WEST CUMBRIA PIPELINE: STAINBURN TO DUBWATH, PAPCASTLE BRIDGE TO MEALSGATE, BOTHEL TO KILNHILL, (WITH WIDENED AREA BETWEEN PAPCASTLE AND PINGGY WOOD)

CUMBRIA

DESK-BASED ASSESSMENT CP. No: 10787 DATE: JUNE 2014



archaeology

WARDELL ARMSTRONG ARCHAEOLOGY COCKLAKES YARD, CUMWHINTON, CARLISLE, CUMBRIA, CA4 0BQ TEL: 01228 564820 FAX: 01228 560025 WWW.WA-ARCHAEOLOGY.COM

WARDELL ARMSTRONG ARCHAEOLOGY

DOCUMENT TITLE:	West Cumbria Pipeline
DOCUMENT TYPE:	Archaeological Desk-Based Assessment
CLIENT:	United Utilities
CP NUMBER:	CP10787
PLANNING APP. NO:	-
OASIS REFERENCE:	wardella2-181988 (Cumbria HER)
PRINT DATE:	27/06/2014
GRID REFERENCES:	NGR 302415 529317 – NGR 319194 531019
	NGR 209923 531081 – NGR 321946 541267
	NGR 318123 538621 – NGR 321521 532697

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 Wardell Armstrong Archaeology on the preparation of reports.

REVISION SCHEDULE			
	01	02	03
PREPARED BY:	Cat Peters		
Position:	Researchers		
DATE:	26/06/2014		
EDITED BY:	Richard Newman		
Position:	Project Manager		
DATE:	27/06/2014		
APPROVED BY:	Frank Giecco		
Position:	Technical Director		
DATE:	27/06/2014		

Wardell Armstrong Archaeology is the archaeological contracting unit of Wardell Armstrong LLP. Company Registration No. 07702975 VAT Registration No. 108 2243 47. All rights reserved.

Disclaimer

No part of this report may be copied or reproduced, stored or transmitted by any means without prior written permission from Wardell Armstrong Archaeology, or the client for whom the work was carried out. The report has been produced specifically for the client's usage, and no other party may use, make use of or rely on the contents of the report; any person or party using or relying on this document for such purposes agrees, and with such use or reliance be taken to confirm their agreement, to indemnify Wardell Armstrong Archaeology for all loss or damage resulting from their action. No liability is accepted by Wardell Armstrong Archaeology for any use of this report other than the use and purpose for which it was originally intended. Information contained in this report is provided by Wardell Armstrong Archaeology using due care and diligence and no explicit warranty is provided as to its accuracy. No independent verification of any information provided to Wardell Armstrong Archaeology has been made.

CONTENTS

CONT	ENTS1
SUMN	MARY
	OWLEDGEMENTS
1 IN	TRODUCTION
1.1	Circumstances of Project
1.2	Location, Topography and Geology5
1.3	Planning Background and Legislative Framework8
2 M	ETHODOLOGY10
2.1	Desk-Based Assessment
2.3	Assessment Methodology11
3 BA	CKGROUND
3.1	Historical Background16
3.2	Map Regression Analysis
3.3	Aerial Photographs and Lidar27
3.4	Previous Archaeological Work27
3.5	Ground Investigations
4 GA	ZETTEER OF SITES
5 Sie	INIFICANCE OF THE REMAINS
5.1	Summary of heritage assets
5.3	The Lake District National Park80
5.4	Roman Roads and the Relationship to the Hadrian's Wall World Heritage Site 80
6 Lік	ELY IMPACT OF DEVELOPMENT
6.1	Introduction
6.2	Impact
6.3	Impact Assessment
7 Re	commendations
7.1	Introduction

7.2 Recommendations	
BIBLIOGRAPHY	
Primary and Cartographic Sources	
Maps	
Secondary Sources	
ILLUSTRATIONS	
Figures	

SUMMARY

Wardell Armstrong Archaeology was commissioned by United Utilities to undertake a desk-based assessment along three proposed lengths of joined potential pipeline routes: from Stainburn (NGR 302415 529317) to Dubwath (NGR 319194 531019); Papcastle Bridge (NGR 309923 531081) to Mealsgate (NGR 321946 541267); and Bothel (NGR 318123 538621) to Kilnhill (NGR 321521 532697). This work was undertaken to achieve a full understanding of the nature of the existing resource regarding the geographical, topographical, archaeological and historical context of the 100m wide corridor of the proposed 43km pipeline route, in order to provide an assessment of the archaeological potential of the routes. A wider study area totalling 500m in width to the north-west of the A595 between Papcastle and Pinggy Wood was also covered.

In total, 145 heritage assets have been identified in the study area. 16 of these heritage assets identified within the study area are afforded statutory or nonstatutory designation. The potential impact of construction on the significance of heritage assets is estimated. There are 4 very major impacts, 1 major impact, 37 intermediate impacts, 77 intermediate/minor impacts and 26 neutral impacts. Particular attention was paid to assessing the potential impacts on heritage assets which contribute to the Outstanding Universal Values (OUV) defined for the 'English Lake Districts' case as submitted as the United Kingdom's candidate for world heritage site inscription in 2017. Attention was given also to the likely impact on Roman remains which may be associated with the former Roman road which now forms part of the modern A595 road.

Prior to the definition of a programme of archaeological mitigation, a walkover survey will be carried out. This will be undertaken in order to identify any upstanding heritage assets not identifiable through desk based assessment and to check on the nature and condition of upstanding remains noted by the desk based assessment. The scope and specification of any subsequent appropriate programme of archaeological recording would be devised in consultation with the Lake District National Park and Cumbria County Council archaeological services.

ACKNOWLEDGEMENTS

Wardell Armstrong Archaeology thank United Utilities for commissioning the project.

Wardell Armstrong Archaeology also extends its thanks to Mark Brennand, Senior Historic Environment Officer at Cumbria County Council and Holly Beavitt-Pike, Archaeology and Heritage Assistant at the Lake District National Park Authority for their help during this project.

Wardell Armstrong Archaeology is also grateful to Chris Brader, and Louise Smith at Carlisle Archive Centre and staff at Whitehaven Record Office and Carlisle Library, for their assistance with research during this project.

The desk-based research and report was compiled by Cat Peters and Ben Moore and the illustrations were produced by Adrian Bailey and Cat Peters. The report was edited by Richard Newman, who was also responsible for project management.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 United Utilities have provided three possible groups of pipeline routes to provide water to the west of Cumbria's residents and businesses. The two other groups are discussed separately in forthcoming reports by Oxford Archaeology North, and CFA Archaeology Ltd. This study area consists of a 100m wide corridor across the proposed route between Stainburn and Dubwath, from Papcastle Bridge to Mealsgate, and extending southeastwards from Bothel to Kilnhill. An area of 500m in width was included within the study area between Papcastle and Pinggy Wood to take account of the possible future location of a water treatment works. United Utilities commissioned Wardell Armstrong Archaeology (WA Archaeology) to carry out an archaeological desk-based assessment of the study area. This was intended to establish, as far as possible, the nature and significance of the archaeological resource within the area, and to establish the impact of any future development upon this resource. The data generated from the assessment is intended to provide an informed basis regarding the significance of any heritage assets within the study area.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The study area is aligned along three proposed pipeline routes broadly extending from Stainburn (NGR 302415 529317) to Dubwath (NGR 319194 531019); Papcastle Bridge (NGR 309923 531081) to Mealsgate (NGR 321946 541267); and Bothel (NGR 318123 538621) to Kilnhill (NGR 321521 532697) (Figure 1). For the most part, the centre lines of these routes follow main roads, the A66 between Stainburn and Dubwath, the A595 between Papcastle Bridge and Mealsgate and the A591 between Bothel and Kilnhill. The centre line along the A595 follows the boundary of the Lake District National Park between Simpson Close (NGR 313487 533936) and to a point a little to the north-east of Copstones (NGR 316084 537006). The route along the A591 enters the National Park to the south-east of Caer Mote (NGR 319658) and remains within the National Park to Kilnhill. The route along the A66 enters the National Park to Dubwath.
- 1.2.2 **Topography:** Between Stainburn and Dubwath the proposed pipeline route crosses six watercourses passing through mainly open agricultural land. From the west it first crosses Harry Gill running north to south followed by the River Marron before following the south bank of the River Derwent. It continues in the Derwent valley, in low-lying fertile arable land, through a tree-lined section to the west of Broughton Cross. The Derwent meanders north of the proposed pipeline route before being crossed by it at Papcastle Bridge. The Stainburn to Dubwath section of the proposed pipeline route continues east to the south of Cockermouth where it crosses the River Cocker, passing through fairly flat irregular-sized rectilinear fields, before

heading eastwards along the fertile valley crossing the Tom Rudd and Dubwath Becks around Embleton, before it terminates just to the west of Dubwath.

- 1.2.3 Between Papcastle Bridge and Mealsgate, the proposed pipeline route runs north-east, crossing the River Derwent, through fields to the west of Papcastle and the A595 road, before following the main road heading northwestwards. Irregular, mainly pastoral and arable fields line the route in this area, the land being fairly flat, within valley of the River Derwent, on its western side. It passes through a small area of woodland to the south-west of Simpson Close, before crossing Threapland Gill and skirting round the eastern side of Bothel, where it crosses Bothel Beck. Past Bothel, it follows the meandering line of the A595 through fields, crossing the River Ellen, and leaving the road just south of Mealsgate where it passes through two flat fields, one arable and one laid to pasture, before joining rejoining a road, this time the B5299 past farmsteads and agricultural fields and finishing at a reservoir midway between Mealsgate and Boltongate.
- 1.2.4 The section of the proposed pipeline route between Bothel and Kilnhill follows the route of the modern A591, through flat fields, heading south-eastwards in the River valley of the Derwent, crossing Bothel Beck. Here, it continues to run south-east through the valley between Caer Mote (289m AOD) to the north, and Setrae Hill (202m AOD) to the south. It then continues south across Scalegill Beck towards Bewaldeth. Finally it crosses Bewaldeth Beck at Burthwaite Bridge, passing to the west of the Settlement of Bewaldeth before ending at the crossroads at Kilnhill.
- 1.2.5 **Geology:** along the Stainburn to Dubwath route, the solid geology comprises Pennine Upper Coal Measures formation at the westernmost part and Yoredale Group consisting of limestone, sandstone, siltstone and mudstone and Dination Rocks (limestone with subordinate sandstone and argillaceous rocks). The area to the east of Cockermouth comprises predominantly Ordovician Rocks (mudstone, siltstone and sandstone). Between Papcastle Bridge and Bothel, the solid geology comprises Dination Rocks, with the area to the north of Bothel being Yoredale Group rocks, and the area around Mealsgate being Pennine Upper Coal Measures formation. To the south-east of Bothel, the solid geology consists of unnamed extrusive rocks (carboniferous lava, mafic) with Ordovician Rocks (mudstone, siltstone and sandstone) with Yoredale Group rocks dominating the area around Bewaldeth.
- 1.2.6 The drift geology of the area comprises predominantly alluvium in the valleys, and glacial till elsewhere. At Stainburn there is alluvium (clay, silt and sand) with some areas of till, with alluvium occurring around the Little Clifton to Cockermouth area, where till dominates, with some pockets of peat occurring around Embleton at the east. North of Papcastle Bridge, the area is largely comprised of till (diamiction), with some peat to the south-west of Redmain and around Bothel, and alluvium occurring in areas to the west and north-west of Torpenhow. From Bothel, south-eastwards to Kilnhill, the drift geology is predominantly comprised of till, with some areas of peat to the

north-west of Bewaldeth (British Geological Survey: http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

- 1.2.7 Landscape Character and Historic Landscape Character: the proposed pipeline routes traverse the Bassenthwaite and Lorton Valley and Ellen and Marron Valleys Cumbria County Council historic landscape character areas. The Bassenthwaite and Lorton Valley character area is characterised by "field systems based around a number of former common fields, which tend to be larger than those found elsewhere in the Lake District, and these are surrounded by areas of ancient enclosure" (Cumbria County Council 2009, 45). The Ellen and Marron Valleys area is dominated by a mix of large and small nucleations, mostly medieval in origin, retaining medieval plan forms. This pattern has been exaggerated to some extent by 19th century industrialrelated development. The fieldscape is dominated by former arable commonfields (*ibid*, 62). In both character areas, hedgerows dominate the field boundaries. Important hedges are protected under the Hedgerow Regulations (1997). The legacy rating of both character areas is 'a mixed pattern of modern and older enclosures but with a more traditional settlement pattern, strong legibility of landscape elements of medieval origin' (Cumbria County Council 2009, 45).
- 1.2.8 The proposed pipeline routes also run through the North Western Lowlands Lake District National Park character area, characterised by a dispersed settlement pattern and dominated by pastoral land in areas of former common fields and planned enclosure (Lake District National Park 2009, 181). The routes are within the Borrowdale and Bassenthwaite valley planning area as defined within the Lake District National Park Partnership's Plan and utilised within the Lake District World Heritage Project Partnership's world heritage site bid (LDWHPP 2013, map 1).
- 1.2.9 **Statutorily and Non-Statutorily Designated Sites:** the proposed study area contains 16 heritage assets that are afforded statutory protection, such as Scheduled Monuments and listed buildings (Table 1). The study area partially lies within the boundary of the Lake District National Park, a statutorily protected landscape. As a result all heritage assets within the National Park are considered to be of greater than local significance, as indicated by section 115 of the National Planning Policy Framework.
- 1.2.10 Development will not have a direct impact on these designated buildings, although their setting will require consideration during the construction phase of the development programme. Indirect impacts on the settings of the listed buildings within the study area have not been assessed as part of this assessment, which has focused on below-ground heritage assets. Consideration of impacts on setting will form part of the walkover assessment.
- 1.2.11 The proposed study area does not contain any heritage assets that are afforded protection through non-statutory designation, such as World Heritage Sites, Conservation Areas, Registered Battlefields or Registered Parks and Gardens. Section 139 of the National Planning Policy Framework,

however, indicates that where a heritage asset is pending assessment for designation it should be regarded as being of the same significance as designated heritage asset. The Lake District National Park, under the banner of the English Lake District, has been put forward as a World Heritage Site by the UK government and is to be considered for designating as such by UNESCO in 2017 (LDWHPP 2013, 2). The significance of any heritage asset with regard to World Heritage Site status is dependent on that asset's contribution to the Outstanding Universal Values (OUV) that define the particular World Heritage Site within which they are situated. The OUV for the Lake District is defined within the *Technical Evaluation of the Future World Heritage Nomination for the English Lake District* (LDWHPP 2013).

1.3 PLANNING BACKGROUND AND LEGISLATIVE FRAMEWORK

- 1.3.1 National planning policies on the conservation of the historic environment are set out in the National Planning Policy Framework (NPPF), which was published by the Department of Communities and Local Government (DCLG) in March 2012. Sites of archaeological or cultural heritage significance that are valued components of the historic environment and merit consideration in planning decisions are grouped as 'heritage assets'; 'heritage assets are an irreplaceable resource', the conservation of which can bring 'wider social, cultural, economic and environmental benefits...' (DCLG 2012, Section 12.126). The policy framework states that the 'significance of any heritage assets affected, including any contribution made by their setting' should be understood in order to assess the potential impact (DCLG 2012, Section 12.128). In addition to standing remains, heritage assets of archaeological interest can comprise sub-surface remains and, therefore, assessments should be undertaken for a site that 'includes or has the potential to include heritage assets with archaeological interest' (DCLG 2012, Section 12.128).
- 1.3.2 NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance; 'great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be; substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings and grade I and II* registered parks and gardens and World Heritage Sites, should be wholly exceptional' (DCLG 2012, *Section 12.132*). Therefore, preservation *insitu* is the preferred course in relation to such sites unless exception circumstances exist.
- 1.3.3 It is normally accepted that non-designated sites will be preserved by record, in accordance with their significance and the magnitude of the harm to or loss of the site as a result of the proposals, to 'avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposals' (DCLG 2012, Section 12.129). Non-designated heritage assets of archaeological interest will also be subject to the policies reserved for

designated heritage assets if they are of equivalent significance to scheduled monuments (DCLG 2012; Section 12.132).

2 METHODOLOGY

2.1 DESK-BASED ASSESSMENT

- 2.1.1 The archaeological assessment has focused on the study area as defined in the project brief, although information for the immediate environs has been considered in order to provide an essential contextual background. The assessment was carried out in accordance with the relevant IfA guidelines (IfA 2011, *Standard and Guidance for Archaeological Desk-based Assessments*; IfA 2010 *Code of Conduct*). The principal sources of information consulted were historical and modern maps, although published and unpublished secondary sources were also reviewed. The following repositories were consulted during the data-gathering process:
 - **Cumbria County Council Historic Environment Record (CCC HER):** the CCC HER holds data on the historic environment for Cumbria outside of the Lake District and Yorkshire Dales national parks. It includes listed buildings, all known archaeological sites, along with the location and results of previous archaeological interventions in a linked GIS and database format. It includes an extensive collection of aerial photographs. The CCC HER was consulted to establish the extent of sites of archaeological and historic interest within the study area, outside of the Lake District National Park.
 - Lake District National Park Authority Historic Environment Record (LDNPA HER): the LDNPA HER holds data on the historic environment for the Lake District National Park. It includes listed buildings, all known archaeological sites, along with the location and results of previous archaeological interventions in a linked GIS and database format. The LDNPA HER was consulted to establish the extent of sites of archaeological and historic interest within the study area, within the Lake District National Park.
 - **Cumbria Record Office, Carlisle (CRO(C)):** holds an extensive series of mapping for Carlisle and Allerdale Districts, as well as a collection of secondary sources about the area.
 - **Cumbria Record Office, Whitehaven (CRO(W)):** holds an extensive series of mapping for Copeland District, as well as a collection of secondary sources about the area.
 - Local Studies, Carlisle Library (CL): the local studies catalogue of Carlisle Library was searched for information relating to the study area and some secondary sources were consulted.
 - **English Heritage on-line databases:** the following English Heritage online databases were consulted which provide information on both designated and non-designated heritage assets, Pastscape, Heritage Gateway, National Heritage List for England and Images of England.

- **Other on-line resources**: the following on-line resources were consulted with regard to comprehensive aerial photographic coverage and mapped designation extents: Google Earth, the Environment Agency's Lidar dataset, Pastscape, the Portable Antiquities Scheme and MAGIC.
- Wardell Armstrong Archaeology: WA Archaeology has an extensive archive of secondary sources relevant to the study area, incorporating both published work and unpublished client reports.
- 2.1.2 Only heritage assets in the study area have been included in the Gazetteer (Section 4; Figures 2-4).

2.2 THE ARCHIVE

- 2.2.1 A final bound copy of the report will be deposited with Cumbria's Historic Environment Record, at Busher Walk, Kendal, and at the Lake District National Park Authority's Historic Environment Record, Oxenholme, where viewing will be available on request.
- 2.2.2 Wardell Armstrong Archaeology, and Cumbria County Council and the Lake District National Park Authority, support the Online AccesS to the Index of archaeological investigationS (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological fieldwork. As a result, details of the results of this study will be made available by Wardell Armstrong Archaeology, as a part of this national project. This project has the identifiers of wardella2-181988 (Cumbria HER) and wardella2-176269 (LDNPA HER).

2.3 ASSESSMENT METHODOLOGY

- 2.3.1 The results of the assessment have identified the significance of the known archaeological resource of the study area. In order to assess the potential impact of the pipeline proposals, consideration has been afforded to:
 - the magnitude of impact;
 - reviewing the evidence for past impacts that may have affected the heritage assets identified during the desk-based assessment;
 - assessing the likely effect on heritage asset significance that may occur as a result of a given magnitude of impact;
 - outlining suitable mitigation measures, where possible at this stage, to avoid, reduce, or remediate adverse impacts.
- 2.3.2 Such impacts on the identified archaeological sites may be:
 - positive or negative;
 - short, medium or long term;
 - direct or indirect;
 - reversible or irreversible.

Significance	Designation	Asset types and justification	Preferred response to negative impact
International	Non-statutorily designated heritage assets	World Heritage Site (NPPF s132)	Avoid negative impact where asset contributes to the WHS's defined outstanding universal values (NPPF s 138)
National	Statutorily designated heritage assets.	Scheduled monuments, grade I and II* listed buildings (NPPF s132).	Avoid negative impact.
National	Non-statutorily designated heritage assets.	Registered battlefields, grade I and II* Registered Parks and Gardens (NPPF s132).	Avoid negative impact.
National	Non-designated heritage assets of demonstrable equivalence to a scheduled monument (NPPF s138).	Assets where assessment for designation is pending, assets that have been assessed as being capable of designation but have not been designated at the SoS discretion, assets worthy of designation but which are outside the scope of the 1979 Act (NPPF s139).	Avoid negative impact.
District or County (higher)	Statutorily designated heritage assets.	Grade II listed buildings (NPPF s132).	Limit negative impact (avoid substantial harm) and mitigate.
District or County (higher)	Non-statutorily designated heritage assets.	Conservation area (NPPF s127), grade II registered park and garden (NPPF s132).	Limit negative impact (avoid substantial harm) and mitigate.
District or County (lesser)	Non-designated heritage assets within a national park or AONB.	Any extant heritage assets (NPPF s115) that are not otherwise given a higher significance	Limit negative impact and mitigate.
District or County (lesser)	Non-designated heritage assets.	Heritage assets placed on a local planning authority list (NPPG).	Limit negative impact and mitigate.
District or County (lesser)	Non-designated heritage assets.	Any area of potential listed in a local plan (NPPG).	Limit negative impact and mitigate.
Local	Non-designated heritage assets.	Any extant heritage assets outside of a national park or AONB.	Mitigate.
Negligible	Non-designated heritage assets.	Heritage assets recorded in the HER that are no longer extant, individual find spots.	No action.

Table 1: Definition of Heritage Asset Significance

Magnitude of Heritage Asset		Heritage Asset		
impact		Archaeological Remains (Archaeological Interest)	Historic Buildings (Architectural/Artistic Interest and/or Historic Interest)	Historic Landscapes (Historic Interest)
Loss	•	Removal or change to most or all key archaeological materials, such that the resource is totally altered and its heritage significance completely reduced	 Demolition or change to key historic building elements, such that the asset is totally altered and its heritage significance completely reduced. 	 Major alteration to historic landscape character resulting from: Changes to most key historic landscape elements, parcels or components. Extreme visual effects Major change to noise or change to sound quality such that the opportunity to appreciate the landscape is removed Major changes to use of highways and PROW resulting in loss of access.
Substantial	•	Changes to many key archaeological materials, such that the resource is clearly modified.	 e the setting elements affected are kee Changes to many key historic building elements, such that the asset is significantly modified. 	 Considerable change to historic landscape character resulting from: Changes to many key historic landscape elements, parcels or components Visual change to many key aspects of the historic landscape Widespread noticeable differences in noise or sound quality reducing the ability to appreciate the landscape. Changes to use or access of highways and PROW greatly reducing access.
	 Major changes to the setting where setting elements affected make a contribution to the significance of the asset Moderate changes to setting where setting elements affected are key to the significance of the asset 			
Less than substantial	•	Changes to key archaeological materials, such that the asset is slightly altered	 Change to key historic building elements, such that the asset is slightly different 	Limited change to historic landscape character resulting from: Changes to some key historic landscape elements, parcels or components Slight visual changes to some key aspects of the historic landscape Limited changes to noise levels or sound quality Slight changes to use highways and PROW slightly reducing access.
	•	Moderate changes to setting where setting elements affected make a contribution to the significance of the asset Slight changes to setting where setting elements affected are key to the significance of the asset		
Minor alteration with no change in significance	•	Very minor changes to archaeological materials	 Slight changes to historic buildings elements 	 Very small change to historic landscape character resulting from: Very minor changes to key historic landscape elements, parcels or components Virtually unchanged visual effects Very slight changes to noise levels or sound quality Very slight changes to use or access
No change	•	Slight changes to setting wher No change	e setting elements affected make a co	ntribution to the significance of the asset

Table 2: Definition of Magnitude of Impact

- 2.3.3 Key impacts have been identified as those that would potentially lead to a change to the heritage asset. Each potential impact has been determined as the predicted deviation from the baseline conditions, in accordance with current knowledge of the asset and the proposed development. Table 1 shows the sensitivity of the asset scaled in accordance with its relative importance using the following terms for the cultural heritage and archaeology issues, with guideline recommendations for a mitigation strategy.
- 2.3.4 The impact is assessed in terms of the sensitivity of the site to the magnitude of change or scale of impact during any future redevelopment scheme. The magnitude, or scale of an impact is often difficult to define, but will be termed as loss, substantial, less than substantial, minor, or no change, as shown in Table 2.
- 2.3.5 The interaction of the magnitude of impact (Table 2) and the significance of the heritage asset (Table 1) produces the scale of impact upon heritage asset significance. This may be calculated by using the matrix shown in Table 3:

Resource Value	Scale of Impact Upon heritage Asset Significance				
(Importance)	Loss	Substantial	Less than substantial	Minor	No change
National/ International	Very major	Very Major	Major	Intermediate/ Minor	Neutral
District/County (Higher)	Very major	Major	Major/ Intermediate	Minor	Neutral
District/County (Lesser)	Major	Intermediate	Intermediate	Minor	Neutral
Local (low)	Intermediate	Intermediate/ Minor	Minor	Minor/ Neutral	Neutral
Negligible	Neutral	Neutral	Neutral	Neutral	Neutral

Table 3: Impact Significance Matrix	<
-------------------------------------	---

- 2.3.6 The impact significance category for each identified heritage asset will also be qualified, and recommended mitigation measures will be provided, where possible at this stage, for minor impacts upon heritage asset significance or above. It is important that the residual impact assessment takes into consideration the ability of the remediation to reduce or mitigate the impact, and its likely success.
- 2.3.7 It is also considered important to attribute a level of confidence by which the predicted impact has been assessed. For the purpose of this assessment, the criteria for these definitions are set out in the table below.

