



FRECKLETON RISING MAIN Lancashire

Watching Brief Report



Oxford Archaeology North

January 2003

United Utilities Ltd

Issue No.: 2002-03/051

OA North Job No.: L9066

NGR: SD 343960 429480 to 345690 428380

Document Title: FRECKLETON RISING MAIN, LANCASHIRE

Document Type: Watching Brief Report

Client Name: United Utilities Ltd

Issue Number: 2002-2003/051

OA Job Number: L9066

National Grid Reference: SD 343960 429480 to 345690 428380

Prepared by: Paul Clark
Position: Project Supervisor
Date: January 2003

Checked by: Alan Lupton Signed.....
Position: Project Manager
Date: January 2003

Approved by: Carol Allen Signed.....
Position: Project Manager
Date: January 2003

Document File Location Alan/Projects/9066/report

Oxford Archaeology (North)

Storey Institute
Meeting House Lane
Lancaster
LA1 1TF
t: (0044) 01524 848666
f: (0044) 01524 848606

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

© Oxford Archaeological Unit Ltd 2003

Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

CONTENTS

CONTENTS	1
SUMMARY	2
ACKNOWLEDGEMENTS	3
1. INTRODUCTION	4
1.1 Circumstances of the Project.....	4
1.2 Site Location and Geomorphology.....	4
1.3 Historical Background.....	5
2. METHODOLOGY	6
2.1 Watching Brief	6
2.2 Archive	6
3. RESULTS	7
3.1 Introduction	7
3.2 Topsoil Strip Results	7
3.3 Pipeline Trench Results.....	9
3.4 Test Pit Results.....	10
4. DISCUSSION	11
4.1 The Watching Brief	11
5. BIBLIOGRAPHY	12
APPENDIX 1: PROJECT BRIEF	13
APPENDIX 2: PROJECT DESIGN	14
APPENDIX 3: CONTEXT LIST	15
ILLUSTRATIONS	16
List of Figures	16
List of Plates.....	16

SUMMARY

Oxford Archaeology North (OA North) was commissioned by United Utilities Ltd to undertake an archaeological watching brief during the construction of a pipeline covering just under 2km. This scheme ran from the eastern side of Freckleton (SD 343960 429480) to the Clifton Marsh wastewater treatment works (SD 345690 428380). The work was undertaken between July and October 2002 and consisted of a topsoil strip, followed by the excavation a number of the trenches for the pipeline.

A number of modern features, relating to recent land usage, were uncovered and a large flood defence bank was truncated, but unfortunately, no artefactual evidence was recovered from the bank. Beyond this bank no significant archaeological evidence relating to land reclamation or any other activity was uncovered.

The nature of the deposits exposed during the course of the trench excavation indicate the estuarine nature of this land before reclamation. No new evidence was to show how recently this reclamation may have occurred, and the lack of archaeological evidence may suggest that this took place relatively recently.

ACKNOWLEDGEMENTS

Thanks are due to Sarah Jakubiak of United Utilities Ltd for commissioning the watching brief, to Jane Campbell and John Preston of Montgomery Watson, for information relating to the project, and to Paul Murrant of HMB Alliance, who undertook the groundworks.

The watching brief was undertaken by Paul Clark and Vix Hughes. The report was compiled by Paul Clark, with the illustrations by Emma Carter. Overall project management was undertaken by Alan Lupton, and Alan Lupton and Carol Allen edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 A scheme was designed by United Utilities plc (hereafter the 'client') for works to construct a new main sewer, referred to as the Freckleton Rising main, from the eastern side of Freckleton to the Clifton Marsh wastewater treatment works (Fig 1). Examination of historic and modern maps of the area affected by the proposed pipeline showed that it had been subject to several phases of reclamation from the estuary of the river Ribble, probably since the medieval period but with the majority of the reclamation having happened in the latter half of the nineteenth and twentieth centuries. Possible pre-Conquest sea defences have been identified on the southern side of the Ribble estuary (P Iles pers comm) and works associated with the construction of Preston Dock during the nineteenth century revealed a range of artefacts dating to the prehistoric, Roman and early medieval periods. Consequently, Lancashire County Archaeology Service (LCAS) recommended that the groundworks associated with the schemes were subject to an archaeological watching brief. A brief for the work was produced for the client (*Appendix 1*).
- 1.1.2 Oxford Archaeology North (OA North) was approached by the client to undertake the work. Following submission and formal acceptance of a project design (*Appendix 2*) the watching brief was carried out between July and September 2002.

