



**ARCHAEOLOGICAL EVALUATION ON LAND AT
GRANDCOURT FARM, MIDDLETON
NORFOLK
(37638 MDT)**

Report No. **97/06**

**ARCHAEOLOGICAL
PROJECT
SERVICES**



**ARCHAEOLOGICAL
EVALUATION ON LAND AT GRANDCOURT FARM MIDDLETON
NORFOLK
(37638 MDT)**

Work Undertaken For
WBB MINERALS

National Grid Reference: TF 67561818 to 67821690
Norfolk County Council Accession Number: 37638MDT

Report Compiled by
Thomas Bradley-Lovekin MA PIFA

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ARCHAEOLOGICAL PROJECT SERVICES
The Old School, Cameron Street, Heckington, Sleaford,
Lincs NG34 9RW

Tel. 01529 461618
Fax 01529 469444
Email info@apsarchaeology.co.uk

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1. SUMMARY

An archaeological evaluation, consisting of twelve trial trenches, was undertaken on land at Grandcourt Farm, Middleton, Norfolk. The trenches were excavated along the line of a proposed quarry haul road in order to enable the Norfolk County Council archaeological curator to determine the archaeological implications of the access route to a proposed quarry extension. The work was undertaken in two stages during October 2004 and June 2006.

Evidence of archaeological remains or activity was found only in Field 6 (Trenches 1 and 4) and Field 13 (Trenches 10 and 11).

Artefacts recovered included worked flint, a single sherd of possible Iron Age pot, iron smelting slag and animal bone.

2. INTRODUCTION

2.1 Definition of an Evaluation

An archaeological evaluation is defined as ‘a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate’ (IFA 1999).

2.2 Planning Background

A planning application for the extension of existing mineral extraction, is under consideration by Kings Lynn and West Norfolk District Council and the archaeological implications of this were the subject of a desk-based assessment (Cope-Faulkner 2002).

Archaeological Project Services (APS) was commissioned by WBB MINERALS LTD to undertake the archaeological evaluation of the site in accordance with the requirements of the planning authority’s archaeological advisors, Norfolk Landscape Archaeology. The project was undertaken in accordance with a specification prepared by APS (Appendix 1) and approved by the Principal Archaeologist, Norfolk Landscape Archaeology.

Twelve evaluation trenches were excavated along the proposed line of a haul road connecting the intended workings to the existing mineral processing plant to the north. The evaluation was undertaken in two phases, with Trenches 1-9 being excavated across Fields 6 and 9-12 between the 18th and 27th of October 2004, whilst trenches 10-12 were excavated within Field 13 between the 28th and 30th of June 2006 (Fig. 3).

2.3 Topography and Geology

Taken together the current quarry and its proposed extensions straddle three parishes, East Winch, Leziate, and Middleton, with the proposed haul road covered by this evaluation crossing the boundaries of all three parishes (Figs. 1 and 2).

It is proposed that the haul road will extend from TF67821690 in the south, northwards to TF67561818 where it will join an existing haul road, giving it an overall length of approximately 1.25km (Fig. 3)

The three parishes are located in northwest Norfolk on gently undulating sandy upland east of the fen basin, the proposed haul road being situated 5.6 km southeast of Kings Lynn town centre (Plate 1).

Local soils are dominated by the Burlingham 1 Association of non-calcareous fine loamy and coarse loamy

soils to the south and to the north, deep sand and peaty soils of the Isleham 2 Association. These soils are developed over a solid geology of Cretaceous Carstone and the Leziat Beds of the Sandringham Sands (GSGB 1978).

2.4 Archaeological Setting

Our understanding of the archaeological setting of the proposed development is developed from desk-based assessment, fieldwalking and metal detecting programmes carried out on the site as part of the client's Environmental Impact Assessment (Cope-Faulkner *et al* 2004). Unfortunately three of the fields to be crossed by the proposed haul road (Fields 6, 11 and 12), could neither be fieldwalked nor metal detected as they were in permanent set-aside and overgrown.

Little evidence of prehistoric activity is known within the vicinity of the proposed development, although isolated finds including worked flint tools, bronze axes and an Iron Age brooch have been found. Seven flint flakes were recovered from fieldwalking within Field 13. Taken together these artefacts indicate casual loss rather than settlement.

Evidence of Romano-British iron working has been found c.500m to the east, where a spread of slag and Roman pottery on the ground surface was excavated to reveal the remains of six shaft furnaces in a hollow backfilled with up to 350 tonnes of iron slag and two large pits, interpreted as quarries for the extraction of ferrous ore (Tylecote and Owles 1960). Archaeological evaluation to the west of the furnace site did not identify any additional Romano-British features (Percival 1999), whilst fieldwalking adjacent to that evaluation, revealed only a low to moderate density of prehistoric to post-medieval artefacts with little Romano-British material being recovered (APSB).

A small concentration of iron slag was found during fieldwalking within Field 13. Although one large piece of slag was possibly of either Late Iron Age or Saxon date, the rest appeared on morphological grounds to be Romano-British, which suggests that further Romano-British iron smelting remains may lie in reasonable proximity to the development site (Cope-Faulkner *et al* 2004, 19)

Other Romano-British material found within the vicinity includes a quern-stone, four brooches, a sword chape, coins and an end loop from a cosmetic mortar. An apparent cluster of artefacts near Tower End, may signify settlement within the vicinity.

Although Anglo-Saxon artefacts are scarce within the locality, it is possible that the parish boundaries which cross the proposed development, and by implication some of the field boundaries, may have been established at this time.

The three parishes are all mentioned in the Domesday Survey of 1086. Referred to as *Eastuwininc*, *Estwinic* and *Estuwinic*, East Winch contained over 37 acres of meadow and a fishery and was held by the King, Roger Bigot and Ralph of Tosney (Brown 1984, 1/132; 9/3,234; 22/20; 66/20,108). Its place name was derived from the Old English *wynnwic* meaning a dwelling with a meadow (Ekwall 1974, 522). Middleton is also Old English in origin, its name being derived from its position between East and West Winch. Referred to as *Mideltuna* in the Domesday Survey, the land was held by Count Alan of Brittany, the Abbot of St. Edmunds, William de Ecouis and Hugh of Montfort and contained 100 acres of meadow, 3 fisheries, 18 salthouses, 2 mills and an unspecified amount of woodland (*ibid.* 4/45; 14/5; 19/4, 6; 23/11). Leziat is referred to as *Lesiet* in the Domesday Survey and was later as *Lesgate* or *Lisegate*, meaning the gate of a LÆS or meadow (Ekwall 1974, 297). Domesday

records the presence of a mill in the parish (Brown 1984, 66/58).

A high status medieval gatehouse, of 15th century date, Middleton Towers stands 600m west of the proposed development. Originally part of a manorial house begun by the seventh Lord Scales, the tower is a Grade 1 listed building whilst the moat and earthworks associated with it form a Scheduled Ancient Monument (APS, 2004, 11).

3. AIMS

The aim of the evaluation was to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits in order to enable the archaeological curator to formulate a policy for the management of archaeological resources present on the site.

4. METHODS

4.1 Trial Trenching

Twelve trial trenches, each measuring 30 x 1.5m, were excavated along the route of the proposed haul road (Fig. 3). A planned additional trench could not be excavated as it lay within the easement of a buried high pressure gas main and the position of another trench (Trench 8) had to be moved slightly for the same reason.

Removal of overburden and ploughsoil was undertaken by mechanical excavator using a toothless ditching bucket (Plate 1). The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. Where present, features were excavated by hand in order to retrieve dateable artefacts and other remains.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with

an individual written description. Each trench was given a unique context number sequence prefixed by its trench number; thus, context (101) is situated in Trench 1 and (12001) in Trench 12. A photographic record was compiled. Sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered was undertaken according to standard Archaeological Project Services practice.

The trenches were located using a handheld global positioning system.

4.2 Post-excavation

Following excavation, all records were checked and ordered to ensure that they constituted a complete Level II archive and a stratigraphic matrix of all identified deposits was produced. Artefacts recovered from excavated deposits were examined and a period date assigned where possible. A list of all contexts and interpretations appears as Appendix 2. Context numbers are identified in the text by brackets. An equals sign between context numbers indicates that the contexts once formed a single layer or feature. Phasing was based on the nature of the deposits and recognisable relationships between them, supplemented by artefact dating.

5. RESULTS

5.1 Description of the results

Archaeological contexts are described below by Trench order. The numbers in brackets are the context numbers assigned in the field. The contexts are described in detail on Appendix 2.

5.2 Results by Trench

Trenches 1 to 4 were located at the northern end of Field 6, within a proposed apron at the southern end of the haul road (Fig. 3).

Trench 1

Two linears, a ditch cut [105] and a gully cut [106], were present within Trench 1. Worked flints of Mesolithic to Bronze Age date were present within the fills of both features (Appendix 3).

A single deposit of soft to moderate natural sand (107) extending across the base of the trench, was overlain in patches by a comparatively thin, 0.12m deep soft mid orange brown sand (101), representing partially transformed natural, mixed with subsoil and containing 8 fragments of worked flint (Fig. 4 and Fig. 6: Section 5).

Ditch [105] cut (101), on an approximate north south alignment (Fig. 4 and Fig. 6: Sections 4 and 5, Plate 2). Concave based, at least 1.5m wide and 1.05m long, [105] contained two fills a soft light orange brown sand basal fill (104), sealed by a moderate mid brown sand upper fill (102), from which two fragments of worked flint were recovered (Appendix 3).

The second linear, gully [106] cut through (102) on a northeast-southwest alignment (Fig. 4 and Fig. 6 Sections 6 and 7, Plate 3). At least 5m long, 0.58m wide and flat based, the gully was filled by a mid to dark greyish brown sand (103), containing two worked flints (Appendix 3).

A single, 0.37m thick, deposit of soft silty sand ploughsoil (100), containing re-deposited worked flint extended across the trench, sealing all the archaeological horizons.

Trenches 2 and 3

No archaeological remains or artefacts were identified in these two trenches. Within Trench 2 a sequence of natural sands (201 and 202) was sealed by a 0.36m thick deposit of silty sand plough soil (200). To the north, within Trench 3, natural silty sand (302) was overlain by a 0.07m thick deposit of sand subsoil (301), which was in turn sealed by 0.40m of silty sand ploughsoil (300).

