

Provided by the Mining Remediation Authority

# Coal Mining Risk Assessment

**Report Ref:**

71009847026001

**For development at:**

17 Irish Street, Whitehaven, Cumberland, CA28 7BU

**For proposal:**

Demolish an existing garage and construction of a residential dwelling

| Assessment result        | MEDIUM RISK                    |
|--------------------------|--------------------------------|
| Recommended further work | INTRUSIVE GROUND INVESTIGATION |

The Mining Remediation Authority makes a better future for people and the environment in mining areas.

It manages the effects of past coal mining, including subsidence damage claims which are not the responsibility of licensed coal mine operators and is an executive non-departmental public body, sponsored by the Department for Energy Security and Net Zero.

The Mining Remediation Authority is the trading name of the Coal Authority ('TCA') established pursuant to Section 1 of the Coal Industry Act 1994, of 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG. The Coal Authority remains the legal name of the Authority.

#### Limit of liability

This report is provided for the applicant and is in respect of the property identified on its face. Any conclusions or recommendations made are those based on information obtained for the report and our current knowledge and practices. The information and data set out in this report is based on information provided by or obtained from third parties which is held by the Mining Remediation Authority. Any limitations of the data are identified within the report. The Mining Remediation Authority does not accept liability for the accuracy of third party data. Should new data or information become available these results, conclusions and recommendations may require amending. The Authority is not and cannot be liable for any harm, loss or damage of whatever nature, including consequential loss, occasioned to any third party by the inaccuracy of the information set out in this report and any person seeking to rely upon it should if necessary undertake their own investigations and professional advice. The report should only be used in the stated context.

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*Any advice provided in this report does not prejudice our position as a statutory consultee.*

| Version | Compiled | Title   | Checked | Date       |
|---------|----------|---------|---------|------------|
| 1       | AC       | BSc FGS | PB      | 13/08/2026 |

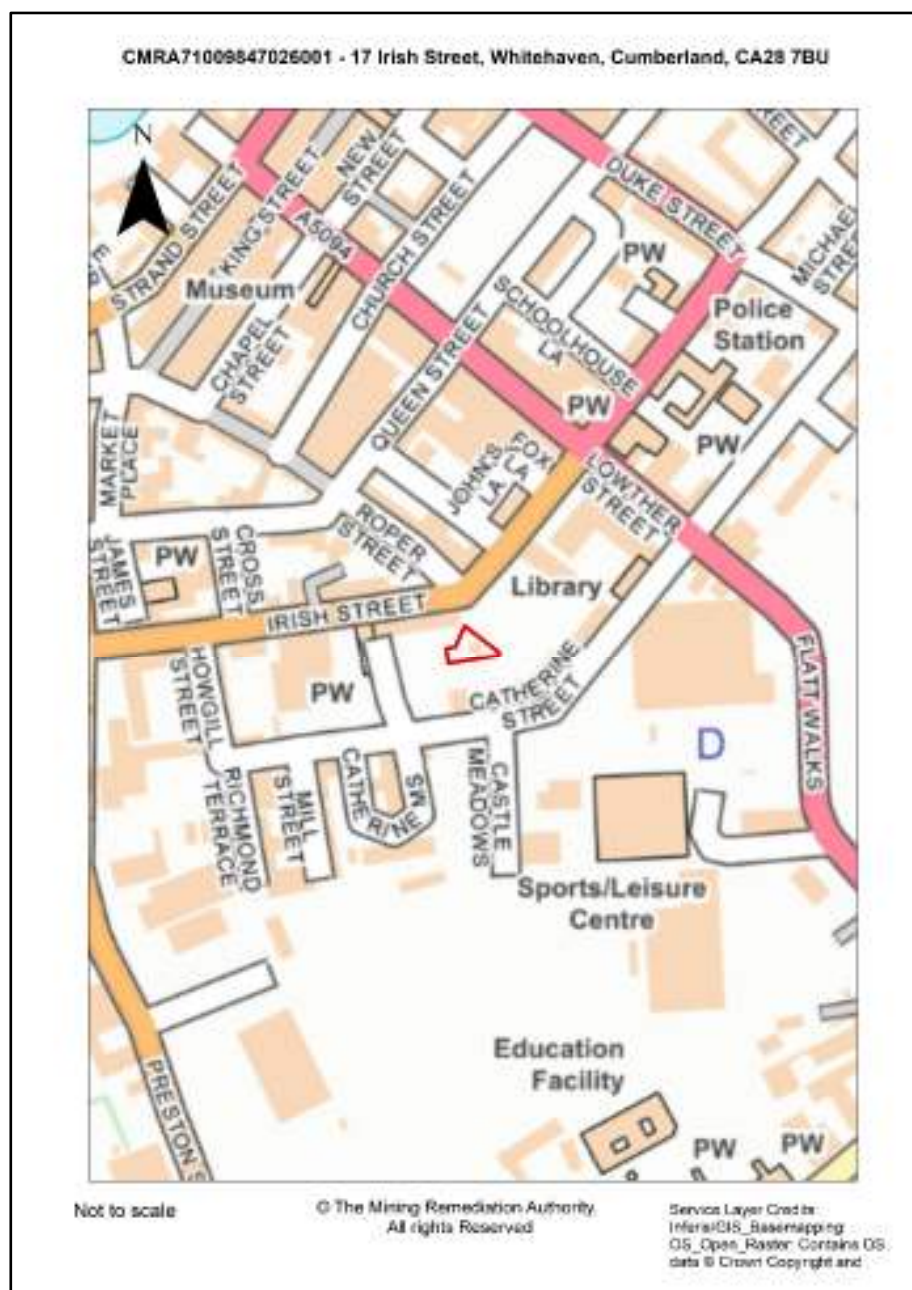
# Section 1 – Description of site and proposed development

