



COAL MINING RISK ASSESSMENT

Penygawsi Primary School, Llantrisant, CF72 8PZ .
Document Reference: HSP2021-C3104-G-CMRA-284
September 2021, REV B – (C3104)

1. INTRODUCTION

HSP Consulting Engineers Ltd were commissioned by Gleeds Management Services to prepare a Coal Mining Risk Assessment as part of a feasibility study at the existing Penygawsi Primary School. The assessment is to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability.

Site Location and Description

The site is located off Chartist Road, approximately 0.60 km south of Llantrisant town centre. The approximate National Grid Reference for the centre of the site is (NGR) 304720, 182790. The site currently supports Penygawsi Primary School with associated playing fields, playgrounds and car parking.

Description and Layout of Proposed Development

At this stage the development plans are not available for the site, however they are understood to involve the construction of additional educational facilities.

Scope of the Coal Mining Risk Assessment

The purpose of this Coal Mining Risk Assessment Report is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site;
- Use that information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues;
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

Geology

The bedrock geology of the site is indicated to comprise the South Wales Upper Coal Measures comprising Mudstone, Siltstone and Sandstone. Described as '*Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor grey quartz-rich sandstones, coals and ironstones.*' Superficial Till deposits are expected across the majority of the site and Glaciofluvial deposits are expected at the north western corner of the site. An inferred fault with unknown displacement has been identified bisecting the centre of the site, orientated west to east, on the mapping accompanying Ref 3. Limited Made Ground deposits are expected to be encountered across the site.

Three conjectured coal seam outcrops with a general southeast to northwest bearing are shown within the site boundary (Ref 3.). These are the Hafod Seam, No 2 Rhondda and No. 3 Rhondda and the Hafod Seam. A further outcrop (Lower Pentre Seam) is recorded 23.5m to the south of the site.

2. SOURCES OF INFORMATION USED TO INFORM THIS REPORT

The sources of information obtained upon which the risk assessment of coal mining issues have been based are listed below; (The reports / extracts are appended as applicable).

- Ref 1. British Geological Survey (BGS) Geology of Britain Viewer.
- Ref 2. Coal Authority CON29M Coal Mining Report, date 22nd August 2019, Ref: 51002166720001.
- Ref 3. Coal Authority Consultants Coal Mining Report, date 22nd August 2019, Ref: 51002166720002.
- Ref 4. BGS 1:50,000 Series Geological Mapping, Sheet 248 Pontypridd, Solid and Drift Edition.
- Ref 5. BGS Borehole Record Viewer.
- Ref 6. Coal Authority Interactive Map Viewer.

3. IDENTIFICATION AND ASSESSMENT OF SITE-SPECIFIC COAL MINING RISKS

The table below summarises the potential risks associated with coal mining legacy for the proposed development site, identified from *list sources of information*.

Coal Mining Issue	Yes	No	Risk Assessment
Underground coal mining (recorded at shallow depths)	Y		<p>The property is not within a surface area that is affected by any past recorded underground coal mining. However, the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past.</p> <p>Three conjectured outcrops of coal the No 2 Rhondda, No. 3 Rhondda and the Hafod Seam are recorded on site. A further outcrop (Lower Pentre Seam) is recorded 23.5m to the south of the site. A plan showing the outcrops can be found within Ref 3. they are also shown on the published geological mapping Ref 4.</p> <p>No mining abandonment plans are available for the site.</p>
Probable unrecorded shallow workings	Y	N	<p>The property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past (Ref 2). Although it should be noted that the CA Consultants Coal Mining Report (Ref 3.) indicates the probable unrecorded shallow workings as <i>None</i>.</p> <p>Three conjectured outcrops of coal, the No 2 Rhondda, No. 3 Rhondda and Hafod Seams are recorded on site. A further outcrop (Lower Pentre Seam) is recorded 23.5m to the south of the site. All seams are recorded as <i>workable</i>. A plan showing the outcrops can be found within Ref 3, they are also shown on the published geological mapping Ref 4.</p>
Mine entries (shafts and adits)	Y		<p>One mine entry is recorded within in the north western corner of the site. The shaft is recorded as filled with</p>

			colliery refuse and capped with a 4m square concrete cap.
Coal mining geology (fissures)	Y		The CA is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining. Three conjectured outcrops of coal the No 2 Rhondda, No. 3 Rhondda and Hafod Seams are recorded on site. The plan showing the outcrops can be found within Ref 3 and published geological mapping Ref 4.
Recorded coal mining surface hazard		N	The CA has not received a damage notice or claim for the subject property or any property within 50 metres of the enquiry boundary since 31 st October 1994.
Surface mining (opencast workings)		N	The site is not within the boundary of an opencast site from which coal has been removed by opencast methods. The site is also not within 200m of the boundary of an opencast site within which coal is being extracted by opencast methods.

