026, 6057 – pits

Group 30: Various features

Cut 6091 – ditch; Cut 6101 – gully; Cut 6105 – ditch; Cuts 6113 and 6129 – pits; Cut 6125 – gully; Cuts 6127, 6131, 6133, 6136 – gullies

Group 31: Ditch

Cut 6028 – ditch; Cut 6061 – ditch recut

Group 40: Probable Water-hole

Cut 6077 – pit/ back filled trample area; Cut 6100 – pit; Cut 6120 – pit/ trample

Group 41: Ditch

Cut 6056

Group 42: Various features

Cut 6087 – gully; Cut 6089 – pit

Group 43: Ditch

Cut 6040; Cut 6064; Cut 6066

3.7.5 Statement of Potential

Part of a rural early Roman settlement has been recorded. Structural elements including part of a probable roundhouse (Group 21), and a possible rectangular structure (Group 28) were recorded. A series of graves were recorded on the southern periphery of the site, some 85 metres from the burial exposed in an evaluation trench (Beamish and Kipling 2003 p.11)

A waterlogged pit was sampled for environmental evidence, and indicates an open grassland environment for the site.

A complex pattern of ditch cuts and recuts were recorded. The site appears to have been remodelled during its' life, although the predominant west-east alignment (parallel with the Brook to the north) was retained.

Our knowledge of Roman rural settlement is generally good in its extent, but not in detail. Knowledge of settlement chronology and development remains poor. Small enclosed settlements exist in both Late Iron Age and Early Roman periods, but the degree to which this tradition is dominant in the Early Roman period in the region though is still uncertain (Taylor 2002 p.10).

Roman rural settlements remain poorly understood, and it is recommend that opportunities for excavation on a significant scale should be taken whenever possible (Taylor 2002 p.26). Specific objectives for the early Roman period that the Rearsby material may contribute to include improved knowledge of pottery production and industry particularly in the transition period from the Late Iron Age (Taylor 2002 p.24) and the pattern of settlement continuity from Late Iron Age to Early Roman. The presence of a burial probably of contemporary date with the settlement gives an opportunity to investigate Early Roman burials, which are rare. The location and association of this and any further burials will be an important element of the excavation, and will contribute to the study of the context of Roman burial (Pearce 1998)

There would appear to be a good potential for the survival of remains containing environmental remains within the area of Roman occupation. Sampling and analysis of these deposits can potentially provide evidence on the agricultural practices of the settlement.

3.8 Site 7: Undated activity

Accession Number X.A41.2004
SK 4662 3150
Field No. 19
Natural Substrata – Boulder Clay

3.8.1 Quantity of Records

6 context records
Pencil drawn plans and section drawings on 1 A1 permagraph sheet
Site indices (for contexts, plans, sections, photographs, small finds and environmental samples).
Survey files (processed using N4ce survey software)
1 colour slide
1 Monochrome contact print and negative

3.8.2 Provenance

Site 7 consisted of 8 windrow strips within an area measuring *c*. 75m X 21m, centred upon an undated linear feature (**C204E)** and a pit, containing a sherd of undiagnostic pottery (**C202E**), both located in evaluation Trench 34.

3.8.3 Range and Variety

All of the remains revealed and recorded were negative, earth-fast features. Features had been subject to some degree of horizontal truncation as a result of later agricultural practices.

Following machine excavation, a number of irregularly shaped features were revealed. Three features were fully excavated, as possible pits **C7002**, **C7004**, and **C7006.**

No finds were recovered and the features were considered by the excavators, to be of dubious archaeological origin. It is possible that these deposits represent geological, rather than archaeological activity.

Cut 7002 – pit; Cut 7004 – pit; Cut 7006 – pit

3.8.4 Statement of Potential

In the absence of dating evidence, the potential of the evidence is limited to the integration of collected stratigraphic and spatial information.

4 Lithics: Assessment for Further Analysis

Lynden P. Cooper

4.1 Introduction

The flint was scanned during processing to weed out natural pieces and provide a broad assessment of recovered material. Basic quantification allowed a second scan of selected groups. The assessment is based upon these observations.

4.2 Quantity

In total some 3.94 kg of material was recovered, which should represent approximately 600 pieces. A further 61 struck flints were recovered in the evaluation phase of the project.

4.3 Provenance

Some 66% of the assemblage was from Site 2, though mostly unstratified, c. 25% from Sites 1 and 6, (Late Iron Age/Romano-British contexts) and 19% unstratified.
Diagnostic pieces include a Mesolithic microlith, a Late Neolithic transverse arrowhead, a Late Neolithic scraper (prepared base type) and two Early Bronze Age plano-convex knives, unfortunately all unstratified. In the evaluation phase, a further plano-convex knife was found. Technological assessment would suggest that the remaining material was of a wide date range from the Mesolithic up to the Bronze Age. The vast majority represented flake-based technology of a Neolithic-Bronze Age date.

4.4 Statement of Potential

Further analysis of the flint will help to provide a broad date and geographic range to activities across the landscape transect. Some behavioural inferences will be possible, for example, the identification of flint knapping areas and functional activity zones. The characterisation of the Neolithic assemblage would provide rare data for a period that has only recently presented an archaeological signature in the East Midlands. In particular, the Early Neolithic date for some of the features from Site 2 (XA36.2003) presents a unique chance to understand the regional lithic characterisation for a little known period. The material in the later prehistoric features will be assessed for residuality. It is plausible that Iron Age flint use might be determined.

5 Prehistoric and Roman Finds: Assessment for Further Analysis

Nicholas J. Cooper

This assessment covers ceramic material from Sites 1, 2, 5 and 6. Roman period pottery (including Late pre-Roman Iron Age material from Site1) was recovered from Sites 1, 2, and 6 and prehistoric material from Sites 2, 5 and 6. Roman tile was recovered from Site 6 only. Prehistoric and Roman pottery from the evaluation will also be included.

5.1 The Prehistoric Pottery

5.1.1 Site 2 XA36.2003

5.1.1.1 Quantitiy of Material

A total of 3.110kg of prehistoric pottery was retrieved from stratified Neolithic contexts. Additionally, 63 sherds of Neolithic pottery belonging to a single impressed ware vessel weighing 248g was retrieved from context (507) during the evaluation stage, a short report on which is appended below.

5.1.1.2 Condition and provenance

The material has been arranged by context group, with assemblage character and quantification by weight summarised below.

Group	Group Name	Weight	Date Range	Comment
32	Pit central to four-post structure	684	Neo/BA?	2043 Plain rim vessel with linear impressed comb decoration on upper part.
33	Posthole south of four-post structure	2334	Neolithic	2046 Big group. Quartz fabric. Impressed dec from 2016
34	Three pits to south	64	Neolithic	2057 Two Mortlake style impressed decorated bowls.
35	Pits	28	Neolithic?	2018 rock temp
Evaluation	Context 507	248	Neolithic	Impressed Ware vessel
Total		**3358**		

Table 1: Prehistoric pottery, Site 2

Groups 32-35and (507), represent Neolithic occupation with Group 33 containing the single largest group from (2046) weighing 1416g. Significant decorated sherds came from 2057, 2016, 2043 and 507. The majority of the material from these groups was tempered with angular white quartz (granitic), though one of the Impressed (Peterborough) ware (?Mortlake style) bowls from Group 34 (2057) is flint tempered.

5.1.1.3 Statement of Potential

Stratified deposits of Neolithic pottery from the county are very rare and the occurrence of decorated vessels would benefit from specialist study. The presence of impressed wares would indicate a date of between 3000-2500 BC at the latest (Gibson 2002, 78 and fig. 38). The potential of gaining carbon 14 dating from organic material in these deposits should be investigated not only for the internal dating of the site but for improving the typology of decorated vessels at the regional and national level.

5.1.2 Site 5 XA39.2003

5.1.2.1 Quantity of Material

A total of 4.384kg of Iron Age pottery (200 sherds) was recovered. An additional 148g was unstratified and included occasional abraded Roman sherds. Additionally an assemblage of 126 sherds of later prehistoric pottery weighing 0.575kg was retrieved during the evaluation phase, a report on which is appended below.

5.1.2.2 Condition and Provenance

The assemblage comprises a tightly associated collection of stratified groups, summarised below. The preservation of diagnostic vessel profiles in East Midlands scored ware, especially from Group 18 (cut 5063) indicates primary deposition of material. The material from Group 19 (pits to the north) is in a coarse white quartz fabric and may be of Neolithic or Bronze Age date, perhaps relating to the single, possibly Neolithic, feature on Site 6 adjacent.

Group	Group Name	Weight	Date Range	Comment
15	Area 5 West	1976	L. Iron Age	5029, 5031 etc scored ware
16	I A Enclosure Ditch	76	L. Iron Age	5007, 5008, 5010
17	Pitting W of ring ditch	488	L. Iron Age	5001, 5035, 5040 scored
18	Ring gully and assoc	1782	L. Iron Age	Cut 5063, 5043 scored
19	Northern pits	62	Iron Age ? Neo/BA?	5016, 5018 coarse white quartz fabric.
Total		**4384**		

Table 2: Prehistoric pottery, Site 5

5.1.2.3 Statement of Potential

Though becoming more common across the county and region, good stratified assemblages of this distinctive Iron Age pottery tradition are a valuable resource for research as the details of its stylistic progression and fabric occurrence are still poorly understood within its middle to late Iron Age date range. As well as providing chronological indicators for the site, the assemblage has the potential to contribute to economic and social research questions and useful comparison can be made with the larger assemblage from nearby Elms Farm, Humberstone (Marsden 2000), as well as a range of other unpublished sites of this period recently excavated to the north of Leicester.

5.1.3 Site 6 XA40.2003

5.1.3.1 Quantity of material

Ten sherds of pottery weighing 56g were retrieved from a single context (6112) within a group otherwise of early Roman date.

5.1.3.2 Condition and provenance

The pottery is undecorated but a large, plain rimmed vessel is represented in a coarse white quartz-tempered fabric similar to the Neolithic material from Site 2, alongside seven other undiagnostic body sherds.

Group	Group Name	Weight	Date Range	Comment
30	Pond Area	56	Prehistoric	6112 Rock tempered

Table 3: Prehistoric pottery, Site 6

5.1.3.3 Statement of Potential

More detailed consideration of this small group in the light of the other prehistoric groups both at Rearsby and in the county may enable us to date it more closely.

5.2 The Late pre-Roman Iron Age and Roman Pottery

5.2.1 Site 1 XA35.2003

5.2.1.1 Quantity of Material

A total of 3.809kg of pottery (400 sherds) was retrieved from eleven discrete groups of features on the site with an additional 46g unstratified. Assemblage character for each group is summarised below.

5.2.1.2 Provenance and Condition

The assemblage represents a tightly dated group of otherwise discrete features belonging to the conquest period of the 1st century AD. A small number of small sherds might be described as fully Romanised grey and oxidised wares, but otherwise the group contains transitional material comprising both scored wares and Belgic style handmade (and wheelmade) wares. A number of both Iron Age and Belgic vessel form profiles are reconstructable, particularly from Group 10 (1131).

Group	Group Name	Weight	Date Range	Comment
1	Ring Ditch with central Pit	48	1st cent AD	1001, 1003, 1046 SW
2	Circular Structure.	8	1st cent AD	1166, 1170
3	Southern Ditch	778	IA/1st cent	1007, 1022, 1030, 1069, 1176, 1057
4	Northern Ditch	220	IA/1st cent	1013, 1020, 1059, 1098
5	Gullies South of South Ditch	298	IA/1st cent	1126 (scored), 1107 (1st), 1109 (1st), 1128 (1st)
6	East Enclosure Ditch	1	1st cent AD	1164
7	Post structure			No pottery
8	Medley of Pits	686	L. Iron Age	1139, 1105
9	Northern Beam slots	318	1st cent AD	1012 (Belgic), 1011, 1024, 1031, 1115
10	Southern Beam slots	1360	1st cent AD	1131 (Belgic), 1089 (1st) Good group.
11	Pig burial and pits	74	Modern	1067 modern pot, 1081, 1083 (IA residual)
Ditch 1	Ditch 1 Cut 1175	18	1st cent AD	Same vess as 1131
Total		**3809**		

Table 4: Late pre Roman Iron Age and Roman Pottery, Site 1

5.2.1.3 Statement of Potential

The ceramic assemblage provides the main chronological indicator for the site as well as acting as an index for economic and social research questions such as supply and social status. Spot dating has enabled a basic chronology to be established during the assessment phase and full analysis will allow this to be refined. The transition from Iron Age to Roman pottery usage is poorly understood in rural areas, and the occurrence of well-preserved deposits of Belgic style pottery are rare outside Leicester. This site therefore offers an important opportunity to look at this transitional phase.

5.2.2 Site 2 XA36.2003

5.2.2.1 Quantity of material

A total of 1027g of pottery (approximately 100 sherds) was retrieved from stratified Roman period contexts on the site. Arranged by feature group, the assemblage character is summarised below. An additional 134g of unstratified pottery was also recovered.

5.2.2.2 Provenance and Condition

Group	Group Name	Weight	Date Range	Comment
36	Pits	5	E. Roman	2036 greyware
37	Pits to south	1004	Roman 1st	2038, 2102
38	Pits	18	E. Roman	2074, 2082
Total		**1027**		

Table 5: Roman pottery, Site 2

Groups 36-38 represent early Roman occupation dating to the first century and possibly into the second.

5.2.2.3 Statement of Potential

The ceramic assemblage provides the main chronological indicator for the site as well as acting as an index for economic and social research questions such as supply and social status. Spot dating has enabled a basic chronology to be established during the assessment phase and full analysis will allow this to be refined. The Roman occupation may represent continuity from that on Site 1.

5.2.3 Site 6 XA40.2003

5.2.3.1 Quantity of material

A total of 24.765 kg of Roman period pottery (estimated as 2500 sherds) was retrieved from stratified Roman deposits on this site, with a further 1.282kg unstratified. Additionally an assemblage of 311 sherds of Roman period pottery weighing 1.807kg was retrieved during the evaluation phase a report on which is appended below.

5.2.3.2 Condition and Provenance of material

Contexts have been grouped and their assemblage characteristics and quantification by weight summarised below.

Group	Group Name	Weight	Date Range	Comment
20	Round House	172	1st/2nd	6003, 6072, 6138
21	Rectilinear Gully	1014	1st/2nd	6000, 6001
22	Sump	114	2nd-4th	6139 6140 (4th), 6144, 6092
23	Ditch 6020	1245	1st+	6002 good, 6039, 6069
24	Ditch 6034	500	1st+	6015 good, 6017, 6075
25	Ditch 6033	3728	1st+	6009, 6022, 6018, 6043, 6082, 6152
26	Ditch 6051	64	2nd+	6005 ncd
27	Graves	248	2nd	6007, 6008, 6108
28	Structure	11374	mid 2nd	6013 good6037 good, 6045, 6047, 6055
29	Pits	278	2nd-4th	6010 (4th), 6011 (ncd)
30	Pond area	136	1st +	6102, 6104, 6107, 6091
31	Ditch 6028	492	3rd/4th	6031, 6032, 6060
40	Water-hole	2434	4th century	6078, 6079, 6083, 6098, 6099
41	Ditch 6056	648	4th century	6016
42	Features S of	922	3rd-4th cent	6084, 6085, 6086, 6087, 6088 abraded
43	Ditch 6064	1396	3rd-4th cent	6041, 6067
Total		**24765**		

Table 6: Roman pottery, Site 6.