Trench 4

Although archaeological remains were absent from this trench a quantity of redeposited archaeological artefacts were recovered from recent deposits. Natural sand (402) was sealed by a 0.25m thick deposit of silty sand subsoil (401), containing worked flint and a single sherd of pot of probable Iron Age date (Appendixes 3 and 4). This was, in turn covered by a 0.37m thick silty sand ploughsoil (400), from which fragments of worked flint were recovered (Appendix 3).

Trenches 5 to 9

Archaeological features and artefacts were absent from these five trenches, excavated along a north south transect, forming the route of the proposed haul road across Fields 10 to 12 (Fig. 3).

Within Trenches 5, 6 and 8 natural deposits of sand, silty sand, clay and gravel (501, 601-3, 801-3, and 804) were sealed by 0.28 – 0.45m of silty sand ploughsoil (500, 600 and 800). Subsoil was present only in Trenches 7 and 9 where natural sands (702-5 and 902) were sealed by 0.20 - 0.25m of silty sand (701 and 901) which was in turn overlain by 0.32 – 0.35m of silty sand ploughsoil (700 and 900).

Trench 10

Trenches 10-12 were excavated at the northern end of the proposed haul road within Field 13 (Fig. 3).

Trench 10 was excavated across a large natural undulation or depression in the hill-slope that, on the surface, was barely discernable due to ploughing (Plate 4). Deposits and features survived within the depression as they had not been impacted by the plough (Fig. 5).

Natural sand (10017) was cut by two features, a root disturbance [10004] and the terminal of a steep-sided concave-based cut [10005]. Undated, root throw [10004] was filled with a loose slightly

silty sand (10016) which extended across the trench infilling the depression to a depth of 0.27m. Deposit (10016) was cut by an undated curvilinear ditch cut [10009], which crossed the trench on a north-south to east-west alignment. Concave-based, 0.90m wide and 0.39m deep, [10009] was filled with deposits of clayey sand (10010) and sandy clay (10011), from which fragments of animal bone were recovered (Appendix 4).

Sealing (10016) was a 0.14m thick deposit of sandy plastic clay (10003) which contained fragments of iron slag of Iron Age - Roman or later date and animal bone (Appendix 3). Most probably a gully terminal, [10005] was 0.41m wide, 0.30m deep and contained three clayey sand fills; a primary fill (10006), sealed by (10007), overlain by (10008). A fragment of iron slag was also recovered from (10006) (Appendix 4).

Recent activity within Trench 10 consisted of two land drains ([10012] and [10014]) cutting across the central portion of the trench and deposits of subsoil (10002) and ploughsoil (10001), which sealed all the remains.

Trench 11

A second large depression, similar to that encountered within Trench 10, was present within the central part of Trench 11. Here a sequence of natural sands (11004 and 11005) was sealed to a depth of 0.34m by two colluvial sand deposits (11006 and 11007). Three fragments of worked flint were recovered from (11007), which was in turn overlain by 0.66m of sand subsoil (11008). Taken together these three deposits infilled the depression (Fig. 8: Section 19, Plate 7).

At the southeastern end of the trench natural sand (11011) was cut by an undated southwest-northeast aligned linear [11001], (Fig. 8 Section 18, Plate 6). Concave-based, 0.70m wide and either a ditch or a gully, [11001] was filled by a

single deposit of loose dark greyish brown sand (11002).

At the northern end of the trench natural strata comprised a mixed deposit of sand and sandy silt clay (11010), which was sealed by a sandy ploughsoil (11009) that extended across the length of the trench covering deposits to a depth of 0.44m.

Trench 12

Only a modern agricultural land drain [12003] was present within this trench, where natural sand (12001) was found to be sealed by a 0.40m thick deposit of slightly silty sand ploughsoil (12002).

6. DISCUSSION

The earliest natural deposits of sands, silty sands and clayey sands extended across the site. Natural gravel was encountered only within Trench 8 (Field 11).

Undated activity was restricted to a single root throw [10004], and curvilinear ditch cut [10009] located within a larger natural depression in Trench 10, and a southwest-northeast aligned linear [11001] investigated within Trench 11.

Mesolithic to Bronze Age finds were identified within Trenches 1 and 4 (Field 6) and 11 (Field 13). Within Trench 1 eight fragments of worked flint were recovered from a deposit of sand (101), sealing natural (107). This sand was cut by a north-south ditch [105], the fills of which were cut by a northeast-southwest aligned gully [106]. Fragments of worked flint were recovered from the fills of both these features. However artefacts of such an early date (10000 – 801BC) are commonly found re-deposited within later contexts and it is therefore probable that these deposits are of later date.

Twenty one fragments of worked flint, comprising cores, blades and flakes were recovered from ploughsoil and subsoil within Trench 4 suggesting activity within

the vicinity during the Mesolithic to Bronze Age periods.

Infilled, depressions consistent with natural undulations in the hill slope were identified within Trenches 10 and 11 (Field 13). The depression in Trench 11 was infilled with two colluvial deposits (11006 and 11007), overlain by a sandy subsoil (1108). Three fragments of worked flint recovered from the uppermost colluvial deposit (11007) suggests that this phase of infilling may have occurred during prehistory, although the subsoil may be the result of later ploughing and the finds residual. A single fragment of unstratified flint recovered during the machining of Trench 11 may have been struck by the plough (Appendix 3).

While certain individual pieces of the 39 worked flints from Trenches 1, 4 and 11 are dateable, the collection overall can only be dated broadly between the Mesolithic and Bronze Age periods. A proportion of the knapping 'waste' is characteristic of Mesolithic and Early Neolithic working practices. The good condition of the assemblage suggests that the flints are unlikely to have been recovered far from where they were originally discarded (Appendix 3).

Evidence of Iron Age or later activity was restricted to Trenches 4 (Field 6) and 10 (Field 13). Within Trench 4 this evidence was limited to a single sherd of handmade East Anglian sand-tempered pot, of possible Iron Age date, found redeposited within subsoil (401), which is suggestive only of activity within the general vicinity. Fragments of iron smelting slag, datable only to the late Iron Age, Roman or medieval periods were recovered from two contexts (10003), a deposit, and (10006), the fill of gully terminal [10005], suggesting iron smelting activity within the general vicinity of Trench 10 and correlating with a concentration of slag identified at the southern end of Field 13 during fieldwalking in 2004 (Cope-Faulkner *et al* 2004, 13, Fig.19).

Recent activity was limited to field drains and deposits of subsoil, and plough soil, which extended across the length of the proposed haul road.

7. OVERVIEW

Twelve evaluation trenches were excavated along the line of a proposed quarry haul road at Grandcourt Farm, Middleton, Norfolk as earlier, non intrusive, work on the site including desk-based assessment, fieldwalking and metal detecting programmes carried out as part of the clients Environmental Impact Assessment had indicated the potential for archaeological remains (APS 2004)

The results of the project can be summarised as follows:

Trench 1

Two linears, a ditch cut and a gully, containing worked flint of Mesolithic to Bronze Age date.

Trenches 2 and 3

No archaeological remains present.

Trench 4

No archaeological remains were present although twenty one fragments of worked flint and a single sherd of possible Iron Age pot recovered redeposited within the subsoil and ploughsoil attest to activity in the vicinity within the Mesolithic to Bronze Age and Iron Age or later periods.

Trenches 5 to 9

No archaeological remains present.

Trench 10

A large natural depression, possibly part of the hillslope, contained an undated ditch cut, an undated root throw, and a gully terminal of late Iron Age or later date. Animal bone and fragments of iron smelting slag of late Iron Age, Roman or Medieval date attest to activity within the vicinity of the trench.

Trench 11

A second large depression similar to that encountered within Trench 10 was found within this trench. Fragments of worked flint recovered from its colluvial infilling suggest that it was infilled naturally in the Mesolithic to Bronze Age or later periods. An undated linear was also found.

Trench 12

No archaeological remains present

8. CONCLUSIONS

Following on from earlier non-intrusive programmes of archaeological desk-based assessment, fieldwalking and metal-detecting undertaken within a proposed quarry extension at Grandcourt Farm, Middleton, Norfolk trial trenching was undertaken along the line of a proposed haul road running across the northern part of the application area. This was to enable the Norfolk County Council archaeological curator to determine the archaeological implications of the proposed access route.

Two linears, a ditch cut and a gully, excavated within Trench 1 were found to contain worked flint of Mesolithic to Bronze Age date, although it is probable that these artefacts were redeposited. Worked flint recovered from both Trench 1 and the adjacent Trench 4 suggest activity within the vicinity of these trenches during this period. A single sherd of redeposited pottery of possible Iron Age date was recovered from the subsoil within Trench 4.

Archaeological activity in Trench 10 was limited to an undated linear and a gully terminal and a deposit, datable only on the basis of late Iron Age or later iron smelting slag recovered from them. Trench 11 contained a single undatable linear and colluvial deposits from which several fragments of worked flint of Mesolithic to Bronze Age date were recovered.

9. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Nick Horsley of WBB MINERALS who commissioned this work. The project was coordinated by Tobin Rayner and Steve Malone and this report was edited by Steve Malone and Tom Lane.

