

# HAWESWATER AQUEDUCT ENABLING WORKS, Cumbria

Archaeological Evaluation and Watching Brief



Oxford Archaeology North March 2006

# **United Utilities Ltd**

Issue No: 2005-6/421 OA North Job No: L9261 NGR: SD 5329 9065 to SD 5970 8351

Document Title:	HAWESWATER AQUEDUCT ENABLING WORKS, CUMBRIA		
Document Type:	Archaeological Evaluation and Watching Brief		
Client Name:	United Utilities Ltd		
Issue Number:	2005-6/421		
OA Job Number:	L9261		
National Grid Reference:	SD 5329 9065 to SD 5970 83	51	
Prepared by: Position: Date:	Andy Bates Project Officer March 2006		
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Document File Location	Alison\projects\united utillities\L9261oxenholme\Report		

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# **SUMMARY**

Oxford Archaeology North (OA North) was commissioned by United Utilities to carry out a programme of archaeological works along the proposed route of a pipeline between Oxenholme, (SD 5329 9065) and Old Town, Mansergh, (SD 5970 8351) Cumbria. The initial phase of this work involved the production of a desk-based assessment and walkover survey report for the proposed route, the results of which are presented in an earlier report (OA North 2003). Further to this, archaeological evaluation of selected sites and a watching brief maintained during groundworks in areas considered to be archaeologically sensitive, were recommended by Cumbria County Archaeology Service (CCAS). The fieldwork was undertaken by OA North during July and August 2004. This report sets out the results of these latter two phases of work.

The evaluation comprised four trenches, all of which were targeted directly on sites identified in the desk-based assessment and walkover survey (Sites 9, 17, 23 and 34). All of the trenches were excavated within the pipeline easement.

Archaeological deposits were only encountered in two of the four trenches. Trench 3 (Site 17) revealed an undated metalled track. Trench 4 (Site 34) was targeted on a shallow circular earthwork with an opening in the west. The earthwork comprised a dry-stone wall and an earthen bank, with a central drainage gully from which a late post-medieval copper alloy button was recovered. The structure has been interpreted as a sheepfold.

The archaeological watching brief was maintained as a permanent presence during the stripping of topsoil along targeted sections of the pipeline easement. Although post-medieval finds were located in ten of the fields covered by the development (Fields 2 to 12), archaeological features were only located Field 23, and comprised two parallel ditches associated with a former field boundary.

Based on results of both the evaluation and watching brief, no further archaeological work is recommended as part of the development.

# ACKNOWLEDGEMENTS

Thanks are due to United Utilities Ltd for commissioning the work. The fieldwork was undertaken by Paul Gajos, Pippa Kok, Dave McNicol, Sean McPhillips, Matt Town and Andy Bates. The report was compiled by Paul Gajos and Andy Bates, and the drawings completed by Mark Tidmarsh. The report was edited by Alison Plummer, who also managed the project.

### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Following a proposal by United Utilities Ltd to lay a new water pipeline between Oxenholme and Old Town, Mansergh for a distance of approximately 12km (Fig 1), Cumbria County Archaeological Service (CCAS) issued an archaeological brief (*Appendix 1*) for a programme of archaeological assessment to be undertaken. The proposed programme of works would necessitate the below ground disturbance of a large area of land. It was considered that there was a high probability of archaeological deposits being disturbed during this work. Following the submission and approval of a project design (*Appendix 2*), OA North was commissioned to undertake the initial programme of work during July of 2003.
- 1.1.2 This initial archaeological programme of work comprised a desk-based assessment in conjunction with a rapid identification walkover survey, the results of which are presented in an earlier OA North report 2003; this earlier report appraised the archaeological potential of the study area.
- 1.1.3 Following the results of the above, the evaluation and watching brief were carried out between July and August 2004. This report details the results of both these elements of work, followed by a statement of the archaeological potential of the area and subsequent recommendations for further archaeological works where necessary.

### 1.2 LOCATION, GEOLOGY AND TOPOGRAPHY

- 1.2.1 The pipeline route is orientated roughly north-west/south-east and begins close to Oxenholme railway station in South-East Cumbria (SD 5329 9065). For a large part of its length it runs alongside the B6254 road towards Kirkby Lonsdale before terminating north of Old Town, Mansergh to (SD 5970 8531) (Fig 1).
- 1.2.2 The underlying geology of the pipeline route comprises mudstones, siltstones and sandstones of the Windermere Group of Silurian age (440-395 million years ago). Although these are relatively hard rocks, they are rather less resistant to erosion than the Borrowdale Volcanic rocks to the north. Consequently, their outcrop is marked by areas of comparatively low relief and fewer craggy fells. Large quantities of glacial debris, mainly boulder clay (till), were extensively deposited, often forming a distinctive hummocky landform (Countryside Commission 1998).
- 1.2.3 The topography is characterised by undulating farmland with rocky outcrops; fields are typically bounded by well main-tained dry-stone walls. The landscape becomes more rugged to the south-east, with a pattern of rock outcrop, tarns and becks, small wetlands and mires and rough grassland (ibid).

#### 1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 1.3.1 The following background is taken from the desk-based assessment report compiled by OA North in 2003.
- 1.3.2 **Prehistoric:** evidence for prehistoric activity in the region is limited. Areas of lowland Cumbria were gradually cleared of woodland during the early prehistoric period, which opened up the land for human occupation. Much of the evidence for early human activity is concentrated in the south-west of the region, particularly along the coast, for example at Furness and Seascale (Higham 1986, 45). Mesolithic and Neolithic activity in the wetlands of Cumbria can be attested by a considerable number of stray artefactual finds at Arnside Moss, Silverdale Moss, Haweswater Moss and Storrs Moss (Middleton et al, 1995). Neolithic pottery has been found at Crosby Garret, some 20 km north-east of the assessment area (OA North 2003). Remains of settlement are predictably scarce, and the site is known, rather, for its mortuary evidence, including a barrow at Raiset Pike (*ibid*, 67). Settlement remains are also known at Hugill, 10 km north-west of Kendal (OA North 2003). The natural volcanic outcrops at Great Langdale were exploited for tool-making stone (Rollinson, 1967). Axe rough-outs were produced and exported across and beyond the region, and the discovery of such evidence within the assessment area remains possible.
- 1.3.3 Despite the agricultural potential of the central Cumbrian lowlands, late prehistoric evidence from the assessment and wider region is rare. Bronze Age material is scarce in southern Cumbria, and the little evidence known tends to be found as part of structured deposits. The Ambleside Hoard, for example, situated at the northern end of Lake Windermere, yielded a range of weapons and tools, including swords, axes and spearheads (op cit, 102). A hollowed tree-trunk boat from Branthwaite, near Sedbergh provides evidence for Bronze Age activity a little closer to the assessment area (*ibid*, 96). A Bronze Age cremation cemetery has recently been discovered in Allithwaite and several Iron-Age crouched inhumations were recently uncovered in Levens, both south-west of the study area (OA North forthcoming). In the Iron Age, the area seems to have come under the control of the Brigantes (Cunliffe 1991), and the period sees the introduction of defended sites, and hillforts in particular. Castlesteads hillfort is situated immediately south of Oxenholme on a ridge that drops sharply in height on three sides (Bingham 1995, 31). Given the often close associations between undefended settlements and hillforts, one may reasonably expect the remains of settlement to be present in the vicinity of Castlesteads.
- 1.3.4 Four earthwork sites, comprising field systems and enclosures were identified in the desk-based assessment (Sites **06**, **09**, **17** and **19**) (OA North 2003). All are potentially prehistoric in date but none have been positively dated.
- 1.3.5 Roman: a coin of Vespasian found near to Strickley beck (desk-based assessment Site 03) is the only find of Roman date known from the assessment area. Watercrook fort, situated on a bend or crook of the River Kent south of Kendal, is located immediately outside the assessment corridor. The site was