The stratified material is in good condition and looks to be the result of primary or secondary rubbish disposal (middening). Brokenness appears comparatively low for a rural site with a number of vessels largely complete. In particular, the material from Group 28 (Structure) includes a single context deposit from (6037) cut 6042 weighing 8.980 kg containing a near-complete samian form18/31 dish stamped by the Central Gaulish potter Roppus with the die ROPPUS.FE dated AD 100-140 (105-135) (Steve Willis pers. comm.).

5.2.3.3 Statement of Potential

The ceramic assemblage provides the main chronological indicator for the site as well as acting as an index for economic and social research questions such as supply and social status. Spot dating has

enabled a basic chronology to be established during the assessment phase and full analysis will allow this to be refined. In addition, such well-dated large groups are unusual from rural sites and this one is worthy of detailed study in its own right due to its potential to improve knowledge of type series at the regional and national level.

5.3 Roman Tile (Including Roman Swithland Slate)

5.3.1.1 Quantity of material

Tile and Slate was only recovered from Site 6, the only site with evidence for later Roman occupation. A total of 6.615kg (60 fragments of tile and 9 of slate) were retrieved from stratified Roman contexts. An additional 544g were unstratified.

5.3.1.2 Condition and provenance

The occurrence of tile and slate across the site is quantified below. Although the material was very fragmentary, examples of both roofing (tegula and imbrex) and wall construction tiles (pedalis) were identified. No complete or perforated examples of Swithland roof slates were recovered, nor any examples of ceramic flue tiles, indicative of hypocaust heating systems. Spatially, the material appears to come primarily from Context group 40, dated to the 4th century. However, the fact that some material does occur in deposits containing second century pottery (Groups 21 and 28) is of note.

Rearsby Bypass Roman Tile and Slate Site 6 XA40.2004				
Context	**Group**	**Forms**	**Frags**	**Weight**
6000	21	Teg, wall	7	1354
6001	21	misc	1	38
6014	28	misc	2	250
6018	25	misc	1	5
6032	31	misc	1	8
6037	28	wall	2	1006
6043	25	Teg, misc	5	414
6059	no group	wall	3	186
6078	40	teg, misc	7	540
6078	40	Slate	5	1556
6079	40	imbrex	5	306
6079	40	Slate	2	66
6084	42	misc	1	62
6085	42	misc	7	190
6086	42	wall	4	236
6098	40	misc	10	198
6099	40	Slate	2	54
6119	40	misc	1	66
6152	25	misc	3	80
Total			**69**	**6615**

Table 7: Tile and slate

5.3.1.3 Statement of Potential

The presence of ceramic and stone building materials would indicate the existence of stone-founded buildings in the vicinity. A further appraisal of the distribution of the material in the light of more detailed pottery and stratigraphic analysis would be worthwhile. Otherwise, no further analysis of the tile itself is required. The final report should include the above table and an overview of the distribution and its significance.

5.4 Pottery and Tile Sorage

Storage and Curation
No long term conservation issues. Storage of 9 boxes as follows.
XA40.2003
6 boxes (5 pottery, 1 tile)
XA 35.2003
1 Box
XA 36. 2003
1 Box
XA 39.2003
1 Box

5.5 The Small finds

5.5.1.1 Quantity of Material

32 objects were recovered, predominantly from Site 6, as tabulated below. Iron, Lead and copper alloy were represented along with one fragment of millstone or quern and a ceramic figurine.

5.5.1.2 Condition and Provenance

Rearsby Bypass Small finds						
Site	Context	Sfno	Material	Identification and Further Work (**FW**)?		
1	98		Fe	misc, NFW		
1	US		Fe	misc, NFW		
1	US		Cualloy	medieval belt fitting **FW**		
2	US		Fe	nail, NFW		
2	US		Lead	ring and shot, NFW		
2	US		Cualloy	Modern penny, NFW		
2	US		Cualloy	Post-med decorated buckle NFW		
6	6000	1	Fe	nail, NFW		
6	6000	2	Fe	nail, NFW		
6		4	Cualloy	coin 3rd/4th cent **FW**		
6	6059	5	Cualloy	coin 3rd/4th cent **FW**		
6	6007	6	Fe	nail, NFW	Coffin nail	
6		7	Fe	nail, NFW	Coffin nail	
6	6007	8	Fe	nail, NFW	Coffin nail	
6	6007	9	Fe	nail, NFW	Coffin nail	
6	6007	10	Fe	nail, NFW	Coffin nail	
6	6007	11	Fe	nail, NFW	Coffin nail	
6	6007	12	Fe	nail, NFW	Coffin nail	
6	cut6077	14	Cualloy	Coin 4th cent CONSTAN. **FW**		
6	6037	15	Lead	droplet waste NFW		
6	6000	16	Lead	droplet waste NFW		
6	6148	18	Lead	ring NFW		
6	US	19	Fe	?Knife blade **FW?**		
6	6152	22	Cualloy	misc, NFW		
6	6037		Lead	sheet frag NFW		
6	6043		Fe	nail, NFW		
6	6049		Fe	nail, NFW		
6	6078		Fe	nail, NFW		
6	US		Fe	nail, NFW		

6	US		Cualloy	Coin 4th cent CONSTAN. **FW**
6	6043		Stone	quern fragment millstone grit
6	US		Ceramic	Roman figurine of a lion

Table 8: Small Finds

5.5.1.3 Statement of Potential

Seven objects have been identified as requiring further work that would benefit the chronological understanding of the site (four late Roman coins) and for intrinsic reasons (medieval belt fitting and Roman ceramic lion). The occurrence of the pipe clay figurine of a lion is of particular importance. This is an incredibly rare find in Britain. The fragments belong to a small figurine of a lion with traces of brown glaze on its mane. Unfortunately the head is missing but a more complete example is known from Baldock in Hertfordshire (Figure 9 p66), which had a pouring spout above the head, with the upright tail acting as a handle (Rigby 1986, 234, fig 96.1). They were made in workshops in central Gaul, and imported into Britain in the decades after the Roman invasion of AD 43. Such figurines are usually dated to the second century and ones of venus and dea nutrix were mass produced in central Gaul. In addition spatial position of the large iron nails from ave (6007) should be noted as these would appear to be coffin nails. X-ray of those nails and knife blade 19 would be appropriate.

6 Ceramics Material from Evaluation phase: Assessment for Further Analysis

Nicholas J. Cooper

Reports on ceramic material recovered during the evaluation phase accession number XA83.2003.

6.1.1 Neolithic Impressed Wares

A total of 63 sherds of Neolithic pottery weighing 248g was retrieved from context (507). The group comprises three large joining sherds and many small sherds which all derive from a single probably bowl shaped vessel. The fabric comprises a fairly clean clay matrix tempered with large angular inclusions of white quartz ranging from 2mm-8mm. This is consistent with the range of very coarse Neolithic fabrics from other sites in the county and the region (e.g. Willington, Derbys). The external surface is decorated with sub-oval impressions arranged in parallel lines. Impressions are 7mm by 5mm in size and may have been executed with the end of a bird bone perhaps. The vessel therefore probably belongs to the indigenous Peterborough Ware tradition of impressed wares of Early Neolithic date, which was fully developed by about 3000BC (Gibson 2002, 80 and fig. 38.7).

6.1.2 Later prehistoric pottery

6.1.2.1 Introduction

An assemblage of 126 sherds of later prehistoric pottery weighing 0.575kg was retrieved during the evaluation (XA82.2003). It has been analysed according to the Leicestershire prehistoric pottery form and fabric series (Marsden 2000, 171) and quantified by sherd count and weight.

6.1.2.2 Assemblage Condition and deposition

With the exception of a partially reconstructable vessel from cut 101, fill (102) (average sherd weight 8.5g), the remainder of the assemblage is very fragmentary with an average sherd weight of just 2.8g. The pottery occurs in contexts spatially discrete from the Roman deposits and in no instances does it occur residually with Roman period pottery. The bulk of the assemblage was retrieved from trench 26 with smaller groups from trenches 19, 20, 25, 27 and 29.

6.1.2.3 Analysis of the Pottery

Trench/Cut	*Context*	*Fabric*	*Sherds*	*Weight*
TR 26/101	102	Q2/RQ1	39	332
TR26/105	106	Q2/RQ1	15	68
TR26	107	Q2/RQ1	14	32
203	201	Q2/RQ1	4	5
TR 19	414	Q2/RQ1	2	2
TR 19	415	Q2/RQ1	1	10
TR19	416	Q2/RQ1	7	22
TR 19	417	Q2/RQ1	12	32
TR 20	418	Q2/RQ1	2	8
TR 20	424	Q2/RQ1	4	6
TR 20	425	Q2/RQ1	2	4
TR 20	US	Q2/RQ1	19	46
TR 25	US	Q2/RQ1	2	2
TR 27	US	Q2/RQ1	2	4
TR 29	540	Q2/RQ1	1	2

Table 9: Catalogue of Later Prehistoric Pottery from the evaluation.

6.1.3 Discussion of Fabric Form and Chronology

All of the material is manufactured in fabrics containing either a mixture of angular quartz sand and igneous rock inclusions or predominantly the latter from the Charnwood district, and so belong to fabrics Q2 and RQ2 (Marsden 2000, 171). The assemblage is therefore similar in fabric terms to that from the nearby mid-late Iron Age site at Elms Farm, Humberstone (ibid). However, none of the

present material bears scored decoration which was the dominant East Midlands tradition from the mid-late Iron Age and typified the material from Elms Farm. In terms of fabric, the present assemblage would appear to fit into an early Iron Age date range. The material is completely undecorated and there is little evidence of surface treatment.
The vessel from (102), which appears to be a jar has a narrow, solid pedestal base 75mm in diameter and an upright, slightly flaring rim with a diameter of approximately 180mm. The shoulder extends wider than the rim but the rest of the profile is missing. The external surface is smoothed and lightly burnished around the base with horizontal strokes. Further research into parallels for this form is warranted and may help define the date of the group more closely.

6.1.4 Romano-British Pottery

6.1.4.1 Summary

An assemblage of 311 sherds of Roman period pottery weighing 1.807kg was retrieved. The majority, 280 sherds weighing 1.554kg, came from features in Trench 44, in particular context (503), with the remainder from Trenches 29, 32, 45, 49 and 50. The assemblage has been identified by fabric and form according to the established county and national type series (Pollard 1994 and 1999, Tomber and Dore 1998 see summary appended below) and quantified by sherd count and weight.

6.1.4.2 Assemblage Condition

The average sherd weight of 6g would normally indicate an assemblage in very poor condition, even in a rural location. However, while much of the material was clearly abraded due to exposure and became incorporated into shallow stratified features, the ceramic groups themselves are coherent, comprising large numbers of small, freshly broken sherds from relatively few individual vessels. In common with other trenching exercises along linear developments in rural areas such as that at Potterspury, Northants (Cooper in Meek 2000 unpublished developer report), the process of machining had inadvertently compressed and crushed the shallowly stratified pottery.

6.1.4.3 Vessel Form and Fabric Analysis

Table 3 (in the appendix) catalogues the entire assemblage whilst Tables 1 and 2 below summarise the analysis of the assemblage by fabric and form.

Fabric Summary			
Fabric	%sherds	Sherds	Weight
Amphora	<1	1	4
Mortaria	4	14	431
White ware	<1	1	4
Oxidised w	2	5	28
Greyware	7	22	114
Transitional	58	181	916
Sandy ware	22	68	246
Calcite Grit	6	19	64
Total	**100**	**311**	**1807**

Table 10: Evaluation Roman pottery assemblage by fabric

Vessel Form Summary			
Fabric	%sherds	Sherds	Weight
Amphora	<1	1	4
Mortaria	4	14	431
Bowl	30	94	344
Butt Beaker	<1	1	16
Jar	31	96	592
Storage Jar	<1	1	16
Misc	33	104	404
Total	**100**	**311**	**1807**

Table 11: Evaluation Roman pottery assemblage by form

6.1.4.4 Discussion of Form, Fabric and Dating

The assemblage as a whole appears to belong to a fairly narrow date range between the middle of the 1st century AD and the very beginning of the second century. The assemblage is dominated by fabrics which are typical of the decades following the Roman Conquest during which very the relatively coarse late Iron Age fabrics evolve into the ubiquitous fine sandy grey wares of the 2nd to 4th centuries AD. Fifty eight percent of the pottery has been classified under the category of 'transitional' grey wares to distinguish them from the much finer grey wares which subsequently develop. These 'transitional' fabrics are wheel thrown and characterised by being predominantly tempered with granular quartz sand and occasionally other inclusions and are poorly sorted. They correspond to the coarser grey ware fabrics GW5-GW9 but have been designated as such here because they occur consistently in Conquest period vessel types. In this sense they represent a slightly more refined version of the sandy ware fabrics (SW) which are often used in the production of Belgic style vessels in the immediate pre-conquest period in Leicester as found in the Bath Lane (Clamp 1985) and West Bridge (Pollard 1994) areas of the City.

Context (503) presented the most coherent assemblage of identifiable vessels from the assemblage as a whole. What is unusual about the group is that it contains substantial remains of only two vessel types comprising three examples of small jars with lid seated (or ledge-everted) rims (cf Pollard 1994 fig. 54. 76) and at least five examples of small carinated bowls (cf Clark 1999, fig.66.111). The group also included diagnostic sherds from the lower body of a butt-beaker and a Verulamium region mortarium. A more complete example of the latter (a different vessel) came from (506) in the same trench dating between c. AD 60 and AD 120 (cf Clark 1999, fig.65.91). Additionally a single grey ware sherd with rusticated decoration came from (508) in Trench 44 and may date as late as AD 100 or 120. Otherwise there is nothing in the assemblage to suggest that it was deposited any later that this. The likelihood is that represents rubbish deposits from settlement activity in the second half of the 1st century AD and maybe more tightly in the period c.50-70, judging by the lack of fully developed grey wares and other Romanised elements in the assemblage which would be expected in an urban context but perhaps not in a rural one.