## a) Site location and Description

The Mining Remediation Authority has been commissioned to prepare a Coal Mining Risk Assessment Report for a proposed development at 17 Irish Street, Whitehaven, Cumberland, CA28 7BU (see Figure 1), in order to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability.

The approximate site centre co-ordinates are E297415, N517898. The proposed development area requires access via Irish Street. The site has an approximate elevation of 7m AOD, with the site relatively flat.

**Figure 1: Site location plan**



## b) Description and layout of proposed development

The Mining Remediation Authority understands that the developer plans to demolish an existing garage and construct a detached residential dwelling (see appendix A).

## c) Scope of 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.
- 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.

Any works that intersect coal mine workings, mine entries or coal seams may have implications for mine gas, spontaneous combustion and surface collapse. Mining Remediation Authority permission is required prior to any such works taking place. Further detailed advice can be provided upon request.

The Mining Remediation Authority's adopted policies regarding building over or close to mine entries and managing gas risks can be viewed at:

[www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion](http://www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion)

[www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries](http://www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries)

[www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases](http://www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases)

## Section 2 – Sources used to inform this report

| Source reviewed      | Yes | No | Remarks                                                                                                                              |
|----------------------|-----|----|--------------------------------------------------------------------------------------------------------------------------------------|
| Coal Mining Report   | X   |    | Consultants Coal Mining Report (Appendix B)                                                                                          |
| Other Mining Records |     | X  |                                                                                                                                      |
| Geological Plans     | X   |    | BGS Geological Map - Sheet NX91NE (1998)<br>1:10,000/1:10,560 Scale<br><br>BGS County Geological Map – Sheet Cumberland 67 NW (1924) |
| BGS Boreholes        | X   |    | NX91NE458, NX91NE13041/BH1R                                                                                                          |
| Other                | X   |    | BGS GeoIndex                                                                                                                         |

The above information sources have been used to provide an assessment of the potential mining risk within the remainder of the report.

## Section 3 – Identification and assessment of site specific coal mining related risks

Based on all source information reviewed, the following site specific coal mining legacy risks are considered to affect the site:

