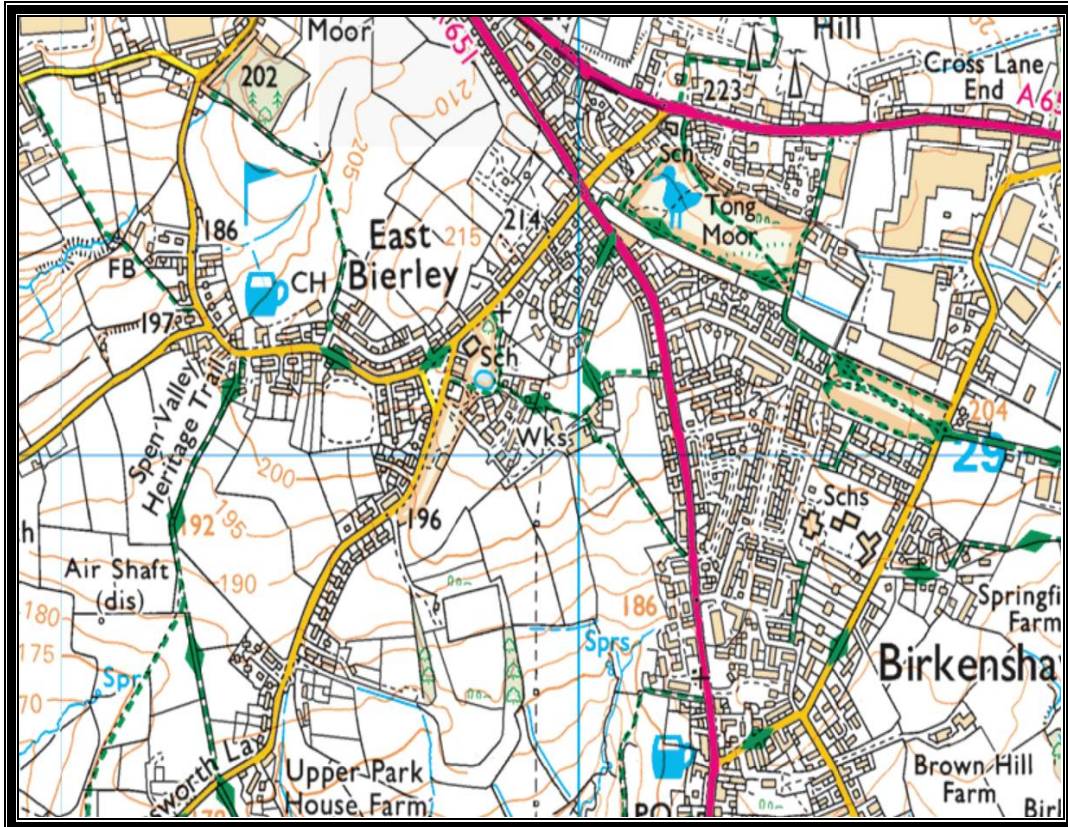


Report No: C755

Date: April 2025

COAL MINING RISK ASSESSMENT
For land at
MOORHOUSE FARM, MOORHOUSE LANE,
BIRKENSHAW, WEST YORKSHIRE, BD11 2AY



Prepared for
RC&SJ Light

Prepared by
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REPORT NUMBER:	C755	REPORT STATUS:	Final
REPORT TYPE:	Coal Mining Risk Assessment		
REPORT DATE:	April 2025		
SITE:	Moorhouse Farm, Moorhouse Lane, Birkenshaw, West Yorkshire, BD11 2AY		
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Introduction

G&M Consulting Ltd (G&M) was instructed by RC & SJ Light to carry out a coal mining risk assessment (CMRA) for land at Moorhouse Farm, Moorhouse Lane, Birkenshaw, West Yorkshire, BD11 2AY.

It is understood that a planning application is being prepared for the construction of a new storage building at the site.

A Coal Mining Risk Assessment is required for the proposals, in order to competently address the mining legacy for the site and determine what impact this may have had upon the land. The assessment is intended to be included as a supporting document to a future planning application to the local authority.

Site Location and Description

The site is on the southern side of Moorhouse Lane approximately 5 km south east Bradford City centre. The approximate grid reference for the site is SE 198 289

The site is currently an agricultural field.

