

Aberpergwm Colliery, Glyn Neath, Neath.

Archaeological Watching Brief



By
Richard Scott Jones (*BA Hons, MA, MIFA*)

CAP Report No. 609



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Aberpergwm Colliery, Glyn Neath, Neath.

Archaeological Watching Brief

Prepared For: Michael Tutton - Industrial Archaeology Services

On Behalf of: Energy Build Ltd, Aberpergwm Colliery, Neath.

Edited by

Signed:

Position:

Date:

Authorised by

Signed:

Position:

Date:

By

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CAP Report No: 609

Date: December 23rd 2010



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Non Technical Summary

The following report details the results of an archaeological watching brief during top soil stripping in an area of proposed open casting for the Aberpergwm Colliery.

The watching brief focused on the areas of Cuts 2-18 of the extraction site. The only significant archaeological features noted during the soil stripping were a series of quarry pits located in the northern region in the areas of Cuts 7-8. In total five pits or hollows were recorded, each seeming to be former quarrying pits in an area of former rock outcropping. One of the hollows had the remains of stock-piling of quarried stone which appeared to be acting as a revetment wall to support the exposed peat and underlying natural deposits at the edge of the quarrying. No dateable finds were recovered in any of the five pits, however their date is most likely associated with the enclosure period of the late 18th century.

In terms of exposed peat deposits, the average depth across the northern part of the extraction site was between 0.20-0.30. Deeper deposits however were exposed in the area of the proposed lagoons. Here, average peat deposits were between 0.30-0.70m. Samples of peat deposits from the deeper levels in the deposit were taken in order to inform potential future palaeo-environmental concerns.

1. Introduction

- 1.1 The following report details the results of an archaeological watching brief during top soil stripping in an area of proposed open casting for the Aberpergwm Colliery (NGR: SN 8391 0708).
- 1.2 All works were undertaken in accordance with both the IfA's *Standard and Guidance for an Archaeological Watching Brief* and current Health and Safety legislation.

Planning Background

- 1.3 The proposed open casting site is at Aberpergwm Colliery, Glynneath, Neath SA11 5AE (henceforth – the site), SN 8391 0708 (see *Figure 1*). The open cast proposal was submitted by Energy Build Limited. The local planning authority is Neath Port Talbot Council (Henceforth - NPT) and the planning application number is P2007/0502.
- 1.4 Planning permission has been granted by NPT for the proposed development subject to an archaeological Condition 21 as laid out below.

“No development shall take place until the applicant or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation (WSI) which has been submitted by the applicant and approved in writing by the Local Planning Authority”.

Site Location and Description

- 1.5 The proposed open cast extraction site (know as Forest Quarry Area 2 OCCS) lies in an area situated near the peak of the Hirfynydd mountain, which overlooks the Aberpergwm Colliery to the south-east. It comprises some 14.6 hectares of previously wooded land centred at NGR SN 8391 0708. The area is relatively flat with good views of the surrounding landscape, and as such it is considered a likely place for prehistoric settlement. The northern limit of the area is just 90 meters from the Sarn Helen Roman Road, a landscape feature that has remained visible to the present day. The potential for Roman and later settlement of all periods in the northern part of the area is also therefore considered high.
- 1.3 A search of the HER database, which includes records appertaining to Cadw, RCHMW and GGAT/SMR, indicates that there are no known recorded archaeological features within the application area.

2. Aims and Objectives

- 2.1 The aims of the watching brief, as defined by the IfA (2001) are:
- To allow a rapid investigation and recording of any archaeological features that are uncovered during the proposed top soil removal from the application area.
 - To provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

3. Methodology

- 3.1 The Watching Brief was carried out during the removal of tree bowls and subsequent topsoil stripping prior to coal extraction work under close and constant archaeological supervision. The topsoil stripping was undertaken by a machine using a wide toothless ditching blade bucket.
- 3.2 The programme of topsoil strip to open cast in the applied area was undertaken intermittently in phases, which continued until December 2010. Each consecutive phase of top-soil removal varied from between 10-20 days.
- 3.3 The method of top-soil removal was undertaken by mechanical excavator and dumper truck, adhering to the MAFF "Guide to Good Practice For Handling Soils" (document April 2000, sheet 1).
- 3.4 Any archaeological features, finds or deposits that were uncovered, work was stopped in the area of the exposed feature in order that the supervising archaeologist could clean and identify the extent and nature of the feature and for excavation and recording to take place.
- 3.5 All archaeological deposits that were identified were mapped, cleaned, recorded and excavated to a satisfactory level. The developer was informed to provide a safe working area and to allow sufficient time to record and excavate all features to the satisfaction of CAP and GGAT. Full excavation of identified features will not be compromised by the construction programme.
- 3.6 Recording was carried out using Cambrian Archaeological Projects recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.
- 3.7 Plans and sections were drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.
- 3.8 All features identified were tied in to the OS survey grid and fixed to local topographical boundaries and related to the developer's site plan.
- 3.9 Photographs were taken in digital format, using a 6 mega-pixel camera with photographs stored in TIFF format. Should significant remains be identified that require excavation, photographs will also be taken in black and white and colour slide (35mm film).
- 3.10 The archaeologist undertaking the watching brief had access to a Cambrian Archaeological Projects metal detector if required. As a general rule it was to be used to sample investigate all deposits of possible Iron Age or later date.

4. Brief Historical & Archaeological Background

- 4.1 The Aberpergwm Mine is located in the Neath Valley, South Wales near to the villages of Glynneath and Blaengwrach just off the A465. The region around Aberpergwm has been mined for coal over several centuries, with early mining features extending over much of the mountain area. Supposedly

there had been a small mine named Aberpergwm mentioned in records dating back to 1811, however it wasn't until the 1860s when one W. Williams opened another drift mine close by to Aberpergwm, named 'Pwllafon', that the mines drift history began. In 1880 the ownership of the mine changed to one Morgan Stuart Williams. From the Inspector of Mines List in 1896, there were 68 men employed at the Aberpergwm Mine and 172 at the Pwllafon, Both the mines were producing Anthracite.