| Coal mining feature                                        | Risk assessment |                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                            | Rating          | Comment                                                                                                                                                                                                                                                                                                                   |
| Recorded underground coal mining                           | Low risk        | None recorded at shallow depth                                                                                                                                                                                                                                                                                            |
| Probable underground coal mining                           | Low risk        | Possible shallow unrecorded workings in Bannock (Bricks), Main and Yard coal seams                                                                                                                                                                                                                                        |
| Mine entries (shafts and adits)                            | Low risk        | None recorded                                                                                                                                                                                                                                                                                                             |
| Coal mining geology, faults and fissures                   | Low risk        | Fault recorded immediately adjacent to the site to the east, locally displacing coal seams                                                                                                                                                                                                                                |
| Reported or potential mine gas emission                    | Medium risk     | In Cumberland where roof coal is left seam it is known to be liable to spontaneous combustion and precautions should be taken in case of such an incident during all ground works at the site.<br><br>All mine workings pose a potential gas risk which should be considered in any future investigations and development |
| Recorded coal mining surface hazards and historical claims | Low risk        | None recorded                                                                                                                                                                                                                                                                                                             |
| Surface mining (opencast workings)                         | Low risk        | None recorded. Extraction of clay and quarrying is noted in the local area and the risk posed from the extraction of other minerals should be considered. It is also considered possible that the depth to rockhead may vary                                                                                              |

Comment on each specific coal mining feature, based on a desk based review of sources listed in Section 2, are provided below:

## a) Recorded and probable underground coal mining

Underground coal mining can pose challenges to ground stability. A widely regarded 'rule of thumb' of 10 times the extraction thickness of the seam(s) in competent rock cover is commonly considered appropriate, however a site-specific consideration of the risk must be adopted.

Where the extraction of coal has occurred, there is the potential for voids to remain long after mining has ceased. The depth of workings generally dictates the length of time that significant voids may remain, but other factors including the size of mine roof supports and the competency of overlying strata can influence the time for natural consolidation to occur. Waste material produced during mining was sometimes used to backfill abandoned sections of mine workings, therefore reducing the volume of open cavities or voids that remain. The method of backfilling workings is typically not recorded and cannot be relied upon as a satisfactory form of remediation.

It must be considered possible that where seams have been worked by underground methods, roadways may exist that could extend to greater than the height of the worked seam in order to facilitate access. A nominal roadway height of 1.5m is considered, where a seam is of a lesser thickness than this.

Where areas of probable shallow coal mine workings have been identified as part of the Development High Risk Area, it is likely that workable coal exists at shallow depths, however no records for workings exist. The data has been estimated from available mining records by qualified mining surveyors. Since 1872 there has been a law that requires all coal mine operators to deposit working plans of the mine with the government following the cessation of operations. Prior to this date the plans were often destroyed or kept in private ownership.

The Consultants Report in Appendix B states that the development site is not in an area of recorded shallow coal mine workings and that it is not in an area of probable shallow coal mine workings. The Consultants Report indicates that the site is underlain by, or is in proximity to, workings in one seam of coal at a depth of 134m bgl. These workings are in the Six Quarters coal seam, with an extraction thickness of 1.77m and last worked locally in 1800.

Due to the significant depth of these workings, they are not considered to pose a risk and therefore are not discussed further.

The Consultants Report also records the presence of a coal seam outcrop within the site boundaries (southeastern portion of the site) – the Brick (Bannock) coal seam, orientated approximately northeast-southwest, bearing of 209°, and is considered workable by the Consultants Report.

The local BGS Geological Map for the area (Sheet NX91NE (1998), 1:10,000/1:10,560 scale) records the Bannock coal seam, also referred to as the Brick seam in the Consultants Report, in a different position. On the geological map, the seam is shown approximately 30m west of the site, orientated broadly north south. The generalised vertical section (GVS) on the geological sheet also records the seam as split into two leaves and as workable, with a combined thickness of 2.5m. The geological sheet records limited dip information, generally indicating dip to the west. The closest dip recorded within the same fault block as the site is approximately 830m west, where the strata dip westwards, although no angle is provided. The closest dip reading with an angle is approximately 450m east, where a dip of 15° west is recorded; however, this lies within a separate fault block. The geological map records the Norway Dyke Fault immediately east of the site, orientated northwest-southeast

and downthrown to the southwest. If the geological map position of the Brick (Bannock) seam is correct, the seam would not underlie the site, as it lies off site to the west and dips westwards. However, if the position shown in the Consultants Report is correct, the seam would underlie the whole site at shallow depth.

