



LINDSEY ARCHAEOLOGICAL SERVICES

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**Clayhill WTW Nitrates Reduction Scheme  
(Quarrington Park, Sleaford - Kirkby La Thorpe)**

NGR: TF 0551 4536 - 0853 4570

Site Code: KILT 06

LCNCC Museum Accn No. 2006.32

**Archaeological Desk-Based Assessment**

**Report**

**for**

**Anglian Water Services Ltd**

**by G. Tann**

**LAS Report No. 914**

**March 2006**

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**Clayhill WTW Nitrates Reduction Scheme  
(Quarrington Park, Sleaford - Kirkby La Thorpe)  
Archaeological Desk-Based Assessment  
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**Summary**

*The proposed pipeline route crosses an area of extensive Iron Age and Roman occupation features at the eastern edge of Sleaford. It is unlikely that any revision of the route to the east of Mareham Lane would completely avoid significant archaeological remains. The route will affect poorly preserved medieval ridge and furrow earthworks and other features at Quarrington which may relate to the lost settlement of Milnethorpe. Prehistoric burial sites and flints are recorded within the study area, and Mesolithic or Neolithic flints have been found on the route.*

*The potentially widespread occurrence of archaeological remains along this route should be recognised, and appropriate mitigation measures taken, in advance of any groundworks.*

**Introduction**

Lindsey Archaeological Services LLP (LAS) was commissioned in February 2006 by Anglian Water Services Ltd to prepare an archaeological desk-based assessment (and site walk over) of a proposed pipeline route connecting existing facilities at Quarrington Park, Sleaford with others at Kirkby La Thorpe (Figs. 1 and 2).

The purpose of the desk-based assessment is to identify the archaeological potential of the proposed route by collating available existing information.

***The Proposed Pipeline Route*** (Fig. 2)

The scheme comprises two new water mains. At the western end, a 7km 400mm diameter pipeline will start at the Sleaford Clayhills Water Treatment Works (south of the railway line and east of the A15 Sleaford Bypass), and lead around the western, southern and eastern outskirts of Sleaford and Quarrington to new boreholes to the north of Boston Road. A second pipeline, 0.8km long and 280mm diameter, will link the new boreholes with the existing Kirkby La Thorpe boreholes at the junction of Boston Road and the A17 Sleaford Bypass.

The pipelines will be installed by open cut trench except where they cross roads and railway tracks.

***Planning Background***

The archaeological desk-based assessment has been requested by Anglian Water Services Ltd as part of their Best Practice policy and most of the scheme lies outside the planning process. The report is intended to inform those involved as to the archaeological potential of the proposed scheme. It may form the first stage of a programme of archaeological mitigation works.



### **Method**

A desk-based assessment of the proposed route, within a 0.5km surrounding area, was undertaken in order to identify and assess all archaeological constraints. This was supplemented by a site walk over on March 21st 2006. Research for the assessment was conducted by G. Tann between February 21st and March 27th 2006; a revised route was notified on March 13th.

The assessment included examination of available relevant information at:

- Lincolnshire County Historic Environment Record
- North Kesteven Heritage Officer's Sites and Monuments List (Heckington)
- Lincolnshire Archives Office - Enclosure, tithe, estate and parish maps, and other documentary sources
- Lincoln Central Library, local studies collection - published sources, Ordnance Survey maps
- NMR National Mapping Project (NMP) - plotted cropmarks from air photographs

For recording purposes, each plot or field crossed by the revised route was allocated a number by LAS; these are shown on Fig. 2.

### **Geology and Soils**

Most of the pipeline route is across gleyic brown calcareous earths of the Aswarby Association. Between London Road, Quarrington, and Mareham Lane, the route crosses typical argillic gley soils of the Frome Association, and pelo-stagnogley soils of the Denchworth Association (Soil Survey 1983). Underlying deposits at the western end of the route (Fields 1-5) are more varied, with alluvium above narrow bands of limestones and clay at the southern edge of the Sleas valley (Geol Surv 1972). Quarrington village is on cornbrash (Fields 5-12), with Oxford Clay to the west of Mareham Lane (Fields 13-19). Fen sands and gravels cover the remainder of the route to Kirkby La Thorpe (Fields 20-28).

### **Archaeological and Historical Background (Figs. 2-4)**

Previously recorded sites and findspots from the vicinity are listed in the Lincolnshire Historic Environment Record. These have been allocated Primary Record Numbers (PRNs) and these are used (in bold type) in the text. Some additional site and findspot entries appear on the North Kesteven Sites and Monuments list. A combined summary list of entries in the vicinity is provided in Appendix 1.

### **Prehistoric**

The earliest finds reported from the study area are two Mesolithic flints from sites either side of the present River Sleas near Boiling Wells Farm **60798**, **63562**. Neolithic flint artefacts **60799** have been found in the same area, and archaeological excavations north of Town Road, Quarrington produced a Neolithic cremation in a pot **60646**, a fragment of a polished stone axe, and struck flints. A flint



axehead **NK 57.22** has been reported from east of Sharpe's Farm, and a 'hammer stone' **NK 57.46** is recorded from east of London Road.

Bronze Age material is more widespread, and includes the remains of possible burial mounds **60334** at Bully Wells, South Rauceby, and **63952** north of the bend in Mareham Lane, Sleaford. An Early Bronze Age 'food vessel' pot **63679** from Kirkby La Thorpe village probably represents a third burial site. Various single flint artefacts and flint scatters south-east of Rauceby Hospital **61956**, south-west of the Grantham Road roundabout **61958**, Sharpe's Farm, Quarrington **60595**, and south of the Bass maltings **NK 57.5** indicate contemporary activity across the area.

### Iron Age and Roman

Undated cropmark sites identified on air photographs exhibit characteristics of enclosures and ditches which may be of Iron Age or Roman occupation sites. The largest of these is around Kirkby Mount **60292** and may possibly be a hillfort. Other potentially early complexes on the pipeline route are south of Boston Road **63686** (Pl. 1), and south-west of Mareham Lane Farm **NK 57. 48**. Within the study area are sites south of Boston Road **NK 34.25**, east of Bone's Farm **63957**, east of Stump Cross Hill, Quarrington **63943** (Pl. 2), north of the River Sleas on the Catchwater Drain **60718**, **NK 57.28** and **NK 57.36**, and south of the railway on Quarrington Hill **NK 57.42**. Iron Age pottery has been found south of Boston Road **NK 34.55**.

