

Report No. BC/MB/06.19.03.

Site Investigation Report on Land at Gethin House, Abercanaid

Prepared on behalf of:

Mr D Brooks.

By:



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Site Investigation Report: Land Adjacent to Gethin House, Abercanaid, Merthyr Tydfil.

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List of Plans

Drawing No:		Scale:
<i>BC/MB/06.19.03.01.</i>	<i>General Location Plan.</i>	<i>1:50,000.</i>
<i>BC/MB/06.19.03.02.</i>	<i>Geology Plan.</i>	<i>1:10,560.</i>
<i>BC/MB/06.19.03.03.</i>	<i>Detailed Location Plan.</i>	<i>1:1,250.</i>
<i>BC/MB/06.19.03.04.</i>	<i>Extract from Ordnance Survey (1878-1913 Edition).</i>	<i>1:1,250.</i>
<i>BC/MB/06.19.03.05.</i>	<i>Site Investigation Plan.</i>	<i>1:500.</i>

Appendices

Appendix I: Copy of The Coal Authority's Mining Report 51002151604001.

Appendix II: Geotechnical Logs of Trial Pits 1-4.

Site Investigation Report: Land Adjacent to Gethin House, Abercanaid, Merthyr Tydfil.

1 Introduction

This report has been prepared on behalf of our client:

***Mr D Brooks,
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1st Floor Woodfired Studios,
62 High Street,
Merthyr Tydfil, CF47 8DE***

and relates to a parcel of land, 'the Site', adjacent to Gethin House in Abercanaid, where it is proposed to construct a detached dwelling. This report discusses the geology and mining history of the Site and the findings of ground investigation in order to assess the mining risk to the development. The report also discusses the findings of an infiltration test.

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

- i) Research of published geological records;*
- ii) Research of The Coal Authority's interactive map, accessed on the 19th July 2019;*
- iii) The findings of The Coal Authority's mining report, reference no. 51002151604001;*
- iv) Research of Public Health England's interactive Radon Gas map, accessed on the 19th July 2019;*
- v) The findings of the ground investigation and infiltration test carried out at the Site and*
- vi) the archive records of Blandford Consulting.*

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.

/Cont....

2 Brief Description of the Site

The parcel of land which is the subject of this report ('the Site') is situated at the southern extremity of Abercanaid and lies approximately 5 kilometres (km) south of the centre of Merthyr Tydfil (see Figure 1 and *General Location Plan, drawing no. BC/MB/06.19.03.01*). The Site, itself, is situated on the north-easterly facing slopes of the valley of the River Taff. The Site is situated on the fringes of a mixed residential area where the houses are predominantly arranged in terraces and is surrounded by countryside on three sides (see Figure 1 and *Detailed Location Plan, drawing no. BC/MB/06.19.03.03*). The Site is roughly rectangular in outline and occupies an area of 412m² and is at an elevation of approximately 166m aod; it is presently unoccupied.

Figure 1
Aerial View of Site



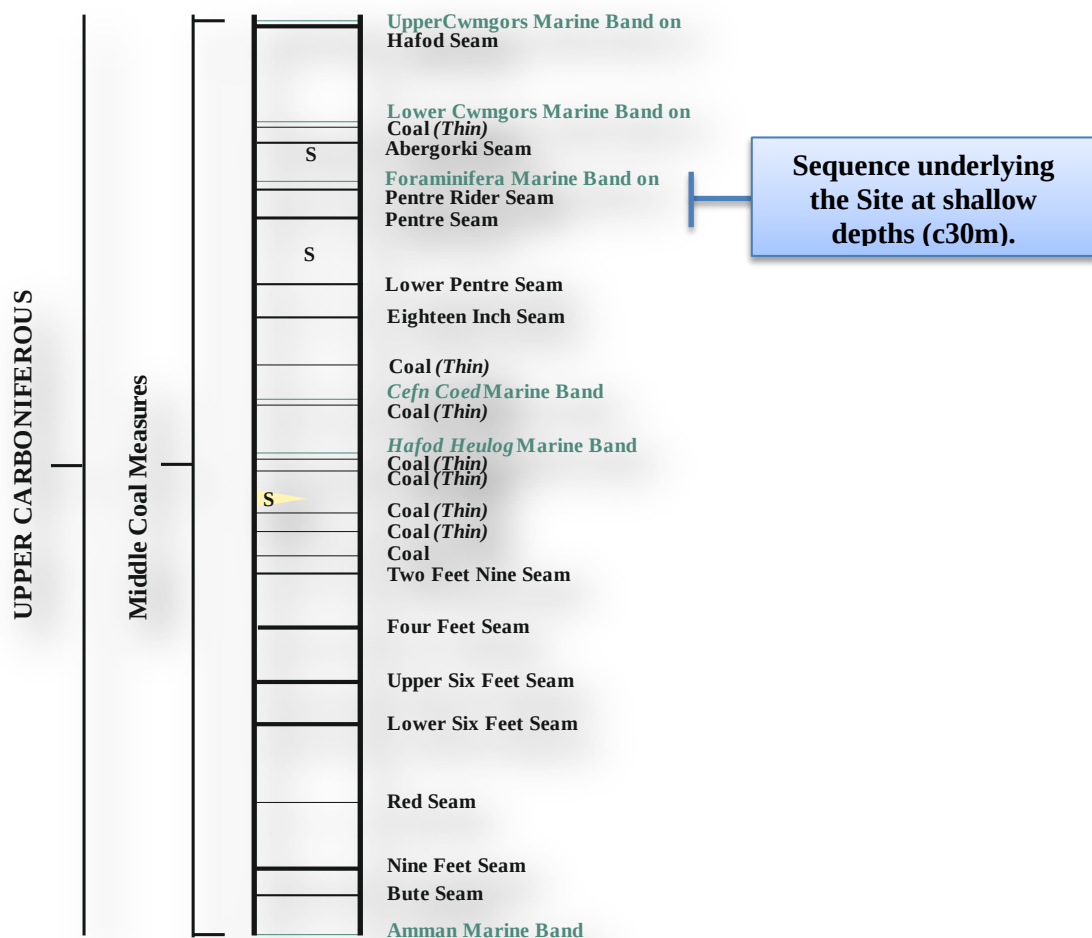
3 Geology of the Site

The Site is situated fairly centrally towards the northern margin of the South Wales Coalfield so that it is underlain at shallow depths by strata assigned to the Middle Coal Measures

/Cont....

