NY	CC HER
SNY	625
ENY	236
CNY	1726
Parish	1060/1080
Rec'd	03/10/2000

L0007 CRYPTO RISK REDUCTION MIDDLEHAM - CALDBERGH

AN ARCHAEOLOGICAL DESKTOP ASSESSMENT OSA REPORT No: OSA00DT05

August 2000

OSA

ON SITE ARCHÆOLOGY

Report Summary

REPORT NUMBER: OSA00DT05

REPORT DATE: August 2000

SITE NAME: Middleham - Caldbergh

COUNTY: North Yorkshire

PARISHES: Middleham

Coverham with Agglethorpe
Caldbergh with East Scrafton

NATIONAL GRID REFERENCE: SE 1187 8736 – SE 0952 8480

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DOCUMENT EARTH TECH
STATUS ENGINEERING
EARTH FECH DOC No S 20007 00 06 /A
R-REJECTED AN-APPROVED AS NOTED
A-APPROVED H-REC'D FOR INFO ONLY

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1.0 Introduction

This report was commissioned by Earth Tech Engineering Limited, and provides an assessment of the archaeological impact of the proposed route for a water pipeline between Middleham and Caldbergh, near Leyburn, North Yorkshire. This desk-based assessment follows a preliminary impact statement produced by On-Site Archaeology prior to the finalisation of the route of the pipeline.

The works will involve small diameter main laying (63 and 150mm diameter) preferably following along road verges, adjacent to the road in the fields to either side, and skirting village centres in that order of preference. The proposed pipeline route is illustrated in Figure 1.

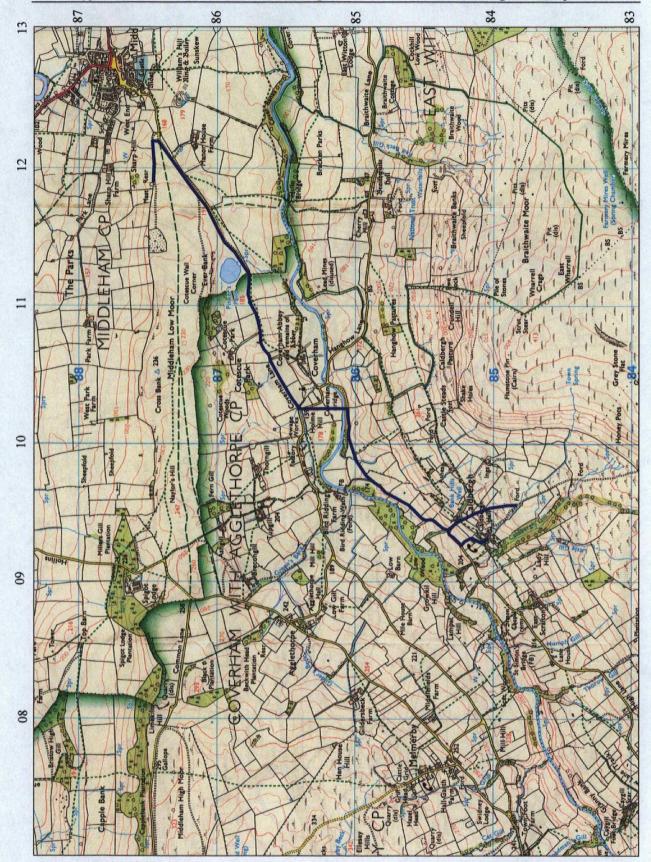


Figure 1: Pipeline Route
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2.0 Site Location, Geology, Topography and Land Use

The proposed route of the pipeline runs through the parishes of Coverham with Agglethorpe and Caldbergh with Scrafton located southeast of the town of Middleham in North Yorkshire. The area lies in Coverdale on the south facing slopes of the valley side a short distance north of the River Cover. To the west the land rises and the valley sides become steeper and narrows into the interior of the Pennine massif. To the east the river flows past the town of Middleham and meets the River Ure at Jervaulx Abbey. The dale becomes progressively wider and the countryside more gently undulating in this direction as it joins the Vale of Mowbray.

According to the British Geological Survey (sheet 51), the drift geology of the area is characterised by boulder clay overlying a solid geology of mainly Carboniferous Limestone. There is a narrow strip of outcropping Sandstone roughly around Coverham Lane whilst the higher ground to both north and south is made up of Millstone Grit and Sandstone overlain by peat.

The modern land-use of the dale is predominantly pastoral with much of the enclosed land on the lower dale-side under permanent grassland. The upper reaches of the dale-sides however are given over to open moorland and are spread with heather and bracken.

