

# West Scafton Colliery, Coverdale, North Yorkshire

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## Earthwork Survey and Assessment

Prepared for: Martin Vallance  
Brompton Grange  
River Land  
Brompton on Swale  
Richmond  
North Yorkshire

Prepared by: Jim Brightman BA (Hons), MLitt, MCIFA  
Solstice Heritage  
Crabtree Hall Business Centre  
Little Holtby  
Northallerton  
North Yorkshire  
DL7 9NY

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## EXECUTIVE SUMMARY

*This report documents rapid survey of post-medieval and modern coal mining remains on West Scafton Moor, Coverdale, North Yorkshire, and assessment of potential effects on those remains from the proposed construction of a shooting hut. Rapid earthwork survey was undertaken using mapping-grade GPS control and augmented by annotated sketch plan, digital photography and consultation of the Yorkshire Dales Historic Environment Record and published sources.*

*The remains surveyed are known as the '60 Fathom Shaft' and were originally an engine shaft with horse gin in use in the late 18<sup>th</sup> to early 19<sup>th</sup> centuries. By the time of the first edition 6" Ordnance Survey mapping in 1856 the shaft had been abandoned in favour of driven levels further down the moor, which were more accessible and economic to work. The West Scafton Colliery Company reopened the shaft in 1905 and had it fitted with a steam engine, the only known example in Wensleydale and its subsidiary Dales, though similar to those at sites in Colsterdale. Work at the colliery ceased in 1912 and it closed two years later.*

*The earthwork remains are a prominent and coherent group of features centered on a conical spoil mound capping the original shaft. An adjacent hollow with concrete and timber block represents the likely site of the early 20<sup>th</sup> century engine. A small open area is defined by a stone block retaining wall and dominated by the footprint of a small rectangular structure. Slight earthwork remains indicate a hard-standing trackway and all features are surrounded by large spoil heaps. The spoil heaps appear broadly homogenous in composition with fine and friable spoil resulting in large non-vegetated areas susceptible to erosion.*

*The proposed shooting hut is a timber construction built onto a hardcore and aggregate base, itself built up over the existing ground level. The proposed footprint overlies the route of the historic access track, providing a more secure base than the fragile spoil heaps to either side. Part of the eastern spoil heap has spread across the old track and may require clearing to provide a solid base for construction. This would result in a direct negative effect, though the archaeological interest and potential information gain from monitoring this work is likely to be negligible. Perhaps more significant is the potential for increased erosion of the fragile and friable spoil heaps through increased footfall, particularly with the proposed footprint sitting so tightly against the east and west spoil heaps. This could be mitigated through relocating the footprint further to the north so as to avoid the eastern spoil heap.*

*In terms of indirect (setting) effect, the shooting hut will represent a modern introduction into a coherent group of archaeological features, and therefore have a negative effect on their setting. The significance of the features lies more in their archaeological interest/evidential value and historic value however, and any effect on setting is likely to be minimal. The proposed location helps to minimise effects on setting as the screening provided by the spoil heaps will make the proposed hut less visible in a landscape perspective than if it were placed completely outside the footprint of the earthwork remains. As a potential compromise between direct and indirect impacts, the proposed hut could be relocated a short way to the north. This would bring the hut away from the most fragile parts of the spoil whilst still siting it on the hard standing of the old trackway. The fact that the western spoil heap extends further north than the eastern means that it would still provide screening from the most open views.*

## 1. INTRODUCTION

### 1.1 PROJECT OUTLINE

This report documents rapid earthwork survey of post-medieval coal mining remains on West Scafton Moor between Coverdale and Nidderdale, North Yorkshire (see Figure 1 below). The work has been undertaken to provide further information to accompany a planning application for erection of a shooting hut and allow for an assessment of potential effects on the remains.

### 1.2 SITE LOCATION

The new shooting hut is proposed to sit within an area of historic colliery remains close to the highest point of West Scafton Moor, and adjacent to an existing metalled track at SE 07848128.

### 1.3 AIMS AND OBJECTIVES

The aim of the project was:

- To assess the potential effects resulting from the proposed construction of a shooting house, on adjacent post-medieval coal mining remains.

