PROPOSED PIPELINE ROUTE BETWEEN WORKINGTON AND GREAT CLIFTON, CUMBRIA



ARCHAEOLOGICAL DESK-BASED ASSESSMENT AND WALKOVER SURVEY CP10126 12/01/2012



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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 NP Archaeology Ltd on the preparation of reports.

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SUMMARY

NP Archaeology Ltd were commissioned by United Utilities to undertake an archaeological desk-based assessment and walkover survey of a proposed *c*.4km long pipeline route between Workington and Great Clifton (from NGR NY 0290 3007 to NY 0064 2884).

The line of the proposed pipeline route starts close to the remains of the 14th century Workington Hall, which are protected as a Scheduled Monument and are listed Grade I. The route then passes through Workington Hall Park, a Grade II Registered Park and Garden, which was originally a deer park for the medieval hall and was extended and altered to form a designed landscape during the late 18th and early 19th centuries. The route then passes through the medieval village of Stainburn with its medieval hall and crosses the course of two former railway lines and an area of indeterminate cropmarks before reaching the River Derwent.

Due to the presence of these historic features along the proposed pipeline route, Cumbria County Council Historic Environment Service (CCCHES) have requested that an archaeological desk-based assessment and walkover survey of the route be undertaken in order to provide further information concerning the location, extent, survival and significance of the known archaeological remains along the route, as well as the potential for unknown archaeological remains to survive.

The desk-based assessment involved the consultation of the Cumbria Historic Environment Record (HER), a database of known sites of historical or archaeological interest, within a 500m buffer zone (250m to either side) of the proposed pipeline route from Workington to Great Clifton. The HER also includes information on Listed Buildings, Conservation Areas, Scheduled Ancient Monuments, as well as non-designated sites, and details of previous schemes of archaeological work which may have taken place within the area. Aerial photographs housed at the HER were also consulted. The local studies section of Carlisle Library, and Carlisle Archives Centre, were also visited primarily for information from historical mapping which show the development of the topography of the ground along the proposed pipeline route during the 19th and 20th centuries. Unpublished and published material was also assessed for any information on features identified through the HER or historical mapping.

The desk-based assessment has revealed that information from the Historic Environment Record (HER) database has indicated that the proposed pipeline route will potentially impact on several sites of archaeological or historical interest along its length., including buildings associated with Derwent Paper Mills; and the site of Brow Foot Brewery, although this may actually have been located to the south side of the proposed route. Curwen Park, through which the pipeline will cut across in a west to east direction, is a Registered Historic Park, which was laid out by Thomas White in the 1780s to accompany Workington Hall. No further HER sites appear to be affected by the proposed pipeline until it reaches its eastern end, near Great Clifton, where it crosses a railway line which is recorded as part of William Pit Colliery, which closed in 1959, and through a field which has been noted to contain cropmarks of undetermined age.

Historical mapping has indicated that the proposed pipeline route may impact on buildings associated with Derwent Paper Mills, located under what is now the car park for Workington Police Station. The open area of land which is now known as Curwen Park, is shown to have been open since at least the early 19th century, with no evidence for any structures apart from Brow Foot Brewery to the west of Workington Hall, although this does not appear to be within the proposed pipeline route. To the east side of Curwen Park the pipeline crosses a track formerly providing vehicular access to Workington Hall Mill, and close to a small bridge over Scale Beck. At the eastern end of the proposed pipeline route, mapping has shown that two sections of railway line will be affected by the route, one relating to William Pit Colliery and dating to the second half of the 19th century, and the other being part of the main Cockermouth to Workington Railway which is shown to have been extant in 1867.

Aerial and modern satellite photography has suggested that at least one of the fields to the east side of Stainburn Hall Farm has been ploughed, as shown by cropmarks in the form of an 'envelope'. The fact that at least one of these three fields has been ploughed suggests that any potential sub-surface archaeological remains may have been disturbed, depending on depth.

The site walkover has identified new features in the form of ridge and furrow within Curwen Park, as well as a possible section of raised trackway, although from what could be observed on the ground this would not be affected by the presently planned route.

From the evidence gained from the desk-based assessment and site walkover it is possible to show that the proposed pipeline route will impact on several sites of archaeological interest in its present form, it is possible that some form of archaeological mitigation may be required, the scope of which would be set out by Cumbria County Council Historic Environment Service.

ACKNOWLEDGEMENTS

NP Archaeology Ltd would like to thank Anna Smith of United Utilities for commissioning the project. NP Archaeology Ltd would also like to thank Jeremy Parsons and Jo Mackintosh, Cumbria County Council Historic Environment Service; Stephen White, Carlisle Library, staff at Carlisle Archives Service, and Mr Farries of Stainburn Hall Farm for providing access onto his land.

The archaeological desk-based assessment and walkover survey was undertaken by Fiona Wooler, who also wrote the report. The project was managed by Frank Giecco, Technical Director for NP Archaeology Ltd, who also edited the report.

1 INTRODUCTION

- 1.1 NP Archaeology Ltd were commissioned by United Utilities to undertake an archaeological desk-based assessment and walkover survey of a proposed pipeline route, approximately 4km in length, between Workington and Great Clifton, Cumbria (from NY 0290 3007 to NY 0064 2884).
- 1.2 The line of the proposed pipeline route starts close to the remains of the 14th century Workington Hall, which are protected as a Scheduled Monument and are listed Grade I. The route then passes through Workington Hall Park, a Grade II Registered Park and Garden, which was originally a deer park for the medieval hall and was extended and altered to form a designed landscape during the late 18th and early 19th centuries. The route then passes through the medieval village of Stainburn with its medieval hall and crosses the course of two former railway lines and an area of indeterminate cropmarks.
- 1.3 Due to the presence of these historic features along the proposed pipeline route, Cumbria County Council Historic Environment Service (CCCHES) have requested that an archaeological desk-based assessment and walkover survey of the route be undertaken in order to provide further information concerning the location, extent, survival and significance of the known archaeological remains along the route, as well as the potential for unknown archaeological remains to survive¹.
- 1.3 The desk-based assessment involved the collation of information derived from several sources as outlined below, in order to assess the potential for archaeological remains to survive along the proposed pipeline route, and the significance of any such remains which may be affected by the proposed works.

¹ Parsons, J, 2011

2 METHODOLOGY

2.1 **PROJECT DESIGN**

2.1.1 NP Archaeology Ltd produced a Project Design in advance of the commencement of the desk-based assessment and walkover survey setting out aims and methodology of the work², as required by the Brief issued by Cumbria County Council Historic Environment Service³.

2.2 DESK-BASED ASSESSMENT

- 2.2.1 The desk-based assessment involved the consultation of historical documentation and sources which provide information on the history of the proposed pipeline route; to identify sites already recognised as being of historical or archaeological importance, and assess the potential for previously unrecorded sites. The assessment of historical documentation involved the consultation of the following archives:
 - *Cumbria Historic Environment Record:* the Historic Environment Record (HER) for Cumbria was consulted for information on sites of archaeological and/or historical interest within a 500m buffer zone along the proposed pipeline route. The HER contains information on Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, and non-designated sites, as well as details of previous archaeological work within the locality. Aerial photographs housed within the collection were also consulted for any information on potential archaeological features within close proximity to the proposed pipeline route.
 - *Carlisle Library (local studies):* the local studies section of Carlisle Library was consulted primarily to obtain information from historical mapping for the development of the route through the 19th and 20th centuries. Published and unpublished material was also consulted relevant to the Workington, Stainburn and Great Clifton areas, and their immediate environs. A search was also made of any historical photographs or engravings which may have shown the character of any standing features along the route.
 - *Carlisle Archives Centre:* Carlisle Archives Centre was also consulted for any historical mapping which could not be obtained at Carlisle Library, and for any information on relevant historical building

² Giecco, F, 2011

³ Parsons, J, 2011

control plans, trade directories and sales particulars which may exist within their collections.

- *On-Line Sources:* on-line sources such as the National Monuments Record were also consulted in order to enhance the material derived from the HER, Carlisle Library and Carlisle Archives Centre.
- 2.2.2 The desk-based assessment was undertaken in accordance with the Institute for Archaeologists *Standard and Guidance for Archaeological Desk-Based Assessment*⁴.

2.3 WALKOVER SURVEY

- 2.3.1 A walkover survey of the proposed pipeline route, outside of the existing road make-up, was undertaken encompassing the proposed working easement as a minimum, as requested in the project brief produced by CCCHES⁵. The purpose of the walkover survey was to identify any surface features of potential archaeological or historical interest; areas of potentially significant recent disturbance, and hazards and constraints to undertaking further archaeological work along the route, including the locations of live services, Tree Preservation Orders and public footpaths.
- 2.3.2 The walkover survey adhered to the requirements of a Level 1 Survey as described by English Heritage⁶.

