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West Riding School

Coal Mining Risk Assessment

June 2023

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Report Title	West Riding School Coal Mining Risk Assessment	Site Address	West Riding School, Ardsley Road, Swaithes, Barnsley, S70 4RH
Author	RB Geotechnical	Contamination / Geotechnical	Geotechnical
Work Stage	Coal Mining Risk Assessment	Report Date	2023
Brief Description of the Report Contents	A desk-based assessment on the risks posed by coal mining to the site and the proposed new development		

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A handwritten signature in black ink that reads "REBlake". The signature is written in a cursive style with a horizontal line underneath.

Issue	Date	Status
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Contents Page

1.0 INTRODUCTION..... 5

2.0 SOURCES OF INFORMATION USED 6

3.0 IDENTIFICATION AND ASSESSMENT OF SITE-SPECIFIC COAL MINING RISKS 7

4.0 CONCLUSIONS AND MITIGATION STRATEGY PROPOSED..... 9

Appendix A - Coal Authority Mining Report

Appendix B - Proposed Development Plan

Appendix C - Geological Map Extract

Disclaimer

This report was produced by **RB Geotechnical** for West 8 Architecture (The Client), for the specific purpose of a Coal Mining Risk Assessment for the planning application related to the proposed extension on the West Riding School in Barnsley, South Yorkshire. This report may not be used by anyone else other than the client without their express permission. In any event, **RB Geotechnical** accepts no liability for any costs, liabilities or losses arising from the use of reliance upon the contents of this report by anyone other than the client.

1.0 INTRODUCTION

RB Geotechnical was commissioned by the client to carry out a Coal Mining Risk Assessment of the proposed site, in order to assess the risk of possible unrecorded mining activities.

Terms and Conditions

Although every effort has been made to ensure the accuracy of the information contained herein, no checks have been carried out to ensure the accuracy of information obtained from third parties and no liability can be accepted for any errors or misinterpretation of the third-party information where it has been incorporated into this report.

This assessment is compliant with the latest Coal Authority Guidance from the Coal Authority Website, with this report structured as advised by this guidance. This report is concerned only with precautions related to potential mining issues.

Site Location and Description

The site is situated at West Riding School on Ardsley Road in Worsbrough, South Yorkshire. It is currently occupied by a square brick-built building with a flat roof. The building is surrounded by rough grassland, with a car park situated to the South East of the building.

Proposed Development

The proposed development is to comprise the construction of a new extension onto the East of the existing building, to form new classrooms for the school. Proposed Development plan is shown in Appendix B.

Scope of the Coal Mining Risk Assessment

The purpose of this Coal Mining Risk Assessment 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;
- 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 Coal 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.

2.0 SOURCES OF INFORMATION USED

The following information has been reviewed in this Risk Assessment, extracts from which are appended:

- A Consultants Coal Authority Coal Mining Report Dated 24th February 2023 – Appendix A; and
- Site Geological information obtained from the British Geological Survey Website (www.bgs.ac.uk). Map extract in Appendix C.

3.0 IDENTIFICATION AND ASSESSMENT OF SITE-SPECIFIC COAL MINING RISKS

The table below summarises the potential risks associated with coal mining legacy for the proposed development site, identified from the listed sources above.

Coal Mining Issue	YES	NO	Comment
Underground Coal Mining (Recorded at shallow depths)		X	
Underground Coal Mining (probable at shallow depths)	X		Intrusive Investigation Works Required
Mine entries (shafts and adits)		X	
Coal mining geology (fissures)		X	
Record of past mine gas emissions		X	
Recorded coal mining surface hazard		X	
Surface mining (opencast workings)		X	

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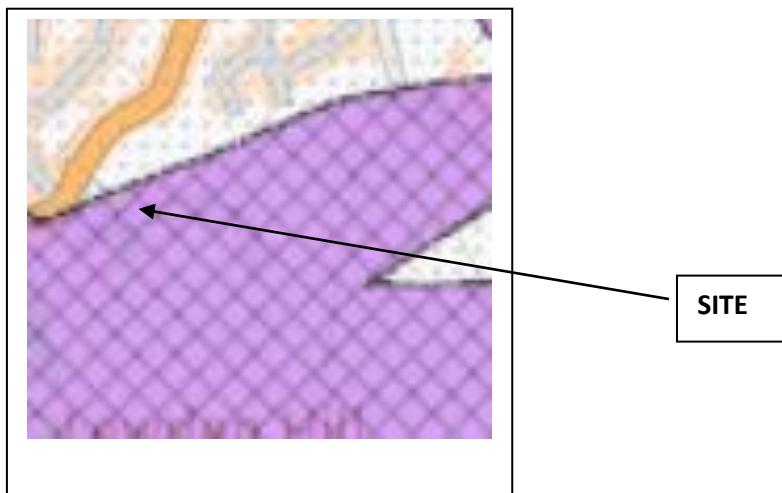
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Coal at or Close to Surface which could have been mined in past	X		Intrusive Investigation Works Required
Coal Seam Directly Beneath Site	X		Intrusive Investigation Works Required

- The Coal Authority Interactive Viewer indicates that proposed development site is located within what the coal authority deems to be a 'Development High Risk Area' in addition to being in an area of Probable Shallow Coal Mining (shown as the hashed area below):



- The Coal Authority (CA) Consultants Mining Report (included as Appendix A) indicates that the site is in an area where coal is at or close to the surface and could have been mined in the past. Additionally, the site is in a surface area that could be affected by underground mining in a number of seams of coal.
- The BGS GeoIndex and geological maps shows the site to be underlain by bedrock of the Pennine Middle Coal Measures, Mudstone, Siltstone and Sandstone. A coal seam (Newhill Steam Coal) is mapped running through the site in an East to West direction, with faults also shown running within 250m of the site boundary, to the East and West of the site trending in a North East to South West direction. Historical BGS boreholes were carried out on the site, extending to depths of 10mbgl. Ground conditions were found to comprise a mixed Mudstone/Sandstone to the base of the hole.
- Upon viewing the British Geological Survey, Geology of the Barnsley District, a brief explanation of the geological map Sheet 87, Barnsley, 2007, it is evident that the Newhill Steam coal is known to have been widely worked using many different methods.

4.0 CONCLUSIONS AND MITIGATION STRATEGY PROPOSED

The Coal Authority have identified the site as being located within a 'Development High Risk Area' and being in an area of probable shallow mine workings. Upon assessing geological maps, the Newhill Steam Coal Seam is mapped directly beneath the site, and is known to have been widely worked in the local area.

RB Geotechnical are therefore of the opinion that the site is at risk of potential unrecorded mine workings, of which further assessment will be required. The following works are therefore deemed necessary in order to fully assess the true risk of potential mine workings beneath the site:

- 2-3 number Rotary Open Hole Boreholes across the site to a depth of 30mbgl, to confirm the absence or presence of unrecorded mine workings that could affect the proposed extension development.

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The Coal Authority Permission

Prior written permission from The Coal 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