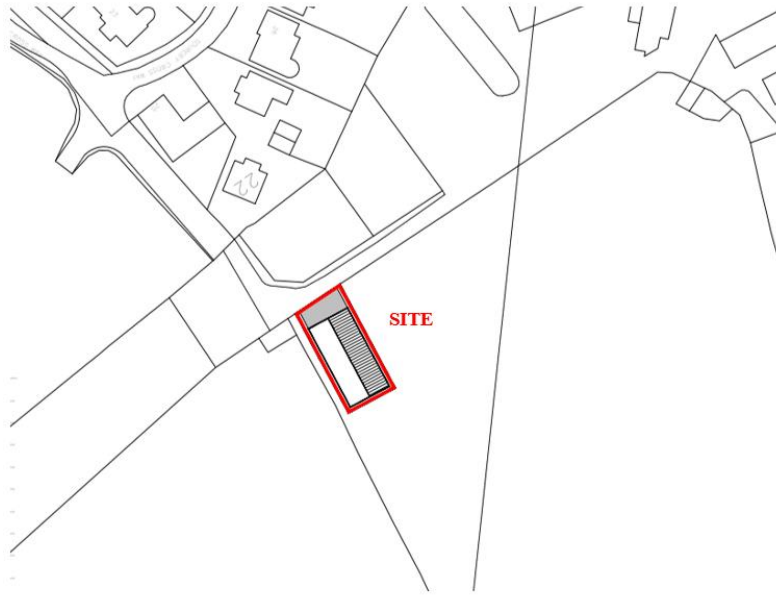
The site location is shown below.



The Site

Figure 1

The location of the proposed new storage building is shown below



Scope of the Coal Mining Risk Assessment

This coal mining risk assessment is compiled in accordance with the guidance given in the Coal Authority publication *Risk Based Approach to Development Management Guidance for Developers Version 4 2017 (updated 2021)*.

This publication sets out the scope for a CMRA as follows:

- Present a desk-based review of all available information on 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 cumulative impact of issues;
- Set out appropriate mitigation measures to address 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 requirements of national planning policy with regard to development on unstable land.

Sources of Information

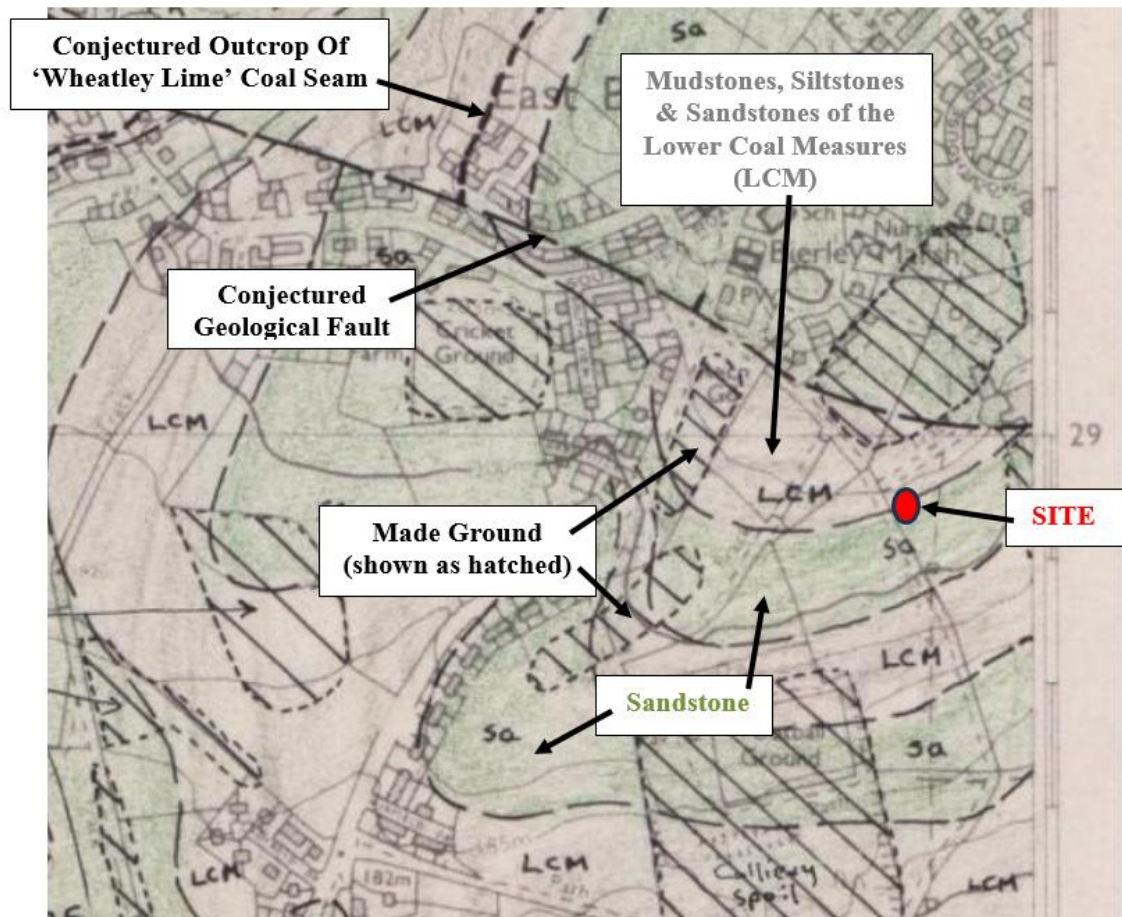
In compiling the CMRA information has been obtain from various sources, including the British Geological Survey (BGS):