built shortly after the Roman retreat from Scotland in the late AD 80s and the subsequent consolidation of the frontier (McCarthy 2002, 53), and yielded a range of material, including coins, jewellery, shoes, altars, and a sculpture of the god Bacchus. Nevertheless, the fort appears to be isolated; a high concentration of settlements can be observed along the Lune valley, but the River Kent valley is practically devoid of comparative evidence (Higham 1986, Fig 5.1). It has been speculated that a road would probably have existed between the forts of Watercrook and Burrow to the south-east. There are traces of an old road close to the present lane leading through Hutton Roof towards Lupton (Margary 1957, 115).

- 1.3.6 *Medieval:* as is the case throughout Cumbria, evidence for early medieval activity is extremely limited. Once the administration of the Roman occupation was finally rescinded *c* AD 410, the 'native' Britons reverted to autonomous rule, with the Kendal area perhaps part of the British Kingdom of Rheged (Kirkby 1962). From the early-mid seventh century onwards the expanding kingdom of Northumbria began to influence the area, and a fragment of an Anglian cross discovered in Trinity Church, Kendal is one of the few tangible pieces of evidence relating to this period (Collingwood 1904).
- 1.3.7 During and after this time, land use within the assessment and wider area was pastoral; Bryant's Gill, Kentmere, dating to the 8th century and consisting of rectangular, stone-footed structures, is perhaps typical of contemporaneous farmsteads encountered in the region (Higham 1986, 328). Following Scandinavian incursions into Cumbria beginning probably before the 10th century, the wider region around the study area was subject to by colonisation by Hiberno-Norse settlers (*op cit*, 330). This event is preserved in many placenames, that of Kendal or Kirkby Kendal included (EPNS 1967, 114).
- 1.3.8 In the year 1092 William Rufus came north with a large army and drove out one Dolfin, ruler of Carlisle. The lands of Carlisle became for the first time part of the English kingdom although the boundary between Scotland and England was not settled properly until the mid thirteenth century by papal legate. Thus the county of Westmoreland, after having been divided since 607 between an English and a British kingdom, became wholly English (Ferguson 1894, 67).
- 1.3.9 At the close of the twelfth century we find Gilbert, seventh baron of Kendal, granting Holme, Preston and Hutton to Thomas, son of Gospatric (OA North 2003). The distinction between Old Hutton and New Hutton does not appear to be older than the time of Edward I, and is mentioned for the first time in 1297, when John de Culwen confirmed to Patrick de Culwen and his heirs all his lands at Old Hutton and Holmescales (OA North 2003).
- 1.3.10 *Post-medieval:* in the reign of Charles I, the manor of Old Hutton and Holmescales appears to have been held by the King, as of his manor of Kirkby in Kendal (Bulmer 1885, 517). Old Hutton church, or chapel as it was formerly styled, probably dates from medieval times. The original structure probably disappeared in the Restoration and was rebuilt in 1699 (*ibid*). It possesses the only known example of pre-Reformation church plate known in

the diocese, and a chalice of the mid-fourteenth century, of which there are only seven similar examples found in the country.

- 1.3.11 The steady development of the wool trade, which began in the thirteenth century, reached new heights in the later seventeenth century due to the demand for wool and other textile products. This resulted in the construction of the large farmsteads and churches located throughout the area. Small-scale industrial development took place however, with the exploitation and smelting of copper ore and the extraction of slate, granite and gravel for building purposes (Countryside Commission, 1998).
- 1.3.12 There are few early post-medieval buildings remaining in the area, but Bleaze Hall, situated north-west of Old Hutton, is one such example. The building is currently a farmhouse, but was, for several centuries, the seat of the Batemans (Parson and White 1829). It was once a large and elegant mansion, much of it taken down to build out-houses, and the only traces of its ancient consequence is a very fine wainscoted room, dated 1624, with grotesque figures and devices carved thereon (*ibid*). The chapel of New Hutton was built in 1739, and endowed by contribution of the inhabitants of New Hutton, Hay, and Hutton in the Hay (Bulmer 1885, 519).

# 2. METHODOLOGY

### 2.1 THE FIELDWORK

- 2.1.1 The programme of work undertaken adhered in full to the method statement detailed in the project design (*Appendix 2*), and complied with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists (IFA).
- 2.1.2 Evaluation: the trenches were targeted on areas highlighted by the desk-based assessment and walkover survey as being of high archaeological potential (Figs 2 and 3). These were Sites 9, 17, 23 and 34. An assessment of service plans was undertaken so that live services could be avoided. In total, four trenches were excavated, one for each of the sites identified.
- 2.1.3 The trenches were excavated under constant archaeological supervision using a mechanical excavator fitted with a 1.6m wide, toothless ditching bucket to the level of the natural geology or the first archaeological deposits. Where archaeological deposits were encountered, the trenches were hand cleaned and the deposits excavated manually in order to assess their date, character and extent.
- 2.1.4 *Watching Brief:* five areas of the pipeline were designated for an archaeological watching brief (Figs 2 and 3). The topsoil strip was carried out using a 15 ton and 35 ton 360° mechanical excavator, fitted with a 1.5m wide and 2.6m wide toothless buckets respectively. Permanent observation of the work was undertaken, as well as examination of any soil horizons exposed, and the accurate recording of all archaeological features, horizons and any artifacts found during the groundworks. Fields through which the pipeline passed were allocated consecutive numbers (Figs 2 and 3).
- 2.1.5 **Recording:** the recording comprised a full description record and preliminary classification of all features and horizons revealed on OA North *pro-forma* sheets, as recommended by English Heritage Centre for Archaeology. A set of plans was produced to show the position of all trenches and features, with relevant sections drawn at a scale of 1:10 (Figs 4 to 12). A photographic record, using colour slide and monochrome formats, was also compiled. The evaluation trenches were located by a differential Global Positioning System (GPS), which is accurate to within  $\pm 0.25$ m.

