

Our Ref: DE/16719/CMRA

Your Ref:

Contact: David Emanuel

8th September 2021

Sandvik Osprey Limited

For the attn. of Mr Stephen Gibbs

Dear Mr Gibbs

COAL MINING RISK ASSESSMENT: PROPOSED INDUSTRIAL DEVELOPMENT, MARGAM

Terra Firma (Wales) Limited has been retained by Sandvik Osprey Limited to undertake a Coal Mining Risk Assessment for the above site.

GEOLOGY

The 1:10,560 scale British Geological Map of the area (Sheet SS 78 NE, 1970) was consulted for geology underlying the site. The site is shown to be underlain by rocks of the Middle Coal Measures. The conjectured outcrop of the 2 Ft 9 Coal Seam, The Upper 4 Ft Coal Seam, Lower 4 Ft Coal Seam and 6 Ft Coal Seam are shown to lie within the site boundary. A Thrust Fault is conjectured to pass beneath the SW corner of the site.

Detailed stratigraphical information is provided in **Table 01**

Table 01. Detailed Stratigraphical Information

Period	Group	Formation
Carboniferous	Coal Measures	Middle Coal Measures including 6 Ft to 2 Ft 9, Coal Seams

Strata are typically dipping 19° to the NNE in the local area.

Superficial deposits are recorded as Glacial Sand and Gravel

Made ground may be present within the site.

BGS BOREHOLE RECORDS

BGS Records reveal two historical boreholes within the site boundary, SS 78 NE 216 and SS 78 NE 72.

SS 78 NE 216 is located at NGR 279170, 186300. It recorded 50 ft (15.2 m) of drift, including peat. Rock was recorded as having a dip of 15° – 20°. A 3 ft (0.9m) thick seam was recorded at 80ft (24.4m) and a further 3 ft seam was recorded at 105 ft 3 inches (32m) depth. Further seams were encountered at depth.

SS 78 NE 72 is located at NGR 279260, 186260. It recorded 106 ft (32.3m) of superficial deposits, including peat. Coal was encountered at 178 ft (54.3m)

COAL MINING RISK ASSESSMENT

Based upon geological map data and BGS Boreholes, the stratigraphical sequence within 30m of the ground surface of the site is illustrated in **Figure 01**.

Recent to Pleistocene	Glacial Sands and Gravels (Peat Deposits recorded in BGS Boreholes)	15.00m – 32.00m
	Coal Bearing Mudstone/Siltstone and Sandstone	
South Wales Middle Coal Measures	COAL: Sub-Crop of 2ft9, U4ft, L4ft & 6ft (maximum individual seam thickness 1.68m)	
	Coal Bearing Mudstone/Siltstone and Sandstone	

Figure 01. Geology and Strata Base below Ground Level

The Coal Authority Report (**Annex A**) states that the property is in a surface area that could be affected by underground mining within 2 seams of coal at 150m to 340m, last worked in 1913 and that any movement in the ground due to coal mining activity should, by now, have stopped. The report also records that further coal seams locate near the surface which may have been worked in the past.

Geological map evidence indicates that the 2ft 9, U4ft, L4ft and 6ft coal seams outcrop beneath the superficial deposits beneath the site. However, BGS Borehole logs reveal between 15m and 32m of superficial deposits beneath the site and given the sites elevation and proximity to the sea one would expect a shallow ground water table.

SHAFTS AND ADITS

The Coal Authority Report states there are no known mine entries within 20m of the site.

CONCLUSION

We would therefore consider that it would not have been technically viable to undertake small scale unrecorded coal extraction beneath the site on account of the depth to bedrock and the need to dewater any excavations. The overall risk to the surface stability of the site from possible unrecorded workings is considered negligible.

We do not expect the known workings to pose a significant risk of mine gas as gassing potential diminished with age after working and, given the seams depths, they will be flooded and lie at a significant depth leading to high hydrostatic pressures which also retard gas emissions from coal.

We trust that the above is to your satisfaction, however, if you have any queries or require any further information please do not hesitate to contact us.

Yours sincerely

for: Terra Firma (Wales) Ltd

Mr David Emanuel

ANNEX A – COAL AUTHORITY REPORT



The Coal
Authority

CON29M

coal mining report

SITE AT 279190, 186300, VALE OF GLAMORGAN



Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4
Mine entries	Page 5



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. In view of the coal mining circumstances we would recommend that any planned or future development should follow detailed technical advice before beginning work on site. Please see **page 3** for further details on **Future development**.

Your reference: **276650092_2**
Our reference: **51002436009001**
Date: **14 April 2021**

Client name:
NLIS Hub

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

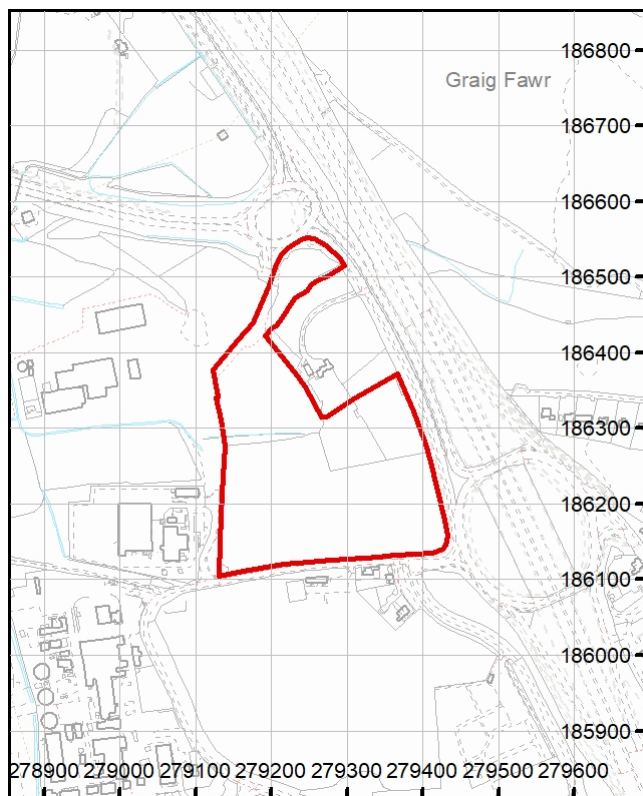
Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion



Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email **cmra@coal.gov.uk**.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 2 seams of coal at 150m to 340m depth, and last worked in 1913.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

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

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings