Early Landscapes of West and North Yorkshire:

Archaeological investigation along the Asselby to Pannal natural gas pipeline 2007-8

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Front cover: *Landscape 3, looking north; ripple-flaked arrowhead from Site 20-2*

Rear Cover: *Sunset at Site 3; Tr 87: excavation in the landscape; the pipeline under construction (Derek Cater)*

LANCASTER IMPRINTS

Lancaster Imprints is the publication series of Oxford Archaeology North. The series covers work on major excavations and surveys of all periods undertaken by the organisation and associated bodies.

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Abbreviations

ABGs	Associated bone groups
ABMAP	Animal Bone Metrical Archive Project
AMS	Accelerator mass spectrometry
aOD	above Ordnance Datum
CPR	Charred plant remains
DBFO	Design, Build, Finance, and Operate
DEH	Dental enamel hypoplasia
EVEs	Estimated vessel equivalents
GIS	Geographical Information System
NAL	Network Archaeology Ltd
NER	North Eastern Railway
NISP	Number of individual specimens
NMP	National Mapping Programme
NYHET	North Yorkshire Historic Environment Team
OA	Oxford Archaeology
OR	Object Record
OSL	Optically Stimulated Luminescence
PPG16	Planning Policy Guidance 16
SUERC	Scottish Universities Environmental Research Centre
SF	Small find
SM	Scheduled Monument
WYAAS	West Yorkshire Archaeology Advisory Service

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Foreword

The Asselby to Pannal pipeline (built in 2008) is one of four linked pipelines constructed by National Grid between 2006 and 2008 to transport natural gas from the new Easington import terminal on the Holderness Coast, East Yorkshire, to Nether Kellet, Lancashire. The other three pipelines in this series run from Easington to Ganstead (built in 2008), Ganstead to Asselby (2006), and Pannal to Nether Kellet (2006-7). National Grid is legally required to facilitate the development of the gas supply network to meet the needs of domestic and commercial consumers, and these linked pipelines are required to transport the forecasted increase in volume of natural gas originating in the Norwegian North Sea gas field and entering the UK at the Easington import terminal.

This volume presents an interpretation of the most significant archaeological remains investigated along the route of the Asselby to Pannal pipeline. It represents the final stage of a long and detailed process of identification and mitigation of construction impacts on the archaeological resource. That process began with a desk-based assessment of known remains within a 1 km-wide study corridor centred upon the entire 62 km-long pipeline route, and continued with fieldwalking and magnetometry survey of all fields where crossed - wherever access could be negotiated with land owners. These surveys helped to characterise the known archaeological resource, gave some indication of which sites retained below-ground remains, and identified hitherto unknown or unlocated sites known only from the documentary record. These were then further characterised by trial-trenching evaluations. At each of these stages of investigation, the results were fed back to the design teams of National Grid and its main contractors and the proposed pipeline route was amended (wherever engineering and other constraints allowed) to avoid or lessen any likely impacts on archaeological remains. Wherever such impacts on the known resource could not be avoided, open-area excavations were mounted before or during the early stages of construction. A permanent-presence watching brief was also maintained throughout earth-moving operations that had the potential to impact upon archaeological remains. Isolated small-scale remains were excavated by the watching-brief team, while concentrated remains were subject to formal open-area excavation. Upon the completion of the fieldworks, the recovered artefacts and ecofacts and the compiled records were assessed for their potential to answer significant research questions. The results of the detailed analysis to realise that potential are presented in this volume.

Linear construction schemes such as gas pipelines encourage a landscape perspective in their archaeological investigation and reporting, and, fittingly, the most significant results of the investigations along the line of the Asselby to Pannal gas pipeline are presented in this volume in one of three landscape zones: the poorly drained clays of the southern Vale of York, underlying the eastern part of the route (Landscape 1); the well-drained undulating Magnesian Limestone ridge in its central section (Landscape 2); and the Millstone Grit eastern fringes of the Pennines to the west (Landscape 3).