The course of the pipeline runs from a point 1km west of Middleham in a southwesterly direction for a distance of approximately 4km as far as the village of Caldbergh. For the most part it is intended to follow the course of existing roads of Coverham Lane and the road between Coverham and Caldbergh. In two places however it is intended to cross open farmland.

3.0 Archaeological Background

The western Vale of Mowbray, a short distance to the east of the study area, has always been an important communications corridor between Yorkshire and the north. The present A1 follows the same approximate course as the Roman road of Dere Street which provided access between the Roman centre at York and the military installations along Hadrian's Wall. Catterick itself is the site of an important Roman fort and civilian settlement situated on this road. Excavations have revealed traces of this settlement in the present village as well as around the racecourse.

Our knowledge of Romano-British settlement in the Yorkshire Dales is less detailed but there are extensive earthwork remains of settlements and field systems in Upper Wensleydale, Wharfedale and Swaledale in areas where later agriculture has not damaged these earlier sites. Many are undated and may equally represent the settlement activity of late prehistoric communities. A more concrete discovery has been made at Middleham where 19th century excavations revealed remains of a hypocaust, the underfloor heating system of a wealthy Romano-British household.

Both historical and archaeological sources have shown that Catterick continues in importance during the post Roman period as a royal centre and strategic settlement. 12km north of Middleham, Richmond stands in an even greater strategic location in the northern Vale of York overlooking the River Swale. Here William the Conqueror built a castle to provide a strong military presence commanding the main routes from Scotland. The town remained an important military and ecclesiastical centre from the 11th century.

Closer to the study area, as we will see below, a similar military stronghold was founded at Middleham to oversee communications through both Wensleydale and Coverdale.

The wealthy monasteries at places like Jervaulx and Coverham dominated the Medieval landscape of the area. The monastic community would have owned much of the agricultural land surrounding these abbeys. In this area particularly the power and influence of Coverham Abbey would have been very strong.

There is relatively little known about the nature of prehistoric settlement in this area but the presence of occasional finds and sites suggests that this gap in knowledge is more down to lack of information because of the poor survival of evidence than a real absence of prehistoric activity. In the more remote dales to the west for instance the remains of prehistoric settlements and field systems are well preserved on the high moorlands of the valley sides.

4.0 Methodology.

The study area consisted of a strip of land extending approximately 1km either side of the proposed route of the pipeline. Within this area each of the 6 kilometre squares was searched for the presence of sites of archaeological or historical significance. This desktop study was based on enquiries made at archives, libraries and institutions likely to hold relevant information. All relevant maps, publications and record photographs were consulted.

Searches were made of the computerised Sites and Monuments Records (SMR) held by North Yorkshire County Council and the Yorkshire Dales National Park as well as the English Heritage National Monuments Record (NMR). This data was plotted against the proposed pipeline routes and is listed below. The scale of aerial photography cover held by/referenced in the NYCC SMR and the NMR in Swindon was also assessed and all relevant photographs were examined. In addition, the location of Scheduled Ancient Monument (SAM) sites within the study area was identified, and the boundaries of the SAM areas plotted against the proposed pipeline route. All relevant Tithe and Enclosure maps of the area held in the North Yorkshire County Record Office (NYCRO) were also consulted as were published discussions and articles relating to the archaeology of the area.

The route of the pipeline was walked in order to recognise unrecorded features visible on the ground, although at the time of the walkover access to the route had not been granted, and this was conducted from public rights of way.