6.1.4.5 Appendix

XA82 2003 Rearsby Roman Pottery Nick Cooper 17/11/03						
Cut/Trench	**Context**	**Fabric**	**Form**	**Type**	**Sherds**	**Weight**
TR44	501	SW	misc		1	1
TR44	502	SW	misc		2	10
TR44/511	503	MO7ver	Motarium	BandFl	4	40
TR44/511	503	WW	misc		1	4
TR44/511	503	CG1	misc		14	34
TR44/511	503	GW trans	bowl	carin 5D	2	78
TR44/511	503	GW trans	bowl	carin 5D	1	6
TR44/511	503	GW trans	bowl	Carin?	1	12
TR44/511	503	GW trans	jar	3E ledgev	2	16
TR44/511	503	GW trans	jar	3E ledgev	2	6

TR44/511	503	GW trans	jar	3E ledgev	30	64
TR44/511	503	GW trans	misc		22	52
TR44/511	503	GW trans	misc		17	40
TR44/511	503	SW	misc		6	46
TR44/511	503	GW trans	bowl	carin 5D	3	44
TR44/511	503	GW trans	bowl	carin 5D	40	82
TR44/511	503	GW trans	buttbeaker	9A.3	1	16
TR44/511	503	SW oxid	bowl	carin 5D	46	118
TR44/511	503	GW trans	misc base		3	22
TR44/511	503	SW oxid	misc base		3	34
TR44/511	503	OW	bowl	carin 5D	1	4
TR44/511	503	OW	misc		4	24
TR44/518	504	GW trans	jar	3	1	6
TR44/518	504	GW3	misc		1	1
TR44/519	505	M07ver?	mort		3	5
TR44/519	505	CG1	jar		3	10
TR44/519	505	SW	jar	3E ledgev	1	12
TR44/519	505	GW	jar	3E ledgev	4	16
TR44/519	505	GW trans	jar	neckbead	3	6
TR44/519	505	GW trans	jar		20	84
TR44/519	505	GW	jar		3	8
TR44/519	505	SW			7	20
TR44	506	MO7ver	mort	BandFl	7	386
TR44	506	GW trans	jar		12	102
TR44	506	CG1	misc		1	4
TR44	508	GW	jar	rusticated	1	20
TR44	508	GW trans	jar	base	4	92
TR44	520	GW trans	misc		2	28
TR44	520	GW3	misc		1	1
Subtotal					280	1554
TR45/524	523	GW	misc		2	8
TR50	526	SW	misc		1	4
TR50	526	GW	misc		5	7
TR50	527	GW trans	misc		2	20
TR50	527	GW	misc		1	10
TR50	528	GW	jar		2	38
TR50	531	GW trans	misc		1	20
Subtotal						
TR49	533	GW trans	misc		4	8
TR29	536	GW trans	jar	neckbead	8	112
TR29	536	CG1	jarstorage		1	16
TR29	536	AM9A?			1	4
Subtotal						
TR32	US	SW	misc		1	1
TR32	US	GW	misc		2	5
Total					**591**	**3361**

Table 12: Roman pottery from the evaluation

6.1.4.6 A summary of the Leicestershire Museums Roman Pottery Fabric Type Series

To allow this report to be used independently, a summary of the fabric codes used, their common names, and concordance with the National Roman Fabric Reference Collection (Tomber and Dore 1998; Pollard 1999) when appropriate, is provided below. For further detail on the Leicestershire form and fabric series see Pollard (1994) 'The Late Iron Age and Roman Pottery' in P.N. Clay and R.J. Pollard *Iron Age and Roman Occupation in the West Bridge Area of Leicester: Excavations 1962-1971*. Leicester: Leicestershire Museums Arts and Record Service.

C Colourcoated wares

C2 Fine white fabrics usually Lower Nene Valley origin (C2NV, LNV CC) but also from the Lower Rhineland (Cologne KOL CC)
C3 Pale oxidised fabrics. Number of sources but here denotes a probable Lower Nene Valley origin
C7 Variant of C11 probably from Lower Nene Valley
C11 Dark oxidised fabrics. Here probably from Lower Nene Valley
C13 Oxfordshire red or brown colourcoted ware (OXF RS).
C17 Fabrics similar to C2,3 and 11.

MO Mortarium fabrics

MO4 Mancetter-Hartshill as WW2 (MAH WH)
MO6 Lower Nene valley (LNV WH)
MO7 Verulamium Region (VER WH)

WW White wares

WW2 Fine as M04. Mancetter-Hartshill or Lower Nene Valley origin (MAH PA)
WW3 Fine sandy. Here probably denotes Upper or Lower Nene Valley origin
WW4 Medium sandy. Verulamium region or Mancetter Hartshill (VER WH?)

OW Oxidised wares

OW2 Fine or fine sandy of uncertain Midlands sources.
OW3 Coarse sandy as OW2
OW9 Much Hadham burnished ware (HAD OX; Going 1987, Fabric 4).

GW Grey wares

GW3, 5, 6, 9 A gradation from fine to very coarse for fabrics of unknown source.
GW4 Lower Nene Valley greyware. Fine light grey fabric (LNV RE).
GW12 Used here to denote greyware of 'London ware' type (Perrin 1980).

BB Black-burnished wares

BB1 of South-East Dorset origin.

CG Calcite gritted wares

CG1A Fossil shell tempered fabrics (low sand content) of Late Iron Age to second century date.
CG1B Fabric as A but becoming widespread in the later Roman period from Harrold, Beds. (Brown 1994) (HAR SH).
CG3B of mid- Roman date. Production locally at Bourne and Greetham (BOG SH)

GT Grog tempered wares

GT3 coarse fabric not in 'Belgic' forms. Also used here to denote Soft Pink Grogged ware (GT3A; PNK GT; Booth and Green 1989).

MG Mixed gritted wares

MG3 Fine to medium sandy grey ware with calcite. Local and early in date.

SW Sandy wares

SW2 fine sandy fabric usually in 'Belgic' style.

7 Environmental remains: Assessment for Further Analysis

Angela Monckton

7.1.1 Introduction

Samples were taken for the recovery of charred plant remains which can give evidence of diet, agriculture or activities on the site in the past. Four sites (1, 2, 5 and 6) were sampled mainly for charred plant remains. In addition two sites (6 and 4) were sampled for waterlogged remains. The samples were processed and assessed for their potential to produce useful information about the sites.

7.1.2 Provenance, Dating and Quantity

Samples were taken from features with the potential to contain charred plant remains and a total of 60 samples were taken from four sites. The features sampled included pits, gullies and ditches. In addition two prehistoric pits, a Roman sump or shallow well and a Roman 'waterhole' were sampled to assess for preservation of waterlogged remains.

7.2 Charred Plant Remains

7.2.1 Methods

Features were sampled if they were datable and had the potential to contain charred plant remains. Samples were taken in one to four parts, and for the purposes of the assessment, up to two parts were processed.

Processing: Samples were wet-sieved in a York tank using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. The residues were air dried and the fraction over 4mm sorted for all finds which are included in the relevant sections of this report. The fraction of the residue below 4mm was reserved for sorting during the analysis stage if required. This work was carried out at ULAS by Dave Parker. The flotation fraction (flot) was air dried and packed carefully in self-seal polythene bags and then assessed.

Assessment: The flots were examined with a x10 stereo microscope, for those with small numbers of remains the plant remains were removed to glass specimen tubes, while those with numerous remains were selected for further work. The plant remains were rapidly identified without comparison with modern reference material so the identifications should be regarded as provisional. The remains were noted with an estimate of quantity and tabulated below (table E1). The plant names follow Stace (1991) using his common names (cf Monckton 1999). The residues below 4mm were also examined to determine if the plant remains had been recovered by flotation, little charred material was observed in the sandy residues and recovery by flotation seemed good. Hence it was thought that they would add little to the assessment, although if samples are analysed the residues should be sorted to ensure complete recovery. The results are described and discussed for each site below.

7.2.2 Results

7.2.2.1 Site 1 (XA35.2004)

7.2.2.1.1 Introduction

A total of 21 samples were taken from pits, gullies, ditches and a posthole. Iron Age pottery was recovered from a number of the features and the remaining features were provisionally dated to the Iron Age.

7.2.2.1.2 Results of the assessment

Charred plant remains were recovered from all but six of the samples, remains were not very numerous but moderate amounts were recovered from eight of the samples marked # in table E1. The density of remains was generally low, mainly below or around one item per litre of sediment, the most productive sample was from posthole 97 which had a density of 2.7 items per litre of sediment.

Cereal grains included hulled barley and glume wheat, either emmer or spelt. Only four of the samples contained any chaff, this was present as glumes of wheat, some of which from Gully 117 were

identified as spelt. Charred weed seeds were also found as the most numerous remains in five of the samples and the seeds were mainly of weeds of arable or disturbed ground including docks, brome grass, cleavers, vetches and knotweed. Such plants as water-blinks and sedges grow in wetter areas, while corn salad, medick, plantain and smaller grasses are more typical of grassy vegetation. Tubers of onion couch grass were also found, this plant is thought to have been a perennial weed of fields cultivated using the ard plough. All these plants were found here and all could grow as weeds of the crops and are likely to have been brought to the site with the cereals, although some may represent plants used for fodder, bedding and thatch. Fragments of straw and grass were also found probably representing kindling. The plants found are typical of Iron Age and Roman sites and have been found on other sites in the region (Monckton 2003).

7.2.2.1.3 Statement of Potential

Examination of the distribution of the remains on the site may help to define areas of domestic and other activity because cereals were cleaned of seeds and chaff before consumption and the waste burnt in domestic hearths. Although the low concentration of remains indicates only small scale cereal processing, the remains show the crops grown and consumed, while the weeds present provide evidence about methods of cultivation. The remains will provide comparisons with other sites which may assist in defining the economy of the site when the full range of finds from the site is considered.

7.2.2.1.4 Further work (Site 1).

There are insufficient remains for detailed analysis but is suggested that nine most productive samples from the site are fully sorted and recorded to show the crops and weeds present and to typify the site in the regional context. This should include any remains from the fraction of the residue below 4mm. The remains should be identified and tabulated and a report written to compare the remains with other sites in the region. The distribution of remains on the site should be plotted for all the samples after consideration of the dating and archaeological integrity of the contexts.
Samples to record: Sample 2 Ditch 23, sample 3 Ditch 2, sample 5 Ditch 21, sample 7 Gully 90, sample 8 Gully 95, sample 9 Posthole 97, sample 10 Pit 102, sample 11 Gully 117, sample 15 Pit 124.

Table 13 E1: Site 1 (XA35.2004) Assessment of flots for charred plant remains.

Samp No.	Group	Cont No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Nut ch	Oth ch	Chc	Charred plant remains and comments. (mainly Iron Age)
XA35													
1	1	1003	Pit1004	17 (+2)	24	6	-	2	+	-	1gs	fl	-
2	3	1022	Ditch 1023	19*	24	6	1	6	-	-	8tu 9gs 2sf	fl	Wheat and barley grains, a glume of spelt or emmer. Dock and grass seeds, couch-grass tubers, grass stem frags. #
3	1	1001	Ditch 1002	14*	14	3	-	10	-	-	1gs 1sf 1rt	-	Wheat grain, seeds of cleavers, vetch, knotweed, dock and lg grass, and stem frags. #
4	3	1068	Ditch 1070	8	10	-	-	-	+	-	-	fl	-
5	4	1020	Ditch 1021	17	7	3	-	14	+	-	3	fl	Barley grains, seeds of black bind-weed, docks, brome grass, indet seeds, grass stem frags. #
6	3	1069	Pit 1066	10	17	-	++	-	++	-	+st	+	Modern straw and bread wheat rachis, partly charred, (by field drain).
7	10	1089	Gully 1090	17	3	2	1	3	+	-	2gs	+	Wheat grain, wheat glume, seeds of lg grass, vetch and indet. #refloat?
8	10	1094	Gully 1095	17	37	6	-	9	-	-	3gs 2st	fl	Barley and wheat grains, cleavers, blinks, docks, sm grass, indet seed. #
19	10	1131	Gully 1095	8	7	-	-	4	-	-	1tu 1st	fl	Seeds of blinks and docks, a couch grass tuber.
9	10	1096	P-H 1097	6	20	1	-	14	-	-	1tu 3fr	++	A cereal grain, seeds of blinks, sedges, grasses, medick, cornsalad, a tuber of onion couch grass and indet stem frags. #
10	8	1105	Pit 1102	9 (+1?)	7	2	-	4	-	-	1tu 1st	fl	Wheat grain, seeds of dock and lg grass, a couch grass tuber. #
11	9	1116	Gully 1117	12* (+1)	17	3	3	6	-	-	4gs	fl	Barley and cereal grains, spelt glumes, grass stem and culm base. #
12	9	1012	Ditch 1113	12 (+1)	15	3	-	3	-	-	1tu 1gs 2rt	fl	Wheat grains, seeds of lg grass, cleavers and dock, tuber indet, grass stem and roots.
13	5	1107	Gully 1108	6	10	1	1	1	+	-	1rt	fl	A barley grain, a wheat glume, lg grass seed and small root frag.
14	5	1109	Gully 1110	8	4	-	-	-	+	-	-	fl	-
15	5	1126	Pit 1124	7	5	7	-	7	+	-	5gs	fl	Barley and wheat grains, seeds of docks, grasses and plantain, grass stem fragments. #
16	5	1128	Pit 1127	7*	12	4	-	2	+	-	-	fl	Cereal indet, seeds of knotweed.
17	5	1135	P-H 1134	7	11	-	-	-	+	-	-	fl	-
18	8	1139	Pit 1141	12	7	-	-	-	-	-	-	fl	-
20	9	1138	Gully 1136	21	10	6	-	4	+	-	7gs	fl	Wheat and indet cereal grains v.abraded, seeds of cleavers and smaller grasses, grass stem and stem bases.
21	8	1140	Pit 1141	10	16	-	-	-	-	-	-	fl	-

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Leg = legume, Nut = nutshell, Char = charcoal, Oth = other charred item, tu = tuber, gs = grass stem, st = straw frag, sf = stem frag, rt = small root frag, fl = flecks, fr = fragments, lg = large, sm = small, + = present, ++ = moderate amount, +++ = abundant. * = 50% of the flot sorted, # = further work required, ## analysis required. P-H = posthole.

7.2.2.2 Site 2 (XA36.2004)

7.2.2.2.1 Introduction

The features excavated and sampled included a Neolithic pit, Bronze Age/Iron Age ditches, pits, postholes including some from a sunken feature. In addition a Roman gully was sampled. Eleven samples in total were taken, processed and assessed (table E2).

7.2.2.2.2 Results of the Assessment

The Neolithic pit 2073 sample 10 contained abundant hazel nutshell fragments and a few cereal grains including emmer wheat. The grains were outnumbered by the nutshell fragments which may be because the nutshell represents waste while the cereal grains are the product for consumption. The presence of emmer suggests cereal cultivation in the area, while the nutshell indicates the consumption of gathered foods and may suggest the proximity of woodland. Pit 2019 produced similar remains while pit 2021 produced few remains but did include nutshell and cereal grains. Sufficient charred remains and charcoal was recovered from the samples from the three pits for identification and radiocarbon dating.
Other prehistoric features included two postholes and a pit. Nothing was recovered from the postholes, samples 4 and 5, and sample 9 from the pit 2026 contained only a couple of cereal grains. Other features also contained very few remains. The Roman gully sample 11 contained only a barley grain, a wheat glume and a seed of brome grass, all are plants found on Site 1 (see above).

7.2.2.2.3 Statement of Potential

The remains from the Neolithic pit 2057 are worthy of mention and should be included in the site report because plant remains from this period are generally scarce in the region, and the date of the remains would add to the evidence for early cereal cultivation. Material for radiocarbon dating has been recovered from this and a few other pits which may be worth submitting for radiocarbon dating, if justified by other finds from the site. Other samples from this site could be summarised as background information to the excavation provided they are datable.

7.2.2.2.4 Further work (Site 2).

The samples from the Neolithic pit 2027 should be completely sorted, including the residues, and quantified and described. Radiocarbon dating should be considered for this and two other similar features if justified by the finds and context. Identification of charcoal would provide evidence of the wood exploited as fuel. Other samples from the site should be summarised for the site report as additional evidence about occupation on the site in the past.

Table 14: E2 Site 2 (XA36.2004). Assessment of flots for charred plant remains.

Samp No.	Group	Cont No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Nut ch	Oth ch	Chc	Charred plant remains and comments. (mainly IA/BA)
10	34	2057	Pit 2073	24	47	3	-	4fr	+	31	-	++	Neolithic pit. Two emmer grains and an indet cereal grain, a few seed frags indet, hazel nutshell abundant in flot. #
1	35	2018	Pit 2019	15	25	2	-	2fr	+	29	1sf	++	A grain of emmer, seed frags indet, hazel nutshell abundant in residue. Charcoal ++. #
2	35	2020	Pit 2021	9	25	1	-	-	+	2	-	++	A cereal grain and 2 hazel nutshell frags. Charcoal ++. #?
3	33	2049	P-H 2048	5	15	5	-	1	+	-	-	-	Modern straw contam.
4	32	2043	Pit 2045	6	10	-	-	1?	-	-	-	+	-
5	32	2051	P-H 2050	8	5	-	-	-	-	-	-	fl	-
9	32	2041	Pit 2026	12	9	2	-	-	+	-	1	fl	A ?barley grain and cereal frags, a stem frag.
6	33	2006	P-H 2052	5	7	2	-	1	-	-	1gs	+	Cereal grains indet, a seed of persicaria.
7	33	2053	Ditch 2054	10	16	4	-	2	+	-	-	fl	Fragmentary cereal grains, a seed of heath grass.
8	33	2046	Pit 2047	6	12	3	-	4	+	-	1	+	A grain of ?emmer and cereal indet grains, seeds of black bindweed, a capsule fragment.
11	37	2038	Gully 2101	14	11	2	1	1	+	-	-	fl	Roman Gully. A barley grain, a wheat glume, a brome grass seed.

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Leg = legume, Nut = nutshell, Char = charcoal, Oth = other charred item, tu = tuber, gs = grass stem, st = straw frag, sf = stem frag, rt = small root frag, fl = flecks, fr = fragments, lg = large, sm = small, + = present, ++ = moderate amount, +++ = abundant. * = 50% of the flot sorted, # = further work required, ## analysis required. P-H = posthole.

7.2.2.3 Site 5 (XA39.2004) Iron Age or Earlier

7.2.2.3.1 Introduction

A total of ten samples was taken for the site mainly from features of Iron Age date. Three samples were taken from the Iron Age enclosure ditch (samples 3, 4 and 5), six pits and a posthole were also sampled (table E3).

7.2.2.3.2 Results of the assessment

All the samples produced some items of charred plant remains although there was little from the ditch, three of the pits were quite productive, the most remains were recovered from the posthole at a density of 7.8 items per litre of sediment which is quite high for this area in the period (Monckton 2004).
The plant remains recovered were similar to Site 1 although representing a wider range of plants in some more productive samples. The cereals present were glume wheat and barley. Charred chaff was found in seven of the samples with spelt glumes identified in pits 5002, 5028 and 5030. Wheat glumes are scarce on most Iron Age sites in the county so although not very numerous here, their presence in most of the samples is of note. Barley chaff is also present in two of the samples. Three of the samples were dominated by seeds. These samples with chaff and weed seeds outnumbering cereal grains represent cereal cleaning waste. The density of remains is relatively high for this period and may suggest more emphasis on cereal production or use at this site than at other sites with lower densities in the county. However, other factors such as preservation may have had an effect. A greater variety of weeds was found at this site than Site 1, this increase has been noted on sites of later dates. This may be explained by differences in the geology or possibly the cultivation of better drained land, suggested by some of the weeds present. Further analysis may assist in explaining these differences. Hazel nutshell was present as the only evidence of the use of gathered food.

7.2.2.3.3 Statement of Potential

The plant remains have the potential to contribute towards the interpretation of the function of the features and towards defining areas of cereal related activity on the site. They may show differences from the other sites in the project over time or area, and may represent different activity from Site 1, possibly differing in date, intensity or type.
Further analysis and consideration of the weed ecology may allow conclusions about the methods of cultivation or the type of land exploited.

7.2.2.3.4 Further work (Site 5).

It is suggested that the five most productive samples are analysed, for these additional sediment could be processed and the residue fraction below 4mm sorted to maximise the material for analysis. Samples: sample 1 Pit 5002, sample 5 Posthole 5014, sample 7 Pit 5030, sample 8 Pit 5043, sample 9 Pit 5034.
The remaining samples should be summarised and all plotted to show the distribution on the site when dating evidence has been considered. A report showing the relationships to other sites in the project and region should be prepared.

Table 15: E3: Assessment of flots for charred plant remains, Rearsby Site 5 (XA39.2004).

Samp No.	Group	Cont No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Nut ch	Oth ch	Chc	Charred plant remains and comments
XA39													
1	17	5001	Pit 5002	16 (+1)	16	8	5	28	-	-	3	+	Wheat glumes including spelt, a spelt grain with wheat grains, weeds of 9spp, an oat awn. ##
2	16	5007	Ditch 5003	12	5	1	4	1	-	1	-	fl	Wheat glumes and a rachis frag of glume wheat, a wheat grain, a sm frag hazel nutshell.
3	16	5008	Ditch 5004	11	6	2	-	2	-	-	1	fl	A wheat grain (?bread wheat ty.), a barley grain, seeds of vetch and large grass.
4	15	5030	Ditch 5005	4 (+1)	3	-	-	1	-	-	-	fl	A frag of lg. grass seed.
5	15	5015	P-H 5014	11 (+1)	17*	1	11	28	-	-	7	+	Wheat grain and glumes, barley rachis, cereal awns, weeds of 7spp including scentless mayweed. ##
8	18	5042	Pit 5043	16 (+1)	8	1	1	-	+	-	-	fl	A rachis of ?free-threshing wheat. #
9	17	5035	Pit 5034	6 (+2)	6	9+	1	8	-	-	-	fl	Grains of wheat and barley, barley rachis, brome grass seeds. ##
6	15	5027	Pit 5028	13 (+1)	5	-	4	4	-	-	1	fl	Glumes of spelt, a few seeds 3spp.
7	15	5031	Pit 5030	11 (+1)	8	1	5	10	-	-	1	fl	Glumes including spelt, a wheat grain, an oat awn, weeds 7spp including scentless mayweed. ##
10	18	5053	Pit 5052	10 (+1)	1?	-	-	-	++	-	-	fl	A possible encrusted cereal grain only.

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Leg = legume, Nut = nutshell, Chc = charcoal, Oth = other charred item, tu = tuber, gs = grass stem, st = straw frag, sf = stem frag, rt = small root frag, fl = flecks, fr = fragments, lg = large, sm = small, + = present, ++ = moderate amount, +++ = abundant. * = 50% of the flot sorted, # = further work required, ## analysis required. P-H = posthole.

7.2.2.4 Site 6 (XA40.2004), Roman site.

7.2.2.4.1 Introduction

A total of 18 samples was taken and processed from features of Roman date including ditches, pits, gullies, graves and a cobbled surface. A wide shallow feature 6100, thought to be a waterhole for watering animals, was also sampled although this did not prove to be waterlogged.

7.2.2.4.2 Results

Most of the samples produced some items of charred plant remains but in very low densities all below one item per litre of sediment which is very low, particularly for the Roman period. The remains included occasional grains of glume wheat and barley with single numbers of chaff fragments (glumes) probably mainly of spelt. Occasional charred seeds included cleavers, docks, vetches and large grasses, also in single numbers, and all known as arable weeds of the time. The cereal remains were abraded and broken and these together with the weed seeds, may represented a scatter of waste from either domestic activity or even from cereal processing at some distance from the area. The remains could equally represent remains from straw and weeds used as kindling perhaps from waste fodder. The samples from the graves contained this same low density waste perhaps as part of the same scatter in the soil, there was nothing to suggest that the cereal waste was included deliberately with the burials. It is not impossible that the abraded waste was from earlier occupation although the lack of earlier features argues against this.

7.2.2.4.3 Statement of potential

The remains are too few for analysis or to be very informative, except to represent the later phases of this excavation project. These remains may however provide useful comparative information if more productive features are discovered in the area in the future. The information from this assessment provides an adequate record of these samples so it is suggested that only a summary of this work is included in the site report to provide information for any future work in the area.

Table 16: E4: Assessment of charred plant remains, Site 6 (XA40.2004)

Samp No.	Group	Cont No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Nut ch	Oth ch	Chc	Charred plant remains and comments ROMAN
xA40													
1	23	6002	Ditch 6020	4 (+2)	10	1fr	-	3	+	-	-	fl	A fragment of cereal grain. seeds of cleavers, dock and vetch.
2	28	6045	Pit 6046	9 (+1)	3	-	-	-	-	-	-	1fr	-
3	27	6007	Grave 6048	8 (+1)	4	3	1	2	-	-	-	fl	A wheat grain, a spelt glume, two grass seeds.
4	27	6049	Grave 6050	6 (+1)	6	7	1	-	-	-	-	fl	A wheat grain.
5	40	6083	Pit 6180	5 (+1)	3	-	-	3	-	-	-	fl	Seeds of thistle and grass.
6	28	6055	Cobbled surf.	8 (+1)	5	1	-	1	+	-	-	-	-
7	28	6014	Gully	19	17	2	1fr	1	+	-	-	-	A cereal grain, lg grass seed, a glume frag.
8	24	6006	Ditch 6130	8 (+2)	7	5	5	1	-	-	1	fl	Wheat and barley grains, glume wheat chaff frags.
9	28	6037	Gully 6042	18	14*	2	1	-	+	-	-	fl	Wheat grain and glume fragment.
10	28	6037	Pot 6042	6	10	2	-	1	+	-	1	fl	Two abraded encrusted cereal grains, a vetch seed, a charred straw frag.
11	30	6112	Pit 6113	8 (+1)	10	-	-	-	++	-	-	+	Very little charcoal, flot mostly soil and roots.
16	40	6099	Waterhole 6100	8 (+1)	2	1	4	-	-	-	-	fl	Waterhole sample, not waterlogged. A cereal grain frag and a few wheat glumes.
19	30	6130	Pit 6129	6 (+1)	10	-	-	-	-	-	-	+	Possible cremation, a small frag of calcined bone, v.few charcoal frags. Check residues #.
20	25	6018	Ditch 6019	12 (+1)	11	2	2	-	-	-	1	fl	Abraded grains of wheat and barley, glume and rachis frags ?spelt.
21	31	6031	Ditch 6028	7 (+1)	3	1	-	-	+	-	-	-	A wheat grain, encrusted.
22	25	6022	Ditch 6028	14 (+1)	6	-	1fr	1	-	-	-	-	A ?chaff frag and a small grass seed.
23	43	6066	Ditch 6047	12 (+1)	20	-	4	1	-	-	1	fl	Wheat glumes and a fat hen seed. Flot all soil and roots.
24	29	6011	Pit 6026	7 (+2)	9	-	2	-	+	-	-	-	Pit with pottery. A couple of spelt glumes. Sieve rest for finds #.
25	41	6016	Ditch 6056	6 (+2)	5	2	-	-	+	-	-	fl	Single grains of glume wheat and barley.

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Leg = legume, Nut = nutshell, Chc = charcoal, Oth = other charred item, tu = tuber, gs = grass stem, st = straw frag, sf = stem frag, rt = small root frag, fl = flecks, fr = fragments, lg = large, sm = small, + = present, ++ = moderate amount, +++ = abundant. * = 50% of the flot sorted, # = further work required, ## analysis required. P-H = posthole. Number in brackets = sample parts remaining unprocessed.

7.3 Waterlogged samples

Angela Monckton and James Greig

Samples were taken from deposits thought to be waterlogged because the exclusion of oxygen preserves organic remains. Such deposits can contain pollen and plant macrofossils which can provide evidence of the surrounding vegetation and landuse. Plant macrofossils such as seeds are likely to reflect the local conditions, while pollen also can also provide evidence of the vegetation further away from the site. When compared with known vegetation changes over prehistory this can assist in indicating the date of the deposits. Therefore pollen has the greatest potential for providing information about these deposits.

7.3.1 Methods (Waterlogged)

For plant macrofossils a subsample is washed on a fine sieve of 0.18mm mesh and the residues all examined wet for seeds and other remains using a stereo microscope (x10-60 magnification). All remains to be identified by comparison with appropriate modern reference material.

Pollen samples were processed using the standard method; about 1 cm^3 subsamples were dispersed in dilute NaOH and filtered through a 70µm mesh to remove coarser material, which was then scanned under a stereo microscope. The finer organic part of the sample was concentrated by swirl separation on a shallow dish. Fine material was removed by filtration on a 10µm mesh. The material was acetolysed to remove cellulose, stained with safranin and mounted on microscope slides in glycerol jelly. Counting was done with a Leitz HM-Lux 3 microscope. Identification was using the writer's pollen reference collection. Standard reference works were used, notably Fægri and Iversen (1989) and Andrew (1984). The counts were around 100 grains per sample, enough for a qualitative estimate of the pollen types present and their abundance. The pollen slides were also partly scanned to see any extra taxa.

7.3.1.1 Site 2 (XA38.2004) Prehistoric pit alignment.

Two of the pits were possibly waterlogged at the base and two samples were taken from each as follows: Pit 2 context (1): sample 1 upper sample, and sample 2 from base of pit. Pit 4 context (3): sample 3 upper sample, and sample 4 from base of pit. All the samples were of grey clay with brown patches and looked rather inorganic with no visible plant material apparent. The brown patches indicate some oxidation so that preservation may be poor. They were thought to have low potential for recovery of macrofossils of plants or other remains, although pollen is sometimes preserved in deposits where other remains are few. Hence it was thought worth assessment for the presence of pollen which may reveal the surrounding vegetation, whether wooded or open, and possibly indicate the date of the deposits. The four samples were submitted to James Greig for assessment of potential to produce evidence from pollen (below p.41)

7.3.1.2 Site 6 (XA40.2004) Roman site

Samples were taken from a shallow well or sump, cut 6114, which had several organic layers. In addition a sample was taken from the lowest layer in a shallow waterhole. The latter did not appear to contain organic remains so was processed as a bulk sample, cut 6100 context (6099) sample 16 (see table E4 above). No waterlogged seeds or other remains were recovered.

The Roman well or sump 6114 was dated to the Late 3rd to 4th century AD from a small amount of pottery. It was sampled from the organic layers taking a spot sample for pollen and a 2 litre sample for plant macrofossils from each layer, bulk samples were also taken. The samples from 6114 were as follows: Sample 12 context (6115) pollen spot samples and macrofossil sample (upper organics). Sample 13 context (6116) pollen spot samples and macrofossil sample (middle organics). Sample 14 context (6117) macrofossils only. (Gravel layer). Sample 15 context (6118) pollen spot samples and macrofossil sample (bottom of pit). Bulk samples were also taken from context (6115) and context (6118). The samples were taken from each of the different layers. The upper organic layer (6115)

was dark grey, layers (6116) and (6118) were both black layers with plant material visible in the lowest layer. All appeared to be anaerobic and have good potential to contain organic remains.

7.3.2 Results

The pollen types have been listed in taxonomic order according to Kent (1992), in Table 1, below.

7.3.2.1 Site 6

Sample [15] from the Roman well/sump contained organic material and a seed of *Urtica* (nettle) in the coarse sievings. This promise was borne out in a good pollen spectrum.

7.3.2.2 Site 4

The prehistoric pit samples [2] and [4] consisted of sand, silt and clay with no organic material to be seen in the coarse sievings, and there were only *Polypodium* spores and practically no pollen in the preparation, so it was not thought worth trying to make a count.

If such information is found, processing all the samples should be considered to recover identifiable remains (which must be of land plants) for dating by radiocarbon using the AMS method. However, there may be insufficient identifiable material for this.

