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LINDSEY ARCHAEOLOGICAL SERVICES

**Nocton Fen Replacement Water Main  
Car Dyke, Wasps Nest, Nocton**

*NGR: TF 090 630 - 085 644 & 080 648  
Site Code: NWN 99  
LCNCC Museum Accn. No. 194.99*

**Archaeological Watching Brief**

**Report prepared for Anglian Water Services Ltd  
by W. Booth and G. Tann**

**February 2000  
LAS Report No. 392**

Lincolnshire County Council  
Archaeology Service

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*NGR: TP090 630 - 085 644 & 080 648*

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### **Summary**

*Monitoring of a trench and pits for a new water main found no archaeological deposits or features alongside Car Dyke, other than a stone boundary wall foundation thought to be of post-medieval date. A soil deposit which may have been desiccated peat, or a topsoil horizon covered by the upcast bank from the Roman canal, was identified. Post-Roman ground disturbances alongside this section of the Car Dyke prevent certain interpretation of deposits seen in the small holes and narrow trench.*

### **Introduction**

Lindsey Archaeological Services (LAS) was commissioned by Anglian Water Services Ltd in August 1999 to conduct an archaeological watching brief during the laying of a replacement water main alongside the Car Dyke at Nocton Fen (Fig. 1). The works formed part of a more extensive scheme which included the outskirts of Dunston and Metheringham. Monitoring of part of this section had been requested by the County Archaeological Officer in a letter to the Conservation Section of Anglian Water Services Ltd, dated 16th June 1999. The works east of Nocton Wood were within a Scheduled ancient monument (SAM), and Scheduled Monument Consent (SMC) was applied for from English Heritage before work began (Fig. 2). After a series of exploratory holes had been dug (at the request of English Heritage), SMC was given (letter dated 13th October 1999).

The trenching in the roadside verge south of the SAM was monitored by Geoff Tann and Naomi Field between 17th and 25th June 1999. Trial trenching to provide supporting information for the SMC application was closely monitored by Naomi Field on 1st and 7th July.

After SMC had been obtained further investigatory work was monitored by Sue Farr on 1st-2nd November 1999. Subsequent monitoring of directional drilling and trenching beside Nocton Wood and at Wasps Nest was conducted by Wendy Booth between November 15th and 24th 1999.

### **Archaeological Background**

Archaeological monitoring was requested because the pipeline route passed alongside a known Roman water channel. The groundworks for the new main were in the roads and farm tracks alongside the Car Dyke, but crossed it at Metheringham Fen Lane and Dunston Fen Lane. Although it was likely that the trenches would only reveal metalling of previous road surfaces, they may have uncovered evidence of earlier archaeological remains.



The Car Dyke, in its present form, is a series of sections of broad open ditch interspersed with areas which have become backfilled or removed. It appears to have been created in the Roman period by linking natural watercourses with an artificially excavated canal, which extended from the River Witham at Washingborough (Lincs.) to Cambridgeshire. It probably served a drainage function at the edge of the fen, as well as having a possible communication and trade role. At Heighington, Bourne and elsewhere, the Car Dyke passes Romano-British settlements which may have developed beside it.

The Scheduled section of the Car Dyke was described in 1976:

*County Monument No. 312: Within Nocton Wood the west bank of the Car Dyke still stands as an appreciable mound, about 1m high, for much of its length, broken only by occasional tree and animal holes, though much overgrown. The east bank was part of the way under the track of an old railway, now used as a private road, then this road directs from the line of the bank, and both banks are preserved within the wood as the Dyke curves round to the west. The channel has been dredged out, but is relatively shallow and has not been disturbed for several years. (Ancient Monuments Record Form, Lincs. SMR).*

Roman clay coin moulds, for production of coins of Constantine and Helena, were found in the Car Dyke in 1811, close to Wasps Nest (the name of a farm, now used to refer to a cluster of buildings). Two boats have also been reported from the vicinity (Phillips 1935). NW of Hick's Holt, off Metheringham Fen Lane, cropmarks and finds of Bronze Age date have been reported.

The track beside Car Dyke south of Wasps Nest re-uses the course of a narrow gauge railway track, a former 'potato railway', providing transport to fields in Nocton Fen used for potato growing (Pl. 1); OS 1953).

### **The Watching Brief**

The total length of pipeline in this scheme identified as being of potential archaeological interest was about 2.5km. Observations were given consecutive numbers by LAS for recording purposes; the position of each observation is shown on Fig. 2. Observation nos. 6-19 were not used. Where multiple deposits were recorded, context numbers were assigned, and these are used in Appendix 1.

### **Exploratory Trenches (part of the application for Scheduled Monument Consent)**

In advance of the application for Scheduled Monument Consent for works beside the Car Dyke east of Nocton Wood, Anglian Water Services Ltd wished to confirm their cartographic records of the position and nature of their existing water mains. Discrepancies in various records had led to uncertainty as to whether more than one main was present, whether it was definitely within the SAM, and whether it required complete replacement. There was also a need to determine whether ground conditions were suitable for directional drilling or whether open cut trenching would be necessary.

Two small trenches were excavated by hand outside the SAM area in order to provide an indication of the deposits either end of the proposed works. This information was submitted to English Heritage as part of the SMC application.

**A** This trial trench was excavated north of the scheduled section of the Car Dyke at Wasps Nest, across the line of the former light railway, west of the existing road in an attempt to establish the position of the existing water pipes laid at some time in the 1930s and 1970s. The trench was excavated at first by hand, and enlarged using a JCB with a 0.65 wide bucket. The final dimensions of the trench were 5.2m in length and 1.5m deep x 0.7m wide (Pls. 1 and 2).

Immediately below the turf and topsoil was a thin layer of pebbles, which probably represented the remains of a surface connected with the former potato railway. The remainder of the trench fill was a mix of soil and clay, which all looked to be made ground. There was no evidence for the presence of a bank which might have been associated with the Car Dyke, nor indeed for any buried land surface. It is possible that the trench was not deep enough to have reached any such surface.