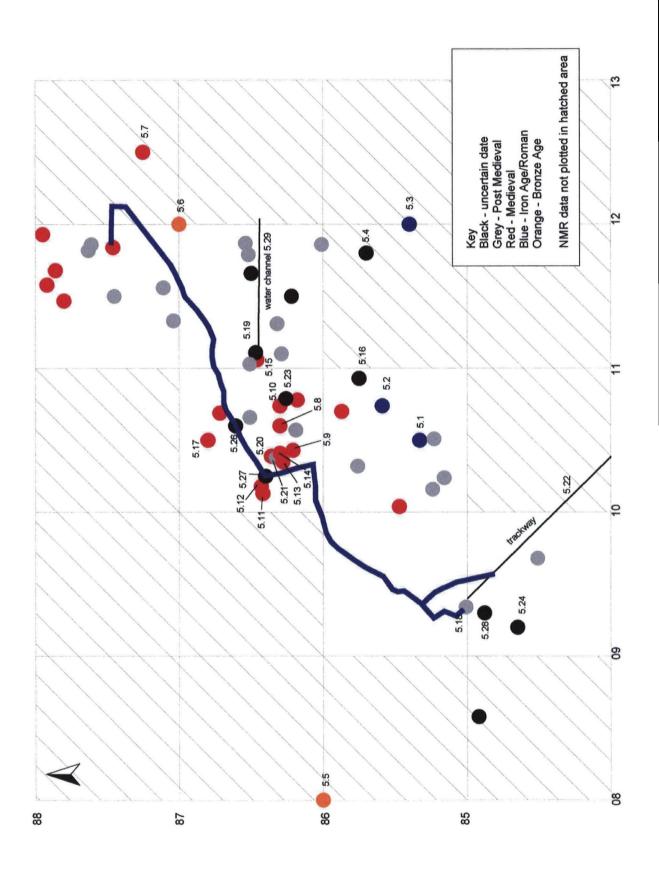


Figure 2: Sites mentioned in section 5.0 against the pipeline route

5.0 Archaeological Sites in the Immediate Vicinity

The following section lists the sites and artefacts of archaeological or historical interest found within the study area that have been recorded in the various sources consulted. They are listed according to the map number that identifies them on figure 2. The relevant NMR identifier number is also given, as is their OS grid reference (centre of site). The list of sites has been organised generally by period so that those earliest in date will be found at the top of the list and the latest at the foot. It should be remembered however that there are a number of sites whose period is unknown.

5.1 Castle Steads Hillfort (NMR no. 50922) SE 1050 8533

Castle Steads lies on the north facing slopes of Coverdale at the boundary between open moorland and enclosed pasture. The enclosure measures 100m (E-W) by 40m (N-S) and is made up of a ditch and rampart, except on the south side where the ground rises away from it very steeply. The ditch measures 9m in width and 2.2m in depth at the point where it is best preserved and the banks are made up of stone and earth. There are two entrances centrally placed in the east and west ends which appear to be original. The interior of the enclosure has been cultivated by ridge and furrow which has probably destroyed any internal features that may once have been visible on the surface.

The most recent remarks made by the RCHME field observation are as follows:

"The earthworks of this enclosure are very slight, not more than 1.5m in elevation generally, and its position renders it indefensible. It cannot therefore be classified as a fort. The scale of the ramparts makes the comparison to Maiden Castle, Swaledale inappropriate.

The site... (occupies) a narrow shelf on a steep N-facing slope so that there is a considerable drop to the north as well as a massive rise to the S. The site is in fact extremely well concealed from below but commands extensive views from the E through N to W.

The line of the N rampart seems to continue beyond the western end of the site as a slight sinuous scarp, about 0.5m high, for 30-40m.

The ramparts and the rig in the interior are cut near the W end of the site by a narrow leat which approaches from the WSW down the hillslope and runs off to the ENE along the counterscarp slope.

This enclosure might be of late prehistoric date but it could also be post-Roman. Its function is unclear."

The site has been scheduled by English Heritage with RSM no. 24485.

5.2 Ditched Enclosure (NMR no. 1114411) SE 1074 8559

A sub-circular ditched enclosure has been identified on aerial photographs by the RCHME. The enclosure survives as an earthwork on the north facing slopes overlooking the River Cover. It underlies an existing field boundary and has a diameter of approximately 60-70m. Little is known about this site but it is probably Iron Age or Romano-British in date.

(reference: NMR, RCHME Dales survey)

5.3 East Witton Camp SE 1200 8540 (figure 3)

A sub rectangular enclosure is described in the Victoria County History (VCH) for the North Riding and recorded in the SMR. The site is enclosed on three sides by a bank and ditch but on the east where there is no earthwork runs a steep and narrow ravine. The bank has been constructed with an inner stone core and there appears to be an original entrance in the northwest corner of the enclosure. Very little further information is available and the date or function of the site is uncertain. The form of the enclosure however is reminiscent of Romano-British settlement sites known from elsewhere in the Yorkshire Dales (Fleming 1998).

(reference: VCH 1914, SMR)

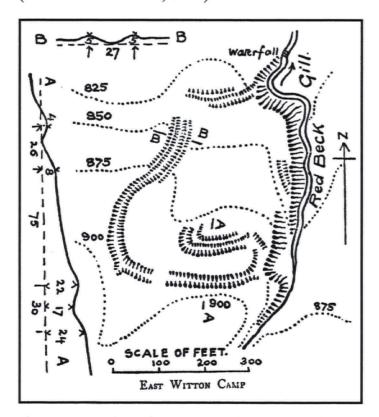


Figure 3: East Witton (from W.Page (1914). VCH North Riding)

5.4 Possible Settlement site SE 118 857

The SMR records the position of a possible settlement site on the north facing slopes above Coverham. The site is made up of a collection of amorphous bumps and hollows which

appear to be house sites, probably of the Medieval period. This may correspond to deserted settlement associated with Brathwaite Hall where trackways and a ford are shown on the OS maps.