10. PERSONNEL

Project Coordinators: Tobin Rayner and Steve Malone

Site Supervisors: Fiona Walker and Thomas Bradley-Lovekin

Site Assistants: Alex Beeby, Jen Hurford, Duncan Alexander and Karon Rosser

Photographic reproduction: Sue Unsworth and Thomas Bradley-Lovekin

CAD Illustration: Thomas Bradley-Lovekin

Post-excavation Analyst: Thomas Bradley-Lovekin

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12. ABBREVIATIONS

- APS Archaeological Project Services
- IFA Institute of Field Archaeologists
- OD Ordnance Datum (height above sea level)

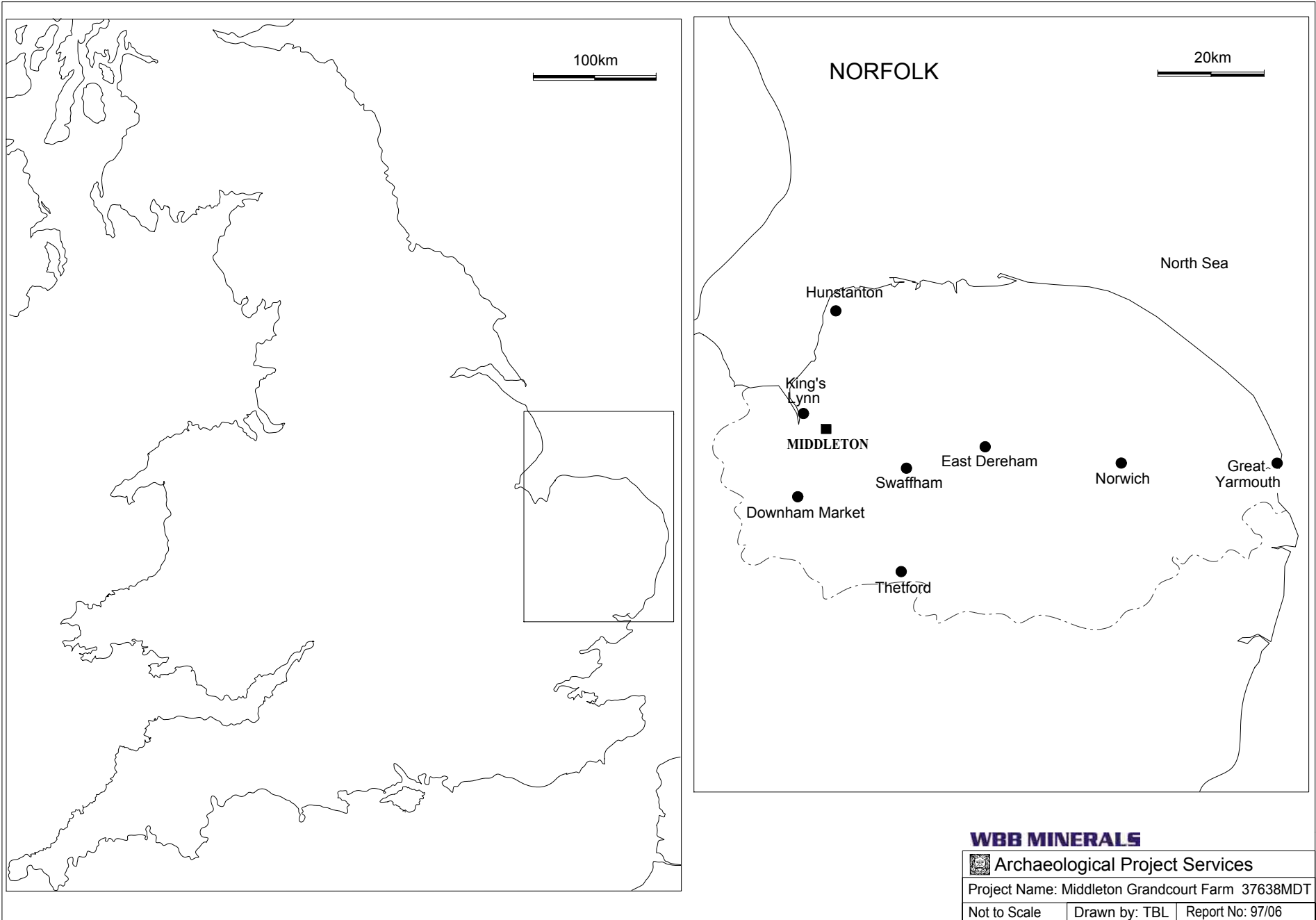


Figure 1: General Location Plan

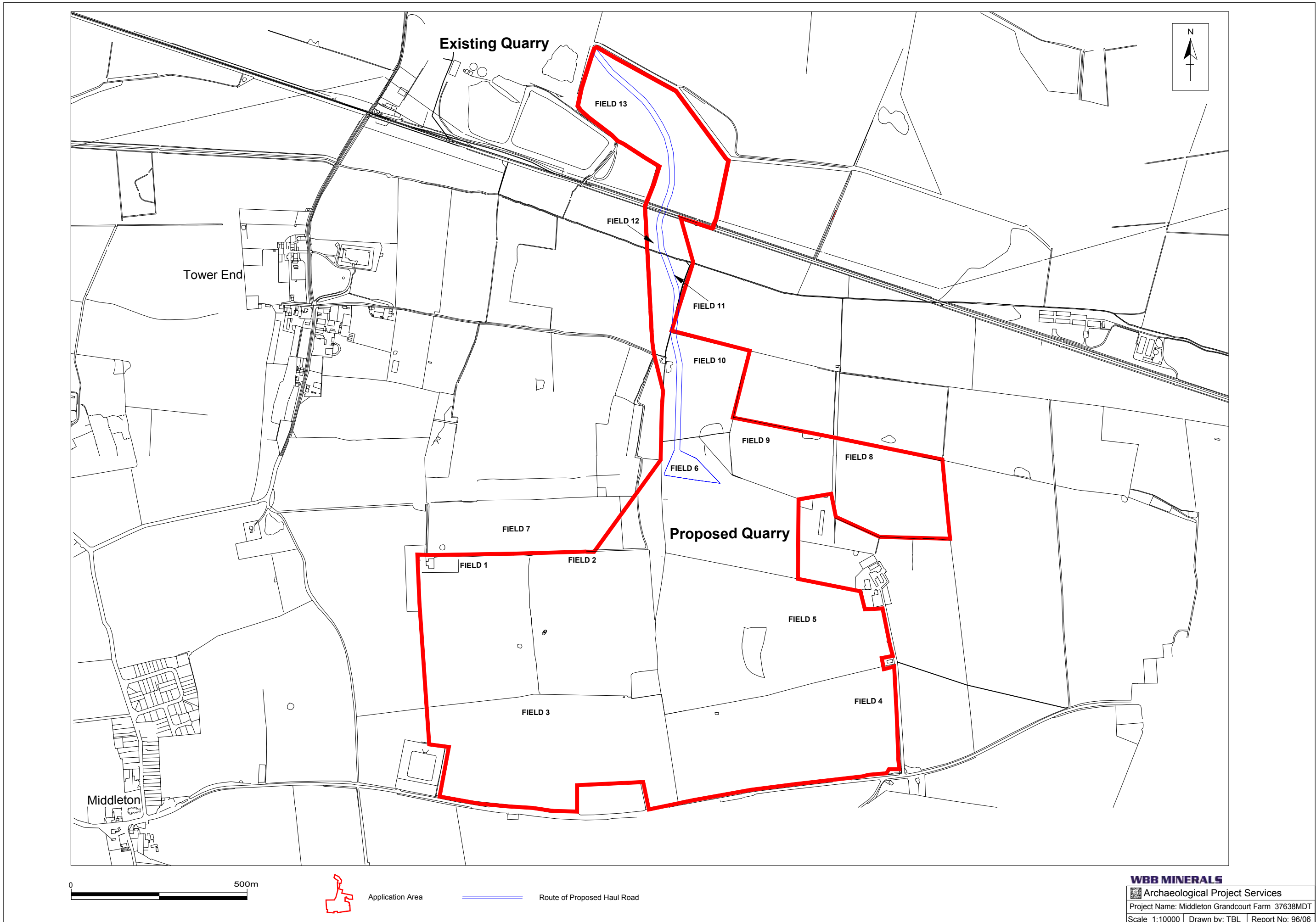


Figure 2 Plan of Proposed Quarry Extension Showing Location of Haul Road

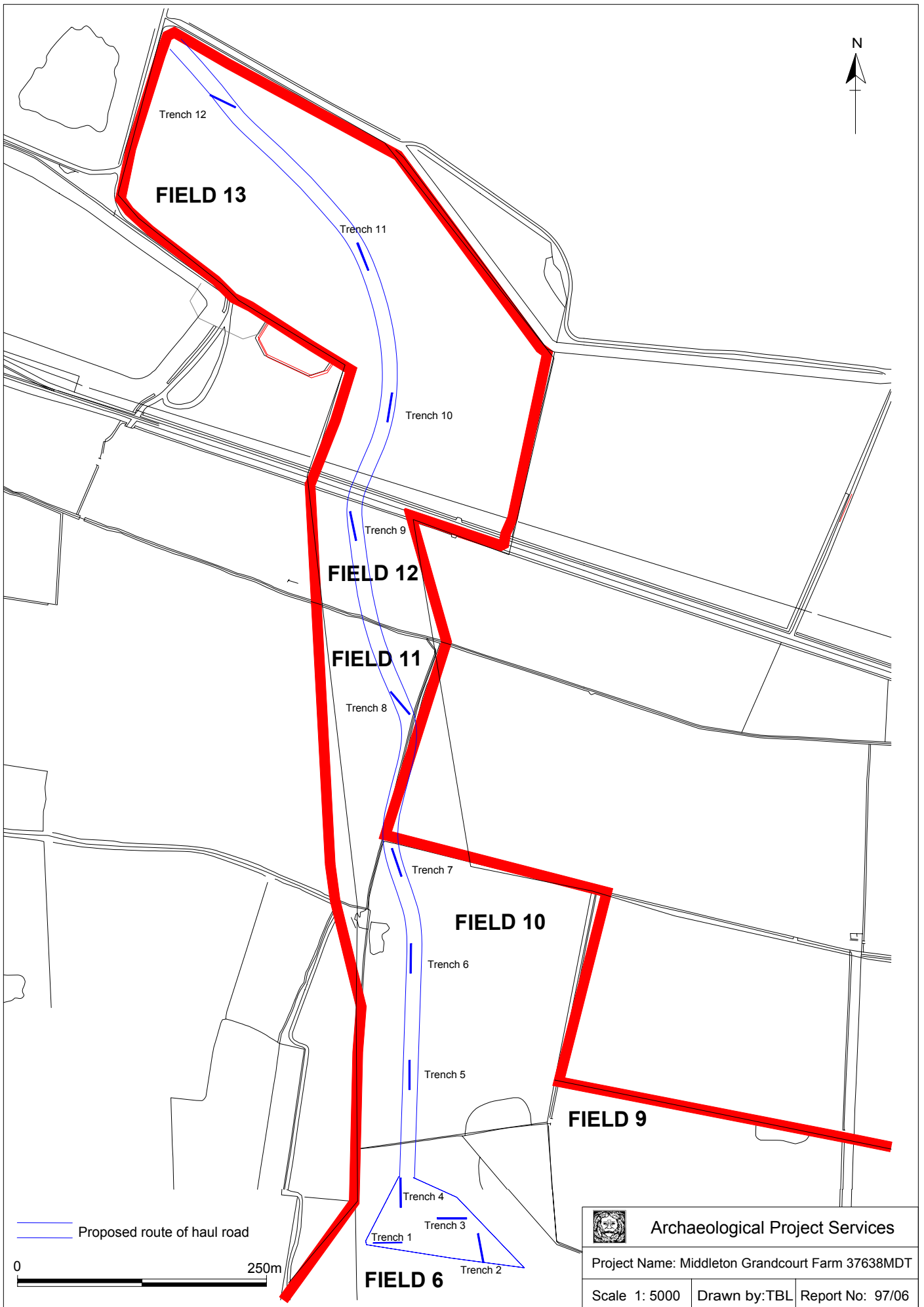
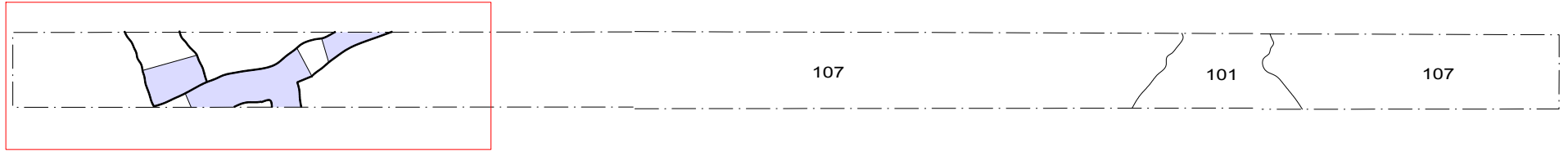


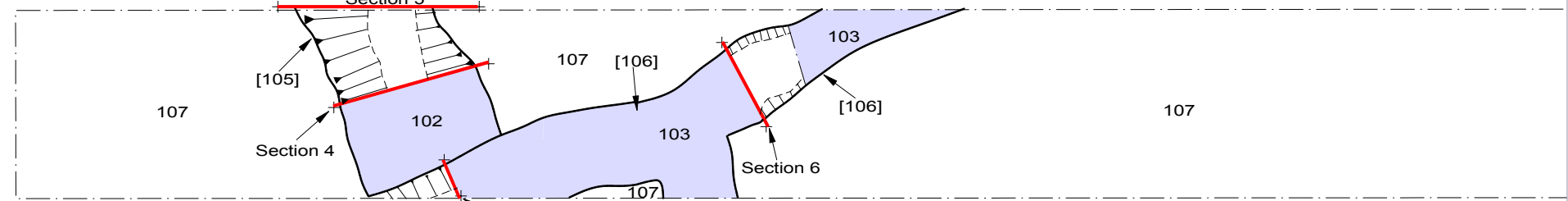
Figure 3 Plan of proposed route of haul road showing trench locations



Area shown in detail below



Overall Plan of Trench 1 Scale 1:125



Detailed plan of western part of Trench 1 Scale 1:50

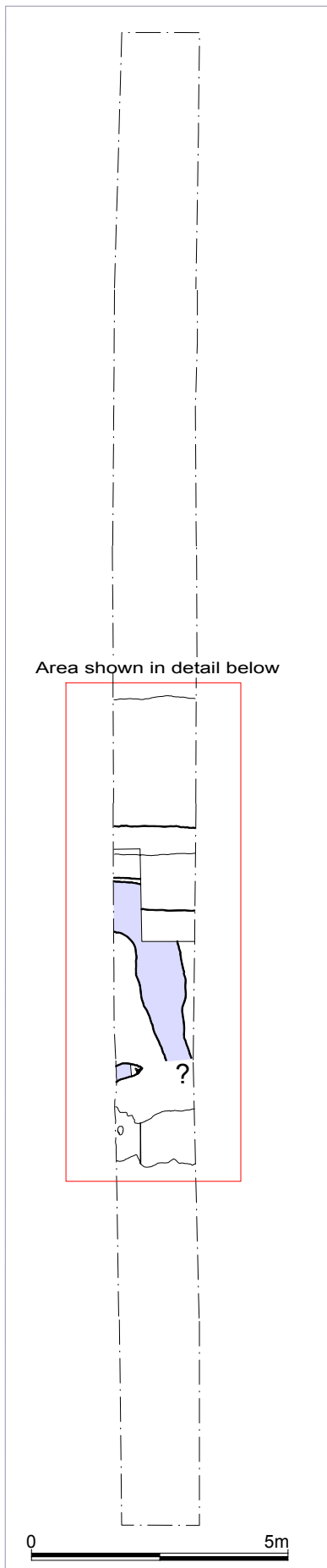


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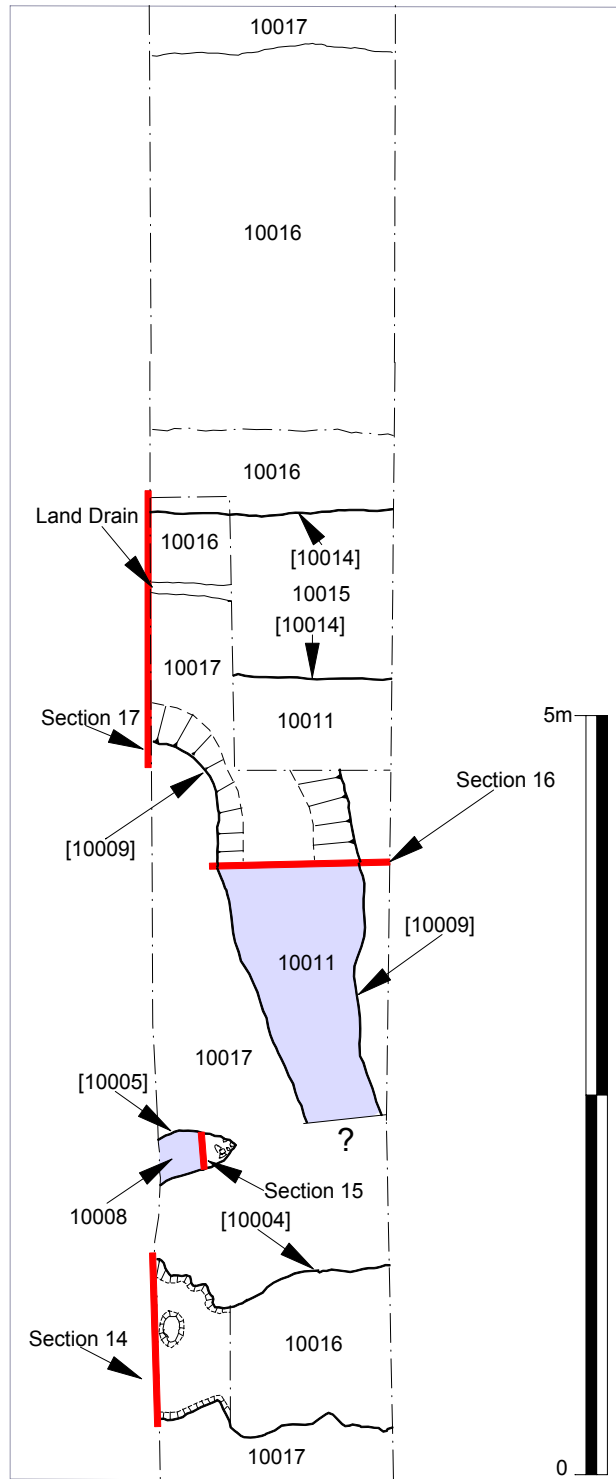
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Figure 4 Plan of Trench 1



Overall Plan of Trench 10 Scale 1:125



Detailed plan of central part of Trench 10 Scale 1:50


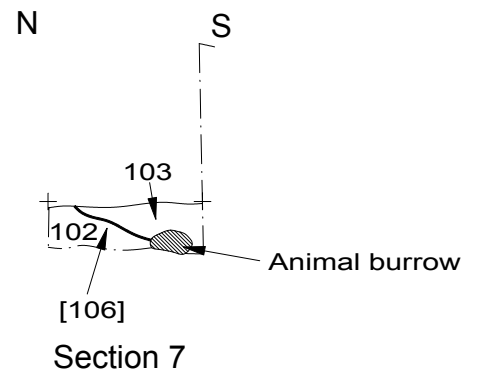
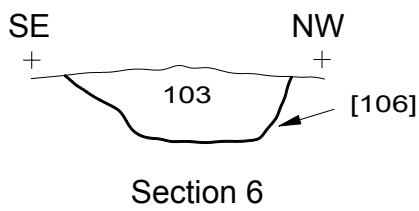
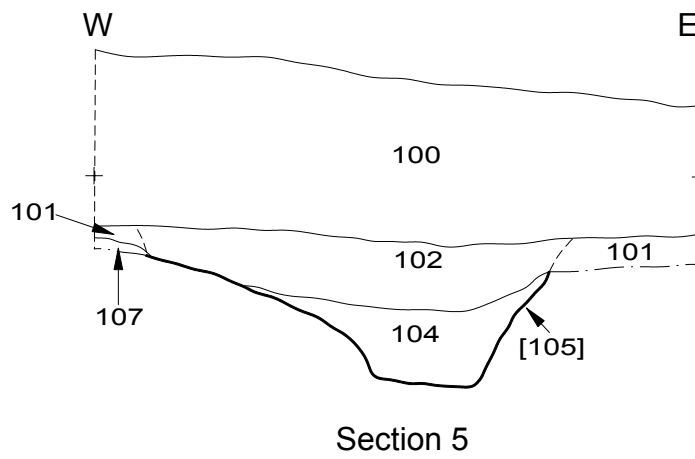
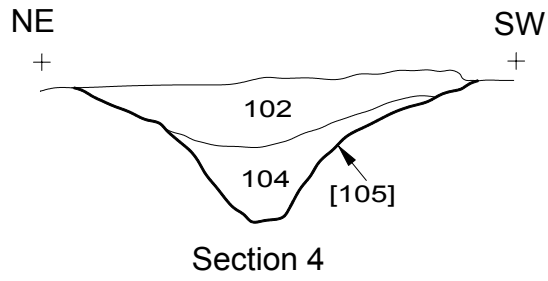
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Figure 5 Plan of Trench 10