- 4.2 A new drift was opened in 1906 and by 1908 the workforce had greatly increased to 741. The mine later came under the ownership of the Aberpergwm Collieries Co. Ltd., and in 1918 there were 520 men employed. In 1920 it was taken over by D.R. Llewellyn of the Vale of Neath Collieries Co. From a list 1923, there were 113 working a Aberpergwm drift, producing from the Brass seam. At Pwllafon the workforce numbered 938, working the Nine Feet, Brass and Eighteen Feet seams.
- 4.3 Ten years the mine was taken over by the Amalgamated Anthracite Colliers Ltd, and in 1938 there were 1,539 men employed. Following nationalisation of the coal industry in 1947, the Aberpergwm Mine was owned and operated by the National Coal Board and subsequently British Coal. By 1969 severe geological problems threatened the pit's future and an exploratory heading was driven into the Eighteen Feet seam, to access pillars of coal left by earlier "pillar and stall" mining methods used 19th century. These pillars held sufficient high quality anthracite to justify the driving of a new 300 yard drift and immediate investment in new machinery.
- 4.4 During the 1970's a £750,000, improvement including installation of a Monorail (see photo) and extending the workings across the Pentreclwylla Fault. At this time 298 men were producing 120,000 tons of Anthracite yearly.
- 4.5 British Coal closed the Aberpergwm Mine on the 7th of October 1985 under their national closure programme, the entries being sealed and the surface infrastructure demolished. The underground workings were allowed to flood. The Aberpergwm Mine remained closed for 10 years until it reopened in 1996.
- 4.6 In October 2003 it became part of Energybuild Holdings Ltd ("EBH"). Over the following 18 months working capital was obtained for the development of the Aberpergwm Mine and opencast activity in the locality. This also enabled relevant restoration bonds to be put in place with the local council. During this period, sales contracts were entered into with Aberthaw power station and E.H Bennett & Company Limited and further opencast planning permits were secured with the local planning authority. Grants were obtained from the Department of Trade and Industry under the coal investment aid scheme and a program of development was embarked upon which was and still is overseen by independent mining consultants working for the Department of Trade and Industry (from The Welsh Coal Mines web site – www.welshcoalmines.co.uk/GlanWest/Aberpergwm.htm)

5 Results of Watching Brief for Cuts 2-18 *(see Figures and Photo Plates in Appendices I and II)*

- 5.1 The following is a summary of the archaeological results from the watching brief during the cutting of cuts 2-18 undertaken between November 2009 – December 2010. Unfortunately the weather for the months November to December 2009 were extremely bad with both heavy rain and snow delaying and hindering top soil stripping and hence causing disruption with the watching brief.
- 5.2 During November no top soil stripping was undertaken, instead work focused on the widening of the access track to the area of the proposed lagoon by shortening its length through the area of Cuts 16 and 17. This area showed no difference in soil and subsoil conditions to the original access pathway, where peat deposit depths were no more than 0.20m in depth. Inspection of the exposed clay surface following removal of the overlying peat exposed no archaeological features, deposits or finds.

- 5.3 In the area of the lagoon to the south, the top soil was stripped over an area of approximately 90m x 95m. This work was undertaken in a series of strips with the topsoil being collected in banks while the track way was improved to allow access for the dump trucks. The peat in this area was fairly thin averaging only 0.10-0.30m. No archaeological features, finds or deposits became exposed or recovered during and following this operation. The north-eastern part of the lagoon area had bedrock very close to the surface. As the ground was prepared for digging the Lagoons the depth of the bedrock beneath the underlying peat was approximately 0.30m.
- 5.4 In order to provide stone as hardcore for the track way, stripping and quarrying of the area near Cut 6 was also begun in November. Initially an area of 60m x 40m was quarried, but this was expanded in the areas of Cut 6 and the start of Cut 7. The peat depth in this area averaged a depth of 0.30m with a sub soil of approximately 0.40m. The subsoil was extremely stony with irregular flat stones of mixed sizes. To improve access to the area for machinery, part of the area to the east of Cut 6 was stripped further. This extension intruded into the first of a series of four early quarrying pits already recorded from earlier field-walking and a brief inspection of aerial photographs. The pits or hollows were aligned on a roughly N-S axis. Each was about 7.7m-8.0m in length and 3.5m wide with an unexcavated depth of 1m. Each had a slight curve and was roughly square ended and had spoil heaps around the sides especially on the west edge.
- 5.5 Initially it was considered that the pits were coal prospecting pits, however geological bore-hole data implies that the existing coal seam in this area is still some 7-9m below the area of the pits. The age of these pits is uncertain as no dateable material was recovered from either pit during the groundwork, however they are most likely associated with the quarrying of stone from a rocky knoll for either sheepfolds or else for the construction of enclosure walls.

Quarry Pit 1

- 5.6 The first pit or hollow appeared to have a stone wall or revetment built into its west side. This was sectioned and photographed prior to top soil stripping in order to identify its character and form. The stone work was of irregular local stone that had not been dressed, although the stones varied considerably in size, the average being approximately 0.50m in length x 0.05-0.10m thick. The upper stone course sloped from front to back but this slope disappeared with depth. The revetment was only one course thick and behind it were roughly stacked stones mixed with the natural subsoil, which showed very little internal organisation. It seems likely that the dry stone walling was therefore used to hold this material in place and keep the working area clear. The section through the quarry would seem to reinforce this conclusion. The Section was dug by machine in a northeast to southwest alignment. This was forced due to proximity of the newly quarried area. The section revealed a three phase structure. The initial cut was to the west the remains consisting of 3.7 metres of infill this rested on a buried Peat layer that was sampled. Sampling revealed that this peat had not formed in situ, but had been deliberately deposited as evidenced by stacked turfs on the edge. The first phase was backfilled then cut by phase 2 to the East this was also backfilled but with no sign of buried peat. Phase two was cut by phase three which extended the quarry further to the East. This cut is the one associated with the dry-stone walling which was probably intended to hold the waste from the clearing of phase 2. Phase three was the smallest being only 1.6m wide but followed a natural fracture in the rock which must have made quarrying simpler. On abandonment the bottom of the cut filled with peat which was then covered by stone and clay. This peat layer being buried was also sampled.