For those coal mining issues identified as “yes” a discussion and assessment of the risks, both individually and cumulatively, to the application site and the proposed development are given in the next section.

4. MITIGATION STRATEGY PROPOSED

The property is not within a surface area that is affected by any past recorded underground coal mining. However, the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. Three outcrops of coal the No 2 Rhondda, No. 3 Rhondda and the Hafod Seams are recorded on site. A further outcrop (Lower Pentre Seam) is recorded 23.5m to the south of the site. All seams are recorded as *workable*. A plan showing the outcrops can be found within Ref 3 and they are also shown on the published geological mapping, Ref 4. Although it should be noted that the CA Consultants Coal Mining Report (Ref 3.) indicates the probable unrecorded shallow workings as *None*. This discrepancy between the two reports from the Coal Authority has been queried and the Coal Authority has confirmed that shallow worked seams may be close to the surface and further works should be undertaken on the site prior to any site works or future development activity, as ground movement could still be a risk.

Following the Coal Authority granting a permit to investigate (Permit No. 21877), rotary boreholes were undertaken between the 24th April and 4th May 2021. Five exploratory hole locations were advanced to 30.70m begl using rotary drilling techniques with water flush. The drilling recorded backfilled workings in rotary holes R01 and R03 at depths between 8.40m begl and 13.00m begl. A void was recorded in R04 between 12.70m begl and 14.30m begl. Between 15.70m begl and 21.90m begl, broken ground was recorded in R01, R02, R03 and R05.

One mine entry is recorded in the north west corner of the site, the CA record indicates the shaft was filled with colliery refuse and capped with a 4m square concrete cap at some time in the past. There will be a “no build” area surrounding the shaft, the departure distance from the shaft upon which no development can be proposed will depend on the size of the shaft cap, thickness of superficial deposits and accuracy of the shaft location. Confirmation can be provided when development proposals are available.

5. CONCLUSION

HSP note that the rotary holes encountered unrecorded workings within a distance which would likely influence the proposed surface development. On this basis treatment is advised to address land stability issues prior to any development taking place. Treatment is likely to comprise, as a minimum drilling and grouting of the worked seams and voids below any building footprints plus a curtilage and adoptable highways.

If the proposed buildings are located 'within or close to' the zone of influence of any existing mine shafts, HSP recommend these are accurately located and treated if necessary. It is recommended that development avoids the area of the mine shaft and that an appropriate exclusion zone for development is defined. This will need to be agreed with the Coal Authority, and will depend on the degree of confidence regarding the location of the shaft and the thickness of superficial cover overlying the shaft.

RELEVANT APPENDICES

Appendix I	Coal Authority CON29M Coal Mining Report, date 22 nd August 2019, Ref: 51002166720001.
Appendix II	Coal Authority Consultants Coal Mining Report, date 22 nd August 2019, Ref: 51002166720002.
Appendix III	Rotary Drilling Borehole Logs from April/May 2021

Appendix I



The Coal
Authority

CON29M

coal mining report

PENYGAWSI PRIMARY SCHOOL, ROAD FROM BURGESS CRESCENT,
LLANTRISANT, RHONDDA CYNON TAFF, CF72 8PZ



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 9



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: **C3104**
Our reference: **51002166720001**
Date: **22 August 2019**