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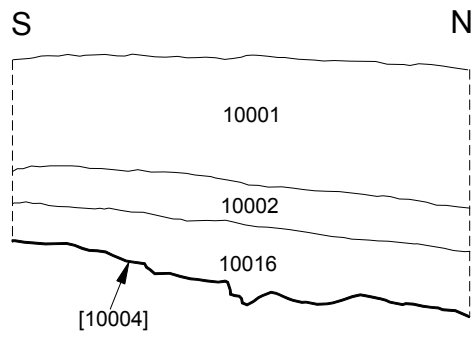
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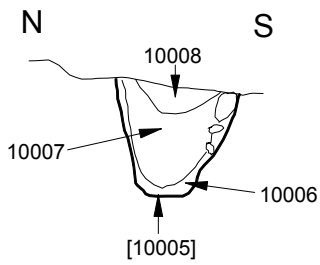
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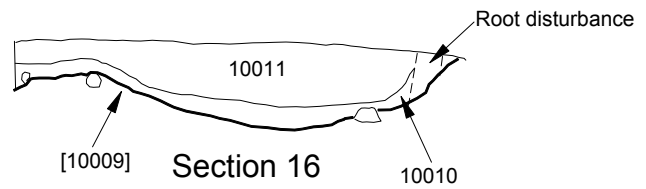
Figure 6 Sections 4-7 (Trench 1)



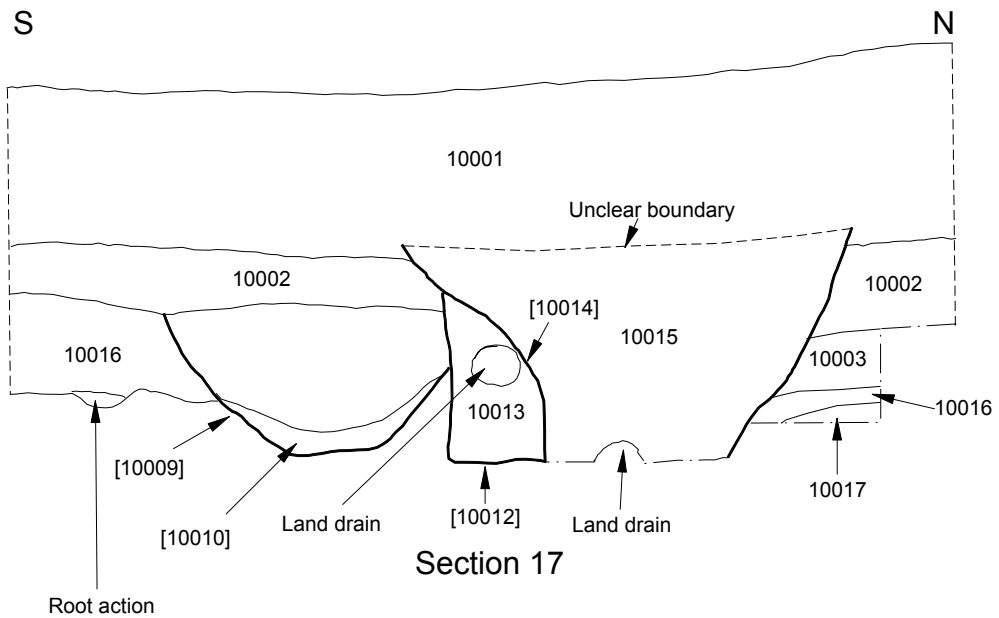
Section 14



Section 15



Section 16



Section 17



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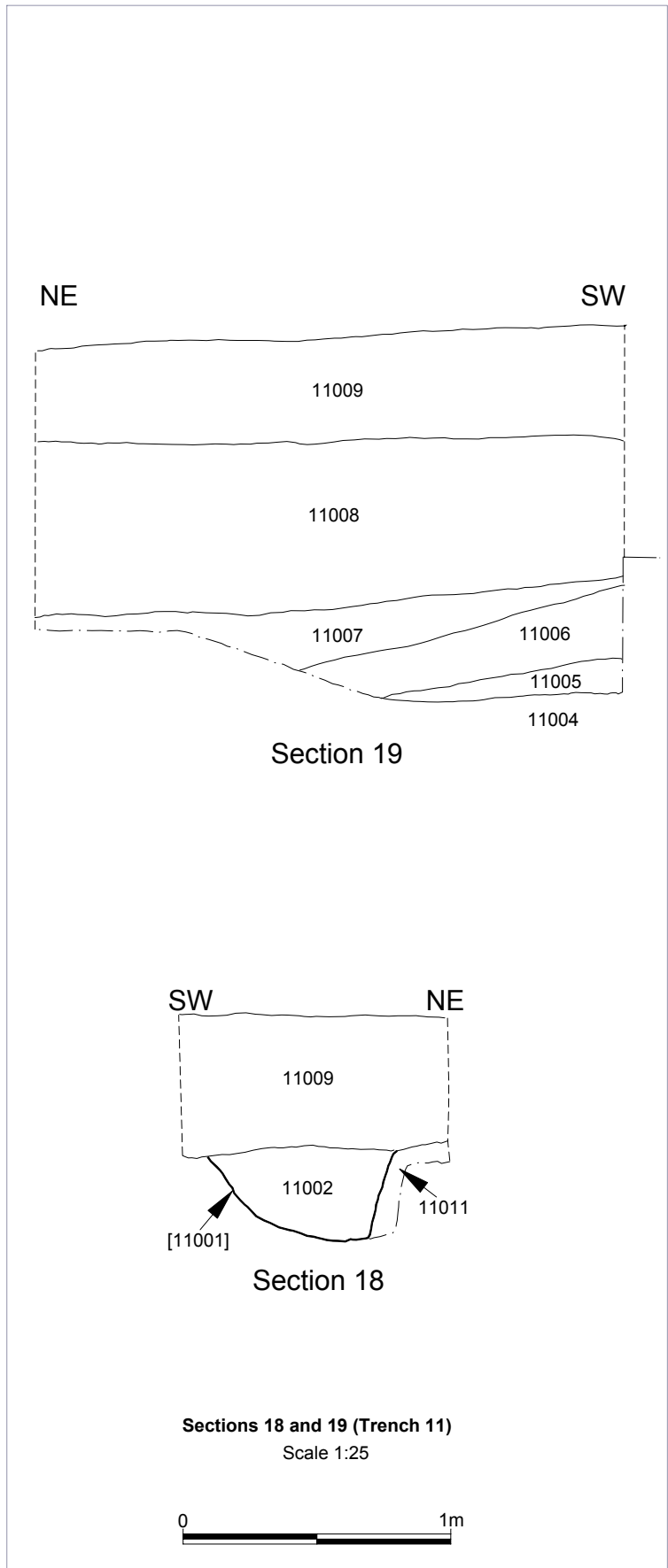
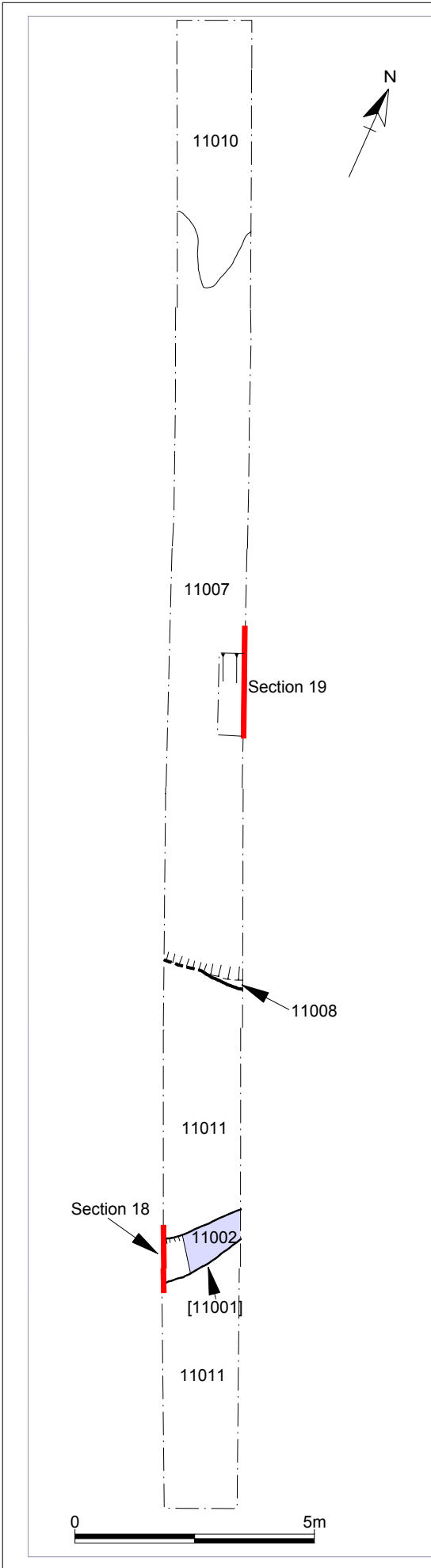
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Scale 1:20

Drawn by: TBL

Report No: 97/06

Figure 7 Sections 14 to 17 (Trench 10)




 Archaeological Project Services		
Project Name: Middleton Grandcourt Farm 37638MDT		
Scales 1:125/ 1:25	Drawn by: TBL	Report No: 97/06

Figure 8 Plan of Trench 11 and Sections 18 and 19



Plate 1 Machining Trench 1



Plate 2 Ditch [105] Section 5



Plate 3 Gully [106] Section 6



Plate 4 South facing view Trench 10



Plate 5 Northwest facing view Trench 11



Plate 6 Linear [11001] Section 18



Plate 7 Trench 11 Section 19



Plate 8 West facing view Trench 12

Appendix 1

Specification for Archaeological Evaluation

1 SUMMARY

- 1.1 *This document comprises a specification for archaeological investigations on the haul road and a 0.9ha area of land immediately to the south at Grandcourt Farm in the parishes of Middleton and East Winch, Norfolk.*
- 1.2 *The work is being undertaken in order to determine the archaeological implications of proposed mineral extraction at the site. Desk-based assessment of the site identified evidence of archaeological sites and finds dating from the prehistoric to medieval periods within the general vicinity, but previous finds within the limits of the proposed quarry are sparse.*
- 1.3 *Geophysical survey, fieldwalking and metal-detecting have been undertaken and defined the archaeological potential of the site.*
- 1.4 *On completion of the fieldwork a report will be prepared detailing the findings of the investigation. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for the archaeological field evaluation of land at Grandcourt Farm in the parishes of Middleton and East Winch, Norfolk. The site is centred on at National Grid Reference TF 679 165.
 - 2.1.1 The document contains the following parts:
 - 2.1.2 Overview
 - 2.1.3 The archaeological and natural setting
 - 2.1.4 Stages of work and methodologies to be used
 - 2.1.5 List of specialists
 - 2.1.6 Programme of works and staffing structure of the project

3 SITE LOCATION

- 3.1 East Winch is located 8.25km southeast of King's Lynn in the administrative district of King's Lynn and West Norfolk, Norfolk. Middleton is located 3km west of East Winch. The proposed quarry lies between East Winch and Middleton and to the west of Grandcourt Farm centred on National Grid Reference TF 679 165 and covers approximately 103 hectares of land.