(see *Geology Plan, drawing no. BC/MB/06.19.03.02*). The most recently published geological sheet (SO 00 SE at 1:10,560 scale) show the inferred position of the outcrop of the Pentre Rider Seam to be present approximately 80m north of the Site and that of the Abergorky Seam and a thin coal to be present approximately 80m south of the Site. The outcrops follow a 'U-shape' as they cross the valley floor. The dip of the strata in the area is of the order of 1 in 13 towards the south-east, so that the Pentre Rider Seam is likely to underlie the Site at relatively shallow depths.

Figure 2
Indicative Stratigraphic Column.
Scale: Not to Scale.



The coal measures of the South Wales Coalfield have been affected by large faults. In the Abercanaid area these large faults have a slightly sinuous trace at the surface and average trends towards the north-west. The published geological sheet indicates that the Site is not affected by such large scale faulting.

/Cont....

The published geological sheet also shows the coal measures to be overlain with deposits of River Alluvium with Made Ground comprised of colliery Spoil present across the southern margins of the Site. The latter is part of a former tramway associated with Gethin No1 Pit.

4 Mining History

The area has been subject to extensive coal mining operations dating back to the early part of the nineteenth century. Coal seams were accessed by adits driven into the mining horizons near their outcrops supplemented by air shafts; larger shafts gave access to deeper lying coal seams. The shallowest seam underlying the Site that is capable of supporting underground mining operations is the Pentre Rider Seam, which has been mined in a limited extent along the valley side by means of drift mines.

The Site is within influencing distance of old workings in six coal seams at depths of between 90m and 210m; underground mining finished in 1931. There are no operating coal mines in the locality that could affect the Site and it has not previously been part of an opencast coal site.

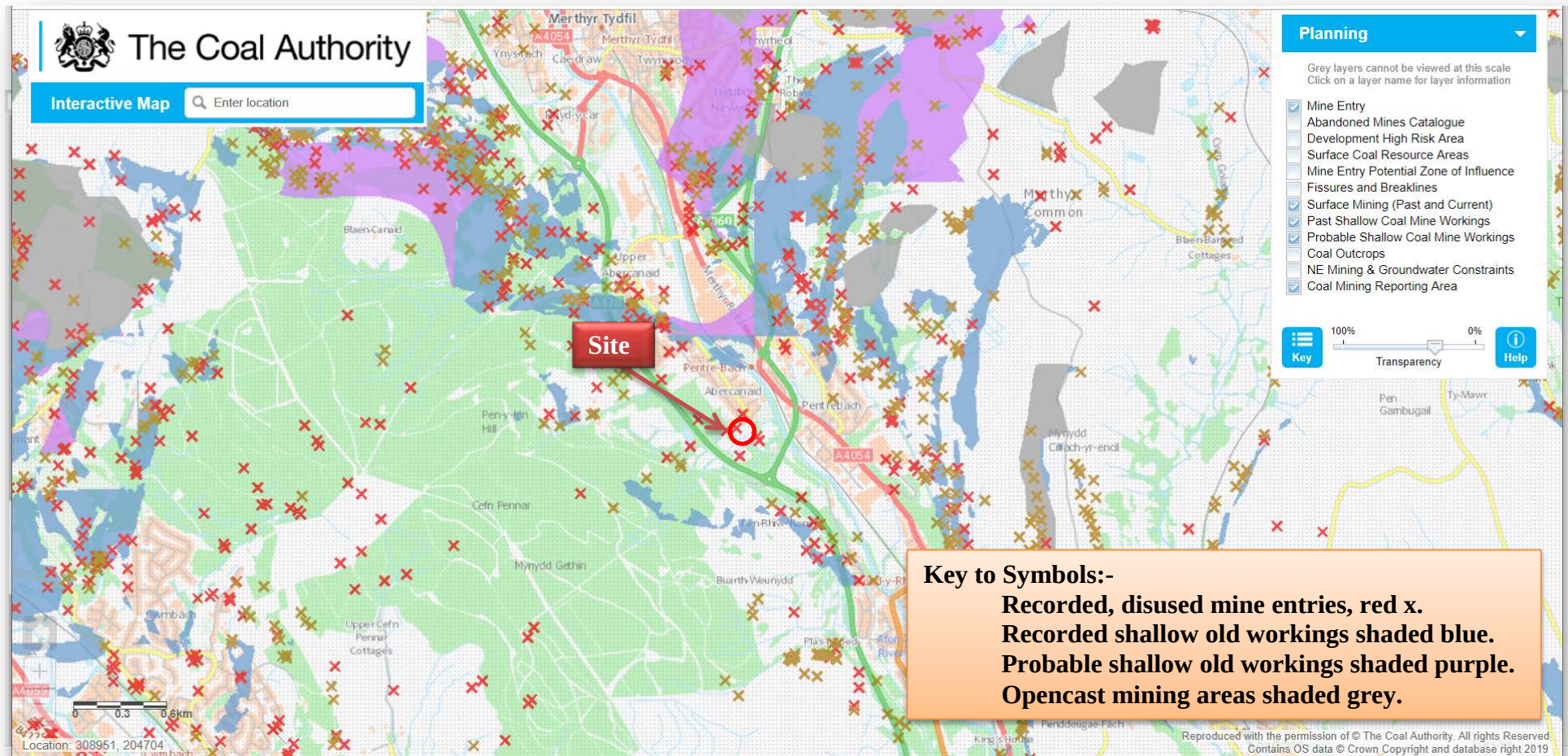
There are no recorded disused mine entries, shafts or adits, within the bounds of the Site. There is one disused shaft within 20m of the boundary of the search area covered by The Coal Authority report; situated approximately 11m to the west of the Site. (see *Extract from Ordnance Survey (1878-1913 Edition) and Site Investigation Plan, drawing nos. BC/MB/06.19.03.04 and BC/MB/06.19.03.05*).

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

/Cont....

Figure 3
Print-out of The Coal Authority's Interactive Map
 (Accessed 19th July 2019)



/Cont....

twentieth 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 mine gases to atmosphere or is as a result of the combination of the two.