Client name:
HSP 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

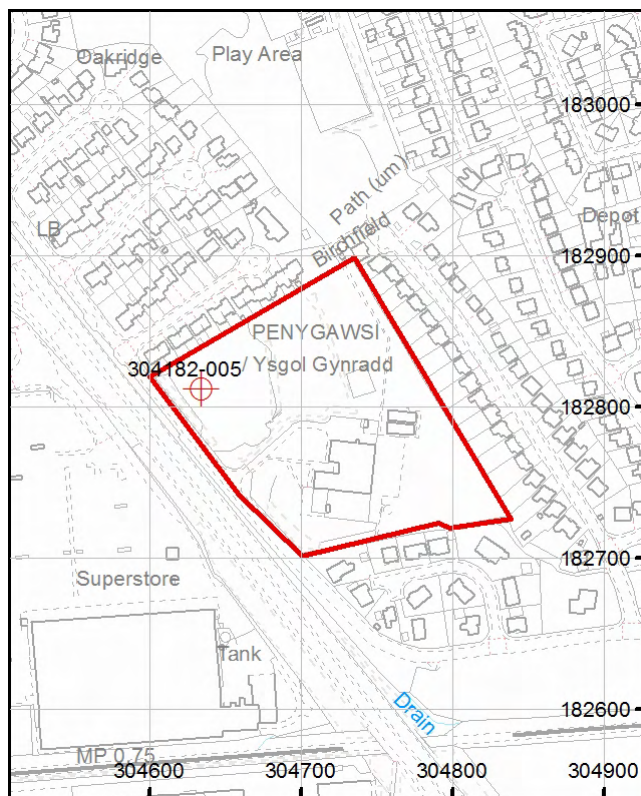
Approximate position of enquiry boundary shown



Disused mineshaft



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.

Your reference: **C3104**
Our reference: **51002166720001**
Date: **22 August 2019**

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HSP CONSULTING

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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.

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.

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

1 Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

However the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered, particularly prior to any site works or future development activity, as ground movement could still be a risk. Your attention is drawn to the Professional opinion sections of the report.

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.

Our records disclose the following information:

304182-005. This shaft was filled with colliery refuse and capped with a 4m square concrete cap at some time in the past.

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 **01623 646 333**. 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



The Coal
Authority

Consultants

Coal Mining Report

Penygawsi Primary School
Road From Burgess Crescent
Llantrisant
Rhondda Cynon Taff
CF72 8PZ

Date of enquiry: 22 August 2019
Date enquiry received: 22 August 2019
Issue date: 22 August 2019

Our reference: 51002166720002
Your reference: C3104

Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

HSP CONSULTING

Enquiry address

Penygawsi Primary School
Road From Burgess Crescent
Llantrisant
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How to contact us

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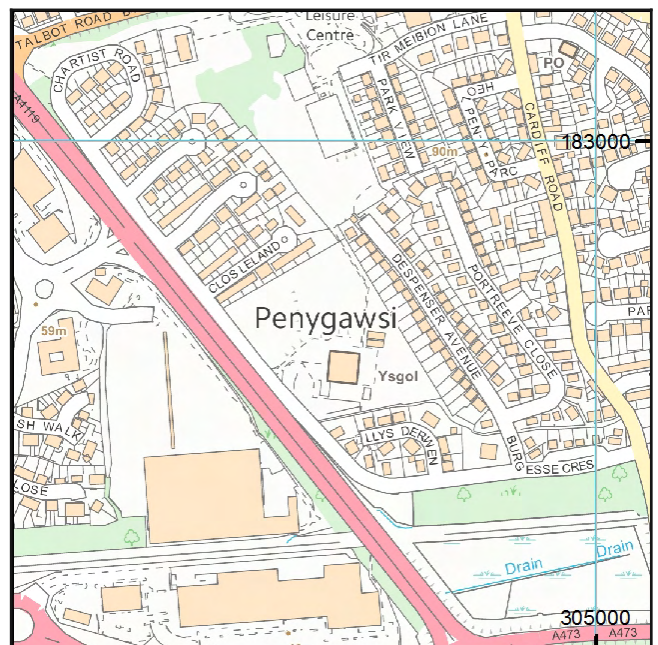
www.groundstability.com

 @coalauthority

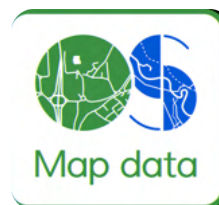
 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	304182-005	304635 182812	This shaft was filled with colliery refuse and capped with a 4m square concrete cap at some time in the past.	Coal	

Abandoned mine plan catalogue numbers

None available.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
HAFOD	Coal	Yes	Within	N/A	108
LOWER PENTRE	Coal	Yes	23.5	South	112
NO.2 RHONDDA	Coal	Yes	Within	N/A	101
NO.3 RHONDDA	Coal	Yes	Within	N/A	112

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

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.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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.

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.

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

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VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	22 August 2019
Issued to	HSP CONSULTING LAWRENCE HOUSE 4 MEADOWBANK WAY EASTWOOD NOTTINGHAMSHIRE NG16 3SB
Property search for	PENYGAWSI PRIMARY SCHOOL ROAD FROM BURGESS CRESCENT LLANTRISANT RHONDDA CYNON TAFF CF72 8PZ
Reference number	51002166720002
Date of issue	22 August 2019
Cost	£112.13
VAT @ 20%	£22.43
Total received	£134.56
VAT registration	598 5850 68

Appendix III

Rotary Core Log

Borehole No.