Pollen (Table 17)

The pollen from the well could have come from fall-out from the air, which would represent the general surroundings, or it could have been present in material ultimately derived from plants, such as hay, straw, dung etc. In the case of dung of grazing animals, the pollen could have come from a wide range of habitats, some of which could have been at some distance from the well. Most probably the pollen has come from a mixture of these sources. The pollen should be able to supplement other environmental data from seeds and other remains, since some features of samples can be shown up more clearly from the pollen than from the other results.

Grassland
Sample [15] from the Roman well/sump provided a pollen spectrum which can mainly be interpreted as representing of grassland plants and weeds. The three most abundant pollen types are Poaceae (grasses), Lactuceae (composites) and *Plantago lanceolata* and *P. major/media* (plantains), while some other pollen records could also be from grassland plants, for teample the record of *Centaurea nigra* (knapweed).

Annual weeds of disturbed soil may be represented by records of Chenopodiaceae, Caryophyllaceae, *Anthemis*, and the possible *Solanum nigrum* (black nightshade) record. Longer-lived weed communities may be shown by records of *Urtica* (nettle) (a seed of *U. doica* was identified in the coarse sievings), *Rumex* (dock), *Cirsium* (thistle), *Arctium* (burdock) and *Artemisia* (mugwort).
Various other pollen types such as *Aster*-tp. could represent these kinds of vegetation, but cannot be identified exactly enough from pollen to provide more information.

There was a small record of cereal type pollen, which could be from cornfields or more probably from any remains such as grain, chaff, straw or dung which was probably present in a settlement. A single record of the parasite ova of *Trichuris* (whipworm) and *Ascaris* (roundworm) suggests slight pollution by sewage.

There were only traces of pollen from trees, or wetland plants.

Other Roman wells have shown rather rather similar results from other sites with signs of grassland and annual weeds which could represent the surroundings of a mainly occupied site, but also with signs of more persistent weeds, perhaps in abandoned plots (Greig 1988).

Conclusions
These results provide further evidence of the backfilling of Roman wells with local material which shows something of the occupied Roman landscape, and the strange abandonment of wells.

sample	15	2	
spores			
Pteridium	1	-	bracken
Polypodium	-	8	polypody
pollen			
Ranunculus-tp.	1	-	buttercup, crowfoot
Urtica	8	-	nettle
Quercus	1	-	oak
Betula	1	-	birch
Corylus	1	-	hazel
Chenopodiaceae	4	-	goosefoot
Caryophyllaceae	3	-	stitchwort family
Persicaria bistorta-tp.	3	-	bistort etc.
Rumex	6	-	dock
Brassicaceae	2	-	mustard etc.
Apiaceae	1	-	umbellifers
? *Solanum nigrum*	1	-	black nightshade
Plantago lanceolata	8	-	ribwort plantain
Plantago major/media	1	-	hoary/greater plantain
Galium-tp.	1	-	bedstraw, cleavers
Sambucus nigra	1	-	elder
Arctium	1	-	burdock
Cirsium-tp	2	-	thistles
Centaurea nigra	1	-	knapweed
Lactuceae	15	-	a group of composites
Aster-tp	5	-	daisies etc
Artemisia	4	-	mugwort
Anthemis-tp.	6	-	mayweeds etc.
Poaceae	33	1	grasses
Cerealia-tp.	4	-	cereals
total pollen	114	1	
parasite ova			
Trichuris	1	-	whipworm
Ascaris	1	-	roundworm

Table 17: Pollen and Spores

8 Animal Bone: Assessment for Further Analysis

Jennifer Browning

8.1 Site 1. XA35 2004

8.1.1 Introduction and quantity of material

Three standard archive boxes of bone have been recovered from site X. A35 2004. The majority of the bone derived from context 1067 and consisted of a pig skeleton of unusually large size together with the remains of a number of piglets. These were brittle but generally in a fair condition. The remainder was composed of small, abraded fragments.

8.1.2 Provenance and Dating

Bone was recovered from 20 gully, ditch and pit deposits. Most of these features date from the Iron Age, although the dates have yet to be finalised. The pig burial from context 67 has not been securely dated, however it is likely to be modern, as suggested below.

8.1.3 Methodology

Bone fragments were examined with reference to the comparative skeletal material held by Leicester University, School of Archaeology and Ancient History. Information on species present was recorded by context onto a pro forma spreadsheet. Notes were made on the occurrence of butchery marks, burning, gnawing and pathological conditions; however these were not formally recorded at this stage. The number of measurable bones and mandibles where tooth wear could be recorded was noted in order to fully assess the potential of the assemblage for information on age structures and stature.
Species representation has been assessed using a simple fragment count of identified fragments. The bones from context 1067 have not been included in this count.

8.1.4 Range and Variety

The majority of the bone derives from a pit, 1067, which contained the bones of a large pig and several piglets, no more than a few weeks old. The large skeleton was articulated and virtually intact, except for the skull, which may have been hit by the plough. The bones are extremely large, although state of fusion suggests its age to be around 12 months. The bone is porous and there is additional unusual bone formation, especially around the pelvis, which may suggest that the animal was diseased or suffering from a congenital condition. Alternatively, this may be a result of accelerated growth. The large size of the animal and unusual bone morphology suggests that this is likely to be a modern skeleton and may be the remains of a farrowing pig.

Species	*Fragment No:*	*Percentage*
cattle	9	36
sheep/goat	11	44
horse	5	20
cattle-size	117	
sheep-size	1	
unidentified	76	
	219	

Table 18: Composition of assemblage.

The remainder of the bone was recovered from ditches, gullies and pits of Iron Age date. Cattle, sheep and horse were identified amongst the assemblage from the Iron Age features (Table 18). Of these

species, the most fragments were attributed to sheep/goat. However the number of cattle-sized fragments observed suggests that this is likely to be an identification bias rather than a true reflection of the composition of the assemblage. Many of the identified specimens are tooth fragments. Tooth enamel often survives better than other bone in poor soil conditions.

8.1.5 Condition of the material

The bones of the pig skeleton were brittle but generally in a fair condition. The remainder of the assemblage was mostly small and abraded. There were no complete bones and no epiphyseal surfaces or ageable mandibles.

8.1.6 Statement of Potential

The assemblage can provide information on the range and variety of species on the site. However, it has little potential to help elucidate the nature of husbandry, diet and the role of animals at the site, due to the low fragment numbers and poor preservation quality. The poor condition of the hand-recovered bone suggests that it is unlikely that the bulk samples contain many bone fragments. However, any recovered through the sieving programme should be incorporated into the final report. No further work on the pig remains is recommended at this time.

8.1.7 Storage and Curation

Storage space will be required for 3 (64 x 27 x 19.5cm) boxes of hand-recovered bone.

8.2 Site 6. XA40 2004

8.2.1 Introduction and quantity of material

A total of 545 bone fragments have been recovered from site X. A40 2004. The majority of the assemblage was composed of small, poorly preserved fragments, although a small number of ditch deposits contained bone in a better preserved and more complete state.

8.2.2 Provenance and Dating

Bone was recovered from 25 deposits, dating from the Roman period. These were mostly from the fills of a water hole, ditches and gullies. A small quantity of material was also recovered from pits.

8.2.3 Methodology

Bone fragments were examined with reference to the comparative skeletal material held by Leicester University, School of Archaeology and Ancient History. Information on species present was recorded by context onto a pro forma spreadsheet. Notes were made on the occurrence of butchery marks, burning, gnawing and pathological conditions; however these were not formally recorded at this stage. The number of measurable bones and mandibles where tooth wear could be recorded was noted in order to fully assess the potential of the assemblage for information on age structures and stature.

8.2.4 Range and Variety

A brief examination of the bone has identified cattle, sheep/goat, pig, horse and dog. Cattle bones were the most common, comprising 75% of the identified bone. Most of the identified fragments were mandible or tooth fragments.

Species	*No fragments*	*Percentage*
Cattle	73	75
Sheep/goat	15	15
Pig	5	5
Horse	2	2
Dog	2	2
	97	100

Table 19: Composition of identified assemblage.

8.2.5 Condition of the material

The fragments were mostly small, abraded, brittle and fragmented. As a result it was possible to identify less than one fifth of the assemblage. There were few complete bones and epiphyses.

8.2.6 Statement of Potential

The assemblage can provide information on the range and variety of species present at the site. However, the small size and poor preservation of the assemblage has resulted in a fairly low proportion of identifiable fragments. Consequently there is little potential for examining factors such as age structures, stature and butchery techniques. Detailed analysis is unlikely to provide much information on the role of animals on the site. The animals represented are all domesticated species, such as might be associated with a farmstead or other domestic site. Given the condition of the hand-recovered bone it is unlikely that the bulk samples will yield large quantities of bone for analysis. However, any recovered through the sieving programme should be incorporated into the final report.

8.2.7 Storage and Curation

Storage space will be required for a single (64 x 27 x 19.5cm) box of hand-recovered bone.

8.3 Evaluation Material XA83.2002

8.3.1 Introduction and Quantity of Material

One hundred and seventy-eight fragments of bone were retrieved by hand. These were identified using modern and archaeological comparative skeletal material from the collection at the University of Leicester. Little analysis was carried out due to the small size of the assemblage. Species and anatomy were recorded for each fragment, where possible, and the bones were examined for signs of butchery, burning and gnawing.

8.3.2 Provenanace and Dating

Bone was recovered by hand from seven contexts, provisionally dated to the late 1st century AD. The assemblage was generally in a poor state of preservation, with considerable fragmentation and loss of surface detail. Cattle, horse, sheep/goat, pig and human bones were identified in the assemblage. The human bones (501) derive from the surface of an un-excavated burial. The others are all domestic animals, such as are likely to be found around a settlement. Context 504 contained the most fragments, many of which were identified to species. The presence of at least 2 sheep/goat mandibles was confirmed, and although these were badly fragmented it was possible to determine that at least one derived from a juvenile animal. The identifiable bones in the assemblage tend to be those that survive better, such as teeth and robust bones like metapodials and humeri. A series of cut marks, signalling butchery, were noted on a cattle pelvis from context 503.

Record	Context	Frag No:	Species	Bone	Description
1	505	8	sh-size	shaft fragments	
2	506	11	unidentified	shaft fragments	
3	523	3	unidentified	shaft fragments	
4	504	23	c-size	skull fragments	
5	504	6	unidentified	fragments	
6	504	1	c-size	thoracic vertebra	fragment
7	502	1	horse	metatarsal	part of fused proximal and shaft with possible cut mark
8	502	9	unidentified	fragments	
9	503	2	cattle	metatarsal	proximal and shaft
10	503	1	cattle	humerus	distal shaft fragment
11	504	4	c-size	shaft fragments	
12	504	2	s/g	upper molar	
13	504	1	s/g	mandible	left diastema and part of tooth row
14	504	1	s/g	mandible	fragment with dm4
15	504	1	s/g	premolar	
16	504	1	s/g	mandible	left condyle
17	504	2	s/g	molar	lower m1 & m2
18	504	1	s/g	mandible fragment	contains m1 or m2. left
19	504	1	s/g	mandible fragment	m3 in crypt
20	504	1	s/g	lower m3	similar size etc to above
21	504	1	s/g	premolar	
22	504	4	cattle	skull and horncore	small fragments
23	504	1	s/g	premolar	
24	504	2	s/g	mandible	fragment
25	504	1	cattle	skull	occipital condyle
26	503	2	cattle	pelvis	acetabulum withcut marks on illium, fused
27	503	1	s/g	skull	occipital condyle
28	503	1	sh-size	metapodial	fragment
29	503	39	unidentified	fragments	
30	503	5	c-size	skull	fragments
31	503	3	c-size	shaft fragments	charred black
32	501	1	human	incisor	
33	501	23	unidentified	fragments	poss human- (by association with burial)
34	501	13	human	skull	fragments
35	502	1	pig	humerus	distal artic (unfused) and part of shaft
Total frags:	178				

Table 20: Animal and Human Bone recovered from evaluation phase features at Rearsby.

9 Updated Project Design

9.1 Aims and Objectives

The project has the potential to contribute to the following Aims

9.1.1 National

Processes of Change

N1 Change and diversification in farming communities (*c* 3000-2000BC) (**PC2**, EH 1997 p.44)
The origins of later Neolithic society; the emergence of separate but concurrent artefactual traditions.
N2 Briton into Roman (c.300 BC-AD200) (**PC3**, EH 1997 p.44). The transition from Iron Age to Romano-British culture is regionally variable at many levels.

Prehistoric Period

.
N3 Territories and tenure in the 4th and 3rd millennium BC (**P6,** EH 1997 p.47). Nature and extent of agriculture; balance between cereal and animal; economy and monuments
N4 Late Bronze and Iron Age landscapes (**P7** EH 1997 p.47).

9.1.2 Regional

R1 *The introduction, character and development of agricultural practices* (Clay 2001, p.22).
R2 *The study of how different landscape zones were exploited from the 5th-2nd millennium BC* (Clay 2001, p.23).
R3 *The development of ceremonial monuments and their environs* (Clay 2001, p.23).
R4 T*he nature of Neolithic and Bronze Age societies* (Clay 2001, p.23)
R5 *Access to resources and trade connections* (Clay 2001, p.23)
R6 *The chronology of the 1st millennium*. The dating of 1st millennium BC archaeology is often problematic due to long-lived pottery styles (e.g. Elsdon 1992; Marsden 1998; 2000) and duplicity in the calibration of C14 dates (Stuiver *et al* 1993) and has been identified as an 'Achilles Heel' for studies of the period (Willis 2001 p.55). The project has the potential to provide scientific dates for probable Middle and very Late Iron Age contexts, associated with diagnostic pottery styles.A multiple single entity radiocarbon (AMS) dating programme will be employed as advised (Willis 2001 p.56).
R7 *Iron Age economy.* The agricultural and environmental evidence gathered from sites 1 and 5 will help redress the imbalance in East Leicestershire's representation in the East Midlands (Willis 2001 p.60).
R8 *The dating of transitional pottery*. We have little understanding of when Belgic style pottery was starting to be manufactured in the East Midlands. This may be in the last century B.C., or soon after the Roman conquest. A scientific dating programme will be employed. Specific objectives for the early Roman period that the Rearsby material may contribute to include improved knowledge of pottery production and industry particularly in the transition period from the Late Iron Age (Taylor 2002 p.24) and the pattern of settlement continuity from Late Iron Age to Early Roman.
R9 *Romano British settlement; c*hronology and form. Although only a part of the Romano-British settlement identified at Site 6 was excavated, sufficient was recorded to provide an insight into a settlement type with clear ceramic chronology (Taylor 2002 p.10).
R10 *Romano-British economy*
There would appear to be a good potential for the survival of remains containing environmental remains within the area of Roman occupation. Sampling and analysis of these deposits can potentially provide evidence on the agricultural practices of the settlement.

9.2 Revised Aims and Objectives

9.2.1 RA1: The evidence for Neolithic agriculture and its date Aims: N1,N3,R1,R2,R3,R4,R5

Objectives
Identify process and identify samples of Neolithic material collected during excavation
Identify and radio-carbon date suitable material

9.2.2 RA2 The nature of Neolithic activity: can structures be identified indicating a more than seasonal use of the site. Aims N1,N3,R2,R3,R4,R5

Objectives
Analyse recorded archaeology for clear evidence of structure

9.2.3 RA3 The evidence and date of Neolithic activity in the vicinity of a known monument of probable Neolithic date. N1,N3,R2,R3,R4,R5

Objectives
Consult SMR for detail of Pit Circle monument to west.
Analyse and report site in its known Neolithic context.
Identify process and submit for dating suitable material relating to contexts of apparent Neolithic date

9.2.4 RA4 The dating of Peterborough Ware and any identifiable substyles.

The dating of this tradition has recently been re-assessed, placing its evolution firmly in the early Neolithic period. Based on radio-carbon dating the earliest pottery of this tradition dates to around c.3600 BC, with all styles being fully developed by 3000 BC (Gibson and Kinnes 1997 and Gibson 2002, 80). By c. 2300 BC, however, Peterborough Ware seemed to have gone out of fashion (ibid.).