### **2.2** THE ARCHIVE

2.2.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*) and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The archive will be deposited in the Cumbria Record Office with a copy of the report to the Cumbria SMR.

# **3. EVALUATION RESULTS**

### 3.1 INTRODUCTION

3.1.1 Four trenches were excavated in areas regarded as being of high archaeological potential based on results from the initial assessment (OA North 2003) (Figs 2 and 3). Detailed trench summaries are presented in *Appendix 3*. Site numbers refer to those issued during the desk-based assessment (OA North 2003).

### 3.2 **RESULTS**

- 3.2.1 *Trench 1 (Site 23):* this measured 20m by 1.6m, and was located towards the western end of the pipeline at SD 53910 89925 (Fig 4). The trench was located to target earthworks identified in the walkover survey (Site 23). The excavation of the trench revealed four amorphous areas of sandstone in a dark, silty-clay matrix. Upon further investigation it became clear that these features were not of anthropogenic origin, as they were very irregular in both plan and profile, and are thought to have been formed by glacial processes. No archaeologically significant deposits were located.
- 3.2.2 **Trench 2 (Site 09):** this trench measured 20m by 1.6m and was situated to the west of Old Hutton, on the northern side of Middleshaw Beck, SD 56251 88384 (Fig 5). The trench was to be targeted on Blea House Field Systems. Topsoil was found to directly overlie natural glacial deposits. No archaeological deposits were encountered.
- 3.2.3 **Trench 3 (Site 17):** this measured 11.6m by 1.6m, and was targeted on a potentially prehistoric enclosure and trackway situated towards the southern end of the pipeline, at SD 58360 84490 (Fig 6). The enclosure did not fall within the pipeline easement but the trackway was encountered in the trench. The trackway, **36**, was orientated approximately east-west, measured 5m across, and was constructed of a single layer of tightly-packed rounded sandstone pebbles (Fig 8; Plate 1). This metalled surface directly overlay the natural, **33**. The northern edge of the trackway was defined by an earthen bank, **35**, which stood to a height of 0.4m and was approximately 2m wide (Fig 9; Plate 2). No dating evidence was recovered from the track or bank.
- 3.2.4 *Trench 4 (Site 34):* this measured 10m by 1.6m and was located to the north of Crosslands Farm on the eastern side of the B6254 at SD57255 86936 (Fig 7). The trench was positioned in order to examine the earthwork which constitutes Site 34.
- 3.2.5 The excavation revealed a 'horseshoe'-shaped enclosure, 40, with an open western end. This has been interpreted as a sheepfold (Fig 11). The southern side of the enclosure is formed by a dry-stone wall, 44, constructed of large roughly-dressed sandstone blocks of a maximum size of 0.50m by 0.20m by 0.20m (Fig 10; Plate 3). The wall on this side measures 0.8m wide, constructed of three courses, and standing approximately 0.4m high. It stands in a foundation, 43, which cuts into the natural on the southern side and is on a

level with the interior of the structure to the north, giving an 'L'-shaped profile. The northern side of the sheepfold comprises an earthen bank, 45, measuring 1.2m wide and 0.4m high (Fig 10; Plate 4). This had been reinforced on the inner edge by a single course of large roughly-dressed sandstone blocks, 46, of similar dimensions to those previously recorded.

3.2.6 The interior of the enclosure measures approximately 4m by 5m and has a drainage gully, **48**, cut into the base. This drainage gully is filled with angular sandstone blocks, **46**, to facilitate drainage. A late post-medieval copper alloy button was recovered from this deposit. Layer **46** is overlain an orange-brown silty-clay, **42**, with less than 10% angular sandstone of a maximum size of 0.30m<sup>2</sup>. This deposit was seen in patches across the whole of the interior of the structure, and appears to have been formed by the partial collapse of the surrounding wall and bank. The entire structure is sealed by topsoil and turf.

# 4. WATCHING BRIEF RESULTS

# 4.1 INTRODUCTION

4.1.1 An archaeological watching brief was conducted during removal of the topsoil for the pipeline easement in five targeted areas (Figs 2 and 3), as detailed in the project design (*Appendix 2*). The results of the watching brief are presented below in tabular form by field. Due to access problems the pipeline was diverted away from one of the targeted watching brief areas.

Field	Soil Horizon	Natural Till	Features/Finds
1	0.13m mid-dark grey sandy-clay.	Light reddish brown, silty-clay with <i>c</i> .50% angular pebbles	None observed.
2	0.13m mid-dark grey sandy-clay.	Light reddish brown, silty-clay with <i>c</i> .50% angular pebbles.	Two sherds 19th century pottery and an iron nail.
3	0.18m mid-dark grey sandy-clay.	Light reddish brown, silty-clay with <i>c</i> .50% angular pebbles.	Pottery and glass, 17th -19th century.
4/5	0.23m mid-dark grey sandy-lay.	Light reddish brown, silty-clay with <i>c</i> .50% angular pebbles.	Iron object, 19th to 20th century pottery and clay pipe stem.
6	0.18m mid-dark grey sandy-clay.	Light reddish brown, silty-clay with <i>c</i> .50% angular pebbles.	17th to 20th century pottery.
7	Minimum of 0.20m mid brown- grey sandy-clay.	Not visible.	19th to 20th century pottery
8	Minimum of 0.15m mid brown- grey sandy-clay.	Not visible.	One sherd 19th century pottery.
9	Topsoil comprised 0.20m mid brown-grey sandy-clay. Subsoil a Pale orange-brown sandy-clay with c.80% angular to sub-angular limestone fragments.	Not visible.	19th century pottery and a clay pipe stem.
10	Topsoil comprised 0.20m mid brown-grey sandy-clay. Subsoil a Pale orange-brown sandy-clay with c.80% angular to sub-angular limestone fragments.	Not visible.	19th century pottery and a clay pipe stem.
11	Topsoil comprised 0.25m mid brown-grey sandy-clay. Subsoil a Pale orange-brown sandy-clay with c.80% angular to sub-angular limestone fragments.	Not visible.	19th century pottery and a clay pipe stem.
12	Topsoil comprised 0.25m mid brown-grey sandy clay. Subsoil a	Not visible.	19th to 20th

