

# Coal Mining Risk Assessment

**For development at:**

Glass Recycling Ltd, 418 Carlton Road, Barnsley, S71 3HX

**For proposal:**

New industrial warehouse at glass recycling facility

[Assessment Summary](#)

Assessment Result	HIGH RISK
Recommended Further Work	AMMENDMENT TO LAYOUT BASED ON THIS REPORT, OR INTRUSIVE GROUND WORKS

The Coal Authority works to resolve the impacts of mining by growing its expertise, innovation, organisational capability and efficiency.

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 of Business, Energy and Industrial Strategy. This report is valid for 90 days.

#### 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 Coal Authority. Any limitations of the data are identified within the report. The Coal 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	Checked	Date
1.1	HB	PB	02/011/2021

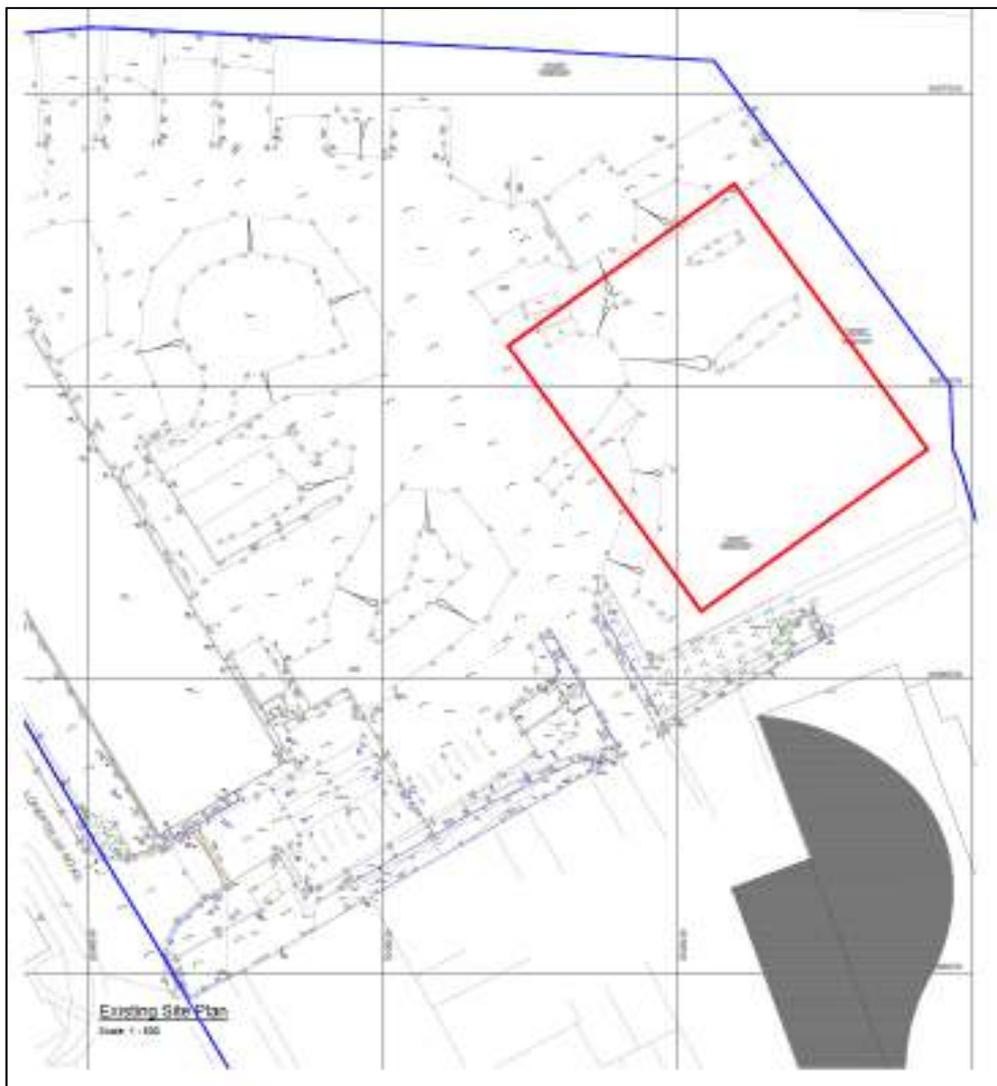
## Section 1 – Description of site and proposed development

### a) Site location and Description

The Coal Authority has been commissioned to prepare a Coal Mining Risk Assessment Report for a proposed development at Glass Recycling Ltd, 418 Carlton Road, Barnsley, S71 3HX (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 E435956, N409699. The proposed development area requires access via Carlton Road. The site has an approximate elevation of 70-72m AOD.

