

Report No. BC/MB/06.20.05/2.

Coal Mining Risk Assessment, Land at Pencoedcae Farm, Merthyr Tydfil.

Prepared on behalf of:

Ms R Marshallsea and Mr A Harris

By:



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Mining Risk Assessment: Land at Pencoedcae Farm, Merthyr Tydfil.

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<i>BC/MB/06.20.05.01.</i>	<i>General Location Plan.</i>	<i>1:50,000.</i>
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Appendices

Appendix I: Copy of The Coal Authority's Report, ref. no. 51003317726001.

Appendix II: Copy of Public Health England's Radon gas report.

Mining Risk Assessment: Land at Pencoedcae Farm, Merthyr Tydfil.

1 Introduction

This report has been prepared on behalf of our client:

*Ms R. Marshallsea and Mr A. Harris,
C/o Pencoedcae Farm,
Mountain Hare,
Merthyr Tydfil,
CF48 4AJ*

and relates to land at Pencoedcae Farm in Merthyr Tydfil, where it is proposed to develop the land with a detached livestock building. This report discusses the geology and mining history of the Site and the immediately surrounding area as they may affect the construction of the proposed livestock building and thereby assesses the mining risk to the proposed development. Recommendations are made for site investigation to examine further the risk from shallow mine workings and from the Pencoedcae Level.

The following sources of data were used in the compilation of this report:

- i) Research of published geological records;*
- ii) Research of mining records held at The Coal Authority's archive in Mansfield;*
- iii) The findings of The Coal Authority's report, reference no. 51003317726001;*
- iv) Research of The Coal Authority's interactive map, accessed on the 18th October 2022;*
- v) The findings of Public Health England's Radon report and*
- vi) the archive records of Blandford Consulting.*

/Cont....

The findings of this report are necessarily based upon the data used in its compilation and may be amended in the future in the light of additional material information. The report must only be used in its entirety for its stated purpose.

2 Brief Description of the Site

The parcel of land that is the subject of this report ('the Site') is located 1.5km south-east of the centre of Merthyr Tydfil in the Mountain Hare region of the town (see *General Location Plan, drawing no. BC/MB/06.20.05.01*). The Site is located within a semi-rural setting on the westerly facing slopes of the Taff Valley where average ground slopes are 1 in 12. "The Site" is within an agricultural enclosure and is irregular in shape, occupying an area of approximately 0.45 hectares. (see *Detailed Location Plan, drawing no. BC/MB/06.20.05.03*). The location of the proposed barn is at an approximate elevation of 257m aod.

Figure 1
Aerial View of Site



/Cont....

3 Geology of the Site

The Site is situated towards the northern margin of the South Wales Coalfield and is underlain at shallow depths with strata assigned to the Middle Coal Measures, a sub-division of the Upper Carboniferous Period. The published geological sheet for the area at a 1:10,560 scale, SO 00 NE, shows the inferred position of the outcrops of the Nine Feet and Bute Seams to pass through the Site in the immediate vicinity of the proposed barn. The inferred position of the outcrop of the Amman Marine Band and the immediately underlying Yard Seam are shown to be present approximately 120m north-west of the proposed barn, passing at the entrance to the access road that serves the farm (see *Geology Plan, drawing no. BC/MB/06.20.05.02*); the Amman Marine Band marks the division between the Middle and Lower Coal Measures (see *Figure 2, Part of the Stratigraphic Column*).

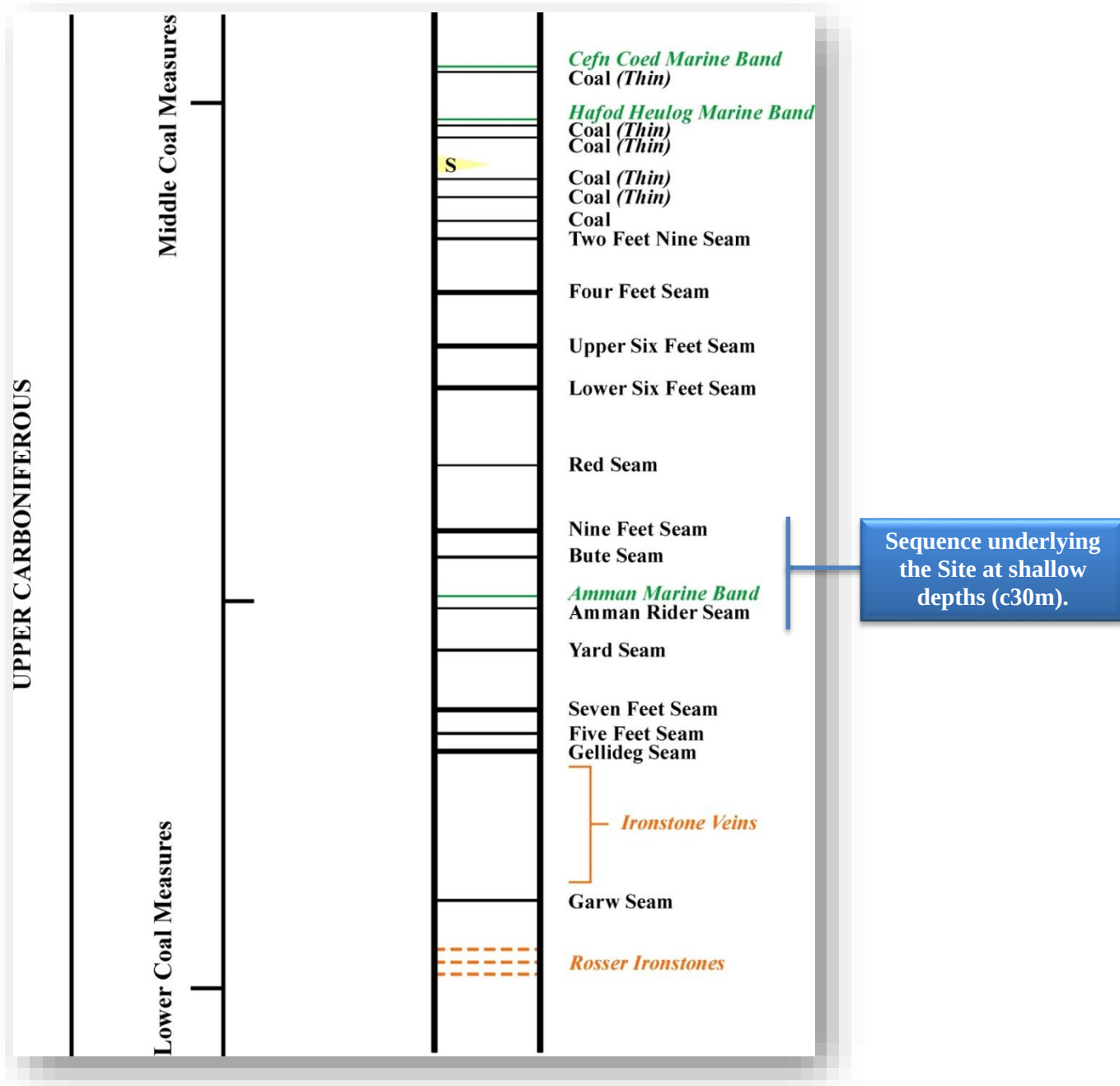
The inferred outcrops of the Seven Feet and Gellideg Seams are shown to be present further to the west. All the outcrops follow a sinuous trace along the hillside following a roughly north-easterly trend. The regional dip of the strata in the Pencoedcae area is 1 in 12 in a south-easterly direction so that the Nine Feet and Bute Seams may underlie the proposed building at very shallow depths and the Yard Seam at fairly shallow but deeper depth. The Seven Feet and Gellideg Seams underlie the Site at greater depths.