R01

Sheet 1 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.30	55.24		Brown sandy silty TOPSOIL with many rootlets and occasional fine to coarse angular to subrounded sandstone gravels. Brown sandy silty CLAY with many fine to coarse angular to subrounded gravels and cobbles of sandstone. [DIAMICTON TILL].	1
							4.20	51.34		Grey sandy silty CLAY with many fine to coarse angular to subrounded gravels and cobbles of sandstone. [SOUTH WALES UPPER COAL MEASURES].	4
							6.80	48.74		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	7
							8.70	46.84		Dark grey black silty sandy gravels of Mudstone, Sandstone and Coal. (Backfilled Working.) [SOUTH WALES UPPER COAL MEASURES].	9
	▼										10

Continued on next sheet

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.20m begl.



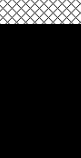
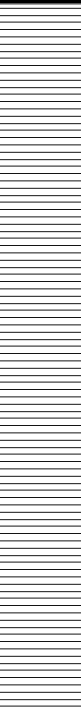
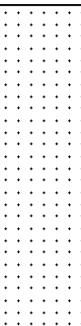

Rotary Core Log

Borehole No.

R01

Sheet 2 of 4

Project Name: Penygawsi Primary School	Project No. C3104	Co-ords: 304690.00 - 182821.00	Hole Type RO
Location: Llantrisant		Level: 55.54	Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -	Logged By Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							10.20	45.34		Black COAL. [SOUTH WALES UPPER COAL MEASURES].	
							11.10	44.44		Grey MUDSTONE with bands of Sandstone and trace Coal. [SOUTH WALES UPPER COAL MEASURES].	11
							15.80	39.74		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	12 13 14 15 16
							18.00	37.54		Grey fractured weathered MUDSTONE (broken ground). [SOUTH WALES UPPER COAL MEASURES].	17 18 19
										Continued on next sheet	20

Remarks
 Borehole terminated at 30.70m. Groundwater was encountered at 4.20m begl.





Rotary Core Log

Borehole No.

R01

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							21.00	34.54		Grey SANDSTONE with trace Coal and occasional bands of grey MUDSTONE. [SOUTH WALES UPPER COAL MEASURES].	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Continued on next sheet

Remarks

Borehole terminated at 30.70m. Groundwater was encountered at 4.20m begl.





Rotary Core Log

Borehole No.

R01

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							30.70	24.84		End of borehole at 30.70 m	31
											32
											33
											34
											35
											36
											37
											38
											39
											40

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.20m begl.



Borehole Log

Borehole No.

R01

Sheet 1 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant



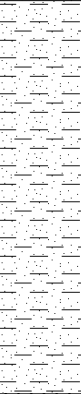
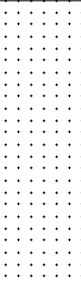
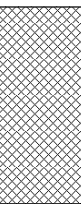
Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
▼					0.30	55.24		Brown sandy silty TOPSOIL with many rootlets and occasional fine to coarse angular to subrounded sandstone gravels.	1
								Brown sandy silty CLAY with many fine to coarse angular to subrounded gravels and cobbles of sandstone. [DIAMICTON TILL].	2
					4.20	51.34		Grey sandy silty CLAY with many fine to coarse angular to subrounded gravels and cobbles of sandstone. [SOUTH WALES UPPER COAL MEASURES].	4
					6.80	48.74		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	7
					8.70	46.84		Dark grey black silty sandy gravels of Mudstone, Sandstone and Coal. (Backfilled Working.) [SOUTH WALES UPPER COAL MEASURES].	9
Continued on next sheet								10	

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.20m begl.

Borehole Log

Borehole No.

R01

Sheet 2 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
Well	Water Strikes	Depth (m)	Type	Results	10.20	45.34		Black COAL. [SOUTH WALES UPPER COAL MEASURES].
					11.10	44.44		Grey MUDSTONE with bands of Sandstone and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
					15.80	39.74		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].
					18.00	37.54		Grey fractured weathered MUDSTONE (broken ground). [SOUTH WALES UPPER COAL MEASURES].
Continued on next sheet								

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.20m begl.



Borehole Log

Borehole No.