A network of boundaries and tracks and associated enclosures was known across Landscape 2 (and less so across Landscapes 1 and 3), from previous aerial photographic analysis. Twelve major investigations of this network and its associated open and enclosed settlements were undertaken as part of this project, and show that the network had its inception in the earlier Iron Age and reached its developed state during the later Iron Age and the Roman period. Open-area excavations were also undertaken where the pipeline crossed the South Dyke and Becca Banks, each part of the Aberford Dykes linear earthwork complex, and each a Scheduled Monument. The South Dyke excavations revealed an unexpected appended enclosure, and the chronology of the site mirrored that of the network of boundaries and tracks as a whole. In fact, evidence suggests the South Dyke during this period may have been no more monumental than many of the other boundaries found throughout Landscape 1. Excavations across Becca Banks revealed a different origin and chronology. Whereas the South Dyke had manifested the organic growth of the wider network of boundaries of which it had been a component part, Becca Banks had been a massive, imposed structure thrown up in a hurry at the very end of the Iron Age. It would appear that a show of strength had been more important to its builders than structural integrity, and the earthwork failed shortly after construction. Later Iron Age and Romano-British settlement sites were also excavated in Landscape 1, one in the parish of Newland and two at Little Fenton, while a settlement site associated with a quasi-monumental, almost perfectly circular enclosure in Landscape 3, at North Rigton, functioned throughout much of the Iron Age. An important early medieval site was excavated at Barkston Ash (Landscape 2), while early medieval phases of activity were recorded at three sites in Landscapes 1 and 2 that had Iron Age or Roman-British origins.

The four linked pipelines of which this is a part provide a rare opportunity to investigate the changing physical remains of past human activity across the varying landscapes of almost the entire width of northern England. In addition to this volume, the results of Network Archaeology's investigations along the line of the Pannal to Nether Kellet gas pipeline were published in 2010 in the *British Archaeological Reports British Series* (Volume 526), while the results of their investigations along the line of the Easington to Ganstead and Ganstead to Asselby gas pipelines will be published in 2014. National Grid is therefore delighted that its efforts to meet the energy needs of domestic and commercial consumers are also yielding an additional valuable understanding of the nation's rich archaeological heritage.

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Summary

During 2007 and 2008, a major natural gas pipeline was constructed on behalf of National Grid, which traversed those parts of North and West Yorkshire lying between Asselby (SE 699 272) in the east, and Pannal (SE 252 506). The construction of this 62 km-long pipeline provided an important opportunity to investigate the archaeology across three distinct landscapes. The eastern of these (Landscape 1) lies between Asselby and Sherburn in Elmet and forms the southern fringe of the Vale of York. During the last glacial phase, Lake Humber occupied this area, and, in consequence, this landscape is typically low-lying and poorly drained. Immediately to the west, between Sherburn in Elmet and Collingham Beck, the pipeline crosses a second distinct landscape (Landscape 2), the character of which has been largely conditioned by its Magnesium Limestone bedrock. This area now forms a low undulating ridge, extending north-south across Yorkshire, separating the Pennines from the Vale of York, and this appears to have been a favoured area for early settlement. The western section of the pipeline, between Collingham Beck and Briscoerigg, crosses the third distinctive landscape (Landscape 3), which is geologically formed from Millstone Grit. This undulating landscape rises rapidly and forms the eastern margins of the Pennine uplands.

Across each of these landscapes, a combination of non-intrusive and intrusive archaeological techniques was employed in order to explore the archaeology with the pipeline easement. These techniques included desk-based assessment, geophysical and topographical survey, trial trenching, open-area excavation, and archaeological watching briefs. This work was undertaken over a five-year period by Oxford Archaeology North and Network Archaeology Ltd, and led to the identification of 15 areas of archaeological significance. These principally contained evidence for Iron Age and Romano-British habitation, though some evidence for early prehistoric, medieval, and post-medieval activity was also discovered.

The Iron Age and Roman period remains comprised numerous boundaries and trackways, forming integral elements of early field systems and schemes of land division. These boundaries were discovered within all three of the landscape units, although a marked concentration was present on the limestone ridge, between Sherburn in Elmet and Collingham Beck (Landscape 2). Significantly, these boundaries appear to relate to the progressive and incremental division, and enclosure, of the landscape between the earlier Iron Age and late Roman period. Excavation also indicated that many of these boundaries were maintained over extended periods of time, and this maintenance was perhaps used to construct and articulate social relationships during this period. Furthermore, the discovery of several human and animal burials, and particular artefacts, suggests that some of the boundaries formed the focus for deliberate acts of deposition. The burials included a late Roman infant, at Site 2, to the north-east of Sherburn in Elmet, which was associated with two juvenile animal burials, and later Iron Age/early Roman adult burials at Sites 26-3, south of Collingham, and AP33, immediately north of the Aberford Dykes.

In addition, two of the boundaries examined were sections of the South Dyke (SM 31519) and Becca Banks (SM 31520) scheduled as Ancient Monuments, which form part of the Aberford Dykes monument complex. Excavation at South Dyke indicated that, prior to the construction of the dyke, a line of pits was dug, dating to the earlier Iron Age, which possibly defined a notional boundary. This possible pit alignment was then replaced by the South Dyke, which was constructed in the later Iron Age, and that probably formed one element of a wider system of land division. In contrast, excavation at Becca Banks suggested that this boundary was created in the late pre-Roman Iron Age (*c* 100 cal BC-cal AD 100), and post-dated the construction of the South Dyke by some considerable period of time. It is also possible that this monumental boundary was constructed rapidly in response to the changing political and social circumstances, which ensued between AD 43 and 70/1, following the Roman conquest of the area of Britain to the south of the tribal territory occupied by the Brigantes.