**Figure 1: Site location plan**



## b) Description and layout of proposed development

The Coal Authority understands that the developer plans to construct a new industrial warehouse at an exciting glass recycling facility (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. Coal Authority permission is required prior to any such works taking place. Further detailed advice can be provided upon request.

The Coal 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/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 of information used to inform this report

Source reviewed	Yes	No	Remarks
Coal mining report	X		Consultants Coal Mining Report (Appendix B)
Other mining records	X		Abandonment plans - 9623, NE564
Geological plans	X		County Geological Sheet Yorkshire 262SE (1932), BGS 1:50,000 sheet Barnsley 87 (2008)
BGS Boreholes	X		SE30NE11
Other	X		BGS GeolIndex

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

The Coal Authority's search of its detailed coal mining information identifies the following site specific coal mining legacy risks to the site.

Coal mining issue	Reported		Risk assessment	
	Yes	No	Rating	Comment
a) Underground coal mining (recorded at shallow depths)		X	Low risk	Recorded workings considered likely to have sufficient cover
b) Underground coal mining (probable at shallow depths)		X	Low risk	None considered likely
c) Mine entries (shafts and adits)	X		High risk	Seven mine shafts within 100m, current layout at risk from at least one mine shaft
d) Coal mining geology (faults and fissures)		X	Medium risk	Localised faulting in multiple worked seams beneath site. Significant made ground deposits may exist at site
e) Record of past mine gas emissions or potential		X	Medium risk	All mine workings pose a potential gas risk which should be considered in any future investigations and development. Mine gas could be exacerbated by local rising mine water
f) Recorded coal mining surface hazard		X	Medium risk	Hazard relating to discharge of mine/ground water in area encompassing site
g) Surface mining (opencast workings)		X	Low risk	None recorded

A desk based study of the coal mining information has been used to risk assess the coal mining features above. A summary of the risk posed by these features is summarised after thorough analysis of the information sources. Comment on each specific coal mining issue follows below:

### a) Underground Coal Mining (recorded at shallow depths)

Coal mining at depths shallower than 30m beneath ground level can typically pose challenges to ground stability at the surface. The magnitude of this effect depends upon the exact depth of any workings, the thickness of competent rock cover and the extraction thickness of any coal mine workings.

The Coal Authority Consultants Coal Mining Report in Appendix B states that the development site is not in an area of recorded shallow coal mine workings. The Consultants Report indicates that 10 seams of coal have been worked beneath or in proximity to the proposed development site at depths of 43-392m bgl. Two seams are reported to have been worked beneath the site at less than 100m bgl; the Meltonfield seam at 43m bgl, with an extraction thickness of 1.04m and last worked in 1876 and the Winter coal at 71m bgl with an extraction thickness of 1.20m bgl and last worked in 1884. It is understood that the Meltonfield coal has an alternative local name of the Woodmoor coal.

The County Geological Sheet Yorkshire 262SE (1932) records the Steam coal and Swinton Pottery coal seams outcropping 230m and 440m northeast of the development site, respectively. A rate of dip of 1 in 25 (2.2°) northeast is recorded approximately 1km west of the development site, therefore the Steam and Swinton Pottery coals are not expected to be present beneath the development site. The Woodmoor (Meltonfield) seam is not recorded to outcrop locally.

Notes on the county sheet for one of the shafts recorded locally to the site and discussed further in section 3c below indicates the Woodmoor coal at 129ft (39.3m), the Winter coal at 236ft (71.9m) and the Barnsley coal at 644ft (196.2m).

Abandonment plan 9623 (sheet 2) records workings in the Woodmoor coal across the southwestern extent of the development site. Five of the mine shafts locally to the site are recorded on this plan, with an elevation of the Woodmoor coal of 85ft AOD (44m bgl) recorded at the Woodmoor Pits (shafts 436409-001 and -002). A general section on the plan records 2ft 11in (0.88m) coal underlain by 6in (0.15m) fireclay, totalling 1.04m. The above seam depth and thickness approximately correspond with the Consultants Report.

