

LITTLE BAMPTON TO AIKTON PIPELINE, CUMBRIA



WATCHING BRIEF REPORT

CP. No: 10355

20/12/2012



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Quality Assurance

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by WA Archaeology Ltd on the preparation of reports.

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SUMMARY

Wardell Armstrong Archaeology Ltd was commissioned by United Utilities, to undertake an archaeological watching brief on groundworks relating to the creation of a pipeline for a new sewer from the water treatment works located to the south of Little Bampton to the North of Aikton, a distance of approximately 800m (NGR NY 278 548 to NY 275 541).

NP Archaeology undertook a desk-based assessment in January 2012 in order to establish the scope of the archaeological work required to fulfil the archaeological conditions of the planning decision. The report did not identify any historic structures or features within the survey area which were likely to be impacted upon by the groundworks; however, a number of cropmarks were identified in modern satellite photography. An irregular historic hedgeline south of Little Bampton suggests an earlier feature was formerly present on the site. As a result, Jeremy Parsons, Cumbria County Council Historic Environment Service, granted planning consent for the development on the condition that an archaeological watching brief be undertaken during the groundworks in the fields south of Little Bampton.

The archaeological watching brief was undertaken over fourteen days between the 12th September 2012 and 16th October 2012. The watching brief monitored the topsoil strip and trenching south of Little Bampton. No archaeological remains were noted during groundworks. As this archaeological watching brief was conducted as part of a recommendation to observe groundworks in association with the development of a new sewer, no further work is deemed necessary. However, given the high archaeological potential of the area, it is recommended that any future work be subject to a similar programme of archaeological investigation.

ACKNOWLEDGEMENTS

Wardell Armstrong Archaeology Ltd would like to thank Rick Sykes of United Utilities, for commissioning the project, and for all assistance throughout the work. Wardell Armstrong Archaeology Ltd would also like to thank Jeremy Parsons, Cumbria County Council Historic Environment Service, for his assistance throughout the project.

Wardell Armstrong Archaeology Ltd would also like to extend their thanks to Stewart Wilson of Waitings Drainage Ltd, and all staff at on site, for their help during this project.

The archaeological watching brief was undertaken by Miranda Haigh, Angus Clark and Sue Thompson. The report was written by Sue Thompson and the drawings were produced by Adrian Bailey. The project was managed by Frank Giecco, Project Manager for WAA Ltd. The report was edited by Martin Railton, Project Manager for WAA Ltd.

1 INTRODUCTION

- 1.1 Wardell Armstrong Archaeology Ltd were invited by United Utilities to maintain an archaeological watching brief between Little Bampton and Aikton, Cumbria (NGR NY 278 548 to NY 275 541); Figure 1), during groundworks associated with the installation of a new sewer pipeline from the small wastewater treatment works (WwTW) located to the south of Little Bampton, to the north of Aikton. The proposed works lie within the immediate vicinity of several sites of archaeological or historical interest; cropmarks of undetermined age have been observed in a field to the south-west, and ridge and furrow have been suggested to exist in a field to the south side of Little Bampton.
- 1.2 A previous desk-based assessment was produced by NP Archaeology (Wooler 2012), which highlighted the archaeological potential of the fields to the south of Little Bampton. As a result, Jeremy Parsons, Cumbria County Council Historic Environment Service requested that all ground reduction be subject to a programme of archaeological observation and investigation. This is in line with government advice as set out in Section 12 of the National Planning Policy Framework (NPPF 2012).
- 1.3 All groundworks associated with the development of the new sewer pipeline had to be excavated under full archaeological supervision and all stages of the archaeological work were undertaken following approved statutory guidelines (IfA 2008), and were consistent with generally accepted best practice.
- 1.4 This report outlines the monitoring works undertaken on-site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological works.

2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design was submitted by Wardell Armstrong Archaeology Ltd in response to a request by United Utilities, for an archaeological watching brief of the study area. Following acceptance of the project design by Jeremy Parsons, Cumbria County Council Historic Environment Service, Wardell Armstrong Archaeology Ltd was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.