Feeding into this aim were the following specific objectives:

- To undertake a rapid search of relevant information held within the Yorkshire Dales Historic Environment Record (YDHER) and other readily accessible sources
- To undertake rapid survey and characterisation of the surviving earthwork and structural remains
- To provide an assessment of potential effects based on the survey (this report).

### 1.4 CHRONOLOGY

Where chronological and archaeological periods are referred to in the text, the relevant date ranges are broadly defined as follows:

- Palaeolithic (Old Stone Age): 1 million – 12,000 BP (Before present)
- Mesolithic (Middle Stone Age): 10000 – 4000 BC
- Neolithic (New Stone Age): 4000 – 2400 BC
- Chalcolithic/Beaker Period: (2400 – 2000 BC)
- Bronze Age: 2000 – 700 BC
- Iron Age: 700 BC – AD 43
- Roman/Romano-British: AD 43 – 410
- Early medieval/Anglo-Saxon/Anglo-Scandinavian: AD 410 – 1066
- Medieval: AD 1066 – 1540
- Post-medieval: AD 1540 – 1900
- Industrial: 1750 – 1900
- Modern: AD 1900 – Present

### 1.5 ASSUMPTIONS AND LIMITATIONS

Data and information obtained and consulted in the compilation of this report has been derived from a number of secondary sources. Where it has not been practicable to verify the accuracy of secondary information, its accuracy has been assumed in good faith. Any information accessed from the relevant Historic Environment Record (HER) represents a record of known assets and their discovery and further investigation. Such information is not complete and does not preclude the future discovery of additional assets and the amendment of information about known assets which may affect their significance and/or sensitivity to development effects. All statements and opinions arising from the works undertaken are provided in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising

from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

## 1.6 COPYRIGHT

Solstice Heritage will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

Figure 1 Location of survey area



## 2. POLICY AND GUIDANCE FRAMEWORK

### 2.1 LEGISLATION

National legislation which applies to the consideration of cultural heritage within development and the wider planning process is set out in Table 1 below.

Title	Key Points
Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983 and 2002)	Scheduled Monuments, as defined under the Ancient Monuments and Archaeological Areas Act (1979), are sites which have been selected by a set of non-statutory criteria to be of national importance. Where scheduled sites are affected by development proposals there is a presumption in favour of their physical preservation. Any works, other than activities receiving class consent under The Ancient Monuments (Class Consents) Order 1981, as amended by The Ancient Monuments (Class Consents) Order 1984, which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering-up a Scheduled Monument require consent from the Secretary of State for the Department of Culture, Media and Sport.
Planning (Listed Building and Conservation Areas) Act 1990	Buildings of national, regional or local historical and architectural importance are protected under the Planning (Listed Buildings and Conservation Areas) Act 1990. Buildings designated as 'Listed' are afforded protection from physical alteration or effects on their historical setting.
Hedgerows Regulations 1997	The Hedgerow Regulations (1997) include criteria by which hedgerows can be regarded as historically important (Schedule 1 Part III).

Table 1 Legislation relating to cultural heritage in planning

### 2.2 POLICY

#### 2.2.1 NATIONAL

The principal instrument of national planning policy within England is the National Planning Policy Framework (NPPF) (CLG 2012) which outlines the following in relation to cultural heritage within planning and development:

Paragraph	Key Points
7	Contributing to protecting and enhancing the historic environment is specifically noted as being a part of what constitutes 'sustainable development' - the 'golden thread' which, when met, can trigger presumption in favour.
17	A core planning principle is to 'conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for the contribution to the quality of life of this and future generations'.
128	During the determination of applications 'local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting'. This information should be proportionate to the significance of the asset and only enough to 'understand the potential impact of the proposal on their significance'. The normal minimum level is expected to be a desk-based assessment of proportional size 'and, where necessary, a field evaluation'.
129	Paragraph 129 identifies that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.
132	It is noted that significance - the principal measure of inherent overall heritage worth - can be harmed or lost through development within its setting. Heritage assets are an irreplaceable resource and any adverse effects require 'clear and convincing justification' relative to the significance of the asset in question.