Quarry Pit 2

- 5.7 The second quarry pit was approximately 4 metres wide and a maximum of 1.6m deep, dug down to the bedrock. There appeared to be two layers of re-deposited material in the pit, with the bottom being a very unstable clay and stone deposit covered to the west by a layer of topsoil mixed with stones and some subsoil. The bottom deposit rose above the height of the original surface on the east. This shows that this quarry was dug from east to west with the waste being thrown back into areas already quarried.

Quarry Pit 3

- 5.7 Top soil stripping of this third pit or hollow showed that the spoil heaps consisted of clean subsoil with the usual mix of stones except that none exceeded 0.30 x 0.30 m in size. A section was machine dug through this northernmost hollow. This showed that the hollow was a flattened 'U' shape and had been dug down and slightly into the bedrock. This had filled initially with material washed in from the spoil heaps and then peat. The peat reached a maximum depth of 0.30m, while the in-wash appeared to have added an extra 0.50m of material on each edge, meaning that the original hollow was a maximum of 4.5m wide. There was no indication of any coal in this pit, which implied that it was most likely a stone quarry pit and not an early coal prospecting pit as was initially thought. In areas, sections of cut peat turf appeared to have been laid turf down, perhaps also for storage or drying purposes.

Quarry Pit 4

- 5.9 The fourth pit was approximately 9m wide with two main layers of re-deposited material, as with *Pit 2*. These deposits were also similar and appeared to have been deposited in the same way as *Pit 2*. However like *Pit 3* there was evidence that the bottom had been lined with peat.

Quarry Pit 5

- 5.10 The fifth pit was approximately 10m wide with three layers of re-deposited material, as with *Pit 2*. These deposits were also similar and appeared to have been deposited in the same way as *Pit 2*. However like *Pit 3* there was evidence that the bottom of the pit at its eastern end had been lined with peat laid turf down.
- 5.11 Apart from these five quarry pits or hollows, no other archaeological features were observed or recorded during any of the top soil stripping in the other cuts during the ground work.

6. Conclusions & Recommendations

- 6.1 The watching brief during the top soil stripping in the area of the proposed extraction site at the Aberpergwm Colliery found no significant archaeological features, finds or deposits other than a series of five early quarrying pits or hollows, which are most likely late 18th century in date and associated with either the construction of sheepfolds or else enclosure walls in the immediate area. What is curious about three of these pits however is the apparent deliberate use of peat turfs used to line the base of each hollow.
- 6.2 With respect of peat deposits in the area, the depth of the peat across the area of cuts 2-10 was found to be no deeper than 0.30m. However for the cutting of the lagoons in the southern area, between cuts 15-17, the peat depth was found to be approximately 0.70m. On average however peat deposits in the southern areas was between 0.20-0.50m. Samples of peat were taken from these deeper levels as a potential source for palaeo-environmental information.