(reference: SMR)

Bronze Spearhead SE 08 86

The SMR records the discovery of a bronze spearhead at Agelthorpe in 1848, along with a bronze socketed axe head. The spear head is recorded to be in good condition with 2 oval openings in the blade and a central raised ridge. It is approximately 0.39m in length. Both implements date from the Bronze Age, although their exact find spot is uncertain. Similar objects are known throughout the country and were often intricately decorated having been cast in specially designed moulds. It is likely that these carefully crafted pieces of metalwork were designed more for their symbolic value than for their functional use.

(reference: SMR)

5.6 Bronze Spearhead and Socketed Axe SE 12 87

The SMR records the discovery of a bronze lunate spearhead and socketed axehead around the town of Middleham. Both implements date from the Bronze Age but again their precise findspot is unknown. They are now in Sheffield Museum with accession numbers J.93.468 and J.93.504. Similar objects are known throughout the country and were often intricately decorated having been cast in specially designed moulds. It is again likely that these carefully crafted pieces of metalwork were designed more for their symbolic value than for their functional use.

(reference: SMR)

5.7 Motte and Bailey at William's Hill, Middleham SE 1250 8725 (figure 4)

The earthwork remains of a Motte and Bailey castle survive in pastureland to the southwest of the town of Middleham. The site lies in a commanding location on William's Hill overlooking the town and River Ure to the north and the River Cover to the south. The castle was founded here in the 1130s by Ribald, one of the sons of Eudo, Count of Penthievre in Brittany. As ostensibly a military stronghold it was deliberately sited to command both Wensleydale and Coverdale alongside an ancient road from Richmond to Skipton. By 1190, however, the earth and timber castle was abandoned when work began on the rectangular stone keep of Middleham Castle, 300m to the northeast.

The earlier stronghold is a comparatively small Motte and Bailey and covers about a hectare. The Motte measures approximately 50m x 35m and represents a massive mound, over 10m in height surrounded by a ditch and counterscarp banks. At the top of the Motte is a small sunken court measuring about 28m x 15m, surrounded by a platform. It is likely that here stood the wooden tower of the keep and that the sunken court held the castle's great hall, although no traces of these buildings survive. To the southeast of the raised Motte is the

Bailey enclosure, defined again by substantial ditch and bank earthworks with an entrance on the southeast side. The entrance appears to have been flanked by an outwork, which linked to a triple row of earthworks. The outwork is now seen as a modern field bank.

This kind of site is a characteristic feature of the military and political subjugation of Northern England which was carried out in the century or so following the Norman Conquest. Just as lands were re-distributed amongst Norman landlords so too were a whole series of castles constructed as part of the military campaign to consolidate these grants. These sites functioned as centres of military power but they also must have acted as powerful symbols of Norman dominance over the local population. This particular site is unusual and important because it did not develop beyond the later 12th century.

Geophysical survey was carried out to the south of William's Hill by Northern Archaeological Associates in 1996. The survey picked up a series of linear banks and ditches as well as a small compact enclosure, some 20m x 10m (SE 129 871). Archaeological evaluation work to the north of William's Hill then took place alongside the laying of a water pipeline. One trench produced an undated pit, although nothing else of archaeological interest was unearthed.

(SMR, I'Anson 1939)

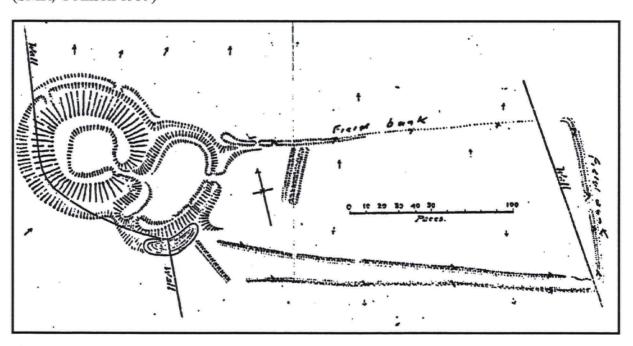


Figure 4: William's Hill

5.8 Coverham Abbey (NMR no. 50885) SE 106 863 (figure 5)

The remains of the Premonstratensian Abbey of Coverham are located on the north bank of the river Cover about 4km south west of Middleham. The following entry is recorded in the NMR;