135	At paragraph 135 it states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
139	At paragraph 139 it states that non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
141	In paragraph 141, amongst other matters, it states that planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

Table 2 Key passages of NPPF in reference to cultural heritage

### 2.2.2 LOCAL

Under planning law, the determination of an application must be made, in the first instance, with reference to the policies of the local development plan. Until the imminent publication of the new Local Plan, extant local policy for the proposed development area is the Yorkshire Dales Local Plan 2006 (YDNPA 2006), excluding those policies cancelled following a 2009 review, and those superseded by the 2012 Housing Development Plan. The following table outlines the key cultural heritage policies relevant to the proposed development.

Policy	Text
B1	<p>'Development that would cause loss or damage to the integrity of historic landscapes or introduce incongruous elements into such landscapes will only be permitted if all the following criteria are met.</p> <p>I. It can be demonstrated that the development is essential and that there is no suitable or less damaging alternative.</p> <p>II. The wider social benefits of the proposal clearly outweigh the negative impacts, particularly visual impacts.</p> <p>III. Any negative impacts are minimised.'</p>
B3	<p>'Development that would damage a regionally or locally important or potentially important archaeological site or its setting will not be permitted unless both the following criteria are met:</p> <p>I. The wider benefits of the development outweigh the importance of the archaeological site.</p> <p>II. There is no alternative solution for the development that would have a lesser impact. Where research indicates that archaeological remains are likely to exist, proposals for development will not be determined until suitable archaeological field evaluation has been undertaken. The developer will be required to provide the evaluation at its expense in accordance with a specification supplied by the National Park Authority.'</p>

Table 3 Key policies of the Yorkshire Dales Local Plan 2006 in reference to cultural heritage and the proposed development

## 2.3 GUIDANCE

### 2.3.1 NATIONAL

During the assessment and preparation of this document, the following guidance documents have been referred to, where relevant:

Document	Key Points
National Planning Practice Guidance (NPPG) (CLG 2014)	The Department for Communities and Local Government (CLG) released the guidance to NPPF in March 2014 in a 'live' online format which, it is intended can be amended and responsive to comment, particular as case law develops in relation to the implementation of NPPF. In relation to cultural heritage the NPPG follows previous guidance in wording and 'keys in' with, in particular, extant English Heritage guidance documents. The NPPG references many similar terms to the previous PPS5 Practice Guidance.
Conservation Principles,	This document sets out the guiding principles of conservation as seen by

Policies and Guidance (Historic England 2008)	English Heritage and also provides a terminology for assessment of significance upon which much that has followed is based.
Historic Environment Good Practice Advice in Planning, Note 2 – Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015a)	This advice note provides good practice advice from Historic England, as the government’s advisor on the historic environment. It outlines an advised approach to assessing significance of heritage assets and potential planning-led effects on that significance, in a manner compliant with the principles of NPPF. It also outlines good practice for managing effects on heritage assets through conditioned mitigation.
Historic Environment Good Practice Advice in Planning, Note 3 – The Setting of Heritage Assets (Historic England 2015b)	This document represents the latest statement by Historic England as to best practice for the assessment of potential effects of development upon the setting of heritage assets, superseding the 2011 guidance. It provides a loose framework for this assessment, and advocates a staged process of assessment outlined in the appropriate section below.
Understanding the Archaeology of Landscapes. A Guide to Good Recording Practice (Ainsworth <i>et al.</i> 2007)	This document outlines best practice in terms of archaeological survey method and reporting.
Standard and Guidance for Commissioning Work or Providing Consultancy Advice on Archaeology and the Historic Environment (Cifa 2014a)	This document represents non-statutory industry best practice as set out by the Chartered Institute for Archaeologists. This assessment has been undertaken to these standards, as subscribed to by Solstice Heritage.
Standard and Guidance for Historic Environment Desk-Based Assessment (Cifa 2014b)	This document represents non-statutory industry best practice as set out by the Chartered Institute for Archaeologists. This assessment has been undertaken to these standards, as subscribed to by Solstice Heritage.