	Pale orange-brown sandy-clay with c.80% angular to sub-angular limestone fragments.		century pottery.
13	0.1m of topsoil comprised a mid brown-grey sandy-clay. Subsoil comprised a pale orange-brown sandy-clay with c.50% angular to sub-angular limestone fragments.	Patches of natural till visible, comprised a orange clay with frequent limestone inclusions.	None observed.
14	1m of topsoil comprised a mid brown-grey sandy-clay. Subsoil comprised a pale orange brown sandy-clay with <i>c</i> .50% angular to sub-angular limestone fragments.	Patches of natural till visible, comprised a orange clay with frequent limestone inclusions.	None observed.
15/16/17	0.15m mid brown-grey sandy clay.	Patches of limestone bedrock outcropping.	None observed.
18	Topsoil comprised 0.30m dark orange-grey silty-clay. Subsoil a mid orange-brown silty-clay.	Visible across $c.25\%$ of the field, comprised a mid orange clay with $c.25\%$ sub-angular stone inclusions.	None observed.
19	Topsoil comprised 0.30m dark orange-grey silty-clay. Subsoil a mid orange brown silty-clay.	Visible across less than 15% of the field, comprised a mid orange and a light grey clay with c.25% sub-angular stone inclusions.	None observed.
20	Topsoil comprised 0.30m dark orange grey silty-clay. Subsoil a mid orange-brown silty-clay.	Visible across $c50\%$ of the field, comprised a mid orange and a light grey clay with $c.25\%$ sub-angular stone inclusions.	None observed.
21	Topsoil comprised 0.30m dark orange grey silty-clay. Subsoil a mid orange-brown silty-clay.	Not visible.	None observed.
22	Only 0.15m of the turf layer was removed from this field. Topsoil comprised a very dark grey silty-clay, with $c.50\%$ sub-angular stone inclusions.	Not visible.	None observed.
23	Topsoil comprised 0.15m of dark brown loam.	Grey brown and orange brown sandy loam with $c.80\%$ sub-angular stone.	Two field boundary ditches at the southern extant of field.

# Table 1: Results of the Watching Brief

4.1.2 Only Field 23 produced any archaeological features. These comprised two parallel ditches, *3* and *5*, (Fig 12; Plate 6), each ditch being filled with a very dark grey clayey-silt, with abundant roots intruding into the matrix. The ditches measured 1.22m and 1.18m wide and 0.12m and 0.18m deep respectively. No finds were recovered from the excavation of these ditches,

which evidently form part of the original field boundary prior to it being replaced by a modern wire fence. The same field boundaries can be seen on the c.1845 OS map of the area.

4.1.3 Post-medieval ceramics were recovered from ten fields (Fields 2 to 12), and most likely derived from nightsoiling activities. The entire finds assemblage is discussed in *Section 5*.

# 5. FINDS

# 5.1 **RESULTS**

5.1.1 In total, 93 fragments of artefacts were retrieved during the archaeological evaluation and the targeted watching brief. The material largely comprised pottery (81) with smaller numbers of glass (5), iron (3) copper alloy and tobacco pipe (3). Of the fragments, one was recovered from a stratified context comprising a drain backfill (47), within evaluation Trench 4, the rest were collected from topsoil or spoil heap deposits across the pipeline easement. The material was, on the whole, poorly preserved having been rolled from the effects of ploughing. The types of finds and their approximate date range are summarised in Table 2 below, and grouped according to the field in which they were found. The finds catalogue is summarised in *Appendix 4*.

Field	Number of fragments	Types of finds	Approximate date range
2	2	Pottery	18th/19th century
2	1	Iron	19th/20th century
3	5	Glass	19th/20th century
3	41	Pottery	17th to 20th century
5	2	Iron	19th/20th century
5	6	Pottery	17th to 19th century
5	1	Clay tobacco pipe	19th century
6	7	Pottery	18th to 20th century
7	6	Pottery	18th to 20th century
8	1	Pottery	20th century
9-11	3	Pottery	19th century
9-11	1	Clay tobacco pipe	19th century
12	14	Pottery	18th to 20th century
12	1	Clay tobacco pipe	18th century

Table 2: Types and Quantities of Finds Individual Different Fields

5.1.2 All artefacts appeared to fall into a date range between the 17th to 20th centuries, with the pottery fragments providing the most reliable dating evidence. Details of the pottery are set out below, followed by a brief record of the other categories of finds. Whilst these finds, where they are datable, corroborate the pottery evidence, they have little other relevance for the results.

- 5.1.3 *Pottery:* in total 81, fragments of post-medieval pottery were collected from across the pipeline easement during the watching brief. The assemblage was dominated by fine tableware vessels, whilst the remainder comprised coarsewares that were essentially vessels for use in the kitchen. The former are more useful for dating purposes, since they were more subject to changing fashion and technology, thereby remaining in circulation for shorter periods than fineware. The quantities of the different pottery types identified are set out in Table 3, below.
- 5.1.4 A range of 17th to 18th century finewares was represented, comprising Blackwares, slip-coated and slip-decorated ware, self-glazed earthenwares, black-glazed red earthenware, German stoneware and English salt-glazed stoneware. Of these, the black-glazed red earthenware, and slip-coated ware were the most numerous.
- 5.1.5 The remainder of the assemblage is dominated by late 18th to mid 19th century glazed white earthenwares. Other pottery from this period includes factory-made slipwares, Pearlware and an unglazed white earthenware plate waster. Fragments from a moulded porcelain cup, probably derived from the early 20th century.

Pottery Type	Date Range	Quantity
Blackware	17th to 18th century	11
Slip-coated earthenware (including	Late 17th to 18th century	5
ones with additional trailed		
decoration)		
Dark-glazed red earthenware	Late 17th to 19th century	4
Salt-glazed stoneware	17th to 18th century	5
Self-glazed buff-coloured and	Late 17th to 19th century	2
orange earthenwares		
German stoneware	17th to 18th century	1
English stoneware	19th century	1
Pearlware	Late 18th - early 19th century	2
Glazed white earthenwares	Late 18th - early 19th century	42
Unglazed white earthenware	19th century	1
Factory-made slipware	19th/20th century	4
Porcelain	20th century	3
Total		81

Fable 2: Po	ost-Medieval	Pottery	Types
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- 5.1.6 The relatively large sherd count yielded from Field 3 (40 fragments) in comparison to other fields inspected across the pipeline easement, perhaps demonstrates intense ploughing activity or a dump of household material from buildings in proximity. It is of note that the date range of the pottery from this field was between the 17th and 19th centuries. A sherd of unglazed white earthenware collected from Field 5, probably derived as a waste fragment from a kiln, such as Kiln Hill located directly north-east of the field.
- 5.1.7 *Clay Tobacco Pipe*: in total, three fragments of clay tobacco pipe were recovered from the pipeline easement. All were plain stems with no diagnostic features. A fragment of narrow-bored stem probably dated to the 18th century, although a broad date range of the 19th century can be ascribed to the other two stems.