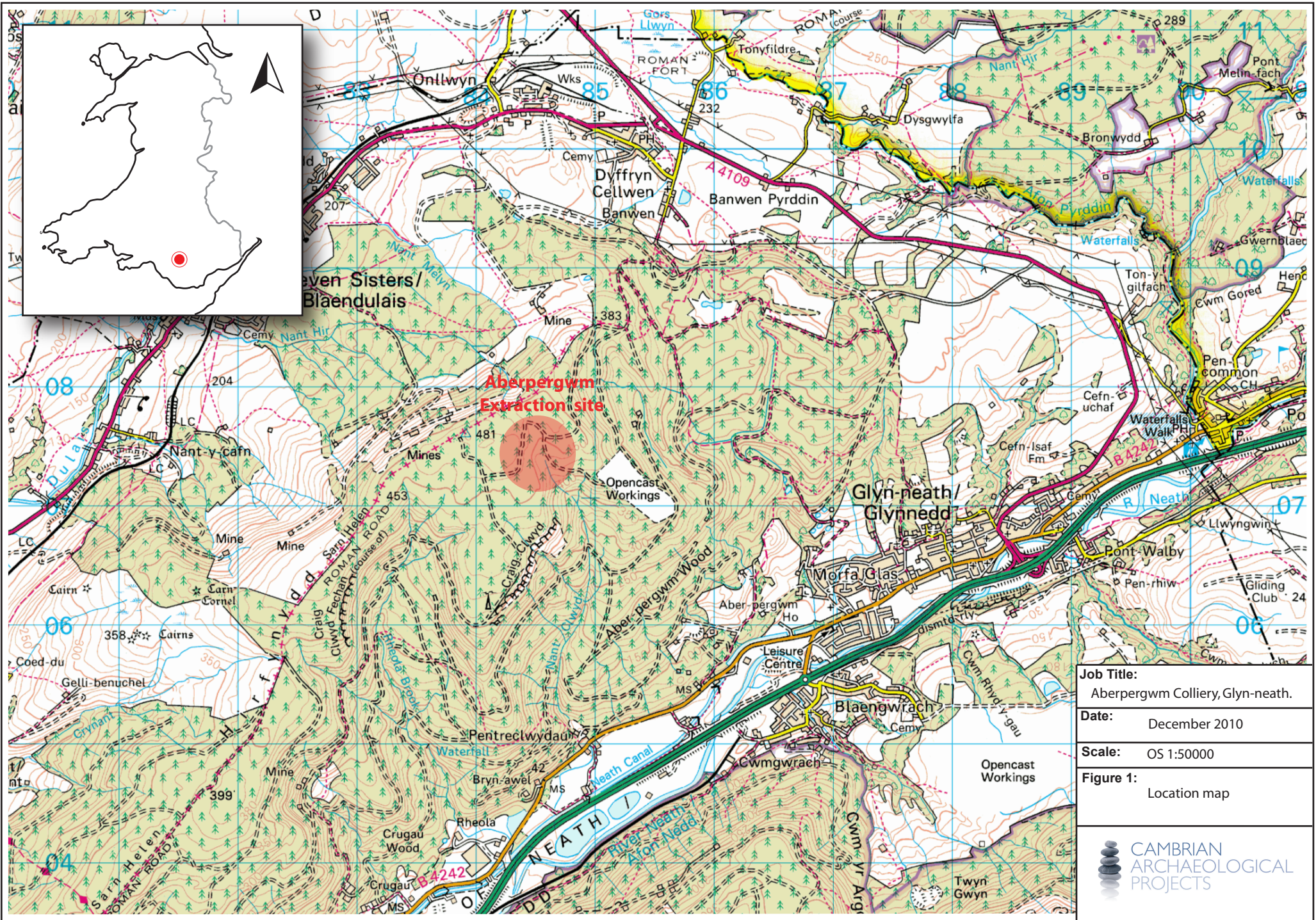
7. Acknowledgements

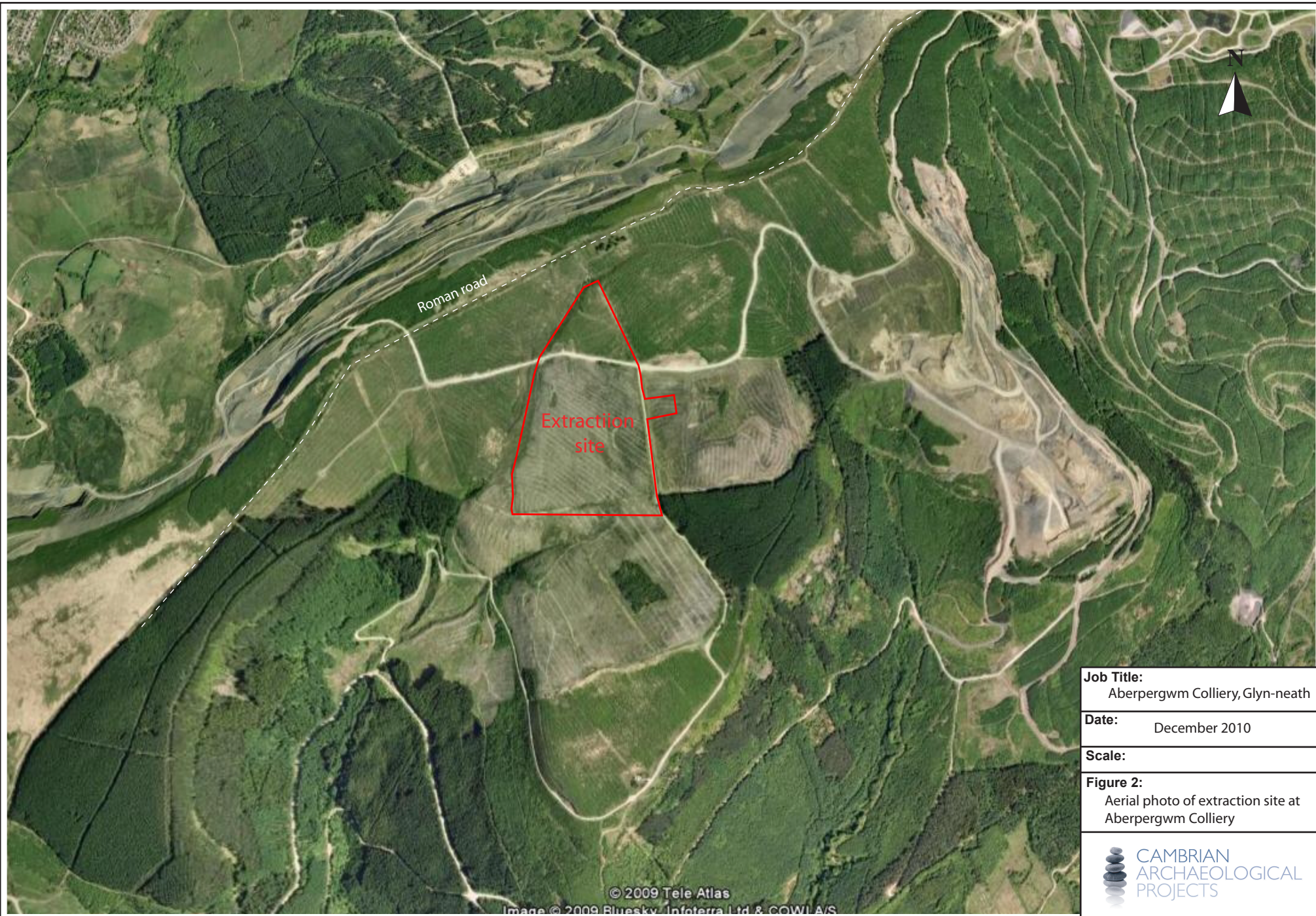
Thanks to; Michael Tutton for his consultation on the history of the mine. Also thanks to Energy Build Ltd for allowing access to the site.