2.2 THE WATCHING BRIEF

2.2.1 The works involved a structured watching brief to observe, record and excavate any archaeological deposits from the development site. A watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons, on a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed (IfA 2008).

2.2.2 The aims and principal methodology of the watching brief can be summarised as follows:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record them;
- to carry out further excavation and recording work in adequate time, if intact archaeological remains are uncovered during the project;
- to accurately tie the area watched by the archaeologist into the National Grid at an appropriate scale, with any archaeological deposits and features adequately levelled;
- to sample environmental deposits encountered as required, in line with English Heritage (2002) guidelines;
- to produce a photographic record of all contexts using colour digital and monochrome formats as applicable, each photograph including a graduated metric scale;
- to recover artefactual material, especially that useful of dating purposes;
- to produce a site archive in accordance with MAP2 (English Heritage 1991) and MoRPHE standards (English Heritage 2006).

2.2.3 An area along the route of the proposed pipeline to the north of the Bampton Beck, on average 10m wide, was stripped of topsoil, which was stored in a bund to the side of the stripped area. The trenches measured up to 3m in width, and were between a metre deep at the western end and 3m at the eastern extent of the watching brief area. The archaeological monitoring and supervision of groundworks associated with the stripping commenced on 12th September 2012. A summary of the findings of the watching brief is included within this report.

2.3 THE ARCHIVE

2.3.1 A full professional archive has been compiled in accordance with the specification, and in line with current UKIC (1990) and English Heritage Guidelines (1991) and according to the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited within Carlisle Archives Centre, with copies of the report sent to the Cumbria County Historic Environment Record at Kendal, where viewing will be made available upon request. The archive can be accessed under the unique project identifier WAA12, LBC-A, CP 10355/12.

2.3.2 Wardell Armstrong Archaeology Ltd and Cumbria County Council Historic Environment Service Council support the **Online AccesS to the Index of Archaeological InvestigationS (OASIS)** project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by Wardell Armstrong Archaeology Ltd, as a part of this national project.

3 BACKGROUND

3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1 The villages of Little Bampton and Aikton are located approximately 13km to the west of the centre of the city of Carlisle, and Aikton are situated c.5km to the north of Wigton, with Little Bampton located another 1.5km further north. The area around the villages is low lying, being situated only c.9km to the east of the shoreline of the Solway Firth (Figure 1).
- 3.2 The proposed pipeline route heads from the present sewage works to the south side of Little Bampton and follows the line of the Bampton Beck in an easterly direction until it reaches Bampton Bridge, at which point it turns southwards and follows the road towards Aikton, terminating at the site of a proposed manhole located just to the north of the Aikton Arms Public House, and close to the entrance to Moordyke Farm (Figure 2).
- 3.3 The villages of Little Bampton and Aikton are located in an area characterised by the Countryside Commission as the 'Solway Basin', which is described as a broad, lowland plain landscape fringed by the low, rugged, relatively remote coastline of the Solway Firth and the Irish Sea. It is framed by the Cumbria High Fells to the south, the hills of the Scottish borders to the north and the Border Moors and Forests to the north-east. The soft horizontal form of this intensively managed, predominantly pastoral landscape contrasts markedly with the Cumbria High Fells. Inland, the field pattern is generally rectilinear and fields are fairly large in scale, bounded by hedges or fences with some hedgerow trees (Countryside Commission 1998).
- 3.4 The Solway Basin is underlain mainly by mudstones and sandstones of Permo-Triassic age ('New Red Sandstone'). The most important sandstone formation, the St Bees Sandstone, has been much quarried for use as building stone. To the west of Carlisle, poorly exposed Liassic mudstones and limestones, of Jurassic age, overlie the Permo-Triassic rocks, forming a small outlier around Great Orton and Wiggonby. Erosion of the comparatively weak Perm-Triassic and Jurassic rocks reduced much of the Solway Basin to an area of low relief prior to the onset of the last glaciation. During this period thick ice-sheets crossed the area from Scotland and the Lake District. These carried with them vast quantities of rock debris which was deposited as boulder clay (till), both beneath the ice and from within it as it melted. Because of the extensive mantle of glacial deposits, exposure of 'solid' rock are few and the direct influence of these rocks upon the landscape formation is thus very limited (*ibid*).