1.2 SITE LOCATION AND GEOMORPHOLOGY

- 1.2.1 The pipeline runs south from the A584 east of Freckleton to the Clifton Marsh wastewater treatment works. The easement that was stripped ran south from the A584 for 80m, before turning to run north-west/south-east for approximately 1600m, before finally turning to run roughly east/west for a further 275m, to the boundary of the Clifton Marsh wastewater treatment works (Fig 2). Immediately to the south of the A584 and to the east of the easement, an area measuring 175m east/west by 20m north/south was stripped to create a compound. A total of 14 small test pits were also excavated along the easement, both to examine the underlying geology and also to search for live services. It should be noted that the pipe was laid in the easement of an existing pipeline.
- 1.2.2 The soils of the area belong to the Wisbech Series, and typically consist of calcareous alluvial gley soils (Jarvis *et al* 1984).
- 1.2.3 The land crossed by the easement consisted of both land under pasture and arable fields. This agricultural land was created largely as a result of drainage of the marshland, present since the last glaciation, which commenced on a large scale in the nineteenth century (Countryside Commission 1998). A small

road, running east from Grange Farm, was crossed, as were a field drainage ditch and the Middle Pool, which flows into a tributary of the Ribble.

1.3 HISTORICAL BACKGROUND

- 1.3.1 **Prehistoric:** the earliest evidence for human activity in the area comes from the late Palaeolithic site at Poulton, where an elk skeleton containing barbed bone points was found (Middleton *et al* 1995). To the north of Lytham, at Peel, there is evidence of a Mesolithic site, which is believed to have been located adjacent to the coast in this period (Middleton 1992); indeed, nine changes in sea level have been noted around Lytham in the last ten thousand years (Tooley 1978). Neolithic and early Bronze Age settlement is relatively common in the area of the Fylde, concentrated mainly around the coast and wetland fringes (LUAU 1994). As for most of Lancashire little is known of Iron Age activity.
- 1.3.2 **Roman:** excavation at nearby Dowbridge, Kirkham has provided evidence of a fort, which probably acted as a protected staging post for troops brought into the area by sea (Buxton and Shotter 1996; Howard-Davis and Buxton 2000). The Roman road leading from the fort at Kirkham to that at Ribchester lay to the north of the study area.
- 1.3.3 **Medieval:** little is known about the pre-conquest period in this area, although Freckleton is mentioned in the Domesday Book as comprising four carucates of arable land (LUAU 1994). Recent excavations have shown the existence of a medieval moated site on the eastern edge of modern-day Freckleton (LUAU 1992).
- 1.3.4 **Post-medieval:** consultation of the 1st edition Ordnance Survey maps for the area affected by the pipeline demonstrated that by the mid nineteenth century Grange Farm had been built in an area which was protected on all sides by flood defence banks, the northernmost of which was truncated in the course of the excavation of the easement for the pipeline. The area north of the northernmost bank was at this time marshland, and so presumably some degree of drainage must have occurred on the land since then, to turn it into the pasture there today.

2. METHODOLOGY

2.1 WATCHING BRIEF

- 2.1.1 The work undertaken followed the method statement detailed in the project design (*Appendix 2*) and complied with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists (IFA). Close liaison between OA North staff and the site contractors, and a permanent presence during the excavations, was maintained at all times.
- 2.1.2 The programme of field observation recorded accurately the location, extent, and character of any surviving archaeological features. This work comprised observation during the groundworks, the examination of any horizons exposed, and the accurate recording of all archaeological features, horizons and any artefacts found during the excavations.
- 2.1.3 The recording comprised a full description and preliminary classification of features or structures revealed, on OA North *pro-forma* sheets, and their accurate location in plan. In addition, a photographic record in colour slide and monochrome formats was compiled.

2.2 ARCHIVE

- 2.2.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The archive will be deposited with the Lancashire Record Office, and a copy of the report will be sent to the Lancashire Sites and Monuments Record.

3. RESULTS

3.1 INTRODUCTION

- 3.1.1 The groundworks comprised an initial topsoil strip along the entire length of the pipeline (approximately 1950m) to an average width of 20m, together with a topsoil strip of the compound areas, followed by the excavation of a trench for the pipe, which had an average width of 1.75m and a depth of up to 4m below the stripped level. In addition to these, fourteen small test pits were also excavated, averaging 4m x 2m and varying in depth to a maximum of 5m below stripped ground level.
- 3.1.2 The topsoil was stripped by a tracked 360° machine, using a toothless bucket, for about a third of the width of the strip, with a bulldozer responsible for the remaining two thirds. The trench was excavated by a tracked 360° machine using a toothed bucket. The test pits were excavated by a tracked 360° machine, the majority with a toothless bucket.