The County Geological Sheet Cumberland 67 NW (1924) records the Brick (Bannock) seam, described as the “conjectured position of the Bannock Band coal”, in the same location as shown in the Consultants Report. This sheet includes more local dip readings, with the closest indicating dips of 5–8° to the west/southwest. If this outcrop position is adopted, as shown on both the Consultants Report and County Series map, the Brick (Bannock) seam is likely to underlie much of the site at shallow depth. The risk of shallow unrecorded workings in the seam therefore cannot be discounted.

The generalised vertical section (GVS) from Sheet NX91NE (1998), at 1:10,000/1:10,560 scale, is summarised below.

| Seam                                 | Thickness | Separation |
|--------------------------------------|-----------|------------|
| Ten Quarters (Cleator Moor 5 Foot)   | 1.5m      | N/A        |
| Bannock <sup>1</sup> (in two leaves) | 2.5m      | 7m         |
| Main (in two leaves)                 | 4.0m      | 23m        |
| Yard (Metal)                         | 2.0m      | 18m        |

<sup>1</sup>Also known as the Brick coal seam

The above seams are also shown on a colliery section on the County Geological Sheet Cumberland 67 NW (1924) approximately 750m northwest of the site, summarised below:

| Seam            | Separation from overlying seam |
|-----------------|--------------------------------|
| Bannock (Brick) | N/A                            |
| Main            | 132 ft (40.2 m)                |
| Yard (Metal)    | 80 ft (24.4 m)                 |

Based on the GVS, the Ten Quarters (Cleator Moor 5 Foot) coal seam overlies the Brick (Bannock) seam by approximately 7m. As the strata dip westwards, this overlying seam would also be expected to outcrop west of the site. This is consistent with the geological sheet, which records the Ten Quarters seam approximately 170m west of the site. On the basis of the geological map, this seam, and other seams overlying the Brick/Bannock seam, would not be expected to underlie the site at shallow depth.

The GVS also indicates that the Main Coal Seam, which is workable and up to 4.0 m thick, underlies the Brick (Bannock) seam by approximately 23 m. Based on the Consultant's Report outcrop location, the Main Seam could underlie the site, as it would occur beneath the Brick (Bannock) seam where that seam is shown to outcrop within the site. Given the thickness of the seam, if worked, there may be insufficient competent cover above the Main Seam.

The GVS also indicates that the Yard Seam, which is workable and up to 2.0 m thick, underlies the Main Seam by approximately 18.0 m. Given the thickness of the seam and its relatively shallow depth, if worked, insufficient competent cover may also exist above the Yard Seam.

The closest BGS borehole that records bedrock depth is NX91NE13041/BH1R, approximately 200m southwest of the site. This borehole encountered sandstone bedrock at 16.5m below ground level. Therefore, where the Bannock/Brick seam is shown outcropping within the Consultants Report and County Series geological sheet, it could be present from approximately 16.5m below ground level and may continue beneath the remainder of the site at shallow depth, deepening westwards in line with the recorded dip.

The risk to the proposed development from probable underground mining in the Brick (Bannock) and the underlaying Main and Yard (Metal) seams is considered to be medium.

Extraction of clay and quarrying is noted on the National Library of Scotland Historical Maps for the area and the risk posed from the extraction of other minerals should be considered. It is also considered possible that the depth to rockhead may vary across the site with areas of backfill possibly present, which may be at risk of differential settlement.

## b) Mine entries (shafts and adits)

The Consultants Report in Appendix B shows no mine entries are recorded within 100m of the development site.

The risk to the development from recorded mine entries is considered to be low.

Where workable coal exists very close to surface, the possibility of bell pits (very old, unlined mine entries) cannot be discounted.

The development site sits within a historical mining area and therefore there is a residual risk of unrecorded mine entries to be present on site. All site operatives should be made aware of this potential risk and a watching brief should be maintained during site works. Caution should be applied to any works/loading/vehicle movements in the zone of influence of mine entries.

## c) Coal mining geology, faults and fissures

The development site sits upon the Pennine Middle Coal Measures, consisting of Mudstone, siltstone and sandstone.

The closest available BGS borehole to the site, NX91NE458 located approximately 100m south of the development records superficial deposits to consist of topsoil, sandy silty clay, sand, and clayey silty sand down to 10.05m depth. Bedrock depth is not recorded.