The measures of the South Wales Coalfield have been affected by large normal faults, frequently referred to as ‘cross faults’. In the Pencoedcae area these faults have a sinuous trace at the surface and an average trend towards the north-west. Published geological information indicates that there are no such faults within influencing distance of the Site.

Published geological information also indicates that the measures are overlain with deposits of glacial Boulder Clay; we have no detailed information regarding the thickness and engineering properties of the Boulder Clay in the vicinity of the Site. Published geological information also indicates that the Site is not affected by landslide.

/Cont....

Figure 1
Part of the Stratigraphic Column.



4 Mining History

The general area has experienced extensive underground operations for both coal and ironstone dating back to the early nineteenth century. The workings were prosecuted from a

/Cont....

number of adits driven into the valley sides at or near the outcrops of coal seams or ironstone veins, or else from shafts sunk near the valley floor. The Site is within influencing distance of three seams of coal at depths between 'shallow' and 100m and last mined in 1922. In addition, the Site has been undermined in two ironstone veins at depths in excess of 100m and last mined in the 1850's. The published geological sheet shows the 800 feet (244m) contour on the Nine Feet Seam to pass through the Site.

The site of a small opencast operation is shown on the published geological sheet approximately 270m south-west of the Site. On the published geological sheet, the former opencast site is shown on the inferred position of the outcrop of the Six Feet Seam but is annotated as having mined the Nine Feet Seam. Currently, there is a large opencast Site, Ffos-y-Fran, operating approximately 280m north of the Site at its closest point.

Our searches found records of two disused mine entries within the confines of the Site or within 20m of it. The two features are adits, Pencoedcae Level immediately to the south of the Site and a disused ironstone level immediately to the east of the Site. The Coal Authority has no record of what steps, if any, have been taken to stabilise either of the adits.