*Pathway
to the past*



APPENDIX I: **Figs & Illustrations**





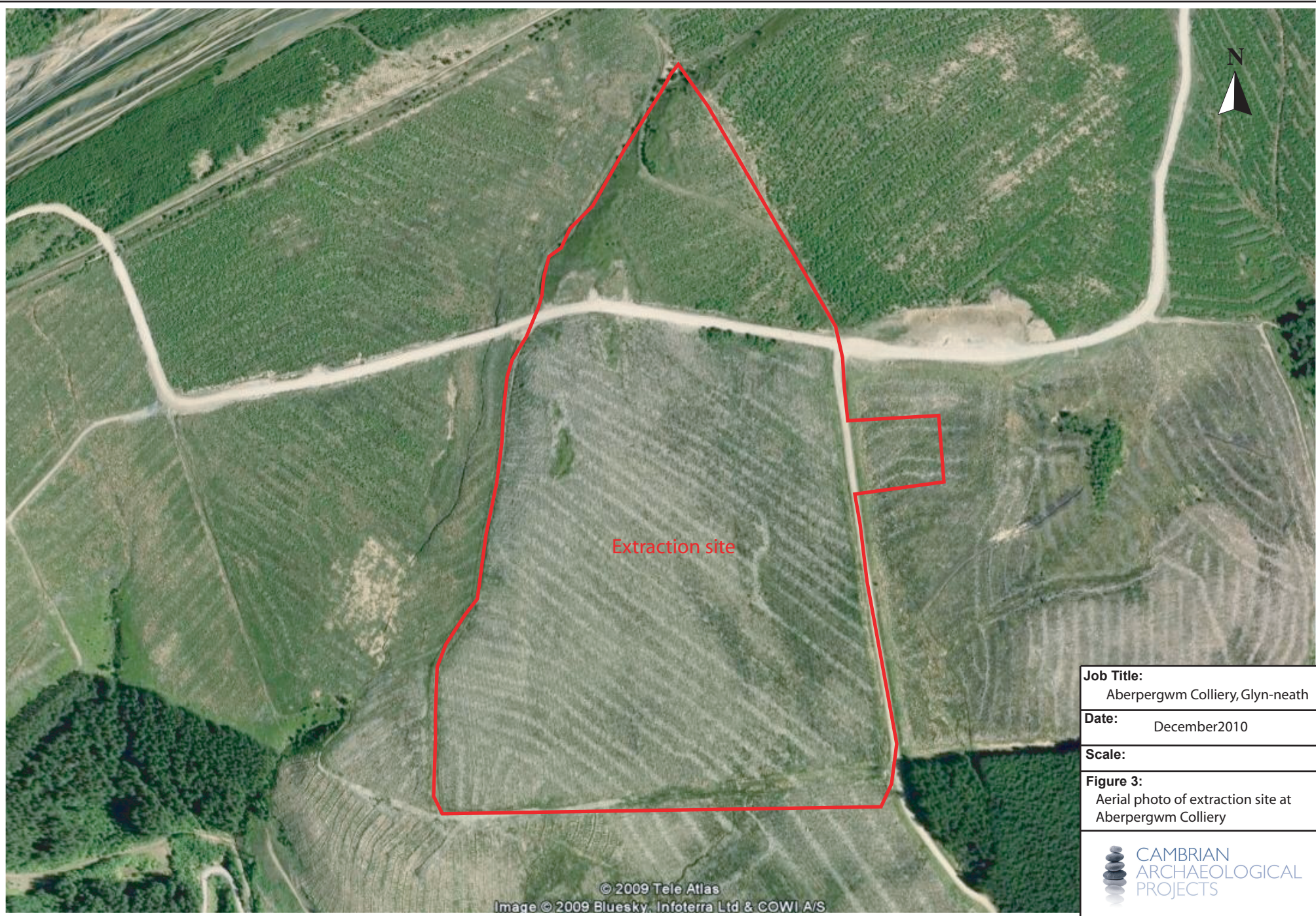
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Aberpergwm Colliery, Glyn-neath

Date:
December 2010

Scale:

Figure 2:
Aerial photo of extraction site at
Aberpergwm Colliery

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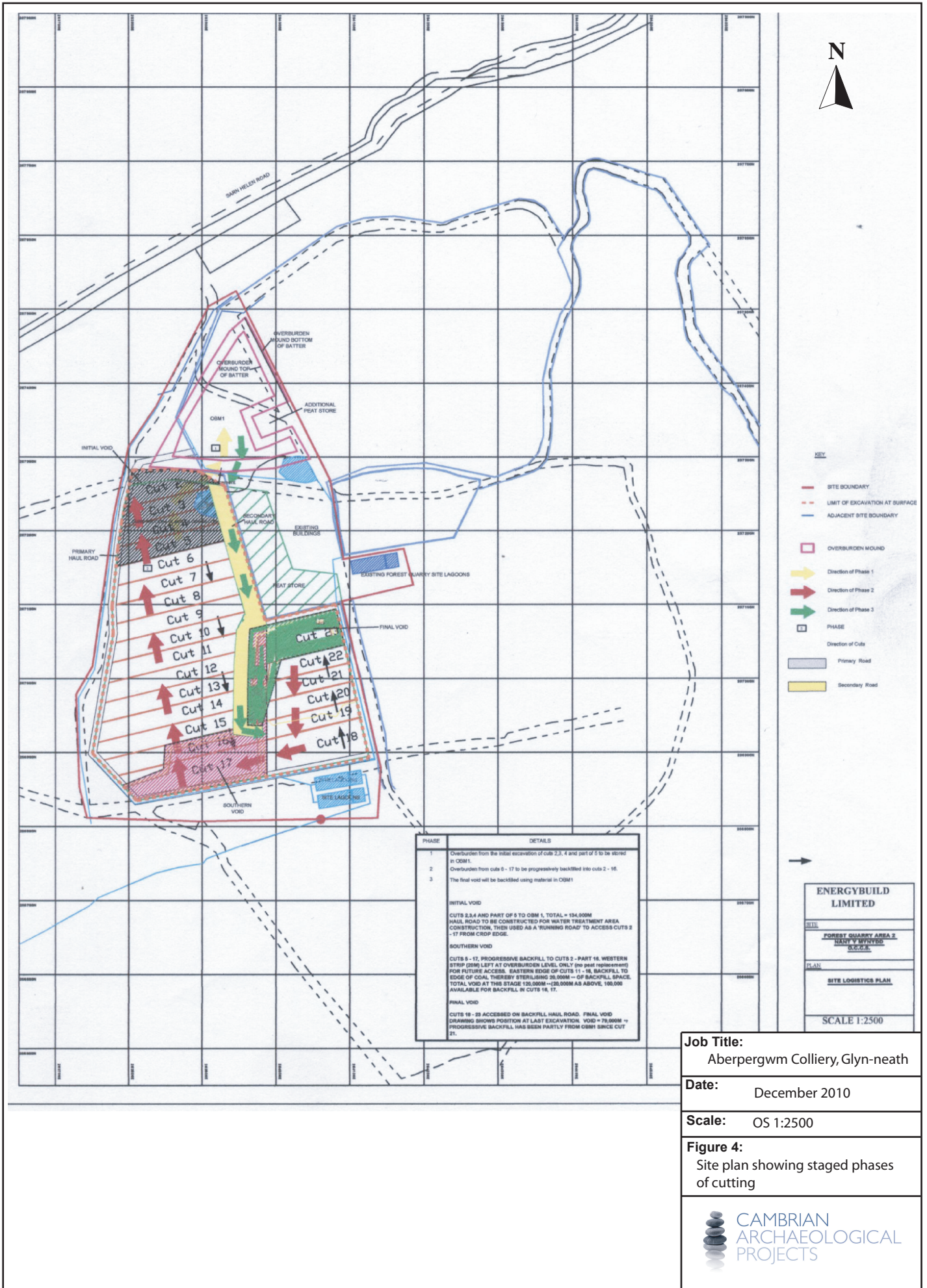
Extraction site