Mareham Lane marks the alignment of a Roman road linking Bourne with Sleaford (Margary 1973, 234-5). Close to Sleaford, the modern lane exhibits traces of an *agger*, and its significance as a landscape feature in the Anglo-Saxon period is reflected in the coincidence of the lane with parish boundaries. The road is not uniformly straight, but this has been interpreted as evidence that an earlier route was adapted by the Roman road-builders; another explanation is that the route has been altered. One change in alignment occurs east of Lodge Farm, where it turns to the north-west in its approach to the River Sleas, crossing it close to Old Place. That course remained in use until it was blocked by a junction of railway lines in the late-nineteenth century, but survives as a track; the modern road turns abruptly to the west past Mareham Lane Farm. The pipeline route will cross Mareham Lane about 50m south of the corner where the modern road diverges from the Roman alignment.

A second alignment has been identified on air photographs, diverging from the modern road at the change in angle north-east of Lodge Farm, and projecting at an almost directly north-south alignment to Boston Road and beyond towards Sleas Bridge. The probable road crosses the cropmark complex **NK 34.25** with no apparent regard for its arrangement, but becomes part of the street pattern of a dense regular cropmark complex **60590** to the north of Boston Road.

That complex is extensive, almost certainly forming part of **60891** (where over 400 sherds of Roman pottery were collected from the field surface) and the settlement remains excavated at The Hoplands



further west. It may also extend eastwards to **63686** and **63687** on the southern side of Boston Road, on the line of the pipeline. Further finds have been made in Kirkby La Thorpe village, and near an earlier cropmark site at **60639** and **NK 34.45**. Sites near to Mareham Road to the south of the railways, including **NK 57.24**, **NK 57.83** and **60689** might represent the fringes of that settlement but are probably best seen as derived from separate farmsteads. A similar picture of artefact findspots and small numbers of features is evident for locations at Clay Hill **NK 57.109**, Bouncing Hill **NK 57.106**, near Boiling Wells Farm, Quarrington village **60648**, and immediately east of London Road **NK 57.101** and **60915**.

### **Saxon and Medieval**

The route passes through parts of the former parishes of Quarrington and Old Sleaford (now both in Sleaford), and Kirkby La Thorpe. All three parishes are documented in the 1086 *Domesday Survey*, and Sleaford (Old Sleaford) is named as *aet Sliowaforda* in a twelfth-century version of a mid-ninth century charter. The Sleaford place-name elements are thought to derive from a crossing point and an Old English river name that is similar to a continental river named after 'muddy waters' and 'slimy vegetation' - the name of the River Slea is much later.

Quarrington probably derives from an Old English element denoting a quern for grinding grain, and four mills were noted in the *Domesday Survey*. Part of the Anglo-Saxon village site **60487** was archaeologically excavated prior to the construction of a housing estate in the 1990s. The site, north of Town Road, produced a nationally important pottery assemblage and evidence of early Saxon metalworking. The settlement had its origins in the fifth or sixth century, with a probable abandonment after the eighth century of the area investigated. The medieval village core and the church is to the west, beside Northfield Road. An Anglo-Saxon cemetery is recorded 1km west of the village, at **NK 57.19**.

An unlocated settlement is known to have existed near to Quarrington, documented as *Milnethorpe* in the thirteenth century. Locations suggested in the past have included land west of London Road (Field 11), west of Field 8, and near to the present Sleaford Station (discussed by Simon Pawley, in email to Hilary Healey 26/8/2003). Research for this assessment has considered a different location astride the London Road at the southern edge of the former Quarrington parish, where the boundary deflects fractionally from a straight course, and where the 1794 Quarrington Enclosure plan indicates a small group of roadside enclosures (Fig. 3; LAO Kesteven Award 67). The former southward extension of North Field Road in Quarrington village led to this block of fields, and a track led from there to Silk Willoughby (Fig. 4; OS 1824). Fieldwalking to the east of London Road has produced two early Saxon pot sherds **60914** which could represent manuring at the periphery of the failed settlement.

This suggested identification was the result of a study of Fields 9-12 on the pipeline route, which are within an area labelled as 'North Field' on the 1794 Quarrington Enclosure Award plan (Fig. 3; LAO Kesteven Award 67). This area lies south of the modern village, and is not part of the North Field



beside Grantham Road; it is either a labelling error, or it was attached to another settlement. Air photographs and degraded earthworks show that Fields 10 and 11 were ploughed, but Field 12 shows no trace of ridge and furrow; instead, cropmarks of more than one circular feature may represent the site of one or more windmill mound or prehistoric burial mound (Pls. 3 and 5-7). The largest of these lies north of the pipeline route. The place-name *Milnethorpe* indicates a mill or mills, but windmills are only documented from the late twelfth century.

The place-name Kirkby La Thorpe may contain a reference to an early church **62260** and village site **63683** predating Danish settlement (Cameron 1998). Laythorpe was a separate adjoining settlement **60571** until the early fourteenth century. There was also a settlement until the early thirteenth century known as Burgh which was probably in the close vicinity; the place-name might equate with the suggested hillfort site **60292** at Kirkby Mount, where it is suggested the Anglo-Saxon wapentake assembly or moot **NK 34.4** was held. Anglo-Saxon finds **NK 34.30** have been reported 700m to the west of the present village, and with Roman material closer to Sleaford at **NK 34.55**.

The boundary between Old Sleaford and Kirkby La Thorpe uses the line of the Roman road known as Mareham Lane. There is no obvious early feature at the boundary between Quarrington and Old Sleaford.