There are no shallow coal seams underlying the Site that could have supported underground mining operations that would have left mining voids within which mine gases would accumulate. The Coal Authority has no record of a mine gas emission at the Site requiring action.

6 Radon Gas

Government advice is that the risk from Radon gas should be assessed for all new developments. This has been done by accessing Public Health England's interactive Radon gas map, which identifies that the Site lies within an area where the maximum Radon potential is between 1% and 3%. The risk from Radon gas should be further assessed by obtaining from the British Geological Survey a GeoReport.

7 Site Investigation

7.1 Site Investigation Programme

The site investigation comprised of four (4) mechanically excavated trial pits sunk to a maximum depth of 2.35 metres below ground level (mbgl) in order to assess the near surface soils to determine their condition and acceptability for shallow based foundations. The soils were logged and sampled in accordance with BS 5930: 2015: Code of practice for site investigations British Standards Institution and in accordance with BS EN 1997-2 (2007). Geotechnical Logs and Photographs for the Trial Pits are contained in Appendix I to this report.

An infiltration test was carried out in Trial Pit 4 in accordance with BRE365 (2016).

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7.2 Groundwater Environment

Groundwater Protection Policy (GP3) and the Water Framework Directive (WFD) Maps are managed by Natural Resources Wales (NRW) and inspection of these maps indicated the following:

-  The Site is not within a designated river flood risk zone.
-  The Site has a low to medium risk of surface water flooding along its western boundary.
-  The Site is not within a Groundwater Source Protection Zone.
-  The Site is defined as Low Vulnerability: Secondary Aquifer for Superficial Deposits.
-  The Site is defined as Low Vulnerability: Secondary Aquifer for Bedrock.
-  There are no designated Water Abstraction Licences within influencing distance.

7.3 Environmental Issues

An environmental assessment is outside the scope of this ground investigation. The Site has an industrial history resulting from coal mining and Made Ground (Colliery Spoil) is shown to be present on the southern margins of the Site and was encountered in Trial Pits 3 and 4. The colliery spoil poses a risk of contaminated material being present on the Site and requires further examination and soil sampling and testing to assess the risk in detail.

7.4 Ground Conditions and Conceptual Model.

A conceptual soil and bedrock model has been developed based on the results of the site investigation and logging, site-based observations and supporting photography (see Table 1).

7.5 Groundwater Model

No groundwater was encountered during the site investigation and groundwater should be considered as having no discernible relevance to the foundation design.

/Cont....

Figure 5



/Cont...



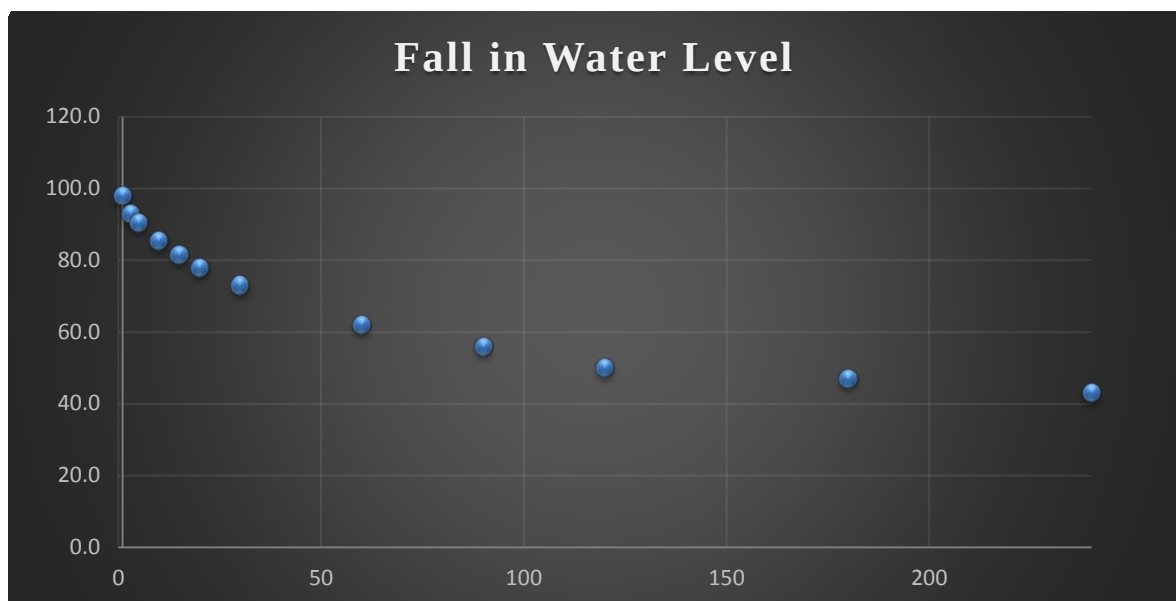
Table 1
Conceptual Soil and Bedrock Model

Designation	TP1	TP2	TP3	TP4
Total Depth	2.25	2.35	2.15	2.30
Soils				
Made Ground	0.30	0.35	-	-
Made Ground (Colliery Waste)	-	-	0.50	0.40
Glacial Till (Gravelly CLAY)	>1.95	>2.00	>1.62	1.10
Glacial Till (Sandy GRAVEL)	-	-	-	>0.80

8 Infiltration Test and Assessment

An infiltration test was carried out in Trial Pit 4 in accordance with BRE365 (2016). This location was selected because the south-east corner of the Site is sufficiently distant from the foundations of the proposed dwelling. The fall of the water level in the trial pit is displayed in the graph at Figure 6; the infiltration rate was found to be 1.042×10^{-4} .

Figure 6



/Cont....

9 SAB Compliant Design

Four sections of the SAB application are dealt with by this report:

- Section 2: Site Details
- Section 7: SuDS National Standards
- Section 8: Assessment of Flood Risk
- Section 9: Surface Water Discharge Hierarchy
- Section 10: Infiltration Assessment

9.1 Site Details

See Sections 2, 3 and 4 of this report.

9.2 SuDS National Standard Compliance

The National Standards are broken down into six standards of which four are covered by this report:

- Standard 1: Surface Water Runoff Destination
- Standard 2: Surface Water Runoff Hydraulic Control
- Standard 3: Water Quality
- Standard 6: Design of Drainage for Construction and Maintenance and Structural Integrity.