3.2 TOPSOIL STRIP RESULTS

- 3.2.1 During the course of the topsoil strip, the only area available for archaeological inspection was that stripped by the 360° tracked machine, as the area stripped by bulldozer was too heavily tracked over to see any archaeological features. The topsoil removed consisted primarily of dark grey clayey sands, containing rare small stones. Where this was completely removed, over perhaps half the site, either light brownish yellow sand or light-mid brown sandy clay subsoil was exposed, the sands mostly at the southern end of site.
- 3.2.2 At a distance of 19m west of Point 1 (the north-eastern corner of the east/west running section of the pipeline - see Fig 2) a linear feature, measuring 0.3m wide, was observed running north/south for a length of 7m, disappearing into the baulk to the north and the bulldozed area to the south. This feature, **3**, produced no finds and given its irregular shape and fills seems most likely to represent a fallen tree that had decayed *in situ* (see *Appendix 3* for context list).
- 3.2.3 Several land drains were observed crossing the stripped area, one of which followed the line of the easement for the majority of the 1600m north-west/south-east aligned section of the pipeline. This particular land drain was probably put in place when the previous pipeline was inserted, but most of the other land drains observed probably relate to normal field drainage. Several slots were dug through the land drains, to ensure they were not archaeological features, revealing them to be at an average depth of 1m below the present ground surface.

- 3.2.4 An area of rough metalling was exposed directly to the north of the road running eastwards from Grange Farm. This was positioned directly in line with a gateway and was only 10mm beneath the ground surface, suggesting that it was a relatively recent attempt at stabilising the main route into the field.
- 3.2.5 At a distance of 557m north-west of Point 2 (the point at which the easement turns from east/west to north-west/south-east) a curvilinear feature was observed, which appeared to have two fills. However, given the irregular nature of the feature's shape and its fills, it seems most likely that this was the remains of a fallen tree, with the decomposition of the wood being responsible for the staining of the sand, which initially appeared to be a basal fill; no context numbers were assigned for this feature.
- 3.2.6 From 639m north-west of Point 2 onwards, a row of nine post holes was observed, at an average distance of 3.7m apart. These ran parallel to the easement, 4.8m south-west of the north-eastern trench edge. These post holes averaged 80mm x 80mm in plan. The south-easternmost post hole still contained the remains of a wooden post, to a depth of about 0.2m, whilst the other eight contained a very loose mid-dark grey clay. It is possible that this line of posts extended to either the north-west or the south-east of those observed, but an insufficiently clean strip made it impossible to tell.
- 3.2.7 A large bank (Plates 1 & 2) running east to west across the area between the Freckleton Pool and the Savick Brook, both tributaries of the Ribble, for a distance of about 4.5km, was encountered at 800m north-west of Point 2. This bank initially survived to a height of 1.2m above the surrounding ground surface, but was totally removed to create a flat easement. As a result, it was possible to observe a section through it, which revealed that the bank consisted primarily of mid greyish brown sandy clay, containing rare small stones. A number of thin layers of light yellow sand and dark brown sandy clay were also seen, relating to different sources for the material being used in the construction of the bank. Small patches of orange mottling were also seen, probably relating to natural oxidation processes. No finds were recovered during the cutting of the section through the bank.
- 3.2.8 Approximately 160m south of the A584 a trackway was encountered, running east/west, measuring 10m wide and raised to about 1m above the surrounding field. Associated with it were two drainage ditches, one to the north and one to the south. The trackway itself contained modern material including tarmac fragments.
- 3.2.9 A possible drainage channel or stream was encountered 110m south of the A584. This feature had irregular edges in plan, with its width varying from 1.5m to 2m, and was filled with mid grey silty clay to a depth of 0.1m. A linear depression was observed continuing on the same line as this feature in both directions, with a large number of bends.
- 3.2.10 Two areas of modern material were found in the area stripped for the compound. The first of these was an area of demolition debris measuring 7.5m

x 8m, to a depth of 0.1m. The second was an area measuring 8m x 4m consisting of a mixture of tarmac and aggregate.