Based on the depth and thickness of these workings, even considering the presence of roadways which may extend to greater than the height of the seam (nominally 1.5m) to facilitate access, it is considered likely that the recorded workings in the Woodmoor coal beneath the development site will have sufficient competent rock cover. It is also considered that the recorded workings in underlying seams will also have sufficient cover.

Accordingly the risk to the proposed development from recorded mine workings is considered to be low.

## b) Underground coal mining (probable at shallow depths)

Areas of probable shallow coal mine workings are identified as part of the Development High Risk Area for which no recorded plan exists, but where it is likely that workable coal at shallow depths has been mined before records were kept. 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.

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.

The Coal Authority Consultants Coal Mining Report in Appendix B states that the development site is not in an area of probable shallow coal mine workings. As discussed in section 3a above, the shallowest known worked seam beneath the site is the Woodmoor coal seam, known to have been worked at approximately 44m bgl beneath the site. The next seam shown to outcrop locally that is stratigraphically above the Woodmoor seam is the Steam coal, known to outcrop to the northeast of the site and therefore not considered likely to be present beneath the site. It is noted on the BGS 1:50,000 sheet Barnsley 87 (2008) that the laterally discontinuous Meltonwood coal exists approximately 6m above the Woodmoor coal and is 0-2.3m in thickness. It is not considered likely that this seam exists locally, owing to the absence of any other reference to it, however even if present and worked it is considered that if it is present at a depth of approximately 38m bgl sufficient competent rock cover will exist above the Meltonwood seam.

No further shallow coal seams are likely to exist beneath the development and therefore the risk to the proposed development from unrecorded shallow mine workings is considered to be low.

## c) Mine entries (shafts and adits)

The Coal Authority Consultants Coal Mining Report in Appendix B shows seven mine entries (all shafts) are recorded within 100m of the development site. Three of these entries are reported as having been 'filled and...capped to British Coal specifications with reinforced concrete at rockhead in October 1994'. However, no details beyond the above comments are included in the shaft register, therefore no further details of the nature or specifications of the works carried out in 1994 are known.

It is noted that abandonment plan NE564 includes a sheet entitled 'filling of abandoned mine shafts', with an indication that filling commenced in 1968, however this plan only appears to indicate that the No.3 Pit (435409-003) was filled and even then this was not undertaken over its full depth, therefore it is not entirely clear if the aforementioned comments around treatment to the shafts in 1994 are accurate.

The best plot position of those entries within 50m of the site boundary have been reviewed in the undertaking of this Coal Mining Risk Assessment, the findings of which are summarised below:

Reference	Original Easting	Original Northing	Amended Easting	Amended Northing	Distance from site	Source documents
435409-001	435954	409656	435954	409656	6m S	Shaft reported as being located, filled and capped.
435409-002	435971	409632	435971	409632	34m SE	Shaft reported as being located, filled and capped.
435409-003	435919	409684	435919	409684	15m SW	Shaft reported as being located, filled and capped.
436409-001	436003	409659	436000	409659	29m SE	OS:1/2500 Scale 262/16 1st 2nd ed
436409-002	436007	409653	436004	409651	37m SE	OS:1/2500 Scale 262/16 2nd 3rd 4th ed Ab Plan:GCR275 6153 9623 Geol:1/10560 Scale 262 1st ed
436409-004	436010	409670	436012	409669	28m SE	AB Plan 8451 OS: 1/2,500 Ed 1

The Coal Authority seeks to ensure that development is avoided above, or within the zone of influence of, all mine entries where possible. The zone of influence can be calculated as the sum of the departure value (0m where the position of the shaft has been confirmed or 10m where a position has not been confirmed), plus the local depth to rockhead (discussed in 3d below as likely to be up to 5.62m), plus the entry radius (known to be 1.82m for shafts 435409-001 and -002, 2.43m for shaft 435409-003 and where not proven must be assumed to be the greater of the aforementioned values). On the basis of the above the zone of influence for the entries can be assumed to be a distance from the positions detailed above of 7.44m for 435409-001 and -002, 8.05m for shaft 435409-003 and 18.05m for the remaining shafts that have not been previously located. Consequently at this time, it is considered that the zone of influence of shaft 435409-001 may impact upon the proposed development site.

At this time the risk to the proposed development from recorded mine workings is considered to be high. If amendments can be made to the layout such that it avoids the zone of influence of all local mine entries, it may be possible to revise this risk to low.

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.

