
Site Condition Report

March 2022

Report for:
Brocklebank & Co. (Demolition) Limited
Allende Way
Darnall
S9 5AP

1.0 SITE DETAILS	
Name of the applicant	Brocklebank & Co. (Demolition) Limited
Activity address	Allende Way Darnall S9 5AP
National grid reference	SK 38557 88694
Document reference and dates for Site Condition Report at permit application and surrender	203381/SCR
Document references for site plans (including location and boundaries)	<ul style="list-style-type: none"> • 203381/D/001 Site Location Plan • 203381/D/002 Site Receptor Plan

2.0 Condition of the land at permit issue	
<p>Environmental setting including:</p> <ul style="list-style-type: none"> • geology • hydrogeology • surface waters 	<p>The British Geological Survey (BGS) data identifies no drift deposits beneath the site and records interbedded mudstones, siltstones and sandstones of the Upper Carboniferous period lying above the Barnsley coal seam.</p> <p>Site investigation recorded hard sandstone extending from approx. 30m below ground level, with mudstone, siltstone, shale with occasional hard sandstone bands above. Seams of coal of approx. 1m depth run through each strata. The seams were unworked beneath the site.</p> <p>The site is sealed with a concrete slab with 1m made ground beneath.</p> <p>Surface water run-off from the site is contained and used within the waste process in a closed loop system. No water drains to surface water or groundwater.</p> <p>The River Don runs in a south-west to north-east direction and is approx. 860m to the west of the site at its nearest point. The Sheffield and Tinsley Canal runs broadly parallel to the R. Don and is approx. 175m from site at its closest point.</p> <p>The flood map for planning indicates that the site lies within a Flood Zone 1, with a low risk of flooding.</p> <p>The site does not lie within a groundwater Source Protection Zone.</p>
Pollution history including:	Historic maps show the area of the site to be greenfield until 1853. Housing on Maikin Road covers the majority of the site from 1893, with allotments covering the

<ul style="list-style-type: none"> • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures 	<p>northern portion until 1948. Steelworks were located to the west and to the south of Darnall Road and brickworks to the east at that period.</p> <p>Since the 1950's the site has since been used as a bottling store, steel scrapyards and a waste transfer station.</p>
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	The Operator is not aware of any historic contamination
Baseline soil and groundwater reference data	
Supporting information	Silkstone Environmental Ltd- Coal Mining Risk Assessment (Appendix A)

3.0 Permitted activities	
Permitted activities	<p>The site is permitted as an A11 Household, Commercial & Industrial Waste Transfer Station, under Permit number FB3205KX/T001</p> <p>The site was originally granted Waste Management Licence WD20 S139 on 19/1/1977. This was subject to a number of modifications for replacement conditions and was subsequently referenced EAWML 60836.</p> <p>Variation EPR/VP3199ZK/V007 was issued on 18/8/14 to increase permitted tonnage</p> <p>Following transfer of the permit no. EPR/VP3199ZK to T&K Gallagher on 4/6/2015, EPR/FB3205KX was issued to Brocklebank & Co (Demolition) Ltd on 10/7/2017</p>
Non-permitted activities undertaken	None
Document references for: <ul style="list-style-type: none"> • plan showing activity layout; and • environmental risk assessment. 	<ul style="list-style-type: none"> • 203381/003 • 203381/ERA

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	<p>None previously</p> <p>Updated site plan included in current permit variation application</p>
Have there been any changes to the permitted activities?	<p>None previously</p> <p>No</p>
	No

Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	
Checklist of supporting information	203381/OP 203381/FEP