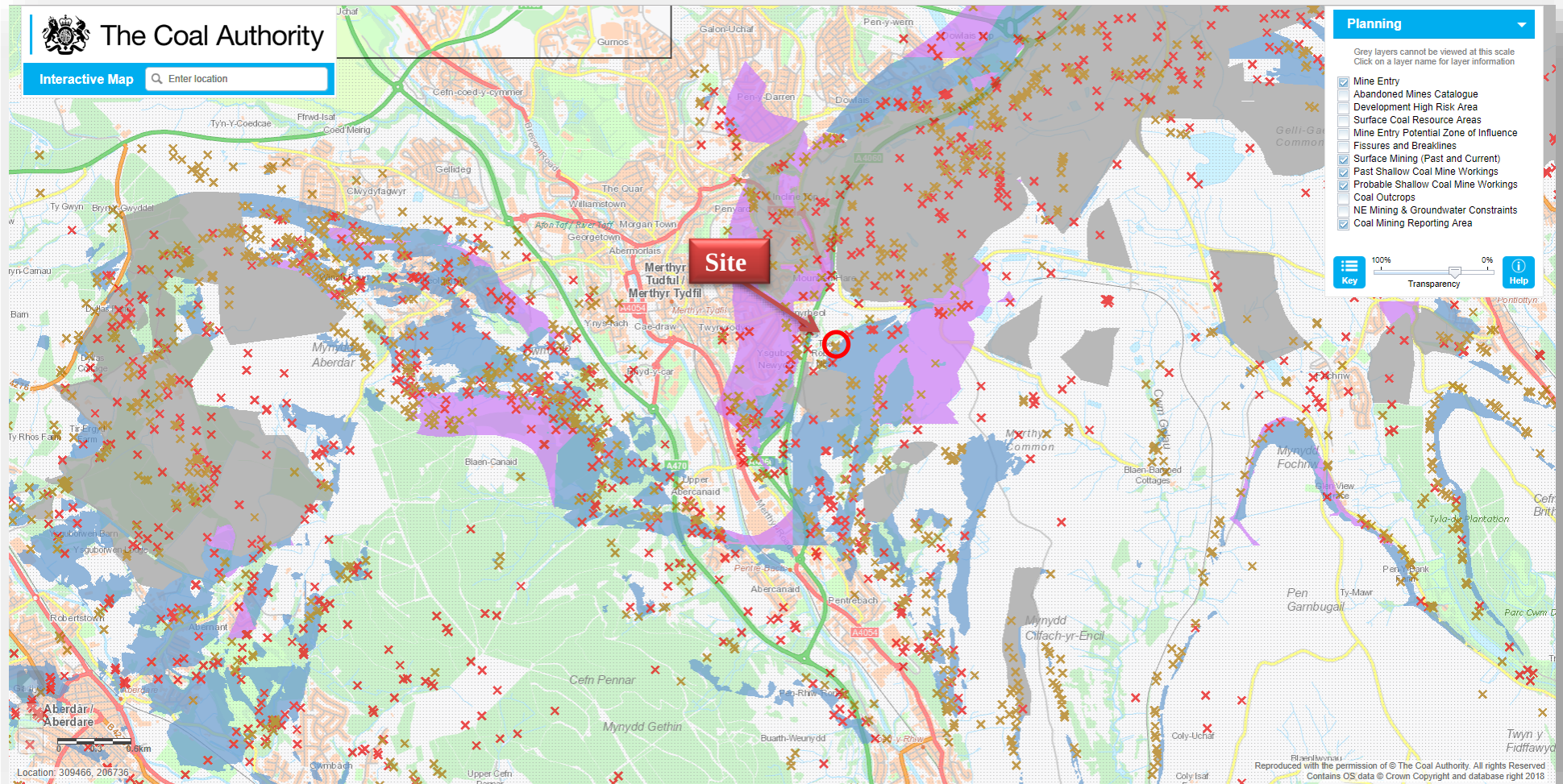
Otherwise, there are no working collieries in the locality that would affect the proposed development, the Site has not been part of an opencast coal site (OCCS) and there have been no opencast mining operations close enough to the Site to affect the structural integrity of the proposed development.

5 Mine Gases

When coal is mined gases, including methane, are released and may accumulate in the voids left by the mining operations. These gases may later vent to atmosphere or be displaced by mine water flooding the mining voids and forced to the surface. Mine gases may, in certain circumstances, accumulate within dwellings and pose a risk of asphyxiation, fire or explosion. A number of studies of the old workings across South Wales and dating back to the mid to late nineteenth century have shown that there is little risk from mine gases. This may be as a result of the nature of the coal seams or because the shallow old workings have vented most of the

/Cont....

Figure 3
Print-out of The Coal Authority's Interactive Map
(Accessed 18th October 2022)



/Cont....

mine gases to atmosphere or is as a result of the combination of the two. There is a potential risk of mine gases venting through fractured ground associated with the shallow mine workings, and the Pencoedcae Level may be acting as a preferred route for any gasses that may still be venting from local old workings.

6 Radon Gas

An assessment of the risk from Radon gas has been carried out by accessing Public Health England's interactive Radon map. The map identifies that the Site lies within an area that is not affected by Radon gas as defined by Public Health England.

7 Risk Assessment: Discussion and Recommendations

7.1 Solid Geology

There are no large faults present in the locality that are close enough to the Site to have an impact upon the proposed development and published geological information indicates that the Site is not affected by landslip. In so far as the solid geology of the Site is concerned there is no requirement to include any particular precaution in the design and construction of the foundations and no further study is required.

7.2 Mining History of the Site

7.2.1 Shallow Mine Workings

The locality has experienced extensive mining operations for both coal and ironstone. Mining records show the Site to be within influencing distance of old workings in three coal seams and two ironstone veins, at least one coal seam of which is at shallow depths and may pose a risk to the proposed development. The published geology sheet for the area shows the 800 feet (244m) basal contour of the Nine Feet Seam to pass through the Site and close to the proposed building;

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this would mean the base of the Seam is approximately 13m deep beneath the farmhouse. The fact that the geology sheet shows the contour means that there are mining records of the Seam having been mined there. Given the thickness of the Nine Feet Seam and the presence of Boulder Clay on the Site there is a significant risk that any old workings that may be present in the Seam may collapse to the surface. The Nine Feet Seam has a mudstone roof that would be prone to the effects of weathering that would make shallow mine workings unlikely, but the presence of old workings in the Seam cannot be ruled out. The Bute Seam immediately underlies the Nine Feet Seam in the geological sequence, any old workings that may be present in the Seam may be at relatively shallow depths.

The remaining coal seams and the ironstone veins are of an age/and or are at depths whereby they will not affect the structural integrity of the proposed development of the Site. It is recommended that the nature and depth of suspected shallow old workings underlying the Site should be further assessed in more detail by means of exploratory boreholes. The exploration programme should be designed and supervised by a Chartered Geologist and will require a permit from The Coal Authority.