There was no sign of the water pipe, despite the use of various pieces of CAT scanning equipment to search for the pipe. Weak readings obtained before excavation in this position may have been from materials associated with the railway.

**B** This trial trench was excavated by hand at the southern end of the track, in the adjacent field east of the SAM. It was positioned across a line where readings from a CAT scanner had indicated the possible presence of a water pipe. The trench was on the edge of the ploughed field, below the level of the track, and measured 1m x 1.5m and 0.7m deep. Below the 0.35m thick topsoil was a bright orange sand. Clearly visible in section was the cut for a ceramic field drain located at a depth of 0.6m, running parallel to the western field boundary. Immediately adjacent, and parallel to it on its eastern side, was a narrow trench filled with small limestone chips. This was not fully excavated but is presumed to have been a replacement drainage system. There was no sign of the water pipe.

The sand layer was interpreted as natural sand, similar to material seen to the south in Dunston Fen Lane. It is possible that the sand had been redeposited, forming part of an upcast bank associated with the construction of the Car Dyke.

In September 1999 Anglian Water Services Ltd wrote to English Heritage proposing to excavate five further trial holes within the extent of the SAM, in order to locate the anticipated existing pipe and to check subsoil conditions. Consent was given in a letter dated 13th October 1999 for excavation of these holes and for the directional drilling.

**1-5** These trial pits were excavated on 1st and 2nd November 1999 along the eastern edge of the farm track, at 150m to 300m intervals, to establish the position and material of the original water main



(Pls. 3-7). Trial pits 1-3 (south of Nocton Delph) exposed peat-like deposits at a depth of 0.48m - 0.63m below the modern surface; in all three instances the 'peat' was 0.3m or slightly thicker (Appendix 1). The 'peat' layer, at about 4m OD, may represent a buried topsoil layer rather than a peat horizon equating to the adjacent fen, the modern surface of which is at about 3m OD. The buried surface could be either a pre-Roman ground level at the fen edge, buried by original upcast from the Car Dyke canal, or a Post-Roman intermediate surface on bank deposits since covered by dredged material and imported make-up for the potato railway and existing track. The pits were too small and too shallow to establish which of these is most probable. There is a slight possibility that organic deposits in a backfilled ditch at the track edge could have produced these observations. During the directional drilling of this section, another monitoring archaeologist observed no true peat in the access holes dug in a similar part of the track, although brown and other dark sands were recorded. To the south of the track, apparently east of the bank but possibly in a backfilled roadside ditch, a sandy peat-like deposit was recorded at about 1.3m OD, 0.7m below ground level (see 41, below).

#### **Directional Drilling alongside the Car Dyke (Appendix 1)**

20 access pits were excavated for directional drilling through and either side of the SAM after SMC had been received. These trenches were about 2.5m long x 1.5m wide x 1m deep. Most were positioned along the east edge of the farm track which runs along the east bank of Car Dyke, except for those crossing to the west side of the track at Nocton Delph, and again to the north of the crossroads at Wasps Nest for the last 100m of the pipeline. A short section of open-cut trench (30m long x 0.3m wide x 1m deep) was also excavated by a JCB to the north of the SAM, using a toothed bucket.

**20** The most southerly access pit for directional drilling was an extension of a trial hole on the north edge of Dunston Fen Lane, on the east side of the farm track which runs alongside Car Dyke. A layer of dark sand may mark a buried ground surface (Pl. 8).

**21** A small trial pit dug to find the line of the old cast iron water main revealed very mixed deposits, indicating the disturbance caused by the digging and backfilling of the original pipe trench.

**22-28** These access pits were dug at 100m intervals in the farm track alongside Car Dyke between Dunston Fen Lane and Nocton Delph (Pl. 9). A humic layer, probably marking a buried ground surface, was seen immediately above sand deposits in several trenches (Pls. 10 and 11).

**29-30** These access pits were on the west side of the farm track, and both were extended across Nocton Delph from opposite directions. Sand was recorded 0.4m below the surface.

**31-37** The line of the new pipe returned to the east side of the farm track, and seven access pits were excavated in a NW line along the track, spaced at 100m intervals. Very mixed clay and sand



deposits were seen in some trenches (Pl. 12). A possible peat horizon was noted at about 1m below ground level in **36** and **37b**.

**38** A 'T'-shaped trench was excavated at the Wasps Nest junction to connect the Nocton Fen Lane section with the Abbey Hill Cottages pipe (Pl. 13). The trench through the modern road was recorded in three places (Pl. 14).

**39-40** These two access pits were on the west side of the road, in front of the Abbey Hill Cottages, and at a further 100m along the bank of Car Dyke, to the NW. Humic sand was noted in **39** at a depth of 0.85m. A humic deposit in **40** at 0.3m below the surface seems to represent a modern topsoil covered by widening of the road.

#### **Open Trenching: Dunston Fen Lane to Metheringham Fen Lane**

The new pipe route south of the SAM was in the eastern roadside verge along part of Dunston Fen Lane and Metheringham Fen Lane.

**41** Where Dunston Fen Lane passes to the east of the Car Dyke, a silty dark brown peat deposit 0.1m thick was seen at a depth of 0.7m, overlying a band of white sand (Pl. 15). The peat continued to the north and east, becoming slightly thicker where Dunston Fen Lane turns to the NE away from the Car Dyke. The peat layer may represent a ground surface, buried by upcast from original excavation of the Roman canal.

**42** 200m east of Scarnham Lodge, a rich brown sandy deposit was seen at the trench base, possibly derived from peat (Pls. 16 and 17).

**43** 150m east of Scarnham Lodge, the topsoil was 0.2m thick and covered a very pale brown sandy loam, 0.4m thick. Beneath the loam were bands of yellow and white sand, extending to the trench base, 0.95m below the surface (Pl. 18). The existing water main trench was visible in the south side of the trench.

**44** Stone rubble from a former boundary wall was identified in the trench alongside the lane linking Dunston Fen Lane with Metheringham Fen Lane. It was visible for a 7m length 30m north of the junction with Metheringham Fen Lane. This was probably post-medieval in date.