Confidence in Predictions	
Confidence Level	Description
High/Certain	The predicted impact is either certain, <i>ie</i> a direct impact, or believed to be very likely to occur, based on reliable information or previous experience, and may be estimated at 95% chance or higher.
Medium/Probable	The probability can be estimated to be above 50%, but below 95%.
Low/Unlikely	The predicted impact and it levels are best estimates, generally derived from the experience of the assessor. More information may be needed to improve the level of confidence, which can be estimated using the present information at above 5% but less than 50%.
Extremely Unlikely	The probability can be estimated at less than 5%.

Table 4: Impact Prediction Confidence

3 BACKGROUND

3.1 HISTORICAL BACKGROUND

3.1.1 The following section provides an historical context to the present study, and is considered by period as detailed in Table 5 below. Mentioned heritage assets, have numbers given in brackets, these relate to the Gazetteer where the assets are summarised (Section 4), and are mapped in Figures 2- 4.

Period	Date Range
Prehistoric	Pre AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – <i>c</i> 1750
Industrial Period	c. AD1750 – 1914
Modern	Post 1914

Table 5: Summary of British archaeological periods and date ranges

- 3.1.2 This historical background is compiled mostly from secondary sources, and the records consulted during the desk-based assessment. It is intended only as a summary of historical developments around the study area.
- 3.1.3 **Prehistoric Period:** evidence for prehistoric activity in the area comes in the form of a small cast copper alloy unlooped palstave axe with a very short, flared blade, dating from the Middle Bronze Age (1500-1150 BC). It was found in the Bridekirk area in 2010 (LANCUM-D724A4). Further evidence comes in the form of a stone axe-hammer, south-west of Cockermouth (Barrowclough 2010, 146), and a twisted gold armlet from Eaglesfield near Cockermouth and a looped spearhead from Blindbothel, both of supposed Irish tradition (Barrowclough 2010, 230). These show potential greater links between communities across the Irish Sea, than on the mainland itself, as crossing the sea rather than the land was easier at this time. Although not much is known about the later prehistoric period in the area of the proposed pipeline, developments at Papcastle are revealing probable pre-Roman structures in the vicinity of the former Roman fort and attached civilian settlement of Derventio (Figure 5).
- 3.1.4 **Roman period:** one of the key tasks of the Roman occupying forces was to provide safe routes for their troops to travel across. Roads were an important part of the early infrastructure. Forts were established in north-western Cumbria at Carlisle, Old Carlisle (near Wigton) and Papcastle, with a road, the modern A595 route, established to link them. It is thought that Papcastle may have been at a crossroads of four main routes, another of which may have run close to the modern A66 east towards Keswick (e.g. Shotter 2004, 76). Numerous finds of the Roman period have been discovered in the Papcastle area, many of which were encountered after the floods in July 2010 (Portable Antiquities Scheme online database). In addition, a cast copper alloy object,

probably from the Roman or Medieval period was found in Bothel in 2011 (LANCUM-42DD8).

- 3.1.5 *Medieval Period:* it is likely that the roads, established during the Roman period, were utilised during the proceeding period, though these seem to have gradually been abandoned by the latter part of the period (Smith 2011, 25). The earliest settlement along the proposed pipeline route to be referenced is Bothel, as 'Bothle' c. 1125, with several others refered to during the 12th century, including Stainburn, as 'Steinburn' in c. 1135, Clifton in c. 1160, Lorton as 'Loretuna in c. 1150, Brigham, as 'Briggham' in c. 1175, Embleton as 'Emelton' in 1195 and Broughton Cross as 'Broctuna' in the 12th century (Armstrong 1950). More settlements along the proposed pipeline route are first mentioned in the 13th century, including Threapland as 'Trepland' in c. 1220, Papcastle, 'Pabecastr' in 1260, Wood Hall as la Wodehall in 1278, the River Ellen as 'Aquam de Alen' in 1278, Simonscales as 'Simondscales' in 1279, the Riber Marron as 'Aquam de Maran' in 1282, Silver Beck as 'Siluerbeck' in 1285 and Westray in the personal name as Roger de Westwra in 1292 (Armstrong 1950).
- 3.1.6 Several finds of the medieval and post-medieval era have been encountered in the Bridekirk area, indicating that this was a settlement of at least medieval origin (Portable Antiquities Scheme online database). A cast copper alloy damaged medieval mount from AD 1200-1600 was found in the Bothel area in 2011 (LANCUM-42BBB7); as was a silver hammered groat of Henry VII dating from c. AD 1490-1504, minted in London (LANCUM-42D6D7).
- 3.1.7 **Post-medieval:** the standard 1,760 yard mile was established by a decree made by Elizabeth I in 1593 with the word 'road' first being used by John Ogilby in his maps of the late 17th century (Smith 2011, 25). Much of the area seemed to have consisted of small farmsteads, with larger landed estates dotting the landscape. Several of the places along the proposed pipeline route are first referred to during the 16th century, including Strawberry How, as 'Strowberry How' in 1578, Scales Farm as 'Skale' in 1578 and Wharrel's Hill as 'Wharral Hill' in 1586 (Armstrong 1950). An early post-medieval silver hammered shilling of Charles I from AD 1643-4 was found in the vicinity of Stainburn Hall farm in 2010 (LANCUM-204001). A lead token dating to the post medieval period was found in Scroggs Wood (LANCUM-26C7B1). Ann's Hill is first mentioned in 1776, Threapland Gill was so named by 1777, and Mealsgate, was 'Meal's Gate in 1777 (Armstrong 1950).
- 3.1.8 A few new Cumbrian roads were built in the early 18th century, principally by wealthy landowners, to service the developing ports on the west coast, to export coal, such as from Whitehaven (Smith 2011, 29). Most roads were in a poor state by this time, leading to the development of privately funded toll roads, known as turnpikes, during the reign of George III, constructed with milestones, mileposts and toll buildings. The turnpike road between Carlisle and Workington was first established in 1753, but went through Wigton to Allonby and along the coast through Maryport (*ibid*, 63). It took the more direct route via Cockermouth at a later date, and now has the longest stretch of surviving milestones, 17 in total, in the County, though not all in their

original positions. Only two milestones survive along the Cockermouth to Workington route, and both lie outside the proposed pipeline route (Smith 2011, 72).

- 3.1.9 *Industrial Period:* the rise in industry meant a rise in population in towns in the area, with major expansions at Workington and Cockermouth. Railways, were constructed, initially for the movement of goods, but increasingly used by tourists. Much of the agricultural land would have remained unchanged by such developments, although roads would have continued in use, and mills were established along the riverways.
- 3.1.10 *Modern:* hiking became increasingly popular during the 1930s, especially among the unemployed and working classes, and special trains were run from industrial centres, such as Manchester, to the Lake District (Thompson 2010, 301). In 1936, numerous organisations including the Rambler's Association, the Youth Hostel's Association and the Council for the Preservation of Rural England formed a Standing Committee on National Parks, lobbying for legislation, although the Herdwick Sheep Breeder's Association passed a resolution opposing the establishment of a National Park in the Lake District in 1939. As part of the post-war reconstruction, a report on National Parks was produced in 1945, eventually leading to the National Parks and Access to the Countryside Act in 1949 (*ibid*, 302). The Lake District finally became a national park two years later (*ibid*), predominantly to preserve and protect the landscape.

3.2 MAP REGRESSION ANALYSIS

- 3.2.1 Map regression involves comparing maps drawn up at different dates, to understand changes through time. It allows the identification of features from earlier maps that have vanished from modern maps. Modern and earlier Ordnance Survey map versions, tithe, enclosure and estate maps are all used in map regression analysis. No detailed plans earlier than 1811 were found relating to the pipeline route.
- 3.2.2 **County Plans:** Hodskinson and Donald's plan of Cumberland of 1770 (Figure 6) is the earliest county map to outline settlements and illustrate features such as individual mills and buildings. This shows the proposed pipeline route as it starts to the east of Stainburn, following a road to the crossroads at Great Clifton. It passes a further set of crossroads to the north of Little Clifton, where a 'Chapel' is depicted. It then heads south-eastwards along a 'Turnpike', past Brigham, where the proposed pipeline route then deviates from the road to Cockermouth, southwards, crossing the 'Cocker River' to the north of a 'Paper Mill', passing to the south of 'Strawberry How' and north of 'Esps', south of 'Westray', continuing westwards past 'Nether' and 'Scale', to terminate to the south of 'Bully How Crag' and west of 'Brathahall'.
- 3.2.3 The proposed route of the pipeline from Papcastle Bridge north-eastwards, is shown as passing 'Papcastle', taking a route, to the north of Redmain, past 'Black Cock' (Site 9), passing '22 C. to W. 16' and south of the settlement at 'Bothel' passing 'Kirklandguards', 'Low Woodcock', 'White Hall' and 'Narp

Thorn', before turning south-eastwards along a road to 'Bolton', passing 'Newlands Row' and to the west of 'Weary Hall', before finishing midway along the road to Bolton. Where the study area widens, the 18th century map includes 'Hames Hill', 'Anns Hill' and 'Wood Hall'.

- 3.2.4 The eastern leg of the proposed pipeline route from Bothel is depicted on the plan of 1770, as starting at 'Bothel' and passing through land to the south, west of possible quarried areas, before joining a road to the south-west of 'Birdhouse', which joins Torpenhow to the north-west to Bewaldeth and southwards to meet the then Cockermouth to Keswick road. This is a dashed road, possibly a privately owned estate track, as 'High House' is shown to the east of the route, and 'R. Williamson Esq.' is written here. The proposed route heads south over a crossroads shown at 'Bewaldeth', and continues southwards, meeting the then Cockermouth to Keswick road and terminating there, to the east of 'Armathwaite', where 'Spedding Esq.' is written.
- 3.2.5 Estate Plans: 19th century estate plans consulted during the research included the Sanderson Estate at Great and Little Clifton in 1825 (CRO(W) D/BT/28/105), H.T. Thompson Esq. Estate maps of 1834 (CRO(W) D/CU/Estate Plan 98) and 1848 (CRO(W) D/CU/Estate Plan 93), Little Clifton and Bridgefoot Estates of 1850 (CRO(W) DH 184), Wood Hall Estate Sales Particulars, 1888 (CRO(C) DB/74/3/2/1071), plans of the Estate at Blindcrake and Redmain of 1893 (CRO(C) DB 74/3/2/791), Ann's Hill Estate sale particulars of 1895 (CRO(C) DB 74/3/2/701) and Wood Hall Estate plans of 1939, (CRO(W) YDX 384/41).
- 3.2.6 The Sanderson Estate Plan of 1825, only showed one small area of the proposed pipeline route, the roundabout area where the A66, A595 and road to Stainburn meet, to the north-west of Little Clifton. In 1825, the field in which this now lies was known as 'Near Lotts' and there was a small area of woodland to the south. H.T. Thompson Esq. Estate map of 1834 shows an area of the proposed pipeline route around Redmain, showing that the modern A595 where it curves where the road west to Bridekirk meets it, is a modern change to a road that previously continued on a south-west alignment. It shows small parcels of field, and some wooded areas, including the western part of what is now Pinggy Wood, but then, labelled as 'Craggs Plantation', but no structures or buildings. H.T. Thompson Esq. Estate map of 1848 gives a similar picture, naming fields in this area, but not depicting any buildings.
- 3.2.7 The Little Clifton and Bridgefoot Estate plan of 1850 shows only a tiny part of the proposed pipeline route, to the north of Bridgefoot, a long rectangular parcel of land belonging to the Earl of Lonsdale. The sales particulars for the Estate at Blindcrake and Redmain of 1893 did not cover the proposed pipeline route.
- 3.2.8 The widened route between Papcastle and Pinggy Wood, was covered in part, by a number of Estate Plans. The Ann's Hill Estate plan of 1895, was based on the First Edition Ordnance Survey map, and therefore showed no additional heritage assets, though it did show field names relating to the

plots. The areas of the proposed route directly to the west of Ann's Hill Estate were owned by 'Wm Thornburn Esqr' and 'P. A. Beeby Esqr', and the area to the immediate north-east, by 'A. Thompson Martin Esqr'. Two plans of the Wood Hall Estate were also analysed. The earliest, dating from 1888 was surveyed for Sales Particulars, and showed no difference from First Edition Ordnance Survey mapping, except the building known as Copstone on that map, was annotated 'Sundawn' on the sales particulars plan. The earliest reference to a building of that name is from a will of a 'William Dickinson, gentleman', of 'Sundawn, Bridekirk', in 1874 (CRO(C) PROB/1874/W48). The later plan, of 1939, shows the same layout, though a new farm, Home Farm, has been constructed beyond the limits of the study area, to the north-east of Wood Hall. This farm is first depicted onthe Second Edition Ordnance Survey mapping.

- 3.2.9 20th century and undated estate plans studied included the Brigham Hill Estate plan of 1901 (CRO(W) YDX 366/29), the Close Estate Plan of 1902 (CRO(W) YDX 366/31), a plan of a proposed pipeline between Bridgefoot and Little Clifton in 1933 (CRO(W) D/WW/1/222), a plan of the Wood Hall Estate in 1939 (CRO(W) YDX 384/41) and an undated plan of Land at Kirkland Guards (CRO(W) D/CU/5/278). These were all based on Ordnance Survey mapping, and showed no additional structures or buildings within the proposed pipeline route.
- 3.2.10 **Enclosure Awards:** several enclosure awards were consulted during the research, which covered various parts of the proposed pipeline route. These included a plan of the Commons and Waste Grounds in the Manor or Parish of Bassenthwaite of 1771 (CRO(C) Q/RE/1/92), a plan of Torpenhow and Bothel Commons of 1811 (CRO(C) QRE/1/69), Isel Old Parish for Close Stints of 1813 (CRO(C) QRE/1/86), Threapland Commons Enclosure Award of 1813 (CRO(C) QRE/1/51), Great and Little Clifton Common Enclosure Awards of 1817 (CRO(W) D/CU/Estate Plan 16), Embleton Enclosure Award of 1824 (CRO(C) QRE/1/37), Plan of Cockermouth Common, 1832 (CRO(C)QRE/1/37) and Plan of Commons at Dovenby and Papcastle in 1842 (CRO(W) D/WM/1/61).
- 3.2.11 The Plan of Commons and Waste Grounds in Bassenthwaite of 1771, unfortunately did not cover the proposed pipeline route. The Torpenhow and Bothel Commons plan of 1811 shows the field plots and buildings around the settlement of Bothel itself, not showing any additional buildings than more modern mapping. Isel Old Parish Close Stints plan of 1813 covers the proposed pipeline route along the modern A595 between the area to the north of Blindcrake to the south-east of Threaplandgill Bridge. The plan gives the owner's names of the various fields, indicating that the proposed route runs through lands owned, in 1813, by Jenny, the wife of Isaac Clarke, John Simpson, John Thompson, Allan Pearson Esq., Christopher Benson, Joseph Messenger and Wilfred Carter. No buildings are depicted.
- 3.2.12 Threaplands Common Enclosure shows the area of the proposed pipeline route covering the section along the modern A595 to the north-east of

Simpson Close and south-west of Wharrel's Hill. This shows a slightly different road alignment to the present road, and the proposed route running through Plumbland Common at the western extent, and land owned by Roger Williamson Esq. and John Brisco. No buildings are depicted within the proposed route. The Great and Little Clifton Common Enclosure Awards of 1817 covers a small area of the proposed route at Little Clifton, unfortunately only covering the road and buildings of Great Clifton.

- 3.2.13 The Plan of Cockermouth Common of 1832 shows a very similar layout to the Cockermouth Tithe Award of 1840 (CRO(C) DRC 8/47), showing rectangular fields and roads on a north-south and east-west orientation in the area to the south of the town. No buildings or structures are depicted within the proposed pipeline route. The Embleton Enclosure award plan of 1824 shows a small area of the proposed pipeline route to the south-east of Cockermouth, depicting irregular rectangular fields and two small roads heading south and south-east from the settlement. No structures or buildings are shown. The Dovenby and Papcastle Common plan of 1842 does not cover any part of the proposed pipeline route.
- 3.2.14 **Tithe Plans:** several tithe plans were consulted, covering the proposed pipeline route. These included the Papcastle Tithe Award of 1838 (CRO(C) DRC 8/149), the Hames Hill Tithe Award of 1838 (CRO(C) DRC 8/82), the Embleton Tithe Award of 1839 (CRO(C) DRC 8/70), the Cockermouth Tithe Award of 1840 (CRO(C) DRC 8/47), the Bridekirk Tithe Award of 1842-4 (CRO(C) DB/74/3/2/1071) and the Tithe Award of the Lowside Quarter of Bolton of 1843 (CRO(C) DRC 8/20). The Papcastle tithe award plan shows the proposed pipeline circling west of Papcastle, through agricultural fields, and across an old routeway heading north-west from the settlement itself. To the north of Papcastle, the proposed pipeline route extended into 'Papcastle Common'.
- 3.2.15 The Embleton tithe award plan shows the pipeline route covering an earlier trackway to the north of Strawberry How, following the route of a stream though agricultural fields to the north of Westray and south of Scale and Lambfoot, with associated trackway crossing the proposed pipeline route, through irregular fields to the south of Stanley Hall and Rake Foot, crossing further farm tracks south of Howe End, and through fields south of Close. The tithe award plan stops just to the east of Close.
- 3.2.16 Cockermouth Tithe award plan includes the area of the proposed pipeline route, south of Cockermouth. It shows the proposed route crossing irregular rectangular fields and east-west and north-south trackways, as well as the River Cocker with adjacent paper mills depicted to the south of the proposed route. The Hames Hill Tithe Award Plan of 1838 depicted a small part of the route, to the north of Cockermouth, but showed no additional details to First Edition Ordnance Survey mapping of the area. The Bridekirk Tithe Award plan of 1842-4 showed the widened area, covering the zone between Wood Hall and the River Derwent to the south-east and Bridekirk Village to the north-west. It features the buildings of Ann's Hill (Site 134), Quarry House, part of

the wider quarried area of Blindcrake (Site 133) and two buildings at Gales (Site 136), known from First Edition Ordnance Survey mapping, showing that these predate 1842. In addition to these known sites, the map also shows two other buildings, not known from other sources, one to the south-west of Ann's Hill (Site 134) and one to the north of Copstones, on the eastern side of the road (Site 145).

- 3.2.17 The map associated with the Tithe Award of the Lowside Quarter of Bolton of 1843 includes the northernmost part of the proposed pipeline route around Mealsgate, between Cockbridge on the present A595 and the final extent of the proposed route east of Mealsgate. Buildings are depicted at the locations of extant buildings at Cockbridge (Site 60), with the proposed route following a road existing by 1843, with fields either side north and eastwards towards Mealsgate. A cluster of L-shaped buildings forming an enclosed farmyard are depicted as 'Newlands Row', indicating an early origin for these extant buildings (Site 61). Further to the south-east, aligned with the road, one small rectangular building (Site 84) and one long narrow rectangular building are also depicted (Site 62).
- 3.2.18 First Edition Ordnance Survey Mapping, 6" to mile, 1867 (Figures 7-9): this is the earliest map to cover the entire proposed pipeline route in accurate detail. It shows the route as starting to the east of 'Prior How Reservoir', already in existence by this time to the east of Stainburn Hall, following a main road, to the south of 'New Hall', eastwards, passing a milestone (Site 77) and heading to the north of Clifton House, passing three wells in the vicinity of the crossroads at Great Clifton, five of the buildings of which lie within the proposed pipeline buffer zone. One of these is a building to the north of the well (Site 94), another, annotated as 'Methodist Chapel (Wesleyan)' (Site 95), another is located to the south-west of the crossroads and east of a well (Site 96), the fourth is annotated 'Ship Inn' (Site 97), and the fifth is an L-Shaped building, possibly a farmstead (Site 98). After Great Clifton, the route continues along the road, where it's depicted as 'Roprains'. Here, a track is shown (Site 111), heading north-westwards, eventually leading to 'Westray Pit (Coal)'. The proposed pipeline route deviates from the road to the west of Bridgefoot, where it passes through, what were fields in 1867, north westwards, crossing Catbank Lane (Site 99), passing the site of Reelfits Pit '(coal)' (Site 63) and a 'Coal Staith' (Site 64), with associated north-west south-east orientated track (Site 100), presumably all associated with Linefitts Colliery c. 180m to the north.
- 3.2.19 The route then continues on a north-easterly direction, to the south of the River Derwent, where it passes 'Melgramfitz Pit (Coal)' (Site 65), before rejoining an existing road, continuing past buildings at 'Colin Grove' (Site 101) and 'Seaur Close' (Site 102), a Railway Station in Broughton Cross (Site 66) and a well and building at 'Stonybeck' (Site 103). It then utilises the line of the Cockermouth and Workington Railway (Site 67), passing Brigham Station (Site 68) and the Nun's Well (Site 17). The proposed pipeline route leaves the railway line at Papcastle Bridge, heading south of the railway and river. The route seems to include 'The Fort, remains' (Site 69) at Fitz Woods,

presumably the same as the scheduled Romano-British farmstead known to exist in the woods (Magic Reference 1014587; old SAM number 27706).

- 3.2.20 South of Cockermouth, the proposed route passes to the east of Brigham Common through neat though irregular sized rectangular field systems associated with two east-west orientated access tracks (Sites 104 and 105), seen on earlier mapping, and skirting to the south of Simonscales Wood, before crossing the River Cocker and heading past 'Kirkgate Brick and Tile Works' (Site 23), south-easterly through 'Cockermouth Moor' and 'Embleton Common' to the south-east of 'Strawberry How', crossing 'Tom Rudd Beck'. It then joins another railway line, this time, the 'Cockermouth, Keswick and Penrith Railway' (Sites 3 and 4), passing a signal post and Embleton Station (Site 2) and building at Lambfoot (Site 106), continuing on the line of the railway until the end of the proposed pipeline route to the south-west of Dubwath.
- 3.2.21 The northern part of the proposed pipeline route begins at Papcastle Bridge and heads north-westerly along the modern A595. It crosses the River Derwent to the west of Papcastle, through fields, to the west of Belle Vue before joining an existing road between Papcastle and Carlisle. It passes a 'Lodge' (Site 135), presumably part of the 'Annshill' Estate (an extant building is depicted here on modern mapping), and a possible quarry site (Site 70) and a 'Limekiln' (Site 71), possibly associated with the known site of Bridekirk Quarries, centred on the opposite side of the road, to the north (Site 133). A milestone is depicted just to the north-east of here (Site 76). In the widened area, between Papcastle and Pinggy Wood, to the north-west of the road, the route passes Anns Hill House itself (Site 134) and a lodge to the south (Site 135), and Gale House and outbuilding to the north-east (Site 136), as well as two wells (Sites 137 and 138) and the quarry sites, with 'Quarry House', the manager's house (Site 133). Some of these appear to have formed part of the Wood Hall Estate by 1888 (CRO(C) DB/74/3/2/1071). The proposed pipeline route then largely continues along the road, though it is straighter and more direct, heading north-eastwards, past the turning to Redmain, and the 'Black Cock P.H.' (Site 9), past the site of a Milestone (Carlisle 23; Wigton 12; Cockermouth 3½) (Site 72), not known from the CCC HER search. The proposed route continues past the known strip field system by Blindcrake (Site 23), and the 'Moota House P.H.' an extant building and another Milestone (Site 52). The proposed pipeline route then passes two guide posts (Sites 73 and 74), before crossing Threaplandgill Bridge, with a milestone 'Carlisle 20; Wigton 9; Cockermouth 6½' by Wharrel's Hill (Site 75) and a quarry (Site 36) and limekiln (Site 40) just to the south-west of Bothel.
- 3.2.22 At Bothel, the proposed pipeline route deviates from the road shown on the First Edition Ordnance Survey map, skirting to the east of the settlement, passing a well, some small farm outbuildings and a 'Methodist Chapel, Primitive', as well as a 'National School (Endowed)'. Buildings are shown at these points on modern Ordnance Survey mapping. The proposed pipeline route then passes to the east of Bothel, past a limekiln (Site 38) and Gillands Quarry (Site 39), before continuing across fields and passing Overgates (Site

54), to the south-west of the small settlement of Kirkland Guards, past a milestone (Site 55) and the extant farmsteads 'Kirkland Green' (Site 56), 'Whitehead Brow' (Site 48) and 'Low Woodnook' (Site 57). The proposed pipeline route continues following an earlier Cockermouth to Carlisle road past buildings at Cockbridge (Site 60), including 'Cockbridge Inn', and a milestone (Site 58), before following the Papcastle to Carlisle Roman road section (Site 32), and Cockbridge moated site (Site 55), referred to on the First Edition Ordnance Survey map, as 'supposed camp'. To the south of Mealsgate, the proposed route passes a possible lodge house, to the east of Hall House, still shown on modern Ordnance Survey mapping, before cutting east to the south of Mealsgate across fields to join a road that is now the B5299, which heads south-eastwards. Here, the proposed pipeline route passes the farmsteads of Newlands Row and 'Saw Pit' (Site 61), seen on earlier tithe mapping (Tithe Award Plan of the Lowside Quarter of Bolton of 1843), a small rectangular building (Site 84) and a narrow rectangular building (Site 62), also shown on the tithe award plan of the Lowside Quarter of Bolton of 1843.