Excavation also revealed evidence for earlier Iron Age enclosures, at Site 18-10, close to Saxton, and Site 35-4, between the Swindon and Nor Beck watercourses, as well as numerous later Iron Age/Romano-British enclosures scattered along the route of the pipeline. Other significant remains comprised direct evidence for later Iron Age/Romano-British settlement, in the form of possible domestic structures at Sites 2, 17-3, and AA9, all located to the north-east of Sherburn in Elmet, Site 18-5, south-west of Barkston Ash, Site 26-2, south of Collingham, and at Site 35-4. In addition, the rare remains of an early medieval enclosure and related activity were identified at Site 18-11B, to the south-west of Saxton, whilst early medieval activity was also encountered at Becca Banks.

The results of this work will enhance the understanding of the development of the landscape across the Vale of York, and also across the Magnesium Limestone and Millstone Grit landscapes of North and West Yorkshire. This volume presents the most significant findings, with the emphasis placed on interpreting these remains within the context of the wider region.

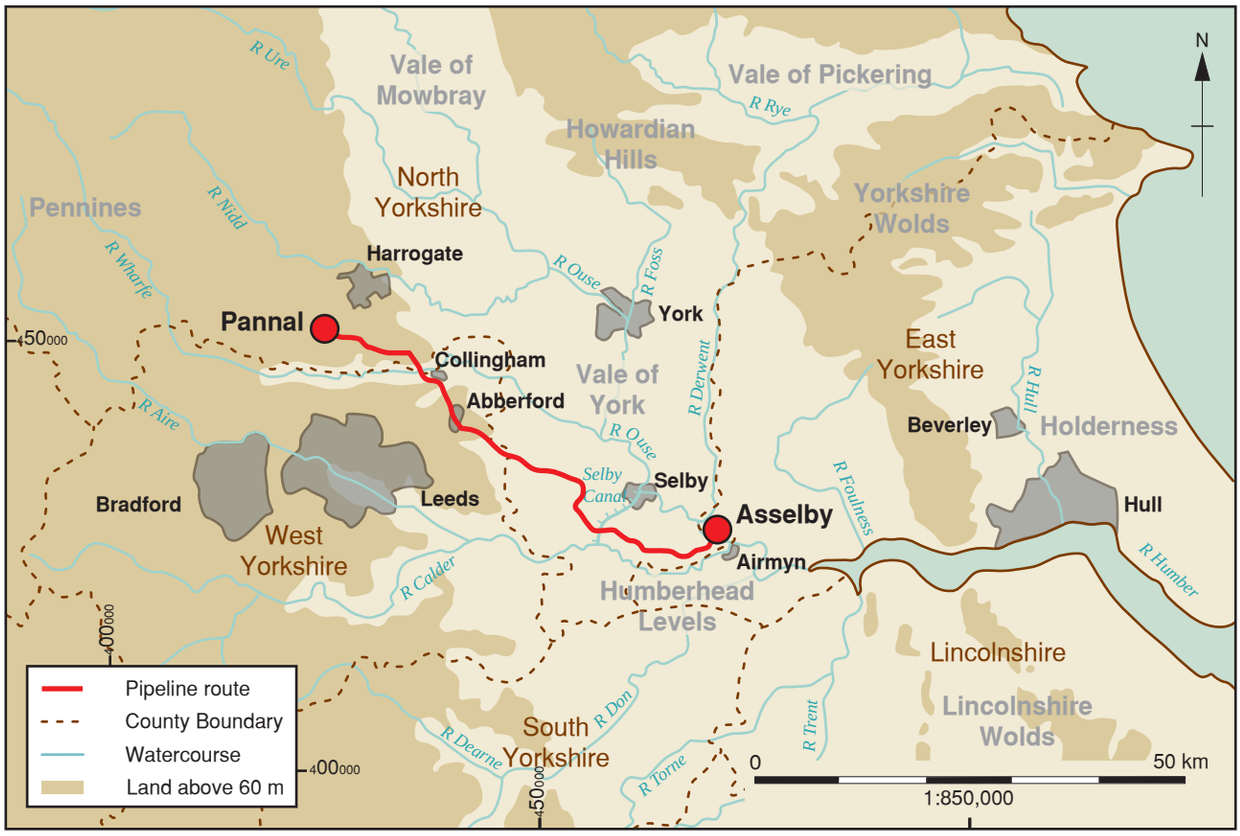

Figure 1: The Asselby to Pannal pipeline (© Crown copyright 2013 Ordnance Survey 100005569)