**45** A trench at the southern end of the lane connecting Dunston Fen Lane with Metheringham Fen Lane cut through the 0.3m thick topsoil in the roadside verge, onto a 0.25m thick brown sandy subsoil. Beneath this was 0.5m of orange sand, with fen gravel at the trench base.

**46** To the west of Scarnham Lodge, directional drilling was used. Beneath the topsoil, a firm sandy loam was encountered, becoming slightly more gravelly to the west. In this part of the road, the

existing water main was located on the opposite side of the road and had not disturbed the ground through which the trench was dug. This part of the scheme is west of the Car Dyke.

### Conclusion

The watching brief found that most of the monitored ground had been considerably disturbed in the past when the original cast iron mains had been installed. This previous disturbance reduced the impact of the current works, especially within the area of the scheduled ancient monument. The other areas appeared to show the expected build-up of material on the bank of the dyke, possibly contributed to by successive dredgings, with the suggestion of a buried soil horizon seen in places. None of the deposits reached in the trenches need have been undisturbed, and it was impossible to assess whether they were redeposited canal upcast or very mixed fen edge Holocene deposits. No archaeological features were observed other than a stone boundary wall foundation, thought to be of post-medieval or recent date, north of Metheringham Fen Lane,.

### Acknowledgements

LAS is grateful to Anglian Water Services Ltd, (especially Mike Taylor and Bill MacDonald) and their contractors Morrisons, for their help. Co-operation from English Heritage, especially Andrew Brown, Dr. Glyn Coppack and Kate Fearn was appreciated.

Fieldwork for this project was conducted by the authors, and by Sue Farr and Naomi Field. The report was collated and produced by Jane Frost.

Wendy Booth and Geoff Tann  
Lindsey Archaeological Services  
17th February 2000

### References

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OS 1905 *Ordnance Survey* 1:2,500 map Sheet Lincs. 79.7.  
OS 1905 *Ordnance Survey* 1:2,500 map Sheet Lincs. 79.11  
OS 1957 *Ordnance Survey* 1:25,000 map Sheet TF 06. Full revision 1904-1930; partial revision 1946-1951; published 1953, reprinted with revisions 1957.

### Archive Summary

Anglian Water Services plans

Annotated copies of AWS plans

Photographs (colour prints, LAS film nos. 99/31/2-5; 99/60/14-16; 99/143/31-35; 99/157/9-34; 99/164/7,9-37; 99/165/0-6,8-10-36; 99/170/0; 00/2/00-15) including those used in this report

Photographs (monochrome prints, LAS film nos.99/166/19-37) including those used in this report

Correspondence

Field notes/sketches



## Appendix 1

**Trial Trenches and Access Pits: Context Descriptions**

**A.** Overall dimensions:- 5.2m x 0.75m x 1.5m deep. 1/7/1999. Previously recorded as Trial Trench 1.  
turf and topsoil - 0.2m thick, above:  
thin gravel/pebble band, over  
mixed sandy silt clay with gravel inclusions.

**B.** Overall dimensions: 1m x 1.5m x 0.7m deep. 1/7/1999. Previously recorded as Trial Trench 2.  
topsoil 0.35m thick, over:  
orange sand  
Also a land drain 0.6m deep, with limestone chips as fill.

**1.** Overall dimensions:- 0.5m x 1.4m x 1.4m deep. 1/11/1999

- 101 turf and topsoil - 0.4m thick, above:
- 102 grey/brown white cemented stones. Modern make-up layer, possibly relating to road to SE, 0.16m thick, above:
- 103 dark brown peat with rare sub-rounded stones <1cm., 0.34m thick, above:
- 104 mottled orange grey brown natural sand, over 0.34m thick.

**2.** Overall dimensions:- 2.3m x 0.5m x 1.1m deep. 1/11/1999

- 201 turf and topsoil - 0.45m thick, above:
- 202 blue grey clay with occasional sub-rounded and sub-angular stones <1cm and occasional flecks of brick. 0.08m thick, above:
- 203 red/brown sand and gravel mix, 0.1m thick, above:
- 204 dark brownish black peat 0.3m thick, above:
- 205 mottled grey brown natural sands, over 0.15m thick

**3.** Overall dimensions:- 1.5m x 0.5m x 1m deep. 2/11/1999

- 301 turf and topsoil - 0.28m thick, above:
- 302 yellowish white cemented stones. Hardcore for foundations of track. 0.2m thick, above:
- 303 dark grey/black peaty clay with occasional rounded stones <1cm. 0.3m thick, above:
- 304 dark grey/brown clay, over 0.25m thick.

**4.** Overall dimensions:- 1.3m x 0.5m x 0.9m deep. 2/11/1999

- 401 turf and topsoil - 0.1m thick, above:
- 402 red/brown sand with occasional sub-angular flint gravel <2cm., 0.5m thick, above:
- 403 red/brown natural sand, over 0.3m thick.



**5. Overall dimensions:- 1.2m x 0.5m x 0.95m deep. 2/11/1999**

- 501 turf and topsoil - 0.24m thick, above:  
502 brown silty sand with moderate sub-angular and rounded stones < 3cms. 0.39m thick, above:  
503 grey brown natural clay, over 0.3m thick.

**20. Overall dimensions:- 2.3m x 2.4m x 1.2m deep. SE facing section:-**

- 2001 turf and topsoil - 0.5m thick, above:  
2002 intermittent band of coarse sand and very fine gravel, pale grey brown mixed with pale orange brown, 0.05m thick, above:  
2003 dark grey brown sandy silt with occasional rounded pebbles <1cm. Possible buried topsoil horizon. 0.15m thick, above:  
2004 mixture of mid/pale orange brown and pale mid grey brown sand. Very mixed interface between bottom two layers, over 0.3m thick.

**21. Overall dimensions:- 2.1m x 0.7m x 0.8m deep. SW facing section:-**

- 2101 turf and topsoil - 0.4m thick, above:  
2102 very mixed deposits of bright orange, pale orange brown, mid to pale grey brown and dark grey brown silty sands, over 0.4m thick.