5.0 Measures taken to protect land	
Checklist of supporting information	

6.0 Pollution incidents that may have had an impact on land, and their remediation	
Checklist of supporting information	

7.0 Soil gas and water quality monitoring (where undertaken)	
Checklist of supporting information	

8.0 Decommissioning and removal of pollution risk	
Checklist of supporting information	

9.0 Reference data and remediation (where relevant)	
Checklist of supporting information	

10.0 Statement of site condition	

APPENDIX A

**PROPOSED DEVELOPMENT OF INERT WASTE WASHING PLANT,
DOCTOR LANE, SHEFFIELD, S9 5AP**



COAL MINING RISK ASSESSMENT

Prepared by

SILKSTONE ENVIRONMENTAL LTD

for

BROCKLEBANK & CO LTD

JUNE 2016

16047/CMRA/0

Silkstone
Environmental Ltd

www.silkstoneenvironmental.co.uk

*Geotechnical, Mineral, Waste Management &
Environmental Consultancy for Industry*

7 Hall Annex,
Thorncliffe Park,
Chapelton,
Sheffield.
S35 2PH.

Tel: 0114 2573487

Fax: 0114 2573459

www.silkstoneenvironmental.co.uk

DOCUMENT ISSUE RECORD

Contract No: 16047

Client: Brocklebank & Co Ltd

Contract: Doctor Lane, Sheffield, S9 5AP

Document: Coal Mining Risk Assessment

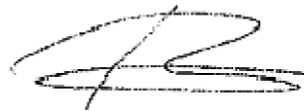
Report prepared By;

A J Ashburn
Geologist
BSc (Hons) MSc CGeol FGS
Silkstone Environmental Ltd.



Appraised By;

R Lord
BSc (Hons) TMICE Eng Tech
Senior Engineer
Silkstone Environmental Ltd.



Certified by;

M A BARRETT
BSc (Hons) MSc CEng
Managing Director
Silkstone Environmental Ltd

**REVISION RECORD**

Revision	Date	Description	Prepared by
0	08/06/16	Coal Mining Risk Assessment	AJA

EXECUTIVE NON-TECHNICAL SUMMARY

Silkstone Environmental Ltd. (SEL) have carried out this investigation as per the instructions of Mr N. Brocklebank of Brocklebank & Co. Ltd. The stated purpose of the work was to carry out a Coal Mining Risk Assessment (CMRA) to assess the potential for old mine workings or coal seams likely to affect the proposed development.

It is understood that the site will be developed to create a new inert waste washing plant within the existing recycling facilities. The review area is a rectangular tract of land between Doctor Lane and Allende Way, Sheffield, 40m x 160m in dimensions. The site is situated approximately 1.7 kilometres north-east of Sheffield city centre at national grid reference (NGR) 438562,388696. The review area is bounded to the south-east by residential properties and by industrial premises to the north-west.

The Coal Mining Report indicates the site lies within an identified area of recorded and probable unrecorded shallow underground coal mine workings and is situated within a development high risk area.

Based on the identified risks and on the reviewed information, it is recommended that a minimum of three boreholes are drilled within the footprint of the new works, to a target depth of 30 metres to identify the nature of any old shallow mine workings which are present beneath the site in the Barnsley coal seam.

SEL consider the potential risk from unrecorded mine entries to be a relatively low, but valid risk.

Prior to any site investigation or development work, records of services should be obtained to accurately locate existing services on site.

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REFERENCES

- A. CON29
M Non-Residential Mining Report No.5100113683001
- B. On-line
data searches at the Ordnance Survey, British Geological Survey, Environment Agency and
The Coal Authority

1 INTRODUCTION

1.1 Brief

Silkstone Environmental Ltd. (SEL) have carried out this investigation as per the instructions of Mr N. Brocklebank of Brocklebank & Co. Ltd. The stated purpose of the work was to carry out a Coal Mining Risk Assessment (CMRA) to assess the potential for old mine workings or coal seams likely to affect the proposed development, which is understood to be the building of a new inert waste washing plant on the company's existing recycling site.

The proposed development is located between Doctor Lane and Allende Way, Attercliffe and is situated 1.7km north-east of Sheffield city centre.

1.2 Objectives of the Coal Mining Risk Assessment

The objectives of this Desk Study Investigation are as follows:

To provide information on coal mining activity on or under the site and surrounding area.

To conduct a risk assessment in the context of the proposed development and assess the likelihood of any impact upon the development as a consequence of former mining activity.