2.4 **Reporting**

- 2.4.1 A copy of the report will be deposited with Cumbria County Council Historic Environment Service, where viewing will be made available upon request.
- 2.4.2 NP Archaeology Ltd and Cumbria County Council Historic Environment Service 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 NP Archaeology Ltd, as a part of this national project.

⁴ IfA 2008

⁵ Parsons, J, 2011

⁶ English Heritage, 2007

3 SITE LOCATION AND GEOLOGY

- 3.1 The port and town of Workington and the village of Great Clifton are located to the west side of the county of Cumbria, Workington being located on the coast, and Great Clifton is situated approximately 3km to the east, with Stainburn located between the two (Figure 1).
- 3.2 The proposed pipeline route commences at its western end in the car park of the Workington Police Station off Hall Brow, then heads eastwards into a large area of green space below Workington Hall (Curwen Park), before following a track which presently provides access to Workington Hall Mill. The proposed pipeline then commences to the east side of the village of Stainburn and heads in an easterly direction, following the modern road, towards Stainburn Hall Farm, where it diverts into the southern end of fields to the east of the farm. The route then crosses the easternmost field to connect with existing infrastructure at the housing estate (Riverside) before heading in a north-west direction following the line of an old Mineral Railway, and then changing to a north-east direction to head towards the River Derwent (Figure 2).
- 3.3 The Countryside Commission includes Workington in a character area known as the 'West Cumbria Coastal Plain', which it describes as having a fascinating character of contrasts. Its geographical position gave it importance for trade and as a communications route. The richness of mineral deposits of coal and iron ore in particular have given it an industrial history which has continued to the present day, although the nature of the industry has changes. The industrial character is overlain on relatively rich agricultural land and has the effect of distributing small 'urban' communities in a rural landscape. The majority of the inland area is a medium-scale pastoral landscape of undulating or gently rolling topography. Medium to large scale fields of improved pasture are subdivided by a mixture of hedgerows, hedgerow trees and wire fences. Stone walls and hedges established on stone banks, known locally as dykes, are common features along the minor roads and ancient field boundaries.⁷
- 3.4 The underlying geology of the coastal area around Workington consists of Carboniferous Westphalian Coal Measures with some pockets of Namurian millstone grits. The measure of the outcrops of Westphalian rocks are best known in the west Cumbrian coal-field between Whitehaven and Maryport,

⁷ Countryside Commission, 1998, Pages 25 and 27

and are thickest in Workington and Maryport. On the coast, a gentle dip lowers the beds seawards beneath the offshore outcrop of the Permian⁸.

⁸ English Heritage/Cumbria County Council c.2002, Page 2

4 DESK-BASED ASSESSMENT

4.1 INTRODUCTION

- 4.1.1 The desk-based assessment involved the consultation of the Cumbria Historic Environment Record (HER), a database of known sites of historical or archaeological interest which is maintained by Cumbria County Council Historic Environment Service. As well as containing information on known archaeological sites in Cumbria (excluding the Lake District National Park), the HER also contains details of any Listed Buildings, Conservation Areas, Scheduled Ancient Monuments, and other designated sites, as well as information on previous schemes of archaeological work.
- 4.1.2 Carlisle Archives Centre and the local studies section of Carlisle Library were also visited in order to obtain historical mapping which show the development of the topography of the land along the route of the proposed pipeline. Published and unpublished material was also consulted in order to provide any further information on features noted along the route from the historical mapping.
- 4.1.3 The information derived from the HER and from historical mapping and published and unpublished sources have been combined in section 4.4 below to provide a brief chronological description of known and potential archaeological sites along the proposed pipeline route.

4.2 HISTORIC ENVIRONMENT RECORD (HER)

- 4.2.1 *HER Sites:* there are a total of 15 sites which are recorded in the County Historic Environment Record database, within a 500m buffer zone of the proposed pipeline route (250m to either side). A full list of these entries is provided in Appendix 1. The following entries are of particular relevance, as they are sited within close proximity to the proposed route:
 - Workington Hall (HER No. 3690): Workington Hall, chief mansion of the Curwen's, now roofless and fallen into decay. Early in the 13th century Patric de Culwen removed his tower from Burrow Walls to this site. A tower was built in 1362, with a license to crenellate granted in 1380. In 1404 a hall was built adjoining the north face of the tower, and in around 1540 a second hall was erected on the first floor. Around 1597 two long flanking wings were added and a court was enclosed on the west side by a gate house. Property was rebuilt 1782-1828, supposedly by architect John Carr. 'In spite of its ruinous state Workington Hall is of great historical importance and contains many medieval features which make it unique'.

- *Brow Foot Brewery (HER No. 40294):* former site of a brewery which is shown on town plans of Workington dated 1793 and 1811, as well as on the First and Second Edition Ordnance Survey maps of 1867 and 1900. Not shown on modern mapping. The proposed pipeline route may impact on any below ground remains associated with this site depending on its exact course.
- *William Pit, Great Clifton (HER No. 11497):* site of William Pit and associated railway lines. By 1900 the colliery appears to have substantially grown, with a new mineral line linking it to the Cockermouth, Keswick and Penrith Railway to the west. The proposed pipeline route will cut through the course of part of this mineral line which linked the William Pit (Coal) with William Sidings on the Cockermouth and Workington branch of the L & NWR as shown on the Second Edition Ordnance Survey map of 1900 (see Figure 7).
- *Low Seaton Unclassified Cropmarks (HER No. 17694):* the extreme north end of the proposed pipeline route, the section which branches off in a northerly direction from the main pipeline near Great Clifton, enters the south end of a field which is noted to contain cropmarks as seen from aerial photographs.
- 4.2.2 *Scheduled Ancient Monuments:* the western end of the proposed pipeline route passes immediately to the north of Workington Hall, which is a Scheduled Ancient Monument. The monument includes the upstanding and buried remains of Workington Hall tower house and later medieval fortified house, which was the ancestral home of the Curwen family for over 800 years (SM No. 34980).
- 4.2.3 *Listed Buildings:* there are a total of 15 Listed Buildings located within a 500m buffer zone of the proposed pipeline route. Full details of these are provided in Appendix 1. The only listed building to possibly be affected by the pipeline is Workington Hall, which is Grade I listed, as the route is proposed to pass immediately to its north side.
- 4.2.4 *Conservation Areas:* none of the proposed pipeline route is situated within a Conservation Area, although at its western end, Workington Portland Place Conservation Area is situated just to the south.
- 4.2.5 *Registered Parks and Gardens:* at its western end, the proposed pipeline route passes through part of a registered park and garden associated with Workington Hall (Ref: GD2278). The entry for this site notes that this registered park and garden was laid out by Thomas White in the 1780s to accompany a country house (Workington Hall). An earlier deer park and

grounds was extended by White, whose plan for the estate is dated 1783. The work was carried out for John Christian and Isabella Curwen, John having married Isabella, the sole heir of Henry Curwen of Workington Hall, in 1782. Improvements in the grounds continued until John's death in 1828. In 1945 Lady Chance bequeathed Workington Hall and Curwen Park to Workington Borough Council. The hall passed to Allerdale District Council in 1974 who still own and manage it.

- 4.2.6 *Previous Archaeological Work:* a 500m buffer zone search of the proposed pipeline route, and a search of land around Great Clifton and Stainburn, was also conducted of the HER for information on previous archaeological work which has been carried out within the last ten years. This information is useful in identifying the nature and survival of archaeological remains, and to what periods in history they may relate:
 - St John's Precinct, Workington [located just outside the western end of the buffer zone]: a desk-based assessment was carried out by Oxford Archaeology North in 2002 as part of a pre-planning appraisal prior to proposed redevelopment. The assessment identified a number of post-medieval public and functional buildings including churches, a school and a drill hall. Cartographic evidence suggested that the area south of Pow Street had developed very little prior to 1865, with the majority of the building taking place at the end of the 19th century. The assessment noted that it was possible that medieval remains may survive within the area fronting directly onto Pow Street, and further work was recommended (HER Ref: 2/02/394).
 - Former St John's Precinct, Workington: following on from the deskbased assessment undertaken in 2002, Oxford Archaeology North conducted an evaluation excavation on the site of St John's Precinct prior to demolition and redevelopment in 2003. A total of 15 trenches were excavated revealing deposits relating to 19th century buildings along Washington Street, Pow Street and in St John's Arcade, but also demonstrated that development in the 1960s had removed earlier archaeological remains in the central part of the site, for example where the drill hall and school had been constructed in the 19th and early 20th centuries (HER Ref: 2/06/1539).
 - Workington Brewery, Ladies Walk, Workington [located at the western end of the buffer zone]: an archaeological assessment and evaluation of the former Workington Brewery site was undertaken by Oxford Archaeology North in 2004 in advance of proposed redevelopment. The site originally contained numerous buildings associated with the brewery which have since been demolished, leaving only the derelict

wines and spirits warehouse, and the main brewery building and malt mill. The assessment revealed that the 'Old Brewery' operated on the site from c.1767 by Fosset & Co. The 'New Brewery' later 'Workington Brewery' was built to the south-east and operated from c.1795. By 1836 it had been rebuilt with up-to-date facilities including the extant malt mill. The archaeological evaluation found that the area had undergone extensive disturbance through successive phases of development and levelling. Remains of worker's cottages and other buildings shown on historical mapping were revealed. No features or deposits pre-dating the 19th century were encountered apart from cultivation soils which suggested that the site was used as an orchard before the first brewery was built (HER Ref: 2/04/1318).