The closest BGS borehole that records bedrock depth is NX91NE13041/BH1R, approximately 200m southwest of the site. This borehole encountered sandstone bedrock at 16.5m below ground level

Ground conditions at the development site may vary.

A fault is recorded to be present immediately adjacent to the east of site, orientated approximately northwest-southeast, and downthrown to southwest, locally displacing coal seams.

Faults can act as pathways for gas and water, cause surface instability and result in dissimilar coal conditions/hazards due to their relative displacement of strata.

Fissures are lines of weakness at surface which may have been caused by coal mining, usually by aerial subsidence associated with deep mining. No fissures are known to affect the development site.

## d) Reported or potential mine gas emission

The Consultants Report in Appendix B indicates that there are no past gas emissions recorded in the surrounding area, however all coal seams and coal mine workings pose a potential gas risk which should be considered in any future investigations and development. At development sites with shallow coal workings, probable shallow coal mine workings, or pathway features such as mine entries and geological disturbances on or nearby the site, the Mining Remediation Authority recommends that a more detailed gas risk assessment to be undertaken in accordance with relevant guidance.

In Cumberland where roof coal is left seam it is known to be liable to spontaneous combustion and precautions should be taken in case of such an incident during all ground works at the site.

Coal seams which are considered prone to spontaneous combustion can be seen at:

[www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion](http://www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion)

Seams excluded from the list should not be regarded as free from risk of spontaneous combustion as the majority of coal seams could suffer from spontaneous combustion depending upon the method of them being entered, worked or disturbed.

## e) Recorded coal mining surface hazard and historical claims

The Consultants Report in Appendix B shows no surface hazards or historical claims to exist in proximity to the development site.

## f) Surface mining (opencast workings)

The Consultants Coal Mining Report in Appendix B does not record any coal surface extraction in proximity to the site, accordingly the risk to the proposed development is considered to be low.

Extraction of clay and quarrying is noted on the National Library of Scotland Historical Maps for the area and the risk posed from the extraction of other minerals should be considered. It is also considered possible that the depth to rockhead may vary across the site with areas of backfill possibly present, which may be at risk of differential settlement.

## Section 4 – Proposed mitigation strategy

### a) Site investigation and/or remediation

Due to the presence of probable unrecorded shallow mine workings in the Bannock (Bricks), Main and Yard coal seams, an intrusive site investigation will be required.

In Cumberland where roof coal is left seam it is known to be liable to spontaneous combustion and precautions should be taken in case of such an incident during all ground works at the site.

The site investigations will need to be carried out by a competent contractor, taking into account the findings of this report. The results should be interpreted by a qualified and competent person so that an appropriate remedial strategy can be developed.

Guidance on drilling or piling through coal can be found at:

[www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases](http://www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases)

Due to the difficulties in identifying coal related gas hazards, it may be prudent to consider completing a gas risk assessment for the development site. This may recommend basic gas protection measures within the foundation design, which are resistant to permanent gases (carbon dioxide, methane and carbon monoxide) and comparable to that suggested in BR211, as commonly used to protect against radon in residential properties.

Where development is proposed over areas of coal or past coal workings at shallow depth, developers should consider wherever possible removing any remnant shallow coal. This will enable the ground to be stabilised and remove a hazard prior to construction of any foundations associated with the development. Prior extraction of surface coal requires an Incidental Coal Agreement from the Mining Remediation Authority. Further information can be found at:

[www.gov.uk/get-a-licence-for-coal-mining](http://www.gov.uk/get-a-licence-for-coal-mining)

Extensive coalfields exist across Great Britain and it is estimated that 25% of homes and businesses in the UK are located above former coal mines.

To understand the potential for mine water heat, and the Mining Remediation Authority and the British Geological Survey (BGS) released an interactive map showing estimated mine water temperatures within British Coalfields in 2020.

[www.gov.uk/government/news/new-maps-reveal-heat-stored-in-britains-abandoned-coal-mines](http://www.gov.uk/government/news/new-maps-reveal-heat-stored-in-britains-abandoned-coal-mines)

The occurrence of unrecorded mine entries across the whole of the site cannot be discounted and consequently in areas of new build development a watching brief should be maintained throughout the site works to identify this risk. As a result all site operatives should be made aware of this potential risk. Where mine entries exist close to the boundary the developer should be aware that this could complicate treatment if they straddle the boundary or works needed to treat them require access to land owned by third parties.