4 PLANNING BACKGROUND

- 4.1 An extension to existing mineral extraction is under consideration. To that end an Environmental Statement is to be prepared. Archaeological works are being undertaken in order to provide information on the archaeological implications of any such mineral extraction at the site.

5 SOILS AND TOPOGRAPHY

- 5.1 The proposed quarry site is dominated by soils of the Burlingham 1 Association, typically non-calcareous fine loamy and coarse loamy soils (Hodge *et al.* 1984, 132). The eastern edge of the proposed quarry has soils of the Newport 2 Association comprising deep well drained brown and argillic brown sands (*ibid.* 272). These soils are developed upon either glacial boulder clay (till) on the western side of the site or a solid geology of Cretaceous Carstone and the Leziate Beds of the Sandringham Sands (GSGB 1978).

- 5.2 The local topography describes the site as lying on a gentle north-facing slope with a slope also apparent down to the east. Heights range from 43m OD in the southwest corner of the site dropping down to c. 20m at the northeast corner of the site.

6 ARCHAEOLOGICAL OVERVIEW

- 6.1 The archaeological background has been studied in a recent desk-based assessment (Cope-Faulkner 2002). Prehistoric flint tools, a bronze axe and an Iron Age (800 BC – AD 50) brooch have been recorded within the area and are suggestive of casual loss of material. However, none such have been recovered from within the boundaries of the site. Romano-British (AD 50 – 410) finds are also known and an apparent cluster of this material may indicate settlement in the vicinity of Tower End, to the northwest of the proposed quarry.
- 6.2 No Saxon (AD 410-1066) remains are recorded although it is probable that the parish boundary between East Winch and Middleton was formalised at this time.
- 6.3 Medieval and post-medieval remains have been recorded from within the assessment area. Early maps indicate that the proposed quarry site has largely been open ground since the middle of the 18th century, although field names suggest that clay and Carstone was quarried from the fields.
- 6.4 Recent fieldwalking, metal detecting and a geophysical survey, undertaken by Archaeological Project Services, revealed finds of all periods, although these were found in low densities and with the exception of a small concentration of iron slag at the northern end of the proposed haul road, do not appear to form significant clusters or represent evidence of settlement. The iron slag lies in proximity to a known Romano-British iron-working site and suggests the presence of industrial activity within or near this part of the Study Area. Some anomalies, thought to represent agricultural features, and two potential archaeological features were also recorded.

7 AIMS AND OBJECTIVES

- 7.1 The aim of the work will be to gather information in order to assist the archaeological curator in formulating a policy for the management of the archaeological resources present on the site.
- 7.2 The objectives of the work will be to:
- 7.2.1 Establish the type and date range of archaeological activity that may be present within the site.
 - 7.2.2 Determine the likely extent of archaeological activity present within the site.
 - 7.2.3 Determine the spatial arrangement of the archaeological features present within the site.
 - 7.2.4 Determine the extent to which the surrounding archaeological features extend into the application area.
 - 7.2.5 Establish the way in which the archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.

8 TRIAL TRENCHING

8.1 Reasoning for this technique

- 8.1.1 Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.

8.2 General Considerations

- 8.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation.
- 8.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). Archaeological Project Services is an IFA registered archaeological

organisation (no. 21) managed by a Member of the Institute.

8.2.3 All work will be carried out in accordance with *Standards for Field Archaeology in the East of England* (Gurney 2003) and any revisions of such received up to the acceptance of this specification.

8.2.4 Prior to commencement of site operations, Archaeological Project Services will liaise with the Norfolk SMR to ensure that the Site Code and Context Numbering system is compatible with the Norfolk SMR.

8.3 Methodology

8.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. Thereafter, the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.

8.3.2 Open trenches will be marked by hazard tape attached to road irons or similar poles. Subject to the consent of the archaeological curator, and following the appropriate recording, the trenches, particularly those of excessive depth, will be backfilled as soon as possible to minimise any health and safety risks.

8.3.3 The spoil generated during the evaluation will be mounded along the edges of the trial trenches with the topsoil being kept separate from the other material excavated for subsequent backfilling.

8.3.4 The trial trenching will consist of the excavation of thirteen trenches each 30m long x c. 1.8m wide along the route of the haul road and an area of land immediately to the south and equates to a 3% sample. Should archaeological deposits extend below 1.2m augering may be used to determine the depth of deposits.

8.3.5 A metal detector will be used during normal hand excavation in order to maximise artefact retrieval. The spoil heap will also be scanned with a metal detector.

8.3.6 Investigation of the features will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should features be located which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the features.

8.3.7 The archaeological features encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn. All context and site numbering used will be compatible with the Norfolk Sites and Monuments Record.

8.3.8 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at a larger scale.

8.3.9 Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:

- the site before the commencement of field operations.
- the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
- individual features and, where appropriate, their sections.

- groups of features where their relationship is important.
- the site on completion of fieldwork

- 8.3.10 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. The archaeological curator, local environmental health department and, if appropriate, the coroner and the police will be informed. If removal proves necessary, appropriate Home Office licences will be obtained before excavation of human remains commences.
- 8.3.11 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered, ready for later washing and analysis. All finds work will be carried out to accepted professional standards and the Institute of Field Archaeologists *Guidelines for Finds Work* (1992).
- 8.3.12 Any artefacts found during the investigation and thought to be ‘treasure’, as defined by the Treasure Act 1996, will be removed from site to a secure store and the discovery promptly reported to the appropriate coroner’s office.
- 8.3.13 Conservation of artefacts will be carried out by Lincoln City and County Museum. The resources available for conservation is dependent on the quantity and type of artefacts recovered from the site.
- 8.3.14 The precise location of the trenches within the site and the location of site recording grid will be established by an EDM survey or tape survey to established features recorded on Ordnance Survey maps, as appropriate.
- 8.3.15 Samples will be taken from all waterlogged feature fills. Otherwise, samples will be taken from primary and secondary fills of ditches and pits, the level of sampling being appropriate to the content of the individual feature. Samples will be retained from approximately 50% of half-sectioned postholes where they form parts of recognizable structures. All sampling will follow the procedures in *Centre for Archaeology Guidelines - Environmental Archaeology* (English Heritage 2002).
- 8.3.16 Representative samples of structural masonry will be retained. The retention of unworked structural stone and plain ashlar will be determined by the number of geological types present. All dressed, inscribed or moulded stone masonry will be retained except where there are logistical, or archaeological considerations, not to do so.

9 ENVIRONMENTAL ASSESSMENT

- 9.1 If relevant, during the evaluation specialist advice may be obtained from an environmental archaeologist. If necessary, the specialist will visit the site and will prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. The results of any such specialist’s assessment will be incorporated into the final report.

10 POST-EXCAVATION AND REPORT

10.1 Stage 1

- 10.1.1 On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.
- 10.1.2 All finds recovered during the trial trenching will be washed, marked, bagged and labelled

according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum.

10.2 Stage 2

10.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.

10.2.2 Finds will be sent to specialists for identification and dating.

10.3 Stage 3

10.3.1 On completion of stage 2, a report detailing the findings of the evaluation will be prepared. This will consist of:

- A non-technical summary of the findings of the evaluation.
- A description of the archaeological setting of the site - to include results of background research into the history and former land-use of the site.
- Description of the topography and geology of the evaluation area
- Description of the methodologies used during the evaluation and discussion of their effectiveness in the light of the findings of the investigation.
- Text describing the findings of the evaluation.
- Plans of the trenches showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- Sections of the trenches and archaeological features.
- Interpretation of the archaeological features exposed and their context within the surrounding landscape.
- Specialist reports on the finds from the site.
- Appropriate photographs of the site and specific archaeological features.
- A consideration of the significance of the archaeological remains encountered, in local, regional and national terms.

11 ARCHIVE

11.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered in accordance with the procedures in the Society of Museum Archaeologists' document *Transfer of Archaeological Archives to Museums* (1994), and any additional local requirements, for long term storage and curation. This work will be undertaken by the Finds Supervisor, an Archaeological Assistant and the Conservator (if relevant). The archive will be deposited with the receiving museum as soon as possible after completion of the project, and within 12 months of that completion date.

12 REPORT DEPOSITION

12.1 Copies of the investigation report will be supplied to the client, WBB Minerals and to Norfolk Landscape Archaeology.

13 PUBLICATION

- 13.1 A report of the findings of the exvaluation will be submitted for inclusion in the journal *Norfolk Archaeology*. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Post-medieval Archaeology*, *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.

14 SPECIALISTS TO BE USED DURING THE PROJECT

- 14.1 The following organisations/persons will, in principle and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Geophysical Survey	Stratascan
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust Roman: B Precious, independent specialist, or local specialist if required by archaeological curator Anglo-Saxon-medieval: D Hall/ P Blinkhorn/ H Healey independent specialists, or local specialist if required by archaeological curator.
Other Artefacts	J Cowgill, independent specialist

15 PROGRAMME OF WORKS AND STAFFING LEVELS

- 15.1 The site works are timetabled to take about 8 days, depending on the quantity and complexity of archaeological remains encountered.
- 15.2 Post-excavation analysis and report production is expected to take 12-15 person-days within a notional programme of 10 days. A project officer or supervisor will undertake most of the analysis, with assistance from the finds supervisor and CAD illustrator.