- *Land off Moor Road, Great Clifton:* although this site is located just outside the eastern end of the 500m buffer zone, it is referred to here as it may provide some information on the character of below ground remains on the outskirts of the village. A desk-based assessment was undertaken of the site by Jan Walker in 2004 in response to a planning application for new dwellings at NGR NY 0390 2935. The assessment revealed that the land had been more recently used for recreational purposes such as a show ground and carnival field, which may have accounted for the uneven appearance of its surface. Early cartographic evidence showed that the site was a pasture field associated with the adjacent Clifton House. A 'well' shown on the Second Edition Ordnance Survey map of 1900 was noted to possibly have been associated with 19th century coal mine workings located beneath the site (HER Ref: 2/04/1313).
- Workington Hall Conservation Plan: in 2006 a Conservation Management Plan was produced for Workington Hall, a Grade I Listed Building and Scheduled Ancient Monument, sited within a Grade II Registered Historic Park. The Conservation Management Plan considered the history of the site, and assessed the condition of the standing remains. The plan was prepared to address issues concerning its future preservation (HER Ref: 2/06/1596).
- Land at Moor Road, Stainburn: an archaeological desk-based assessment and geophysical survey was undertaken by CFA Archaeology Ltd in 2011 of an area of vacant land on the south side of the modern village of Stainburn, located just outside the south edge of the HER search buffer zone for the proposed pipeline route (NGR NY 0210 2855). The assessment did not reveal any known archaeological sites within the proposed development area apart from former field boundaries shown on 19th century and later

cartographic sources. The geophysical survey revealed evidence for the line of a former field boundary shown on historical mapping. A few other relatively coherent linear responses were identified and were classified as *Uncertain Origin;* it was noted that while there was the possibility that these may have been archaeologically significant, it seemed more likely that they related to agricultural practices. It was concluded that the overall potential for preserved archaeological remains to exist on the site was low (HER Ref: 2/11/2456).

- 4.2.7 *Aerial Photographs:* the brief issued by Cumbria County Council Historic Environment Service requested, as part of the desk-based study, a reassessment of the available aerial photographic evidence, housed within the HER at Kendal⁹. A total of 33 aerial photographs in the collection were identified to show part of the proposed pipeline route, and all were consulted for any information on potential archaeological sites or features, or historic or present land use. The majority of the photographs were, however, taken vertically and did not form part of a dedicated search for potential archaeological sites; as a consequence they provided little additional information with regards to the proposed pipeline route. There were, however, several views which provide some interesting features:
 - *NY0128/2.20.22:* a vertical shot taken in 1948 which shows Workington Hall and the park to its eastern side. Footpaths are visible crossing the park and a track is shown leading towards Workington Hall Mill. There appears to be 'scuffed' areas of ground which may represent the goal mouths of football pitches.
 - *NY0228/2.18.3:* vertical view taken in 1948 which shows the village of Stainburn as less built up as it is now, with the main road from Workington to Great Clifton clearly visible, and roads leading off from the centre of Stainburn to the south-west and south-east.
 - NY02229/2.18.6 NY02NW: a vertical photograph taken in 1948 which shows Stainburn Hall Farm and the surrounding fields, through which part of the proposed pipeline route will run. No features were noted in any of these fields which surround the farmstead on this photograph.
 - *NY0229/3.9.13 NY02NW:* undated vertical view showing the railway line and bridge over the River Derwent to the north-west of Great Clifton; the proposed pipeline route is noted to run through part of this dismantled railway line. In the second field to the east of Stainburn Hall Farm a former west-east field boundary is visible,

⁹ Parsons, J, 2011, Page 3

with the northern field showing evidence for 'envelope' plough marks indicating that this field has, historically at least, been utilised for arable cultivation.

- *NY0329/2.18.13 NY02NW:* a vertical photograph taken in 1948 which shows the distinctive curved road of a small housing estate on the western edge of Great Clifton. No obvious features are visible in the fields to the west of Great Clifton.
- *NY0028/A:* an oblique photograph taken in 1986 looking south-east from the north side of the River Derwent. This view shows the ruins of Workington Hall and to the east the open land of Curwen Park, through part of which the pipeline is proposed to run. The park is shown at this date to contain rugby posts and football goals indicating that the land was in use for recreational purposes.

4.3 CARTOGRAPHIC SOURCES

- 4.3.1 A selection of cartographic (map) sources were consulted at Carlisle Archives Centre and the local studies section of Carlisle Library, ranging from the 17th century up until the middle of the 20th century. The earliest maps consulted, i.e. pre-Ordnance Survey mapping from the 1860s, are at a small scale and are briefly referred to here as they show some features of interest between Workington and Great Clifton. It must be noted that each map reproduced within this report only represents a 'snap shot' of a particular year, and there are some large gaps between the publication of the maps in which features may have come and gone without being recorded on cartographic sources. The figures referred to below are reproduced in Appendix 2 of this report.
- 4.3.2 *Saxton's Map of Cumberland 1576* (Figure 3): although at a small-scale this map does show a vignette of a house at *'Stainborne'* suggesting a significant property, possibly Stainburn Hall, and a depiction of a church as *'Clyfton'*, which may actually represent the church near Little Clifton rather than an ecclesiastical structure at what is now known as Great Clifton. A large property is shown at *'Wirkinto'*, presumably Workington Hall, with *'St Michael Chapel'* represented to its west side, possibly St Michael's Church.
- 4.3.3 *Hodskinson and Donald's Map of Cumberland* 1774 (Figure 4): although still at a small-scale, this map does provide a little information regarding the topography of the land between Workington and Great Clifton at the end of the 18th century. Workington Hall is represented as a small vignette annotated with the name '*Henry Curwen Esq*', located on the north side of an apparent main turnpike road from Workington towards Great Clifton. The water mill of Workington Hall is represented as a circular symbol on a

deviation of the River Derwent to the north side of the hall. Between Workington and Great Clifton the land to the north side of the road is hachured suggesting that there is a slope which descends in a northerly direction. Stainburn is shown as a linear settlement along this turnpike road, with a road branching off to the south, and *'Great Cliftton'* existed as a small settlement centred on a crossroads.

- 4.3.4 *Plan of the Town and Harbour of Workington from an Actual Survey 1811* (Figure 5): this map is only concerned with the town of Workington and therefore only shows the western part of the proposed pipeline route, in the vicinity of Workington Hall. The ground around the hall is shown as a 'Park' with tree lined roads or tracks surrounding the property. A rectangular building shown to the north-east of the hall is possibly the brewery which is shown on later mapping, and is recorded in the HER as Brow Foot Brewery (HER No. 40294); this site may be impacted by the proposed pipeline route depending on its exact location, although there are structural remains to the west of Workington Hall observed during the site walkover which may relate to this building, in which case the pipeline is located further north.
- First Edition Ordnance Survey Map 1867, 6" to 1 mile scale (Figure 6): this was 4.3.5 the earliest consulted map which shows the topography of the land along the proposed pipeline route in any detail. At its western end the route starts in the vicinity of Derwent Paper Mills and associated structures, the remains of which may survive sub-surface under what is now the car park for Workington Police Station. It then passes to the north side of Workington Hall, and seemingly immediately to the north of the site of 'Brow Foot Brewery'. Heading in an easterly direction the route passes through the open ground of 'Workington Hall Park', although there appears to have been at least one field boundary crossing the park at this date. To the southeast corner of the park, the route enters the main road between Workington and Great Clifton, close to its junction with a track with heads in a northerly direction towards 'Workington Hall Mill (corn)', and near the 'Cuckoo Arch' which crossed the road (see Plate 1). The route then follows the main road to just before it reaches 'New Hall' (now known as Stainburn Hall Farm). Here the route enters a field to the east of Hall Farm then continues along the southern boundary of these fields in an easterly direction towards Great Clifton. The field boundaries shown on this map appear to still be extant. At its eastern end of the route turns to the north-east (this is to connect the pipeline to existing infrastructure) then turn again, this time to the northwest where it reaches an escarpment and crosses the line of the Cockermouth and Workington Railway, before changing direction again to head towards the River Derwent.