**22. Overall dimensions:- 2.7m x 2.1m x 1.05m deep. NNE facing section:-**

- 2201 turf and topsoil - 0.5m thick, above:  
2202 mixed mid/pale orange brown clay silt. Very occasional chalk flecks. 0.25m thick, above:  
2203 dark grey brown silty clay. 0.2m thick, above:  
2204 orange silty sand, over 0.2m thick.

**23. Overall dimensions:- 2.5m x 0.8m x 0.9m deep. SW facing section:-**

- 2301 turf and topsoil - 0.8m thick, above:  
2302 orange brown sand with occasional lenses of pale grey brown sand. Very mixed interface between the topsoil and sand layer. Over 0.2m thick.

**24. Overall dimensions:- 2.3m x 0.9m x 1m deep. SW facing section:-**

- 2401 turf and topsoil - 0.5m thick, with occasional lenses of sand, over:  
2402 mixed pale orange brown and pale grey brown sand, over 0.5m thick. Interface with topsoil very mixed. Iron water pipe visible in NE facing section.

**25. Overall dimensions:- 2.1m x 0.9m x 1.1m deep. SW facing section:-**

- 2501 turf and topsoil - 0.9m thick, above:  
2502 pale grey brown sand, with occasional sub-rounded pebbles <1cm. 0.1m thick, above:  
2503 pale orange brown sand, with occasional sub-rounded pebbles <1cm. Over 0.1m thick.

**26. Overall dimensions:- 2m x 0.9m x 1.05m deep. SW facing section:-**

- 2601 turf and topsoil - 0.3m thick, above:
- 2602 mixed mid grey and orange clay sand with occasional lenses of mid grey and orange clay. Occasional chalk frags. <4cms. 0.4m thick, above:
- 2603 dark/mid red brown silty clay. 0.05m thick, above:
- 2604 mixed pale orange brown and grey brown sand with occasional sub-rounded pebbles <3cms. Over 0.3m thick.

**27. Overall dimensions:- 2.1m x 0.95m x 1.1m deep. NE facing section:-**

- 2701 turf and topsoil - 0.5m thick, above:
- 2702 dark/mid orange brown silty clay, 0.25m thick, above:
- 2703 dark red brown clay silt, 0.2m thick, above:
- 2704 pale grey sand with occasional sub-angular flints and rounded pebbles <2cms. 0.08m thick, above:
- 2705 mid/light orange sand with occasional sub-angular flints and rounded pebbles <2cms. Over 0.07m thick.

**28. Overall dimensions:- 1.9m x 1m x 1m deep. NE facing section:-**

- 2801 turf and topsoil - 0.4m thick, above:
- 2802 mid/pale red/brown clay silt mixed with mid orange brown silty clay and mid grey silty clay. Occasional chalk flecks and chalk fragments <5cms. Over 0.6m thick.

**29. Overall dimensions:- 2.5m x 2.2m x 0.9m deep. SW facing section recorded as NE facing section, closest to Car Dyke, was destroyed by the machining.**

- 2901 turf and topsoil - 0.05m thick, above:
- 2902 pale yellow brown clay silt with frequent fragments of crushed chalk and rounded chalk fragments <3cms. 0.15m thick make-up for the farm track, over:
- 2903 pale grey sandy silt with 50% grit. Frequent sub-angular and sub-rounded fragments, and rounded pebbles <6cms. 0.2m thick; possibly also road make-up, over:
- 2904 orange sand with occasional rounded pebbles <2cms, and frequent sub-angular stone fragments <1cm. Mixed with grey brown clay with occasional chalk flecks and fragments <1cm. 0.1-0.2m thick, over:
- 2905 orange-grey brown silty clay with occasional sub-rounded chalk fragments <3cms. Over 0.4m thick.



**Extension to 29.** Overall dimensions:- 2.5m x 1.1m x 0.4m deep. Cut from north edge of original cut to edge of south bank of Nocton Delph. SW facing section:-

2911 turf and topsoil - 0.4m thick, above:

2912 orange brown silty clay with lenses of mid grey brown silty clay. Occasional chalk flecks and fragments <5cms. Occasional sub-angular flint fragments < 5cms. Over 0.7m thick.

**30.** Overall dimensions:- 2.2m x 1.1m x 1.1m deep. Cut into the original water main trench. Cast iron main visible on west side of base of trench. SW facing section recorded as NE facing section, closest to Car Dyke, was cut through the fill of the original water main cut.

3001 turf and topsoil - 0.1m thick, above:

3002 pale yellow brown clay silt with frequent fragments of crushed chalk and rounded chalk fragments <3cms. 0.15m make-up for the farm track, above:

3003 pale grey sandy silt with 50% grit. Frequent sub-angular and sub-rounded fragments, and rounded pebbles <6cms. 0.15m thick, possibly also road make-up, over:

3004 orange brown silty clay mixed with mid orange brown sand. Occasional lenses of grey brown clay and paler grey brown sand. Occasional rounded chalk and stone pebbles <2cms. Over 0.7m thick.

**Extension to 30.** Overall dimensions:- 2m x 0.5m x 1m deep. SW facing section recorded as NE facing section, closest to Car Dyke, was only 0.6m deep with exactly the same composition as the SW facing section.

3011 turf and topsoil - 0.4m thick, above:

3012 orange brown silty clay mixed with mid grey silty clay. Occasional rounded pebbles <2cms, and occasional chalk flecks and fragments <6cms. Over 0.6m thick.

**31.** Overall dimensions:- 2.5m x 1.5m x 1m deep. NE facing section:-

3101 turf and topsoil - 0.15m thick, above:

3102 grey silty clay mixed with mid/dark orange brown silty clay, with occasional lenses of orange sand. Occasional limestone frags. <1cm. Over 0.85m thick.

**32.** Overall dimensions:- 2.6m x 0.9m x 1.1m deep. NE facing section:-

3201 turf and topsoil - 0.1-0.2m thick, above:

3202 grey silty clay mixed with mid/dark orange brown silty clay, with occasional lenses of orange sand. Occasional limestone frags. <1cm. Over 1m thick.