Several former roads along the pipeline route have been downgraded to footpaths or absorbed into fields since the eighteenth and nineteenth centuries. Most of these thoroughfares were shown on the Ordnance Survey One Inch map, surveyed after 1812 (OS 1824). At the western end of the route, Fen Road extended from Grantham Road as far as Fen Drain, continuing the line of the surviving North Field Road. Fen Road will be crossed by the pipeline between Fields 2 and 3. An extension of North Road (crossed by the route in Field 8) led south of the village to the possible settlement site at the parish boundary. A surviving farm track, between Fields 7 and 8, led out to the West Field (Pl. 4). A track led from Holdingham Road (now the old London Road) to the northern edge of Bullock Pasture; although not marked in 1824, it seems originally to have followed that field boundary to a cluster of enclosures beside Mareham Lane. That line is crossed between Fields 14 and 15 (Pl. 8). A separate farm track leaves Mareham Lane beside the same enclosures (now adjacent to the recycling facility) and heads southwards; it now serves Sleaford Lodge, but it may originally have led to meadow land beside Moor Drain. The pipeline route crosses this track between Fields 16 and 17. To the east of Mareham Lane, the route crosses a farm track beside the Lincoln railway line. The track predates the railways, but probably originally led from Mount Lane in Kirkby La Thorpe to Bones Farm, and slightly further west – it did not extend to Mareham Lane in the early nineteenth century.

Ridge and furrow earthworks, cropmarks or soilmarks on land to the north of the Boston/Skegness railway line, to the east of Sleaford, has been plotted onto a map held in the Kirkby La Thorpe parish folder at the Heritage Trust for Lincolnshire offices. This indicates ridge and furrow in Fields 25; 27 (E) and 28 (E).



### **Post-medieval and Modern**

The route crosses the lines of four railway lines, including one which has been removed. The 1857-9 GNR Grantham, Sleaford and Boston railway passes to the northern edge of the Quarrington Hill housing estate, and then, to the east of Sleaford, crosses fields to the north of Bone's Farm. The line of the former Great Northern and Great Eastern Joint Railway (1882) crosses Boston Road and passes Sleaford South junction and land south of Bone's Farm. The line of the GNR Bourne and Sleaford Railway (1872) is still visible east of Mareham Lane, but the track has been removed.

The Boston Road was turnpiked after an initial Act of Parliament in 1756, as was the London Road. The Grantham Road was not turnpiked.

The Clay Hill pumping station was constructed in an area of boggy ground to the south of the present River Sleas, which had the local name of 'The Jungle'. The springs which issued in the area were exploited in the nineteenth century by a firm of local bottlers, Lee and Green, as Guildhall Springs. Following outbreaks of cholera and smallpox in Sleaford in the 1850s and 1870s, the springs were used by the Sleaford Water Company as an alternative supply (Pawley 1990, 11).

### **Site Visit**

A walk-over of most of the route was conducted by G. Tann on March 21st 2006 in overcast conditions. The exercise comprised a single transect within the intended easement zone, visually scanning ground within about 2m.

**Field 1:** Open land to the north of the Quarrington Hill water tower, within the housing estate, has been landscaped.

**Fields 2 and 3:** This area, to the south of Fen Drain was rough grassland, with vegetation indicating wet ground.

**Field 4:** Not walked. Arable crop, on field sloping down to north.

**Field 5:** Arable crop but good ground visibility; field sloping down to Grantham Road. Crossed by gas main beside proposed route. Stony field surface, but only post-medieval and modern pottery fragments seen.

**Field 6:** Noticeable change in height of field between Fields 5 and 6, probably the result of a field ditch and bank at the crest of the slope. Rape crop, but still reasonable surface visibility. No finds.

**Field 7:** Surface almost covered by vegetation, but modern rubbish (including plastics) clearly evident across field, suggesting possible backfilled landfill area. At the southern edge of the field is a mature hedge, marking one side of a c.10m wide track. Gas main beside proposed route (PI. 4).

**Field 8:** Mature hedge beside the track at the northern edge of field. Modern rubbish (including plastics) clearly evident across field, suggesting possible backfilled landfill area. Thin swathe beside eastern hedge had been stripped of topsoil, exposing the line of the gas main trench.



**Field 9:** Not walked. Rough vegetation, and modern rubbish (including plastics) clearly evident across field, suggesting possible backfilled landfill area.

**Field 10:** Not seen. Bulldozer present in the field, to the south of the route, and soil bund beside the boundary with Field 11.

**Field 11:** Pasture field, with slightly irregular surface; possible degraded earthworks (Pl. 5). Some linear depressions may be recent wheel ruts. Overhead power cables at western edge of field. Ditch, possibly a medieval earthwork, with small watercourse at eastern side of field.

**Field 12:** Pasture field, with slightly irregular surface; possible degraded earthworks (Pls. 6 and 7). Large water-filled pond at southern corner, beside London Road, which may be the 'stone pits' marked on the 1794 Quarrington plan accompanying the Enclosure Award (LAO Kesteven Award 67). Wet ditch alongside London Road boundary.

**London Road:** Road is raised relative to adjacent land, presumably when converted to a turnpike road.

**Field 13:** Ploughed field, stony surface; good visibility. Two sherds of medieval pottery collected from field surface.

**Field 14:** Ploughed and drilled field; good visibility. Scatter of possibly struck or worked flint fragments; five collected from the transect, at least one tentatively dated by LAS to the Mesolithic or Neolithic periods. There is a mature mixed hedge at eastern side of the field, marking the northern limit of Bullock Pasture (Pl. 8). To the west of the route, that hedge is beside a narrow ridge of ground which might represent the remains of a former track or a boundary bank.

**Field 15:** Field slopes down to the east. Arable crop, reasonable visibility, few visible limestone pieces. Mixed species hedge and wet ditch at boundary with Field 16 (Pl. 9).

**Field 16:** Drilled, with crop obscuring most of the surface. Marked slope down to the west from a ridge. Farm track to Lodge Farm separates this field from Field 17.

**Field 17:** Drilled, with crop obscuring most of the surface. No artefacts; route crosses cropmark site NK 57.48.

**Field 18:** Ploughed, with good visibility except for eastern side (which was being sown with onion seed during walk-over). Deep ditch at eastern side of field.

**Fields 19 and 20:** Not walked; stubble.

**Mareham Lane:** Modern road on line of Roman road.

**Field 21:** Sprouting onion crop. Slight ridge at the eastern side of the field, possibly associated with removed railway line in Field 22. No trace of cropmark Roman road feature.

**Field 22:** The railway track has been removed, and no signs of the railway remained visible. The former easement was in use for storage of tree and vegetation waste. A new farm track serving Bones Farm has been created around the eastern and southern sides of this field, leading onto Mareham Lane. The field retains a previous crop of onions, with waste onions on the surface; there is poor visibility over most of the field. There are numerous small collections of stones, presumably cleared from the field surface in advance of the onion crop. One heap contained a large rim sherd of fourth-century Roman pottery, and part of a Roman tile. The size of these fragments indicates that there may be an occupation site in the immediate vicinity. The presence of quantities of limestone in the heaps is



also surprising, given that this land is within a zone of fen sands and gravels – the stone may be introduced building material.

**Field 23:** Rough stubble, poor visibility.

**Field 24:** Rough stubble from past parsnip crop. Several recently excavated trenches close to the Lincoln railway line.

**Lincoln railway line:** Access via gates to Field 25.

**Field 25:** Ploughed, good visibility.

**Boston/Skegness railway line**

**Field 26:** Not walked. Stubble.

**Field 27:** Not walked.

**Field 28:** Not walked.

**Boston Road**

**Kirkby La Thorpe WTW compound**

### **Planning Policies**

The pipeline lies within the remit of Lincolnshire County Council. An extract of their policies relating to archaeological remains is provided as Appendix 2.

### **Scheduled Ancient Monuments and Listed Buildings**

The route passes about 550m east of a scheduled cropmark occupation site SAM 338 to the north-west of Quarrington Fen. It affects no listed buildings.

### **Hedgerows**

The pipeline route crosses one hedgerow on the line of the former Quarrington/Old Sleaford parish boundary. These boundaries are frequently of great antiquity and the hedgerow could incorporate remains of an early boundary ditch and/or bank. Four hedges were identified as containing more species than most of the field hedges, and these probably predate late-eighteenth century Enclosure. These are marked on Fig. 2. Many of the hedges crossed by the route are in the positions of field boundaries marked on the Enclosure and Tithe maps.

### **Archaeological Potential of the Route**

Although the rapid walk-over of the proposed route omitted ten fields of the 28 because of unsuitable ground conditions, it identified three potential archaeological sites. A thin scatter of struck and worked Mesolithic or Neolithic flints was found in Field 14. One Roman rim sherd, and a piece of Roman tile, were found in Field 22 to the east of the removed GNR Bourne and Sleaford Railway line. The finds had been moved from their original position by stone clearance, but it is assumed that they derived from this field (which is 450m east of Mareham Lane, and 250m east of another track cropmark which is thought to represent another Roman road).



The earthwork remains in Field 11, west of London Road, are of partially levelled medieval ridge and furrow, which can be seen on air photographs. The air photographs show that the field to the west also had ridge and furrow, but that the field to the east did not, and circular cropmarks in that pasture field could mark the sites of medieval or later windmill mounds.

#### Options for Mitigation or Further Investigation

The pipeline will be drilled below Mareham Lane, which is above a Roman road, and the trench will cut across the line of the cropmark which has been interpreted as another Roman road, 300m north of its divergence from it. A previous attempt to confirm a road on the line of the cropmark was not successful, and this scheme provides another opportunity to examine it.

#### Geophysical survey could be used to identify the arrangement of the road

To the south of Boston Road, the pipeline route will cut through a known extensive cropmark complex which was partially investigated in 2001 when a Hatton-Silk Willoughby gas pipeline was installed (Moore 2003). The features are thought to be of Iron Age and Roman date. Other cropmark sites and finds scatters indicate that Iron Age and Roman remains should be expected anywhere north of Bones Farm.

As with all pipeline schemes which are laid across fields, currently unknown archaeological remains may be identified during groundworks. The route crosses land of varying topography and drift geology and any of those differences may have been exploited in the past.

#### Potential Impact on Archaeological Remains

Topsoil stripping for the pipeline easement will partly remove earthwork remains, and will affect shallow archaeological remains which survive immediately below the ploughsoil. Plant movement along the easement will damage archaeological features which have been exposed, and in wet weather will have a greater destructive effect. The open cut trench will remove all but the deepest archaeological deposits along its line. The backfilled pipeline trench may cause adjacent archaeological deposits to dry out, with resultant loss of environmental information and some categories of artefact.

The pipeline route crosses the Roman road known as Mareham Lane about 300m south of the corner where the modern road diverges from the older alignment. The crossing is to be directionally drilled to reduce inconvenience to road users. Although the pipe may penetrate the base of the Roman feature, any remains will only be visible in the access pits to either side of the road.

Any locations stripped of topsoil for contractors' compounds will have the same impacts as topsoil stripping along the route. Along this scheme, several especially archaeologically sensitive locations are beside surfaced roads (ie. North Field Road, London Road, Mareham Lane and Boston Road) and any siting of compounds should be by arrangement with the County Council's Principal Archaeologist.



Where the presence of archaeological remains on the route is confirmed, options of 'preservation *in situ*' or 'preservation by record' are available. This is in accordance with Planning Policy Guidance note 16, 'Archaeology & Planning', issued by the Department of the Environment in November 1990.

### Options for Mitigation or Further Investigation

There are no parts of the proposed route where a slight deviation would remove any potential risk to known or anticipated archaeological remains. Field walking of the potential Roman site in Field 22 is not appropriate as material has been moved by stone-picking.

Geophysical survey could be used to identify the arrangement of features within the easement in Fields 22 and 25-28, but an archaeological watching brief during topsoil stripping of the entire easement appears to be the most effective way of locating significant remains. For this method to be useful, topsoil removal must be conducted with 180° or 360° machines, as use of a bulldozer will not produce a surface which can be examined. Targeted archaeological excavation is then an option prior to the excavation of the pipe trench. A further watching brief maintained during trench excavation of selected parts of the route could be expected to recover additional artefacts but is unlikely to contribute significantly more information.