Should coal seams be found, at or near the depth of the development's foundations, they may pose a risk of spontaneous combustion if exposed to air or may act as pathways for ground gases to reach the development. A competent engineer should be consulted if coal is encountered in, or adjacent to, the foundations of the proposed development.

Concrete, cements and renders may be susceptible to attack from elevated levels of sulfates in the ground. The Building Research Establishment reports that most cases of sulfate attack occur in and adjacent to coal field areas and related industrial centres. It would be prudent for the issue of sulfate attack to be considered during the foundation design to ensure they comply with the Building Regulations 2010.

You may also wish to refer to the Construction Industry Research and Information Association (CIRIA) publication C758 "Abandoned Mine Workings Manual".

## b) Mining Remediation Authority permit

Any intrusive activities, including initial site investigation boreholes and any subsequent treatment of coal mine workings/coal mine entries for ground stability purposes require the prior written permission of the Mining Remediation Authority. Application forms for Mining Remediation Authority permission and further guidance on this matter can be obtained from the Mining Remediation Authority's website at:

[www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property](http://www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property)

Follow on services can be requested using the details in the contacts section.

## c) Implications for development layout

The recorded coal mining legacy issues present within the site do not pose any particular implications for the layout of the proposed development.

## Section 5 – Conclusions

This report has identified that the proposed development site has been subject to past coal mining activity, namely the presence of probable unrecorded shallow mine workings in the Bannock (Bricks), Main and Yard coal seams. The risk to the site from legacy mining features is medium.

Nevertheless, subject to the undertaking of appropriate site investigations and any potential necessary remedial measures as outlined in Section 4a of this report, the Mining Remediation Authority considers that the site may be made safe and stable for future development and the risk to the development reduced to low. The recorded coal mining legacy issues present within the site do not pose any particular implications for the layout of the proposed development.

The Mining Remediation Authority advises the developer undertake a detailed Gas Risk Assessment where proposed development occurs over shallow coal reserves as is the case here.

## Section 6 – Mining Remediation Authority Contacts

### **Planning and Local Authority Liaison Service**

Tel: 01623 637 119

Email: [planningconsultation@miningremediation.gov.uk](mailto:planningconsultation@miningremediation.gov.uk)

Website: [www.gov.uk/planning-applications-coal-mining-risk-assessments](http://www.gov.uk/planning-applications-coal-mining-risk-assessments)

### **Surface Hazards Emergency Service**

Tel: 0800 288 4242 (open 24 hours a day, 7 days a week)

24-hour number for reporting public safety hazards and incidents associated with coal mining

### **Mining Reports Service**

To purchase site specific coal mining information go to our website;

Website: <https://www.miningremediation.co.uk/>

### **Licensing and Permitting Service**

Tel: 01623 637 320

Email: [permissions@miningremediation.gov.uk](mailto:permissions@miningremediation.gov.uk)