**33.** Overall dimensions:- 2.5m x 0.9m x 1.2m deep. NE facing section:-

3301 turf and topsoil - 0.15m thick, above:

3302 grey silty clay, orange sand and mid grey brown silty clay. Sand percentage of mix increases to NW. Occasional rounded pebbles <5cms and occasional sub-angular flint fragments <5cms. Over 1.05m thick.



**34. Overall dimensions:- 2.5m x 0.9m x 1.1m deep. NE facing section:-**

3401 turf and topsoil - 0.15m thick, above:

3402 grey silty clay mixed with mid/dark orange brown silty clay, with occasional lenses of orange sand. Occasional limestone frags. <1cm. Over 0.95m thick.

**35. Overall dimensions:- 2.5m x 0.9m x 1.2m deep. NE facing section:-**

3501 turf and topsoil - 0.25m thick, above:

3502 orange grey silty sand mixed with pale red grey silty sand. Occasional rounded pebbles <3cms, occasional sub-angular fragments <1cm. Occasional lenses of pale pink grey silty sand with 50% crushed chalk fragments. Occasional lenses of chalk and mid orange brown silty clay. 0.8m thick, above:

3503 grey silt with occasional sub-rounded and sub-angular pebbles <3cms. Possible buried topsoil horizon over 0.15m thick.

**36. Overall dimensions:- 2.5m x 1m x 1.2m deep. SW facing section:-**

3601 turf and topsoil - 0.3m thick, above:

3602 mix of mid/dark grey silty clay and dark orange brown silty sand. Occasional rounded pebbles <5cms, occasional sub-angular fragments <10cms and occasional angular flint fragments <1cm. 0.55-0.65m thick, above:

3603 layer of crushed chalk, 0.05-0.15m thick, above:

3604 humic grey brown silty clay. Possible buried topsoil horizon, over 0.2m thick.

**37. Overall dimensions:- 2.6m x 0.7m x 1.2m deep. NE facing section:-**

3701 tarmac road surface - 0.2m thick, above:

3702 limestone rubble make-up for road surface, 0.35m thick, above:

3703 mixed mid orange sand, mid grey clay, dark grey silty clay and dark red brown silty sand. 0.35m thick, above:

3704 grey clay with streaks of organic material and occasional veins of sand. Over 0.3m thick.

**38. Overall dimensions:- approx. 30m of trench dug in a 'T'-shape across Wasps Nest Crossroads.****38a. 0.4m x 1.15m deep. SW facing section:-**

3801 mixed pale yellow brown, pale grey, mid orange brown sand, with occasional lenses of dark red brown sand. Occasional rounded pebbles <2cms. 0.9m thick, above:

3802 dark red brown sandy silt. Over 0.25m thick.

**38b.** 0.3m x 1m deep. NW facing section:-

- 3811 road surface make-up layer, with fragments of roof tile and pebbles <5cms. 0.15m thick, above:
- 3812 red brown sandy silt. 0.2m thick, above:
- 3813 mixed orange and grey clay with occasional chalk flecks. 0.25m thick, above:
- 3814 red brown clay silt with occasional sub-rounded and rounded pebbles <5cms. Over 0.4m thick.

**38c.** 0.3m x 0.9m deep. SW. facing section:-

- 3821 orange sand and gravel with frequent rounded pebbles <3cms and frequent angular and sub-angular stone fragments < 5cms. Occasional lenses of mid grey sand. Appears to be all road make-up, over 0.9m thick.

**39.** Overall dimensions:- 2.4m x 1m x 1.2m deep. NE facing section:-

- 3901 turf and topsoil - 0.3m thick, above:
- 3902 mixed orange brown sand and mid orange brown clay with occasional rounded pebbles <3cms. 0.55m thick, above:
- 3903 dark red brown silty clay. Possible buried topsoil horizon. 0.3m thick, above:
- 3904 orange brown sand. Over 0.05m thick.

**40.** Overall dimensions:- 2.2m x 1.1m x 1m deep. SW facing section:-

- 4001 tarmac road surface - 0.1m thick, above:
- 4002 limestone rubble and orange sand make-up layer for the road surface. 0.2m thick, above:
- 4003 grey brown silty clay with occasional chalk flecks. Possible buried topsoil horizon. 0.1m thick, above:-
- 4004 orange brown silty clay, with occasional chalk flecks and rounded pebbles <1cm, with occasional lenses of grey clay. Over 0.6m thick.