#### d) Coal mining geology (Faults and fissures)

The development site sits upon the Woolley Edge Rock of the Pennine Middle Coal Measures Formation. The closest indication of superficial deposits at the development site can be taken from the BGS borehole record SE30NE11, dated 1903-4 and located 88m south of the development site, indicating 5ft 4in (1.62m) soil and clay, however based on a historical surface level recorded on abandonment plan 9623 for the site of 226ft (68m) AOD and the current surface level of the site of 70-72m AOD, there may be an additional depth of made ground of at least 4m, in addition to the aforementioned depth of soil and clay, totalling up to 5.62m of superficial deposits at the development site.

It is of note that historical mapping for the area indicates considerable railway infrastructure and coking ovens to exist within and close to the site boundary, therefore the potential for made ground deposits associated with former industrial use must be considered.

Local abandonment plans indicate there to be localised faulting in multiple seams beneath the site. 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.

#### e) Record of past mine gas emissions or potential

There are no recorded past gas emissions recorded in the local area, however, coal seams and coal mine workings pose a potential gas risk which should be considered in any future investigations and development. It is also noted in 3f below that local mine workings may, as well as being flooded, may also contain mine gas. The migration of mine gas to surface may be exacerbated by any rising mine/groundwater, and the local mine workings and mine entries may act as a migratory pathway to surface. Therefore consideration should be given to the potential increased risk of mine gas during all works at the site.

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 Coal Authority recommends that a more detailed gas risk assessment to be undertaken in accordance with relevant guidance.

No seam mentioned in this report is recorded as being prone to spontaneous combustion.

#### f) Recorded coal mining surface hazard

It is understood that a suspected Coal Mining Related Hazard was reported to the Coal Authority on 6th July 2021, however a decision has not yet been made on this hazard as

to whether it is indeed coal mining related, therefore it is not included within the Consultants Report in Appendix B.

It is understood that large quantities of ochreous water have been reported in the area. The Coal Authority have a monitoring borehole approximately 1km south of the site (Wharncliffe Woodmoor 1,2,3) which shows the mine water level in the workings to be approximately 54m AOD. It is there estimated (if connectivity exists between the workings at the monitoring point and those beneath the development site) that the water level at the development site may be at approximately 10-20m bgl. If this is the case then it is possible that the local ochreous water is groundwater that has come into contact with the coal measure rocks and picking up natural iron, rather than mine water.

If the water identified is surface water, then it is possible that it may have become contaminated by local made ground deposits (which could include industrial made ground and/or colliery waste). Springs and wells are also noted locally to the site on historical mapping and it is not clear whether these may have any connection to the issuing water.

It is understood that local mine water levels still appear to be recovering and are variable and rainfall dependant, therefore the possibility of the local discharge/ochreous water being mine water cannot be discounted.

It is also understood that elevated mine gas levels have been recorded at a monitoring point located approximately 1.4km southwest of the site. It must therefore be considered likely that if any mine workings beneath the site are flooded they may also contain mine gas and this could be exacerbated by the presence of the mine water.

If any ground works are undertaken which do intercept local mine entries or mine water then these works may encounter mine water. If the ochreous water is mine water then depending on the rainfall in the lead up to the works this could be under artesian pressure. The possibility of any water being contaminated by the aforementioned local made ground deposits must be considered.

The developer must consider that the local mine/groundwater circumstances may continually change going forward and therefore this could impact upon the development site. It would be prudent to discuss any site risks further with the Coal Authority's Gas and Environment teams prior to any ground works commencing.

g) Surface mining (opencast workings)

None recorded.

## Section 4 – Proposed mitigation strategy

### a) Site investigation and/or remediation

Due to the presence of recorded mine entries in proximity to the development site boundary, it is recommended that amendments are made to the development layout to avoid the zones of influence of all local entries, if feasible. If it is not feasible to move the development footprint, then consideration must be given to further proving the ground conditions at the development site in order to obtain accurate zones of influence for the local mine entries and to determine whether the current layout will be affected. If the building location will fall within the zone of influence and cannot be relocated, consideration must be given to confirming the nature of previous remedial works to the mine entries and if necessary undertaking additional remedial works to ensure that no risk will be posed to the proposed development.