7.2.2 Mine Entries

Our searches found records of two disused adits within the confines of the Site or 20m of it. Both adits lie outside the bounds of the study area. The locations shown for the two adits are imprecise, consequently a cautionary zone with a 10m diameter has been constructed around each of the two adits' locations (see *Mining Risk Plan, drawing no. BC/MB/06.20.05.04*). It would be unusual for a mining feature to be more than 10m from its shown position in a Coal Authority report. It can be seen that the cautionary zones do not approach the proposed building's location, which is another 8m beyond the cautionary zone, i.e. 18m from the shown position of the ironstone adit and an even greater distance from the Pencoedcae Level. The risk of the proposed building being influenced by the

/Cont....

mouth of either adit is very low. Yet more confidence that the building is remote from the mouths of the adits could be achieved by rotating the building as shown on the Mining Risk Plan.

A hypothetical collapse/exclusion zone has been calculated for the adits, the zones follow the underground drivages away from the Site and the proposed building.

It is unlikely that a further disused mine entry is present within the confines of the Site, but it would be prudent to monitor excavations associated with the development of the Site. If anything unusual is observed, excavation work should be stopped immediately, and advice sought from a Chartered Geologist or from The Coal Authority.

Otherwise, there are no active mines in the locality, deep mines or opencast mines, that would affect the structural integrity of the proposed development and the Site has not been part of an opencast coal site.

7.2.3 Mine Gases

When coal is mined gases, including methane, are released and may accumulate in the voids left by the mining operations. The shallow mine workings thought to be present beneath the Site could act as a source of mine gases. The construction of the proposed livestock building will be of an open, well ventilated nature such that there will be little opportunity for any mine gases that might be present to accumulate to the point where they pose a risk. The recommended boreholes should be monitored for mine gases.

7.3 Radon Gas

The Site lies within an area which is not in a Radon affected area as defined by Public Health England.

/Cont....

7.4 Foundation Options

Recommendations cannot be made regarding the appropriate foundation option until the findings of the recommended exploratory drilling are known.

Consideration of the soil conditions present on the Site is outside the scope of this report; an assessment of the soil conditions should be undertaken before determining the most appropriate foundation option.

7.5 Buried Services

No search of underground services was carried out during the preparation of this desk study report. It is recommended that before any exploration or excavation work are carried out on the Site that the main service providers are contacted with a view to determining what buried services might underlie the Site.

7.6 Summary of Risk Assessment

There are recorded shallow mine workings underlying the Site that potentially pose a risk of surface subsidence.

Deeper old workings that may be present are too deep to pose a risk.

The two adits that are located within 20m of the Site are considered not to pose a risk to the proposed livestock building. The risk of an unrecorded, disused mine entry being present within the Site is low but cannot be entirely dismissed.

There are no active collieries or opencast coal sites in the locality that would affect the structural integrity of the proposed development and the Site has not been part of an opencast site.

The risk from mine gases is considered to be very low. However, the shallow old workings thought to be present could act as a source of mine gases potentially posing a risk. The well-ventilated construction of the livestock building will mitigate against the risk of any mine gases that might be present accumulating to a hazardous concentration.

/Cont....

The Site is within an area where there is no risk from Radon gas.

7.7 Summary of Recommendations

It is recommended that exploratory boreholes are drilled on the Site to examine in greater detail the shallow old workings thought to be present and any risk that they may pose to the proposed development. The boreholes should be monitored for the presence of mine gases. If the shallow old workings are found to present a risk, then they should be stabilised by means of a drilling and grouting programme.

The risk of an unrecorded, disused mine entry being present within the confines of the Site is low but cannot be entirely discounted. If any unusual features are encountered during excavation works, the works must be stopped immediately, and advice sought from a Chartered Geologist or from The Coal Authority.

There is no risk from Radon gas and the appropriate response for building control purposes is NONE.

7.8 General

The recommended site investigation should be designed and supervised by a Chartered Geologist, Chartered Geotechnical Engineer or other competent person and will require a permit from The Coal Authority.



**Dr Malcolm Blandford,
Consultant Geologist.**

Report Date: 14th October 2020.

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PLANS



THE ENTERPRISE CENTRE,
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Geologists Working With The Environment....

Study on Land at Pencoedcae Farm, Merthyr Tydfil.

General Location Plan.

Plan Scale: 1:50,000.

Key to Symbols:



Approximate Position of Site.

Note:

North is at top of plan.

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MERTHYR INDUSTRIAL PARK,
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Drawing No: BC/MB/06.20.05.01.



Study on Land at Pencoedcae Farm, Merthyr Tydfil.

Geology Plan.

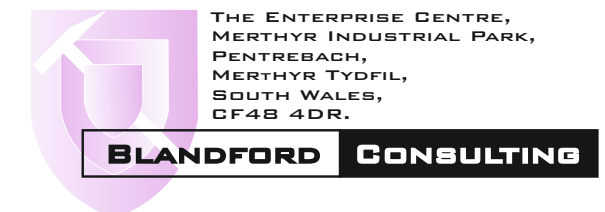
Plan Scale: 1:10,560.

Key to Symbols:

— Approximate Site Boundary.