R01

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					21.00	34.54		Grey SANDSTONE with trace Coal and occasional bands of grey MUDSTONE. [SOUTH WALES UPPER COAL MEASURES].
								21
								22
								23
								24
								25
								26
								27
								28
								29
								30

Continued on next sheet

Remarks

Borehole terminated at 30.70m. Groundwater was encountered at 4.20m begl.





Borehole Log

Borehole No.

R01

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304690.00 - 182821.00

Hole Type
RO

Location: Llantrisant

Level: 55.54

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					30.70	24.84		End of borehole at 30.70 m
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.20m begl.



Rotary Core Log

Borehole No.

R02

Sheet 1 of 4

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304709.00 - 182847.00

 Hole Type
RO

Location: Llantrisant

Level: 55.89

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.25	55.64		Brown sandy silty TOPSOIL with many rootlets and occasional fine to coarse angular to subrounded gravels of Sandstone.	1
										Brown silty sandy CLAY with fine to coarse angular to subrounded gravels and cobbles of Sandstone. [DIAMICTON TILL].	2
							3.80	52.09		Grey silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].	4
							4.70	51.19		Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].	5
							8.20	47.69		Black COAL. [SOUTH WALES UPPER COAL MEASURES].	6
						9.80	46.09		Grey MUDSTONE with Sandstone bands and	7	
										8	
										9	
										10	

Continued on next sheet

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.50m begl.

Rotary Core Log

Borehole No.

R02

Sheet 2 of 4

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304709.00 - 182847.00

 Hole Type
RO

Location: Llantrisant

Level: 55.89

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
										trace Coal. [SOUTH WALES UPPER COAL MEASURES].	11
							14.70	41.19		Black COAL with occasional bands of Pyrite. [SOUTH WALES UPPER COAL MEASURES].	15
							15.60	40.29		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	16
							19.40	36.49		Grey weathered fractured MUDSTONE. (Broken Ground). [SOUTH WALES UPPER COAL MEASURES].	17
											18
											19
											20

Continued on next sheet

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.50m begl.

Rotary Core Log

Borehole No.

R02

Sheet 3 of 4

Project Name: Penygawsi Primary School	Project No. C3104	Co-ords: 304709.00 - 182847.00	Hole Type RO
Location: Llantrisant		Level: 55.89	Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -	Logged By Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							21.90	33.99		Grey MUDSTONE with occasional Sandstone bands, [SOUTH WALES UPPER COAL MEASURES].	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Continued on next sheet

Remarks
 Borehole terminated at 30.70m. Groundwater was encountered at 4.50m begl.





Rotary Core Log

Borehole No.

R02

Sheet 4 of 4

Project Name: Penygawsi Primary School		Project No. C3104	Co-ords: 304709.00 - 182847.00	Hole Type RO
Location: Llantrisant		Level: 55.89		Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -		Logged By Dom Price

Well	Water Strikes	Depth (m)	Type / FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							30.70	25.19		End of borehole at 30.70 m	31
											32
											33
											34
											35
											36
											37
											38
											39
											40

Remarks
Borehole terminated at 30.70m. Groundwater was encountered at 4.50m begl.



Borehole Log

Borehole No.

R02

Sheet 1 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304709.00 - 182847.00

Hole Type
RO

Location: Llantrisant


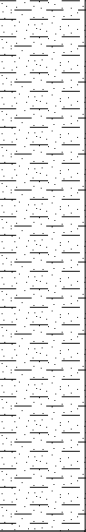

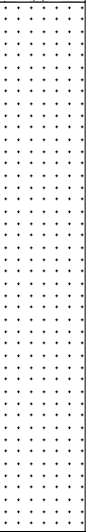
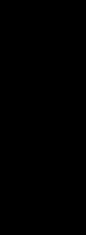

Level: 55.89

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
▼					0.25	55.64		Brown sandy silty TOPSOIL with many rootlets and occasional fine to coarse angular to subrounded gravels of Sandstone.
								Brown silty sandy CLAY with fine to coarse angular to subrounded gravels and cobbles of Sandstone. [DIAMICTON TILL].
					3.80	52.09		Grey silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].
					4.70	51.19		Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
					8.20	47.69		Black COAL. [SOUTH WALES UPPER COAL MEASURES].
				9.80	46.09		Grey MUDSTONE with Sandstone bands and	

Continued on next sheet

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.50m begl.



Borehole Log

Borehole No.