- 5.1.8 *Iron:* in total, three iron objects in fragile condition were collected. These included a degraded encrusted square-shafted nail, curved bar and a spike. All objects were not closely datable, although a broad date range between the 19th and 20th century can be ascribed.
- 5.1.9 *Copper alloy*: A small coat button was collected from the within the fill of a drain (*47*); 18th century in form.
- 5.1.10 *Glass*: in total, five fragments of vessel glass were collected, of which wine, beer and mineral water bottles were represented. A stamped clear bottle, thick-walled brown wine and beer bottles all date to the 19th century, a brown wine bottle with moulded base probably derived from the mid 20th century, and a clear blue thin-walled vessel probably dated to the mid 20th century.

# 5.2 CONCLUSION

5.2.1 The finds are of interest as a small post-medieval assemblage from rural Cumbria. However, since the majority of the finds were from unstratified deposits, their value is limited.

# 6. IMPACT AND RECOMMENDATIONS

### 6.1 ARCHAEOLOGICAL IMPACT

6.1.1 The results of the evaluation and archaeological watching brief do not suggest that the development will have significant impact on archaeological deposits. It should be noted that during the watching brief the majority of fields were not excavated to a depth where natural till was visible, and where it was exposed, it was not visible along the entire length of the pipeline route. It is not possible, therefore, to definitively assess the archaeological potential of these fields. All that can be said is that no finds were located which would hint at the presence of further archaeological features.

### 6.2 **RECOMMENDATIONS**

6.2.1 No features of archaeological significance were located during the current programme of works, which warrant further excavation and recording beyond that completed during the evaluation and watching brief. Although the limitations of the watching brief must be born in mind, it is not recommended that any further archaeological work be considered as part of the development.

# 7. BIBLIOGRAPHY

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# 8. ILLUSTRATIONS

# 8.1 LIST OF FIGURES

Figure 1: Location Map

Figure 2: Plan showing location of evaluation sites and targeted watching brief, Oxenholme section

Figure 3: Plan showing location of evaluation sites and targeted watching brief, Old Town section

Figure 4: Trench 1, Site 23, location plan

Figure 5: Trench 2, Site **09**, location plan

Figure 6: Trench 3, Site 17, location plan

Figure 7: Trench 4, Site 34, location plan

Figure 8: Plan of Trench 3 showing trackway 36

Figure 9: South-west-facing section of Trench 3, showing track-side bank 35

Figure 10: Plan of Trench 4 showing sheep fold 40

Figure 11: North-east facing section of sheep fold 40, Trench 4

Figure 12: Location plan of linears 3 and 5, Field 23 of the watching brief

# 8.2 LIST OF PLATES

Plate 1: Trench 3, Site 17, showing trackway 36

Plate 2: South-west-facing section of trackway bank, 35, in Trench 3 of Site 17

Plate 3: Wall 44 of sheepfold 40, in Trench 4 of Site 34

Plate 4: Bank 45 of sheepfold 40, in Trench 4 of Site 34

Plate 5: Boundary ditches 3 and 5 at southern extant of Field 23

Plate 6: East-facing section of boundary ditch 5 as southern extant of Field 23



Figure 1: Location Map



Figure 2 : Plan showing location of evaluation sites and targeted watching brief, Oxenholme section



Figure 8: Plan of trench 3, showing trackway 36



Figure 7: Trench 4, site 34 location plan



Figure 6: Trench 3, site 17 location plan



Figure 5: Trench 2, Site 9 location plan



Figure 4: Trench 1, site 23 location plan



Figure 3 : Plan showing location of evaluation sites and targeted watching brief, Old Town section









Figure 12: Location plan of linears 3 and 5, Field 23 of the watching brief

# APPENDIX 1: PROJECT BRIEF

# **BRIEF FOR AN ARCHAEOLOGICAL EVALUATION & WATCHING BRIEF**

# OF THE HAWESWATER AQUEDUCT ENABLING WORKS, CUMBRIA

Issued by the **County Archaeology Service** Environment Division, Community Economy and Environment



**COUNTY COUNCIL** 

Date of Brief: 21 May 2003

This Design Brief is only valid for 1 year after the above date. After this period the County Archaeology Service should be contacted. Any specification resulting from this Brief will only be considered for the same period.

#### 1. SITE DESCRIPTION AND SUMMARY

Site: Haweswater Aqueduct Enabling Works

Grid Reference: From approx. SD 5329 9065 to approx. SD 5970 8351

Detailed proposals are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists. Any response to this Brief should follow IFA Standard and Guidance for Archaeological Field Evaluations, 1994. No fieldwork may commence until approval of a specification has been issued by the County Archaeology Service.

#### 2. PLANNING BACKGROUND

- 2.1 Cumbria County Council's Archaeology Service (CCCAS) has been consulted by United Utilities regarding a proposed water supply pipeline between Oxenholme and Old Town, Mansergh.
- 2.2 The scheme lies in an area of high archaeological potential and affects a number of known archaeological sites recorded on the County Sites and Monuments Record (see below).
- 2.3 Because of the high archaeological potential of the scheme the County Archaeology Service has advised United Utilities that an archaeological watching brief be undertaken on the proposed pipeline route, as well an archaeological field evaluation in advance of construction on 5 sites of particular archaeological significance. The evaluation will allow for a fuller understanding of the nature and extent of these sites and an informed judgement can then be made as to whether a mitigation scheme will need to be implemented to archaeologically excavate any buried archaeological remains in these areas. Such an excavation may require a further Brief from this office.
- 2.4 This advice is given in accordance with the advice of the Water Industry Act 1991 Code of Practice on Conservation, Access and Recreation 2000.

# 3. ARCHAEOLOGICAL BACKGROUND

3.1 The pipeline route runs through a landscape of prehistoric and rural medieval and post medieval industrial remains. Sites lying within, or close to, the route include earthwork enclosures (SMR nos. 6706 & 16659), a circular enclosure of possible prehistoric origin (SMR no. 4284), a possible hut circle (SMR no. 13351), the site of a tarn with possible palaeoenvironmental potential (SMR no. 16536), the sites of a post medieval forge and 2 kilns (SMR nos. 14119, 17844 & 17892), and several post medieval quarry sites.

#### 4. SCOPE OF THE PROJECT

4.1 The project will comprise two stages:

Stage 1 is an evaluation of 5 archaeological sites in advance of construction works. These sites are SMR nos. 4284, 6706, 16659, 17844 & 17892. The evaluation will allow for a fuller understanding of the nature and extent of these sites and an informed judgement can then be made as to whether a mitigation scheme will need to be implemented to archaeologically excavate any buried archaeological remains in these areas.

Stage 2 will comprise a walkover survey and an archaeological watching brief on those parts of the pipeline that will pass through agricultural land and should cover the excavations of the pipe trench and the working easement.