To make recommendations as to what action, if any, is necessary to mitigate the potential impacts.

2 COAL MINING RISK ASSESSMENT DESK STUDY

2.1 Site Location

The site is located between Doctor Lane and Allende Way 1.7km north-east of Sheffield city centre, as shown on the site location plan (figure 1, Appendix A) and is centred at NGR 438562 388696.

2.2 Site Description

As a walkover of the review area was not part of the remit, site description is taken from other sources. It is understood that the site will be developed to create a new inert waste washing plant within part of the existing recycling facilities. The review area is a rectangular tract of land between Doctor Lane and Allende Way, Sheffield and is 40m x 160m in dimension.

The review area is bounded to the south-east by residential properties and by industrial premises to the north-west.

2.3 Historical Land Use

Information relating to historical land use of the site and surrounding area has been reviewed on the internet using Ordnance Survey (OS) 1:2500 maps (where available) and 1:10560/1:10000 maps (when large scale maps were not available).

Earliest maps (1853) show the site to be green field, lying approximately 1.2km east of Attercliffe steelworks and 1.5km north of Darnall Road pottery. By 1855 coal pits were present along the outcrop of the High Hazles seam in the vicinity of Greenland Road approx. 2km east of the review area, though no coal pits were located any closer to the site.

By 1893 the Makin Road terraced housing development appears on maps, being located immediately south east of the review area. Although Attercliffe steelworks was still present on these maps, Darnall Road pottery had disappeared by this time.

Two additional steelworks had developed by 1905, one on Darnall Road, approx. 1.9km south south-west of the review area and one further away, beyond the Sheffield canal north-west of the site.

Further development in the form of a brickworks was located 1.5km east/south-east of the site.

By 1923 a glass bottle works was present south-west of the site next to Darnall Road steelworks.

This had disappeared from OS plans by 1935.

The 1954 OS plans show the first real on-site development, the review area being described as a bottling store. By 1965 the bottling store label has disappeared from plans, but further industrialisation, the development of a large engineering works, had occurred about 1.5km northwest of the site.

The review area was being used as a steel scrap yard by 1975. Further afield, a steel engineering works was developed on Doctor Lane, approx. 200m west of the site. By this time the brickworks east of the site had ceased to be active and a pre-cast concrete works was present in its stead.

Properties on Makin Road were demolished on 1987-1991 plans, but the new street layouts including Allende Way were not drawn up until 1993-1996.

No further OS plans are available on-line beyond 1996. At this time, works were still present on the Attercliffe and Darnell Road steelworks sites.

2.4 Visual Evidence of Mining Activity

An on-site walkover survey was not part of the remit, so there is no record of detailed visual evidence available regarding old mining activity.

2.5 Historical Opencast Mining Activity

Information relating to historical opencast mining was gained from information in the Coal Mining Report (CMR) obtained from the Coal Authority as part of this assessment and is provided in Appendix B.

It should be noted that the site is situated in an area where coal seams lie close to the surface, notably the Barnsley or Top Hard seam. However, the CMR indicates that the site is not within the boundary of an historical opencast (surface mine) site, nor does it lie within 200 metres of a currently operating opencast site. Furthermore, there are no outstanding licence requests to extract coal by opencast methods within the site, nor does the property lie within 800m of an opencast site for which a licence has been granted.

In summary, there is negligible risk of the site being affected by past, present or future opencast surface mining activity.