3.3 PIPELINE TRENCH RESULTS

- 3.3.1 The trench was excavated using a toothed bucket, which made it impossible to observe anything in plan, and due to the depths involved (up to 4m below the stripped surface) trench boxes were inserted once a 3m length of trench had been excavated. This made it difficult to observe, in section, any feature that may have extended over 3m, as not all of it would ever be visible at once. The trench was started 50m west of Point 1 and proceeded initially west to Point 2 and then north-west.
- 3.3.2 Initially, the trench was cut entirely through light yellow natural sand deposits, containing what appeared to be sea shells, to a depth of about 3m below stripped level. Beginning at 95m west of Point 1 was a shallow-sided linear feature, running north/south, which was only observed in section. This measured 15m wide and 1.4m deep, and contained a 1m thick fill of mid brown sands sat on top of a 0.4m thick black organic layer. It seems likely that this feature represented a palaeochannel, which originally flowed into the Ribble (Fig 2).
- 3.3.3 Between 280 and 290m west of Point 1 (close to Point 2 where the trench turned from east/west to north-west/south-east) another probable palaeochannel was encountered. This feature ran north/south, was 10m wide and had a depth of 1.4m. The fills consisted of 1m of light grey sands sat on top of a 0.4m thick mixture of black sands and organic remains.
- 3.3.4 In the north-west/south-east portion of the trench, a thin black organic layer (or layers) was observed for much of the length of the excavation. This started initially 2.5m below the stripped surface close to Point 2 but varied considerably in level along the length of the trench. In all places sands lay above and below the organic material, although often those sands below were light grey, probably as a result of staining from the organic material.
- 3.3.5 Beginning at 20m north-west of Point 2, a cut was observed, approximately 15m long, with a width wider than the trench. This cut had a maximum depth of 1.5m and was filled with a large number of plastic pipes, representing a dump of waste material.
- 3.3.6 Starting at 710m north-west of Point 2, and continuing for approximately 25m, an apparent change in the exposed layers was observed. A 1m thick deposit of light yellow natural sand was observed on top of 0.4m of black organic material mixed with dark grey sand, itself on top of 0.2m of light yellow sand; this in turn overlay another band of black organic material, 0.03m thick on top of 0.75m of light yellow sand. The trench sides were battered at this point, and it seems likely that, rather than being a radical departure from the stratigraphy encountered elsewhere, these layers would

probably have been repeated if it had been possible to continuously clean sections along the length of the trench.

- 3.3.7 North-west of the drainage ditch running across the easement (at 745m north-west of Point 2) the trench was excavated in steps, up to 4.5m wide having between two and four steps. These steps were highly irregular and made it difficult to see anything in section. However, it appeared that similar deposits were being encountered, with light yellow sands overlying light-dark grey sands containing thin bands of black organic material.
- 3.3.8 In the area of the crossing of the Middle Pool an area 8m wide was excavated for a length of 15m and to a depth of 1.5m. This revealed 1m of light yellow sands sat on top of light grey sands containing a thin band of black organic material. After this excavation the trench dig continued in this area inside trench boxes, to a depth of 4.5m below this new stripped level (approximately 6.25m below original ground surface). Much of this dig was under water, but the material being removed appeared to be light grey sands with some black organic material.

3.4 TEST PIT RESULTS

- 3.4.1 A total of fourteen test pits were excavated at various points along the easement, eleven to ascertain the level of the water table and the remaining three to locate live services; the latter were excavated within the original service trenches. None of these test pits provided a different picture of the stratigraphy present to that obtained during the course of the excavation of the main pipe trench; consequently, they have not been marked on Figure 2.

4. DISCUSSION

4.1 THE WATCHING BRIEF

- 4.1.1 As the removal of topsoil and subsequent deep trenching both carried the possibility of disturbing below ground archaeological remains, an archaeological watching brief was undertaken during the topsoil stripping for the pipeline easement and compound area, and throughout the excavation of the trench for the pipeline.
- 4.1.2 Two features possibly relating to reclamation were encountered in the course of this watching brief, namely the large bank 800m north-west of Point 2 and the line of posts 639m north-west of Point 2. It seems most likely that the bank, running a long distance (4.5 km) between Ribble tributaries, would have been designed as a flood defence device, although unfortunately lack of any artefacts recovered from it make it impossible to say on this evidence when it may have been constructed. The line of posts, however, is more problematic; excavations at Clifton Marsh waste disposal site revealed several parallel lines of posts probably relating to reclamation. The single line of posts at Freckleton may relate to an agricultural fence line as opposed to reclamation.
- 4.1.3 Apart from two probable decayed trees and a possible watercourse, all other features exposed during the topsoil strip appear to be relatively recent, probably all dating to the last hundred years given the modern material found within them.
- 4.1.4 The trench excavation revealed (one modern intrusion aside) no evidence of archaeological features, deposits or artefacts. What it did reveal, however, was largely natural sands containing at least two apparent palaeochannels as well as a number of different bands of organic material. This evidence would seem to confirm the originally estuarine nature of the land prior to any reclamation works.