- 4.3.6 *Second Edition Ordnance Survey Map 1900, 6" to 1 mile scale* (Figure 7): by 1900 there appears to have been very little change in the topography through which the proposed pipeline route will pass apart from at its eastern end, where a 'Mineral Railway' associated with William Pit at Great Clifton has been constructed linking the colliery with the main railway line. The field boundary present on earlier mapping in Workington Hall Park is now no longer shown on this map. The buildings at Sunnyside Tannery appear to have been enlarged by this date, although this site does not appear to be affected by the proposed pipeline route as it passes along the road from this point.
- 4.3.7 *Ordnance Survey Map 1926, 6" to 1 mile scale* (Figure 8): there does not appear to be much change in the topography along the proposed pipeline route by this date, and the route is still shown to possibly impact on the former Brewery building (although no longer annotated) at the western end, and part of the mineral railway line at the eastern end.
- 4.3.8 Ordnance Survey Map, Revision of 1923 with additions in 1938 and 1941 (Figure 9): the only significant change to the ground along the proposed pipeline route by this date is the construction of presumed housing along the north side of the road from Workington to Stainburn, between Sunnyside Bridge and Stilecroft; the route passes along the road at this point. Further housing has been constructed at the extreme eastern end of the route, to the west side of Great Clifton, labelled as 'Bowflatts'. The proposed route continues to be shown as impacting on features associated with the Paper Mills at its western end (now the site of the Police Station car park) and on part of the mineral railway and the Cockermouth and Workington Railway at its eastern end.

4.4 HISTORICAL CONTEXT

- 4.4.1 The following historical context draws on the information derived from the HER, cartographic sources, and previous archaeological work and is augmented by further information derived from published and unpublished sources that provide documentary evidence for activity in and around the proposed pipeline route.
- 4.4.2 *Prehistoric Period (up to 43AD):* the HER does not record any sites or findspots relating to the prehistoric periods within a 500m buffer zone along the proposed pipeline route.
- 4.4.3 The Extensive Urban Survey for Workington¹⁰ notes that there is some evidence for human activity and settlement in the vicinity of the town. This

¹⁰ English Heritage/Cumbria County Council *c*.2002

evidence is largely in the form of findspots such as the Seaton Bronze Age Palstave; Neolithic flint and axe finds; stone hammers and a loom weight¹¹.

- 4.4.4 The HER does contain two entries located within the 500m buffer zone along the proposed pipeline route which relate to unclassified cropmarks: Barepot Cropmarks (HER No. 17693) located within a field on the north side of the River Derwent, and Low Seaton Unclassified Cropmarks (HER No. 17694), which are located in a field to the north extreme of the north branch of the route. Both of these sites were identified by aerial photographs, and it is possible that these cropmarks may be prehistoric in date although no archaeological excavation on either of these sites has been undertaken and consequently their origin is unknown.
- 4.4.5 *Roman (c.43-410AD):* the HER does not include any entries within the 500m buffer zone along the proposed pipeline route which relate to the Roman period.
- 4.4.6 There is some evidence for Hadrianic frontier defences to the north of Workington including Burrow Walls fort, signal towers and mileforts. Burrow Walls, which is located on the north side of the River Derwent at Seaton, is a Scheduled Ancient Monument, and is partly visible, although the upstanding masonry is of medieval construction. Roman roads have been observed on the line of Woodmoor Road in Workington, and the Wythemoor Road has been suggested to be the course of a Roman road from Papcastle to Moresby¹², although this is located to the south of Stainburn and Great Clifton
- 4.4.7 *Early Medieval (c.410-1066AD):* in general the evidence for activity or settlement from this period is derived from place names and the presence of stone sculpture. As far as place names is concerned, Workington is derived from Old English words *Wirc*, a personal name, and *ingaton*, meaning 'home of the descendants'. Stainburn means 'stony stream' and is derived from the Old Norse words *stein* and *brunnr*. The 'Clifton' element of Great Clifton means 'hamlet by the cliff' from the Old Norse words *klif* and *tun*. The place name 'Cloffocks' which is located to the west of Workington Hall is also of Anglo-Scandinavian origin and means 'hill with clefts or ravines' form the Old Norse words *klauf* (cleft) and *haugr* (hill). Old English was the language which was spoken by the Anglo-Saxons from the 6th to the 12th centuries, and Old Norse was the language spoken by Norwegians who colonised Iceland, Ireland, the Isle of Man, the Hebrides and north-west England from the 9th to the 12th centuries¹³.

¹¹ *Ibid*, Page 4; Spence 1935, Page 178

¹² English Heritage/Cumbria County Council c.2002, Page 5

¹³ Lee, J, 1998

- 4.4.8 Stone sculpture dating to between the 8th and 11th centuries have been found at St Michael's Church at Workington. Three fragments dating to the 8th and 9th centuries and five attributed to the 10th and 11th centuries have been recovered, mostly in the 19th century. An additional undated fragment with traces of interlace is built into the wall near the east window, and inscribed stones were found when the Curwen Vault was opened in 1928. The Extensive Urban Survey for Workington notes: 'The presence of such a large concentration of carved stones provides a clear basis for suggesting that the original site was a place of Christian worship in the 'Anglian' period, perhaps in the 8th and 9th centuries. The presence of 10th century sculpture suggested that the site at St Michael's continued in use during the period of the Scandinavian settlement of Cumbria^{'14}.
- 4.4.9 *Medieval (c.1066-1540AD):* there are several sites located within the 500m buffer zone along the proposed pipeline route which relate to this period. The most significant is the earliest phase of Workington Hall (HER No. 3690), where Patric de Culwen is believed to have erected a tower on the site in the early 13th century, replacing a tower at Burrow Walls, although the earliest fabric at Workington Hall dates to the 14th century. A fish trap on the River Derwent is also believed to be medieval in origin (HER No. 5740), and there is some documentary evidence that a watermill at Workington Hall may have been in existence as early as the 12th or 13th century (HER No. 11498).
- 4.4.10 The medieval settlement of Workington appears to have consisted of two communities, the upper town on the hill around Workington Hall, and along the shoreline, where there were a few fishermen's cottages, with common land in between which included the Norman church of St Michael and the glebe lands¹⁵.
- 4.4.11 There is some evidence that the villages of Stainburn and Great Clifton were in existence in the medieval period. Writing in 1860, William Whellan noted that Stainburn (which consisted of three carucates of land) was given by Waltheof, lord of Allerdale, son of Gospatric, to the abbey of St Mary's at York, for the use of the cell of St Bees. A small chapel was noted to have existed in the village, located a quarter of a mile from the settlement in a field which was known as 'Chapel Close', although Whellan noted that there were no signs of it in 1860 [a field called Chapel Close is shown on the First Edition Ordnance Survey map of 1867, see Figure 6]. He also referred to a manor house at Stainburn being burnt by the Scots in 1315¹⁶. Great Clifton

¹⁵*ibid*, Page 7

¹⁴ English Heritage/Cumbria County Council c.2002, Page 6

¹⁶ Whellan, W, 1860, Page 482

was noted by Parson and White in 1829 to have been 'a large ancient village..here are the remains of an ancient cross, where it is said a market was formerly held'¹⁷.

- 4.4.12 *Post-Medieval* (*c.1540-1900AD*): a 16th century sketch of the town of Workington is reproduced in *Images of England: Workington* by Richard Byres. This sketch of 1569 appears to show that the town consisted of 'the manor house of Workington', presumed to be Workington Hall at one end of the town, and 'the parish church', presumed to be St Michael's Church at the other end, with a single street between the two, suggested to follow the line of what is now Brow Top and Church Street. Only around 30 properties are represented on this sketch, which, if an accurate depiction, may indicate that there were no much more than a few hundred inhabitants at this time¹⁸.
- 4.4.13 It has already been noted from Saxton's Map of Cumberland 1576 that there appears to have been a significant property at Stainburn in the 16th century (see Figure 3). Writing at the end of the 17th century Thomas Denton may have been referring to this house when he noted: *'Stainburne, stands a mile east from Wirkinton, where the lords of this mannor have built a pretty jointure house for the lady-dowagers of their families..in this demsen ther's a colliery'¹⁹. The exact location of the colliery is unclear from this source; there are no collieries shown on the First Edition Ordnance Survey mapping of 1867 (see Figure 6) in the vicinity of Stainburn, therefore the possibility that one or more existed in the fields to the east of the village needs to be considered.*
- 4.4.14 Thomas Denton provided a clear description of Workington Hall as he observed it at the end of the 17th century: 'Wirkinton-Hall stands upon the top of the river bank at the east end of the town, which river bank near the Hall is all covered with a thick wood; and therewith is the house also well sheltered on the nrth and east sides and beautified with large gardens, orchyards and long walks(shaded with fir trees on the south), which are stored with all sorts of good fruit, herbs, plants etc. The west side of the house (which is the front) lyes open to a viewly prospect of the sea, Isle of Man, Galloway and town and country before it'²⁰. This description indicates that there was some form of designed gardens or landscape around the hall at this date, prior to its remodelling in the late 18th century for which it is now registered as a historic park.
- 4.4.15 The town and port of Workington rose to local importance largely due to coal extraction and exportation. In the early 19th century four pits were being worked by 400 men, with six steam engines, the largest being the Isabella

¹⁷ Parson, W and White, W, 1829, Page 288

¹⁸ Byers, R.L.M, 2004, Page 13

¹⁹ Winchester, A.J.L, 2003, Page 114

²⁰ *Ibid*, Page 113

Pit²¹. It has already been noted that a colliery was mentioned at Stainburn in the late 17th century by Thomas Denton, and by the end of the 19th century there were large workings at Wilson Pit to the north side of Great Clifton, which included the mineral railway which ran through part of the proposed pipeline routes (see Figure 7 for example).