For permission to enter or disturb coal mine entries and coal seams

### **Heat and By-Product Innovation Team**

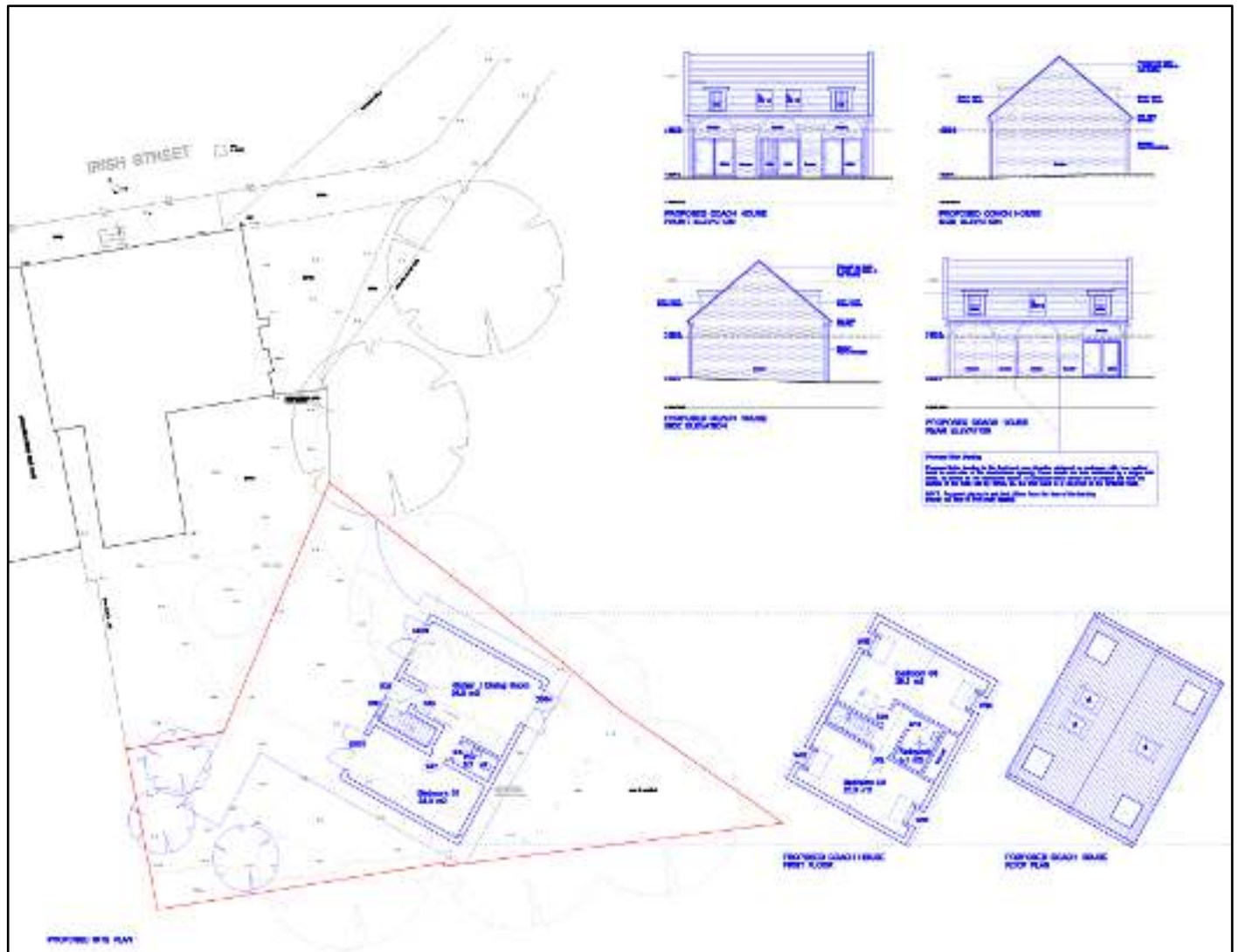
Tel: 0300 3300 140

Email: [minewaterheat@miningremediation.gov.uk](mailto:minewaterheat@miningremediation.gov.uk)