5. BIBLIOGRAPHY

- Buxton, KM, and Shotter, DCA, 1996 The Roman Period, in R Newman (ed), 1996, *The Archaeology of Lancashire, Present State and Future Priorities*, Lancaster, 75-92
- Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham
- English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London
- Howard-Davis, C, and Buxton, K, 2000 *Roman forts in the Fylde, excavations at Dowbridge, Kirkham*, Centre for North West Regional Studies Special Paper, Lancaster
- Jarvis, RA, Bendelow, VC, Bradley, RI, Carroll, DM, Furness, RR, Kilgour, INL, and King, SJ, 1984 *Soils and Their Uses in Northern England*, Soil Survey of England and Wales, London
- LUAU, 1992, *Freckleton, Lancashire, 1990-1991 Excavation*, unpubl rep
- LUAU, 1994, *Fairhaven to Clifton Rising Main, Lancashire*, unpubl rep
- Middleton, R, 1992, Field Survey in Lancashire 1991/1992 *North West Wetlands Survey Annual Report 1992*, Lancaster
- Middleton, R, Wells, CE, and Huckerby, E, 1995 *The Wetlands of North Lancashire*, Lancaster Imprints, 4, Lancaster
- Tooley, MJ, 1978, *Sea-level changes. North-west England during the Flandrian*, Oxford

APPENDIX 1: PROJECT BRIEF

APPENDIX 2: PROJECT DESIGN

May 2002

**Oxford
Archaeology
North**

FRECKLETON RISING MAIN

LANCASHIRE

ARCHAEOLOGICAL WATCHING BRIEF

Proposals

The following project design is offered in response to a request from Ms Sarah Jakubiak, of United Utilities Ltd, for an archaeological watching brief in advance of the proposed new main sewer, referred to as the Freckleton Rising Main.

1. INTRODUCTION

- 1.1 A scheme is being designed by United Utilities plc (hereafter the 'client') for works to construct a new main sewer, referred to as the Freckleton Rising main, from the eastern side of Freckleton to the Clifton Marsh wastewater treatment works. Some of the areas to be affected by the proposed works have significant potential for the preservation of archaeological remains. Consequently, Lancashire County Archaeology Service (LCAS) has recommended that the groundworks associated with the schemes are subject to an archaeological watching brief.
- 1.2 Examination of historic and modern maps of the area affected by the proposed pipeline shows that it has been subject to several phases of reclamation from the estuary of the river Ribble, probably since the medieval period but with the majority of the reclamation having happened in the latter half of the 19th and 20th centuries. Possible pre-Conquest sea defences have been identified on the southern side of the Ribble estuary and works associated with the construction of Preston Dock during the 19th century revealed a range of artefacts dating to the prehistoric, Roman and early medieval periods. Whilst such remains have not been detected near Freckleton, anecdotal evidence suggests that bones have been encountered nearby.
- 1.3 Oxford Archaeology North (OA North) has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 20 years, including work in Carlisle, Appleby, Kendal, Penrith, and other towns in Cumbria. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North is an Institute of Field Archaeologists (IFA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.
- 1.4 OA North, in its former guise as the Lancaster University Archaeological Unit, has particular experience of the archaeology of the Freckleton area through its extensive work in the area on the English Heritage-funded North West Wetlands Survey project (Middleton *et al* 1995).

2 OBJECTIVES

- 2.1 The following programme has been designed to provide for accurate recording of any archaeological deposits that are disturbed by the groundworks associated with the new rising main.
- 2.2 A written client report will assess the significance of the data generated by the watching brief, within a local and regional context, and will make recommendations for further publication of any discoveries that are made should they warrant a wider dissemination.

3 METHOD STATEMENT

3.1 WATCHING BRIEF

- 3.1.1 **Methodology:** A programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the excavations in the course of the proposed development works. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 3.1.2 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 3.1.3 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sketch sections will be produced per cut or test pit.
- 3.1.4 A watching brief will be conducted of all topsoil stripping and all below ground works. Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (i.e. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 3.1.5 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered. Also, should evidence of burials be identified, the 1857 Burial Act would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were happy for burials to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.

