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NORTON BIG WOOD, NORTON DISNEY, LINCOLNSHIRE

ARCHAEOLOGICAL SURVEY OF PROPOSED RECHARGE TRENCH LINE

Produced by **OAA**
under the direction of

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Commissioned by
Ready Mixed Concrete (UK) Limited
on behalf of
Butterley Aggregates Limited

October 1994

A Company Limited by Shares in England No. 2120173
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INTERNAL QUALITY CHECK

Report Reference:	J0144/T04/RMC/NRT/APJ		
Primary Author:	SNC (COPY)	Date:	13/1/95
Checked by:		Date:	
Checked by:		Date:	
Further corrections:		Date:	

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CONTENTS

1. INTRODUCTION

1.1 Following geophysical evaluation of the main Development Site (quarry site) at Norton Big Wood, Norton Disney, Lincolnshire, Oxford Archaeological Associates Limited were commissioned by the RMC Group, on behalf of Butterley Aggregates Limited, to undertake a first stage survey of the line of the recharge trench through woodland to the north.

1.2 The proposed line of the trench, and of the 10 m corridor of woodland clearance, is shown in red in Fig.1. The line is approximately 275 m long.

1.3 The main objective of the archaeological survey was the recognition, by means of visual surface observation and minor subsurface observation, of any significant earthworks or debris which might be disturbed by the construction of the recharge trench. A secondary objective involved the recovery of any information concerning landscape history that might be available along the route.

2. PROCEDURES

2.1 The survey was carried out by Dr. S.N. Collcutt on the 21st. October, 1994.

2.2 Positional control was achieved by means of compass and tape measure. The accurately surveyed base plan (Fig.1) showed sufficient hard features (drains, tracks, coniferous/deciduous boundary) for precision to be maintained at a satisfactory level during the archaeological survey.

2.3 Eight traverses were made through the woodland, parallel to the trench line and at 5 m lateral intervals, producing an observation corridor 40 m wide, centred upon the trench line. Two further traverses were made 25 m east and west of the main observation corridor.

2.4 Surface visibility was good, especially within the pine plantation (west); only in relatively small patches within the birch scrub (east) did undergrowth restrict visibility slightly. The mineral surface lay below an organic mat, some 10-25 cm in depth, with the greatest thicknesses within the pine plantation. Only at very restricted locations (principally along unmetalled and slightly entrenched tracks) was the mineral deposit observable over significant areas. A badger sett was present under deciduous woodland well to the east of the trench line but, otherwise, no burrowing activity was observed, nor were raw treefall depressions present. The existing ditches, at the southern and northern ends of the survey line, were water-filled to a level some 1.3 m below the surrounding land surface. Light levels were relatively strong and the weather was fine.

2.5 During the two central traverses, and at other selected points during the survey, magnetic susceptibility readings were taken at 10-15 m intervals (but not individually logged) using a Bartington Instruments MS2 meter with an 18.5 cm loop, both at the organic surface and (after removal of the latter) at the underlying organic/mineral boundary zone, and occasionally deeper into the mineral. Susceptibility readings were also taken by 10 mm probe on samples retrieved by augering (60 mm Dutch head) of ridge earthworks (see below).

3. OBSERVATIONS & LANDSCAPE INTERPRETATION

3.1 No discrete earthworks (such as mounds, pits, ditches or major banks) were observed at any point within the area surveyed. Even recent woodland management features were of very low density. The two drains at the terminations of the survey line showed signs of frequent cleaning, with the debris usually spread out in wide flanking zones rather than concentrated in formal banks; culverts along the drain lines were constructed of relatively modern brick. Woodland compartmentalisation had formerly been achieved by means of fencing (now mostly defunct but of a broadly modern type).

3.2 No artefacts (beyond a few modern metal objects and fence stakes) were observed, nor were there any exotic materials (no even as part of track consolidation). No concentrated charcoal or other evidence of burning was noted, although small and rare charcoal flecks were dispersed throughout the organic topsoils. Susceptibility readings showed no foci of raised magnetic activity.