Table 4 Guidance documentation consulted

### 3. METHODOLOGY AND SOURCES

#### 3.1 PRE-FIELDWORK

The Yorkshire Dales National Park Historic Environment Record (YDHER) was consulted prior to fieldwork to ensure all relevant information about the proposed development site was compiled prior to commencement of survey. Additional information was compiled from published sources (see historic background below)

#### 3.2 SURVEY

On-site survey was undertaken with a mapping-grade Ashtech Mobilemapper GPS unit capable of sub-half metre post-processed accuracy. All features were captured as 3D polygon and polyline data augmented by annotated sketch hachure plan and high-resolution digital photography. Additional 3D point data was captured to provide individual levels. Although the accuracy of the control is not sufficient to meet the requirements of a high-grade survey (Level 2-3 as defined by Historic England), all captured data are internally consistent within the survey and considered to be sufficiently accurate for the purposes of the rapid survey and assessment presented here. Survey techniques were applied in accordance with the standards and guidance set out in Ainsworth *et al.* (2007).

#### 3.3 HEALTH AND SAFETY

All archaeological work was undertaken in a safe manner in compliance with the *Health and Safety at Work Act 1974*. A risk assessment was undertaken in advance of the commencement of work, a copy of which was carried during fieldwork. Solstice Heritage has a full Safety, Health and Environment Policy which can be supplied on request. The survey was undertaken as lone working in line with the Solstice Heritage Lone Working Policy, a copy of which can also be supplied on request.

#### 3.4 REPORTING

Following completion of fieldwork, survey data were processed using Mobilemapper Office and Quantum GIS (QGIS). The compiled survey was transferred to Adobe Illustrator to produce the final survey illustrations. Digital photography was compiled and has been included in this report as necessary.

All information has been synthesised in a project report (this document), including:

- A non-technical summary
- List of contents
- Project introduction
- Aims and objectives
- Working methodology
- Plan(s) of the survey area(s) showing the mapped earthwork remains tied to OS grid and ordnance datum
- Description and interpretation of the mapped earthwork remains
- Assessment of potential effects of the proposed development
- Bibliography

A digital copy of the report has been supplied to the client and will also be provided to the Yorkshire Dales National Park Authority Historic Environment Record.

#### 3.5 OASIS

Solstice Heritage is registered with the Online Access to Index of Archaeological Investigations (OASIS) Project and fully supports project documentation and records being made available through the OASIS website, as does the local authority. An OASIS record has been created for this project, and a copy of the project report will be uploaded. The OASIS record number for this project is: **solstice1-214068**.

## 4. LAND CHARACTER

### 4.1 GEOLOGY

The survey area lies on the Millstone Grit series that defines much of the uplands at the eastern edge of the Pennine belt, as well as many of the highest tops above the limestone and sandstone-dominated landscape of the northern Yorkshire Dales (BGS 2015). The geology is significant to the placement of the archaeological features given the south and south-east-oriented coal seams that occur within the strata of the gritstone series, and upon which the surveyed shaft mound and spoil sit. Blanket peat covers much of the moor top to the east of the site, and shallow accumulations of peat have formed around the colliery remains.

### 4.2 LAND-USE

The survey area is currently within open access moorland managed for game shooting. The core of the shaft mound and associated ruined structure and spoil heaps has been fenced off, though several of the outlying sections of spoil are outside the fencing.

### 4.3 SURVEY CONDITIONS

The survey was undertaken in June 2015 in bright and clear conditions, with good visibility of remains.



Figure 2 General view across the surviving earthwork remains looking north back towards Coverdale and the Vale of Mowbray beyond

## 5. HISTORICAL BACKGROUND

This section is derived from a wide-scale study of the medieval, post-medieval and modern extractive industries of Wensleydale and its subsidiary dales, published as *Mines and Miners of Wensleydale* (Spensley 2014) and based on documentary evidence held within the North Yorkshire County Record Office, amongst other sources.