9.2.1 *Standard S1 - Surface Water Runoff Destination*

Priority Level 1 Solutions. We are given to understand that the developer intends to incorporate a Priority Level 1 rainwater harvesting system (RWH) into the development. The technical details (retained volume, storage size, user volume *etc*) were not available at the time of the publication of this report.

The incorporation of such a system will reduce the volume of surface water that the lower priority level solutions would have to contend with. It should be noted that RWH systems incorporate an exceedance overspill in their designs and in

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order to comply with Building Regulations will require a Priority Level 2 or lower solution to be included as part of the development plan.

Additional Priority 1 SuDS (green roofs *etc*) have not been considered. Such systems require building structures to be designed to accommodate the dead load of both the system and also are required to accommodate the weight of retained water on the roof at saturated weight, including a standard structural factor safety. These solutions are generally impractical for steeply pitched roofs.

Priority Level 2 Solutions. Priority Level 2 solutions under consideration include:

- A. Attenuation Infiltration Area (Permeable paving)
- B. Shallow Base Soakaway (BRE 365)
- C. Proprietary Attenuation Tank

Attenuation Infiltration Area: The soil infiltration test carried out in TP1 found the soils to have a relatively high infiltration rate leading to the conclusion that attenuation infiltration areas would be effective. The use of permeable paving surfaces on path and patio areas would prove useful.

Shallow Base Soakaways: The results of the infiltration test carried out indicates that Shallow Based Soakaway solution designed to BRE 365 specifications would be a viable option.

Attenuation Tank: The combination of a RWH system, permeable surfaces and a soakaway should negate the need for an attenuation tank.

Priority Level 3 Solutions. No Priority 3 solutions are required.

Priority Level 4 Solutions. No Priority Level 4 solutions are required.

9.2.2 **Standard S2 - Surface Water Runoff Hydraulic Control**

/Cont....

An assessment of the most suitable SuDS solution in conjunction with the provision of Standard 1 has been carried using one or more of the following headings:

- A. Interception of runoff
- B. Flood risk mitigation for receiving surface water bodies
- C. Runoff volume control
- D. Flood protection for the site
- E. Extreme event exceedance management of surface water runoff

Interception of runoff has been partially covered within Standard 1 (Priority Level 1) where it has been indicated that a percentage (as yet unknown) will be achieved on site through a RWH system. Further interception of runoff is achieved by the inclusion of a soakaway (Priority Level 2)

Flood risk mitigation. Given the inclusion of a RWH system and soakaway flood risk mitigation is not required for Priority Level 1 and 2.

Runoff volume control has been covered within Standard 1 (Priority Levels 1 and 2) by the inclusion of a RWH system and soakaway.

Flood Protection: The Site is shown on maps published by NRW to be in an area that is not at risk of flooding from rivers and with a medium to high risk of flooding from surface water.

Extreme Event: The assessment of extreme event volumes and run off capacity is incorporated into any Priority Level 2 design solution and requires detailed calculations using an accurate planned drainage surface area, calculations for the capacity of any RWH system and assessments and agreement on design storm intensities and extreme events based on the SuDS and BRE guidance. Some of the above details were not available at the time of publication of this report.

/Cont....

9.2.3 Standard S3 – Water Quality

A soakaway installed at the location of Trial Pit 4 would be within natural soils.

9.2.4 Standard S6 – Design of Drainage for Construction and Maintenance and Structural Integrity

The details of the construction of the drainage arrangements and their maintenance were not available at the time of the publication of this report, with the result that comments on geotechnical matters relating to their construction and maintenance was not possible.

9.3 Section 8: Assessment of Flood Risk

The Site is not within an area that is at risk of flooding from rivers, consequently the construction of the dwelling will not increase the risk of flooding elsewhere. The risk of flooding from surface water is along the northern and western boundaries of the Site, largely outside the footprint of the proposed dwelling. Consequently, the development will have only a minor impact on the pattern of surface water flooding.

9.4 Section 9: Surface Water Discharge Hierarchy

The surface water discharge hierarchy explicitly refers to the SuDS National Standards Compliance covered in Section 9.2 of this report.

10 Discussion and Recommendations: Foundation Options

10.1 Solid Geology

There are no issues relating to the solid geology of the Site that would affect the structural integrity of the proposed development and no further action is required in this respect.

/Cont....

10.2 Risk from Mining History

There are no recorded shallow old workings underlying the Site and The Coal Authority's interactive map shows no 'probable' workings (shallow old workings for which The Coal Authority has no record) underlying the Site. There are no coal seams capable of supporting underground mining operations at shallow depth beneath the Site. The shallowest coal seams underlying the Site is the Pentre Rider, Pentre and Lower Pentre Seams, all three are fairly thin and/or of low quality; there are no records or indications from surface features that any of them have been mined in close proximity to the Site.

There are no operating mines in the area that could affect the development and the Site has not been part of an opencast site.

The only mining issue affecting the development is the presence of a disused mine shaft approximately 11m west of the Site. Fixing the position of old mining features to current surface features can be prone to a degree of imprecision. The indicated position of the shaft is on third party land with the result that it cannot be investigated using intrusive methods. The risk that the shaft is closer to the Site than is indicated cannot be ruled out. Consequently, the risk that the hypothetical collapse zone around the shaft intrudes onto the Site cannot be ruled out. To provide protection against a collapse of the shaft it is recommended that the proposed dwelling is constructed on a raft foundation. To ensure that the shaft is not located on the Site it is recommended that shallow trenches are excavated on the western half of the Site.

10.3 Contaminated Land

Made ground resulting from the construction of a tramway during earlier mining operations is present along the southern margins of the Site. To ensure no risk to future users of the Site or to third parties it is recommended that the soils are sampled to assess the risk from contaminants that might be present. The Made Ground has a significant coal content and the testing should include a loss on ignition test to eliminate the risk from spontaneous combustion.

/Cont....



**Dr Malcolm Blandford,
Chartered Geologist.**

Report Date 23rd July 2019.

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PLANS



*The Enterprise Centre,
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Geologists Working With The Environment...

Study on Land Adjacent to Gethin House, Abercanaid.

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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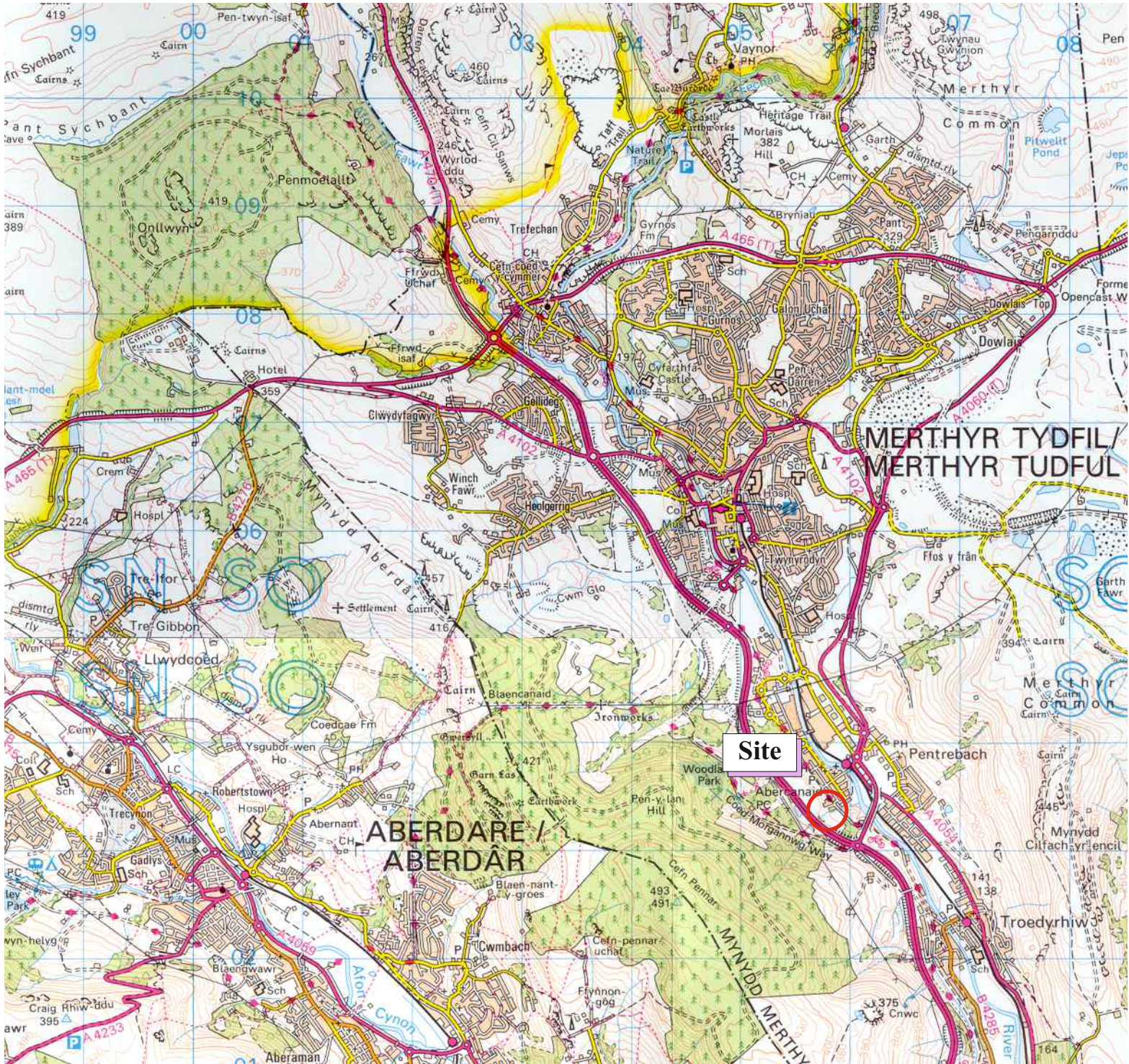


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Drawing No: BC/MB/06.19.03.01.

Geologists Working With The Environment...



Study on Land Adjacent to Gethin House, Abercanaid.

Geology Plan.

Plan Scale: 1:10,560.

Key to Symbols:

 Approximate Position of Site.

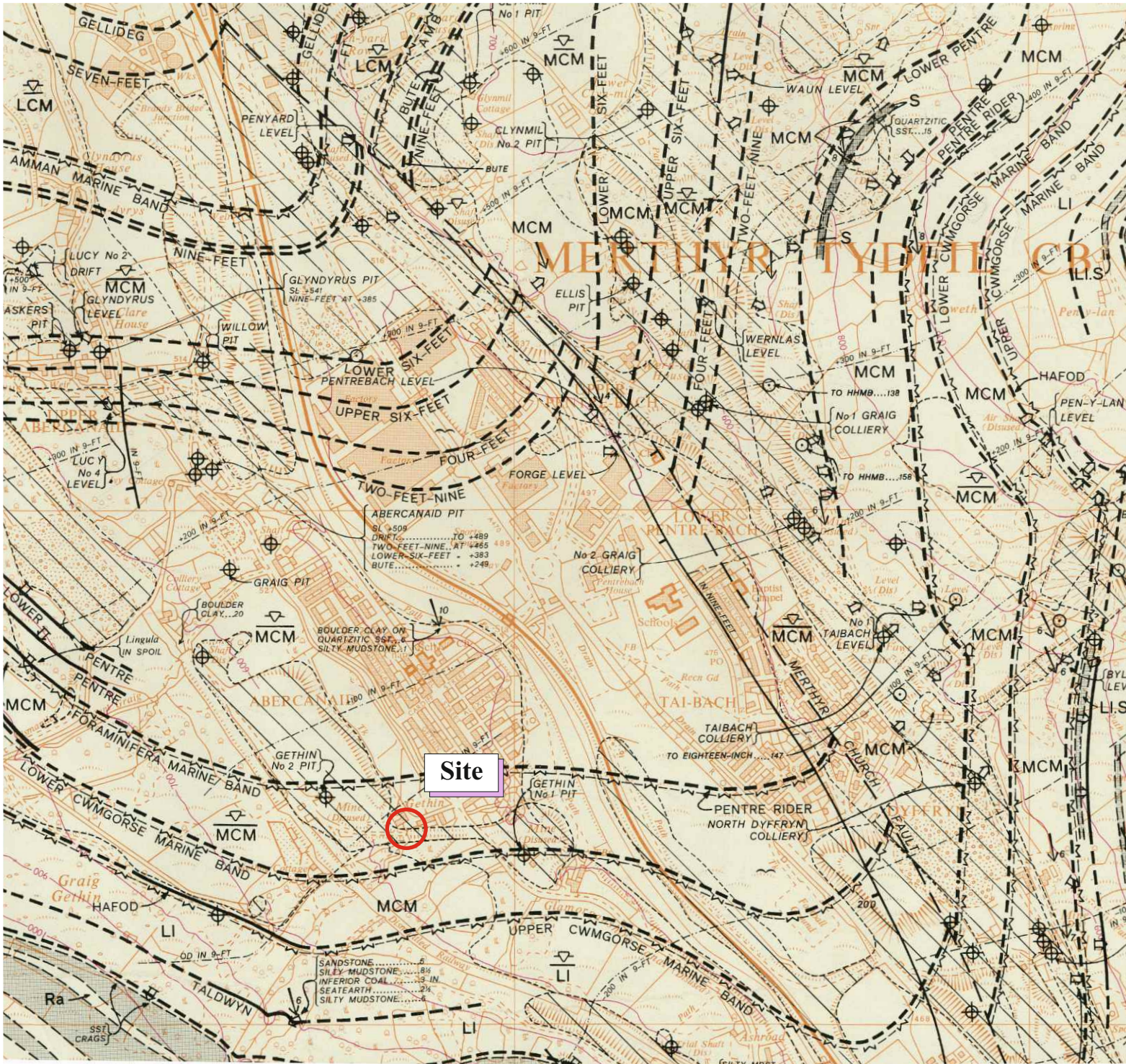
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Study on Land Adjacent to Gethin House, Abercanaid.

Detailed Location Plan.

Plan Scale: 1:1,250.

Key to Symbols:

 **Approximate Site Boundary.**

Note:

North is at top of plan.

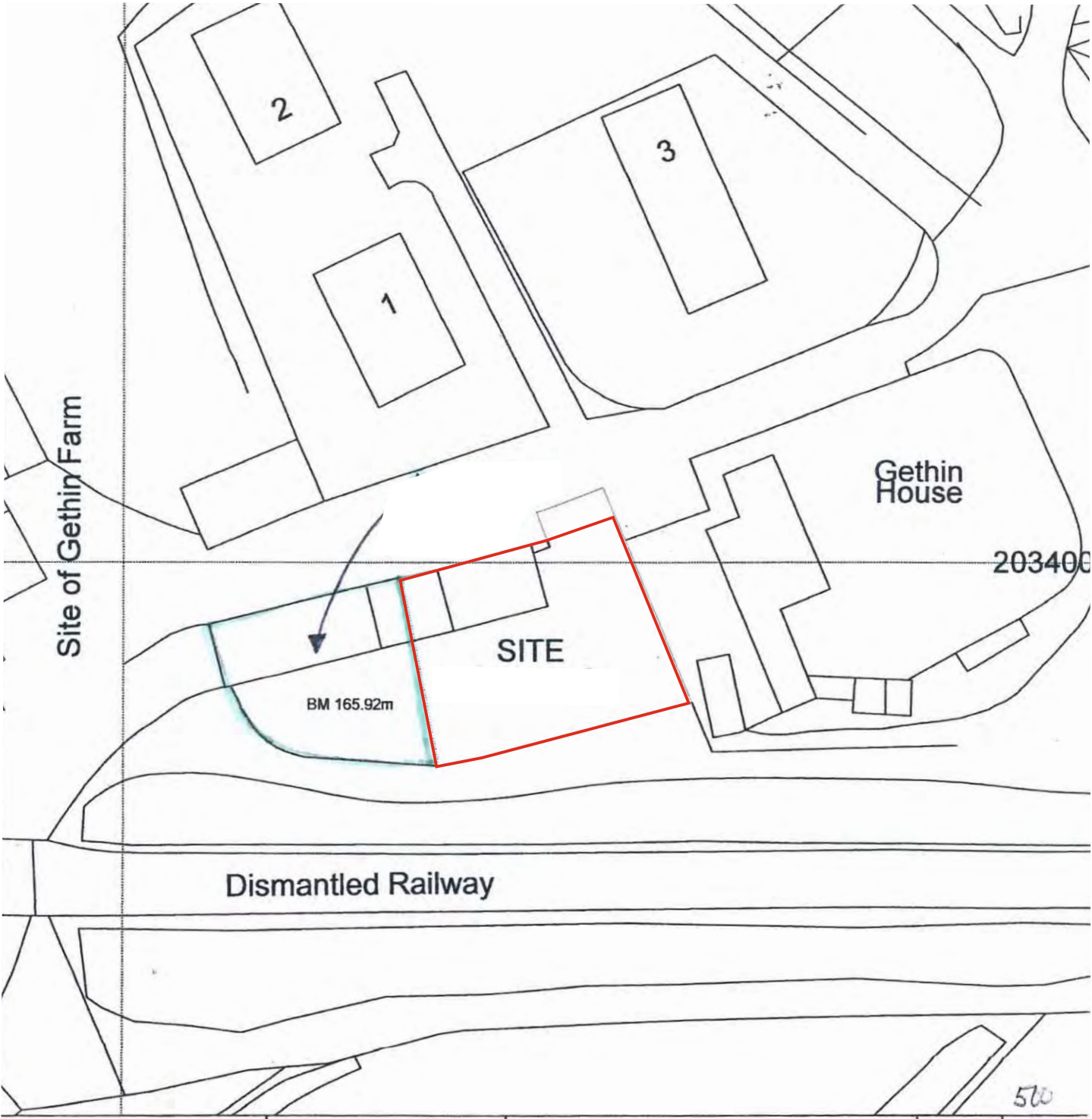
*Plan based on drawing 180809/AR/PL/201
prepared by Concept Consultants Ltd.*

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Study on Land Adjacent to Gethin House, Abercanaid.

*Extract from Ordnance
Survey (1878-1913 Edition).*

Plan Scale: 1:1,250

Key to Symbols:

- Approximate Site Boundary.
- ⊕ Approximate Position of Disused Shaft.

Note:
North is at top of plan.

*Locations are approximate
and should not be scaled.*

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Study on Land at Adjacent to Gethin House, Abercanaid.

Site Investigation Plan.

Plan Scale: 1:500.

Key to Symbols:

— Approximate Site Boundary.

▤ Approximate Position of Trial Pit.

⊕ Approximate Position of Disused Shaft.

Notes:

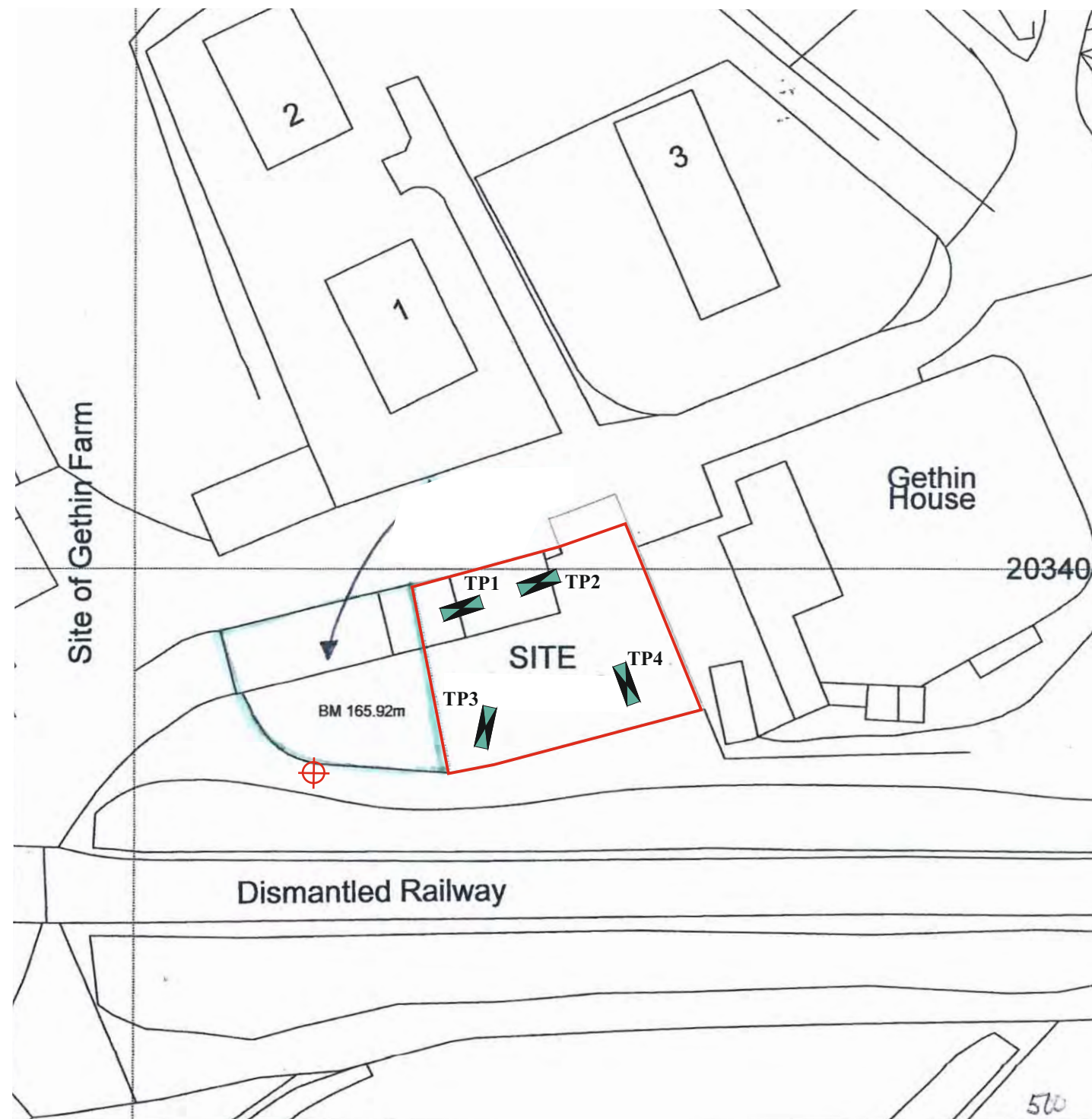
North is at top of plan.

Locations are approximate and should not be scaled.

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Drawing No: BC/MB/06.19.03.05.



APPENDIX I

THE COAL AUTHORITY'S
MINING REPORT REF NO.
51002151604001.



*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

GETHIN HOUSE, NEWTON STREET, ABERCANAID, MERTHYR TYDFIL, CF48 1PJ



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:

Our reference: **51002151604001**

Date: **19 July 2019**

Client name:

Malcolm Blandford

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 mineshaft



We can confirm that the location is
on the coalfield



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Date: **19 July 2019**

Client name:

Malcolm Blandford

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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 **01623 646 333**.



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.

Your reference:

Our reference: **51002151604001**

Date: **19 July 2019**

Client name:

Malcolm Blandford

If you require any further assistance please contact our experts on:

0345 762 6848

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Detailed findings

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 6 seams of coal at 90m to 210m depth, and last worked in 1931.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

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 is 1 mine entry, the approximate position of which is 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 entry.

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.

Your reference:

Our reference: **51002151604001**

Date: **19 July 2019**

Client name:

Malcolm Blandford

If you require any further assistance please contact our experts on:

0345 762 6848

groundstability@coal.gov.uk

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.

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 **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.



On behalf of the insurer

Coal Mining Report Insurance Policy Schedule

Policy number: 25968047

The insurer: Liberty Legal Indemnities – underwritten by Liberty Mutual Insurance Europe SE

Binding Authority contract number: RNMFP1903841

Property: GETHIN HOUSE, NEWTON STREET, ABERCANAID, MERTHYR TYDFIL, CF48 1PJ

Report reference number: 51002151604001

Limit of cover: £50,000.00

Dated: 19 July 2019

This policy and schedule shall be read together and any word or expression to which a specific meaning has been attached in either shall bear such meaning wherever it may appear.