SOW  
strip  
map  
+ record

Close attention should be given to Fields 10-12 during removal of the turf and topsoil, in case any early occupation features are present. In Field 12, the circular cropmark is suspected to be from a windmill mound, but prehistoric burial mounds have been identified in the vicinity and this could possibly originate from the Bronze Age. Identification of any features on the site of the flint scatter in Field 14 is unlikely, but monitoring during topsoil stripping might result in the retrieval of more flints.

The hedgerows between Fields 7 and 8, Fields 14 and 15, and Fields 15 and 16, should be monitored during groundworks in case any archaeological features (such as banks, ditches or metalled tracks) are present.

Cropmark site NK 57.48 in Field 17 will need monitoring during topsoil removal and trench excavation, but no artefacts have been found close to it.

### Conclusion

The study area for this pipeline scheme contains significant known archaeological sites of the Iron Age, Romano-British and Saxon periods. The origins of Sleaford as a substantial settlement go back to the Iron Age, but there are limited indications that the area was occupied during the Mesolithic period with artefacts of Neolithic and Bronze Age date also reported. The route crosses land with varying soils and drainage qualities, and has the potential to affect unknown sites of all periods in addition to the known remains in its path.



Parts of the route are close to existing gas mains, and the earlier groundworks were subject to archaeological appraisal and targeted fieldwork. The results of those investigations indicate that land alongside Mareham Lane may contain Roman occupation features, and that the cropmark site to either side of Boston Road is of Iron Age and Roman date. The rapid walk-over survey for this scheme suggests that there may be Mesolithic or Neolithic struck and worked flints on the line of the route in Field 13, but there have been infrequent similar finds near other parts of the route. The survey may have located one unknown Roman site (Field 22) but this forms only one element of the contemporary landscape beside Mareham Lane.

One significant outcome of this assessment is the suggestion that the degraded earthworks in the pasture Fields 11 and 12 form part of the North Field of the previously unlocated failed medieval or earlier settlement of Milnethorpe.

This pipeline is expected to encounter archaeological remains ranging from the prehistoric to medieval periods, and further investigation could be necessary at several locations.

#### Acknowledgements

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Assistance with illustrations was given by Mick McDaid and the report was collated and produced by Doug Young.

G. Tann  
Lindsey Archaeological Services  
30th March 2006

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**Contents of Site Archive**

Correspondence

Photographs: colour prints, LAS digital film no. 06.24

Archaeological finds: flints, Roman pottery, Roman tile



**APPENDIX 1**



## APPENDIX 1

### Reported Archaeological Sites and Findspots near the Pipeline Route

(Source: Lincolnshire Historic Environment Record and North Kesteven SMR)

PRN	NGR	(TF)	NK	Description
60292	09000	44380	34.4	Cropmark site of a multiple linear boundary and a possible hill fort
60334	04180	45350		Barrow mound visible as slight earthwork.
60346	09700	45900		Ridge and furrow
60469	04280	45870		Romano-British seal box
60487	05810	44570		Remains of a Saxon settlement. the importance of the site lies in its size and longevity within the Anglo-Saxon period and the evidence for early Saxon metalworking. in addition the ceramics represent one of the largest excavated assemblages. Anglo-Saxon activity at Quarrington is represented chiefly by ditches, pits, gullies, hearths and postholes, with associated artefacts which are almost exclusively early and middle saxon. The earliest Saxon pottery is thought to be fifth to sixth century; the settlement continued into the seventh and eighth century and the presence of imported vessels suggests that the site was not an insular backwater but susceptible to at least regional influences. The absence of late Saxon pottery suggests, with near certainty, that the excavated part of the site at least had been abandoned by this period.
60550	04180	45350		Evidence of further occupation of barrow mound in Roman period.
60571	09950	45250		Settlement of Laythorpe documented in 1086, and is found as a separate place until the early fourteenth century, and is now represented by a cluster of houses and earthwork remains at the southern end of Kirkby La Thorpe.
60590	08250	46000	34.31	CROPMARKS ON THE EAST SIDE OF SLEAFORD SHOWING PART OF AN ORGANISED STREET SYSTEM ALIGNED ONTO AN EARLIER LINEAR DITCH BOUNDARY. {1} TRACKWAYS AND VARIOUS RECTANGULAR AND SUBRECTANGULAR ENCLOSURES ARE VISIBLE ON THE AP. {2} MANY ROMAN FINDS HAVE BEEN RECOVERED FROM THE SOUTHERN PART OF THIS FIELD FROM METAL DETECTING. {3}
60595	05260	44640		Bronze Age flint scraper
60636	06000	45950		Medieval pot sherd
60639	08100	45680	34.3	3 sherds Roman pottery, 1st century brooch and coins
60646	05810	44570	57.61	Neolithic cremation in pot; also part of a polished stone axe and other flints
60647	05810	44570		Post-medieval occupation
60648	05810	44570		1st-4th century Roman material, probably spread as rubbish
60649	05810	44570		Ridge and furrow
60650	05500	44660	57.8	Geophysical survey; uncertain results
60689	08420	44680	34.41	1 sherd Roman pottery; no trace of the Roman road
60690	08310	44680		Undated ditch
60691	08490	44570		Ridge and furrow
60718; 60719	04600	45600	57.29	Cropmarks of prehistoric enclosures
60780	09880	45140	34.43	Undated pit
60798	04700	45200		Mesolithic microlith
60799	04700	45200		Neolithic flints
60800	04700	45200		Undated ditches and shallow postholes found during evaluation
60801	04700	45200		Late post-medieval ditches
60891	08200	45900	34.54	433 sherds of Roman pottery, 30 brick and tile fragments and an iron knife blade. The brick and tile collection suggests that a structure stood here in the Roman period.
60910	04220	45850		Romano-British coin
60912	04250	45790		Bronze buckle and strap end
60914	06000	44000	57.58	2 sherds early-mid Saxon pottery
60915	06000	44000	57.58	1 sherd Roman pottery
61022	09755	44505		A medieval/post medieval pottery scatter
61023	09242	44280		Medieval pot sherd
61024	09074	44210		Medieval pot sherd
61025	08592	43849		Mid-3rd century Roman pot sherd
61026	08538	43751		Medieval pot sherd
61717	04100	44000		The Kesteven County Lunatic Asylum, designed in 1898, opened to patients 1902.
61949	07870	46240		Saxo - Norman boundary ditch
61954	08340	43720		Small oval pit with the remains of an adult cremation burial. A few sherds of Nene Valley colour coated pottery which date to the 3rd century.