- 4.4.16 The HER records several sites within a 500m buffer zone of the proposed pipeline route which date to the post-medieval period; these include the Georgian landscaped park and remodelling of the house at Workington Hall (HER No. 3690); Derwent Paper Mills at The Cloffocks (HER No. 11444); Sunnyside Tannery (HER No. 11495); William Pit at Great Clifton (HER No. 11497); post-medieval phase of Workington Hall Mill and Mill Race (HER No. 11498 and 11501); Workington Water Works at Stainburn (HER No. 11499); Brow Foot Brewery (HER No. 40294); Cleator and Workington Junction Railway (HER No. 40507); The Old Brewery site and later phases (HER No. 40851) and Friar's Well (HER No. 40852).
- 4.4.17 One site of interest which is recorded in the HER but not for its own structure is the Cuckoo Arch which formerly spanned the road from Workington to Stainburn, and was situated close to the route of the proposed pipeline. The HER presently records a pillbox and road block of modern wartime date at this location (HER No. 16389), but the Cuckoo Arch bridge itself was constructed by the Curwen family in around 1790, to link Workington Hall with Schoose Farm which is located to the south-east of Workington (see Plate 1). The Cuckoo Arch was demolished in 1931 as its condition had deteriorated and its narrow opening was not practical for modern transport²².

²¹ English Heritage/Cumbria County Council c.2002, Page 10

²² Byers, R.L.M, 2004, Page 126



Plate 1: Cuckoo Arch as seen in 1908

5 SITE VISIT

5.1 INTRODUCTION

5.1.1 The route of the proposed pipeline was visited in order to assess if there were any apparent remains of archaeological interest along the route and to assess any restrictions to potential future archaeological work.

5.2 SITE VISIT

- 5.2.1 The western end of the proposed pipeline route starts in the area of the modern car park for Workington Police Station on Hall Brow, and then crosses a stream before heading across Hall Brow to the area of a gate which leads into Curwen Park (Plates 2 and 3). No archaeological features were observed in this area, although it must be noted that the area of car parking and landscaping for the Police Station was the site of structures associated with Derwent Paper Mills shown on the First Edition Ordnance Survey and subsequent mapping (see Figure 6 for example).
- 5.2.2 Upon entering Curwen Park from Hall Brow the proposed pipeline route follows the large open area of ground, which is partly used as football pitches to its south side. Following the route towards the track which leads to Workington Hall Mill, the only features of archaeological interest noted was the presence of the parallel earthworks of ridge and furrow, orientated roughly north-west to south-east towards the eastern side of the open area, closest to Workington Hall Mill (Plate 4); these were noted to continue into the fenced off football pitch area. A possible raised trackway was also noted in this area, orientated roughly east to west, although this will not be affected by any groundworks along the proposed pipeline route (Plate 5).
- 5.2.3 At the eastern end of the section of proposed pipeline which runs through Curwen Park, the route runs along the side of a modern trackway (Plate 6), although this route has provided access to Workington Hall Mill since at least 1867 (see Figure 6). At the point where the proposed route terminates is a small stone bridge which crosses Scale Beck (Plate 7), although it is presumed that the proposed groundworks will not affect this standing structure.
- 5.2.4 The eastern section of the proposed pipeline route follows the present road to Great Clifton, to the south of the reservoir, along Stainburn Road. Just to the east of Stainburn Hall Farm, the route crosses into the south end of three fields, along established hawthorn dykes (Plate 8). It has been suggested from aerial photographs that at least one of these fields has been ploughed in the past, and Mr Farries has indicated that ploughing has taken place,

which may have had a detrimental effect on any sub-surface archaeological remains. No archaeological features were noted along the edges of these fields, apart from the presence of a brick and stone water trough located on the boundary of two of the fields, which indicates that there would possibly be a water supply to this point, in which case pipework may already exist within the vicinity (Plate 9).

- 5.2.5 The line of the former Mineral Railway which is shown on historical mapping from 1900 onwards (see Figure 7) was noted to survive as a line defined by a concrete post and wire fence, and now overgrown with foliage. There was no evidence for any railway tracks or associated features (Plate 10). Against the north side of this former railway track a rectangular brick and stone structure was observed, possibly associated with the railway line, or used as a watering trough; however this is not believed to be impacted by the pipeline route (Plate 11).
- 5.2.6 It was noted that the north-western end of the proposed pipeline route, leading towards the site annotated as 'William Pit Sidings' on Figure 7, the former railway line entered a deep cutting due to the change in ground level and presumably the need to link this line with the main Cockermouth and Workington Line (Plate 12). No further archaeological features were noted from the point where the proposed pipeline route followed the former Mineral Railway, and then turns in a north-westerly direction to meet the River Derwent apart from the remains of a bridge which carried the Cockermouth and Workington Railway over the river visible on the opposite bank (Plate 13). There was no evidence observed for the 'Low Seaton Unclassified Cropmarks' which are recorded in the HER as No. 17694 in the last field through which the pipeline will run before discharging into the river.
- 5.2.7 As well as the linear pipeline route, there are two areas within the modern housing estate at Great Clifton where groundworks associated with the new sewage infrastructure are proposed (see Figure 2). The northern of these two small areas was noted to presently be an area of wasteground, with a track leading towards the Sewage Works (Plate 14).



Plate 2: View looking south showing the modern Police Station to right of photograph with car parking to its south-east side



Plate 3: View looking east showing the point where the proposed pipeline will cross the road and enter Curwen Park



Plate 4: View looking east showing the slight earthworks of ridge and furrow just beyond the tree (the buildings in the background are at Workington Hall Mill)



Plate 5: View looking north showing a possible raised trackway



Plate 6: View looking south-east showing the modern footpath towards Workington Hall Mill from the south



Plate 7: View looking east showing the small sandstone bridge over Scale Beck at the south end of the footpath to Workington Hall Mill



Plate 8: View looking east showing the southern hedge line or 'dykes' for the fields east of Stainburn Hall Farm



Plate 9: Detail of water trough located in fields to the east of Stainburn Hall Farm



Plate 10: View looking north-west showing the line of the former Mineral Railway to the east end of the proposed pipeline route near Great Clifton



Plate 11: View looking south-east showing a brick and stone structure located along the north edge of the former Mineral Railway near Great Clifton

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Plate 12: View looking south-east showing the surviving cutting for the former Mineral Railway line at the north-west end of the proposed pipeline route



Plate 13: View looking east showing the remains of the bridge which carried the Cockermouth and Workington Railway across the River Derwent

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Plate 14: Detail of area of proposed groundworks at Great Clifton and trackway to present Sewage Works



Plate 15: View looking east showing area of open land within the housing estate at Great Clifton where proposed groundworks will be undertaken

6 CONCLUSION

- 6.1 Information from the Historic Environment Record (HER) database has indicated that the proposed pipeline route will potentially impact on several sites of archaeological or historical interest along its length. At the western end is the site of the Derwent Paper Mills (HER No. 11444), where small structures associated with this site may be affected by groundworks in the present car park of Workington Police Station. The pipeline then passes close to the site of Brow Foot Brewery (HER No. 40294), although this may actually have been located to the south side of the proposed route. Curwen Park, through which the pipeline will cut across in an west to east direction, is a Registered Historic Park, which was laid out by Thomas White in the 1780s to accompany Workington Hall (REF: GD2278). No further HER sites appear to be affected by the proposed pipeline until it reaches its eastern end, near Great Clifton, where it crosses a railway line which is recorded as part of William Pit Colliery, which closed in 1959 (HER No. 11497), and through a field which contains unclassified cropmarks (HER No. 17694).
- 6.2 Historical mapping has indicated that the proposed pipeline route may impact on buildings associated with Derwent Paper Mills, located under what is now the car park for Workington Police Station. The open area of land which is now known as Curwen Park, is shown to have been open since at least the early 19th century, with no evidence for any structures apart from Brow Foot Brewery to the west of Workington Hall, although this does not appear to be within the proposed pipeline route. To the east side of Curwen Park, or Workington Hall Park as it is referred to on historical mapping, the pipeline crosses a track formerly providing vehicular access to Workington Hall Mill, and close to a small bridge over Scale Beck. At the eastern end of the proposed pipeline route, mapping has shown that two sections of railway line will be affected by the route, one relating to William Pit Colliery and dating to the second half of the 19th century, and the other being part of the main Cockermouth to Workington Railway which is shown to have been extant in 1867 (see Figure 6).
- 6.3 Aerial and modern satellite photography has suggested that at least one of the fields to the east side of Stainburn Hall Farm has been ploughed, as shown by cropmarks in the form of an 'envelope'. The fact that at least one of these three fields has been ploughed suggests that any potential subsurface archaeological remains may have been disturbed, depending on depth.
- 6.4 The site walkover has identified new features in the form of ridge and furrow within Curwen Park, as well as a possible section of raised trackway,

although from what could be observed on the ground this would not be affected by the presently planned route.