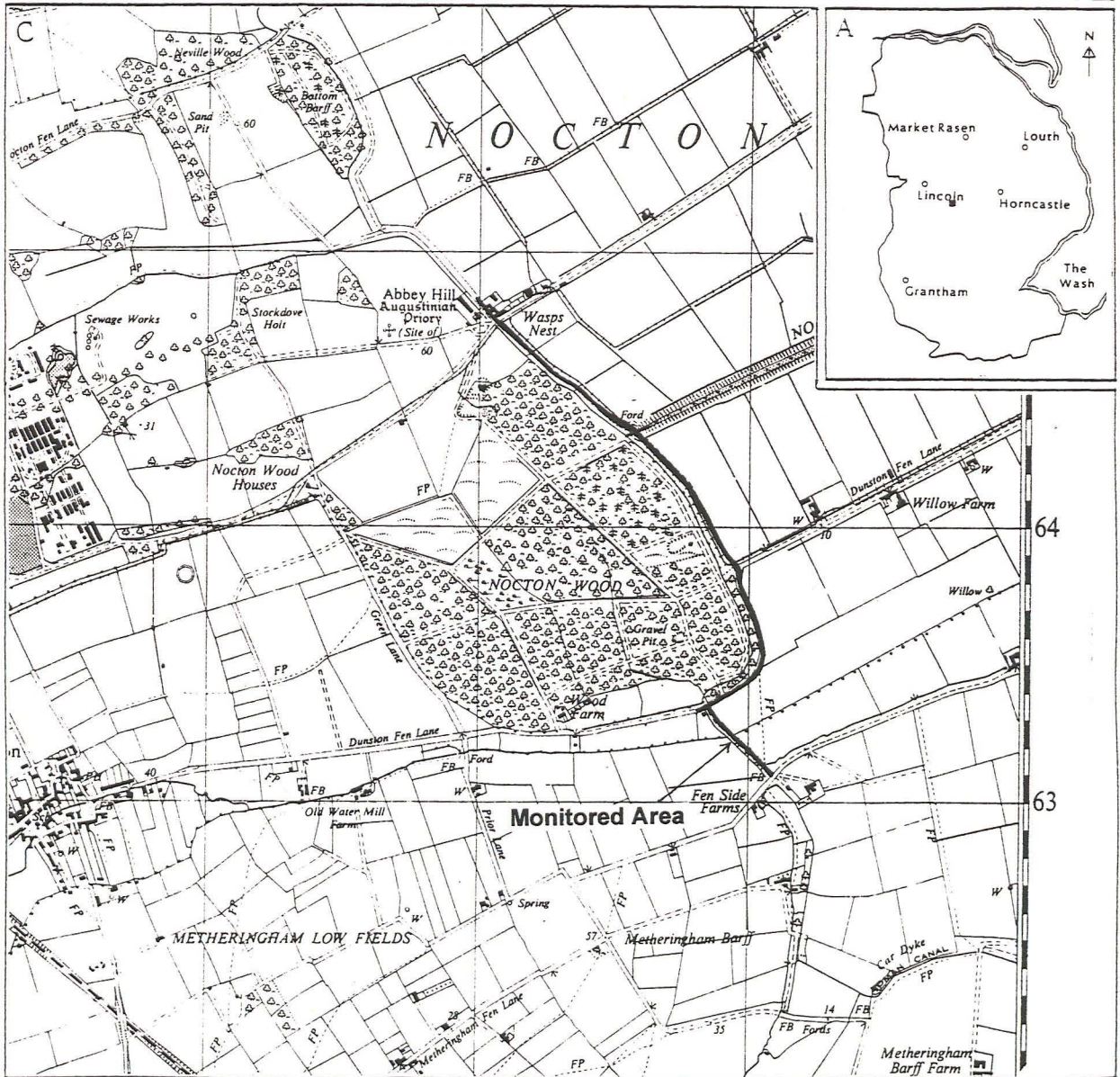
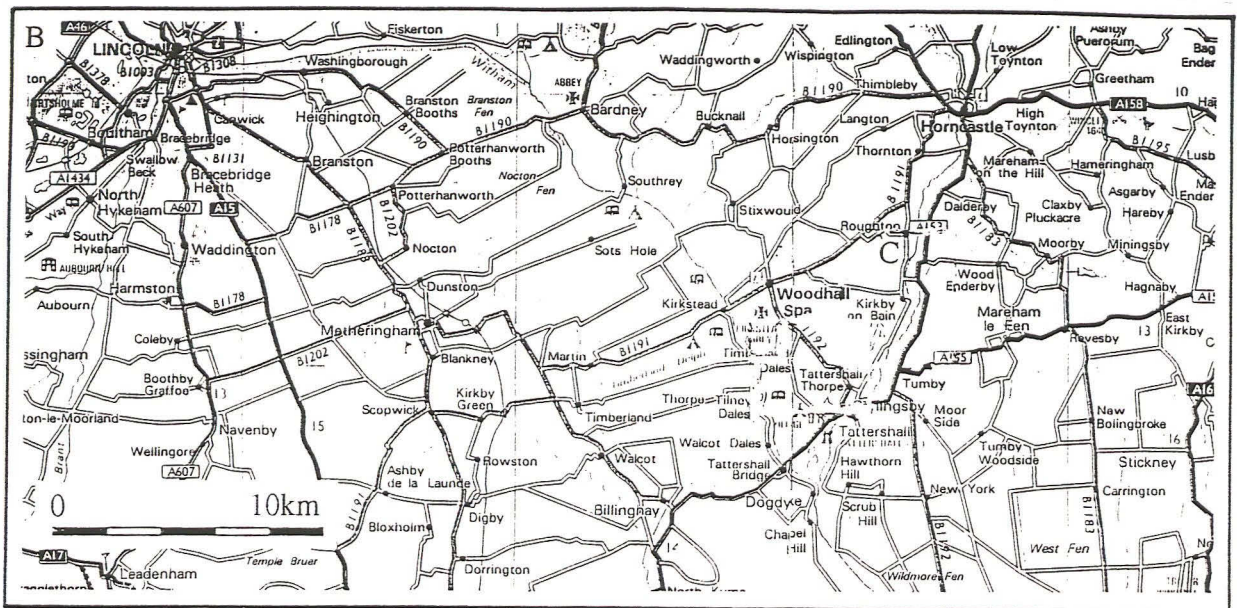