"...The abbey was founded in 1212 by Ranulph Fitz-Robert when it moved from Swainby. By the early 14th century the house was facing near collapse following

the loss of lands and income, fire and the consequences of raids by the Scots in 1314-1318. This prompted a phase of rebuilding and by 1350 the abbey had recovered. In 1536 Coveham Abbey was dissolved. The abbeys main buildings lie on a low river terrace. Some of the core buildings survive as upstanding remains, further remains are incorporated into buildings constructed after the dissolution, and other remains will survive below ground. Of the standing remains, the earliest are those of the early 13th century abbey church (Listed Grade 1) which was rebuilt in the mid 14th century. The west range of the cloister housing the guesthouse was rebuilt in the late 15th century, and substantial medieval fabric still survives within the existing Garth Cottage (Listed Grade 1). The inner court was defined by a stone wall, of which only the western gatehouse is currently visible. The inner precinct gatehouse, which is Listed Grade I, stands 125 metres to the west of the cloister buildings and dates to the early 16th century. The line of the precinct wall has been identified by analysis of local topography and road patterns, but only one section of the wall is currently visible 100 metres to the north east of the abbey, where the top of the buried remains of the wall are exposed at ground level. Scheduled.'

In addition to the upstanding remains of buildings in stone, mostly incorporated into later buildings, there are further significant traces of features associated with abbey in the surrounding fields. These are described below in section 5.10.

The field at SE 1050 8635 lies between the abbey ruins and the church and is referred to on the Tithe map of 1842 as 'Land Dykes'. This may refer to upstanding earthworks of boundaries in the vicinity.

The Premonstratensian order or "White Canons" were not strictly monks but communities of priests living together under a monastic rule. There were 45 houses for men founded in England who lived according to the order, which was modelled on the Cistercian values of seclusion and austerity. All its foundations were in rural locations. The Schedule of Ancient Monuments held by English Heritage has this to say about the importance of the remains at Coverham;

"Despite demolition of the majority of core monastic buildings at Coverham and the continued occupation of this area of the site, the abbey layout can be reconstructed, some upstanding remains of the church survive and there will be extensive below ground archaeological remains. Importantly the extent of the precinct is identifiable and a wide range of remains associated with ancillary economic and agricultural functions of the abbey remains identifiable."

Included in the schedule for the immediate remains of the abbey is a stone flagged watercourse which crosses a field to the east of the abbey, just north of the river. It still carries running water and would have been well placed to provide the abbey with some its water requirements. It may also have carried water to the fishpond (see below).

RSM no. 28228

(reference: NMR, English Heritage Schedule of Ancient monuments, Halsall 1989, VCH 1914)

5.9 Coverham Abbey Bridge (NMR no. 50876) SE 1043 8621

Coverham Abbey Bridge is known to date to the 14th century and is directly associated with the abbey, giving access across the River Cover to other monastic holdings and wider routeways. It is found in the south-west corner of the abbey precinct. The bridge is a single arch construction of rubble with ashlar dressing. The parapets were added later. It is a scheduled ancient monument and is listed grade 2 *.

RSM no. 28228

(reference: NMR, English Heritage Schedule of Ancient Monuments)

5.10 Earthwork remains associated with Coverham Abbey (NMR no. 562476) SE 1074 8630

A complex of earthworks survives in the field to the southeast of Coverham Abbey, between the abbey and the river. According to the NMR records they have not been properly surveyed but some of the more visible features are marked on the 1st edition OS map. The most prominent element is a large degraded platform defined by earthworks which may be the site of a former building. To the east of here there are a series of slight earthworks probably defining boundaries or further enclosures and others which have been provisionally interpreted as water channels. There is no doubt that the abbey's long fishpond was sited in the northwest part of this field as it is marked on the 1st edition OS map. It is not clear though whether the earthworks that are visible in this position today represent this fishpond or are more recent creations.

(reference: NMR)

5.11 Earthworks of enclosures and buildings (NMR no. 1245509) SE 1013 8642 (figure 5 (4))

Further earthworks have been noted in the pasture field some 450m WNW of the remains of the abbey. They seem to represent a series of yards and paddocks as well as at least two large buildings. One of these has opposed entrances on its side walls and may have been a large barn. The remains of a dovecote are recorded in this location by the 1st edition OS map and there is also a (now dry) rectangular pond a little to the northeast. This site has the hallmarks of a deserted farmstead but it is not clear what date or status it held. It could represent the home grange farm of the nearby abbey, a secular farm close to the church or indeed a later farm connected with Cotescue Park (15th century).

There are also 2 parcels of ridge and furrow in the field to the northeast of here, surviving as earthworks in pasture.