4.2 A desk-based assessment of the existing resource, to be undertaken before any work commences on site. This should include an assessment of primary and secondary maps and documents relating to the site, to set the evaluation results in their geographical, topographical, archaeological and historical context. Records and

aerial photographs held by the County Sites and Monuments Record in Kendal as well as records held by the County Records Office at Kendal should be consulted.

4.3 A walkover survey of the whole pipeline route, encompassing the proposed working easement as a minimum. Any surface features of potential archaeological interest should be recorded together with areas of potentially significant disturbance, and hazards and constraints to undertaking further archaeological work on site (including the siting of live services, Tree Preservation Orders and public footpaths).

#### 4.4 ARCHAEOLOGICAL EVALUATION

#### 4.4.1 Objectives

4.4.1.1 The evaluation should aim to determine, the location, extent, date, character, condition, significance and quality of any surviving archaeological deposits relating to the following 5 sites: SMR nos. 4284, 6706, 16659, 17844 & 17892. An adequate representative sample of all areas within the working easement, where archaeological remains are potentially threatened by the proposed pipeline, should be investigated.

#### 4.4.2 Work Required

- 4.4.2.1 The excavation of a series of linear trial trenches and/or test-pits to adequately sample the threatened available areas of the 5 archaeological sites, SMR nos. 4284, 6706, 16659, 17844 & 17892, and the investigation and recording of deposits and features of archaeological interest identified within those trenches. The extent of the areas to be evaluated will be dependant upon: (i) the extent of the archaeological deposits, as far as can be reasonably defined by the results of the desk-based assessment and the walkover survey; and (ii) the working easement of the pipeline. All features must be investigated and recorded unless otherwise agreed with the County Archaeology Service. Initial topsoil removal can be undertaken by machine, but subsequent cleaning and investigation must be by hand.
- 4.4.2.2 The evaluation should provide a predictive model of surviving archaeological remains detailing zones of relative importance against the pipeline proposals. An impact assessment should also be provided, wherever possible.
- 4.4.2.3 The following analyses should form part of the evaluation, as appropriate. If any of these areas of analysis are not considered viable or appropriate, their exclusion should be justified in the subsequent report.
  - A suitably qualified specialist should assess the environmental potential of the site through the examination of suitable deposits, including: (1) soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features, and; (2) the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits.
  - Advice is to be sought from a suitably qualified specialist in faunal remains on the potential of sites for producing bones of fish and small mammals. If there is potential, a sieving programme should be undertaken. Faunal remains, collected by hand and sieved, are to be assessed and analysed, if appropriate.
  - The advice from a suitably qualified soil scientist should be sought on the whether soil micromorphological study or other analytical techniques will enhance understanding site formation processes of the site, including the amount of truncation to buried deposits and the preservation of deposits within negative features. If so, analysis should be undertaken.

# 4.5 ARCHAEOLOGICAL WATCHING BRIEF

#### 4.5.1 Objectives

4.5.1.1 To identify any surviving archaeological remains within the soil strip and pipe trench cut and to investigate and record any revealed archaeological remains or deposits.

#### 4.5.2 Work Required

4.5.2.1 All topsoil stripping and trench cutting must be carried out under archaeological supervision. Any putative archaeological features must then be cleaned by hand and if possible a stratigraphic record made. Finds and

environmental samples should be retrieved as appropriate. A reasonable period of uninterrupted access should be allowed to the archaeologist for all necessary archaeological recording. Both archaeological features observed in the soil strip for any working easement and the excavation for the pipe trench should be subject to the archaeological recording outlined above.

4.5.2.2 There are areas of the pipeline that run immediately alongside existing service trenches. A decision will be made as to whether these areas are to be included in the archaeological watching brief once the results of the desk-based assessment and walkover survey are available.

#### 5. SPECIFICATION

- 5.1 Before the project commences a project proposal must be submitted to, and approved by, the County Archaeologist.
- 5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of The Management of Archaeological Projects, 2<sup>nd</sup> ed. 1991, and must include:
  - A description of the excavation sampling strategy and recording system to be used
  - \* A description of the finds and environmental sampling strategies to be used
  - A description of the post excavation and reporting work that will be undertaken
  - Details of key project staff, including the names of the project manager, site supervisor, finds and environmental specialists and any other specialist sub-contractors to be employed
  - Details of on site staffing, expressed in terms of person days
  - A projected timetable for all site work and post excavation work
- 5.3 The specification should identify the proposed locations of trial trenches. Final trench locations will however be determined following the desk-based assessment and walkover survey and must be agreed with the County Archaeological Service.
- 5.4 Any significant variations to the proposal must be agreed by the County Archaeologist in advance.

#### 6. **REPORTING AND PUBLICATION**

- 6.1 The archaeological work should result in a report, this should include as a minimum:
  - \* A site location plan, related to the national grid
  - A front cover/frontispiece which includes the planning application number and the national grid reference of the site
  - The dates on which the fieldwork was undertaken
  - A concise, non-technical summary of the results
  - An explanation of any agreed variations to the brief, including justification for any analyses not undertaken (see 4.4.2.3)
  - A description of the methodology employed, work undertaken and the results obtained
  - Plans and sections at an appropriate scale showing the location and position of deposits and finds located
  - A list of, and dates for, any finds recovered and a description and interpretation of the deposits identified
  - A description of any environmental or other specialist work undertaken and the results obtained
- 6.2 Three copies of the report should be deposited with the County Sites and Monuments Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Sites and Monuments Record.
- 6.3 Should further archaeological work result from the evaluation, the results of the evaluation will need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication.

#### Brief for an archaeological evaluation and watching brief at Haweswater Aqueduct Enabling Works

- 6.4 Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation should **not** be included in the report. Such recommendations are welcomed by the County Archaeology Service, and may be outlined in a separate communication.
- 6.5 Cumbria SMR is taking part in the pilot study for the Online Access to Index of Archaeological Investigations (OASIS) project. The online OASIS form at <u>http://ads.ahds.ac.uk/project/oasis</u> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

#### 7. THE ARCHIVE

- 7.1 An archive must be prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2<sup>nd</sup> ed. 1991, and arrangements made for its deposit with an appropriate repository. A copy shall also be offered to the National Monuments Record.
- 7.2 The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. In this case Kendal museum is the most likely repository. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.
- 7.3 The County Archaeology Service must be notified of the arrangements made.

#### 8. PROJECT MONITORING

- 8.1 One weeks notice must be given to the County Archaeology Service prior to the commencement of fieldwork.
- 8.2 Fieldwork will be monitored by the Assistant Archaeologist on behalf of United Utilities. Monitoring notes will be recorded on a standardised form, which will be completed following receipt of the final project report. Copies of the form will be forwarded to the contractor and their clients.