16 INSURANCES

- 16.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to ,10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of ,5,000,000. Copies of insurance documentation can be supplied on request.

17 COPYRIGHT

- 17.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 17.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- 17.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any

third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.

- 17.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

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Specification Version 1: 6th October 2004

Appendix 2 Context Summary

Trench 1

Located in Field 6

Context	Description	Depth	Interpretation
100	Soft, mid brown silt sand with occasional small sub-angular flint. Contained worked flints.	0.37m	Topsoil- ploughsoil
101	Soft, mid orange brown sand with occasional small sub-angular flint. Contained worked flints.	0.12m	Partially transformed natural
102	Moderate mid brown sand with small-med sub-angular flint. Contained worked flints.	0.21m	Upper fill of [105].
103	Moderate mid-dark greyish brown mottled sand with occasional small-medium round and sub-angular pebbles. Contained worked flints.	0.20m	Fill of [106].
104	Soft, light orange brown sand with moderate small sub-angular flints and occasional small sub-rounded pebbles.	0.23m	Basal fill of [105].
105	Linear cut, 1.05m wide, at least 1.5m long and concave based. Approximate north-south alignment. Truncated by [106].	0.35m	Ditch/ gully cut
106	Gully cut, 0.58m wide, at least 5m long and flat based. The cut aligned northeast-southwest and cuts fills of [105]	0.20m	Gully cut
107	Moderate, light-mid red brown sand with occasional small-medium sub-angular stones and flints.	0.30m>	Natural deposit

Trench 2

Located in Field 6

Context	Description	Depth	Interpretation
200	Soft, mid brown silty sand with occasional small round and sub-angular pebbles.	0.36m	Topsoil/ ploughsoil
201	Moderate, mixed light grey white and dark brownish/ black sand with mineral depositions and occasional small- medium rounded pebbles.	0.20m>	Natural deposit
202	Soft- moderate, light-mid red brown sand.	0.10m>	Natural deposit

Trench 3

Located in Field 6

Context	Description	Depth	Interpretation
300	Soft, dark grey brown silty sand with	0.40m	Topsoil/ ploughsoil

	occasional small sub-angular and angular flints.		
301	Soft, mixed light- mid brown grey sand with occasional small angular and sub-angular flints.	0.07m	Subsoil.
302	Soft, dark brown (with orange and yellow mottles) silt sand with occasional small sub-angular and angular flints.	Not excavated	Natural deposit.

Trench 4

Located in Field 6

Context	Description	Depth	Interpretation
400	Soft, mid brown silt sand with occasional small angular and sub-angular flints. Contained worked flint.	0.37m	Topsoil/ ploughsoil
401	Soft, dark orange brown silt sand with occasional small angular and sub-angular flints. Deposit 0.25m thick. Contained worked flint.	0.25m	Subsoil.
402	Soft, light orange brown sand with occasional small angular and sub-angular flints	Not excavated	Natural deposit.

Trench 5

Located in Field 10

Context	Description	Depth	Interpretation
500	Loose, mid brown silty sand with occasional small sub-angular flint.	0.44m	Topsoil/ ploughsoil
501	Moderate, light- mid orange brown silty sand with very occasional small sub-angular flints.	0.06m	Natural deposit

Trench 6

Located in Field 10

Context	Description	Depth	Interpretation
600	Moderate, mid brown grey silty sand with occasional small rounded stones.	0.28m	Topsoil/ ploughsoil
601	Moderate, mid orange clay.	0.05m>	Natural deposit
602	Soft, mixture of mid brown, orange, grey and white sands.	0.06m>	Natural deposit
603	Moderate, mid orange, red and brown patches of sand in clay.	0.13m>	Natural deposit

Trench 7

Located in Field 10

Context	Description	Depth	Interpretation
700	Moderate, dark brown silty sand.	0.35m	Topsoil/ ploughsoil.
701	Moderate, mid- dark brown silty sand with occasional patches silty clay and occasional small- medium sub-angular stones.	0.20m	Subsoil.
702	Soft, mixture of light brown yellow and yellow red sand.	0.03m>	Natural deposit.
703	Soft, mixture of mid brown and mid grey sands.	Not excavated	Natural deposit.
704	Moderate, mid reddish yellow brown clayey gravely sand.	Not excavated	Natural deposit.
705	Soft, Mottled dark grey sand with occasional black mineral deposition.	Not excavated	Natural deposit.

Trench 8

Located in Field 11

Context	Description	Depth	Interpretation
800	Moderate, mid brown silty sand with occasional small rounded stones	0.45m	Topsoil/ ploughsoil.
801	Moderate, dark orange brown clay.	0.08m>	Natural deposit
802	Soft, light-mid yellow, orange and white sands.	0.07m>	Natural deposit
803	Soft, mid orange brown gravel.	Not excavated	Natural deposit
804	Moderate, dark brown mixture of silty sand and clay.	Not excavated	Natural deposit

Trench 9

Located in Field 12

Context	Description	Depth	Interpretation
900	Moderate, mid brown, with reddish hue, silty sand with occasional Small sub-angular flints.	0.32m	Topsoil/ ploughsoil.
901	Moderate, mid brown grey silty sand with some clay and occasional Small- medium sub-angular flints.	0.25m	Subsoil.
902	Soft, light brownish yellow clayish sand with occasional Small-medium flint and stones.	0.06m	Natural geology.

Trench 10

Located in Field 13

Context	Description	Depth	Interpretation
10001	Loose, mid to dark brownish grey silty sand, moderate sub-rounded flints	0.51m	Ploughsoil
10002	Loose, mid-brownish grey sand, frequent clay mottling and occasional sub-rounded flints	0.23m	Subsoil
10003	Plastic, dark grey sandy clay, occasional flint. Contained quantities of iron slag	0.14m	Deposit
10004	Irregular, shallow depression, 0.70m wide.	0.06m	Root disturbance
10005	Linear terminal, aligned east-west, concave based and 0.41m wide	0.30m	Gully cut
10006	Light grey/ mottled mid-brownish orange clayey sand	0.04m	Basal fill of [10005]
10007	Friable mid to dark brownish grey clayey sand	0.19m	Intermediate fill of [10005]
10008	Loose dark brownish grey clayey sand	0.07m	Upper fill of [10005]
10009	Curvilinear concave based cut, 0.90m wide turns from east-west to north south alignment.	0.39m	Ditch cut
10010	Light grey/ streaked mid brownish orange clayey sand containing occasional flint fragments	0.07m	Basal fill of [10009]
10011	Plastic, dark grey sandy clay, occasional flint.	0.33m	Upper fill of [10009]
10012	Cut of land drain, 0.25m wide	0.45m	Modern agricultural feature
10013	Plastic, dark grey heavy clay containing frequent charcoal	0.45m	Fill of [10012]
10014	Cut of land drain, 1.29m wide	0.55m>	Modern agricultural feature
10015	Friable, mid to dark grey silty sand, occasional fragments of chalk, flint and charcoal	0.55m>	Fill of [10014]
10016	Loose, mid-brownish grey slightly silty sand, occasional sub-angular flint fragments. Preserved within natural depression/ undulation within hill slope.	0.16m>	Subsoil
10017	Loose, mid orangey brown/ mottled mid to dark brown sand, occasional sub-angular flint fragments	Not excavated	Natural deposit

Trench 11

Located in Field 13

Context	Description	Depth	Interpretation
11001	Linear, aligned east-west concave based and 0.70m wide	0.35m	Ditch/ gully cut

11002	Loose, dark greyish brown sand	0.35m	Fillof [11001]
11003	Unstratified material recovered during machining	-	Unstratified
11004	Loose buff yellowish brown sand, frequent gravel	Not excavated	Natural deposit
11005	Loose medium yellowish brown sand, scarce fine gravel	0.13m	Natural deposit
11006	Loose light greyish brown slightly silty sand, frequent white chalky clay inclusions up to 10-20cm across. Infilling large natural depression.	0.27m	Colluvial deposit
11007	Loose, buff reddish brown sand, containing frequent angular gravel and flints, contained 2 worked flints. Infilling large natural depression.	0.21m	Colluvial deposit
11008	Loose medium yellowish brown sand, moderate degraded chalk, frequent angular gravel. Infilling large natural depression.	0.66m	Subsoil
11009	Loose dark greyish brown sand, frequent angular gravel	0.44m	Ploughsoil
11010	Loose buff yellowish brown sand with fine angular gravel, mixed with patches of fine pale grey sandy silt clay, average size 0.50 x 0.60m	Not excavated	Natural deposit
11011	Very loose buff yellowish brown sand	0.30m	Natural deposit

Trench 12

Located in Field 13

Context	Description	Depth	Interpretation
12001	Loose buff yellowish brown sand, frequent angular gravel	0.05m	Natural deposit
12002	Loose dark greyish brown slightly silty sand, frequent angular gravel	0.40m	Ploughsoil
12003	Cut of land drain, 0.25m wide	Not excavated	Modern agricultural feature
12004	Loose medium greyish brown sand	Not excavated	Fill of [12003]

Appendix 3

An Archaeological Evaluation at Middleton Court Farm Quarry, Norfolk

Site Code: 37638 MDT

Lithic Assessment

Barry Bishop July 2006

Introduction

An Archaeological Evaluation at the above site recovered 39 struck flints and one burnt flint fragment. This report quantifies the material by context according to a basic technological/typological scheme (see Table 1), assesses its ability to contribute to further understanding of the nature and chronology of the activities identified during the project, and recommends any further work required. The size of the assemblage precludes detailed technological or metrical analyses. All metrical descriptions follow the methodology of Saville (1980).