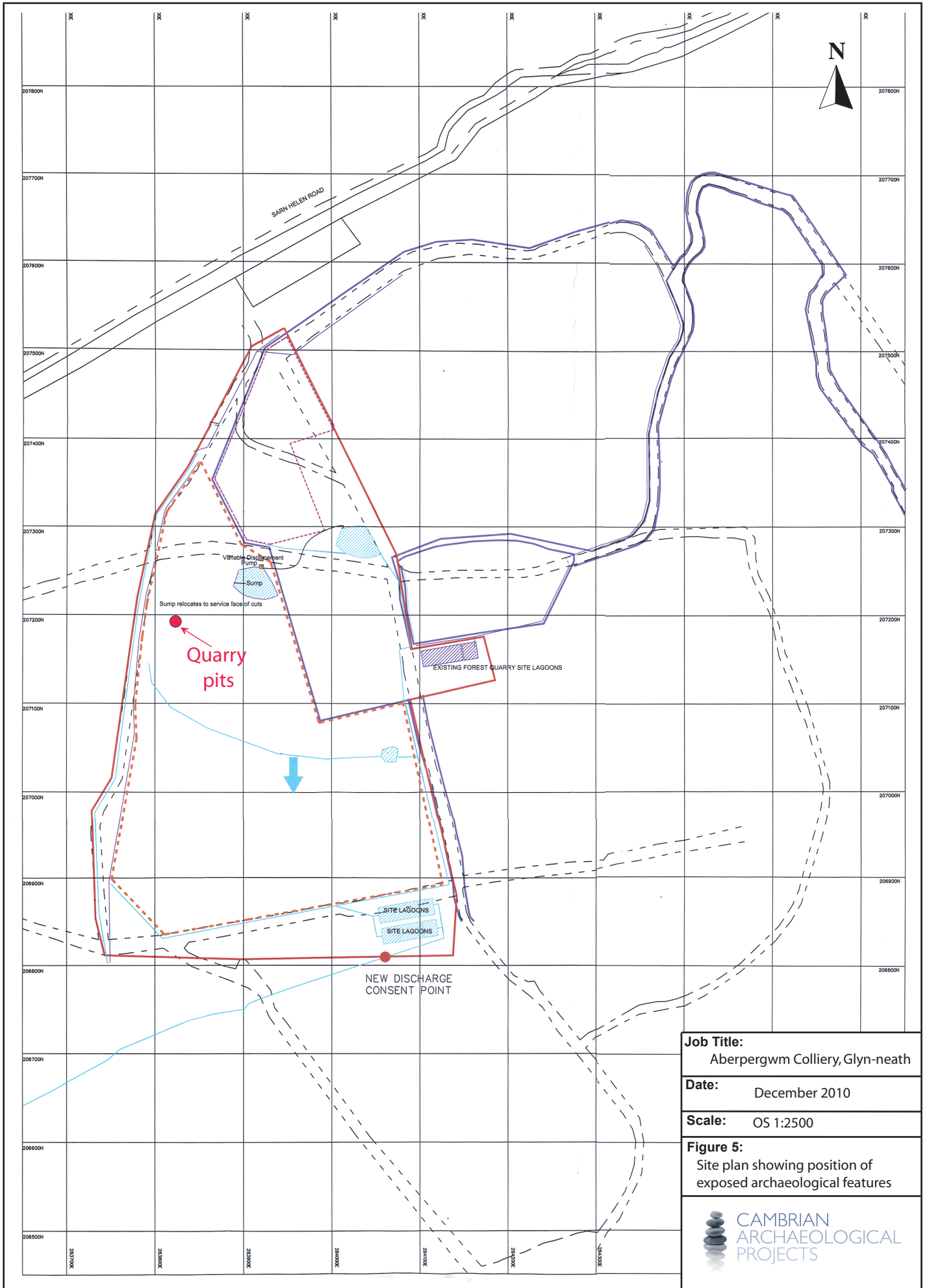
Job Title:
Aberpergwm Colliery, Glyn-neath