- British Geological Survey Map Sheet SE12NE 1999 Edition
- British Geological Survey – Geology Of Britain Viewer
- Coal Authority Interactive Viewer and Mine Abandonment Plans
- Historical Mapping – old-maps.co.uk

Published Geology

Surface Geology (inc. any superficial deposits)

Records indicate the site to be located on sandstone, mudstones and siltstones of the Pennine Lower Coal Measure series from the Carboniferous formation. No superficial deposits are recorded in this area. Strata is shown to dip steadily towards the north-east in this vicinity. A summary of the surface geology is illustrated on the image below which is an extract from the BGS SE12NE 1999 Edition:



Fault Planes or Fissures

A geological fault is conjectured to pass clear of the site by over 60m away to the north as indicated above. No fissuring is known in this vicinity; however, some potential will exist for such features being encountered in the sandstone bedrock which may have been opened out by historic deep mining subsidence.

Coal Seam Outcrops

As shown above, the 'Wheatley Lime' coal seam is conjectured to outcrop some 450m away to the north-west which will dip beneath the land to the north of the geological fault; this seam will not be present beneath the land to the south of the fault and therefore it will not be present beneath the site itself. The shallowest coal seam beneath the site will be the 'Blocking' coal seam (which outcrops around 1km away to the south-west – outside of the above image) of up to around 0.8m thickness at over 30m deep.

Made Ground/Opencast Coal Workings

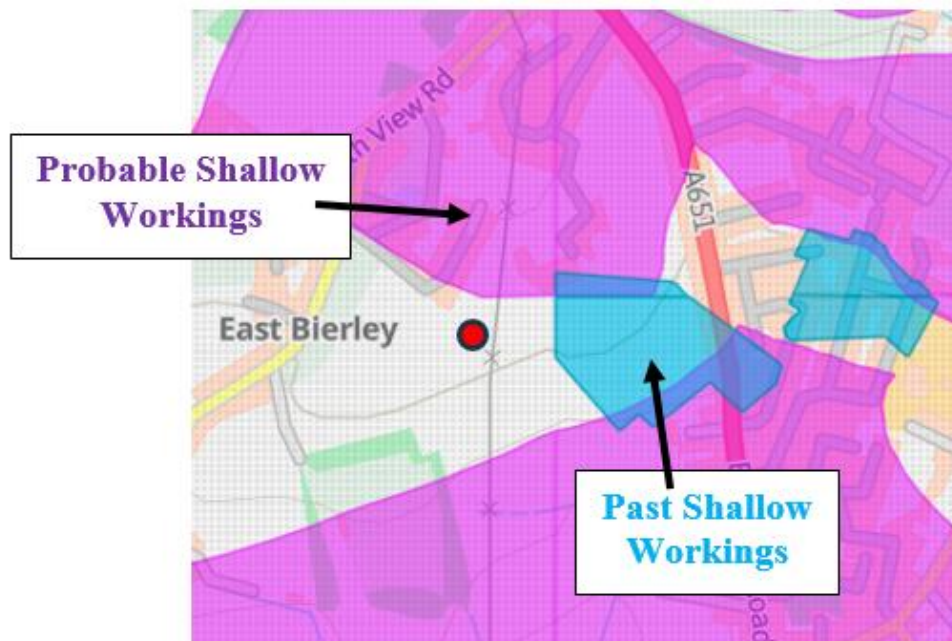
No opencast coal operations are known within 250m of the site. No made ground shown in the immediate vicinity of the site; the closest is shown some 40m away to the north as shown above.

Underground Coal Workings - Deep

Deep coal mining (over 30m deep) has taken place beneath the site in various coal seams, all settlement from which will be long complete. As no coalfields now exist, the site should remain stable from the deep coal mining perspective for the foreseeable future.