3.2 HISTORICAL CONTEXT

- 3.2.1 *Introduction:* this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area. References to the County Historic Environment Record (HER) are included where known.
- 3.2.2 *Prehistoric:* the earliest evidence of activity locally is Bampton Beck Ditched Enclosure, a sub rectangular ditched enclosure appearing as a cropmark in a field south of Bampton Beck (HER No. 16553). This is outside of the 500m buffer zone of the pipeline route.
- 3.2.3 *Medieval:* Little Bampton Ridge and Furrow (orientated north to south) is recorded in fields to the south of Little Bampton. The date of this ridge and furrow is uncertain but documentary sources confirm Little Bampton was in existence in the medieval period, (Wooler 2012).
- 3.2.4 *Post-medieval and Modern:* Both Little Bampton and Aikton are small rural villages which have been in constant occupation since their early medieval roots, although no medieval structures are known to survive. Several probable 18th century buildings survive in the area and Bampton Bridge over the Bampton Beck is of interest, although it is of unknown date.

3.3 PREVIOUS WORK

- 3.3.1 In 2009 Oxford Archaeology North undertook a desk-based assessment and walkover survey of a proposed route of a new utilities pipeline, which was planned to largely follow the present road from Little Bampton to Aikton, and south to the River Wampool. This assessment incorporated part of the proposed route which is the subject of the present assessment. The work undertaken by Oxford Archaeology North identified features in the vicinity of the proposed route including sunken roads, cropmarks and field boundaries, dating from the prehistoric period onwards. A total of 17 sites of archaeological and historical interest were identified during this work, 15 of which have already been recorded in the HER. An archaeological watching brief was recommended during groundworks associated with the proposed scheme (HER Report Ref: 2/09/2131).

4 ARCHAEOLOGICAL WATCHING BRIEF

4.1 INTRODUCTION

4.1.1 The watching brief monitoring was undertaken in two key phases. The first phase began on 12th September 2012, followed by a longer phase between 26th September 2012 and 16th October 2012. The former related to the controlled stripping of the topsoil along the northern part of the site whilst the latter related to the trenching of the pipeline route (Figure 2).

4.2 PHASE 1: TOPSOIL STRIP

4.2.1 The Phase 1 watching brief covered the controlled stripping of topsoil along the proposed pipeline, south of Little Bampton and north of the Bampton Beck, prior to the excavation of the pipeline trenches (Figure 2).

4.2.2 The topsoil was stripped by a JCB 3cx with a back-hoe. The topsoil (100) comprised of a dark brown silt, and was present across the site to a depth of 0.30m but in places, notably the southern part of Field 1, measured up to 0.70m in depth. Beneath the topsoil (101) a mid orange brown sandy silt subsoil, was visible. No archaeological features were noted.