- 3.2.23 The eastern leg of the proposed pipeline route, between Bothel and Kilnhill, is shown on the First Edition Ordnance Survey map as following a road in existence by this time (1867), passing over 'Billy Bridge', heading south-eastwards past a quarry (Site 30), and 'Bothelcrags', still in existence on modern mapping, with a well, passing to the north-east of 'Lowmoor' farmstead, past a building (Site 12), known from Cumbria HER, and depicted as 'Blackbeck' on the First Edition Ordnance Survey mapping, which is no longer in existence. The route continues on a south-south-easterly course, over a road bridge (Site 16) to the east of 'Bewaldeth Brick & Tile Works', past a guidepost (Site 15), and buildings at 'Lowgarth', including a rectangular outbuilding to the south (Site 85), to the south-west of Bewaldeth village. The proposed pipeline route continues south-eastwards to the west of Thornthwaite Wood, east of Burthwaite Wood, across Burthwaite Bridge, stopping at the crossroads at Kilnhill, where there is a cluster of buildings, including Castle Inn and a building that must be Kilnhill Forge (Site 13).
- 3.2.24 Second Edition Ordnance Survey Mapping, 6" to mile, 1900-1901 (Figures 10-12): this mapping shows a similar layout as the First Edition Ordnance Survey mapping of 1867, except a 'Vicarage' is depicted to the east of Great Clifton (Site 107), and although the track (99), earlier called Cat Bank, is still shown, it is no longer labelled, though it now leads to 'Lowther Brickworks' to the north-west. The track to the west (Site 111) now leads to 'Westray Pit (disused)', rather than 'Westray Pit (Coal)', as before. At Great Clifton, a similar layout of buildings is revealed (Sites 94-97), although the south-easternmost, the 'L-Shaped' possible farmstead, is now labelled with 'smithy' (Site 98). North of Bridgefoot, the sites of Reelfits Pit '(coal)' (Site 63) and 'Coal Staith' (Site 64) (presumably associated with Linefitts Colliery c. 180m to the north), have since become 'old shaft', and 'Marron Junction', and a new mineral railway (Site 78) is depicted passing across, with the trackway (Site 100) shown on earlier mapping still in existence, though now it leads to

'Westray Pit (disused)'. This area is now annotated 'Linefitts Plantation', and these developments suggest an expanse in coal mining in this area in the intervening years. Similarly, Melgramfitz Pit (Coal) (Site 65), has since become 'Melgramfitz Wood', and a new site of a possible quarry (Site 79) can be seen on the opposite side of the railway line (Site 67).

- 3.2.25 As with the First Edition Ordnance Survey mapping, the Second Edition shows the proposed pipeline route continuing past buildings at Broughton Cross, including the railway station (Site 66), and Colin Grove (101) and Seuer Close (102), though these seem to have been subsumed into the railway system, and the building at Stony Beck, now annotated with 'Stonybeck Cottages (Site 103). After this, the route passes a Sewage Farm, not depicted on earlier mapping (Site 80), with further 'Sewage Works' (Site 81) and tanks to the east of Fitz Cottage. The route, as depicted on the Second Edition Ordnance Survey seems to include again what is now, 'fort' (Site 69) at Fitz Woods. The route continues south of Cockermouth, passing through the same irregularsized rectangular field systems, seen on earlier mapping. 'Kirkgate Brick and Tile Works' are no longer depicted, though some traces of small buildings still survive (Site 23). A ford is depicted crossing Tom Rudd Beck, not shown on earlier mapping (Site 59) before the route matches the First Edition Ordnance Survey mapping again, heading south of Scales (Site 49) and Lambfoot (Site 106) where a building is now labelled 'saw mill', and Embleton Station (Site 2), following the Cockermouth, Keswick and Penrith Railway' (Sites 3 and 4). To the south-east of Rakefoot, buildings have been constructed beside the railway line, noted as 'Rakefoot Cottage' (Site 87), and buildings are shown at this point on modern Ordnance Survey mapping. A quarry (Site 108) is depicted to the west of Rakefoot with an associated track. The Second Edition Ordnance Survey map is the same as the First, from this point until the end of the route at Dubwath.
- 3.2.26 The northern part of the proposed pipeline route, which begins at Papcastle Bridge and heads north-westerly along the modern A595, is the same on the Second Edition Ordnance Survey map, as on the First, though a reservoir has been established to the north of Belle Vue for 'Maryport U.D. Water Works' (Site 82). The quarry (Site 70), shown on First Edition Ordnance Survey mapping, has gone out of use by 1900, with this whole area being called 'Woodhall Park'. Otherwise this part of the route stays the same, with the milepost (Site 76), now depicted as 'Wigton 13, Cockermouth 2½' instead of 'Carlisle 24, Wigton 13, Cockermouth 2½'. In the widened area, to the northwest of the A595, the route remains the same, except the two wells are no longer shown (Sites 137 and 138), and the additional features of a 'Guide Post' (Site 139) and an 'Elm' (Site 140) and 'Oak' (Site 141) are depicted to the south of Pinggy Wood. The rest of the route, heading north-eastwards, remains the same, except Black Cock P.H. is now Black Cock (Site 9) following the A595 course of the Roman Road (Site 7) with the same guide posts (Sites 73 and 74) and with the quarries at Wharrels Hill, now marked as 'old'. Even the limekiln (Site 40), is marked as 'old quarry' on the Second Edition Ordnance Survey map, and Gillands Quarry (Site 39), north-east of Bothel, is

'disused'. The route remains the same, until south of Aldersceugh, where 'Aldersceugh Cottages' have been built to the east of the road, referenced on modern Ordnance Survey mapping as Cockbridge Cottages. To the north of the 'Camp' (Site 55), a 'South Lodge' and 'East Lodge' have been built, presumably as part of the Whitehall Estate; buildings are still shown at this location on modern Ordnance Survey mapping.

- 3.2.27 To the south of Mealsgate, the proposed route crosses fields to join a road that is now the B5299, heading south-eastwards. Within these fields, an 'Old Wagonway' (Site 83), not shown on earlier mapping, is shown running north-east south-west from Mealsgate towards Charley Pit Wood. The earlier 'Newlands Row' and 'Saw Pit', clusters of buildings (Site 61) are now annotated with 'Newlands Row Farm' (the north-westernmost), and the southern ones: 'Newlands Row' and 'Newlands Row Cottages'. The small rectangular building (Site 84), depicted on earlier mapping is now denoted 'Rose Cottage', and the long narrow rectangular building (Site 62), 'Old Pit Cottages'. Neither appears to be shown on modern Ordnance Survey mapping. Otherwise this part of the proposed pipeline route remains the same as earlier mapping.
- 3.2.28 The eastern leg of the proposed pipeline route, between Bothel and Kilnhill, retains the same layout as the earlier First Edition map, except on the Second Edition, the two quarries (Sites 30 and 41), are marked as 'Old', and the trees around Blackbeck (Site 12), are now annotated with 'Bird Dyke Plantation'. Bewaldeth Brick & Tile Works are not shown, not even any traces of buildings, and a rectangular building shown south of Lowgarth in Bewaldeth (Site 85) on the First Edition Ordnance Survey map, is similarly not shown on the Second. Otherwise the proposed pipeline route is the same as that shown on First Edition Ordnance Survey mapping, until it finishes at Kilnhill.
- 3.2.29 Third Edition Ordnance Survey Mapping, 6" to mile, 1926-7 (Figures 13-15): these maps show the same layout as the Second Edition Ordnance Survey mapping of 1900-1, with the same layout of buildings at Great Clifton, except a 'lodge' is depicted to the west (Site 109). The vicarage is still in place to the east (Site 107), but there is the addition of a rectangular building on the south side of the road at 'roprains', labelled 'Church Rooms' (Site 110). The track previously known as Cat Bank (Site 99) is still in existence, although it now leads to 'Lowther Brick Works (disused)'. North of Bridgefoot, the area around Linefitts Plantation and the mineral railway (Site 78) has been extended further to include buildings within the proposed pipeline route (Site 86), north of Marron Cottages, not shown on modern Ordnance Survey mapping. The quarry to the north of Melgramfitz Woods is also still in existence (Site 79), with the same line of railway (Site 67), and building pattern at Broughton Cross. Additionally, the two sewage works first shown on Second Edition Ordnance Survey mapping, are still depicted (Sites 80 and 81), the eastern one much extended (Site 81). The 'fort' is still shown as lying within the proposed pipeline route (Site 69). The map shows the same layout as the earlier Second Edition map, although, at Lambfoot, to the east of Scales and west of Embleton Station, the 'Saw Mill' is still shown (Site 106)

but a new 'Timber Yard' is depicted to the north of the railway line (Site 87). To the north east of Rakefoot Cottage (Site 87), a new railway siding has been constructed (Site 88), heading north-westwards to a 'tramway', leading to 'Embleton Quarries' on the same site as an 'Old Quarry' marked on Second Edition Ordnance Survey mapping of 1900-1. The quarry previously depicted to the west (Site 108), is no longer depicted. Otherwise this southern part of the proposed pipeline route remains unchanged from earlier mapping.

- 3.2.30 The northern part of the proposed pipeline route, which begins at Papcastle Bridge and heads north-westerly along the modern A595, is the same as on the Second Edition Ordnance Survey map, until the 'Camp' (Site 55), by the Whitehall Estate, which is annotated as a 'Moat' on the Third Edition Ordnance Survey map. The 'Old Wagonway' (Site 83) is still marked, and the buildings to the south-west of Mealsgate remain unchanged (Sites 61, 84 and 62), however a 'Water Works (Aspatria, Silloth and District Joint Water Board)' (Site 89) has been constructed at the very end of the proposed pipeline route, clearly dating to between 1900 and 1927.
- 3.2.31 The eastern leg of the proposed pipeline route, between Bothel and Kilnhill, retains the same layout as the earlier Second Edition map of 1900-01, finishing at Kilnhill.

3.3 Aerial Photographs and Lidar

- 3.3.1 Colour vertical composite digital aerial photography was accessed using Google Earth and black and white oblique and vertical aerial print photographs were consulted at Cumbria County Council's Historic Environment Record offices.
- 3.3.2 Lidar images were accessed from the Environment Agency online dataset. Airborne lidar (light detection and ranging) measures the height of the ground surface and other features across large areas of landscape. Lidar operates by using a pulsed laser beam which is scanned from side to side as the aircraft flies over the survey area, measuring between 20,000 to 100,000 points per second to build an accurate, high resolution model of the ground and the features upon it. This allows the detection of otherwise hard to recognise features. Lidar images were ordered, covering the area to the west of Papcastle, where the proposed route deviates from main roads, and where geological anomalies are known to exist (Lidar Image Nos. NY03, NY13. Website https://www.geomatics-group.co.uk/geomatics/Redirect.aspx).
- 3.3.3 No previously unknown potential heritage assets were noted from aerial photography or Lidar imagery.

3.4 PREVIOUS ARCHAEOLOGICAL WORK

- 3.4.1 Various places along the proposed pipeline route have been subjected to previous archaeological investigations. These are summarised below.
- 3.4.2 An archaeological desk based assessment and walkover survey was undertaken on a pipeline route between Workington and Great Clifton in

2012 (Wooler 2012a; NGR 30290 53008 to NGR 30064 52884). This did not discover any new heritage assets within the proposed pipeline route.

- 3.4.3 An archaeological desk based assessment was undertaken on land off Moor Road, Great Clifton, in 2004 (Walker 2004; NGR 303905 529346). This showed that this area of Great Clifton had been mined, and that workings relating to William Pit, part of Clifton Colliery may have extended into the area of the proposed pipeline route.
- 3.4.4 An archaeological desk based assessment was undertaken on land on Moor Road, Stainburn in 2012 (Wooler 2012b; NGR 3024 5285), confirming that a settlement at Stainburn existed by the medieval period which remained static and agricultural in nature throughout the post-medieval period.
- 3.4.5 An archaeological evaluation was undertaken on land at Moor Road, Great Clifton in 2012, when twenty two evaluation trenches were excavated across two fields. The trenches excavated in the field that the proposed pipeline route goes through, contained only stone-filled land drains (Bell 2012; NGR 303905 529346).
- 3.4.6 An archaeological desk based assessment was carried out on land to the north of Melbreak Hotel at Crossbarrow in 2005 (Ford 2005; NGR 304952 528919). A disused field boundary running north-east south-west was identified as having been ploughed out, during the walkover survey, which may have extended to within the proposed pipeline route.
- 3.4.7 An archaeological desk based assessment was undertaken on land off Ellerbeck Brow, Brigham in 2012 (Wooler 2012c; NGR 3092 5302). The area studied was on the edge of the known medieval village of Brigham. The desk based assessment revealed a small chance of prehistoric features to be encountered in the area, from find spot evidence, and also Romano-British activity, from the route of a Roman road, and existence of the Roman fort and vicus at nearby Papcastle. No new features within the proposed pipeline route were located.
- 3.4.8 An archaeological evaluation took place in 1999, undertaken by Carlisle Archaeological Unit at The Fitz. No report could be identified, but no significant remains were identified (CCC HER info; NGR 310717 530616).
- 3.4.9 In 2009, a desk based assessment was undertaken for land at the Fitz, Fitz Park, confirming that the Fitz estate dated from at least 1620, with the present mansion dating to 1834/5 (Cracknell 2009; NGR 310717 530616).
- 3.4.10 A geophysical survey was conducted at two locations at the former Fitz Park, prior to residential development in 2009 (Railton 2009; NGR 310717 530616). Anomalies possibly associated with palaeochannels, modern services and field drainage pipes were identified. Modern magnetic material hindered the possibility of testing whether the adjacent scheduled Romano-British farmstead (Site 69) extended into that survey area.
- 3.4.11 Northamptonshire Archaeology was commissioned to carry out a 12ha magnetometer survey on land to the north of Strawberry How Road,

Cockermouth, either side of the A66 (NGR 313300 530100). The majority of fields contained a pattern of ridge and furrow, 'rigg', cultivation of presumably medieval or later date. Considerable amounts of geological responses were detected in the vicinity of Tom Rudd Beck, and were likely to result from sediments deposited by meanderings in the watercourse (Butler and Fisher 2010, 3).

- 3.4.12 An archaeological desk based assessment was undertaken at West Winds Cottage, Papcastle (Martin 2013), which suggested that the site was used for agricultural purposes during the Roman period (NGR 31070 53150).
- 3.4.13 In April 2012, an archaeological watching brief was undertaken at Camp Farm, Papcastle (NGR 31079 53149). At their closest point the excavations monitored were located c. 50m south-west of the scheduled monument of Derventio Roman fort (SM 22499), but no features or finds dating to the Roman period were identified during the watching brief. Beyond sewers and a land drain, the only feature observed was a dump of roughly-shaped stone which appears to represent the discarded remains of a relatively recently dismantled section of field boundary (P. Clark 2012, 2).
- 3.4.14 In 2008, an archaeological desk based assessment and watching brief was undertaken at Craiginvar, Papcastle (NGR 31109 53161), where the trenches revealed no clear evidence of Roman archaeology despite the close proximity of the fort. This was probably due in part to the area having been heavily disturbed by the building of the house and/or the subsequent construction of a garage. It was deemed likely that the majority of archaeological features in the immediate area had either been severely truncated or are located away from the immediate development site (Sowerby and Peters 2008, 4).
- 3.4.15 A desk based assessment was carried out at Wharrel's Hill as part of an Environmental Impact Assessment for a proposed wind farm development. Numerous features dating from the 18th century onwards were recorded, including limekilns and quarries (CFA Archaeology Ltd 1997; NGR 317533 537292). None of these are located within the present proposed pipeline route.
- 3.4.16 An archaeological watching brief took place during groundworks for a new utility installation along the verge of the A595 at Wharrels Hill (NPA 2006; NGR 31509 53561) but found no evidence of the Roman Road in this area.
- 3.4.17 AOC Archaeology Group undertook a building survey of outbuildings at High Houses, Bothel, prior to their demolition (Watson 2009; NGR 317998 538698). The threshing barn, byre and stables were found to be of probable late 18th century date, the pigsties of mid 19th century date and the wash house of late 19th century date. It is not clear whether they related to an earlier building at the High Houses site, or perhaps the neighbouring Brisco House, to which access was possible through the threshing barn.
- 3.4.18 An archaeological desk based assessment was undertaken at Bothel, showing the area to be dominated by features associated with post-medieval quarrying and lime kilns, many of which are shown on 19th century mapping

(Wooler 2012d, 5; NGR 3180 5391). A large quarry and limekilns, shown on the First Edition Ordnance Survey map of 1868, were located immediately to the west of the proposed development site. A small quarry was observed at the north-west end of that proposed development area during the site visit.

- 3.4.19 A geophysical survey was undertaken on land at School Lane, Bothel detecting areas of both broad and narrow ridge and furrow cultivation, which relate to medieval and/or post medieval cultivation (A. Clark, 2012; NGR 3182 5391). It also detected a potential ditched enclosure measuring c.12m in width which possibly pre-dates the post medieval ridge and furrow cultivation. An area of potential pits and linear features was also detected, located to the northern end of the survey area, which could have been of archaeological interest.
- 3.4.20 An ongoing research project studying the former Roman fort and associated civilian settlement, at Papcastle (Grampus Heritage's Discovering Derventio project, not yet published) has included a series of geophysical surveys, some of which cover some parts of the proposed pipeline route close to Papcastle Bridge, where the route deviates from main roads. Several features, thought to represent a possible roundhouse, rectangular timber building, and field systems, have been identified in the area west of the A595 and north of the river (Site 24; Figure 5).

3.5 GROUND INVESTIGATIONS

3.5.1 No ground investigations have been carried out along the proposed pipeline routes.

4 GAZETTEER OF SITES

Site Number Site Name Status Tree Number Access NGR Source Note Assessment	01 Common Ash Notable Tree Notable Tree 14931 Private (not known if visible from publicly accessible area or if permission is required) 316100 530100 The Woodland Trust A tree of local importance, or of personal significance to the individual recorder, is called a 'notable tree'. This includes specimen trees or those considered to be potential, next generation veteran The heritage asset lies within the boundary of the study area at 50 metres to the south of the centre line. As this lies within the LDNPA, the heritage asset is considered to be of district or county significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	D2 Embleton Railway Station Non-designated 10801 Site of Railway Station - destroyed Industrial 316300 530200 LDNPA HER Site of Railway Station shown on the First Edition Ordnance Survey 6" map of Cumberland, sheet 55 The heritage asset lies within the boundary of the study area at 32 metres to the north of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	03 A66 Route of Railway, Bassenthwaite Lake Non-designated 10815 Line of Railway - destroyed Industrial 320000 531000 LDNPA HER Site of railway line shown on the First Edition Ordnance Survey 6" map of Cumberland, sheet 55.4, route utilised by the modern extant A66 The heritage asset lies within the boundary of the study area and the

route follows the centre line at some points. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	04 Route of Cockermouth, Keswick and Penrith Railway Non-designated 10815 Line of Railway- destroyed Industrial 325000 524220 LDNPA HER Site of a railway, now dismantled. The Cockermouth, Keswick and Penrith Railway opened in 1865, and closed in 1966 The heritage asset lies within the boundary of the study area and the route follows the centre line at some points. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	05 Mile Plate on Railway, south-west of Brathay Hill Non-designated 60163 Site of mile plate Industrial 318930 530920 LDNPA HER Mile plate shown beside the railway on the Second Edition Ordnance Survey map The heritage asset once lay within the boundary of the study area, on the centre line, though is no longer extant. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	06 Signal Post on Railway, south-west of Brathay Hill Non-designated 60164 Site of signal post Industrial 319230 531030 LDNPA HER Signal post shown alongside the railway on the Second Edition Ordnance Survey map The heritage asset once lay within the boundary of the study area, on the centre line, though is no longer extant. The heritage asset is considered to be of negligible significance based on current

knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	07 A595 course of Roman Road Non-designated 10864 Site of Roman Road Roman 316700 537720 to 313450 533950 LDNPA HER Roman road (now the A595) which continues onto NY13SW and NY13NE, shown on the Ordnance Survey 1:10000 map sheet NY13NW 1973 The heritage asset lies within the boundary of the study area, along the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	08 Williamsgate Quarry Non-designated 11050 Levelled earthwork Post Medieval 313450 533950 LDNPA HER Disused quarry shown on the First Edition Ordnance Survey map 25" of Cumberland, 1898, sheet 46.9 The heritage asset lies within the boundary of the study area at 7.5 metres to the north-west of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	09 The Black Cock Public House Non-designated 60118 Building Post Medieval 313736 534355 LDNPA HER Buildings marked as 'The Black Cock' public house by First Edition Ordnance Survey mapping of the area. 'Black Cock' is annotated, and a building is also shown on Hodskinson and Donald's Plan of Cumberland of 1770 (Figure 6). A building is also shown here, but not named on H.T. Thompson Esq.'s Estate Plans of 1834 and 1848. Building marked here on modern Ordnance Survey as 'Williamsgate' The heritage asset lies within the boundary of the study area at 6

metres to the north-west of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 10 Strip Field System Non-designated 60171 Structure Medieval 314126 534773 LDNPA HER A pattern of arable furlong strips in former open field preserved by later enclosure. The medieval strip fields are areas of land divided into elongated rectangular fields running parallel to each other in a reversed 'S' shape around the edge of Blindcrake. The aerial photographs also show areas of well-preserved ridge and furrow within the field system. The heritage asset lies within the boundary of the study area at 42 metres to the south-east of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	11 Broad Ridge and Furrow Non-designated 5896 Earthwork Post Medieval 320900 534500 LDNPA HER Surviving ridge and furrow recorded by B. Pehrson in August 1984 The heritage asset lies within the boundary of the study area at 41 metres to the west of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	12 Unclassified Building Non-designated 10358 Site of a building Post Medieval 319820 536360 LDNPA HER Building, presumably a farmhouse, marked 'Blackbeck' on First Edition Ordnance Survey mapping and 'Black Beck on Second Edition

Ordnance Survey mapping. No longer in existence

Assessment The heritage asset lies within the boundary of the study area at 50 metres to the south-west of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge

Site Number	13
Site Name	Kilnhill Forge
Designation	Non-designated
HER Number	10849
Site Type	Extant building
Period	Post Medieval
NGR	321580 532750
Source	LDNPA HER
Description	1881 Ordnance Survey mapping shows a 'smithy' diagonally
	opposite, on other side of road. Buildings are not shown here on
	Hodskinson and Donald's Plan of Cumberland of 1770. Extant roofed
	building, old forge
Assessment	The heritage asset lies within the boundary of the study area at 50

metres to the east of the centre line. The heritage asset is considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	14 Road Signpost Non-designated 60082 Site of signpost Industrial 320381 536386 LDNPA HER 19 th century signpost by the side of the road shown on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 50 metres to the north-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 15 Road Signpost Non-designated 60086 Site of signpost Industrial 320863 534819 LDNPA HER 19th century signpost by the side of the road shown on First Edition

Assessment The heritage asset lies within the boundary of the study area at 26 metres to the west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge

Site Number	16
Site Name	Road Bridge
Designation	Non-designated
HER Number	60094
Site Type	Road Bridge
Period	Post Medieval
NGR	320626 535504
Source	LDNPA HER
Description	Road bridge shown on First Edition Ordnance Survey mapping. The bridge site is shown bridges in subsequent editions, although it is unknown if the original bridge still crosses the stream here
Assessment	The heritage asset lies within the boundary of the study area at 50 metres to the west of the centre line. The heritage asset is considered to be of district or county (Lesser) significance based on current knowledge
Site Number	17