Underground Coal Workings - Shallow

According to the Mining Remediation Authorities (MRA) interactive viewer information (as reflected in the extract image below) the site lies just outside of an area of 'probable shallow workings' over 60m away to the north (on the northern side of the geological fault line); and outside of an area of 'past shallow coal workings' by some 100m away to the east. As such, the site itself is neither in a zone of past or probable shallow workings, which infers that the workable seam beneath this specific area will be too deep to be of effect from a void migration aspect – according to CIRIA C758D 'Abandoned Mine Working Manual guidance.



Mine Entries

No known mine entries are shown within the site or to 20m of its boundary. Given the geological and mining information only a slight risk will exist for discovering other mine entries of which there are no records. Grey circular areas of fill material within natural bedrock would be an indication of an old mine shaft for example

Fugitive Gases

As far as we are aware, no evidence of coal mining related fugitive gas emissions are known within 250m of the site. Given the geological and mining position, the likelihood for such an occurrence of which there are no records is considered low.

**Coal Mining Risk Assessment
(based on the above).**

Coal Seam / Coal Mining Issue	Risk Assessment (VeryHigh/High/Moderate/Low/VeryLow)
Underground coal mining (at shallow depths)	Low
Mine entries (shafts and adits)	Low
Geological faulting	Low
Geological fissures	Low to Moderate
Fugitive gas emissions	Low
Surface mining (opencast workings)	Low
Aggressive ground	Low
Coal exposed / near foundation level	Low

**Defined Risk Assessment
(Where 'Underground Coal Mining' above = Very High to Moderate)**

Extent of known underground mining in this/these shallow coal seam/s in the wider vicinity	(Extensive / Much / Occasional / None Known) N/A
Intrusive Site Investigation of Coal Seam / Mines of Coal (given nature of proposals).	(Required / Recommended / Unnecessary)** N/A
Advised critical depth beneath foundation/rock-head level to investigate considering geology and nature of the shallow coal/s*	N/A

Key:

** The critical depth is calculated according to Ciria C758D guidance which details that for the land to be regarded as stable from any voided mineworkings, then a suitable section of competent rock cover above the workings should be proved that is equal or greater than ten times the 'in-tact' coal seam thickness. The advised critical depth to investigate to in this report takes into account the available geological information, any nearby mining records and may include a contingency for the seam to be of a slightly greater thickness than anticipated. Due care and diligence should be employed on-site to ensure that sound information is gathered of the in-tact seam thickness, particularly if concluding that old workings are outside the critical depth of affecting stability for the proposed development.*

*** Where :*

Required	<i>Intrusive Site Investigation required of the shallow coal/s and/or mine entries to determine any necessary stabilisation works for the given development.</i>
Recommended	<i>Intrusive Site investigation recommended – given a lower level of risk in relation to the nature of proposed development some proposals may reduce the risk to an acceptable level via suitable design considerations.</i>
Unnecessary	<i>Intrusive Site Investigation deemed unnecessary – given geological/mining information.</i>

Mining Remediation Authority

Prior written permission from The Mining Remediation Authority is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits). Further information on The Coal Authority's permissions process can be found at:

www.coal.gov.uk/services/permissions/index.cfm

CONCLUSIONS

- 1) The site can be regarded as stable from the **Deep Coal Mining** perspective, and as no coal fields now remain this position should continue for the foreseeable future.
- 2) Regarding the **Shallow Coal Mining** position, no further works would be required regarding potential instability issues from historic shallow mining voids; therefore, usual foundations can be considered to the advice of the structural engineer and/or appointed building control département/officer at the time of construction following the appropriate ground inspections/assessments.
- 3) A watching brief should be employed during future ground/foundation works for any signs of opened out fissures in sandstone bedrock. Foundations may need to be suitably strengthened/designed accordingly, and prior ground treatment works may be required in severe instances.
- 4) Although a low risk, a watching brief should be employed during any future grounds works for any signs of unrecorded mine entries; circular areas of grey fill within natural ground/bedrock would be an indication. If suspected the Coal Authority (as owners) should be notified immediately for appropriate deliberations.

Notes: should there be any uncertainty of actual conditions during future ground works, G&M Consulting or indeed the Mining Remediation Authority themselves can be further consulted for on site assessment if necessary. This assessment is based upon the current proposals – further assessments would be required should it change. This assessment does not consider other geo-environmental aspects such as contamination.

A suitably qualified and competent professional should be employed to use this report to determine the conditions on site, and ultimately advise on what action, if any, is necessary to safeguard the development. It should be noted that any future works to investigate any coal seam, mines of coal or associated mine entries will need the prior consent of the Mining Remediation Authority via their permitting procedure.