#### 9. FURTHER REQUIREMENTS

- 9.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). The County Archaeology Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.
- 9.2 All aspects of the evaluation shall be conducted in accordance with the Institute of Field Archaeologist's Code of Conduct and the IFA's Standard and Guidance for Archaeological Field Evaluations.
- 9.3 Human remains must be left *in situ*, covered and protected when discovered. No further investigation should normally be permitted beyond that necessary to establish the date and character of the burial, and the County Archaeology Service and the local Coroner must be informed immediately. If removal is essential, it can only take place under appropriate Home Office and environmental health regulations.
- 9.4 The involvement of the County Archaeology Service should be acknowledged in any report or publication generated by this project.

#### **10. FURTHER INFORMATION**

For further information regarding this brief, contact

Jeremy Parsons Assistant Archaeologist Cumbria County Council County Offices Kendal Cumbria LA9 4RQ Tel: 01539 773431 Email. Jeremy.Parsons@cumbriacc.gov.uk

For further information regarding the County Sites and Monuments Record, contact

Bette Hopkins Sites and Monuments Records Officer Cumbria County Council County Offices Kendal Cumbria LA9 4RQ Tel: 01539 773432 Email: <u>bette.hopkins@cumbriacc.gov.uk</u>

As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the Assistant Archaeologist at the above address.

# APPENDIX 2: PROJECT DESIGN

# 1. INTRODUCTION

- 1.1 United Utilities (hereafter the client) is proposing a new water supply pipeline between Oxenholme and Old Town, Mansergh, Cumbria (SD 5329 9065 to SD 5970 8351). The route runs through an area of high archaeological potential and affects a number of known sites. The Cumbria County Archaeology Service (CCAS) issued a brief for a programme of archaeological work to be undertaken both prior to and during the development works. This included a desk-based assessment and walkover survey both undertaken by OA North (2003), evaluation trenches and targeted watching brief. This document details the programme of evaluation, targeted watching brief and metal detector survey.
- 1.2 The landscape through which the pipeline will run is rich in prehistoric, rural medieval and post-medieval industrial remains. Known sites include an earthwork (SMR 6706 and 16659), a circular enclosure of prehistoric origins (SMR 4284), a hut circle (SMR 13351), and the site of a tarn (SMR 16536). Other sites include a post-medieval smithy at Middleshaw (SMR 14119) and two kilns (SMR 17844 and 17892), one potash kiln and one chop wood.
- 1.3 OA North has considerable experience of the assessment, evaluation and excavation of sites of all periods, having undertaken a great number of small and large-scale projects during the past 20 years. Watching briefs, evaluations and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.4 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) registered organisation, **registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

### 2 **OBJECTIVES**

- 2.1 The following programme has been designed to evaluate the archaeological deposits that are disturbed by the soil strip and trench cutting associated with the pipeline. The required stages to achieve these ends are as follows (Site numbers refer to OA North desk-based assessment):
- 2.1.1 Archaeological Evaluation: to undertake the evaluation of five sections of the proposed easement. These are Bela House ridge and furrow (Site 9), Kitridding Hill earthworks (Site 17), Mansergh circular enclosure (Site 19), Helm End earthworks (Site 23) and East Ridding Farm earthworks (Site 34). The evaluations will determine the quality, extent and importance of the archaeological remains on site.
- 2.1.2 *Metal detector survey*: this will be undertaken along the length of the pipeline easement running adjacent to Site **3**, the findspot of a Roman coin, in order to determine the presence or otherwise of metal artefacts of a similar date.
- 2.1.3 *Watching Brief*: a targeted watching brief should be maintained for the sites of Hutton Yeat potash kiln (Site 14), Banks Plantation chopwood kiln (Site 16) and Strickley Beck ruined wall (Site 26). Six further areas subject to the

watching brief are shown on the attached figure. These include one running south-east from Sun Head, a second from the east of Old Hutton to the M6; the eastern section of the Sedbergh connection; a fourth south of Hood Ridding Farm to Low Audland; the fifth from Barkin House to Fellhouse Plantation and the finally the area of moss just north of Bleasehill Plantation

2.1.3 **Report and Archive:** a report will be produced for the client within twelve weeks of completion of the fieldwork. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990).

# **3 METHOD STATEMENT**

### 3.1 **EVALUATION TRENCHING**

- 3.1.1 Evaluation trenches each measuring 1.6m x 10m or the equivalent will be excavated for both Sites 17 and 19, the trenches for the remainder of the sites (Sites 9, 23 and 34) will measure 1.6m x 20m each or the equivalent area. The topsoil will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. Thereafter all excavation will proceed by hand in a stratigraphic manner.
- 3.1.2 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.1.3 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.1.4 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

3.1.5 The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum prior to the work taking place.

# 3.2 METAL DETECTOR SURVEY

3.2.1 *Methodology:* the pipeline easement adjacent to Site **3** will be walked in systematic transects by an experienced metal detectorist. The location of any artefacts recovered will be marked with a surveyors arrow of the equivalent and the position of the find surveyed in (on plan or as grid co-ordinates where appropriate). This will enable a distribution plan to be produced. The contractor will be made aware of the markers and requested not to disturb them until a record of the location is made. A distinction will be made between ferrous and non-ferrous materials.

### 3.3 **TARGETED WATCHING BRIEF**

- 3.3.1 *Methodology:* the programme of targeted field observation is based on information gathered during the desk-based assessment and walkover surveys and following discussion with CCAS. It will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the excavations in the course of the proposed development works. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 3.3.2 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 3.3.3 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 3.3.4 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (ie. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 3.3.5 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered, but this would only be called into effect in agreement with the Client and the County

Archaeology Service and will require a variation to costing. Also, should evidence of burials be identified, the 1857 Burial Act would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were happy for burials to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.

- 3.3.6 *Health and Safety*: OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 3.3.7 OA North has professional indemnity to a value of  $\pounds 2,000,000$ , employer's liability cover to a value of  $\pounds 10,000,000$  and public liability to a value of  $\pounds 15,000,000$ . Written details of insurance cover can be provided if required.

# 3.4 ARCHIVE/REPORT

- 3.4.1 *Archive:* the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (Management of Archaeological Projects, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the CSMR (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum. Wherever possible, OA North recommends the deposition of such material in a local museum approved by the Museums and Galleries Commission, and would make appropriate arrangements with the designated museum at the outset of the project for the proper labelling, packaging, and accessioning of all material recovered.
- 3.4.2 The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 3.4.3 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the client, and a further three copies submitted to the Cumbria SMR within eight weeks of completion of fieldwork. The report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed

above and will include a full index of archaeological features identified in the course of the project, with an assessment of the overall stratigraphy, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived.