5.12 Dovecote (NMR no. 50882) SE 1018 8643

The remains of a dovecote are marked on the OS map of 1893, but there are no visible traces of this building remaining today. It lies in the same area as the remains described above and seems to have formed part of the same farmstead complex.

(reference: NMR)

5.13 Holy Trinity Church (NMR no. 50929) SE 1039 8636

The church of Holy Trinity lies in a now isolated position to the west of the abbey remains. It originally stood within the precinct of the abbey and dates from the 13th century. Later additions and alterations include a 15th century west tower, 14th to 16th century windows and a 15th century chancel arch. The lintel that lies over the south door is a reused decorated Anglo-Saxon cross shaft, suggesting that the abbey may have pre-Norman origins. The church is now redundant but is scheduled along with the abbey and bridge.

RSM number: 28228

(reference: NMR)

5.14 Former Building (NMR no. 1246489) SE 1035 8628

Earthwork remains of a former building have been noted in a field, 90m southwest of the church of Holy Trinity. Here a large hollow survives in pasture, which is crossed by a modern field boundary. Stones are visible in places along the northern wall. The date or function of the building is not known.

(reference: NMR)

5.15 Low Mill (NMR no. 562537) SE 1106 8646

The buildings associated with a corn mill are marked on the 1st edition OS map of 1856. The complex is now ruined but still upstanding and the mill race also survives. The mill was in action between the 16th and early 20th century and was the site of the first hydro electric power station in Coverdale. The initial date of construction is unknown.

(reference: NMR)

5.16 Hanghow Pastures (NMR no. 562491) SE 1093 8575

The place-name Hanghow pastures is recorded on the 1st edition OS map on the north-facing slopes of Coverdale, at the boundary of the enclosed lands. The latter element in this name may be derived from *haugr*, Old Norse for hill or tumulus and could refer to the former presence of burial mounds in the vicinity. The former element, Hang, is likely to refer to the wapentake of Hang which probably suggests that this mound or hill was used as a wapentake meeting place. It is often the case that sites of former burial mounds were used in this way.

(reference: NMR)

5.17 Cotescue Park (NMR no. 50933) SE 105 868 (figure 5 (7))

The VCH records the presence of a Deer Park to the north of the abbey ruins which was probably laid out in the 15th century. Such tracts of enclosed land are not uncommon at this time especially in picturesque locations surrounded by ruined masonry. There are documentary records that mention its boundary hedges and ditches and the layout of the park is recorded on the Tithe map for Coverham.

(reference: NMR, VCH 1914, NYCRO)

5.18 Pinfold (NMR no. 559738) SE 0934 8501

The site of a pound or pinfold is recorded on the 1st edition OS map in the village of Caldbergh, 1.5km to the south-west of Coverham. These small enclosures were common throughout the Medieval and post-Medieval period for corralling stray livestock or those that were found grazing in lands over which their owners had no rights of pasture.

(reference: NMR)

5.19 Weir (NMR no. 562538) SE 1111 8647)

A weir is marked on the 1st edition Os map of 1856 in the river Cover a little to the south of the ruined Low Mill. It would appear to have been associated with the Mill but its precise date is unknown.

(reference: NMR)

5.20 High Mill House (NMR no. 562474) SE 1041 8630

The site of the Medieval mill for Coverham Abbey is found a little to the west of the gatehouse. The mill was powered by water channelled through a stone-lined leat fed from a system of tanks and ponds to the north. The Medieval buildings were rebuilt in the post-Medieval period and have now been converted into a dwelling house, known as High Mill.

(reference: NMR)

5.21 Millpond (NMR no. 562473) SE 1038 8633

The site of the millpond associated with Coverham High Mill is recorded on the 1st edition OS map of 1856. It is likely to be associated with the post-Medieval rather than the Meideval phase of this mill.

5.22 Trackway (NMR no. 562956) SE 0940 8500, SE 1282 8153

A trackway is marked on the 1st edition OS map running from the village of Caldbergh into the upland moors to the southeast. The track runs for a distance of approximately 4km and is referred to on later maps as the 'Red Way'. It was probably associated with sheep pasturage and its date is unknown.

(reference: NMR)

5.23 Sluice (NMR no. 562477) SE 1079 8626

A sluice is recorded on the 1st edition OS map of 1856 on the south side of the river south of Coverham Abbey. Its date or function is unknown.

(reference: NMR)

5.24 Mound (NMR no. 559740) SE 0920 8465

A mound is recorded on the 1st edition Os map of 1856. Its function or date is unknown but it is probably connected to post Medieval quarrying or mining.