- 6.5 From the evidence gained from the desk-based assessment and site walkover it is possible to show that the proposed pipeline route will impact on buildings associated with the Derwent Paper Mills at its western end; a registered park and garden (Curwen Park) in which there is evidence for ridge and furrow and a raised trackway; sections of former railway lines, close to Great Clifton, and possible cropmarks identified in the last field before the pipeline route enters the River Derwent.
- 6.6 As the proposed pipeline route has been shown to impact on several sites of archaeological interest, it is possible that some form of archaeological mitigation may be required, the scope of which would be set out by Cumbria County Council Historic Environment Service.

7 BIBLIOGRAPHY

Byers, R.L.M, 2004, Images of England: Workington, Stroud: Tempus Publishing Limited

Countryside Commission, 1998, *Countryside Character Volume 2: North West, The Character of England's Natural and Man-Made Landscape,* Cheltenham

English Heritage/Cumbria County Council, c.2002, Extensive Urban Survey, Archaeological Assessment Report: Workington, Unpublished Document

English Heritage, 2007, Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice, Swindon

Giecco, F, 2011, *Project Design for an Archaeological Desk-Based Assessment and Walkover Survey for the Great Clifton Pipeline*, Unpublished Document, NP Archaeology Ltd

IfA, 2008, *Standard and Guidance for Archaeological Desk-Based Assessment*, Reading: Institute for Archaeologists

Jollie's Cumberland Guide and Directory 1811, Reprinted by Michael Moon, Whitehaven, 1995

Lee, J, 1998, The Place Names of Cumbria, Carlisle; Cumbria County Council

Parson, W and White, W, 1829, *History, Directory and Gazetteer of Cumberland and Westmorland*, Republished by Michael Moon, Whitehaven, 1984

Parsons, J, 2011, Brief for a Desk-Based Assessment and Walkover Survey on the Proposed Pipeline Route between Workington and Great Clifton, Cumbria, Unpublished Document, Cumbria County Council Historic Environment Service

Spence, J.E, 1935, Report of the Committee for Prehistoric Studies, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series, Volume XXXV

Whellan, W, 1860, *The History and Topography of the Counties of Cumberland and Westmorland*, Pontefract: W Whellan & Co.

Winchester, A.J.L, 2003, *Thomas Denton: A Perambulation of Cumberland 1687-1688*, The Publications of the Surtees Society and Cumberland and Westmorland Antiquarian and Archaeological Society, Woodbridge: The Boydell Press

Maps consulted at Carlisle Archives Centre (CAC) and Carlisle Library (CL)

Saxton's Map of Cumberland 1576 (CL)

Hodskinson and Donald's Map of Cumberland 1774 (CL)

Plan of the Town and Harbour of Workington from an Actual Survey 1811 (included in Jollie's Cumberland Guide and Directory 1811)

First Edition Ordnance Survey Map, Surveyed 1864, Published 1867, Cumberland Sheet LIII, 6 inch to 1 mile scale (CAC)

Second Edition Ordnance Survey Map, Published 1900, Cumberland Sheets LIII.NE and LIII.SE, 6 inch to 1 mile scale (CAC)

Ordnance Survey Map, Edition of 1927, Cumberland Sheets LIII.NE and SE, 6 inch to mile scale (CAC)

Ordnance Survey Map, Revision of 1923 with additions 1938 and 1941, Cumberland Sheets LIII.NE and SE, 6 inch to 1 mile scale (CAC)

APPENDIX 1: HER SITES AND LISTED BUILDINGS

The following table lists all the HER sites identified within a 500m buffer zone (250m to either side) of the proposed pipeline route between Workington and Great Clifton:

HER No.	Site Name	Brief Description	NGR	General Period	
3690	Workington Hall	Chief mansion of the	E:300770	Medieval	
		Curwen's, now roofless and	N:528800	(Plantagenet)	
		fallen into decay. Early in the		Post Medieval	
		13 th century Patric de Culwen		(Georgian)	
		removed his tower from			
		Burrow Walls to this site.			
		Tower built in 1362, licence to			
		crenellate 1380. In 1404 a hall			
		was built adjoining the north			
		face of the tower. In around			
		1540 a second hall was erected			
		on the first floor, and around			
		1597 two long flanking wings			
		were added and a court			
		enclosed on the west side by a			
		gatehouse. Rebuilt 1782-1828,			
		possibly by the architect John			
		Carr. In spite of its ruinous			
		state, Workington Hall is of			
		historical importance and			
		contains many medieval			
		features which make it			
		unique.			
		Grade I Listed Building,			
		Scheduled Ancient Monument			
		and Registered Park and Garden			
5740	River Derwent Fish	Medieval fish trap or pass	E:301585	Medieval	
	Trap		N:529145		
11444	Derwent Paper Mills,	Site of a paper mill which was	E:300620	Post Medieval	
	The Cloffocks,	in use between 1863 and 1900	N:528930	(Victorian)	
	Workington				
11495	Sunnyside Tannery,	Site of a tannery shown on	E:301480	Post Medieval	
	Workington	First Edition OS mapping	N:528800		
11497	William Pit, Great	Site of William Pit Colliery,	E:304013	Post Medieval	
	Clifton	which in 1900 was shown as	N:529930		
		an extensive operation. Pit			
		closed in 1959			
11498	Workington Hall	Mill associated with	E:301200	Medieval	
	Mill	Workington Hall. There is	N:529060	(Plantagenet)	
		evidence from a 12 th century		Post Medieval	
		charter that 'Chetell' or			
		'Ketel', an early ancestor of the			

HER No.	Site Name	Brief Description	NGR	General Period
		Curwen family, held lands in Workington. In 1125 a grant		
		by Ketel to St Mary's at York		
		included a water powered corn mill. The exact location		
		of this mill is unclear,		
		however, Workington Hall		
		Mill is believed to have been		
		in existence since before 1250		
11499	Workington Water	Site of water works shown on	E:302300	Post Medieval
	Works, Stainburn	the First Edition OS mapping of 1860s	N:529500	
11501	Workington Hall Mill Race	Site of a mill race. Mill race is labelled on a plan of 1777 and shown but unnamed on a map of 1569. It diverted water from the River Derwent to	E:299800 N:529050	Medieval (Plantagenet) Post Medieval
		Workington Hall Mill, or an earlier site, before returning water back to the Derwent		
16389	Cuckoo Arch Pillbox,	A pillbox and road block	E:301300	Modern
	Workington	formerly at Cuckoo Arch, now destroyed	N:528700	(Wartime)
17693	Barepot Unclassified	Aerial photographs show that	E:301600	Unknown
	Cropmarks,	the fields are covered in	N:529350	
	Workington	cropmarks		
17694	Low Seaton Unclassified	Aerial photographs show a field of unclassified	E:302700 N:530170	Unknown
40004	Cropmarks	cropmarks	E 200720	
40294	Brow Foot Brewery, Workington	Former site of a brewery shown as extant on town plans of Workington dated 1793 and 1811	E:300720 N:528860	Post Medieval
40507	Cleator and	Section of railway linking the	E:300550	Post Medieval
	Workington Junction Railway, Workington Bridge Branch	Cockermouth, Keswick and Penrith Railway, built in 1864, and the Cleator and Workington Junction Railway	N:529150	(Victorian)
		which opened to goods in 187 and passengers in 1879, via		
		the Workington Bridge Station. Modern maps show the railway has been		
		dismantled and the area is now used for agricultural		
40851	The Old	purposes The 'Old Brewery' operated	E:300450	Post Medieval
10001	Brewery/The New	from <i>c</i> .1767 by Fosset & Co.	E.300430 N:528825	(Georgian and
	Brewery/Workington	The 'New Brewery' later	11.020020	Victorian)