- 3.1.6 Environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (i.e. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence). Where such deposits are encountered, an appropriate sampling strategy will be agreed with the Assistant Archaeologist.
- 3.1.7 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.1.8 Full regard will, of course, be given to all constraints (services etc.), as well as to all Health and Safety regulations. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Unit Managers.

3.2 ARCHIVE/REPORT

- 3.2.1 **Archive:** The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Lancashire Sites and Monuments Record (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum. Wherever possible, OA North recommends the deposition of such material in a local museum approved by the Museums and Galleries Commission, and would make appropriate arrangements with the designated museum at the outset of the project for the proper labelling, packaging, and accessioning of all material recovered.
- 3.2.2 **Report:** One bound copy of a written synthetic report will be submitted to the Client, and a further two copies submitted to LCAS within six months of completion of fieldwork. The report will include a copy of this project

design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, with an assessment of the overall stratigraphy, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived.

3.2.3 This report will identify areas of defined archaeology. An assessment and statement of the actual and potential archaeological significance of the identified archaeology within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, section drawings, and plans. This report will be in the same basic format as this project design; a copy of the report can be provided on 3.5" disk (IBM compatible format), if required.

3.2.4 **Confidentiality:** All internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

4 PROJECT MONITORING

4.1 Monitoring of this project will be undertaken by LCAS, who will be informed of the start and end dates of the work.

5 WORK TIMETABLE

5.1 OA North could commence the watching brief within two weeks of receipt of written notification from the client.

5.2 The client report will be completed within six months following completion of the fieldwork.

6 STAFFING

6.1 The project will be under the direct management of **Alan Lupton PhD MIFA** (Project Manager) to whom all correspondence should be addressed.

6.2 Present timetabling constraints preclude detailing at this stage exactly who will be undertaking the desk-based assessment and watching brief elements of the project.

- 6.3 Assessment of the finds from the evaluation will be undertaken by OA North's in-house finds specialist **Christine Howard-Davis BA MIFA** (OA North project officer). Christine acts as OA North's in-house finds specialist and has extensive knowledge of all finds of all periods from archaeological sites in northern England. However, she has specialist knowledge regarding Roman glass, metalwork, and leather, the recording and management of waterlogged wood, and most aspects of wetland and environmental archaeology.
- 6.4 Assessment of any palaeoenvironmental samples which may be taken will be undertaken by **Elizabeth Huckerby MSc** (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

7 INSURANCE

- 7.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

BIBLIOGRAPHY

- English Heritage, 1991 *The Management of Archaeological Projects*, 2nd edn, London
- Middleton, R, Wells, CE, and Huckerby, E, 1995 *The Wetlands of North Lancashire*, Lancaster Imprints, **4**, Lancaster
- Museums' and Galleries' Commission, 1992 *Standards in the museum care of archaeological collections*, London
- United Kingdom Institute for Conservation (UKIC), 1990 *Guidelines for the preparation of archives for long-term storage*, London
- Wells, CE, and Hodgkinson, D, 2001, A Late Bronze Age Human Skull and Associated Worked Wood from a Lancashire Wetland, *Proc Prehist Soc*, **67**, 163-74

APPENDIX 3: CONTEXT LIST

Context Number	Location	Description
<i>1</i>	19m west of Point1	Black upper fill of 3
<i>2</i>	19m west of Point1	Brown lower fill of 3
<i>3</i>	19m west of Point1	Probable decayed tree