Site Number	17
Site Name	Nun's Well
Designation	Non-designated
HER Number	848
Site Type	Site of well
Period	Medieval
NGR	308720 531040
Source	CCC HER
Description	Site of Nun's Well, listed as a Holy Well. Known from documentary evidence. No surface traces. Possibly destroyed by roadworks
Assessment	The heritage asset lies within the boundary of the study area at 15 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number	18
Site Number Site Name	
	18
Site Name	18 Parsonage Farmhouse
Site Name Designation	18 Parsonage Farmhouse Grade II* Listed
Site Name Designation HER Number	18 Parsonage Farmhouse Grade II* Listed 4208
Site Name Designation HER Number Site Type	18 Parsonage Farmhouse Grade II* Listed 4208 Extant building
Site Name Designation HER Number Site Type Period	18 Parsonage Farmhouse Grade II* Listed 4208 Extant building Medieval

Assessment The heritage asset lies within the boundary of the study area at 37 metres to the south of the centre line. The heritage asset is considered to be of national significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 19 Urn Find Non-designated 4271 Find Spot Bronze Age 310000 531000 CCC HER A Bronze Age urn found at Papcastle prior to 1870. Now in the British Museum. Probably found in association with asset 20. The heritage asset lies within the boundary of the study area at 48 metres to the south of the centre line, though this is at the corner of a grid square, so is unlikely to be the exact spot. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	20 Knife Find Non-designated 4272 Find Spot Bronze Age 310000 531000 CCC HER A bronze knife blade possibly associated with the urn (asset 19) The heritage asset lies within the boundary of the study area at 48 metres to the south of the centre line, though this is at the corner of a grid square, so is unlikely to be the exact spot. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	21 Melgramfitz Wood Coal Pit Non-designated 11767 Site of a coal pit Post Medieval/ Industrial 306350 530050 CCC HER Site of a coal pit marked on the First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 66 metres to the north of the centre line. The heritage asset is

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	22 Maryport and Carlisle Railway, Derwent Branch Non-designated 11773 Course of railway Industrial 307900 535200 CCC HER Course of a now dismantled railway first shown on the Second Edition Ordnance Survey map of 1900 The heritage asset lies within the boundary of the study area, running on a north-east/ south-west trajectory across the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number	23
Site Name Designation	Kirkgate Brick and Tile Works Non-designated
HER Number	11909
Site Type Period	Site of brick and tile works Post Medieval
NGR	312540 529190
Source Description	CCC HER The brick and tile works is recorded on the First Edition Ordnance
Assessment	Survey map of 1866 and comprised at least four separate buildings, some of which may have been kilns. There is currently a building on the site of the tile works but it is not known whether this is one of the original tile works structures The heritage asset lies within the boundary of the study area at 41 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name	24 Dancastle Ring Ditch Cronmark
Designation	Papcastle Ring Ditch Cropmark Non-designated
HER Number Site Type	13560 Geophysical Anomaly
Period	Unknown
NGR Source	310100 531200 CCC HER
Description	Cropmarks investigated by geophysical survey and interpreted as an enclosure, hut circle and postholes for a large timber building. Possibly associated with the extramural settlement around Papcastle Roman Fort
Assessment	The heritage asset lies within the boundary of the study area at 38

considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	25 Dress fastener find Non-designated 19500 Find Spot Roman 310000 531000 CCC HER Cast bronze disc headed fastener with enamel decoration The heritage asset lies within the boundary of the study area at 48 metres to the south of the centre line, though this is at the corner of a grid square, so is unlikely to be the exact spot. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	26 Simonscales Non-designated 43346 Site of farmstead Medieval 311700 529400 CCC HER Field names relating to Simonscales date back to at least 1294 but 19 th century maps show enclosures of this name but no surviving
Assessment	buildings. Not shown on Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 49 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	27 Cockbridge Moated Site Scheduled Ancient Monument 659 Earthwork Medieval 320250 541290 CCC HER Well preserved moated site. Moat is c.20 metres wide and 75 metres long. No associated buildings survive The heritage asset lies within the boundary of the study area at 40 metres to the south-east of the centre line. The heritage asset is considered to be of national significance based on current knowledge

metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge.

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	28 Bothel Moated Site Non-designated 5093 Possibly medieval Unknown 318200 538800 CCC HER An unlabelled irregular earthwork is shown on the First Edition Ordnance Survey map but is not shown on the Second Edition. The site is now covered by modern housing The heritage asset lies within the boundary of the study area at 33 metres to the north-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	29 Papcastle Earthworks Non-designated 6957 Earthworks Unknown 311800 532200 CCC HER A possible rectangular enclosure and ridge and furrow seen on aerial photographs The heritage asset lies within the boundary of the study area at 41 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge.
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	30 Bothel Quarry Non-designated 10349 Open quarry Industrial 318510 537420 CCC HER Large quarry, 50 x 30 metres wide and up to 5 metres deep. Now used as an agricultural dumping area. Not shown on First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 50 metres to the west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	31 Charley Pit Wood Non-designated 10609 Site of mine Industrial 320720 541620 CCC HER Site of mine shown on Second Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 30 metres to the east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	32 Papcastle to Carlisle Roman Road Scheduled Ancient Monument 228 10627 Earthwork Roman 320000 541140 CCC HER Stretch of Roman Road which the modern road follows apart from in two sections where it runs through fields and is scheduled between Pattenfoot and Waverbridge The heritage asset lies within the boundary of the study area at 6 metres to the south of the centre line. The heritage asset is considered to be of national significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 33 Croftlands Lime Kiln Non-designated 10634 Site of lime kiln Post Medieval/ Industrial 317430 538080 CCC HER Site of lime kiln, no trace of which was found during field survey in 1998 The heritage asset lies within the boundary of the study area at 50 metres to the east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number	34 Wharrels Hill Quarry and Lime Kiln Non-designated 10648

Site Type Period NGR Source Description Assessment	Site of quarry and lime kiln Post Medieval/ Industrial 317100 538100 CCC HER Site of quarry and lime kiln marked on First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 50 metres to the north-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	35 Bothel Quarry Non-designated 10654 Site of quarry Industrial 315880 536950 CCC HER Disused quarry, not shown on First or Second Ordnance Survey maps The heritage asset lies within the boundary of the study area at 40 metres to the north-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	36 Bothel Quarry Non-designated 10657 Site of quarry Industrial 317470 538350 CCC HER Disused quarry, not shown on First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 47 metres to the north-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	37 A595 Roman Road Non-designated 10864 Line of Roman Road Roman 313500 534050 CCC HER Route of Roman Road, now the A595

Assessment The heritage asset lies within the boundary of the study area along the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	38 Bothel Lime Kiln Non-designated 10928 Site of lime kiln Post medieval/ Industrial 318320 539300 CCC HER Site of lime kiln shown on First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 29 metres to the west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 39 Gillands Quarry Non-designated 10930 Site of quarry and lime kiln Post Medieval/ Industrial 318330 539470 CCC HER Site of quarry and lime kiln, first seen on First Edition Ordnance Survey mapping, and shown on modern Ordnance Survey maps The heritage asset lies within the boundary of the study area at 36 metres to the west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	40 Bothel Lime Kiln Non-designated 10934 Site of lime kiln Post Medieval/ Industrial 317780 538440 CCC HER Site of lime kiln shown on First Edition Ordnance Survey map. No traces found during field survey in 1998 The heritage asset lies within the boundary of the study area at 15

Assessment The heritage asset lies within the boundary of the study area at 15 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	41 Bothel Quarry Non-designated 10951 Site of quarry Industrial 318630 537180 CCC HER Disused quarry, now a grass covered hollow, seen on Second Edition Ordnance Survey mapping. Not marked on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 48 metres to the south-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	42 Copstones Place Name Site Non-designated 11127 Place name Unknown 312400 532730 CCC HER The name "Copstone" suggests the possibility of a standing stone or stones nearby The heritage asset lies within the boundary of the study area at 33 metres to the north-west of the centre line, though this is just a place name. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 43 Bellevue Field System Non-designated 13555 Earthworks Unknown 311000 531800 CCC HER Hollow way, field system and ridge and furrow visible on aerial photographs The heritage asset lies within the boundary of the study area at 30 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge.

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	44 Papcastle Unclassified Earthworks Non-designated 13557 Earthworks Unknown 310300 531250 CCC HER Unclassified earthworks The heritage asset lies within the boundary of the study area at 50 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge.
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	45 Papcastle Ring Ditch Cropmark Non-designated 13560 Crop mark Unknown 310100 531200 CCC HER Crop mark of possible ring ditch The heritage asset lies within the boundary of the study area at 38 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge.
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 46 Papcastle Ditch Non-designated 16741 Sub-surface feature Roman 310240 531260 CCC HER A ditch was partially excavated and interpreted as a 3rd century field boundary The heritage asset lies within the boundary of the study area at 43 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge.
Site Number Site Name Designation HER Number Site Type Period NGR	47 Axe Find Non-designated 16927 Find Spot Neolithic 319030 540020

Source Description Assessment	CCC HER Axe found in 1958 conforming to the "Cumbrian Type" The heritage asset lies within the boundary of the study area at 49 metres to the south-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	48 Whitehead Brow Grade II Listed Building 41718 Extant building Post medieval 319245 540330 CCC HER Farmstead The heritage asset lies within the boundary of the study area at 13 metres to the west of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 49 Scales Farmhouse and barn adjoining Grade II Listed 72656 Extant buildings Early 18th century 315893 530234 CCC HER Farmhouse and barn. 'Scales' is shown on Hodskinson and Donald's Plan of Cumberland of 1770 and on the Embleton Enclosure Award of 1824. The heritage asset lies within the boundary of the study area at 50 metres to the north of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	50 Blue Bell Inn Grade II Listed 72657 Extant building Early 18 th century 316809 530385 CCC HER Public House. Early 18 th century with 19 th century alterations The heritage asset lies within the boundary of the study area at 50

metres to the north of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	51 Milestone outside south of Ann's Hill Grade II Listed 72577 Extant structure Late 18 th or early 19 th century 311910 532271 CCC HER Milestone. Late 18 th or early 19 th century The heritage asset once lay within the boundary of the study area, on the centre line, though is no longer extant. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	52 Milestone opposite Moota Inn Grade II Listed 72557 Extant structure Late 18 th or early 19 th century 315091 535892 CCC HER Milestone for the Carlisle to Cockermouth turnpike The heritage asset lies within the boundary of the study area at 22 metres to the south-east of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	53 St Bathan's Lodge Grade II Listed 72343 Extant building Mid or late 18 th century 318037 538607 CCC HER Former White Swan Inn, now private house The heritage asset lies within the boundary of the study area at 42 metres to the north-west of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	54 Overgates Grade II Listed 72344 Extant building Late 18 th century 318544 539818 CCC HER Farmhouse. Late 18 th century with early 19 th century extension The heritage asset lies within the boundary of the study area at 14 metres to the south-east of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	55 Milestone south-west of Kirkland Green Grade II Listed 72313 Extant structure Late 18 th or early 19 th century 319064 540098 CCC HER Milestone for the Carlisle to Cockermouth turnpike The heritage asset lies within the boundary of the study area at 5 metres to the north-west of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	56 Kirkland Green and adjoining barn Grade II Listed 72311 Extant buildings Late 18 th century 319126 540194 CCC HER Farmhouse and adjoining barn The heritage asset lies within the boundary of the study area at 35 metres to the north-west of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type	57 Low Wood Nook and former stables Grade II Listed 72312 Extant buildings

Period NGR Source Description Assessment	17 th century with extensive 18 th century alterations 319317 540562 CCC HER House and stables used in 19 th century as an inn. Dated and inscribed over entrance, J. & E.A. (Addison) 1663. Shown on Hodskinson and Donald's Plan of Cumberland of 1770 The heritage asset lies within the boundary of the study area at 22 metres to the east of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	58 Milestone east of Aldersceugh Grade II Listed 72330 Extant structure Late 18 th or early 19 th century 320077 541207 CCC HER Milestone for the Carlisle to Cockermouth turnpike The heritage asset lies within the boundary of the study area at 6 metres to the west of the centre line. The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	59 Ford Non-designated - Site of ford Industrial 314421 529808 Second Edition Ordnance Survey mapping Seen on Second and Third Edition Ordnance Survey mapping. Not on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area at the centre of the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR	60 Cockbridge Non-designated - Extant buildings At least Industrial 319901 541058

Source	Award of the Lowside Quarter of Bolton of 1843 (CRO(C) DRC 8/20)
Description	Two clusters of buildings depicted at 'Cockbridge', by the River Ellen,
	to the south-west of Mealsgate, on the Lowside Quarter of the
	Parish of Bolton tithe plan of 1843. Some buildings still extant on
	modern Ordnance Survey mapping

Assessment The heritage asset lies within the boundary of the study area at c. 5 metres to the north-east, and south-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number	61
Site Name	Newlands Row
Designation	Non-designated
HER Number	-
Site Type	Extant buildings
Period	At least Industrial
NGR	321101 541855
Source	Award of the Lowside Quarter of Bolton of 1843 (CRO(C) DRC 8/20)
Description	Two clusters of buildings to the eastern end of Mealsgate, marked as
	'Newlands Row' on the Lowside Quarter of the Parish of Bolton tithe
	plan of 1843. 'Newlands Row' also depicted on Hodskinson and
	Donald's Plan of Cumberland of 1770. On First Edition Ordnance
	Survey mapping, the southernmost is annotated with 'Saw Pit'.
	Buildings still extant on modern Ordnance Survey mapping
Assessment	The heritage asset lies within the boundary of the study area at c. 30
	metres to the north-east of the centre line. The heritage asset is
	considered to be of local significance based on current knowledge
Site Number	62
Site Name	Structure
Designation	Non-designated
HER Number	-
Site Type	Site of buildings
Period	At least Industrial
NGR	321531 541418
Source	Award of the Lowside Quarter of Bolton of 1843 (CRO(C) DRC 8/20)
Description	Two narrow rectangular buildings observed aligned with the road, at
	this position, to the south-east of Mealsgate and 'Newlands Row' on
	the Lowside Quarter of the Parish of Bolton tithe plan of 1843
Assessment	The heritage asset lies within the boundary of the study area at 10
	metres to the north of the centre line. The heritage asset is
	considered to be of local significance based on current knowledge
Site Number	63
Site Name	Reelfits Pit (Coal)
Designation	Non-designated
HER Number	-

Site Type Period NGR Source Description Assessment	Site of Pit Industrial 305794 529740 First Edition Ordnance Survey mapping Site of Reelfits Pit (Coal) to the north of Bridgefoot, depicted on First Edition Ordnance Survey mapping, 1867 The heritage asset lies within the boundary of the study area at 15 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	64 Coal Staith Non-designated - Site of coal staith Industrial 305844 529847 First Edition Ordnance Survey mapping Site of coal staith to the north-east of Bridgefoot, depicted on First Edition Ordnance Survey mapping, 1867 The heritage asset lies within the boundary of the study area at 39 metres to the north-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	65 Melgramfitz Wood Coal Pit Non-designated 11767 Site of a coal pit Industrial 306665 530351 CCC HER Site of a coal pit marked on the First Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 17 metres to the north of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR	66 Railway Station, Broughton Cross Non-designated - Site of a railway station Industrial 307576 530351

	map on the Cockermouth and Workington Railway line (Site 67)
Assessment	The heritage asset lies within the boundary of the study area at 10
	metres to the north-west of the centre line. The heritage asset is
	considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	67 Railway Line Non-designated - Site of a railway line Industrial 307135 530244 to 310074 531071 First Edition Ordnance Survey mapping Site of a railway line marked on the First Edition Ordnance Survey map as the Cockermouth and Workington Railway line The heritage asset lies within the boundary of the study area at varying distances, and sometimes along, the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name	68 Railway Station, Brigham
Designation	Non-designated
HER Number Site Type	- Site of a railway station
Period	Industrial
NGR	308450 530977
Source	First Edition Ordnance Survey mapping
Description	Site of a railway station marked on the First Edition Ordnance Survey map on the Cockermouth and Workington Railway line (Site 67)
Assessment	The heritage asset lies within the boundary of the study area at 25 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number	69
Site Name	'The Fort, remains'
Designation HER Number	SAM 27706 Scheduled Ancient Monument 27706
Site Type	Site of a 'fort'
Period	Unknown
NGR	310810 530433
Source Description	First Edition Ordnance Survey mapping Site of 'the fort, remains' marked on the First Edition Ordnance Survey map in Fitz Wood. Probably relates to the known site on MAGIC, of a Romano-British Farmstead in Fitz Woods (79.2m NW), old reference: 27706, magic reference 1014587, a scheduled monument, though this did not come up in the CCC HER search

Assessment The heritage asset lies within the boundary of the study area at the nearest point according to the First Edition Ordnance Survey map, at 15 metres to the north-west of the centre line. The heritage asset is considered to be of national significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description	70 Possible quarry site Non-designated Possibly 11126 Site of quarry Industrial 311930 532218 First Edition Ordnance Survey mapping A possible quarry site is depicted on the First Edition Ordnance Survey mapping at this location. It could be the same as the known CCC HER 11126 site of 'Woodhall Park Quarry', marked as 'disused quarry' on Second Edition Ordnance Survey map The heritage asset lies within the boundary of the study area at 34 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	71 Lime Kiln Non-designated - Site of limekiln Industrial 312372 532546 First Edition Ordnance Survey mapping A 'limekiln' is depicted on the First Edition Ordnance Survey mapping at this location, close to the known site of the Bridekirk Quarries (Site 133) The heritage asset lies within the boundary of the study area at 48 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	72 Site of Milestone Non-designated - Site of Milestone Post Medieval/ Industrial 313946 534545 First Edition Ordnance Survey mapping Milestone depicted on First Edition Ordnance Survey mapping, 'Carlisle 23, Wigton 12, Cockermouth 3½'. Not listed like surviving

Assessment	milestones so unlikely to still exist The heritage asset lies within the boundary of the study area at 36 metres to the south-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	73 Site of Guide Post Non-designated - Site of Guide Post Post Medieval/ Industrial 315184 536055 First Edition Ordnance Survey mapping Guidepost depicted on First Edition Ordnance Survey mapping, on A595 Roman route The heritage asset lies within the boundary of the study area at 38 metres to the south-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	74 Site of Guide Post Non-designated - Site of Guide Post Post Medieval/ Industrial 315310 536213 First Edition Ordnance Survey mapping Guidepost depicted on First Edition Ordnance Survey mapping, on A595 Roman route The heritage asset lies within the boundary of the study area at 31 metres to the north-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	75 Site of Milestone Non-designated - Site of Milestone Post Medieval/ Industrial 317229 537960 First Edition Ordnance Survey mapping Milestone depicted on First Edition Ordnance Survey mapping, by Wharrel's Hill, 'Carlisle 20, Wigton 9, Cockermouth 61/2'. Not listed like surviving milestones so unlikely to still exist

Assessment The heritage asset lies within the boundary of the study area at 32 metres to the south-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 76 Site of Milestone Non-designated - Site of Milestone Post Medieval/ Industrial 312902 533397 First Edition Ordnance Survey mapping Milestone depicted on First Edition Ordnance Survey mapping, 'Carlisle 24, Wigton 13, Cockermouth 2½'. Not listed like surviving milestones so unlikely to still exist The heritage asset lies within the boundary of the study area at 36 metres to the east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	77 Site of Milestone Non-designated - Site of Milestone Post Medieval/ Industrial 303382 529608 First Edition Ordnance Survey mapping Milestone depicted on First Edition Ordnance Survey mapping, 'Workington 2, Cockermouth 6'. Not listed like surviving milestones so unlikely to still exist The heritage asset lies within the boundary of the study area at 20 metres to the north-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	78 Site of Mineral Railway Non-designated - Site of Mineral Railway Industrial 305819 529836 to 305858 529739 Second Edition Ordnance Survey mapping Mineral railway depicted on Second Edition Ordnance Survey mapping at what was on First Edition Ordnance Survey mapping,

Linefitts Colliery, and on Second is Linefitts Plantation. It includes 'Marron Junction'

Assessment The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	79 Site of Possible Quarry Non-designated - Site of Possible Quarry Industrial 306654 530129 Second Edition Ordnance Survey mapping Possible quarry depicted on Second Edition Ordnance Survey mapping and not on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, at c.50 metres to the north-west of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	80 Site of Sewage Farm Non-designated - Site of Sewage Farm Industrial 309474 531176 Second Edition Ordnance Survey mapping Site of Sewage Farm for 'Cockermouth U.D. Council', depicted on Second Edition Ordnance Survey mapping, and not on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, centred on the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	81 Site of Sewage Works Non-designated - Site of Sewage Works Industrial 310352 530878 Second Edition Ordnance Survey mapping Site of Sewage Works and Tanks for 'Cockermouth U.D. Council', depicted on Second Edition Ordnance Survey mapping, and not on modern Ordnance Survey mapping

Assessment The heritage asset lies within the boundary of the study area, centred at 26 metres to the north-east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	82 Reservoir Non-designated - Extant Reservoir Industrial 311318 531963 Second Edition Ordnance Survey mapping Reservoir for 'Maryport U.D. Water Works' marked on Second Edition Ordnance Survey mapping, and on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, centred at 25 metres to the north-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	83 Site of Wagonway Non-designated - Site of Wagonway Industrial 320986 541969 to 320865 541754 Second Edition Ordnance Survey mapping 'Old Wagonway' depicted on Second Edition Ordnance Survey mapping. It appears to have run from Mealsgate on a north-east south-westerly course to Charley Pit Wood The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	84 Site of building Non-designated - Site of building At least Industrial 321336 541597 Award of the Lowside Quarter of Bolton of 1843 (CRO(C) DRC 8/20) A small rectangular building is shown on the Lowside Quarter of the Parish of Bolton tithe plan of 1843, as well as on First and Second Edition Ordnance Survey mapping; on the latter, it is annotated with

'Rose Cottage'	
----------------	--

Assessment The heritage asset lies within the boundary of the study area at 10 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	85 Site of building Non-designated - Site of building At least Industrial 320951 534654 First Edition Ordnance Survey mapping A rectangular building is shown on the First Edition Ordnance Survey mapping, south of Lowgarth, south of Bewaldeth, and not on the Second Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 10 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 86 Site of buildings Non-designated - Site of buildings Industrial 305825 529705 Third Edition Ordnance Survey mapping A rectangular building and an 'L-shaped' building is shown on the Third Edition Ordnance Survey mapping, north of Marron Cottages in the Linefitts Plantation area, not depicted on earlier or modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 35 metres to the south-east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	87 Site of buildings Non-designated - Site of buildings Industrial 316144 530195 Third Edition Ordnance Survey mapping Buildings annotated with 'saw mill' and 'timber yard' are shown on the Third Edition Ordnance Survey mapping, east of Scales and west of Embleton Station, not depicted on modern Ordnance Survey

mapping. The '	'saw mill'	is also sh	own on	Second	Edition	Ordnance
Survey mapping	g					

Assessment The heritage asset lies within the boundary of the study area at 32 metres to the north of the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	88 Rakefoot Cottages Non-designated - Extant buildings Industrial 317515 530381 Second Edition Ordnance Survey mapping Cottages to the immediate north of the railway line (Site 4) are first shown on the Second Edition Ordnance Survey mapping, south-east of Rakefoot. Buildings at this location are depicted on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area at 14 metres to the north-west of the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	89 Site of Railway Siding Non-designated - Site of Railway Siding Industrial 318040 530559 to 3127559 530731 Third Edition Ordnance Survey mapping Railway siding first depicted on Third Edition Ordnance Survey mapping extending north-westwards from the main railway line (Site 2) to a tramway and 'Embleton Quarries'. Not shown on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type	90 Water Works Non-designated - Extant water works

Industrial

Period

NGR Source Description Assessment	321876 541252 Third Edition Ordnance Survey mapping Water Works for 'Aspatria, Silloth and District Joint Water Board', first marked on Third Edition Ordnance Survey mapping, and on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, centred at 5 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	91 Papcastle to Moresby Roman Road Non-designated 11073 Site of a Roman Road Roman 310800 531473 to 310303 531936 CCC HER Length of Roman road, continues to the north as HER 10721. Frank Giecco (<i>pers. comm.</i>) ascertains that this is visible above ground, to the west of the proposed pipeline route The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	92 Papcastle to Lamplugh Woodmoor Roman Road Non-designated 1036 Site of a Roman Road Roman 310458 531123 to 309585 530893 CCC HER Site of a former 7 mile Roman road between Papcastle fort (CCC HER 872) and Lamplugh Woodmoor The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source	93 Roman Road Non-designated - Site of a Roman Road Roman 310458 531123 to 309585 530893 CCC HER