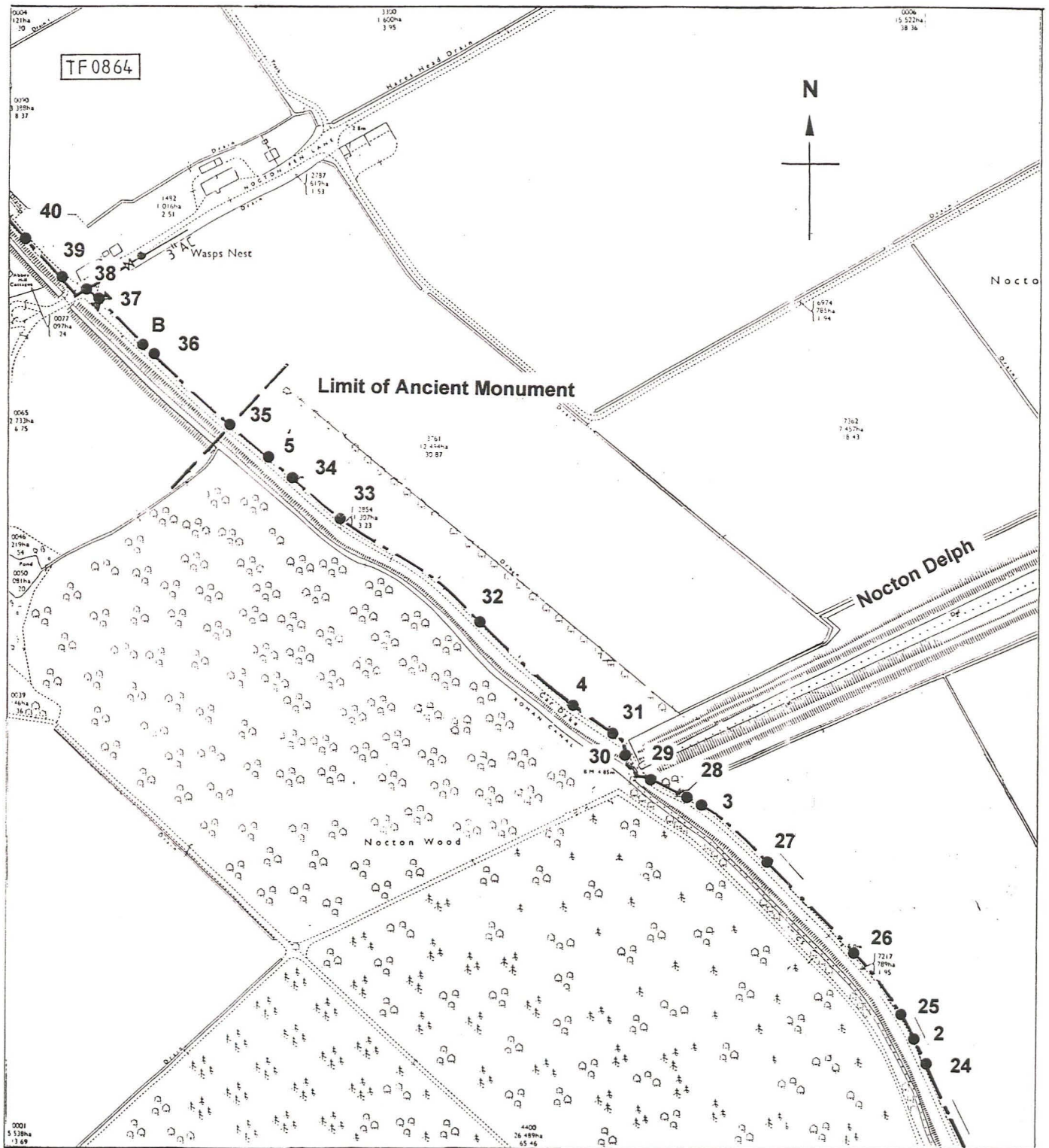