ILLUSTRATIONS

LIST OF FIGURES

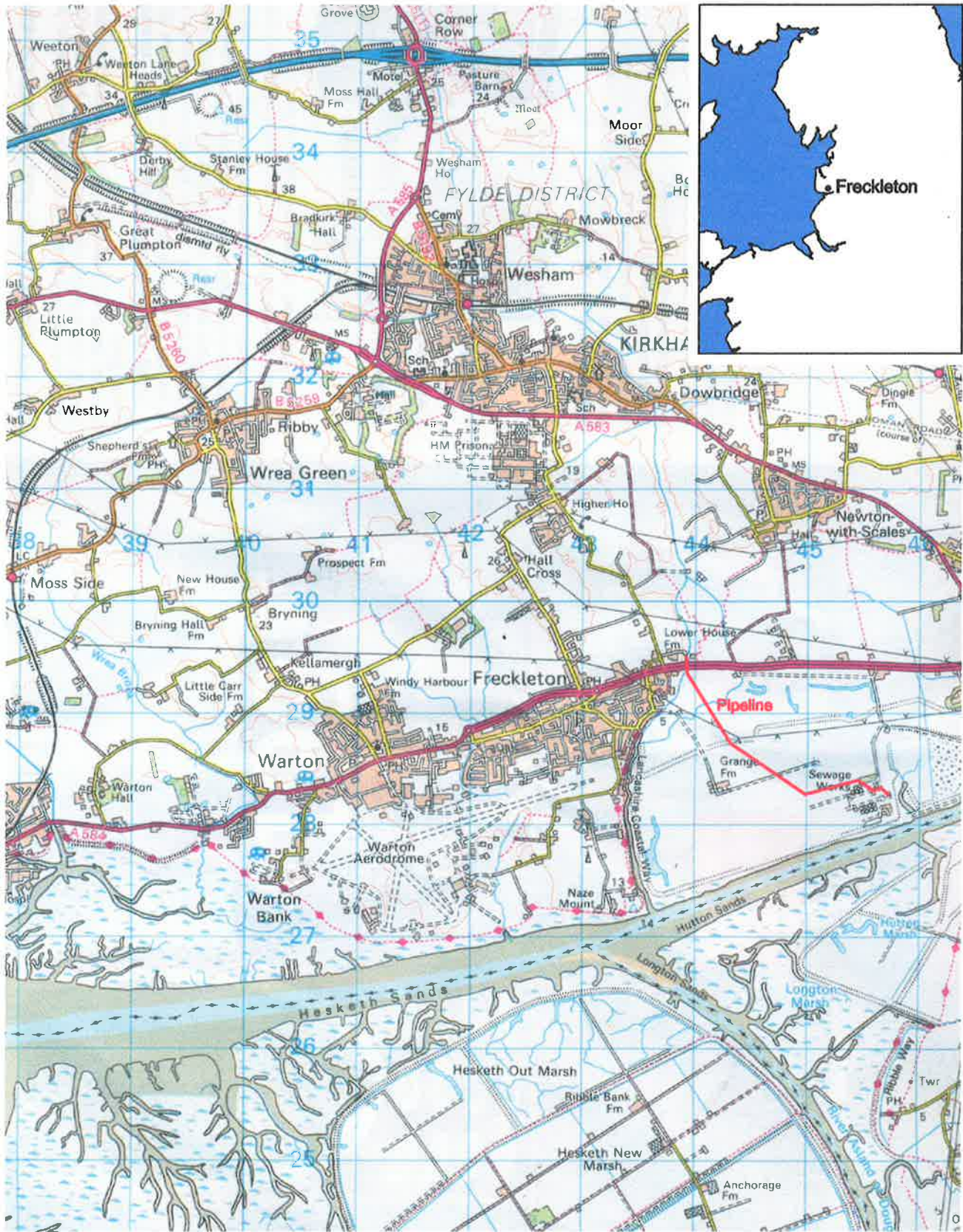
Figure 1: Location Map

Figure 2: Pipeline Location Plan

LIST OF PLATES

Plate 1: Section through bank

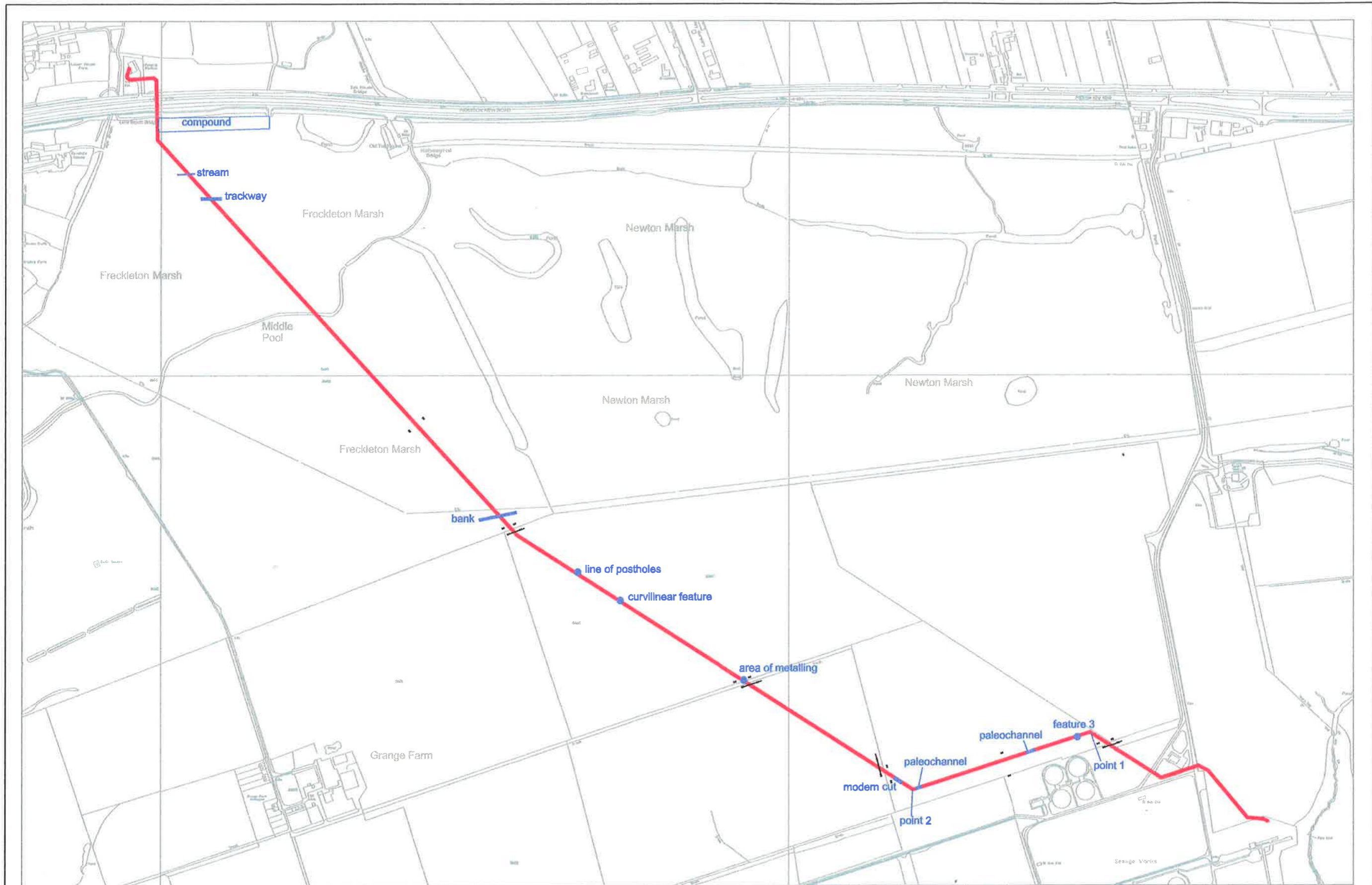
Plate 2: Close-up of section through bank



based upon the Ordnance Survey 1:50000
 with the permission of the controller of HMSO
 © Crown Copyright



Figure 1: Location Map



based upon the Ordnance Survey 1:10000