Date: December 2010

Scale:

Figure 3:
Aerial photo of extraction site at Aberpergwm Colliery





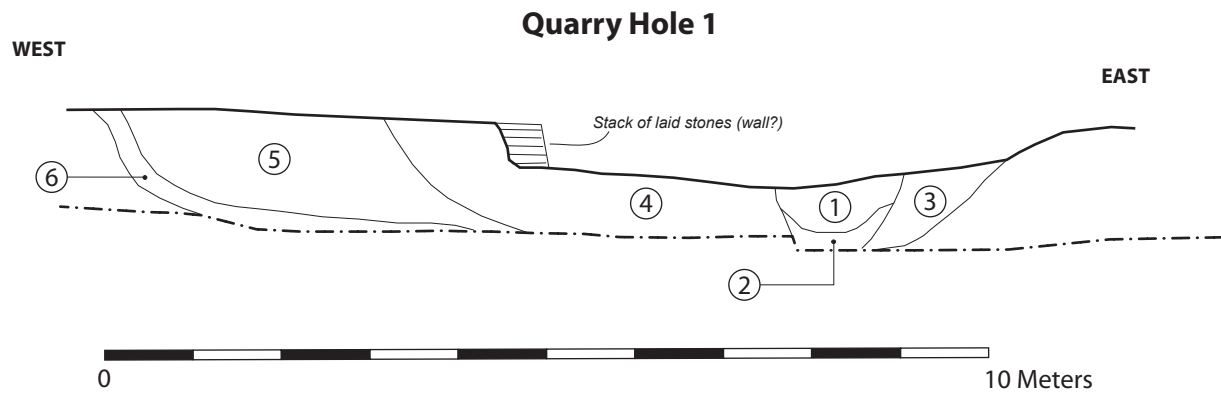
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Aberpergwm Colliery, Glyn-neath

Date:
December 2010

Scale:
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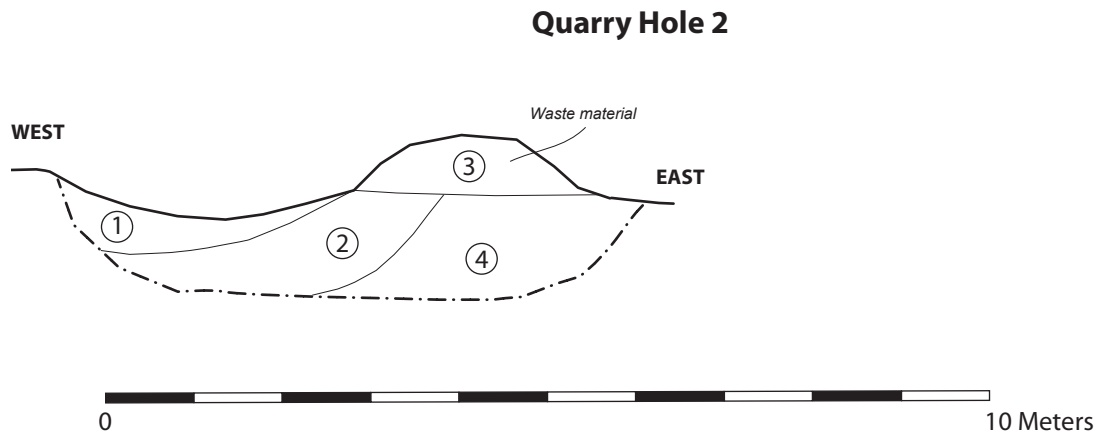
Figure 5:
Site plan showing position of exposed archaeological features





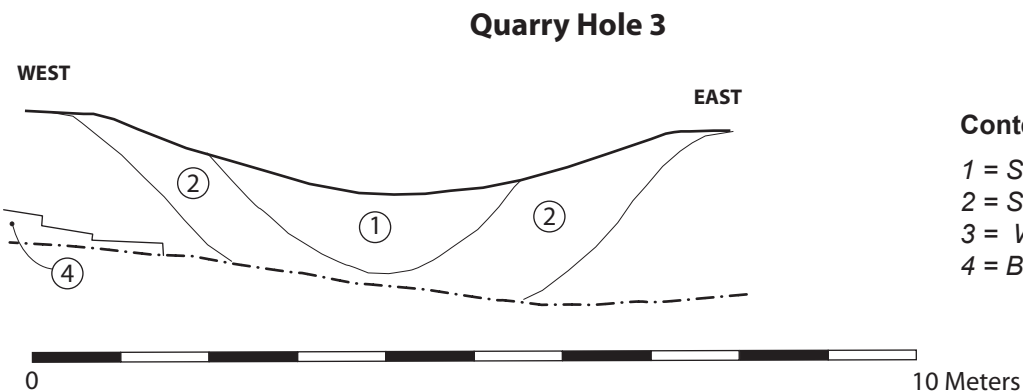
Contexts - Quarry/pit 1

- 1 = Clay and sandstone
- 2 = Peat
- 3 = Natural
- 4 = Stone, gravel and soil mix
- 5 = Stone and clay
- 6 = Peat deposit tu (re-laid turf down).