3.3 Since no archaeological 'sites' were apparent along the survey line, the remainder of these observations will be framed in terms of landscape history.

3.4 The immediate substrate in this area is an amorphous gravelly sand or sandy gravel, with no surviving depositional structure.

3.5 In the absence of formal built features, no undisturbed buried surfaces could be observed. However, the earliest evidence from the vicinity would appear to be traces of ancient soil profiles, always quite strongly truncated by later arable

activity (see below). These soils were podzolic in character and, in two augered samples, showed traces of a truly 'ashy' eluvial horizon (with magnetic susceptibility very close to zero), suggesting a heathland environment.

3.6 The next phase of activity consisted of ridge and furrow cultivation. Only minimal traces were observed to survive very close to the eastern edge of the pine plantation, areas deeper into the pines (to the west) and under the birch scrub (to the east) having been disturbed by later activity. The best survival occurred at a point very close to the northern end of the survey line, where approximately 15 m lengths of three contiguous ridges were observed, set at a frequency of c.8 m (i.e. 'broad rig') on an east-west orientation, with a surviving surface amplitude of c.1 m. Elsewhere along the plantation margin, there was only patchy survival of low swells on the same orientation and apparently at a similar frequency. No headlands or other indication of plot boundaries were observed.

3.7 Augering through the maximum thickness of ridges showed up to 55 cm of homogenised gravelly sandy loam, before the traces of earlier podzolic soils (noted above) were encountered. Observation with a hand lens (x 20) of a number of samples showed no intrusive material beyond rare charcoal flecks. However, the magnetic susceptibility of the ridge material reached 15-22 (x 10^{-5}) SI volume susceptibility units, the highest values noted during the survey; it seems likely that these values represent the signal of the original arable activity which has at least partially survived subsequent acidification and leaching.

3.8 The next phase consisted of deciduous woodland, dominantly beech and oak, with birch probably representing a spontaneous invader wherever/whenever clearings occurred. The stumps of mature trees were present in the areas of surviving ridge

and furrow within the pine plantation. Further east, beyond the zone of birch scrub, the mature deciduous woodland survived intact. Under this intact woodland, susceptibility levels at the organic/mineral contact reached 10-15 SI units, lower than the levels noted for the ridge material (see above) from the preceding arable phase.

3.9 The next phase consisted of ploughing (single deep-cut 'narrow rig' with a frequency of c.2 m) in preparation for regular plantation within the western half of the survey area. The orientation was southwest-northeast, and this ploughing usually destroyed the earlier 'broad rig' and, presumably, removed deciduous tree stumps. Pines were then planted in lines approximately along ridge crests. From the size of the pines, this plantation would not appear to be particularly old (perhaps less than 40 years), although no documentary of verbal evidence is available on this point. The magnetic susceptibility profile within the plantation (in areas where the 'broad rig' had been destroyed) showed a peak of 4-6 SI units at the organic/mineral transition, falling to only 2-3 units in the subsoil.