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, 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 Coal 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)

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) Coal 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 Coal Authority. Application forms for Coal Authority permission and further guidance on this matter can be obtained from the Coal 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

At this point in time, the recorded mine entries in proximity to the site boundary are likely to pose a risk to the proposed development, in particular shaft 435409-001. However, it is hoped that the client may be able to consider relocating the building footprint a distance to the north and east such that it will fall outside of the zones of influence of all of the nearby mine entries discussed in 3c above.

If such layout amendments are feasible, then it may be possible to re-review the circumstances of the site and reduce the risk to low.

If layout amendments are not feasible, then consideration must be given to further proving the ground conditions at the development site in order to obtain accurate zones of influence for the local mine entries and to determine whether the current layout will be affected. If the building location will fall within the zone of influence and cannot be relocated, consideration must be given to confirming the nature of previous remedial

works to the mine entries and if necessary undertaking additional remedial works to ensure that no risk will be posed to the proposed development.

## Section 5 – Conclusions

This report has identified that the proposed development site may be affected by coal mining activity, namely the presence of recorded mine shafts in proximity to the site boundary. The risk to the site from legacy mining features is high.

If the layout amendments recommended within section 4 of this report can be undertaken then it is possible that the risk to the site from historical mining could be reduced to low. However if this is not feasible then the intrusive investigations recommended and/or remedial works discussed should be undertaken prior to the layout of the development being confirmed.

The Coal Authority advises the developer undertake a detailed Gas Risk Assessment where proposed development occurs over shallow coal reserves as is the case here. Due consideration should also be given to the possibility of mine and/or ground water existing close to surface in the area.

## Section 6 – Contacts

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

Tel: 01623 637 119

Email: [planningconsultation@coal.gov.uk](mailto:planningconsultation@coal.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;

[www.groundstability.com](http://www.groundstability.com)

### **Licensing and Permitting Service**

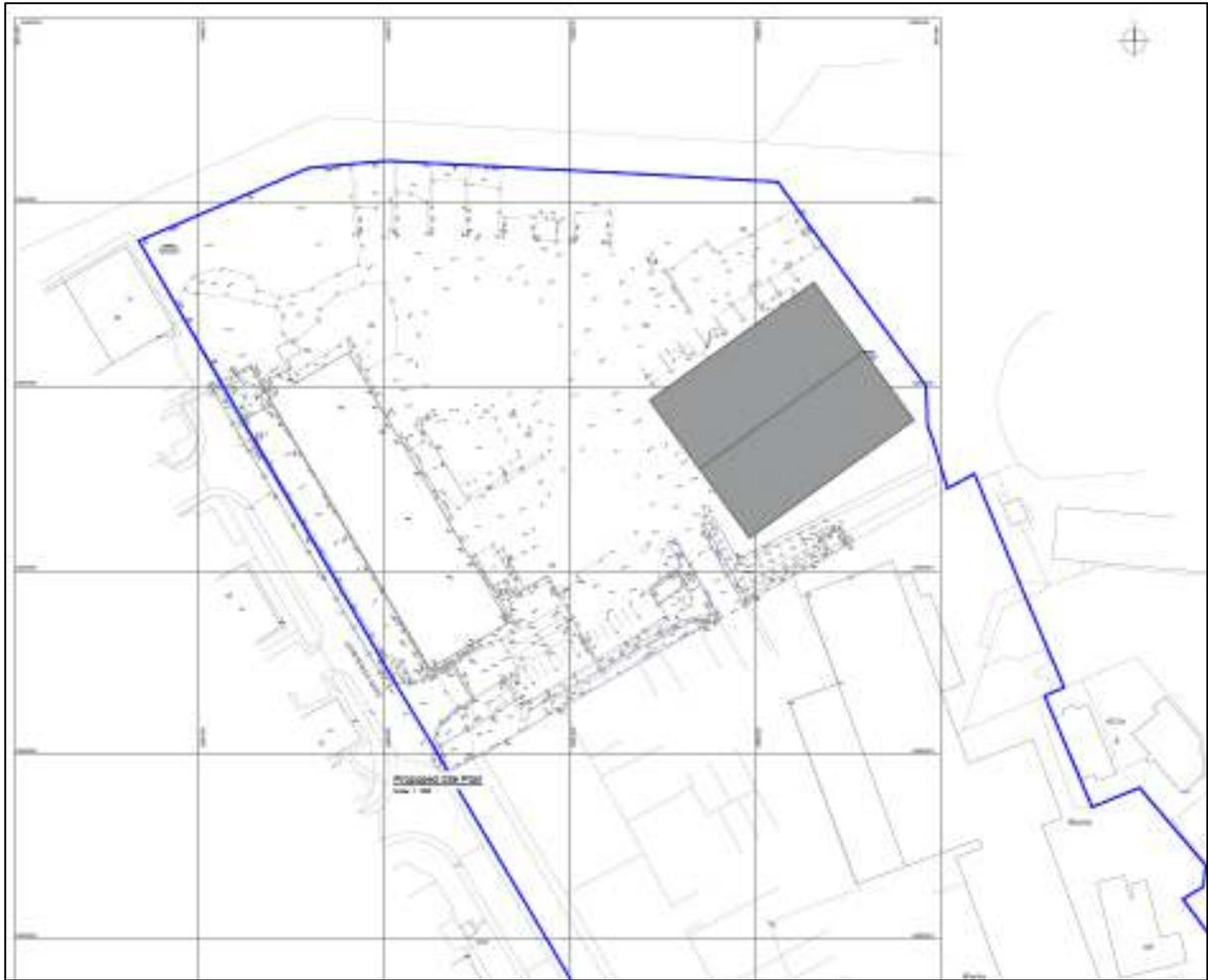
Email: [permissions@coal.gov.uk](mailto:permissions@coal.gov.uk)