61955	08070	43700		Romano-British knife handle
61956	04700	43900		Flint scatter
61957	04700	43900		Two sherds of late medieval pottery
61958	04600	44500		Six pieces of flint were recovered.
61959	04600	44500		Medieval pottery
62064	09320	45830		24 sherds of pottery, including Roman
62260	09900	46090		?Site nearby of high status pre-Conquest church. A grave cover of the mid tenth to early eleventh century is located in the west face of the tower of the present church. St Denys' comprises west tower, nave and north aisle, and chancel. The south doorway is Norman in date, although restored. The four-bay arcade is Transitional, while the west tower west window is Decorated, as are those of the north aisle. The chancel was rebuilt in 1854 in the Early English style, with a Transitional priest's doorway. Restoration took place in 1911 by C H Fowler. There are two fonts (as Kirkby La Thorpe originally had two churches), both octagonal and Perpendicular. Listed Building.
62629	07340	44910		13th-15thC pottery and ridge and furrow
62630	07340	44910		Brick well and an east/west aligned ditch containing eighteenth to nineteenth century pottery
62631	07300	44900	57.124	Sherd of second to third century greyware
62949	09970	45970		Narrow ditch containing one fragment of Roman tegula roof tile
63562	04330	45510		7 worked flints in five possible features of undetermined form. One flake was dated to the late Mesolithic and two flakes were dated to the Neolithic period.
63563	04390	45520		Shallow ridge and furrow.
63678	09900	45900		Roman coin
63679	09900	45900	34.58; 34.9; ?34.15; ?34.59	An early Bronze Age food vessel
63681	09900	45900		Romano-British pottery
63683	09900	46000		Settlement was in existence by the middle Saxon period, and had an important pre-Conquest church. There was also a medieval settlement recorded called Burgh which is thought to have been in the Kirkby area, and it is even suggested that Burgh is substantially represented by the present Kirkby. Burgh can be traced until 1239, after which Kirkby appears to displace Burgh in later medieval documents. It is thought that Kirkby, Laythorpe (60571) and Burgh were part of the same estate in a pattern common throughout Ashwardhurn wapentake, and that the separate settlements were elements with defined functions, with Kirkby perhaps being 'the settlement of the church'. These elements seemed to be a loose agglomeration which eventually were joined into the single settlement of Kirkby La Thorpe. Some surviving ridge and furrow earthworks and some other distinct earthworks which may relate to part of the former medieval village focus around the former church of St Peter. Late Saxon and early medieval remains were recorded north of Ewerby Road. The finds assemblage does not suggest nearby intensive occupation. A little post-medieval material.
63686	08820	45650		A prehistoric cropmark enclosure is visible on aerial photographs
63687	09130	45280	34.24	Cropmark remains of later prehistoric enclosures and hut circle
63688	08860	45680		Cropmarks of undated ditch
63689	09430	45800		Undated cropmark ditches
63690	09850	45570		Site of former blacksmith's workshop
63924	04553	45020		Potential unknown date cropmark boundary ditch, seen on NMP.
63943	06058	44319	57.27	Possible unknown prehistoric cropmark enclosure, seen on NMP.
63952	08076	44909		Potential unknown prehistoric cropmark barrow, possible Bronze Age round barrow
63957	09635	44824		Possible unknown date cropmark field boundary
63968	07010	45670		Undated features at Carre Street, Sleaford.
	099	453	34.14	Laythorpe deserted medieval village
	091	459	34.28	Roman coin
	092	461	34.30	Anglo-Saxon finds
	0986	4526	34.36	Romano-British features, including quarry
	0840	4470	34.41	Roman multiple ditches
	083	455	34.45	Roman metal finds
	095	453	34.5	Cropmark ditches
	0835	4550	34.55	Iron Age, Roman, Anglo-Saxon, medieval and later finds
	0987	4505	34.8	Romano British and medieval pottery; site of chapel
	0656	4486	57.101	Roman coin
	0520	4620	57.106	Roman brooch
	0563	4560	57.109	Roman greyware
	0735	4505	57.119	Undated ?post medieval ditch
	044	447	57.19	Anglo Saxon cemetery
	0527	4467	57.22	Flint axehead



050	440	57.23	?site of Milnethorp deserted medieval village
078	451	57.24	Roman coins
049	457	57.28	Cropmark enclosure
049	464	57.36	Cropmark
052	453	57.42	Cropmark
074	444	57.48	Cropmark
073	452	57.5	Worked flint
057	455	57.60	Quarrington Saxon settlement site
0777	4582	57.70	3 sherds Roman pottery, and 2 pieces ?medieval masonry
0790	4470	57.83	Multiple ditch: ?Roman



**APPENDIX 2**



## APPENDIX 2

### Planning Policies

#### ***Lincolnshire County Council***

Relevant policy initiatives followed by Lincolnshire County Council are detailed in its *Lincolnshire Structure Plan, Deposit Draft 'Shaping the County's Future'* (LCC 1998).

#### ***Policy 63: Archaeological Heritage***

*Development adversely affecting an archaeological site of national importance (whether scheduled or not) or its setting, will not normally be permitted*

*Development affecting an archaeological site of regional or local importance will be considered having regard to its intrinsic importance and the need for the proposed development*

*Where development is permitted, satisfactory arrangements for the preservation in situ of archaeology within the development, or (where appropriate), the excavation and recording of the archaeological remains will be required*