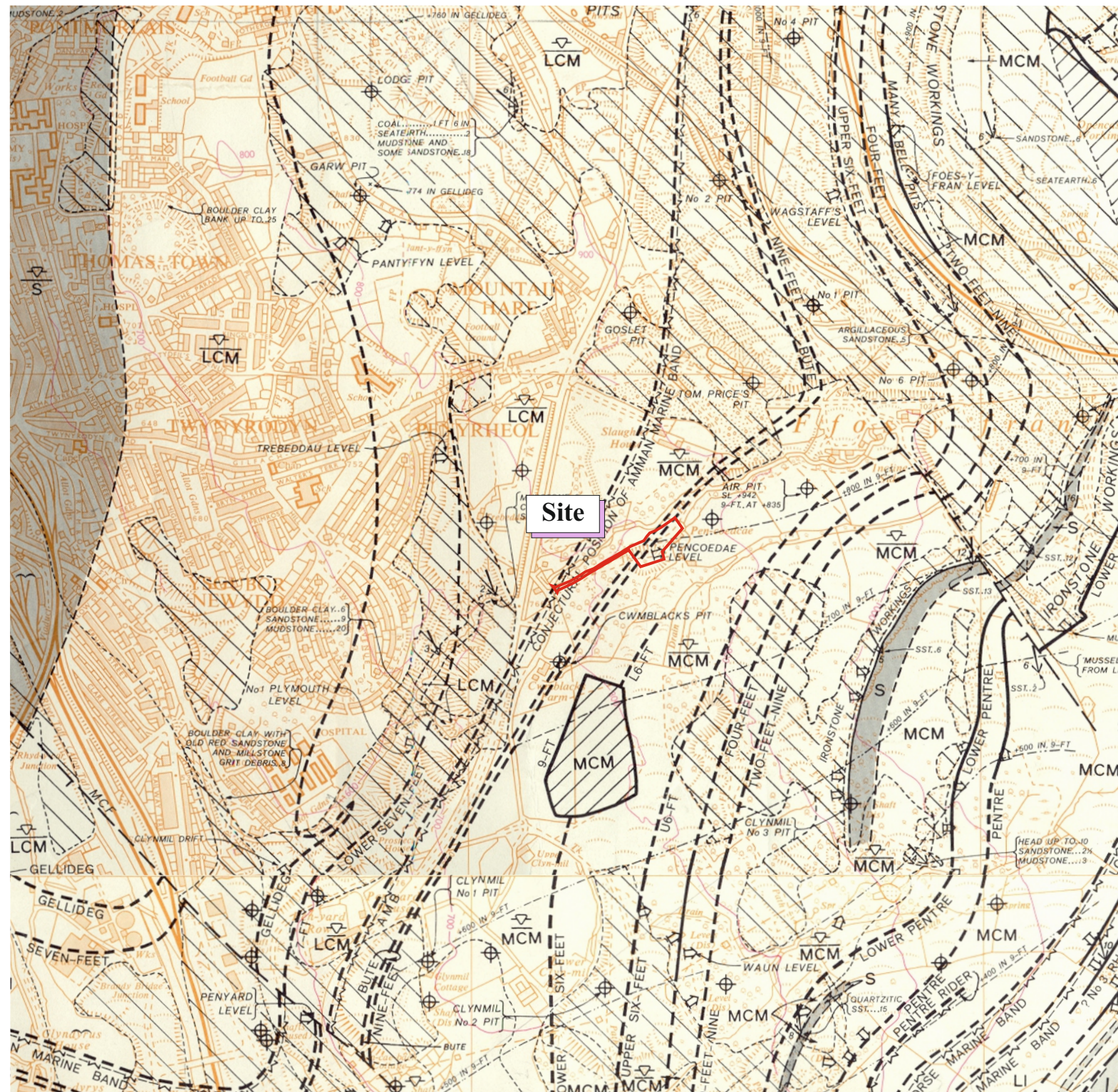
Note:
North is at top of plan.

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Drawing No: BC/MB/06.20.05.02.

Geologists Working With The Environment.....



Study on Land at Pencoedcae Farm, Merthyr Tydfil.

Detailed Location Plan.

Plan Scale: See Drawing.

Key to Symbols:

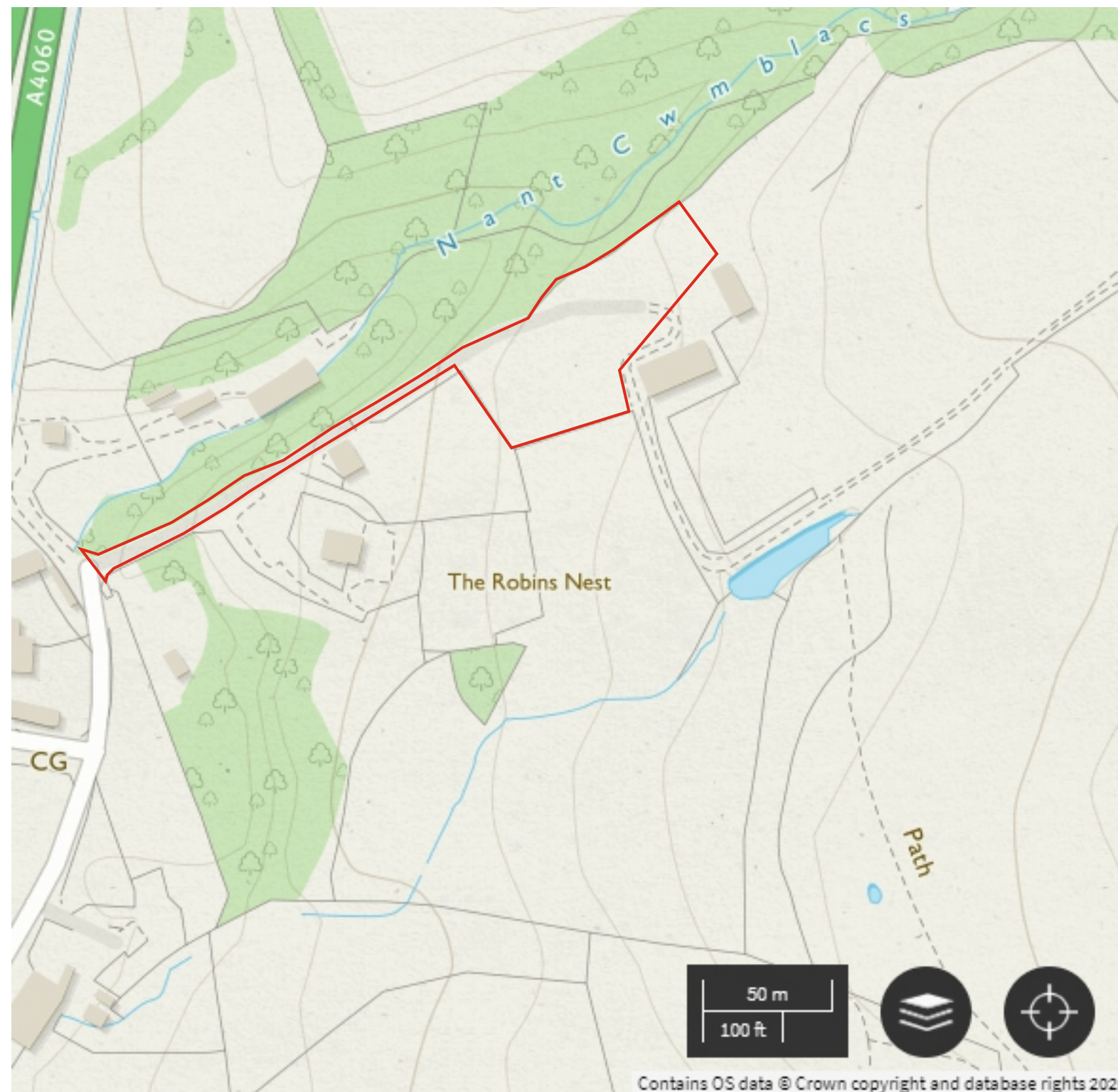
 **Approximate Site Boundary.**

Note:
North is at top of plan.

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Drawing No: BC/MB/06.20.05.03.



Study on Land at Pencoedcae Farm, Merthyr Tydfil.

Mining Hazard Plan.

Plan Scale: 1:2,500.

Key to Symbols:

- Approximate Site Boundary.
- Other Land in Client's Control.
- Approximate Position of Disused Mine Adit.
- 10m Radius Cautionary Zone.
- Hypothetical Collapse/Exclusion Zone.
- Proposed Position of Building.
- Suggested Position of Building.

Note:
North is at top of plan.

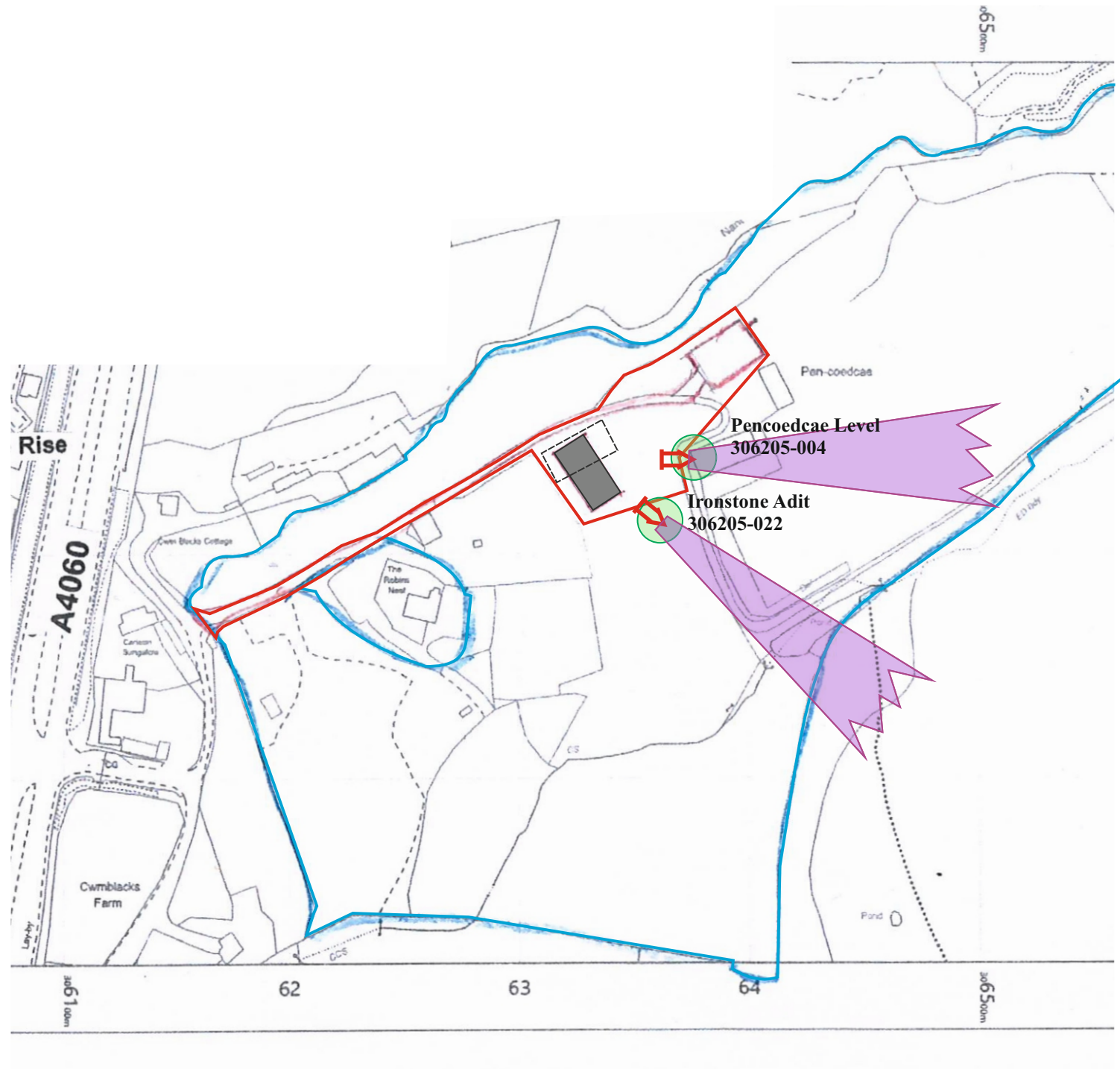
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SOUTH WALES,
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Drawing No: BC/MB/06.20.05.04.