Tel: 01623 637 320

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

## Section 7 – Appendices

### Appendix A – Plan showing proposed development layout



## Appendix B – Non-Residential Coal Mining Consultants Report



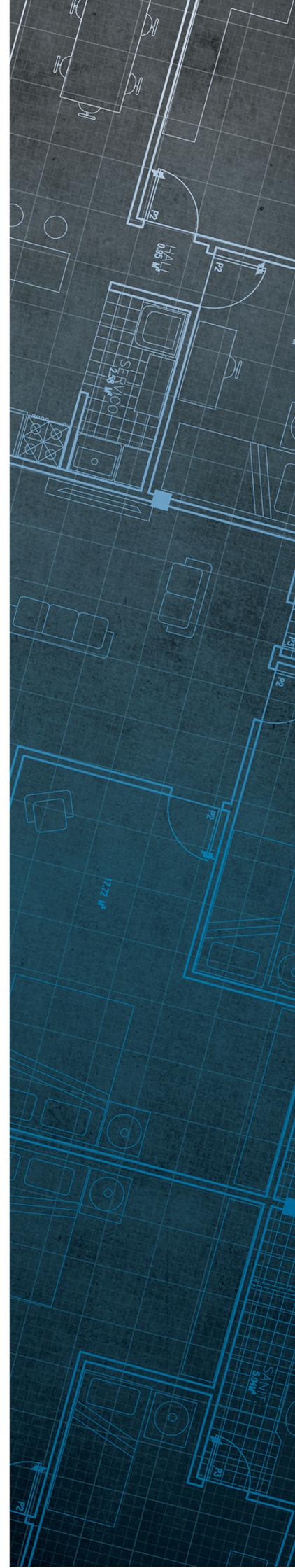
The Coal  
Authority

# Consultants Coal Mining Report

Glass Recycling Uk  
418 Carlton Road  
Carlton  
Barnsley  
S71 3HX

Date of enquiry: 8 November 2021  
Date enquiry received: 8 November 2021  
Issue date: 8 November 2021

Our reference: 71008170745001  
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

THE COAL AUTHORITY

## Enquiry address

Glass Recycling Uk  
418 Carlton Road  
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Barnsley  
S71 3HX

## How to contact us

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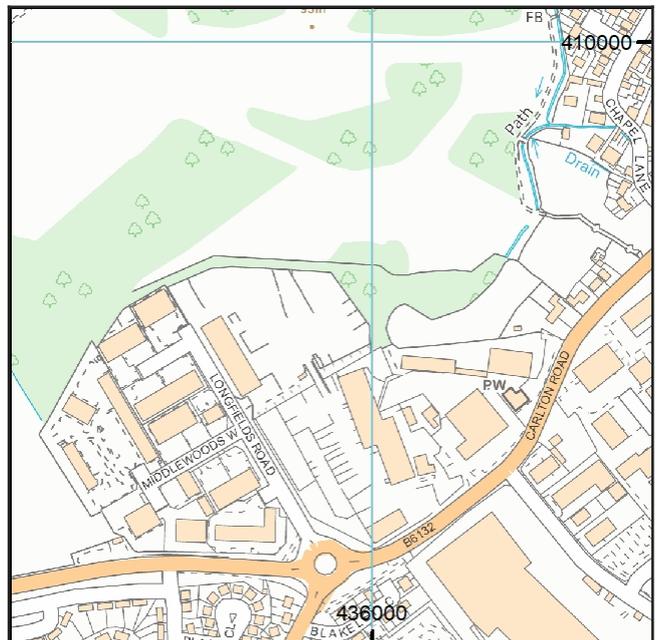
[www.groundstability.com](http://www.groundstability.com)