2.6 Historical Sub Surface (Underground) Coal Mining Activity

Information relating to the underground (sub surface) mining activity and the geology of the site have been gained from various sources and is summarised in the table below:

Table 1: Geological Summary

Maps /Publications Referenced	The Geological Survey Map of Great Britain, Sheet 100, Sheffield, Solid and Drift, 1:50,000 scale. The Coal Authority Coal Mining Report. On-line web sites of the Coal Authority, British Geological Survey, Environment Agency and Ordnance Survey. Historical borehole records (BGS).
Drift Geology	The British Geological Survey shows no recorded superficial (drift) deposits present on-site.
Made Ground	Historical Ordnance Survey (OS) maps show no recorded previous land usages on site until 1954, since when it has been used as a bottling store, steel scrapyards and inert waste recycling facility. The Environment Agency on-line search shows no recorded landfill usage within the site. There are no restored historical opencast mine sites within the review area.
Solid Geology	The British Geological Survey records show the strata outcropping on-site to lie stratigraphically above the Barnsley (Top Hard) coal seam. Rocks comprise interbedded mudstones, siltstones and sandstones of the Duckmantian-Bolsoviaian sub-stage of the Pennine Middle Coal Measures formation which is of Upper Carboniferous age (figure 2).

Dip of Solid Strata	6 degrees dip to north-east (measured adjacent to site).
Faults	No recorded geological faults cross the site, although small fractures associated with shallow underground mine workings could occur.
Coal Seams	A number of coal seams are anticipated below the site of which the following are the shallowest: Barnsley (or Top Hard) coal Dunsil coal 1 st Waterloo coal Swallow Wood coal Lidget coal 2 nd Ell coal Clay Cross Marine Band The Coal Authority records a total of 3 seams worked at depths of between 40m (Barnsley seam) and 380m.
Other economic minerals	Brick works have been active approx. 1.5km east of the site until at least 1965.

The CMR indicates the site is located in a surface area that could be affected by past underground mining in 3 seams at between 40 and 380m deep. These were last worked in 1936 and any movement in the ground due to coal mine activity should have ceased.

The Coal Authority identifies that the site is in an area where coal lies close to the surface, which may have been worked in the past (recorded and unrecorded workings, figure 3). They recommend that *“the potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity.”*

The site does not lie within an area where present underground coal mining occurs, nor does it lie in an area where the Coal Authority envisages future mine working. However, notwithstanding the above, The Authority acknowledges that the site lies in a coalfield where reserves of coal exist which could be worked at a future date. Considering the current political, environmental and economic constraints, the likelihood of this happening would be negligible.

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

There are no recorded coal mine entries (shafts/adits) within, or within 20 metres of the proposed development (table 2, figure 4). However, although Coal Authority records are comprehensive, they are incomplete. The Authority therefore acknowledges that unrecorded mine entries may exist of which they have no knowledge. Any development in the review area therefore could be potentially at risk from such mine entries.

Table 2: Recorded Mine Shaft Details

CA Shaft Reference	Northing	Easting
None recorded within site		

The Coal Authority identifies the review area as being within a *development high risk area* (figure 5); that is it is within an area that contains one or more recorded coal mining features which have the potential for instability or a degree of risk to the surface from the legacy of coal mining operations. New developments in these areas need to demonstrate that any development will be safe and stable taking full account of former coal mining activities.

3. RISK ASSESSMENT

The table below summarises the potential risks associated with coal mining legacy for the proposed development site, identified from the sources of information in the coal mining report augmented by internet information from the OS, British Geological Survey, the Environment Agency and The Coal Authority.

Table 3: Summary of Potential Risks Associated With Coal Mining Legacy

Coal Mining Issue	Yes	No	Risk Assessment
Past underground coal mining recorded at shallow depths			The Barnsley coal seam is recorded as being at shallow depths and subject to old mine workings.
Past unrecorded underground coal mining (probably at shallow depths)			Potential for unrecorded shallow old mine workings in the Barnsley seam.
Present underground coal mining.			None.
Future underground coal mining			Although The Coal Authority identifies the potential for future underground coal mining, the potential is considered minimal under the current political, economic and environmental climate.
Mine entries (shafts and adits)			No recorded shafts or adits. Potential for unrecorded shafts/adits.
Coal mining geology (fissures)			Site has no known lines of weakness due to mining nor recorded faults at the surface that may be associated with change in strata.
Past opencast (surface) coal mining			No recorded past opencast mining within site.
Present/future opencast coal mining			No outstanding licence applications, nor current workings.