Where a Coal Mining Report has been obtained in connection with a sale of the property, cover is provided for the benefit of a purchaser and their lender; in the case of a re-mortgage or where the existing owner chooses to obtain a Coal Mining Report, cover is provided for the benefit of the owner and their lender.

The policy offers protection against loss sustained by the owner of the property if any new problems or adverse entries are revealed in a subsequent Coal Mining Report which were not revealed by the original report to which the policy was attached.

The insured shall at all times comply with the requirements of the Conditions of this Policy.

Coal Mining Report Terms and Conditions can be viewed online at this link:

<https://www.groundstability.com/insurance/terms/20190404/terms.html>

Your reference:

Our reference: 51002151604001

Date: 19 July 2019

Client name:

Malcolm Blandford

If you require any further assistance please contact our experts on:

0345 762 6848

groundstability@coal.gov.uk

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

GEOTECHNICAL LOGS OF TRIAL PITS 1-4.



*The Enterprise Centre,
Merthyr Industrial Park,
Pentrebach,
Merthyr Tydfil,
South Wales,
CF48 4DR.*

BLANDFORD CONSULTING

Geologists Working With The Environment....

PROJECT: Land Adjacent to Gethin House

CLIENT: Mr D Brooks

Trial Pit: 1

Equipment Used: JCB 3CX



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

BLANDFORD CONSULTING

Geologists Working With The Environment....

Depth	Description	Legend	Backfill/ Installations
0.30m	MADE GROUND: Loose, dark grey, sandy gravel. Gravel is fine, medium and coarse, sub-rounded and tabular sandstone. Cobble and small boulder, sub-rounded and tabular sandstone.		0.30m
1 2 2.25m	Dense, brown, sandy slightly clayey GRAVEL, COBBLE and BOULDER of sub-rounded to rounded sandstone. (Boulder Clay).		>1.95m
3 4	Trial Pit terminated at 2.25m.		

Stability: Unstable.

Dimensions: Length 2.40m, width 1.00m, depth 2.25m

Samples Collected: None

Groundwater: No groundwater encountered.

Comments:

Date: 3rd July 2019

Orientation: 018 degrees

Engineer: Dr Malcolm Blandford

Report No: BC/MB/06.19.03.

PROJECT: Land Adjacent to Gethin House

CLIENT: Mr D Brooks

Trial Pit: 2

Equipment Used: JCB 3CX



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

BLANDFORD CONSULTING

Geologists Working With The Environment....

Depth	Description	Legend	Backfill/ Installations			
0.35m	MADE GROUND: Loose, dark grey, sandy gravel. Gravel is fine, medium and coarse, sub-rounded and tabular sandstone. Cobble and small boulder, sub-rounded and tabular sandstone.		0.35m			
1 2 2.35m	Dense, brown, sandy slightly clayey GRAVEL, COBBLE and BOULDER of sub-rounded to rounded sandstone. (Boulder Clay).		>2.00m			
3 4	Trial Pit terminated at 2.35m.					

Stability: Unstable.

Dimensions: Length 2.40m, width 1.10m, depth 2.35m

Samples Collected: None

Groundwater: No groundwater encountered.

Comments:

Date: 3rd July 2019

Orientation: 018 degrees

Engineer: Dr Malcolm Blandford

Report No: BC/MB/06.19.03.

PROJECT: Land Adjacent to Gethin House

CLIENT: Mr D Brooks

Trial Pit: 3

Equipment Used: JCB 3CX



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

BLANDFORD CONSULTING

Geologists Working With The Environment....

Depth	Description	Legend	Backfill/ Installations
0.50m	MADE GROUND: Compact, black slightly clayey sandy gravel of fine and medium angular mudstone. Coal sand.		
1 2 2.15m	Very stiff, brown gravelly CLAY with cobble and large boulders. Gravel is medium and coarse. Gravel, cobble and boulder are sub-rounded to rounded sandstone. (Boulder Clay).		
3 4	Trial Pit terminated at 2.15m.		

Stability: No shoring installed. GL to 0.50m unstable. **Dimensions:** Length 1.80m, width 1.00m, depth 2.15m

Samples Collected: None

Groundwater: No groundwater encountered.

Comments:

Date: 3rd July 2019

Orientation: 078 degrees

Engineer: Dr Malcolm Blandford

Report No: BC/MB/06.19.11.

Photo Plate 1, Trial Pit 3



Geologists Working With The Environment...

Report No. BC/MB/06.19.03.

Study on Land Adjacent to
Gethin House, Abercanaid.



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

BLANDFORD CONSULTING

PROJECT: Land Adjacent to Gethin House

CLIENT: Mr D Brooks

Trial Pit: 4

Equipment Used: JCB 3CX



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

BLANDFORD CONSULTING

Geologists Working With The Environment....

Depth	Description	Legend	Backfill/ Installations			
0.40m	MADE GROUND: Compact, black slightly clayey sandy gravel of fine and medium angular mudstone. Coal sand. Some fragments of broken glass.		0.40m			
1.50m	Very stiff, brown gravelly CLAY with cobble and large boulders. Gravel is medium and coarse. Gravel, cobble and boulder are sub-rounded to rounded sandstone. (Boulder Clay).		1.10m			
2.30m	Compact, brown sandy and clayey GRAVEL with COBBLE and small BOULDER . Gravel is medium and coarse. Gravel, cobble and boulder are sub-rounded to rounded sandstone. (Boulder Clay).		>0.80m			
Trial Pit terminated at 2.30m.						

Stability: No shoring installed. GL to 0.50m unstable. **Dimensions:** Length 1.80m, width 1.00m, depth 2.30m

Samples Collected: None

Groundwater: No groundwater encountered.

Comments:

Date: 3rd July 2019

Orientation: 078 degrees

Engineer: Dr Malcolm Blandford

Report No: BC/MB/06.19.11.

Photo Plate 1, Trial Pit 4



Geologists Working With The Environment...

Report No. BC/MB/06.19.03.

Study on Land Adjacent to
Gethin House, Abercanaid.



THE ENTERPRISE CENTRE,
MERTHYR INDUSTRIAL PARK,
PENTREBACH,
MERTHYR TYDFIL,
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BLANDFORD CONSULTING