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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# Section 1 – Mining activity and geology

## Past underground mining

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	MELTONFIE LD	Coal	638H	43	Beneath Property	2.7	North-East	104	1876
WHARNCLIFFE / WOODMOOR	MELTONFIE LD	Coal	69LE	45	South-East	2.6	North	4	1876
unnamed	WINTER	Coal	69LH	52	East	3.2	North-East	120	1876
WHARNCLIFFE	TWO FOOT	Coal	638I	57	North-West	3.2	North-East	61	1886
WHARNCLIFFE / WOODMOOR	TWO FOOT	Coal	69LF	62	North-East	3.4	North-East	61	1886
unnamed	WINTER	Coal	638S	71	Beneath Property	2.3	North	120	1884
WHARNCLIFFE / WOODMOOR	BEAMSHAW TOP	Coal	638U	88	North	2.2	North	132	1941
WHARNCLIFFE / WOODMOOR	BEAMSHAW LOW	Coal	638Y	91	South-West	2.4	North-East	63	1888
WHARNCLIFFE / WOODMOOR	BEAMSHAW TOP	Coal	69LO	91	North-East	3.6	North	117	1941
WHARNCLIFFE / WOODMOOR	KENT THICK	Coal	6390	127	Beneath Property	2.2	North	66	1904
WHARNCLIFFE / WOODMOOR	KENT THICK	Coal	69LT	133	East	2.7	North-East	71	1910
EAST GAWBER	BARNSELY	Coal	6394	195	South-West	2.4	North-East	290	1890
WHARNCLIFFE	BARNSELY	Coal	6396	200	North-West	2.3	North-East	290	1890
WHARNCLIFFE / WOODMOOR	BARNSELY	Coal	69LX	208	North-East	3.0	North-East	282	1880
WHARNCLIFFE / WOODMOOR	TOP HAIGH MOOR	Coal	639B	260	Beneath Property	2.2	North-East	84	1914
WHARNCLIFFE	TOP HAIGH MOOR	Coal	6IJY	263	East	2.1	North	102	1913
WHARNCLIFFE / WOODMOOR	LOW HAIGH MOOR	Coal	639D	266	North-West	1.8	North-East	69	1939
WHARNCLIFFE / WOODMOOR	LIDGETT	Coal	639G	290	North	1.8	North-East	81	1932
WHARNCLIFFE / WOODMOOR	LIDGETT	Coal	69M0	299	North-East	2.7	North-East	81	1935
unnamed	FENTON	Coal	639J	392	North-West	1.4	North-East	107	1956

## 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	435409-001	435954 409656	is filled and was capped to British Coal specifications with reinforced concrete at rockhead in October 1994	Coal	
Shaft	435409-002	435971 409632	is filled and was capped to British Coal specifications with reinforced concrete at rockhead in October 1994	Coal	
Shaft	435409-003	435919 409684	was filled and capped with reinforced concrete at rockhead to British Coal specifications in 1994	Coal	
Shaft	436409-001	436000 409659		Coal	
Shaft	436409-002	436004 409651		Coal	
Shaft	436409-003	436022 409625		Coal	
Shaft	436409-004	436012 409669		Coal	

## Abandoned mine plan catalogue numbers

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

M223	8451	9623
NE534	NE491	GCR275
6153	180A	NE564

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

**Please contact us on 0345 762 6848** to determine the exact abandoned mine plans you require based on your needs.

## Outcrops

No outcrops recorded.

## 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.

### **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 call us on 0345 762 6848 or email us at [groundstability@coal.gov.uk](mailto:groundstability@coal.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 **call us on 0345 762 6848** or **email us at [groundstability@coal.gov.uk](mailto: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.

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

**Key**

- Approximate position of the enquiry boundary shown 
- Disused mine shaft 

**How to contact us**  
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