R02

Sheet 2 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304709.00 - 182847.00

Hole Type
RO

Location: Llantrisant

Level: 55.89

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							trace Coal. [SOUTH WALES UPPER COAL MEASURES].	11
								12
								13
								14
				14.70	41.19		Black COAL with occasional bands of Pyrite. [SOUTH WALES UPPER COAL MEASURES].	15
				15.60	40.29		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	16
								17
								18
				19.40	36.49		Grey weathered fractured MUDSTONE. (Broken Ground). [SOUTH WALES UPPER COAL MEASURES].	19
								20

Continued on next sheet

Remarks

Borehole terminated at 30.70m. Groundwater was encountered at 4.50m begl.





Borehole Log

Borehole No.

R02

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304709.00 - 182847.00

Hole Type
RO

Location: Llantrisant

Level: 55.89

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					21.90	33.99		Grey MUDSTONE with occasional Sandstone bands, [SOUTH WALES UPPER COAL MEASURES].	21 22 23 24 25 26 27 28 29 30

Continued on next sheet

Remarks

Borehole terminated at 30.70m.

Groundwater was encountered at 4.50m begl.



Borehole Log

Borehole No.

R02

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304709.00 - 182847.00

Hole Type
RO

Location: Llantrisant



Level: 55.89

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					30.70	25.19	  End of borehole at 30.70 m	<div style="text-align: right;"> 31 32 33 34 35 36 37 38 39 40 </div>

Remarks

Borehole terminated at 30.70m. Groundwater was encountered at 4.50m begl.

Rotary Core Log

Borehole No.

R03

Sheet 1 of 4

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304726.00 - 182803.00

 Hole Type
RO

Location: Llantrisant





Level: 56.09

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.30	55.79		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded gravels of Sandstone. Light brown silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [DIAMICTON TILL].	1
							3.20	52.89		Grey silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [SOUTH WALES UPPER COAL MEASURES].	4
							4.50	51.59		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	5
							8.40	47.69		Dark grey gravels of Mudstone, Coal, and Sandstone. (Backfilled Working.) [SOUTH WALES UPPER COAL MEASURES].	9

Continued on next sheet

Remarks

Borehole terminated at 30.50m



Rotary Core Log

Borehole No.

R03

Sheet 2 of 4

Project Name: Penygawsi Primary School	Project No. C3104	Co-ords: 304726.00 - 182803.00	Hole Type RO
Location: Llantrisant		Level: 56.09	Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -	Logged By Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description
				TCR	SCR	RQD				
							13.00	43.09		
										Grey SANDSTONE with occasional Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
							19.20 19.20	36.89 36.89		Grey fractured weathered MUDSTONE. (Broken Ground). [SOUTH WALES UPPER COAL MEASURES]. Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].

11
12
13
14
15
16
17
18
19
20

Continued on next sheet

Remarks
Borehole terminated at 30.50m





Rotary Core Log

Borehole No.

R03

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304726.00 - 182803.00

Hole Type
RO

Location: Llantrisant

Level: 56.09

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							20.30	35.79		MEASURES].	
										Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Continued on next sheet

Remarks

Borehole terminated at 30.50m



Rotary Core Log

Borehole No.

R03

Sheet 4 of 4

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304726.00 - 182803.00

 Hole Type
RO

Location: Llantrisant

Level: 56.09

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							30.50	25.59		----- End of borehole at 30.50 m	31
											32
											33
											34
											35
											36
											37
											38
											39
											40

 Remarks
 Borehole terminated at 30.50m


Borehole Log

Borehole No.

R03

Sheet 1 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304726.00 - 182803.00

Hole Type
RO

Location: Llantrisant

Level: 56.09

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30	55.79		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded gravels of Sandstone. Light brown silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [DIAMICTON TILL].
					3.20	52.89		Grey silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [SOUTH WALES UPPER COAL MEASURES].
					4.50	51.59		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].
					8.40	47.69		Dark grey gravels of Mudstone, Coal, and Sandstone. (Backfilled Working.) [SOUTH WALES UPPER COAL MEASURES].



Continued on next sheet

Remarks

Borehole terminated at 30.50m



Borehole Log

Borehole No.

R03

Sheet 2 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304726.00 - 182803.00

Hole Type
RO

Location: Llantrisant

Level: 56.09

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					13.00	43.09		Grey SANDSTONE with occasional Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
					19.20	36.89		Grey fractured weathered MUDSTONE. (Broken Ground). [SOUTH WALES UPPER COAL MEASURES]. Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
					19.20	36.89		

11
12
13
14
15
16
17
18
19
20

Continued on next sheet

Remarks

Borehole terminated at 30.50m



Borehole Log

Borehole No.

R03

Sheet 3 of 4

Project Name: Penygawsi Primary School	Project No. C3104	Co-ords: 304726.00 - 182803.00	Hole Type RO
Location: Llantrisant		Level: 56.09	Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -	Logged By Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					20.30	35.79		MEASURES].	
								Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].	21
									22
									23
									24
									25
									26
									27
									28
									29
									30

Continued on next sheet

Remarks
Borehole terminated at 30.50m





Borehole Log

Borehole No.

R03

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304726.00 - 182803.00

Hole Type
RO

Location: Llantrisant

Level: 56.09

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					30.50	25.59	End of borehole at 30.50 m
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40

Remarks
Borehole terminated at 30.50m



Rotary Core Log

Borehole No.

R04

Sheet 1 of 3

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304689.00 - 182808.00

 Hole Type
RO

Location: Llantrisant



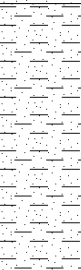
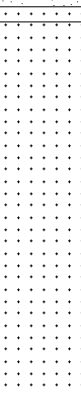
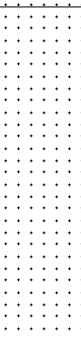
Level: 55.28

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.30	54.98		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded sandstone gravels.	1
							1.70	53.58		Brown silty sandy CLAY with fine to coarse angular to subrounded sandstone gravels. [DIAMICTON TILL].	2
							3.50	51.78		Grey sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].	3
						3.60	51.68	Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES]. Grey weathered SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].		4	
							6.10	49.18		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	6
							8.30	46.98		Grey SANDSTONE with Mudstone bands. [SOUTH WALES UPPER COAL MEASURES].	8
											9
											10

Continued on next sheet

Remarks

 Borehole terminated due to borehole collapse.
between 12.70m and 14.30m

A flooded working was encountered



Rotary Core Log

Borehole No.

R04

Sheet 2 of 3

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304689.00 - 182808.00

Hole Type
RO

Location: Llantrisant

Level: 55.28

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							12.70	42.58		VOID (Flooded Working).	11 12 13 14
							14.30	40.98		Grey SANDSTONE with bands of weathered Mudstone. [SOUTH WALES UPPER COAL MEASURES].	15 16 17 18 19 20
Continued on next sheet											

Remarks
Borehole terminated due to borehole collapse.
between 12.70m and 14.30m

A flooded working was encountered





Rotary Core Log

Borehole No.

R04

Sheet 3 of 3

Project Name: Penygawsi Primary School	Project No. C3104	Co-ords: 304689.00 - 182808.00	Hole Type RO
Location: Llantrisant		Level: 55.28	Scale 1:50
Client: Flucrum Infrastructure Management		Dates: 24/04/2021 -	Logged By Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							21.00	34.28			
										End of borehole at 21.00 m	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Remarks
 Borehole terminated due to borehole collapse.
 between 12.70m and 14.30m

A flooded working was encountered



Borehole Log

Borehole No.

R04

Sheet 1 of 3

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304689.00 - 182808.00

Hole Type
RO

Location: Llantrisant



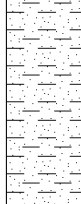
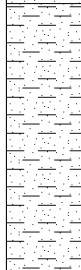
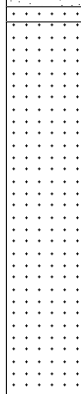
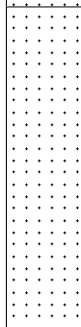
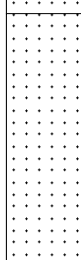
Level: 55.28

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30	54.98		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded sandstone gravels.
					1.70	53.58		Brown silty sandy CLAY with fine to coarse angular to subrounded sandstone gravels. [DIAMICTON TILL].
					3.50	51.78		Grey sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].
					3.60	51.68		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES]. Grey weathered SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].
					6.10	49.18		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].
			8.30	46.98		Grey SANDSTONE with Mudstone bands. [SOUTH WALES UPPER COAL MEASURES].		

Continued on next sheet

Remarks

Borehole terminated due to borehole collapse. between 12.70m and 14.30m

A flooded working was encountered



Borehole Log

Borehole No.

R04

Sheet 2 of 3

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304689.00 - 182808.00

Hole Type
RO

Location: Llantrisant

Level: 55.28

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
	▼				12.70	42.58		VOID (Flooded Working).	11 12 13
					14.30	40.98		Grey SANDSTONE with bands of weathered Mudstone. [SOUTH WALES UPPER COAL MEASURES].	14 15 16 17 18 19 20

Continued on next sheet

Remarks
Borehole terminated due to borehole collapse.
between 12.70m and 14.30m

A flooded working was encountered





Borehole Log

Borehole No.