HER No.	Site Name	Brief Description	NGR	General Period
	Brewery	'Workington Brewery' was		
		built and operated from		
		c.1795. By 1836 it had been		
		rebuilt with up-to-date		
		facilities including the extant		
		malt mill. The site came to		
		include buildings such as		
		stables, until the horse drawn		
		drays were replaced by		
		motorised delivery vehicles in		
		1922; a cooper's shop for its		
		own barrel and cask making,		
		and a row of workers housing		
		built in <i>c</i> .1865. The brewery		
		ceased working in the early		
40852	Friar's Well,	Whellan noted that 'The	E:300630	Post Medieval
	Workington	Friars' of Friar's Well, was a	N:528825	
		spring of remarkably pure		
		water issuing out of the		
		Workington Hall grounds		
		underneath the Hall Brow.		
		'Before the advent of piped		
		water in 1859 the town of		
		Workington drew its water		
		from this fresh water spring		
		situated just above Brewery		
		Beck'		

The following table lists all the Listed Buildings identified within a 500m buffer zone (250m to either side) of the proposed pipeline route between Workington and Great Clifton:

LB No.	Site Name	Brief Description	NGR	Grade
72253	1 Christian Street,	House, late 18 th century	E:300642	II
	Workington		N:528607	
72254	11 Christian Street,	House, late 18 th century	E:300648	II
	Workington		N:528639	
72255	12 Christian Street,	House now club, dated 1798	E:300672	II
	Workington	on lead rainwater heads	N:528612	
	(Workington Veterans Club)			
72260	7 & 9 Curwen	Two houses, late 18 th or early	E:300581	II
	Street, Workington	19th century	N:528615	
72261	11 & 13 Curwen	Two houses and	E:300588	II
	Street and rear	cottage/workshop comprising	N:528624	
	cottage,	one property, late 18th century		
	Workington			

LB No.	Site Name	Brief Description	NGR	Grade
72262	15 Curwen Street,	House, late 18 th century	E:300590	II
	Workington		N:528635	
72264	28 & 30 Curwen	Two houses adjoining in	E:300637	II
	Street, Workington	terrace, early 19 th century	N:528652	
72269	Workington Hall	Fortified tower house with	E:300774	Ι
		various additions, now in	N:528806	
		ruins. Mid 14th century with		
		15 th and 16 th century		
		alterations and additions. Late		
		1783-1789 additions by John		
72074	T	Carr for the Curwen family	E 2004(4	тт
72274	Tower and	Brewery tower and maltings,	E:300464 N:528810	II
	adjoining maltings at Workington	mid 19 th century	IN:526610	
	Brewery, Ladies			
	Walk, Workington			
72275	Wines and Spirits	Warehouse, dated 1866	E:300456	II
	Warehouse at		N:528831	
	Workington			
	Brewery			
72281	Workington Bridge,	Roadbridge, dated and	E:300764	II
	Northside Road,	inscribed 'WORKINGTON	N:529088	
	Workington	BRIDGE, BUILT AS 1841,		
		THOMAS MILTON CIVIL		
		ENGINEER, THOMAS		
		NELSON BUILDER'	F 200/02	
72290	1 Portland Street	House and two shops, early	E:300602	II
	and adjoining	19 th century	N:528605	
	shops and extension wall,			
	Workington			
72294	Gate piers south-	Gate piers for Workington	E:300868	II
	east of Workington	Hall, late 18 th century for the	N:528611	
	Hall, Ramsay Brow,	Curwen family		
	Workington			
72302	Stainburn Old Hall,	House, early 17 th century.	E:302240	II
	Stainburn	Possibly on the site of the	N:529307	
		medieval manor house		
		destroyed by the Scots in 1315,		
		afterwards rebuilt and referred		
		to in 16 th century documents		
72303	10 East Lodge,	Lodge for Workington Hall,	E:301360	II
	Stainburn Road	early 19 th century for the	N:528766	
		Curwen family		

APPENDIX 2: FIGURES

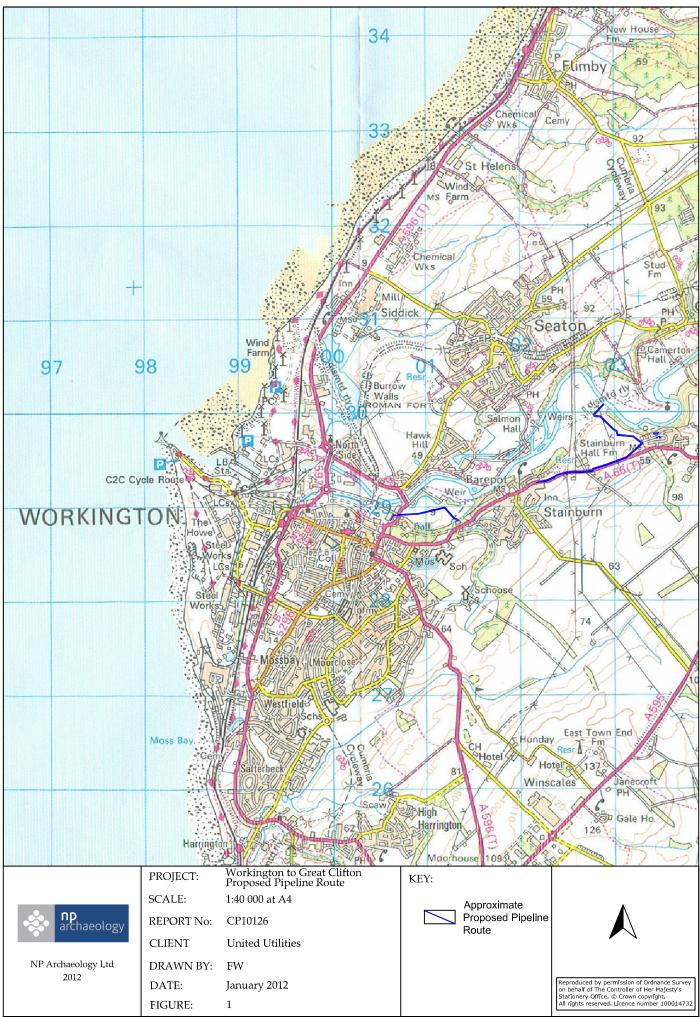
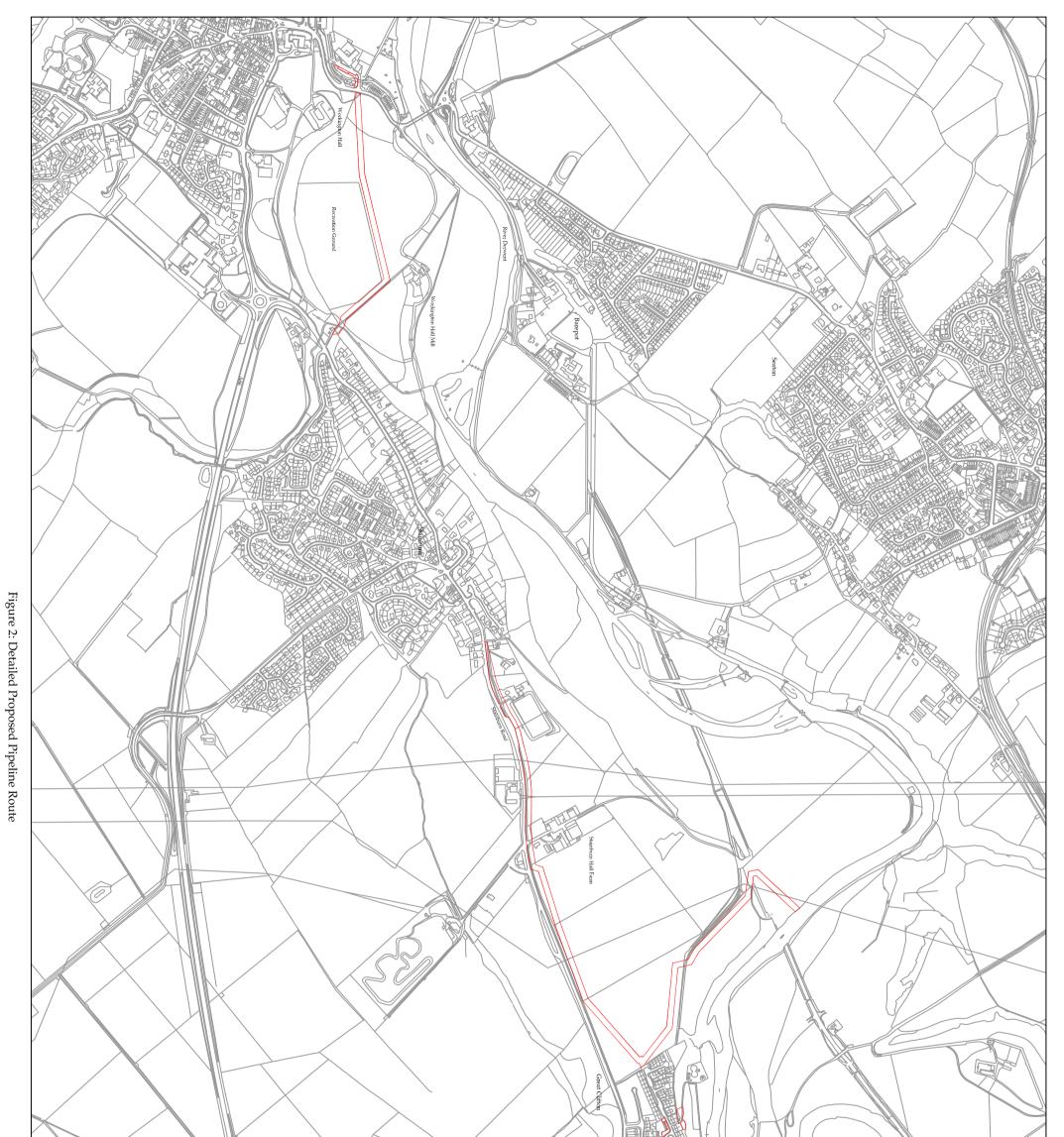


Figure 1: Site Location



						4		
CP10126 FIGURE: 2	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100014732. REPORT No:	Approximate Proposed Pipeline Route	drawn by: FW date: January 2012 key:	scale: 1:10 000 at A3	CLIENT: United Utilities	Workington to Great Clifton, Proposed Pipeline Route	NP Archaeology Ltd 2011	archaeology

t u'terfict 11 arby Birl HEDOS neri ride HOM Flimbye. Cammerton Ribton Seaton 3Chim tain 8-94/0401 Vllo Harinton ard Finton L'att Brodewater rladon Cafwald howe Enerdale 284811 1F. p Workington to Great Clifton Proposed Pipeline Route PROJECT: SCALE: Not to Scale **np** archaeology **REPORT No:** CP10126 CLIENT United Utilities NP Archaeology Ltd DRAWN BY: FW 2011 DATE: January 2012 FIGURE: 3

Figure 3: Extract from Saxton's Map of Cumberland 1576

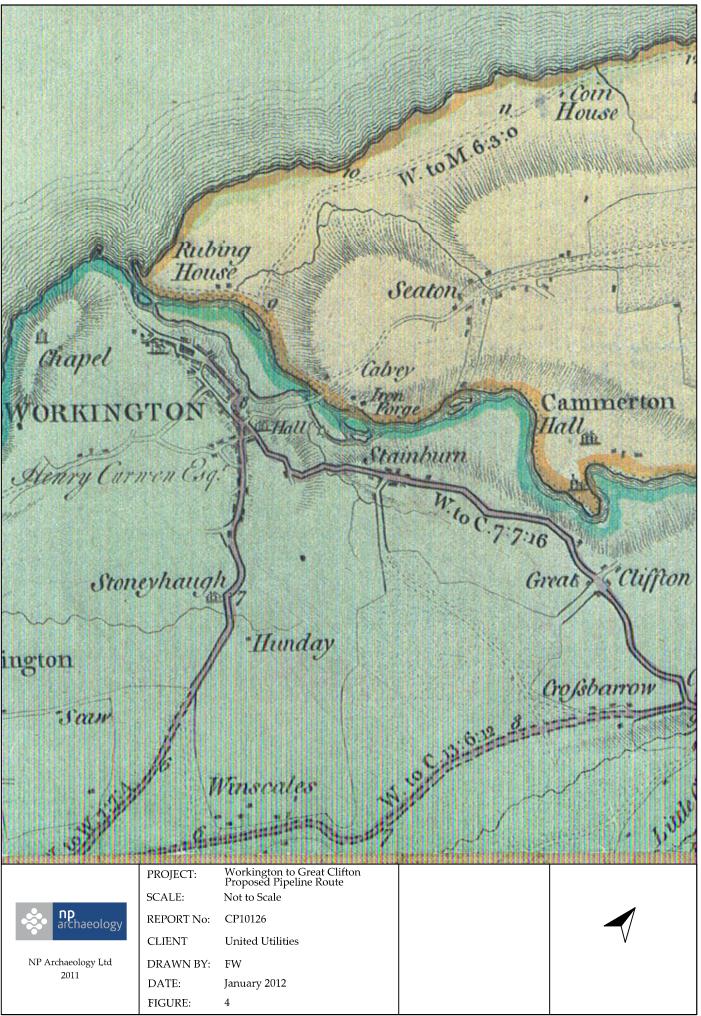


Figure 4: Extract from Hodskinson and Donald's Map of Cumberland 1774

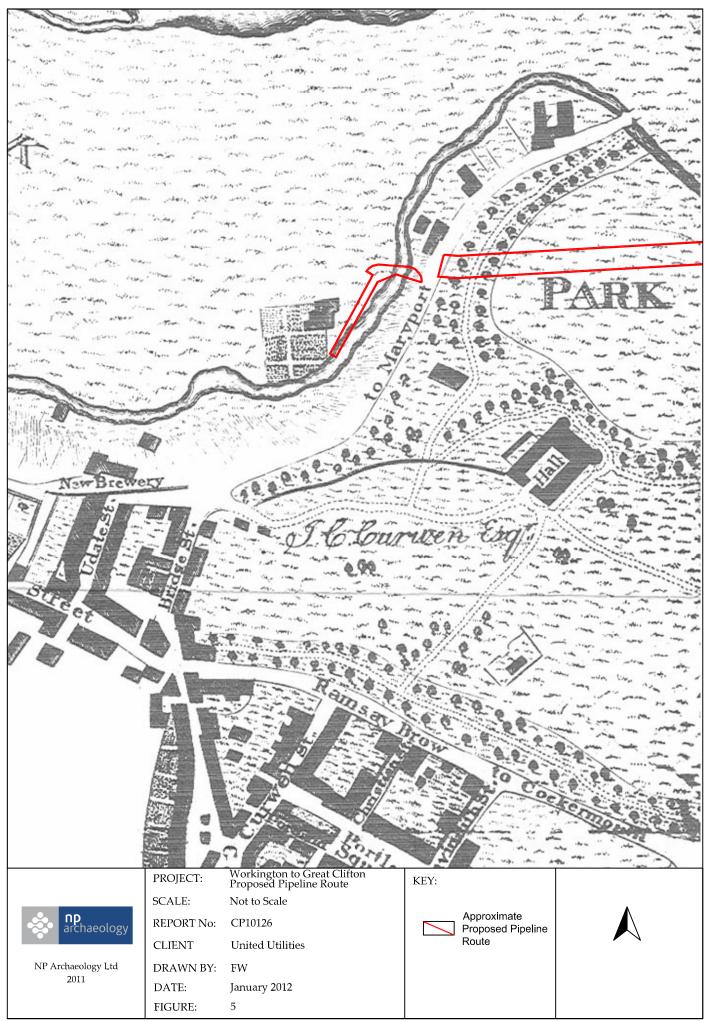


Figure 5: Plan of the Town and Harbour of Workington 1811

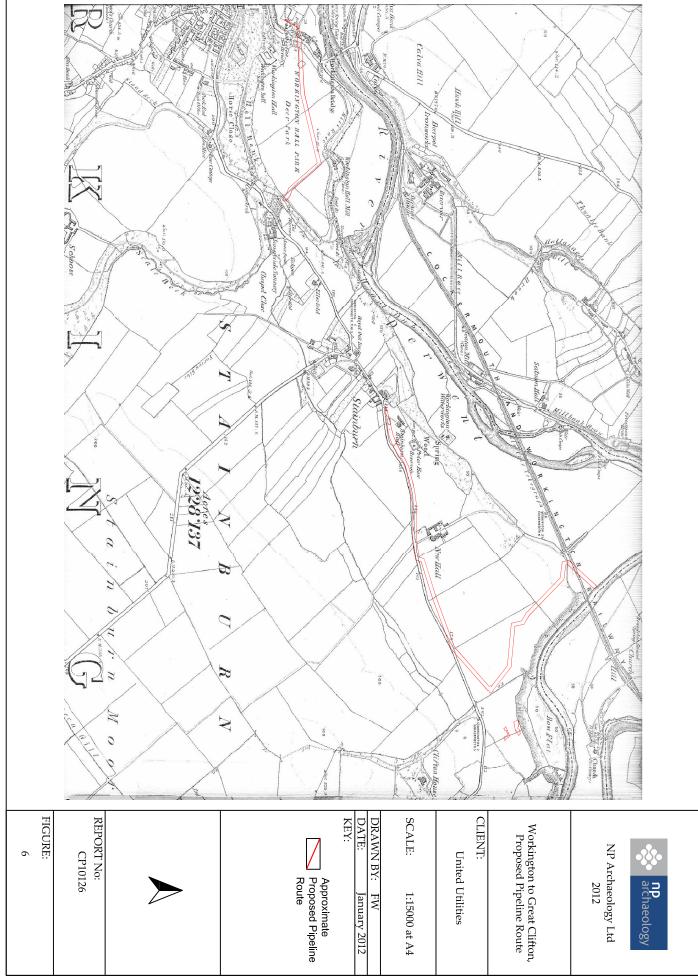


Figure 6: Ordnance Survey Map 1867, 6 inch to 1 mile scale