Objectives
Obtain radiocarbon dates for contexts containing Neolithic pottery

9.2.5 RA5 The evidence of Iron Age settlement and land division. N4

Objectives
Analyse and report sites 1, 5 and 6

9.2.6 RA6The evidence of Iron Age economy. N4,R7.

Objectives
Analyse and reports sites 5 and 6

9.2.7 RA7 The evidence of very Late Iron Age settlement and structure. R6.

Objectives
Identify, analyse and report site 1 structures.

9.2.8 RA8 The date of the very Late Iron Age activity. R8

Is the Belgic influenced pottery assemblage manufactured in the last Century BC or the 1st Century AD? The traditional model would expect the adoption of Belgic style material to be later rather than earlier. The general lack of a more fully Romanised assemblage might indicate the former.

Objectives
Obtain sufficient radiocarbon dates for contexts containing very late Iron Age pottery to provide a statistically valid chronology

9.2.9 RA9 The evidence of very Late Iron Age economy. R7

Objectives. Analyse and report sufficient soil samples to reveal information on the economy of Site 1.

9.2.10 RA10 The form date and chronology of Romano-British rural settlement. R9

Objectives. Analyse and report the archaeology of site 6.

9.2.11 RA11 The local environment of the Romano-British rural settlement

Objectives. Analyse and report sufficient waterlogged samples from Site 6 to reveal environmental information from Site 6.

10 Methods Statements

10.1 Stratigraphic and Structural Data

10.1.1 RS1 Complete and Enhance Site Archive

Site 1	4 days
Site 2	2 days
Site 4	1 day
Site 5	1 day
Site 6	5 days
Sub Total	***13 days***

10.1.2 RS2 Matrices

Site 1	1 day
Site 6	3 days
Sub Total	***4 days (17)***

10.1.3 RS3 Assign sub-group numbers

Site 1	1 days
Site 2	0.5 days
Site 4	0.25 days
Site 5	0.5 days
Site 6	1 days
Sub Total	***3.25 days (20.25)***

10.1.4 RS4 Re-compile Groups

Site 1	1 day
Site 2	0.5 day
Site 4	0.5 day
Site 5	0.5 day
Site 6	1.5 days
Sub Total	***4 days (24.25)***

10.1.5 RS5 Spatial Investigation

Site 1	1 days
Site 2	1 days
Site 4	0.25 days
Site 5	0.5 days
Site 6	2 days
Sub Total	***4.75 days (29)***

10.1.6 RS6 Incorporate Specialist Data

Site 1	2 days
Site 2	1 day
Site 5	0.5 days
Site 6	3 days
Sub Total	***6.5 days (35.5)***

10.1.7 RS7 Update Site Interpretations

Site 1	2 days
Site 2	1 days
Site 4	0.5 days
Site 5	0.5 days
Site 6	2 days
Sub Total	***6 days (41.5)***

10.1.8 RS8 Research parallel Site Types

Site 1	2 days
Site 2	1 days
Site 4	0.5 days
Site 5	1 days
Site 6	2 days
Sub Total	***6.5 days (48)***

10.1.9 RS9 Write Excavation Reports

Site 1	3 days
Site 2	2 days
Site 4	1 days
Site 5	1 days
Site 6	3 days
Sub Total	***10 days (58)***

10.1.10 RS10 Incorporate Specialist Reports

Site 1	2 days
Site 2	0.5 days
Site 5	0.5 days
Site 6	3 days
Sub Total	***6 days (64)***

10.1.11 RS11 Produce Illustrations

Site 1	4 days
Site 2	1 days
Site 4	1 days
Site 5	2 days
Site 6	4 days
Sub Total	***12 days (76)***

10.1.12 RS12 Edit Excavation Reports

Site 1	4 days
Site 2	1 day
Site 4	0.5 day
Site 5	1 day
Site 6	3 days
Sub Total	***9.5 days (85.5)***

10.1.13 RS13 Complete and Deposit Archive

All Sites	**15 days (100.5)**

10.1.14 RS 14 Dissemination

A poster has been created, and was displayed at the opening of the bypass on 15/12/2004. The poster along with two cases of the most interesting artefacts formed a display at Rearsby Village Hall from the was the 15th to the 19th December.

The poster may well form part of a display. A suitable venue for such a display would be at the Charnwood Museum, Queen's Hall, Loughborough.

It is anticipated that the results of the analysis will be presented to local and regional archaeological and historical groups.

10.1.15 RS15 Publication

Editting of reports and illustrations for Publication **15 days (115.5)**

Time estimate Sophie Clarke 115.5 days

10.2 Lithics

RL1 Catalogue all lithic material to basic type with additional notes to record diagnostic features and differential surface conditions. (No large sealed groups worthy of detailed metrical analysis were recorded) **2 days**
RL2 Consider material by context, group and general area for functional and behavioural inferences **2 days**
RL3 Report lithics at an appropriate level in this hierarchy with reference to regional research themes **2 days**
RL4 Illustration of selected pieces **1 day**

Time estimate: **L. Cooper 6 days**; **assistant 2 days; illustrator 1 day.**

10.3 Prehistoric Pottery

10.3.1 Site 2 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day.*
RPP1 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data. **1 day**
RPP2 Analysis and interpretation of recorded groups **1 day**
RPP3 Writing of final report **1 day**
RPP4 Illustration of selected vessel profiles andfive decorated vessels **2 days**
RPP5 Specialist Report on five decorated vessels: Ann Woodward **1 day**

10.3.1.1 Timetable

Tasks RP1-5: **6 days** (including specialist report tbc)

10.3.2 Site 5 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day*
RPP6 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data. **2 days**
RPP7 Incorporation of data from evaluation report **1 day**

RPP8 Analysis and interpretation of recorded groups **1 day**
RPP9 Writing of final report **1 day**
RPP10 Illustration of selected vessel profiles where appropriate. Five vessels. **1 day**

10.3.2.1 Timetable

Tasks RP6-10 Total **6 days**

10.3.3 Site 6 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day*
RPP11 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data.
RPP12 Analysis and interpretation of the recorded group
RPP13 Writing of final report
RPP14 Illustration of one vessel profile.

10.3.3.1 Timetable

Tasks RP11-14 **0.5days**

10.4 Late pre-Roman Iron Age and Roman Pottery

10.4.1 Site 1 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day*
RRP1 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data. **4 days**
RRP2 Analysis and interpretation of recorded groups **1 day**
RRP3 Writing of final report **1 day**
RRP4 Illustration of selected vessel profiles where appropriate. 10 vessels: **2 days**

10.4.1.1 Timetable

Tasks RRP1-4: **8 days**

10.4.2 Site 2 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day*
RRP5 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data. **0.5 days**
RRP6 Analysis and interpretation of recorded groups **0.5 days**
RRP7 Writing of final report **0.5 days**

10.4.2.1 Timetable

Tasks RRP5-7: **1.5days**

10.4.3 Site 6 Tasks

To be undertaken by Nick Cooper @ *£189.72 per day*
RRP8 Recording by fabric and form according to Leicestershire and national type series, quantifying by sherd count and weight, and inputting data. **15 days**
RRP9 Incorporation of material from evaluation phase **1 day**
RRP10 Analysis and interpretation of recorded groups. **3 days**
RRP11 Writing of final report **2 days**
RRP12 Illustration of selected vessel profiles where appropriate. 10 vessels: **2 days**

10.4.3.1 Timetable

Tasks RRP8-12: **23 days**

10.5 Roman Tile (including Roman Swithland Slate

10.5.1 Site 6 Tasks

RRT1 Compilation of a final report as suggested above **0.5 days**

10.5.1.1 Timetable

Task RRT1: **0.5 days**

10.6 The Small Finds

10.6.1 Tasks

RSF1 Catalogue and research of seven objects and compilation of final report **1 day**
RSF2 Illustration of ceramic lion **0.5 days**
Timetable **1.5 Days**

10.7 Finds Assessment Summary

Pottery **45 days**
Tile **0.5 days**
Smallfinds **1.5 days**
Tota (NJC) **47 days**

10.8 Environmental

10.8.1 Environmental Timetable

RE1 Bulk processing 7 more samples, sorting residues. **2 days** (Assist)
RE2 Analysis and summary
Site 1, Charred plants, Analyse 9 samples summary of all 21 samples.

Site 2, Charred plants, Analyse 3 samples and summary of all 11 samples
Site 5, Charred plants, Analyse 5 samples and summary of all 10 samples
Site 6, Charred plants, summary of all 25 samples only.

Total Time for analysis and summary reports **9 days** Specialist (AM)

RE3
Preparation of radiocarbon samples, **2 days** (AM)
RE4 Co-ordination of Environmental work and reports, **3 days** (AM)
RE5 Charcoal Identification: Graham Morgan, Fee.. **£250**(GCM)
RE6 Further analysis of waterlogged remains: **£1045**
(Plant macrofossils 3 samples £420, Insects 2 samples £400, Additional pollen £225)

10.9 Animal Bone

10.9.1 Animal BoneTask List

RAB1 Site 1: Analysis and report (not including context 67):	½ **day (**JCB)
RAB2 Site 6: Analysis and Report:	1 **day**
RAB3 Evaluation material: Analysis & report on material related to excavated contexts	½ day
Total (JCB)	**2 days**

10.10 Project Management

RPM1 Project Management (M Beamish)	10 days
RPM2 Editting and report compilation (M Beamish)	10 days

10.11 Scientific Dating

Samples will be prepared and sent away for Radio Carbon dating. Suitable contexts for dating will be identified in the Statigraphic, Ceramic, Lithics and Environmental Analyses.

Dates will be sought for Sites 1, 2 and 5 where appropriate to answer specific objectives against the Research Aims of the Project.

RSD1
Site 1: 5 AMS dates £1500
Site 2: 3 Standard dates £600
Site 5: 5 AMS dates £1500

11 Implementation

11.1 Project Team

11.1.1 ULAS Staff

(in alphabetic order)

Matt Beamish	MB	Project Officer	Project Leader
Jennifer Browning	JB	Field Officer	Bone Analysis
Dr. Patrick Clay	PC	Co-director of ULAS	Strategic and management advice
Sophie Clarke	SC	Field Officer	Stratigraphic and Specialist coordination
Lynden Cooper	LC	Project Officer	Lithics
Nick Cooper	NC	Finds Officer	Ceramic Analysis; Small Finds Analysis
Angela Monckton	AM	Environmental Officer	Charred Plant Remains and Environmental Coordinator
Dave Parker	DP	Environmental Assistant	Environmental Processing
Lithics Assistant To be confirmed	LA		
Illustrator. To be confirmed	Illust		

11.1.2 External Staff

(in alphabetic order)

Dr. James Greig	JG	Environmental Analysis (Pollen/Plant Macrofossils)	University of Birmingham/English Heritage
Dr G. Morgan	GCM	Timber IDs	University of Leicester
Dr Ann Woodward	AW	Ceramics Consultant	University of Birmingham
University of Waikato		Scientific Dating	

11.2 Publication and Presentation

It is anticipated that the most informative elements of the project will be suitable in size and ingredient for inclusion in the Transactions of the Leicestershire and Rutland Archaeological and Historical Society. The Honorary Editors have been approached and have responded positively to this suggestion.

11.3 Timetable

The project is timetabled to start in April 2005 and to be completed by March 2006. All specialists are available in the Spring and Summer of 2005.

Most of the analysis and coordination will be by Sophie Clarke.

A provisional radio-carbon dating programme has been drawn up, with submissions in late September 2005. The editting of the final reports is programmed for January 2006, with a view to submission for publication in April 2006.

A Gantt chart is at Appendix 1.

11.4 Budget

The budget for the analysis was set at 50% of fieldwork costs in the accepted resubmission costs (16/2/2004)

The total cost of analysis is

Publication and Presentation

It is anticipated that the most informative elements of the project will be suitable in size and ingredient for inclusion in the Transactions of the Leicestershire and Rutland Archaeological and Historical Society.

The Honorary Editors have been approached.