Coal mining subsidence			No recorded damage notices within 50m of the site since October 1994.
Record of past mine gas emissions			No records of mine gas emissions.
Recorded surface hazards related to coal mining			
Withdrawal of support			
Working facilities order			Not a development issue
Former copyhold land			
Cheshire Brine Subsidence			

A review of all of the relevant information indicates The Coal Authority has identified the following factors as potential risks:

- The presence of past shallow recorded and unrecorded underground coal mine workings (less than 30m deep) below the site.
- The potential for unrecorded mine shafts or adits within the site.

4. CONCLUSIONS AND RECOMMENDATION

Based on the information readily available and reviewed in this CMRA, past underground coal mine workings are present at shallow depths below the site.

Due to the presence of recorded and unrecorded shallow old workings in the Barnsley coal seam, it is recommended that a minimum of three shallow boreholes be drilled on the footprint of the new development to identify the disposition of the old workings which the Coal Authority records as being present. The boreholes should be drilled to a target depth of 30m, less than 30m if the Barnsley seam is encountered at shallower depths. Ground gas monitoring would be required if old workings are encountered. The Coal Authority would require such drilling to be carried out under a Coal Authority licence utilising water flush methods, with gas monitoring during drilling.

Whilst the Coal Authority has identified that no recorded shafts or adits lie within the site, it has recognised the potential for unrecorded mine entries to be present in the area due to the incomplete nature of their records and the proximity of the site to the outcrop of the Barnsley coal seam. SEL consider the presence of unrecorded mine entries on site to be a relatively low, but valid risk.

It should be stressed that this report is a Coal Mining Risk Assessment only. Regulators may require additional site risk assessments undertaken such as a Phase 1 Desk Study, at a future date.

Prior to any site investigation or development work, records of services should be obtained to accurately locate existing services on and in the immediate vicinity of the site.

APPENDIX A - FIGURES

Figure 1: Site Location Plan

Figure 2: Site Geology

Figure 3: Past Underground Coal Mine Workings and Probable Shallow Underground Coal Mine Workings