Plate 1: Topsoil strip in Field 1 facing east

4.3 PHASE 2: PIPELINE TRENCHES

- 4.3.1 The Phase 2 watching brief aimed to monitor all subsequent groundworks associated with the excavation of the pipeline trenches (Figure 2).
- 4.3.2 The trenches for the new wastewater pipe were excavated along the area which had been stripped of topsoil. Due to the very soft and waterlogged nature of the ground, wedge shaped trenches were excavated and were on average 3m wide at the top and 0.50m at the base. The depth ranged from a minimum of 1m at the western end of the pipeline near the current sewage works, to a maximum of 3m in the east (Plate 2).
- 4.3.3 The stratigraphic matrix observed within the excavated area remained fairly constant throughout, but in places was varied with more deposits seen to the eastern end of the trenches. The uppermost layer removed consisted of the remnants of topsoil (100), which overlaid orange brown sandy silt with frequent gravel inclusions (102), and was a maximum of 0.80m. This overlaid a lower subsoil (103), a soft mottled grey yellow sandy silty clay, which contained frequent round and sub-rounded pebbles. To the base of this deposit a band of rounded river cobbles was observed, measuring between 0.20m and 0.50m in depth. It seems likely that these cobbles formed part of either an earlier course of the Bampton Beck or relate to a flood episode. Similar deposits, at a similar level, were seen in the stream bed to the south. The natural geology appeared to be a mix of sands and clays, and lenses of both could be seen along the trenches.
- 4.3.4 A series of land drains were observed in the trenches. These contained red clay horseshoe or tubular tiles, some of which had to have been damaged by ploughing. Most of the land drains were orientated north-east to south-west in the higher northern parts of the fields, and north-west to south-east towards the beck.
- 4.3.5 At the eastern extent of the watching brief area, to the north of Bampton Beck in Field 4, a pit for a manhole was excavated to allow a section of pipe to be mole drilled beneath the beck. This pit measured square and had to be boxed due to the unstable nature of the ground. The pit exposed a deposit of brown organic peaty material (104) roughly 0.10m in depth seen at approximately 1.20m below ground surface (Plate 3). This was observed below the subsoil (102) and yellow and grey clays (101), and above the dark grey silty clay (103) containing frequent rounded cobbles. The lowest deposit seen within this pit was a soft orange sand (106) which lay at the level of the water table and became immediately waterlogged when excavated.
- 4.3.6 No archaeological remains were noted during the excavation of the trenches.



Plate 2: Wastewater pipe trench in Field 3 looking east



Plate 3: Pit for manhole at eastern extent of pipeline facing east

4.4 ARCHAEOLOGICAL FINDS AND ENVIRONMENTAL SAMPLING

4.4.1 No archaeological finds of note were recovered, and no environmental samples were retained during the groundworks.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

- 5.1.1 *Phase 1:* the site was stripped of topsoil to create a working area, under archaeological supervision. No archaeological remains were noted.
- 5.1.2 *Phase 2:* the excavation of pipeline trenches were monitored during the watching brief. No archaeological remains were noted.
- 5.1.3 The fields to the south of Little Bampton slope steeply as they approach the Bampton Beck. The beck lies in its own mini flood plain and the deposits reflect this. The range of sands, clays and river gravels, particularly to the south of the fields may be responsible for some of the crop marks seen on recent aerial photographs.

5.2 RECOMMENDATIONS

- 5.2.1 As this watching brief was conducted as a condition of ground works relating to the installation of a new sewer pipeline south of Little Bampton, no further archaeological work is deemed necessary. However, given the known presence of undetermined cropmarks within close proximity to the village of Little Bampton, and the possible presence of archaeological features within the four fields to the south side of the village, it is recommended that any work conducted in the future be subject to a similar programme of archaeological investigation.