(reference: NMR)

5.25 Hullo Bridge (NMR no. 562540) SE 1166 8650

The site of Hullo Bridge is marked on the 1st edition OS map of 1856 and is still extant 1km east of Coverham Abbey. It is a footbridge and a number of footpaths converge here and cross the river at this point. Its date is uncertain.

(reference: NMR)

5.26 Ford (NMR no. 562534) SE 1060 8661

5.27 Ford (NMR no. 562533) SE 1025 8640

5.28 Ford (NMR no. 559739) SE 0930 8488

Three fords are marked on the 1st edition OS map of 1856 in this area. They are found in the vicinity of Coverham Abbey and Caldbergh and provided access for tracks and roads across some of the small tributary streams of the River Cover. Their dates are uncertain.

(reference: NMR)

5.29 Watercourse (NMR no. 562539) SE 1111 8645, SE 1204 8644

A linear watercourse is marked on the 1st edition OS map of 1856. This is probably the feeder to the waterwheel driving pumping gear associated with Braithwaite Lead Mine, a little to the east.

(reference: NMR)

- 5.30 Lead Workings (NMR no. 562536) SE 1103 8651
- 5.31 Lead Workings (NMR no. 562480) SE 1131 8632
- 5.32 Lead Workings (NMR no. 562479) SE 1110 8629

The remains of lead workings are recorded on the 1st edition OS map of 1856. They are concentrated to the south of the River Cover a little southeast of Coverham Abbey. Lead mining was a large part of the Yorkshire Dales economy in the post-Medieval period but had largely died out by the end of the 19th century. The workings recorded here were already disused by the middle of that century.

(reference: NMR)

5.33 Coal Mine/Pits (NMR no. 562496) SE 1016 8524

The site of coal mines or pits is recorded on the 1st edition Os map of 1856, a little to the south of Castle Steads enclosure. They were seemingly disused at the time but probably date to the post-Medieval period.

(reference: NMR)

- 5.34 Quarry (NMR no. 562758) SE 1133 8704
- 5.35 Quarry (NMR no. 562757) SE 1156 8711
- 5.36 Quarry (NMR no. 562756) SE 1150 8745
- 5.37 Quarry (NMR no.562602) SE 1182 8763
- 5.38 Quarry (NMR no. 562601) SE 1186 8761
- 5.39 Quarry (NMR no. 562541) SE 1179 8652
- 5.40 Quarry (NMR no. 562498) SE 1051 8523
- 5.41 Quarry (NMR no. 562497) SE 1024 8516
- 5.42 Quarry (NMR no. 562485) SE 1186 8601

Nine quarries are recorded in this area on the 1st edition OS map of 1856. There are both sandstone and limestone quarries in the group. Sandstone would have been used as a building material where as limestone was largely extracted to produce lime (see below). They all date from the post-Medieval period.

5.43 Earthwork remains of limekiln (NMR no. 1245181) SE 1066 8651

The earthwork remains of a limekiln are recorded in pastureland to the north of Coverham Abbey. The remains appear to overlie ridge and furrow and the site measures 7.5m across in total. They consist of a penannular depression with a marked rim part of which is defined by a course of laid stones.

(reference: NMR)

- 5.44 Limekiln (NMR no. 562542) SE 1187 8654
- 5.45 Limekiln (NMR no. 562494) SE 1032 8576
- 5.46 Limekiln (NMR no. 562475) SE 1057 8619
- 5.47 Limekiln (NMR no. 559791) SE 0968 8451

Four limekilns are marked on the 1st edition Os map of 1856 in this area. Limekilns are largely a product of post-Medieval agricultural improvement which required a large amount of lime to be spread over arable land to increase productivity. In areas like Coverdale where the raw material, limestone was readily available, the production of lime became a significant source of revenue.

(references: NMR)

- 5.48 Barn (NMR no. 562608) SE 1193 8795
- 5.49 Barn (NMR no. 562605) SE 1158 8792
- 5.50 Barn (NMR no. 562604) SE 1168 8786
- 5.51 Barn (NMR no. 562603) SE 1147 8780
- 5.52 Barn (NMR no.562600) SE 1184 8746
- 5.53 Barn (NMR no. 562535) SE 1069 8672
- 5.54 Barn (NMR no. 562495) SE 1004 8547
- 5.55 Barn (NMR no. 562493) SE 1070 8587
- 5.56 Barn (NMR no. 562478) SE 1078 8618
- 5.57 Probable Barn (NMR no. 562481) SE 1150 8622

The 1st edition OS 6" map of 1857 records the position of many buildings which are probably field barns, most of which are no longer extant. These simple stone structures are ubiquitous features of the Yorkshire Dales landscape and characteristic parts of the traditional agriculture of this area. They were built in hay meadows and used both for storing hay and

for stalling cattle throughout the winter months. Animals usually moved into the barns between the months of October and May where they were milked throughout the winter. Their dung could be used to manure the surrounding meadow which when left ungrazed through the summer provided a crop of hay in July or August. The field barns have been falling out of use since the Second World War as the agricultural system of which they were part has declined. Most were probably built in 18th or 19th century.