4. CONCLUSIONS

4.1 No trace of archaeological 'sites' or significant stray artefacts were noted during the present survey.

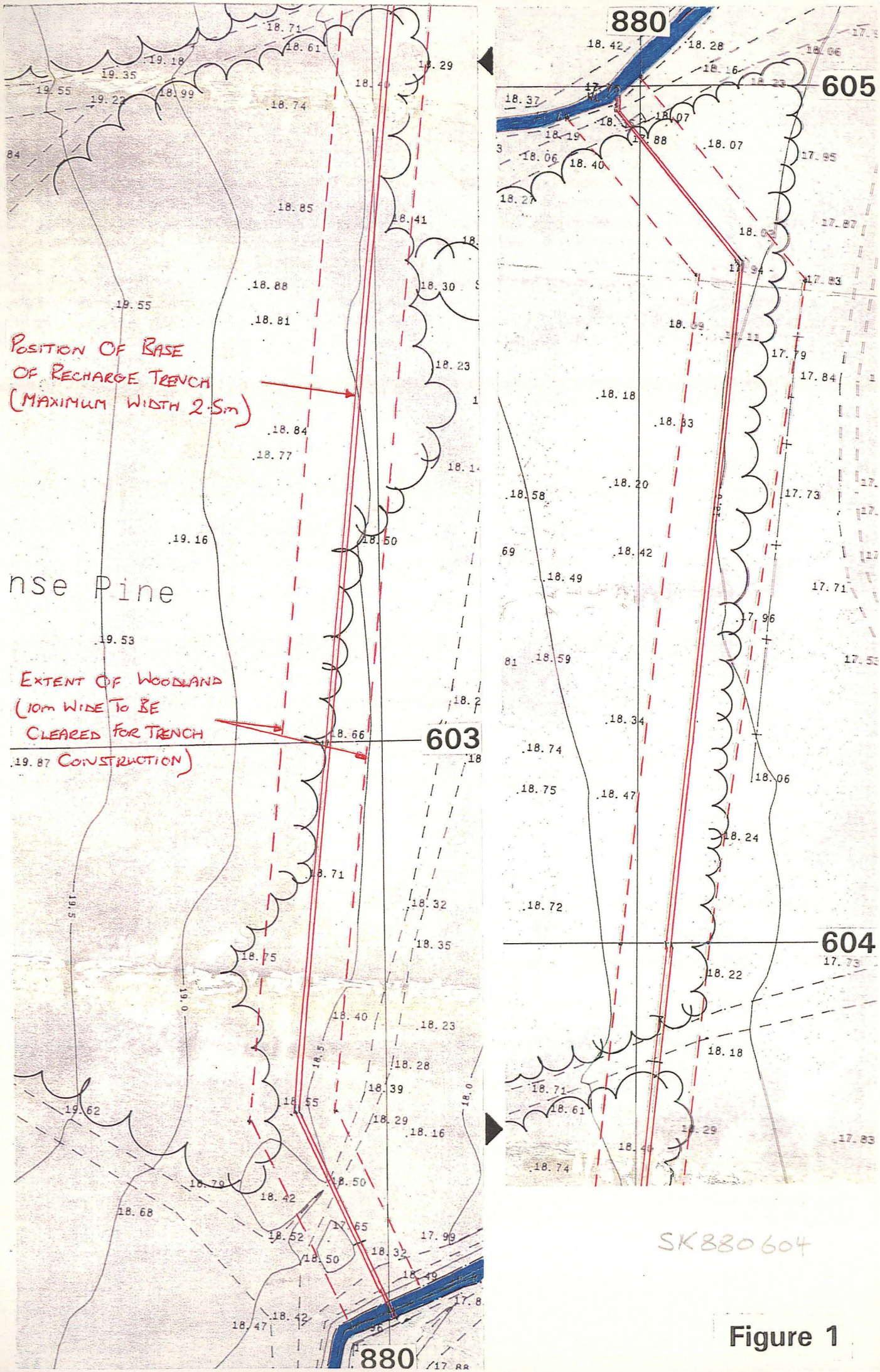
4.2 Over at least the last two-and-a-half centuries (map evidence), the area has been occupied by woodland, with pine plantation being introduced in the western part probably within the last few decades. An earlier phase of ridge and furrow cultivation is apparent, presumably dating from the Medieval and/or earlier post-Medieval periods. Prior to the cultivation phase, podzolic soils were present, possibly the true podzols of a heathland environment. It is of interest that much clearer evidence of heathland pre-dating ridge and furrow and other undated earthworks (boundary banks) has been recovered from Stapleford Wood, some 3 km to the southwest.