Although likely to have an earlier origin, the first extant coal mining lease for Cover Head (most likely West Scafton Moor) dates to 1700, and the first pits are considered to date the 1720s (ibid. 264). Cuthbert Readshaw of Richmond and William Furnis of West Witton owned the lease for West Scafton Colliery by 1767 and Furnis still ran the concern in 1793 (ibid.). The remains that are the focus of this survey have been identified as the '60 Fathom Shaft', an engine shaft which had been abandoned by the time of the first edition 6" Ordnance Survey map in 1856, marked as 'The Old Pit' (ibid. 265). Originally powered by a horse gin to raise the extracted material, the abandonment is most likely contemporary with the mid-19<sup>th</sup> century driving of levels lower down the moor, which provided a quicker and more efficient means of access to the seam (ibid. 52).

It is unclear whether the 60 Fathom Shaft was worked again in the late 19<sup>th</sup> century, but when the colliery was reopened in 1905 after at least a ten-year hiatus, the newly convened West Scafton Colliery Company had it fitted with a steam engine (ibid. 266), the only known example in the Wensleydale dales though with others known from nearby Colsterdale (ibid. 52). The reopening was short-lived, however, with drainage problems stopping work in 1912, and contributing to the closure of the colliery two years later. It is estimated that during the mid-19<sup>th</sup> century seven or eight miners worked the levels lower down the moor, though following the death of a miner in a roof collapse in 1870, only two colliers were recorded (ibid.).



## 6. RESULTS OF SURVEY

The results of the survey are presented below with the first illustration (Figure 4) showing all recorded features in relation to Ordnance Survey grid and with levels correct to Ordnance Datum. The second illustration (Figure 5) is an interpretive plan dividing the features into broad categories and numbered for ease of discussion.

### 6.1 SHAFT MOUND AND ENGINE

The earthwork remains are centred on an engine shaft sunk, most probably, in the late 18<sup>th</sup> century though only in use for a short time before abandonment in favour of working levels driven further down the hill (see above). The shaft (1) appears now as a conical mound of spoil fully capping the shaft, well defined and c.8.5m in diameter at the visible base. It currently stands c.3m in height from base to the narrow flat top. As with many of the features within the earthwork complex, the spoil is fine and loose and, largely as a result of this, non-vegetated. All non-vegetated areas of the earthworks are shown on Figure 4.



Figure 3 Shaft mound (1) looking north from adjacent to the engine location (scale 1m)

To the south of the shaft mound there is a hollowed area surrounded by spoil heaps (2). A single large broken concrete block lay partially across the hollow and most probably represents part of the base for the steam engine installed in the early 20<sup>th</sup> century. The concrete block is coarsely made and cast, and includes a fragmentary wooden beam on the uppermost side with rusted metal brackets still attached in places.

Later alterations (such as the steam engine) and accumulation of spoil meant that no extant earthwork remains relating to the early horse gin could be identified.

Figure 4 Surveyed earthwork remains

Figure 5 Interpretive illustration of surveyed remains





Figure 6 Hollow to the south of the shaft mound still carrying the broken concrete block presumably associated with the early 20th century engine (scale 1m)

## 6.2 OPEN AREA AND ACCESS TRACK

To the north of the shaft mound there is a small open area (3) between the principal spoil heaps, though the eastern side has been encroached on by slippage of some of the spoil. The western edge of the area is defined by a rough retaining wall of stone blocks c.1-1.2m in height and preventing the slippage of the western spoil mounds. The open area measures c.12m x 8m, most of which is covered by the footprint of a ruined building, and appears too small to have served as a usable processing floor or working area, other than for the most basic processing prior to transportation of the coal.

The ruined structure comprises a single basal course of stone block walling, truncated to the east end, and measuring c.8.5m x 6m in plan. The construction of the wall appears to have been double skin with rubble core but the structure has been comprehensively demolished and so assigning a specific function to it is difficult.



Figure 7 Looking west along the long axis of the ruined building and with the retaining wall visible to the rear left of shot (scale 1m)

Slight earthwork remains of a linear area of hard standing or access track (4) run north from the ruined building between the two principal spoil heaps. The edges are generally poorly defined with the western edge slightly more steeply cut some form of shallow drainage. Where it is most clearly defined, the track measures c.3m in width and its projected line meets the modern track c.13m north of the earthworks. As with the open area to the south, the eastern spoil heap (5) has spilled over the east edge of the track.