- 3.4.4 This report will identify areas of defined archaeology. An assessment and statement of the actual and potential archaeological significance of the identified archaeology within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, section drawings, and plans. This report will be in the same basic format as this project design; a digital copy of the report can be provided, if required.
- 3.4.5 Provision will be made for a summary report to be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork, if relevant results are obtained.
- 3.4.6 *Confidentiality:* all internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

# 4 **PROJECT MONITORING**

4.1 Monitoring of this project will be undertaken through the auspices of the CCAS Archaeologist, who will be informed of the start and end dates of the work.

# 5 WORK TIMETABLE

- 5.1 The programme of evaluation is expected to take in the region of ten days to complete.
- 5.2 The metal detector survey will take one day in the field.
- 5.3 The duration of the targeted watching brief will be dictated by the progress of the contractor.
- 5.4 The client report will be completed within eight weeks following completion of the fieldwork.

# 6 STAFFING

6.1 The project will be under the direct management of Alison Plummer BSc (Hons) (OA North Senior Project Manager) to whom all correspondence should be addressed.

# **APPENDIX 3: TRENCH SUMMARIES**

Trench 1	Dimensions 20m by 1.6m	NGR 353910 489925	Orientation South-west	on North-east/ at
Context	Description			Depth
10	Topsoil and turf.			0.0m – 0.15 m
11	Natural, blue/grey clay with frequent sandstone inclusions.			0.15m+
12	Natural amorphous features, large blocks of angular sandstone in a dark silty matrix.			0.15m+

Trench 2	<b>Dimensions</b> 20m by 1.6m	NGR 356251 488384	Orientation South west	on North-east/
Context	Description			Depth
20	Topsoil and turf.			0.0m - 0.2m
21	Natural, orange-brown, san sandstone.	dy-silt 80% rounded to su	ub-rounded	0.2m+

Trench 3	<b>Dimensions</b> 11.6m by 1.6m	NGR 358360 484490	Orientation west/South	n-west
Context	Description			Depth
30	Topsoil and turf.			0.0m - 0.15m
31	Sub-soil, light grey-brown, silty-clay, in south-west end of trench only.		0.15m - 0.35m	
32	Natural, orange-brown silty-clay, south-west end of trench only.		0.35m+	
33	Natural, sandstone bedrock.		0.3m+	
34	Subsoil, north-east end of trench, dark-brown silty-clay 30% angular sandstone inclusions.			0.15m -0.27m
35	Metalled track running approximately east/west. Consists of single layer of tightly packed medium -to -small rounded to sub-rounded sandstone.			0.2m - 0.25m
36	Bank on northern edge of track. Light orange-brown silty-clay, very sparse inclusions.			0.15m - 0.45m

Trench 4	Dimensions 10m by 1.6m	NGR 357255 486936	Orientation South-west	on North-east/ t
Context	Description			Depth
40	Group number of sheepfold, comprised of contexts; 42, 43, 44, 45, 46, 47 and 48.			
41	Topsoil and turf.			0-0.1m
42	Wall/bank collapse, orange-brown, silty-clay with 10% angular sandstone inclusions.		0.1m - 0.2m	
43	Foundation cut for wall in south end of trench.		0.1m - 0.35m	
44	Dry stone wall seen in south end of trench (probably same as 46).		0.1m - 0.35m	
45	Bank forming northern side of enclosure 40. Mid orange-brown sandy-clay 10% angular sandstone blocks.			0.1m - 0.5m
46	Rough wall used to revet inner edge of bank <i>45</i> constructed of large sandstone blocks.			0.05m - 0.25m
47	Fill of drainage gully <b>48</b> . Large angular sandstone blocks in a dark grey-brown silty-matrix.		0.1m - 0.2m	
48	Cut of drainage gully within structure 40, 1.1m wide.		0.1m2m	
49	Natural orange-brown, san inclusions.	dy-clay, 20% sub-angular	sandstone	0.2m+

# APPENDIX 4: FINDS CATALOGUE

Field	Context	Category	Quantity	Description	Date Range
2		Pottery	1	Thin-walled brown glazed red earthenware	18th/19th century
2		Pottery	1	Glazed white earthenware	19th/20th century
2		Iron	1	Nail	Not datable
3		Pottery	1	Bellarmine stoneware	17th century
3		Pottery	10	Blackwares: cups (two), bowls (three), jug	17th/18th century
3		Pottery	4	Slip-coated earthenware	18th century
3		Pottery	3	Salt-glazed stoneware	18th century
3		Pottery	11	Transfer printed ware plates and cups in Willow and Broseley patterns	18th/19th century
3		Pottery	8	Glazed white earthenware: plates and bowls	19th century
3		Pottery	2	English porcelain	19th century
3		Pottery	2	Factory-made slipware mugs	19th/20th century
3		Glass	1	Clear mineral water, stamp not legible	19th century
3		Glass	2	Brown wine bottles	19th century
3		Glass	1	Beer bottle	19th/20th century
3		Glass	1	Thin-walled clear/blue vessel	19th/20th century

Field	Context	Category	Quantity	Description	Date Range
5		Pottery	1	Blackware: cup with roughly applied internal brown glaze	17th/18th century
5		Pottery	1	Dark glazed red earthenware	17th to 19th century
5		Pottery	1	Slip-coated earthenware	18th century
5		Pottery	1	Pearlware	18th/19th century
5		Pottery	1	Factory-made slipware	19th century
5		Pottery	1	Unglazed white earthenware, waster	19th century
5		Clay tobacco pipe	1	Undecorated burnt stem	19th/20th century
6		Pottery	2	Dark glazed red earthenware: thick-walled black glazed storage jar, brown glazed jar with applied white stripe along rim	18th/19th century
6		Pottery	1	Salt glazed stoneware	18th/19th century
6		Pottery	3	Transfer printed ware: small cup, handle, saucer	18th/19th century
6		Pottery	1	English porcelain: moulded cup with roller- stamped decoration	20th century
7		Pottery	4	Transfer printed ware	18th/19th century
7		Pottery	1	Glazed white earthenware	18th/19th century
7		Pottery	1	Industrial slipware	19th/20th century

Field	Context	Category	Quantity	Description	Date Range
8		Pottery	1	English porcelain	20th century
9-11		Pottery	1	Pearlware	18th/19th century
9-11		Pottery	1	Transfer printed ware	18th/19th century
9-11		Pottery	1	Glazed white earthenware	19th/20th century
9-11		Clay tobacco pipe	1	Undecorated stem	19th/20th century
12		Pottery	1	Salt glazed stoneware with cobalt blue glaze	18th century
12		Pottery	1	Transfer printed ware	18th/19th century
12		Pottery	2	Glazed white earthenware: hand decorated pink and blue mother of pearl applied style leaf design	19th/20th century
12		Pottery	1	Brown stamped decorated English stoneware	19th/20th century
	47	Copper Alloy	1	Button and loop	18th century