 with the permission of the controller of HMSO
 © Crown Copyright

Scale 1:6000 at A3



Figure 2 : Pipeline Location plan



Plate 1: Section through bank

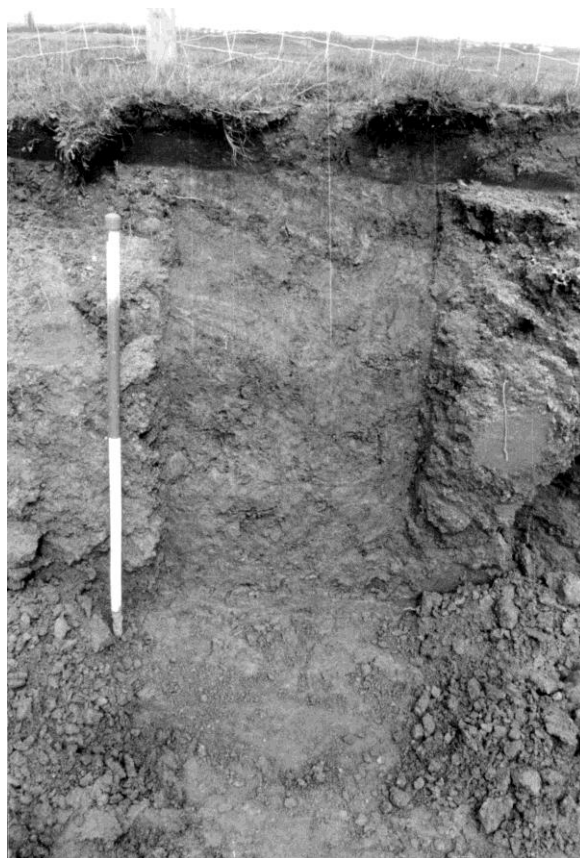


Plate 2: Close-up of section through bank.



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850 500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MCifA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*