Description Assessment	A road was found during geophysical survey, and excavated during the 2010 season as part of the ongoing research project at Papcastle (Grampus Heritage's Discovering Derventio project, not yet published). The excavated part showed it to be 10m wide with two roadside ditches either side of the road The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	94 Building in Great Clifton Non-designated - Extant Building At least Industrial 304014 529519 First Edition Ordnance Survey mapping Building to the north-west of the crossroads at Great Clifton, to the north of a well, marked on First Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 46 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	95 Methodist Chapel (Wesleyan) Non-designated - Extant Building Industrial 304110 529498 First Edition Ordnance Survey mapping Building to the north-east of the crossroads at Great Clifton, annotated 'Methodist Chapel (Wesleyan)', on First Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 31 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number	96 Building in Great Clifton Non-designated -

Site Type Period NGR Source Description Assessment	Extant Building At least Industrial 304009 529437 First Edition Ordnance Survey mapping Building to the south-west of the crossroads at Great Clifton, to the east of a well, marked on First Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 38 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number	97
Site Name	'Ship Inn'
Designation HER Number	Non-designated
Site Type	- Extant Building
Period	Industrial
NGR	304150 529438
Source	First Edition Ordnance Survey mapping
Description	Building to the south-east of the crossroads at Great Clifton, annotated 'Ship Inn', on First Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location
Assessment	The heritage asset lies within the boundary of the study area, centred at 24 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number	98
Site Name	Building in Great Clifton
Designation	Non-designated
HER Number Site Type	- Extant Building
Period	At least Industrial
NGR	304201 529413
Source	First Edition Ordnance Survey mapping
Description	Building to the south-east of the crossroads at Great Clifton, to the east of 'Ship Inn' (Site 97), marked on First Edition Ordnance Survey
Assessment	mapping. On the Second Edition Ordnance Survey mapping, this building is annotated 'smithy'. Buildings marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 39 metres to the south of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description	99 'Cat Bank' Lane Non-designated - Site of a track At least Industrial 305472 529483 First Edition Ordnance Survey mapping Track, labelled 'Cat Bank' heading north-westwards, to the west of Bridgefoot, on First Edition Ordnance Survey mapping. On the Second Edition Ordnance Survey map, this track is shown leading to 'Lowther Brickworks', which on the Third Edition Ordnance Survey map are labelled 'Lowther Brickworks (disused)'. The track is not shown on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, heading north-westwards from the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 100 North-west south-east orientated track Non-designated - Site of a track Industrial 305909 529791 First Edition Ordnance Survey mapping Track, associated with 'Reelfits Pit (coal)' (Site 63) and 'Coal Staith' (Site 64), and Linefitts Colliery. The track is shown terminating to the south-east of the proposed pipeline route on modern Ordnance Survey mapping, where once it crossed it The heritage asset lies within the boundary of the study area, heading north-westwards from the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	101 Building marked 'Colin Grove' Non-designated - Site of building At least Industrial 307255 530255 First Edition Ordnance Survey mapping Building to the north of the Cockermouth and Workington Railway (Site 67), marked as 'Colin Grove' on First Edition Ordnance Survey mapping. Later mapping appears to show it having been subsumed by the railway, though the name is still depicted. No building is marked on modern Ordnance Survey mapping at this location

Assessment The heritage asset lies within the boundary of the study area, centred at 12 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	102 Building marked 'Seaur Close' Non-designated - Site of building At least Industrial 307393 530274 First Edition Ordnance Survey mapping Building to the north of the Cockermouth and Workington Railway (Site 67), and east of 'Colin Grove' (Site 101) marked as 'Seaur Close' on First Edition Ordnance Survey mapping. Later mapping appears to show it having been subsumed by the railway, though the name is still depicted. No building is marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 2 metres to the north of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	103 Building at Stony Beck Non-designated - Extant Building At least Industrial 307774 530522 First Edition Ordnance Survey mapping Building annotated with Stony Beck on First Edition Ordnance Survey mapping. Second Edition Ordnance Survey mapping labels it with 'Stony Beck Cottages'. A building is marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 36 metres to the east of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period	104 East/west orientated track south of Cockermouth Non-designated - Site of track At least Industrial

NGR Source Description Assessment	 311195 529929 First Edition Ordnance Survey mapping One of two east-west orientated tracks, associated with neat though irregular sized rectangular fields to the south of Cockermouth. Also seen on Second and Third Edition mapping, and on earlier mapping, including the plan of Cockermouth Common, 1832 and the Tithe Map and Tithe Award of Brigham Parish, 1840. No longer in existence, beneath modern housing on modern Ordnance Survey mapping. The heritage asset lies within the boundary of the study area, centred at 47 metres to the east of the centre line. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation	105 East/west orientated track south of Cockermouth Non-designated
HER Number Site Type Period NGR Source Description	Site of track At least Industrial 311177 529728 First Edition Ordnance Survey mapping Southernmost of two east-west orientated tracks, associated with neat though irregular sized rectangular fields to the south of Cockermouth. Also seen on Second and Third Edition mapping, and on earlier mapping, including the plan of Cockermouth Common, 1832 and the Tithe Map and Tithe Award of Brigham Parish, 1840. No longer in existence, beneath modern housing on modern Ordnance Survey mapping. The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number	106 Square building south-west of Lambfoot Non-designated -
Site Type Period NGR Source	Site of building At least Industrial 316402 530235 First Edition Ordnance Survey mapping
Description	Building to the south-west of Lambfoot, and north of the Cockermouth and Workington Railway (Site 67), marked on First Edition Ordnance Survey mapping. No building is marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area,
	centred at 50 metres to the north of the centre line. As the heritage

asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 107 'Vicarage' Non-designated - Extant Building Industrial 304456 529327 Second Edition Ordnance Survey mapping Building to the east of Great Clifton, annotated 'Vicarage', on Second Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location The heritage asset lies within the boundary of the study area, centred at 29 metres to the south-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 108 Quarry to the west of Rakefoot Non-designated - Site of quarry Industrial 317369 530383 Second Edition Ordnance Survey mapping Quarry and associated track depicted on Second Edition Ordnance Survey mapping. No longer shown by the publication of Third Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, centred at 31 metres to the north of the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	109 'Lodge' Non-designated - Site of building Industrial 303981 529467 Second Edition Ordnance Survey mapping 'Lodge' shown on Second Edition Ordnance Survey mapping, within the western part of Great Clifton. Buildings are shown at this location on modern Ordnance Survey maps The heritage asset lies within the boundary of the study area,

centred at 11 metres to the south-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 110 'Church Rooms' Non-designated - Extant Building Modern 304413 529286 Third Edition Ordnance Survey mapping Building on opposite side of road to 'vicarage' (Site 107), to the east of Great Clifton, shown on Third Edition Ordnance Survey mapping. Buildings marked on modern Ordnance Survey mapping at this location
Assessment	The heritage asset lies within the boundary of the study area, centred at 31 metres to the south-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 111 Track Non-designated - Site of a track Industrial 304879 529158 First Edition Ordnance Survey mapping Track, leading to 'Westray Pit (Coal)' shown on First Edition Ordnance Survey mapping. Second Edition Ordnance Survey mapping shows the pit as 'Westray Pit (disused)' though the track is still shown. No longer shown on modern Ordnance Survey mapping The heritage asset lies within the boundary of the study area, heading north-westwards from the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	112 Boundary Non-designated - Site of a boundary Medieval 305765 529794- 305895 529765 First Edition Ordnance Survey mapping Boundary, marked 'CR', south of Linefitts Colliery on First Edition Ordnance Survey mapping

Assessment The heritage asset lies within the boundary of the study area, crossing the centre line, though follows the centre line of a gill. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 113 Boundary Non-designated - Site of a boundary Medieval 308600 531072 - 310003 531101 First Edition Ordnance Survey mapping Boundary, marked 'CR', north-east of Brigham on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line, though follows the centre line of the River Derwent. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	114 Boundary Non-designated - Site of a boundary Medieval 311046 530001 – 311096 530101 First Edition Ordnance Survey mapping Boundary, marked 'RH', south of Cockermouth on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	<pre>115 Boundary Non-designated - Site of a boundary Medieval 318321 530731 - 315411 530661 First Edition Ordnance Survey mapping Boundary, marked 'RH', south-east of Lambfoot on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on</pre>

current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 116 Boundary Non-designated - Site of a boundary Medieval 318751 530905 – 318797 530813 First Edition Ordnance Survey mapping Boundary, marked 'RH', south-east of Billyhouse on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 117 Boundary Non-designated - Site of a boundary Medieval 311276 531983 – 311255 531866 First Edition Ordnance Survey mapping Boundary, marked 'RH', north-east of Belle Vue on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	118 Boundary Non-designated - Site of a boundary Medieval 311655 532130 – 311711 532042 First Edition Ordnance Survey mapping Boundary, marked 'RH', north-east of Belle Vue on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 119 Boundary Non-designated - Site of a boundary Medieval 312741 533208 – 312821 533124 First Edition Ordnance Survey mapping Boundary, marked 'FH', 'FW' and 'FF' west of Scroggs on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	120 Boundary Non-designated - Site of a boundary Medieval 315636 536702 – 315708 536609 First Edition Ordnance Survey mapping Boundary, marked 'RW' south-west of Threaplandgill Bridge on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 121 Boundary Non-designated - Site of a boundary Medieval 316208 537334– 316287 537262 First Edition Ordnance Survey mapping Boundary, marked 'RW' north-east of Threaplandgill Bridge on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line though follows the centre line of Threapland Gill. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation	122 Boundary Non-designated

HER Number Site Type Period NGR Source Description Assessment	- Site of a boundary Medieval 318609 539955 – 318937 539972 First Edition Ordnance Survey mapping Boundary, marked 'RW' south of Kirkland Guards on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 123 Boundary Non-designated - Site of a boundary Medieval 319240 540555 – 319338 540483 First Edition Ordnance Survey mapping Boundary, marked 'RW' south-east of Low Woodnook on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	124 Boundary Non-designated - Site of a boundary Medieval 319655 540886 – 319869 541066 First Edition Ordnance Survey mapping Boundary, marked 'RW' at Cockbridge on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source	125 Boundary Non-designated - Site of a boundary Medieval 320055 541247 – 320391 541557 First Edition Ordnance Survey mapping

Description Assessment	Boundary, marked 'RH' and 'CS' south-east of Whitehall on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	126 Boundary Non-designated - Site of a boundary Medieval 319623 536500 – 319707 536569 First Edition Ordnance Survey mapping Boundary, marked 'CS' south-east of Lowmoor on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	127 Boundary Non-designated - Site of a boundary Medieval 320634 535517 – 320715 535594 First Edition Ordnance Survey mapping Boundary, marked 'RH' north-east of Bewaldeth Brick and Tile Works on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line though follows the centre line of Scale Gill. As the heritage asset is within the LDNP, it is considered to be of district or county (lesser) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 128 Boundary Non-designated - Site of a boundary Medieval 321359 533723 – 321393 533848 First Edition Ordnance Survey mapping Boundary, marked 'RH' south of Thornthwaite Wood on First Edition Ordnance Survey mapping The heritage asset lies within the boundary of the study area, crossing the centre line. As the heritage asset is within the LDNP, it is

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 129 Field System Non-designated 3723 Field System Unknown 312600 534200 CCC HER Garth, field system. Field subjected to infrequent ploughing. Pronounced ridge and furrow The heritage asset lies within the boundary of the study area, centred at c. 500 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 130 Broad Ridge and Furrow Non-designated 6862 Broad Ridge and Furrow Unknown 312500 533500 CCC HER Large areas of pronounced ridge and furrow near Tallentire The heritage asset lies within the boundary of the study area, centred at c. 359 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 131 Ridge and Furrow and Enclosure Non-designated 6920 Ridge and Furrow and Enclosure Unknown; enclosure possibly medieval 312050 533115 CCC HER Ridge and furrow and possible sub-oval earthwork enclosure, possibly medieval and pre-dating the ridge and furrow. A second enclosure is perhaps associated with post-medieval quarrying across the area The heritage asset lies within the boundary of the study area, centred at c. 500 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local

considered to be of district or county (lesser) significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 132 Pinggy Wood Quarries Non-designated 11119 Site of a quarry Unknown 312530 533600 CCC HER Two quarries situated to the south-west of the wood The heritage asset lies within the boundary of the study area, centred at c. 366 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 133 Bridekirk Quarries Non-designated 11128 Lime kiln, manager's house and quarry Post Medieval 312300 532800 CCC HER Dispersed area of small-scale quarrying shown on First and Second Edition Ordnance Survey mapping. Marked as 'old quarries' by 1900. A building, noted as 'Quarry House' on First Edition Mapping, is also depicted on the Bridekirk Tithe Award Plan of 1842-4 The heritage asset lies within the boundary of the study area,
	centred at c. 127 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description	 134 Anns Hill House Grade II Listed 72575 Extant building Mid 18th century 311902 532589 CCC HER Private dwelling, depicted on the Bridekirk Tithe Award Plan of 1842-4
Assessment	The heritage asset lies within the boundary of the study area, at 174 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of district or county (higher) significance based on current knowledge

significance based on current knowledge

Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 135 Anns Hill Lodge Grade II Listed 72576 Extant building Early 19th century 311902 532589 CCC HER Private dwelling, former lodge to Anns Hill Estate The heritage asset lies within the boundary of the study area, at 132 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of district or county (higher) significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 136 Gale House and Outbuilding Non-designated - Extant building Post Medieval 312004 532934 First Edition Ordnance Survey Mapping Private dwelling and outbuilding. 'Gales' is depicted on the Bridekirk Tithe Award Plan of 1842-4 as two rectangular buildings The heritage asset lies within the boundary of the study area, at 325 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 137 Well Non-designated - Site of a well Post Medieval 311968 532907 First Edition Ordnance Survey Mapping Site of a well, located to the south-west of Gale House (Site 136), not shown on Second Edition Ordnance Survey Mapping The heritage asset lies within the boundary of the study area, at 360 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation	138 Well Non-designated

HER Number Site Type Period NGR Source Description Assessment	- Site of a well Post Medieval 312137 533099 First Edition Ordnance Survey Mapping Site of a well, located to the north-west of Quarry House (part of Site 133), not shown on Second Edition Ordnance Survey Mapping The heritage asset lies within the boundary of the study area, at 290 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 139 Site of Guide Post Non-designated - Site of Guide Post Post Medieval/ Industrial 312841 533513 First Edition Ordnance Survey mapping Guidepost depicted on First Edition Ordnance Survey mapping, and on Second and Third Editions The heritage asset lies within the boundary of the study area, at 56 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	140 Elm Non-designated - Elm Tree Unknown 312680 533491 Second Edition Ordnance Survey mapping 'Elm' depicted on Second Edition Ordnance Survey mapping, though by Third Edition it, and Site 141, are marked as 'Sycamores' The heritage asset lies within the boundary of the study area at 55 metres north-west of the centre line. It is not listed as a veteran or notable tree by The Woodland Trust, and may no longer exist. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Designation HER Number	141 Oak Non-designated -

Site Type Period NGR Source Description Assessment	Oak Tree Unknown 312704 533460 Second Edition Ordnance Survey mapping 'Oak' depicted on Second Edition Ordnance Survey mapping, though by Third Edition it, and Site 140, are marked as 'Sycamores' The heritage asset lies within the boundary of the study area at 194 metres north-west of the centre line. It is not listed as a veteran or notable tree by The Woodland Trust, and may no longer exist. The heritage asset is considered to be of negligible significance based on current knowledge
Site Number Site Name Status Tree Number Access NGR Source Note Assessment	 142 Oak Notable Tree Notable Tree 126815 Private 311020 532122 The Woodland Trust A tree of local importance, or of personal significance to the individual recorder, is called a 'notable tree'. This includes specimen trees or those considered to be potential, next generation veteran The heritage asset lies within the boundary of the study area at 170 metres north-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Status Tree Number Access NGR Source Note Assessment	 143 Scots Pine Notable Tree Notable Tree 126927 Public 311060 532214 The Woodland Trust A tree of local importance, or of personal significance to the individual recorder, is called a 'notable tree'. This includes specimen trees or those considered to be potential, next generation veteran The heritage asset lies within the boundary of the study area at 130 metres to the north-west of the centre line. The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR	144 Building Non-designated - Site of a building Post Medieval 311676 532497

Source Description Assessment	Bridekirk Tithe Award Plan of 1842-4 Site of a building, to the south-west of Ann's Hill (Site 134), not shown on First Edition Ordnance Survey Mapping The heritage asset lies within the boundary of the study area, at 243 metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge
Site Number Site Name Designation HER Number Site Type Period NGR Source Description Assessment	 145 Building Non-designated - Site of a building Post Medieval 312414 532824 Bridekirk Tithe Award Plan of 1842-4 Site of a building, to the north of Copstones (Site 42), not shown on First Edition Ordnance Survey Mapping The heritage asset lies within the boundary of the study area, at 122
	metres to the north-west of the centre line (centred on the road). The heritage asset is considered to be of local significance based on current knowledge

5 SIGNIFICANCE OF THE REMAINS

5.1 SUMMARY OF HERITAGE ASSETS

5.1.1 The assessment has identified a total of 145 heritage assets within the study area (Figures 2-4). A summary of the periods to which these assets relate is given below in Table 6. Places that were included in the gazetteer that are considered to be of negligible heritage significance are not considered further.

Period	No of assets	Asset numbers
Prehistoric	Possibly 8	19, 20, 24, 29, 42, 44, 45, 47
Roman	9	7, 25, 32, 37, 46, 69, 91, 92, 93
Medieval	27	10, 17, 18, 26, 27, 28, 43, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131
Post-medieval	10	9, 11, 12, 13, 16, 23, 48, 49, 50, 57
Post-medieval/ Industrial	44	8, 21, 33, 34, 38, 39, 40, 60, 61, 62, 72, 73, 74, 75, 76, 77, 84, 85, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 111, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 144, 145
Industrial (1750)	42	2, 3, 4, 5, 6, 14, 15, 22, 30, 31, 35, 36, 41, 51, 52, 53, 54, 55, 56, 58, 59, 63, 64, 65, 66, 67, 68, 70, 71, 78, 79, 80, 81, 82, 83, 86, 87, 88, 89, 90, 107, 108
Modern	2	109, 110
Notable Trees	3	1, 142, 143

Table 6: Number of heritage assets within the study area by period

5.2 SIGNIFICANCE

- 5.2.1 Based on current knowledge of the total number of assets, 0 are of international significance, 4 are of national significance, 40 are of county or district significance and 76 are of local significance. Other than the proposed English Lake District World Heritage Site, those sites of national or international significance consist of 3 scheduled monuments and 1 grade II* listed buildings. There were no other statutory or non-statutory designated heritage assets of national importance (Registered Battlefields, Registered Historic Parks and Gardens) or any other places deemed to be of national cultural heritage importance within the study area.
- 5.2.1 Based on current knowledge 14 heritage assets are considered to be of county/district (higher) significance. Of these 13 are statutorily designated grade II listed buildings. The other is a notable tree. There are no non-statutorily designated Conservation Areas within the study area. There are 26 heritage assets of lesser county/district significance and these 26 heritage assets are considered as such because of their occurrence within a statutorily protected landscape, the Lake District National Park. There are no other heritage assets of lesser county/district significance (locally listed assets and areas of archaeological sensitivity defined in a local plan) within the study area.

considered to be of local significance. There are 23 heritage assets which based on current knowledge are considered to be of negligible significance.

5.3 THE LAKE DISTRICT NATIONAL PARK

- 5.3.1 All heritage assets considered to be extant or likely to be extant are at least of county or district (lesser) significance by virtue of their location within a protected landscape. Of the 26 heritage assets identified within the Lake District National Park, none are considered to relate to the OUV defined as part of the definition of the English Lake District proposed world heritage site. Heritage assets 10 and 11, although retaining the character of arable farming within the park, do not relate to "the continuity of traditional agropastoralism" (Lake District World Heritage Project Partnership 2013, 6), though they have been identified in the LDNPA HER as being "extremely characteristic and an important feature of the area as there are very few landscapes surviving in this form within the national park". Heritage asset 13, although a feature of industry within the national park, is a forge at kilnhill, and does not relate to "local industries based on utilisation of the natural resources of the area..." as it did not produce materials "in wood and stone" or leave physical traces of its "operation that are visible in the landscape" (Lake District World Heritage Project Partnership 2013, 6).
- 5.3.2 The remaining 23 heritage assets of lesser county/district significance, which are not considered to contribute to OUV, are not considered further with regard to the proposed world heritage site.

5.4 ROMAN ROADS AND THE RELATIONSHIP TO THE HADRIAN'S WALL WORLD HERITAGE SITE

- 5.4.1 Potentially the most significant non-designated heritage asset in the study area, outside the Lake District National Park, is the Roman road whose route is followed by the modern A595 (Sites 7, 32, 37). The section in the northern part, between Pattenfoot and Waverbridge, is scheduled (SAM 228), and thus of national significance.
- 5.4.2 As Roman military power extended northwards, incorporating Gaul, Spain and eventually the province of Britannia in AD 43, "the skills of the legionary road builders improved, reaching their zenith in England, Wales and part of Scotland by about AD 80" (Bagshaw 1994, 7). During the first century of occupation, it has been estimated that 10,000 miles of road had been constructed, the equivalent of one mile every 3-4 days (*ibid*). Later roads were not so well-made, or direct, leading to suggestions that there may have been an order to economise half way through the period. A fort at Carlisle was in existence in the early 70s (McCarthy 1993, 3). Ongoing work on Derventio, run by Grampus Heritage, at Papcastle fort and *environs*, is suggesting that the fort was an important base, with several roads extending through it, and a possible harbour. It may well be that a road linked the two from an early date.
- 5.4.3 This is of particular significance given the location of the road in the hinterland of Hadrian's Wall, a World Heritage Site. The road from Carlisle, a

fort on the Wall itself, south-westwards towards Papcastle would have been an important one to move troops around the geologically difficult terrain of Cumbria, and towards the coastal forts at Burrow Walls, Moresby and Ravenglass. In addition it was likely a key route for transporting supplies to the frontier. It has been suggested that the route between Corbridge and Carlisle was established well before Hadrian's Wall, and "may have formed a frontier zone based on the contemporary east-west road known as the Stanegate" (de la Bédoyère 2002, 12).

- 5.4.4 The Hadrian's Wall Management Plan states: '... it is important to have regard to the possible impact of major developments outside the defined buffer zone'. Furthermore Policy 3f states that: Local Authorities should assess developments outside buffer zones for their impact on OUV....Development impacting adversely on OUV will not be permitted'. In terms of archaeological remains outside the Buffer zone, the Management Plan is also clear in stating that 'Local Authorities will protect or enhance other non-scheduled elements in their areas that relate to Hadrian's Wall WHS'. The Frontiers of the Roman Empire inscription does not just protect a series of individual archaeological remains: rather it is an attempt to protect an extra-ordinarily extensive defence system that extends around large parts of the Mediterranean, and it is not yet fully understood.
- 5.4.5 Although no traces of the road were found at Wharrels Hill during a watching brief on the A595 in 2005 (NPA 2006), or during an evaluation at Bolton Low Houses near Wigton, Cumbria (Jones 2002), upstanding remains are still visible to the west of the A595 near Papcastle (Frank Giecco *pers comm*).
- 5.4.6 The construction of the A595 itself may have had a detrimental effect on the survival conditions of the pre-existing Roman road, as would its predecessor, the turnpike road. However, the roadside ditches lining the road's route, and other roadside features, may yet survive sub-surface.
- 5.4.7 The very existence of a Roman Road, with forts at either end heightens the potential for further Roman features, related to the road, to exist within the proposed pipeline route area. These could take the form of mileposts, *mansios*, or inns for travellers, any stone culverts, or fords where the road crosses water, the roadside ditches either side, or on one side of the road, and, in areas of woodlands where larger tracts were cleared for the road, further outlying markers may survive (Kevin Mounsey *pers comm*). Settlements linked to the road and roadside burials may also be encountered.

5.5 RISK OF ENCOUNTERING AS YET UNKNOWN REMAINS

5.5.1 The risk of encountering unknown heritage assets relates entirely to below ground archaeological remains. The possibility of encountering previously unknown Roman remains, especially in the vicinity of the A595, has been highlighted above (section 5.4.5). Beyond these, a consideration of the assets noted set within the context of the historic landscape character of the areas for the planned pipeline routes suggests that there is a moderate likelihood of encountering:

- Bronze Age cemetery in the vicinity of Papcastle Bridge
- Late Prehistoric in the vicinity of Papcastle
- Roman features in the vicinity of Papcastle
- Medieval agricultural remains in the area to the south of Cockermouth
- Medieval agricultural remains in the area to the south of Blindcrake
- Medieval agricultural remains in the area to the south of Bothel
- Industrial mining features in the vicinity of Great Clifton
- Industrial features in the vicinity of Bridgefoot
- Industrial features in the vicinity of Anns Hill Lodge
- Industrial features in the vicinity of Embleton
- Industrial features in the vicinity of Wharrels Hill
- Industrial features south of Mealsgate
- 5.5.2 It is unlikely that any as yet unknown remains, found during the construction process, will be of international or national significance.
- 5.5.3 It is possible that previously unknown remains found within the Lake District National Park may have some relevance for the OUV of the proposed English Lake District World Heritage Site. It is highly unlikely, however, that the impact of the pipeline proposals would have more than a limited effect on the heritage asset significance for OUV.