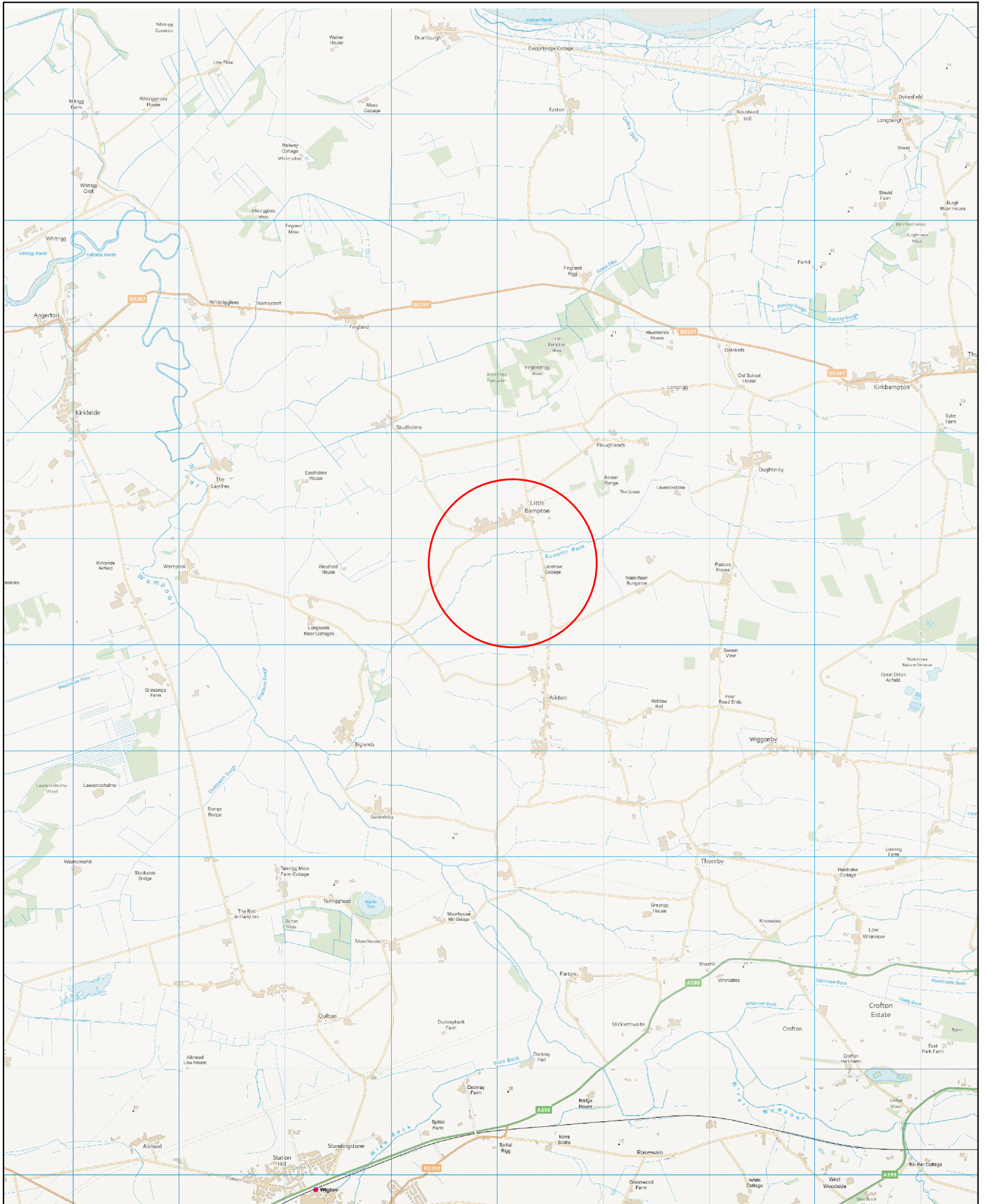
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APPENDIX 1: CONTEXT TABLE

Context Number	Context Type	Description
100	Deposit	Topsoil
101	Deposit	Yellow clay subsoil
102	Deposit	Upper orange brown subsoil
103	Deposit	Mottled lower subsoil
104	Deposit	Light grey clay
105	Deposit	Mid brown peat
106	Deposit	Orange sand