APPENDIX I

**COPY OF THE COAL
AUTHORITY'S REPORT
51003317726001**



THE ENTERPRISE CENTRE,
MERTHYR INDUSTRIAL PARK,
PENTREBACH,
MERTHYR TYDFIL,
SOUTH WALES,
CF48 4DR.

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Geologists Working With The Environment....



The Coal
Authority

CON29M

coal mining report

LAND AT PEN-COEDCAE FARM, A4060 LEOS ROUNDABOUT TO MOUNTAIN
HARE ROUNDABOUT SOUTHBOUND, MERTHYR TYDFIL, CF48 4AJ



Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4
Mine entries	Page 5



Further action

These additional reports can give further detail on the risks identified:

- Mine entry interpretive report
- Mine entry plan and data sheets

For more information please see our **Further action reports** on page 10



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. In view of the coal mining circumstances we would recommend that any planned or future development should follow detailed technical advice before beginning work on site. Please see **page 3** for further details on **Future development**.

Your reference: **BC/MB/06.20.05**
Our reference: **51003317726001**
Date: **12 October 2022**

Client name:
BLANDFORD CONSULTING

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

Enquiry boundary

Key

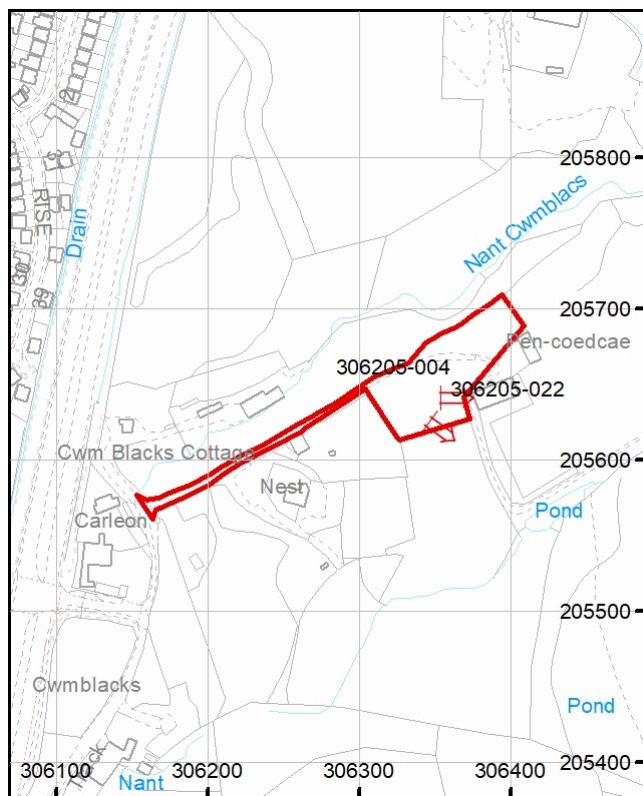
Approximate position of enquiry boundary shown



Disused adit



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion



Mine entries

The enquiry boundary shows the approximate location of the disused mine entry/entries referred to in this report. Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage caused by disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by visiting www.coal.gov.uk. Please note this Act is not valid where coal was worked or extracted by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wishes to examine the source plans from which the information has been taken, these are available to view, at our Coal Authority head office in Mansfield. To book an appointment please call **01623 637 225**. Should you or your advisor wish to carry out a physical investigation that may enter, disturb or interfere with any disused mine entry, prior permission must be sought from the owner. For coal mine entries, the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency, 24 hour call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). To report an emergency you can call **0800 288 4242**.



Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email cmra@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 4 seams of coal at shallow to 100m depth, and last worked in 1922.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

Within, or within 20 metres of, the boundary of the property there are 2 mine entries, the approximate positions of which are shown on the enquiry boundary plot. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

There is no record of what steps, if any, have been taken to treat the mine entries.

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

For an additional fee, the Coal Authority can provide a Mine Entry Interpretive Report. The report will provide a separate assessment for the mine entry/entries referred to in this report. It gives an opinion on the likelihood of mining subsidence damage caused from ground movement as a consequence of the mine entry/entries. It also gives details of the remedies available for subsidence damage where the mine entry was sunk in connection with coal mining.

Please note that it may not be possible to produce a report if the main building to the property cannot be identified from Coal Authority plans (ie for development sites and new build).

For further advice on how to order this additional information please visit www.groundstability.com.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **0800 288 4242**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings



Further action reports

Mine entry interpretive report - assesses the risk of ground movement from mine entries in, or within 20 metres of, the property boundary. To order this report, use the same boundary as the CON29M report, then draw the building on the additional map screen.

For more information and to order this report please visit:

<https://www2.groundstability.com/interpretive-report>

Mine entry plan and data sheets - give additional information on mine entries recorded on a piece of land. To order this report use the same boundary as the CON29M report and a member of our team will contact you to confirm the mine entries to include in this bespoke report.

For more information and to order this report please visit:

<https://www2.groundstability.com/plan-and-data-sheets>

APPENDIX II

COPY OF RADON GAS REPORT



THE ENTERPRISE CENTRE,
MERTHYR INDUSTRIAL PARK,
PENTREBACH,
MERTHYR TYDFIL,
SOUTH WALES,
CF48 4DR.

BLANDFORD CONSULTING

Geologists Working With The Environment....



Radon Risk Report for addresses in England and Wales

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Address searched: Pen-Coedcae Farm, Mountain Hare, Merthyr Tydfil, CF48 4AJ

Date of report: 18 June 2020

Guidance for existing properties

Is this property in a radon Affected Area? - No

A radon Affected Area is defined as where the radon level in at least one property in every hundred is estimated to exceed the Action Level.

The estimated probability of the property being above the Action Level for radon is: 0-1%

The result may not be valid for buildings larger than 25 metres.

If this site is for redevelopment, you should undertake a GeoReport provided by the British Geological Survey.

This report informs you of the estimated probability that this particular property is above the Action Level for radon. This does not necessarily mean there is a radon problem in the property; the only way to find out whether it is above or below the Action Level is to carry out a radon measurement in an existing property.

Radon Affected Areas are designated by the Public Health England. PHE advises that radon gas should be measured in all properties within Radon Affected Areas.

If you are buying a currently occupied property in a Radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were above the Radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and the results of re-testing confirmed the effectiveness of the measures.

Further information is available from PHE or <https://www.ukradon.org>

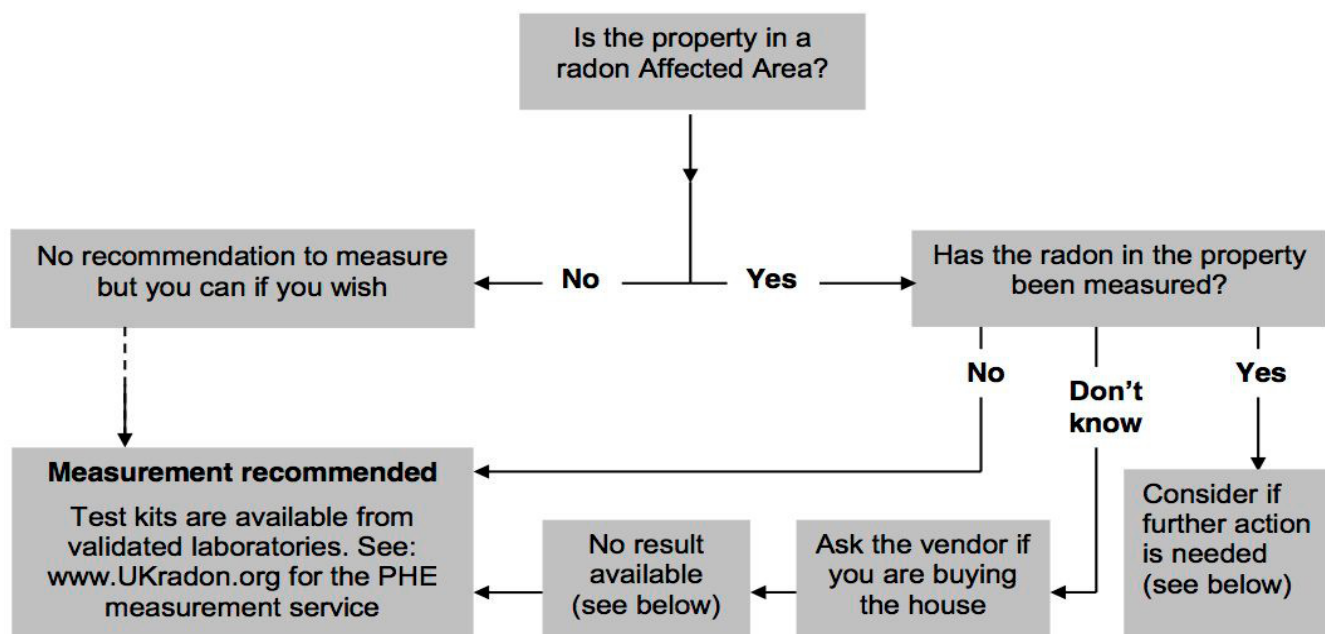
Guidance for new buildings and extensions to existing properties

What is the requirement under Building Regulations for radon protection in new buildings and extensions at the property location? - None

If you are buying a new property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

See the Radon and Building Regulations for more details.

PHE guidance for occupiers and prospective purchases



Existing radon test results: There is no public record of individual radon measurements. Results of previous tests can only be obtained from the seller. Radon levels can be significantly affected by changes to the building or its use, particularly by alterations to the heating and ventilation which can also be affected by changes in occupier. If in doubt, test again for reassurance.

Radon Bond: This is simply a retained fund, the terms of which are negotiated between the purchaser and the vendor. It allows the conveyance of the property to proceed without undue delay. The purchaser is protected against the possible cost of radon reduction work and the seller does not lose sale proceeds if the result is low. Make sure the agreement allows enough time to complete the test, get the result and arrange the work if needed.

High Results: Exposure to high levels of radon increases the risk of developing lung cancer. If a test in a home gives a result at or above the Action Level of 200 Becquerels per cubic metre of air (Bq/m³), formal advice will be given to lower the level. Radon reduction will also be recommended if the occupants include smokers or ex-smokers when the radon level is at or above the Target Level of 100 Bq/m³; these groups have a higher risk. Information on health risks and radon reduction work is available from PHE. Guidance about radon reduction work is also available from some Local Authorities, the Building Research Establishment and specialist contractors.

PHE designated radon website:

<https://www.ukradon.org>

Building Research Establishment:

<http://www.bre.co.uk/page.jsp?id=3137>



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