**THE FIGURES**



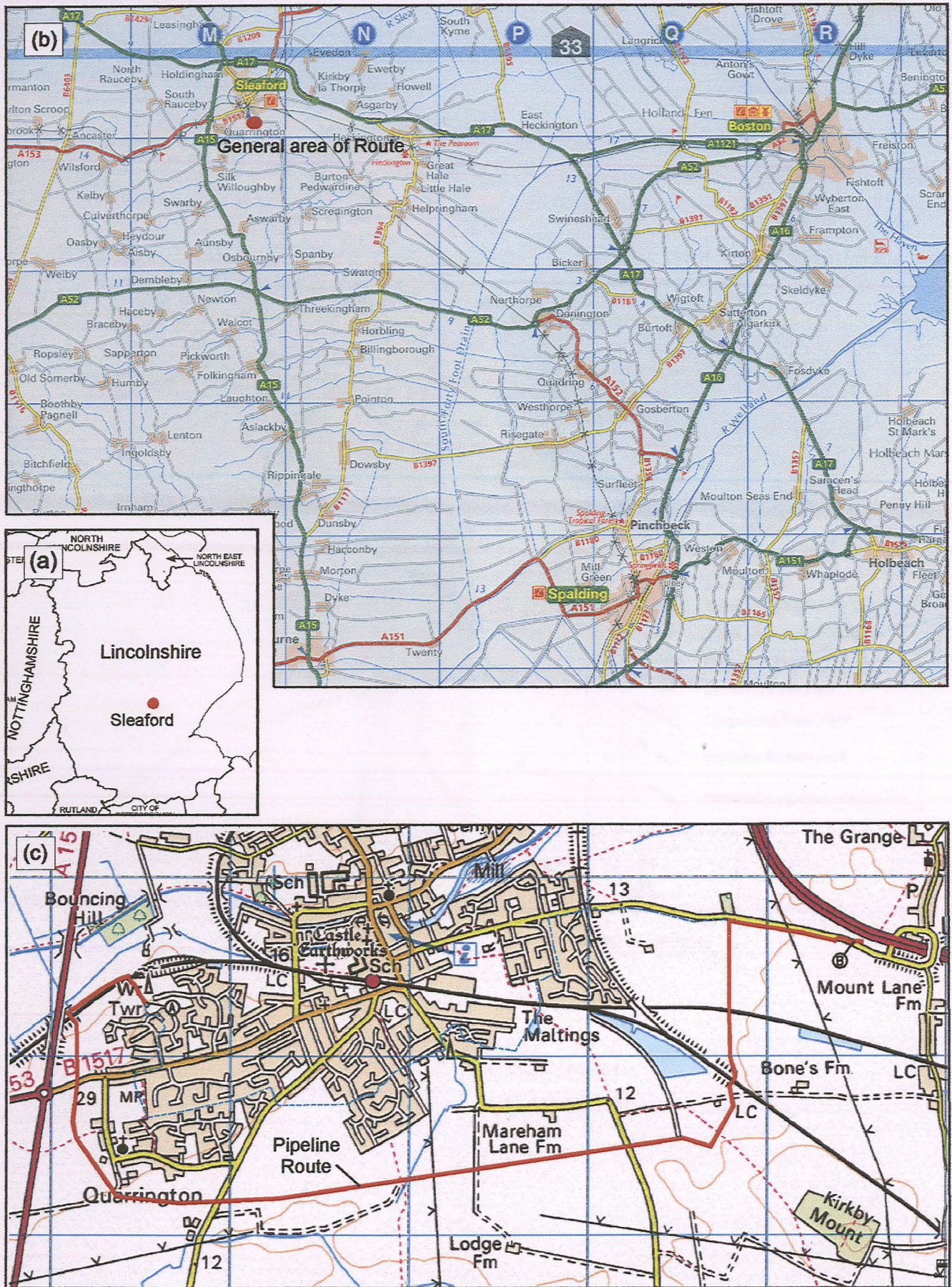


Fig.1 Location of Clay Hill to Kirkby La Thorpe pipeline route (inset C based on the Ordnance 1:50,000 Landranger map 130. Crown copyright, reproduced with the permission of the Controller of HMSO. LAS Licence no. AL 10002165).



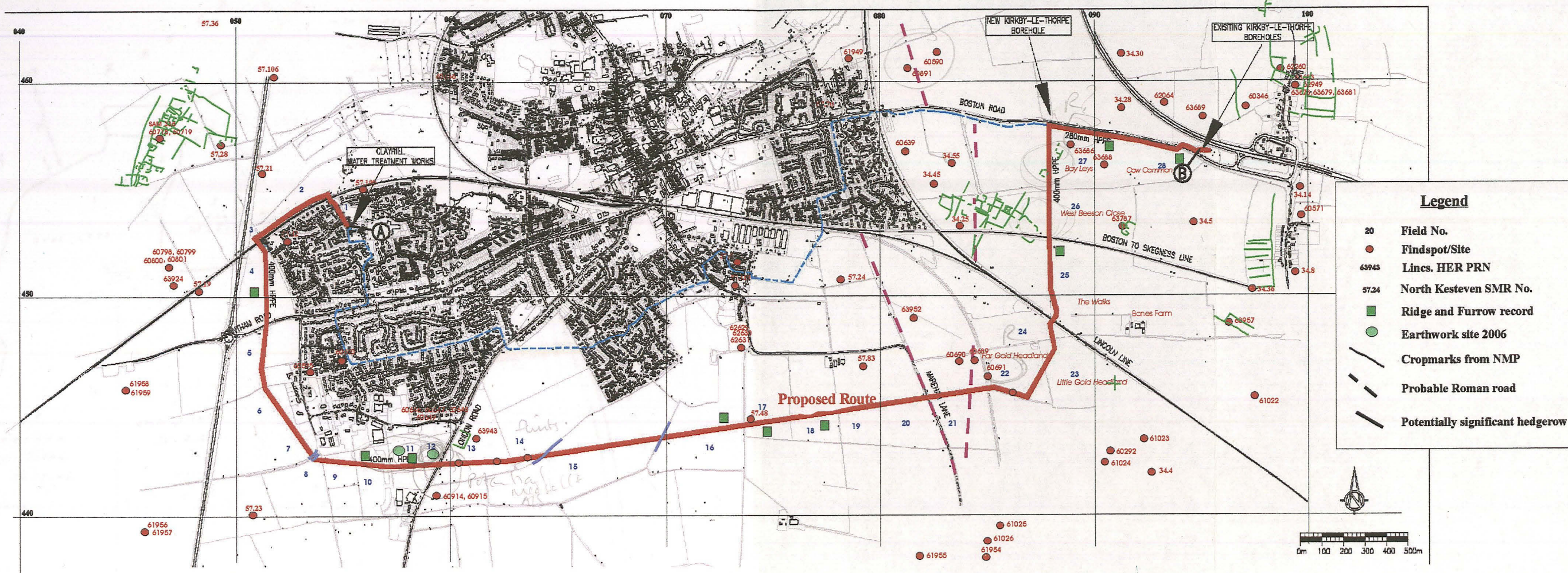


Fig.2 The Pipeline Route, showing Archaeological Sites and Findspots, and Field Nos. used in this report.  
 (Based on a plan supplied by the client. Crown copyright, reproduced with the permission of the Controller of HMSO. LAS Licence no. AL 10002165).