(reference: NMR, Walls and Field Barns (Yorkshire Dales National Park conservation series))

5.58 Ridge and Furrow at Coverham SE 10 86 (area) (figure 5)

The RCHME survey of aerial photographs in the Yorkshire Dales has plotted the extent of surviving ridge and furrow in the vicinity of Coverham. The majority of the surviving earthworks are visible to the north of Coverham Lane but much has also survived on the north facing slopes to the south of the river. These distinctive earthworks give the impression of low linear banks lying parallel to one another and were caused by the continual ploughing of the Medieval open field by heavy ploughs drawn by teams of oxen. Open fields are characteristic of Medieval farming practice in England and were large unenclosed tracts of arable land. Each field was divided into bundles of strips and each strip allocated for the use of an individual or household in the village. The RCHM plots from the air photographs in this area show the high survival of these features as the bundles (furlongs) of strips can be clearly identified.

(reference: SMR, RCHME Dales Survey)

5.58 Place-Names

Both settlements of Coverham and Caldbergh are mentioned in the Domesday Survey of 1086. The name of Coverham derives from the Old English *ham* and *Cover* for 'farm on the Cover' and that of Caldbergh from the Old English for 'cold hill' from *cald* and *berg*.

(reference: Smith 1969)

6.0 Aerial Photographic Evidence.

Both vertical and oblique photographs were investigated and the aerial photographs consulted have been compiled in Appendix 1. National Grid References provided are all centred roughly on the location of archaeological features detected from the aerial photographs. The aerial photographic evidence corroborates with much of the evidence outlined above except for two areas where previously unidentified features have come to light.

There is a comprehensive collection of aerial photographs which concentrate on Castle Steads Hill fort as their focal point. Below the site of Castle Steads (NGR SE 1055 8555) and to the east (NGR SE 1016 855) and west (NGR SE 1093 8575) of the hill fort there are extensive remains of field systems, trackways/holloways and smaller rectilinear enclosures which may represent house plots/platforms. This network of features visible as cropmarks and, as at Hanghow Pastures, earthworks extend along a shelf of land now under grazing below the high moorland (fig 5 (1)) and probably represent late prehistoric or Romano-British and possibly Early Medieval field systems. In the same area the aerial photographs depict an extensive layout of Medieval ridge and furrow and in some locations, for example to the north (NGR SE 0939 8520) and south (NGR SE 0942 8594) of the village of Caldbergh, cultivation terraces or lynchets (fig 5 (6)). The network of earlier field systems continues intermittently to the west (NGR SE 0820 8430) of Caldbergh culminating in an effusive network of field boundaries, trackways and enclosures of a similar probable date to those mentioned above. There is no way of knowing if any of these discrete groups of late prehistoric field systems are contemporary or associated with other archaeological sites within the area, but they do form an extensive area of archaeological activity along the north facing slope of the River Cover.

Conversely the Medieval open field system, denoted by the presence of ridge and furrow as cropmarks and less often standing earthworks, is even more extensive, and is situated along the north face of the valley and the valley bottom. It may have obliterated any evidence for earlier settlement activity. The pattern of the open field system becomes concentrated towards areas of settlement such as Caldbergh and the site of Coverham Abbey, and on steeper ground may take the form of terraces/lynchets.

During the walk over survey of the route of the proposed pipeline a system of earthworks were identified to the southwest of Coverham Bridge (NGR SE 1049 8610) (fig 5 (5)). Initially this feature was thought to comprise a system of holloways converging at the bridge, but the aerial photographic evidence indicates that this is a linear boundary feature consisting of a triple bank and double ditches, orientated in a north south direction. This feature may be a Medieval land boundary associated with the abbey complex or the later Deer Park. Conversely it may belong to a phase of Early Medieval land division. Whatever the date the feature appears to be cut by the road and continues to the south for approximately 500 metres before it disappears, presumably truncated by agricultural activity on the shelf of land immediately below the high moorland. Slightly to the northeast of the latter feature is situated a rectilinear earthwork of unknown date and function visible as a cropmark.