Quantification

Context	Context Type	Decortication Flake	Crested Blade	Core rejuvenation	Flake	Blade-Like Flake	Blade	Chip / Trimming Flake	Flake Fragment	Core	Scraper	Natural	Comments / Size (L X B X W: mm)
100	Ploughsoil										1		end-and-side 43X40X18
101	Subsoil	1											57X25X7
101	Subsoil					1							25X14X3
101	Subsoil						1						28X14X2
101	Subsoil					1							25X13X4
101	Subsoil					1							18X10X2
101	Subsoil					1							24X18X3
101	Subsoil	1											Broken
101	Subsoil				1								34X37X11
102	D105						1						Broken bladelet
102	D105						1						Broken
102	D105	1											25X20X4
103	G106							2					
400	Ploughsoil									1			Pyramidal A1 blade 30.3g
400	Ploughsoil						1						Burnt 40X19X5
400	Ploughsoil					1							42X33X8
400	Ploughsoil					1							Broken
400	Ploughsoil	1											30X23X8
400	Ploughsoil				1								26X23X5
401	Subsoil						1						43X13X3
401	Subsoil		1										68X28X13
401	Subsoil	1											43X40X10
401	Subsoil						1						Broken
401	Subsoil						1						40X11X5
401	Subsoil	1											Broken
401	Subsoil					1							37X24X6
401	Subsoil								1				Burnt
401	Subsoil	1											43X25X9
401	Subsoil						1						Broken

Context	Context Type	Decortication Flake	Crested Blade	Core rejuvenation	Flake	Blade-Like Flake	Blade	Chip / Trimming Flake	Flake Fragment	Core	Scraper	Natural	Comments / Size (L X B X W: mm)
401	Subsoil						1						37X14X5
401	Subsoil					1							28X25X5
401	Subsoil						1						Broken
401	Subsoil							1					
401	Subsoil			1									Irregular core tablet 30X13X4
10003												1	
10011												1	Burnt 12g
11003	+				1								Possibly plough strike
11007	Colluvium	1											18X20X2
11007	Colluvium				1								Mis-hit 13X29X3
11007	Colluvium				1								33X16X2
Total		8	1	1	5	8	10	3	1	1	1	2	
% Struck		20.5	2.6	2.6	12.8	20.5	25.6	7.7	2.6	2.6	2.6		

Table 1: Quantification of Lithic Material by Context

Raw Material

All of the struck material was manufactured from flint. It predominantly consisted of a semi-opaque and slightly mottled light to mid grey flint, with some pieces of translucent black flint also present. Cortex, where present, consisted of a rough abraded chalky kind with frequent heavily recorticated thermal facets and occasional patches of 'chattermarking' from battering of the cobbles. It was obtained from derived sources, probably glacial deposits, and would be easily available in the vicinity of the site. The size of the resultant struck flint would suggest that the materials used consisted of smallish cobbles, the largest struck piece measured 68mm in maximum dimension although very few pieces attained 50mm in length.

Condition

The assemblage was predominantly in a good, sharp, condition and was likely to have been recovered from close to where it was originally discarded. The pieces from the ploughsoil or unstratified contexts did show some minor chipping and abrasion to their thinner edges, but this was minimal and it is unlikely that they had suffered for long in the plough zone or had experienced any extensive post-depositional transport. A few pieces showed the earliest signs of recortication.

Typology, Technology and dating

No truly typologically diagnostic pieces were present, the only retouched piece consisting of an end-and-side scraper that could only be confidently dated to the Mesolithic to Bronze Age periods. However, the assemblage appeared technologically homogeneous and was

characterized by a systematic blade-based reduction strategy. The only core recovered consisted of a single platformed blade core of Clark *et al.*(1960) type A1 and was approximately pyramidal in shape. A concern with core maintenance was evidenced by the presence of a core rejuvenation flake. There were a high proportion of blades present, all with parallel margins and dorsal scars and with narrow, frequently edge-trimmed, striking platforms. These were complemented by a number of usually narrow and thin flakes with blade characteristics (ie parallel lateral margins and dorsal scars). The assemblage also contained high proportions of knapping 'waste', including decortication flakes and crested blades, the latter designed to initiate the production of blades. Such technological attributes are characteristic of Mesolithic and Early Neolithic industries. Although the absence of chronologically diagnostic implements, such as microliths or leaf-shaped arrowheads, means that further chronological refinement cannot be confidently made, the presence of crested blades and a pyramidal shaped core would tentatively suggest a Mesolithic date more likely. Overall, the presence of knapping waste and the near absence of retouched implements would suggest that the principal activities represented included the primary reduction of probably locally obtained raw materials, with the more useful pieces being removed for use elsewhere.

Contextual Considerations

Trench 4 had largest assemblage with the material from the ploughsoil contexts indistinguishable from that from the subsoil. Despite the absence of refittable pieces, it is likely that the material represents the reduction of only a few cores.

Trench 1 produced an assemblage technologically indistinguishable from that of Trench 4 and appeared to be broadly part of the same occupation and represent similar types of activity. The pieces recovered from gully and ditch were of the same technological attributes to those from the subsoil and, although in good condition, residual deposition remains a possibility.

No struck material was recovered from Trench 10, only a burnt flint fragment of indeterminate date.

Trench 11 produced a thick, badly struck, primary flake from unstratified contexts which has the appearance of a 'mechanically' struck flint such as from a plough-strike.

Discussion

Although from mostly unstratified contexts, the assemblage was homogeneous and well preserved and, if not *in situ*, was likely recovered from close to where it was originally discarded.

The assemblage was not large, perhaps indicating that activity consisted of little more than a series of probably discrete knapping episodes of short duration, involving the primary

reduction of flint with useful pieces being removed for use elsewhere. As such, it would appear to represent a single task-specific point of activity in a wider landscape of inhabitation. The site is located close to edge of the Fens and the low-lying Nar valley. Occasional findspots of Mesolithic material for the general area are detailed by Wymer (1977) but until recently little has been found close to the site, the nearest findspot given by Wymer being at Setchley, c.4.5km to the southwest (*ibid.*, 125). Nevertheless, the Fen edge has recently been revealed as extensively exploited during the Later Mesolithic and Early Neolithic periods (Silvester 1991; Healy 1996) and the material here likely to fall in to the patterns of mobile activity within this varied zone.

Bibliography

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Appendix 4

THE FINDS

by Paul Blinkhorn, Jennifer Kitch, Jane Cowgill and Gary Taylor

Recording of the pottery was undertaken with reference to guidelines prepared by the Medieval Pottery Research Group (Slowikowski *et al.* 2001). Two fragments of pottery weighing 29g were recovered from 2 separate contexts. In addition to the pottery, a small quantity of other artefacts, mostly industrial residue, comprising 19 items weighing a total of 1172g, was retrieved. Faunal remains were also recovered.

The excavated animal bone assemblage comprises 13 stratified fragments of bone weighing 233g. The animal bone was identified by reference to published catalogues. No attempt is made to sex or age animals represented within the assemblage, although where this is readily apparent is noted in the comments column.

Provenance

The material was recovered from a deposit (10003), ditch/gully fills (10006, 10011), land drain fill (10015), subsoil (401, 10016) and as unstratified finds (11003).

Range

The range of material is detailed in the tables.

Table 1: Pottery

Context	Description	No.	Wt (g)	Context Date
401	Handmade East Anglian sandy ware	1	24	Iron Age?
10015	Blue and white transfer printed tableware	1	5	19 th century

A fragment of a handmade vessel in a sandy fabric was recovered from (401). This is probably Iron Age, but has resemblances to Saxon pottery.

Table 2: Other Artefacts

Context	Material	Description	No.	Wt (g)	Context Date
10003	Slag	Iron smelting slag	16	936	
10006	Slag	Iron smelting slag	1	90	
10015	CBM	Field drain	1	43	Post-medieval
11003	Glass	Very dark olive green bottle base, steep kick-up	1	103	19 th century

A small quantity of iron smelting slag was recovered, mostly from (10003). This material has lost most of its characteristic flowed surface, perhaps due to being in an environment that had a fluctuating water table. Due to this degradation the slag is not particularly characteristic and could date from the late Iron Age, the Roman or medieval periods, but probably not Saxon.

Table 3: The Faunal Remains

Context	Species	Bone	No.	Wt (g)	Comments
10003	Pig	Scapula	1	3	
	Large Mammal Size	Ulna	1	10	
10011	Large Mammal Size	Radius	1	16	Broken into two. Cut marks on the shaft
10016	Pig	Mandible	1	39	
	Equid	Radius	1	161	Fragmentary
	Unidentified	Unidentified	8	4	

Condition

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

Documentation

There have been previous archaeological investigations at Middleton, including in close proximity to the site, that are the subjects of reports. Additionally, there has been reported study of the archaeological and historical evidence for the site and its environs. Details of archaeological sites and discoveries in the area are maintained in the Norfolk County Council Historic Environment Record.

Potential

In general, the assemblage is of limited local potential and significance. Iron slag occurs widely and in quantity in the Middleton area and the small amount recovered here is perhaps just background scatter from smelting elsewhere in the vicinity, though the moderate collection from (10003) may indicate this context has some association with the iron production process. If so, this is perhaps of moderate local potential. The single prehistoric (or Saxon) pottery fragment is also of note.

The lack of occupation debris suggests the site has never seen formal habitation.

References

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

Appendix 5

GLOSSARY

Alluvium	Deposits laid down by water. Marine alluvium is deposited by the sea, and fresh water alluvium is laid down by rivers and in lakes.
Anglo-Saxon	Pertaining to the period when Britain was occupied by peoples from northern Germany, Denmark and adjacent areas. The period dates from approximately AD 450-1066.
Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, e.g. [004].
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, etc. Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Domesday Survey	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
Mesolithic	The 'Middle Stone Age' period, part of the prehistoric era, dating from approximately 12500 - 4500 BC.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock that have accumulated without the influence of human activity
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500 - 2250 BC.
Post hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.

Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany
Till	A deposit formed after the retreat of a glacier. Also known as boulder clay, this material is generally unsorted and can comprise of rock flour to boulders to rocks of quite substantial size.

Appendix 6

THE ARCHIVE

The archive consists of:

48	Context records
22	Scale drawing sheets
11	Daily record sheets
3	Trench sheets
3	Photographic record sheets
2	Section register
1	Plan register
4	Level sheets
1	Box of finds

All primary records and finds are currently kept at:

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

The ultimate destination of the project archive is:

Norfolk Landscape Archaeology
Norfolk Museums Service
Union House
Gressenhall
Dereham
Norfolk
NR20 4DR

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

Lincolnshire City and County Council Museum Accession Number: 37638MDT

Archaeological Project Services Site Code: MGFA04

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

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