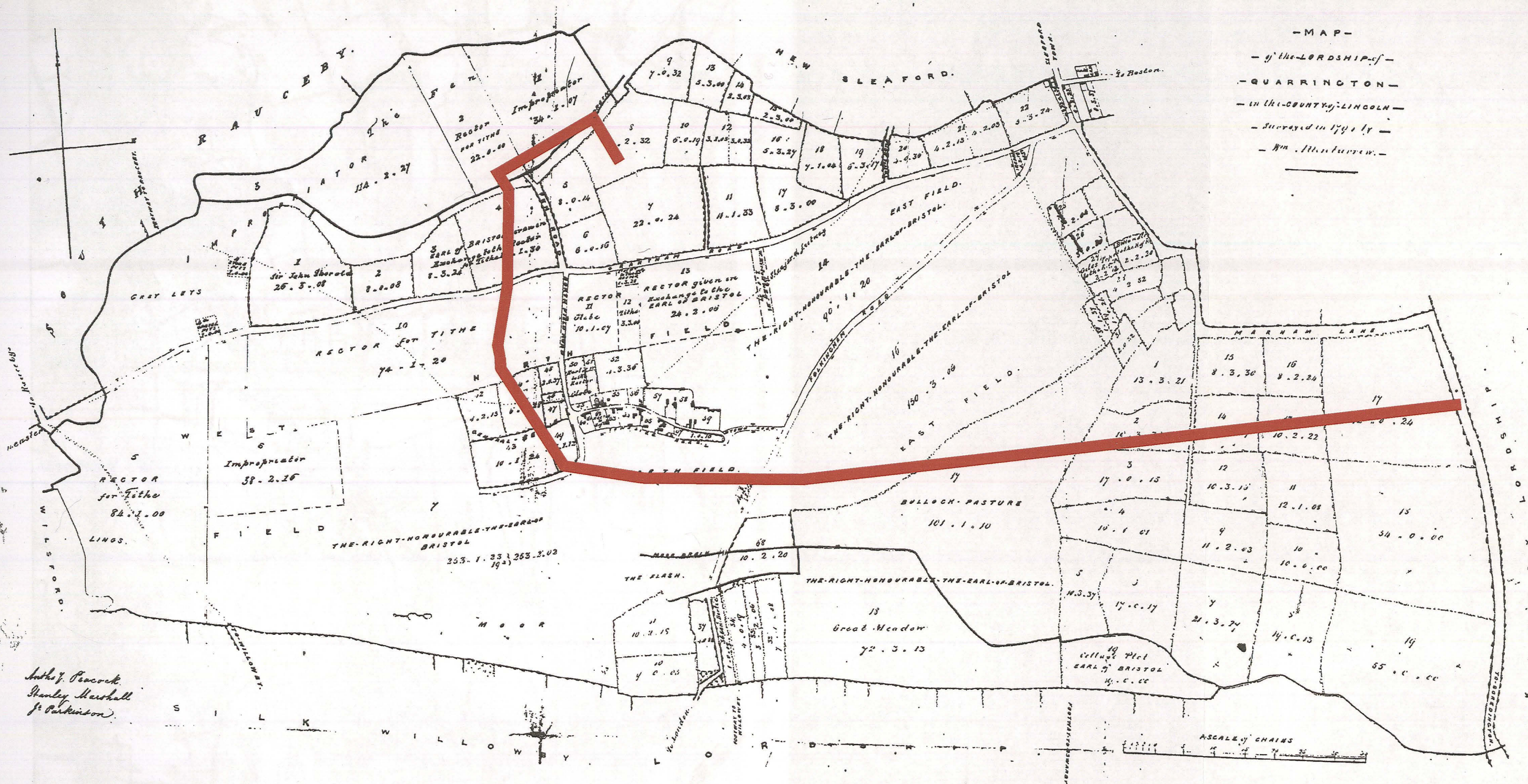


Fig. 3 Map of Quarrington, 1794 (New Sleaford, Holdingham and Quarrington Enclosure Award and plan, 1794-6. LAO Kesteven Award 67).





Fig. 4. Ordnance Survey First Edition One Inch map showing the Sleaford area. Reproduced at enlarged scale.



**THE PLATES**





Pl. 1 Air photograph showing cropmarks of an Iron Age or Roman field system either side of Boston Road to the west of Kirkby La Thorpe. (Photo: J. Pickering 18/7/1979, SF1715/3. Copyright reserved).



Pl. 2 Air photograph showing cropmark of a rectangular enclosure east of London Road. (J. Pickering 30/7/1983 SF 2346-5. Copyright reserved).





Pl. 3 Air photograph showing circular feature in Field 12. (GetMapping/Lincs. CC. 2000; Copyright reserved).





Pl. 4 Track between Fields 7 and 8, formerly leading to Quarrington's West Field. Looking west; the fence marks the existing gas main.



Pl. 5 Degraded earthworks in Field 11 (looking north-west).





Pl. 6 Earthwork ditch between Fields 11 and 12, with large pond beside London Road (looking south).



Pl. 7 Earthwork ditch and uneven pasture in Field 12. Looking east from Field 11, with London Road to the right.





Pl. 8 Field boundary at northern edge of former Bullock Pasture, Field 14 (looking north-east).



Pl. 9 Mixed species hedge between Fields 15 and 16, on the former Quarrington/Old Sleaford parish boundary. Looking north-east.