Fig. 1 Location of Wasps Nest and Nocton Fen, showing the potato railway track, since removed. (C based on the 1957 Ordnance Survey map Sheet TF 06. © Crown Copyright, reproduced with the permission of the Controller of HMSO. LAS Licence No. AL50424A).





**Fig. 2a Wasps Nest, Nocton and the Car Dyke: position of the monitored trenches and access pits, with the extent of the scheduled ancient monument indicated. (Based on the 1:2,500 scale dwg. WAT-02408/3 supplied by Anglian Water Services; © Crown Copyright, reproduced at reduced scale with the permission of the Controller of HMSO. LAS Licence No. AL50424A).**



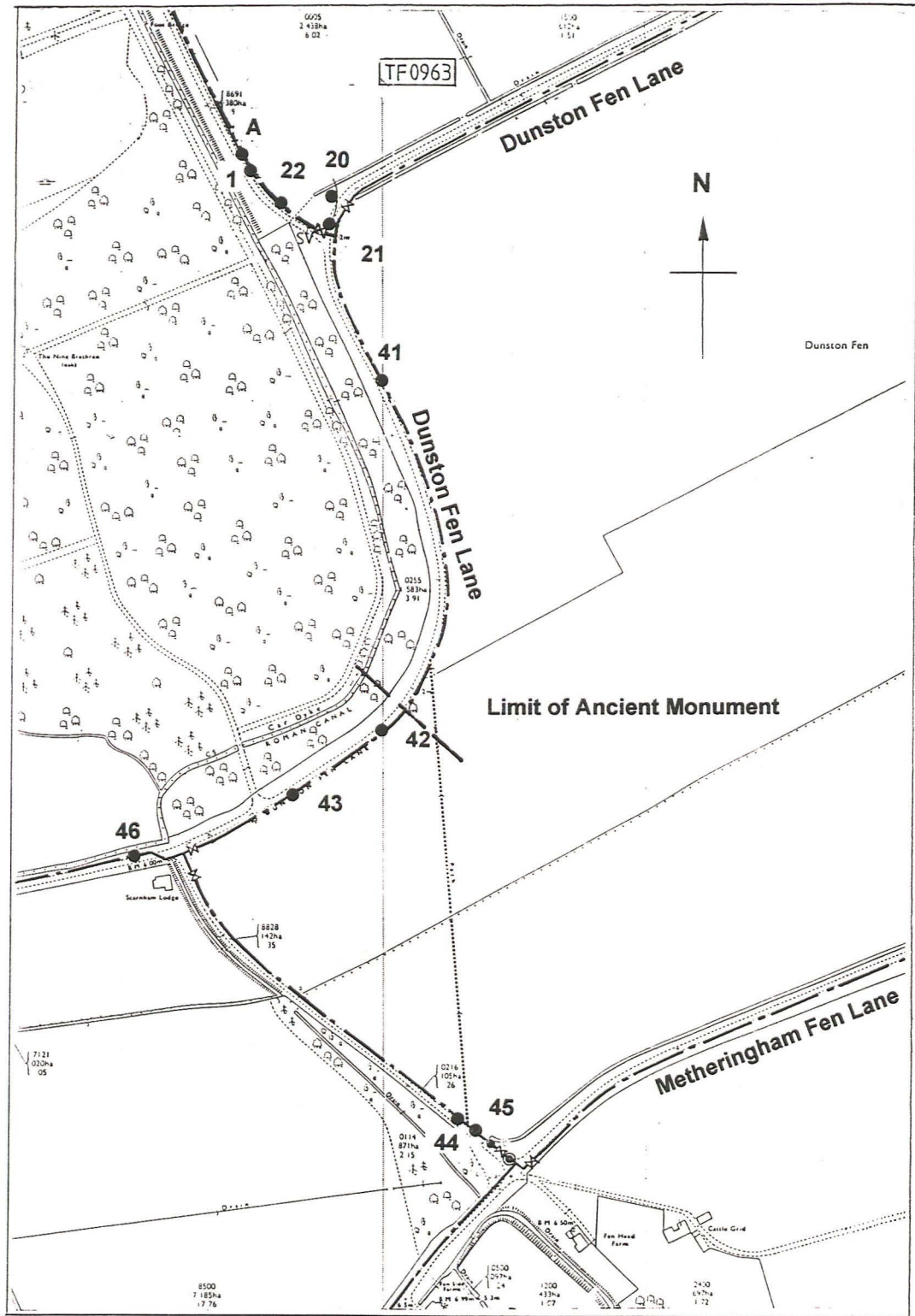


Fig. 2b The Car Dyke and Dunston Fen Lane: position of the monitored trenches and access pits, with the extent of the scheduled ancient monument indicated. (Based on the 1:2,500 scale dwg. WAT-02408/2 supplied by Anglian Water Services; © Crown Copyright, reproduced at reduced scale with the permission of the Controller of HMSO. LAS Licence No. AL50424A).





**Pl. 1** Position of Trial Trench A on the west side of the track. The Car Dyke is to the west of the trench, with Nocton Wood beyond. Looking south.

**Pl. 2** Section through deposits exposed in Trial Trench A (looking west to the Car Dyke).







Pl. 3 Limestone metalling for the potato railway, Trench 1.

Pl. 4 Trench 2.







Pl. 5 Existing water main, Trench 3.

Pl. 6 Redeposited clay from an earlier pipe trench, seen in Trench 4.

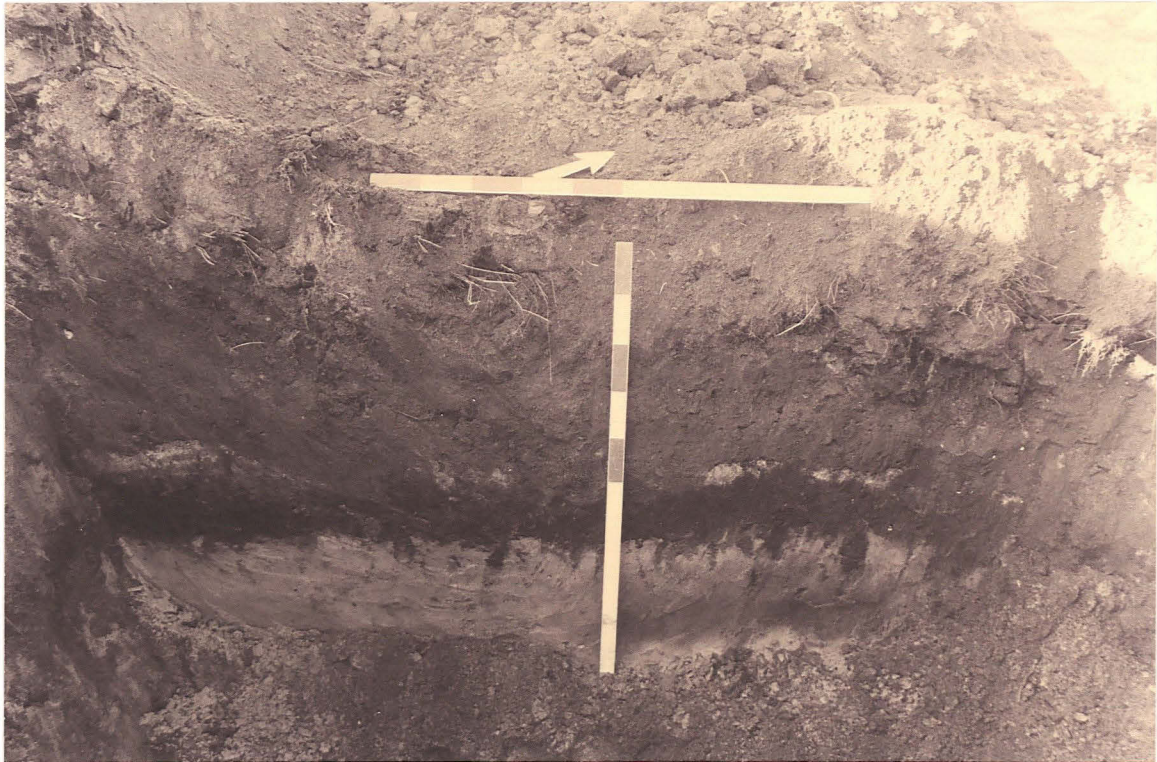






Pl. 7 Trench 5.

Pl. 8 Buried organic deposit, Trench 20 (scales 1m).







Pl. 9 Nocton Delph, looking east across Nocton Fen from the track edge.

Pl. 10 Organic deposit in Trench 27, above sand layer (scales 1m).







**Pl. 11 Mixed clay deposits overlying organic layer in Trench 26 (scales 1m).**

**Pl. 12 Mixed bands of clay and sand, Trench 31 (scales 1m).**







Pl. 13 Position of Trench 38, Wasps Nest junction (looking north).





Pl. 14 Dark sand band at base of Trench 38 (scales 1m).

Pl. 15 Location of Trench 41 in the roadside verge (looking south along Dunston Fen Lane).







**Pl. 16 Peaty and sandier deposits, Trench 42.**



**Pl. 17 Fen field to east of Trench 42.**





**Pl. 18 Sand layer visible in trench base, Trench 43 (looking north).**