Figure 4: Recorded Mine Entries

Figure 5: Development High Risk Area



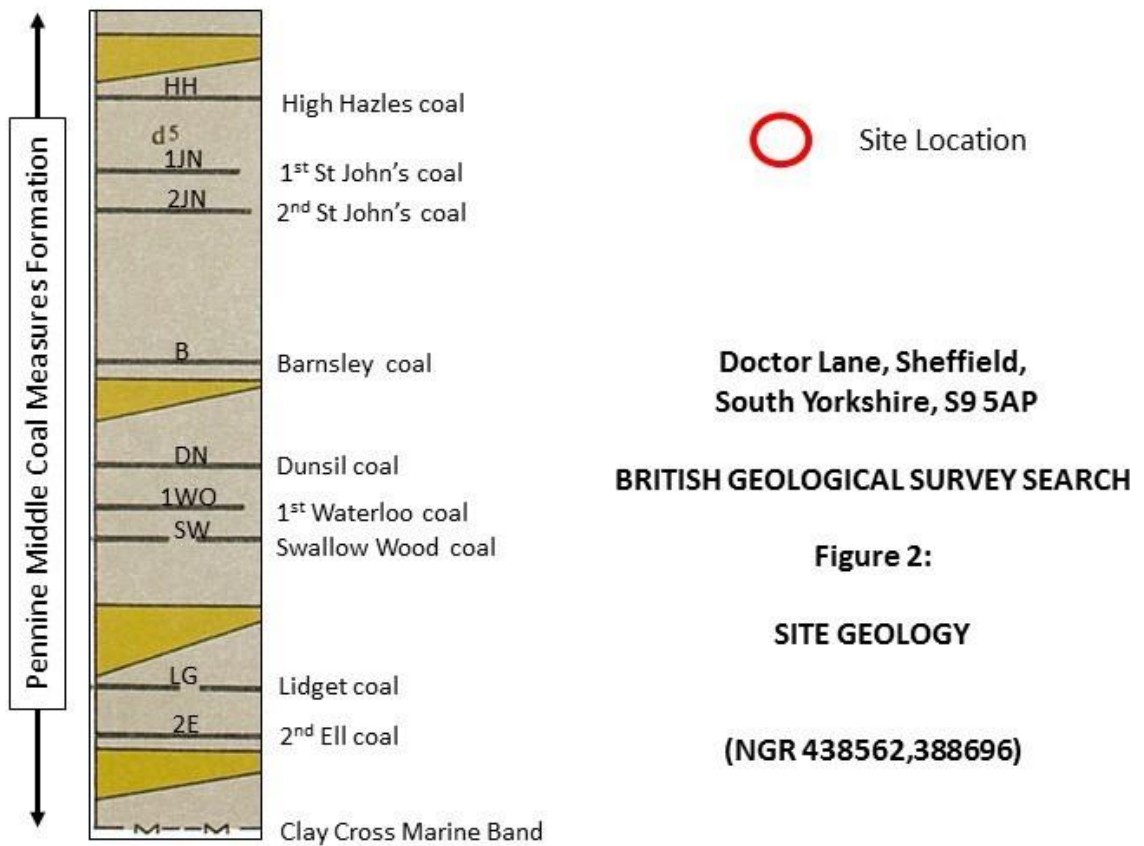
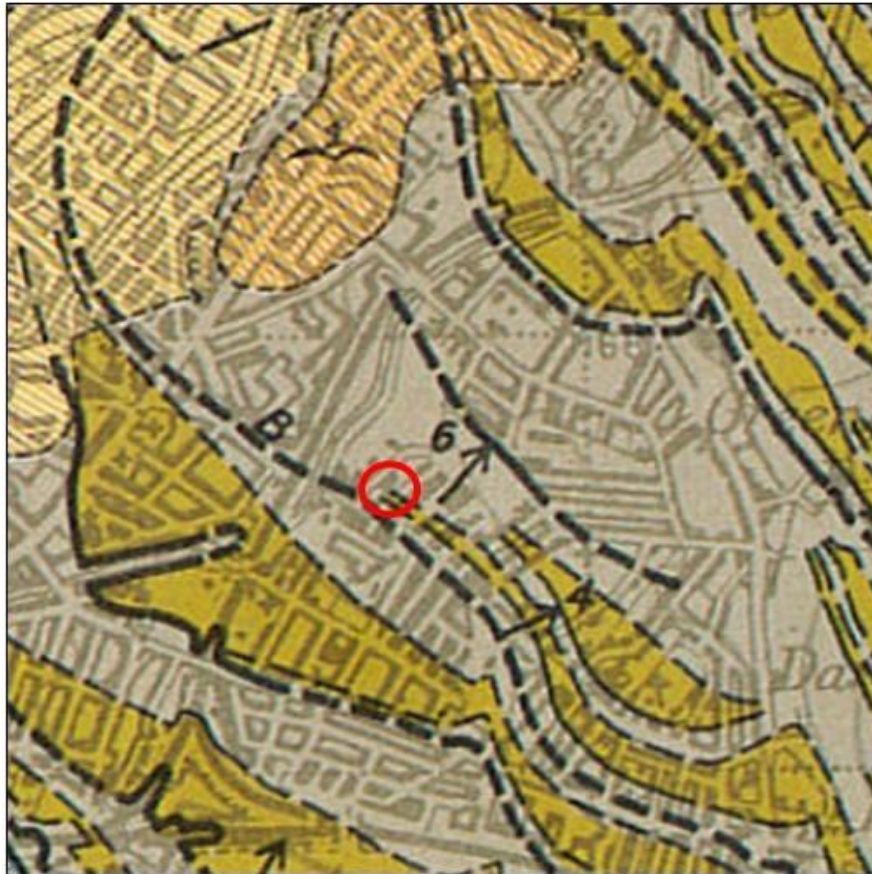
Doctor Lane, Sheffield,
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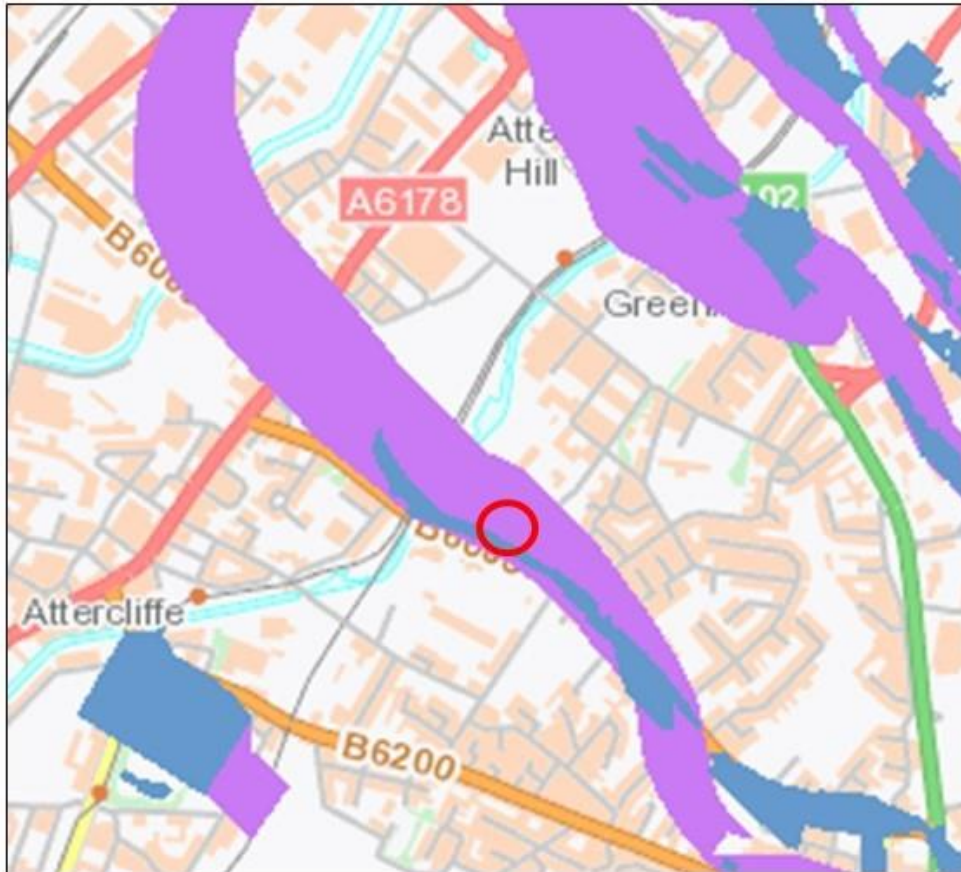
Figure 1:




 Site Location

SITE LOCATION

(NGR 438562,388696)





-  Past Underground Coal Mine Workings
-  Probable Shallow Underground Coal Mine Workings
-  Site Location

**Doctor Lane, Sheffield,
South Yorkshire, S9 5AP**

COAL AUTHORITY SEARCH

Figure 3:

**PAST UNDERGROUND COAL MINE WORKINGS
AND
PROBABLE SHALLOW UNDERGROUND COAL MINE WORKINGS**

(NGR 438562,388696)



Doctor Lane, Sheffield,
South Yorkshire, S9 5AP

- X Recorded Mine Entries
- Outcrop of Coal Seam
- Site Location

COAL AUTHORITY SEARCH

Figure 4:

MINE ENTRIES

(NGR 438562,388696)



**Doctor Lane, Sheffield,
South Yorkshire, S9 5AP**

COAL AUTHORITY SEARCH

Figure 5:

DEVELOPMENT HIGH RISK AREAS

(NGR 438562,388696)

-  Development High Risk Areas
-  Outcrop of Coal Seam
-  Site Location

APPENDIX B

(i) Coal Authority – Coal Mining Report No.51001179892001