Contexts - Quarry/pit 2

- 1 = Top soil and waste material
- 2 = Clay and waste material
- 3 = Waste material
- 4 = Bedrock



Contexts - Quarry/pit 3

- 1 = Soil and peat
- 2 = Stone quarry material
- 3 = Waste material
- 4 = Bedrock

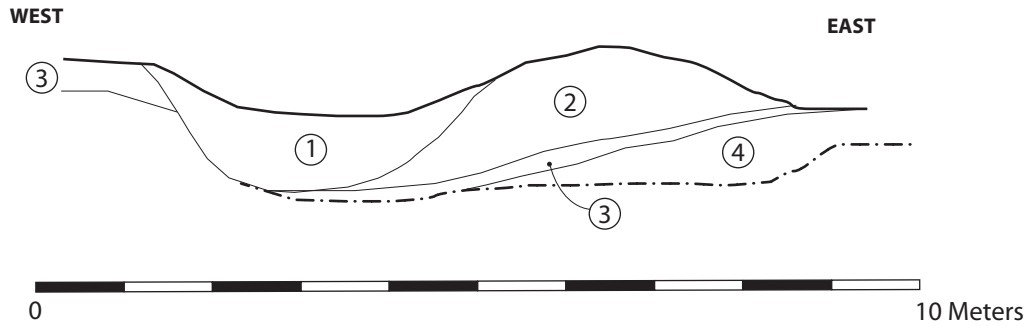
Job Title:
Aberpergwm Colliery, Glyn-neath

Date: December 2010

Scale:

Figure 6:
East to west facing sections of Quarry pits 1-3

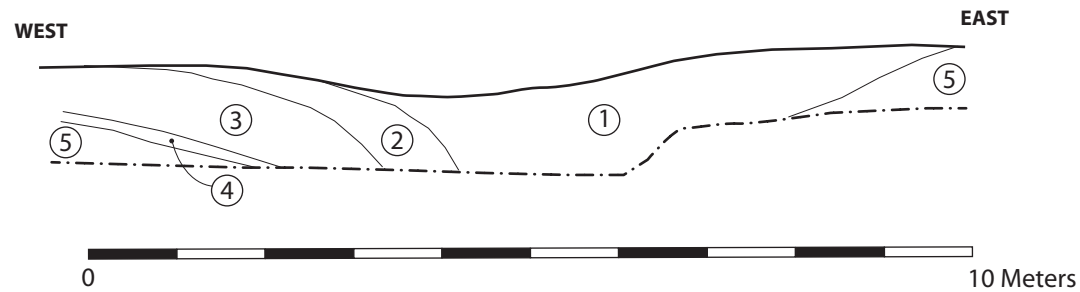
Quarry Hole 4



Contexts - Quarry/pit 4


- 1 = Soil and waste material
- 2 = Clay waste material
- 3 = Peat deposit laid turf down.
- 4 = Rock fragments and clay

Quarry Hole 5



Contexts - Quarry/pit 5

- 1 = Clay, silt and stone fragments
- 2 = Clay deposit
- 3 = Clay and silt material
- 4 = Peat deposit laid turf down.
- 5. Bedrock

Job Title:	Aberpergwm Colliery, Glyn-neath
Date:	December 2010
Scale:	
Figure 7:	East to west facing sections of Quarry pits 5 and 6
	

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to the past*



APPENDIX II: **Photo plates**



Plate 1. Working shot during top soil stripping whilst widening trackway



Plate 2. Working shot during excavation of lagoon area. Looking north.



Plate 3. Quarry pit No. 1 in area of cuts 7 - 8. Looking northwards.



Plate 4. Quarry pit No. 1 in area of cuts 7 - 8. Looking southwards.

Job Title: Aberpergwm Colliery

Date: December 2010

Photo plates: Workings shots and quarry pits in area of cuts 7-8



Plate 5. Exposed stone revetting in southern Quarry pit No. 1. Looking northwards.



Plate 6. Section through northern Quarry pit No. 4. Looking northwards.



Plate 7. Exposed waste material from northern Quarry pit No. 4 showing build up of material at edge of pit. Looking south.



Plate 8. Depth of peat in area of lagoon. Looking east.

Job Title: Aberpergwm Colliery

Date: December 2010

Photo plates: Views of quarry pits and depth of peat in area of lagoon.



Plate 9. Section through northern Quarry pit No. 3. Looking northwards.



Plate 10. Detail of stone revetting during removal in area of southern Quarry pit No. 1.



Plate 11. Trench put through Quarry pit No.1 prior to cutting work. Looking southwest.



Plate 12. Section through northern Quarry pit No. 4 showing build up of waste material.

Job Title: Aberpergwm Colliery

Date: December 2010

Photo plates: Detail shots of quarry pits in area of cuts 7-8



Plate 13. Working shot during top soil stripping in area of Cut 6. Looking northward.



Plate 14. Section through northern Quarry pit No. 3. Looking northwards.



Plate 15. Working shot during stripping for area of cuts 8-10. Looking eastward.



Plate 16. Working shot during stripping for area of cuts 8-10. Looking eastward.

Job Title: Aberpergwm Colliery

Date: December 2010

Photo plates: Working shots of cuts 8-10 and detail of quarry pit.



Plate 17. Average peat depth in area of cut 16-17. Looking south.

Job Title: Aberpergwm Colliery

Date: December 2010

Photo plates: Average peat depth in area of cuts 17-18

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APPENDIX III: **Archive Cover Sheet**

ARCHIVE COVER SHEET

Aberpergwm Colliery, Glyn-neath

Site Name: **Aberpergwm Colliery, Glyn-neath**

Site Code: **AC/10/WB**

PRN: **N/A**

NPRN :

SAM:

Other Ref No:

NGR: **SN 8391 0708**

Site Type:

Project Type: **Watching Brief**

Project Officer: **Richard Scott Jones**

Project Dates: **March 2008- Dec 2010**

Categories Present: **N/A**

Location of Original Archive: **CAP Ltd**

Location of duplicate Archives: **Dyfed Archaeological Trust**

Number of Finds Boxes:

Location of Finds: **N/A**

Museum Reference: **Not assigned**

Copyright: **CAP Ltd**

Restrictions to access: **None**



CAMBRIAN ARCHAEOLOGICAL PROJECTS

Cambrian Archaeological Projects Ltd
Old Chapel Farm, Llanidloes
Powys SY18 6JR
Telephone: 01686 413857
E-mail: info@cambarch.co.uk