Please contact us to find out more about opportunities in your area

## Section 7 – Appendices

### Appendix A – Plan showing proposed development layout



## Appendix B –Consultants Coal Mining Report

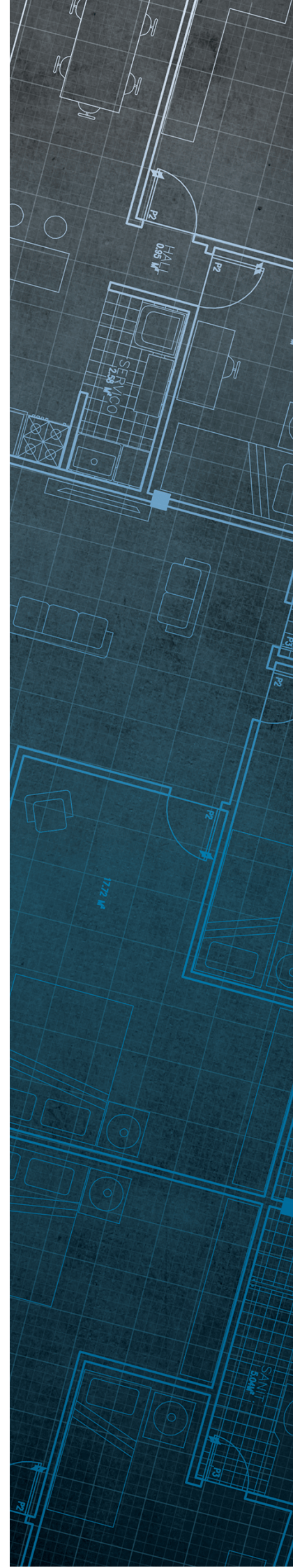


The Coal  
Authority

# Consultants Coal Mining Report

17 Irish Street  
Whitehaven  
Cumberland  
CA28 7BU

|                        |                |
|------------------------|----------------|
| Date of enquiry:       | 14 August 2026 |
| Date enquiry received: | 14 August 2026 |
| Issue date:            | 14 August 2026 |
| Our reference:         | 71009848323001 |
| Your reference:        |                |



# 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

CMRA THE COAL AUTHORITY

### Enquiry address

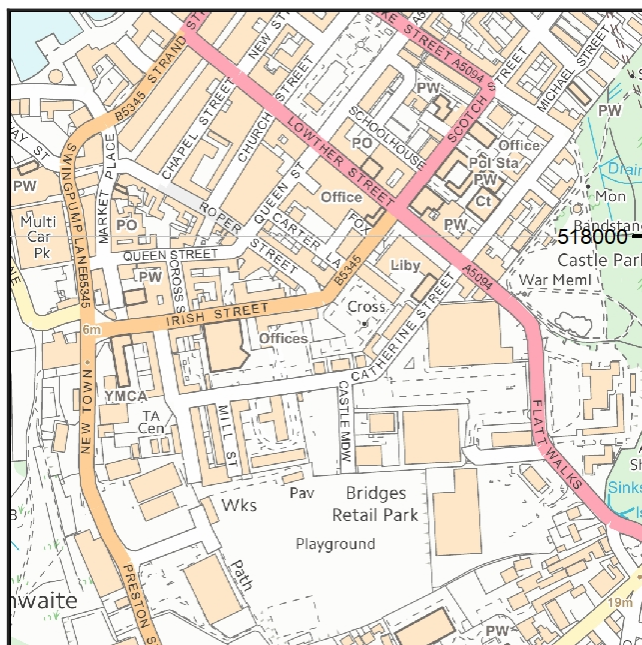
17 Irish Street  
Whitehaven  
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### How to contact us

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Approximate position of property



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# Section 1 – Mining activity and geology

## Past underground mining

| Colliery | Seam         | Mineral | Coal Authority reference | Depth (m) | Direction to working | Dipping rate of seam worked (degrees) | Dipped direction of seam worked | Extraction thickness (cm) | Year last mined |
|----------|--------------|---------|--------------------------|-----------|----------------------|---------------------------------------|---------------------------------|---------------------------|-----------------|
| unnamed  | SIX QUARTERS | Coal    | 0097                     | 134       | North-East           | 8.1                                   | West                            | 177                       | 1800            |

## Probable unrecorded shallow workings

None.

## Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

## Mine entries

None recorded within 100 metres of the enquiry boundary.

## Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

|        |        |        |
|--------|--------|--------|
| NW1380 | NW1393 | NW1384 |
| NW1321 | NW1391 | NW684  |
| PO0    | NW1390 | NW1387 |

Our records show we have more plans than those shown above which could affect the enquiry boundary.

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at [InformationManagers@MiningRemediation.gov.uk](mailto:InformationManagers@MiningRemediation.gov.uk)**.

## Outcrops

| Seam name       | Mineral | Seam workable | Distance to outcrop (m) | Direction to outcrop | Bearing of outcrop |
|-----------------|---------|---------------|-------------------------|----------------------|--------------------|
| BRICK (BANNOCK) | Coal    | Yes           | Within                  | N/A                  | 209                |

## 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

The following potential risks have been identified and as part of your risk assessment should be investigated further.

### 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.

**MINE GAS:** Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. 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. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

### Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

**For further information on specific site or ground investigations in relation to any issues raised in Section 4, please email us at [reports@miningremediation.gov.uk](mailto:reports@miningremediation.gov.uk).**

## 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 **email us at [reports@miningremediation.gov.uk](mailto:reports@miningremediation.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. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

### **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.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