6 LIKELY IMPACT OF DEVELOPMENT

6.1 INTRODUCTION

6.1.1 Current planning policy guidance for the historic environment, embodied in NPPF (DCLG 2012), advises that archaeological remains are an irreplaceable resource. It has been the intention of this assessment to identify the archaeological significance and potential of the study area, in accordance with current knowledge, and thus assess the impact of proposed development so that the policies stated in NPPF (DCLG 2012) can be implemented.

6.2 Імраст

- 6.2.1 Groundworks for constructing a pipeline within the study area, including the surface clearance of an easement, the digging of a pipeline trench and the establishment of works compounds, have the potential to have a direct adverse impact on below-ground archaeological remains. The extent of any previous disturbance to buried archaeological levels is an important factor in assessing the potential impact of the proposed pipeline construction. In some instances, the identified heritage assets within the study area are likely to have been destroyed by previous development, especially related to road construction and maintenance and the provision of other services by ducting and trenching.
- 6.2.2 The laying of a water pipe should not have any long-term impact upon the setting of designated monuments and buildings and other heritage assets of a more than local significance, within or near to the study area, but there is the potential for local, temporary impacts during the construction process.
- 6.2.3 It has been assumed in the impact assessment that the pipeline would not be put through a standing building, and thus all listed buildings would be avoided. It has been assumed also that the pipeline might be put through the property of a standing building, in which case the potential exists for impacts on the curtilage of listed buildings.

6.3 IMPACT ASSESSMENT

6.3.1 Following on from the above considerations, the direct impacts on the heritage assets within the study area have largely been determined as substantial. This is based on an assumption that should the assets fall within the route corridor of the pipeline, there would be significant shallow earth moving within the easement, but that total loss would generally be avoided outside of the pipe trench cut, except in areas of wider topsoil stripping for any pipeline easement route, or haul roads. The indirect impacts on setting have generally been determined as very limited as they are temporary and relate mainly to the construction phase. Were the pipeline to be confined to the existing road easement then it is likely that for the most part the impact on heritage asset significance would be at most limited because of the likely considerable degradation of the asset from previous development.

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
1	District or County (Higher)	Loss	Very Major	Low - tree can be avoided
2	District or County (Lesser)	Substantial	Intermediate	Medium, depending on final route
3	District or County (Lesser)	Less than substantial	Intermediate	Medium
4	District or County (Lesser)	Less than substantial	Intermediate	Medium
5	District or County (Lesser)	No change	Neutral	High
6	District or County (Lesser)	No change	Neutral	High
7	District or County (Lesser)	Substantial	Intermediate	Medium
8	District or County (Lesser)	Substantial	Intermediate	Medium
9	District or County (Lesser)	Substantial	Intermediate	Medium
10	District or County (Lesser)	Substantial	Intermediate	Medium
11	District or County (Lesser)	Substantial	Intermediate	Medium
12	District or County (Lesser)	Substantial	Intermediate	Medium
13	District or County (Lesser)	Substantial	Intermediate	Medium
14	District or County (Lesser)	No change	Neutral	High
15	District or County (Lesser)	No change	Neutral	High
16	District or County (Lesser)	Substantial	Intermediate	Medium
17	Local	Substantial	Intermediate/ Minor	Medium
18	National	Less than substantial	Major	Medium
19	Negligible	No change	Neutral	Certain
20	Negligible	No change	Neutral	Certain
21	Local	Substantial	Intermediate/ Minor	Medium
22	Local	Substantial	Intermediate/ Minor	Medium
23	Local	Substantial	Intermediate/ Minor	Medium
24	Local	Substantial	Intermediate/ Minor	Medium

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
25	Negligible	No change	Neutral	High
26	Local	Substantial	Intermediate/ Minor	Medium
27	National	Substantial	Very Major	Medium
28	Negligible	Substantial	Neutral	Medium
29	Local	Substantial	Intermediate/ Minor	Medium
30	Negligible	Substantial	Neutral	Medium
31	Local	Substantial	Intermediate/ Minor	Medium
32	National	Substantial	Very Major	Medium
33	Local	Substantial	Intermediate/ Minor	Medium
34	Local	Substantial	Intermediate/ Minor	Medium
35	Negligible	Substantial	Neutral	Medium
36	Negligible	Substantial	Neutral	Medium
37	Local	Substantial	Intermediate/ Minor	Medium
38	Local	Substantial	Intermediate/ Minor	Medium
39	Local	Substantial	Intermediate/ Minor	Medium
40	Local	Substantial	Intermediate/ Minor	Medium
41	Negligible	Substantial	Intermediate/ Minor	Medium
42	Negligible	Substantial	Neutral	Medium
43	Local	Substantial	Intermediate/ Minor	Medium
44	Local	Substantial	Intermediate/ Minor	Medium
45	Local	Substantial	Intermediate/ Minor	Medium

85

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
46	Local	Substantial	Intermediate/ Minor	Medium
47	Negligible	No change	Neutral	High
48	District or County (Higher)	Less than substantial	Intermediate	Medium
49	District or County (Higher)	Less than substantial	Intermediate	Medium
50	District or County (Higher)	Less than substantial	Intermediate	Medium
51	District or County (Higher)	Less than substantial	Intermediate	Medium
52	District or County (Higher)	Less than substantial	Intermediate	Medium
53	District or County (Higher)	Less than substantial	Intermediate	Medium
54	District or County (Higher)	Less than substantial	Intermediate	Medium
55	District or County (Higher)	Less than substantial	Intermediate	Medium
56	District or County (Higher)	Less than substantial	Intermediate	Medium
57	District or County (Higher)	Less than substantial	Intermediate	Medium
58	District or County (Higher)	Less than substantial	Intermediate	Medium
59	District or County (Lesser)	Less than substantial	Intermediate	Medium
60	Local	Substantial	Intermediate/ Minor	Medium
61	Local	Substantial	Intermediate/ Minor	Medium
62	Local	Substantial	Intermediate/ Minor	Medium
63	Local	Substantial	Intermediate/ Minor	Medium
64	Local	Substantial	Intermediate/ Minor	Medium
65	Local	Substantial	Intermediate/ Minor	Medium

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
66	Local	Substantial	Intermediate/ Minor	Medium
67	Local	Substantial	Intermediate/ Minor	Medium
68	Local	Substantial	Intermediate/ Minor	Medium
69	National	Substantial	Very Major	Medium
70	Local	Substantial	Intermediate/ Minor	Medium
71	Local	Substantial	Intermediate/ Minor	Medium
72	Negligible	No change	Neutral	Medium
73	Negligible	No change	Neutral	Medium
74	Negligible	No change	Neutral	Medium
75	Negligible	No change	Neutral	Medium
76	Negligible	No change	Neutral	Medium
77	Negligible	No change	Neutral	Medium
78	Local	Substantial	Intermediate/ Minor	Medium
79	Negligible	Substantial	Neutral	Medium
80	Negligible	Substantial	Neutral	Medium
81	Negligible	Substantial	Neutral	Medium
82	Local	Substantial	Intermediate/ Minor	Medium
83	Local	Substantial	Intermediate/ Minor	Medium
84	Local	Substantial	Intermediate/ Minor	Medium
85	Local	Substantial	Intermediate/ Minor	Medium
86	Local	Substantial	Intermediate/ Minor	Medium
87	District or County (Lesser)	Substantial	Intermediate	Medium
88	District or County (Lesser)	Substantial	Intermediate	Medium
89	District or County (Lesser)	Substantial	Intermediate	Medium
90	Local	Substantial	Intermediate/ Minor	Medium
91	Local	Substantial	Intermediate/ Minor	Medium

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
92	Local	Substantial	Intermediate/ Minor	Medium
93	Local	Substantial	Intermediate/ Minor	Medium
94	Local	Substantial	Intermediate/ Minor	Medium
95	Local	Substantial	Intermediate/ Minor	Medium
96	Local	Substantial	Intermediate/ Minor	Medium
97	Local	Substantial	Intermediate/ Minor	Medium
98	Local	Substantial	Intermediate/ Minor	Medium
99	Local	Substantial	Intermediate/ Minor	Medium
100	Local	Substantial	Intermediate/ Minor	Medium
101	Local	Substantial	Intermediate/ Minor	Medium
102	Local	Substantial	Intermediate/ Minor	Medium
103	Local	Substantial	Intermediate/ Minor	Medium
104	Negligible	Substantial	Neutral	Medium
105	Local	Substantial	Intermediate/ Minor	Medium
106	District or County (Lesser)	Substantial	Intermediate	Medium
107	Local	Substantial	Intermediate/ Minor	Medium
108	District or County (Lesser)	Substantial	Intermediate	Medium
109	Local	Substantial	Intermediate/ Minor	Medium
110	Local	Substantial	Intermediate/ Minor	Medium
111	Local	Substantial	Intermediate/ Minor	Medium
112	Local	Substantial	Intermediate/ Minor	Medium
113	Local	Substantial	Intermediate/ Minor	Medium
114	Local	Substantial	Intermediate/ Minor	Medium
115	District or County (Lesser)	Substantial	Intermediate	Medium

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
116	District or County (Lesser)	Substantial	Intermediate	Medium
117	Local	Substantial	Intermediate/ Minor	Medium
118	Local	Substantial	Intermediate/ Minor	Medium
119	District or County (Lesser)	Substantial	Intermediate	Medium
120	Local	Substantial	Intermediate/ Minor	Medium
121	Local	Substantial	Intermediate/ Minor	Medium
122	Local	Substantial	Intermediate/ Minor	Medium
123	Local	Substantial	Intermediate/ Minor	Medium
124	Local	Substantial	Intermediate/ Minor	Medium
125	Local	Substantial	Intermediate/ Minor	Medium
126	Local	Substantial	Intermediate/ Minor	Medium
127	District or County (Lesser)	Substantial	Intermediate	Medium
128	District or County (Lesser)	Substantial	Intermediate	Medium
129	Local	Substantial	Intermediate/ Minor	Medium
130	Local	Substantial	Intermediate/ Minor	Medium
131	Local	Substantial	Intermediate/ Minor	Medium
132	Local	Substantial	Intermediate/ Minor	Medium
133	Local	Substantial	Intermediate/ Minor	Medium
134	District or County (Higher)	Less than substantial	Intermediate	Medium

Asset no.	Significance	Impact of development	Scale of impact on heritage asset significance	Confidence rating
135	District or County (Higher)	Less than substantial	Intermediate	Medium
136	Local	Less than substantial	Minor	Medium
137	Local	Substantial	Intermediate/ Minor	Medium
138	Local	Substantial	Intermediate/ Minor	Medium
139	Negligible	No change	Neutral	Medium
140	Negligible	Loss	Neutral	Low - tree can be avoided
141	Negligible	Loss	Neutral	Low - tree can be avoided
142	Local	Loss	Intermediate	Low - tree can be avoided
143	Local	Loss	Intermediate	Low - tree can be avoided
144	Local	Substantial	Intermediate/ Minor	Medium
145	Local	Substantial	Intermediate/ Minor	Medium

Table 7: Assessment of the impact of construction on the known heritage assets

7 RECOMMENDATIONS

7.1 INTRODUCTION

7.1.1 The National Planning Policy Framework instructs that in the case of heritage assets which either have designated status or are non-designated but are of a significance demonstrably comparable with a Scheduled Monument, *ie* of national importance, the general assumption should be in favour of conservation. Where the loss of the whole or a part of a heritage asset's significance is justified by a development, the developer should be required first to record that asset and advance understanding of its significance, in a manner proportionate to the asset's importance and the impact (NPPF, p 32 para 141).

7.2 **RECOMMENDATIONS**

- 7.2.1 Any heritage assets where the potential impact on heritage asset significance is considered to be very major should be avoided if at all possible. Only exceptional circumstances would negate the need for preservation *in-situ*. There are 4 heritage assets where this is the case. They are Sites 1, 27, 32 and 69.
- 7.2.2 Any heritage assets that have significance that is considered to contribute to the OUV of the proposed English Lake District World Heritage Site, and where the potential impact on those heritage assets' contribution is more than limited, should be avoided if at all possible. There are no heritage assets where this is the case.
- 7.2.3 Major impacts upon heritage asset significance are likely to require considerable justification and if agreed will necessitate significant mitigation, possibly over and above preservation by record. Site specific evaluation may be needed to more closely define appropriate mitigatory responses. There is 1 heritage asset where this is the case. This is Site 18.
- 7.2.4 Intermediate impacts upon heritage asset significance may require mitigation which in the case of direct impacts is likely to be preservation by record. Site specific evaluation may be needed to more closely define appropriate mitigatory responses. There are 37 heritage assets where this is the case. They are 2-4, 7-13, 16, 48-59, 87-89, 106, 108, 115, 116, 119, 127, 128, 134, 135, 142 and 143.
- 7.2.5 Intermediate/Minor impacts upon heritage asset significance may require mitigation which in the case of direct impacts is likely to be preservation by record. Site specific evaluation may be needed to more closely define appropriate mitigatory responses. There are 77 heritage assets where this is the case. They are 17, 21-24, 26, 29, 31, 33-34, 37-41, 43-46, 60-68, 70-71, 78, 82-86, 90-102, 104-105, 107 and 109-114, 117-118, 120-126, 129-133, 136-138 and 144-145.

- 7.2.6 Neutral impacts on heritage asset significance will not require any response. There are 26 heritage assets where this is the case. They are 5, 6, 14, 15, 19, 20, 25, 28, 30, 35, 36, 42, 47, 72-77, 79-81, 103 and 139-141.
- 7.2.7 The reduction of risk in those areas defined as having a greater likelihood of discovering unknown archaeological remains during the construction process could be achieved through area specific evaluation. The areas so defined are the area around Papcastle Bridge, the Papcastle area, the area to the south of Cockermouth, the parts of the route in the vicinity of Blindcrake and Bothel, and also, of industrial remains near Great Clifton, Bridgefoot, Anns Hill Lodge, Embleton, Wharrels Hill and Mealsgate.

BIBLIOGRAPHY

PRIMARY AND CARTOGRAPHIC SOURCES

Maps

Ann's Hill Estate, 1895, Sales Particulars, DB 74/3/2/701 (CRO(C)) Brigham Hill Estate Plan, 1901, YDX 366/29 (CRO(W)) Close Estate Plan, 1902, YDX 366/31 (CRO(W)) Cockermouth: Tithe Map and Tithe Award, Brigham Parish, 1840, DRC 8/47 (CRO(C)) Embleton Enclosure Award, 1824, QRE/1/37 (CRO(C)) Embleton Tithe Award, 1839, DRC 8/70 (CRO(C)) Estate at Blindcrake and Redmain, 1893, Sales Particulars, DB 74/3/2/791 (CRO(C)) Great and Little Clifton Common Enclosure Awards, 1817, D/CU/Estate Plan 16 (CRO(W))Hill Tithe Award Plan of 1838 DRC 8/82 (CRO(C)) Hodskinson and Donald's County Plan of Cumberland, 1770 (CL) Isel Old Parish for Close Stints, 1813, QRE/1/86 (CRO(C)) Little Clifton and Bridgefoot Estates, 1850, DH 184 (CRO(W)) Map of the Lowside Quarter, Parish of Bolton, 1843 Tithe, DRC 8/20 (CRO(C)) Ordnance Survey mapping: Cumberland Sheet LIII, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LIV, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LV, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLV, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI, First Edition, 1867, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI NE, Second Edition, 1901, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI NW, Second Edition, 1901, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLV SE, Second Edition, 1901, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet LIII, NE, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet LIV, NE, Second Edition, 1900, 6" to 1 ${\rm mile}$

Ordnance Survey mapping: Cumberland Sheet LV NW, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet LV NE, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XLVI NE, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XLVI SE, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XLVI SW, Second Edition, 1900, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XXXVI NE, Second Edition, 1901, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XXXVI SE, Second Edition, 1901, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XXXVI SW, Second Edition, 1901, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XLVI NW, Edition of 1927, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLV SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LIV, NW, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LIV, NE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LV NW, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LV NW, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet LV NE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI NE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI NE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XLVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XXVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XXXVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XXXVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XXXVI SE, Edition of 1926, 6" to 1 mile Ordnance Survey mapping: Cumberland Sheet XXXVI SE, Edition of 1926, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet XLV SE, Provisional Edition, 1948, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet LIII, NE, Provisional Edition, 1947, 6" to 1 mile

Ordnance Survey mapping: Cumberland Sheet LV NW, Provisional Edition, 1947, 6" to 1 mile

Papcastle Tithe Award, 1838, DRC 8/149 (CRO(C))

Plan of Cockermouth Common, 1832, QRE/1/37 (CRO(C))

Plan of Commons at Dovenby and Papcastle in 1842 DWM/1/61 (CRO(W))

Plan of the Commons and Waste Grounds in the Manor or Parish of Bassenthwaite, 1771, Q/RE/1/92 (CRO(C))

Plan of Proposed Pipeline between Bridgefoot and Little Clifton, 1933, D/WW/1/222 (CRO(W))

Plan of Torpenhow and Bothel Commons, 1811, QRE/1/69 (CRO(C))

Sale Plan of Lands at Kirkland Guards, Undated, D/CU/5/278 (CRO(W))

Sanderson Estate at Great and Little Clifton, 1825, D/BT/28/105 (CRO(W))

H.T. Thompson Esquire Estate Map, 1834, D/CU/ Estate Plan 98 (CRO(W))

H.T. Thompson Esquire Estate Map, 1848, D/CU/ Estate Plan 93 (CRO(W))

Threapland Commons Enclosure Award, 1813, QRE 1/51 (CRO(C))

Wood Hall Estate Sales Particulars, 1888 DB/74/3/2/1071 (CRO(C))

Wood Hall Estate, 1939, YDX 384/41 (CRO(W))

Aerial photographs and Lidar images

Vertical Aerial Photographs NY0229/2.3.1 (CCC HER) NY0229/2.3.6 (CCC HER) NY0229/2.18.14 (CCC HER) NY0229/3.8.16 (CCC HER) NY0229/3.9.2 (CCC HER) NY0229/3.9.3 (CCC HER) NY0229/3.9.4 (CCC HER) NY0229/3.9.5 (CCC HER) NY0229/3.9.6 (CCC HER) NY0229/3.9.7 (CCC HER) NY0229/3.9.8 (CCC HER) NY0229/3.9.10 (CCC HER) NY0229/3.9.12 (CCC HER) NY0229/3.15.8 (CCC HER) NY0229/3.15.9 (CCC HER) NY0229/3.15.10 (CCC HER) NY0229/3.15.11 (CCC HER) NY0229/3.15.12 (CCC HER) NY0229/6.4.12 (CCC HER)

NY1838/6.10.7 (CCC HER)

NY2141/6.34.7 (CCC HER)

Oblique Aerial Photographs

NY03SE/NY0630/A (CCC HER)

NY03SE/NY0630/B (CCC HER)

NY12NW/NY1329/A (CCC HER)

NY12NW/NY1329/C (CCC HER)

NY13SW/NY1132/A (CCC HER)

NY13SW/NY1132/C (CCC HER)

NY13SW/NY1132/E (CCC HER)

NY24SW/NY2041/A (CCC HER)

NY24SW/NY2041/B (CCC HER)

NY24SW/NY2041/C (CCC HER)

NY24SW/NY2042/A (CCC HER)

Lidar Imagery- detailed study (the rest of the route was studied on-line via the Environment Agency Lidar dataset)

NY0930_DTM_2M NY0931_DTM_2M NY1030 DTM 2M

NY1031_DTM_2M

SECONDARY SOURCES

Published works and unpublished reports

Armstrong, A.M, Mawer, A, Stenton, F.M, Dickins, B, 1950, *The Place Names of Cumberland, Parts 1-3*, Cambridge University Press: Cambridge

Bagshawe, R.W, 1994, Roman Roads, Shire Publications Ltd: Buckinghamshire

Bell, M, 2013, 'Moor Road, Great Clifton, Cumbria: archaeological evaluation', *unpublished grey literature report by CFA Archaeology Ltd*

Butler, A, and Fisher, I, 2010, 'Archaeological Geophysical Survey on land north of Strawberry How Road, Cockermouth, Cumbria', *unpublished grey literature report by Northamptonshire Archaeology*

CFA Archaeology Ltd, 1997, 'Wharrel's Hill Wind Farm and Visitor Facility: desk based assessment as part of an environmental impact assessment', *unpublished grey literature report by CFA Archaeology Ltd*

Clark, A, 2012, 'Land at School Lane, Bothel, Cumbria', unpublished grey literature report by Wardell Armstrong Archaeology Ltd

Clark, P, 2012, 'Camp Farm, Papcastle, Cumbria', unpublished grey literature report by Oxford Archaeology North

Cracknell, P, 2009, 'Report on an Archaeological Desk Based Assessment for land at The Fitz, Fitz Park, Cockermouth', unpublished grey literature report by Philip Cracknell Historic Building Surveyor

Cumbria County Council, 2009, 'Guide to the Cumbria Historic Landscape Characterisation Programme', unpublished guidance by Cumbria County Council, available on-line

de la Bédoyère, G, 2002, *Hadrian's Wall History and Guide*, Tempus Publishing: Stroud

Department of Communities and Local Government 2012, *National Planning Policy Framework*, London: www.communities.gov.uk

Ford, L, 2005, 'Melbreak Hotel, Crossbarrow, Little Clifton: archaeological desk based assessment', unpublished grey literature report by Oxford Archaeology North

Hadrian's Wall Management Plan 2008-2014

Institute for Archaeologists, 2013 Code of Conduct, Reading: IfA

Institute for Archaeologists, 2013 *Standard and Guidance for Historic Environment Desk-based Assessment*, **Reading: IfA**

Lake District National Park Authority, 2009, 'Historic Landscape Characterisation', unpublished guidance by Cumbria County Council, available on-line

Jones, L, 2002, 'Field 6341, Bolton Low Houses, Wigton, Cumbria: archaeological evaluation' *unpublished grey literature report by Headland Archaeology*

Lake District National Park Partnership 2010, The Partnership's Plan. The Management Plan for the Lake District National Park 2010-2015, Kendal: LDNPP02015

Lake District World Heritage Project Partnership 2013, Technical Evaluation of the Future World Heritage Nomination for the English Lake District, Kendal: LDWHPP

McCarthy, M. R, 1993, Carlisle: History and Guide, Gloucester

North Pennines Archaeology, 2006, 'Report on an Archaeological Watching Brief on the A595 Roman Road at Wharrels Hill near Bothel, Cumbria' unpublished grey literature report by North Pennines Archaeology

Railton, M, 2009, 'Geophysical Survey of Land at Fitz Park, Cockermouth' *unpublished* grey literature report by North Pennines Archaeology Ltd

Shotter, D, 2004, *Romans and Britons in North-West England*, University of Lancaster: Bristol

Smith, C, 2011, A Guide to the Milestones, Mileposts and Toll Buildings of Cumbria, Brow Bottom Enterprises: Penrith Sowerby, M, and Peters, C, 2008, 'Archaeological Desk Based Assessment and Watching Brief at Craiginvar, Papcastle, Cockermouth, Cumbria', unpublished grey literature report by North Pennines Archaeology Ltd

Thompson, I, 2010, The English Lakes: A History, Bloomsbury: London

Walker, J, 2004, 'Land off Moor Road, Great Clifton, Cumbria: an archaeological desk based assessment' unpublished grey literature report by Jan Walker Archaeological Consultant

Watson, C, 2009, 'The Outbuildings of High House, Bothel: historic building report', unpublished grey literature report by AOC Archaeology Group

Wooler, F, 2012a, 'Proposed Pipeline Route between Workington and Great Clifton, Cumbria' unpublished grey literature report by NP Archaeology Ltd

Wooler, F, 2012b, 'Land on Moor Road, Stainburn, Workington, Cumbria' unpublished grey literature report by Wardell Armstrong Archaeology Ltd

Wooler, F, 2012c, 'Land off Ellerbeck Brow, Brigham, Cumbria' unpublished grey literature report by Wardell Armstrong Archaeology Ltd

Wooler, F, 2012d, 'Land at Bothel, Wigton, Cumbria' unpublished grey literature report by Wardell Armstrong Archaeology Ltd

Websites

British Geological Survey: http://mapapps.bgs.ac.uk/geologyofbritain/home.html (accessed 25/03/14)

English Heritage Pastscape: http://www.pastscape.org.uk (accessed 10/03/14)