R04

Sheet 3 of 3

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304689.00 - 182808.00

Hole Type
RO

Location: Llantrisant

Level: 55.28

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 24/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					21.00	34.28 -----	21
							End of borehole at 21.00 m	22
								23
								24
								25
								26
								27
								28
								29
								30

Remarks
Borehole terminated due to borehole collapse.
between 12.70m and 14.30m

A flooded working was encountered



Rotary Core Log

Borehole No.

R05

Sheet 1 of 4

Project Name: Penygawsi Primary School

 Project No.
C3104

Co-ords: 304700.00 - 182827.00

 Hole Type
RO

Location: Llantrisant



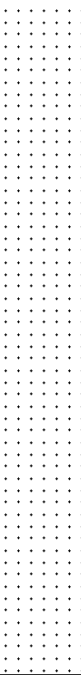
Level: 55.65

 Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

 Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							0.30	55.35		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded Sandstone gravels. Brown silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [DIAMICTON TILL].	1
							3.60	52.05		Grey sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].	4
							5.50	50.15		Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].	6
Continued on next sheet											10

Remarks

Borehole terminated at 30.50m.

Rotary Core Log

Borehole No.

R05

Sheet 2 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							14.20	41.45		Black Coal. [SOUTH WALES UPPER COAL MEASURES].	11 12 13 14 15
							15.70	39.95		Grey MUDSTONE and Sandstone bands with trace Coal. (Broken Ground.) [SOUTH WALES UPPER COAL MEASURES].	16 17 18 19 20

Continued on next sheet

Remarks

Borehole terminated at 30.50m.

Rotary Core Log

Borehole No.

R05

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / Fl	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							21.30	34.35		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	21
											22
											23
											24
											25
											26
											27
											28
											29
											30

Continued on next sheet

Remarks

Borehole terminated at 30.50m.





Rotary Core Log

Borehole No.

R05

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Depth (m)	Type / FI	Coring			Depth (m)	Level (m)	Legend	Stratum Description	
				TCR	SCR	RQD					
							30.50	25.15		End of borehole at 30.50 m	31
											32
											33
											34
											35
											36
											37
											38
											39
											40

Remarks
Borehole terminated at 30.50m.



Borehole Log

Borehole No.

R05

Sheet 1 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
Well	Water Strikes				0.30	55.35		Brown sandy silty TOPSOIL with occasional rootlets and fine to coarse angular to subrounded Sandstone gravels. Brown silty sandy CLAY with fine to coarse angular to subrounded Sandstone gravels and cobbles. [DIAMICTON TILL].
					3.60	52.05		Grey sandy CLAY with fine to coarse angular to subrounded Sandstone gravels. [SOUTH WALES UPPER COAL MEASURES].
					5.50	50.15		Grey SANDSTONE with Mudstone bands and trace Coal. [SOUTH WALES UPPER COAL MEASURES].
Continued on next sheet								

Remarks
Borehole terminated at 30.50m.

Borehole Log

Borehole No.

R05

Sheet 2 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
									11
									12
									13
									14
					14.20	41.45		Black Coal. [SOUTH WALES UPPER COAL MEASURES].	15
					15.70	39.95		Grey MUDSTONE and Sandstone bands with trace Coal. (Broken Ground.) [SOUTH WALES UPPER COAL MEASURES].	16
									17
									18
									19
									20

Continued on next sheet

Remarks

Borehole terminated at 30.50m.





Borehole Log

Borehole No.

R05

Sheet 3 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					21.30	34.35		Grey SANDSTONE. [SOUTH WALES UPPER COAL MEASURES].	21
									22
									23
									24
									25
									26
									27
									28
									29
									30

Continued on next sheet

Remarks

Borehole terminated at 30.50m.





Borehole Log

Borehole No.

R05

Sheet 4 of 4

Project Name: Penygawsi Primary School

Project No.
C3104

Co-ords: 304700.00 - 182827.00

Hole Type
RO

Location: Llantrisant

Level: 55.65

Scale
1:50

Client: Flucrum Infrastructure Management

Dates: 04/04/2021 -

Logged By
Dom Price

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					30.50	25.15 ----- End of borehole at 30.50 m	
								31
								32
								33
								34
								35
								36
								37
								38
								39
								40

Remarks
Borehole terminated at 30.50m.