4.3 The procedure employed during the present survey allow the following conclusions concerning potential archaeological constraints:

(a) no standing earthworks of significance occur within or close to the recharge trench corridor;

(b) settlement or other focal activity dating from the later Iron Age to the present is unlikely;

(c) no evidence for earlier prehistoric activity was recovered but the techniques used would not guarantee that some such early phenomena have not been overlooked.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POSITION OF BASE OF RECHARGE TRENCH (MAXIMUM WIDTH 2.5m)
EXTENT OF WOODLAND (10m WIDE TO BE CLEARED FOR TRENCH CONSTRUCTION)
nse Pine
SK880604

Figure 1

QUALITY CONTROL QUESTIONNAIRE

Oxford Archaeological Associates Limited have devised a Quality Assurance Scheme, based upon the guidelines set out in BS 5750 and its supporting documentation. We have a number of internal procedures in place. We would be most grateful if readers (clients, archaeologists and any other interested persons) could take a moment to fill out the following questionnaire, designed to provide us with valuable information (as an element of external quality audit) with the least possible inconvenience to you. You should note that, although we will of course attempt to rectify just criticism of our work in any given case, your input will be taken as without prejudice to any current Planning or Management process; the objective of this questionnaire is to help us monitor and improve the quality of our services in general. Summary statistics (histograms) collated from cumulative questionnaire responses will be available to any interested person on request.

PLEASE ANSWER *ALL* THE FOLLOWING QUESTIONS BY RINGING THE ANSWER OPTION WHICH MOST CLOSELY MATCHES YOUR DESIRED RESPONSE (SPECIFY OTHERWISE IF NECESSARY)

(1) ***What is your interest in this particular site/project?*** [ring two categories if necessary]

[direct involvement] Client Client's Agent Curator Other Archaeologist Local Public Other

[observer] Developer Developer's Agent Curator Other Archaeologist General Public Other

(2) ***How would you qualify this report with respect to overall presentation, lay-out and graphic material?***

very poor poor middling good very good

(3) ***How would you qualify this report with respect to overall clarity of argument?***

very poor poor middling good very good

(4) [where applicable as judged from the viewpoint of individual readers] ***How would you qualify this report with respect to clarity of technical explanation?***

very poor poor middling good very good not applicable in my case

(5) ***How would you qualify this report with respect to completeness of reference to relevant data?***

very poor poor middling good very good unable to comment

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(6) ***Drawing on your own knowledge, how many significant inaccuracies does this report appear to contain?***

very many many some few none unable to comment

(7) ***How would you qualify this report with respect to fulfilment of the brief and/or specification?*** [observers cf. introductory chapter]

very poor poor middling good very good unable to comment

(8) ***On the basis of criteria you yourself judge the most important, how would you describe the apparent overall quality of this report?***

very poor poor middling good very good unable to comment

(9) [direct involvement] ***How would you qualify the supporting service (in terms of ease of communication, punctuality, quality of response, readiness with explanation, preparedness, reasonableness, etc.) surrounding the circumstances of this report?***

very poor poor middling good very good not applicable

(10) [Client and Client's Agent only] ***How would you qualify this report and the supporting service with respect to value for money?***

very poor poor middling good very good not assessed not applicable

REPORT TITLE:

REPORT DATE:

RESPONDENT NAME:

RESPONSE DATE:

Please feel free to add comments on any point (including the actual structure of the questionnaire) if desired and to encourage any other interested persons to fill out further copies. Note that the primary addressee of this copy of the report will receive a loose copy of the questionnaire and a stamped-addressed envelope; another copy of the questionnaire is bound into the back of the report as a model for further responses. The completed questionnaire(s) (marked with identification of the report in question, the name of the respondent and the response date) should be posted to: OAA Ltd., Lawrence House, 2 Polstead Road, Oxford OX2 6TN. Dr. Simon Collcutt will be happy to reply to any queries on 0865 310209.

THANK YOU FOR YOUR KIND AND VALUABLE ASSISTANCE

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