12 Illustrations

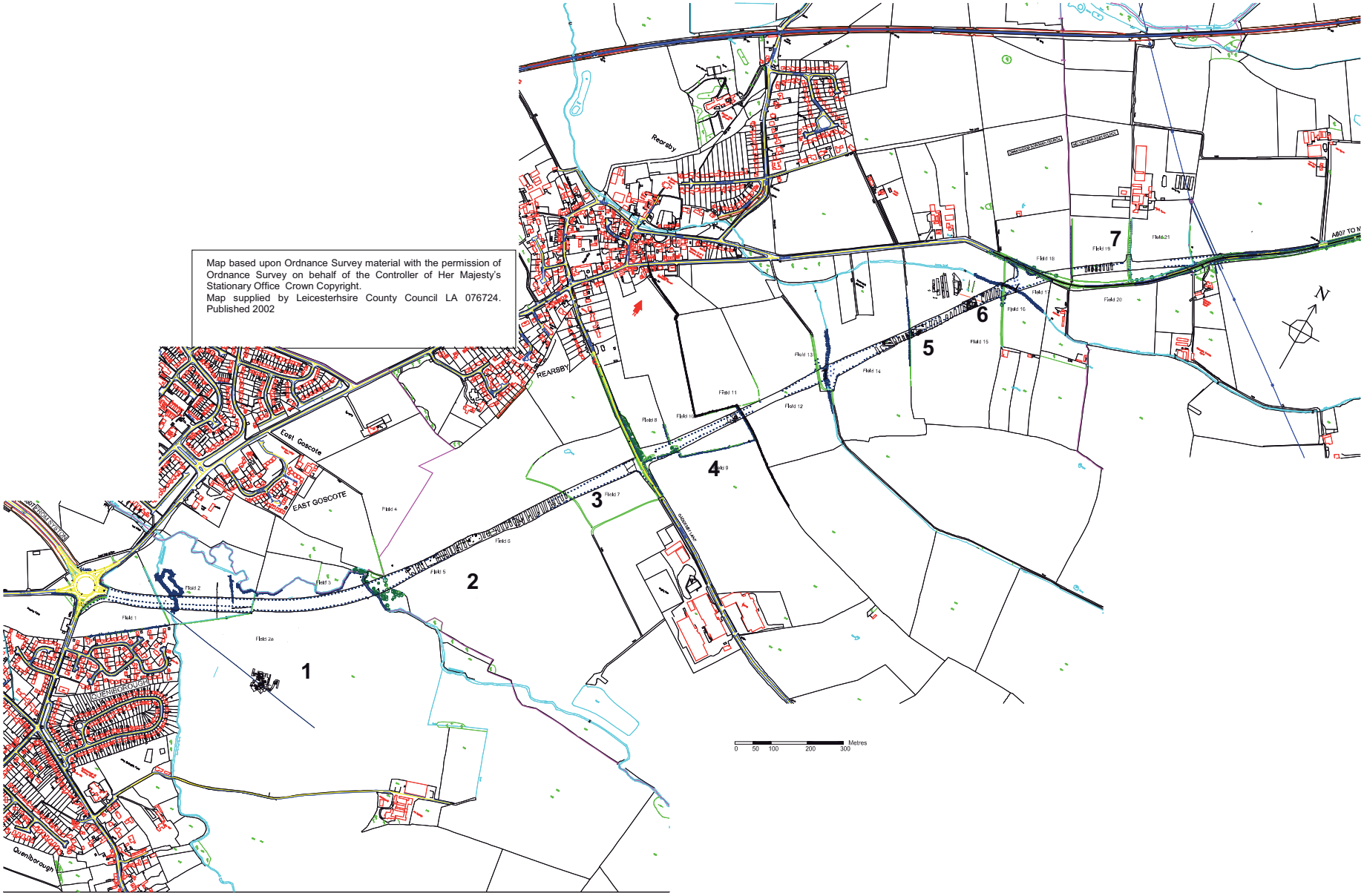

Figure 1: Location of sites along the Rearsby bypass. The sites are numbered 1-7

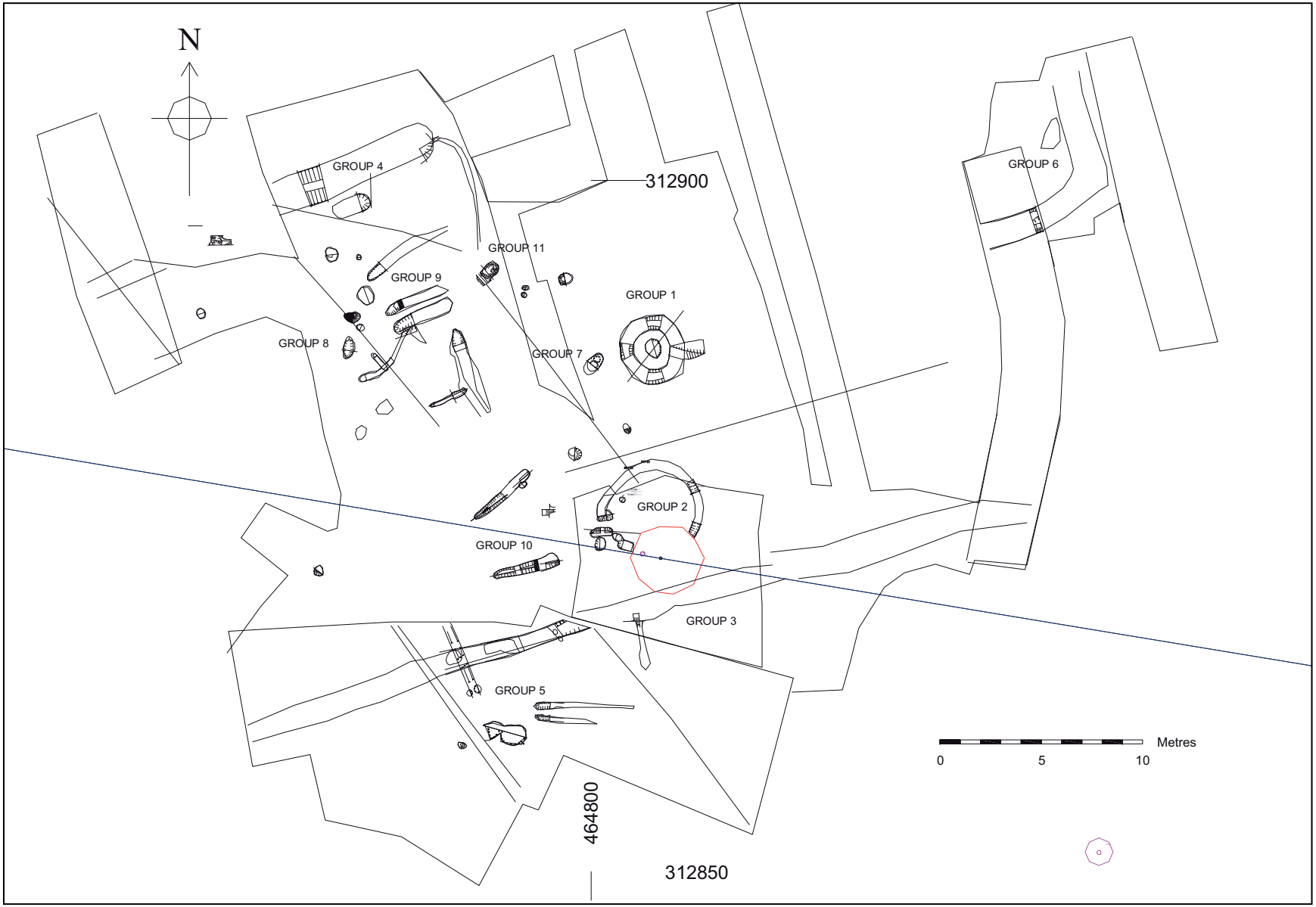

Figure 2: Site 1, Rearsby Bypass

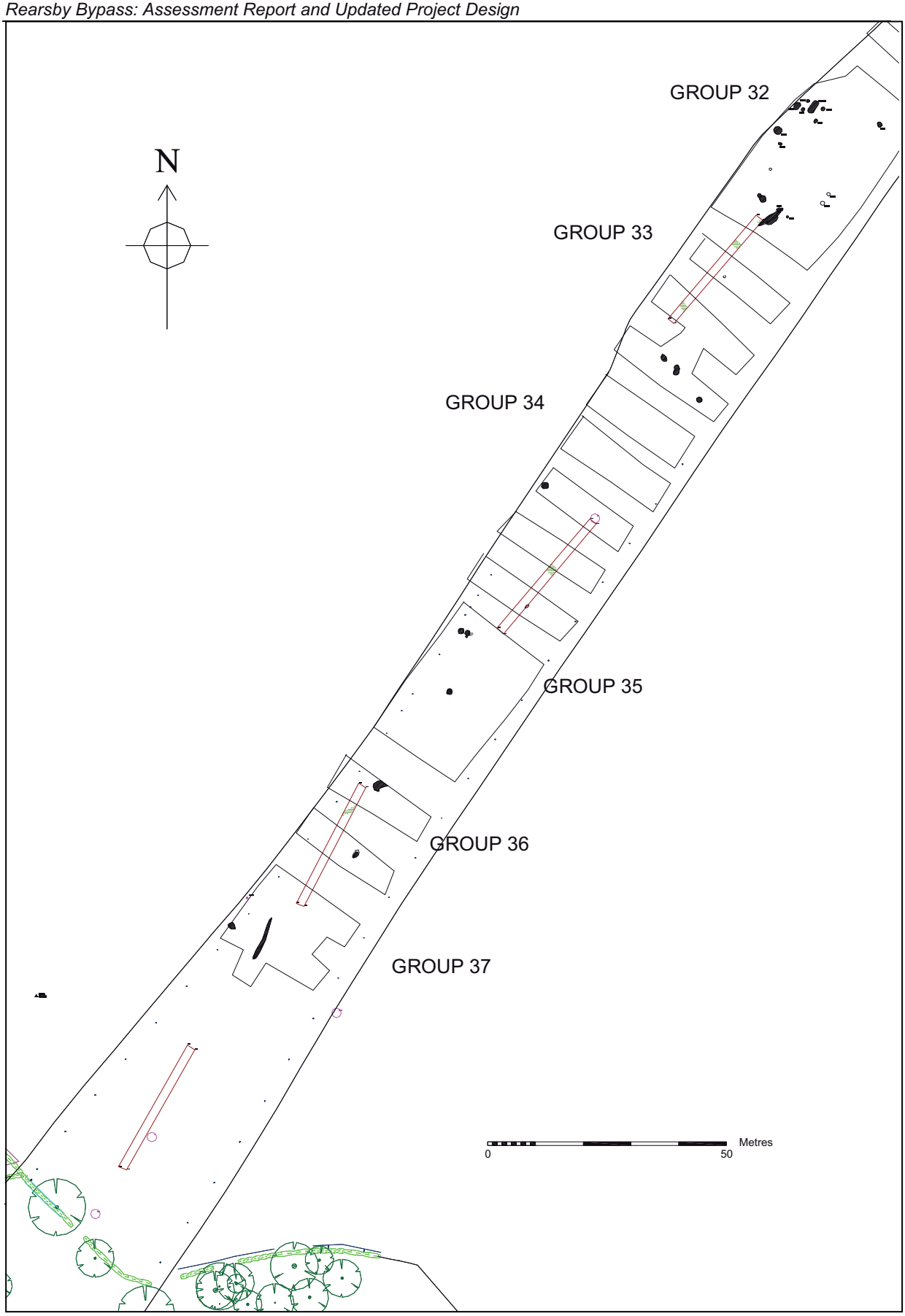

Figure 3: Site 2 (south), Rearsby bypass

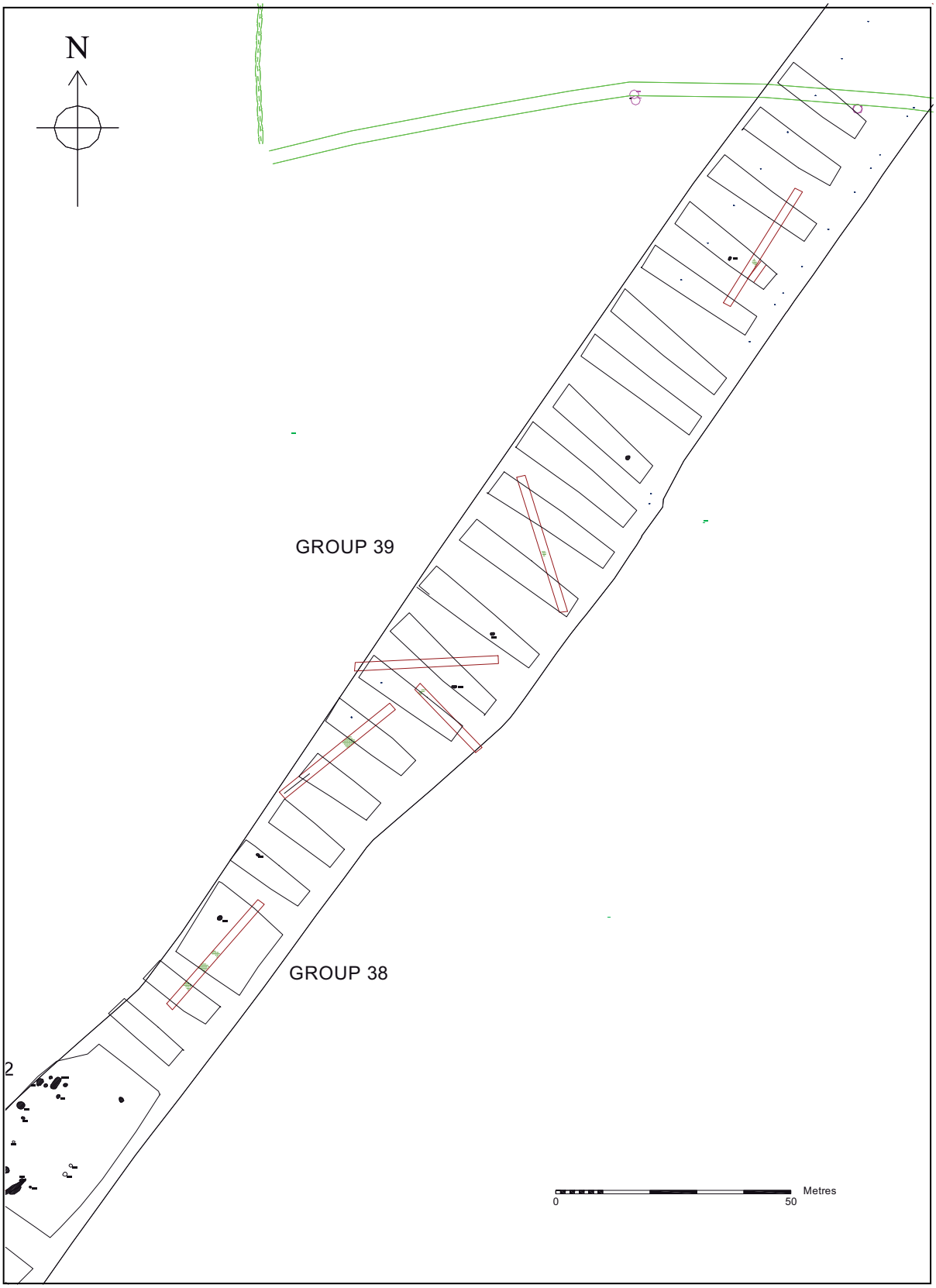

Figure 4: Site 2 (north), Rearsby bypass

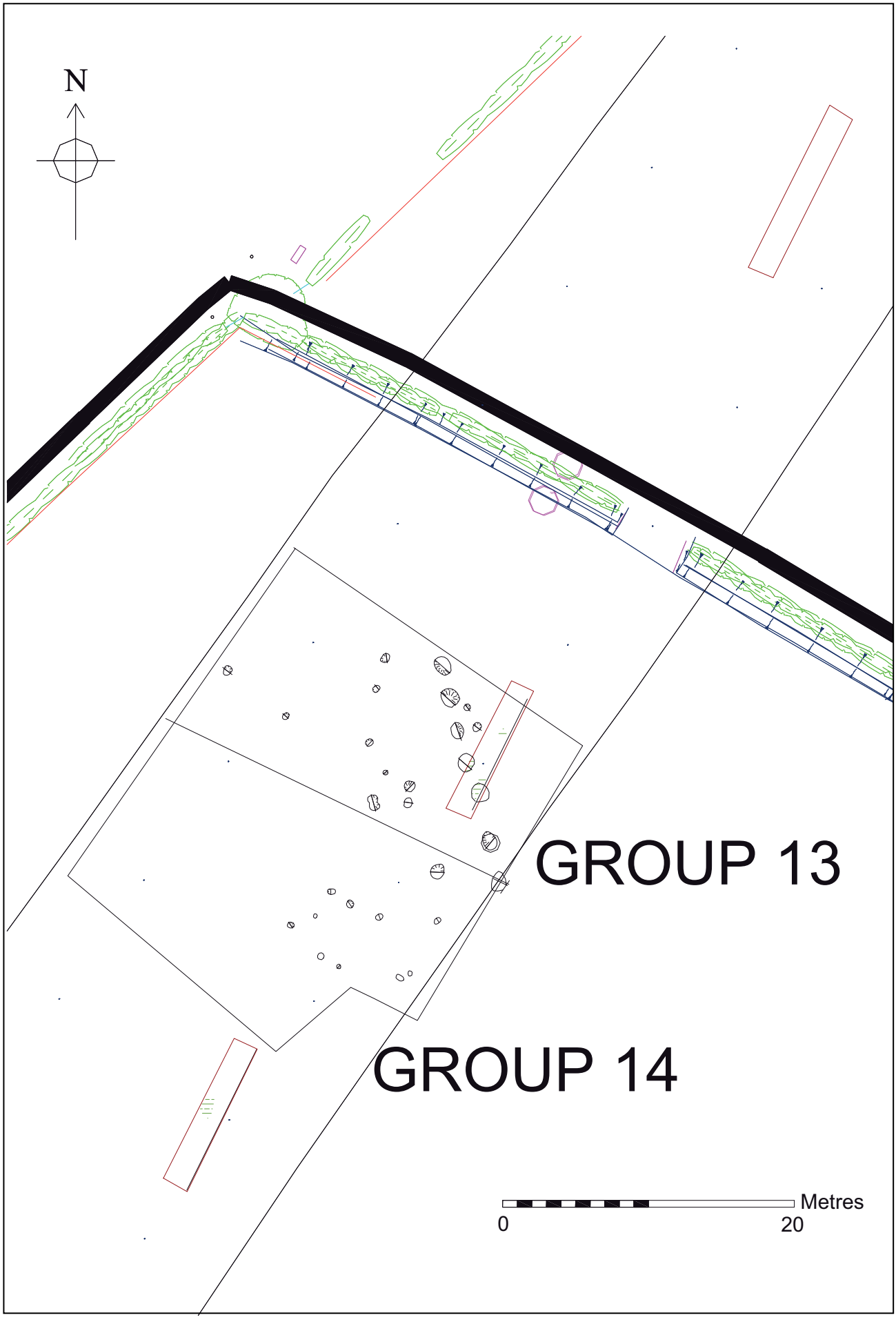

Figure 5: Site 4, Rearsby bypass

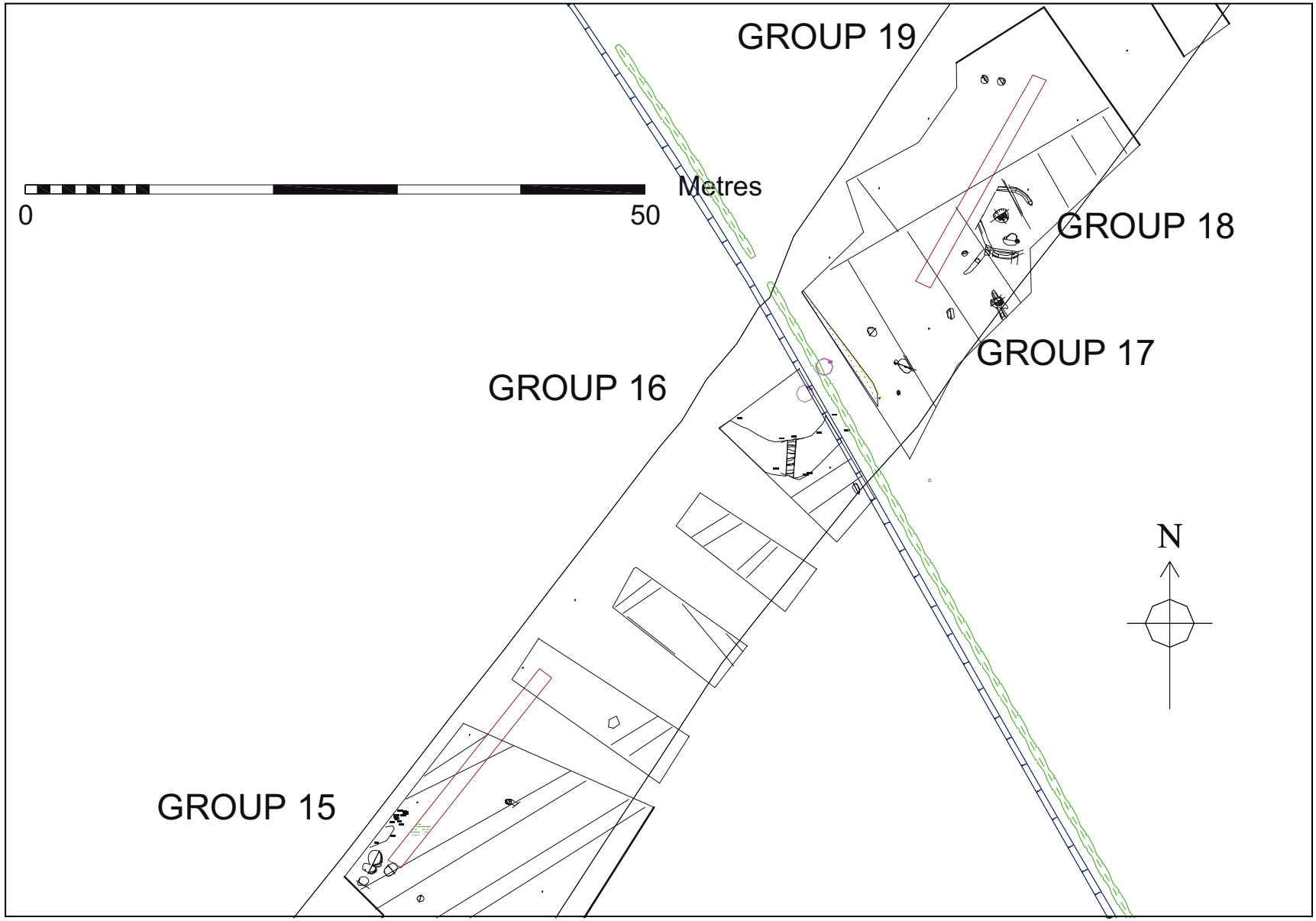

Figure 6: Site 5, Rearsby Bypass

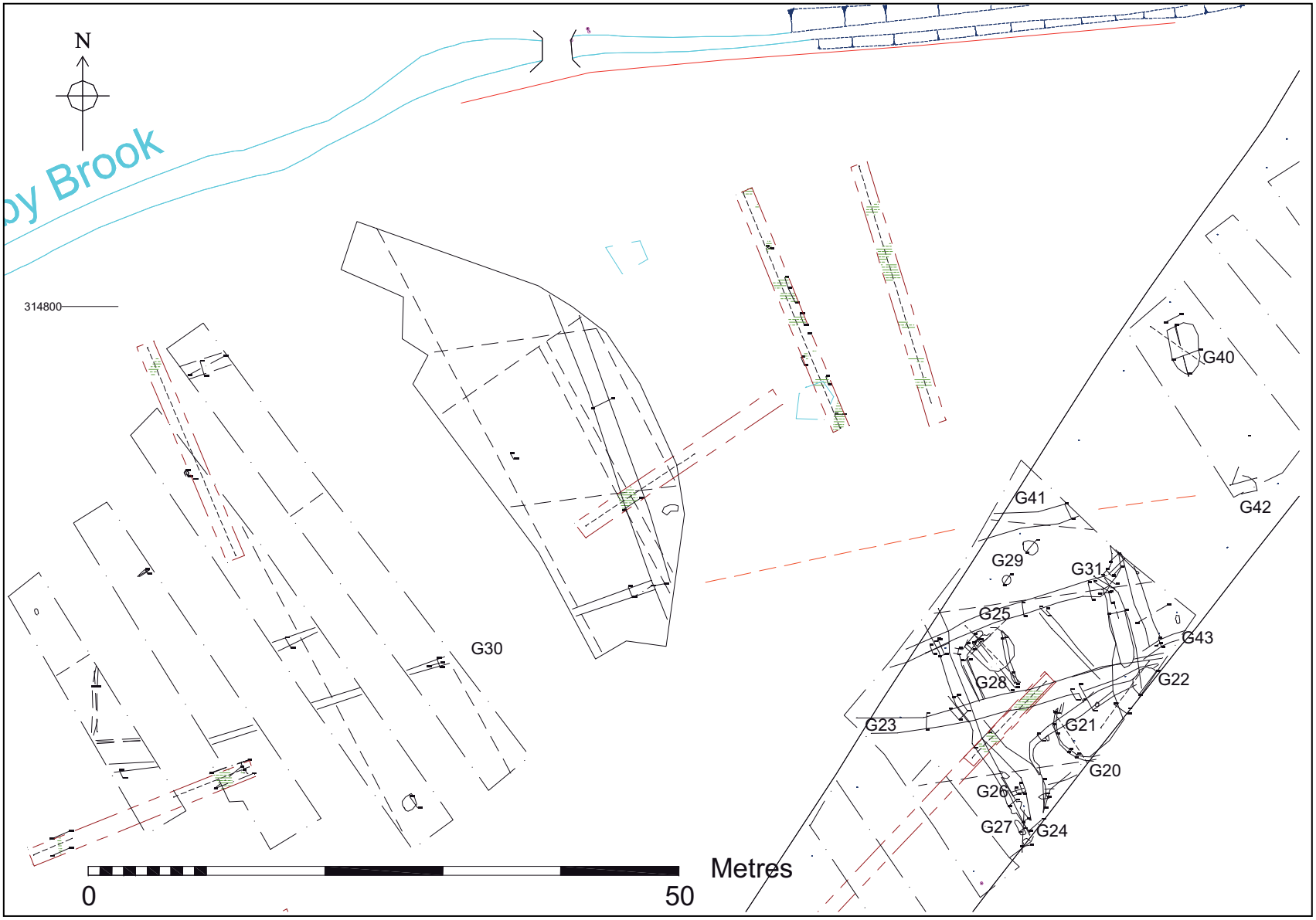

Figure 7: Site 6, Rearsby Bypass.

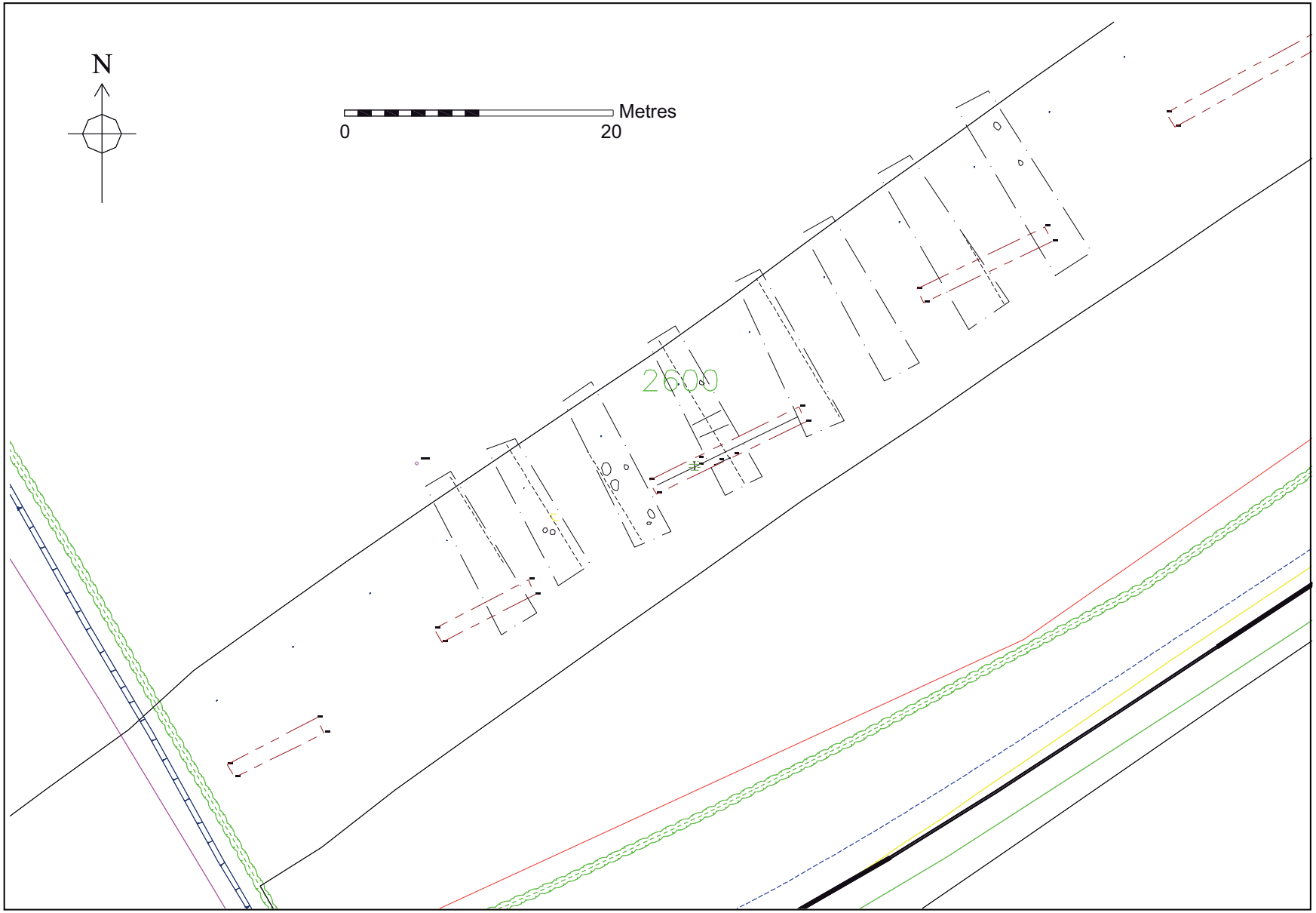

Figure 8: Site 7, Rearsby bypass

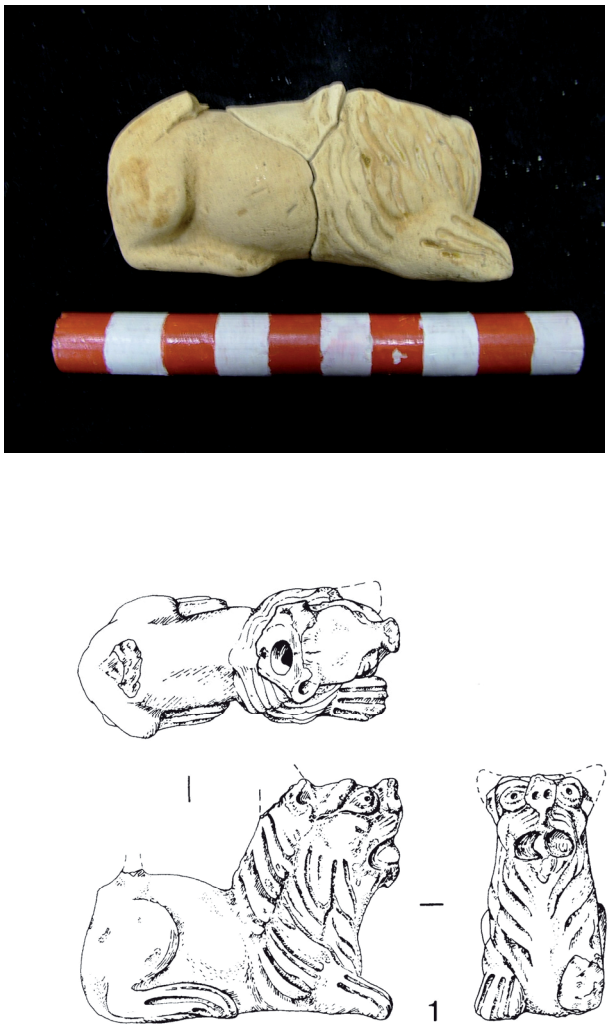

Figure 9: Above, the ceramic lion from Site 6 and below, a similar find from Baldock, Hertfordshire.

(after (Rigby 1986, 234, fig 96.1)

13 Acknowledgements

The fieldwork was directed by Sophie Clarke, supervised by James Harvey, Andy Hyam, and Gavin Speed and managed by Matthew Beamish. Site staff included Steve Baker, Siobhan Brocklehurst, Keith Johnson, Claire Strachan, Dave Parker, Matt Parker, Gerwyn Richards, Dan Stone and Eric Thurston - thanks to all for working hard to excavate and record the archaeology at speed.

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Thanks also to Richard Clark, Senior Planning Archaeologist from Leicestershire County Council for helpful advice and on-site discussions, and also to Diane Wells, for her work as Assistant Planning Archaeologist Leicestershire County Council at the time of the evaluative trenching of the line.

The main site contractors were Mowlem.

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15 Appendix: Gantt Chart