Environment Agency Lidar dataset: https://www.geomaticsgroup.co.uk/geomatics/Redirect.aspx (accessed 25/03/14)

Magic: http://www.magic.gov.uk (accessed 20/06/14)

Portable Antiquities Scheme: http://finds.org.uk (accessed 20/06/14)

The Woodland Trust: http://www.ancient-tree-hunt.org.uk (accessed 19/06/14)

ILLUSTRATIONS

FIGURES

Figure 1:	Overall View of Proposed Pipeline Route
Figure 2:	Western Extent of Proposed Pipeline Route Showing Heritage Assets
Figure 3:	Eastern Extent of Proposed Pipeline Route Showing Heritage Assets
Figure 4:	Northern Extent of Proposed Pipeline Route Showing Heritage Assets
Figure 5:	Geophysical Anomalies at Papcastle
Figure 6:	Hodskinson and Donald's Map of Cumberland, 1770
Figure 7:	Western Extent of Proposed Pipeline Route; First Edition Ordnance Survey mapping, 1867 (6" to 1 mile scale)
Figure 8:	Eastern Extent of Proposed Pipeline Route; First Edition Ordnance Survey mapping, 1867 (6" to 1 mile scale)
Figure 9:	Northern Extent of Proposed Pipeline Route; First Edition Ordnance Survey mapping, 1867 (6" to 1 mile scale)
Figure 10:	Western Extent of Proposed Pipeline Route; Second Edition Ordnance Survey mapping, 1900-01 (6" to 1 mile scale)
Figure 11:	Eastern Extent of Proposed Pipeline Route; Second Edition Ordnance Survey mapping, 1900-01 (6" to 1 mile scale)
Figure 12:	Northern Extent of Proposed Pipeline Route; Second Edition Ordnance Survey mapping, 1900-01 (6" to 1 mile scale)
Figure 13:	Western Extent of Proposed Pipeline Route; Third Edition Ordnance Survey mapping, 1926-7 (6" to 1 mile scale)
Figure 14:	Eastern Extent of Proposed Pipeline Route; Third Edition Ordnance Survey mapping, 1926-7 (6" to 1 mile scale)
Figure 15:	Northern Extent of Proposed Pipeline Route; Third Edition Ordnance Survey mapping, 1926-7 (6" to 1 mile scale)

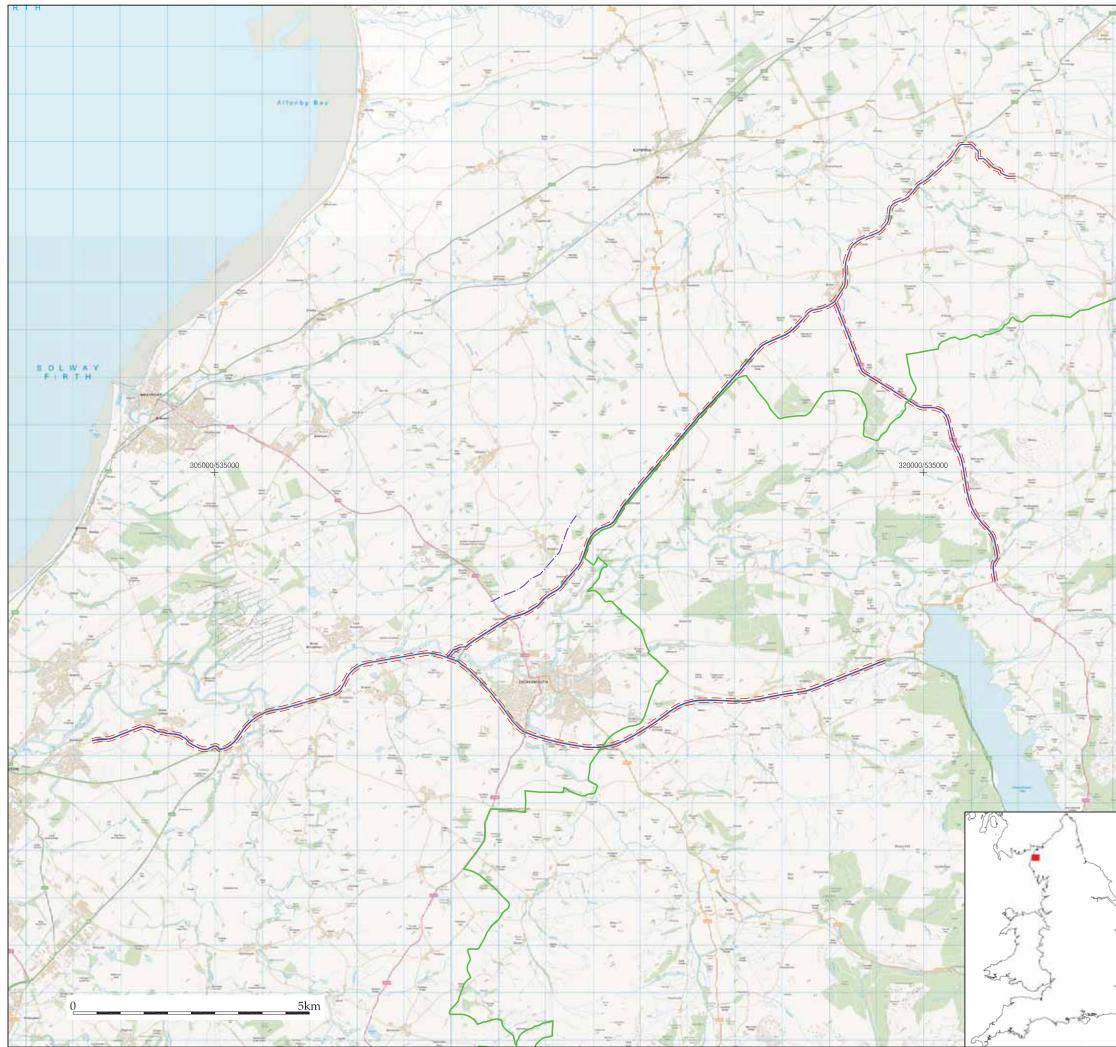


Figure 1: Overall View of Proposed Pipeline Route.

33	
	wardell armstrong
10	archaeology
	Wardell Armstrong
	Archaeology 2014
3	2011
	PROJECT:
	West Cumbria Pipeline
1	
	CLIENT:
1	United Utilities
-	
- 1	
	SCALE: 1:80,000 at A3 DRAWN BY: AB
	DATE: April 2014
Ì	KEY:
	Route of pipeline
1	100m corridor
2	Lake District National Park Boundary Papcastle to Pinggy Wood 500m
Ċ	corridor
1	
1	
10.00	٨
	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Statlonery Office.
	© Crown copyright. All rights reserved. Licence number 100019512.
	REPORT No: CP10787
E.	Cr 10/6/
3	FIGURE:
	1

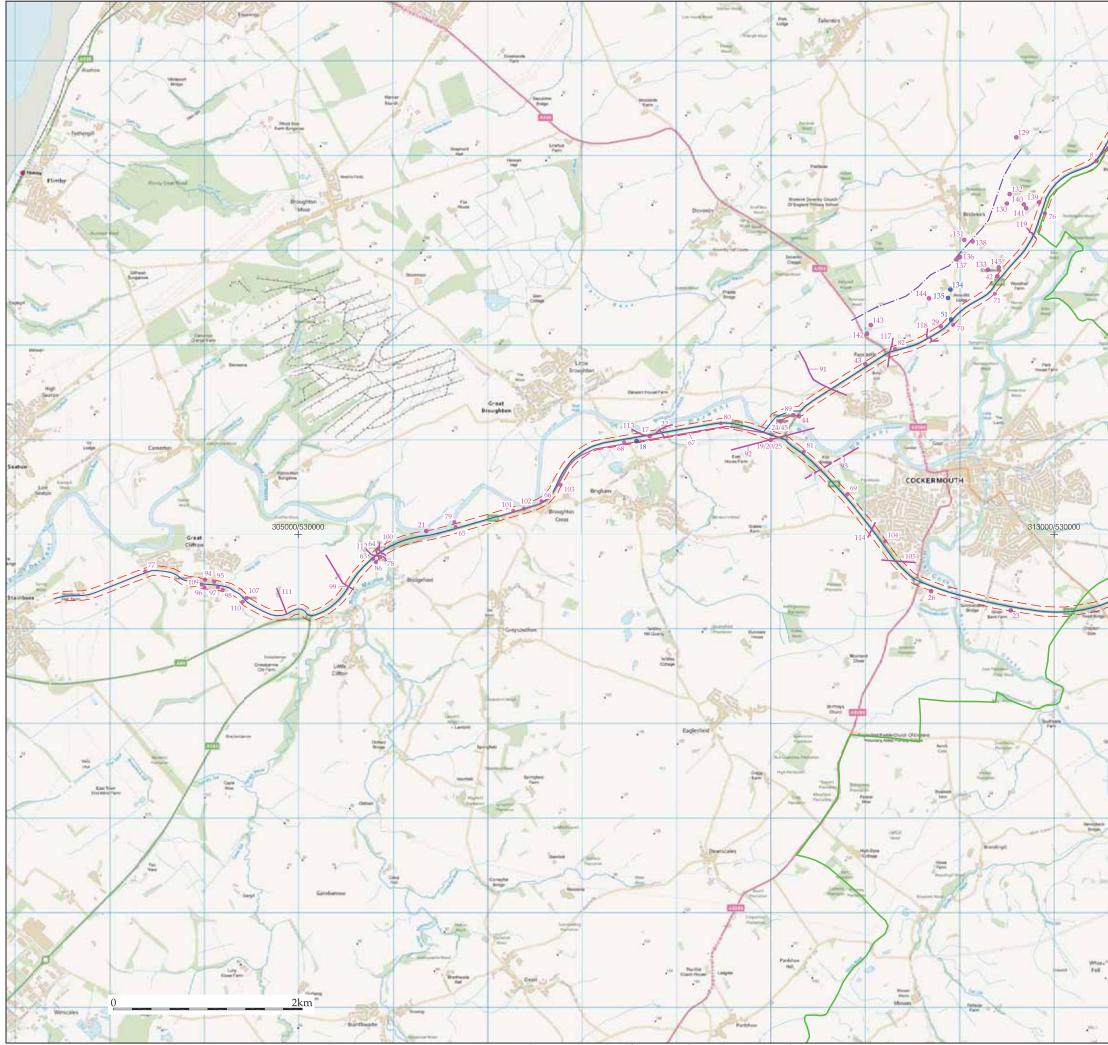


Figure 2: Western Extent of Proposed Pipeline Route Showing Heritage Assets.

	wardell armstrong
72	archaeology
A Kaser	Wardell Armstrong Archaeology 2014
	PROJECT:
A M - H	West Cumbria Pipeline
	CLIENT:
AIL /	United Utilities
+	2011F 1 40 000 + 40
1	SCALE: 1:40,000 at A3
Ľ	DRAWN BY: AB/CP
	DATE: April 2014
l	KEY:
/	Route of pipeline
1	100m corridor
1	Lake District National Park Boundary
þ	corridor
1	HER sites (non-designated)
-	HER sites (designated)
1	
1	
- 44	
1	
10	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.
-	REPORT No:
	CP10787
ale ale	FIGURE:
	2
-	

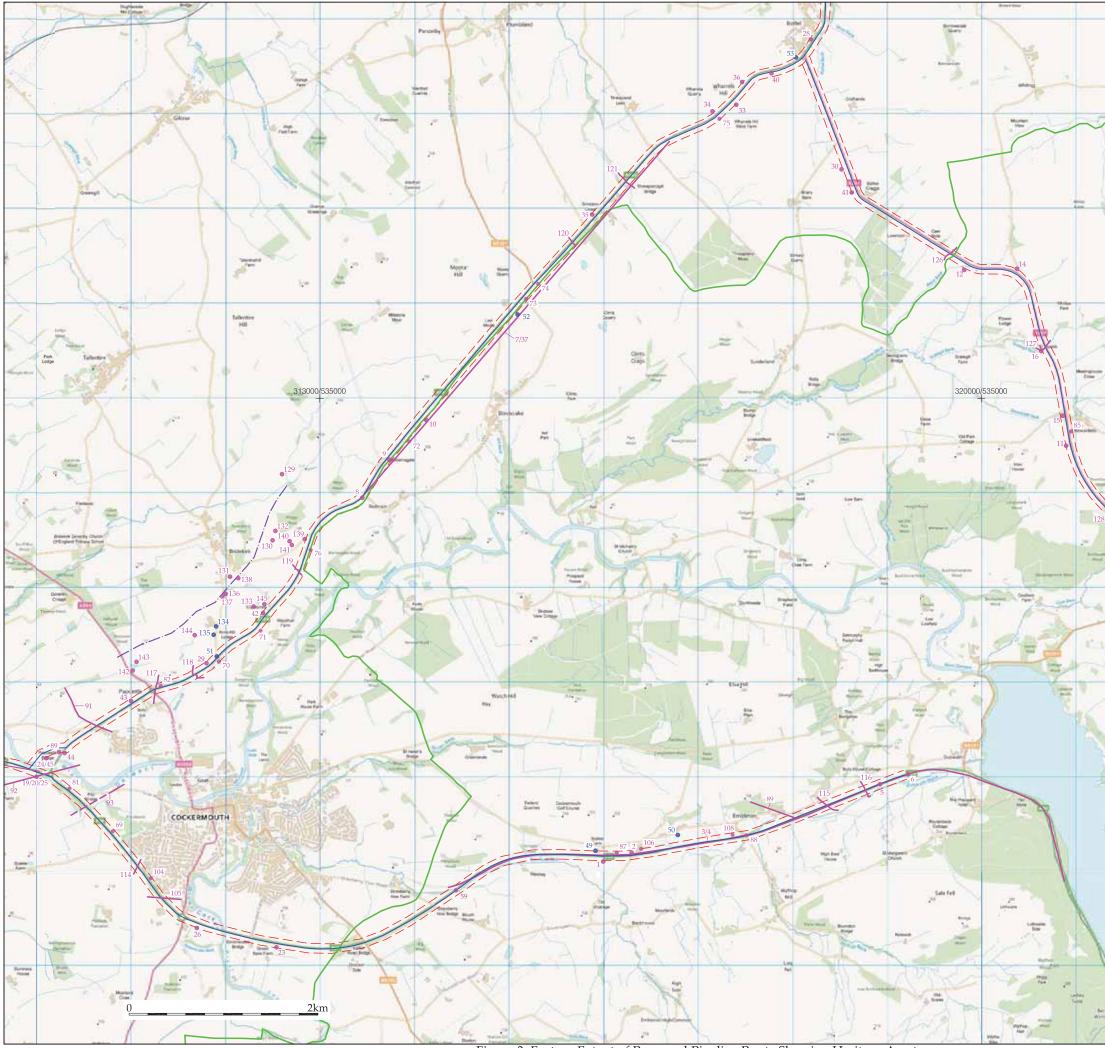


Figure 3: Eastern Extent of Proposed Pipeline Route Showing Heritage Assets.

1 All	wardell Armstrong Archaeology 2014
1	PROJECT: West Cumbria Pipeline
	CLIENT: United Utilities
	SCALE: 1:40,000 at A3
N	DRAWN BY: AB/CP
	DATE: April 2014
3	KEY: Route of pipeline 100m corridor Lake District National Park Boundary Papcastle to Pinggy Wood 500m corridor HER sites (non-designated) HER sites (designated)
ALL C	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. REPORT No:
	CP10787
	FIGURE: 3

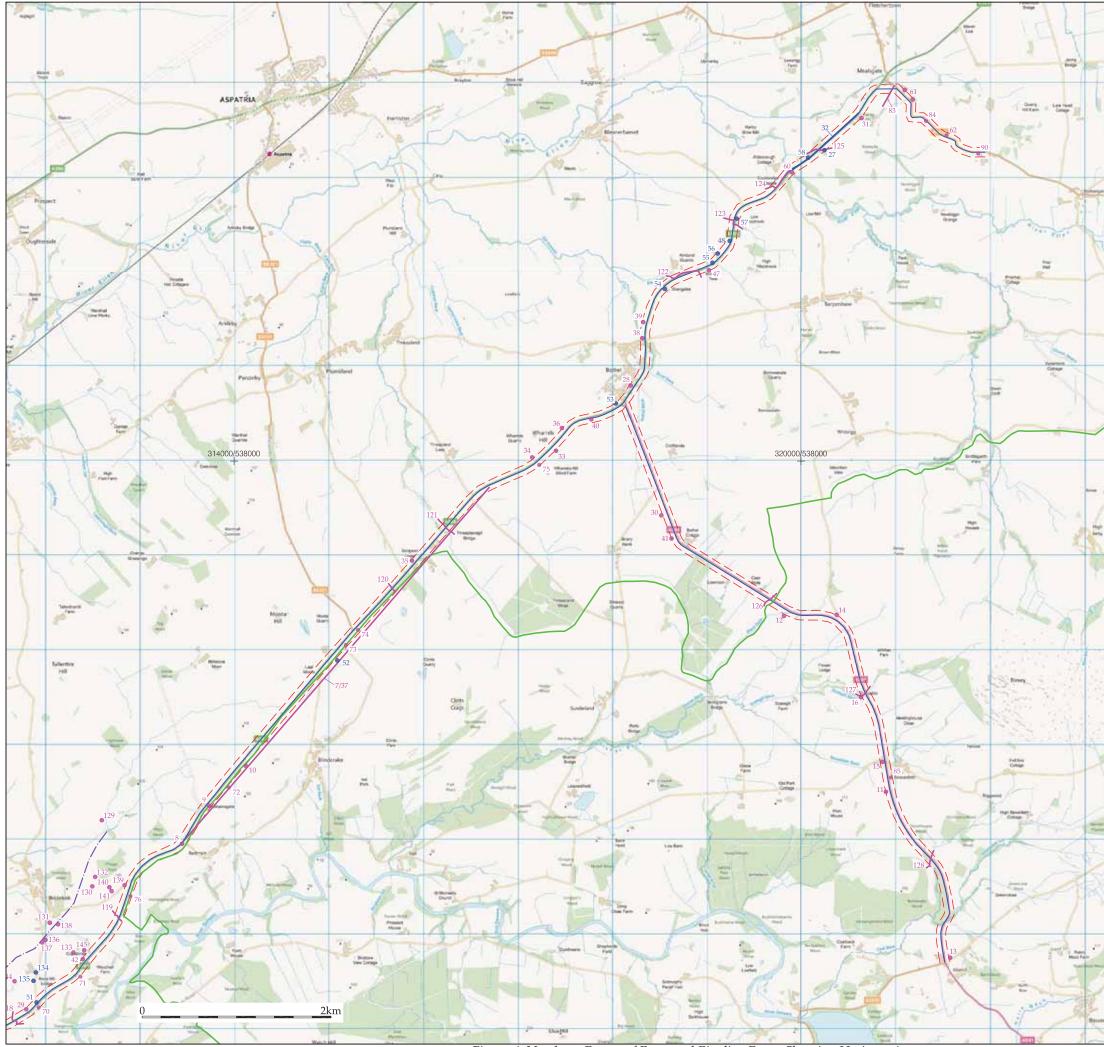
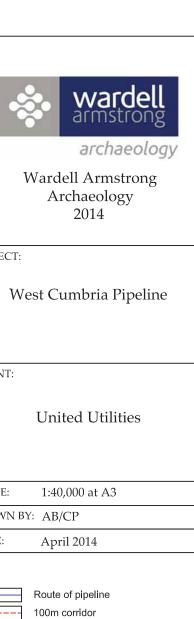


Figure 4: Northern Extent of Proposed Pipeline Route Showing Heritage Assets.

1	wardell
- Jar	wardell armstrong
1	archaeology
	Wardell Armstrong
T	Archaeology 2014
4	PROJECT:
	West Cumbris Pinslins
L.	West Cumbria Pipeline
1	
-	CLIENT:
	United Utilities
1	enned ennies
-	SCALE: 1:40,000 at A3
3	DRAWN BY: AB/CP
7	DATE: April 2014
	KEY:
-	Route of pipeline
R.Dunits /	100m corridor
2	Lake District National Park Boundary Papcastle to Pinggy Wood 500m
	corridor
	HER sites (non-designated)
	HER sites (designated)
7	
Sol	
1	
X	
- The -	
10	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
E .	© Crown copyright. All rights reserved. Licence number 100019512.
19 P.O	REPORT No:
15	CP10787
N.	
2	FIGURE:
address Autom	4





	wardell Armstrong Archaeology 2014
	PROJECT: West Cumbria Pipeline
	CLIENT: United Utilities
	SCALE: 1:4,000 at A3
	DRAWN BY: AB
1-	DATE: April 2014
	KEY: Route of pipeline 100m corridor
	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stattonery Office. © Crown copyright. All rights reserved. Licence number 100019512. REPORT No: CP10787
	FIGURE: 5



Figure 6: Hodskinson and Donald's Map of Cumberland, 1770.

1	
19	
Start 2	
V. C. T	
a traff	
MAL MAD	
and the	
. Kant	
contraction const.	
181	
Ma.	Ρ
200	
WE STAT	
I IND THE	
unth (
here and	
Pulle	С
amante. Con	
The party	
S	
The state	
AN ALLAND	S
Torrest late	-
1	
22.	D
100	
Contraction of the second s	K
	K
S wells	K
	K
	К
	к
	K
	K
	K
	к
	ĸ
	ĸ
	ĸ
	ĸ
	ĸ
	к
	к
	ĸ
	ĸ
	ĸ
	R
	R R
	R
	к R F



West Cumbria Pipeline

CLIENT:

United Utilities

SCALE: *c.*1:75,000 at A3

DRAWN BY: AB
DATE: April 2014

KEY:

Route of pipeline 100m corridor Lake District Nationa

Lake District National Park Boundary Papcastle to Pinggy Wood 500m corridor



REPORT No:

CP10787

IGURE:

6



Figure 6: Hodskinson and Donald's Map of Cumberland, 1770.

1 50	
ANT THE REAL	
ALL THE	
Lon	
in the parties.	
A.	
the	PROJEC
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
What REDY OF	
meth T	
10 ¹	
Course	CLIENT
The second	
the De .	
C Ba	
	00415
and the state	SCALE: DRAWN
and a	DATE: KEY:
at	NET.
ner and	
· ·	
the in	
and a c	
3 Mi	
et willing	
To the time of	
Nº h	
E P	
A West Tan	
1. All	
JED	
for i	
S.	REPORT
and and	REPORT
	REPORT
	REPORT FIGURE:



Archaeology 2014

JECT:

## West Cumbria Pipeline

ENT:

# United Utilities

LE: c.1:75,000 at A3

WN BY: AB

E: April 2014

Route of pipeline 100m corridor

Lake District National Park Boundary Papcastle to Pinggy Wood 500m corridor



ORT No:

CP10787

JRE:

6

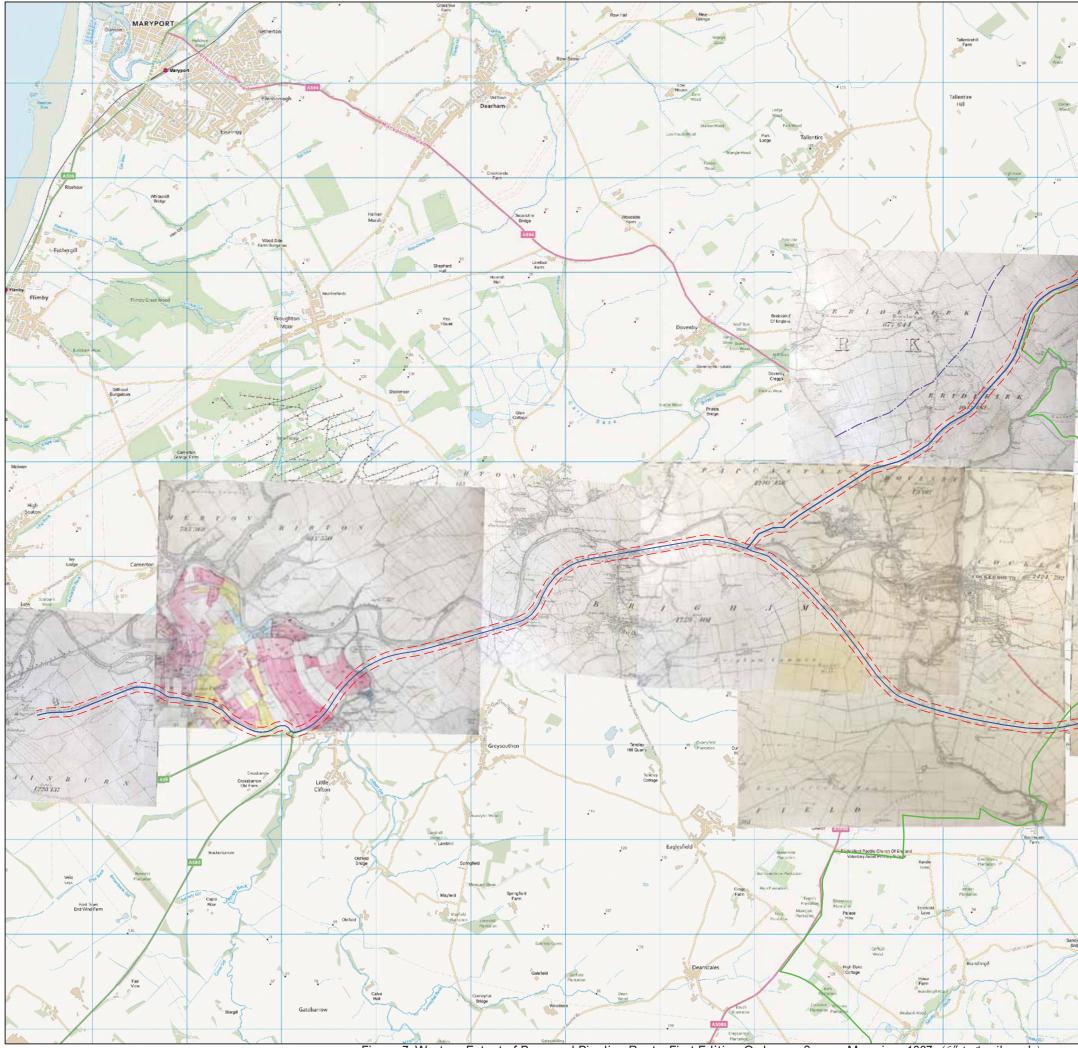


Figure 7: Western Extent of Proposed Pipeline Route; First Edition Ordnance Survey Mapping, 1867 (6" to 1 mile scale).