APPENDIX 2: FIGURES






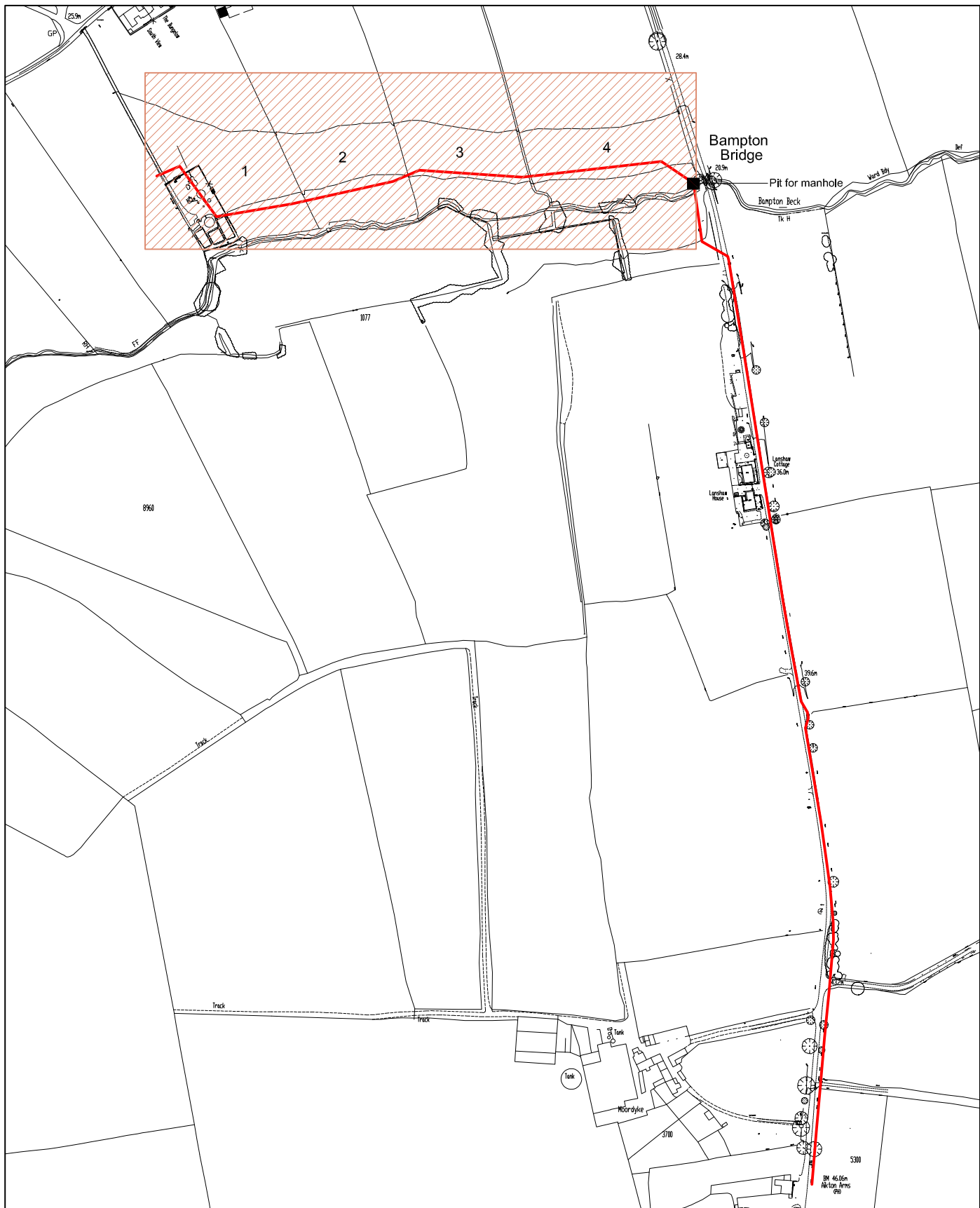
 <p>WA Archaeology Ltd 2012</p>	<p>PROJECT: Little Bampton to Aikton Pipeline, Cumbria</p> <p>SCALE: 1:50,000 at A4</p> <p>REPORT No: CP10355</p> <p>CLIENT: United Utilities</p> <p>DRAWN BY: AB</p> <p>DATE: November 2012</p> <p>FIGURE: 1</p>	<p>KEY:</p>  Site location	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
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Figure 1: Site location.







 <p>WA Archaeology Ltd 2012</p>	<p>PROJECT: Little Bampton to Aikton Pipeline, Cumbria SCALE: 1:5,000 at A4 REPORT No: CP10355 CLIENT: United Utilities DRAWN BY: AB DATE: November 2012 FIGURE: 2</p>	<p>KEY:</p> <p> Area of watching brief  Route of pipeline</p>	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
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Figure 2: Location of watching brief (showing field no. 1-4).