### 6.3 SPOIL HEAPS

The most prominent features within the complex of earthworks are the substantial spoil heaps (5-7) that surround the shaft and ruined building. It is known from documentary records that the 60 Fathom Shaft had saw two periods of working, and so it is likely that worked spoil remains from both the late 18<sup>th</sup> to early 19<sup>th</sup> century period of use and the early 20<sup>th</sup> century reopening. The spoil is fine and loose and appears relatively homogenous in character, with no obvious distinctions to be made between the spoil resulting from separate periods of working. There appears to have been re-working of at least the western spoil heap (6), visible on the survey as a large scooped area from the south-west corner, though pre-dating the erection of the fence around the core remains.



Figure 8 Looking north across spoil heap (7) showing the fine and friable nature of the non-vegetated spoil

## 7. ASSESSMENT OF POTENTIAL EFFECTS

### 7.1 PROPOSED DEVELOPMENT

The proposal is for construction of a timber shooting hut within the northern opening between two of the principal spoil heap (shown on Figures 4 and 5). The hut will be constructed on a hardcore aggregate base built up over the existing ground level and will be accessed directly from the existing trackway with no additional infrastructure. There will also be a paved slab at the front door on the north end of the building.

### 7.2 DIRECT EFFECTS

The proposed hut footprint overlies the route of the historic access track, which the survey has demonstrated is built up with stone and aggregate to form a level surface. Any invasive work would impact on this feature as it is a component of the archaeological site, though its archaeological interest is limited. With the hut base being built up above the modern ground level and the old track, this would effectively preserve it in place, and would provide a more secure base for the construction than the fragile spoil heaps to either side.

Part of the eastern spoil heap has spread across the old track and the footprint of the proposed hut, and may require clearing to provide a solid base for construction. This would result in a direct impact, though the archaeological interest and potential information gain from monitoring this work is considered to be negligible given the nature of the deposits. Perhaps more significant is the potential for ongoing erosion of the fragile and friable spoil heaps through increased footfall, particularly with the proposed footprint sitting so tightly against the east and west spoil heaps. This could be alleviated to some degree through relocating the footprint further to the north, avoiding the eastern spoil heap whilst still sitting over the old trackway.



Figure 9 Looking north from within the two main spoil heaps with the ruined building in the foreground. The west edge of the old trackway is visible as a difference in vegetation and the footprint of the proposed hut is shown by three wooden stakes and the 1m ranging rod at the near left corner.

Overall it is considered the potential direct effect of the proposed development on the significance of the archaeological remains is low to negligible.

### 7.3 INDIRECT EFFECTS

The shooting hut in any form will represent a modern introduction into a coherent group of archaeological features, and therefore a negative effect on their setting. The significance of the features lies more in their archaeological interest/evidential value and historic value however, and any effect on setting is likely to be minimal. The proposed location actually helps to minimise effects on setting as the screening provided by the spoil heaps will make the proposed hut less visible in a landscape perspective than if it were placed completely outside the footprint of the earthwork remains.

Overall it is considered the potential indirect effect of the proposed development on the significance of the archaeological remains is low.

### 7.4 RECOMMENDATIONS

The proposed footprint currently minimises visibility from the wider landscape but also has a direct impact on part of the spread from one of the spoil heaps. As is noted above, a position so close to the spoil heaps also raises the potential risk of increased footfall adjacent to the building and therefore erosion of the more fragile remains. Relocation of the footprint a short way to the north would bring the hut away from the most fragile parts of the spoil whilst still siting it on the hard standing of the old trackway. The fact that the western spoil heap extends further north than the eastern means that it would still provide screening from the most open views should the building be relocated to the north, as is illustrated by Figure 10.



Figure 10 View west across the northern edge of the earthwork remains and the modern track. The ranging rod shows the front edge of the hut on its present footprint. The western spoil heap beyond would continue to provide screening should the hut be brought forward a short distance to minimise potential impacts on the nearer (non-vegetated) spoil heap.

## 8. SOURCES

### 8.1 BIBLIOGRAPHY

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