C/ D	
	wardell armstrong
	archaeology
13th	Wardell Armstrong
	Archaeology
14	2014
11	PROJECT:
K	West Cumbria Pipeline
ANT -	
李二	
211	CLIENT:
5	
Forth House	United Utilities
New 201 Vizio	
	SCALE: 1:40,000 at A3
	DRAWN BY: CP/AB
	DATE: April 2014
-	KEY:
n r r	
32	Route of pipeline
at 1	Lake District National Park Boundary
	Papcastle to Pinggy Wood 500m corridor
The	
110	
Sol	
11/	
1	
Sec.	Reproduced by permission of Ordnance Survey on behalf
20-	of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512.
.0 Danger Soa	
X-V	CP10787
Law Rogersonie	
TY a	FIGURE:
2	7
-	
and the second s	

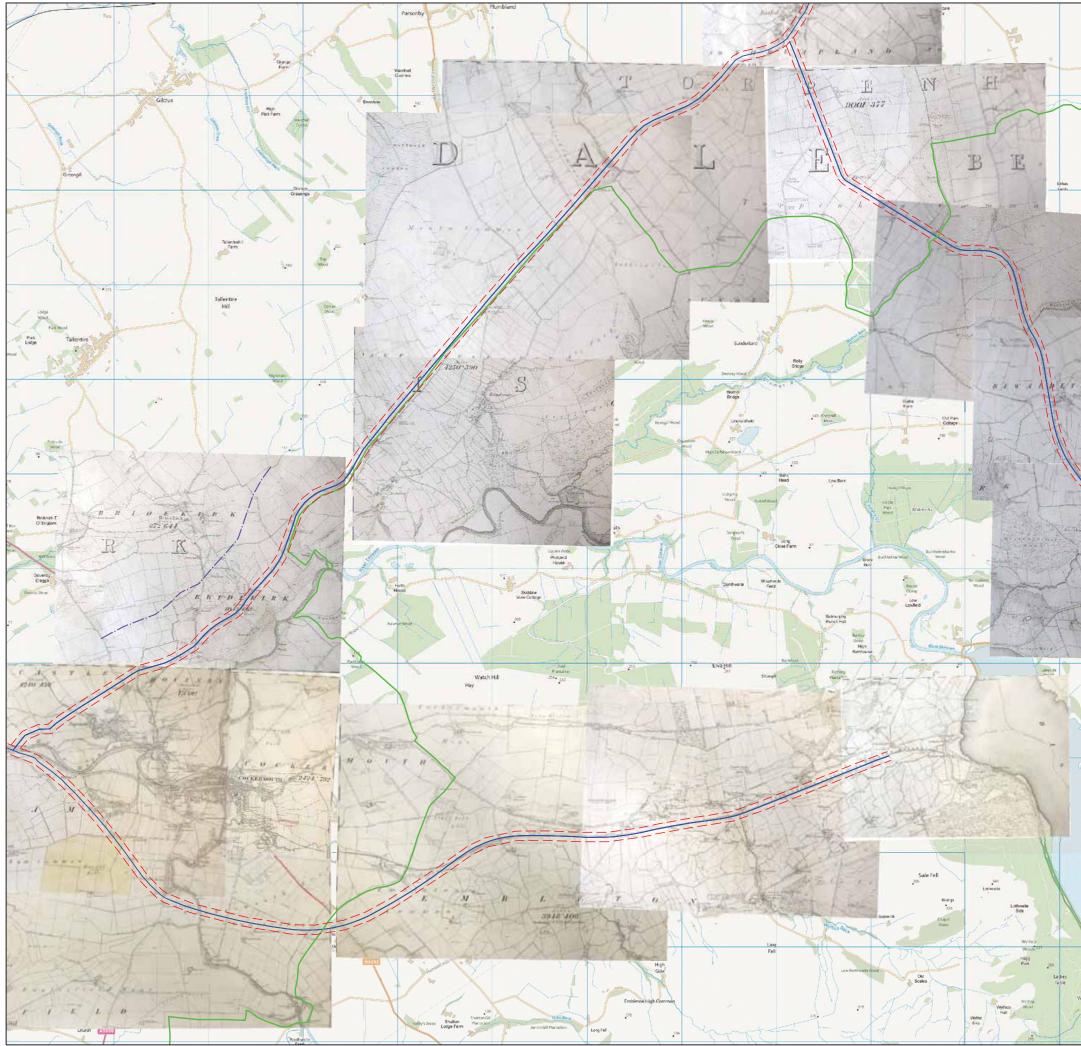


Figure 8: Eastern Extent of Proposed Pipeline Route; First Edition Ordnance Survey Mapping, 1867 (6" to 1 mile scale).

Ballow Settlegarh Par Waal Heys Proces Perchool	wardell archaeology Wardell Armstrong Archaeology 2014
and a	PROJECT: West Cumbria Pipeline
	CLIENT: United Utilities
	SCALE: 1:40,000 at A3
W V	DRAWN BY: CP/AB
Mi Za	DATE: April 2014
	KEY: Route of pipeline 100m corridor Lake District National Park Boundary
Same	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
K	© Crown copyright. All rights reserved. Licence number 100019512.
7	REPORT No: CP10787
a	FIGURE:
Bass	8
and shares	

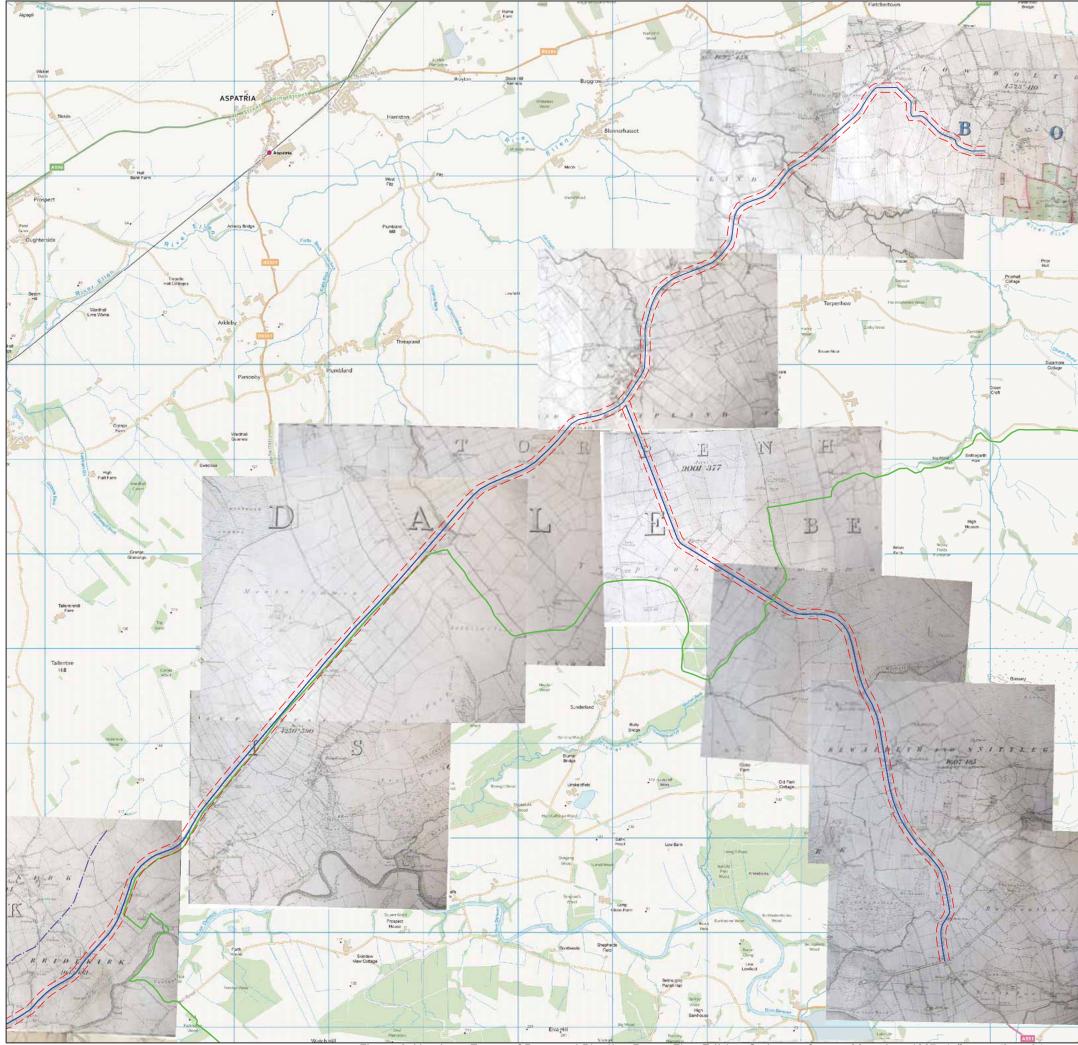


Figure 9: Northern Extent of Proposed Pipeline Route; First Edition Ordnance Survey Mapping, 1867 (6" to 1 mile scale).

E I	
	wardell
	wardell
h he	
5.00	archaeology
Qua	Wardell Armstrong
	Archaeology
otorgate .	2014
1	
Naty Bolto	PROJECT:
Server A	
A AND	West Cumbria Pipeline
Rive	
	CLIENT:
	ULILINI.
	United Utilities
14	Officed Officies
	SCALE: 1:40,000 at A3
.7 \	DRAWN BY: CP/AB
Dintee	DATE: April 2014
High	KEY:
lifeby	KET.
Ruthwaite	Route of pipeline
35	100m corridor     Lake District National Park Boundary
thesey	
· · ·	
1. Jay	
White Con	
N	
Huntamana	
Stonebr ggs	
Partation M	
E C	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
EFE X	© Crown copyright. All rights reserved. Licence number 100019512.
ton Aller	REPORT No:
1	
p /	CP10787
nieoe Webe	
	FIGURE:
	9
Bassenthwaite Duthwalk	

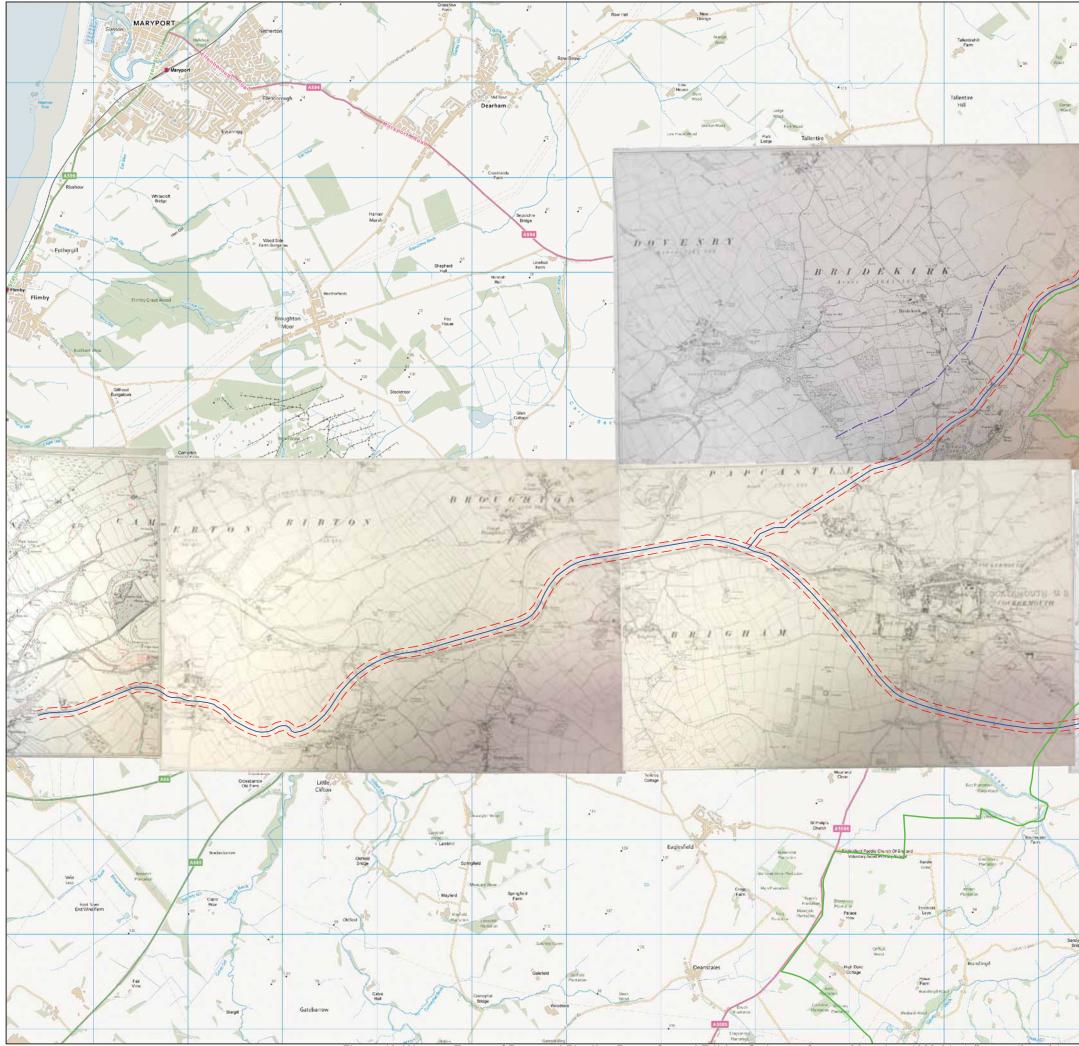


Figure 10: Western Extent of Proposed Pipeline Route; Second Edition Ordnance Survey Mapping, 1900-01 (6" to 1 mile scale).

XI	
ret.	
1	wardell armstrong
De-	
The second	archaeology
al inter	Wardell Armstrong
LINDERX	Archaeology 2014
	2014
1	PROJECT:
1	
	West Cumbria Pipeline
Str. C	
V-SF	
Contraction of the	CLIENT:
The la	
下夜	United Utilities
N/ 3	
Const P	
~	SCALE: 1:40,000 at A3
	DRAWN BY: CP/AB
	DATE: April 2014
Ser and	KEY:
AN A	Route of pipeline
4th	Lake District National Park Boundary
E-	Papcastle to Pinggy Wood 500m
	corridor
11	
11	
4 to the	
- 7 (-A)	<b>A</b>
-1/	
- Contraction of the Contraction	
Tent !	Reproduced by permission of Ordennes Courses as here (
Stanger	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.
	REPORT No:
AF	CP10787
din .	FLOUDE
	FIGURE:
5	10
No. of Street, or other	



Figure 11: Eastern Extent of Proposed Pipeline Route; Second Edition Ordnance Survey Mapping, 1900-01 (6" to 1 mile scale).

IG C	wardell archaeology Wardell Armstrong Archaeology 2014
47	PROJECT:
	West Cumbria Pipeline
2-11-2	
IDETIT AND	CLIENT: United Utilities
司建立	SCALE: 1:40,000 at A3
A Mark	DRAWN BY: CP/AB
the second	
	DATE: April 2014
	KEY:
	Route of pipeline 100m corridor Lake District National Park Boundary Papcastle to Pinggy Wood 500m corridor
Charles and the second se	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.
all it	REPORT No:
	CP10787
A	FIGURE:
	11
Bass	

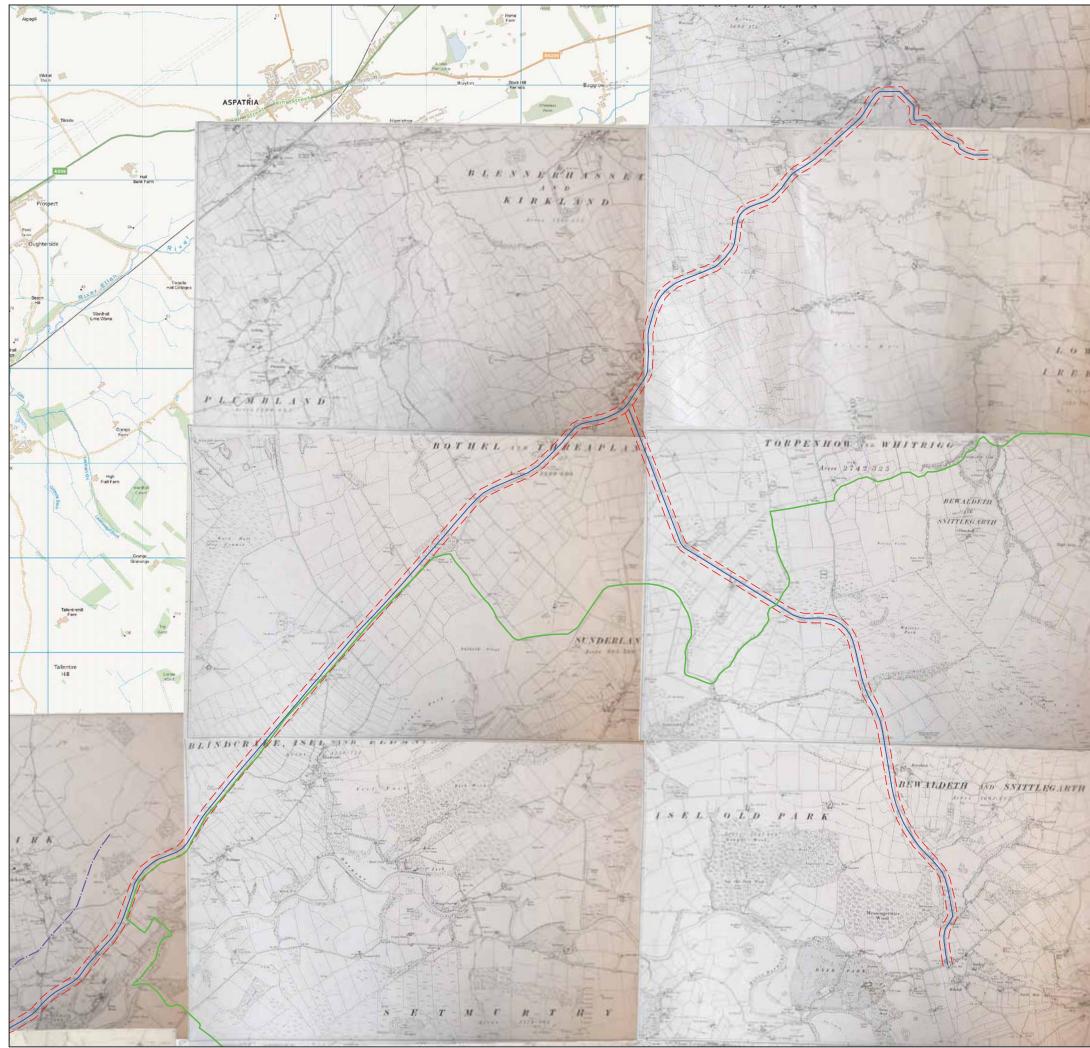


Figure 12: Northern Extent of Proposed Pipeline Route; Second Edition Ordnance Survey Mapping, 1900-01 (6" to 1 mile scale).

	~	wardell armstrong
	24	armstrong
	1 th	archaeology
	Snith Qui	Wardell Armstrong
	~	Archaeology
	1	2014
1	-	
	Hally MSCI Bolto He	PROJECT:
	rmate Rhom Those Next	West Cumbria Pipeline
	Rive	West Gumbria Pipeline
-		CLIENT:
¥		
	14	United Utilities
	-	
1		
	+	SCALE: 1:40,000 at A3
	5 \	DRAWN BY: CP/AB
		DATE: April 2014
1	- 1	KEY:
	$\rightarrow$	
Ĩ	Ruthwarte	Route of pipeline
Å	1	Lake District National Park Boundary
		Papcastle to Pinggy Wood 500m
ŀ		
	Birsey Plantat or	
	t	
	Who	
1	N	▲
	Huntamana	
1	-	
'sto		
>	T	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
K	E 5	© Crown copyright. All rights reserved. Licence number 100019512.
3	1 200 D	REPORT No:
-		CP10787
Ľ	A	
-	~	FIGURE:
-		12
ent	hwaite Buthwate	
~		



Figure 13: Western Extent of Proposed Pipeline Route; Third Edition Ordnance Survey Mapping, 1926-7 (6" to 1 mile scale).

A .	
Tarrent -	
A	
12	wardell
Siles A	armstrong
Pto .	archaeology
AN	archaeology
AN CA	Wardell Armstrong
of the	Archaeology
otte	2014
Test	
	PROJECT:
INDERY	
~ 11	West Cumbria Pipeline
-1/1	•
11	
and and and	CLIENT:
Stor T	
教上了	
A A	United Utilities
VAR	
the	
the form	
in Film	SCALE: 1:40,000 at A3
	DRAWN BY: CP/AB
	DATE: April 2014
~	
	KEY:
2F	Route of pipeline
	100m corridor
SERVER	Lake District National Park Boundary
1 Star	Papcastle to Pinggy Wood 500m
A BT	corridor
-	
The start	
T	
- Alt	
/1/1	
1/1	A
Some 3	
FLAR	
1+/	
Y	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
- com	© Crown copyright. All rights reserved. Licence number 100019512.
	REPORT No:
nger Let	
Did Pic	CP10787
Sargar Sargar	FIGURE:
XM	
Law Regencale	13
and the same	



Figure 14: Eastern Extent of Proposed Pipeline Route; Third Edition Ordnance Survey Mapping, 1926-7 (6" to 1 mile scale).

EF	
A A	wardell armstrong
NEWALDER	archaeology
ANITTI KO ARI	Wardell Armstrong
2AS	Archaeology 2014
	2014
1-1	PROJECT:
EX	West Cumbria Pipeline
X	CLIENT:
the last	United Utilities
DETH A	
1813	
	SCALE: 1:40,000 at A3
	DRAWN BY: CP/AB
ALS.	DATE: April 2014
	KEY:
H X	Route of pipeline
Hi	100m corridor
- Jack	Lake District National Park Boundary
A.R.S	Papcastle to Pinggy Wood 500m corridor
LANT	
APA	
and Date	
al an	
FAR	Å
(S	
	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.
	REPORT No:
	CP10787
A	
U Ba	FIGURE:
	14



Figure 15: Northern Extent of Proposed Pipeline Route; Third Edition Ordnance Survey Mapping, 1926-7 (6" to 1 mile scale).

t	2	
50	ad bo	2 wordoll
TIST	e and a second	wardell
1	1 th	archaeology
3	Snihy Qui	Wardell Armstrong
AT		Archaeology
ZI	1	2014
-	Both	PROJECT:
The second		West Cumbria Pipeline
3	Rive	
-	2	CLIENT:
x		
7	14	United Utilities
H		
		SCALE: 1:40,000 at A3
1		DRAWN BY: CP/AB
		DATE: April 2014
1	- 1	KEY:
	A	Route of pipeline
SK	Ruthwaite	Lake District National Park Boundary
		Papcastle to Pinggy Wood 500m corridor
3	1	
	Platetor	
	White	
1-1	1	
H	internana Cortage	
webr ggs westion	Rute	
54	>	Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.
Ĩ.	25	© Crown copyright. All rights reserved. Licence number 100019512.
3/2		REPORT No:
	1	CP10787
*	K	FIGURE:
		15
isenthwaite	Burthwalte Cristoria Bac	